

Minimum Radius of Curvature

API: 42-479-44872 **Well: Gates 010-CHK-B 1286 W1H** **Wellhead Location N+/- : 28.106935**
Operator: Chesapeake Energy **Area: Eagleford** **E+/W- : -99.824531**
Rig: H&P 482 **Type: U-Lateral** **Magnetic Declination: 4.78**
TD: 17,846' **Plane of Proposal: 135.00**

Measured Depth Ft	Drift Angle Deg	Azimuth Direction Deg	Course Length Ft	TVD Ft	Vertical Section Ft	COORDINATES		CLOSURE		Dog Leg Severity Deg/100'	Build / Drop Deg/100'	Left / Right Deg/100'
						N-S Ft	E-W Ft	Distance FT	Direction Deg			
0.00	0.00	0.00		0.0	0.00	0.00	0.00	0.00	0.00			
146.00	0.17	115.18	146	146.0	90.66	-0.09	0.20	0.22	115.18	0.12	0.12	78.89
240.00	1.28	197.21	94	240.0	91.29	-1.15	0.01	1.15	179.43	1.35	1.18	87.27
334.00	3.58	201.97	94	333.9	92.92	-4.88	-1.40	5.08	195.98	2.45	2.45	5.06
428.00	6.47	201.39	94	427.5	96.19	-12.53	-4.43	13.29	199.45	3.07	3.07	-0.62
522.00	8.20	200.84	94	520.8	101.06	-23.73	-8.74	25.29	200.23	1.84	1.84	-0.59
616.00	8.15	200.61	94	613.8	106.55	-36.23	-13.47	38.66	200.40	0.06	-0.05	-0.24
709.00	7.86	200.13	93	705.9	111.95	-48.37	-17.98	51.61	200.39	0.32	-0.31	-0.52
803.00	7.60	200.61	94	799.0	117.22	-60.23	-22.38	64.25	200.39	0.28	-0.28	0.51
898.00	7.21	201.16	95	893.2	122.22	-71.67	-26.75	76.49	200.47	0.42	-0.41	0.58
993.00	6.82	201.88	95	987.5	126.85	-82.46	-31.00	88.10	200.60	0.42	-0.41	0.76
1086.00	6.50	200.84	93	1079.9	131.17	-92.50	-34.93	98.88	200.69	0.37	-0.34	-1.12
1180.00	6.21	200.55	94	1173.3	135.45	-102.24	-38.61	109.28	200.69	0.31	-0.31	-0.31
1273.00	5.95	200.84	93	1265.8	139.51	-111.45	-42.09	119.13	200.69	0.28	-0.28	0.31
1368.00	6.59	199.45	95	1360.2	143.87	-121.19	-45.66	129.51	200.64	0.69	0.67	-1.46
1462.00	7.78	199.10	94	1453.5	148.98	-132.29	-49.53	141.26	200.53	1.27	1.27	-0.37
1556.00	7.32	198.97	94	1546.7	154.39	-143.97	-53.56	153.61	200.41	0.49	-0.49	-0.14
1650.00	7.14	198.66	94	1639.9	159.61	-155.17	-57.38	165.43	200.29	0.20	-0.19	-0.33
1744.00	6.96	198.68	94	1733.2	164.72	-166.10	-61.07	176.97	200.19	0.19	-0.19	0.02
1838.00	6.61	199.19	94	1826.6	169.61	-176.60	-64.67	188.07	200.11	0.38	-0.37	0.54
1932.00	6.20	198.51	94	1920.0	174.22	-186.52	-68.06	198.55	200.05	0.44	-0.44	-0.72
2025.00	5.79	199.44	93	2012.5	178.49	-195.71	-71.22	208.27	200.00	0.45	-0.44	1.00
2119.00	5.20	199.90	94	2106.0	182.34	-204.19	-74.25	217.27	199.98	0.63	-0.63	0.49
2214.00	5.82	198.68	95	2200.6	186.30	-212.80	-77.26	226.39	199.95	0.66	0.65	-1.28
2308.00	7.18	198.93	94	2294.0	191.00	-222.87	-80.69	237.03	199.90	1.45	1.45	0.27
2401.00	6.88	200.04	93	2386.3	195.90	-233.60	-84.48	248.41	199.88	0.35	-0.32	1.19
