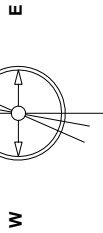


Great Western Operating Company, LLC

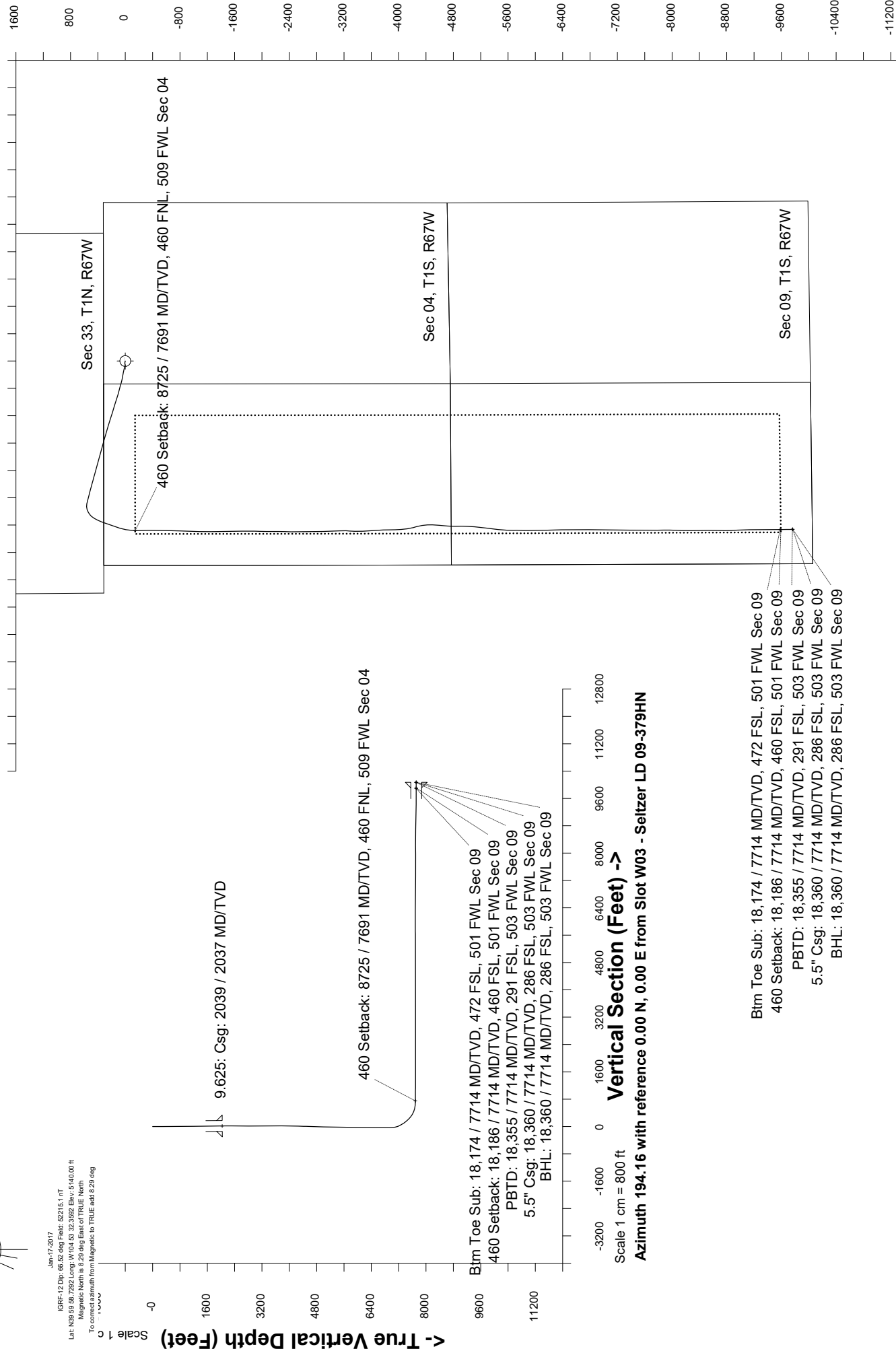
Location Colorado Slot Slot W03 - Seltzer LD 09-379HN
 Field Wattenburg Well Seltzer LD 09-379HN
 Installation Seltzer Wellbore Seltzer LD 09-379HN (AWB)

