Results of Directional Survey

API number:	30-025-40814		
OGRID:		Operator:	COG OPERATING LLC
		Property:	CONDOR STATE # 1H

surface	ULSTR:	D	20	T	18S	R	35E
				60	FNL	330	FWL

BH Loc	ULSTR:	M	20	T	18S	R	35E
14220	MD	9789.2	TVD	332	FSL	462	FWL
				4948	FNL		

Top Perf/OH	ULSTR:	D	20	T	18S	R	35E
9599	MD	9349.1	TVD	350	FNL	414	FWL

Bot Perf/OH	ULSTR:	M	20	T	18S	R	35E
14110	MD	9781.5	TVD	441	FSL	461	FWL
				4839	FNL		

	MD	N/S	E/W	VD
	9567	-259.10	84.00	9342.1
TOP PERFS/OH	**9599**	-290.30	84.10	9349.10
	9599	-290.30	84.10	9349.10
	14031	-4699.80	129.70	9776.00
BOT PERFS/OH	**14110**	-4778.51	130.62	9781.52
	14220	-4888.10	131.90	9789.20

NEXT TO LAST	14031	-4699.80	129.70	9776.00
LAST READING	14220	-4888.10	131.90	9789.20
TD	**14220**	-4888.10	131.90	9789.20

Surface Location	60	FN	330	FW
Projected BHL	4948	FN	462	FW
Location of				
Top Perfs/OH	350	FN	414	FW
Bottom Perfs/OH	4839	FN	461	FW

SUMMARY of Subsurface Locations

Surface Location	D-20-18S-35E	60	FN	330	FW	Vert. Depth
Top Perfs/OH	D-20-18S-35E	350	FN	414	FW	9349.10
Bottom Perfs/OH	M-20-18S-35E	4839	FN	461	FW	9781.52
Projected TD	M-20-18S-35E	4948	FN	462	FW	9789.20

30025-40814

OPERATOR: COG Operating, LLC
WELL/LEASE: Condor State # 1 H
COUNTY: Lea Co., New Mexico
Sec. 20, T18S, R35E

HOBBS OCD

FEB 28 2013

RECEIVED

STATE OF NEW MEXICO
DEVIATION REPORT

Depth	Deviation	Depth	Deviation
292	1/4	5,533	2
738	1/4	5,722	2 1/4
1,080	1/4	5,912	2 1/4
1,360	1/4	6,193	2 1/2
1,676	2	6,475	3
1,821	2 3/4	6,665	3
2,117	2 3/4	6,855	2 3/4
2,276	2	7,043	3
2,433	1 3/4	7,233	3/4
2,706	1 3/4	7,424	1/2
2,993	2 3/4	7,893	1
3,039	2 3/4	8,068	2 1/2
3,282	2 3/4	8,274	3
3,445	3 1/4	8,431	2
3,545	2 1/4	8,557	3 1/4
3,920	2	8,652	1 1/4
4,205	2 1/2	8,807	1
4,489	2 3/4	8,842	1 3/4
4,774	2 1/2	9,031	1 3/4
5,058	1 3/4	9,221	2
5,248	1	9,412	2 1/4
5,345	1 3/4	9,601	1 3/4

Patriot Drilling, LLC

M. Leroy Peterson, Executive Vice-President

The foregoing instrument was acknowledged before me on this 29th day of November, 2012 by M. Leroy Peterson, Executive Vice-President of Patriot Drilling,

My Commission Expires: 02/01/2015

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

NOTARY PUBLIC STATE OF TEXAS
Lori T Rowan
My Commission Expires
02/01/2015

VES
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

November 27, 2012

COG Operating LLC (Concho)
One Concho Center
600 W. Illinois Avenue
Midland, TX 79701

Attn: Kanicia Castillo

Re: **Condor State No. 001H**

Please find enclosed a copy of the survey from 0' to 5,000' ran on the above referenced well.

If I can be of any further service, please do not hesitate to call me at 800-606-4976.

Sincerely,

Keith Havelka
Operations

Company: COG Operating LLC (Concho)
Lease/Well: Condor State/No. 001H

Rig Name: Patriot 6
State/County: New Mexico/Lea
Latitude: 32.74, Longitude: -103.49
GRID North is 0.46 Degrees East of True North
VS-Azi: 0.00 Degrees

Depth Reference : RKB = 17 Feet

DRILLOG HA GYRO SURVEY CALCULATIONS
Filename: ha gyro survey.ut
Minimum Curvature Method
Report Date/Time: 11/28/2012 / 11:56

