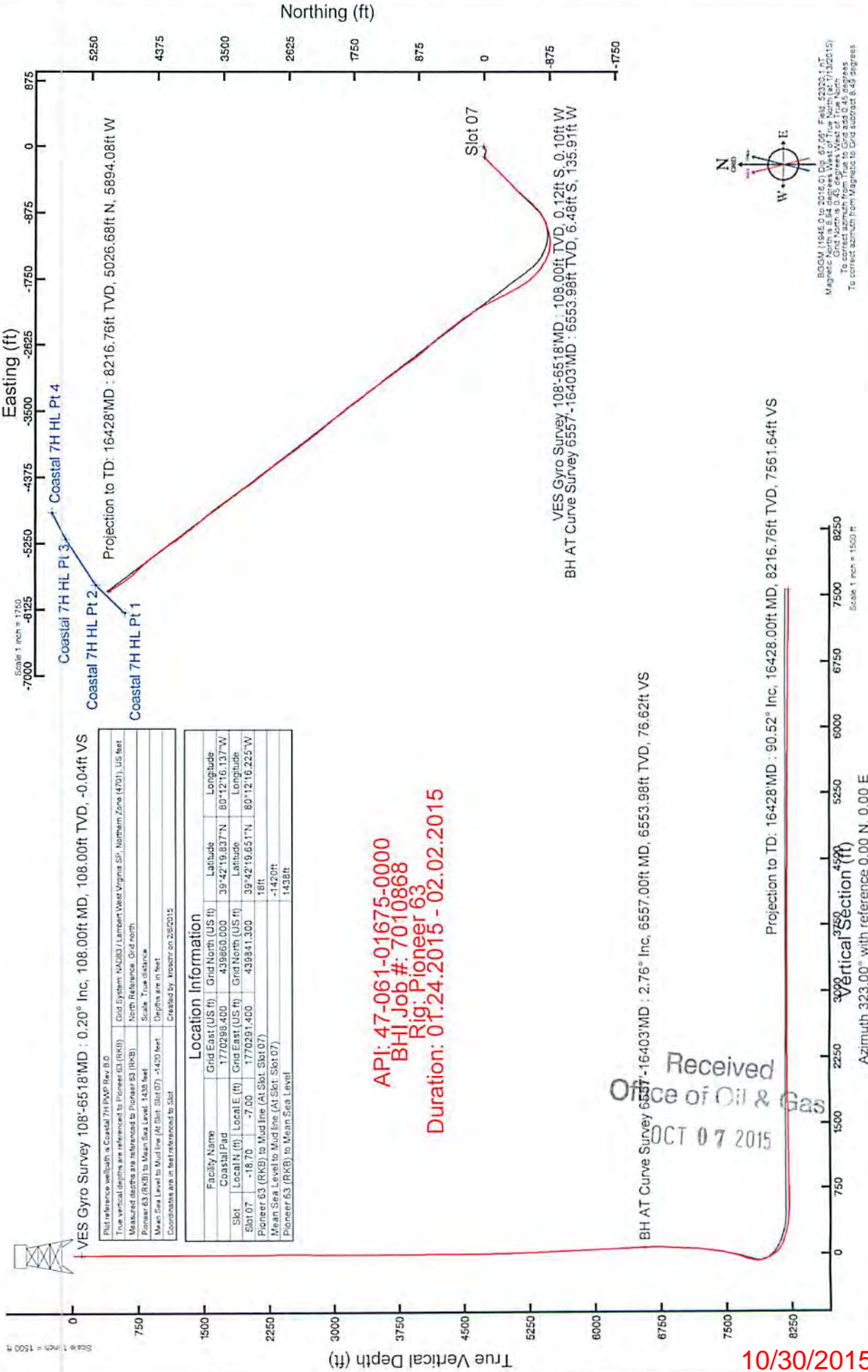


61-01675



NORTHEAST NATURAL ENERGY, LLC

Location: Monongalia County, WV
 Field: Monongalia
 Facility: Coastal Pad
 Slot: Slot 07
 Well: Coastal 7H
 Wellbore: Coastal 7H PWB



VES Gyro Survey 108°-6518'MD : 0.20° Inc, 108.00ft MD, 108.00ft TVD, -0.04ft VS

Pit reference wellbore is Coastal 7H PWB Rev B.0			
True vertical depths are referenced to Pioneer 63 (RRKB)			
Measured depths are referenced to Pioneer 63 (RRKB)			
North Reference: Grid north			
Scale: True distance			
Mean Sea Level to Mean Sea Level: 1438 feet			
Mean Sea Level to Mud line (At Slot: Slot 07): -1420 feet			
Coordinates are in feet referenced to Slot			
Created by: Inceptor on 2/6/2015			

Location Information			
Facility Name	Grid East (US ft)	Grid North (US ft)	Longitude
Coastal Pad	1770288.400	4398603.000	80°12'16.137"W
Slot 07	-18.70	1770281.400	80°12'16.225"W
Pioneer 63 (RRKB) to Mud line (At Slot: Slot 07)	-18ft		
Mean Sea Level to Mud line (At Slot: Slot 07)	-1420ft		
Pioneer 63 (RRKB) to Mean Sea Level	1438ft		

API: 47-061-01675-0000
 BHI Job #: 7010868
 Rig: Pioneer 63
 Duration: 01.24.2015 - 02.02.2015

BH AT Curve Survey 6557°-16403'MD : 2.76° Inc, 6557.00ft MD, 6553.98ft TVD, 76.62ft VS

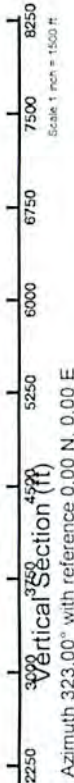
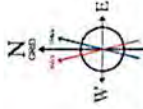
VES Gyro Survey 108°-6518'MD : 108.00ft TVD, 0.12ft S, 0.10ft W
 BH AT Curve Survey 6557°-16403'MD : 6553.98ft TVD, 6.48ft S, 135.91ft W

Projection to TD: 16428'MD : 90.52° Inc, 16428.00ft MD, 8216.76ft TVD, 7561.64ft VS

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BGM 11445.0 to 2016.0 Dp: 87.091 Fwd: 52303.117
 Magnetic North is 2.45 degrees West of True North
 To correct azimuth from True to Grid add 0.46 degrees
 To correct azimuth from Magnetic to Grid subtract 6.49 degrees



