

Scientific Drilling

RECEIVED

NOV 23 2009

HOBBSOCD

MARBOB ENERGY

Field: Lusk Bone Springs
Site: Lea County, NM
Well: Beechcraft Federal #1
Wellpath: VH - Job #32K0809317
Survey: 08/19/09

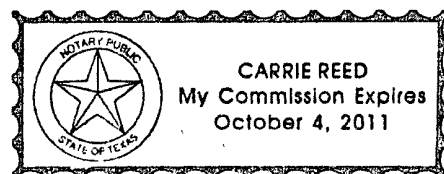
SUR: I-8-19s-32e, 2235/S & 660/E
BHL: P-8-19s-32e, 335/S & 664/E
API #30-025-38816

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

.....*L. Wharton*..... Company Representative

Notorized this date 22nd of September, 2009.

Carrie Reed
Notary Signature
County of Midland
State of Texas





Scientific
Drilling

Scientific Drilling International Survey Report

Company: MARBOB ENERGY	Date: 09/21/2009	Time: 09:54:57	Page: 1
Field: Lusk Bone Springs	Co-ordinate(NE) Reference:	Site: Lea County, NM, Grid North	
Site: Lea County, NM	Vertical (TVD) Reference:	SITE 0.0	
Well: Beechcraft Federal #1	Section (VS) Reference:	Well (0.00N,0.00E,180.00Azi)	
Wellpath: VH - Job #32K0809317	Survey Calculation Method:	Minimum Curvature	Db: Sybase

