



Energen Resources

Navajo Lake
Miller Mesa
Navajo Lake #102
Upper Lateral

45-34115

→ Design: Upper Lateral #2

PathFinder X&Y Report

17 July, 2007

RCVD JUL25'07

OIL CONS. DIV.

DIST. 3

Surface 1485/S 415/E Sec 10 32N 6W
BH L3 1013/N 904/E Sec 15 32N 6W
BH L4 1380/S 1677/E Sec 15

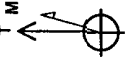
Md 34504 Tvd 3 2723

Md 47330 Tvd 4 2756



Project: Navajo Lake
 Site: Miller Mesa
 Well: Navajo Lake #102
 Wellbore: Upper Lateral
 Design: Upper Lateral (Navajo Lake #102/Upper Lateral)

Azimuths to True North
 Magnetic North: 10.33°
 Magnetic Field
 Strength: 51391.44nT
 Dip Angle: 63.85°
 Date: 12/12/2006
 Model: IGRF200510



WELL DETAILS: Navajo Lake #102

Ground Elevation: 5182.0
 RKB Elevation: KS @ 5197.0R (AWS 222)
 Rig Name: AWS 222

	+N/S	+E/W	North	East	Latitude	Longitude	Slot
	0.0	0.0	2180551.31	2835676.43	39° 59' 30.120 N	107° 26' 15.180 W	

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/S	+E/W	North	East	Shape
Legal Window	0.0	0.0	0.0	2180551.31	2835676.43	Rectangle (Sides: L3994.0 W1299.0)
Land Curve UL	2720.0	0.0	-494.6	2178263.32	2835201.87	Point
Upper Lateral PBHL	2720.0	-5975.3	-1395.6	2174370.30	2837315.46	Point