Vertical Section (ft)
 Azimuth 323.00° with reference 0.00 N, 0.00 E

Scale 1 inch = 1500 ft

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MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North Latitude [US ft]	Longitude	Closure Dlt: Closure Dlt DLS [ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
0	0	217.67	0	0	0	0	1770291	439841.3	39°42'19.651"N	80°12'16.225"W	0	0
18	0	217.67	18	0	0	0	1770291	439841.3	39°42'19.651"N	80°12'16.225"W	0	0
108	0.2	217.67	108	-0.04	-0.12	-0.1	1770291	439841.2	39°42'19.650"N	80°12'16.226"W	0.16	0.22
208	0.09	127.87	208	-0.16	-0.31	-0.14	1770291	439841.2	39°42'19.648"N	80°12'16.226"W	0.34	-0.11
308	0.17	357.94	308	-0.12	-0.21	-0.08	1770291	439841.1	39°42'19.649"N	80°12'16.226"W	0.23	0.08
408	0.27	286.23	408	0.19	0	-0.32	1770291	439841.3	39°42'19.652"N	80°12'16.229"W	0.32	-0.15
508	0.12	132.01	508	0.28	0	-0.46	1770291	439841.3	39°42'19.651"N	80°12'16.231"W	0.46	-0.15
608	0.37	320.72	608	0.5	0.18	-0.59	1770291	439841.5	39°42'19.653"N	80°12'16.232"W	0.62	-0.25
708	0.33	348.14	708	1.08	0.71	-0.85	1770291	439842.3	39°42'19.658"N	80°12'16.236"W	1.11	-0.04
808	0.23	41.35	808	1.38	1.14	-0.78	1770291	439842.4	39°42'19.663"N	80°12'16.235"W	1.38	-0.1
908	0.17	59.26	907.99	1.41	1.37	-0.52	1770291	439842.7	39°42'19.665"N	80°12'16.232"W	1.47	-0.06
1008	0.22	96.37	1007.99	1.26	1.42	-0.2	1770291	439842.7	39°42'19.666"N	80°12'16.227"W	1.44	0.05
1108	0.29	97	1107.99	0.95	1.37	0.24	1770292	439842.7	39°42'19.665"N	80°12'16.222"W	1.39	0.07
1208	0.2	113.77	1207.99	0.62	1.27	0.65	1770292	439842.6	39°42'19.664"N	80°12'16.217"W	1.43	-0.09
1308	0.3	266.62	1307.99	0.62	1.19	0.55	1770292	439842.5	39°42'19.663"N	80°12'16.218"W	1.31	0.1
1408	0.42	274.51	1407.99	1	1.2	-0.08	1770291	439842.5	39°42'19.663"N	80°12'16.226"W	1.2	0.12
1508	0.56	276.76	1507.99	1.58	1.28	-0.93	1770290	439842.6	39°42'19.664"N	80°12'16.237"W	1.59	0.14
1608	0.47	288.65	1607.98	2.26	1.47	-1.8	1770290	439842.8	39°42'19.666"N	80°12'16.248"W	2.33	-0.09
1708	0.36	327.45	1707.98	2.91	1.87	-2.36	1770289	439843.2	39°42'19.670"N	80°12'16.255"W	3.01	-0.11
1808	0.52	10.34	1807.98	3.53	2.58	-2.45	1770289	439843.9	39°42'19.677"N	80°12'16.256"W	3.56	0.16
1908	0.5	36.76	1907.97	3.96	3.38	-2.11	1770289	439844.7	39°42'19.685"N	80°12'16.252"W	3.98	-0.02
2008	0.32	9.53	2007.97	4.28	4	-1.8	1770290	439845.3	39°42'19.691"N	80°12'16.248"W	4.39	-0.18
2108	0.12	40.21	2107.97	4.49	4.36	-1.68	1770290	439845.7	39°42'19.694"N	80°12'16.247"W	4.67	-0.2
2208	0.06	60.78	2207.97	4.51	4.46	-1.57	1770290	439845.8	39°42'19.695"N	80°12'16.245"W	4.73	-0.06
2308	0.95	266.34	2307.97	4.96	4.44	-2.35	1770289	439845.7	39°42'19.695"N	80°12'16.255"W	5.02	0.89
2408	1.23	250.33	2407.95	5.73	4.02	-4.19	1770287	439845.3	39°42'19.691"N	80°12'16.279"W	5.81	-0.28
2508	1.51	233.2	2507.92	6.06	2.87	-6.26	1770285	439844.2	39°42'19.679"N	80°12'16.305"W	6.88	-0.17
2608	1.55	224.98	2607.88	5.87	1.12	-8.27	1770283	439842.4	39°42'19.662"N	80°12'16.331"W	8.34	-0.04
2708	1.89	219.98	2707.84	5.31	-1.1	-10.28	1770281	439840.2	39°42'19.640"N	80°12'16.356"W	10.34	0.34
2808	2.32	222.48	2807.77	4.57	-3.85	-12.71	1770279	439837.5	39°42'19.612"N	80°12'16.387"W	13.28	0.43
2908	2.24	228.15	2907.69	4.04	-6.65	-15.53	1770276	439834.7	39°42'19.585"N	80°12'16.423"W	16.89	-0.08
3008	2.29	226.98	3007.61	3.66	-9.32	-18.45	1770273	439832.3	39°42'19.558"N	80°12'16.460"W	20.67	0.05
3108	2.21	226.91	3107.54	3.25	-12	-21.32	1770270	439829.3	39°42'19.531"N	80°12'16.496"W	24.46	-0.08
3208	2.02	239.22	3207.47	3.23	-14.21	-24.24	1770267	439827.1	39°42'19.509"N	80°12'16.533"W	28.1	-0.19
3308	1.82	227.21	3307.41	3.27	-16.2	-26.92	1770264	439825.1	39°42'19.489"N	80°12'16.567"W	31.41	-0.2
3408	1.6	234.81	3407.37	3.15	-18.08	-29.22	1770262	439823.2	39°42'19.471"N	80°12'16.597"W	34.36	-0.22
3508	1.69	244.4	3507.33	3.49	-19.52	-31.7	1770260	439821.8	39°42'19.456"N	80°12'16.628"W	37.22	0.09
3608	1.76	241.35	3607.28	4	-20.89	-34.37	1770257	439820.4	39°42'19.442"N	80°12'16.662"W	40.22	0.07
3708	1.64	233.68	3707.24	4.24	-22.48	-36.87	1770255	439818.8	39°42'19.426"N	80°12'16.694"W	43.18	-0.12
3808	1.31	234.99	3807.21	4.3	-23.98	-38.96	1770252	439817.3	39°42'19.411"N	80°12'16.721"W	45.75	-0.33
3908	1	236.54	3907.18	4.39	-25.12	-40.63	1770251	439816.2	39°42'19.400"N	80°12'16.742"W	49.46	-0.31
4008	0.97	252.04	4007.17	4.72	-25.86	-42.16	1770249	439815.4	39°42'19.393"N	80°12'16.762"W	49.46	-0.03
4108	0.84	249.03	4107.16	5.2	-26.38	-43.65	1770248	439814.9	39°42'19.387"N	80°12'16.781"W	49.46	-0.13