Survey: 08/19/09	Start Date: 08/19/2009
Company: Scientific Drilling Internatio	Engineer: Madrid/Williams
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	359.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.04	230.91	100.00	0.02	-0.02	-0.03	0.04	0.03	230.91
200.00	0.06	291.74	200.00	0.02	-0.02	-0.10	0.05	0.11	256.53
300.00	0.03	302.12	300.00	-0.01	0.01	-0.17	0.03	0.17	272.86
400.00	0.17	259.91	400.00	0.00	0.00	-0.34	0.15	0.34	269.43
500.00	0.23	267.88	500.00	0.04	-0.04	-0.69	0.07	0.69	266.94
600.00	0.22	290.91	600.00	-0.02	0.02	-1.07	0.09	1.07	271.30
700.00	0.30	201.68	700.00	0.15	-0.15	-1.34	0.37	1.35	263.61
800.00	0.39	193.18	800.00	0.73	-0.73	-1.52	0.10	1.68	244.48
900.00	0.77	196.06	899.99	1.70	-1.70	-1.78	0.38	2.46	226.32
1000.00	0.89	201.92	999.98	3.07	-3.07	-2.26	0.15	3.81	216.35
1100.00	0.60	182.21	1099.97	4.31	-4.31	-2.57	0.38	5.02	210.78
1200.00	0.45	173.38	1199.97	5.23	-5.23	-2.54	0.17	5.81	205.95
1300.00	0.38	165.44	1299.96	5.94	-5.94	-2.41	0.09	6.41	202.13
1400.00	0.56	162.85	1399.96	6.72	-6.72	-2.19	0.18	7.07	198.02
1500.00	0.21	233.65	1499.96	7.30	-7.30	-2.19	0.53	7.62	196.70
1600.00	0.12	248.90	1599.96	7.45	-7.45	-2.44	0.10	7.83	198.11
1700.00	0.15	41.24	1699.96	7.39	-7.39	-2.45	0.26	7.78	198.33
1800.00	0.27	12.79	1799.96	7.06	-7.06	-2.31	0.16	7.43	198.12
1900.00	0.42	16.91	1899.96	6.48	-6.48	-2.15	0.15	6.82	198.36
2000.00	0.84	35.13	1999.95	5.53	-5.53	-1.62	0.46	5.76	196.35
2100.00	1.39	44.44	2099.93	4.06	-4.06	-0.35	0.58	4.08	184.93
2200.00	1.84	45.58	2199.89	2.07	-2.07	1.65	0.45	2.65	141.54
2300.00	2.13	45.46	2299.83	-0.36	0.36	4.12	0.29	4.13	85.06
2400.00	2.09	41.98	2399.76	-3.01	3.01	6.66	0.13	7.31	65.65
2500.00	2.27	41.02	2499.69	-5.86	5.86	9.18	0.18	10.89	57.43
2600.00	2.38	48.92	2599.61	-8.72	8.72	12.05	0.34	14.87	54.09
2700.00	1.82	44.50	2699.54	-11.22	11.22	14.72	0.58	18.51	52.69
2800.00	1.47	50.18	2799.50	-13.17	13.17	16.82	0.39	21.37	51.93
2900.00	1.14	70.19	2899.47	-14.33	14.33	18.74	0.56	23.59	52.59
3000.00	0.89	92.24	2999.46	-14.64	14.64	20.45	0.46	25.15	54.41
3100.00	0.89	103.30	3099.45	-14.43	14.43	21.99	0.17	26.30	56.72
3200.00	0.88	127.65	3199.44	-13.78	13.78	23.35	0.37	27.11	59.45
3300.00	0.92	138.55	3299.42	-12.71	12.71	24.49	0.18	27.59	62.57
3400.00	0.85	141.86	3399.41	-11.53	11.53	25.48	0.09	27.97	65.66
3500.00	0.99	157.02	3499.40	-10.15	10.15	26.27	0.28	28.17	68.88
3600.00	0.92	152.94	3599.38	-8.64	8.64	26.98	0.10	28.33	72.25
3700.00	1.00	160.07	3699.37	-7.10	7.10	27.64	0.14	28.54	75.59
3800.00	0.98	166.48	3799.36	-5.45	5.45	28.14	0.11	28.66	79.04
3900.00	1.01	172.00	3899.34	-3.75	3.75	28.46	0.10	28.71	82.50
4000.00	0.75	168.73	3999.33	-2.23	2.23	28.71	0.26	28.80	85.56
4100.00	0.78	184.00	4099.32	-0.91	0.91	28.79	0.21	28.81	88.19
4200.00	0.75	186.33	4199.31	0.42	-0.42	28.67	0.04	28.67	90.84
4300.00	0.77	184.97	4299.30	1.74	-1.74	28.54	0.03	28.59	93.49
4400.00	0.89	190.08	4399.29	3.17	-3.17	28.35	0.14	28.52	96.39
4500.00	0.89	192.76	4499.28	4.69	-4.69	28.04	0.04	28.43	99.51
4600.00	0.81	186.00	4599.27	6.16	-6.16	27.79	0.13	28.47	102.49
4700.00	0.89	186.37	4699.26	7.63	-7.63	27.63	0.08	28.67	105.44
4800.00	0.89	192.27	4799.25	9.16	-9.16	27.38	0.09	28.87	108.50



Scientific Drilling International Survey Report

Company: MARBOB ENERGY	Date: 09/21/2009	Time: 09:54:57	Page: 2
Field: Lusk Bone Springs	Co-ordinate(NE) Reference:	Site: Lea County, NM, Grid North	
Site: Lea County, NM	Vertical (TVD) Reference:	SITE 0.0	
Well: Beechcraft Federal #1	Section (VS) Reference:	Well (0.00N,0.00E,180.00Azi)	
Wellpath: VH - Job #32K0809317	Survey Calculation Method:	Minimum Curvature	Db: Sybase