2494.00	6.63	201.01	93	2478.6	200.44	-243.84	-88.32	259.35	199.91	0.30	-0.27	1.04
2588.00	6.39	201.99	94	2572.0	204.69	-253.76	-92.22	270.00	199.97	0.28	-0.26	1.04
2683.00	6.18	202.06	95	2666.5	208.75	-263.40	-96.12	280.39	200.05	0.22	-0.22	0.07
2776.00	5.96	202.72	93	2759.0	212.53	-272.49	-99.87	290.22	200.13	0.25	-0.24	0.71
2870.00	5.77	202.48	94	2852.5	216.19	-281.36	-103.56	299.81	200.21	0.20	-0.20	-0.26
2964.00	5.20	203.91	94	2946.0	219.53	-289.62	-107.09	308.79	200.29	0.62	-0.61	1.52
3079.00	4.42	206.74	115	3060.6	222.79	-298.34	-111.20	318.39	200.44	0.71	-0.68	2.46
3173.00	5.18	201.15	94	3154.3	225.65	-305.54	-114.36	326.24	200.52	0.95	0.81	-5.95
3267.00	8.95	203.11	94	3247.6	230.09	-316.22	-118.76	337.79	200.58	4.02	4.01	2.09
3361.00	8.92	204.02	94	3340.4	235.42	-329.61	-124.60	352.37	200.71	0.15	-0.03	0.97
3548.00	9.80	190.61	187	3525.0	249.61	-358.49	-133.43	382.52	200.41	1.25	0.47	-7.17
3642.00	8.90	190.51	94	3617.7	258.24	-373.51	-136.23	397.57	200.04	0.96	-0.96	-0.11
3736.00	8.16	189.96	94	3710.7	266.19	-387.23	-138.71	411.32	199.71	0.79	-0.79	-0.59
3830.00	7.06	188.54	94	3803.8	273.45	-399.51	-140.72	423.57	199.40	1.19	-1.17	-1.51
3924.00	5.95	187.49	94	3897.2	279.85	-410.05	-142.21	434.01	199.13	1.19	-1.18	-1.12
4018.00	5.62	187.18	94	3990.7	285.64	-419.45	-143.42	443.29	198.88	0.35	-0.35	-0.33
4111.00	9.36	193.94	93	4082.9	292.34	-431.31	-145.82	455.29	198.68	4.12	4.02	7.27
4205.00	8.13	193.13	94	4175.8	299.79	-445.21	-149.17	469.53	198.52	1.32	-1.31	-0.86
4298.00	6.95	191.37	93	4268.0	306.38	-457.13	-151.77	481.66	198.37	1.29	-1.27	-1.89
4487.00	4.53	187.13	189	4456.1	317.30	-475.75	-154.95	500.34	198.04	1.30	-1.28	-2.24
4580.00	3.98	181.06	93	4548.8	321.79	-482.62	-155.47	507.04	197.86	0.76	-0.59	-6.53
4675.00	8.37	191.47	95	4643.3	327.90	-492.69	-156.90	517.08	197.66	4.75	4.62	10.96
4769.00	7.56	188.60	94	4736.3	335.35	-505.51	-159.19	529.99	197.48	0.96	-0.86	-3.05
4863.00	6.85	186.14	94	4829.6	342.54	-517.20	-160.71	541.60	197.26	0.82	-0.76	-2.62
4957.00	6.28	184.68	94	4923.0	349.38	-527.90	-161.73	552.12	197.03	0.63	-0.61	-1.55
5052.00	6.83	197.03	95	5017.4	355.39	-538.48	-163.81	562.84	196.92	1.59	0.58	13.00
5144.00	8.09	205.29	92	5108.6	360.14	-549.56	-168.18	574.72	197.02	1.80	1.37	8.98
5239.00	7.56	204.06	95	5202.7	364.63	-561.31	-173.58	587.54	197.18	0.59	-0.56	-1.29
5333.00	6.75	203.43	94	5296.0	368.87	-572.03	-178.30	599.17	197.31	0.87	-0.86	-0.67
5427.00	6.29	204.50	94	5389.4	372.70	-581.78	-182.63	609.78	197.43	0.51	-0.49	1.14
5521.00	6.15	206.54	94	5482.8	376.10	-590.97	-187.02	619.86	197.56	0.28	-0.15	2.17
