

Pathfinder Energy Planning Report

[illegible]

Pathfinder Energy

Planning Report

Company: Mack Energy Corp.
 Field: Quail Creek
 Site: Quail Creek
 Well: Quail Creek St #1
 Wellpath: OH

Date: 12/28/2006 Time: 09:40:12
 Co-ordinate(NE) Reference: Quail Creek, Grid North
 Vertical (TVD) Reference: SITE 0.0
 Section (VS) Reference: Well (0.00N,0.00E,176.73Azi)
 Plan: Plan #2 12-28-06

Page: 2

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
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	
1700.00	0.00	0.00	1700.00	0.00	0.00	0.00	0.00	0.00	0.00	
1800.00	0.00	0.00	1800.00	0.00	0.00	0.00	0.00	0.00	0.00	
1900.00	0.00	0.00	1900.00	0.00	0.00	0.00	0.00	0.00	0.00	
2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2100.00	0.00	0.00	2100.00	0.00	0.00	0.00	0.00	0.00	0.00	
2200.00	0.00	0.00	2200.00	0.00	0.00	0.00	0.00	0.00	0.00	
2300.00	0.00	0.00	2300.00	0.00	0.00	0.00	0.00	0.00	0.00	
2400.00	0.00	0.00	2400.00	0.00	0.00	0.00	0.00	0.00	0.00	
2500.00	0.00	0.00	2500.00	0.00	0.00	0.00	0.00	0.00	0.00	
2600.00	0.00	0.00	2600.00	0.00	0.00	0.00	0.00	0.00	0.00	
2700.00	0.00	0.00	2700.00	0.00	0.00	0.00	0.00	0.00	0.00	
2800.00	0.00	0.00	2800.00	0.00	0.00	0.00	0.00	0.00	0.00	
2900.00	0.00	0.00	2900.00	0.00	0.00	0.00	0.00	0.00	0.00	
3000.00	0.00	0.00	3000.00	0.00	0.00	0.00	0.00	0.00	0.00	
3100.00	0.00	0.00	3100.00	0.00	0.00	0.00	0.00	0.00	0.00	
3200.00	0.00	0.00	3200.00	0.00	0.00	0.00	0.00	0.00	0.00	
3300.00	0.00	0.00	3300.00	0.00	0.00	0.00	0.00	0.00	0.00	
3400.00	0.00	0.00	3400.00	0.00	0.00	0.00	0.00	0.00	0.00	
3500.00	0.00	0.00	3500.00	0.00	0.00	0.00	0.00	0.00	0.00	
3600.00	0.00	0.00	3600.00	0.00	0.00	0.00	0.00	0.00	0.00	
3700.00	0.00	0.00	3700.00	0.00	0.00	0.00	0.00	0.00	0.00	
3800.00	0.00	0.00	3800.00	0.00	0.00	0.00	0.00	0.00	0.00	
3900.00	0.00	0.00	3900.00	0.00	0.00	0.00	0.00	0.00	0.00	
3925.00	0.00	0.00	3925.00	0.00	0.00	0.00	0.00	0.00	0.00	KOP @ 3925' MD/TVD, Start
4000.00	7.50	176.73	3999.79	-4.89	0.28	4.90	10.00	10.00	0.00	
4100.00	17.50	176.73	4097.29	-26.48	1.51	26.52	10.00	10.00	0.00	
4200.00	27.50	176.73	4189.56	-64.63	3.69	64.74	10.00	10.00	0.00	
4300.00	37.50	176.73	4273.79	-118.21	6.75	118.40	10.00	10.00	0.00	
4400.00	47.50	176.73	4347.43	-185.57	10.60	185.87	10.00	10.00	0.00	
4500.00	57.50	176.73	4408.23	-264.68	15.12	265.11	10.00	10.00	0.00	
4591.00	66.60	176.73	4450.83	-344.85	19.70	345.41	10.00	10.00	0.00	EOB @ 66.64°, Start Hold
4591.44	66.64	176.73	4451.01	-345.25	19.72	345.81	10.00	10.00	0.00	
4600.00	66.64	176.73	4454.40	-353.10	20.17	353.67	0.00	0.00	0.00	
4700.00	66.64	176.73	4494.05	-444.75	25.41	445.48	0.00	0.00	0.00	
4800.00	66.64	176.73	4533.69	-536.41	30.65	537.28	0.00	0.00	0.00	
4900.00	66.64	176.73	4573.34	-628.06	35.88	629.09	0.00	0.00	0.00	
5000.00	66.64	176.73	4612.98	-719.72	41.12	720.89	0.00	0.00	0.00	
5100.00	66.64	176.73	4652.63	-811.38	46.35	812.70	0.00	0.00	0.00	
5128.86	66.64	176.73	4664.07	-837.83	47.87	839.20	0.00	0.00	0.00	EOH, Start Build @ 5128.8
5131.23	66.88	176.73	4665.00	-840.00	47.99	841.37	10.00	10.00	-0.01	Standard Setback Location
5200.00	73.76	176.73	4688.15	-904.61	51.68	906.09	10.00	10.00	0.00	
5300.00	83.75	176.73	4707.63	-1002.41	57.27	1004.04	10.00	10.00	0.00	
5356.59	89.41	176.73	4711.00	-1058.78	60.49	1060.51	10.00	10.00	0.00	EOC @ 5356' MD/4711' TVD
5400.00	89.40	176.73	4711.45	-1102.12	62.97	1103.92	0.01	-0.01	0.00	
5500.00	89.40	176.73	4712.49	-1201.95	68.67	1203.91	0.00	0.00	0.00	
5600.00	89.40	176.73	4713.53	-1301.78	74.37	1303.91	0.00	0.00	0.00	
5700.00	89.40	176.73	4714.57	-1401.61	80.08	1403.90	0.00	0.00	0.00	
5800.00	89.40	176.73	4715.61	-1501.45	85.78	1503.89	0.00	0.00	0.00	

