



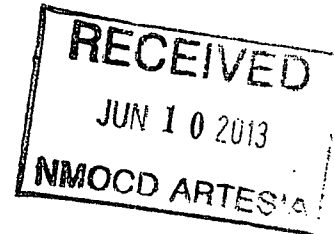
A GYRO TECHNOLOGIES INC. COMPANY

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

30-015-40891

April 8, 2013

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

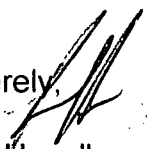


Attn: Kanicia Castillo

RE: **Birdseye 32 State No. 003H**

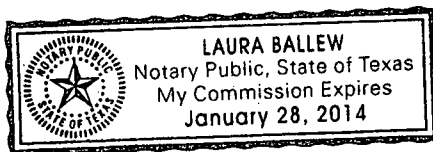
Please find enclosed a copy of the survey from 0.00' to 8000.00' ran on the above referenced well.

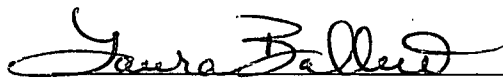
Sincerely,


Keith Havelka
Operations

STATE OF TEXAS §
 §
COUNTY OF NUECES §

This instrument was acknowledged before me on the 8th day of April, A.D., 2013, by Keith Havelka.





Laura Ballew
Notary Public, State of Texas

Company: COG Operating LLC (Concho)

Lease/Well: Birdseye 32 State / No. 003H



Rig Name: Patriot 6

State/County: New Mexico/Eddy

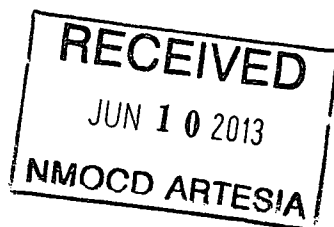
Latitude: 32.61, Longitude: -103.89

GRID North is 0.24 Degrees East of True North

VS-Azi: 0.00 Degrees



Depth Reference : RKB = 17'



DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: final.ut

Minimum Curvature Method

Report Date/Time: 4/8/2013 / 09:16

Vaughn Energy Services

Fort Worth, Texas

817-741-3610

Survey Engineer: Jay Carroll

Birdseye 32 State No. 003H / API 30-015-40891

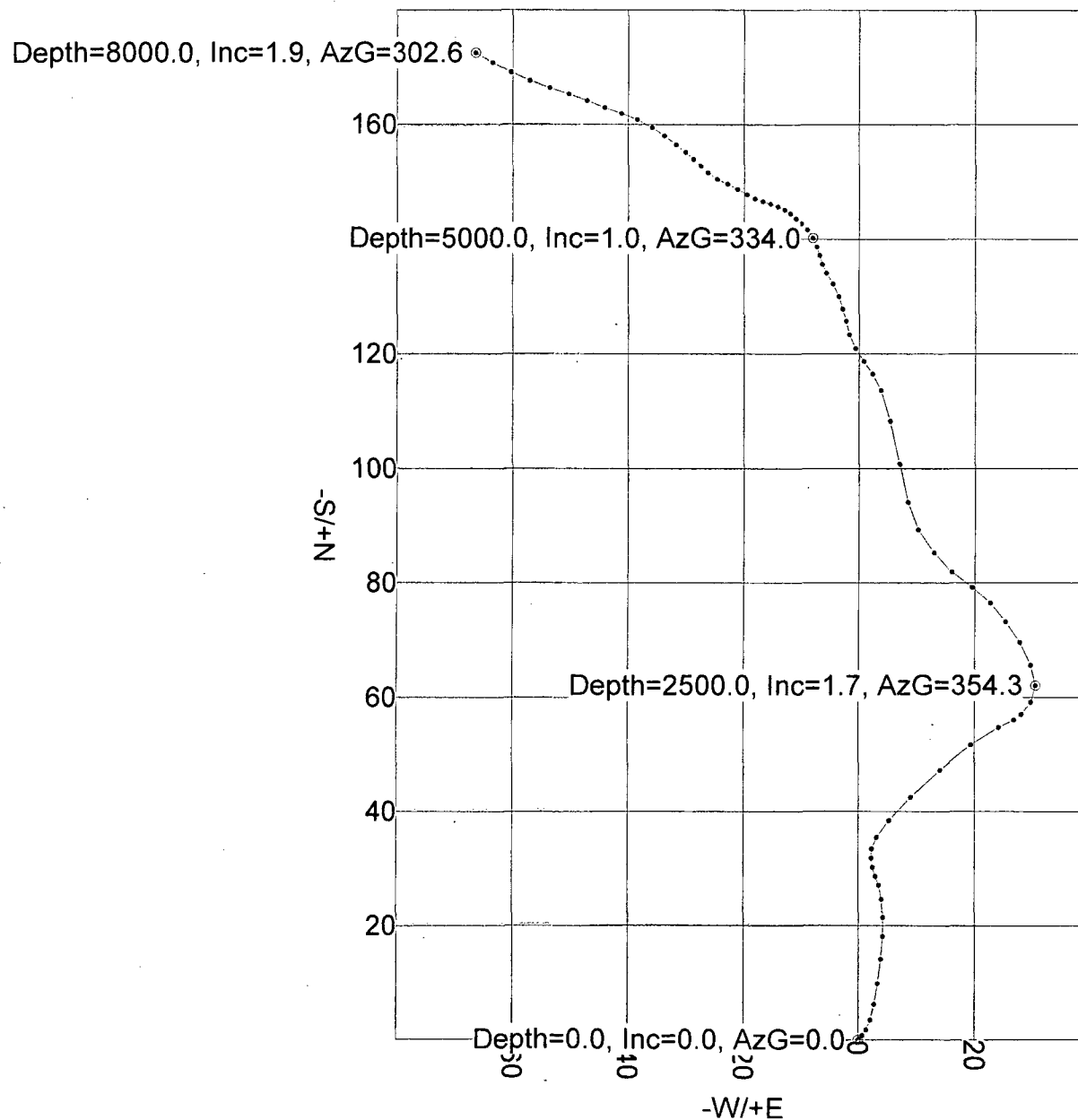
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.36	41.10	100.00	0.24	0.21	0.24	0.31	41.10	0.36
200.00	0.51	39.34	200.00	0.82	0.69	0.82	1.07	40.37	0.15
300.00	0.85	33.37	299.99	1.78	1.39	1.78	2.26	37.86	0.35
400.00	1.31	15.15	399.97	3.51	2.10	3.51	4.09	30.84	0.57
500.00	1.90	10.62	499.93	6.24	2.70	6.24	6.80	23.39	0.60
600.00	2.34	8.81	599.86	9.88	3.32	9.88	10.42	18.55	0.44
700.00	2.57	5.89	699.77	14.13	3.86	14.13	14.64	15.28	0.27
800.00	2.01	2.66	799.69	18.11	4.17	18.11	18.58	12.97	0.57
900.00	1.80	357.85	899.64	21.43	4.19	21.43	21.84	11.07	0.26
1000.00	1.83	354.87	999.59	24.60	3.99	24.60	24.92	9.21	0.10
1100.00	1.06	341.19	1099.55	27.07	3.55	27.07	27.30	7.47	0.84
1200.00	0.88	336.46	1199.54	28.65	2.94	28.65	28.80	5.86	0.20
1300.00	1.03	349.69	1299.53	30.24	2.48	30.24	30.34	4.68	0.26
1400.00	0.86	352.35	1399.51	31.86	2.22	31.86	31.94	3.98	0.18
1500.00	1.02	12.04	1499.50	33.47	2.30	33.47	33.55	3.93	0.36
1600.00	1.53	29.80	1599.47	35.50	3.15	35.50	35.64	5.07	0.64
1700.00	2.63	39.25	1699.41	38.44	5.27	38.44	38.80	7.80	1.15
1800.00	3.71	44.10	1799.25	42.54	8.97	42.54	43.48	11.91	1.11

