Results of Directional Survey

API number:	30-025-40896			
OGRID:		Operator:	COG PRODUCTION, LLC	
		Property:	GOLD COAST 26 FEDERAL	# 1H

surface	ULSTR:	P	26	T	24S	R	32E
				330	FSL	330	FEL

BH Loc	ULSTR:	A	26	T	24S	R	32E
15368	MD	10955.4	TVD	345	FNL	490	FEL
				4935	FSL		

Top Perf/OH	ULSTR:	P	26	T	24S	R	32E
11124	MD	10937.0	TVD	696	FSL	383	FEL

Bot Perf/OH	ULSTR:	A	26	T	24S	R	32E
15280	MD	10957.0	TVD	432	FNL	486	FEL
				4848	FSL		

	MD	N/S	E/W	VD
	11092	336.40	-53.30	10926.1
TOP PERFS/OH	**11124**	366.40	-53.20	10937.00
	11124	366.40	-53.20	10937.00
	15219	4456.60	-153.20	10958.10
BOT PERFS/OH	**15280**	4517.54	-156.01	10957.02
	15321	4558.50	-157.90	10956.30

NEXT TO LAST	15321	4558.50	-157.90	10956.30
LAST READING	15368	4605.40	-160.20	10955.40
TD	**15368**	4605.40	-160.20	10955.40

Surface Location	330	FS	330	FE
Projected BHL	4935	FS	490	FE
Location of				
Top Perfs/OH	696	FS	383	FE
Bottom Perfs/OH	4848	FS	486	FE

SUMMARY of Subsurface Locations

Surface Location	P-26-24S-32E	330	FS	330	FE	Vert. Depth
Top Perfs/OH	P-26-24S-32E	696	FS	383	FE	10937.00
Bottom Perfs/OH	A-26-24S-32E	4848	FS	486	FE	10957.02
Projected TD	A-26-24S-32E	4935	FS	490	FE	10955.40

JUN 27 2013

PO Box 1370
Artesia, NM 88211-1370
(575) 748-1288

COG OPERATING, L
RECEIVED
FEB 18 2013
ARTESIA WEST

HOBBS OCD
MAY 30 2013
RECEIVED

February 4, 2013

COG, LLC
One Concho Center
600 W. Illinois Ave.
Midland, TX 79701

30-025-40896

RE: Gold Coast 26 Federal #1H
330' FSL & 330' FEL
Sec. 26, T24S, R32E
Lea County, New Mexico

Dear Sir,

The attached is the Deviation Survey for the above captioned well.

Very truly yours,

Chris Graham
Drilling Superintendent

State of New Mexico }
County of Eddy }

The foregoing was acknowledged before me this 4th day of February, 2013.

Notary Public

OFFICIAL SEAL
REGINIA L. GARNER
NOTARY PUBLIC - STATE OF NEW MEXICO
My commission expires Aug. 30, 2016

Gold Coast 26 Federal #1H

Date	Depth	Deviation	Direction	TVD	Horiz Disp
1/11/2013	219	1.00	0.00	0.00	0.00
1/11/2013	403	0.60	0.00	0.00	0.00
1/11/2013	610	0.40	0.00	0.00	0.00
1/12/2013	1067	0.20	0.00	0.00	0.00
1/13/2013	1193	0.30	300.80	1193.00	0.13
1/13/2013	1288	0.30	47.00	1288.00	0.43
1/13/2013	1384	0.40	22.10	1384.00	0.90
1/13/2013	1479	1.10	346.50	1478.90	2.99
1/13/2013	1574	1.50	354.70	1573.96	4.23
1/14/2013	1670	1.20	1.60	0.00	0.00
1/14/2013	1956	2.00	347.60	0.00	0.00
1/14/2013	2051	2.00	341.70	0.00	0.00
1/14/2013	2146	1.70	0.00	0.00	0.00
1/14/2013	2242	2.10	344.30	0.00	0.00
1/14/2013	2527	2.00	358.10	0.00	0.00
1/14/2013	2622	1.10	7.80	2621.30	34.64
1/14/2013	2718	1.00	7.60	2717.40	36.38
1/14/2013	2908	1.50	18.90	2907.48	40.52
1/15/2013	3099	2.30	22.60	0.00	0.00
1/15/2013	3195	2.00	22.70	0.00	0.00
1/15/2013	3289	2.40	12.90	0.00	0.00
1/15/2013	3384	1.10	43.10	0.00	0.00
1/15/2013	3479	1.20	0.00	0.00	0.00
1/15/2013	3575	1.60	0.00	0.00	0.00
1/15/2013	3670	2.50	55.80	3669.84	60.35
1/15/2013	3765	1.80	86.20	3763.88	61.56
1/16/2013	4050	1.30	86.90	0.00	0.00
1/16/2013	4146	2.10	110.30	0.00	0.00
1/16/2013	4241	2.60	0.00	0.00	0.00
1/16/2013	4346	2.40	0.00	0.00	0.00
1/16/2013	4432	1.70	0.00	0.00	0.00
1/16/2013	4527	1.80	203.30	4525.55	49.50
1/16/2013	4622	2.60	190.10	4620.48	4603.00
1/17/2013	4747	2.50	181.80	0.00	0.00
1/18/2013	4893	1.40	0.00	0.00	0.00
1/18/2013	5179	1.80	0.00	0.00	0.00
1/18/2013	5428	1.10	0.00	5485.00	0.00
1/18/2013	5680	1.40	0.00	5740.00	0.00
1/18/2013	5936	0.40	0.00	5994.00	0.00
1/19/2013	6187	1.20	0.00	0.00	0.00
1/19/2013	6422	0.90	0.00	0.00	0.00
1/19/2013	6613	0.80	0.00	0.00	0.00
1/19/2013	6803	1.00	0.00	0.00	0.00

Date	Depth	Deviation	Direction	TVD	Horiz Disp
1/19/2013	6994	1.00	0.00	0.00	0.00
1/19/2013	7248	0.90	0.00	0.00	0.00
1/19/2013	7490	0.70	0.00	7548.00	0.00
1/19/2013	7745	0.20	0.00	7802.00	0.00
1/19/2013	8000	0.60	0.00	8056.00	0.00
1/20/2013	8199	0.30	0.00	0.00	0.00
1/20/2013	8422	0.50	0.00	0.00	0.00
1/20/2013	8708	0.60	0.00	0.00	0.00
1/21/2013	8960	0.60	0.00	0.00	0.00
1/21/2013	9309	1.10	0.00	0.00	0.00
1/21/2013	9554	0.40	0.00	9611.00	0.00
1/22/2013	9841	1.40	0.00	0.00	0.00
1/22/2013	9979	4.20	0.00	0.00	0.00
1/23/2013	10075	3.10	189.90	0.00	0.00
1/23/2013	10170	1.70	0.00	0.00	0.00
1/23/2013	10266	2.40	281.00	0.00	0.00
1/23/2013	10392	3.20	302.90	10388.00	0.00
1/24/2013	10424	2.70	301.30	0.00	0.00
1/25/2013	10487	6.20	352.80	0.00	0.00
1/25/2013	10551	16.50	351.50	0.00	0.00
1/25/2013	10646	28.10	345.20	0.00	0.00
1/25/2013	10837	45.10	355.60	0.00	0.00
1/25/2013	10869	48.90	355.10	0.00	0.00
1/25/2013	10901	51.70	355.00	0.00	0.00
1/25/2013	10997	59.10	354.50	0.00	0.00
1/25/2013	11124	71.80	0.30	0.00	0.00
1/25/2013	11188	79.60	358.80	0.00	0.00
1/26/2013	11381	90.30	359.90	0.00	0.00
1/26/2013	11413	90.50	359.80	0.00	0.00
1/26/2013	11508	91.10	359.00	0.00	0.00
1/27/2013	11604	91.50	359.40	0.00	0.00
1/27/2013	11795	91.00	358.00	0.00	0.00
1/27/2013	11890	92.50	358.70	0.00	0.00
1/27/2013	11986	90.90	358.70	0.00	0.00
1/27/2013	12081	89.50	358.30	0.00	0.00
1/27/2013	12366	88.30	358.80	0.00	0.00
1/27/2013	12462	88.50	358.40	0.00	0.00
1/27/2013	12557	89.00	358.10	0.00	0.00
1/28/2013	12652	89.30	358.20	0.00	0.00
1/28/2013	12844	88.70	358.40	0.00	0.00
1/28/2013	12939	89.00	357.80	0.00	0.00
1/28/2013	13034	89.00	357.00	0.00	0.00
1/28/2013	13129	88.60	357.40	0.00	0.00
1/28/2013	13415	90.80	358.80	0.00	0.00
1/28/2013	13510	91.30	358.60	0.00	0.00