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4208	1.1	243.22	4207.14	5.57	-27.08	-45.19	1770246	439814.2	39°42'19.380"N	80°12'16.800"W	52.68	239.07	0.28	0.26	-5.81
4308	0.86	252.26	4307.13	5.99	-27.74	-46.76	1770245	439813.6	39°42'19.374"N	80°12'16.820"W	54.37	239.324	0.28	-0.24	9.04
4408	0.89	248.8	4407.12	6.45	-28.25	-48.2	1770243	439813.1	39°42'19.369"N	80°12'16.839"W	55.87	239.627	0.06	0.03	-3.46
4508	0.93	249.02	4507.1	6.88	-28.82	-49.68	1770242	439812.5	39°42'19.363"N	80°12'16.857"W	57.44	239.883	0.04	0.04	0.22
4608	0.99	255.48	4607.09	7.44	-29.33	-51.28	1770240	439812.0	39°42'19.358"N	80°12'16.878"W	59.07	240.233	0.12	0.06	6.46
4708	1.35	265.16	4707.07	8.39	-29.64	-53.29	1770238	439811.7	39°42'19.354"N	80°12'16.904"W	60.98	240.913	0.41	0.36	9.68
4808	1.45	274.25	4807.04	9.86	-29.65	-55.42	1770236	439811.7	39°42'19.354"N	80°12'16.935"W	63.12	241.983	0.24	0.1	9.09
4908	1.65	274.72	4907	11.65	-29.44	-58.42	1770233	439811.9	39°42'19.356"N	80°12'16.969"W	65.42	243.257	0.2	0.2	0.47
5008	2.2	276.7	5006.95	13.93	-29.09	-61.76	1770230	439812.2	39°42'19.359"N	80°12'17.012"W	68.27	244.776	0.55	0.55	1.98
5108	2.42	274.89	5106.86	16.67	-28.69	-65.77	1770226	439812.6	39°42'19.363"N	80°12'17.063"W	71.76	246.432	0.23	0.22	-1.81
5208	2.72	279.75	5206.76	19.81	-28.11	-70.21	1770221	439813.2	39°42'19.368"N	80°12'17.120"W	75.63	248.182	0.37	0.3	4.86
5308	2.92	282.38	5306.64	23.47	-27.16	-75.04	1770216	439814.1	39°42'19.377"N	80°12'17.182"W	79.8	250.102	0.24	0.2	2.63
5408	3.03	285.06	5406.51	27.49	-25.93	-80.08	1770211	439815.4	39°42'19.389"N	80°12'17.247"W	84.17	252.059	0.18	0.11	2.68
5508	2.91	286.41	5506.37	31.61	-24.52	-85.07	1770206	439816.8	39°42'19.403"N	80°12'17.311"W	88.53	253.918	0.14	-0.12	1.35
5608	2.97	283.08	5606.24	35.63	-23.22	-90.02	1770201	439818.1	39°42'19.415"N	80°12'17.374"W	92.97	255.536	0.18	0.06	-3.33
5708	3	284.78	5706.11	39.68	-21.97	-95.08	1770196	439819.3	39°42'19.427"N	80°12'17.439"W	97.58	256.991	0.09	0.03	1.7
5808	3.05	288.9	5805.97	43.93	-20.44	-100.13	1770191	439820.9	39°42'19.442"N	80°12'17.504"W	102.19	258.463	0.22	0.05	4.12
5908	3.09	289.88	5905.82	48.4	-18.66	-105.18	1770186	439822.6	39°42'19.459"N	80°12'17.569"W	106.82	259.94	0.07	0.04	0.98
6008	3.08	290.71	6005.68	52.92	-16.79	-110.22	1770181	439824.5	39°42'19.477"N	80°12'17.633"W	111.5	261.337	0.05	-0.01	0.83
6108	2.85	291.8	6105.55	57.32	-14.92	-115.05	1770176	439826.4	39°42'19.495"N	80°12'17.695"W	116.01	262.611	0.24	-0.23	1.09
6208	3.06	288.93	6205.41	61.66	-13.13	-119.88	1770172	439828.2	39°42'19.512"N	80°12'17.757"W	120.6	263.749	0.26	0.21	-2.87
6308	2.74	292.02	6305.28	65.92	-11.37	-124.62	1770167	439829.9	39°42'19.529"N	80°12'17.818"W	125.14	264.788	0.36	-0.32	3.09
6408	2.9	291.09	6405.16	70.12	-9.56	-129.2	1770162	439831.7	39°42'19.547"N	80°12'17.877"W	129.55	265.767	0.17	0.16	-0.93
6508	2.9	297.21	6505.04	74.54	-7.5	-133.81	1770158	439833.8	39°42'19.567"N	80°12'17.936"W	134.02	266.794	0.31	0	6.12
6518	2.68	293.9	6515.02	74.97	-7.28	-134.24	1770157	439834.3	39°42'19.569"N	80°12'17.942"W	134.44	266.894	2.73	-2.2	-33.1
6557	2.76	297.8	6553.98	76.62	-6.48	-135.91	1770156	439834.8	39°42'19.577"N	80°12'17.963"W	136.06	267.271	0.52	0.21	10
6620	2.56	297.26	6616.91	79.26	-5.13	-138.5	1770153	439835.2	39°42'19.590"N	80°12'17.996"W	138.6	267.881	0.32	-0.32	-0.86
6683	5.31	245.47	6679.77	81.16	-5.69	-142.41	1770149	439836.6	39°42'19.584"N	80°12'18.046"W	142.52	267.711	6.72	4.37	-82.21
6746	9.5	228.92	6742.24	81.42	-10.32	-148.98	1770142	439838.1	39°42'19.538"N	80°12'18.130"W	149.34	266.037	7.4	6.65	-26.27
6810	13.29	213.34	6804.98	78.56	-19.94	-157.01	1770134	439821.4	39°42'19.442"N	80°12'18.232"W	158.27	262.761	7.58	5.92	-24.34
6873	17.75	220.09	6865.67	73.98	-33.35	-167.18	1770124	439808.3	39°42'19.309"N	80°12'18.360"W	170.47	258.719	7.63	7.08	10.71
6936	20.48	229.6	6925.21	71.18	-47.84	-181.76	1770110	439793.5	39°42'19.165"N	80°12'18.545"W	187.95	255.253	6.56	4.33	15.1
6999	21.6	228.89	6984.01	69.69	-62.61	-198.89	1770093	439778.7	39°42'19.017"N	80°12'18.763"W	208.52	252.526	1.82	1.78	-1.13
7063	22.76	225.45	7043.27	67.22	-79.04	-216.59	1770075	439762.3	39°42'18.854"N	80°12'18.988"W	230.56	249.951	2.72	1.81	-5.38
7126	24.7	228.8	7100.95	64.66	-96.26	-235.18	1770056	439745.3	39°42'18.682"N	80°12'19.224"W	254.12	247.74	3.75	3.08	5.32
7189	29.14	226.98	7157.11	62.08	-115.41	-256.31	1770035	439725.9	39°42'18.491"N	80°12'19.493"W	281.1	245.76	7.17	7.05	-2.89
7251	32.15	222.03	7210.45	57.36	-137.97	-278.4	1770013	439703.3	39°42'18.266"N	80°12'19.773"W	310.72	243.638	6.33	4.85	-7.98
7315	34.04	219.92	7264.07	50.06	-164.36	-301.3	1769990	439677.5	39°42'18.004"N	80°12'20.063"W	343.22	241.387	3.46	2.95	-3.3
7378	36.98	222.69	7315.35	42.68	-191.82	-325.47	1769966	439649.5	39°42'17.731"N	80°12'20.370"W	377.99	239.487	5.32	4.67	4.4
7441	42.59	227.42	7363.75	37.21	-220.2	-354.04	1769937	439621.1	39°42'17.448"N	80°12'20.732"W	416.94	238.12	10.11	8.9	7.51
7504	49.63	228.58	7407.4	33.28	-250.54	-387.78	1769904	439590.8	39°42'17.145"N	80°12'21.161"W	461.68	237.134	11.25	11.17	1.84
7567	56.82	224.45	7445.11	27.5	-285.29	-424.3	1769867	439556.3	39°42'16.799"N	80°12'21.625"W	511.29	236.084	12.56	11.41	-6.56
7630	57.65	223.44	7479.2	19.16	-323.44	-461.06	1769830	439517.9	39°42'16.419"N	80°12'22.091"W	563.19	234.95	1.88	1.32	-1.6
7693	56.88	224.35	7513.27	10.78	-361.62	-497.8	1769794	439479.7	39°42'16.039"N	80°12'22.557"W	615.29	233.172	1.72	-1.22	1.44
7755	56.83	225.96	7547.17	3.69	-398.23	-534.6	1769757	439443.1	39°42'15.674"N	80°12'23.025"W	667.57	231.486	0.08	-0.08	2.6