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	4.16	48.96	1899.02	47.24	13.96	47.24	49.26	16.46	0.56
2000.00	3.93	52.54	1998.77	51.71	19.41	51.71	55.23	20.58	0.34
2100.00	2.57	64.53	2098.61	54.76	24.16	54.76	59.85	23.81	1.51
2200.00	0.75	60.62	2198.56	56.04	26.76	56.04	62.10	25.52	1.82
2300.00	1.07	45.30	2298.55	57.02	27.99	57.02	63.52	26.15	0.40
2400.00	2.01	32.97	2398.51	59.15	29.61	59.15	66.15	26.59	0.99
2500.00	1.69	354.32	2498.46	62.09	30.42	62.09	69.14	26.10	1.26
2600.00	2.50	341.05	2598.39	65.62	29.57	65.62	71.98	24.25	0.94
2700.00	2.55	329.40	2698.30	69.60	27.73	69.60	74.92	21.72	0.51
2800.00	2.49	322.59	2798.20	73.23	25.28	73.23	77.47	19.04	0.30
2900.00	2.30	320.75	2898.11	76.51	22.69	76.51	79.81	16.52	0.20
3000.00	2.57	302.09	2998.03	79.26	19.52	79.26	81.63	13.84	0.83
3100.00	2.44	313.40	3097.93	81.91	16.08	81.91	83.47	11.10	0.51
3200.00	2.87	319.55	3197.82	85.28	12.90	85.28	86.25	8.60	0.52
3300.00	2.73	332.50	3297.70	89.30	10.18	89.30	89.88	6.50	0.65
3400.00	3.19	346.32	3397.57	94.12	8.42	94.12	94.50	5.11	0.85
3500.00	4.61	349.28	3497.34	100.78	7.01	100.78	101.02	3.98	1.43
3600.00	4.24	346.07	3597.04	108.31	5.37	108.31	108.45	2.84	0.44
3700.00	2.15	338.02	3696.88	113.65	3.78	113.65	113.71	1.91	2.13
3800.00	1.52	325.60	3796.83	116.49	2.33	116.49	116.51	1.14	0.74
3900.00	1.55	326.07	3896.79	118.71	0.82	118.71	118.71	0.40	0.03
4000.00	1.51	328.19	3996.76	120.95	-0.63	120.95	120.95	359.70	0.07
4100.00	1.51	344.14	4096.72	123.34	-1.69	123.34	123.35	359.22	0.42
4200.00	1.31	347.09	4196.69	125.72	-2.30	125.72	125.74	358.95	0.21
4300.00	1.19	346.92	4296.67	127.85	-2.79	127.85	127.88	358.75	0.12
4400.00	1.44	338.32	4396.64	130.03	-3.49	130.03	130.08	358.46	0.32
4500.00	1.35	331.78	4496.61	132.23	-4.51	132.23	132.31	358.04	0.19
4600.00	1.16	326.31	4596.59	134.11	-5.63	134.11	134.23	357.60	0.22
4700.00	0.85	345.92	4696.57	135.67	-6.37	135.67	135.82	357.31	0.46
4800.00	0.96	341.25	4796.56	137.18	-6.82	137.18	137.35	357.15	0.14
4900.00	0.87	339.64	4896.55	138.69	-7.36	138.69	138.89	356.96	0.10
5000.00	1.04	334.04	4996.53	140.22	-8.02	140.22	140.45	356.73	0.19
5100.00	0.97	316.31	5096.52	141.65	-9.00	141.65	141.93	356.37	0.32
5200.00	0.74	312.14	5196.51	142.69	-10.06	142.69	143.04	355.97	0.24
5300.00	0.76	315.22	5296.50	143.59	-11.01	143.59	144.01	355.62	0.05
5400.00	0.72	309.75	5396.49	144.47	-11.96	144.47	144.96	355.27	0.08
5500.00	0.68	298.19	5496.48	145.15	-12.96	145.15	145.73	354.90	0.15
5600.00	0.77	292.63	5596.47	145.69	-14.11	145.69	146.37	354.47	0.11
5700.00	0.83	288.70	5696.46	146.18	-15.42	146.18	146.99	353.98	0.08