5616.00	8.59	204.60	95	5577.0	380.19	-601.98	-192.24	631.93	197.71	2.58	2.57	-2.04

Minimum Radius of Curvature

API: 42-479-44872 **Well: Gates 010-CHK-B 1286 W1H** **Wellhead Location N+/S- : 28.106935**
Operator: Chesapeake Energy **Area: Eagleford** **E+/W- : -99.824531**
Rig: H&P 482 **Type: U-Lateral** **Magnetic Declination: 4.78**
TD: 17,846' **Plane of Proposal: 135.00**

Measured Depth Ft	Drift Angle Deg	Azimuth Direction Deg	Course Length Ft	TVD Ft	Vertical Section Ft	COORDINATES		CLOSURE		Dog Leg Severity Deg/100'	Build / Drop Deg/100'	Left / Right Deg/100'
						N-S Ft	E-W Ft	Distance FT	Direction Deg			
5711.00	9.24	201.20	95	5670.9	385.74	-615.54	-197.96	646.59	197.83	0.88	0.68	-3.58
5805.00	8.19	197.78	94	5763.8	391.85	-628.95	-202.73	660.82	197.87	1.25	-1.12	-3.64
5900.00	7.46	197.62	95	5857.9	397.78	-641.28	-206.66	673.75	197.86	0.77	-0.77	-0.17
5994.00	6.78	199.19	94	5951.2	403.00	-652.33	-210.33	685.40	197.87	0.75	-0.72	1.67
6088.00	6.35	194.37	94	6044.6	408.06	-662.61	-213.45	696.14	197.86	0.74	-0.46	-5.13
6182.00	8.05	195.67	94	6137.8	413.94	-673.98	-216.52	707.91	197.81	1.82	1.81	1.38
6277.00	9.32	197.00	95	6231.7	420.81	-687.74	-220.56	722.25	197.78	1.35	1.34	1.40
6372.00	8.64	197.70	95	6325.6	427.69	-701.90	-224.98	737.07	197.77	0.72	-0.72	0.74
6466.00	7.75	197.84	94	6418.6	433.82	-714.66	-229.07	750.47	197.77	0.95	-0.95	0.15
6560.00	7.41	198.52	94	6511.8	439.42	-726.44	-232.94	762.87	197.78	0.37	-0.36	0.72
6655.00	7.30	199.94	95	6606.0	444.71	-737.92	-236.94	775.03	197.80	0.22	-0.12	1.49
6749.00	6.97	199.14	94	6699.3	449.72	-748.92	-240.85	786.70	197.83	0.37	-0.35	-0.85
6842.00	8.25	191.10	93	6791.4	455.91	-760.80	-243.98	798.97	197.78	1.79	1.38	-8.65
6935.00	8.22	187.17	93	6883.5	463.71	-773.95	-246.10	812.13	197.64	0.61	-0.03	-4.23
7029.00	7.28	186.84	94	6976.6	471.51	-786.53	-247.64	824.59	197.48	1.00	-1.00	-0.35
7122.00	6.67	185.35	93	7068.9	478.60	-797.76	-248.85	835.67	197.32	0.68	-0.66	-1.60
7216.00	5.53	184.40	94	7162.4	485.03	-807.71	-249.71	845.42	197.18	1.22	-1.21	-1.01
7310.00	4.22	182.36	94	7256.1	490.32	-815.68	-250.20	853.19	197.05	1.41	-1.39	-2.17
7403.00	4.67	196.19	93	7348.8	494.46	-822.73	-251.39	860.28	196.99	1.25	0.48	14.87
7497.00	6.81	202.91	94	7442.3	498.40	-831.54	-254.63	869.66	197.03	2.38	2.28	7.15
7591.00	5.54	205.96	94	7535.8	501.98	-840.76	-258.79	879.68	197.11	1.39	-1.35	3.24
7686.00	5.15	207.96	95	7630.4	504.72	-848.65	-262.79	888.40	197.21	0.45	-0.41	2.11
7780.00	5.11	205.77	94	7724.0	507.34	-856.14	-266.59	896.69	197.30	0.21	-0.04	-2.33
7875.00	15.62	194.73	95	7817.3	515.20	-872.37	-271.70	913.70	197.30	11.21	11.06	-11.62