Vaughn Energy Services
Gardendale, TX
432-563-5444
Surveyor: Chris Carroll

Condor State No. 001H / API 30-025-40814

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	0.16	184.59	100.00	-0.14	-0.01	-0.14	0.14	184.59	0.16
200.00	0.15	132.25	200.00	-0.36	0.07	-0.36	0.37	168.60	0.14
300.00	0.11	70.58	300.00	-0.42	0.26	-0.42	0.49	148.32	0.14
400.00	0.09	40.23	400.00	-0.33	0.40	-0.33	0.51	129.60	0.06
500.00	0.12	83.78	500.00	-0.26	0.55	-0.26	0.61	114.98	0.09
600.00	0.07	11.64	600.00	-0.18	0.67	-0.18	0.70	105.29	0.12
700.00	0.14	74.94	700.00	-0.09	0.81	-0.09	0.81	96.37	0.13
800.00	0.14	133.51	800.00	-0.14	1.02	-0.14	1.03	97.93	0.14
900.00	0.17	143.59	900.00	-0.34	1.19	-0.34	1.24	106.06	0.04
1000.00	0.15	92.68	1000.00	-0.47	1.41	-0.47	1.48	108.35	0.14
1100.00	0.26	118.34	1100.00	-0.58	1.73	-0.58	1.83	108.49	0.14
1200.00	0.50	108.57	1199.99	-0.82	2.34	-0.82	2.48	109.39	0.25
1300.00	0.41	122.38	1299.99	-1.15	3.06	-1.15	3.27	110.69	0.14
1400.00	0.17	185.18	1399.99	-1.49	3.34	-1.49	3.66	114.00	0.36
1500.00	0.10	213.80	1499.99	-1.71	3.28	-1.71	3.70	117.52	0.09
1600.00	1.25	282.68	1599.98	-1.54	2.16	-1.54	2.66	125.56	1.22
1700.00	2.61	280.22	1699.92	-0.90	-1.15	-0.90	1.46	231.98	1.36
1800.00	3.59	292.70	1799.78	0.71	-6.28	0.71	6.32	276.47	1.18

VES Survey Date: 11/17/2012

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
1900.00	3.99	320.58	1899.57	4.60	-11.37	4.60	12.27	292.04	1.86
2000.00	3.83	330.88	1999.34	10.20	-15.20	10.20	18.31	303.87	0.72
2100.00	2.56	331.28	2099.18	15.08	-17.90	15.08	23.41	310.11	1.27
2200.00	1.88	329.31	2199.10	18.45	-19.82	18.45	27.08	312.96	0.68
2300.00	1.81	335.84	2299.05	21.31	-21.30	21.31	30.13	315.01	0.22
2400.00	1.87	347.43	2399.00	24.34	-22.30	24.34	33.01	317.50	0.38
2500.00	1.74	349.75	2498.95	27.43	-22.93	27.43	35.75	320.11	0.15
2600.00	1.88	358.29	2598.90	30.56	-23.25	30.56	38.40	322.74	0.30
2700.00	1.73	17.90	2698.85	33.63	-22.83	33.63	40.65	325.83	0.63
2800.00	1.84	29.38	2798.80	36.46	-21.58	36.46	42.37	329.38	0.37
2900.00	2.12	40.17	2898.74	39.27	-19.60	39.27	43.89	333.48	0.47
3000.00	2.45	43.98	2998.66	42.22	-16.92	42.22	45.49	338.16	0.36
3100.00	2.56	53.86	3098.57	45.08	-13.64	45.08	47.10	343.17	0.44
3200.00	2.54	56.84	3198.47	47.61	-9.98	47.61	48.64	348.16	0.13
3300.00	2.65	61.76	3298.37	49.91	-6.09	49.91	50.28	353.04	0.25
3400.00	2.77	63.16	3398.26	52.10	-1.90	52.10	52.13	357.91	0.14
3500.00	2.37	56.75	3498.16	54.32	1.99	54.32	54.36	2.10	0.50
3600.00	1.83	50.17	3598.09	56.48	4.95	56.48	56.70	5.01	0.59
3700.00	1.85	49.34	3698.04	58.56	7.40	58.56	59.02	7.21	0.03
3800.00	1.66	53.55	3797.99	60.47	9.79	60.47	61.26	9.20	0.23
3900.00	1.81	53.74	3897.94	62.27	12.23	62.27	63.46	11.11	0.15
4000.00	1.70	58.73	3997.90	63.97	14.77	63.97	65.65	13.00	0.19
4100.00	1.67	62.57	4097.85	65.41	17.33	65.41	67.67	14.84	0.12
4200.00	1.94	61.94	4197.80	66.87	20.12	66.87	69.83	16.74	0.27
4300.00	2.10	62.83	4297.74	68.51	23.24	68.51	72.34	18.74	0.17
4400.00	2.18	60.24	4397.67	70.29	26.52	70.29	75.12	20.67	0.13
4500.00	2.38	51.59	4497.59	72.52	29.80	72.52	78.41	22.34	0.40
4600.00	2.22	48.84	4597.51	75.09	32.89	75.09	81.98	23.65	0.19
4700.00	2.13	56.28	4697.44	77.40	35.90	77.40	85.32	24.88	0.30
4800.00	2.35	68.52	4797.36	79.19	39.35	79.19	88.42	26.42	0.52
4900.00	2.31	46.65	4897.28	81.32	42.72	81.32	91.86	27.72	0.88
5000.00	1.56	27.97	4997.23	83.90	44.82	83.90	95.12	28.11	0.97

VES Survey Date: 11/17/2012

30-025-40814

PATHFINDER®

A Schlumberger Company

COG Operating LLC

Lea County(NAD27)
Condor State
#1H
ST1

Design: ST1

Pathfinder X&Y Report

27 November, 2012

CONCHO

PATHFINDER
A Schlumberger Company

Pathfinder
Pathfinder X&Y Report

CONCHO

Company:	COG Operating LLC	**Local Co-ordinate Reference:**	Well #1H
Project:	Lea County(NAD27)	**TVD Reference:**	KB = 18' @ 3968.2usft
Site:	Condor State	**MD Reference:**	KB = 18' @ 3968.2usft
Well:	#1H	**North Reference:**	Grid
Wellbore:	ST1	**Survey Calculation Method:**	Minimum Curvature
Design:	ST1	**Database:**	EDM 5000.1 Single User Db

