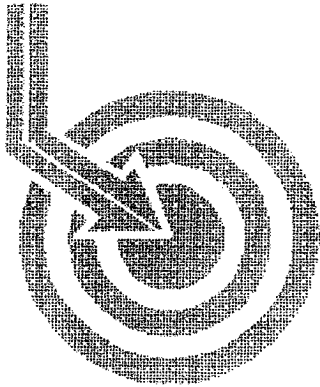




Scientific Drilling



COG RESOURCES

Field: East Empire Yeso
Site: Eddy County, NM
Well: White Star Fed #21
Wellpath: DH - Job #32D0903713
Survey: 09/02/06-09/11/06

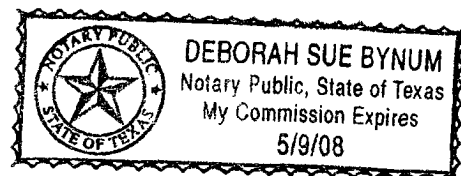
S

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

.....*Richard*.....Company Representative

Notorized this date 29th of October, 2006.

Deborah Sue Bynum
Notary Signature
County of Midland
State of Texas





Scientific Drilling International Survey Report

Company: COG RESOURCES Date: 10/29/2006 Time: 13:37:00 Page: 1
Field: East Empire Yeso Co-ordinate(NE) Reference: Site: Eddy County, NM, Grid North
Site: Eddy County, NM Vertical (TVD) Reference: SITE 0.0
Well: White Star Fed #21 Section (VS) Reference: Well (0.00N,0.00E,2.69Azi)
Wellpath: VH - Job #32K0906716 Survey Calculation Method: Minimum Curvature Db: Sybase

Survey: 09/03/06 Start Date: 09/03/2006
KSRG 0'-1260'
Company: Scientific Drilling Internatio Engineer: Gonzales/Madrid
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	359.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.32	197.43	100.00	-0.27	-0.27	-0.08	0.32	0.28	197.43
200.00	0.73	224.36	200.00	-1.02	-0.99	-0.61	0.47	1.16	211.80
300.00	1.20	225.43	299.98	-2.26	-2.18	-1.80	0.47	2.83	219.63
400.00	1.44	224.99	399.95	-3.96	-3.80	-3.44	0.24	5.13	222.12
500.00	1.42	211.72	499.92	-5.97	-5.74	-4.98	0.33	7.60	220.91
600.00	1.31	199.84	599.90	-8.15	-7.87	-6.02	0.30	9.91	217.39
700.00	1.21	179.99	699.87	-10.29	-10.01	-6.41	0.45	11.88	212.63
800.00	1.36	166.69	799.85	-12.49	-12.22	-6.13	0.33	13.67	206.66
900.00	1.44	181.59	899.82	-14.89	-14.63	-5.89	0.37	15.77	201.95
1000.00	0.47	209.78	999.80	-16.51	-16.24	-6.13	1.05	17.36	200.69
1100.00	2.65	291.94	1099.76	-16.11	-15.73	-8.48	2.63	17.87	208.33
1200.00	3.50	8.79	1199.66	-12.31	-11.85	-10.16	3.88	15.61	220.61
1260.00	3.03	4.42	1259.56	-8.91	-8.46	-9.76	0.89	12.91	229.08





Scientific
Drilling

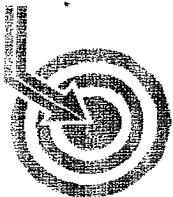
Scientific Drilling International Survey Report

Company: COG RESOURCES	Date: 10/29/2006	Time: 13:42:43	Page: 1
Field: East Empire Yeso	Co-ordinate(NE) Reference:	Site: Eddy County, NM, Grid North	
Site: Eddy County, NM	Vertical (TVD) Reference:	SITE 0.0	
Well: White Star Fed #21	Section (VS) Reference:	Well (0.00N,0.00E,2.69Azi)	
Wellpath: DH - Job #32D0903713	Survey Calculation Method:	Minimum Curvature	Db: Sybase

Survey: 09/02/06-09/11/06	Start Date: 09/02/2006
MWD 1384'-5775'	
Company: Scientific Drilling Internatio	Engineer: Calvert/Hernandez/Rustman/Becc
Tool: MWD;MWD	Tied-to: From: Definitive Path

