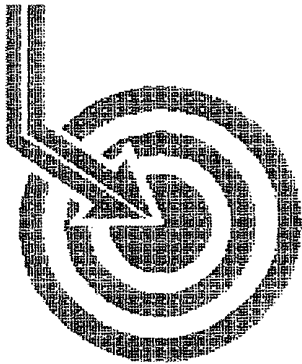




Scientific Drilling

MARBOB ENERGY

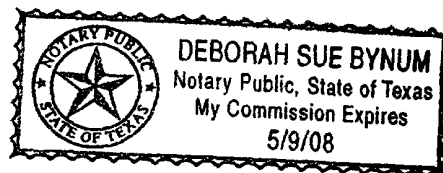
Field: Sly Hawk
Site: Eddy County, NM
Well: Sly Hawk State #3
Wellpath: VH - Job #32K0505373
Survey: 05/22/05

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

Scott Nardy Company Representative

Notorized this date 30th of June, 2005.

Deborah Sue Bynum
Notary Signature
County of Midland
State of Texas





Scientific
Drilling

Scientific Drilling International

Survey Report

Company: MARBOB ENERGY	Date: 6/30/2005	Time: 20:35:25	Page: 1
Field: Sly Hawk	Co-ordinate(NE) Reference:	Site: Eddy County, NM, Grid North	
Site: Eddy County, NM	Vertical (TVD) Reference:	SITE 0.0	
Well: Sly Hawk State #3	Section (V/S) Reference:	Well (0.00N,0.00E,341.39Azi)	
Wellpath: VH - Job #32K0505373	Survey Calculation Method:	Minimum Curvature Db: Sybase	

Survey: 05/22/05	Start Date: 5/22/2005
Company: KSRG 0'-4370'	
Tool: Scientific Drilling Internatio	Engineer: Guebara w/Computalog
Keeper;Keeper Gyro	Tied-to: From Surface

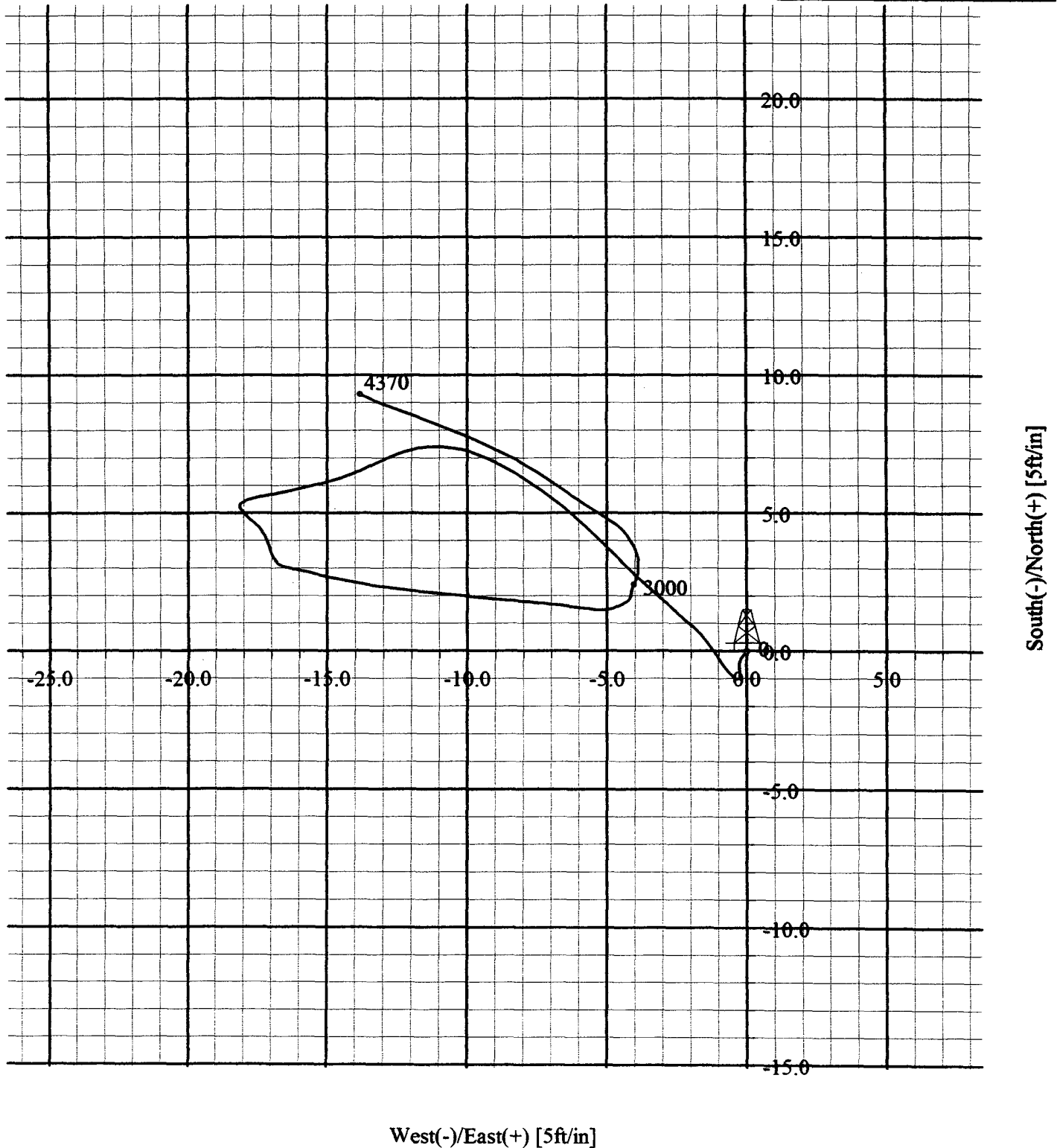
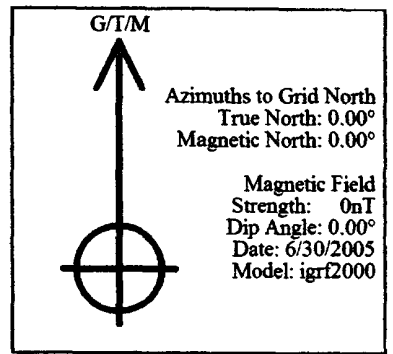
Survey

