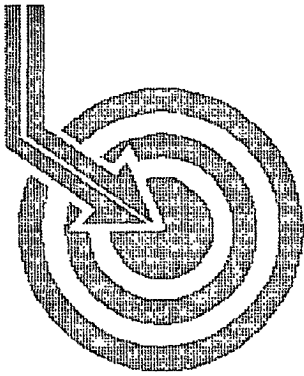


30.015.31583



Scientific Drilling

COG RESOURCES

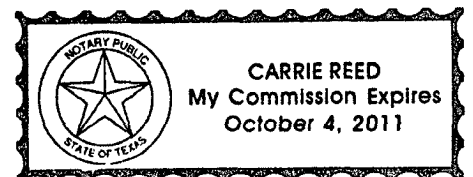
Field: Grayburg Jackson
Site: Eddy County, NM
Well: Texaco BE #5
Wellpath: VH - Job #32K0709255
Survey: 07/14/09

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

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

Notorized this date 31st of July, 2009.

Carrie Reed
Notary Signature
County of Midland
State of Texas



MR



Scientific Drilling International Survey Report

Company: COG RESOURCES
Field: Grayburg Jackson
Site: Eddy County, NM
Well: Texaco BE #5
Wellpath: VH - Job #32K0709255

Date: 07/16/2009
Co-ordinate(NE) Reference: Site: Eddy County, NM, Grid North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,202.87Azi)
Survey Calculation Method: Minimum Curvature
Db: Sybase

Time: 14:20:41
Page: 1

Survey: 07/14/09
Start Date: 07/14/2009
Company: Scientific Drilling Internatio
Engineer: Madrid w/Halliburton
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	0.58	333.95	100.00	-0.33	0.45	-0.22	0.58	0.51	333.95
200.00	0.27	53.17	200.00	-0.87	1.05	-0.26	0.59	1.08	346.31
300.00	0.81	97.18	299.99	-1.26	1.10	0.63	0.64	1.27	29.87
400.00	1.04	123.13	399.98	-1.29	0.52	2.10	0.47	2.16	76.08
500.00	0.78	150.39	499.97	-0.72	-0.57	3.19	0.50	3.24	100.10
600.00	0.31	151.67	599.96	-0.13	-1.40	3.66	0.47	3.91	110.93
700.00	0.34	159.97	699.96	0.25	-1.92	3.89	0.06	4.33	116.24
800.00	0.34	148.13	799.96	0.64	-2.45	4.14	0.07	4.81	120.55
900.00	0.82	94.56	899.95	0.59	-2.75	5.01	0.68	5.72	118.78
1000.00	1.08	83.62	999.94	-0.10	-2.71	6.66	0.32	7.19	112.11
1100.00	1.01	84.03	1099.92	-0.98	-2.51	8.48	0.07	8.84	106.50
1200.00	0.94	90.80	1199.91	-1.71	-2.43	10.17	0.13	10.46	103.44
1300.00	0.95	84.29	1299.90	-2.42	-2.36	11.82	0.11	12.05	101.29
1400.00	0.65	105.18	1399.89	-2.89	-2.43	13.19	0.41	13.41	100.42
1500.00	0.46	106.75	1499.88	-3.01	-2.69	14.12	0.19	14.38	100.78
1600.00	0.44	113.76	1599.88	-3.05	-2.96	14.86	0.06	15.15	101.27
1700.00	0.27	132.76	1699.88	-2.96	-3.27	15.38	0.20	15.73	102.02
1800.00	0.20	145.52	1799.88	-2.79	-3.58	15.66	0.09	16.06	102.88
1900.00	0.37	192.87	1899.87	-2.37	-4.04	15.68	0.28	16.19	104.44
2000.00	0.39	219.06	1999.87	-1.73	-4.62	15.40	0.17	16.07	106.69
2100.00	0.62	215.89	2099.87	-0.88	-5.32	14.86	0.23	15.79	109.69
2200.00	0.52	221.94	2199.86	0.08	-6.09	14.24	0.12	15.49	113.17
2300.00	0.67	224.02	2299.86	1.05	-6.85	13.53	0.15	15.17	116.85
2400.00	0.70	227.82	2399.85	2.15	-7.68	12.68	0.05	14.82	121.22
2500.00	0.85	213.19	2499.84	3.44	-8.71	11.82	0.25	14.68	126.41
2600.00	0.78	213.71	2599.83	4.84	-9.90	11.03	0.07	14.82	131.91
2700.00	0.83	226.69	2699.82	6.17	-10.96	10.13	0.19	14.93	137.27
2800.00	0.87	211.98	2799.81	7.58	-12.10	9.20	0.22	15.20	142.77
2900.00	0.86	216.35	2899.80	9.06	-13.35	8.35	0.07	15.75	147.98
3000.00	0.66	218.14	2999.79	10.34	-14.41	7.55	0.20	16.27	152.34
3100.00	0.65	227.94	3099.78	11.41	-15.24	6.77	0.11	16.68	156.04
3200.00	0.50	232.34	3199.78	12.31	-15.89	6.01	0.16	16.99	159.29
3300.00	0.66	227.35	3299.77	13.21	-16.55	5.24	0.17	17.36	162.43
3400.00	0.66	215.82	3399.77	14.30	-17.40	4.48	0.13	17.97	165.57
3500.00	0.65	220.40	3499.76	15.40	-18.30	3.77	0.05	18.69	168.35
3600.00	0.71	224.41	3599.75	16.52	-19.18	2.97	0.08	19.41	171.19
3700.00	0.86	237.29	3699.74	17.71	-20.03	1.91	0.23	20.12	174.56
3800.00	0.88	213.87	3799.73	19.08	-21.07	0.85	0.35	21.09	177.69
3900.00	0.73	213.74	3899.72	20.46	-22.24	0.07	0.15	22.24	179.83
4000.00	0.77	219.45	3999.71	21.73	-23.29	-0.71	0.08	23.30	181.76
4100.00	0.77	204.83	4099.71	23.05	-24.41	-1.42	0.20	24.46	183.34
4200.00	0.70	216.42	4199.70	24.31	-25.52	-2.07	0.16	25.60	184.63
4300.00	1.13	215.06	4299.68	25.87	-26.81	-3.00	0.43	26.98	186.38
4400.00	1.22	220.72	4399.66	27.85	-28.43	-4.26	0.15	28.74	188.52
4500.00	1.36	229.87	4499.64	29.92	-30.00	-5.86	0.25	30.57	191.05
4600.00	1.44	234.60	4599.61	32.04	-31.49	-7.79	0.14	32.44	193.90
4700.00	1.41	222.48	4699.58	34.27	-33.13	-9.65	0.30	34.50	196.24
4800.00	1.26	212.31	4799.55	36.52	-34.96	-11.07	0.28	36.67	197.56



