

PathFinder Energy Services

Survey Report

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Job No: J-WT-0602-0047-WT-WT
Date: 3/8/2006
Time: 4:07 am
Wellpath ID: 06020047
Date Created: 2/18/2006
Last Revision: 3/8/2006

Calculated using the Minimum Curvature Method
Computed using PDS VER2.2.6
Vertical Section Plane: 183.20 deg.

Survey Reference: WELLHEAD
Vertical Section Reference: WELLHEAD
Closure Reference: WELLHEAD
TVD Reference: WELLHEAD

EOG RESOURCES
HOLLY 8A FED # 2H
EDDY Co., NM
RIG: McVAY #7

DECLINATION: 8.27° EAST TO GRID
KBH: 18.43' ROTARY TO GROUND

PATHFINDER OFFICE SUPERVISOR
CODY MEBANE
PATHFINDER MWD FIELD ENGINEERS
SCOTT GARAY
FRANCISCO SINISTERRA

Measured Depth (ft)	Incl (deg.)	Drift Dir. (deg.)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	T O T A L Rectangular Offsets (ft) (ft)		Closure Dist. Dir. (ft) (deg.)	DLS (dg/100ft)
TIE IN TO SCIENTIFIC GYRO SURVEY.									
7300.00	2.36	8.35	7298.91	0.00	-57.57	59.45 N	32.07W	67.55@331.66	0.00
THE FOLLOWING ARE PATHFINDER MWD SURVEYS.									
7335.00	2.20	9.59	7333.88	35.00	-58.95	60.83 N	31.85W	68.66@332.36	0.48
7366.00	1.93	12.00	7364.86	31.00	-60.06	61.92 N	31.65W	69.54@332.93	0.91
7398.00	0.53	33.09	7396.85	32.00	-60.72	62.57 N	31.45W	70.03@333.31	4.53
7430.00	4.66	185.85	7428.82	32.00	-59.55	61.40 N	31.50W	69.01@332.84	16.05
7462.00	12.05	189.45	7460.46	32.00	-54.92	56.81 N	32.19W	65.29@330.47	23.14
7493.00	18.55	186.90	7490.35	31.00	-46.78	48.71 N	33.31W	59.01@325.63	21.07
7525.00	23.92	184.70	7520.16	32.00	-35.20	37.19 N	34.46W	50.65@317.18	16.96
7557.00	28.58	184.61	7548.85	32.00	-21.06	23.08 N	35.60W	42.43@302.96	14.56
7589.00	32.98	184.09	7576.34	32.00	-4.69	6.76 N	36.84W	37.45@280.40	13.78
7621.00	36.40	183.82	7602.65	32.00	13.52	11.41 S	38.09W	39.77@253.33	10.70
7652.00	39.39	184.44	7627.11	31.00	32.55	30.40 S	39.47W	49.82@232.40	9.72
7683.00	42.21	184.79	7650.57	31.00	52.80	50.58 S	41.10W	65.18@219.09	9.13
7715.00	44.67	184.61	7673.81	32.00	74.79	72.51 S	42.90W	84.25@210.61	7.70
7747.00	47.13	183.91	7696.07	32.00	97.77	95.43 S	44.61W	105.34@205.05	7.85
7779.00	49.95	183.21	7717.26	32.00	121.75	119.36 S	46.09W	127.95@201.11	8.96
7811.00	53.38	182.68	7737.10	32.00	146.84	144.42 S	47.38W	152.00@198.16	10.80
7843.00	56.37	181.63	7755.51	32.00	173.01	170.57 S	48.36W	177.30@195.83	9.72
7874.00	59.00	181.54	7772.08	31.00	199.19	196.76 S	49.08W	202.79@194.01	8.49
7906.00	61.47	181.80	7787.97	32.00	226.96	224.52 S	49.89W	230.00@192.53	7.75
7938.00	63.93	182.51	7802.65	32.00	255.39	252.94 S	50.96W	258.02@191.39	7.94
7970.00	61.55	187.60	7817.31	32.00	283.80	281.26 S	53.46W	286.29@190.76	15.97
8001.00	65.51	192.88	7831.13	31.00	311.32	308.54 S	58.41W	314.02@190.72	19.89
8033.00	71.84	192.55	7842.76	32.00	340.71	337.61 S	64.96W	343.80@190.89	19.80
8065.00	76.33	190.34	7851.54	32.00	371.15	367.76 S	71.06W	374.56@190.94	15.52
8095.00	79.23	188.47	7857.89	30.00	400.30	396.68 S	75.85W	403.87@190.82	11.43
8127.00	82.66	186.17	7862.92	32.00	431.81	428.02 S	79.87W	435.41@190.57	12.86

