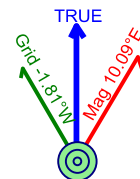




**Job Number:** 15091  
**Company:** Black Hills Plateau Production LLC  
**Lease/Well:** Homer Deep Unit 7-23BH  
**Location:** Garfield County, CO  
**Rig Name:** Ensign 161  
**State/Country:** CO/ Garfield  
**Country:** USA  
**Elev. GL:** 5674.00 ft  
**RKB:** 25.00 ft  
**System:** US State Plane 1983  
**Group:** Colorado Central Zone  
**Datum:** GRS80  
**Mag. Decl.:** 10.09° (C:\HawkEye\IGRF2015.MIF)  
**Grid Conv.:** -1.80985 W  
**Date:** Tuesday, August 18, 2015

### NOVA Directional Inc. Survey Report

Calculated by HawkEye Software  
 Minimum Curvature Method  
 Vertical Section Plane 147.70°  
 Northing (US ft): 1573219.00 Easting (US ft): 2188895.28  
 Latitude: 39°22'19.4520" N Longitude: -108°22'10.7040" W  
 Well Location: 1868 FSL, 2451 FWL, Section 7, T8S, R98W, Sixth Principal Meridian, Garfield County, CO  
 Direction Reference: True North



Measured Depth (Ft)	INC Deg	AZM Deg	TVD (Ft)	NS (Ft)	EW (Ft)	VS (Ft)	Closure (Ft)	Closure Dir Deg	DLS %/100 Ft
<b>Surface</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>First NOVA MWD survey</b>									
241.00	0.80	92.40	240.99	-0.07	1.68	0.96	1.68	92.40	0.33
334.00	0.40	208.60	333.99	-0.38	2.17	1.49	2.21	99.98	1.12
428.00	0.60	207.60	427.99	-1.11	1.79	1.89	2.10	121.74	0.21
521.00	0.70	208.80	520.98	-2.04	1.29	2.41	2.41	147.65	0.11
614.00	1.10	208.20	613.97	-3.32	0.59	3.12	3.37	169.85	0.43
706.00	1.40	216.70	705.95	-5.00	-0.49	3.96	5.02	185.65	0.38
798.00	1.70	228.80	797.91	-6.80	-2.19	4.58	7.15	197.87	0.48
891.00	2.20	216.70	890.86	-9.14	-4.30	5.43	10.10	205.18	0.69
950.00	2.70	215.30	949.80	-11.18	-5.78	6.36	12.59	207.32	0.85
1068.00	2.80	226.60	1067.67	-15.43	-9.48	7.98	18.11	211.56	0.47
1160.00	3.90	223.80	1159.51	-19.23	-13.28	9.16	23.37	214.62	1.21
1253.00	6.00	216.80	1252.16	-25.41	-18.38	11.66	31.36	215.88	2.35
1342.00	7.70	219.30	1340.52	-33.75	-24.94	15.20	41.96	216.47	1.94
1431.00	7.70	221.70	1428.72	-42.81	-32.68	18.72	53.86	217.36	0.36
1521.00	9.00	222.10	1517.76	-52.54	-41.41	22.28	66.90	218.25	1.45
1610.00	9.10	222.80	1605.66	-62.87	-50.86	25.96	80.87	218.97	0.17
1700.00	8.80	221.70	1694.56	-73.23	-60.28	29.69	94.85	219.46	0.38
1789.00	8.60	222.40	1782.54	-83.23	-69.29	33.32	108.30	219.78	0.25
1878.00	8.40	220.70	1870.56	-93.07	-78.02	36.98	121.45	219.97	0.36
1968.00	8.40	218.90	1959.59	-103.17	-86.44	41.02	134.59	219.96	0.29
2057.00	10.20	220.30	2047.42	-114.24	-95.62	45.47	148.97	219.93	2.04
2147.00	10.60	221.00	2135.94	-126.56	-106.20	50.23	165.22	220.00	0.47
2236.00	10.70	220.00	2223.41	-139.07	-116.88	55.10	181.66	220.05	0.24
2325.00	10.60	220.30	2310.87	-151.64	-127.49	60.06	198.11	220.05	0.13
2415.00	10.40	219.30	2399.37	-164.24	-137.99	65.10	214.51	220.03	0.30
2504.00	10.40	216.80	2486.91	-176.89	-147.89	70.50	230.57	219.90	0.51
2593.00	10.20	215.70	2574.47	-189.72	-157.30	76.31	246.45	219.66	0.32
2683.00	9.70	215.40	2663.12	-202.38	-166.34	82.18	261.96	219.42	0.56
2772.00	9.50	214.00	2750.87	-214.58	-174.79	87.97	276.76	219.17	0.35
2861.00	10.70	220.00	2838.49	-226.99	-184.21	93.44	292.33	219.06	1.79
2951.00	10.90	223.50	2926.90	-239.57	-195.44	98.07	309.17	219.21	0.76
3040.00	10.60	222.80	3014.34	-251.68	-206.79	102.23	325.74	219.41	0.37
3129.00	10.40	221.70	3101.85	-263.68	-217.70	106.55	341.93	219.54	0.32
3218.00	10.20	230.90	3189.42	-274.65	-229.16	109.70	357.69	219.84	1.86
3308.00	10.20	229.50	3278.00	-284.85	-241.40	111.78	373.38	220.28	0.28
3397.00	9.90	229.80	3365.63	-294.91	-253.24	113.96	388.71	220.65	0.34
3487.00	9.50	227.30	3454.34	-304.94	-264.60	116.36	403.74	220.95	0.65
3576.00	9.10	227.30	3542.17	-314.69	-275.17	118.96	418.03	221.17	0.45
3665.00	8.80	222.80	3630.09	-324.46	-284.97	121.98	431.84	221.29	0.86

Measured Depth (Ft)	INC Deg	AZM Deg	TVD (Ft)	NS (Ft)	EW (Ft)	VS (Ft)	Closure (Ft)	Closure Dir Deg	DLS °/100 Ft
3754.00	8.80	220.30	3718.04	-334.65	-294.00	125.77	445.45	221.30	0.43
3844.00	8.40	219.30	3807.03	-344.99	-302.62	129.90	458.90	221.26	0.47
3933.00	7.70	218.90	3895.16	-354.66	-310.48	133.87	471.36	221.20	0.79
4022.00	9.10	220.00	3983.20	-364.69	-318.75	137.93	484.35	221.15	1.58