Date	Depth	Deviation	Direction	TVD	Horiz Disp
1/28/2013	13606	90.00	358.90	0.00	0.00
1/29/2013	13701	89.90	358.00	0.00	0.00
1/29/2013	13796	89.80	358.00	0.00	0.00
1/29/2013	13891	89.20	359.00	0.00	0.00
1/29/2013	13987	90.80	359.40	10973.72	0.00
1/29/2013	14081	91.20	359.40	10972.80	0.00
1/29/2013	14176	91.60	359.30	10969.76	0.00
1/29/2013	14462	91.20	359.50	0.00	0.00
1/29/2013	14557	91.20	358.80	0.00	0.00
1/29/2013	14651	89.20	359.00	0.00	0.00
1/30/2013	14747	89.70	359.10	0.00	0.00
1/30/2013	14842	90.00	358.70	0.00	0.00
1/30/2013	15032	90.20	358.30	0.00	0.00
1/30/2013	15219	90.40	357.50	0.00	0.00
1/30/2013	15321	91.10	357.20	0.00	0.00

VAUGHN ENERGY SERVICES
A GYRO TECHNOLOGIES INC. COMPANY

PO Box 261021
Corpus Christi, Texas 78426
(361) 767-0602 • (800) 606-GYRO • Fax (361) 767-0612

January 25, 2013

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

Attn: Kanicia Castillo

30-025-40896

RE: **Gold Coast 26 Federal Com No. 001H**

Please find enclosed a copy of the survey from 0.00' to 10300.00' ran on the above referenced well.

Sincerely,

Keith Havelka
Operations

STATE OF TEXAS §
§
COUNTY OF NUECES §

This instrument was acknowledged before me on the 25th day of January, A.D., 2013, by Keith Havelka.

Laura Ballew
Notary Public, State of Texas

LAURA BALLEW
Notary Public, State of Texas
My Commission Expires
January 28, 2014

30-025-40896

Company: COG Operating, LLC (Concho)
Lease/Well: Gold Coast 26 Federal Com / No. 001H
Location: S26 T24s R32e
Rig Name: Silver Oak 12
State/County: New Mexico / Lea
Latitude: 32.18, Longitude: -103.64
GRID North is 0.37 Degrees East of True North
VS-Azi: 0.00 Degrees

RKB : 18'

DRILLOG HA GYRO SURVEY CALCULATIONS
Filename: ...26 fed com #1h gyro survey.ut
Minimum Curvature Method
Report Date/Time: 1/25/2013 / 13:25

Vaughn Energy Services
Gardendale, Texas
432-563-5444
Surveyor: Dustin Wedel
Gold Coast 26 Federal Com No. 001H / API 30-025-40896

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W 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	****
100.00	0.83	43.33	100.00	0.53	0.50	0.73	43.33	0.83
200.00	0.95	27.75	199.98	1.79	1.38	2.26	37.66	0.27
300.00	0.76	38.39	299.97	3.05	2.18	3.75	35.60	0.25
400.00	0.52	47.15	399.97	3.88	2.93	4.86	37.06	0.25
500.00	0.57	53.28	499.96	4.48	3.66	5.79	39.23	0.07
600.00	0.39	26.83	599.96	5.08	4.21	6.60	39.63	0.28
700.00	0.15	34.02	699.96	5.50	4.44	7.07	38.91	0.24
800.00	0.22	13.78	799.96	5.80	4.56	7.38	38.19	0.09
900.00	0.17	350.12	899.96	6.13	4.58	7.65	36.79	0.09
1000.00	0.11	342.17	999.96	6.36	4.53	7.80	35.47	0.06
1100.00	0.19	341.32	1099.96	6.60	4.45	7.96	33.97	0.08
1200.00	0.37	346.68	1199.95	7.07	4.32	8.28	31.44	0.18
1300.00	0.58	350.23	1299.95	7.88	4.16	8.91	27.85	0.21
1400.00	0.89	17.16	1399.94	9.11	4.30	10.08	25.28	0.45
1500.00	1.08	351.40	1499.93	10.78	4.39	11.64	22.16	0.48
1600.00	1.16	349.38	1599.91	12.71	4.07	13.34	17.74	0.09
1700.00	1.15	343.20	1699.89	14.66	3.59	15.09	13.76	0.12
1800.00	1.31	356.72	1799.87	16.76	3.23	17.07	10.92	0.33