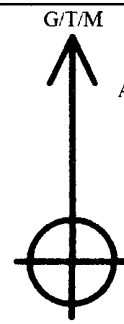
Survey

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	0.87	188.90	4899.23	10.67	-10.67	27.10	0.06	29.12	111.49
5000.00	0.91	183.52	4999.22	12.21	-12.21	26.93	0.09	29.57	114.39
5100.00	1.18	191.10	5099.21	14.02	-14.02	26.69	0.30	30.14	117.71
5200.00	1.12	194.07	5199.18	15.97	-15.97	26.25	0.08	30.73	121.32
5300.00	1.05	188.36	5299.17	17.83	-17.83	25.88	0.13	31.43	124.56
5400.00	0.96	184.53	5399.15	19.57	-19.57	25.68	0.11	32.29	127.31
5500.00	0.87	183.82	5499.14	21.16	-21.16	25.56	0.09	33.19	129.62
5600.00	0.67	179.84	5599.13	22.50	-22.50	25.51	0.21	34.02	131.41
5700.00	0.69	193.22	5699.12	23.68	-23.68	25.38	0.16	34.71	133.01
5800.00	0.78	197.40	5799.11	24.91	-24.91	25.04	0.10	35.32	134.85
5900.00	0.48	208.05	5899.11	25.93	-25.93	24.64	0.32	35.77	136.47
6000.00	0.70	204.65	5999.10	26.86	-26.86	24.19	0.22	36.14	137.99
6100.00	0.73	210.11	6099.10	27.96	-27.96	23.61	0.07	36.60	139.82
6200.00	0.73	223.26	6199.09	28.98	-28.98	22.85	0.17	36.91	141.74
6300.00	0.69	225.62	6299.08	29.86	-29.86	21.99	0.05	37.08	143.63
6400.00	0.75	219.76	6399.07	30.79	-30.79	21.14	0.09	37.34	145.52
6500.00	0.71	222.14	6499.06	31.75	-31.75	20.30	0.05	37.69	147.40
6600.00	0.74	226.68	6599.06	32.65	-32.65	19.42	0.06	37.99	149.26
6700.00	0.83	230.22	6699.05	33.56	-33.56	18.39	0.10	38.27	151.27
6800.00	0.82	231.25	6799.04	34.47	-34.47	17.28	0.02	38.56	153.38
6900.00	0.84	243.28	6899.03	35.25	-35.25	16.07	0.18	38.73	155.50
7000.00	0.82	241.94	6999.01	35.91	-35.91	14.78	0.03	38.83	157.63
7100.00	0.78	250.30	7099.01	36.48	-36.48	13.51	0.12	38.90	159.68
7200.00	0.83	277.00	7199.00	36.62	-36.62	12.15	0.37	38.58	161.65
7300.00	0.82	270.73	7298.99	36.52	-36.52	10.71	0.09	38.06	163.65
7400.00	0.99	270.79	7398.97	36.50	-36.50	9.13	0.17	37.63	165.95
7500.00	1.35	261.68	7498.95	36.66	-36.66	7.10	0.40	37.34	169.03
7600.00	1.63	259.71	7598.92	37.08	-37.08	4.54	0.28	37.36	173.02
7700.00	2.15	253.05	7698.86	37.89	-37.89	1.35	0.56	37.91	177.97
7800.00	2.79	241.86	7798.77	39.58	-39.58	-2.60	0.80	39.66	183.75
7900.00	1.69	247.16	7898.69	41.30	-41.30	-6.10	1.12	41.75	188.40
8000.00	1.06	229.43	7998.66	42.47	-42.47	-8.16	0.75	43.25	190.88
8100.00	1.29	223.07	8098.64	43.90	-43.90	-9.63	0.26	44.94	192.38
8200.00	0.87	220.91	8198.62	45.29	-45.29	-10.90	0.42	46.59	193.53
8300.00	0.93	220.20	8298.61	46.49	-46.49	-11.92	0.06	47.99	194.38
8400.00	1.11	220.61	8398.60	47.84	-47.84	-13.07	0.18	49.60	195.28
8500.00	1.26	224.12	8498.58	49.37	-49.37	-14.47	0.17	51.44	196.34
8600.00	1.44	224.42	8598.55	51.05	-51.05	-16.12	0.18	53.54	197.52
8700.00	1.54	224.09	8698.51	52.92	-52.92	-17.93	0.10	55.87	198.72
8737.00	1.49	229.64	8735.50	53.59	-53.59	-18.64	0.42	56.74	199.18



