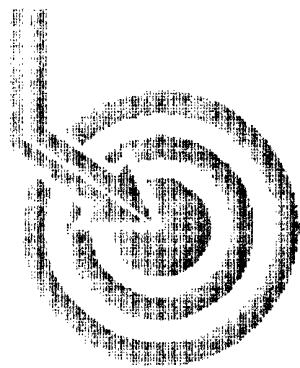




Scientific Drilling

MARBOB ENERGY

Field: Happy Valley
Site: Eddy County, NM
Well: Hackbury 33 Fed Com #1
Wellpath: VH - Job #32K0706575
Survey: 07/20/06

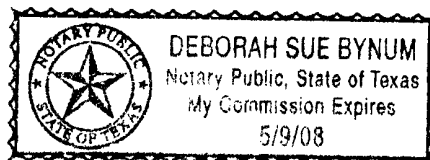
This survey is correct to the best of my knowledge
and is supported by actual field data.

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

Notorized this date 9th of August, 2006.

Deborah Sue Bynum

Notary Signature
County of Midland
State of Texas





Scientific
Drilling

Scientific Drilling International Survey Report

Company: MARBOB ENERGY	Date: 08/09/2006	Time: 16:40:29	Page: 1
Field: Happy Valley	Co-ordinate(NE) Reference:	Site: Eddy County, NM, Grid North	
Site: Eddy County, NM	Vertical (TVD) Reference:	SITE 0.0	
Well: Hackbury 33 Fed Com #1	Section (VS) Reference:	Well (0.00N,0.00E,64.54Azi)	
Wellpath: VH - Job #32K0706575	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Survey: 07/20/06	Start Date: 07/20/2006
KSRG 0'-5467'	
Company: Scientific Drilling Internatio	Engineer: Gonzales/Rowe
Tool: Keeper;Keeper Gyro	Tied-to: From Surface

Survey

MD ft	Incl deg	Azlm deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
0.00	0.00	359.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.53	113.07	100.00	0.31	-0.18	0.43	0.53	0.46	113.07
200.00	0.48	111.99	199.99	0.90	-0.52	1.24	0.05	1.34	112.73
300.00	0.53	111.37	299.99	1.50	-0.84	2.06	0.05	2.23	112.31
400.00	0.45	137.71	399.99	1.93	-1.30	2.75	0.24	3.05	115.34
500.00	0.37	124.45	499.98	2.20	-1.78	3.28	0.12	3.73	118.42
600.00	0.29	138.30	599.98	2.43	-2.15	3.72	0.11	4.29	120.02
700.00	0.10	170.30	699.98	2.48	-2.42	3.90	0.21	4.59	121.85
800.00	0.25	324.94	799.98	2.42	-2.33	3.79	0.34	4.45	121.58
900.00	0.26	342.72	899.98	2.42	-1.94	3.60	0.08	4.09	118.28
1000.00	0.36	359.15	999.98	2.58	-1.40	3.53	0.13	3.80	111.72
1100.00	0.34	8.73	1099.98	2.88	-0.80	3.57	0.06	3.65	102.60
1200.00	0.16	17.90	1199.98	3.14	-0.37	3.65	0.18	3.67	95.80
1300.00	0.09	9.38	1299.98	3.28	-0.16	3.71	0.07	3.71	92.48
1400.00	0.42	55.03	1399.98	3.69	0.13	4.02	0.36	4.03	88.20
1500.00	0.45	43.04	1499.97	4.41	0.62	4.59	0.10	4.63	82.27
1600.00	0.25	43.64	1599.97	4.98	1.07	5.01	0.20	5.12	77.96
1700.00	0.46	55.94	1699.97	5.58	1.45	5.49	0.22	5.68	75.20
1800.00	0.25	33.26	1799.97	6.17	1.86	5.95	0.25	6.23	72.64
1900.00	0.35	47.29	1899.97	6.65	2.25	6.29	0.12	6.68	70.33
2000.00	0.23	49.99	1999.96	7.13	2.58	6.67	0.12	7.15	68.82
2100.00	0.06	8.64	2099.96	7.35	2.77	6.83	0.19	7.37	67.96
2200.00	0.20	287.53	2199.96	7.26	2.87	6.67	0.20	7.26	66.73
2300.00	0.20	302.14	2299.96	7.04	3.01	6.36	0.05	7.04	64.63
2400.00	0.44	282.34	2399.96	6.64	3.19	5.83	0.26	6.65	61.33
2500.00	0.64	287.33	2499.96	5.93	3.44	4.93	0.21	6.01	55.08
2600.00	0.46	302.05	2599.95	5.30	3.82	4.05	0.23	5.57	46.71
2700.00	0.51	300.66	2699.95	4.84	4.26	3.33	0.05	5.40	38.02
2800.00	0.70	305.34	2799.94	4.29	4.84	2.45	0.20	5.42	26.84
2900.00	0.43	326.40	2899.94	3.94	5.50	1.74	0.34	5.77	17.56
3000.00	0.51	299.66	2999.94	3.63	6.04	1.15	0.23	6.14	10.77
3100.00	0.63	319.64	3099.93	3.24	6.68	0.40	0.23	6.69	3.47
3200.00	0.67	311.13	3199.92	2.86	7.48	-0.39	0.10	7.49	357.00
3300.00	0.99	303.34	3299.91	2.18	8.34	-1.55	0.34	8.48	349.45
3400.00	1.11	311.64	3399.90	1.36	9.46	-3.00	0.19	9.92	342.40
3500.00	1.00	314.20	3499.88	0.68	10.71	-4.35	0.12	11.56	337.90
3600.00	1.14	310.28	3599.86	-0.03	11.96	-5.73	0.16	13.26	334.39
3700.00	1.09	305.97	3699.84	-0.90	13.16	-7.26	0.10	15.03	331.11
3800.00	1.26	322.88	3799.82	-1.58	14.60	-8.70	0.38	16.99	329.22
3900.00	1.37	320.09	3899.80	-2.10	16.39	-10.13	0.13	19.27	328.29
4000.00	1.12	325.33	3999.77	-2.55	18.11	-11.45	0.27	21.43	327.70
4100.00	1.15	319.73	4099.75	-2.96	19.68	-12.65	0.11	23.40	327.26
4200.00	1.06	327.37	4199.73	-3.34	21.23	-13.80	0.17	25.32	326.97
4300.00	0.95	328.15	4299.72	-3.54	22.71	-14.74	0.11	27.07	327.02
4400.00	0.85	316.67	4399.71	-3.86	23.95	-15.68	0.21	28.63	326.79
4500.00	0.84	322.49	4499.70	-4.24	25.07	-16.64	0.09	30.09	326.43
4600.00	0.86	329.29	4599.68	-4.47	26.30	-17.47	0.10	31.57	326.41
4700.00	0.43	314.60	4699.68	-4.66	27.21	-18.12	0.46	32.69	326.34
4800.00	0.50	327.27	4799.67	-4.85	27.84	-18.62	0.12	33.49	326.22