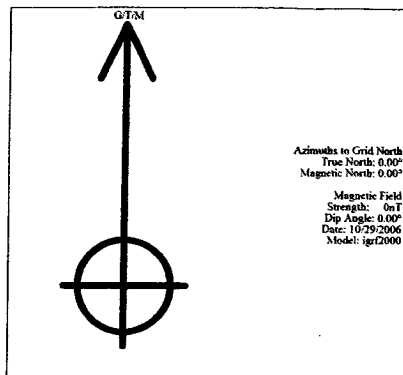
Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
1260.00	3.03	4.42	1259.56	-8.91	-8.46	-9.76	0.00	12.91	229.08
1260.00	3.03	4.42	1259.56	-8.91	-8.46	-9.76	0.00	12.91	229.08
1384.00	4.15	1.98	1383.31	-1.14	-0.71	-9.35	0.91	9.38	265.68
1539.00	3.09	359.50	1538.00	8.64	9.08	-9.19	0.69	12.92	314.64
1663.00	4.11	2.47	1661.76	16.42	16.86	-9.03	0.84	19.12	331.83
1787.00	3.78	0.85	1785.46	24.95	25.38	-8.78	0.28	26.86	340.93
1911.00	3.14	1.17	1909.24	32.43	32.87	-8.65	0.52	33.99	345.26
2069.00	4.02	355.30	2066.93	42.24	42.71	-9.01	0.60	43.65	348.08
2223.00	3.71	353.50	2220.58	52.52	53.04	-10.02	0.22	53.98	349.30
2347.00	4.65	6.81	2344.25	61.49	62.02	-9.88	1.08	62.80	350.95
2502.00	4.80	4.80	2498.72	74.24	74.72	-8.59	0.14	75.21	353.44
2660.00	4.64	5.27	2656.18	87.23	87.67	-7.45	0.10	87.99	355.14
2846.00	4.22	3.21	2841.63	101.59	102.00	-6.38	0.24	102.20	356.42
3002.00	4.16	8.94	2997.21	112.95	113.32	-5.17	0.27	113.44	357.39
3159.00	3.96	1.97	3153.82	124.03	124.36	-4.10	0.34	124.43	358.11
3315.00	4.20	21.01	3309.43	134.84	135.08	-1.87	0.88	135.09	359.21
3502.00	3.89	22.82	3495.96	147.30	147.32	3.05	0.18	147.35	1.18
3690.00	3.65	8.45	3683.56	159.24	159.11	6.40	0.52	159.24	2.30
3845.00	3.88	0.82	3838.23	169.39	169.24	7.20	0.36	169.39	2.44
3940.00	3.67	4.10	3933.02	175.64	175.48	7.46	0.32	175.64	2.43
4095.00	3.82	2.40	4087.69	185.76	185.59	8.03	0.12	185.77	2.48
4250.00	3.39	356.20	4242.38	195.48	195.32	7.94	0.37	195.48	2.33
4434.00	3.95	3.93	4426.01	207.22	207.07	8.02	0.41	207.23	2.22
4598.00	3.60	6.04	4589.65	218.01	217.83	8.95	0.23	218.01	2.35
4721.00	3.44	354.00	4712.42	225.51	225.34	8.97	0.61	225.52	2.28
4876.00	3.61	354.10	4867.13	234.93	234.82	7.98	0.11	234.95	1.95
5031.00	3.81	352.60	5021.80	244.83	244.78	6.82	0.14	244.87	1.59
5124.00	3.91	357.50	5114.59	251.03	251.01	6.28	0.37	251.09	1.43
5280.00	3.97	10.53	5270.23	261.68	261.63	7.03	0.57	261.73	1.54
5437.00	3.95	10.81	5426.85	272.41	272.29	9.04	0.02	272.44	1.90
5561.00	3.86	9.77	5550.56	280.78	280.60	10.55	0.09	280.80	2.15
5723.00	3.65	6.28	5712.22	291.34	291.10	12.04	0.19	291.35	2.37
5775.00	3.58	5.16	5764.11	294.62	294.36	12.37	0.19	294.62	2.41