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1.88
1.72
-0.08

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7819	56.71	225.06	7582.24	-3.29	-435.75	-572.79	1769719	439405.6	39°42'15.301"N	80°12'23.509"W	719.7	232.738	1.19	-0.19	-1.41
7882	57.4	222.15	7616.51	-11.92	-474.03	-609.25	1769682	439367.3	39°42'14.920"N	80°12'23.972"W	771.93	232.115	4.03	1.1	-4.62
7945	58.05	219.77	7650.15	-23.03	-514.25	-644.16	1769647	439327.1	39°42'14.519"N	80°12'24.415"W	824.25	231.399	3.36	1.03	-3.78
8008	58.27	219.35	7683.39	-35.47	-555.51	-678.24	1769613	439285.8	39°42'14.109"N	80°12'24.847"W	876.7	230.681	0.67	0.35	-0.67
8072	58.49	220.65	7716.94	-47.73	-597.26	-713.27	1769578	439244.1	39°42'13.694"N	80°12'25.291"W	930.31	230.059	1.76	0.34	2.03
8135	58.38	223.5	7749.93	-57.9	-637.1	-749.24	1769542	439204.2	39°42'13.297"N	80°12'25.747"W	983.49	229.625	3.86	-0.17	4.52
8198	58.3	225.37	7783	-65.89	-675.38	-786.78	1769505	439166	39°42'12.916"N	80°12'26.223"W	1036.9	229.357	2.53	-0.13	2.97
8260	58.34	225.54	7815.56	-72.82	-712.39	-824.38	1769467	439129	39°42'12.547"N	80°12'26.700"W	1089.55	229.168	0.24	0.06	0.27
8324	57.9	230.28	7849.37	-77.64	-748.81	-864.69	1769427	439092.5	39°42'12.184"N	80°12'27.212"W	1143.85	229.108	6.33	-0.69	7.41
8387	57.93	240.42	7882.9	-75.46	-779.1	-908.51	1769383	439062.3	39°42'11.881"N	80°12'27.770"W	1196.82	229.385	13.63	0.05	16.1
8451	58.91	247.48	7916.45	-65.09	-803	-957.45	1769334	439038.4	39°42'11.641"N	80°12'28.394"W	1249.61	230.014	9.52	1.53	11.03
8514	58.74	248.85	7949.06	-50.99	-823.05	-1007.49	1769284	439018.3	39°42'11.439"N	80°12'29.032"W	1300.94	230.754	1.88	-0.27	2.17
8577	58.77	249.96	7981.74	-35.78	-841.99	-1057.9	1769234	438999.4	39°42'11.248"N	80°12'29.675"W	1352.08	231.483	1.51	0.05	1.76
8640	58.84	252.15	8014.37	-19.08	-859.49	-1108.87	1769183	438981.9	39°42'11.071"N	80°12'30.325"W	1402.97	232.221	2.98	0.11	3.48
8703	59.79	255.84	8046.53	0.33	-874.41	-1160.94	1769131	438966.9	39°42'10.920"N	80°12'30.990"W	1453.4	233.013	5.26	1.51	5.86
8766	62.2	262.64	8077.1	24.7	-884.65	-1215.02	1769076	438956.7	39°42'10.814"N	80°12'31.681"W	1502.96	233.942	10.18	3.83	10.79
8829	67.08	271.31	8104.12	56.54	-887.57	-1271.79	1769020	438935.8	39°42'10.781"N	80°12'32.407"W	1550.88	235.089	14.64	7.75	13.76
8893	70.61	277.51	8127.23	96.02	-882.94	-1331.25	1768960	438958.4	39°42'10.822"N	80°12'33.168"W	1597.44	236.446	10.58	5.52	9.69
8956	73.39	286.28	8146.73	141.13	-870.57	-1389.8	1768902	438970.8	39°42'10.940"N	80°12'33.918"W	1639.95	237.937	13.95	4.41	13.92
9019	74.81	292.4	8164.01	191.54	-850.51	-1446.93	1768845	438990.8	39°42'11.134"N	80°12'34.651"W	1678.38	239.553	9.61	2.25	9.71
9082	76.55	298.04	8179.6	245.53	-824.5	-1502.12	1768789	439016.9	39°42'11.387"N	80°12'35.360"W	1713.53	241.238	9.1	2.76	8.95
9145	78.7	301.93	8193.11	302.15	-793.75	-1555.4	1768736	439047.6	39°42'11.686"N	80°12'36.045"W	1746.23	242.964	6.93	3.41	6.17
9208	82.4	305.05	8203.45	360.71	-759.46	-1607.21	1768684	439081.9	39°42'12.021"N	80°12'36.711"W	1777.61	244.708	7.64	5.87	4.95
9272	84.3	309.29	8210.87	421.86	-721.06	-1657.85	1768634	439120.3	39°42'12.397"N	80°12'37.363"W	1807.87	246.494	7.22	2.97	6.62
9336	86.89	314.09	8215.78	484.41	-678.63	-1705.48	1768586	439162.7	39°42'12.812"N	80°12'37.977"W	1835.54	248.302	8.5	4.05	7.5
9399	89.72	319.84	8217.65	547	-632.62	-1748.43	1768543	439208.7	39°42'13.263"N	80°12'38.531"W	1859.36	250.109	10.17	4.49	9.13
9463	90.43	325.17	8217.56	610.97	-581.86	-1787.37	1768504	439259.5	39°42'13.762"N	80°12'39.034"W	1879.7	251.968	8.4	1.11	8.33
9526	90.4	327.5	8217.11	673.86	-529.43	-1822.29	1768469	439311.9	39°42'14.277"N	80°12'39.486"W	1897.64	253.8	3.7	-0.05	3.7
9590	90.55	329.25	8216.58	737.57	-474.94	-1855.85	1768436	439366.4	39°42'14.813"N	80°12'39.921"W	1915.66	255.645	2.74	0.23	2.73
9652	90.46	330.4	8216.03	799.13	-421.35	-1887.01	1768405	439420	39°42'15.341"N	80°12'40.325"W	1933.48	257.413	1.86	-0.15	1.85
9715	90.49	332.02	8215.51	861.48	-366.14	-1917.35	1768374	439475.2	39°42'15.884"N	80°12'40.719"W	1952	259.189	2.57	0.05	2.57
9779	90.74	333.92	8214.82	924.51	-309.13	-1946.43	1768345	439532.2	39°42'16.445"N	80°12'41.097"W	1970.83	260.976	2.99	0.39	2.97
9841	90.46	332.62	8214.17	985.51	-253.76	-1974.32	1768317	439587.6	39°42'16.990"N	80°12'41.459"W	1990.56	262.676	2.14	-0.45	-2.1
9904	90.89	331.21	8213.43	1047.74	-198.19	-2003.97	1768288	439643.1	39°42'17.537"N	80°12'41.844"W	2013.75	264.352	2.34	0.68	-2.24
9968	91.05	332.99	8212.35	1110.92	-141.64	-2033.92	1768258	439699.7	39°42'18.093"N	80°12'42.233"W	2038.84	266.016	2.79	0.25	2.78
10030	91.02	333.71	8211.23	1171.91	-86.23	-2061.72	1768230	439755.1	39°42'18.639"N	80°12'42.595"W	2063.52	267.605	1.16	-0.05	1.16
10093	90.37	331.67	8210.46	1234	-30.26	-2090.62	1768201	439811	39°42'19.190"N	80°12'42.970"W	2090.84	269.171	3.4	-1.03	-3.24
10156	90.46	330.14	8210.01	1296.4	24.78	-2121.25	1768170	439866.1	39°42'19.731"N	80°12'43.367"W	2121.4	270.669	2.43	0.14	-2.43
10220	90.28	328.74	8209.59	1359.99	79.89	-2153.79	1768138	439921.2	39°42'20.273"N	80°12'43.789"W	2155.27	272.124	2.21	-0.28	-2.19
10282	90.49	328.22	8209.18	1421.7	132.74	-2186.2	1768105	439974	39°42'20.793"N	80°12'44.209"W	2190.23	273.475	0.9	0.34	-0.84
10345	90.62	327.31	8208.57	1484.48	186.03	-2219.81	1768072	440027.3	39°42'21.317"N	80°12'44.645"W	2227.59	274.79	1.46	0.21	-1.44
10408	90.46	325.34	8207.97	1547.37	238.45	-2254.74	1768037	440079.7	39°42'21.832"N	80°12'45.097"W	2267.31	276.037	3.14	-0.25	-3.13
10471	90.62	324.12	8207.38	1610.34	289.89	-2291.11	1768000	440131.2	39°42'22.338"N	80°12'45.568"W	2309.38	277.211	2.21	0.25	-1.94
10534	90.58	322.08	8206.72	1673.33	340.26	-2328.93	1767963	440181.5	39°42'22.833"N	80°12'46.057"W	2353.66	279.352	0.25	-0.19	-3.24
10597	90.46	321.98	8206.15	1736.32	389.92	-2367.69	1767924	440231.2	39°42'23.320"N	80°12'46.558"W	2399.59	279.352	0.25	-0.19	-0.16