Scientific
Drilling

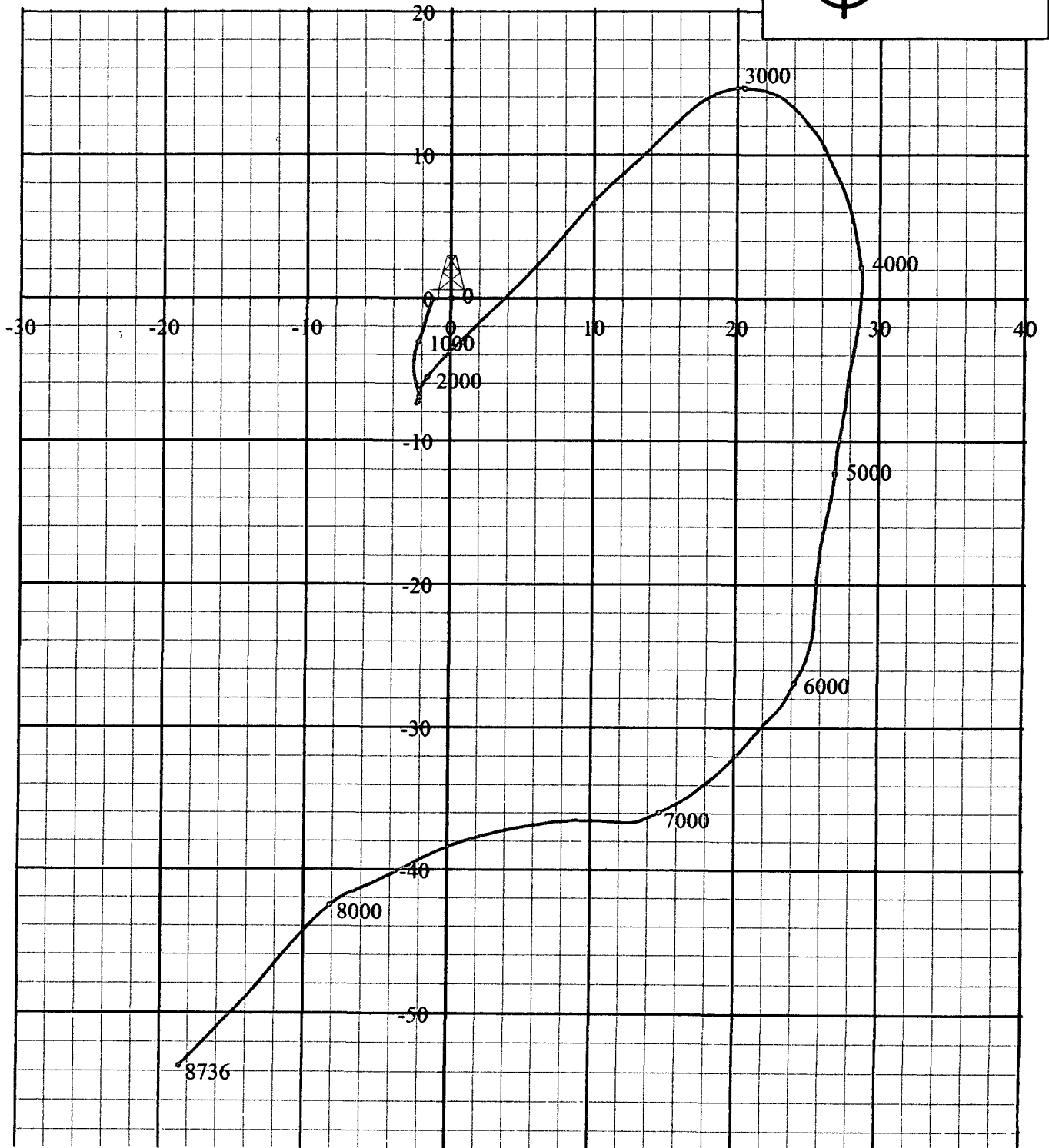
Field: Lusk Bone Springs
Site: Lea County, NM
Well: Beechcraft Federal #1
Wellpath: VH - Job #32K0809317
Survey: 08/19/09



