PathFinder Energy Services

Survey Report

Job No: J-WT-0501-0007-WTWT
Date: 1/21/2005
Time: 5:24 am
Wellpath ID: nile_svy
Date Created: 1/14/2005
Last Revision: 1/21/2005

Calculated using the Minimum Curvature Method
Computed using PDS VER2.2.6
Vertical Section Plane: 0.04 deg.

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

EOG Resources
Nile State "22" State Com #1-H
McVay #10
Eddy Co. NM
Sec 22-T17S-R24E
Nile 22 #1-H Survey

Measured Depth (ft)	Incl (deg.)	Drift Dir. (deg.)	TVD (ft)	Vertical Section (ft)	Course Length (ft)	TOTAL Rectangular Offsets (ft)	(ft)	Closure Dist. (ft)	Dir. (deg.)	DLS (dg/100ft)
4400.00	1.07	112.51	4399.18	-62.15	0.00	62.18 S	41.24 E	74.61@	146.45	0.00
4439.00	2.46	102.89	4438.16	-62.48	39.00	62.51 S	42.39 E	75.53@	145.85	3.63
4471.00	4.48	92.96	4470.10	-62.69	32.00	62.72 S	44.31 E	76.80@	144.76	6.56
4503.00	7.03	87.77	4501.94	-62.68	32.00	62.71 S	47.52 E	78.68@	142.85	8.12
4534.00	10.20	86.37	4532.58	-62.43	31.00	62.46 S	52.15 E	81.37@	140.14	10.25
4566.00	13.28	71.16	4563.92	-61.06	32.00	61.10 S	58.46 E	84.56@	136.26	13.57
4597.00	17.24	53.50	4593.83	-57.17	31.00	57.21 S	65.53 E	86.99@	131.12	19.56
4629.00	21.98	40.58	4623.98	-49.78	32.00	49.84 S	73.25 E	88.59@	124.23	19.99
4661.00	26.64	29.85	4653.15	-39.00	32.00	39.05 S	80.72 E	89.67@	115.82	20.01
4693.00	31.04	21.07	4681.19	-25.06	32.00	25.12 S	87.26 E	90.81@	106.06	19.05
4725.00	35.09	12.72	4708.02	-8.37	32.00	8.43 S	92.26 E	92.64@	95.22	19.02
4756.00	38.96	5.24	4732.78	10.04	31.00	9.98 N	95.11 E	95.63@	84.01	19.12
4788.00	42.03	356.98	4757.13	30.78	32.00	30.71 N	95.47 E	100.29@	72.17	19.31
4820.00	46.25	351.53	4780.09	52.92	32.00	52.86 N	93.20 E	107.15@	60.44	17.73
4852.00	52.06	349.42	4801.02	76.78	32.00	76.72 N	89.18 E	117.63@	49.29	18.83
4883.00	58.48	348.96	4818.67	101.79	31.00	101.73 N	84.40 E	132.18@	39.68	20.74
4915.00	63.93	348.19	4834.08	129.26	32.00	129.21 N	78.85 E	151.36@	31.39	17.17
4946.00	68.24	347.67	4846.64	156.96	31.00	156.91 N	72.92 E	173.03@	24.93	13.99
4978.00	71.49	347.67	4857.65	186.30	32.00	186.26 N	66.51 E	197.78@	19.65	10.16
5010.00	73.69	348.19	4867.23	216.16	32.00	216.12 N	60.12 E	224.32@	15.55	7.05
5042.00	75.01	347.84	4875.86	246.29	32.00	246.26 N	53.72 E	252.05@	12.31	4.26
5073.00	76.77	348.28	4883.42	275.70	31.00	275.67 N	47.50 E	279.73@	9.78	5.84
5105.00	78.61	348.02	4890.24	306.30	32.00	306.27 N	41.08 E	309.01@	7.64	5.80
5137.00	81.16	348.37	4895.86	337.12	32.00	337.10 N	34.64 E	338.88@	5.87	8.04
5169.00	85.30	348.37	4899.63	368.24	32.00	368.22 N	28.24 E	369.30@	4.39	12.94
5201.00	87.67	348.81	4901.59	399.54	32.00	399.52 N	21.92 E	400.13@	3.14	7.53
5232.00	87.67	348.63	4902.85	429.91	31.00	429.90 N	15.86 E	430.16@	2.11	0.58
5264.00	88.11	348.28	4904.03	461.24	32.00	461.23 N	9.46 E	461.33@	1.17	1.76
Projection to the bit										
5313.00	89.50	348.75	4905.05	509.24	49.00	509.24 N	0.29W	509.24@	359.97	2.99