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10660	90.62	323.12	8205.55	1799.31	439.93	-2406	1767886	440281.2	39°42'23.812"N	80°12'47.053"W	2445.89	280.362	1.83	0.25	1.81
10723	90.52	323.35	8204.93	1862.31	490.4	-2443.7	1767848	440331.7	39°42'24.307"N	80°12'47.540"W	2492.43	281.347	0.4	-0.16	0.37
10786	90.46	322.66	8204.39	1925.31	540.72	-2481.61	1767810	440382	39°42'24.802"N	80°12'48.030"W	2539.84	282.292	1.1	-0.1	-1.1
10849	90.49	320.63	8203.86	1988.28	590.12	-2520.7	1767771	440431.4	39°42'25.287"N	80°12'48.536"W	2588.86	283.176	3.22	0.05	-3.22
10912	90.4	318.85	8203.38	2051.18	638.19	-2561.41	1767730	440479.5	39°42'25.759"N	80°12'49.061"W	2639.72	283.991	2.83	-0.14	-2.83
10975	90.65	316.9	8202.8	2113.92	684.91	-2603.67	1767688	440526.2	39°42'26.217"N	80°12'49.607"W	2692.25	284.738	3.12	0.4	-3.1
11038	90.46	316.63	8202.19	2176.54	730.81	-2646.82	1767646	440572.1	39°42'26.667"N	80°12'50.164"W	2745.86	285.435	0.52	-0.3	-0.43
11101	90.55	318.81	8201.63	2239.27	777.41	-2689.2	1767602	440618.7	39°42'27.124"N	80°12'50.711"W	2799.32	286.124	3.46	0.14	3.46
11164	90.49	318.83	8201.06	2302.1	824.83	-2730.68	1767561	440666.1	39°42'27.590"N	80°12'51.246"W	2852.53	286.807	0.1	-0.1	0.03
11227	90.12	321.36	8200.73	2365.01	873.15	-2771.09	1767520	440714.4	39°42'28.064"N	80°12'51.768"W	2905.4	287.489	4.06	-0.59	4.02
11290	90.09	326.06	8200.61	2427.99	923.92	-2808.37	1767483	440765.2	39°42'28.563"N	80°12'52.250"W	2956.44	288.211	7.46	-0.05	7.46
11353	90.09	326.26	8200.51	2490.9	976.25	-2843.45	1767448	440817.5	39°42'29.077"N	80°12'52.704"W	3006.37	288.949	0.32	0	0.32
11416	90.09	328	8200.41	2553.73	1029.16	-2877.64	1767414	440870.4	39°42'29.598"N	80°12'53.147"W	3056.14	289.679	2.76	0	2.76
11479	90.18	323.75	8200.26	2616.64	1081.3	-2912.98	1767379	440922.5	39°42'30.110"N	80°12'53.605"W	3107.19	290.365	6.75	0.14	-6.75
11542	89.66	322.86	8200.35	2679.63	1131.81	-2950.62	1767341	440973	39°42'30.606"N	80°12'54.091"W	3160.25	290.986	1.64	-0.83	-1.41
11604	89.78	324.03	8200.65	2741.63	1181.61	-2987.55	1767304	441022.8	39°42'31.096"N	80°12'54.569"W	3212.73	291.579	1.9	0.19	1.89
11668	90	325.36	8200.78	2805.6	1233.84	-3024.53	1767267	441075.1	39°42'31.609"N	80°12'55.048"W	3266.52	292.193	2.11	0.34	2.08
11731	89.91	324.83	8200.83	2868.56	1285.51	-3060.58	1767231	441126.7	39°42'32.117"N	80°12'55.514"W	3319.59	292.783	0.85	-0.14	-0.84
11794	90.06	324.29	8200.84	2931.53	1336.84	-3097.11	1767194	441178.1	39°42'32.621"N	80°12'55.987"W	3373.31	293.347	0.89	0.24	-0.86
11857	90.09	322.28	8200.76	2994.53	1387.34	-3134.78	1767157	441228.6	39°42'33.117"N	80°12'56.474"W	3428.05	293.872	3.19	0.05	-3.19
11921	90.03	322.36	8200.69	3058.53	1437.99	-3173.9	1767118	441279.2	39°42'33.614"N	80°12'56.979"W	3484.45	294.374	0.16	-0.09	0.13
11984	90.12	324.06	8200.61	3121.52	1488.44	-3211.62	1767080	441329.7	39°42'34.110"N	80°12'57.467"W	3539.77	294.866	2.7	0.14	2.7
12048	90.06	324.83	8200.51	3185.5	1540.51	-3248.84	1767043	441381.7	39°42'34.622"N	80°12'57.949"W	3595.57	295.369	1.21	-0.09	1.2
12110	90.06	324.92	8200.45	3247.47	1591.21	-3284.51	1767007	441432.4	39°42'35.120"N	80°12'58.410"W	3649.65	295.848	0.15	0	0.15
12173	89.97	324.83	8200.43	3310.44	1642.74	-3320.76	1766971	441483.9	39°42'35.626"N	80°12'58.880"W	3704.87	296.321	0.2	-0.14	-0.14
12237	90.12	325.02	8200.38	3374.4	1695.12	-3357.54	1766934	441536.3	39°42'36.141"N	80°12'59.355"W	3761.18	296.788	0.38	0.23	0.3
12301	89.91	324.31	8200.36	3438.37	1747.33	-3394.55	1766897	441588.5	39°42'36.654"N	80°12'59.834"W	3817.87	297.237	1.16	-0.33	-1.11
12364	89.97	322.55	8200.43	3501.37	1797.92	-3432.09	1766860	441639.1	39°42'37.151"N	80°13'00.320"W	3874.5	297.648	2.8	0.1	-2.79
12426	90	321.78	8200.44	3563.36	1846.89	-3470.12	1766821	441688.1	39°42'37.632"N	80°13'00.811"W	3930.99	298.023	1.24	0.05	-1.24
12489	89.82	321.63	8200.54	3626.34	1896.34	-3509.16	1766782	441737.5	39°42'38.118"N	80°13'01.316"W	3988.77	298.387	0.37	-0.29	-0.24
12552	89.82	320.51	8200.74	3689.31	1945.34	-3548.74	1766743	441786.5	39°42'38.599"N	80°13'01.828"W	4046.97	298.731	1.78	0	-1.78
12616	90	320.21	8200.84	3753.24	1994.63	-3589.57	1766702	441835.8	39°42'39.083"N	80°13'02.355"W	4106.53	299.06	0.55	0.28	-0.47
12679	90	320.89	8200.84	3816.18	2043.27	-3629.6	1766662	441884.5	39°42'39.560"N	80°13'02.872"W	4165.21	299.377	1.08	0	1.08
12743	90.06	320.44	8200.81	3880.13	2092.77	-3670.17	1766621	441934	39°42'40.046"N	80°13'03.396"W	4224.91	299.692	0.71	0.09	-0.7
12806	89.82	320.01	8200.87	3943.05	2141.19	-3710.48	1766581	441982.4	39°42'40.522"N	80°13'03.917"W	4283.96	299.988	0.78	-0.38	-0.68
12869	90.15	321.54	8200.89	4006	2190	-3750.31	1766541	442031.2	39°42'41.001"N	80°13'04.432"W	4342.92	300.283	2.48	0.52	2.43
12932	89.88	322.31	8200.87	4068.99	2239.59	-3789.16	1766502	442080.8	39°42'41.488"N	80°13'04.934"W	4401.54	300.585	1.3	-0.43	1.22
12995	90.12	323.38	8200.87	4131.99	2289.8	-3827.21	1766464	442131	39°42'41.981"N	80°13'05.426"W	4459.91	300.892	1.74	0.38	1.7
13058	89.82	323.21	8200.91	4194.99	2340.31	-3864.87	1766427	442181.5	39°42'42.477"N	80°13'05.913"W	4518.21	301.196	0.55	-0.48	-0.27
13122	89.94	323.05	8201.04	4258.99	2391.51	-3903.27	1766388	442232.7	39°42'42.980"N	80°13'06.409"W	4577.64	301.496	0.31	0.19	-0.25
13184	89.97	322.72	8201.09	4320.99	2440.95	-3940.68	1766351	442282.1	39°42'43.466"N	80°13'06.893"W	4635.43	301.775	0.53	0.05	-0.53
13248	89.91	323.24	8201.16	4384.99	2492.05	-3979.21	1766312	442333.2	39°42'43.968"N	80°13'07.392"W	4695.15	302.058	0.82	-0.09	0.81
13311	90.03	324.05	8201.19	4447.98	2542.79	-4016.56	1766275	442383.9	39°42'44.466"N	80°13'07.875"W	4753.79	302.337	0.98	0.24	1.29
13374	89.88	324.65	8201.24	4510.97	2593.98	-4053.28	1766238	442435.1	39°42'44.969"N	80°13'08.350"W	4812.25	302.618	0.98	0.24	0.95
13437	89.72	324.95	8201.46	4573.94	2645.46	-4089.59	1766202	442486.6	39°42'45.475"N	80°13'08.820"W	4870.65	302.898	0.98	0.24	0.95