COMPANY DETAILS: Energen Resources

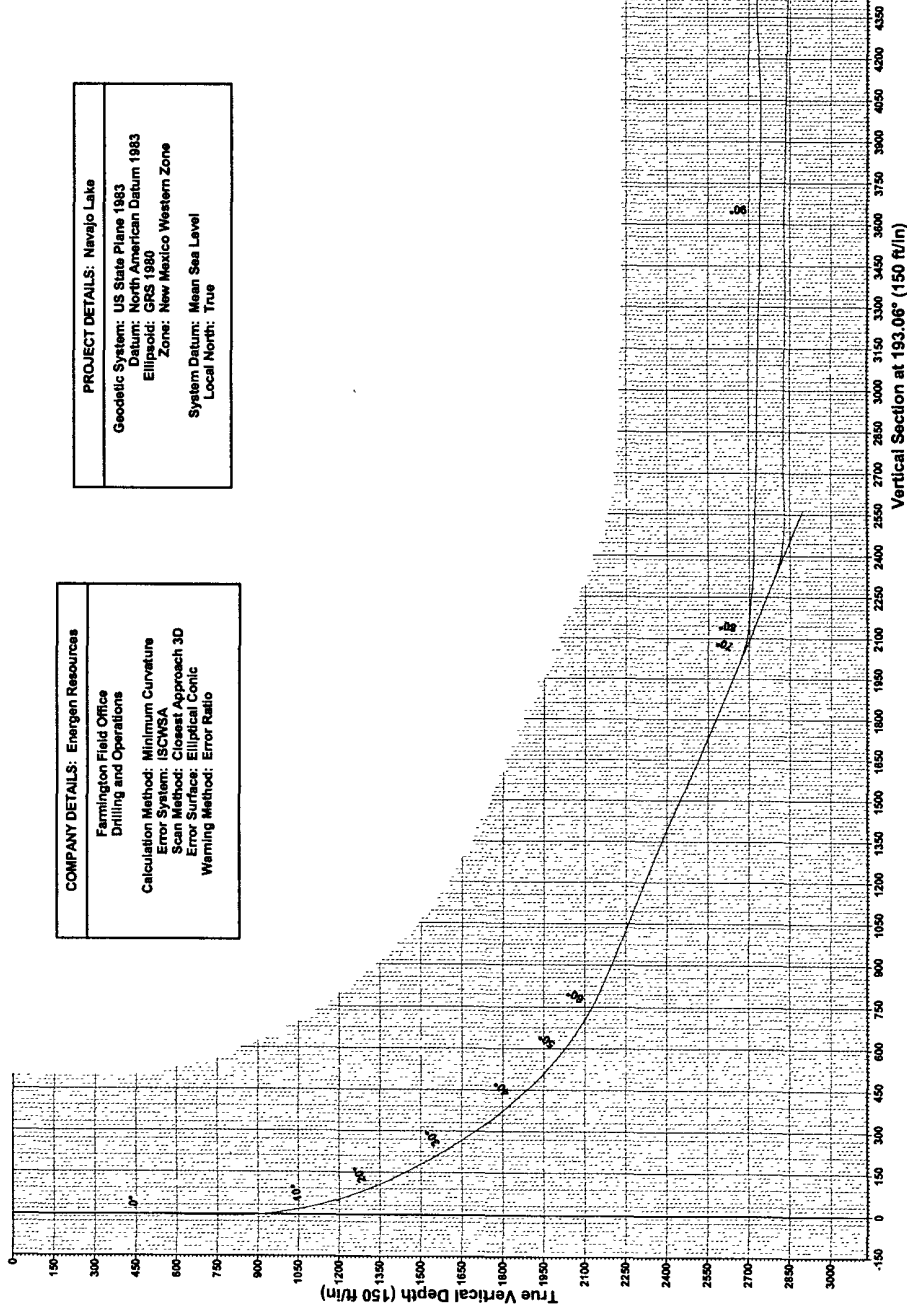
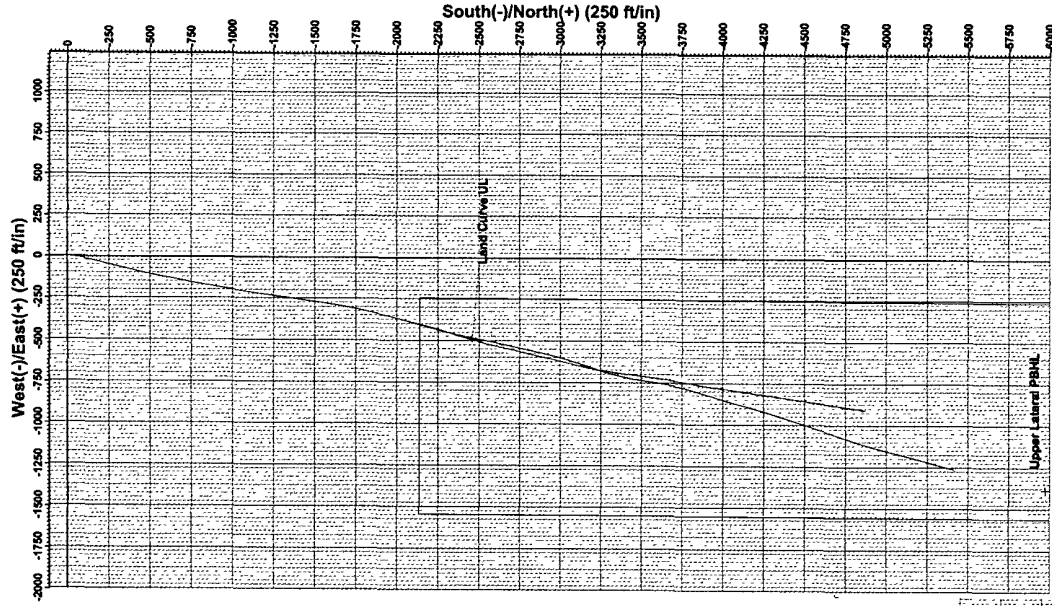
Farmington Field Office
 Drilling and Operations

Calculation Method: Minimum Curvature
 Error System: ISCWSA
 Scan Method: Closest Approach 3D
 Error Surface: Ellipsoidal Conic
 Warning Method: Error Ratio

PROJECT DETAILS: Navajo Lake

Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: New Mexico Western Zone

System Datum: Mean Sea Level
 Local North: True



Company: Energen Resources
Project: Navajo Lake
Site: Miller Mesa
Well: Navajo Lake #102
Wellbore: Upper Lateral
Design: Upper Lateral

Local Co-ordinate Reference: Well Navajo Lake #102
TVD Reference: KB @ 6197.0ft (AWS 222)
MD Reference: KB @ 6197.0ft (AWS 222)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: 200316 NWDB

Project	Navajo Lake	System Datum:	Mean Sea Level
Map System:	US State Plane 1983		
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Western Zone		

