



Company: Baker Hughes, a GE Company
 Customer/Operator: Northeast Natural Energy, LLC
 Date Range: 12/7/2017 - 12/14/2017
 Rig Name: Patterson 334
 Rig Elv/Dat: 25.00 (ft) / GL
 Well: Coastal 10H
 Wellbore: Coastal 10H

Tie/ Proj	Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	Temperature (degF)	True Vertical Depth (ft)	Northing (ft)	Easting (ft)	DLS (deg/100ft)	Vertical Section (ft)	Closure Distance (ft)	Course Length (ft)	Build Rate (deg/100ft)	Turn Rate (deg/100ft)
0.00	0.00	0.00	25.65		25.00	0.00	0.00	0.00	0.00	0.00	25.00	0.00	0.00
25.00	0.00	0.00	25.65		25.00	0.00	0.00	0.00	0.00	0.00	25.00	0.00	0.00
99.00	0.07	0.07	25.65		99.00	0.04	0.02	0.09	-0.02	0.05	74.00	0.09	0.00
129.00	0.11	0.11	240.14		129.00	0.04	0.00	0.57	-0.03	0.04	30.00	0.13	-485.03
158.00	0.13	0.13	304.05		158.00	0.05	-0.05	0.44	-0.07	0.07	29.00	0.07	220.38
187.00	0.50	0.50	286.92		187.00	0.10	-0.20	1.30	-0.20	0.22	29.00	1.28	-59.07
215.00	0.48	0.48	274.62		215.00	0.15	-0.43	0.38	-0.38	0.46	28.00	-0.07	-43.93
244.00	0.42	0.42	273.39		244.00	0.16	-0.66	0.21	-0.53	0.68	29.00	-0.21	-4.24
278.00	0.34	0.34	239.78		278.00	0.12	-0.87	0.68	-0.62	0.88	34.00	-0.24	-98.85
310.00	0.46	0.46	286.48		310.00	0.11	-1.07	1.05	-0.73	1.08	32.00	0.37	145.94
340.00	0.52	0.52	247.16		340.00	0.09	-1.32	1.12	-0.86	1.32	30.00	0.20	-131.07
371.00	0.27	0.27	287.28		370.99	0.06	-1.52	1.16	-0.95	1.52	31.00	-0.81	129.42
402.00	0.65	0.65	250.09		401.99	0.02	-1.75	1.50	-1.06	1.75	31.00	1.23	-119.97
434.00	0.56	0.56	280.78		433.99	-0.01	-2.07	1.04	-1.23	2.07	32.00	-0.28	95.91
465.00	0.17	0.17	285.97		464.99	0.03	-2.27	1.26	-1.38	2.27	31.00	-1.26	16.74
496.00	0.49	0.49	248.05		495.99	-0.01	-2.43	1.20	-1.45	2.43	31.00	1.03	-122.32
527.00	0.36	0.36	285.85		526.99	-0.03	-2.65	0.97	-1.56	2.65	31.00	-0.42	121.94
558.00	0.48	0.48	246.34		557.99	-0.06	-2.86	0.99	-1.67	2.86	31.00	0.39	-127.45
590.00	0.17	0.17	313.17		589.99	-0.08	-3.02	1.38	-1.75	3.02	32.00	-0.97	208.84
621.00	0.40	0.40	284.60		620.99	-0.02	-3.16	0.85	-1.88	3.16	31.00	0.74	-92.16
652.00	0.57	0.57	284.45		651.99	0.05	-3.41	0.55	-2.08	3.41	31.00	0.55	-0.48
683.00	0.41	0.41	312.38		682.99	0.16	-3.65	0.91	-2.31	3.65	31.00	-0.52	90.10
714.00	0.40	0.40	310.87		713.99	0.30	-3.81	0.05	-2.52	3.82	31.00	-0.03	-4.87
745.00	0.34	0.34	266.35		744.98	0.37	-3.98	0.92	-2.68	4.00	31.00	-0.19	-143.61
776.00	0.58	0.58	296.81		775.98	0.43	-4.21	1.08	-2.87	4.24	31.00	0.77	98.26
808.00	0.60	0.60	282.55		807.98	0.54	-4.52	0.46	-3.14	4.55	32.00	0.06	-44.56
839.00	0.57	0.57	274.43		838.98	0.59	-4.83	0.28	-3.37	4.87	31.00	-0.10	-26.19
870.00	0.42	0.42	262.14		869.98	0.59	-5.10	0.59	-3.52	5.13	31.00	-0.48	-39.65
901.00	0.28	0.28	306.28		900.98	0.62	-5.27	0.95	-3.65	5.31	31.00	-0.45	142.39
932.00	0.27	0.27	286.43		931.98	0.68	-5.41	0.31	-3.78	5.45	31.00	-0.03	-64.03
963.00	0.40	0.40	309.91		962.98	0.77	-5.56	0.60	-3.95	5.61	31.00	0.42	75.74
994.00	0.57	0.57	321.77		993.98	0.96	-5.74	0.63	-4.21	5.82	31.00	0.55	38.26
1025.00	0.60	0.60	307.86		1024.97	1.18	-5.96	0.47	-4.52	6.08	31.00	0.10	-44.87
1057.00	0.34	0.34	316.86		1056.97	1.36	-6.16	0.84	-4.77	6.31	32.00	-0.81	28.12
1088.00	0.52	0.52	289.65		1087.97	1.47	-6.35	0.86	-4.98	6.52	31.00	0.58	-87.77
1119.00	0.46	0.46	333.76		1118.97	1.63	-6.54	1.20	-5.22	6.74	31.00	-0.19	142.29
1150.00	0.42	0.42	302.89		1149.97	1.80	-6.69	0.77	-5.45	6.93	31.00	-0.13	-99.58
1181.00	0.37	0.37	307.22		1180.97	1.92	-6.87	0.19	-5.65	7.13	31.00	-0.16	13.97
1213.00	0.18	0.18	304.28		1212.97	2.02	-6.99	0.60	-5.80	7.27	32.00	-0.59	-9.19
1244.00	0.17	0.17	48.69		1243.97	2.07	-7.00	0.89	-5.85	7.30	31.00	-0.03	336.81
1275.00	0.29	0.29	331.27		1274.97	2.17	-7.00	0.98	-5.93	7.33	31.00	0.39	-249.74