Project Lea County(NAD27)

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 Condor State

Site Position:		**Northing:**	634,049.300 usft	**Latitude:**	32.740237
From:	Map	**Easting:**	760,331.000 usft	**Longitude:**	-103.486682
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.46 °

Well #1H

Well Position	***+N/-S***	*0.0 usft*	***Northing:***	634,049.300 usft	***Latitude:***	32.740237
	+E/-W	0.0 usft	**Easting:**	760,331.000 usft	**Longitude:**	-103.486682
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,950.2 usft

Wellbore ST1

Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF200510	11/20/2012	7.40	60.67	48,829

Design ST1

Audit Notes:

Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	8,652.0

Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**
	0.0	0.0	0.0	178.90

Company:	COG Operating LLC	**Local Co-ordinate Reference:**	Well #1H
Project:	Lea County(NAD27)	**TVD Reference:**	KB = 18' @ 3968.2usft
Site:	Condor State	**MD Reference:**	KB = 18' @ 3968.2usft
Well:	#1H	**North Reference:**	Grid
Wellbore:	ST1	**Survey Calculation Method:**	Minimum Curvature
Design:	ST1	**Database:**	EDM 5000.1 Single User Db

Survey Program **Date** 11/27/2012

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	5,000.0	Gyro #1 (OH)	NS-GYRO-MS	North sensing gyrocompassing m/s
5,058.0	8,652.0	MWD #2 (OH)	MWD	MWD - Standard
8,807.0	14,220.0	MWD #3 (ST1)	MWD	MWD - Standard

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
0.0	0.00	0.00	0.0	-3,968.2	0.0	0.0	0.0	0.00	634,049.30	760,331.00
100.0	0.16	184.59	100.0	-3,868.2	-0.1	0.0	0.1	0.16	634,049.16	760,330.99
200.0	0.15	132.25	200.0	-3,768.2	-0.4	0.1	0.4	0.14	634,048.93	760,331.07
300.0	0.11	70.58	300.0	-3,668.2	-0.4	0.3	0.4	0.14	634,048.88	760,331.26
400.0	0.09	40.23	400.0	-3,568.2	-0.3	0.4	0.3	0.06	634,048.97	760,331.40
500.0	0.12	83.78	500.0	-3,468.2	-0.3	0.6	0.3	0.08	634,049.04	760,331.56
600.0	0.07	11.64	600.0	-3,368.2	-0.2	0.7	0.2	0.12	634,049.11	760,331.67
700.0	0.14	74.94	700.0	-3,268.2	-0.1	0.8	0.1	0.13	634,049.20	760,331.80
800.0	0.14	133.51	800.0	-3,168.2	-0.1	1.0	0.2	0.14	634,049.15	760,332.01
900.0	0.17	143.59	900.0	-3,068.2	-0.4	1.2	0.4	0.04	634,048.95	760,332.19
1,000.0	0.15	92.68	1,000.0	-2,968.2	-0.5	1.4	0.5	0.14	634,048.82	760,332.41
1,100.0	0.26	118.34	1,100.0	-2,868.2	-0.6	1.7	0.6	0.14	634,048.71	760,332.74
1,200.0	0.50	108.57	1,200.0	-2,768.2	-0.8	2.4	0.9	0.25	634,048.46	760,333.35
1,300.0	0.41	122.38	1,300.0	-2,668.2	-1.2	3.1	1.2	0.14	634,048.13	760,334.07
1,400.0	0.17	185.18	1,400.0	-2,568.2	-1.5	3.4	1.6	0.37	634,047.79	760,334.36
1,500.0	0.10	213.80	1,500.0	-2,468.2	-1.7	3.3	1.8	0.10	634,047.57	760,334.29
1,600.0	1.25	282.68	1,600.0	-2,368.2	-1.6	2.2	1.6	1.22	634,047.74	760,333.18
1,700.0	2.61	280.22	1,699.9	-2,268.3	-0.9	-1.1	0.9	1.36	634,048.38	760,329.88
1,800.0	3.59	292.70	1,799.8	-2,168.4	0.7	-6.3	-0.8	1.18	634,049.99	760,324.75
1,900.0	3.99	320.58	1,899.6	-2,068.6	4.6	-11.4	-4.8	1.87	634,053.89	760,319.65

Company:	COG Operating LLC	**Local Co-ordinate Reference:**	Well #1H
Project:	Lea County(NAD27)	**TVD Reference:**	KB = 18' @ 3968.2usft
Site:	Condor State	**MD Reference:**	KB = 18' @ 3968.2usft
Well:	#1H	**North Reference:**	Grid
Wellbore:	ST1	**Survey Calculation Method:**	Minimum Curvature
Design:	ST1	**Database:**	EDM 5000.1 Single User Db