Scale 1 cm = 400 ft

East (Feet) ->



Jan-17-2017
 IGRF-12 Dip: 66.52 deg Field: 52215.1 nT
 Lat: N39 58 7292 Long: W104 53 32-3562 Elev: 5140.00 ft
 Magnetic North is 6.25 deg East of TRUE North
 To correct azimuth from Magnetic to TRUE add 6.25 deg



9.625' Csg: 2039 / 2037 MD/TV D
 460 Setback: 8725 / 7691 MD/TV D, 460 FNL, 509 FWL Sec 04
 Btm Toe Sub: 18,174 / 7714 MD/TV D, 472 FSL, 501 FWL Sec 09
 460 Setback: 18,186 / 7714 MD/TV D, 460 FSL, 501 FWL Sec 09
 PBTD: 18,355 / 7714 MD/TV D, 291 FSL, 503 FWL Sec 09
 5.5" Csg: 18,360 / 7714 MD/TV D, 286 FSL, 503 FWL Sec 09
 BHL: 18,360 / 7714 MD/TV D, 286 FSL, 503 FWL Sec 09

Vertical Section (Feet) ->
 Scale 1 cm = 800 ft
 Azimuth 194.16 with reference 0.00 N, 0.00 E from Slot W03 - Seltzer LD 09-379HN

Btm Toe Sub: 18,174 / 7714 MD/TV D, 472 FSL, 501 FWL Sec 09
 460 Setback: 18,186 / 7714 MD/TV D, 460 FSL, 501 FWL Sec 09
 PBTD: 18,355 / 7714 MD/TV D, 291 FSL, 503 FWL Sec 09
 5.5" Csg: 18,360 / 7714 MD/TV D, 286 FSL, 503 FWL Sec 09
 BHL: 18,360 / 7714 MD/TV D, 286 FSL, 503 FWL Sec 09

Created by: rnsourc
 Date plotted: 30-Jun-2021
 Plot reference is Seltzer LD 09-379HN (AWB)
 Ref wellpath is Seltzer LD 09-379HN (AWP#1)
 Coordinates are in Feet reference Slot W03 - Seltzer LD 09-379HN.
 True Vertical Depths are reference Rig Datum.
 Measured Depths are reference Rig Datum.
 Rig Datum: Actual Datum #1
 Rig Datum to Mean Sea Level: 5160.00 ft.
 Plot North is aligned to TRUE North.

Great Western Operating Co, LLC
 Directional Survey Report
 MDs and TVDs are from Rig Floor 5160.0ft above Mean Sea Level

Wellbore Information

Date Created	Date Revised	API #	RKB above GL	Well Name
Mar-12-2021	Jun-23-2021	05-001-10189	20.00	Seltzer LD 09-379HN