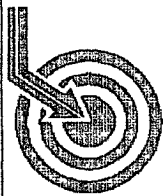
Scientific Drilling International

Survey Report

Company: COG RESOURCES Date: 07/16/2009 Time: 14:20:41 Page: 2
Field: Grayburg Jackson Co-ordinate(NE) Reference: Site: Eddy County, NM, Grid North
Site: Eddy County, NM Vertical (TVD) Reference: SITE 0.0
Well: Texaco BE #5 Section (VS) Reference: Well (0.00N,0.00E,202.87Azi)
Wellpath: VH - Job #32K0709255 Survey Calculation Method: Minimum Curvature Db: Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
4900.00	1.30	207.04	4899.53	38.73	-36.90	-12.17	0.12	38.86	198.25
5000.00	1.22	215.62	4999.50	40.90	-38.78	-13.30	0.20	41.00	198.94
5100.00	1.31	221.88	5099.48	43.02	-40.50	-14.69	0.16	43.08	199.94
5200.00	1.39	215.25	5199.45	45.29	-42.34	-16.15	0.18	45.31	200.88
5300.00	1.13	206.10	5299.43	47.46	-44.21	-17.28	0.33	47.47	201.35
5400.00	0.89	208.16	5399.41	49.21	-45.78	-18.08	0.24	49.23	201.55
5500.00	0.88	216.74	5499.40	50.73	-47.08	-18.91	0.13	50.74	201.88
5600.00	1.11	213.68	5599.38	52.43	-48.51	-19.91	0.24	52.43	202.31
5700.00	1.17	206.72	5699.36	54.40	-50.22	-20.90	0.15	54.40	202.60
5800.00	1.44	203.99	5799.34	56.67	-52.28	-21.87	0.28	56.67	202.70
5860.00	1.49	213.91	5859.32	58.19	-53.62	-22.62	0.43	58.19	202.87