7969.00	25.34	176.39	94	7905.3	536.74	-904.79	-273.65	945.27	196.83	12.27	10.34	-19.51
8064.00	34.39	155.51	95	7987.9	577.32	-949.71	-261.19	984.97	195.38	14.39	9.53	-21.98
8158.00	47.42	150.63	94	8058.8	635.77	-1004.28	-233.09	1030.97	193.07	14.26	13.86	-5.19
8253.00	57.97	151.72	95	8116.3	708.23	-1070.41	-196.75	1088.34	190.42	11.14	11.11	1.15
8345.00	69.02	154.28	92	8157.3	786.37	-1143.68	-159.52	1154.75	187.94	12.26	12.01	2.78
8438.00	84.47	157.25	93	8178.5	870.72	-1226.00	-122.54	1232.11	185.71	16.90	16.61	3.19
8532.00	89.29	155.97	94	8183.6	957.96	-1312.12	-85.29	1314.89	183.72	5.30	5.13	-1.36
8626.00	88.25	155.79	94	8185.7	1045.76	-1397.89	-46.89	1398.68	181.92	1.12	-1.11	-0.19
8720.00	88.02	155.36	94	8188.7	1133.72	-1483.43	-8.04	1483.45	180.31	0.52	-0.24	-0.46
8814.00	87.56	154.61	94	8192.3	1221.99	-1568.55	31.68	1568.87	178.84	0.94	-0.49	-0.80
8908.00	88.87	153.86	94	8195.3	1310.70	-1653.16	72.52	1654.75	177.49	1.61	1.39	-0.80
9002.00	90.36	153.54	94	8195.9	1399.73	-1737.43	114.17	1741.17	176.24	1.62	1.59	-0.34
9096.00	90.38	153.45	94	8195.3	1488.88	-1821.55	156.11	1828.22	175.10	0.10	0.02	-0.10
9190.00	89.16	152.16	94	8195.7	1578.37	-1905.15	199.07	1915.52	174.03	1.89	-1.30	-1.37
9283.00	88.42	151.13	93	8197.6	1667.45	-1986.97	243.23	2001.80	173.02	1.36	-0.80	-1.11
9377.00	88.64	151.16	94	8200.1	1757.72	-2069.27	288.58	2089.30	172.06	0.24	0.23	0.03
9472.00	88.33	153.61	95	8202.6	1848.34	-2153.42	332.60	2178.95	171.22	2.60	-0.33	2.58
9566.00	88.25	153.51	94	8205.4	1937.41	-2237.55	374.43	2268.66	170.50	0.14	-0.09	-0.11
9661.00	88.20	152.59	95	8208.3	2027.69	-2322.19	417.47	2359.41	169.81	0.97	-0.05	-0.97
9754.00	89.31	151.97	93	8210.3	2116.47	-2404.49	460.71	2448.23	169.15	1.37	1.19	-0.67
9849.00	88.59	151.61	95	8212.1	2207.40	-2488.19	505.61	2539.05	168.51	0.85	-0.76	-0.38
9943.00	87.72	153.35	94	8215.1	2297.01	-2571.51	549.02	2629.47	167.95	2.07	-0.93	1.85
10037.00	88.37	153.92	94	8218.3	2386.03	-2655.68	590.74	2720.59	167.46	0.92	0.69	0.61
10131.00	88.11	153.31	94	8221.2	2475.07	-2739.85	632.49	2811.91	167.00	0.71	-0.28	-0.65
10226.00	87.34	150.09	95	8225.0	2565.98	-2823.42	677.49	2903.57	166.51	3.48	-0.81	-3.39
10320.00	87.79	153.19	94	8229.0	2655.95	-2906.05	722.10	2994.42	166.05	3.33	0.48	3.30
10414.00	90.07	157.94	94	8230.7	2743.91	-2991.59	760.96	3086.85	165.73	5.60	2.43	5.05
10508.00	90.30	157.15	94	8230.4	2830.73	-3078.46	796.86	3179.92	165.49	0.88	0.24	-0.84
10606.00	88.83	152.23	98	8231.2	2922.96	-3167.02	838.74	3276.20	165.17	5.24	-1.50	-5.02