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Measured Depth (ft)	Incl (deg.)	Drift Dir. (deg.)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	T O T A L Rectangular Offsets (ft)		Closure Dist. (ft)	Dir. (deg.)	DLS (dg/100ft)
8159.00	83.71	186.24	7866.72	32.00	463.54	459.61 S	83.30W	467.10@190.27		3.29
8191.00	85.03	185.36	7869.86	32.00	495.35	491.29 S	86.52W	498.85@189.99		4.95
8223.00	86.88	184.02	7872.12	32.00	527.26	523.10 S	89.13W	530.64@189.67		7.13
8261.00	88.37	183.47	7873.69	38.00	565.22	560.99 S	91.61W	568.42@189.27		4.18
8293.00	88.20	183.21	7874.65	32.00	597.21	592.92 S	93.48W	600.24@188.96		0.97
8325.00	88.29	183.21	7875.63	32.00	629.20	624.85 S	95.27W	632.07@188.67		0.28
8357.00	86.88	182.94	7876.98	32.00	661.17	656.78 S	96.98W	663.90@188.40		4.49
8388.00	86.26	182.94	7878.83	31.00	692.11	687.68 S	98.57W	694.71@188.16		2.00
8420.00	86.00	182.51	7880.99	32.00	724.04	719.57 S	100.09W	726.50@187.92		1.57
8452.00	86.09	182.42	7883.20	32.00	755.96	751.46 S	101.46W	758.28@187.69		0.40
8484.00	85.65	182.42	7885.50	32.00	787.87	783.35 S	102.81W	790.07@187.48		1.37
8516.00	85.12	182.07	7888.08	32.00	819.76	815.22 S	104.06W	821.84@187.27		1.98
8548.00	85.47	181.36	7890.70	32.00	851.64	847.10 S	105.01W	853.59@187.07		2.47
8579.00	86.17	180.84	7892.96	31.00	882.54	878.01 S	105.60W	884.34@186.86		2.81
8610.00	86.88	180.40	7894.84	31.00	913.45	908.96 S	105.94W	915.11@186.65		2.69
8642.00	87.23	180.22	7896.48	32.00	945.37	940.91 S	106.11W	946.88@186.43		1.23
8674.00	86.88	179.96	7898.13	32.00	977.28	972.87 S	106.16W	978.65@186.23		1.36
8706.00	87.49	179.87	7899.70	32.00	1009.19	1004.83 S	106.11W	1010.42@186.03		1.93
8738.00	87.41	179.96	7901.12	32.00	1041.10	1036.80 S	106.07W	1042.21@185.84		0.38
8769.00	87.14	180.04	7902.60	31.00	1072.02	1067.76 S	106.07W	1073.02@185.67		0.91
8801.00	86.97	179.43	7904.24	32.00	1103.92	1099.72 S	105.92W	1104.81@185.50		1.98
8833.00	87.67	179.37	7905.74	32.00	1135.81	1131.68 S	105.58W	1136.60@185.33		2.20
8896.00	88.02	179.87	7908.11	63.00	1198.65	1194.64 S	105.17W	1199.26@185.03		0.97
8959.00	88.02	179.78	7910.28	63.00	1261.50	1257.60 S	104.98W	1261.97@184.77		0.14
9022.00	87.58	179.57	7912.70	63.00	1324.33	1320.55 S	104.62W	1324.69@184.53		0.77
9086.00	86.88	179.48	7915.80	64.00	1388.13	1384.48 S	104.09W	1388.38@184.30		1.10
9149.00	88.20	180.71	7918.50	63.00	1450.97	1447.41 S	104.19W	1451.16@184.12		2.86
9213.00	89.60	182.29	7919.73	64.00	1514.93	1511.38 S	105.87W	1515.08@184.01		3.30
9244.00	89.78	181.85	7919.90	31.00	1545.92	1542.36 S	106.99W	1546.06@183.97		1.53
9307.00	89.69	181.85	7920.19	63.00	1608.91	1605.32 S	109.02W	1609.02@183.89		0.14
9371.00	88.90	181.85	7920.98	64.00	1672.88	1669.28 S	111.09W	1672.98@183.81		1.23
9434.00	88.20	182.65	7922.57	63.00	1735.85	1732.21 S	113.56W	1735.93@183.75		1.69
9498.00	87.14	182.82	7925.17	64.00	1799.80	1796.09 S	116.61W	1799.87@183.71		1.68
9560.00	86.70	182.56	7928.50	62.00	1861.70	1857.93 S	119.52W	1861.77@183.68		0.82
9622.00	87.49	182.91	7931.64	62.00	1923.62	1919.78 S	122.47W	1923.68@183.65		1.39
9684.00	87.58	183.00	7934.31	62.00	1985.56	1981.64 S	125.66W	1985.62@183.63		0.21
9747.00	86.97	182.38	7937.31	63.00	2048.49	2044.50 S	128.62W	2048.54@183.60		1.38
9809.00	87.41	182.29	7940.35	62.00	2110.41	2106.37 S	131.14W	2110.45@183.56		0.72
9871.00	86.97	182.21	7943.39	62.00	2172.32	2168.25 S	133.57W	2172.36@183.53		0.72
9934.00	86.97	181.68	7946.72	63.00	2235.22	2231.13 S	135.71W	2235.25@183.48		0.84
9996.00	86.35	181.50	7950.33	62.00	2297.09	2293.00 S	137.42W	2297.11@183.43		1.04
10057.00	86.53	181.94	7954.12	61.00	2357.95	2353.85 S	139.25W	2357.97@183.39		0.78
10121.00	87.41	181.94	7957.50	64.00	2421.85	2417.72 S	141.42W	2421.86@183.35		1.38
10182.00	86.53	181.68	7960.72	61.00	2482.74	2478.61 S	143.34W	2482.75@183.31		1.50
10244.00	87.14	181.15	7964.15	62.00	2544.62	2540.49 S	144.87W	2544.62@183.26		1.30
10307.00	86.88	181.41	7967.43	63.00	2607.50	2603.39 S	146.27W	2607.50@183.22		0.58
10370.00	87.23	180.89	7970.67	63.00	2670.37	2666.30 S	147.54W	2670.37@183.17		0.99
10433.00	87.14	181.33	7973.76	63.00	2733.26	2729.21 S	148.76W	2733.26@183.12		0.71