1306.00	0.38	0.38	21.93		1305.97	2.34	-7.00	0.96	-6.06	7.38	31.00	0.29	163.42
1338.00	0.17	0.17	78.24		1337.97	2.44	-6.91	1.00	-6.10	7.33	32.00	-0.66	175.97
1354.00	0.16	0.16	354.67		1353.97	2.47	-6.89	1.38	-6.10	7.32	16.00	-0.06	-522.31
1400.00	0.09	0.09	321.27		1399.97	2.56	-6.92	0.21	-6.20	7.38	46.00	-0.15	-72.61
1431.00	0.28	0.28	247.42		1430.97	2.55	-7.00	0.87	-6.24	7.46	31.00	0.61	-238.23
1462.00	0.08	0.08	166.25		1461.97	2.50	-7.07	0.90	-6.24	7.50	31.00	-0.65	-261.84
1493.00	0.17	0.17	178.64		1492.97	2.44	-7.06	0.30	-6.18	7.47	31.00	0.29	39.97
1524.00	0.27	0.27	241.94		1523.97	2.36	-7.13	0.79	-6.15	7.51	31.00	0.32	204.19
1555.00	0.25	0.25	244.02		1554.97	2.29	-7.25	0.07	-6.18	7.61	31.00	-0.06	6.71
1586.00	0.06	0.06	147.00		1585.97	2.25	-7.30	0.85	-6.17	7.64	31.00	-0.61	-312.97
1618.00	0.04	0.04	95.76		1617.97	2.23	-7.28	0.15	-6.15	7.62	32.00	-0.06	-160.12
1649.00	0.19	0.19	171.37		1648.97	2.18	-7.27	0.59	-6.10	7.59	31.00	0.48	243.90
1680.00	0.25	0.25	231.27		1679.97	2.09	-7.31	0.73	-6.05	7.60	31.00	0.19	193.23
1711.00	0.25	0.25	232.86		1710.97	2.01	-7.42	0.02	-6.05	7.68	31.00	0.00	5.13
1742.00	0.29	0.29	243.73		1741.97	1.93	-7.54	0.21	-6.06	7.78	31.00	0.13	35.06
1774.00	0.15	0.15	274.48		1773.97	1.90	-7.66	0.56	-6.10	7.89	32.00	-0.44	96.09
1805.00	0.32	0.32	234.15		1804.97	1.85	-7.77	0.73	-6.13	7.98	31.00	0.55	-130.10
1836.00	0.19	0.19	209.69		1835.97	1.75	-7.86	0.54	-6.11	8.06	31.00	-0.42	-78.90
1867.00	0.19	0.19	248.82		1866.97	1.69	-7.94	0.41	-6.10	8.11	31.00	0.00	126.23

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1899.00	0.23	235.65		1898.97	1.64	-8.04	0.20	-6.12	8.20	32.00	0.12	-41.16
1930.00	0.41	214.17		1929.97	1.51	-8.15	0.69	-6.09	8.29	31.00	0.58	-69.29
1962.00	0.44	278.24		1961.96	1.43	-8.34	1.41	-6.14	8.46	32.00	0.09	200.22
1993.00	0.66	354.74		1992.96	1.63	-8.47	2.27	-6.37	8.63	31.00	0.71	246.77
2024.00	1.14	356.73		2023.96	2.11	-8.51	1.55	-6.78	8.76	31.00	1.55	6.42
2056.00	1.55	355.83		2055.95	2.86	-8.55	1.28	-7.41	9.02	32.00	1.28	-2.81
2087.00	2.27	348.83		2086.93	3.88	-8.70	2.44	-8.32	9.53	31.00	2.32	-22.58
2118.00	2.46	356.39		2117.91	5.15	-8.87	1.18	-9.43	10.25	31.00	0.61	24.39
2149.00	2.61	355.28		2148.88	6.52	-8.97	0.51	-10.59	11.08	31.00	0.48	-3.58
2180.00	3.10	352.00		2179.84	8.05	-9.14	1.67	-11.92	12.18	31.00	1.58	-10.58
2212.00	2.91	354.81		2211.79	9.72	-9.33	0.75	-13.37	13.47	32.00	-0.59	8.78
2243.00	2.47	357.72		2242.76	11.17	-9.43	1.49	-14.59	14.62	31.00	-1.42	9.39
2274.00	1.66	357.43		2273.74	12.28	-9.48	2.61	-15.51	15.51	31.00	-2.61	-0.94
2305.00	0.99	352.39		2304.73	13.00	-9.53	2.19	-16.12	16.12	31.00	-2.16	-16.26
2336.00	0.51	310.35		2335.73	13.35	-9.67	2.26	-16.49	16.49	31.00	-1.55	-135.61
2368.00	0.53	287.25		2367.73	13.49	-9.92	0.65	-16.74	16.75	32.00	0.06	-72.19
2399.00	0.30	282.75		2398.73	13.55	-10.14	0.75	-16.92	16.92	31.00	-0.74	-14.52
2430.00	0.37	274.68		2429.73	13.57	-10.32	0.27	-17.05	17.05	31.00	0.23	-26.03
2461.00	0.46	271.15		2460.72	13.58	-10.54	0.30	-17.19	17.20	31.00	0.29	-11.39
2492.00	0.66	266.31		2491.72	13.58	-10.85	0.66	-17.37	17.38	31.00	0.65	-15.61
2524.00	0.45	238.53		2523.72	13.50	-11.14	1.05	-17.48	17.50	32.00	-0.66	-86.81
2555.00	0.35	255.73		2554.72	13.41	-11.33	0.50	-17.53	17.56	31.00	-0.32	55.48
2586.00	0.34	233.19		2585.72	13.33	-11.50	0.44	-17.56	17.61	31.00	-0.03	-72.71
2617.00	0.33	218.88		2616.72	13.21	-11.63	0.27	-17.54	17.60	31.00	-0.03	-46.16
2649.00	0.52	165.84		2648.72	13.00	-11.65	1.30	-17.38	17.45	32.00	0.59	-165.75
2678.00	0.25	191.41		2677.72	12.81	-11.63	1.08	-17.22	17.30	29.00	-0.93	88.17
2710.00	0.48	163.74		2709.72	12.61	-11.61	0.89	-17.05	17.14	32.00	0.72	-86.47