VES Survey Date: 01/23/2013

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1900.00	1.47	342.04	1899.84	19.11	2.77	19.31	8.26	0.39
2000.00	1.75	344.88	1999.80	21.81	1.98	21.90	5.19	0.29
2100.00	1.65	342.93	2099.75	24.65	1.16	24.68	2.69	0.11
2200.00	1.63	338.59	2199.71	27.35	0.22	27.35	0.46	0.13
2300.00	1.66	341.27	2299.67	30.05	-0.77	30.06	358.54	0.08
2400.00	1.55	346.16	2399.63	32.74	-1.56	32.77	357.28	0.18
2500.00	1.63	355.01	2499.59	35.47	-2.00	35.53	356.77	0.26
2600.00	1.30	358.59	2599.56	38.02	-2.15	38.08	356.76	0.35
2700.00	1.14	359.22	2699.54	40.15	-2.20	40.21	356.87	0.16
2800.00	1.05	3.79	2799.52	42.05	-2.15	42.10	357.07	0.12
2900.00	1.30	13.29	2899.50	44.06	-1.83	44.10	357.62	0.32
3000.00	1.67	15.80	2999.47	46.57	-1.17	46.59	358.56	0.38
3100.00	1.99	10.17	3099.42	49.68	-0.47	49.68	359.46	0.36
3200.00	1.96	25.66	3199.36	52.93	0.58	52.94	0.63	0.53
3300.00	2.03	21.19	3299.30	56.13	1.97	56.17	2.01	0.17
3400.00	0.91	53.54	3399.26	58.26	3.25	58.35	3.19	1.35
3500.00	1.04	60.19	3499.25	59.18	4.68	59.37	4.52	0.17
3600.00	1.56	55.20	3599.22	60.41	6.58	60.77	6.22	0.52
3700.00	2.03	54.77	3699.17	62.21	9.14	62.88	8.36	0.47
3800.00	1.64	83.02	3799.12	63.40	12.01	64.53	10.72	0.97
3900.00	1.56	79.00	3899.08	63.83	14.76	65.52	13.02	0.14
4000.00	1.41	87.37	3999.05	64.15	17.32	66.45	15.11	0.26
4100.00	1.53	99.85	4099.02	63.98	19.86	66.99	17.25	0.34
4200.00	2.09	117.24	4198.97	62.92	22.80	66.92	19.92	0.78
4300.00	2.22	140.73	4298.90	60.58	25.65	65.78	22.95	0.89
4400.00	1.62	159.48	4398.84	57.75	27.37	63.91	25.36	0.86
4500.00	1.84	178.94	4498.80	54.82	27.90	61.51	26.97	0.62
4600.00	2.49	197.47	4598.73	51.14	27.27	57.96	28.07	0.95
4700.00	2.40	192.62	4698.64	47.03	26.17	53.82	29.09	0.23
4800.00	2.23	196.65	4798.56	43.13	25.15	49.92	30.25	0.23
4900.00	1.95	197.32	4898.49	39.64	24.09	46.39	31.29	0.28
5000.00	1.87	189.51	4998.43	36.40	23.31	43.23	32.63	0.27
5100.00	1.98	194.04	5098.38	33.11	22.62	40.10	34.34	0.19
5200.00	1.97	190.71	5198.32	29.75	21.88	36.93	36.34	0.12
5300.00	1.87	196.57	5298.26	26.50	21.10	33.87	38.53	0.22
5400.00	1.77	198.12	5398.21	23.47	20.16	30.94	40.66	0.11
5500.00	1.51	177.49	5498.17	20.69	19.73	28.59	43.65	0.64
5600.00	1.40	191.12	5598.14	18.18	19.55	26.70	47.09	0.36
5700.00	1.46	206.95	5698.11	15.84	18.74	24.54	49.79	0.40

VES Survey Date: 01/23/2013

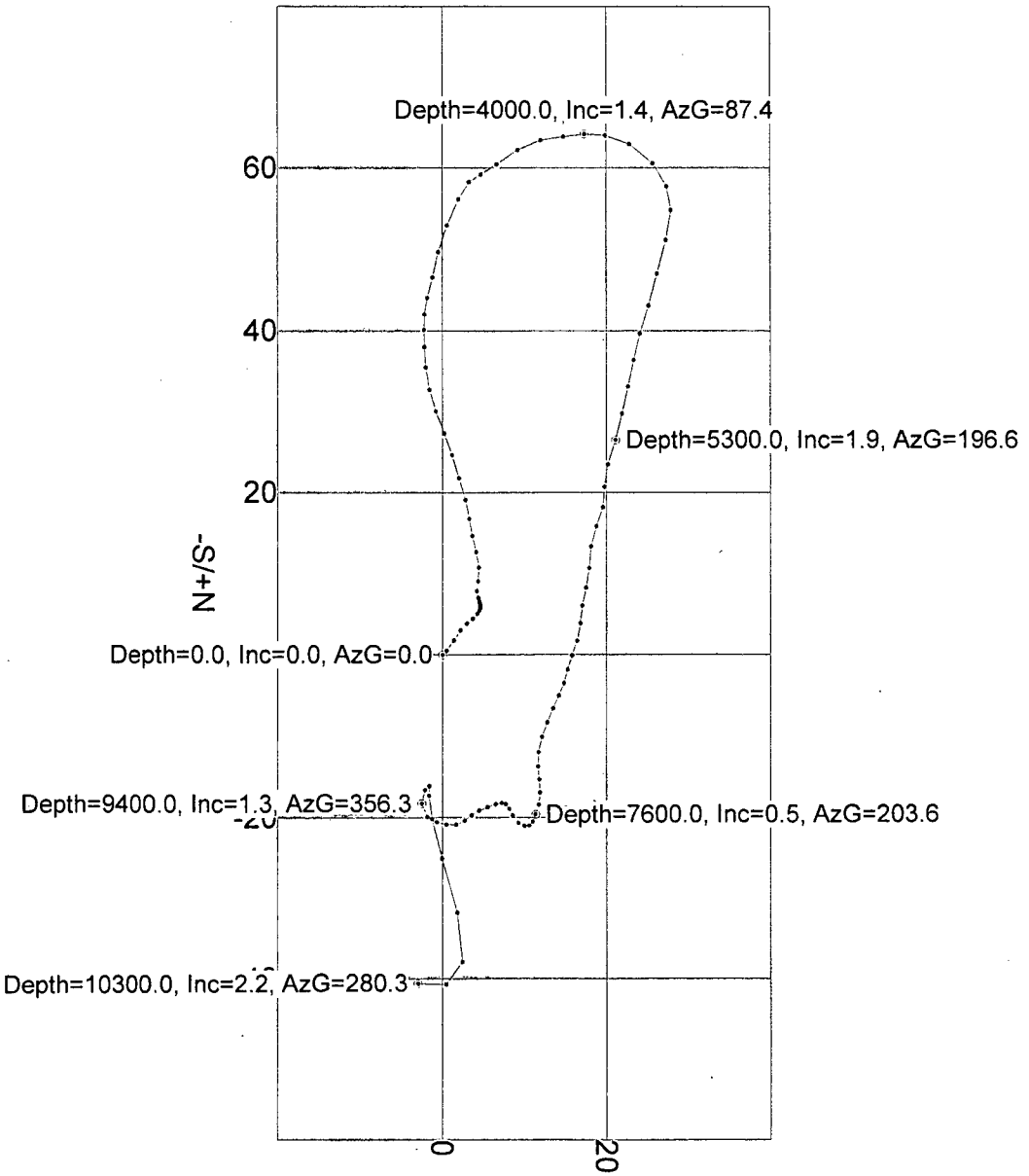
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
5800.00	1.54	182.01	5798.08	13.37	18.12	22.52	53.58	0.65
5900.00	1.54	187.19	5898.04	10.70	17.90	20.86	59.14	0.14
6000.00	1.29	191.49	5998.01	8.26	17.51	19.36	64.74	0.27
6100.00	1.26	191.78	6097.99	6.09	17.06	18.12	70.37	0.03
6200.00	1.29	182.26	6197.96	3.89	16.79	17.24	76.97	0.21
6300.00	1.23	198.39	6297.94	1.74	16.41	16.50	83.96	0.36
6400.00	0.99	200.24	6397.92	-0.10	15.77	15.77	90.36	0.24
6500.00	1.03	194.47	6497.90	-1.78	15.25	15.35	96.67	0.11
6600.00	0.96	196.02	6597.89	-3.45	14.79	15.19	103.14	0.08
6700.00	0.95	209.21	6697.87	-4.98	14.15	15.01	109.38	0.22
6800.00	1.01	198.98	6797.86	-6.54	13.46	14.97	115.92	0.19
6900.00	1.12	205.02	6897.84	-8.26	12.76	15.20	122.93	0.15
7000.00	1.09	194.94	6997.82	-10.06	12.10	15.74	129.74	0.20
7100.00	1.14	188.95	7097.80	-11.96	11.71	16.74	135.62	0.13
7200.00	0.90	173.90	7197.79	-13.72	11.63	17.99	139.71	0.36
7300.00	0.96	175.29	7297.78	-15.34	11.79	19.34	142.46	0.07
7400.00	0.88	177.38	7397.76	-16.94	11.89	20.70	144.94	0.09
7500.00	0.89	195.54	7497.75	-18.46	11.72	21.87	147.60	0.28
7600.00	0.54	203.60	7597.74	-19.65	11.32	22.67	150.06	0.36
7700.00	0.56	199.91	7697.74	-20.55	10.96	23.29	151.92	0.04
7800.00	0.30	274.75	7797.74	-20.99	10.53	23.48	153.36	0.57
7900.00	0.38	257.06	7897.73	-21.04	9.94	23.27	154.71	0.13
8000.00	0.68	315.22	7997.73	-20.69	9.20	22.65	156.02	0.57
8100.00	0.65	332.40	8097.72	-19.77	8.53	21.53	156.67	0.20
8200.00	0.46	330.55	8197.72	-18.92	8.07	20.57	156.91	0.19
8300.00	0.32	312.09	8297.72	-18.38	7.66	19.91	157.38	0.19
8400.00	0.33	268.17	8397.72	-18.20	7.17	19.56	158.51	0.24
8500.00	0.53	249.36	8497.71	-18.38	6.44	19.47	160.68	0.24
8600.00	0.67	248.35	8597.71	-18.76	5.46	19.54	163.76	0.14
8700.00	0.61	248.87	8697.70	-19.17	4.42	19.67	167.01	0.06
8800.00	0.60	227.67	8797.70	-19.71	3.53	20.03	169.84	0.22
8900.00	0.66	232.55	8897.69	-20.42	2.69	20.59	172.49	0.08
9000.00	0.67	257.63	8997.68	-20.89	1.67	20.96	175.44	0.29
9100.00	0.69	279.79	9097.68	-20.91	0.50	20.92	178.63	0.26
9200.00	0.69	290.14	9197.67	-20.60	-0.66	20.61	181.84	0.12
9300.00	0.86	308.05	9297.66	-19.93	-1.82	20.01	185.22	0.30
9400.00	1.33	356.34	9397.64	-18.31	-2.49	18.47	187.75	0.99
9500.00	0.84	41.50	9497.63	-16.60	-2.08	16.73	187.14	0.95
9600.00	0.07	170.80	9597.62	-16.11	-1.58	16.19	185.61	0.89