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
5800.00	0.79	284.85	5796.45	146.59	-16.77	146.59	147.55	353.47	0.07
5900.00	0.83	294.46	5896.44	147.07	-18.10	147.07	148.18	352.99	0.14
6000.00	1.01	297.89	5996.43	147.78	-19.54	147.78	149.07	352.47	0.19
6100.00	1.15	302.34	6096.41	148.73	-21.16	148.73	150.23	351.90	0.16
6200.00	1.07	293.29	6196.39	149.63	-22.87	149.63	151.37	351.31	0.19
6300.00	1.19	297.53	6296.38	150.49	-24.65	150.49	152.49	350.70	0.15
6400.00	1.09	313.06	6396.36	151.62	-26.27	151.62	153.87	350.17	0.32
6500.00	0.84	315.70	6496.34	152.79	-27.47	152.79	155.24	349.81	0.25
6600.00	1.06	312.47	6596.33	153.94	-28.67	153.94	156.58	349.45	0.22
6700.00	1.04	310.09	6696.31	155.14	-30.04	155.14	158.03	349.04	0.05
6800.00	1.42	308.90	6796.29	156.51	-31.70	156.51	159.68	348.55	0.39
6900.00	1.48	305.15	6896.26	158.03	-33.72	158.03	161.59	347.95	0.11
7000.00	1.49	301.97	6996.22	159.46	-35.88	159.46	163.45	347.32	0.08
7100.00	1.84	295.87	7096.18	160.85	-38.43	160.85	165.38	346.56	0.39
7200.00	1.55	286.41	7196.14	161.94	-41.18	161.94	167.09	345.73	0.40
7300.00	1.94	291.72	7296.09	162.95	-44.05	162.95	168.79	344.87	0.42
7400.00	1.84	291.53	7396.03	164.16	-47.12	164.16	170.79	343.98	0.10
7500.00	1.88	289.75	7495.98	165.31	-50.16	165.31	172.75	343.12	0.07
7600.00	2.17	286.16	7595.92	166.39	-53.52	166.39	174.79	342.17	0.32
7700.00	2.07	293.37	7695.85	167.63	-57.00	167.63	177.06	341.22	0.29
7800.00	2.08	296.10	7795.79	169.15	-60.28	169.15	179.57	340.38	0.10
7900.00	2.04	298.21	7895.72	170.79	-63.49	170.79	182.21	339.61	0.09
8000.00	1.91	302.59	7995.66	172.53	-66.46	172.53	184.88	338.93	0.20



Vaughn Energy Services
Fort Worth, Texas
817-741-3610
Survey Engineer: Jay Carroll
Birdseye 32 State No. 003H / API 30-015-40891



VES Survey Date: 04/02/2013



COG Birdseye 32 State #3H Gyro + MWD Tie In + 13117ft MD Survey
Geodetic Report
(Def Survey)



Report Date: April 09, 2013 - 09:25 AM
Client: COG
Field: NM Eddy County (NAD 27)
Structure / Slot: COG Birdseye 32 State #3H / COG Birdseye 32 State #3H
Well: COG Birdseye 32 State #3H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: COG Birdseye 32 State #3H Gyro + MWD Tie In + 13117ft MD
Survey Date: April 02, 2013
Tort / AHD / DDI / ERD Ratio: 171.866 * / 4589.302 ft / 6.061 / 0.511
Coordinate Reference System: NAD27 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 36' 38.1440", W 103° 53' 38.13654"
Location Grid N/E Y/X: N 586143.000 NUS, E 635303.800 NUS
CRS Grid Convergence Angle: 0.2368 *
Grid Scale Factor: 0.99993006