4112.00	8.80	221.70	4072.10	-375.28	-327.90	142.00	498.35	221.15	0.44
4201.00	7.90	220.70	4160.16	-385.00	-336.42	145.66	511.28	221.15	1.02
4290.00	9.00	223.10	4248.19	-394.72	-345.16	149.20	524.35	221.17	1.30
4380.00	8.30	223.10	4337.17	-404.60	-354.41	152.62	537.88	221.22	0.78
4469.00	7.90	221.70	4425.28	-413.86	-362.87	155.92	550.41	221.24	0.50
4559.00	8.60	222.80	4514.35	-423.42	-371.56	159.36	563.33	221.27	0.80
4648.00	9.70	223.80	4602.21	-433.71	-381.27	162.87	577.47	221.32	1.25
4737.00	8.80	223.80	4690.05	-444.04	-391.17	166.30	591.76	221.38	1.01
4827.00	9.50	220.70	4778.91	-454.64	-400.78	170.13	606.07	221.40	0.95
4916.00	9.70	223.10	4866.66	-465.68	-410.69	174.17	620.91	221.41	0.50
5005.00	8.40	222.40	4954.55	-475.95	-420.20	177.77	634.90	221.44	1.47
5094.00	9.10	222.80	5042.52	-485.92	-429.36	181.30	648.44	221.46	0.79
5184.00	9.70	224.20	5131.31	-496.58	-439.48	184.90	663.13	221.51	0.71
5273.00	8.80	222.10	5219.15	-507.00	-449.28	188.48	677.42	221.55	1.08
5362.00	9.50	222.40	5307.02	-517.48	-458.79	192.25	691.57	221.56	0.79
5452.00	8.60	220.70	5395.90	-528.07	-468.19	196.18	705.73	221.56	1.04
5541.00	9.50	222.80	5483.79	-538.50	-477.52	200.01	719.73	221.57	1.08
5630.00	10.40	220.70	5571.45	-549.98	-487.75	204.25	735.10	221.57	1.09
5719.00	9.00	218.90	5659.17	-561.49	-497.36	208.84	750.09	221.53	1.61
5809.00	9.70	221.40	5747.98	-572.65	-506.79	213.24	764.70	221.51	0.90
5898.00	8.60	221.40	5835.84	-583.27	-516.15	217.21	778.86	221.51	1.24
5988.00	9.30	224.20	5924.75	-593.53	-525.67	220.79	792.85	221.53	0.92
6077.00	8.30	223.10	6012.70	-603.38	-535.08	224.09	806.45	221.57	1.14
6166.00	9.00	218.90	6100.69	-613.48	-543.84	227.95	819.83	221.56	1.06
6211.00	8.80	214.70	6145.15	-619.05	-548.01	230.43	826.76	221.52	1.51
6255.00	9.50	205.90	6188.59	-625.09	-551.51	233.66	833.60	221.42	3.55
6300.00	10.60	197.50	6232.90	-632.38	-554.38	238.29	840.97	221.24	4.07
6345.00	12.50	192.50	6276.99	-641.08	-556.67	244.42	849.04	220.97	4.77
6389.00	16.40	188.30	6319.59	-651.88	-558.60	252.52	858.48	220.59	9.17
6434.00	20.20	183.40	6362.31	-665.93	-559.98	263.66	870.08	220.06	9.10
6479.00	24.10	177.40	6403.98	-682.87	-560.03	277.95	883.14	219.36	10.01
6524.00	28.00	172.50	6444.41	-702.53	-558.23	295.53	897.31	218.47	9.89
6588.00	31.80	168.30	6499.89	-733.95	-552.85	324.97	918.87	216.99	6.78
6619.00	31.70	167.90	6526.25	-749.91	-549.48	340.26	929.68	216.23	0.75
6650.00	31.50	167.20	6552.65	-765.77	-545.98	355.53	940.48	215.49	1.35
6681.00	31.30	167.20	6579.11	-781.52	-542.40	370.76	951.30	214.76	0.65
6711.00	31.10	167.20	6604.77	-796.68	-538.96	385.41	961.86	214.08	0.67
6742.00	30.80	166.90	6631.36	-812.22	-535.39	400.45	972.80	213.39	1.09
6773.00	30.40	166.20	6658.04	-827.56	-531.72	415.38	983.66	212.72	1.73
6803.00	29.90	165.10	6683.98	-842.16	-527.98	429.72	993.98	212.09	2.48
6834.00	29.60	165.10	6710.90	-857.03	-524.03	444.40	1004.54	211.44	0.97
6865.00	29.00	164.10	6737.93	-871.65	-520.00	458.91	1014.98	210.82	2.50
6895.00	28.50	163.70	6764.23	-885.52	-516.00	472.77	1024.89	210.23	1.79
6926.00	29.20	162.00	6791.39	-899.81	-511.59	487.21	1035.07	209.62	3.48
6957.00	30.80	160.20	6818.23	-914.47	-506.56	502.28	1045.40	208.98	5.92
6987.00	32.00	158.80	6843.84	-929.11	-501.08	517.58	1055.62	208.34	4.68
7018.00	33.60	158.10	6869.90	-944.72	-494.91	534.08	1066.51	207.65	5.30
7049.00	36.40	156.30	6895.29	-961.11	-488.02	551.62	1077.91	206.92	9.63
7079.00	38.70	155.60	6919.07	-977.80	-480.56	569.71	1089.51	206.17	7.80
7110.00	42.40	156.00	6942.62	-996.18	-472.31	589.66	1102.48	205.37	11.96
7141.00	45.40	156.00	6964.96	-1015.82	-463.56	610.92	1116.59	204.53	9.68
7171.00	47.70	154.60	6985.59	-1035.60	-454.46	632.51	1130.93	203.69	8.38

Measured Depth (Ft)	INC Deg	AZM Deg	TVD (Ft)	NS (Ft)	EW (Ft)	VS (Ft)	Closure (Ft)	Closure Dir Deg	DLS °/100 Ft
7202.00	50.50	153.20	7005.88	-1056.64	-444.15	655.80	1146.19	202.80	9.66
7233.00	53.80	152.50	7024.90	-1078.41	-432.98	680.18	1162.08	201.88	10.79
7264.00	56.80	152.10	7042.55	-1100.97	-421.13	705.58	1178.77	200.93	9.74
7294.00	60.00	151.80	7058.26	-1123.52	-409.11	731.06	1195.69	200.01	10.70
7325.00	63.70	151.40	7072.89	-1147.56	-396.11	758.32	1214.00	199.04	11.99