2741.00	0.38	171.57		2740.72	12.38	-11.56	0.37	-16.84	16.94	31.00	-0.32	25.26
2772.00	0.20	205.16		2771.72	12.23	-11.56	0.78	-16.72	16.83	31.00	-0.58	108.35
2803.00	0.19	211.08		2802.72	12.14	-11.61	0.07	-16.68	16.80	31.00	-0.03	19.10
2834.00	0.20	233.60		2833.72	12.06	-11.68	0.25	-16.66	16.79	31.00	0.03	72.65
2866.00	0.24	251.48		2865.72	12.01	-11.79	0.25	-16.68	16.83	32.00	0.12	55.87
2897.00	0.30	263.13		2896.72	11.98	-11.93	0.26	-16.74	16.91	31.00	0.19	37.58
2959.00	0.28	275.60		2958.71	11.97	-12.25	0.11	-16.92	17.13	62.00	-0.03	20.11
3053.00	0.29	295.39		3052.71	12.10	-12.69	0.10	-17.29	17.53	94.00	0.01	21.05
3083.00	0.46	320.71		3082.71	12.22	-12.83	0.78	-17.47	17.72	30.00	0.57	84.40
3115.00	0.43	322.96		3114.71	12.42	-12.99	0.11	-17.72	17.97	32.00	-0.09	7.03
3146.00	0.42	295.58		3145.71	12.56	-13.16	0.65	-17.94	18.19	31.00	-0.03	-88.32
3177.00	0.30	280.85		3176.71	12.63	-13.34	0.49	-18.10	18.37	31.00	-0.39	-47.52
3208.00	0.31	278.97		3207.71	12.65	-13.50	0.05	-18.22	18.51	31.00	0.03	6.06
3240.00	0.23	289.15		3239.71	12.69	-13.65	0.29	-18.34	18.64	32.00	-0.25	31.81
3271.00	0.49	300.14		3270.71	12.77	-13.82	0.86	-18.51	18.82	31.00	0.84	35.45
3302.00	0.30	270.33		3301.71	12.84	-14.02	0.88	-18.68	19.01	31.00	-0.61	-96.16
3333.00	0.26	296.16		3332.71	12.87	-14.16	0.42	-18.79	19.14	31.00	-0.13	83.32
3364.00	0.47	297.60		3363.71	12.96	-14.34	0.68	-18.97	19.33	31.00	0.68	4.65
3395.00	0.45	297.25		3394.71	13.08	-14.56	0.07	-19.19	19.57	31.00	-0.06	-1.13
3427.00	0.40	300.41		3426.71	13.19	-14.77	0.17	-19.41	19.80	32.00	-0.16	9.87
3458.00	0.38	299.22		3457.71	13.30	-14.95	0.07	-19.60	20.01	31.00	-0.06	-3.84
3489.00	0.21	304.21		3488.70	13.38	-15.09	0.55	-19.75	20.17	31.00	-0.55	16.10
3520.00	0.33	311.59		3519.70	13.47	-15.20	0.40	-19.89	20.31	31.00	0.39	23.81
3551.00	0.43	311.83		3550.70	13.61	-15.36	0.32	-20.09	20.52	31.00	0.32	0.77
3583.00	0.36	264.97		3582.70	13.68	-15.55	1.00	-20.26	20.71	32.00	-0.22	-146.44
3614.00	0.24	254.73		3613.70	13.65	-15.71	0.42	-20.34	20.81	31.00	-0.39	-33.03
3645.00	0.37	258.07		3644.70	13.62	-15.87	0.42	-20.40	20.91	31.00	0.42	10.77
3676.00	0.39	282.49		3675.70	13.62	-16.07	0.52	-20.53	21.06	31.00	0.06	78.77
3708.00	0.17	302.11		3707.70	13.67	-16.21	0.74	-20.65	21.20	32.00	-0.69	61.31
3739.00	0.16	268.17		3738.70	13.69	-16.30	0.31	-20.72	21.28	31.00	0.03	-10.77
3770.00	0.40	272.33		3769.70	13.69	-16.45	0.78	-20.81	21.40	31.00	0.77	10.77
3801.00	0.35	291.03		3800.70	13.73	-16.64	0.42	-20.96	21.58	31.00	-0.16	60.32
3833.00	0.26	236.25		3832.70	13.73	-16.80	0.91	-21.05	21.69	32.00	-0.28	-171.19
3864.00	0.38	267.47		3863.70	13.68	-16.96	0.67	-21.11	21.79	31.00	0.39	100.71
3895.00	0.38	267.47		3894.70	13.67	-17.16	0.00	-21.23	21.94	31.00	0.00	0.00
3926.00	0.12	316.23		3925.70	13.69	-17.29	1.01	-21.32	22.05	31.00	-0.84	157.29
3957.00	0.27	295.01		3956.70	13.75	-17.38	0.53	-21.41	22.16	31.00	0.48	-68.45
3989.00	0.18	235.70		3988.70	13.75	-17.49	0.74	-21.48	22.24	32.00	-0.28	-185.34
4020.00	0.24	306.31		4019.70	13.76	-17.58	0.80	-21.54	22.32	31.00	0.19	227.77
4051.00	0.18	236.17		4050.70	13.77	-17.67	0.79	-21.61	22.40	31.00	-0.19	-226.26
4082.00	0.05	240.18		4081.70	13.74	-17.72	0.42	-21.61	22.42	31.00	-0.42	12.94
4113.00	0.26	255.38		4112.70	13.71	-17.80	0.68	-21.64	22.47	31.00	0.68	49.03
4144.00	0.15	320.00		4143.70	13.73	-17.90	0.77	-21.71	22.55	31.00	-0.35	208.45
4176.00	0.34	299.90		4175.70	13.81	-18.01	0.64	-21.84	22.69	32.00	0.59	-62.81
4207.00	0.30	269.74		4206.70	13.85	-18.17	0.55	-21.97	22.85	31.00	-0.13	-97.29

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6429.00	0.58	301.97	6428.43	24.35	46.29	0.51	47.21	52.30	31.00	0.48	18.06