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	0.21	223.30	100.00	-0.09	-0.13	-0.13	0.21	0.18	223.30
200.00	0.17	180.71	200.00	-0.31	-0.42	-0.25	0.14	0.49	211.38
300.00	0.16	178.34	300.00	-0.59	-0.70	-0.25	0.01	0.75	199.65
400.00	0.16	175.55	400.00	-0.86	-0.98	-0.24	0.01	1.01	193.52
500.00	0.21	305.28	500.00	-0.84	-1.02	-0.37	0.34	1.08	200.27
600.00	0.46	321.34	600.00	-0.32	-0.60	-0.78	0.26	0.98	232.46
700.00	0.54	328.25	699.99	0.52	0.12	-1.27	0.10	1.28	275.31
800.00	0.75	311.51	799.99	1.55	0.95	-2.01	0.28	2.23	295.34
900.00	1.26	312.10	899.97	3.07	2.12	-3.32	0.51	3.94	302.62
1000.00	1.49	316.14	999.94	5.21	3.80	-5.03	0.25	6.31	307.03
1100.00	1.29	307.71	1099.91	7.32	5.42	-6.83	0.29	8.72	308.47
1200.00	0.91	300.49	1199.89	8.86	6.52	-8.40	0.40	10.63	307.80
1300.00	0.81	290.65	1299.88	9.90	7.17	-9.75	0.18	12.10	306.33
1400.00	0.97	269.46	1399.87	10.61	7.41	-11.25	0.36	13.47	303.36
1500.00	1.33	243.18	1499.85	10.71	6.88	-13.14	0.63	14.83	297.63
1600.00	1.25	255.37	1599.83	10.62	6.08	-15.23	0.29	16.40	291.76
1700.00	1.22	260.21	1699.80	10.86	5.62	-17.33	0.11	18.22	287.97
1800.00	0.47	139.15	1799.80	10.64	5.13	-18.11	1.52	18.83	285.82
1900.00	0.41	128.37	1899.79	9.96	4.60	-17.56	0.10	18.16	284.67
2000.00	0.75	162.89	1999.79	9.01	3.75	-17.09	0.47	17.50	282.38
2100.00	0.44	101.70	2099.78	8.16	3.05	-16.52	0.66	16.80	280.45
2200.00	1.50	103.06	2199.77	7.28	2.67	-14.87	1.06	15.11	280.19
2300.00	1.78	96.72	2299.73	5.93	2.20	-12.05	0.33	12.25	280.33
2400.00	1.75	94.82	2399.68	4.66	1.89	-8.99	0.07	9.19	281.85
2500.00	0.92	96.93	2499.65	3.70	1.66	-6.67	0.83	6.88	283.98
2600.00	0.46	98.67	2599.64	3.17	1.50	-5.48	0.46	5.68	285.35
2700.00	0.35	68.51	2699.64	3.00	1.55	-4.80	0.24	5.04	287.96
2800.00	0.25	56.34	2799.64	3.08	1.79	-4.33	0.12	4.69	292.43
2900.00	0.20	359.93	2899.64	3.30	2.08	-4.15	0.22	4.64	296.66
3000.00	0.21	32.65	2999.64	3.58	2.41	-4.05	0.12	4.71	300.77
3100.00	0.28	10.39	3099.64	3.91	2.81	-3.91	0.12	4.81	305.69
3200.00	0.29	352.64	3199.64	4.37	3.30	-3.90	0.09	5.10	310.25
3300.00	0.28	331.18	3299.63	4.86	3.76	-4.05	0.11	5.53	312.92
3400.00	0.31	327.86	3399.63	5.36	4.21	-4.31	0.03	6.02	314.31
3500.00	0.18	300.67	3499.63	5.74	4.52	-4.59	0.17	6.44	314.55
3600.00	0.29	306.98	3599.63	6.07	4.75	-4.92	0.11	6.84	313.95
3700.00	0.32	301.48	3699.63	6.49	5.05	-5.36	0.04	7.36	313.24
3800.00	0.54	303.21	3799.63	7.08	5.45	-6.00	0.22	8.10	312.26
3900.00	0.81	305.97	3899.62	8.03	6.12	-6.96	0.27	9.27	311.32
4000.00	0.95	298.79	3999.61	9.21	6.94	-8.26	0.18	10.79	310.02
4100.00	0.94	293.72	4099.60	10.37	7.67	-9.74	0.08	12.40	308.21
4200.00	0.87	290.84	4199.58	11.41	8.27	-11.20	0.08	13.92	306.43
4300.00	1.04	290.44	4299.57	12.46	8.85	-12.76	0.17	15.53	304.76
4370.00	0.91	295.75	4369.56	13.25	9.32	-13.86	0.23	16.70	303.92