7356.00	66.90	150.70	7085.84	-1172.20	-382.48	786.44	1233.02	198.07	10.52
7386.00	69.50	151.10	7096.98	-1196.54	-368.94	814.24	1252.12	197.14	8.75
7417.00	72.80	151.40	7106.99	-1222.25	-354.83	843.52	1272.72	196.19	10.68
7448.00	76.20	152.50	7115.28	-1248.61	-340.79	873.31	1294.28	195.27	11.49
7478.00	80.90	150.70	7121.23	-1274.47	-326.80	902.63	1315.70	194.38	16.73
7509.00	84.50	150.70	7125.17	-1301.28	-311.76	933.33	1338.10	193.47	11.61
7540.00	88.20	150.00	7127.14	-1328.16	-296.45	964.23	1360.84	192.58	12.15
7572.00	91.10	150.00	7127.34	-1355.87	-280.46	996.20	1384.57	191.69	9.06
7603.00	91.70	148.90	7126.58	-1382.56	-264.70	1027.18	1407.67	190.84	4.04
7635.00	92.00	148.90	7125.55	-1409.94	-248.18	1059.15	1431.62	189.98	0.94
7667.00	92.40	148.90	7124.32	-1437.32	-231.67	1091.12	1455.87	189.16	1.25
7699.00	92.90	148.90	7122.84	-1464.70	-215.16	1123.08	1480.41	188.36	1.56
7731.00	93.30	148.60	7121.11	-1492.01	-198.58	1155.03	1505.17	187.58	1.56
7763.00	93.40	148.60	7119.24	-1519.28	-181.94	1186.97	1530.13	186.83	0.31
7795.00	93.30	147.90	7117.37	-1546.44	-165.13	1218.91	1555.24	186.09	2.21
7827.00	93.80	147.90	7115.39	-1573.50	-148.15	1250.85	1580.46	185.38	1.56
7859.00	94.00	147.50	7113.21	-1600.49	-131.09	1282.78	1605.85	184.68	1.39
7891.00	94.30	147.50	7110.90	-1627.40	-113.95	1314.69	1631.39	184.01	0.94
7922.00	94.70	147.20	7108.46	-1653.42	-97.27	1345.60	1656.28	183.37	1.61
7954.00	93.80	146.50	7106.09	-1680.14	-79.82	1377.51	1682.04	182.72	3.56
7986.00	93.80	146.50	7103.97	-1706.77	-62.20	1409.43	1707.90	182.09	0.00
8018.00	93.60	146.50	7101.91	-1733.40	-44.57	1441.36	1733.97	181.47	0.63
8050.00	93.80	146.50	7099.84	-1760.03	-26.95	1473.28	1760.23	180.88	0.63
8082.00	94.10	146.50	7097.64	-1786.65	-9.33	1505.20	1786.67	180.30	0.94
8114.00	93.40	146.80	7095.54	-1813.32	8.23	1537.12	1813.34	179.74	2.38
8146.00	93.30	146.80	7093.67	-1840.05	25.72	1569.07	1840.23	179.20	0.31
8178.00	93.40	146.80	7091.80	-1866.78	43.21	1601.01	1867.28	178.67	0.31
8209.00	93.80	146.50	7089.86	-1892.62	60.22	1631.94	1893.58	178.18	1.61
8241.00	94.30	146.10	7087.60	-1919.18	77.93	1663.85	1920.76	177.67	2.00
8273.00	93.30	146.10	7085.48	-1945.68	95.74	1695.77	1948.04	177.18	3.12
8305.00	93.40	146.10	7083.61	-1972.20	113.55	1727.70	1975.46	176.70	0.31
8337.00	93.80	146.10	7081.60	-1998.70	131.37	1759.63	2003.02	176.24	1.25
8369.00	94.30	145.80	7079.34	-2025.15	149.24	1791.53	2030.64	175.79	1.82
8401.00	93.10	146.10	7077.27	-2051.61	167.12	1823.45	2058.41	175.34	3.86
8433.00	92.90	146.50	7075.60	-2078.20	184.85	1855.39	2086.40	174.92	1.40
8465.00	93.40	146.10	7073.84	-2104.78	202.58	1887.34	2114.50	174.50	2.00
8497.00	93.60	146.10	7071.89	-2131.29	220.39	1919.26	2142.65	174.10	0.62
8528.00	94.00	146.10	7069.83	-2156.96	237.64	1950.18	2170.01	173.71	1.29
8560.00	92.60	146.80	7067.99	-2183.59	255.30	1982.12	2198.46	173.33	4.89
8592.00	92.70	146.80	7066.51	-2210.33	272.80	2014.08	2227.11	172.96	0.31
8624.00	93.10	146.80	7064.89	-2237.08	290.30	2046.04	2255.83	172.61	1.25
8656.00	93.10	146.80	7063.16	-2263.81	307.80	2077.99	2284.64	172.26	0.00
8688.00	92.90	147.20	7061.49	-2290.61	325.20	2109.94	2313.58	171.92	1.40
8719.00	93.30	147.20	7059.81	-2316.63	341.97	2140.90	2341.74	171.60	1.29
8751.00	92.70	147.20	7058.13	-2343.50	359.28	2172.85	2370.88	171.28	1.87
8783.00	92.40	147.90	7056.71	-2370.47	376.44	2204.82	2400.17	170.98	2.38
8815.00	92.60	148.20	7055.32	-2397.60	393.35	2236.79	2429.65	170.68	1.13
8847.00	92.00	147.90	7054.03	-2424.73	410.27	2268.76	2459.19	170.40	2.10
8879.00	91.70	147.50	7053.00	-2451.76	427.36	2300.74	2488.73	170.11	1.56
8911.00	91.80	147.20	7052.02	-2478.69	444.62	2332.73	2518.25	169.83	0.99
8942.00	92.00	147.20	7050.99	-2504.74	461.40	2363.71	2546.88	169.56	0.65

Measured Depth (Ft)	INC Deg	AZM Deg	TVD (Ft)	NS (Ft)	EW (Ft)	VS (Ft)	Closure (Ft)	Closure Dir Deg	DLS °/100 Ft
8974.00	92.40	147.50	7049.76	-2531.66	478.65	2395.69	2576.51	169.29	1.56
9006.00	92.90	147.50	7048.28	-2558.62	495.83	2427.65	2606.22	169.03	1.56
9038.00	92.20	146.50	7046.86	-2585.43	513.24	2459.62	2635.88	168.77	3.81
9070.00	92.00	146.50	7045.69	-2612.10	530.89	2491.59	2665.50	168.51	0.63