PathFinder Energy Services

Survey Report

Job No: J-WT-0501-0007-WTWT
Date: 1/25/2005
Time: 4:47 am
Wellpath ID: nile_svy
Date Created: 1/14/2005
Last Revision: 1/25/2005

Calculated using the Minimum Curvature Method
Computed using PDS VER2.2.6
Vertical Section Plane: 0.04 deg.

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

EOG Resources
Nile State "22" State Com #1-H
McVay #10
Eddy Co. NM
Sec 22-T17S-R24E
Nile 22 #1-H Survey

Measured Depth (ft)	Incl (deg.)	Drift Dir. (deg.)	TVD (ft)	Vertical Section (ft)	Course Length (ft)	TOTAL Rectangular Offsets (ft)	(ft)	Closure Dist. (ft)	Dir. (deg.)	DLS (dg/100ft)
5010.00	73.69	348.19	4867.23	216.16	32.00	216.12 N	60.12 E	224.32	15.55	7.05
5042.00	75.01	347.84	4875.86	246.29	32.00	246.26 N	53.72 E	252.05	12.31	4.26
5073.00	76.77	348.28	4883.42	275.70	31.00	275.67 N	47.50 E	279.73	9.78	5.84
5105.00	78.61	348.02	4890.24	306.30	32.00	306.27 N	41.08 E	309.01	7.64	5.80
5137.00	81.16	348.37	4895.86	337.12	32.00	337.10 N	34.64 E	338.88	5.87	8.04
5169.00	85.30	348.37	4899.63	368.24	32.00	368.22 N	28.24 E	369.30	4.39	12.94
5201.00	87.67	348.81	4901.59	399.54	32.00	399.52 N	21.92 E	400.13	3.14	7.53
5232.00	87.67	348.63	4902.85	429.91	31.00	429.90 N	15.86 E	430.19	2.11	0.58
5264.00	88.11	348.28	4904.03	461.24	32.00	461.23 N	9.46 E	461.33	1.17	1.76
5296.00	89.87	348.46	4904.60	492.57	32.00	492.57 N	3.01 E	492.58	0.35	5.53
5327.00	90.84	348.46	4904.40	522.94	31.00	522.94 N	3.19W	522.95	359.65	3.13
5359.00	91.80	349.25	4903.67	554.32	32.00	554.33 N	9.38W	554.41	359.03	3.88
5391.00	90.92	350.04	4902.91	585.79	32.00	585.80 N	15.13W	585.99	358.52	3.70
5422.00	91.01	350.13	4902.38	616.32	31.00	616.33 N	20.46W	616.67	358.10	0.41
5454.00	91.19	349.86	4901.77	647.82	32.00	647.84 N	26.02W	648.36	357.70	1.01
5486.00	89.16	349.42	4901.67	679.29	32.00	679.31 N	31.78W	680.06	357.32	6.49
5518.00	89.52	348.98	4902.04	710.72	32.00	710.75 N	37.77W	711.75	356.96	1.78
5549.00	89.96	349.07	4902.18	741.15	31.00	741.18 N	43.67W	742.46	356.63	1.45
5581.00	91.01	351.10	4901.91	772.66	32.00	772.70 N	49.18W	774.26	356.36	7.14
5613.00	90.75	351.62	4901.42	804.29	32.00	804.33 N	53.96W	806.14	356.16	1.82
5644.00	90.84	351.80	4900.99	834.96	31.00	835.00 N	58.46W	837.05	356.00	0.65
5676.00	90.40	353.55	4900.64	866.69	32.00	866.74 N	62.54W	868.99	355.87	5.64
5708.00	90.31	354.17	4900.44	898.51	32.00	898.55 N	65.96W	900.97	355.80	1.96
5740.00	89.34	355.05	4900.54	930.36	32.00	930.41 N	68.97W	932.96	355.76	4.09
5782.00	88.02	357.33	4901.51	972.25	42.00	972.30 N	71.76W	974.95	355.78	6.27
5814.00	87.76	358.04	4902.69	1004.21	32.00	1004.26 N	73.06W	1006.91	355.84	2.36
5838.00	88.11	358.39	4903.55	1028.18	24.00	1028.23 N	73.76W	1030.87	355.89	2.06
5870.00	88.46	359.18	4904.51	1060.15	32.00	1060.21 N	74.47W	1062.82	355.96	2.70
5901.00	89.08	359.44	4905.18	1091.15	31.00	1091.20 N	74.85W	1093.76	356.08	2.17
5933.00	88.46	359.18	4905.86	1123.14	32.00	1123.19 N	75.23W	1125.70	356.17	2.10
5965.00	89.25	359.38	4906.50	1155.13	32.00	1155.18 N	75.64W	1157.65	356.25	2.53
5997.00	90.84	0.06	4906.48	1187.12	32.00	1187.18 N	75.80W	1189.56	356.35	5.43
Projection to bit										
6047.00	91.25	1.00	4905.57	1237.11	50.00	1237.17 N	75.34W	1239.46	356.52	2.05