6398.00	0.43	307.57	6397.43	24.19	46.06	0.16	46.95	52.03	31.00	-0.06	19.65
6367.00	0.45	301.48	6366.43	24.06	45.87	1.21	46.73	51.79	8.00	1.12	62.12
6359.00	0.36	296.51	6358.43	24.03	45.82	0.26	46.68	51.74	31.00	0.23	21.71
6328.00	0.29	289.78	6327.43	23.96	45.66	0.11	46.52	51.56	31.00	0.06	-19.00
6297.00	0.27	295.67	6296.43	23.90	45.52	0.36	46.39	51.41	31.00	-0.35	9.55
6266.00	0.38	292.71	6265.43	23.83	45.36	0.38	46.24	51.24	31.00	-0.10	-54.06
6235.00	0.41	309.47	6234.43	23.72	45.18	0.65	46.04	51.02	31.00	0.65	3.06
6204.00	0.21	308.52	6203.43	23.62	45.05	0.53	45.88	50.86	32.00	0.53	10.66
6172.00	0.38	305.11	6171.43	23.52	44.91	0.15	45.72	50.70	31.00	-0.03	21.77
6141.00	0.39	311.86	6140.43	23.39	44.75	0.75	45.52	50.49	31.00	0.55	62.19
6110.00	0.56	292.58	6109.44	23.26	44.53	0.65	45.29	50.24	31.00	0.65	9.77
6079.00	0.36	289.55	6078.44	23.17	44.30	0.75	45.08	49.99	32.00	-0.47	7.97
6047.00	0.51	315.06	6046.44	23.03	44.10	0.26	44.85	49.76	31.00	0.26	3.52
6016.00	0.43	316.15	6015.44	22.85	43.93	1.01	44.60	49.52	31.00	-0.94	39.84
5985.00	0.72	303.80	5984.44	22.66	43.68	0.69	44.30	49.21	31.00	0.42	48.68
5954.00	0.59	288.71	5953.44	22.50	43.37	0.76	43.99	48.86	31.00	-0.42	-55.65
5923.00	0.72	305.96	5922.44	22.34	43.06	1.60	43.67	48.51	32.00	1.59	21.87
5891.00	0.21	298.96	5890.45	22.19	42.85	1.20	43.42	48.25	31.00	-1.19	-19.29
5860.00	0.58	304.94	5859.45	22.07	42.67	0.32	43.22	48.04	31.00	-0.32	0.48
5829.00	0.68	304.79	5828.45	21.88	42.39	0.17	42.90	47.70	31.00	0.16	4.16
5798.00	0.63	303.50	5797.45	21.68	42.10	0.92	42.56	47.35	31.00	0.90	-11.29
5767.00	0.91	307.00	5766.45	21.44	41.76	0.41	42.17	46.94	32.00	-0.31	16.28
5735.00	1.01	301.79	5734.46	21.13	41.32	0.47	41.66	46.41	31.00	-0.29	20.13
5704.00	1.10	295.55	5703.46	20.86	40.81	0.50	41.14	45.84	31.00	0.48	6.23
5673.00	0.95	293.62	5672.47	20.63	40.31	0.85	40.66	45.28	31.00	-0.81	-14.32
5642.00	1.20	298.06	5641.47	20.38	39.79	0.37	40.14	44.70	31.00	-0.06	-17.32
5611.00	1.22	303.43	5610.48	20.04	39.23	0.65	39.53	44.05	32.00	0.41	25.19
5579.00	1.09	295.78	5578.49	19.72	38.67	0.78	38.95	43.41	31.00	-0.58	-25.39
5548.00	1.27	303.24	5547.49	19.41	38.11	0.81	38.36	42.77	31.00	0.81	1.87
5517.00	1.02	302.66	5516.50	19.07	37.59	0.90	37.78	42.15	31.00	-0.58	35.77
5486.00	1.20	291.57	5485.50	18.80	37.06	0.78	37.25	41.56	31.00	-0.58	-23.03
5455.00	1.38	298.71	5454.51	18.50	36.43	0.34	36.63	40.86	32.00	0.06	13.81
5423.00	1.40	294.29	5422.52	18.16	35.74	0.34	35.94	40.09	31.00	-0.10	13.35
5392.00	1.43	290.15	5391.53	17.87	35.03	0.13	35.28	39.32	31.00	-0.13	0.81
5361.00	1.47	289.90	5360.54	17.60	34.29	0.32	34.63	38.54	31.00	0.26	7.55
5330.00	1.55	287.62	5329.55	17.34	33.52	0.16	33.95	37.74	31.00	-0.10	4.87
5299.00	1.58	286.11	5298.56	17.09	32.71	0.37	33.27	36.90	31.00	0.13	-12.90
5268.00	1.54	290.11	5267.58	16.83	31.91	0.26	32.58	36.07	31.00	0.26	0.58
5237.00	1.46	289.93	5236.59	16.55	31.14	0.77	31.90	35.27	32.00	0.75	7.75
5205.00	1.22	287.45	5204.59	16.31	30.44	0.33	31.29	34.53	31.00	-0.26	9.35
5174.00	1.30	290.35	5173.60	16.09	29.79	0.91	30.72	33.86	31.00	-0.03	40.10
5143.00	1.31	277.92	5142.61	15.92	29.11	0.83	30.18	33.18	31.00	-0.39	-30.55
5112.00	1.43	287.29	5111.62	15.75	28.39	0.47	29.61	32.47	32.00	0.47	-0.97
5080.00	1.28	287.63	5079.63	15.53	27.67	1.10	29.00	31.73	31.00	0.10	49.94
5049.00	1.25	272.22	5048.64	15.41	27.00	0.57	28.51	31.09	31.00	0.06	-26.32
5018.00	1.23	280.38	5017.64	15.34	26.34	0.58	28.05	30.48	31.00	0.29	24.52
4987.00	1.14	272.78	4986.65	15.26	25.70	0.44	27.61	29.89	32.00	0.44	-0.25
4955.00	1.00	272.86	4954.65	15.23	25.10	0.89	27.23	29.36	31.00	0.42	-48.61
4924.00	0.87	287.93	4923.66	15.15	24.61	0.54	26.86	28.90	31.00	0.48	16.97