9102.00	92.40	146.50	7044.46	-2638.76	548.54	2523.56	2695.17	168.26	1.25
9134.00	92.70	146.50	7043.04	-2665.42	566.18	2555.52	2724.89	168.01	0.94
9166.00	92.00	146.80	7041.72	-2692.13	583.76	2587.49	2754.69	167.77	2.38
9197.00	91.30	146.80	7040.83	-2718.06	600.73	2618.47	2783.65	167.54	2.26
9229.00	91.50	146.50	7040.05	-2744.78	618.32	2650.45	2813.56	167.30	1.13
9261.00	91.70	146.50	7039.16	-2771.45	635.97	2682.43	2843.48	167.08	0.63
9293.00	91.80	146.10	7038.18	-2798.06	653.72	2714.41	2873.41	166.85	1.29
9325.00	92.20	146.10	7037.06	-2824.61	671.55	2746.38	2903.34	166.63	1.25
9357.00	92.40	146.10	7035.78	-2851.15	689.39	2778.34	2933.31	166.41	0.63
9389.00	92.60	146.50	7034.38	-2877.74	707.13	2810.30	2963.35	166.19	1.40
9421.00	92.60	147.20	7032.93	-2904.51	724.61	2842.26	2993.53	165.99	2.19
9453.00	92.20	147.90	7031.59	-2931.49	741.76	2874.23	3023.87	165.80	2.52
9485.00	92.40	147.50	7030.31	-2958.51	758.85	2906.21	3054.28	165.61	1.40
9517.00	92.40	146.80	7028.97	-2985.37	776.19	2938.18	3084.63	165.43	2.19
9549.00	92.40	146.50	7027.63	-3012.08	793.77	2970.15	3114.91	165.24	0.94
9581.00	92.40	146.10	7026.29	-3038.68	811.51	3002.11	3145.17	165.05	1.25
9612.00	91.70	146.10	7025.18	-3064.39	828.78	3033.08	3174.49	164.87	2.26
9644.00	91.10	146.50	7024.40	-3091.01	846.53	3065.06	3204.83	164.68	2.25
9676.00	91.30	146.10	7023.73	-3117.62	864.28	3097.04	3235.21	164.51	1.40
9708.00	91.70	145.80	7022.89	-3144.13	882.20	3129.01	3265.55	164.33	1.56
9740.00	92.00	145.80	7021.85	-3170.58	900.17	3160.98	3295.89	164.15	0.94
9772.00	91.50	146.50	7020.88	-3197.14	917.99	3192.95	3326.32	163.98	2.69
9804.00	91.50	146.80	7020.04	-3223.86	935.58	3224.94	3356.87	163.82	0.94
9836.00	91.50	147.20	7019.20	-3250.69	953.00	3256.92	3387.51	163.66	1.25
9868.00	91.50	147.90	7018.36	-3277.69	970.16	3288.91	3418.25	163.51	2.19
9899.00	92.00	147.90	7017.42	-3303.94	986.63	3319.90	3448.10	163.37	1.61
9931.00	92.20	148.20	7016.25	-3331.07	1003.55	3351.87	3478.96	163.23	1.13
9963.00	92.60	147.90	7014.91	-3358.20	1020.47	3383.85	3509.82	163.10	1.56
9995.00	92.90	147.90	7013.37	-3385.27	1037.45	3415.81	3540.68	162.96	0.94
10027.00	92.60	147.90	7011.83	-3412.35	1054.44	3447.77	3571.55	162.83	0.94
10059.00	92.20	147.90	7010.49	-3439.44	1071.43	3479.74	3602.45	162.70	1.25
10091.00	92.40	147.50	7009.21	-3466.46	1088.51	3511.72	3633.35	162.57	1.40
10123.00	92.70	147.50	7007.79	-3493.42	1105.69	3543.69	3664.23	162.44	0.94
10155.00	92.20	147.90	7006.42	-3520.45	1122.77	3575.66	3695.15	162.31	2.00
10187.00	91.70	148.20	7005.33	-3547.58	1139.70	3607.64	3726.16	162.19	1.82
10219.00	92.00	148.20	7004.30	-3574.77	1156.55	3639.62	3757.20	162.07	0.94
10250.00	92.40	148.20	7003.11	-3601.09	1172.88	3670.60	3787.28	161.96	1.29
10282.00	92.60	148.60	7001.71	-3628.32	1189.63	3702.56	3818.37	161.85	1.40
10314.00	92.20	148.60	7000.37	-3655.61	1206.28	3734.53	3849.50	161.74	1.25
10346.00	91.70	148.60	6999.28	-3682.91	1222.95	3766.51	3880.65	161.63	1.56
10378.00	91.80	148.60	6998.30	-3710.21	1239.61	3798.49	3911.82	161.53	0.31
10410.00	92.00	148.60	6997.24	-3737.51	1256.27	3830.47	3942.99	161.42	0.62
10442.00	92.20	148.60	6996.07	-3764.80	1272.94	3862.44	3974.18	161.32	0.63
10474.00	92.40	148.60	6994.79	-3792.10	1289.59	3894.41	4005.38	161.22	0.63
10506.00	92.40	148.90	6993.45	-3819.43	1306.18	3926.38	4036.60	161.12	0.94
10538.00	92.60	149.30	6992.05	-3846.86	1322.60	3958.34	4067.87	161.03	1.40
10569.00	92.70	149.30	6990.62	-3873.49	1338.41	3989.29	4098.20	160.94	0.32
10606.00	91.70	152.10	6989.20	-3905.73	1356.50	4026.21	4134.59	160.85	8.03
10637.00	91.30	152.50	6988.39	-3933.16	1370.91	4057.10	4165.23	160.78	1.82
10667.00	91.50	152.80	6987.65	-3959.80	1384.68	4086.98	4194.92	160.73	1.20
10698.00	91.80	152.80	6986.76	-3987.36	1398.85	4117.84	4225.62	160.67	0.97
10728.00	92.20	152.10	6985.71	-4013.95	1412.72	4147.72	4255.29	160.61	2.69

Measured Depth (Ft)	INC Deg	AZM Deg	TVD (Ft)	NS (Ft)	EW (Ft)	VS (Ft)	Closure (Ft)	Closure Dir Deg	DLS °/100 Ft
10759.00	92.60	152.10	6984.42	-4041.32	1427.21	4178.60	4285.93	160.55	1.29
10790.00	92.70	152.10	6982.98	-4068.69	1441.70	4209.48	4316.56	160.49	0.32