Scientific
Drilling

Scientific Drilling International Survey Report

Company: MARBOB ENERGY

Field: Happy Valley

Site: Eddy County, NM

Well: Hackbury 33 Fed Com #1

Wellpath: VH - Job #32K0706575

Date: 08/09/2006

Time: 16:40:29

Page: 2

Co-ordinate(NE) Reference:

Site: Eddy County, NM, Grid North

Vertical (TVD) Reference:

SITE 0.0

Section (VS) Reference:

Well (0.00N,0.00E,64.54Azi)

Survey Calculation Method:

Minimum Curvature

Db: Sybase

Survey

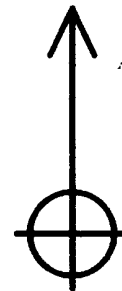
MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
4900.00	0.58	331.20	4899.67	-4.93	28.65	-19.10	0.09	34.43	326.31
5000.00	0.66	333.29	4999.66	-4.97	29.61	-19.60	0.08	35.51	326.49
5100.00	0.67	338.57	5099.66	-4.94	30.67	-20.08	0.06	36.65	326.79
5200.00	0.69	341.44	5199.65	-4.83	31.78	-20.48	0.04	37.81	327.20
5300.00	0.68	342.22	5299.64	-4.68	32.92	-20.85	0.01	38.97	327.64
5400.00	0.66	353.50	5399.64	-4.41	34.06	-21.10	0.13	40.06	328.22
5467.00	0.57	317.55	5466.63	-4.38	34.68	-21.37	0.58	40.74	328.36



**Scientific
Drilling**

Field: Happy Valley
Site: Eddy County, NM
Well: Hackbury 33 Fed Com #1
Wellpath: VH - Job #32K0706575
Survey: 07/20/06