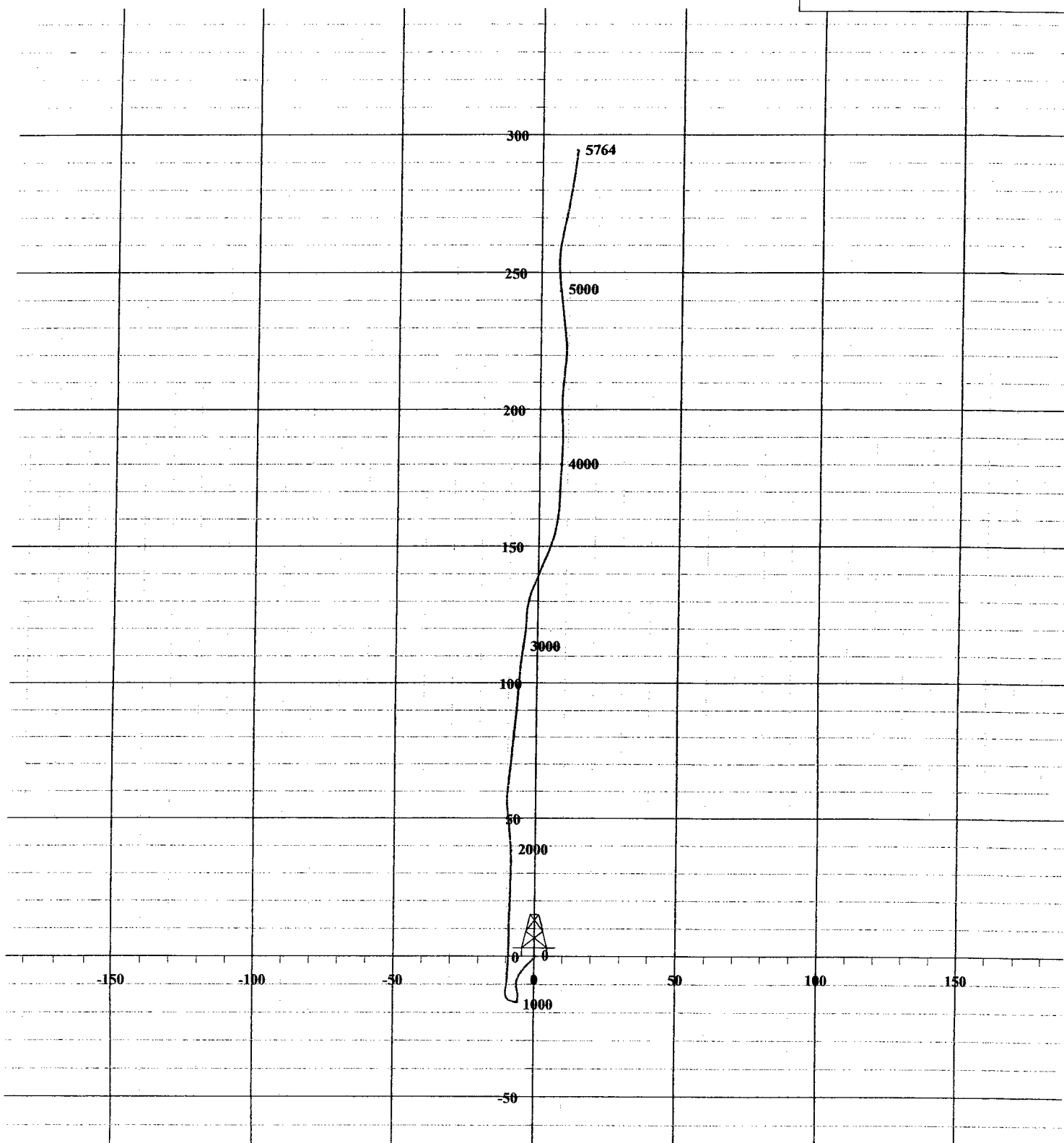


Scientific
Drilling

Field: East Empire Yeso
Site: Eddy County, NM
Well: White Star Fed #21
Wellpath: DH - Job #32D0903713
Survey: 09/02/06-09/11/06



South(-)/North(+) [50ft/in]



West(-)/East(+) [50ft/in]