10700.00	88.46	156.18	94	8233.4	3011.69	-3251.61	879.63	3368.49	164.86	4.22	-0.39	4.20
10795.00	90.11	158.65	95	8234.6	3099.50	-3339.31	916.10	3462.69	164.66	3.13	1.74	2.60
10889.00	90.30	158.50	94	8234.2	3185.65	-3426.82	950.44	3556.18	164.50	0.26	0.20	-0.16
10984.00	90.78	158.97	95	8233.3	3272.61	-3515.34	984.89	3650.71	164.35	0.71	0.51	0.49
11078.00	90.60	158.22	94	8232.2	3358.74	-3602.85	1019.20	3744.24	164.20	0.82	-0.19	-0.80

Minimum Radius of Curvature

API: 42-479-44872 **Well: Gates 010-CHK-B 1286 W1H** **Wellhead Location N+/S- : 28.106935**
Operator: Chesapeake Energy **Area: Eagleford** **E+/W- : -99.824531**
Rig: H&P 482 **Type: U-Lateral** **Magnetic Declination: 4.78**
TD: 17,846' **Plane of Proposal: 135.00**

Measured Depth Ft	Drift Angle Deg	Azimuth Direction Deg	Course Length Ft	TVD Ft	Vertical Section Ft	COORDINATES		CLOSURE		Dog Leg Severity Deg/100'	Build / Drop Deg/100'	Left / Right Deg/100'
						N-S Ft	E-W Ft	Distance FT	Direction Deg			
11173.00	90.72	158.44	95	8231.1	3445.97	-3691.13	1054.27	3838.74	164.06	0.26	0.13	0.23
11267.00	91.30	155.32	94	8229.4	3533.17	-3777.56	1091.17	3932.00	163.89	3.38	0.62	-3.32
11362.00	91.14	153.21	95	8227.4	3622.83	-3863.11	1132.41	4025.67	163.66	2.23	-0.17	-2.22
11456.00	88.39	153.67	94	8227.8	3711.99	-3947.18	1174.44	4118.20	163.43	2.97	-2.93	0.49
11550.00	87.58	152.89	94	8231.1	3801.19	-4031.09	1216.68	4210.70	163.20	1.20	-0.86	-0.83
11645.00	87.15	152.76	95	8235.5	3891.54	-4115.51	1260.02	4304.08	162.98	0.47	-0.45	-0.14
11739.00	85.94	154.36	94	8241.2	3980.48	-4199.53	1301.80	4396.67	162.78	2.13	-1.29	1.70
11834.00	85.18	168.37	95	8248.5	4065.13	-4289.05	1331.99	4491.11	162.75	14.72	-0.80	14.75
11929.00	86.94	182.23	95	8255.1	4137.23	-4383.27	1339.72	4583.44	163.00	14.67	1.85	14.59
12023.00	91.28	197.08	94	8256.6	4191.43	-4475.64	1324.00	4667.37	163.52	16.45	4.62	15.80
12117.00	91.63	209.34	94	8254.2	4226.24	-4561.84	1287.04	4739.92	164.24	13.04	0.37	13.04
12212.00	89.74	216.90	95	8253.0	4245.78	-4641.34	1235.17	4802.88	165.10	8.20	-1.99	7.96
12306.00	91.03	225.41	94	8252.4	4252.08	-4712.05	1173.37	4855.94	166.02	9.16	1.37	9.05
12401.00	91.42	239.04	95	8250.4	4240.17	-4770.09	1098.48	4894.94	167.03	14.35	0.41	14.35
12495.00	90.34	245.43	94	8248.9	4212.33	-4813.85	1015.35	4919.77	168.09	6.89	-1.15	6.80
12589.00	93.29	246.39	94	8245.9	4178.80	-4852.20	929.59	4940.44	169.15	3.30	3.14	1.02
12682.00	93.89	246.75	93	8240.1	4144.68	-4889.10	844.43	4961.49	170.20	0.75	0.65	0.39
12777.00	94.11	245.97	95	8233.5	4110.16	-4927.10	757.62	4985.01	171.26	0.85	0.23	-0.82
12872.00	93.58	244.47	95	8227.1	4077.41	-4966.83	671.56	5012.03	172.30	1.67	-0.56	-1.58