Site	Miller Mesa				
Site Position:		Northing:	2,180,551.31 ft	Latitude:	36° 59' 30.120 N
From:	Lat/Long	Easting:	2,838,676.43 ft	Longitude:	107° 26' 15.180 W
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.24 °

Well		Navajo Lake #102				
Well Position	+N/-S	0.0 ft	Northing:	2,180,551.31 ft	Latitude:	36° 59' 30.120 N
	+E/-W	0.0 ft	Easting:	2,838,676.43 ft	Longitude:	107° 26' 15.180 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	6,182.0 ft	Ground Level:	6,182.0 ft

Wellbore	Upper Lateral					
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength	
	IGRF200510	12/12/2006	(°)	(°)	(nT)	
			10.33	63.85	51,391	

Design	Upper Lateral					
Audit Notes:						
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	3,717.0	
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction		
	(ft)	(ft)	(ft)	(°)		
	0.0	0.0	0.0	193.06		

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 Wellbore: Upper Lateral
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Local Co-ordinate Reference: Well Navajo Lake #102
 TVD Reference: KB @ 6197.0ft (AWS 222)
 MD Reference: KB @ 6197.0ft (AWS 222)
 North Reference: True
 Survey Calculation Method: Minimum Curvature
 Database: 200316 NWDB

Survey Program		Date	07/17/2007		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
440.0	3,717.0	Survey #1 (Motherbore)	Pathfinder	Pathfinder MWD	
3,777.0	7,330.0	Survey #1 (Upper Lateral)	Pathfinder	Pathfinder MWD	

Survey											
MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)	
0.0	0.00	0.00	0.0	-6,197.0	0.0	0.0	0.0	0.00	2,180,551.31	2,838,676.43	
Legal Window											
440.0	0.00	0.00	440.0	-5,757.0	0.0	0.0	0.0	0.00	2,180,551.31	2,838,676.43	
473.0	0.79	16.66	473.0	-5,724.0	0.2	0.1	-0.2	2.39	2,180,551.53	2,838,676.50	
594.0	0.88	9.36	594.0	-5,603.0	1.9	0.5	-2.0	0.12	2,180,553.25	2,838,676.88	
655.0	0.79	16.39	655.0	-5,542.0	2.8	0.7	-2.9	0.22	2,180,554.11	2,838,677.07	
715.0	0.88	19.82	715.0	-5,482.0	3.6	0.9	-3.7	0.17	2,180,554.94	2,838,677.34	
742.0	0.97	18.68	742.0	-5,455.0	4.0	1.1	-4.2	0.34	2,180,555.36	2,838,677.48	
802.0	0.09	149.55	802.0	-5,395.0	4.5	1.3	-4.6	1.72	2,180,555.80	2,838,677.67	
864.0	2.99	179.87	863.9	-5,333.1	2.8	1.3	-3.0	4.70	2,180,554.14	2,838,677.70	
925.0	5.63	183.56	924.8	-5,272.2	-1.8	1.1	1.5	4.35	2,180,549.56	2,838,677.54	
986.0	7.83	181.01	985.3	-5,211.7	-8.9	0.8	8.5	3.64	2,180,542.42	2,838,677.31	
1,047.0	10.29	182.33	1,045.6	-5,151.4	-18.5	0.5	17.9	4.05	2,180,532.82	2,838,677.05	
1,106.0	12.66	185.32	1,103.4	-5,093.6	-30.2	-0.3	29.5	4.14	2,180,521.11	2,838,676.29	
1,166.0	15.21	186.90	1,161.6	-5,035.4	-44.6	-1.8	43.8	4.30	2,180,506.74	2,838,674.79	
1,227.0	17.76	189.27	1,220.1	-4,976.9	-61.7	-4.3	61.1	4.32	2,180,489.60	2,838,672.40	
1,289.0	19.87	191.56	1,278.8	-4,918.2	-81.4	-7.9	81.0	3.61	2,180,469.93	2,838,668.85	
1,350.0	22.25	190.68	1,335.7	-4,861.3	-102.9	-12.1	102.9	3.94	2,180,448.40	2,838,664.72	
1,409.0	24.62	190.77	1,389.8	-4,807.2	-125.9	-16.5	126.4	4.02	2,180,425.33	2,838,660.45	
1,472.0	26.20	192.44	1,446.7	-4,750.3	-152.4	-22.0	153.4	2.75	2,180,398.83	2,838,655.11	
1,533.0	27.79	193.41	1,501.1	-4,695.9	-179.4	-28.2	181.1	2.70	2,180,371.82	2,838,649.03	