4893.00	0.72	282.67	4892.66	15.03	24.20	0.62	26.52	28.48	31.00	-0.48	28.61
4862.00	0.87	273.80	4861.66	14.97	23.77	0.74	26.22	28.09	31.00	-0.39	-39.26
4831.00	0.99	285.97	4830.67	14.88	23.28	0.19	25.86	27.63	32.00	0.12	8.75
4799.00	0.95	288.77	4798.67	14.72	22.76	0.76	25.42	27.11	31.00	0.58	32.90
4768.00	0.77	272.10	4767.68	14.61	22.31	0.32	25.06	26.67	31.00	-0.13	20.87
4737.00	0.81	272.10	4736.68	14.57	21.89	0.69	24.77	26.29	31.00	0.58	-29.87
4706.00	0.63	281.26	4705.68	14.53	21.50	0.60	24.51	25.95	32.00	-0.50	-26.31
4674.00	0.79	289.78	4673.68	14.42	21.12	1.23	24.19	25.57	31.00	0.84	80.42
4643.00	0.53	264.85	4642.69	14.36	20.78	0.71	23.94	25.26	31.00	0.26	-77.94
4612.00	0.45	289.01	4611.69	14.33	20.52	0.50	23.76	25.03	31.00	-0.48	12.90
4581.00	0.60	285.01	4580.69	14.25	20.25	0.58	23.53	24.76	31.00	0.48	-35.10
4550.00	0.45	295.89	4549.69	14.15	19.98	0.17	23.30	24.49	32.00	0.16	-7.91
4518.00	0.40	298.42	4517.69	14.05	19.77	0.88	23.09	24.25	31.00	0.52	134.55
4487.00	0.24	256.77	4486.69	14.01	19.61	0.78	22.96	24.10	31.00	-0.61	-86.74
4456.00	0.43	283.66	4455.69	14.00	19.43	0.69	22.85	23.95	31.00	0.68	21.52
4425.00	0.22	276.99	4424.69	13.96	19.26	0.67	22.72	23.79	31.00	-0.65	-37.16
4394.00	0.42	288.51	4393.69	13.92	19.10	0.08	22.58	23.63	31.00	0.06	-6.77
4363.00	0.40	290.61	4362.69	13.84	18.89	0.82	22.40	23.42	31.00	0.13	125.29
4332.00	0.36	251.77	4331.69	13.84	18.69	0.65	22.27	23.26	31.00	0.65	-25.48
4301.00	0.16	259.67	4300.70	13.88	18.56	0.45	22.22	23.17	32.00	-0.44	28.41
4269.00	0.30	250.58	4268.70	13.91	18.44	0.88	22.18	23.09	31.00	0.13	-186.23
4238.00	0.26	308.31	4237.70	13.89	18.30	0.61	22.09	22.98	31.00	-0.13	124.42

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6460.00	0.62	314.01		6459.43	24.55	-46.54	0.43	-47.52	52.62	31.00	0.13	38.84
6491.00	1.78	21.98		6490.42	25.11	-46.48	5.32	-47.94	52.83	31.00	3.74	219.26
6523.00	5.43	35.80		6522.35	26.80	-45.41	11.64	-48.65	52.73	32.00	11.41	43.19
6554.00	8.89	39.61		6553.11	29.84	-43.02	11.26	-49.65	52.36	31.00	11.16	12.29
6585.00	12.37	35.90		6583.57	34.37	-39.55	11.44	-51.21	52.40	31.00	11.23	-11.97
6616.00	15.75	30.20		6613.64	40.70	-35.48	11.77	-53.84	54.00	31.00	10.90	-18.39
6647.00	19.43	27.06		6643.18	48.93	-31.02	12.26	-57.76	57.94	31.00	11.87	-10.13
6679.00	22.20	23.64		6673.09	59.21	-26.17	9.45	-63.10	64.74	32.00	8.66	-10.69
6710.00	24.21	23.18		6701.58	70.42	-21.32	6.51	-69.17	73.58	31.00	6.48	-1.48
6741.00	26.81	23.85		6729.56	82.66	-15.99	8.44	-75.79	84.19	31.00	8.39	2.16
6772.00	29.62	23.15		6756.87	96.10	-10.15	9.13	-83.06	96.64	31.00	9.06	-2.26
6804.00	32.25	24.71		6784.32	111.13	-3.47	8.59	-91.10	111.19	32.00	8.22	4.87
6835.00	33.50	26.64		6810.36	126.29	3.82	5.26	-98.88	126.35	31.00	4.03	6.23
6866.00	34.49	29.26		6836.06	141.60	11.95	5.70	-106.27	142.10	31.00	3.19	8.45
6897.00	34.94	31.16		6861.54	156.85	20.83	3.78	-113.18	158.23	31.00	1.45	6.13
6929.00	35.83	33.38		6887.63	172.52	30.73	4.89	-119.80	175.23	32.00	2.78	6.94
6959.00	37.53	35.60		6911.69	187.28	40.88	7.19	-125.55	191.69	30.00	5.67	7.40
6991.00	39.62	37.51		6936.71	203.30	52.77	7.52	-131.27	210.04	32.00	6.53	5.97
7022.00	41.95	39.64		6960.18	219.12	65.40	8.75	-136.38	228.67	31.00	7.52	6.87
7053.00	42.88	43.99		6983.07	234.69	79.34	9.93	-140.51	247.74	31.00	3.00	14.03
7084.00	42.33	47.73		7005.89	249.31	94.39	8.36	-143.20	266.57	31.00	-1.77	12.06
7116.00	41.91	48.08		7029.63	263.69	110.31	1.50	-145.20	285.84	32.00	-1.31	1.09
7147.00	41.60	49.26		7052.75	277.33	125.81	2.72	-146.84	304.53	31.00	-1.00	3.81
7178.00	41.05	48.57		7076.03	290.78	141.24	2.30	-148.38	323.27	31.00	-1.77	-2.23
7209.00	40.38	48.17		7099.53	304.21	156.36	2.32	-150.09	342.04	31.00	-2.16	-1.29