12966.00	93.35	244.31	94	8221.4	4046.25	-5007.39	586.95	5041.67	173.31	0.30	-0.24	-0.17
13061.00	90.80	244.34	95	8218.0	4014.84	-5048.52	501.39	5073.35	174.33	2.68	-2.68	0.03
13155.00	89.23	245.99	94	8218.0	3982.44	-5088.00	416.09	5104.98	175.32	2.42	-1.67	1.76
13250.00	88.15	247.60	95	8220.1	3947.18	-5125.42	328.80	5135.95	176.33	2.04	-1.14	1.69
13344.00	87.84	248.47	94	8223.4	3910.42	-5160.55	241.68	5166.21	177.32	0.98	-0.33	0.93
13439.00	88.65	248.10	95	8226.3	3872.88	-5195.69	153.47	5197.95	178.31	0.94	0.85	-0.39
13533.00	91.44	243.48	94	8226.3	3839.53	-5234.22	67.76	5234.66	179.26	5.74	2.97	-4.91
13627.00	91.22	237.17	94	8224.1	3814.71	-5280.72	-13.84	5280.74	180.15	6.72	-0.23	-6.71
13722.00	91.65	236.78	95	8221.7	3795.00	-5332.48	-93.47	5333.30	181.00	0.61	0.45	-0.41
13816.00	91.39	234.89	94	8219.2	3777.34	-5385.25	-171.22	5387.97	181.82	2.03	-0.28	-2.01
13911.00	90.71	231.10	95	8217.5	3764.13	-5442.41	-247.05	5448.01	182.60	4.05	-0.72	-3.99
14005.00	90.51	225.29	94	8216.5	3758.89	-5505.04	-317.09	5514.16	183.30	6.18	-0.21	-6.18
14099.00	90.91	222.07	94	8215.3	3761.06	-5573.00	-382.00	5586.08	183.92	3.45	0.43	-3.43
14193.00	92.17	215.95	94	8212.8	3770.86	-5645.98	-441.11	5663.19	184.47	6.64	1.34	-6.51
14287.00	91.72	208.50	94	8209.6	3791.62	-5725.40	-491.17	5746.43	184.90	7.94	-0.48	-7.93
14381.00	90.54	201.67	94	8207.7	3823.61	-5810.47	-530.99	5834.68	185.22	7.37	-1.26	-7.27
14475.00	89.10	194.20	94	8208.0	3866.35	-5899.83	-559.92	5926.34	185.42	8.09	-1.53	-7.95
14569.00	87.85	190.64	94	8210.5	3916.94	-5991.58	-580.13	6019.60	185.53	4.01	-1.33	-3.79
14663.00	87.47	190.91	94	8214.4	3969.76	-6083.85	-597.68	6113.14	185.61	0.50	-0.40	0.29
14757.00	84.78	203.15	94	8220.7	4013.68	-6173.35	-625.08	6204.91	185.78	13.30	-2.86	13.02
14851.00	84.93	218.06	94	8229.2	4036.88	-6253.69	-672.61	6289.76	186.14	15.80	0.16	15.86
14946.00	89.24	231.05	95	8234.1	4037.60	-6321.12	-739.03	6364.18	186.67	14.39	4.54	13.67
15040.00	91.88	244.69	94	8233.1	4016.71	-6371.00	-818.43	6423.35	187.32	14.78	2.81	14.51
15134.00	91.13	256.16	94	8230.7	3976.44	-6402.42	-906.82	6466.32	188.06	12.22	-0.80	12.20
15228.00	93.10	264.23	94	8227.2	3922.35	-6418.41	-999.30	6495.74	188.85	8.83	2.10	8.59
15323.00	91.26	269.74	95	8223.6	3858.87	-6423.40	-1094.06	6515.91	189.67	6.11	-1.94	5.80
15417.00	93.03	278.42	94	8220.0	3787.96	-6416.73	-1187.67	6525.71	190.49	9.42	1.88	9.23
15512.00	93.43	285.17	95	8214.7	3708.65	-6397.35	-1280.46	6524.24	191.32	7.11	0.42	7.11
15606.00	93.74	286.04	94	8208.8	3626.91	-6372.11	-1370.82	6517.90	192.14	0.98	0.33	0.93
