

Pathfinder Energy Survey Report

30-045-33443

Company: XTO Energy Field: San Juan Co. New Mexico Site: Florance #73 Well: Florance #73 Wellpath: Original Hole	Date: 7/5/2006 Time: 15:31:37 Page: 1 Co-ordinate(NE) Reference: Well: Florance #73, True North Vertical (TVD) Reference: System: Mean Sea Level Section (VS) Reference: Well (0.00N,0.00E,43.38Azi) Survey Calculation Method: Minimum Curvature Db: Sybase
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Field: San Juan Co. New Mexico Section 21; T28N; R10W Map System: US State Plane Coordinate System 1927 Geo Datum: NAD27 (Clarke 1866) Sys Datum: Mean Sea Level	Map Zone: New Mexico, Western Zone Coordinate System: Well Centre Geomagnetic Model: igrf2005
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Site: Florance #73			
Section 18, T27N, R8W			
Site Position:	Northing: 2029942.51 ft	Latitude: 36 34 43.600 N	
From: Geographic	Easting: 531531.32 ft	Longitude: 107 43 33.400 W	
Position Uncertainty: 0.00 ft		North Reference: True	
Ground Level: 6085.00 ft		Grid Convergence: 0.06 deg	

Well: Florance #73	Slot Name:
Well Position: +N/-S 0.00 ft Northing: 2029942.51 ft Latitude: 36 34 43.600 N	Longitude: 107 43 33.400 W
+E/-W 0.00 ft Easting: 531531.32 ft	
Position Uncertainty: 0.00 ft	

Wellpath: Original Hole	Drilled From: Surface	Tie-on Depth: 0.00 ft	
Current Datum: Mean Sea Level	Above System Datum: Mean Sea Level	Declination: 10.46 deg	
Magnetic Data: 4/3/2006	Mag Dip Angle: 63.46 deg	Direction: deg	
Field Strength: 51227 nT	+E/-W ft		
Vertical Section: Depth From (TVD) ft	+N/-S ft		
0.00	0.00	0.00	43.38

Survey: Pathfinder MWD Survey	Start Date: 6/8/2006
Company: Pathfinder Energy	Engineer:
Tool:	Tied-to: From Surface

Survey: Pathfinder MWD 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	
178.00	0.09	1.53	178.00	0.14	0.00	0.10	0.05	0.05	0.00	
199.00	1.10	290.00	199.00	0.23	-0.19	0.04	5.12	4.81	-340.62	
298.00	2.20	337.87	297.96	2.31	-1.79	0.45	1.69	1.11	48.35	
460.00	2.02	41.15	459.87	7.34	-1.09	4.59	1.37	-0.11	39.06	
558.00	4.92	48.71	557.68	11.42	3.21	10.50	2.99	2.96	7.71	
652.00	4.92	48.71	651.33	16.74	9.27	18.53	0.00	0.00	0.00	
748.00	5.45	46.08	746.94	22.61	15.64	27.18	0.60	0.55	-2.74	
843.00	7.12	43.97	841.37	29.98	22.98	37.58	1.77	1.76	-2.22	
939.00	9.50	43.70	936.35	39.99	32.59	51.45	2.48	2.48	-0.28	
1033.00	10.55	42.65	1028.92	51.93	43.78	67.81	1.13	1.12	-1.12	
1129.00	12.05	41.59	1123.05	65.89	56.38	86.62	1.58	1.56	-1.10	
1224.00	12.40	45.90	1215.90	80.41	70.29	106.72	1.03	0.37	4.54	
1319.00	11.70	47.31	1308.81	94.03	84.70	126.52	0.80	-0.74	1.48	
1379.00	12.22	44.67	1367.50	102.68	93.63	138.94	1.26	0.87	-4.40	
1439.00	12.84	42.74	1426.07	112.09	102.62	151.95	1.25	1.03	-3.22	
1559.00	12.57	42.65	1543.14	131.49	120.52	178.34	0.23	-0.22	-0.07	
1619.00	11.87	42.65	1601.78	140.83	129.12	191.04	1.17	-1.17	0.00	
1679.00	12.13	40.36	1660.47	150.17	137.38	203.50	0.90	0.43	-3.82	
1739.00	12.31	41.51	1719.11	159.76	145.71	216.19	0.50	0.30	1.92	
1799.00	12.22	44.93	1777.74	169.05	154.43	228.93	1.22	-0.15	5.70	
1889.00	12.13	44.14	1865.71	182.58	167.74	247.91	0.21	-0.10	-0.88	
1949.00	13.28	43.97	1924.24	192.06	176.92	261.10	1.92	1.92	-0.28	
2009.00	12.66	43.18	1982.71	201.81	186.20	274.57	1.07	-1.03	-1.32	