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

Magnetic Field
Strength: 0nT
Dip Angle: 0.00°
Date: 09/21/2009
Model: igrf2000

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



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

PathFinder Energy Services, Inc.

Survey Report

Page 01/03
Tie-in Date: 08/17/2009
Date Completed: 08/25/2009

MARBOB ENERGY CORPORATION
BEECHCRAFT FEDERAL #1
LEA COUNTY, COUNTY

Rig: PATRIOT #6

PathFinder Office Supervisor: FRANCISCO SINISTERRA

PathFinder Field Engineers: M. SHIPP

Survey Horiz. Reference: WELLHEAD
Ref Coordinates: LAT: 32.40.25.4647 N LON: 103.46.53.3214 W
Reference: NAD27 new mexico east Transverse Mercator
Ref GRID Coord: X: 669810.5786 Y: 609259.2805
North Aligned To: TRUE NORTH
Total Magnetic Correction: 7.63° EAST TO TRUE
Vertical Section Plane: 180.00
Survey Vert. Reference: 16.00' Kelly Bushing To Ground
Altitude: 3637.00' Ground To MSL

Survey Calculations by RX5 V5.11i using Minimum Curvature

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
TIE-IN TO SCIENTIFIC GYRO SURVEY @ 8737' MD.										
8737.00	1.49	229.64	8735.50	0.00	53.57	53.57 S	18.63 W	56.72@	199.18	0.00
THE FOLLOWING ARE PATHFINDER MWD SURVEYS.										
8827.00	1.67	222.98	8825.46	90.00	55.29	55.29 S	20.42 W	58.94@	200.27	0.28
8859.00	1.76	225.10	8857.45	32.00	55.98	55.98 S	21.08 W	59.81@	200.64	0.34
8890.00	4.31	199.38	8888.41	31.00	57.41	57.41 S	21.81 W	61.41@	200.80	9.13
8922.00	8.09	188.77	8920.21	32.00	60.77	60.77 S	22.55 W	64.82@	200.36	12.29
8954.00	11.61	186.25	8951.74	32.00	66.20	66.20 S	23.24 W	70.16@	199.35	11.08
8986.00	14.86	182.92	8982.88	32.00	73.50	73.50 S	23.80 W	77.26@	197.94	10.43
9018.00	18.73	180.37	9013.51	32.00	82.74	82.74 S	24.04 W	86.16@	196.20	12.31
9049.00	22.69	179.69	9042.50	31.00	93.70	93.70 S	24.04 W	96.74@	194.39	12.80
9081.00	26.64	178.70	9071.58	32.00	107.05	107.05 S	23.85 W	109.67@	192.56	12.41
9113.00	30.16	178.77	9099.72	32.00	122.26	122.26 S	23.51 W	124.50@	190.89	11.00
9145.00	33.41	178.19	9126.92	32.00	139.11	139.11 S	23.06 W	141.01@	189.41	10.20
9176.00	36.58	177.47	9152.31	31.00	156.87	156.87 S	22.38 W	158.46@	188.12	10.31
9208.00	40.80	176.82	9177.29	32.00	176.85	176.85 S	21.38 W	178.14@	186.89	13.25
9240.00	45.20	176.87	9200.68	32.00	198.63	198.63 S	20.18 W	199.66@	185.80	13.75
9272.00	48.63	177.02	9222.54	32.00	221.97	221.97 S	18.94 W	222.77@	184.88	10.72
9304.00	52.06	179.06	9242.96	32.00	246.58	246.58 S	18.11 W	247.25@	184.20	11.79
9335.00	55.31	180.78	9261.31	31.00	271.56	271.56 S	18.08 W	272.16@	183.81	11.40
9368.00	59.27	182.20	9279.15	33.00	299.31	299.31 S	18.81 W	299.90@	183.60	12.53
9400.00	63.40	182.92	9294.49	32.00	327.35	327.35 S	20.07 W	327.97@	183.51	13.06
9431.00	69.12	183.94	9306.97	31.00	355.67	355.67 S	21.77 W	356.33@	183.50	18.69
9463.00	73.60	183.67	9317.19	32.00	385.91	385.91 S	23.78 W	386.64@	183.53	14.02
9495.00	75.27	182.68	9325.78	32.00	416.69	416.69 S	25.49 W	417.47@	183.50	6.01
9527.00	77.47	182.21	9333.32	32.00	447.76	447.76 S	26.81 W	448.56@	183.43	7.02
9559.00	80.64	181.00	9339.39	32.00	479.16	479.16 S	27.69 W	479.96@	183.31	10.58

