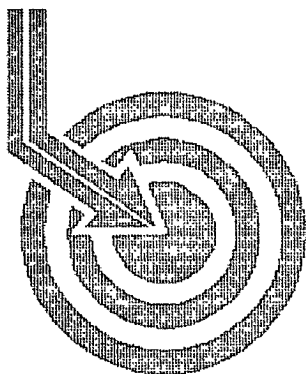
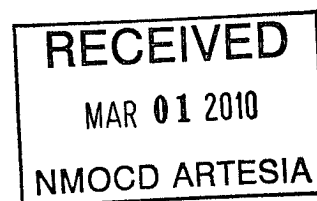




Scientific Drilling



COG RESOURCES

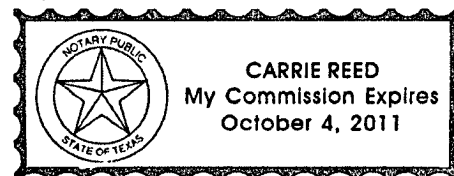
Field: Fren
Site: Eddy County, NM
Well: Skelly Unit #639
Wellpath: DH - Job #32D1209525
Survey: 12/07/09-12/11/09

This survey is correct to the best of my knowledge
and is supported by actual field data.

.....*R. Wharton*..... Company Representative

Notorized this date 3/20 of December, 2009.

Carrie Reed
Notary Signature
County of Midland
State of Texas





Scientific
Drilling

Scientific Drilling International

Survey Report

Company: COG RESOURCES	Date: 12/08/2009	Time: 14:36:33	Page: 1
Field: Fren	Co-ordinate(NE) Reference:	Site: Eddy County, NM, Grd North	
Site: Eddy County, NM	Vertical (TVD) Reference:	SITE 0.0	
Well: Skelly Unit #639	Section (VS) Reference:	Well (0.00N,0.00E,59.40Azi)	
Wellpath: VH - Job #32K1209533	Survey Calculation Method:	Minimum Curvature	Db: Sybase

Survey: 12/06/09	Start Date: 12/06/2009
KSRG 0'-1732'	
Company: Scientific Drilling Internatio	Engineer: Melendez w/Gray
Tool: Keeper;Keeper Gyro	Tied-to: From Surface

Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
0.00	0.00	359.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.42	264.66	100.00	-0.33	-0.03	-0.36	0.42	0.37	264.66
200.00	0.71	200.79	199.99	-1.15	-0.65	-0.95	0.65	1.15	235.72
300.00	0.71	194.36	299.99	-2.07	-1.83	-1.32	0.08	2.26	215.92
400.00	0.70	187.21	399.98	-2.88	-3.03	-1.55	0.09	3.41	207.12
500.00	0.74	159.98	499.97	-3.37	-4.25	-1.41	0.34	4.47	198.36
600.00	0.81	165.28	599.96	-3.69	-5.54	-1.01	0.10	5.63	190.32
700.00	0.78	170.97	699.95	-4.13	-6.89	-0.72	0.08	6.93	185.98
800.00	0.71	165.39	799.94	-4.55	-8.16	-0.46	0.10	8.18	183.22
900.00	0.83	170.67	899.94	-4.98	-9.48	-0.19	0.14	9.48	181.12
1000.00	0.83	164.87	999.93	-5.44	-10.89	0.12	0.08	10.89	179.36
1100.00	0.96	170.34	1099.91	-5.93	-12.42	0.45	0.16	12.43	177.92
1200.00	0.97	165.78	1199.90	-6.47	-14.06	0.80	0.08	14.09	176.75
1300.00	0.95	141.14	1299.89	-6.59	-15.53	1.53	0.41	15.60	174.38
1400.00	1.32	125.17	1399.87	-6.00	-16.84	2.99	0.48	17.10	169.93
1500.00	1.57	110.72	1499.83	-4.67	-17.99	5.21	0.44	18.73	163.84
1600.00	1.84	102.95	1599.79	-2.65	-18.83	8.06	0.35	20.48	156.83
1700.00	1.91	102.90	1699.74	-0.28	-19.56	11.25	0.07	22.57	150.11
1732.00	1.92	105.43	1731.72	0.48	-19.82	12.28	0.27	23.32	148.22



Scientific
Drilling

Scientific Drilling International Survey Report

Company: COG RESOURCES	Date: 12/16/2009	Time: 12:33:20	Page: 1
Field: Fren	Co-ordinate(NE) Reference:	Site: Eddy County, NM, Grid North	
Site: Eddy County, NM	Vertical (TVD) Reference:	SITE 0.0	
Well: Skelly Unit #639	Section (VS) Reference:	Well (0.00N,0.00E,59.40Azi)	
Wellpath: DH- Job #32D1209525	Survey Calculation Method:	Minimum Curvature	Db: Sybase