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 0.217 * (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB
TVD Reference Elevation: 3473.000 ft above MSL
Seabed / Ground Elevation: 3455.000 ft above MSL
Magnetic Declination: 7.651 *
Total Gravity Field Strength: 998.5141mgn (9.80665 Based)
Total Magnetic Field Strength: 48608.278 nT
Magnetic Dip Angle: 60.405 *
Declination Date: April 02, 2013
Magnetic Declination Model: BGM 2012
North Reference: Grid North
Grid Convergence Used: 0.2368 *
Total Corr Mag North->Grid North: 7.4146 *

Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
SHL	0.00	0.00	0.00	0.00	-3473.00	0.00	0.00	0.00	N/A	586143.00	635303.80	N 32 36 38.31	W 103 53 38.14
	100.00	0.36	41.10	100.00	-3373.00	0.24	0.24	0.21	0.38	586143.24	635304.01	N 32 36 38.32	W 103 53 38.13
	200.00	0.51	39.34	200.00	-3273.00	0.82	0.82	0.70	0.15	586143.82	635304.50	N 32 36 38.32	W 103 53 38.13
	300.00	0.85	33.37	299.99	-3173.01	1.79	1.78	1.39	0.35	586144.78	635305.19	N 32 36 38.33	W 103 53 38.12
	400.00	1.31	15.15	399.97	-3073.03	3.51	3.50	2.09	0.57	586146.50	635305.89	N 32 36 38.35	W 103 53 38.11
	500.00	1.90	10.62	499.93	-2973.07	6.25	6.24	2.70	0.60	586149.24	635306.50	N 32 36 38.38	W 103 53 38.10
	600.00	2.34	8.81	599.86	-2873.14	9.90	9.88	3.31	0.45	586152.88	635307.11	N 32 36 38.41	W 103 53 38.10
	700.00	2.57	5.89	699.77	-2773.23	14.15	14.13	3.86	0.26	586157.13	635307.66	N 32 36 38.45	W 103 53 38.09
	800.00	2.01	2.66	799.69	-2673.31	18.13	18.11	4.17	0.57	586161.11	635307.97	N 32 36 38.49	W 103 53 38.09
	900.00	1.80	357.85	899.64	-2573.36	21.45	21.43	4.19	0.26	586164.43	635307.99	N 32 36 38.53	W 103 53 38.09
1000.00	1.83	354.87	999.59	-2473.41	24.61	24.59	3.99	0.10	586167.59	635307.79	N 32 36 38.56	W 103 53 38.09	
1100.00	1.06	341.19	1099.55	-2373.45	27.07	27.06	3.55	0.84	586170.06	635307.35	N 32 36 38.58	W 103 53 38.09	
1200.00	0.88	336.46	1199.54	-2273.46	28.65	28.64	2.94	0.20	586171.64	635306.74	N 32 36 38.60	W 103 53 38.10	
1300.00	1.03	349.69	1299.53	-2173.47	30.24	30.23	2.48	0.27	586173.23	635306.28	N 32 36 38.61	W 103 53 38.11	
1400.00	0.86	352.35	1399.51	-2073.49	31.86	31.86	2.22	0.18	586174.85	635306.02	N 32 36 38.63	W 103 53 38.11	
1500.00	1.02	12.04	1499.50	-1973.50	33.48	33.47	2.30	0.36	586176.47	635306.10	N 32 36 38.65	W 103 53 38.11	
1600.00	1.53	29.80	1599.47	-1873.53	35.51	35.50	3.15	0.64	586178.50	635306.95	N 32 36 38.67	W 103 53 38.10	
1700.00	2.63	39.25	1699.41	-1773.59	38.45	38.43	5.27	1.15	586181.43	635309.06	N 32 36 38.69	W 103 53 38.07	
1800.00	3.71	44.10	1799.25	-1673.75	42.57	42.53	8.97	1.11	586185.53	635312.77	N 32 36 38.73	W 103 53 38.03	
1900.00	4.16	48.96	1899.02	-1573.98	47.29	47.24	13.96	0.56	586190.24	635317.75	N 32 36 38.78	W 103 53 37.97	
2000.00	3.93	52.54	1998.77	-1474.23	51.78	51.71	19.41	0.34	586194.70	635323.21	N 32 36 38.83	W 103 53 37.91	
2100.00	2.57	64.53	2098.61	-1374.39	54.85	54.75	24.16	1.51	586197.75	635327.95	N 32 36 38.86	W 103 53 37.85	
2200.00	0.75	60.62	2198.56	-1274.44	56.14	56.04	26.75	1.82	586199.04	635330.55	N 32 36 38.87	W 103 53 37.82	
2300.00	1.07	45.30	2298.55	-1174.45	57.12	57.02	27.98	0.40	586200.01	635331.78	N 32 36 38.88	W 103 53 37.81	
2400.00	2.01	32.97	2398.51	-1074.49	59.26	59.15	29.60	0.89	586202.14	635333.40	N 32 36 38.90	W 103 53 37.79	
2500.00	1.69	354.32	2498.46	-974.54	62.20	62.08	30.41	1.26	586205.08	635334.21	N 32 36 38.93	W 103 53 37.78	
2600.00	2.50	341.05	2598.39	-874.61	65.73	65.61	29.58	0.94	586208.61	635333.36	N 32 36 38.96	W 103 53 37.79	
2700.00	2.55	329.40	2698.30	-774.70	69.70	69.59	27.72	0.51	586212.59	635331.51	N 32 36 39.00	W 103 53 37.81	
2800.00	2.49	322.59	2798.20	-674.80	73.33	73.23	25.26	0.31	586216.23	635329.06	N 32 36 39.04	W 103 53 37.84	
2900.00	2.30	320.75	2898.11	-574.89	76.60	76.51	22.68	0.20	586219.51	635326.47	N 32 36 39.07	W 103 53 37.87	
3000.00	2.57	302.09	2998.03	-474.97	79.33	79.26	19.51	0.83	586222.25	635323.30	N 32 36 39.10	W 103 53 37.90	