10820.00	92.60	151.40	6981.59	-4095.08	1455.88	4239.37	4346.18	160.43	2.35
10851.00	92.70	151.10	6980.16	-4122.23	1470.78	4270.28	4376.76	160.36	1.02
10882.00	92.70	150.40	6978.70	-4149.25	1485.91	4301.20	4407.29	160.30	2.26
10912.00	92.00	149.30	6977.47	-4175.17	1500.96	4331.15	4436.77	160.23	4.34
10943.00	92.20	149.30	6976.34	-4201.81	1516.78	4362.12	4467.19	160.15	0.65
10974.00	92.60	149.30	6975.04	-4228.44	1532.59	4393.08	4497.61	160.08	1.29
11004.00	91.00	148.60	6974.09	-4254.13	1548.06	4423.06	4527.04	160.00	5.82
11035.00	90.60	148.60	6973.66	-4280.58	1564.21	4454.05	4557.43	159.93	1.29
11066.00	90.80	148.90	6973.28	-4307.08	1580.29	4485.04	4587.84	159.85	1.16
11096.00	90.10	147.20	6973.05	-4332.54	1596.16	4515.04	4617.21	159.78	6.13
11127.00	89.70	146.50	6973.10	-4358.49	1613.11	4546.04	4647.43	159.69	2.60
11158.00	89.70	146.10	6973.26	-4384.28	1630.31	4577.03	4677.59	159.60	1.29
11188.00	89.70	146.50	6973.42	-4409.24	1646.96	4607.02	4706.79	159.52	1.33
11219.00	89.60	146.50	6973.61	-4435.09	1664.07	4638.01	4737.00	159.43	0.32
11250.00	89.40	146.10	6973.88	-4460.88	1681.27	4669.00	4767.19	159.35	1.44
11281.00	89.70	146.10	6974.12	-4486.61	1698.56	4699.99	4797.37	159.26	0.97
11311.00	90.30	145.80	6974.12	-4511.47	1715.35	4729.97	4826.57	159.18	2.24
11342.00	90.30	145.40	6973.96	-4537.04	1732.87	4760.95	4856.71	159.10	1.29
11373.00	90.60	145.40	6973.72	-4562.56	1750.47	4791.93	4886.83	159.01	0.97
11403.00	91.50	145.80	6973.17	-4587.31	1767.42	4821.90	4916.01	158.93	3.28
11434.00	91.70	146.10	6972.30	-4612.98	1784.77	4852.87	4946.21	158.85	1.16
11465.00	92.00	146.50	6971.30	-4638.76	1801.96	4883.85	4976.46	158.77	1.61
11495.00	92.00	146.10	6970.26	-4663.70	1818.59	4913.82	5005.74	158.70	1.33
11526.00	92.00	146.10	6969.17	-4689.42	1835.87	4944.79	5035.98	158.62	0.00
11557.00	91.70	145.80	6968.17	-4715.09	1853.22	4975.76	5066.21	158.54	1.37
11587.00	91.50	145.80	6967.34	-4739.89	1870.08	5005.73	5095.47	158.47	0.67
11618.00	91.30	145.80	6966.58	-4765.53	1887.50	5036.71	5125.71	158.39	0.65
11649.00	92.60	145.40	6965.52	-4791.09	1905.00	5067.67	5155.92	158.32	4.39
11679.00	92.70	145.10	6964.14	-4815.71	1922.08	5097.61	5185.12	158.24	1.05
11710.00	92.60	145.40	6962.70	-4841.16	1939.73	5128.55	5215.30	158.17	1.02
11741.00	92.60	145.40	6961.30	-4866.65	1957.32	5159.49	5245.51	158.09	0.00
11771.00	92.40	145.10	6959.99	-4891.27	1974.40	5189.43	5274.73	158.02	1.20
11802.00	92.40	145.10	6958.69	-4916.67	1992.12	5220.37	5304.93	157.94	0.00
11833.00	92.40	145.10	6957.39	-4942.08	2009.84	5251.31	5335.13	157.87	0.00
11863.00	92.00	145.10	6956.24	-4966.66	2027.00	5281.26	5364.37	157.80	1.33
11894.00	92.00	144.70	6955.16	-4992.01	2044.81	5312.21	5394.57	157.73	1.29
11925.00	91.70	144.70	6954.16	-5017.30	2062.71	5343.15	5424.76	157.65	0.97
11955.00	91.50	144.70	6953.32	-5041.77	2080.04	5373.09	5453.99	157.58	0.67
11986.00	91.50	145.10	6952.51	-5067.13	2097.86	5404.05	5484.23	157.51	1.29
12017.00	91.50	145.10	6951.70	-5092.54	2115.59	5435.00	5514.50	157.44	0.00
12048.00	91.50	145.40	6950.89	-5118.00	2133.26	5465.96	5544.80	157.37	0.97
12078.00	91.50	146.50	6950.10	-5142.85	2150.05	5495.94	5574.19	157.31	3.67
12109.00	91.50	146.50	6949.29	-5168.69	2167.15	5526.92	5604.64	157.25	0.00
12140.00	91.30	146.50	6948.53	-5194.54	2184.26	5557.91	5635.09	157.19	0.65
12170.00	92.00	146.80	6947.67	-5219.59	2200.74	5587.89	5664.57	157.14	2.54
12201.00	92.40	146.80	6946.48	-5245.51	2217.70	5618.86	5695.05	157.08	1.29
12232.00	92.60	146.80	6945.12	-5271.42	2234.66	5649.83	5725.52	157.03	0.65
12262.00	92.20	146.80	6943.87	-5296.50	2251.08	5679.80	5755.02	156.97	1.33
12293.00	92.40	146.80	6942.62	-5322.42	2268.04	5710.77	5785.51	156.92	0.65
12324.00	92.00	146.80	6941.43	-5348.34	2285.00	5741.74	5816.01	156.87	1.29
12354.00	91.70	147.20	6940.47	-5373.49	2301.33	5771.72	5845.55	156.82	1.67
12386.00	91.50	146.80	6939.57	-5400.32	2318.75	5803.71	5877.07	156.76	1.40
12418.00	91.50	147.20	6938.73	-5427.14	2336.17	5835.70	5908.60	156.71	1.25
12450.00	91.80	147.20	6937.81	-5454.03	2353.50	5867.68	5940.15	156.66	0.94

Measured Depth (Ft)	INC Deg	AZM Deg	TVD (Ft)	NS (Ft)	EW (Ft)	VS (Ft)	Closure (Ft)	Closure Dir Deg	DLS °/100 Ft
