

Scientific Drilling

COG RESOURCES

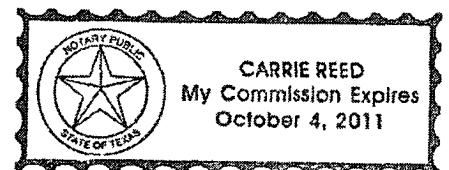
Field: Crow Flats
Site: Eddy County, NM
Well: Comet 22 Federal #3
Wellpath: VH - Job #32K0709253
Survey: 07/11/09

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

Robert Company Representative

Notorized this date 31st of July, 2009.

Carrie Reed
Notary Signature
County of Midland
State of Texas





Scientific
Drilling

Scientific Drilling International Survey Report

Company: COG RESOURCES	Date: 07/31/2009	Time: 09:09:25	Page: 1
Field: Crow Flats	Co-ordinate(NE) Reference:	Site: Eddy County, NM, Grid North	
Site: Eddy County, NM	Vertical (TVD) Reference:	SITE 0.0	
Well: Comet 22 Federal #3	Section (VS) Reference:	Well (0.00N.0.00E.251.70Azi)	
Wellpath: VH - Job #32K0709253	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Survey: 07/11/09	Start Date: 07/11/2009
KSRG 0'-3932'	
Company: Scientific Drilling Internatio	Engineer: Madrid/Garza
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.38	313.44	100.00	0.16	0.23	-0.24	0.38	0.33	313.44
200.00	0.83	325.40	199.99	0.52	1.05	-0.89	0.46	1.38	319.68
300.00	1.18	319.74	299.98	1.11	2.43	-1.97	0.36	3.13	321.02
400.00	1.22	322.07	399.96	1.85	4.06	-3.29	0.06	5.23	320.98
500.00	1.26	322.58	499.93	2.57	5.77	-4.61	0.04	7.39	321.38
600.00	1.04	324.58	599.91	3.19	7.39	-5.81	0.22	9.39	321.83
700.00	0.79	321.65	699.90	3.70	8.67	-6.76	0.25	10.99	322.04
800.00	0.63	327.03	799.89	4.07	9.67	-7.49	0.17	12.23	322.25
900.00	0.39	324.92	899.89	4.31	10.41	-7.98	0.24	13.12	322.51
1000.00	0.25	334.12	999.89	4.44	10.88	-8.27	0.15	13.67	322.76
1100.00	0.09	288.76	1099.89	4.53	11.10	-8.44	0.20	13.95	322.75
1200.00	0.14	299.76	1199.89	4.67	11.19	-8.62	0.05	14.13	322.38
1300.00	0.16	195.89	1299.89	4.83	11.12	-8.77	0.24	14.16	321.74
1400.00	0.41	149.01	1399.88	4.83	10.67	-8.62	0.32	13.72	321.08
1500.00	0.54	148.75	1499.88	4.65	9.97	-8.19	0.13	12.90	320.58
1600.00	0.60	167.00	1599.88	4.59	9.05	-7.83	0.19	11.97	319.14
1700.00	0.50	166.79	1699.87	4.68	8.12	-7.61	0.10	11.13	316.84
1800.00	0.56	188.96	1799.87	4.94	7.21	-7.59	0.21	10.47	313.53
1900.00	0.44	188.20	1899.86	5.34	6.35	-7.72	0.12	9.99	309.43
2000.00	0.39	201.86	1999.86	5.73	5.65	-7.90	0.11	9.71	305.57
2100.00	0.41	199.85	2099.86	6.17	5.00	-8.15	0.02	9.56	301.52
2200.00	0.41	206.33	2199.86	6.64	4.34	-8.43	0.05	9.48	297.25
2300.00	0.43	206.78	2299.85	7.16	3.69	-8.76	0.02	9.50	292.83
2400.00	0.39	203.85	2399.85	7.65	3.04	-9.06	0.05	9.56	288.54
2500.00	0.54	211.36	2499.85	8.24	2.33	-9.45	0.16	9.73	283.83
2600.00	0.55	212.01	2599.84	8.97	1.52	-9.95	0.01	10.06	278.67
2700.00	0.54	227.26	2699.84	9.77	0.79	-10.55	0.14	10.58	274.28
2800.00	0.56	226.28	2799.83	10.64	0.13	-11.25	0.02	11.25	270.67
2900.00	0.55	230.10	2899.83	11.52	-0.51	-11.97	0.04	11.98	267.54
3000.00	0.65	225.35	2999.82	12.48	-1.22	-12.74	0.11	12.80	264.53
3100.00	0.61	216.76	3099.82	13.42	-2.05	-13.46	0.10	13.62	261.36
3200.00	0.57	202.96	3199.81	14.19	-2.93	-13.97	0.15	14.28	258.16
3300.00	0.48	198.58	3299.81	14.77	-3.78	-14.30	0.10	14.79	255.18
3400.00	0.39	193.65	3399.80	15.20	-4.51	-14.52	0.10	15.20	252.73
3500.00	0.34	216.79	3499.80	15.62	-5.08	-14.77	0.15	15.62	251.02
3600.00	0.30	237.38	3599.80	16.12	-5.46	-15.17	0.12	16.12	250.21
3700.00	0.24	260.97	3699.80	16.58	-5.63	-15.60	0.13	16.58	250.14
3800.00	0.20	308.76	3799.80	16.88	-5.56	-15.94	0.18	16.88	250.78
3900.00	0.26	271.74	3899.80	17.19	-5.44	-16.30	0.16	17.19	251.55
3932.00	0.08	322.97	3931.80	17.26	-5.42	-16.39	0.68	17.26	251.70