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MD Reference: KB @ 6197.0ft (AWS 222)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: 200316 NWDB

Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
1,595.0	29.72	194.29	1,555.5	-4,641.5	-208.3	-35.3	210.9	3.19	2,180,342.84	2,838,642.00
1,656.0	31.48	194.46	1,608.0	-4,589.0	-238.4	-43.0	242.0	2.89	2,180,312.73	2,838,634.42
1,718.0	32.36	193.49	1,660.6	-4,536.4	-270.2	-50.9	274.7	1.64	2,180,280.89	2,838,626.63
1,781.0	34.47	192.97	1,713.2	-4,483.8	-304.0	-58.9	309.4	3.38	2,180,247.08	2,838,618.84
1,844.0	37.20	193.41	1,764.2	-4,432.8	-339.9	-67.3	346.3	4.35	2,180,211.14	2,838,610.57
1,905.0	39.39	193.58	1,812.1	-4,384.9	-376.6	-76.1	384.1	3.59	2,180,174.35	2,838,601.90
1,967.0	41.24	193.93	1,859.4	-4,337.6	-415.6	-85.6	424.2	3.01	2,180,135.35	2,838,592.52
2,028.0	43.53	192.61	1,904.4	-4,292.6	-455.6	-95.1	465.3	4.03	2,180,095.29	2,838,583.26
2,091.0	46.43	191.39	1,949.0	-4,248.0	-499.2	-104.3	509.8	4.80	2,180,051.70	2,838,574.20
2,153.0	48.89	191.03	1,990.7	-4,206.3	-544.1	-113.2	555.6	3.99	2,180,006.71	2,838,565.48
2,217.0	52.14	190.24	2,031.4	-4,165.6	-592.7	-122.3	605.0	5.17	2,179,958.13	2,838,556.57
2,280.0	55.31	191.12	2,068.7	-4,128.3	-642.6	-131.7	655.7	5.16	2,179,908.19	2,838,547.36
2,343.0	57.95	191.12	2,103.4	-4,093.6	-694.2	-141.9	708.3	4.19	2,179,856.53	2,838,537.43
2,406.0	61.91	190.86	2,134.9	-4,062.1	-747.7	-152.3	762.8	6.30	2,179,802.97	2,838,527.26
2,469.0	65.07	189.98	2,163.0	-4,034.0	-803.1	-162.5	819.1	5.17	2,179,747.49	2,838,517.30
2,529.0	66.04	189.80	2,187.9	-4,009.1	-857.0	-171.8	873.6	1.64	2,179,693.65	2,838,508.15
2,592.0	67.62	189.45	2,212.7	-3,984.3	-914.1	-181.5	931.4	2.56	2,179,636.50	2,838,498.70
2,654.0	68.24	189.01	2,235.9	-3,961.1	-970.8	-190.7	988.8	1.20	2,179,579.75	2,838,489.72
2,717.0	68.32	189.10	2,259.3	-3,937.7	-1,028.6	-200.0	1,047.2	0.18	2,179,521.92	2,838,480.75
2,779.0	68.32	188.75	2,282.2	-3,914.8	-1,085.5	-208.9	1,104.6	0.52	2,179,464.96	2,838,472.05
2,840.0	68.32	188.92	2,304.7	-3,892.3	-1,141.5	-217.6	1,161.1	0.26	2,179,408.92	2,838,463.58
2,900.0	67.71	187.96	2,327.2	-3,869.8	-1,196.5	-225.8	1,216.6	1.80	2,179,353.85	2,838,455.64
2,962.0	67.27	187.52	2,350.9	-3,846.1	-1,253.3	-233.5	1,273.6	0.97	2,179,297.06	2,838,448.16
3,025.0	66.83	187.78	2,375.5	-3,821.5	-1,310.8	-241.2	1,331.4	0.80	2,179,239.54	2,838,440.68
3,088.0	66.39	187.52	2,400.5	-3,796.5	-1,368.1	-248.9	1,389.0	0.79	2,179,182.20	2,838,433.22
3,151.0	66.13	188.13	2,425.8	-3,771.2	-1,425.2	-256.8	1,446.4	0.98	2,179,125.03	2,838,425.60
3,214.0	66.04	187.96	2,451.4	-3,745.6	-1,482.2	-264.8	1,503.8	0.29	2,179,067.98	2,838,417.78