12482.00	91.80	147.50	6936.81	-5480.96	2370.76	5899.67	5971.72	156.61	0.94
12514.00	92.00	147.90	6935.75	-5507.99	2387.85	5931.65	6003.32	156.56	1.40
12546.00	92.70	147.90	6934.44	-5535.08	2404.84	5963.62	6034.93	156.52	2.19
12577.00	92.70	147.90	6932.97	-5561.31	2421.29	5994.59	6065.54	156.47	0.00
12609.00	92.90	147.50	6931.41	-5588.33	2438.37	6026.55	6097.13	156.43	1.40
12641.00	92.90	147.90	6929.79	-5615.34	2455.45	6058.51	6128.72	156.38	1.25
12673.00	92.70	147.90	6928.23	-5642.42	2472.43	6090.47	6160.34	156.34	0.62
12705.00	92.70	147.20	6926.72	-5669.39	2489.58	6122.43	6191.93	156.29	2.19
12737.00	92.60	147.50	6925.24	-5696.30	2506.83	6154.40	6223.51	156.25	0.99
12769.00	92.40	147.50	6923.85	-5723.27	2524.01	6186.37	6255.11	156.20	0.62
12801.00	92.60	147.50	6922.45	-5750.23	2541.18	6218.34	6286.71	156.16	0.62
12833.00	92.60	147.50	6921.00	-5777.19	2558.36	6250.30	6318.32	156.11	0.00
12865.00	92.20	146.80	6919.66	-5804.05	2575.70	6282.27	6349.90	156.07	2.52
12897.00	91.50	146.50	6918.63	-5830.77	2593.28	6314.25	6381.45	156.02	2.38
12928.00	91.00	146.10	6917.95	-5856.55	2610.48	6345.23	6412.00	155.98	2.07
12960.00	91.50	146.10	6917.25	-5883.10	2628.32	6377.21	6443.52	155.93	1.56
12992.00	91.70	145.80	6916.36	-5909.61	2646.23	6409.19	6475.03	155.88	1.13
13024.00	91.70	145.80	6915.41	-5936.06	2664.21	6441.15	6506.52	155.83	0.00
13056.00	92.20	145.80	6914.32	-5962.51	2682.19	6473.12	6538.02	155.78	1.56
13088.00	92.40	146.80	6913.04	-5989.11	2699.93	6505.08	6569.56	155.73	3.18
13119.00	92.60	147.50	6911.68	-6015.13	2716.73	6536.05	6600.18	155.69	2.35
13151.00	92.90	147.90	6910.15	-6042.15	2733.81	6568.01	6631.84	155.66	1.56
13183.00	93.30	148.20	6908.42	-6069.26	2750.72	6599.97	6663.51	155.62	1.56
13215.00	93.10	148.20	6906.63	-6096.42	2767.55	6631.92	6695.19	155.58	0.62
13247.00	92.70	147.90	6905.01	-6123.53	2784.47	6663.87	6726.88	155.55	1.56
13279.00	92.70	147.90	6903.51	-6150.61	2801.45	6695.84	6758.56	155.51	0.00
13311.00	92.70	147.90	6902.00	-6177.69	2818.44	6727.80	6790.24	155.48	0.00
13343.00	92.40	147.50	6900.57	-6204.71	2835.52	6759.77	6821.92	155.44	1.56
13375.00	92.20	147.50	6899.29	-6231.68	2852.70	6791.75	6853.59	155.40	0.63
13407.00	92.00	147.20	6898.12	-6258.60	2869.95	6823.72	6885.25	155.37	1.13
13439.00	92.00	147.20	6897.00	-6285.48	2887.28	6855.70	6916.91	155.33	0.00
13470.00	91.70	146.80	6896.00	-6311.47	2904.15	6886.68	6947.57	155.29	1.61
13502.00	91.70	147.90	6895.05	-6338.40	2921.41	6918.67	6979.25	155.25	3.44
13534.00	92.00	147.50	6894.02	-6365.43	2938.50	6950.65	7010.96	155.22	1.56
13566.00	91.80	147.90	6892.96	-6392.47	2955.59	6982.63	7042.67	155.19	1.40
13598.00	91.80	148.20	6891.95	-6419.61	2972.51	7014.62	7074.40	155.15	0.94
13630.00	91.80	148.60	6890.95	-6446.85	2989.27	7046.60	7106.17	155.12	1.25
13662.00	91.80	148.60	6889.94	-6474.15	3005.94	7078.58	7137.94	155.09	0.00
13694.00	91.80	148.60	6888.94	-6501.45	3022.60	7110.56	7169.72	155.07	0.00
13726.00	92.00	149.30	6887.87	-6528.85	3039.10	7142.53	7201.53	155.04	2.27
13758.00	92.00	149.30	6886.76	-6556.35	3055.42	7174.50	7233.35	155.01	0.00
13790.00	91.70	148.90	6885.72	-6583.79	3071.85	7206.48	7265.16	154.99	1.56
13821.00	91.50	148.90	6884.86	-6610.32	3087.85	7237.46	7295.97	154.96	0.65
13853.00	91.50	148.90	6884.02	-6637.72	3104.38	7269.44	7327.79	154.94	0.00
13885.00	91.70	149.30	6883.13	-6665.16	3120.80	7301.42	7359.61	154.91	1.40
13917.00	91.70	149.30	6882.18	-6692.67	3137.13	7333.39	7391.44	154.89	0.00
13949.00	91.80	149.70	6881.20	-6720.23	3153.37	7365.36	7423.29	154.86	1.29
13981.00	91.80	149.70	6880.20	-6747.84	3169.51	7397.32	7455.14	154.84	0.00
14013.00	91.80	150.00	6879.19	-6775.50	3185.57	7429.29	7487.00	154.82	0.94
14045.00	91.70	150.40	6878.21	-6803.25	3201.47	7461.24	7518.89	154.80	1.29
14077.00	91.70	150.40	6877.26	-6831.06	3217.26	7493.19	7550.78	154.78	0.00
14109.00	91.80	149.70	6876.29	-6858.78	3233.23	7525.15	7582.65	154.76	2.21
14140.00	92.00	148.60	6875.26	-6885.38	3249.12	7556.12	7613.49	154.74	3.60
14172.00	91.70	147.90	6874.23	-6912.57	3265.95	7588.10	7645.27	154.71	2.38
14204.00	91.70	147.50	6873.28	-6939.61	3283.04	7620.09	7677.02	154.68	1.25
