

Pathfinder Energy

Planning Report

30-005-28018

Company: Marbob Energy Field: Maketracks State Com #1H Site: Maketracks State Com #1H Well: Maketracks State Com #1H Wellpath: Original Hole		Date: 01/14/2008 Time: 16 45 44 Page: 1 Co-ordinate(NE) Reference: Maketracks State Com #1H Vertical (TVD) Reference: SITE 0.0 Section (VS) Reference: Well (0.00N,0.00E,89 52Azi) Plan: Plan #1 1-14-08								
Field: Maketracks State Com #1H Chaves County, NM										
Map System: US State Plane Coordinate System 1927 Geo Datum: NAD27 (Clarke 1866) Sys Datum: Mean Sea Level		Map Zone: New Mexico, Eastern Zone Coordinate System: Site Centre Geomagnetic Model: igrf2005								
Site: Maketracks State Com #1H Chaves County, NM Section 35, T-15S, R-31E										
Site Position: From: Map Position Uncertainty: 0.00 ft Ground Level: 4372.00 ft		Northing: 719821 80 ft Easting: 663747 40 ft Latitude: 32 58 39 787 N Longitude: 103 47 57 719 W North Reference: Grd Grid Convergence: 0.29 deg								
Well: Maketracks State Com #1H Slot Name:										
Well Position: +N/-S 0 00 ft +E/-W 0 00 ft Position Uncertainty: 0 00 ft		Northing: 719821 80 ft Easting: 663747 40 ft Latitude: 32 58 39.787 N Longitude: 103 47 57.719 W								
Wellpath: Original Hole										
Current Datum: SITE Magnetic Data: 01/14/2008 Field Strength: 49438 nT Vertical Section: Depth From (TVD) ft		Drilled From: Surface Tie-on Depth: 0.00 ft Above System Datum: Mean Sea Level Declination: 8 15 deg Mag Dip Angle: 60.94 deg +N/-S ft +E/-W ft Direction deg								
9000 00		0.00								
		0.00								
		89.52								
Plan: Plan #1 1-14-08 Principal: No		Date Composed: 01/14/2008 Version: 1 Tied-to: From Surface								
Plan Section Information										
MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0 00	0 00	0 00	0.00	0.00	0.00	0.00	0.00	0 00	0 00	
8522.50	0.00	0.00	8522 50	0.00	0 00	0.00	0 00	0.00	0 00	
9272 56	90.00	89.52	9000.00	4.00	477.48	12.00	12.00	0.00	89.52	
13422 32	90.00	89.52	9000 00	38 80	4627 10	0 00	0 00	0 00	0.00	Maketracks St Com 1H PBHL
Survey										
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
0.00	0.00	0 00	0.00	0.00	0.00	0 00	0.00	0.00	0.00	
100.00	0.00	0.00	100.00	0 00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0 00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0 00	0.00	0.00	0.00	0.00	0.00	
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	0.00	500.00	0.00	0.00	0 00	0.00	0.00	0.00	
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00	
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00	
1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	0.00	0.00	
1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	0.00	0.00	
1200.00	0.00	0.00	1200.00	0.00	0.00	0.00	0.00	0.00	0.00	
1300.00	0.00	0.00	1300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1400.00	0.00	0.00	1400.00	0.00	0.00	0.00	0.00	0.00	0.00	
1500.00	0.00	0.00	1500.00	0.00	0.00	0.00	0.00	0.00	0.00	
1600.00	0.00	0.00	1600.00	0 00	0.00	0.00	0.00	0.00	0.00	

Pathfinder Energy

Planning Report

Company: Marbob Energy	Date: 01/14/2008	Time: 16:45.44	Page: 3
Field: Maketracks State Com #1H	Co-ordinate(NE) Reference: Maketracks State Com #1H		
Site: Maketracks State Com #1H	Vertical (TVD) Reference: SITE 00		
Well: Maketracks State Com #1H	Section (VS) Reference: Well (0 00N,0 00E,89.52Azi)		
Wellpath: Original Hole	Plan: Plan #1 1-14-08		