VES Survey Date: 01/23/2013

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
9700.00	1.29	181.09	9697.61	-17.30	-1.59	17.37	185.27	1.21
9800.00	2.07	167.80	9797.57	-20.19	-1.23	20.22	183.50	0.87
9900.00	3.72	165.29	9897.44	-25.09	-0.03	25.09	180.06	1.65
10000.00	4.25	164.08	9997.20	-31.80	1.81	31.85	176.74	0.54
10100.00	2.97	189.48	10097.00	-37.92	2.40	38.00	176.37	2.02
10200.00	1.75	260.51	10196.93	-40.73	0.47	40.73	179.33	2.92
10300.00	2.24	280.34	10296.87	-40.63	-2.95	40.74	184.15	0.84

VES Survey Date: 01/23/2013

Vaughn Energy Services
Gardendale, Texas
432-563-5444
Surveyor: Dustin Wedel
Gold Coast 26 Federal Com No. 001H / API 30-025-40896



VES Survey Date: 01/23/2013

CRESCENT DIRECTIONAL DRILLING

COG Production LLC

Lea County, NM
Gold Coast 26 Federal
#1H

30-025-40896

OH

Design: OH

Survey Report - Geographic

01 February, 2013

CONCHO

Company:	COG Production LLC	**Local Co-ordinate Reference:**	Well #1H
Project:	Lea County, NM	**TVD Reference:**	WELL @ 3579.0usft (Silver Oak #12 - 18' KB)
Site:	Gold Coast 26 Federal	**MD Reference:**	WELL @ 3579.0usft (Silver Oak #12 - 18' KB)
Well:	#1H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	Houston R5000 Database

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 Gold Coast 26 Federal

Site Position:		**Northing:**	430,682.70 usft	**Latitude:**	32° 10' 55.739 N
From:	Map	**Easting:**	715,283.50 usft	**Longitude:**	103° 38' 14.953 W
Position Uncertainty:	2.0 usft	**Slot Radius:**	8-1/2 "	**Grid Convergence:**	0.37 °

Well #1H

Well Position	**+N/-S**	0.0 usft	**Northing:**	430,682.70 usft	**Latitude:**	32° 10' 55.739 N
	+E/-W	0.0 usft	**Easting:**	715,283.50 usft	**Longitude:**	103° 38' 14.953 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,561.0 usft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	9/13/2012	7.46	60.11	48,458

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	359.10

Survey Program **Date** 2/1/2013

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	10,300.0	Survey #1 - VES1 (OH)	CB-GYRO-MS	Camera based gyro multishot
10,361.0	15,321.0	Survey #2 - Crescent1 (OH)	MWD	MWD - Standard
15,368.0	15,368.0	Survey #3 - PTB (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	430,682.70	715,283.50	32° 10' 55.739 N	103° 38' 14.953 W
100.0	0.83	43.33	100.0	0.5	0.5	430,683.23	715,283.99	32° 10' 55.744 N	103° 38' 14.947 W
200.0	0.95	27.75	200.0	1.8	1.4	430,684.49	715,284.88	32° 10' 55.756 N	103° 38' 14.937 W
300.0	0.76	38.39	300.0	3.0	2.2	430,685.74	715,285.67	32° 10' 55.769 N	103° 38' 14.927 W
400.0	0.52	47.15	400.0	3.9	2.9	430,686.57	715,286.42	32° 10' 55.777 N	103° 38' 14.918 W
500.0	0.57	53.28	500.0	4.5	3.7	430,687.17	715,287.15	32° 10' 55.783 N	103° 38' 14.910 W
600.0	0.39	26.83	600.0	5.1	4.2	430,687.78	715,287.70	32° 10' 55.789 N	103° 38' 14.903 W
700.0	0.15	34.02	700.0	5.5	4.4	430,688.19	715,287.93	32° 10' 55.793 N	103° 38' 14.901 W
800.0	0.22	13.78	800.0	5.8	4.6	430,688.48	715,288.05	32° 10' 55.796 N	103° 38' 14.899 W
900.0	0.17	350.12	900.0	6.1	4.6	430,688.82	715,288.07	32° 10' 55.799 N	103° 38' 14.899 W

Company:	COG Production LLC	Local Co-ordinate Reference:	Well #1H
Project:	Lea County, NM	TVD Reference:	WELL @ 3579.0usft (Silver Oak #12 - 18' KB)
Site:	Gold Coast 26 Federal	MD Reference:	WELL @ 3579.0usft (Silver Oak #12 - 18' KB)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Houston R5000 Database