PathFinder Energy Services

Survey Report

Job No: J-WT-0501-0007-WTWT
Date: 1/28/2005
Time: 5:10 am
Wellpath ID: nile_svy
Date Created: 1/14/2005
Last Revision: 1/28/2005

Calculated using the Minimum Curvature Method
Computed using PDS VER2.2.6
Vertical Section Plane: 0.04 deg.

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

EOG Resources
Nile State "22" State Com #1-H
McVay #10
Eddy Co. NM
Sec 22-T17S-R24E
Nile 22 #1-H Survey

Measured Depth (ft)	Incl (deg.)	Drift Dir. (deg.)	TVD (ft)	Vertical Section (ft)	Course Length (ft)	TOTAL Rectangular Offsets (ft)	(ft)	Closure Dist. (ft)	Dir. (deg.)	DLS (dg/100ft)
6028.00	91.63	0.59	4905.81	1218.12	31.00	1218.17 N	75.63W	1220.51	@356.45	3.07
6060.00	90.84	359.88	4905.12	1250.11	32.00	1250.16 N	75.49W	1252.44	@356.54	3.32
6092.00	90.04	359.62	4904.87	1282.11	32.00	1282.16 N	75.63W	1284.39	@356.62	2.63
6124.00	89.87	359.53	4904.90	1314.10	32.00	1314.16 N	75.87W	1316.35	@356.70	0.60
6155.00	92.86	0.23	4904.16	1345.09	31.00	1345.15 N	75.94W	1347.29	@356.77	9.91
6187.00	93.12	0.68	4902.49	1377.05	32.00	1377.10 N	75.68W	1379.18	@356.85	1.62
6219.00	93.12	0.68	4900.75	1409.00	32.00	1409.05 N	75.30W	1411.06	@356.94	0.00
6250.00	92.95	0.76	4899.11	1439.95	31.00	1440.01 N	74.91W	1441.95	@357.02	0.61
6282.00	92.77	0.76	4897.51	1471.91	32.00	1471.96 N	74.49W	1473.85	@357.10	0.56
6314.00	92.68	0.59	4895.99	1503.87	32.00	1503.92 N	74.11W	1505.75	@357.18	0.60
6346.00	92.42	0.94	4894.57	1535.84	32.00	1535.89 N	73.69W	1537.66	@357.25	1.36
6377.00	92.15	0.94	4893.33	1566.81	31.00	1566.86 N	73.18W	1568.57	@357.33	0.87
6409.00	93.21	1.11	4891.84	1598.77	32.00	1598.82 N	72.61W	1600.47	@357.40	3.35
6441.00	93.30	1.11	4890.02	1630.71	32.00	1630.76 N	71.99W	1632.35	@357.47	0.28
6472.00	93.39	1.03	4888.21	1661.65	31.00	1661.70 N	71.41W	1663.24	@357.54	0.39
6504.00	91.98	0.59	4886.71	1693.61	32.00	1693.66 N	70.96W	1695.15	@357.60	4.62
6536.00	90.66	0.32	4885.97	1725.60	32.00	1725.65 N	70.70W	1727.10	@357.65	4.21
6567.00	89.96	359.97	4885.81	1756.60	31.00	1756.65 N	70.63W	1758.07	@357.70	2.52
6599.00	89.78	0.06	4885.88	1788.60	32.00	1788.65 N	70.62W	1790.05	@357.74	0.63
6631.00	89.55	0.31	4886.07	1820.60	32.00	1820.65 N	70.51W	1822.02	@357.78	1.06
6662.00	89.83	0.67	4886.23	1851.60	31.00	1851.65 N	70.25W	1852.98	@357.83	1.47
6694.00	89.55	0.29	4886.41	1883.60	32.00	1883.65 N	69.98W	1884.95	@357.87	1.48
6726.00	88.64	359.97	4886.91	1915.60	32.00	1915.65 N	69.91W	1916.92	@357.91	3.01
6758.00	88.55	359.81	4887.70	1947.59	32.00	1947.64 N	69.97W	1948.89	@357.94	0.57
6789.00	88.46	359.97	4888.50	1978.58	31.00	1978.62 N	70.03W	1979.86	@357.97	0.59
6821.00	88.90	0.41	4889.24	2010.57	32.00	2010.62 N	69.92W	2011.83	@358.01	1.94
Projection to the bit										
6882.00	89.50	0.50	4890.09	2071.56	61.00	2071.61 N	69.44W	2072.77	@358.08	0.99