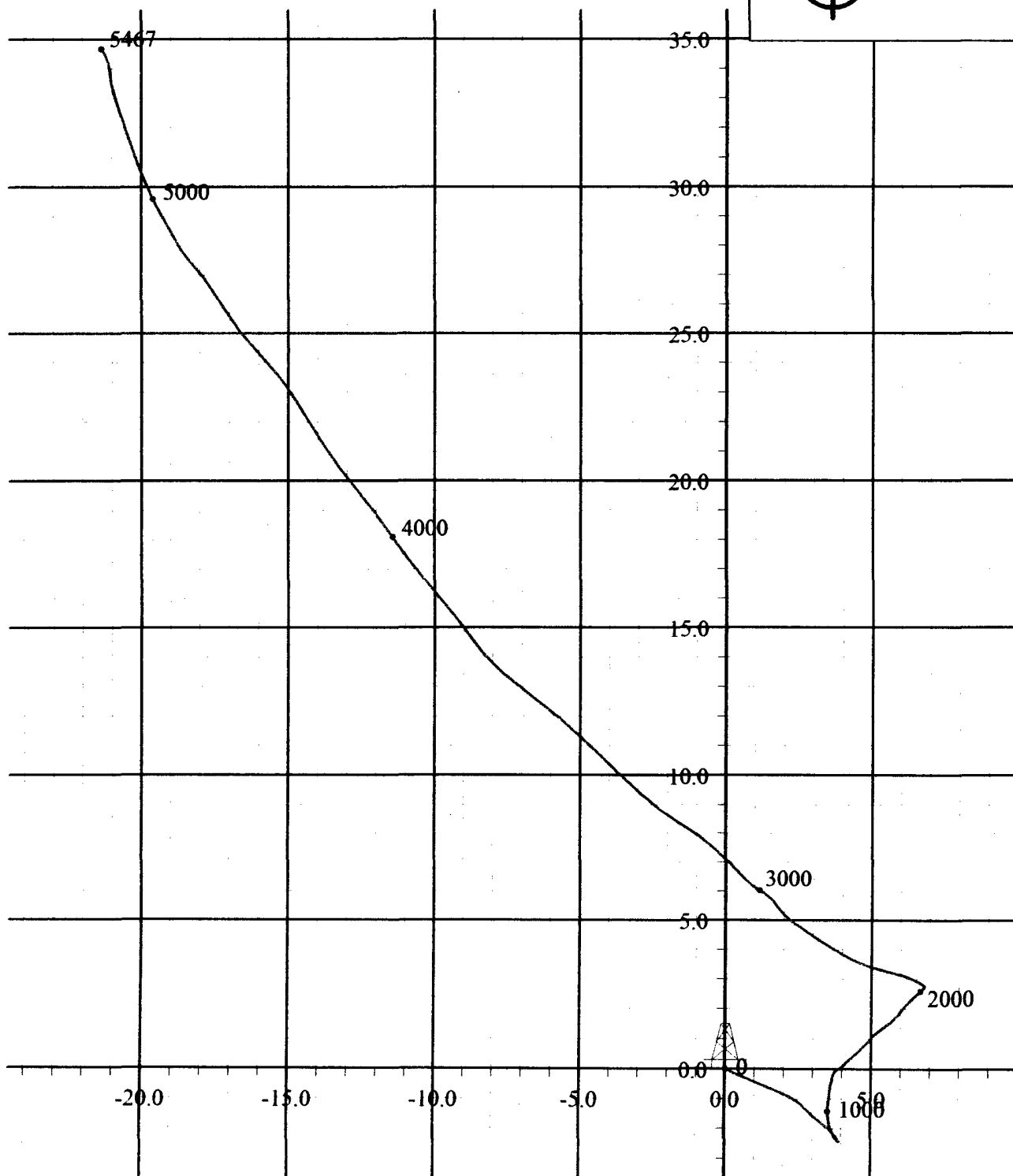
G.T.M.



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

Magnetic Field
Strength: 0nT
Dip Angle: 0.00°
Date: 08/09/2006
Model: igrf2000

South(-)/North(+) [5ft/in]