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
1,000.0	0.11	342.17	1,000.0	6.4	4.5	430,689.05	715,288.01	32° 10' 55.801 N	103° 38' 14.900 W
1,100.0	0.19	341.32	1,100.0	6.6	4.4	430,689.30	715,287.93	32° 10' 55.804 N	103° 38' 14.901 W
1,200.0	0.37	346.68	1,200.0	7.1	4.3	430,689.77	715,287.80	32° 10' 55.808 N	103° 38' 14.902 W
1,300.0	0.58	350.23	1,300.0	7.9	4.1	430,690.59	715,287.64	32° 10' 55.816 N	103° 38' 14.904 W
1,400.0	0.89	17.16	1,399.9	9.1	4.3	430,691.83	715,287.79	32° 10' 55.829 N	103° 38' 14.902 W
1,500.0	1.08	351.40	1,499.9	10.8	4.4	430,693.50	715,287.87	32° 10' 55.845 N	103° 38' 14.901 W
1,600.0	1.16	349.38	1,599.9	12.7	4.1	430,695.43	715,287.55	32° 10' 55.864 N	103° 38' 14.905 W
1,700.0	1.15	343.20	1,699.9	14.7	3.6	430,697.38	715,287.07	32° 10' 55.884 N	103° 38' 14.910 W
1,800.0	1.31	356.72	1,799.9	16.8	3.2	430,699.48	715,286.72	32° 10' 55.905 N	103° 38' 14.914 W
1,900.0	1.47	342.04	1,899.8	19.1	2.8	430,701.85	715,286.25	32° 10' 55.928 N	103° 38' 14.919 W
2,000.0	1.75	344.88	1,999.8	21.8	2.0	430,704.54	715,285.46	32° 10' 55.955 N	103° 38' 14.928 W
2,100.0	1.65	342.93	2,099.8	24.7	1.1	430,707.39	715,284.64	32° 10' 55.983 N	103° 38' 14.938 W
2,200.0	1.63	338.59	2,199.7	27.4	0.2	430,710.09	715,283.70	32° 10' 56.010 N	103° 38' 14.948 W
2,300.0	1.66	341.27	2,299.7	30.1	-0.8	430,712.79	715,282.71	32° 10' 56.036 N	103° 38' 14.960 W
2,400.0	1.55	346.16	2,399.6	32.8	-1.6	430,715.47	715,281.92	32° 10' 56.063 N	103° 38' 14.969 W
2,500.0	1.63	355.01	2,499.6	35.5	-2.0	430,718.20	715,281.48	32° 10' 56.090 N	103° 38' 14.974 W
2,600.0	1.30	358.59	2,599.6	38.1	-2.2	430,720.75	715,281.33	32° 10' 56.115 N	103° 38' 14.975 W
2,700.0	1.14	359.22	2,699.5	40.2	-2.2	430,722.88	715,281.28	32° 10' 56.136 N	103° 38' 14.975 W
2,800.0	1.05	3.79	2,799.5	42.1	-2.2	430,724.79	715,281.33	32° 10' 56.155 N	103° 38' 14.975 W
2,900.0	1.30	13.29	2,899.5	44.1	-1.8	430,726.81	715,281.65	32° 10' 56.175 N	103° 38' 14.971 W
3,000.0	1.67	15.80	2,999.5	46.6	-1.2	430,729.31	715,282.31	32° 10' 56.200 N	103° 38' 14.963 W
3,100.0	1.99	10.17	3,099.4	49.7	-0.5	430,732.43	715,283.01	32° 10' 56.231 N	103° 38' 14.955 W
3,200.0	1.96	25.66	3,199.4	53.0	0.6	430,735.68	715,284.06	32° 10' 56.263 N	103° 38' 14.942 W
3,300.0	2.03	21.19	3,299.3	56.2	1.9	430,738.87	715,285.44	32° 10' 56.294 N	103° 38' 14.926 W
3,400.0	0.91	53.54	3,399.3	58.3	3.2	430,740.99	715,286.72	32° 10' 56.315 N	103° 38' 14.911 W
3,500.0	1.04	60.19	3,499.2	59.2	4.7	430,741.92	715,288.15	32° 10' 56.324 N	103° 38' 14.894 W
3,600.0	1.56	55.20	3,599.2	60.4	6.6	430,743.14	715,290.05	32° 10' 56.336 N	103° 38' 14.872 W
3,700.0	2.03	54.77	3,699.2	62.2	9.1	430,744.94	715,292.62	32° 10' 56.354 N	103° 38' 14.842 W
3,800.0	1.64	83.02	3,799.1	63.4	12.0	430,746.14	715,295.48	32° 10' 56.366 N	103° 38' 14.808 W
3,900.0	1.56	79.00	3,899.1	63.9	14.7	430,746.57	715,298.24	32° 10' 56.370 N	103° 38' 14.776 W
4,000.0	1.41	87.37	3,999.1	64.2	17.3	430,746.89	715,300.81	32° 10' 56.373 N	103° 38' 14.746 W
4,100.0	1.53	99.85	4,099.0	64.0	19.9	430,746.72	715,303.35	32° 10' 56.371 N	103° 38' 14.717 W
4,200.0	2.09	117.24	4,199.0	63.0	22.8	430,745.65	715,306.29	32° 10' 56.360 N	103° 38' 14.683 W
4,300.0	2.22	140.73	4,298.9	60.6	25.6	430,743.32	715,309.13	32° 10' 56.337 N	103° 38' 14.650 W
4,400.0	1.62	159.48	4,398.8	57.8	27.4	430,740.50	715,310.85	32° 10' 56.309 N	103° 38' 14.630 W
4,500.0	1.84	178.94	4,498.8	54.9	27.9	430,737.57	715,311.38	32° 10' 56.280 N	103° 38' 14.624 W
4,600.0	2.49	197.47	4,598.7	51.2	27.3	430,733.89	715,310.76	32° 10' 56.243 N	103° 38' 14.632 W
4,700.0	2.40	192.62	4,698.6	47.1	26.2	430,729.77	715,309.65	32° 10' 56.203 N	103° 38' 14.645 W
4,800.0	2.23	196.65	4,798.6	43.2	25.1	430,725.87	715,308.63	32° 10' 56.164 N	103° 38' 14.657 W
4,900.0	1.95	197.32	4,898.5	39.7	24.1	430,722.38	715,307.57	32° 10' 56.130 N	103° 38' 14.670 W
5,000.0	1.87	189.51	4,998.4	36.4	23.3	430,719.14	715,306.79	32° 10' 56.098 N	103° 38' 14.679 W
5,100.0	1.98	194.04	5,098.4	33.2	22.6	430,715.86	715,306.10	32° 10' 56.065 N	103° 38' 14.687 W
5,200.0	1.97	190.71	5,198.3	29.8	21.9	430,712.50	715,305.37	32° 10' 56.032 N	103° 38' 14.696 W
5,300.0	1.87	196.57	5,298.3	26.5	21.1	430,709.24	715,304.58	32° 10' 56.000 N	103° 38' 14.705 W
5,400.0	1.77	198.12	5,398.2	23.5	20.1	430,706.21	715,303.64	32° 10' 55.970 N	103° 38' 14.717 W
5,500.0	1.51	177.49	5,498.2	20.7	19.7	430,703.43	715,303.21	32° 10' 55.943 N	103° 38' 14.722 W
5,600.0	1.40	191.12	5,598.1	18.2	19.5	430,700.91	715,303.04	32° 10' 55.918 N	103° 38' 14.724 W
5,700.0	1.46	206.95	5,698.1	15.9	18.7	430,698.58	715,302.22	32° 10' 55.895 N	103° 38' 14.734 W
5,800.0	1.54	182.01	5,798.1	13.4	18.1	430,696.10	715,301.60	32° 10' 55.870 N	103° 38' 14.741 W
5,900.0	1.54	187.19	5,898.0	10.7	17.9	430,693.42	715,301.38	32° 10' 55.844 N	103° 38' 14.744 W
6,000.0	1.29	191.49	5,998.0	8.3	17.5	430,690.99	715,300.99	32° 10' 55.820 N	103° 38' 14.749 W
6,100.0	1.26	191.78	6,098.0	6.1	17.0	430,688.81	715,300.54	32° 10' 55.798 N	103° 38' 14.754 W
6,200.0	1.29	182.26	6,198.0	3.9	16.8	430,686.61	715,300.27	32° 10' 55.776 N	103° 38' 14.757 W
6,300.0	1.23	198.39	6,297.9	1.8	16.4	430,684.46	715,299.89	32° 10' 55.755 N	103° 38' 14.762 W
6,400.0	0.99	200.24	6,397.9	-0.1	15.8	430,682.63	715,299.25	32° 10' 55.737 N	103° 38' 14.769 W