Scientific
Drilling

Field: Sly Hawk
Site: Eddy County, NM
Well: Sly Hawk State #3
Wellpath: VH - Job #32K0505373
Survey: 05/22/05



PathFinder

Survey Report

Company: Marbob Energy	Date: 6/2/2005	Time: 08:48:31	Page: 1
Field: Sly Hawk Field	Co-ordinate(NE) Reference: Well: Sly Hawk State #3, True North		
Site: Sly Hawk State #3	Vertical (TVD) Reference: SITE 0.0		
Well: Sly Hawk State #3	Section (VS) Reference: Well (0.00N,0.00E,341.39Azi)		
Wellpath: Original Hole	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Field: Sly Hawk Field Section 3, T25-S, R28-E Eddy County, New Mexico	Map Zone: New Mexico, Eastern Zone
Map System: US State Plane Coordinate System 1927	Coordinate System: Well Centre
Geo Datum: NAD27 (Clarke 1866)	Geomagnetic Model: igrf2005
Sys Datum: Mean Sea Level	

Site: Sly Hawk State #3
Eddy County, New Mexico

Site Position: Northing: 420373.44 ft Latitude: 32 9 19.660 N
From: Geographic Easting: 579736.06 ft Longitude: 104 4 32.450 W
Position Uncertainty: 0.00 ft North Reference: True
Ground Level: 2995.00 ft Grid Convergence: 0.14 deg