PathFinder Energy Services, Inc.

Survey Report

MARBOB ENERGY CORPORATION
BEECHCRAFT FEDERAL #1
LEA COUNTY, COUNTY
RIG: PATRIOT #6

Page 02/03

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
9591.00	83.27	179.61	9343.87	32.00	510.84	510.84 S	27.86 W	511.60@	183.12	9.28
9623.00	84.24	178.80	9347.35	32.00	542.65	542.65 S	27.42 W	543.34@	182.89	3.94
9654.00	86.26	178.34	9349.92	31.00	573.53	573.53 S	26.64 W	574.15@	182.66	6.68
9686.00	88.64	177.85	9351.34	32.00	605.48	605.48 S	25.58 W	606.02@	182.42	7.59
9718.00	90.04	178.19	9351.71	32.00	637.46	637.45 S	24.48 W	637.92@	182.20	4.50
9750.00	90.40	177.92	9351.59	32.00	669.44	669.44 S	23.39 W	669.84@	182.00	1.41
9781.00	90.75	177.91	9351.28	31.00	700.41	700.41 S	22.26 W	700.77@	181.82	1.13
9813.00	91.10	177.55	9350.76	32.00	732.38	732.38 S	20.99 W	732.69@	181.64	1.57
9845.00	91.10	178.42	9350.15	32.00	764.36	764.36 S	19.87 W	764.62@	181.49	2.72
9877.00	91.36	178.41	9349.46	32.00	796.34	796.34 S	18.98 W	796.57@	181.37	0.81
9909.00	90.40	179.05	9348.97	32.00	828.33	828.33 S	18.28 W	828.53@	181.26	3.61
9940.00	89.69	179.33	9348.94	31.00	859.32	859.32 S	17.84 W	859.51@	181.19	2.46
9972.00	89.87	179.05	9349.07	32.00	891.32	891.32 S	17.39 W	891.49@	181.12	1.04
10004.00	90.13	178.97	9349.07	32.00	923.32	923.32 S	16.83 W	923.47@	181.04	0.85
10036.00	90.22	178.96	9348.97	32.00	955.31	955.31 S	16.25 W	955.45@	180.97	0.28
10068.00	90.31	178.71	9348.82	32.00	987.30	987.30 S	15.60 W	987.43@	180.91	0.83
10099.00	89.52	179.51	9348.87	31.00	1018.30	1018.30 S	15.12 W	1018.41@	180.85	3.63
10131.00	88.46	180.06	9349.43	32.00	1050.29	1050.29 S	15.00 W	1050.40@	180.82	3.73
10163.00	88.20	180.09	9350.36	32.00	1082.28	1082.28 S	15.04 W	1082.38@	180.80	0.82
10195.00	88.29	179.94	9351.35	32.00	1114.26	1114.26 S	15.05 W	1114.37@	180.77	0.55
10227.00	88.29	179.87	9352.30	32.00	1146.25	1146.25 S	15.00 W	1146.35@	180.75	0.22
10258.00	88.37	179.61	9353.20	31.00	1177.24	1177.24 S	14.86 W	1177.33@	180.72	0.88
10290.00	89.08	179.55	9353.92	32.00	1209.23	1209.23 S	14.62 W	1209.32@	180.69	2.23
10322.00	89.25	179.67	9354.38	32.00	1241.22	1241.22 S	14.41 W	1241.31@	180.66	0.65
10354.00	90.31	179.38	9354.50	32.00	1273.22	1273.22 S	14.14 W	1273.30@	180.64	3.43
10385.00	90.92	179.36	9354.17	31.00	1304.22	1304.22 S	13.80 W	1304.29@	180.61	1.97
10417.00	91.54	179.15	9353.48	32.00	1336.21	1336.21 S	13.38 W	1336.27@	180.57	2.05
10449.00	92.77	179.37	9352.28	32.00	1368.18	1368.18 S	12.97 W	1368.24@	180.54	3.90
10481.00	93.12	179.37	9350.64	32.00	1400.14	1400.14 S	12.62 W	1400.19@	180.52	1.09