PathFinder Energy Services

Survey Report

Job No: J-WT-0501-0007-WTWT
Date: 1/31/2005
Time: 4:34 am
Wellpath ID: nile_svy
Date Created: 1/14/2005
Last Revision: 1/31/2005

Calculated using the Minimum Curvature Method
Computed using PDS VER2.2.6
Vertical Section Plane: 0.04 deg.

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

EOG Resources
Nile State "22" State Com #1-H
McVay #10
Eddy Co. NM
Sec 22-T17S-R24E
Nile 22 #1-H Survey

Measured Depth (ft)	Incl (deg.)	Drift Dir. (deg.)	TVD (ft)	Vertical Section (ft)	Course Length (ft)	TOTAL Rectangular Offsets (ft)		Closure Dist. (ft)	Closure Dir. (deg.)	DLS (dg/100ft)
6504.00	91.98	0.59	4886.71	1693.61	32.00	1693.66 N	70.95W	1695.15	@357.60	4.62
6536.00	90.86	0.32	4885.97	1725.60	32.00	1725.65 N	70.70W	1727.10	@357.65	4.21
6567.00	89.96	359.97	4885.81	1756.60	31.00	1756.65 N	70.63W	1758.07	@357.70	2.52
6599.00	89.78	0.06	4885.88	1788.60	32.00	1788.65 N	70.62W	1790.05	@357.74	0.63
6631.00	89.55	0.31	4886.07	1820.60	32.00	1820.65 N	70.51W	1822.02	@357.78	1.06
6662.00	89.83	0.67	4886.23	1851.60	31.00	1851.65 N	70.29W	1852.98	@357.83	1.47
6694.00	89.55	0.29	4886.41	1883.60	32.00	1883.65 N	69.98W	1884.95	@357.87	1.48
6726.00	88.64	359.97	4886.91	1915.60	32.00	1915.65 N	69.91W	1916.92	@357.91	3.01
6758.00	88.55	359.81	4887.70	1947.59	32.00	1947.64 N	69.97W	1948.89	@357.94	0.57
6789.00	88.46	359.97	4888.50	1978.58	31.00	1978.62 N	70.03W	1979.86	@357.97	0.59
6821.00	88.90	0.41	4889.24	2010.57	32.00	2010.62 N	69.92W	2011.83	@358.01	1.94
6853.00	88.90	0.32	4889.86	2042.56	32.00	2042.61 N	69.72W	2043.80	@358.05	0.28
6885.00	90.04	0.76	4890.15	2074.56	32.00	2074.61 N	69.42W	2075.77	@358.08	3.82
6917.00	90.31	0.85	4890.05	2106.55	32.00	2106.60 N	68.97W	2107.73	@358.12	0.89
6948.00	91.19	1.38	4889.65	2137.55	31.00	2137.59 N	68.36W	2138.69	@358.17	3.31