Company:	COG Production LLC	**Local Co-ordinate Reference:**	Well #1H
Project:	Lea County, NM	**TVD Reference:**	WELL @ 3579.0usft (Silver Oak #12 - 18' KB)
Site:	Gold Coast 26 Federal	**MD Reference:**	WELL @ 3579.0usft (Silver Oak #12 - 18' KB)
Well:	#1H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	OH	**Database:**	Houston R5000 Database

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
6,500.0	1.03	194.47	6,497.9	-1.7	15.2	430,680.95	715,298.73	32° 10' 55.720 N	103° 38' 14.776 W
6,600.0	0.96	196.02	6,597.9	-3.4	14.8	430,679.28	715,298.27	32° 10' 55.704 N	103° 38' 14.781 W
6,700.0	0.95	209.21	6,697.9	-5.0	14.1	430,677.75	715,297.64	32° 10' 55.689 N	103° 38' 14.789 W
6,800.0	1.01	198.98	6,797.9	-6.5	13.4	430,676.19	715,296.95	32° 10' 55.673 N	103° 38' 14.797 W
6,900.0	1.12	205.02	6,897.8	-8.2	12.7	430,674.47	715,296.25	32° 10' 55.656 N	103° 38' 14.805 W
7,000.0	1.09	194.94	6,997.8	-10.0	12.1	430,672.67	715,295.59	32° 10' 55.639 N	103° 38' 14.813 W
7,100.0	1.14	188.95	7,097.8	-11.9	11.7	430,670.77	715,295.19	32° 10' 55.620 N	103° 38' 14.818 W
7,200.0	0.90	173.90	7,197.8	-13.7	11.6	430,669.00	715,295.12	32° 10' 55.602 N	103° 38' 14.819 W
7,300.0	0.96	175.29	7,297.8	-15.3	11.8	430,667.39	715,295.27	32° 10' 55.586 N	103° 38' 14.817 W
7,400.0	0.88	177.38	7,397.8	-16.9	11.9	430,665.78	715,295.37	32° 10' 55.571 N	103° 38' 14.816 W
7,500.0	0.89	195.54	7,497.7	-18.4	11.7	430,664.27	715,295.20	32° 10' 55.556 N	103° 38' 14.818 W
7,600.0	0.54	203.60	7,597.7	-19.6	11.3	430,663.09	715,294.80	32° 10' 55.544 N	103° 38' 14.823 W
7,700.0	0.56	199.91	7,697.7	-20.5	11.0	430,662.20	715,294.45	32° 10' 55.535 N	103° 38' 14.827 W
7,800.0	0.30	274.75	7,797.7	-20.9	10.5	430,661.76	715,294.02	32° 10' 55.531 N	103° 38' 14.832 W
7,900.0	0.38	257.06	7,897.7	-21.0	9.9	430,661.71	715,293.44	32° 10' 55.530 N	103° 38' 14.839 W
8,000.0	0.68	315.22	7,997.7	-20.6	9.2	430,662.05	715,292.69	32° 10' 55.534 N	103° 38' 14.847 W
8,100.0	0.65	332.40	8,097.7	-19.7	8.5	430,662.98	715,292.01	32° 10' 55.543 N	103° 38' 14.855 W
8,200.0	0.46	330.55	8,197.7	-18.9	8.1	430,663.83	715,291.55	32° 10' 55.551 N	103° 38' 14.860 W
8,300.0	0.32	312.09	8,297.7	-18.3	7.7	430,664.37	715,291.15	32° 10' 55.557 N	103° 38' 14.865 W
8,400.0	0.33	268.17	8,397.7	-18.2	7.2	430,664.55	715,290.65	32° 10' 55.559 N	103° 38' 14.871 W
8,500.0	0.53	249.36	8,497.7	-18.3	6.4	430,664.37	715,289.93	32° 10' 55.557 N	103° 38' 14.879 W
8,600.0	0.67	248.35	8,597.7	-18.7	5.5	430,663.99	715,288.96	32° 10' 55.553 N	103° 38' 14.891 W
8,700.0	0.61	248.87	8,697.7	-19.1	4.4	430,663.59	715,287.92	32° 10' 55.549 N	103° 38' 14.903 W
8,800.0	0.60	227.67	8,797.7	-19.7	3.5	430,663.04	715,287.03	32° 10' 55.544 N	103° 38' 14.913 W
8,900.0	0.66	232.55	8,897.7	-20.4	2.7	430,662.34	715,286.19	32° 10' 55.537 N	103° 38' 14.923 W
9,000.0	0.67	257.63	8,997.7	-20.8	1.7	430,661.86	715,285.16	32° 10' 55.532 N	103° 38' 14.935 W
9,100.0	0.69	279.79	9,097.7	-20.9	0.5	430,661.84	715,284.00	32° 10' 55.532 N	103° 38' 14.948 W
9,200.0	0.69	290.14	9,197.7	-20.5	-0.7	430,662.15	715,282.84	32° 10' 55.535 N	103° 38' 14.962 W
9,300.0	0.86	308.05	9,297.7	-19.9	-1.8	430,662.82	715,281.68	32° 10' 55.542 N	103° 38' 14.975 W
9,400.0	1.33	356.34	9,397.6	-18.3	-2.5	430,664.44	715,281.02	32° 10' 55.558 N	103° 38' 14.983 W
9,500.0	0.84	41.50	9,497.6	-16.6	-2.1	430,666.15	715,281.43	32° 10' 55.575 N	103° 38' 14.978 W
9,600.0	0.07	170.80	9,597.6	-16.1	-1.6	430,666.64	715,281.92	32° 10' 55.580 N	103° 38' 14.972 W
9,700.0	1.29	181.09	9,697.6	-17.2	-1.6	430,665.45	715,281.91	32° 10' 55.568 N	103° 38' 14.972 W
9,800.0	2.07	167.80	9,797.6	-20.1	-1.2	430,662.56	715,282.27	32° 10' 55.539 N	103° 38' 14.968 W
9,900.0	3.72	165.29	9,897.4	-25.0	0.0	430,657.66	715,283.48	32° 10' 55.491 N	103° 38' 14.955 W
10,000.0	4.25	164.08	9,997.2	-31.7	1.8	430,650.96	715,285.32	32° 10' 55.424 N	103° 38' 14.934 W
10,100.0	2.97	189.48	10,097.0	-37.9	2.4	430,644.84	715,285.91	32° 10' 55.364 N	103° 38' 14.927 W
10,200.0	1.75	260.51	10,196.9	-40.7	0.5	430,642.03	715,283.97	32° 10' 55.336 N	103° 38' 14.950 W
10,300.0	2.24	280.34	10,296.9	-40.6	-3.0	430,642.13	715,280.55	32° 10' 55.337 N	103° 38' 14.990 W
Tie into Gyros @ 10300' MD									
10,361.0	3.30	303.20	10,357.8	-39.4	-5.6	430,643.30	715,277.90	32° 10' 55.349 N	103° 38' 15.021 W
10,392.0	3.20	302.90	10,388.8	-38.4	-7.1	430,644.26	715,276.43	32° 10' 55.359 N	103° 38' 15.038 W
10,424.0	2.70	301.30	10,420.7	-37.6	-8.5	430,645.14	715,275.04	32° 10' 55.368 N	103° 38' 15.054 W
KOP - 10424.0' MD, 10420.7' TVD, 2.70° INC, -37.4' VS									
10,456.0	3.40	320.40	10,452.7	-36.4	-9.7	430,646.26	715,273.79	32° 10' 55.379 N	103° 38' 15.068 W
10,487.0	6.20	352.80	10,483.6	-34.1	-10.5	430,648.63	715,272.99	32° 10' 55.402 N	103° 38' 15.077 W
10,519.0	10.60	353.60	10,515.2	-29.4	-11.0	430,653.27	715,272.45	32° 10' 55.448 N	103° 38' 15.083 W
10,551.0	16.50	351.50	10,546.3	-22.0	-12.0	430,660.70	715,271.45	32° 10' 55.522 N	103° 38' 15.095 W
10,583.0	21.10	345.90	10,576.6	-11.9	-14.1	430,670.79	715,269.37	32° 10' 55.622 N	103° 38' 15.118 W
10,614.8	24.88	343.41	10,605.9	0.1	-17.4	430,682.75	715,266.07	32° 10' 55.740 N	103° 38' 15.156 W
Cross into 330' Lease - 10614.8' MD, 10605.9' TVD, 24.88° INC, 0.3' VS									
10,615.0	24.90	343.40	10,606.0	0.1	-17.5	430,682.83	715,266.04	32° 10' 55.741 N	103° 38' 15.156 W
10,646.0	28.10	345.20	10,633.8	13.5	-21.2	430,696.15	715,262.31	32° 10' 55.873 N	103° 38' 15.198 W
10,678.0	31.20	346.50	10,661.6	28.8	-25.0	430,711.50	715,258.45	32° 10' 56.025 N	103° 38' 15.242 W
10,710.0	34.60	350.10	10,688.5	45.8	-28.5	430,728.52	715,254.95	32° 10' 56.194 N	103° 38' 15.281 W