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Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
3,277.0	66.04	188.48	2,477.0	-3,720.0	-1,539.2	-273.0	1,561.1	0.75	2,179,010.96	2,838,409.79
3,340.0	65.69	188.92	2,502.7	-3,694.3	-1,596.1	-281.7	1,618.4	0.85	2,178,954.10	2,838,401.33
3,402.0	66.74	189.89	2,527.7	-3,669.3	-1,652.0	-291.0	1,675.1	2.22	2,178,898.09	2,838,392.29
3,465.0	66.83	190.86	2,552.6	-3,644.4	-1,709.0	-301.4	1,732.9	1.42	2,178,841.09	2,838,382.10
3,528.0	66.74	191.65	2,577.4	-3,619.6	-1,765.8	-312.7	1,790.8	1.16	2,178,784.26	2,838,371.03
3,592.0	67.09	192.53	2,602.5	-3,594.5	-1,823.3	-325.1	1,849.6	1.38	2,178,726.64	2,838,358.94
3,654.0	67.80	192.79	2,626.3	-3,570.7	-1,879.2	-337.6	1,906.9	1.21	2,178,670.73	2,838,346.62
3,717.0	67.88	193.49	2,650.0	-3,547.0	-1,936.0	-350.9	1,965.2	1.04	2,178,613.85	2,838,333.60
3,777.0	68.80	194.25	2,672.2	-3,524.8	-1,990.2	-364.3	2,021.0	1.93	2,178,559.66	2,838,320.45
Top of Whipstock										
3,820.0	75.53	195.34	2,685.3	-3,511.7	-2,029.7	-374.7	2,061.9	15.84	2,178,520.07	2,838,310.16
3,880.0	82.31	196.04	2,696.9	-3,500.1	-2,086.4	-390.6	2,120.7	11.36	2,178,463.35	2,838,294.48
3,920.0	86.35	195.34	2,700.8	-3,496.2	-2,124.7	-401.4	2,160.4	10.25	2,178,424.99	2,838,283.88
3,985.0	83.54	195.25	2,706.5	-3,490.5	-2,187.1	-418.5	2,225.1	4.33	2,178,362.47	2,838,267.06
4,048.0	84.42	194.02	2,713.2	-3,483.8	-2,247.7	-434.3	2,287.7	2.39	2,178,301.79	2,838,251.48
4,112.0	87.67	193.58	2,717.6	-3,479.4	-2,309.7	-449.5	2,351.6	5.12	2,178,239.73	2,838,236.51
4,176.0	88.55	192.35	2,719.7	-3,477.3	-2,372.1	-463.9	2,415.5	2.36	2,178,177.34	2,838,222.42
4,240.0	88.81	191.47	2,721.1	-3,475.9	-2,434.7	-477.1	2,479.5	1.43	2,178,114.68	2,838,209.48
4,267.1	88.48	191.10	2,721.8	-3,475.2	-2,461.2	-482.4	2,506.6	1.85	2,178,088.10	2,838,204.29
Land Curve UL										
4,304.0	88.02	190.59	2,722.9	-3,474.1	-2,497.5	-489.3	2,543.4	1.85	2,178,051.84	2,838,197.50
4,367.0	87.32	191.39	2,725.5	-3,471.5	-2,559.3	-501.3	2,606.3	1.69	2,177,989.99	2,838,185.76
4,431.0	88.99	192.70	2,727.5	-3,469.5	-2,621.8	-514.7	2,670.3	3.32	2,177,927.39	2,838,172.67
4,495.0	88.29	191.47	2,729.1	-3,467.9	-2,684.4	-528.1	2,734.3	2.21	2,177,864.77	2,838,159.53
4,558.0	89.08	192.88	2,730.5	-3,466.5	-2,745.9	-541.3	2,797.2	2.56	2,177,803.15	2,838,146.51
4,621.0	89.96	193.23	2,731.0	-3,466.0	-2,807.3	-555.6	2,860.2	1.50	2,177,741.72	2,838,132.53
4,684.0	89.08	192.26	2,731.6	-3,465.4	-2,868.7	-569.5	2,923.2	2.08	2,177,680.22	2,838,118.89