Survey

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
7000.00	0.00	0.00	7000.00	0.00	0.00	0.00	0.00	0.00	0.00	
7100.00	0.00	0.00	7100.00	0.00	0.00	0.00	0.00	0.00	0.00	
7200.00	0.00	0.00	7200.00	0.00	0.00	0.00	0.00	0.00	0.00	
7300.00	0.00	0.00	7300.00	0.00	0.00	0.00	0.00	0.00	0.00	
7400.00	0.00	0.00	7400.00	0.00	0.00	0.00	0.00	0.00	0.00	
7500.00	0.00	0.00	7500.00	0.00	0.00	0.00	0.00	0.00	0.00	
7600.00	0.00	0.00	7600.00	0.00	0.00	0.00	0.00	0.00	0.00	
7700.00	0.00	0.00	7700.00	0.00	0.00	0.00	0.00	0.00	0.00	
7800.00	0.00	0.00	7800.00	0.00	0.00	0.00	0.00	0.00	0.00	
7900.00	0.00	0.00	7900.00	0.00	0.00	0.00	0.00	0.00	0.00	
8000.00	0.00	0.00	8000.00	0.00	0.00	0.00	0.00	0.00	0.00	
8100.00	0.00	0.00	8100.00	0.00	0.00	0.00	0.00	0.00	0.00	
8200.00	0.00	0.00	8200.00	0.00	0.00	0.00	0.00	0.00	0.00	
8300.00	0.00	0.00	8300.00	0.00	0.00	0.00	0.00	0.00	0.00	
8400.00	0.00	0.00	8400.00	0.00	0.00	0.00	0.00	0.00	0.00	
8500.00	0.00	0.00	8500.00	0.00	0.00	0.00	0.00	0.00	0.00	
8522.50	0.00	0.00	8522.50	0.00	0.00	0.00	0.00	0.00	0.00	KOP @ 8522' MD/TVD w/12'
8600.00	9.30	89.52	8599.66	0.05	6.28	6.28	12.00	12.00	0.00	
8700.00	21.30	89.52	8695.94	0.27	32.61	32.61	12.00	12.00	0.00	
8800.00	33.30	89.52	8784.64	0.66	78.39	78.39	12.00	12.00	0.00	
8900.00	45.30	89.52	8861.89	1.19	141.60	141.61	12.00	12.00	0.00	
9000.00	57.30	89.52	8924.30	1.84	219.50	219.51	12.00	12.00	0.00	
9100.00	69.29	89.52	8969.16	2.59	308.67	308.68	12.00	12.00	0.00	
9200.00	81.29	89.52	8994.50	3.39	405.21	405.22	12.00	12.00	0.00	
9272.56	90.00	89.52	9000.00	4.00	477.48	477.50	12.00	12.00	0.00	EOC @ 9273' MD / 9000' TV
9300.00	90.00	89.52	9000.00	4.23	504.93	504.94	0.00	0.00	0.00	
9400.00	90.00	89.52	9000.00	5.07	604.92	604.94	0.00	0.00	0.00	
9500.00	90.00	89.52	9000.00	5.91	704.92	704.94	0.00	0.00	0.00	
9600.00	90.00	89.52	9000.00	6.74	804.92	804.94	0.00	0.00	0.00	
9700.00	90.00	89.52	9000.00	7.58	904.91	904.94	0.00	0.00	0.00	
9800.00	90.00	89.52	9000.00	8.42	1004.91	1004.94	0.00	0.00	0.00	
9900.00	90.00	89.52	9000.00	9.26	1104.91	1104.94	0.00	0.00	0.00	
10000.00	90.00	89.52	9000.00	10.09	1204.90	1204.94	0.00	0.00	0.00	
10100.00	90.00	89.52	9000.00	10.93	1304.90	1304.94	0.00	0.00	0.00	
10200.00	90.00	89.52	9000.00	11.77	1404.90	1404.94	0.00	0.00	0.00	
10300.00	90.00	89.52	9000.00	12.61	1504.89	1504.94	0.00	0.00	0.00	
10400.00	90.00	89.52	9000.00	13.45	1604.89	1604.94	0.00	0.00	0.00	
10500.00	90.00	89.52	9000.00	14.28	1704.88	1704.94	0.00	0.00	0.00	
10600.00	90.00	89.52	9000.00	15.12	1804.88	1804.94	0.00	0.00	0.00	
10700.00	90.00	89.52	9000.00	15.96	1904.88	1904.94	0.00	0.00	0.00	
10800.00	90.00	89.52	9000.00	16.80	2004.87	2004.94	0.00	0.00	0.00	
10900.00	90.00	89.52	9000.00	17.63	2104.87	2104.94	0.00	0.00	0.00	
11000.00	90.00	89.52	9000.00	18.47	2204.87	2204.94	0.00	0.00	0.00	
11100.00	90.00	89.52	9000.00	19.31	2304.86	2304.94	0.00	0.00	0.00	
11200.00	90.00	89.52	9000.00	20.15	2404.86	2404.94	0.00	0.00	0.00	
11300.00	90.00	89.52	9000.00	20.99	2504.86	2504.94	0.00	0.00	0.00	
11400.00	90.00	89.52	9000.00	21.82	2604.85	2604.94	0.00	0.00	0.00	
11500.00	90.00	89.52	9000.00	22.66	2704.85	2704.94	0.00	0.00	0.00	
11600.00	90.00	89.52	9000.00	23.50	2804.85	2804.94	0.00	0.00	0.00	
11700.00	90.00	89.52	9000.00	24.34	2904.84	2904.94	0.00	0.00	0.00	
11800.00	90.00	89.52	9000.00	25.17	3004.84	3004.94	0.00	0.00	0.00	
11900.00	90.00	89.52	9000.00	26.01	3104.84	3104.94	0.00	0.00	0.00	
12000.00	90.00	89.52	9000.00	26.85	3204.83	3204.94	0.00	0.00	0.00	
12100.00	90.00	89.52	9000.00	27.69	3304.83	3304.94	0.00	0.00	0.00	