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13500	89.75	324.12	8201.75	4636.91	2696.77	-4126.15	1766166	442537.9	39°42'45.979"N	80°13'09.293"W	4929.26	303.168	1.32	0.05	-1.32
13563	89.91	324.05	8201.94	4699.9	2747.79	-4163.1	1766129	442588.9	39°42'46.481"N	80°13'09.771"W	4988.16	303.426	0.28	0.25	-0.11
13627	89.75	323.13	8202.13	4763.9	2799.3	-4201.09	1766091	442640.4	39°42'46.987"N	80°13'10.262"W	5048.29	303.677	1.46	-0.25	-1.44
13690	90.03	323.3	8202.25	4826.89	2849.75	-4238.81	1766053	442690.9	39°42'47.482"N	80°13'10.750"W	5107.7	303.913	0.52	0.44	0.27
13753	89.97	320.72	8202.25	4889.88	2899.4	-4277.59	1766014	442740.5	39°42'47.970"N	80°13'11.251"W	5167.62	304.13	4.1	-0.1	-4.1
13816	90.25	321.37	8202.13	4952.84	2948.39	-4317.2	1765974	442789.5	39°42'48.451"N	80°13'11.763"W	5227.92	304.331	1.12	0.44	1.03
13878	89.85	321.6	8202.07	5014.82	2996.9	-4355.8	1765936	442838.9	39°42'48.927"N	80°13'12.262"W	5287.2	304.529	0.74	-0.65	0.37
13942	89.38	321.44	8202.5	5078.8	3047	-4395.63	1765896	442888.1	39°42'49.419"N	80°13'12.777"W	5348.43	304.729	0.78	-0.73	-0.25
14005	89.66	323.42	8203.03	5141.79	3096.93	-4434.04	1765858	442938.1	39°42'49.909"N	80°13'13.273"W	5408.48	304.932	3.17	0.44	3.14
14068	89.78	326.29	8203.34	5204.75	3148.44	-4470.3	1765821	442989.6	39°42'50.416"N	80°13'13.743"W	5467.75	305.157	4.56	0.19	4.56
14131	89.82	326.58	8203.56	5267.64	3200.94	-4505.13	1765787	443042.9	39°42'50.932"N	80°13'14.194"W	5526.5	305.394	0.46	0.06	0.46
14193	89.6	326.02	8203.87	5329.53	3252.52	-4539.53	1765752	443093.6	39°42'51.439"N	80°13'14.639"W	5584.46	305.621	0.97	-0.35	-0.9
14256	89.75	325.35	8204.23	5392.46	3304.55	-4575.04	1765717	443145.7	39°42'51.950"N	80°13'15.099"W	5643.68	305.841	1.09	0.24	-1.06
14320	89.63	324.71	8204.58	5456.42	3356.99	-4611.72	1765680	443198.1	39°42'52.465"N	80°13'15.574"W	5704.16	306.052	1.02	-0.19	-1
14383	89.66	324.86	8204.97	5519.39	3408.46	-4648.05	1765644	443249.6	39°42'52.971"N	80°13'16.044"W	5763.85	306.253	0.24	0.05	0.24
14445	89.78	324.95	8205.27	5581.35	3459.19	-4683.7	1765608	443300.3	39°42'53.470"N	80°13'16.505"W	5822.63	306.448	0.24	0.19	0.15
14508	89.82	325.67	8205.49	5644.3	3510.99	-4719.55	1765572	443352.1	39°42'53.979"N	80°13'16.969"W	5882.28	306.646	1.14	0.06	1.14
14572	88.98	323.33	8206.16	5708.27	3563.09	-4756.71	1765535	443404.2	39°42'54.491"N	80°13'17.450"W	5943.22	306.836	3.88	-1.31	-3.66
14635	89.69	321.2	8206.89	5771.26	3612.91	-4795.26	1765496	443454.9	39°42'54.980"N	80°13'17.949"W	6003.97	306.996	3.56	1.13	-3.38
14698	89.57	319.34	8207.3	5834.18	3661.35	-4835.53	1765456	443502.4	39°42'55.455"N	80°13'18.469"W	6065.3	307.132	2.96	-0.19	-2.95
14762	89.66	319.53	8207.73	5898.06	3709.97	-4877.15	1765415	443551.1	39°42'55.933"N	80°13'19.006"W	6127.84	307.26	0.33	0.14	0.3
14825	89.51	320.33	8208.18	5960.96	3758.18	-4917.7	1765374	443599.3	39°42'56.406"N	80°13'19.530"W	6189.32	307.388	1.29	-0.24	1.27