Well: Sly Hawk State #3 **Slot Name:**

Well Position: +N/-S 0.00 ft Northing: 420373.44 ft Latitude: 32 9 19.660 N
 +E/-W 0.00 ft Easting: 579736.06 ft Longitude: 104 4 32.450 W
Position Uncertainty: 0.00 ft

Wellpath: Original Hole

Current Datum: SITE	Height 0.00 ft	Drilled From: Surface
Magnetic Data: 5/19/2005		Tie-on Depth: 0.00 ft
Field Strength: 49161 nT		Above System Datum: Mean Sea Level
Vertical Section: Depth From (TVD)	+N/-S	Declination: 8.52 deg
ft	ft	Mag Dip Angle: 60.18 deg
		+E/-W
		ft
		Direction
		deg
0.00	0.00	341.39

Survey: PathFinder MWD Surveys **Start Date:** 5/24/2005

Company: PathFinder Energy Services **Engineer:** Ron McIntyre
Tool: Tied-to: From: Definitive Path

Survey: PathFinder MWD Surveys

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
4370.00	0.91	295.75	4369.56	9.32	-13.86	13.25	0.00	0.00	0.00	Tie-In to Gyro Begin PathFinder MWD Survey
4382.00	1.23	302.34	4381.56	9.43	-14.05	13.42	2.85	2.67	54.92	
4413.00	2.99	326.16	4412.53	10.28	-14.78	14.46	6.22	5.68	76.84	
4445.00	6.42	333.45	4444.42	12.57	-16.05	17.04	10.86	10.72	22.78	
4508.00	13.81	329.15	4506.40	22.19	-21.48	27.89	11.78	11.73	-6.83	
4570.00	22.07	332.84	4565.34	38.94	-30.61	46.67	13.44	13.32	5.95	
4633.00	30.16	334.95	4621.86	63.85	-42.74	74.15	12.92	12.84	3.35	
4694.00	35.88	337.32	4672.99	94.25	-56.13	107.23	9.61	9.38	3.89	
4757.00	43.44	339.96	4721.46	131.69	-70.69	147.36	12.29	12.00	4.19	
4817.00	51.18	341.19	4762.11	173.26	-85.32	191.43	12.99	12.90	2.05	
4879.00	59.36	342.94	4797.40	221.70	-100.96	242.33	13.40	13.19	2.82	
4940.00	66.13	342.94	4825.32	273.51	-116.86	296.51	11.10	11.10	0.00	
5001.00	72.81	343.56	4846.70	328.19	-133.31	353.57	10.99	10.95	1.02	
5064.00	82.04	343.82	4860.40	387.14	-150.55	414.94	14.66	14.65	0.41	
5125.00	89.25	345.58	4865.03	445.77	-166.59	475.62	12.16	11.82	2.89	
5188.00	89.52	345.14	4865.71	506.72	-182.51	538.47	0.82	0.43	-0.70	
5250.00	90.04	344.96	4865.95	566.62	-198.50	600.34	0.89	0.84	-0.29	
5282.00	90.48	344.88	4865.80	597.51	-206.83	632.28	1.40	1.37	-0.25	
5313.00	90.48	344.88	4865.54	627.44	-214.91	663.22	0.00	0.00	0.00	
5376.00	89.96	344.44	4865.30	688.20	-231.58	726.11	1.08	-0.83	-0.70	
5439.00	89.69	342.86	4865.49	748.65	-249.32	789.06	2.54	-0.43	-2.51	
5500.00	91.89	342.62	4864.65	806.89	-267.41	850.04	3.63	3.61	-0.39	
5563.00	91.71	340.83	4862.67	866.68	-287.16	913.00	2.85	-0.29	-2.84	
5624.00	91.54	340.83	4860.94	924.27	-307.18	973.97	0.28	-0.28	0.00	