PathFinder Energy Services, Inc.

Survey Report

MARBOB ENERGY CORPORATION
BEECHCRAFT FEDERAL #1
LEA COUNTY, COUNTY
RIG: PATRIOT #6

Page 03/03

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
10512.00	93.12	179.19	9348.95	31.00	1431.09	1431.09 S	12.23 W	1431.14@	180.49	0.58
10544.00	91.01	179.62	9347.80	32.00	1463.06	1463.06 S	11.90 W	1463.11@	180.47	6.73
10576.00	89.52	179.55	9347.65	32.00	1495.06	1495.06 S	11.67 W	1495.11@	180.45	4.66
10608.00	89.43	179.66	9347.94	32.00	1527.06	1527.06 S	11.45 W	1527.10@	180.43	0.44
10640.00	89.34	179.60	9348.29	32.00	1559.06	1559.06 S	11.24 W	1559.10@	180.41	0.34
10671.00	89.60	179.60	9348.57	31.00	1590.06	1590.06 S	11.02 W	1590.09@	180.40	0.84
10703.00	89.69	179.37	9348.77	32.00	1622.05	1622.05 S	10.74 W	1622.09@	180.38	0.77
10735.00	89.78	179.03	9348.92	32.00	1654.05	1654.05 S	10.29 W	1654.08@	180.36	1.10
10767.00	90.31	178.69	9348.89	32.00	1686.04	1686.04 S	9.65 W	1686.07@	180.33	1.97
10799.00	90.40	178.58	9348.70	32.00	1718.03	1718.03 S	8.89 W	1718.06@	180.30	0.44
10830.00	90.48	178.46	9348.46	31.00	1749.02	1749.02 S	8.09 W	1749.04@	180.26	0.46
10862.00	90.66	178.49	9348.14	32.00	1781.01	1781.01 S	7.24 W	1781.02@	180.23	0.57
10893.00	90.92	178.11	9347.71	31.00	1811.99	1811.99 S	6.32 W	1812.00@	180.20	1.48
10925.00	90.40	178.28	9347.34	32.00	1843.97	1843.97 S	5.31 W	1843.98@	180.17	1.71
STRAIGHT-LINE PROJECTION TO BIT @ 10981'MD.										
10981.00	90.40	178.28	9346.95	56.00	1899.95	1899.95 S	3.63 W	1899.95@	180.11	0.00

Surface 2235' FSL 660' FEL
-1900 - 4'
Bottom Hole 335' FSL 656' FEL