Wellpath Report

MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]
0.00	0.00	0.00	0.00	0.00	0.00
15.00	0.00	0.00	15.00	0.00	0.00
99.00	0.67	107.63	99.00	-0.15	0.47
187.00	0.39	62.02	186.99	-0.16	1.22
276.00	0.86	253.86	275.99	-0.21	0.85
369.00	1.20	272.31	368.98	-0.36	-0.79
458.00	0.79	254.04	457.96	-0.49	-2.32
548.00	1.38	278.73	547.95	-0.50	-3.98
638.00	1.61	288.21	637.92	0.06	-6.26
728.00	3.46	287.04	727.83	1.25	-10.05
818.00	4.10	288.98	817.63	3.09	-15.69
908.00	4.37	286.89	907.38	5.14	-22.02
998.00	3.48	267.56	997.18	6.02	-28.03
1088.00	3.33	262.33	1087.02	5.55	-33.35
1178.00	2.74	249.28	1176.89	4.44	-37.95
1268.00	2.51	260.37	1266.80	3.35	-41.90
1358.00	2.39	261.35	1356.71	2.74	-45.70
1448.00	2.02	255.61	1446.65	2.06	-49.09
1538.00	2.26	264.59	1536.59	1.50	-52.40
1627.00	1.57	257.70	1625.54	1.07	-55.33
1717.00	1.50	259.83	1715.50	0.60	-57.70
1807.00	1.19	249.23	1805.48	0.06	-59.73
1897.00	0.36	261.72	1895.47	-0.31	-60.89
1984.00	0.24	214.99	1982.47	-0.50	-61.26
2046.00	0.44	182.75	2044.47	-0.84	-61.35
2136.00	0.09	9.28	2134.47	-1.12	-61.35
2225.00	0.08	254.43	2223.47	-1.06	-61.40
2315.00	0.07	83.22	2313.47	-1.07	-61.41
2405.00	0.09	238.44	2403.47	-1.10	-61.41
2494.00	0.10	316.63	2492.47	-1.08	-61.52
2584.00	0.06	185.93	2582.47	-1.07	-61.58
2674.00	0.11	53.21	2672.47	-1.07	-61.52
2763.00	0.07	220.32	2761.47	-1.06	-61.49
2853.00	1.92	286.10	2851.45	-0.68	-62.97
2942.00	5.26	288.88	2940.26	1.05	-68.26
3032.00	8.32	291.90	3029.62	4.82	-78.21
3122.00	11.28	290.04	3118.30	10.26	-92.53
3211.00	14.21	285.64	3205.10	16.19	-111.23
3301.00	16.96	282.91	3291.78	22.10	-134.66
3390.00	18.52	279.76	3376.55	27.40	-161.25
3479.00	20.32	278.50	3460.48	32.08	-190.47
3569.00	22.11	279.44	3544.38	37.17	-222.63
3659.00	23.71	283.40	3627.28	44.14	-256.95
3748.00	26.38	284.29	3707.91	53.17	-293.52
3838.00	28.74	285.15	3787.69	63.76	-333.79
3927.00	28.92	285.65	3865.66	75.16	-375.16
4016.00	28.34	284.83	3943.78	86.37	-416.31
4106.00	28.56	285.94	4022.91	97.75	-457.64
4196.00	27.96	285.96	4102.18	109.46	-498.61
4286.00	27.64	286.85	4181.79	121.31	-538.88
4375.00	29.82	287.79	4259.83	134.06	-579.71
4465.00	30.45	288.14	4337.67	147.99	-622.69
4554.00	30.54	286.95	4414.36	161.61	-665.76
4644.00	30.89	287.33	4491.73	175.16	-709.68
4734.00	30.14	286.20	4569.27	188.34	-753.43
4823.00	31.01	287.54	4645.89	201.48	-796.75
4913.00	30.92	287.38	4723.07	215.38	-840.93
5003.00	30.28	287.96	4800.53	229.28	-884.58
5092.00	30.32	288.45	4877.37	243.31	-927.23
5182.00	30.42	286.06	4955.03	256.80	-970.68
5271.00	31.10	286.15	5031.51	269.43	-1014.41
5361.00	30.39	285.25	5108.86	281.88	-1058.70
5451.00	31.04	285.83	5186.23	294.20	-1102.99

MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]
5540.00	30.76	285.46	5262.60	306.53	-1147.00
5629.00	29.13	286.71	5339.72	318.82	-1189.69
5719.00	29.89	286.30	5418.04	331.42	-1232.19
5809.00	29.69	285.37	5496.15	343.62	-1275.21
5898.00	29.44	284.60	5573.56	354.97	-1317.63
5988.00	29.65	285.09	5651.86	366.34	-1360.53
6077.00	29.75	285.62	5729.16	378.02	-1403.05
6167.00	28.88	285.59	5807.64	389.88	-1445.49
6257.00	29.75	285.31	5886.11	401.61	-1487.96
6346.00	29.78	285.43	5963.37	413.32	-1530.56
6436.00	29.65	285.09	6041.54	425.07	-1573.60
6526.00	29.11	285.40	6119.96	436.67	-1616.20
6615.00	28.75	285.33	6197.85	448.08	-1657.72
6705.00	30.03	285.67	6276.27	459.89	-1700.28
6795.00	30.04	285.21	6354.18	471.88	-1743.70
6884.00	30.02	285.06	6431.24	483.51	-1786.69
6974.00	30.04	285.35	6509.16	495.32	-1830.16
7064.00	29.35	284.38	6587.34	506.76	-1873.25
7153.00	30.24	284.69	6664.57	517.86	-1916.05
7243.00	28.98	283.96	6742.82	528.87	-1959.14
7333.00	30.25	285.16	6821.06	540.06	-2002.18
7422.00	29.76	284.15	6898.13	551.32	-2045.23
7512.00	30.21	284.47	6976.08	562.44	-2088.82
7601.00	29.25	265.98	7053.53	566.52	-2132.28
7691.00	29.34	252.09	7132.12	558.19	-2175.25
7780.00	32.24	239.65	7208.64	539.47	-2216.53
7870.00	34.52	228.26	7283.86	510.33	-2256.32
7959.00	37.38	215.59	7356.01	471.50	-2290.92
8049.00	40.77	206.34	7425.92	422.90	-2319.89
8139.00	45.38	201.52	7491.67	366.72	-2344.70
8228.00	51.27	199.32	7550.82	304.43	-2367.82
8318.00	59.82	199.49	7601.69	234.51	-2392.46
8407.00	69.10	200.12	7640.02	159.04	-2419.66
8497.00	76.94	197.20	7666.29	77.55	-2447.13
8586.00	82.42	190.34	7682.25	-7.42	-2467.90
8676.00	88.37	183.73	7689.48	-96.37	-2478.86
8765.00	89.50	178.94	7691.13	-185.30	-2480.93
8855.00	89.85	178.57	7691.64	-275.28	-2478.97
8945.00	89.89	180.66	7691.85	-365.27	-2478.37
9034.00	89.68	180.31	7692.18	-454.27	-2479.12
9124.00	89.81	180.85	7692.58	-544.26	-2480.03
9213.00	89.79	181.10	7692.89	-633.25	-2481.55
9303.00	89.66	181.63	7693.32	-723.22	-2483.69
9393.00	89.44	181.85	7694.03	-813.18	-2486.43
9482.00	89.70	182.16	7694.70	-902.12	-2489.54
9572.00	90.30	181.50	7694.70	-992.07	-2492.41
9662.00	90.38	180.80	7694.16	-1082.05	-2494.22
9751.00	90.13	180.81	7693.77	-1171.04	-2495.47
9841.00	89.97	180.31	7693.69	-1261.04	-2496.35
9931.00	90.08	179.41	7693.65	-1351.04	-2496.13
10020.00	90.08	178.58	7693.53	-1440.02	-2494.57
10110.00	90.46	178.23	7693.10	-1529.98	-2492.06
10200.00	89.97	178.07	7692.76	-1619.94	-2489.16
10289.00	90.25	181.78	7692.59	-1708.92	-2489.04
10379.00	90.21	178.41	7692.23	-1798.91	-2489.19
10469.00	90.32	181.52	7691.82	-1888.89	-2489.14
10558.00	90.35	181.75	7691.30	-1977.86	-2491.67
10648.00	89.75	180.84	7691.22	-2067.83	-2493.71
10737.00	89.95	179.54	7691.45	-2156.83	-2494.00
10827.00	89.74	179.44	7691.69	-2246.83	-2493.20
10917.00	89.60	182.73	7692.21	-2336.80	-2494.91
11007.00	89.63	181.66	7692.82	-2426.73	-2498.35
11096.00	89.82	179.40	7693.24	-2515.72	-2499.18
11186.00	89.46	178.28	7693.81	-2605.69	-2497.35
11275.00	89.62	178.79	7694.52	-2694.66	-2495.08
11365.00	89.96	180.12	7694.85	-2784.66	-2494.22
11454.00	89.76	179.85	7695.07	-2873.65	-2494.20
11544.00	90.13	177.74	7695.16	-2963.63	-2492.31
11634.00	89.94	177.24	7695.10	-3053.54	-2488.37
11723.00	89.93	177.30	7695.20	-3142.44	-2484.13
11813.00	90.41	182.00	7694.94	-3232.41	-2483.58
11902.00	90.11	182.80	7694.53	-3321.33	-2487.30
11992.00	89.95	181.54	7694.49	-3411.27	-2490.71
12081.00	90.09	178.55	7694.45	-3500.26	-2490.78

MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]
12171.00	90.05	174.26	7694.34	-3590.06	-2485.14
12260.00	90.14	174.32	7694.20	-3678.62	-2476.29
12350.00	90.49	178.31	7693.70	-3768.41	-2470.50
12439.00	90.91	181.28	7692.61	-3857.39	-2470.18
12529.00	89.87	177.28	7692.00	-3947.37	-2469.05
12619.00	89.92	175.81	7692.17	-4037.20	-2463.63
12708.00	89.76	171.57	7692.42	-4125.64	-2453.85
12798.00	90.11	166.19	7692.52	-4213.92	-2436.50
12887.00	90.42	167.18	7692.11	-4300.52	-2416.00
12977.00	90.44	173.55	7691.43	-4389.21	-2400.95
13067.00	90.62	179.44	7690.60	-4478.99	-2395.45
13156.00	90.43	185.59	7689.78	-4567.86	-2399.35
13246.00	89.54	188.00	7689.80	-4657.22	-2410.00
13335.00	89.72	182.72	7690.38	-4745.80	-2418.31
13425.00	89.84	177.90	7690.72	-4835.77	-2418.80
13515.00	90.10	180.14	7690.77	-4925.75	-2417.26
13604.00	90.15	182.72	7690.58	-5014.72	-2419.48
13694.00	90.14	184.73	7690.35	-5104.52	-2425.32
13784.00	90.58	184.59	7689.78	-5194.22	-2432.64
13873.00	90.89	189.43	7688.64	-5282.52	-2443.49
13963.00	90.15	188.57	7687.83	-5371.41	-2457.57
14052.00	90.08	184.11	7687.65	-5459.84	-2467.40
14142.00	89.83	182.54	7687.72	-5549.69	-2472.62
14231.00	90.00	180.40	7687.85	-5638.65	-2474.90
14321.00	90.46	182.21	7687.49	-5728.63	-2476.95
14411.00	89.57	180.57	7687.46	-5818.60	-2479.13
14500.00	90.02	179.33	7687.78	-5907.59	-2479.05
14590.00	89.56	179.10	7688.11	-5997.58	-2477.82
14680.00	89.54	179.38	7688.82	-6087.57	-2476.63
14769.00	89.43	177.82	7689.62	-6176.54	-2474.45
14859.00	89.33	179.35	7690.59	-6266.50	-2472.23
14949.00	89.44	179.39	7691.56	-6356.49	-2471.24
15038.00	89.43	179.41	7692.44	-6445.48	-2470.31
15128.00	89.37	179.24	7693.38	-6535.47	-2469.25
15218.00	89.72	179.64	7694.09	-6625.47	-2468.37
15307.00	89.57	179.61	7694.65	-6714.46	-2467.79
15397.00	89.61	180.02	7695.29	-6804.46	-2467.50
15486.00	89.59	178.73	7695.91	-6893.45	-2466.53
15576.00	90.25	182.96	7696.04	-6983.42	-2467.85
15665.00	90.20	182.00	7695.69	-7072.33	-2471.70
15755.00	90.15	180.39	7695.41	-7162.31	-2473.58
15845.00	89.41	178.50	7695.76	-7252.30	-2472.71
15934.00	89.96	180.70	7696.25	-7341.29	-2472.09
16024.00	90.18	180.68	7696.14	-7431.29	-2473.17
16114.00	90.13	181.69	7695.89	-7521.26	-2475.03
16203.00	89.91	181.01	7695.86	-7610.24	-2477.13
16293.00	89.83	178.29	7696.07	-7700.23	-2476.58
16382.00	90.59	179.75	7695.74	-7789.21	-2475.06
16472.00	89.83	178.49	7695.41	-7879.20	-2473.68
16562.00	90.18	180.87	7695.40	-7969.19	-2473.17
16651.00	90.03	183.03	7695.24	-8058.13	-2476.20
16741.00	89.75	181.74	7695.41	-8148.05	-2479.95
16831.00	89.31	180.15	7696.15	-8238.04	-2481.43
16920.00	88.70	179.29	7697.70	-8327.02	-2481.00
17010.00	88.89	177.80	7699.59	-8416.97	-2478.71
17100.00	89.17	182.14	7701.11	-8506.93	-2478.66
17190.00	88.32	178.44	7703.09	-8596.89	-2479.12
17279.00	89.36	182.95	7704.89	-8685.85	-2480.20
17369.00	88.83	179.33	7706.31	-8775.80	-2481.99
17458.00	88.92	177.62	7708.06	-8864.75	-2479.62
17548.00	89.25	175.62	7709.50	-8954.58	-2474.32
17638.00	89.59	179.35	7710.41	-9044.47	-2470.37
17727.00	89.32	178.27	7711.25	-9133.44	-2468.52
17817.00	89.55	180.36	7712.14	-9223.43	-2467.44
17907.00	89.50	179.57	7712.89	-9313.42	-2467.39
17996.00	89.62	179.33	7713.57	-9402.42	-2466.54
18086.00	89.96	179.96	7713.90	-9492.42	-2465.98
18175.00	89.76	179.61	7714.12	-9581.41	-2465.64
18265.00	90.08	178.65	7714.24	-9671.40	-2464.28
18319.00	90.12	179.63	7714.15	-9725.40	-2463.47
18360.00	90.12	179.63	7714.06	-9766.39	-2463.20