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
2,000.0	3.83	330.88	1,999.3	-1,968.9	10.2	-15.2	-10.5	0.72	634,059.50	760,315.81
2,100.0	2.56	331.28	2,099.2	-1,869.0	15.1	-17.9	-15.4	1.27	634,064.37	760,313.12
2,200.0	1.88	329.31	2,199.1	-1,769.1	18.4	-19.8	-18.8	0.68	634,067.74	760,311.20
2,300.0	1.81	335.84	2,299.0	-1,669.2	21.3	-21.3	-21.7	0.22	634,070.59	760,309.72
2,400.0	1.87	347.43	2,399.0	-1,569.2	24.3	-22.3	-24.7	0.38	634,073.63	760,308.72
2,500.0	1.74	349.75	2,498.9	-1,469.3	27.4	-22.9	-27.8	0.15	634,076.71	760,308.09
2,600.0	1.88	358.29	2,598.9	-1,369.3	30.5	-23.2	-31.0	0.30	634,079.85	760,307.78
2,700.0	1.73	17.90	2,698.9	-1,269.3	33.6	-22.8	-34.1	0.63	634,082.92	760,308.19
2,800.0	1.84	29.38	2,798.8	-1,169.4	36.5	-21.6	-36.9	0.37	634,085.76	760,309.44
2,900.0	2.12	40.17	2,898.7	-1,069.5	39.3	-19.6	-39.6	0.47	634,088.57	760,311.42
3,000.0	2.45	43.98	2,998.7	-969.5	42.2	-16.9	-42.5	0.36	634,091.52	760,314.10
3,100.0	2.56	53.86	3,098.6	-869.6	45.1	-13.6	-45.3	0.44	634,094.38	760,317.39
3,200.0	2.54	56.84	3,198.5	-769.7	47.6	-10.0	-47.8	0.13	634,096.91	760,321.05
3,300.0	2.65	61.76	3,298.4	-669.8	49.9	-6.1	-50.0	0.25	634,099.21	760,324.94
3,400.0	2.77	63.16	3,398.3	-569.9	52.1	-1.9	-52.1	0.14	634,101.40	760,329.13
3,500.0	2.37	56.75	3,498.2	-470.0	54.3	2.0	-54.3	0.49	634,103.62	760,333.02
3,600.0	1.83	50.17	3,598.1	-370.1	56.5	5.0	-56.4	0.59	634,105.78	760,335.97
3,700.0	1.85	49.34	3,698.0	-270.2	58.6	7.4	-58.4	0.03	634,107.85	760,338.42
3,800.0	1.66	53.55	3,798.0	-170.2	60.5	9.8	-60.3	0.23	634,109.76	760,340.81
3,900.0	1.81	53.74	3,897.9	-70.3	62.3	12.2	-62.0	0.15	634,111.56	760,343.25
4,000.0	1.70	58.73	3,997.9	29.7	64.0	14.8	-63.7	0.19	634,113.26	760,345.79
4,100.0	1.67	62.57	4,097.9	129.7	65.4	17.4	-65.1	0.12	634,114.70	760,348.35
4,200.0	1.94	61.94	4,197.8	229.6	66.9	20.1	-66.5	0.27	634,116.17	760,351.14
4,300.0	2.10	62.83	4,297.7	329.5	68.5	23.3	-68.0	0.16	634,117.80	760,354.26
4,400.0	2.18	60.24	4,397.7	429.5	70.3	26.5	-69.8	0.13	634,119.58	760,357.54
4,500.0	2.38	51.59	4,497.6	529.4	72.5	29.8	-71.9	0.40	634,121.82	760,360.82
4,600.0	2.22	48.84	4,597.5	629.3	75.1	32.9	-74.4	0.19	634,124.38	760,363.91

Company:	COG Operating LLC	**Local Co-ordinate Reference:**	Well #1H
Project:	Lea County(NAD27)	**TVD Reference:**	KB = 18' @ 3968.2usft
Site:	Condor State	**MD Reference:**	KB = 18' @ 3968.2usft
Well:	#1H	**North Reference:**	Grid
Wellbore:	ST1	**Survey Calculation Method:**	Minimum Curvature
Design:	ST1	**Database:**	EDM 5000.1 Single User Db