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Site: Quail Creek
Well: Quail Creek St #1
Wellpath: OH

Date: 12/28/2006 **Time:** 09:40:12 **Page:** 3
Co-ordinate(NE) Reference: Site: Quail Creek, Grid North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,176.73Azi).
Plan: Plan #2 12-28-06

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
5900.00	89.40	176.73	4716.65	-1601.28	91.49	1603.89	0.00	0.00	0.00	
6000.00	89.40	176.73	4717.69	-1701.11	97.19	1703.88	0.00	0.00	0.00	
6100.00	89.40	176.73	4718.73	-1800.94	102.89	1803.88	0.00	0.00	0.00	
6200.00	89.40	176.73	4719.78	-1900.77	108.60	1903.87	0.00	0.00	0.00	
6300.00	89.40	176.73	4720.82	-2000.61	114.30	2003.87	0.00	0.00	0.00	
6400.00	89.40	176.73	4721.86	-2100.44	120.01	2103.86	0.00	0.00	0.00	
6500.00	89.40	176.73	4722.90	-2200.27	125.71	2203.86	0.00	0.00	0.00	
6600.00	89.40	176.73	4723.94	-2300.10	131.41	2303.85	0.00	0.00	0.00	
6700.00	89.40	176.73	4724.98	-2399.93	137.12	2403.85	0.00	0.00	0.00	
6702.19	89.40	176.73	4725.00	-2402.12	137.24	2406.03	0.00	0.00	0.00	Midpoint Location
6706.20	89.52	176.72	4725.04	-2406.12	137.47	2410.04	3.00	2.99	-0.20	
6800.00	89.52	176.72	4725.82	-2499.77	142.84	2503.84	0.00	0.00	0.00	
6900.00	89.52	176.72	4726.65	-2599.60	148.55	2603.84	0.00	0.00	0.00	
7000.00	89.52	176.72	4727.48	-2699.43	154.27	2703.84	0.00	0.00	0.00	
7100.00	89.52	176.72	4728.31	-2799.26	159.99	2803.83	0.00	0.00	0.00	
7200.00	89.52	176.72	4729.14	-2899.10	165.71	2903.83	0.00	0.00	0.00	
7300.00	89.52	176.72	4729.97	-2998.93	171.43	3003.83	0.00	0.00	0.00	
7400.00	89.52	176.72	4730.80	-3098.76	177.15	3103.82	0.00	0.00	0.00	
7500.00	89.52	176.72	4731.63	-3198.60	182.86	3203.82	0.00	0.00	0.00	
7600.00	89.52	176.72	4732.47	-3298.43	188.58	3303.81	0.00	0.00	0.00	
7700.00	89.52	176.72	4733.30	-3398.26	194.30	3403.81	0.00	0.00	0.00	
7800.00	89.52	176.72	4734.13	-3498.09	200.02	3503.81	0.00	0.00	0.00	
7900.00	89.52	176.72	4734.96	-3597.93	205.74	3603.80	0.00	0.00	0.00	
8000.00	89.52	176.72	4735.79	-3697.76	211.45	3703.80	0.00	0.00	0.00	
8100.00	89.52	176.72	4736.62	-3797.59	217.17	3803.80	0.00	0.00	0.00	
8200.00	89.52	176.72	4737.45	-3897.43	222.89	3903.79	0.00	0.00	0.00	
8300.00	89.52	176.72	4738.28	-3997.26	228.61	4003.79	0.00	0.00	0.00	
8400.00	89.52	176.72	4739.11	-4097.09	234.33	4103.79	0.00	0.00	0.00	
8500.00	89.52	176.72	4739.94	-4196.92	240.05	4203.78	0.00	0.00	0.00	
8600.00	89.52	176.72	4740.78	-4296.76	245.76	4303.78	0.00	0.00	0.00	
8700.00	89.52	176.72	4741.61	-4396.59	251.48	4403.78	0.00	0.00	0.00	
8800.00	89.52	176.72	4742.44	-4496.42	257.20	4503.77	0.00	0.00	0.00	
8900.00	89.52	176.72	4743.27	-4596.26	262.92	4603.77	0.00	0.00	0.00	
9000.00	89.52	176.72	4744.10	-4696.09	268.64	4703.77	0.00	0.00	0.00	
9100.00	89.52	176.72	4744.93	-4795.92	274.35	4803.76	0.00	0.00	0.00	
9108.31	89.52	176.72	4745.00	-4804.22	274.83	4812.07	0.00	0.00	0.00	PBHL