Company:	COG Production LLC	Local Co-ordinate Reference:	Well #1H
Project:	Lea County, NM	TVD Reference:	WELL @ 3579.0usft (Silver Oak #12 - 18' KB)
Site:	Gold Coast 26 Federal	MD Reference:	WELL @ 3579.0usft (Silver Oak #12 - 18' KB)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Houston R5000 Database

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
10,742.0	36.60	351.60	10,714.5	64.2	-31.5	430,746.91	715,252.00	32° 10' 56.376 N	103° 38' 15.314 W
10,774.0	38.20	353.90	10,739.9	83.5	-33.9	430,766.18	715,249.55	32° 10' 56.567 N	103° 38' 15.341 W
10,806.0	41.60	354.90	10,764.4	103.9	-35.9	430,786.61	715,247.55	32° 10' 56.769 N	103° 38' 15.363 W
10,837.0	45.10	355.60	10,787.0	125.1	-37.7	430,807.81	715,245.80	32° 10' 56.979 N	103° 38' 15.382 W
10,869.0	48.90	355.10	10,808.8	148.4	-39.6	430,831.13	715,243.90	32° 10' 57.210 N	103° 38' 15.402 W
10,901.0	51.70	355.00	10,829.2	173.0	-41.7	430,855.66	715,241.77	32° 10' 57.453 N	103° 38' 15.425 W
10,933.0	54.80	354.40	10,848.4	198.5	-44.1	430,881.19	715,239.40	32° 10' 57.706 N	103° 38' 15.451 W
10,965.0	55.80	353.90	10,866.6	224.7	-46.8	430,907.36	715,236.72	32° 10' 57.965 N	103° 38' 15.480 W
10,997.0	59.10	354.50	10,883.8	251.5	-49.5	430,934.19	715,234.00	32° 10' 58.231 N	103° 38' 15.510 W
11,029.0	62.30	356.10	10,899.5	279.3	-51.8	430,962.00	715,231.72	32° 10' 58.506 N	103° 38' 15.534 W
11,061.0	64.90	358.90	10,913.7	307.9	-53.0	430,990.63	715,230.47	32° 10' 58.789 N	103° 38' 15.546 W
11,092.0	68.10	0.10	10,926.1	336.4	-53.3	431,019.05	715,230.23	32° 10' 59.071 N	103° 38' 15.547 W
11,124.0	71.80	0.30	10,937.0	366.4	-53.2	431,049.11	715,230.33	32° 10' 59.368 N	103° 38' 15.544 W
11,156.0	76.40	359.40	10,945.8	397.2	-53.2	431,079.87	715,230.25	32° 10' 59.672 N	103° 38' 15.542 W
11,188.0	79.60	358.80	10,952.4	428.5	-53.7	431,111.17	715,229.76	32° 10' 59.982 N	103° 38' 15.546 W
11,222.0	82.80	358.50	10,957.7	462.1	-54.5	431,144.75	715,228.97	32° 11' 0.315 N	103° 38' 15.552 W
11,254.0	84.20	358.50	10,961.3	493.8	-55.4	431,176.53	715,228.13	32° 11' 0.629 N	103° 38' 15.560 W
11,286.0	86.40	359.40	10,963.9	525.7	-55.9	431,208.42	715,227.55	32° 11' 0.945 N	103° 38' 15.564 W
11,318.0	87.30	359.50	10,965.7	557.7	-56.3	431,240.37	715,227.24	32° 11' 1.261 N	103° 38' 15.565 W
11,349.0	88.30	359.60	10,966.8	588.6	-56.5	431,271.34	715,227.00	32° 11' 1.567 N	103° 38' 15.566 W
11,402.0	90.12	359.77	10,967.6	641.6	-56.8	431,324.34	715,226.71	32° 11' 2.092 N	103° 38' 15.565 W
EOC - 11402.0' MD, 10967.6' TVD, 90.12° INC, 642.5' VS									
11,413.0	90.50	359.80	10,967.5	652.6	-56.8	431,335.34	715,226.67	32° 11' 2.201 N	103° 38' 15.565 W
11,508.0	91.10	359.00	10,966.2	747.6	-57.8	431,430.32	715,225.67	32° 11' 3.141 N	103° 38' 15.569 W
11,604.0	91.50	359.40	10,964.0	843.6	-59.2	431,526.29	715,224.33	32° 11' 4.090 N	103° 38' 15.578 W
11,699.0	90.00	358.10	10,962.8	938.6	-61.2	431,621.25	715,222.26	32° 11' 5.030 N	103° 38' 15.595 W
11,795.0	91.00	358.00	10,961.9	1,034.5	-64.5	431,717.19	715,218.99	32° 11' 5.980 N	103° 38' 15.625 W
11,890.0	92.50	358.70	10,959.0	1,129.4	-67.2	431,812.10	715,216.26	32° 11' 6.919 N	103° 38' 15.650 W
11,986.0	90.90	358.70	10,956.2	1,225.3	-69.4	431,908.03	715,214.08	32° 11' 7.869 N	103° 38' 15.668 W
12,081.0	89.50	358.30	10,955.8	1,320.3	-71.9	432,003.00	715,211.59	32° 11' 8.809 N	103° 38' 15.690 W
12,176.0	88.50	358.70	10,957.5	1,415.2	-74.4	432,097.95	715,209.11	32° 11' 9.748 N	103° 38' 15.712 W
12,271.0	89.20	357.70	10,959.4	1,510.2	-77.4	432,192.88	715,206.12	32° 11' 10.688 N	103° 38' 15.739 W
12,366.0	88.30	358.80	10,961.5	1,605.1	-80.3	432,287.81	715,203.22	32° 11' 11.628 N	103° 38' 15.766 W
12,462.0	88.50	358.40	10,964.2	1,701.0	-82.6	432,383.75	715,200.88	32° 11' 12.577 N	103° 38' 15.786 W
12,557.0	89.00	358.10	10,966.2	1,796.0	-85.5	432,478.68	715,197.98	32° 11' 13.517 N	103° 38' 15.813 W
12,652.0	89.30	358.20	10,967.6	1,890.9	-88.6	432,573.62	715,194.91	32° 11' 14.456 N	103° 38' 15.841 W
12,748.0	89.70	357.50	10,968.5	1,986.8	-92.2	432,669.55	715,191.31	32° 11' 15.406 N	103° 38' 15.876 W
12,844.0	88.70	358.40	10,969.8	2,082.8	-95.6	432,765.47	715,187.88	32° 11' 16.355 N	103° 38' 15.909 W
12,939.0	89.00	357.80	10,971.7	2,177.7	-98.8	432,860.40	715,184.73	32° 11' 17.295 N	103° 38' 15.938 W
13,034.0	89.00	357.00	10,973.4	2,272.6	-103.1	432,955.29	715,180.42	32° 11' 18.234 N	103° 38' 15.981 W
13,129.0	88.60	357.40	10,975.4	2,367.5	-107.7	433,050.15	715,175.78	32° 11' 19.173 N	103° 38' 16.028 W
13,225.0	89.60	358.50	10,976.9	2,463.4	-111.2	433,146.08	715,172.35	32° 11' 20.123 N	103° 38' 16.061 W
13,320.0	90.70	359.70	10,976.6	2,558.4	-112.6	433,241.06	715,170.85	32° 11' 21.063 N	103° 38' 16.071 W
13,415.0	90.80	358.80	10,975.4	2,653.3	-113.9	433,336.05	715,169.61	32° 11' 22.003 N	103° 38' 16.078 W
13,510.0	91.30	358.60	10,973.7	2,748.3	-116.0	433,431.00	715,167.46	32° 11' 22.943 N	103° 38' 16.096 W
13,606.0	90.00	358.90	10,972.6	2,844.3	-118.1	433,526.97	715,165.36	32° 11' 23.892 N	103° 38' 16.113 W
13,701.0	89.90	358.00	10,972.6	2,939.2	-120.7	433,621.94	715,162.79	32° 11' 24.832 N	103° 38' 16.136 W
13,796.0	89.80	358.00	10,972.9	3,034.2	-124.0	433,716.88	715,159.48	32° 11' 25.772 N	103° 38' 16.167 W
13,891.0	89.20	359.00	10,973.7	3,129.1	-126.5	433,811.84	715,156.99	32° 11' 26.712 N	103° 38' 16.189 W
13,987.0	90.80	359.40	10,973.7	3,225.1	-127.8	433,907.83	715,155.65	32° 11' 27.662 N	103° 38' 16.198 W
14,081.0	91.20	359.40	10,972.1	3,319.1	-128.8	434,001.81	715,154.66	32° 11' 28.592 N	103° 38' 16.202 W
14,176.0	91.60	359.30	10,969.8	3,414.1	-129.9	434,096.77	715,153.59	32° 11' 29.532 N	103° 38' 16.207 W
14,271.0	91.90	358.90	10,966.9	3,509.0	-131.4	434,191.72	715,152.10	32° 11' 30.471 N	103° 38' 16.218 W
14,367.0	91.00	359.40	10,964.4	3,605.0	-132.8	434,287.68	715,150.67	32° 11' 31.421 N	103° 38' 16.227 W
14,462.0	91.20	359.50	10,962.6	3,700.0	-133.7	434,382.65	715,149.76	32° 11' 32.361 N	103° 38' 16.230 W