7240.00	40.68	46.47		7123.09	317.87	171.17	3.69	-152.17	361.02	31.00	0.97	-5.48
7272.00	40.55	46.11		7147.38	332.26	186.22	0.84	-154.68	380.89	32.00	-0.41	-1.12
7303.00	39.95	46.81		7171.04	346.06	200.74	2.42	-157.04	400.07	31.00	-1.94	2.26
7334.00	39.66	46.09		7194.86	359.73	215.13	1.76	-159.39	419.15	31.00	-0.94	-2.32
7365.00	39.70	44.90		7218.72	373.61	229.24	2.45	-162.05	438.33	31.00	0.13	-3.84
7424.00	38.55	44.33	117.58	7264.49	400.11	255.39	2.04	-167.63	474.67	59.00	-1.95	-0.97
7518.00	34.73	42.72	120.28	7339.90	440.75	294.04	4.19	-177.04	529.83	94.00	-4.06	-1.71
7613.00	35.14	42.83	120.28	7417.78	480.68	330.98	0.44	-186.92	583.61	95.00	0.43	0.12
7707.00	36.36	43.94	122.98	7494.07	520.58	368.71	1.47	-196.30	637.93	94.00	1.30	1.18
7802.00	37.95	45.28	125.69	7569.78	561.42	409.01	1.88	-204.89	694.61	95.00	1.67	1.41
7898.00	37.16	45.73	131.09	7645.89	602.43	450.75	0.87	-212.75	752.39	96.00	-0.82	0.47
7992.00	38.37	48.80	133.80	7720.20	641.47	493.03	2.38	-218.71	809.05	94.00	1.29	3.27
8087.00	38.58	58.91	136.50	7794.65	676.22	540.63	6.62	-218.06	865.77	95.00	0.22	10.64
8181.00	39.11	72.04	136.50	7867.99	700.54	594.03	8.77	-205.58	918.49	94.00	0.56	13.97
8275.00	43.53	79.37	139.20	7938.61	715.67	654.11	6.97	-181.73	969.56	94.00	4.70	7.80
8370.00	46.12	89.04	141.91	8006.07	722.29	720.59	7.67	-147.24	1020.27	95.00	2.73	10.18
8465.00	49.07	97.70	136.50	8070.19	718.05	790.47	7.41	-102.01	1067.91	95.00	3.11	9.12
8559.00	55.20	111.83	136.50	8128.04	698.86	861.78	13.52	-43.95	1109.54	94.00	6.52	15.03
8654.00	65.58	122.61	141.91	8175.02	660.86	934.78	14.70	30.19	1144.79	95.00	10.93	11.35
8747.00	74.36	129.26	144.61	8206.88	609.55	1005.33	11.58	113.51	1175.68	93.00	9.44	7.15
8841.00	80.05	135.90	147.31	8227.71	547.55	1072.71	9.17	203.52	1204.38	94.00	6.05	7.06
8936.00	84.82	138.69	150.02	8240.21	478.36	1136.55	5.80	297.15	1233.12	95.00	5.02	2.94
9031.00	90.31	143.25	152.72	8244.25	404.67	1196.27	7.51	391.93	1262.87	95.00	5.78	4.80
9125.00	89.66	144.08	155.42	8244.27	328.95	1251.97	1.12	485.93	1294.46	94.00	-0.69	0.88
9220.00	88.62	151.18	158.12	8245.70	248.78	1302.79	7.55	580.58	1326.33	95.00	-1.09	7.47
9315.00	89.11	150.97	160.83	8247.58	165.64	1348.73	0.56	674.67	1358.87	95.00	0.52	-0.22
9410.00	88.83	145.52	163.53	8249.29	84.91	1398.70	5.74	769.25	1401.28	95.00	-0.29	-5.74
9505.00	88.86	141.93	158.12	8251.21	8.35	1454.89	3.78	864.21	1454.91	95.00	0.03	-3.78
9599.00	88.98	142.89	160.83	8252.98	-66.12	1512.22	1.03	958.19	1513.66	94.00	0.13	1.02
9692.00	89.29	143.24	168.94	8254.38	-140.45	1568.10	0.50	1051.18	1574.37	93.00	0.33	0.38
9787.00	89.26	137.93	168.94	8255.59	-213.81	1628.39	5.59	1146.03	1642.37	95.00	-0.03	-5.59
9881.00	89.57	138.95	168.94	8256.55	-284.14	1690.74	1.13	1239.70	1714.45	94.00	0.33	1.09
9976.00	89.85	138.60	174.34	8257.03	-355.59	1753.35	0.47	1334.41	1789.05	95.00	0.29	-0.37
10071.00	90.22	141.38	174.34	8256.97	-428.35	1814.42	2.95	1429.25	1864.30	95.00	0.39	2.93
10166.00	90.22	145.95	177.05	8256.60	-504.86	1870.69	4.81	1524.22	1937.62	95.00	0.00	4.9
10261.00	90.09	148.94	177.05	8256.35	-584.92	1921.81	3.15	1618.95	2008.85	95.00	-0.14	3.15
10356.00	89.91	147.79	177.05	8256.35	-665.80	1971.64	1.23	1713.57	2081.02	95.00	-0.19	-1.21
10451.00	89.57	142.48	179.75	8256.78	-743.72	2025.92	5.60	1808.48	2158.12	95.00	-0.36	-5.59
10546.00	89.78	140.70	179.75	8257.32	-818.16	2084.94	1.89	1903.44	2239.72	95.00	0.22	-1.87
10640.00	89.42	140.58	182.45	8257.97	-890.84	2144.55	0.40	1997.34	2322.22	94.00	-0.38	-0.13
10736.00	89.17	140.56	182.45	8259.15	-964.98	2205.52	0.26	2093.23	2407.39	96.00	0.26	-0.02
10831.00	89.05	137.91	182.45	8260.63	-1036.92	2267.54	2.79	2187.98	2493.38	95.00	-0.13	-2.79