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
4,700.0	2.13	56.28	4,697.4	729.2	77.4	35.9	-76.7	0.30	634,126.69	760,366.91
4,800.0	2.35	68.52	4,797.4	829.2	79.2	39.4	-78.4	0.53	634,128.47	760,370.36
4,900.0	2.31	46.65	4,897.3	929.1	81.3	42.7	-80.5	0.88	634,130.61	760,373.74
5,000.0	1.56	27.97	4,997.2	1,029.0	83.9	44.8	-83.0	0.97	634,133.19	760,375.84
5,058.0	1.58	11.11	5,055.2	1,087.0	85.4	45.4	-84.5	0.79	634,134.67	760,376.37
5,345.0	1.76	16.24	5,342.1	1,373.9	93.5	47.4	-92.6	0.08	634,142.79	760,378.36
5,533.0	2.02	19.72	5,530.0	1,561.8	99.4	49.3	-98.4	0.15	634,148.68	760,380.29
5,722.0	2.11	16.34	5,718.9	1,750.7	105.9	51.4	-104.8	0.08	634,155.15	760,382.39
5,912.0	2.11	13.31	5,908.7	1,940.5	112.6	53.2	-111.6	0.06	634,161.91	760,384.18
6,193.0	2.37	17.23	6,189.5	2,221.3	123.2	56.1	-122.1	0.11	634,172.50	760,387.09
6,475.0	2.99	28.73	6,471.2	2,503.0	135.2	61.4	-134.0	0.29	634,184.52	760,392.35
6,602.0	2.77	16.86	6,598.0	2,629.8	141.1	63.8	-139.8	0.50	634,190.36	760,394.84
6,665.0	2.81	13.80	6,661.0	2,692.8	144.0	64.6	-142.7	0.24	634,193.31	760,395.65
7,043.0	2.90	15.33	7,038.5	3,070.3	162.2	69.4	-160.9	0.03	634,211.53	760,400.38
7,233.0	0.70	31.66	7,228.4	3,260.2	167.9	71.3	-166.5	1.18	634,217.16	760,402.26
7,424.0	0.44	21.73	7,419.4	3,451.2	169.5	72.1	-168.1	0.15	634,218.83	760,403.15
7,708.0	1.67	3.07	7,703.3	3,735.1	174.7	72.8	-173.2	0.44	634,223.98	760,403.77
7,898.0	0.97	317.25	7,893.3	3,925.1	178.6	71.8	-177.2	0.64	634,227.92	760,402.83
8,068.0	2.29	359.85	8,063.2	4,095.0	183.1	70.8	-181.7	1.00	634,232.38	760,401.84
8,274.0	2.99	25.27	8,269.0	4,300.8	192.1	73.1	-190.6	0.65	634,241.35	760,404.13
8,431.0	2.02	68.14	8,425.9	4,457.7	196.8	77.4	-195.3	1.30	634,246.08	760,408.44
8,557.0	3.17	54.08	8,551.7	4,583.5	199.7	82.3	-198.0	1.04	634,248.96	760,413.33
8,652.0	1.14	26.85	8,646.7	4,678.5	202.0	84.9	-200.4	2.34	634,251.34	760,415.88
8,807.0	1.06	153.67	8,801.7	4,833.5	202.1	86.2	-200.4	1.27	634,251.43	760,417.21
KOP - 8807.0 'MD, 8801.7 'TVD, 202.1 'N, 86.2 'E										
8,839.0	5.45	180.23	8,833.6	4,865.4	200.3	86.3	-198.7	14.15	634,249.64	760,417.34
8,870.0	9.76	180.41	8,864.3	4,896.1	196.2	86.3	-194.5	13.90	634,245.54	760,417.31

PATHFINDER
A Schlumberger Company

Pathfinder
Pathfinder X&Y Report

CONCHO

Company:	COG Operating LLC	**Local Co-ordinate Reference:**	Well #1H
Project:	Lea County(NAD27)	**TVD Reference:**	KB = 18' @ 3968.2usft
Site:	Condor State	**MD Reference:**	KB = 18' @ 3968.2usft
Well:	#1H	**North Reference:**	Grid
Wellbore:	ST1	**Survey Calculation Method:**	Minimum Curvature
Design:	ST1	**Database:**	EDM 5000.1 Single User Db

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
8,902.0	14.25	181.68	8,895.6	4,927.4	189.6	86.2	-187.9	14.05	634,238.89	760,417.18
8,934.0	17.85	184.02	8,926.4	4,958.2	180.8	85.7	-179.1	11.43	634,230.06	760,416.72
8,965.0	20.66	183.84	8,955.6	4,987.4	170.6	85.0	-168.9	9.07	634,219.86	760,416.02
8,997.0	23.65	182.80	8,985.3	5,017.1	158.5	84.3	-156.9	9.42	634,207.81	760,415.33
9,029.0	26.64	182.03	9,014.2	5,046.0	144.9	83.8	-143.3	9.40	634,194.23	760,414.76
9,060.0	29.37	181.52	9,041.6	5,073.4	130.4	83.3	-128.8	8.84	634,179.68	760,414.31
9,092.0	31.74	180.60	9,069.1	5,100.9	114.1	83.0	-112.5	7.55	634,163.42	760,414.02
9,123.0	34.65	180.05	9,095.1	5,126.9	97.1	82.9	-95.5	9.44	634,146.45	760,413.92
9,155.0	37.37	180.02	9,121.0	5,152.8	78.3	82.9	-76.7	8.50	634,127.64	760,413.91
9,187.0	39.83	180.25	9,146.0	5,177.8	58.4	82.9	-56.8	7.70	634,107.68	760,413.86
9,218.0	42.74	180.75	9,169.3	5,201.1	37.9	82.7	-36.3	9.45	634,087.22	760,413.68
9,250.0	45.99	180.76	9,192.1	5,223.9	15.6	82.4	-14.0	10.16	634,064.85	760,413.39
9,282.0	48.63	180.19	9,213.8	5,245.6	-8.0	82.2	9.5	8.35	634,041.34	760,413.19
9,313.0	50.74	180.18	9,233.9	5,265.7	-31.6	82.1	33.2	6.81	634,017.70	760,413.12
9,345.0	54.17	179.74	9,253.4	5,285.2	-57.0	82.1	58.5	10.77	633,992.33	760,413.14
9,377.0	59.00	178.99	9,271.0	5,302.8	-83.7	82.4	85.2	15.22	633,965.63	760,413.44
9,408.0	62.87	178.60	9,286.1	5,317.9	-110.8	83.0	112.3	12.53	633,938.55	760,414.01
9,440.0	64.89	178.97	9,300.1	5,331.9	-139.5	83.6	141.1	6.40	633,909.82	760,414.62
9,472.0	67.71	179.81	9,313.0	5,344.8	-168.8	83.9	170.4	9.13	633,880.53	760,414.93
9,503.0	70.79	179.97	9,324.0	5,355.8	-197.8	84.0	199.3	9.95	633,851.54	760,414.98
9,535.0	73.69	180.09	9,333.7	5,365.5	-228.2	84.0	229.8	9.07	633,821.07	760,414.97
9,567.0	75.97	179.96	9,342.1	5,373.9	-259.1	84.0	260.7	7.14	633,790.19	760,414.95
9,599.0	78.70	179.40	9,349.1	5,380.9	-290.3	84.1	291.9	8.70	633,758.97	760,415.13
9,630.0	81.07	179.73	9,354.6	5,386.4	-320.8	84.4	322.4	7.72	633,728.45	760,415.36
9,662.0	82.48	179.89	9,359.2	5,391.0	-352.5	84.5	354.1	4.43	633,696.78	760,415.47
LP - 9662.0 'MD, 9359.2 'TVD, -352.5 'N, 84.5 'E										
9,694.0	82.66	179.49	9,363.3	5,395.1	-384.2	84.6	385.8	1.36	633,665.05	760,415.64

