

Pathfinder Energy Services

Survey Report

Page 1
Job No: 101005526
Date: 5/22/2006
Time: 7:25 pm
Wellpath ID: 1005526
Date Created: 5/15/2006
Last Revision: 5/22/2006

Calculated using the Minimum Curvature Method
Computed using PDS VER2.2.6
Vertical Section Plane: 0.35 deg.

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

EOG Resources
Rio Grande 23 #3H
McVay #4
Eddy Co. N.M.
1005526

Measured Depth (ft)	Incl (deg.)	Drift Dir. (deg.)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)		Closure Dist. (ft)	Dir. (deg.)	DLS (dg/100ft)
3850.00	0.35	74.69	3849.67	0.00	-28.10	28.06 S	6.57W	28.82@	193.18	0.00
4003.00	0.70	113.14	4002.66	153.00	-28.34	28.30 S	5.26W	28.75@	190.53	0.31
4089.00	1.32	119.03	4088.65	86.00	-29.01	28.99 S	3.91W	29.25@	187.68	0.73
4121.00	1.41	96.88	4120.64	32.00	-29.24	29.22 S	3.20W	29.35@	186.25	1.66
4152.00	2.90	43.00	4151.62	31.00	-28.70	28.69 S	2.28W	28.78@	184.55	7.62
4183.00	6.24	25.51	4182.52	31.00	-26.60	26.59 S	1.02W	26.61@	182.20	11.55
4215.00	9.50	15.84	4214.22	32.00	-22.48	22.48 S	0.45 E	22.45@	178.86	10.96
4246.00	13.01	12.06	4244.61	31.00	-16.60	16.61 S	1.87 E	16.71@	173.56	11.58
4278.00	16.62	9.51	4275.55	32.00	-6.55	6.57 S	3.38 E	9.21@	158.45	11.46
4309.00	19.96	6.61	4304.98	31.00	1.09	1.06 N	4.73 E	4.84@	77.33	11.16
4341.00	23.30	3.18	4334.72	32.00	12.85	12.81 N	5.71 E	14.02@	24.01	11.16
4373.00	26.56	0.81	4363.74	32.00	26.32	26.29 N	6.16 E	27.00@	13.19	10.65
4404.00	30.16	359.49	4391.01	31.00	41.05	41.01 N	6.19 E	41.47@	8.58	11.79
4435.00	33.41	358.79	4417.36	31.00	57.37	57.33 N	5.92 E	57.64@	5.90	10.57
4467.00	36.93	358.70	4443.51	32.00	75.79	75.76 N	5.51 E	75.96@	4.16	11.00
4498.00	40.36	359.76	4467.72	31.00	95.14	95.11 N	5.25 E	95.26@	3.16	11.27
4530.00	43.88	0.11	4491.45	32.00	116.60	116.57 N	5.23 E	116.65@	2.57	11.02
4561.00	47.31	359.41	4513.14	31.00	138.74	138.71 N	5.13 E	138.81@	2.12	11.18
4592.00	50.83	358.35	4533.45	31.00	162.15	162.13 N	4.67 E	162.19@	1.65	11.64
4624.00	54.34	357.03	4552.89	32.00	187.53	187.52 N	3.64 E	187.55@	1.11	11.45
4656.00	57.95	357.03	4570.15	31.00	213.23	213.22 N	2.31 E	213.25@	0.62	11.65
4687.00	61.64	357.38	4586.25	32.00	240.84	240.84 N	0.96 E	240.84@	0.23	11.57
4718.00	65.16	357.47	4600.13	31.00	268.52	268.52 N	0.29W	268.52@	359.94	11.36
4750.00	69.03	357.38	4612.58	32.00	297.95	297.97 N	1.61W	297.97@	359.69	12.10
4791.00	73.25	356.42	4625.83	41.00	336.67	336.70 N	3.71W	336.72@	359.37	10.53
4822.00	76.85	356.59	4633.83	31.00	366.55	366.59 N	5.54W	366.63@	359.13	11.62
4853.00	79.78	357.47	4640.11	31.00	396.85	396.90 N	7.11W	396.96@	358.97	9.79
4885.00	82.83	358.35	4644.95	32.00	428.45	428.51 N	8.25W	428.56@	358.90	9.97
4916.00	88.00	358.62	4647.97	31.00	459.28	459.35 N	9.08W	459.43@	358.87	10.26
4979.00	90.22	359.32	4650.05	63.00	522.21	522.29 N	10.21W	522.35@	358.88	6.79
5042.00	90.66	358.97	4649.56	63.00	585.20	585.28 N	11.16W	585.36@	358.91	0.89
5105.00	90.92	358.97	4648.70	63.00	648.17	648.26 N	12.26W	648.38@	358.91	0.41