Company:	COG Production LLC	Local Co-ordinate Reference:	Well #1H
Project:	Lea County, NM	TVD Reference:	WELL @ 3579.0usft (Silver Oak #12 - 18' KB)
Site:	Gold Coast 26 Federal	MD Reference:	WELL @ 3579.0usft (Silver Oak #12 - 18' KB)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Houston R5000 Database

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
14,557.0	91.20	358.80	10,960.6	3,794.9	-135.1	434,477.62	715,148.35	32° 11' 33.301 N	103° 38' 16.240 W
14,651.0	89.80	359.00	10,959.8	3,888.9	-136.9	434,571.60	715,146.55	32° 11' 34.231 N	103° 38' 16.254 W
14,747.0	89.70	359.10	10,960.2	3,984.9	-138.5	434,667.58	715,144.96	32° 11' 35.181 N	103° 38' 16.265 W
14,842.0	90.00	358.70	10,960.5	4,079.9	-140.4	434,762.57	715,143.13	32° 11' 36.121 N	103° 38' 16.279 W
14,937.0	90.30	357.90	10,960.2	4,174.8	-143.2	434,857.52	715,140.31	32° 11' 37.061 N	103° 38' 16.305 W
15,032.0	90.20	358.30	10,959.8	4,269.8	-146.3	434,952.47	715,137.16	32° 11' 38.000 N	103° 38' 16.334 W
15,125.0	90.50	357.90	10,959.2	4,362.7	-149.4	435,045.42	715,134.08	32° 11' 38.920 N	103° 38' 16.363 W
15,219.0	90.90	357.50	10,958.1	4,456.6	-153.2	435,139.33	715,130.31	32° 11' 39.850 N	103° 38' 16.400 W
15,321.0	91.10	357.20	10,956.3	4,558.5	-157.9	435,241.21	715,125.59	32° 11' 40.858 N	103° 38' 16.447 W
15,368.0	91.10	357.20	10,955.4	4,605.4	-160.2	435,288.14	715,123.30	32° 11' 41.323 N	103° 38' 16.470 W
BHL - 15368.0' MD, 10955.4' TVD, 91.10° INC, 357.20° AZI, 4605.4' N, -160.2' E, 4607.4' VS									

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
10,300.0	10,296.9	-40.6	-3.0	Tie into Gyros @ 10300' MD
10,424.0	10,420.7	-37.6	-8.5	KOP - 10424.0' MD, 10420.7' TVD, 2.70° INC, -37.4' VS
10,614.8	10,605.9	0.1	-17.4	Cross into 330' Lease - 10614.8' MD, 10605.9' TVD, 24.88° INC, 0.3' VS
11,402.0	10,967.6	641.6	-56.8	EOC - 11402.0' MD, 10967.6' TVD, 90.12° INC, 642.5' VS
15,368.0	10,955.4	4,605.4	-160.2	BHL - 15368.0' MD, 10955.4' TVD, 91.10° INC, 357.20° AZI, 4605.4' N, -160.2' I

Checked By: _____ Approved By: _____ Date: _____