10926.00	89.08	140.19	179.75	8262.18	-1108.66	2329.79	2.40	2282.71	2580.12	95.00	0.03	2.40
11020.00	89.05	147.36	182.45	8263.72	-1184.43	2385.30	7.63	2376.63	2663.18	94.00	-0.03	7.63
11115.00	89.23	149.39	182.45	8265.14	-1265.31	2435.10	2.14	2471.23	2744.22	95.00	0.19	2.14
11211.00	89.54	148.59	185.16	8266.17	-1347.58	2484.56	0.89	2566.74	2826.48	96.00	0.32	-0.83
11306.00	90.22	143.04	185.16	8266.37	-1426.14	2537.91	5.89	2661.60	2911.16	95.00	0.72	-5.84

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18132.00	88.58	145.88	214.89	8232.80	6890.04	6616.75	1.43	9480.05	9552.70	95.00	-0.92	1.09
18037.00	89.45	144.84	214.89	8231.17	6811.89	6562.76	3.14	9385.13	9458.95	95.00	-0.64	3.07
17942.00	90.06	141.92	212.19	8230.76	6735.65	6506.10	1.05	9290.14	9364.74	96.00	0.00	1.05
17846.00	90.06	140.91	209.48	8230.86	6660.61	6446.23	1.40	9194.19	9269.18	95.00	0.61	1.26
17751.00	89.48	139.71	214.89	8230.48	6587.51	6385.56	2.12	9099.32	9174.46	95.00	-0.06	-2.12
17656.00	89.54	141.72	214.89	8229.67	6513.99	6325.41	0.85	9004.42	9079.81	95.00	-0.72	-0.46
17561.00	90.22	142.16	214.89	8229.47	6439.19	6266.85	3.47	8909.44	8985.35	95.00	-0.52	-3.43
17466.00	90.71	145.42	214.89	8230.24	6362.55	6210.74	0.66	8814.46	8891.30	95.00	-0.13	-0.65
17371.00	90.83	146.04	214.89	8231.52	6284.05	6157.25	0.85	8719.56	8797.78	95.00	-0.03	0.85
17276.00	90.66	145.23	212.19	8232.92	6205.64	6103.63	2.12	8624.66	8704.27	96.00	0.09	-2.11
17180.00	90.77	147.26	212.19	8234.28	6125.84	6050.30	0.07	8528.80	8609.99	94.00	-0.06	-0.02
17086.00	90.83	147.28	212.19	8235.59	6046.77	5999.48	2.52	8435.05	8518.05	95.00	0.06	2.52
16991.00	90.77	144.89	212.19	8236.92	5967.94	5946.48	4.32	8340.18	8424.78	95.00	0.13	4.32
16896.00	90.65	140.79	212.19	8238.10	5892.26	5889.11	4.35	8245.21	8330.69	96.00	-0.06	4.35
16800.00	90.71	136.61	212.19	8239.24	5820.16	5825.77	0.08	8149.54	8234.92	95.00	-0.03	-0.07
16705.00	90.74	136.68	212.19	8240.44	5751.08	5760.56	4.18	8055.17	8139.96	94.00	-0.03	-4.18
16611.00	90.77	140.61	214.89	8241.68	5680.55	5698.47	2.24	7961.50	8046.19	95.00	0.19	2.23
16516.00	90.95	142.73	212.19	8243.11	5606.04	5639.56	2.99	7866.55	7951.87	95.00	0.03	2.99
16421.00	90.92	145.57	212.19	8244.66	5529.05	5583.93	2.40	7771.59	7858.16	95.00	0.48	2.35
16326.00	90.46	143.34	212.19	8245.80	5451.76	5528.71	1.40	7676.62	7764.56	95.00	0.03	1.40
16231.00	90.43	142.01	212.19	8246.54	5376.22	5471.12	1.65	7581.63	7670.52	95.00	-0.13	-1.64
16136.00	90.55	143.57	212.19	8247.35	5300.57	5413.67	4.71	7486.64	7576.53	95.00	-0.07	-4.71
16041.00	90.62	148.04	212.19	8248.32	5222.01	5360.30	0.38	7391.76	7483.46	94.00	0.07	0.37
15947.00	90.55	147.69	209.48	8249.28	5142.42	5310.30	2.03	7298.08	7392.14	95.00	0.55	1.96
15852.00	90.03	145.83	209.48	8249.76	5062.97	5258.23	3.59	7203.26	7299.49	95.00	-0.36	3.57
15757.00	90.07	149.48	209.48	8250.09	4982.84	5207.32	3.54	7108.54	7207.21	95.00	0.09	3.54
15662.00	90.28	145.86	209.48	8250.63	4902.65	5158.25	4.54	7013.83	7115.00	95.00	-0.39	4.53
15567.00	90.65	141.56	209.48	8251.40	4826.14	5100.03	2.75	6918.86	7021.54	95.00	0.42	2.72
15472.00	90.25	138.98	206.78	8252.15	4753.09	5039.32	2.96	6823.99	6927.23	94.00	-0.55	2.90
15378.00	90.77	141.71	209.48	8252.99	4680.73	4979.34	0.42	6730.13	6833.96	94.00	0.10	0.40
15283.00	90.68	142.09	206.78	8254.18	4606.76	4921.34	0.82	6636.16	6741.06	95.00	0.00	0.82
15189.00	90.68	142.87	206.78	8255.30	4531.42	4863.49	1.32	6541.17	6647.35	95.00	0.36	1.27
15094.00	90.34	141.66	204.08	8256.15	4456.29	4805.35	1.01	6446.19	6553.62	95.00	-0.03	-1.01
14999.00	90.37	142.62	206.78	8256.74	4381.29	4747.05	1.00	6351.21	6459.89	94.00	0.10	1.00
14905.00	90.28	141.68	206.78	8257.27	4307.07	4669.37	0.27	6257.23	6367.19	95.00	-0.06	0.26