6979.00	91.36	1.73	4888.96	2168.53	31.00	2168.57 N	67.52W	2169.63	@358.22	1.25
7011.00	92.59	2.06	4887.86	2200.49	32.00	2200.54 N	66.48W	2201.54	@358.27	4.00
7042.00	93.74	2.35	4886.14	2231.42	31.00	2231.47 N	65.26W	2232.42	@358.32	3.81
7074.00	93.56	2.26	4884.11	2263.33	32.00	2263.38 N	63.98W	2264.28	@358.38	0.63
7106.00	93.74	2.70	4882.07	2295.24	32.00	2295.28 N	62.60W	2296.13	@358.44	1.48
7138.00	93.74	2.96	4879.98	2327.13	32.00	2327.17 N	61.02W	2327.97	@358.50	0.81
7169.00	91.98	2.35	4878.44	2358.06	31.00	2358.10 N	59.58W	2358.85	@358.55	6.01
7201.00	90.75	1.73	4877.67	2390.03	32.00	2390.07 N	58.45W	2390.78	@358.60	4.30
7233.00	90.40	1.73	4877.35	2422.01	32.00	2422.05 N	57.48W	2422.74	@358.64	1.09
7264.00	90.13	1.64	4877.21	2453.00	31.00	2453.04 N	56.57W	2453.69	@358.68	0.92
7296.00	89.87	1.64	4877.21	2484.99	32.00	2485.03 N	55.66W	2485.65	@358.72	0.81
7328.00	89.78	1.64	4877.31	2516.97	32.00	2517.01 N	54.74W	2517.61	@358.75	0.28
7360.00	90.84	2.08	4877.13	2548.96	32.00	2549.00 N	53.70W	2549.56	@358.79	3.59
7391.00	91.54	2.78	4876.49	2579.92	31.00	2579.96 N	52.39W	2580.49	@358.84	3.19
7423.00	93.56	3.14	4875.07	2611.85	32.00	2611.88 N	50.74W	2612.38	@358.89	6.41
7455.00	93.74	3.22	4873.03	2643.74	32.00	2643.77 N	48.97W	2644.22	@358.94	0.62
projection to bit										
7523.00	93.95	3.22	4868.47	2711.48	68.00	2711.51 N	45.15W	2711.89	@359.05	0.31

PathFinder Energy Services

Survey Report

Job No: J-WT-0501-0007-WTWT
Date: 2/2/2005
Time: 4:49 am
Wellpath ID: nile_svy
Date Created: 1/14/2005
Last Revision: 2/2/2005

Calculated using the Minimum Curvature Method
Computed using PDS VER2.2.6
Vertical Section Plane: 0.04 deg.

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

EOG Resources
Nile State "22" State Com #1-H
McVay #10
Eddy Co. NM
Sec 22-T17S-R24E
Nile 22 #1-H Survey