Company:	COG Operating LLC	**Local Co-ordinate Reference:**	Well #1H
Project:	Lea County(NAD27)	**TVD Reference:**	KB = 18' @ 3968.2usft
Site:	Condor State	**MD Reference:**	KB = 18' @ 3968.2usft
Well:	#1H	**North Reference:**	Grid
Wellbore:	ST1	**Survey Calculation Method:**	Minimum Curvature
Design:	ST1	**Database:**	EDM 5000.1 Single User Db

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
9,757.0	84.24	179.34	9,370.5	5,402.3	-446.8	85.3	448.4	2.52	633,602.47	760,416.28
9,852.0	83.01	178.33	9,381.0	5,412.8	-541.2	87.2	542.8	1.67	633,508.08	760,418.19
9,947.0	84.15	179.72	9,391.7	5,423.5	-635.6	88.8	637.2	1.89	633,413.69	760,419.80
10,041.0	84.59	178.96	9,400.9	5,432.7	-729.1	89.9	730.7	0.93	633,320.15	760,420.88
10,136.0	84.33	180.61	9,410.0	5,441.8	-823.7	90.2	825.3	1.75	633,225.60	760,421.23
10,231.0	84.86	179.62	9,419.0	5,450.8	-918.3	90.0	919.8	1.18	633,131.03	760,421.04
10,326.0	85.74	178.86	9,426.8	5,458.6	-1,012.9	91.3	1,014.5	1.22	633,036.35	760,422.30
10,421.0	85.47	179.21	9,434.1	5,465.9	-1,107.7	92.9	1,109.2	0.46	632,941.65	760,423.89
10,516.0	86.35	178.57	9,440.8	5,472.6	-1,202.4	94.7	1,204.0	1.14	632,846.91	760,425.73
10,611.0	85.12	179.30	9,447.9	5,479.7	-1,297.1	96.5	1,298.7	1.50	632,752.19	760,427.49
10,706.0	84.33	179.83	9,456.6	5,488.4	-1,391.7	97.2	1,393.3	1.00	632,657.60	760,428.21
10,801.0	85.03	180.53	9,465.4	5,497.2	-1,486.3	96.9	1,487.9	1.04	632,563.01	760,427.91
10,896.0	82.83	180.10	9,475.5	5,507.3	-1,580.8	96.4	1,582.3	2.36	632,468.55	760,427.39
10,991.0	83.10	179.57	9,487.1	5,518.9	-1,675.0	96.7	1,676.6	0.62	632,374.26	760,427.66
11,086.0	83.36	179.30	9,498.3	5,530.1	-1,769.4	97.6	1,770.9	0.39	632,279.93	760,428.59
11,181.0	84.42	179.39	9,508.4	5,540.2	-1,863.8	98.7	1,865.4	1.12	632,185.48	760,429.67
11,276.0	83.71	179.92	9,518.3	5,550.1	-1,958.3	99.2	1,959.9	0.93	632,090.99	760,430.24
11,371.0	84.06	179.57	9,528.4	5,560.2	-2,052.8	99.7	2,054.3	0.52	631,996.53	760,430.66
11,466.0	84.59	179.30	9,537.8	5,569.6	-2,147.3	100.6	2,148.8	0.63	631,902.00	760,431.60
11,561.0	84.68	178.95	9,546.7	5,578.5	-2,241.9	102.0	2,243.4	0.38	631,807.43	760,433.04
11,656.0	85.74	179.28	9,554.6	5,586.4	-2,336.5	103.5	2,338.1	1.17	631,712.77	760,434.50
11,751.0	86.88	179.33	9,560.7	5,592.5	-2,431.3	104.7	2,432.9	1.20	631,617.98	760,435.65
11,846.0	85.30	178.59	9,567.2	5,599.0	-2,526.1	106.4	2,527.7	1.84	631,523.22	760,437.37
11,941.0	81.87	177.51	9,577.8	5,609.6	-2,620.4	109.6	2,622.0	3.78	631,428.89	760,440.58
12,036.0	81.51	177.19	9,591.5	5,623.3	-2,714.3	113.9	2,716.0	0.50	631,334.98	760,444.93
12,130.0	81.95	178.00	9,605.0	5,636.8	-2,807.3	117.8	2,809.0	0.97	631,242.04	760,448.83
12,225.0	81.60	179.65	9,618.6	5,650.4	-2,901.3	119.8	2,903.0	1.76	631,148.04	760,450.76