3100.00	2.44	313.40	3097.93	-375.07	81.97	81.91	16.06	0.51	586224.90	635319.86	N 32 36 39.12	W 103 53 37.94	
3200.00	2.87	319.55	3197.82	-275.18	85.33	85.28	12.89	0.52	586228.27	635316.69	N 32 36 39.16	W 103 53 37.96	
3300.00	2.73	332.50	3297.70	-175.30	89.33	89.30	10.17	0.65	586232.29	635313.96	N 32 36 39.20	W 103 53 38.01	
3400.00	3.19	346.32	3397.57	-75.43	94.14	94.11	8.41	0.85	586237.10	635312.21	N 32 36 39.25	W 103 53 38.03	
3500.00	4.61	349.28	3497.34	24.34	100.79	100.76	7.00	1.43	586243.76	635310.80	N 32 36 39.31	W 103 53 38.05	
3600.00	4.24	346.07	3597.04	124.04	108.32	108.30	5.36	0.45	586251.29	635309.16	N 32 36 39.39	W 103 53 38.07	
3700.00	2.15	338.02	3696.88	223.88	113.64	113.63	3.77	2.13	586256.62	635307.57	N 32 36 39.44	W 103 53 38.09	
3800.00	1.52	325.60	3796.83	323.83	116.47	116.46	2.32	0.74	586259.45	635306.12	N 32 36 39.47	W 103 53 38.10	
3900.00	1.55	326.07	3896.79	423.79	118.68	118.68	0.82	0.03	586261.67	635304.62	N 32 36 39.49	W 103 53 38.12	
4000.00	1.51	328.19	3996.76	523.76	120.92	120.92	-0.63	0.07	586263.91	635303.17	N 32 36 39.51	W 103 53 38.14	
4100.00	1.51	344.14	4096.72	623.72	123.30	123.31	-1.69	0.42	586266.30	635302.11	N 32 36 39.53	W 103 53 38.15	
4200.00	1.31	347.09	4196.69	723.69	125.68	125.69	-2.30	0.21	586268.68	635301.50	N 32 36 39.56	W 103 53 38.16	
4300.00	1.19	346.92	4296.67	823.67	127.80	127.81	-2.79	0.12	586270.81	635301.01	N 32 36 39.58	W 103 53 38.16	
4400.00	1.44	338.32	4396.64	923.64	129.98	129.99	-3.49	0.32	586272.98	635300.31	N 32 36 39.60	W 103 53 38.17	
4500.00	1.35	331.78	4496.61	1023.61	132.18	132.20	-4.51	0.18	586275.19	635299.29	N 32 36 39.62	W 103 53 38.18	
4600.00	1.16	326.31	4596.59	1123.59	134.06	134.08	-5.63	0.22	586277.07	635298.17	N 32 36 39.64	W 103 53 38.20	
4700.00	0.85	345.92	4696.57	1223.57	135.62	135.64	-6.37	0.46	586278.63	635297.43	N 32 36 39.66	W 103 53 38.20	
4800.00	0.96	341.25	4796.56	1323.56	137.13	137.15	-6.82	0.13	586280.14	635296.98	N 32 36 39.67	W 103 53 38.21	
4900.00	0.87	339.64	4896.55	1423.55	138.63	138.66	-7.36	0.09	586281.65	635296.44	N 32 36 39.69	W 103 53 38.22	
5000.00	1.04	334.04	4996.53	1523.53	140.16	140.19	-8.02	0.19	586283.16	635295.78	N 32 36 39.70	W 103 53 38.22	
5100.00	0.97	316.31	5096.52	1623.52	141.58	141.61	-9.00	0.32	586284.60	635294.80	N 32 36 39.72	W 103 53 38.23	
5200.00	0.74	312.14	5196.51	1723.51	142.62	142.66	-10.06	0.24	586285.65	635293.74	N 32 36 39.73	W 103 53 38.25	
5300.00	0.76	315.22	5296.50	1823.50	143.52	143.56	-11.01	0.04	586286.55	635292.79	N 32 36 39.74	W 103 53 38.26	
5400.00	0.72	309.75	5396.49	1923.49	144.39	144.44	-11.96	0.08	586287.43	635291.84	N 32 36 39.74	W 103 53 38.27	
5500.00	0.68	298.19	5496.48	2023.48	145.07	145.12	-12.97	0.15	586288.11	635290.83	N 32 36 39.75	W 103 53 38.28	
5600.00	0.77	292.63	5596.48	2123.48	145.60	145.66	-14.11	0.11	586288.65	635289.69	N 32 36 39.76	W 103 53 38.29	
5700.00	0.83	288.70	5696.47	2223.47	146.09	146.15	-15.42	0.08	586289.14	635288.39	N 32 36 39.76	W 103 53 38.31	
5800.00	0.79	284.85	5796.46	2323.46	146.49	146.56	-16.77	0.07	586289.55	635287.03	N 32 36 39.77	W 103 53 38.33	
5900.00	0.83	294.46	5896.45	2423.45	146.96	147.03	-18.09	0.14	586290.02	635285.71	N 32 36 39.77	W 103 53 38.34	
6000.00	1.01	297.89	5996.43	2523.43	147.67	147.75	-19.53	0.19	586290.74	635284.27	N 32 36 39.78	W 103 53 38.36	
6100.00	1.15	302.34	6096.41	2623.41	148.61	148.69	-21.16	0.16	586291.68	635282.64	N 32 36 39.79	W 103 53 38.38	
6200.00	1.07	293.29	6196.40	2723.40	149.51	149.60	-22.86	0.19	586292.59	635280.94	N 32 36 39.80	W 103 53 38.40	
6300.00	1.19	297.53	6296.38	2823.38	150.36	150.45	-24.64	0.15	586293.44	635279.16	N 32 36 39.80	W 103 53 38.42	
6400.00	1.09	313.06	6396.36	2923.36	151.48	151.58	-26.26	0.32	586294.57	635277.54	N 32 36 39.82	W 103 53 38.44	
6500.00	0.84	315.70	6496.34	3023.34	152.65	152.75	-27.47	0.25	586295.74	635276.34	N 32 36 39.83	W 103 53 38.45	
6600.00	1.06	312.47	6596.33	3123.33	153.79	153.90	-28.66	0.23	586296.89	635275.14	N 32 36 39.84	W 103 53 38.46	
6700.00	1.04	310.09	6696.31										