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4,748.0	87.93	193.05	2,733.2	-3,463.8	-2,931.2	-583.5	2,987.2	2.18	2,177,617.74	2,838,105.13
4,811.0	89.43	194.81	2,734.7	-3,462.3	-2,992.3	-598.6	3,050.2	3.67	2,177,556.55	2,838,090.23
4,875.0	89.96	195.52	2,735.0	-3,462.0	-3,054.1	-615.4	3,114.1	1.38	2,177,494.71	2,838,073.74
4,938.0	89.16	197.27	2,735.5	-3,461.5	-3,114.5	-633.2	3,177.0	3.05	2,177,434.20	2,838,056.21
5,002.0	89.87	198.24	2,736.0	-3,461.0	-3,175.5	-652.7	3,240.8	1.88	2,177,373.17	2,838,036.95
5,065.0	88.02	197.80	2,737.2	-3,459.8	-3,235.3	-672.2	3,303.6	3.02	2,177,313.20	2,838,017.71
5,129.0	88.90	194.99	2,738.9	-3,458.1	-3,296.7	-690.2	3,367.4	4.60	2,177,251.75	2,837,999.91
5,193.0	88.81	192.79	2,740.2	-3,456.8	-3,358.8	-705.6	3,431.4	3.44	2,177,189.58	2,837,984.81
5,256.0	89.69	191.12	2,741.0	-3,456.0	-3,420.5	-718.6	3,494.4	3.00	2,177,127.90	2,837,972.02
5,320.0	89.60	189.19	2,741.4	-3,455.6	-3,483.4	-729.9	3,558.3	3.02	2,177,064.86	2,837,961.00
5,384.0	90.04	187.69	2,741.6	-3,455.4	-3,546.8	-739.3	3,622.1	2.44	2,177,001.52	2,837,951.87
5,448.0	89.52	189.10	2,741.9	-3,455.1	-3,610.1	-748.7	3,685.9	2.35	2,176,938.17	2,837,942.79
5,511.0	88.99	190.68	2,742.7	-3,454.3	-3,672.1	-759.5	3,748.8	2.65	2,176,876.07	2,837,932.23
5,574.0	89.25	192.35	2,743.7	-3,453.3	-3,733.8	-772.0	3,811.7	2.68	2,176,814.29	2,837,919.91
5,638.0	89.43	195.25	2,744.4	-3,452.6	-3,796.0	-787.3	3,875.7	4.54	2,176,752.09	2,837,904.90
5,702.0	88.99	196.92	2,745.3	-3,451.7	-3,857.5	-805.0	3,939.6	2.70	2,176,690.53	2,837,887.43
5,766.0	89.60	197.01	2,746.1	-3,450.9	-3,918.7	-823.7	4,003.5	0.96	2,176,629.24	2,837,869.01
5,830.0	91.63	196.75	2,745.4	-3,451.6	-3,979.9	-842.3	4,067.3	3.20	2,176,567.93	2,837,850.69
5,894.0	93.12	196.31	2,742.7	-3,454.3	-4,041.2	-860.5	4,131.1	2.43	2,176,506.55	2,837,832.75
5,958.0	92.07	194.11	2,739.8	-3,457.2	-4,102.9	-877.3	4,195.0	3.81	2,176,444.79	2,837,816.23
6,021.0	93.74	194.73	2,736.6	-3,460.4	-4,163.8	-892.9	4,257.9	2.83	2,176,383.79	2,837,800.82
6,085.0	92.15	196.39	2,733.4	-3,463.6	-4,225.4	-910.1	4,321.8	3.59	2,176,322.15	2,837,783.93
6,148.0	91.01	196.66	2,731.6	-3,465.4	-4,285.8	-928.0	4,384.6	1.86	2,176,261.71	2,837,766.27
6,212.0	89.60	197.62	2,731.3	-3,465.7	-4,346.9	-946.8	4,448.5	2.67	2,176,200.47	2,837,747.66
6,276.0	89.25	197.80	2,731.9	-3,465.1	-4,407.9	-966.3	4,512.2	0.61	2,176,139.43	2,837,728.45
6,339.0	89.60	197.71	2,732.5	-3,464.5	-4,467.9	-985.5	4,575.0	0.57	2,176,079.35	2,837,709.49
6,403.0	89.08	198.33	2,733.3	-3,463.7	-4,528.8	-1,005.3	4,638.8	1.26	2,176,018.42	2,837,689.94