Targets

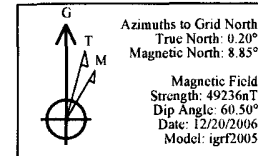
Name	Description Dip. Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<--- Latitude --->			<--- Longitude --->		
Standard Setback Location		4665.00	-840.00	47.99	600897.48	387522.24	32	39	5.173 N	104	41	55.598 W
-Plan hit target												
Midpoint Location		4725.00	-2402.12	137.24	599335.36	387611.49	32	38	49.718 N	104	41	54.491 W
PBHL		4745.00	-4804.22	274.83	596933.26	387749.08	32	38	25.952 N	104	41	52.786 W

Annotation

MD ft	TVD ft	
3925.00	3925.00	KOP @ 3925' MD/TVD, Start of 10°/100' BR
4591.00	4450.83	EOB @ 66.64°, Start Hold @ 4591' MD 4451' TVD
5128.86	4664.07	EOH, Start Build @ 5128.86' MD 10°/100' BR
5356.59	4711.00	EOC @ 5356' MD/4711' TVD 89.41° INC

Mack Energy Corp.

Field: Quail Creek
 Site: Quail Creek
 Well: Quail Creek St #1
 Wellpath: OH
 Plan: Plan #2 12-28-06



TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
Standard Setback Location	4665.00	-840.00	47.99	Point
Midpoint Location	4725.00	-2402.12	137.24	Point
PBHL	4745.00	-4804.22	274.83	Point

SITE DETAILS

Quail Creek
 Site Centre Northing: 601737.48
 Easting: 387474.25
 Ground Level: 3986.77
 Positional Uncertainty: 0.00
 Convergence: -0.20

WELLPATH DETAILS

OH			
Rig:	SITE		0.00ft
Ref. Datum:	Origin +N/-S	Origin +E/-W	Starting From TVD
V. Section Angle			
176.73°	0.00	0.00	0.00

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLog	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	3925.00	0.00	0.00	3925.00	0.00	0.00	0.00	0.00	0.00	
3	4591.44	66.64	176.73	4451.01	-345.25	19.72	10.00	0.00	345.81	
4	5128.86	66.64	176.73	4664.07	-837.83	47.87	0.00	0.00	839.20	
5	5131.23	66.88	176.73	4665.00	-840.00	47.99	10.00	-0.04	841.37	Standard Setback Location
6	5356.59	89.41	176.73	4711.00	-1058.78	60.49	10.00	0.00	1060.51	
7	5357.20	89.40	176.73	4711.01	-1059.39	60.52	1.00	-179.03	1061.12	
8	6702.19	89.40	176.73	4725.00	-2402.12	137.24	0.00	0.00	2406.03	Midpoint Location
9	6706.20	89.52	176.72	4725.04	-2406.12	137.47	3.00	-3.86	2410.04	
10	9108.31	89.52	176.72	4745.00	-4804.22	274.83	0.00	0.00	4812.07	PBHL