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northing (RUS)	Easting (RUS)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')
	6900.00	1.48	305.15	6898.26	3423.26	157.67	158.00	-33.72	0.11	586300.98	635270.09	N 32 36 39.88	W 103 53 38.52
	7000.00	1.49	301.97	6996.22	3523.22	159.29	158.43	-35.87	0.08	586302.42	635267.93	N 32 36 39.89	W 103 53 38.55
	7100.00	1.84	295.87	7096.18	3623.18	160.67	160.82	-38.42	0.39	586303.80	635265.38	N 32 36 39.91	W 103 53 38.58
	7200.00	1.55	286.41	7196.14	3723.14	161.74	161.90	-41.16	0.40	586304.89	635262.84	N 32 36 39.92	W 103 53 38.61
	7300.00	1.94	291.72	7296.09	3823.09	162.74	162.91	-44.03	0.42	586305.90	635259.77	N 32 36 39.93	W 103 53 38.64
	7400.00	1.84	291.53	7396.04	3923.04	163.94	164.12	-47.10	0.10	586307.11	635256.70	N 32 36 39.94	W 103 53 38.68
	7500.00	1.88	289.75	7495.98	4022.98	165.08	165.27	-50.14	0.07	586308.25	635253.67	N 32 36 39.95	W 103 53 38.71
	7600.00	2.17	286.16	7595.92	4122.92	166.14	166.35	-53.50	0.32	586309.34	635250.31	N 32 36 39.96	W 103 53 38.75
	7700.00	2.07	283.37	7695.85	4222.85	167.37	167.59	-56.87	0.28	586310.58	635246.83	N 32 36 39.98	W 103 53 38.79
	7800.00	2.08	296.10	7795.79	4322.79	168.68	169.11	-60.26	0.10	586312.09	635243.54	N 32 36 39.99	W 103 53 38.83
	7900.00	2.04	298.21	7895.72	4422.72	170.50	170.75	-63.46	0.09	586313.73	635240.34	N 32 36 40.01	W 103 53 38.87
	8000.00	1.91	302.59	7995.66	4522.66	172.23	172.48	-66.43	0.20	586315.47	635237.37	N 32 36 40.02	W 103 53 38.90
	8136.00	1.67	299.55	8131.60	4658.60	174.42	174.68	-70.07	0.19	586317.67	635233.74	N 32 36 40.05	W 103 53 38.95
	8230.00	1.49	303.15	8225.56	4752.56	175.75	176.03	-72.28	0.22	586319.01	635231.52	N 32 36 40.06	W 103 53 38.97
	8325.00	1.41	308.25	8320.53	4847.53	177.14	177.43	-74.23	0.16	586320.41	635229.27	N 32 36 40.07	W 103 53 39.00
	8420.00	1.49	301.13	8415.50	4942.50	178.50	178.79	-76.21	0.21	586321.77	635227.60	N 32 36 40.09	W 103 53 39.02
	8452.00	1.76	296.82	8447.49	4974.49	178.93	179.22	-77.00	0.93	586322.21	635226.80	N 32 36 40.09	W 103 53 39.03
	8463.00	3.43	343.76	8478.46	5005.46	180.03	180.33	-77.69	8.30	586323.32	635226.12	N 32 36 40.10	W 103 53 39.04
	8515.00	6.86	357.82	8510.33	5037.33	182.86	183.16	-78.03	11.34	586326.15	635225.78	N 32 36 40.13	W 103 53 39.04
	8546.00	10.82	2.48	8540.95	5067.95	187.62	187.92	-77.87	12.87	586330.90	635225.63	N 32 36 40.18	W 103 53 39.04
	8578.00	12.82	9.34	8572.27	5099.27	194.13	194.42	-77.27	7.63	586337.41	635226.54	N 32 36 40.24	W 103 53 39.03
	8610.00	12.86	12.94	8603.49	5130.49	201.06	201.34	-75.90	2.53	586344.33	635227.90	N 32 36 40.31	W 103 53 39.01
	8641.00	15.21	12.77	8633.57	5160.57	208.34	208.62	-74.24	8.23	586351.61	635229.58	N 32 36 40.38	W 103 53 38.99
	8673.00	16.99	11.03	8664.15	5191.15	217.55	217.83	-72.32	11.92	586360.81	635231.48	N 32 36 40.47	W 103 53 38.97
	8705.00	22.77	9.85	8694.04	5221.04	228.78	229.05	-70.26	11.88	586372.03	635233.54	N 32 36 40.58	W 103 53 38.95
	8737.00	26.47	9.88	8723.13	5250.13	241.92	242.18	-67.98	11.56	586385.16	635235.82	N 32 36 40.71	W 103 53 38.92
	8768.00	30.42	10.40	8750.38	5277.38	256.46	256.71	-65.38	12.77	586399.69	635238.43	N 32 36 40.86	W 103 53 38.89
	8800.00	34.38	10.89	8777.39	5304.39	273.32	273.56	-62.21	12.40	586416.54	635241.60	N 32 36 41.02	W 103 53 38.85
	8831.00	38.16	10.41	8802.38	5329.38	291.35	291.58	-58.62	12.23	586434.56	635244.98	N 32 36 41.20	W 103 53 38.81
	8863.00	41.94	8.83	8826.88	5353.88	311.66	311.87	-55.39	12.23	586454.85	635248.41	N 32 36 41.40	W 103 53 38.77
	8895.00	46.17	7.60	8848.87	5376.87	333.69	333.89	-52.22	13.49	586476.87	635251.58	N 32 36 41.62	W 103 53 38.73
	8926.00	50.56	8.29	8870.46	5397.46	356.64	356.83	-49.02	14.26	586499.81	635254.79	N 32 36 41.85	W 103 53 38.69
	8958.00	55.57	9.58	8899.68	5416.68	381.92	382.09	-45.04	15.98	586525.06	635258.77	N 32 36 42.10	W 103 53 38.64
	8990.00	60.06	10.12	8906.72	5433.72	408.61	408.77	-40.40	14.10	586551.74	635263.40	N 32 36 42.38	W 103 53 38.59
	9022.00	63.40	10.03	8921.88	5448.88	436.37	436.51	-35.47	10.44	586579.48	635268.33	N 32 36 42.64	W 103 53 38.53