Company: Energen Resources
Project: Navajo Lake
Site: Miller Mesa
Well: Navajo Lake #102
Wellbore: Upper Lateral
Design: Upper Lateral

Local Co-ordinate Reference: Well Navajo Lake #102
TVD Reference: KB @ 6197.0ft (AWS 222)
MD Reference: KB @ 6197.0ft (AWS 222)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: 200316 NWDB

Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec. (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
6,466.0	88.72	198.33	2,734.5	-3,462.5	-4,588.5	-1,025.1	4,701.5	0.57	2,175,958.54	2,837,670.38
6,531.0	88.90	197.62	2,735.8	-3,461.2	-4,650.4	-1,045.2	4,766.3	1.13	2,175,896.65	2,837,650.59
6,594.0	88.11	198.15	2,737.5	-3,459.5	-4,710.3	-1,064.5	4,829.0	1.51	2,175,836.63	2,837,631.49
6,658.0	88.55	198.50	2,739.4	-3,457.6	-4,771.0	-1,084.6	4,892.7	0.88	2,175,775.82	2,837,611.63
6,722.0	88.72	198.24	2,740.9	-3,456.1	-4,831.7	-1,104.8	4,956.4	0.49	2,175,715.02	2,837,591.72
6,786.0	88.90	195.16	2,742.2	-3,454.8	-4,893.0	-1,123.2	5,020.3	4.82	2,175,653.66	2,837,573.59
6,850.0	88.72	195.08	2,743.5	-3,453.5	-4,954.8	-1,139.9	5,084.2	0.31	2,175,591.82	2,837,557.16
6,913.0	87.14	193.85	2,745.8	-3,451.2	-5,015.8	-1,155.6	5,147.2	3.18	2,175,530.80	2,837,541.69
6,977.0	87.67	193.85	2,748.7	-3,448.3	-5,077.8	-1,170.9	5,211.1	0.83	2,175,468.66	2,837,526.64
7,039.0	88.55	194.55	2,750.8	-3,446.2	-5,137.9	-1,186.1	5,273.0	1.81	2,175,408.52	2,837,511.69
7,103.0	88.99	195.60	2,752.1	-3,444.9	-5,199.7	-1,202.8	5,337.0	1.78	2,175,346.67	2,837,495.30
7,166.0	89.16	195.69	2,753.1	-3,443.9	-5,260.3	-1,219.7	5,399.9	0.31	2,175,285.94	2,837,478.57
7,230.0	87.23	194.73	2,755.2	-3,441.8	-5,322.1	-1,236.5	5,463.8	3.37	2,175,224.15	2,837,462.04
7,330.0	91.96	194.73	2,755.9	-3,441.1	-5,418.8	-1,261.9	5,563.8	4.73	2,175,127.36	2,837,437.03

TD Lateral - Upper Lateral PBHL

Company: Energen Resources
Project: Navajo Lake
Site: Miller Mesa
Well: Navajo Lake #102
Wellbore: Upper Lateral
Design: Upper Lateral

Local Co-ordinate Reference: Well Navajo Lake #102
TVD Reference: KB @ 6197.0ft (AWS 222)
MD Reference: KB @ 6197.0ft (AWS 222)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: 200316 NWDB

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Legal Window - actual wellpath hits target - Rectangle (sides W3,994.0 H1,299.0 D0.0)	0.00	0.24	0.0	0.0	0.0	2,180,551.31	2,838,676.43	36° 59' 30.120 N	107° 26' 15.180 W
Land Curve UL - actual wellpath misses by 3.0ft at 4267.1ft MD (2721.8 TVD, -2461.2 N, -482.4 E) - Point	0.00	0.00	2,720.0	-2,460.8	-484.8	2,178,088.52	2,838,201.87	36° 59' 5.787 N	107° 26' 21.156 W
Upper Lateral PBHL - actual wellpath misses by 571.3ft at 7330.0ft MD (2755.9 TVD, -5418.8 N, -1261.9 E) - Point	0.00	0.00	2,720.0	-5,975.3	-1,385.8	2,174,570.30	2,837,315.48	36° 58' 31.035 N	107° 26' 32.259 W

Checked By: _____ Approved By: _____ Date: _____