PATHFINDER
A Schlumberger Company

Pathfinder
Pathfinder X&Y Report

CONCHO

Company:	COG Operating LLC	**Local Co-ordinate Reference:**	Well #1H
Project:	Lea County(NAD27)	**TVD Reference:**	KB = 18' @ 3968.2usft
Site:	Condor State	**MD Reference:**	KB = 18' @ 3968.2usft
Well:	#1H	**North Reference:**	Grid
Wellbore:	ST1	**Survey Calculation Method:**	Minimum Curvature
Design:	ST1	**Database:**	EDM 5000.1 Single User Db

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
12,320.0	83.71	180.51	9,630.8	5,662.6	-2,995.5	119.6	2,997.2	2.40	631,053.83	760,450.63
12,415.0	85.12	180.86	9,640.0	5,671.8	-3,090.0	118.5	3,091.7	1.53	630,959.29	760,449.50
12,510.0	85.56	180.40	9,647.7	5,679.5	-3,184.7	117.5	3,186.4	0.67	630,864.61	760,448.45
12,605.0	86.44	180.35	9,654.4	5,686.2	-3,279.5	116.8	3,281.1	0.93	630,769.85	760,447.83
12,700.0	87.76	180.25	9,659.2	5,691.0	-3,374.3	116.3	3,375.9	1.39	630,674.97	760,447.34
12,795.0	85.74	180.28	9,664.6	5,696.4	-3,469.2	115.9	3,470.8	2.13	630,580.13	760,446.90
12,890.0	86.53	179.66	9,671.0	5,702.8	-3,564.0	115.9	3,565.5	1.06	630,485.35	760,446.95
12,985.0	83.62	179.56	9,679.1	5,710.9	-3,658.6	116.6	3,660.2	3.06	630,390.71	760,447.59
13,079.0	83.89	178.69	9,689.3	5,721.1	-3,752.0	118.0	3,753.6	0.96	630,297.28	760,449.02
13,175.0	84.94	177.85	9,698.7	5,730.5	-3,847.5	120.9	3,849.1	1.40	630,201.78	760,451.90
13,270.0	82.66	176.70	9,708.9	5,740.7	-3,941.8	125.4	3,943.5	2.68	630,107.45	760,456.39
13,364.0	83.10	178.41	9,720.6	5,752.4	-4,035.0	129.4	4,036.8	1.86	630,014.26	760,460.37
13,459.0	84.85	179.49	9,730.6	5,762.4	-4,129.5	131.1	4,131.2	2.16	629,919.81	760,462.10
13,555.0	84.50	179.99	9,739.5	5,771.3	-4,225.1	131.5	4,226.8	0.63	629,824.23	760,462.53
13,650.0	84.40	181.08	9,748.7	5,780.5	-4,319.6	130.7	4,321.3	1.15	629,729.68	760,461.65
13,745.0	86.79	180.69	9,756.0	5,787.8	-4,414.3	129.2	4,416.0	2.55	629,634.98	760,460.19
13,841.0	86.53	179.93	9,761.6	5,793.4	-4,510.2	128.7	4,511.8	0.84	629,539.14	760,459.67
13,936.0	85.03	179.74	9,768.5	5,800.3	-4,604.9	128.9	4,606.5	1.59	629,444.40	760,459.94
14,031.0	86.00	179.34	9,776.0	5,807.8	-4,699.6	129.7	4,701.2	1.10	629,349.70	760,460.70
14,220.0	86.00	179.34	9,789.2	5,821.0	-4,888.1	131.9	4,889.8	0.00	629,161.17	760,462.88

PROJECTED BHL - 14220.0 'MD, 9789.2 'TVD, -4888.1 'N, 131.9 'E - PBHL (Condor State #1H)

PATHFINDER
A Schlumberger Company

Pathfinder
Pathfinder X&Y Report

CONCHO

Company:	COG Operating LLC	**Local Co-ordinate Reference:**	Well #1H
Project:	Lea County(NAD27)	**TVD Reference:**	KB = 18' @ 3968.2usft
Site:	Condor State	**MD Reference:**	KB = 18' @ 3968.2usft
Well:	#1H	**North Reference:**	Grid
Wellbore:	ST1	**Survey Calculation Method:**	Minimum Curvature
Design:	ST1	**Database:**	EDM 5000.1 Single User Db

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
8,807.0	8,801.7	202.1	86.2	KOP - 8807.0 'MD, 8801.7 'TVD, 202.1 'N, 86.2 'E
9,662.0	9,359.2	-352.5	84.5	LP - 9662.0 'MD, 9359.2 'TVD, -352.5 'N, 84.5 'E
14,220.0	9,789.2	-4,888.1	131.9	PROJECTED BHL - 14220.0 'MD, 9789.2 'TVD, -4888.1 'N, 131.9 'E

Checked By: _____ Approved By: _____ Date: _____

CONCHO

Project: Lea County(NAD27)
Site: Condor State
Well: #1H
Wellbore: ST1
Plan: Post Gyro Plan #2 (#1H/ST1)