Surface 1305/N 1325/W
 BHL 755/N 1850/W
 Md 7033
 Tvd 6451

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Field: San Juan Co. New Mexico
Site: Florance #73
Well: Florance #73
Wellpath: Original Hole

Date: 7/5/2006 Time: 15:31:37 Page: 2
Co-ordinate(NE) Reference: Well: Florance #73, True North
Vertical (TVD) Reference: System: Mean Sea Level
Section (VS) Reference: Well (0.00N,0.00E,43.38Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey: Pathfinder MWD 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
2071.00	11.96	45.81	2043.29	211.25	195.46	287.78	1.45	-1.13	4.24	
2133.00	12.05	47.83	2103.93	220.07	204.86	300.65	0.69	0.15	3.26	
2225.00	13.81	48.62	2193.60	233.78	220.22	321.16	1.92	1.91	0.86	
2319.00	13.01	45.28	2285.03	248.64	236.15	342.91	1.18	-0.85	-3.55	
2381.00	12.13	46.87	2345.55	258.00	245.87	356.39	1.53	-1.42	2.56	
2472.00	11.78	45.46	2434.57	271.05	259.46	375.21	0.50	-0.38	-1.55	
2535.00	12.31	44.93	2496.19	280.32	268.79	388.36	0.86	0.84	-0.84	
2599.00	11.96	43.26	2558.76	289.98	278.15	401.81	0.77	-0.55	-2.61	
2661.00	11.26	43.97	2619.49	299.01	286.76	414.28	1.15	-1.13	1.15	
2755.00	11.78	44.79	2711.59	312.43	299.89	433.05	0.58	0.55	0.87	
2851.00	13.10	45.55	2805.34	327.00	314.56	453.72	1.39	1.37	0.79	
2942.00	12.93	46.78	2894.00	341.20	329.34	474.19	0.36	-0.19	1.35	
3035.00	11.43	41.77	2984.91	355.19	343.07	493.79	1.97	-1.61	-5.39	
3129.00	12.93	43.18	3076.79	369.81	356.47	513.62	1.63	1.60	1.50	
3223.00	13.81	44.49	3168.24	385.48	371.53	535.35	0.99	0.94	1.39	
3345.00	12.57	44.32	3287.02	405.37	391.01	563.18	1.02	-1.02	-0.14	
3439.00	12.54	44.49	3378.77	419.97	405.30	583.61	0.05	-0.03	0.18	
3529.00	13.54	43.79	3466.45	434.54	419.44	603.92	1.12	1.11	-0.78	
3659.00	13.19	43.44	3592.93	456.30	440.17	633.97	0.28	-0.27	-0.27	
3749.00	12.49	43.26	3680.68	470.84	453.90	653.97	0.78	-0.78	-0.20	
3844.00	13.01	42.38	3773.33	486.22	468.15	674.93	0.58	0.55	-0.93	
3904.00	11.70	41.24	3831.94	495.79	476.71	687.77	2.22	-2.18	-1.90	
3968.00	10.90	40.71	3894.70	505.25	484.94	700.30	1.26	-1.25	-0.83	
4095.00	8.18	40.36	4019.93	521.24	498.62	721.32	2.14	-2.14	-0.28	
4183.00	7.47	39.31	4107.11	530.44	506.30	733.27	0.82	-0.81	-1.19	
4278.00	6.16	40.19	4201.44	539.11	513.50	744.52	1.38	-1.38	0.93	
4373.00	3.87	34.47	4296.07	545.65	518.61	752.78	2.46	-2.41	-6.02	
4468.00	1.93	45.64	4390.95	549.41	521.56	757.55	2.12	-2.04	11.76	
4563.00	0.88	93.19	4485.92	550.49	523.44	759.62	1.56	-1.11	50.05	
4595.00	0.53	107.60	4517.92	550.43	523.82	759.84	1.22	-1.09	45.03	
4713.00	0.58	92.36	4635.91	550.24	524.94	760.47	0.13	0.04	-12.92	

30-045-33443

Surface 1305/N 1325/W
TOP 849/N 1765/W - MD-3826 TVD 3663
MV BHL 755/N 1880/W - MD 4880 4768
OK TOP 755/N 1880/W MD 7033' 6951
BHL