Scientific
Drilling

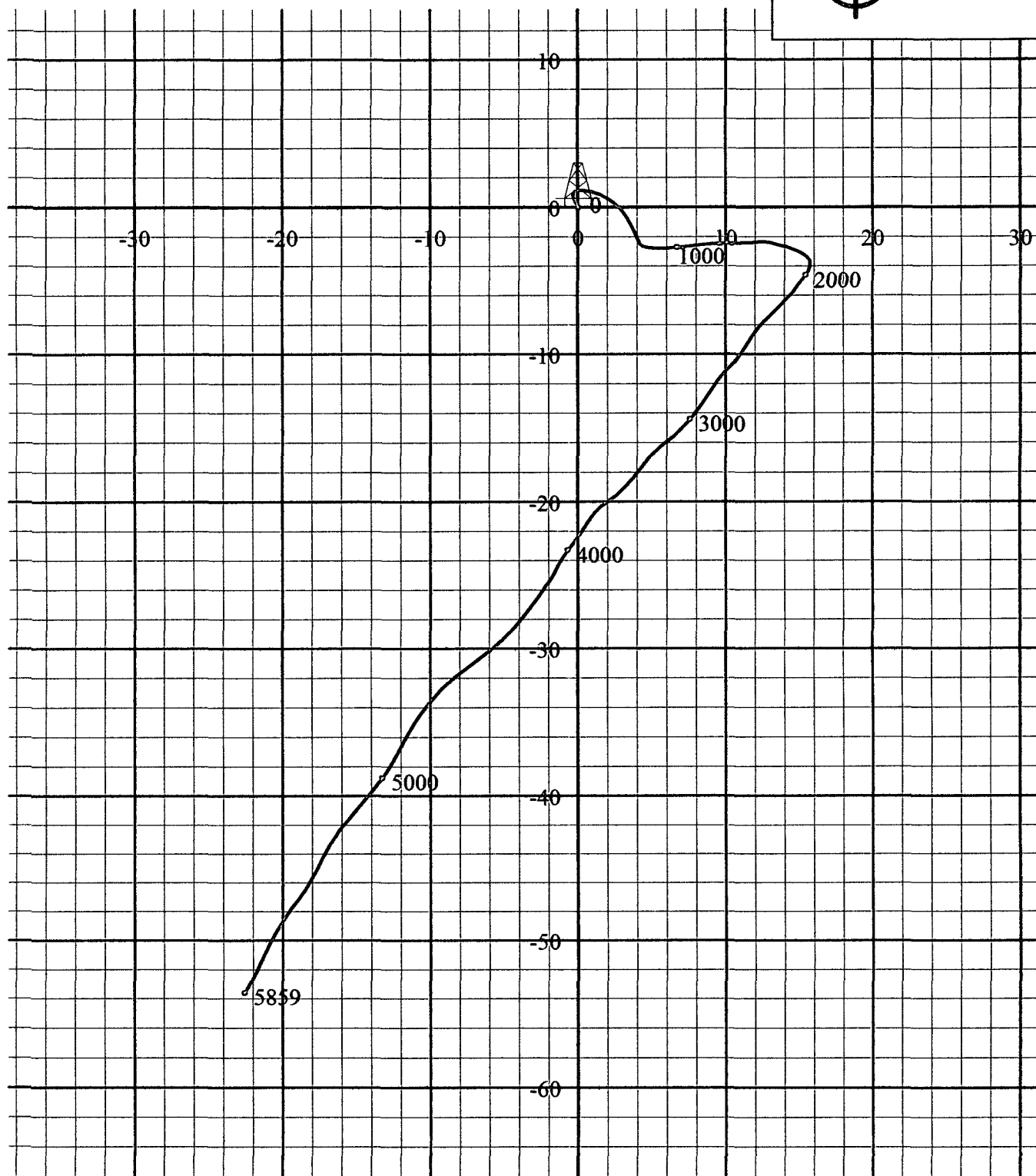
Field: Grayburg Jackson
Site: Eddy County, NM
Well: Texaco BE #5
Wellpath: VH - Job #32K0709255
Survey: 07/14/09



Azimuths to Grid North
True North: 0.00°
Magnetic North: 0.00°

Magnetic Field
Strength: 0nT
Dip Angle: 0.00°
Date: 07/16/2009
Model: igrf2000

South(-)/North(+) [10ft/in]



West(-)/East(+) [10ft/in]