14236.00	92.20	146.10	6872.19	-6966.37	3300.55	7652.07	7708.69	154.65	4.64

Measured Depth (Ft)	INC Deg	AZM Deg	TVD (Ft)	NS (Ft)	EW (Ft)	VS (Ft)	Closure (Ft)	Closure Dir Deg	DLS °/100 Ft
14268.00	92.00	146.50	6871.02	-6992.98	3318.30	7684.03	7740.34	154.61	1.40
14300.00	91.80	146.10	6869.95	-7019.58	3336.04	7716.01	7771.98	154.58	1.40
14332.00	91.50	145.80	6869.03	-7046.09	3353.95	7747.98	7803.61	154.55	1.33
14364.00	91.50	145.80	6868.20	-7072.54	3371.93	7779.95	7835.23	154.51	0.00
14396.00	92.20	146.10	6867.16	-7099.04	3389.84	7811.92	7866.86	154.48	2.38
14428.00	92.40	145.80	6865.88	-7125.54	3407.74	7843.88	7898.48	154.44	1.13
14460.00	92.40	145.80	6864.54	-7151.98	3425.71	7875.83	7930.09	154.41	0.00
14491.00	92.70	146.80	6863.16	-7177.74	3442.90	7906.79	7960.75	154.37	3.36
14523.00	92.70	146.10	6861.65	-7204.38	3460.56	7938.75	7992.41	154.34	2.19
14555.00	92.60	145.80	6860.17	-7230.87	3478.46	7970.70	8024.03	154.31	0.99
14587.00	92.60	145.80	6858.72	-7257.31	3496.43	8002.65	8055.65	154.28	0.00
14619.00	92.60	145.40	6857.27	-7283.68	3514.49	8034.59	8087.25	154.24	1.25
14651.00	92.40	146.10	6855.87	-7310.11	3532.48	8066.55	8118.87	154.21	2.27
14683.00	92.40	145.80	6854.53	-7336.60	3550.38	8098.50	8150.52	154.18	0.94
14715.00	92.40	146.10	6853.19	-7363.09	3568.28	8130.46	8182.16	154.14	0.94
14747.00	92.00	145.80	6851.96	-7389.58	3586.19	8162.42	8213.81	154.11	1.56
14779.00	91.70	145.40	6850.93	-7415.97	3604.26	8194.38	8245.44	154.08	1.56
14811.00	91.50	145.40	6850.04	-7442.30	3622.42	8226.34	8277.07	154.05	0.63
14842.00	91.10	145.10	6849.33	-7467.77	3640.09	8257.31	8307.69	154.01	1.61
14874.00	91.50	145.80	6848.61	-7494.12	3658.23	8289.27	8339.33	153.98	2.52
14906.00	91.80	145.80	6847.69	-7520.57	3676.21	8321.24	8370.99	153.95	0.94
14938.00	91.50	145.40	6846.77	-7546.96	3694.28	8353.21	8402.64	153.92	1.56
14970.00	91.80	146.50	6845.84	-7573.47	3712.19	8385.18	8434.32	153.89	3.56
15002.00	91.70	146.50	6844.87	-7600.14	3729.84	8417.16	8466.04	153.86	0.31
15034.00	91.50	145.80	6843.97	-7626.70	3747.66	8449.13	8497.74	153.83	2.27
15066.00	91.50	146.80	6843.14	-7653.32	3765.41	8481.11	8529.45	153.80	3.12
15098.00	91.70	147.50	6842.24	-7680.19	3782.76	8513.10	8561.23	153.78	2.27
15130.00	91.70	147.20	6841.29	-7707.12	3800.02	8545.08	8593.01	153.75	0.94
15161.00	91.50	147.20	6840.43	-7733.17	3816.80	8576.07	8623.80	153.73	0.65
15193.00	91.70	148.60	6839.53	-7760.27	3833.80	8608.06	8655.62	153.71	4.42
15225.00	91.80	148.60	6838.56	-7787.57	3850.47	8640.04	8687.48	153.69	0.31
15257.00	91.70	148.20	6837.58	-7814.81	3867.23	8672.02	8719.33	153.67	1.29
15289.00	91.50	147.90	6836.69	-7841.95	3884.15	8704.01	8751.16	153.65	1.13
15321.00	91.10	147.50	6835.96	-7868.99	3901.25	8736.00	8782.98	153.63	1.77
15353.00	91.00	147.90	6835.37	-7896.04	3918.35	8767.99	8814.81	153.61	1.29
15384.00	92.00	148.60	6834.56	-7922.39	3934.65	8798.98	8845.66	153.59	3.94
15416.00	92.20	148.60	6833.39	-7949.68	3951.31	8830.96	8877.52	153.57	0.63
15448.00	91.70	147.50	6832.30	-7976.82	3968.24	8862.94	8909.35	153.55	3.77
15480.00	91.70	148.20	6831.35	-8003.90	3985.26	8894.92	8941.18	153.53	2.19
15512.00	92.60	148.90	6830.15	-8031.18	4001.94	8926.90	8973.04	153.51	3.56
15544.00	93.10	149.30	6828.56	-8058.60	4018.35	8958.85	9004.90	153.50	2.00
15576.00	93.10	149.30	6826.83	-8086.08	4034.67	8990.79	9036.77	153.48	0.00
15608.00	93.10	148.90	6825.10	-8113.50	4051.08	9022.73	9068.63	153.47	1.25
15640.00	93.30	148.90	6823.31	-8140.85	4067.58	9054.67	9100.48	153.45	0.62
15672.00	93.10	148.60	6821.53	-8168.17	4084.16	9086.62	9132.32	153.43	1.13
15704.00	93.10	147.90	6819.80	-8195.34	4100.97	9118.57	9164.14	153.42	2.18
15736.00	92.90	147.90	6818.12	-8222.41	4117.95	9150.53	9195.95	153.40	0.63
15767.00	93.10	148.20	6816.50	-8248.68	4134.33	9181.48	9226.78	153.38	1.16
15799.00	93.10	147.90	6814.77	-8275.79	4151.24	9213.44	9258.59	153.36	0.94
15831.00	92.90	147.50	6813.09	-8302.80	4168.32	9245.39	9290.39	153.34	1.40
15863.00	93.10	147.90	6811.42	-8329.81	4185.39	9277.35	9322.19	153.32	1.40
15895.00	93.10	148.20	6809.69	-8356.92	4202.30	9309.30	9354.01	153.30	0.94
15927.00	93.10	147.90	6807.96	-8384.04	4219.21	9341.25	9385.83	153.29	0.94