14888	89.6	321.64	8208.67	6023.92	3807.13	-4957.36	1765334	443648.2	39°42'56.886"N	80°13'20.043"W	6250.57	307.523	2.08	0.14	2.08
14951	89.69	320.42	8209.06	6086.88	3856.11	-4996.98	1765295	443697.2	39°42'57.367"N	80°13'20.555"W	6311.84	307.657	1.94	0.14	-1.94
15014	89.23	321.03	8209.66	6149.83	3904.87	-5036.86	1765255	443745.9	39°42'57.846"N	80°13'21.070"W	6373.22	307.785	1.21	-0.73	0.97
15077	89.38	322.42	8210.42	6212.81	3954.33	-5075.88	1765216	443795.4	39°42'58.332"N	80°13'21.575"W	6434.38	307.92	2.22	0.24	2.21
15140	89.66	321.86	8210.95	6275.8	4004.06	-5114.54	1765177	443845.1	39°42'58.820"N	80°13'22.075"W	6495.47	308.057	0.99	0.44	-0.89
15204	89.6	322.72	8211.36	6339.79	4054.69	-5153.69	1765138	443895.8	39°42'59.317"N	80°13'22.581"W	6557.52	308.194	1.35	-0.09	1.34
15267	89.54	324.71	8211.84	6402.78	4105.47	-5190.97	1765101	443946.5	39°42'59.816"N	80°13'23.063"W	6618.24	308.34	3.16	-0.1	3.16
15330	89.38	326.37	8212.43	6465.71	4157.41	-5226.61	1765065	443998.5	39°43'00.327"N	80°13'23.524"W	6678.44	308.5	2.65	-0.25	2.63
15393	89.14	326.03	8213.24	6528.61	4209.76	-5261.66	1765030	444050.8	39°43'00.841"N	80°13'23.978"W	6738.48	308.663	0.66	-0.38	-0.54
15456	89.2	324.6	8214.16	6591.55	4261.56	-5297.5	1764994	444102.6	39°43'01.350"N	80°13'24.442"W	6798.86	308.815	2.27	0.1	-2.27
15520	89.91	324.11	8214.65	6655.53	4313.57	-5334.8	1764957	444154.6	39°43'01.861"N	80°13'24.925"W	6860.54	308.958	1.35	1.11	-0.77
15582	89.75	322.65	8214.84	6717.53	4363.33	-5371.78	1764920	444204.4	39°43'02.350"N	80°13'25.403"W	6920.6	309.086	2.37	-0.26	-2.35
15645	89.69	322.5	8215.15	6780.52	4413.36	-5410.07	1764882	444254.4	39°43'02.841"N	80°13'25.898"W	6981.87	309.206	0.26	-0.1	-0.24
15708	89.69	321.06	8215.49	6843.51	4462.85	-5449.04	1764843	444303.9	39°43'03.327"N	80°13'26.402"W	7043.37	309.318	2.29	0	-2.29
15771	89.57	320.06	8215.89	6906.45	4511.5	-5489.06	1764803	444352.5	39°43'03.805"N	80°13'26.919"W	7105.17	309.417	1.6	-0.19	-1.59
15834	89.91	318.16	8216.18	6969.3	4559.13	-5530.3	1764761	444400.2	39°43'04.272"N	80°13'27.452"W	7167.28	309.502	3.06	0.54	-3.02
15898	89.82	316.49	8216.33	7032.98	4606.18	-5573.68	1764718	444447.2	39°43'04.734"N	80°13'28.012"W	7230.69	309.571	2.61	-0.14	-2.61
15961	88.63	316.1	8217.07	7095.52	4651.72	-5617.21	1764675	444492.7	39°43'05.181"N	80°13'28.574"W	7293.25	309.629	1.69	-1.57	-0.62
16024	89.57	319.07	8217.95	7158.25	4698.22	-5659.69	1764632	444539.2	39°43'05.637"N	80°13'29.122"W	7355.64	309.697	4.86	1.17	4.71
16087	90.03	321.15	8218.17	7221.17	4746.56	-5700.09	1764592	444587.6	39°43'06.111"N	80°13'29.644"W	7417.6	309.785	3.38	0.73	3.3
16150	90.15	322.74	8218.07	7284.16	4796.16	-5738.92	1764553	444637.2	39°43'06.598"N	80°13'30.146"W	7479.2	309.886	7479.2	309.886	2.52
16213	90.28	327.55	8217.84	7347.09	4847.84	-5774.92	1764517	444688.9	39°43'07.106"N	80°13'30.612"W	7539.98	310.013	7539.98	310.013	0.09
16277	90.34	328.69	8217.49	7410.83	4902.19	-5808.72	1764483	444743.2	39°43'07.641"N	80°13'31.050"W	7600.83	310.162	7600.83	310.162	1.78