PathFinder

Survey Report

Company: Marbob Energy	Date: 6/2/2005	Time: 08:48:31	Page: 2
Field: Sly Hawk Field	Co-ordinate(NE) Reference:	Well: Sly Hawk State #3, True North	
Site: Sly Hawk State #3	Vertical (TVD) Reference:	SITE 0.0	
Well: Sly Hawk State #3	Section (VS) Reference:	Well (0.00N,0.00E,341.39Azi)	
Wellpath: Original Hole	Survey Calculation Method:	Minimum Curvature	Db: Sybase

Survey: PathFinder MWD Surveys

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
5686.00	91.01	340.66	4859.56	982.79	-327.62	1035.96	0.90	-0.85	-0.27	
5748.00	90.57	340.48	4858.71	1041.25	-348.24	1097.94	0.77	-0.71	-0.29	
5811.00	91.89	340.13	4857.36	1100.55	-369.47	1160.92	2.17	2.10	-0.56	
5873.00	91.28	340.04	4855.64	1158.82	-390.58	1222.88	0.99	-0.98	-0.15	
5935.00	91.19	339.87	4854.30	1217.05	-411.83	1284.84	0.31	-0.15	-0.27	
5997.00	91.36	339.52	4852.93	1275.19	-433.34	1346.80	0.63	0.27	-0.56	
6063.00	89.87	338.20	4852.22	1336.74	-457.14	1412.73	3.02	-2.26	-2.00	
6126.00	90.48	337.41	4852.02	1395.07	-480.93	1475.60	1.58	0.97	-1.25	
6186.00	90.57	337.41	4851.47	1450.46	-503.98	1535.46	0.15	0.15	0.00	
6247.00	90.48	337.32	4850.92	1506.76	-527.46	1596.30	0.21	-0.15	-0.15	
6308.00	91.45	337.14	4849.89	1563.00	-551.06	1657.13	1.62	1.59	-0.30	
6371.00	91.10	336.53	4848.49	1620.91	-575.84	1719.92	1.12	-0.56	-0.97	
6433.00	90.48	336.44	4847.63	1677.75	-600.57	1781.69	1.01	-1.00	-0.15	
6494.00	91.19	336.62	4846.74	1733.70	-624.87	1842.46	1.20	1.16	0.30	
6557.00	91.28	338.46	4845.38	1791.90	-648.93	1905.30	2.92	0.14	2.92	
6620.00	91.01	339.17	4844.13	1850.63	-671.69	1968.22	1.21	-0.43	1.13	Last PathFinder MWD Survey
6670.00	91.01	337.19	4843.24	1897.04	-690.27	2018.14	3.96	0.00	-3.96	Bit Projection - TD

Annotation

MD ft	TVD ft	
4370.00	4369.56	Tie-In to Gyro
4382.00	4381.56	Begin PathFinder MWD Surveys
6620.00	4844.13	Last PathFinder MWD Survey
6670.00	4843.24	Bit Projection - TD

Marbob Energy

Sly Hawk State #3
Section 3, T25-S, R28-E
Eddy County, New Mexico
Final Plot - Planned vs Actual

COMPANY DETAILS

Marbob Energy
2208 W. Main St.
Artesia, New Mexico

Calculation Method: Minimum Curvature
Error System: Systematic Ellipse
Scan Method: Closest Approach 3D
Error Surface: Elliptical Conic
Warning Method: Error Ratio

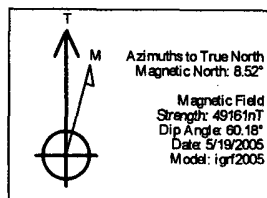
PATHFINDER ENERGY SERVICES

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
Sly Hawk State #3 PBHL	4888.50	1930.00	-650.00	Point

WELLPATH DETAILS

Original Hole			
Rig	L & M #1		
Ref. Datum:	SITE		0.00ft
V. Section Angle	Origin +N/-S	Origin +E/-W	Starting From TVD
341.39°	0.00	0.00	0.00



FIELD DETAILS

Sly Hawk Field
Section 3, T25-S, R28-E
Eddy County, New Mexico
Geodetic System: US State Plane Coordinate System 1927
Ellipsoid: NAD27 (Clarke 1866)
Zone: New Mexico, Eastern Zone
Magnetic Model: mgr2005
System Datum: Mean Sea Level
Local North: True North