Measured Depth (ft)	Incl (deg.)	Drift Dir. (deg.)	TVD (ft)	Vertical Section (ft)	Course Length (ft)	TOTAL Rectangular Offsets (ft)		Closure Dist. (ft)	Dir. (deg.)	DLS (dg/100ft)
7011.00	92.59	2.08	4887.86	2200.49	32.00	2200.54 N	66.46W	2201.54	@358.27	4.00
7042.00	93.74	2.35	4886.14	2231.42	31.00	2231.47 N	65.26W	2232.42	@358.32	3.81
7074.00	93.56	2.26	4884.11	2263.33	32.00	2263.38 N	63.98W	2264.28	@358.38	0.63
7106.00	93.74	2.70	4882.07	2295.24	32.00	2295.28 N	62.60W	2296.13	@358.44	1.48
7138.00	93.74	2.96	4879.98	2327.13	32.00	2327.17 N	61.02W	2327.97	@358.50	0.81
7169.00	91.98	2.35	4878.44	2358.06	31.00	2358.10 N	59.58W	2358.85	@358.55	6.01
7201.00	90.75	1.73	4877.87	2390.03	32.00	2390.07 N	58.48W	2390.78	@358.60	4.30
7233.00	90.40	1.73	4877.35	2422.01	32.00	2422.05 N	57.48W	2422.74	@358.64	1.09
7264.00	90.13	1.64	4877.21	2453.00	31.00	2453.04 N	56.57W	2453.69	@358.68	0.92
7296.00	89.87	1.64	4877.21	2484.99	32.00	2485.03 N	55.66W	2485.65	@358.72	0.81
7328.00	89.78	1.64	4877.31	2516.97	32.00	2517.01 N	54.74W	2517.61	@358.75	0.28
7360.00	90.84	2.08	4877.13	2548.96	32.00	2549.00 N	53.70W	2549.56	@358.79	3.59
7391.00	91.54	2.78	4876.49	2579.92	31.00	2579.96 N	52.39W	2580.49	@358.84	3.19
7423.00	93.56	3.14	4875.07	2611.85	32.00	2611.88 N	50.74W	2612.38	@358.89	6.41
7455.00	93.74	3.22	4873.03	2643.74	32.00	2643.77 N	48.97W	2644.22	@358.94	0.62
7486.00	93.65	3.22	4871.03	2674.62	31.00	2674.66 N	47.23W	2675.07	@358.99	0.29
7517.00	93.65	3.40	4869.06	2705.51	31.00	2705.54 N	45.44W	2705.92	@359.04	0.58
7549.00	93.47	3.14	4867.07	2737.40	32.00	2737.43 N	43.62W	2737.78	@359.09	0.99
7581.00	92.24	3.05	4865.48	2769.31	32.00	2769.34 N	41.89W	2769.66	@359.13	3.85
7612.00	93.03	3.14	4864.05	2800.24	31.00	2800.26 N	40.22W	2800.55	@359.18	2.56
7644.00	92.68	2.87	4862.46	2832.15	32.00	2832.18 N	38.56W	2832.44	@359.22	1.38
7676.00	92.68	3.05	4860.96	2864.08	32.00	2864.10 N	36.90W	2864.34	@359.26	0.56
7708.00	93.21	3.31	4859.32	2895.99	32.00	2896.01 N	35.12W	2896.22	@359.31	1.84
7739.00	93.12	3.40	4857.81	2926.89	31.00	2926.91 N	33.31W	2927.10	@359.35	0.41
7770.00	93.12	3.58	4856.92	2957.78	31.00	2957.81 N	31.43W	2957.97	@359.39	0.58
7802.00	92.95	3.49	4854.22	2989.68	32.00	2989.70 N	29.48W	2989.85	@359.44	0.60
7834.00	92.86	3.58	4852.60	3021.58	32.00	3021.60 N	27.49W	3021.72	@359.48	0.40
7866.00	92.95	3.66	4850.98	3053.48	32.00	3053.49 N	25.47W	3053.60	@359.52	0.38
7898.00	93.47	3.75	4849.19	3085.36	32.00	3085.38 N	23.40W	3085.47	@359.57	1.65
7929.00	93.65	3.93	4847.26	3116.23	31.00	3116.25 N	21.33W	3116.32	@359.61	0.82
7960.00	93.91	3.93	4845.22	3147.09	31.00	3147.11 N	19.21W	3147.17	@359.65	0.84
7991.00	94.18	3.84	4843.03	3177.95	31.00	3177.96 N	17.12W	3178.01	@359.69	0.92
Projection to the bit										
8047.00	94.30	3.80	4838.89	3233.67	56.00	3233.68 N	13.40W	3233.71	@359.76	0.23