	9053.00	65.77	9.24	8935.18	5462.18	463.99	464.11	-30.79	7.98	586607.08	635273.02	N 32 36 42.91	W 103 53 38.47
	9085.00	68.76	8.59	8947.55	5474.55	493.16	493.27	-26.22	9.53	586636.23	635277.59	N 32 36 43.20	W 103 53 38.42
	9116.00	72.55	8.85	8957.81	5484.81	522.09	522.17	-21.78	12.25	586665.14	635282.02	N 32 36 43.48	W 103 53 38.37
	9148.00	76.06	9.34	8966.47	5493.47	552.52	552.59	-16.91	11.06	586695.55	635286.89	N 32 36 43.78	W 103 53 38.31
	9180.00	78.96	9.39	8973.39	5500.39	583.36	583.41	-11.82	9.08	586726.37	635291.98	N 32 36 44.09	W 103 53 38.25
	9211.00	81.87	8.86	8976.55	5505.55	613.56	613.59	-6.98	9.54	586756.54	635296.82	N 32 36 44.39	W 103 53 38.19
	9243.00	84.15	8.45	8982.44	5509.44	644.97	644.99	-2.20	7.24	586787.94	635301.60	N 32 36 44.70	W 103 53 38.13
	9275.00	86.35	8.48	8985.09	5512.09	676.53	676.53	2.50	6.88	586819.48	635306.30	N 32 36 45.01	W 103 53 38.07
	9306.00	86.97	8.49	8986.90	5513.90	707.16	707.14	7.06	2.00	586850.08	635310.86	N 32 36 45.31	W 103 53 38.02
	9338.00	88.99	8.25	8988.03	5515.03	738.81	738.77	11.72	6.36	586881.72	635315.52	N 32 36 45.62	W 103 53 37.96
	9369.00	90.04	7.02	8988.29	5515.29	769.55	769.50	15.84	5.22	586912.44	635319.64	N 32 36 45.93	W 103 53 37.91
	9464.00	90.40	6.80	8987.93	5514.93	863.90	863.81	27.27	0.44	587006.74	635331.06	N 32 36 46.86	W 103 53 37.78
	9559.00	90.13	4.46	8987.49	5514.49	958.47	958.34	36.58	2.48	587101.27	635340.38	N 32 36 47.80	W 103 53 37.66
	9654.00	90.22	1.96	8987.20	5514.20	1053.33	1053.18	41.90	2.63	587196.11	635345.70	N 32 36 48.73	W 103 53 37.60
	9749.00	90.57	359.75	8986.54	5513.54	1148.32	1148.16	43.32	2.36	587291.08	635347.12	N 32 36 49.67	W 103 53 37.57
	9844.00	92.24	0.02	8984.21	5511.21	1243.29	1243.13	43.13	1.78	587386.04	635346.93	N 32 36 50.81	W 103 53 37.57
	9839.00	90.92	359.99	8981.59	5508.59	1338.25	1338.09	43.14	1.39	587481.00	635346.94	N 32 36 51.55	W 103 53 37.57
	10034.00	91.19	0.05	8979.84	5506.84	1433.23	1433.08	43.17	0.29	587575.97	635346.97	N 32 36 52.49	W 103 53 37.56
	10129.00	91.89	359.85	8977.29	5504.29	1528.19	1528.04	43.09	0.77	587670.93	635346.89	N 32 36 53.47	W 103 53 37.56
	10224.00	90.40	0.05	8975.39	5502.39	1623.17	1623.02	43.01	1.58	587765.90	635346.80	N 32 36 54.37	W 103 53 37.56
	10319.00	90.92	359.91	8974.30	5501.30	1718.16	1718.01	42.87	0.57	587860.89	635346.77	N 32 36 55.31	W 103 53 37.55
	10414.00	91.63	0.30	8972.18	5499.18	1813.14	1812.99	43.15	0.85	587955.86	635346.94	N 32 36 56.25	W 103 53 37.54
	10509.00	93.12	0.27	8968.25	5495.25	1908.05	1907.90	43.82	1.57	588050.77	635347.42	N 32 36 57.19	W 103 53 37.53
	10603.00	91.63	0.62	8964.35	5491.35	2001.97	2001.82	44.35	1.63	588144.67	635348.15	N 32 36 58.12	W 103 53 37.52
	10698.00	91.10	1.14	8962.09	5489.09	2096.94	2096.78	45.81	0.78	588239.63	635349.60	N 32 36 59.06	W 103 53 37.50
	10793.00	92.51	1.08	8959.10	5486.10	2191.88	2191.71	47.65	1.49	588334.55	635351.44	N 32 37 0.00	W 103 53 37.47
	10888.00	90.66	1.19	8956.47	5483.47	2286.82	2286.65	49.53	1.95	588428.49	635353.32	N 32 37 0.94	W 103 53 37.45
	10983.00	91.98	1.47	8954.28	5481.28	2381.78	2381.60	51.73	1.42	588524.43	635355.53	N 32 37 1.88	W 103 53 37.42
	11078.00	92.68	359.75	8950.42	5477.42	2476.69	2476.51	52.74	1.95	588619.33	635356.54	N 32 37 2.82	W 103 53 37.40
	11173.00	91.63	359.58	8946.85	5473.85	2571.62	2571.44	52.19	1.12	588714.26	635355.98	N 32 37 3.76	W 103 53 37.40
	11267.00	92.33	0.28	8943.60	5470.60	2665.56	2665.38	52.07	1.05	588808.19	635355.87	N 32 37 4.69	W 103 53 37.40
	11362.00	89.78	0.10	8941.85	5468.85	2760.54	2760.36	52.39	2.69	588903.16	635356.18	N 32 37 5.63	W 103 53 37.39
	11457.00	89.96	0.63	8942.06	5469.06	2855.54	2855.36	52.99	0.59	588998.15	635356.79	N 32 37 6.57	W 103 53 37.38
	11552.00	89.60	0.45	8942.43	5469.43	2950.53	2950.35	53.89	0.42	589093.14	635357.69	N 32 37 7.51	W 103 53 37.36
	11647.00	90.57	359.31	8942.29	5469.29	3045.53	3045.35	53.69	1.58	589188.13	635357.49	N 32 37 8.45	W 103 53 37.36
	11743.00	91.19	359.58	8940.81	5467.81	3141.51	3141.33	52.76	0.70	589284.11	635356.56	N 32 37 9.39	W 103 53 37.37
	11837.00												