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16340 90.03 325.31 8217.29 7473.67 4955.02 -5843.03 1764449 444796 39°43'08.160"N 80°13'31.495"W 7661.14 310.299 5.39 -0.49 -5.37
 16403 90.52 324.1 8216.98 7536.64 5006.43 -5879.42 1764412 444847.4 39°43'08.665"N 80°13'31.966"W 7722.18 310.415 2.07 0.78 -1.92
 16428 90.52 324.1 8216.76 7561.64 5026.68 -5894.08 1764398 444867.7 39°43'08.864"N 80°13'32.156"W 7746.47 310.459 0 0 0

T A R G E T S

Name	MD (ft)	TVD (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Longitude	Latitude	Shape	Comment
Coastal 7H HL Pt 1	1420	4808.9	-6168.49	1764123	444649.9	39°43'06.680"13'35.6 point				
Coastal 7H HL Pt 2	1420	5196.19	-5803.28	1764488	445037.2	39°43'10.5 80°13'31.0 point				
Coastal 7H HL Pt 3	1420	5596.36	-5191.6	1765100	445437.3	39°43'14.5 80°13'23.2 point				
Coastal 7H HL Pt 4	1420	5774.15	-4844.85	1765447	445615.1	39°43'16.3 80°13'18.8 point				
Coastal 7H LP Rev-1	8129	-603.54	-1631.8	1768660	439237.8	39°42'13.5 80°12'37.0 point				
Coastal 7H PBHL Rev-1	8129	5038.4	-5883.35	1764408	444879.4	39°43'08.9 80°13'32.0 point				
Coastal 7H LP Rev-2	8180	-603.54	-1631.8	1768660	439237.8	39°42'13.5 80°12'37.0 point				
Coastal 7H PBHL Rev-2	8180	5038.4	-5883.35	1764408	444879.4	39°43'08.9 80°13'32.0 point				

WELLPATH COMPOSITION Ref Wellbore: Coastal 7H AWB Ref Wellpath: Coastal 7H AWP Proj: 16428'

Log Name/Start MD	End MD	Pos Unc Model
01_VES Gy	18	6518 Generic gyro - northseeking (Standard)
02_BH ATC	6518	16403 Navitrak (AT Curve Short Spaced)
Projection	16403	16428 Blind Drilling (std)

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