Survey: 12/07/09-12/11/09	Start Date: 12/07/2009
MWD 1802'-5382'	
Company: Scientific Drilling Internatio	Engineer: Lopez/Baldwin
Tool: MWD;MWD	Tied-to: From: Definitive Path

Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
1732.00	1.92	105.43	1731.72	0.48	-19.82	12.28	0.00	23.32	148.22
1802.00	1.93	100.71	1801.68	2.18	-20.36	14.57	0.23	25.03	144.40
1865.00	2.61	87.25	1864.63	4.25	-20.48	17.05	1.36	26.65	140.23
1928.00	2.86	62.52	1927.56	7.08	-19.69	19.87	1.90	27.98	134.73
1990.00	3.80	55.26	1989.46	10.68	-17.81	22.93	1.66	29.04	127.82
2053.00	4.67	54.86	2052.28	15.32	-15.14	26.75	1.38	30.74	119.51
2148.00	4.59	55.53	2146.97	22.96	-10.76	33.04	0.10	34.75	108.04
2241.00	4.47	52.51	2239.68	30.27	-6.45	38.99	0.29	39.52	99.39
2335.00	3.79	52.06	2333.44	36.99	-2.31	44.34	0.72	44.40	92.98
2430.00	3.25	61.34	2428.26	42.80	0.91	49.18	0.82	49.19	88.94
2523.00	3.99	51.28	2521.07	48.64	4.20	54.02	1.05	54.18	85.55
2625.00	4.43	53.82	2622.80	56.07	8.74	59.97	0.47	60.60	81.70
2718.00	3.67	53.90	2715.57	62.61	12.62	65.27	0.82	66.48	79.06
2812.00	4.80	54.19	2809.31	69.52	16.69	70.89	1.20	72.83	76.75
2907.00	4.59	53.20	2903.99	77.26	21.30	77.16	0.24	80.05	74.57
3001.00	5.38	50.75	2997.63	85.35	26.34	83.59	0.87	87.64	72.51
3095.00	4.40	48.76	3091.29	93.25	31.50	89.71	1.06	95.08	70.65
3189.00	4.10	46.91	3185.03	100.08	36.17	94.87	0.35	101.54	69.13
3283.00	6.05	54.63	3278.66	108.30	41.34	101.37	2.19	109.47	67.81
3377.00	5.67	57.08	3372.17	117.87	46.73	109.31	0.48	118.88	66.85
3471.00	5.31	56.39	3465.74	126.86	51.66	116.83	0.39	127.74	66.15
3565.00	4.97	53.61	3559.36	135.25	56.48	123.73	0.45	136.01	65.46
3659.00	4.57	53.27	3653.03	143.02	61.14	130.01	0.43	143.66	64.81
3753.00	5.92	51.83	3746.64	151.55	66.37	136.82	1.44	152.07	64.12
3847.00	5.71	47.71	3840.15	160.94	72.52	144.09	0.50	161.31	63.28
3942.00	5.69	46.33	3934.68	170.15	78.95	150.99	0.15	170.39	62.40
4035.00	5.43	43.89	4027.25	178.88	85.30	157.38	0.38	179.01	61.54
4128.00	5.50	46.63	4119.82	187.47	91.54	163.67	0.29	187.53	60.78
4223.00	5.24	47.00	4214.41	196.15	97.62	170.15	0.28	196.16	60.16
4317.00	5.03	45.91	4308.03	204.35	103.41	176.25	0.25	204.35	59.60
4411.00	5.17	57.36	4401.66	212.59	108.57	182.78	1.09	212.59	59.29
4505.00	4.85	57.88	4495.30	220.79	112.96	189.71	0.34	220.79	59.23
4599.00	4.71	58.80	4588.97	228.62	117.08	196.37	0.17	228.62	59.20
4693.00	3.34	57.63	4682.74	235.22	120.54	201.99	1.46	235.22	59.17
4787.00	2.49	57.97	4776.62	240.00	123.09	206.03	0.90	240.00	59.14
4881.00	1.31	59.78	4870.56	243.11	124.71	208.69	1.26	243.12	59.14
4975.00	0.49	65.98	4964.55	244.59	125.42	209.99	0.88	244.59	59.15
5069.00	0.55	54.65	5058.55	245.44	125.84	210.72	0.13	245.44	59.15
5162.00	0.58	49.38	5151.54	246.34	126.41	211.44	0.06	246.35	59.13
5256.00	0.86	53.99	5245.53	247.52	127.13	212.38	0.30	247.52	59.09
5382.00	0.75	70.95	5371.52	249.27	127.96	213.92	0.21	249.27	59.11