14810.00	90.34	141.43	209.48	8257.97	4232.66	4620.31	2.33	6162.28	6273.37	94.00	-0.03	-2.33
14716.00	90.37	143.62	209.48	8258.37	4158.07	4573.12	1.95	6068.29	6180.86	95.00	0.16	-1.95
14621.00	90.22	145.47	209.48	8258.86	4080.69	4518.02	0.38	5973.32	6088.06	94.00	-0.03	0.38
14527.00	90.25	145.11	209.48	8259.24	4003.42	4464.49	2.93	5879.38	5993.59	95.00	-0.06	2.93
14432.00	90.31	142.33	206.78	8259.71	3926.84	4408.28	1.19	5784.40	5903.65	95.00	0.17	1.18
14337.00	90.15	141.21	206.78	8260.09	3852.22	4349.50	0.80	5689.43	5810.14	96.00	-0.20	-0.77
14241.00	90.34	141.95	206.78	8260.50	3777.01	4289.84	0.69	5593.47	5715.64	94.00	-0.10	-0.68
14147.00	90.43	142.59	204.08	8261.13	3702.67	4232.32	5.04	5499.49	5623.37	94.00	-0.10	-5.04
14053.00	90.52	141.73	204.08	8261.91	3625.73	4178.37	1.89	5405.56	5522.15	95.00	0.00	1.89
13958.00	90.52	145.53	204.08	8262.77	3546.58	4125.84	9.26	5310.72	5440.66	94.00	0.52	9.24
13864.00	90.03	136.84	204.08	8263.22	3473.41	4066.98	2.24	5216.87	5348.35	95.00	-0.16	-2.23
13769.00	90.18	138.96	204.08	8263.40	3402.92	4003.29	6.96	5122.28	5254.16	95.00	-0.17	-6.96
13674.00	90.34	145.57	201.37	8263.83	3327.84	3945.18	2.80	5027.35	5161.30	95.00	0.09	2.80
13579.00	90.25	148.23	201.37	8264.32	3248.26	3893.31	1.13	4932.55	5070.41	94.00	0.00	1.13
13485.00	90.25	149.29	201.37	8264.73	3167.89	3844.56	1.91	4838.99	4981.58	95.00	-0.28	1.88
13390.00	90.52	147.50	201.37	8265.37	3086.99	3794.78	4.35	4744.39	4891.81	95.00	0.61	4.31
13295.00	89.94	143.41	201.37	8265.75	3008.76	3740.92	4.51	4649.48	4800.74	94.00	0.03	4.51
13201.00	89.91	139.17	198.67	8265.63	2935.42	3682.15	0.25	4555.55	4709.02	95.00	-0.25	0.02
13106.00	90.15	139.15	201.37	8265.68	2863.55	3620.02	2.80	4460.79	4615.68	94.00	-0.03	-2.80
13012.00	90.18	141.78	201.37	8265.95	2791.06	3561.19	0.45	4366.91	4523.83	95.00	0.09	0.44
12917.00	90.09	142.20	198.67	8266.17	2716.21	3501.69	2.47	4271.93	4431.66	94.00	0.13	2.47
12823.00	89.97	144.52	198.67	8266.22	2640.79	3445.60	0.66	4177.94	4341.19	95.00	-0.19	0.63
12728.00	90.15	143.92	198.67	8266.32	2563.72	3390.05	0.16	4082.96	4250.31	95.00	0.00	-0.16
12633.00	90.15	144.07	198.67	8266.57	2486.87	3334.21	0.49	3987.97	4159.50	94.00	-0.14	0.47
12539.00	90.28	143.63	195.97	8266.92	2410.97	3278.76	2.44	3893.97	4069.77	95.00	0.29	2.42
12444.00	90.00	141.33	195.97	8267.15	2335.62	3220.90	2.54	3798.99	3978.61	95.00	-0.23	-2.53
12349.00	90.22	143.73	195.97	8267.34	2260.23	3163.11	4.14	3704.00	3887.67	95.00	0.11	4.14
12254.00	90.12	147.66	193.27	8267.62	2181.77	3109.58	3.70	3609.11	3798.64	95.00	0.06	3.69
12159.00	90.06	144.15	193.27	8267.77	2103.11	3056.34	2.01	3514.23	3710.03	95.00	0.61	1.92
12064.00	89.48	142.33	193.27	8267.99	2027.01	2999.49	0.21	3419.23	3620.18	95.00	-0.13	-0.17
11969.00	89.60	142.49	193.27	8266.62	1951.73	2941.54	1.44	3324.24	3530.14	95.00	-0.13	-1.43
11874.00	89.72	143.85	193.27	8266.06	1875.70	2884.59	5.54	3229.25	3440.80	94.00	-0.14	5.54
11780.00	89.85	138.64	190.56	8265.71	1802.42	2825.77	1.88	3135.34	3351.67	96.00	-0.09	-1.87
11684.00	89.94	140.44	187.86	8265.53	1729.38	2763.48	3.10	3039.54	3259.99	94.00	-0.03	-3.10
11590.00	89.97	143.35	185.16	8265.46	1655.42	2705.48	1.47	2945.58	3171.75	95.00	-0.42	-1.41
11495.00	90.37	144.69	187.86	8265.74	1578.55	2649.67	1.16	2850.59	3084.24	94.00	0.30	1.12
11401.00	90.09	143.64	187.86	8266.12	1502.34	2594.63	0.65	2756.60	2998.19	95.00	-0.14	0.63

	18227.00	87.60	149.48	214.89	8235.97	6970.26	6667.51	3.93	9574.69	9645.73	95.00	-1.03	3.79
Proj	18250.00	87.60	149.48		8236.93	-6990.06	6679.18	0.00	9597.53	9668.11	23.00	0.00	0.00

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