15700.00	94.32	282.68	94	8202.2	3546.25	-6348.86	-1461.64	6514.94	192.96	3.62	0.62	-3.57
15795.00	94.44	280.15	95	8194.9	3467.34	-6330.12	-1554.48	6518.19	193.80	2.66	0.13	-2.66
15890.00	93.09	280.29	95	8188.7	3389.49	-6313.30	-1647.77	6524.79	194.63	1.43	-1.42	0.15
15984.00	92.96	279.27	94	8183.7	3312.80	-6297.35	-1740.27	6533.39	195.45	1.09	-0.14	-1.09
16078.00	92.37	277.54	94	8179.4	3237.42	-6283.63	-1833.16	6545.57	196.26	1.94	-0.63	-1.84
16172.00	90.27	278.82	94	8177.2	3162.19	-6270.26	-1926.17	6559.44	197.08	2.62	-2.23	1.36
16265.00	90.41	281.89	93	8176.7	3085.69	-6253.54	-2017.64	6570.97	197.88	3.30	0.15	3.30
16359.00	92.10	290.75	94	8174.6	3003.33	-6227.16	-2107.74	6574.20	198.70	9.59	1.80	9.43
16454.00	89.59	296.95	95	8173.2	2914.79	-6188.78	-2194.57	6566.36	199.52	7.04	-2.64	6.53
16548.00	92.02	297.32	94	8171.9	2825.34	-6145.91	-2278.21	6554.58	200.34	2.61	2.59	0.39

Minimum Radius of Curvature

API: 42-479-44872 **Well: Gates 010-CHK-B 1286 W1H** **Wellhead Location N+/S- : 28.106935**
Operator: Chesapeake Energy **Area: Eagleford** **E+/W- : -99.824531**
Rig: H&P 482 **Type: U-Lateral** **Magnetic Declination: 4.78**
TD: 17,846' **Plane of Proposal: 135.00**

Measured Depth Ft	Drift Angle Deg	Azimuth Direction Deg	Course Length Ft	TVD Ft	Vertical Section Ft	COORDINATES		CLOSURE		Dog Leg Severity Deg/100'	Build / Drop Deg/100'	Left / Right Deg/100'
						N-S Ft	E-W Ft	Distance FT	Direction Deg			
16643.00	91.70	294.99	95	8168.8	2735.49	-6104.06	-2363.43	6545.64	201.17	2.47	-0.34	-2.45
16737.00	90.94	296.45	94	8166.6	2646.78	-6063.28	-2448.09	6538.85	201.99	1.75	-0.81	1.55
16832.00	91.59	300.72	95	8164.5	2555.70	-6017.85	-2531.47	6528.62	202.81	4.55	0.68	4.49
16926.00	92.34	300.45	94	8161.3	2464.71	-5970.05	-2612.35	6516.58	203.63	0.85	0.80	-0.29
17020.00	92.24	300.19	94	8157.5	2373.85	-5922.63	-2693.43	6506.31	204.45	0.30	-0.11	-0.28
17115.00	92.24	300.07	95	8153.8	2282.11	-5874.98	-2775.53	6497.61	205.29	0.13	0.00	-0.13
17209.00	91.91	299.37	94	8150.4	2191.49	-5828.41	-2857.11	6491.03	206.11	0.82	-0.35	-0.74
17303.00	91.33	294.85	94	8147.8	2102.09	-5785.60	-2940.73	6490.08	206.94	4.85	-0.62	-4.81
17398.00	92.20	294.51	95	8144.8	2013.05	-5745.96	-3027.01	6494.52	207.78	0.98	0.92	-0.36
17492.00	92.25	295.07	94	8141.2	1924.90	-5706.57	-3112.28	6500.10	208.61	0.60	0.05	0.60
17586.00	92.19	293.22	94	8137.6	1837.13	-5668.15	-3197.99	6508.08	209.43	1.97	-0.06	-1.97
17680.00	91.68	291.03	94	8134.4	1750.58	-5632.77	-3285.01	6520.69	210.25	2.39	-0.54	-2.33
17846.00	91.68	291.03	166	8129.5	1598.96	-5573.23	-3439.89	6549.33	211.68	0.00	0.00	0.00