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10495.00	86.79	181.15	7977.05	62.00	2795.13	2791.11 S	150.10W	2795.14@183.08	0.63
10558.00	87.05	181.41	7980.43	63.00	2858.01	2854.00 S	151.50W	2858.02@183.04	0.58
10620.00	87.49	181.59	7983.38	62.00	2919.91	2915.91 S	153.12W	2919.93@183.01	0.77
10683.00	87.58	181.41	7986.09	63.00	2982.82	2978.83 S	154.77W	2982.85@182.97	0.32
10744.00	87.41	181.06	7988.76	61.00	3043.73	3039.76 S	156.08W	3043.76@182.94	0.64
10807.00	86.88	180.71	7991.90	63.00	3106.60	3102.67 S	157.05W	3106.64@182.90	1.01
10870.00	86.97	181.33	7995.28	63.00	3169.46	3165.57 S	158.17W	3169.52@182.86	0.99
10932.00	87.49	182.12	7998.27	62.00	3231.37	3227.47 S	160.04W	3231.43@182.84	1.52
10995.00	87.49	182.56	8001.03	63.00	3294.30	3290.35 S	162.61W	3294.37@182.83	0.70
11057.00	87.23	182.29	8003.89	62.00	3356.23	3352.23 S	165.23W	3356.30@182.82	0.60
11119.00	86.53	182.03	8007.26	62.00	3418.13	3414.10 S	167.56W	3418.21@182.81	1.20
11182.00	87.32	182.29	8010.64	63.00	3481.02	3476.96 S	169.93W	3481.11@182.80	1.32
11244.00	87.32	182.47	8013.54	62.00	3542.95	3538.84 S	172.51W	3543.04@182.79	0.29
11306.00	86.70	182.73	8016.77	62.00	3604.86	3600.69 S	175.31W	3604.96@182.79	1.08
11369.00	87.05	182.82	8020.21	63.00	3667.77	3663.52 S	178.36W	3667.86@182.79	0.57
11433.00	86.44	182.91	8023.84	64.00	3731.66	3727.34 S	181.55W	3731.76@182.79	0.96
11495.00	87.05	182.82	8027.36	62.00	3793.56	3789.16 S	184.65W	3793.66@182.79	0.99
11559.00	86.35	182.38	8031.05	64.00	3857.45	3852.99 S	187.55W	3857.55@182.79	1.29
11620.00	86.97	182.65	8034.60	61.00	3918.34	3913.83 S	190.22W	3918.45@182.78	1.11
11683.00	87.05	182.65	8037.89	63.00	3981.25	3976.67 S	193.13W	3981.36@182.78	0.13
11746.00	86.79	182.73	8041.27	63.00	4044.16	4039.51 S	196.08W	4044.27@182.78	0.43
STRAIGHTLINE PROJECTION TO BIT @ 11801' TD.									
11801.00	86.79	182.73	8044.35	55.00	4099.07	4094.36 S	198.69W	4099.18@182.78	0.00