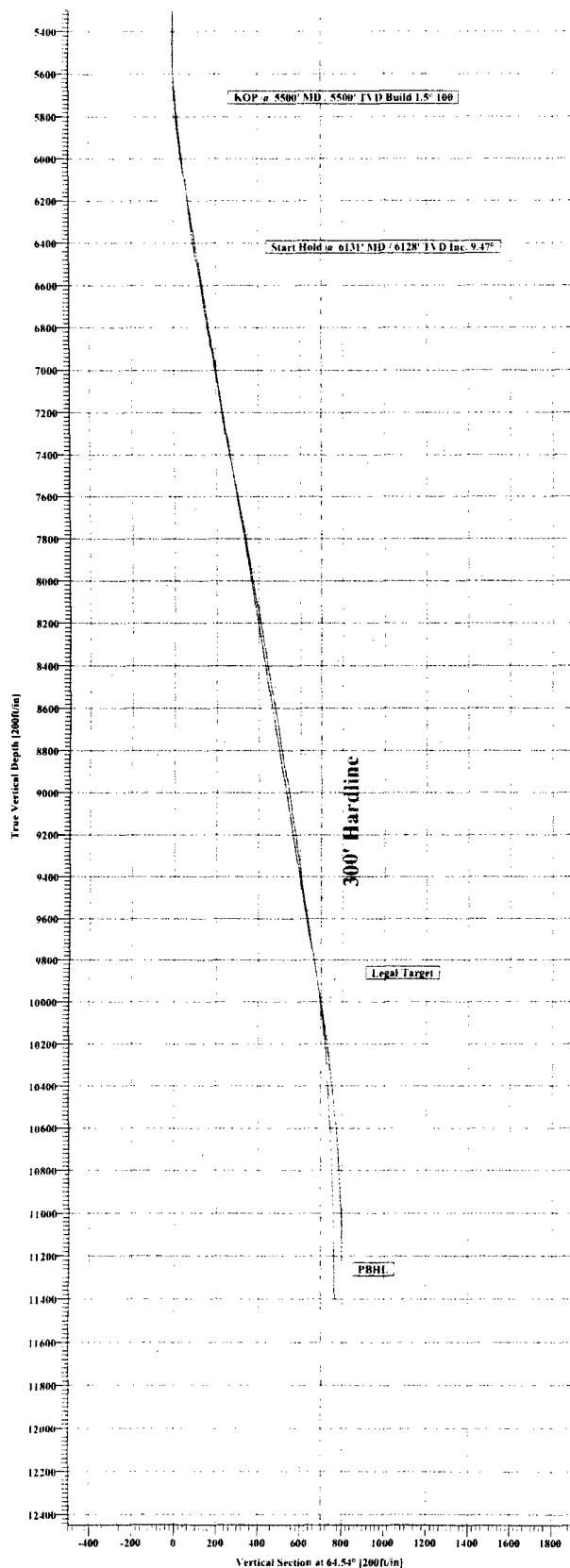


West(-)/East(+) [5ft/in]



Field: Hackberry 33 Fed Com #1
 Site: Hackberry 33 Fed Com #1
 Well: Hackberry 33 Fed Com #1
 Wellpath: Original Hole
 Survey: Pathfinder MWD Surveys

PATHFINDER



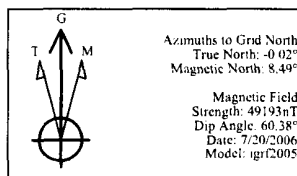
No	MD	Inc	Az	TVD	+N-S	-E-W	DLeg	TFace	VSec
85	10845.00	2.37	57.18	10784.15	361.20	662.76	0.67	-150.72	753.67
86	10907.00	2.11	65.00	10846.10	362.38	664.87	0.65	-134.25	756.08
87	10969.00	1.85	68.17	10908.06	363.23	666.83	0.45	-158.74	758.22
88	11033.00	1.41	75.37	10972.04	363.82	668.56	0.76	-158.61	760.03
89	11094.00	1.32	71.01	11033.02	364.23	669.95	0.23	-133.08	761.46
90	11158.00	1.06	79.07	11097.01	364.59	671.22	0.48	-151.21	762.77
91	11221.00	1.06	51.64	11160.00	365.06	672.25	0.80	-103.71	763.90
92	11285.00	1.96	50.85	11223.99	365.80	673.18	0.02	-90.39	765.05
93	11348.00	0.97	48.57	11286.98	366.52	674.03	0.16	-156.97	766.13
94	11412.00	0.79	40.48	11350.97	367.21	674.72	0.34	-149.38	767.05
95	11470.00	0.79	40.48	11408.96	367.82	675.24	0.00	0.00	767.78

Name	N-S	E-W	Northing	Easting	Latitude	Longitude	Slot
Hackberry 33 Fed Com #1	0.00	0.00	522818.60	508814.80	32°26'14.417N	104°18'17.142W	N/A

Name	TVD	+N-S	+E-W	Shape
Legal Target	10000.00	300.00	630.00	Point
PBHL	11200.00	338.43	724.35	Point

Hackberry 33 Fed Com #1	
Site Centre Northing:	522818.60
Easting:	508814.80
Water Depth:	0.00
Positional Uncertainty:	0.00
Convergence:	0.02

Hackberry 33 Fed Com #1	
Eddy County, New Mexico	
Geodetic System:	US State Plane Coordinate System 1927
Ellipsoid:	NAD27 (Clarke 1866)
Zone:	New Mexico, Eastern Zone
Magnetic Model:	igr2005
System Datum:	Mean Sea Level
Local North:	Grid North



No	TVD	MD	Annotation
1	5499.63	5500.00	KOP @ 5500' MD / 5500' TVD Build 1.5°/100'
2	6127.74	6131.27	Start Hold @ 6131' MD / 6128' TVD Inc. 9.47°