15959.00	93.40	147.90	6806.14	-8411.10	4236.19	9373.20	9417.64	153.27	0.94
15991.00	93.10	147.50	6804.33	-8438.11	4253.26	9405.15	9449.44	153.25	1.56
16023.00	93.10	147.20	6802.60	-8465.01	4270.50	9437.10	9481.22	153.23	0.94



Measured Depth (Ft)	INC Deg	AZM Deg	TVD (Ft)	NS (Ft)	EW (Ft)	VS (Ft)	Closure (Ft)	Closure Dir Deg	DLS °/100 Ft
16054.00	92.60	147.20	6801.06	-8491.04	4287.27	9468.06	9512.01	153.21	1.61
16086.00	92.70	146.80	6799.58	-8517.84	4304.68	9500.03	9543.79	153.19	1.29
16118.00	92.70	146.80	6798.07	-8544.59	4322.18	9531.99	9575.56	153.17	0.00
16150.00	92.90	146.80	6796.51	-8571.34	4339.68	9563.94	9607.32	153.15	0.62
16182.00	92.90	146.50	6794.89	-8598.03	4357.25	9595.90	9639.08	153.13	0.94
16214.00	92.70	146.50	6793.33	-8624.68	4374.90	9627.85	9670.83	153.10	0.62
16246.00	92.60	146.10	6791.85	-8651.28	4392.63	9659.81	9702.57	153.08	1.29
16278.00	91.00	146.10	6790.84	-8677.82	4410.47	9691.78	9734.31	153.06	5.00
16310.00	91.00	146.50	6790.28	-8704.44	4428.22	9723.76	9766.09	153.04	1.25
16341.00	91.50	145.80	6789.61	-8730.18	4445.49	9754.75	9796.86	153.01	2.77
16373.00	91.50	146.10	6788.77	-8756.69	4463.40	9786.72	9828.60	152.99	0.94
16405.00	91.30	146.50	6787.99	-8783.30	4481.15	9818.70	9860.38	152.97	1.40
16437.00	91.70	146.50	6787.15	-8809.98	4498.80	9850.68	9892.16	152.95	1.25
16469.00	91.70	146.50	6786.20	-8836.65	4516.46	9882.66	9923.95	152.93	0.00
16501.00	91.80	146.50	6785.22	-8863.32	4534.11	9914.64	9955.73	152.91	0.31
16533.00	92.00	146.10	6784.16	-8889.93	4551.86	9946.61	9987.50	152.89	1.40
16565.00	91.00	147.50	6783.32	-8916.69	4569.37	9978.60	10019.31	152.87	5.38
16597.00	91.00	148.60	6782.76	-8943.84	4586.30	10010.59	10051.19	152.85	3.44
16629.00	91.50	149.30	6782.07	-8971.25	4602.80	10042.57	10083.11	152.84	2.69
16661.00	91.70	149.70	6781.17	-8998.81	4619.04	10074.55	10115.04	152.83	1.40
16693.00	91.50	148.90	6780.28	-9026.32	4635.37	10106.52	10146.97	152.82	2.58
16724.00	91.50	149.30	6779.47	-9052.91	4651.28	10137.50	10177.90	152.81	1.29
16756.00	90.80	148.60	6778.83	-9080.32	4667.78	10169.49	10209.82	152.79	3.09
16788.00	90.80	148.60	6778.38	-9107.63	4684.45	10201.48	10241.73	152.78	0.00
16820.00	90.60	148.20	6777.99	-9134.88	4701.22	10233.47	10273.63	152.77	1.40
16852.00	90.40	148.20	6777.71	-9162.08	4718.08	10265.47	10305.53	152.75	0.63
16884.00	90.80	148.90	6777.37	-9189.37	4734.78	10297.47	10337.44	152.74	2.52
16916.00	92.00	150.00	6776.59	-9216.92	4751.04	10329.44	10369.38	152.73	5.09
16948.00	92.40	149.70	6775.36	-9244.57	4767.10	10361.39	10401.31	152.72	1.56
16980.00	92.20	149.30	6774.08	-9272.12	4783.33	10393.35	10433.24	152.71	1.40
17012.00	92.20	149.30	6772.85	-9299.62	4799.65	10425.32	10465.16	152.70	0.00
17044.00	92.00	148.60	6771.68	-9327.01	4816.15	10457.29	10497.07	152.69	2.27
17075.00	91.80	148.60	6770.65	-9353.46	4832.29	10488.27	10527.97	152.68	0.65
17107.00	92.00	148.60	6769.59	-9380.76	4848.95	10520.25	10559.87	152.67	0.62
17139.00	91.70	148.60	6768.56	-9408.06	4865.62	10552.22	10591.78	152.65	0.94
17171.00	91.70	148.20	6767.61	-9435.30	4882.38	10584.21	10623.68	152.64	1.25
17203.00	91.80	148.20	6766.63	-9462.48	4899.23	10616.19	10655.56	152.63	0.31
17235.00	91.70	148.20	6765.65	-9489.67	4916.08	10648.18	10687.45	152.61	0.31
17267.00	91.10	147.90	6764.87	-9516.81	4933.01	10680.17	10719.34	152.60	2.10
17299.00	91.00	147.50	6764.28	-9543.86	4950.11	10712.16	10751.22	152.59	1.29
17331.00	91.50	146.80	6763.59	-9570.73	4967.46	10744.15	10783.07	152.57	2.69
17363.00	91.30	146.50	6762.80	-9597.45	4985.05	10776.14	10814.89	152.55	1.13
17395.00	91.30	145.40	6762.08	-9623.96	5002.96	10808.11	10846.67	152.53	3.44
17427.00	91.30	145.10	6761.35	-9650.25	5021.20	10840.07	10878.41	152.51	0.94
17459.00	91.30	145.10	6760.63	-9676.49	5039.50	10872.03	10910.13	152.49	0.00
17491.00	91.30	144.40	6759.90	-9702.61	5057.97	10903.98	10941.83	152.47	2.19
17523.00	91.30	143.30	6759.17	-9728.44	5076.84	10935.90	10973.46	152.44	3.44
<b>Last NOVA MWD survey</b>									
17548.00	91.10	143.00	6758.65	-9748.44	5091.83	10960.82	10998.13	152.42	1.44
<b>Projection to TD</b>									
17600.00	91.10	143.00	6757.65	-9789.97	5123.12	11012.63	11049.42	152.38	0.00