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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)
5168.00	89.96	359.32	4648.21	63.00	711.16	711.25 N	13.22W	711.37@358.94	1.62
5231.00	90.57	359.85	4647.92	63.00	774.15	774.25 N	13.68W	774.37@358.99	1.28
5294.00	89.43	0.37	4647.92	63.00	837.15	837.25 N	13.56W	837.36@359.07	1.99
5357.00	87.85	0.46	4649.42	63.00	900.13	900.23 N	13.10W	900.32@359.17	2.51
5419.00	88.37	359.58	4651.46	62.00	962.09	962.19 N	13.08W	962.26@359.22	1.65
5482.00	88.72	358.17	4653.06	63.00	1025.05	1025.16 N	14.31W	1025.26@359.20	2.31
5545.00	90.48	358.26	4653.50	63.00	1088.00	1088.12 N	16.28W	1088.24@359.14	2.80
5608.00	91.71	358.09	4652.30	63.00	1150.94	1151.08 N	18.28W	1151.22@359.09	1.97
5671.00	91.63	358.35	4650.46	63.00	1213.87	1214.02 N	20.24W	1214.19@359.04	0.43
5734.00	90.30	357.56	4649.40	63.00	1276.81	1276.97 N	22.46W	1277.17@358.99	2.46
5860.00	89.96	357.38	4649.11	128.00	1402.65	1402.85 N	28.05W	1403.15@358.85	0.31
5988.00	90.66	356.32	4648.42	128.00	1530.41	1530.65 N	35.08W	1531.06@358.69	0.99
6115.00	90.40	353.43	4647.25	127.00	1656.81	1657.12 N	46.42W	1657.77@358.40	2.28
6240.00	89.78	351.14	4647.06	125.00	1780.56	1780.98 N	63.20W	1782.10@357.97	1.90
6366.00	90.40	353.25	4646.85	126.00	1905.28	1905.81 N	80.31W	1907.50@357.58	1.75
6429.00	90.84	353.52	4646.17	63.00	1967.81	1968.38 N	87.57W	1970.33@357.45	0.82
6493.00	89.34	353.17	4646.07	84.00	2031.33	2031.95 N	94.99W	2034.17@357.32	2.41
6589.00	90.84	354.75	4645.92	96.00	2126.73	2127.41 N	105.09W	2130.00@357.17	2.27
6683.00	92.51	356.42	4643.17	94.00	2220.36	2221.08 N	112.32W	2223.92@357.10	2.51
6778.00	92.07	356.80	4639.38	96.00	2315.02	2315.79 N	118.76W	2318.83@357.06	0.80
6871.00	92.07	356.24	4636.02	93.00	2407.69	2408.50 N	125.21W	2411.76@357.02	0.47
6966.00	89.43	356.15	4634.77	95.00	2502.43	2503.28 N	131.52W	2506.73@356.99	2.78
7059.00	91.01	356.68	4634.42	93.00	2595.21	2596.09 N	137.33W	2599.72@356.97	1.79
7122.00	90.57	355.80	4633.55	63.00	2658.04	2658.95 N	141.46W	2662.71@356.95	1.56
7186.00	90.13	356.63	4633.16	64.00	2721.83	2722.77 N	146.24W	2726.65@356.93	0.74
7280.00	91.63	356.15	4631.71	94.00	2815.53	2816.51 N	152.98W	2820.67@356.89	1.69
7375.00	89.87	354.92	4630.47	95.00	2910.18	2911.21 N	160.37W	2915.63@356.85	2.26
7470.00	92.15	356.51	4628.79	95.00	3004.84	3005.92 N	167.47W	3010.58@356.81	2.93
7565.00	91.28	357.12	4625.95	95.00	3099.62	3100.73 N	172.75W	3105.54@356.81	1.12
7660.00	90.92	357.91	4624.13	95.00	3194.48	3195.62 N	176.87W	3200.51@356.83	0.91
7756.00	89.78	357.91	4623.54	96.00	3290.39	3291.56 N	180.37W	3296.50@356.86	1.19
7850.00	89.69	358.00	4623.98	94.00	3384.31	3385.50 N	183.72W	3390.46@356.89	0.14
7977.00	90.13	358.78	4624.18	127.00	3511.23	3512.44 N	187.29W	3517.43@356.95	0.71
8102.00	91.54	359.32	4622.35	125.00	3636.19	3637.41 N	189.36W	3642.34@357.02	1.21
8208.00	90.13	356.59	4620.81	106.00	3742.07	3743.32 N	193.14W	3748.30@357.05	2.90
PROJECTED TO BIT									
8267.00	90.13	356.59	4620.67	59.00	3800.94	3802.21 N	196.65W	3807.30@357.04	0.00