G
T M

Azimuths to Grid North
True North: -0.46°
Magnetic North: 6.94°

Magnetic Field
Strength: 48829.0snT
Dip Angle: 60.67°
Date: 11/20/2012
Model: IGRF200510

PATHFINDER
A Schlumberger Company

PROJECT DETAILS: Lea County(NAD27)
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

WELL DETAILS: #1H

Ground Elevation:: 3950.2
RKB Elevation: KB = 18' @ 3968.2usft
Rig Name:

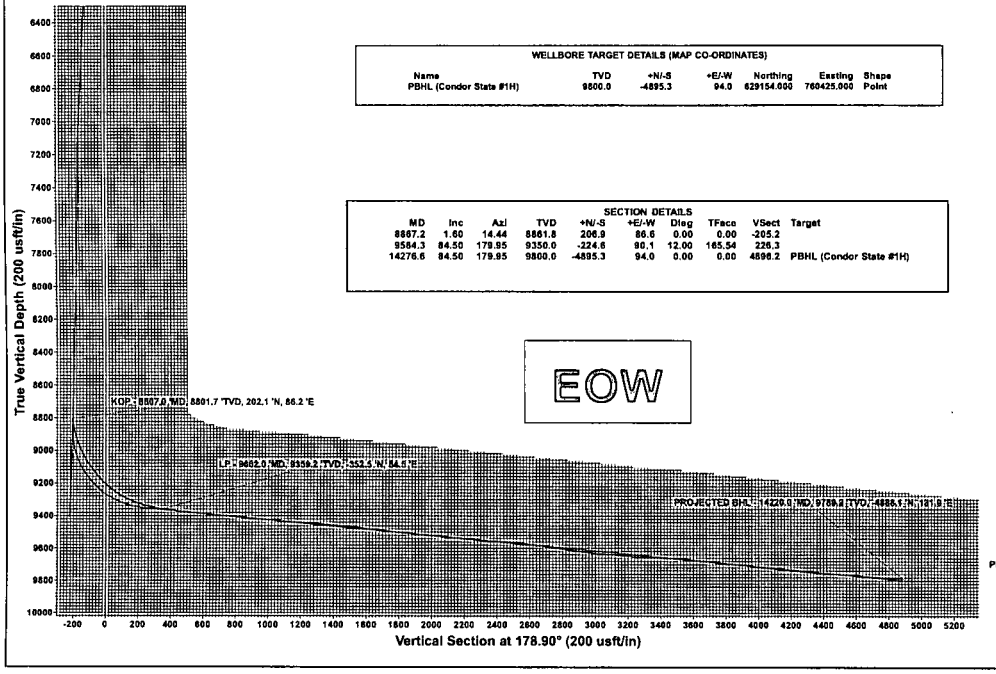
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	634949.300	760331.000	32.740237	-103.486682	

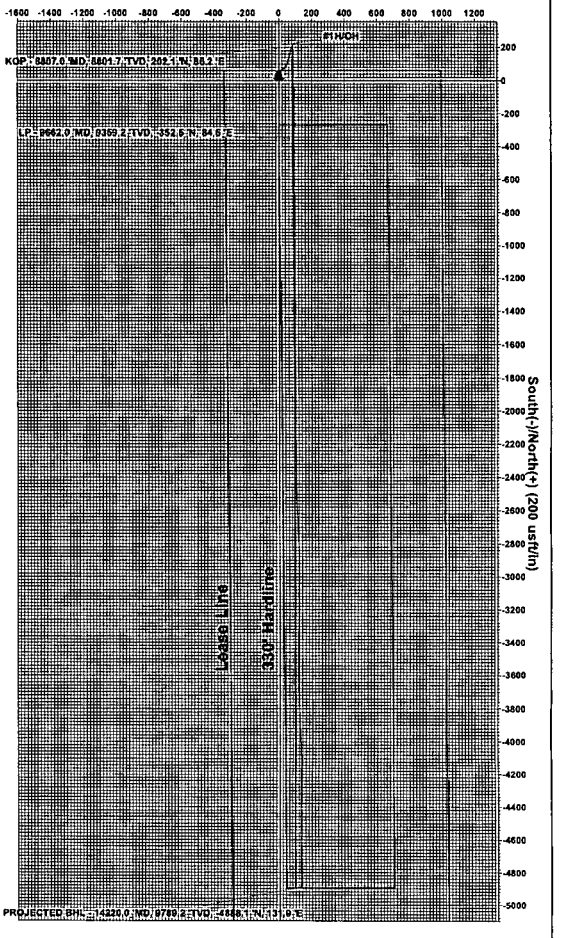
WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL (Condor State #1H)	9800.0	-4895.3	94.0	629154.000	760425.000	Point

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
8867.2	1.60	14.44	8861.8	206.9	86.6	0.00	0.00	-205.2	
9564.3	84.50	179.85	9350.0	-324.6	90.1	12.00	165.54	226.3	
14276.6	84.50	179.95	9800.0	-4895.3	94.0	0.00	0.00	4896.2	PBHL (Condor State #1H)





Plan: Post Gyro Plan #2 (#1H/ST1)
Created By: Michael Trout Date: 8:28, November 27 2012
Checked: _____ Date: _____

COG Operating LLC
Lea County(NAD27)
Condor State
#1H
ST1
Post Gyro Plan #2