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Planning Report

Company: Marbob Energy Field: Maketracks State Com #1H Site: Maketracks State Com #1H Well: Maketracks State Com #1H Wellpath: Original Hole	Date: 01/14/2008 Time: 16:45:44 Page: 4 Co-ordinate(NE) Reference: Maketracks State Com #1H Vertical (TVD) Reference: SITE 0.0 Section (VS) Reference: Well (0:00N,0.00E,89.52Azi) Plan: Plan #1 1-14-08
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Survey

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
12200.00	90.00	89.52	9000.00	28.52	3404.83	3404.94	0.00	0.00	0.00	
12300.00	90.00	89.52	9000.00	29.36	3504.82	3504.94	0.00	0.00	0.00	
12400.00	90.00	89.52	9000.00	30.20	3604.82	3604.94	0.00	0.00	0.00	
12500.00	90.00	89.52	9000.00	31.04	3704.81	3704.94	0.00	0.00	0.00	
12600.00	90.00	89.52	9000.00	31.88	3804.81	3804.94	0.00	0.00	0.00	
12700.00	90.00	89.52	9000.00	32.71	3904.81	3904.94	0.00	0.00	0.00	
12800.00	90.00	89.52	9000.00	33.55	4004.80	4004.94	0.00	0.00	0.00	
12900.00	90.00	89.52	9000.00	34.39	4104.80	4104.94	0.00	0.00	0.00	
13000.00	90.00	89.52	9000.00	35.23	4204.80	4204.94	0.00	0.00	0.00	
13100.00	90.00	89.52	9000.00	36.06	4304.79	4304.94	0.00	0.00	0.00	
13200.00	90.00	89.52	9000.00	36.90	4404.79	4404.94	0.00	0.00	0.00	
13300.00	90.00	89.52	9000.00	37.74	4504.79	4504.94	0.00	0.00	0.00	
13400.00	90.00	89.52	9000.00	38.58	4604.78	4604.94	0.00	0.00	0.00	
13422.32	90.00	89.52	9000.00	38.80	4627.10	4627.26	0.00	0.00	0.00	Maketracks St Com 1H PBHL

Targets

Name	Description Dip Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<---- Latitude ---->			<---- Longitude ---->		
Maketracks St Com 1H PBHL		9000.00	38.80	4627.10	719860.60	668374.50	32	58	39.935 N	103	47	3 400 W