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS ("/100ft)	Northing (NUS)	Easting (EUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
Description	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey						
	0.000	18.000		Act Stns	30.000	30.000	SLB_NSG+MSHOT-Depth Only	Original Borehole / COG Birdseye 32 State #3H Gyro + MWD Tie In + 13117ft MD					
	18.000	8000.000		Act Stns	30.000	30.000	SLB_NSG+MSHOT	Original Borehole / COG Birdseye 32 State #3H Gyro + MWD Tie In					
	8000.000	12976.000		Act Stns	30.000	30.000	SLB_MWD-STD	Original Borehole / COG Birdseye 32 State #3H Gyro + MWD Tie In					
	12976.000	13117.000		Act Stns	30.000	30.000	SLB_BLIND+TREND	Original Borehole / COG Birdseye 32 State #3H Gyro + MWD Tie In					

WELL: Birdseye 32 State #3H		FIELD: Eddy County, NM (NAD 27)		STRUCTURE: Patriot 6	
Magnetic Parameters Model: BIGGAM 2012 Dg: 60.405° Date: April 02, 2013 Mga Dec: 7.651° PS: 44600 InT		Surface Location Lat: N 31 36.35 314 Northing: 586143.00 FCUS Grid Zone: 0 23T Lon: W 101 53.35 137 Easting: 635320.00 FCUS Scale Plot: 0.99993006		Miscellaneous Sho: Birdseye 32 State #3H TYD Ref: RKKH34736 above MSL Plot: Rev: ggs 5Am13 Srv Date: April 02, 2013	