Annotation

MD ft	TVD ft	
8522.50	8522.50	KOP @ 8522' MD/TVD w/12° DLS
9272.56	9000.00	EOC @ 9273' MD / 9000' TVD

Marbob Energy

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

Field: Maketracks State Com #1H

Site: Maketracks State Com #1H

Well: Maketracks State Com #1H

Wellpath: Original Hole

Plan: Plan #1 1-14-08

SECTION DETAILS

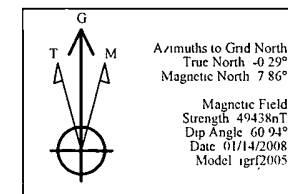
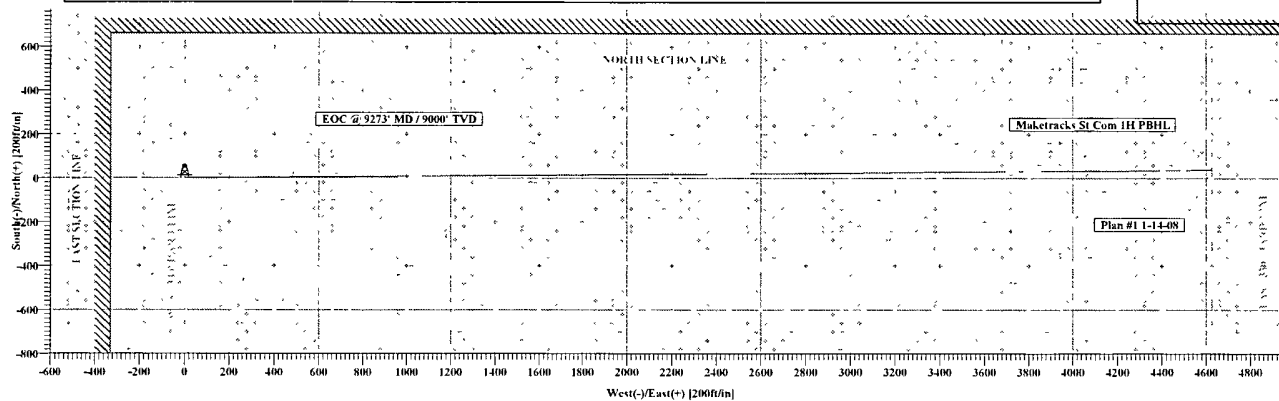
Sec	MD	Inc	Az	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	8522.50	0.00	0.00	8522.50	0.00	0.00	0.00	0.00	0.00	
3	9272.56	90.00	89.52	9000.00	-4.00	477.48	12.00	89.52	477.50	
4	15422.32	90.00	89.52	9000.00	38.80	4627.10	0.00	0.00	4627.26	Maketracks St Com 1H PBHL

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
Maketracks St Com 1H PBHL	9000.00	38.80	4627.10	Point

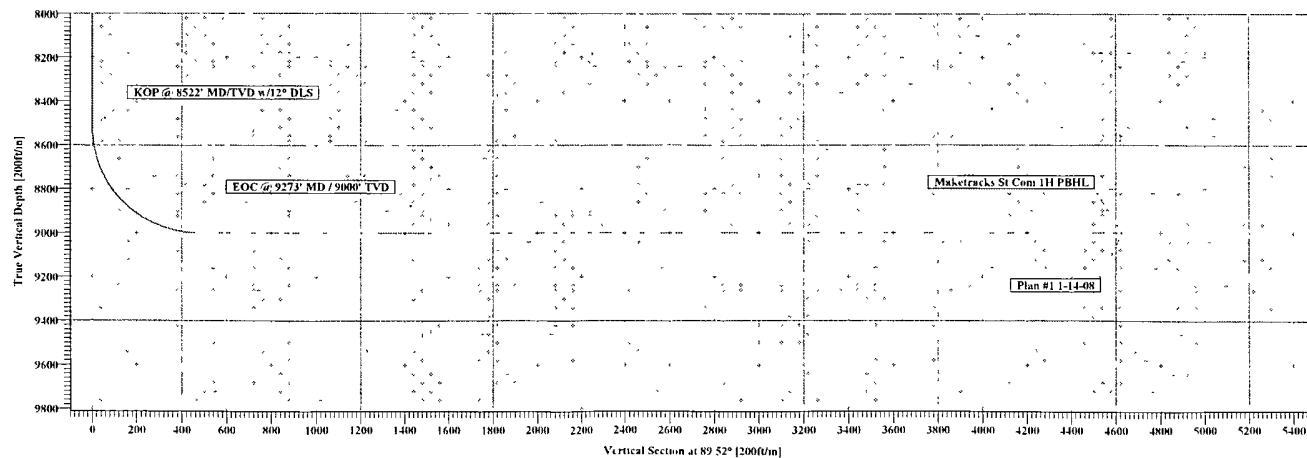
ANNOTATIONS

No	TVD	MD	Annotation
1	8522.50	8522.50	KOP @ 8522' MD/TVD w/12° DLS
2	9000.00	9272.56	EOC @ 9273' MD / 9000' TVD



SITE DETAILS

Maketracks State Com #1H
Chaves County NM
Section 35 T-15S, R-31E
Site Centre Northing 719821.80
Easting 663747.40
Ground Level 4372.00
Positional Uncertainty 0.00
Convergence 0.29



WELLPATH DETAILS

Original Hole			
Rig Ref Datum	SITE	Origin	Starting From TVD
		Origin	
V Section Angle	+N/-S	+E/-W	
89.52°	0.00	0.00	9000.00