True Vertical Depth (ft)

Scale 1 inch = 1500



Company: Baker Hughes, a GE Company Long: 80° 12' 16.146" W Customer/Operator: Northeast Natural Energy, LLC Lat: 39° 42' 20.682" N Date Range: 12/17/2017 - 12/25/2017 Grid Ref North: Rig Name: Patterson 334 Mag Declination: 9.07 (deg) W Rig Elv/Dat: 25.00 (ft) / GL True to Grid Conv: 0.45 (deg) W Well: Coastal 6H TAC -8.62 (deg)

Ver.Sec.Az:

143.23 (deg)

Coastal 6H

Wellbore:

GT: 9,804 (m/s2)
BT: 52095 (nT)
DIP: 66.73 (deg)
Mag Ref: BGGM

j I	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	114.37		100								
	25.00	0.00	114.37		25.00	0.00	0.00	0.00	0.00	0.00	25.00	0.00	0.00
9	99.00	0.70	114.37		99.00	-0.19	0.41	0.95	0.40	0.45	74.00	0.95	0.00
	129.00	0,70	114.37		129.00	-0.34	0.75	0.00	0.72	0.82	30.00	0.00	0.00
	158.00	0.77	123.72		157.99	-0.52	1.07	0.48	1.06	1.19	29.00	0.24	32.24
	187.00	0.65	128,90		186.99	-0.73	1.36	0.47	1.40	1.54	29.00	-0.41	17.86
1	215.00	0.69	130.13		214.99	-0.94	1.61	0.15	1.72	1.87	28.00	0.14	4.39
1	246.00	0.71	135.20		245.99	-1,20	1.89	0.21	2.09	2.24	31.00	0.06	16,35
	278.00	0.63	131.21		277.98	-1.45	2.16	0.29	2.46	2.60	32.00	-0.25	-12.47
	310.00	0.45	126.78		309.98	-1.64	2.39	0.58	2.75	2.90	32.00	-0.56	-13.84
1	340.00	0.40	137.36		339.98	-1.79	2.56	0.31	2.97	3.12	30.00	-0.17	35.27
	371.00	0.33	152.70	1	370.98	-1.95	2.67	0.39	3.16	3.31	31.00	-0.23	49.48
	402.00	0.30	154.82		401.98	-2.10	2.75	0.10	3.33	3.46	31.00	0.10	6.84
1	434.00	0.30	156.55		433.98	-2.26	2.82	0.03	3.49	3.61	32.00	0.00	5.41
	465.00	0.43	142.29		464.98	-2.42	2.92	0.51	3.69	3.80	31.00	0.42	-46.00
	496.00	0.42	145.54		495.98	2.61	3.06	80.0	3.92	4.02	31.00	-0.03	10.48
	527.00	0.50	140.91		526.98	-2.81	3.21	0.28	4.17	4.26	31.00	0.26	-14.94
	558.00	0.48	140.99		557.98	-3.01	3.37	0.06	4.43	4.52	31.00	-0.06	0.26
	590.00	0.39	141.76		589.98	-3.20	3.53	0.28	4.68	4.76	32.00	-0.28	2.41
	621.00	0.32	142.92		620.98	-3.35	3.64	0.23	4.87	4.95	31.00	-0.23	3.74
	652.00	0.35	136,75		651.98	-3.49	3.76	0.15	5.05	5.13	31.00	0.10	-19.90
	683.00	0.18	165.01		682,98	-3,61	3.84	0.68	5.19	5.27	31.00	-0.55	91.16
	714.00	0.24	168.92	-	713.97	-3,72	3.86	0.20	5.29	5.36	31.00	0.19	12.61
	745.00	0.16	182.56		744.97	-3.83	3.87	0.30	5.38	5.44	31.00	0.26	44.00
_	776.00	0.11	249.00		775.97	-3.88	3.84	0.50	5.41	5.46	31.00	-0.16	214.32
	808.00	0.07	200.11		807.97	-3.91	3.81	0.26	5.41	5.46	32.00	-0.12	-152,78
-	839.00	0.04	223.88		838.97	3.93	3.79	0.12	5.42	5.47	31.00	-0.10	76.68
_	870.00	0.14	289.13		869.97	-3.93	3.75	0.41	5.39	5.43	31.00	0.32	210.48
	901.00	0.17	314.71		900.97	-3.88	3.68	0.24	5.32	5.35	31.00	0.10	82.52
-	932.00	0.13	323.46		931.97	-3.82	3.63	0.15	5.24	5.27	31.00	-0.13	28.23
	963.00	0.15	310,89		962.97	-3.77	3.58	0.12	5.16	5.20	31.00	0.06	131.74
	994.00	0.14	351.73	-	993.97	-3.71	3.54	0.33	5.09	5.13	31.00	-0.03	91.87
_	1025.00	0.24	20.21	_	1024.97	-3.61	3.56	0.43	5.02	5.07		0.32	-25.69
	1057,00	0.24	11.99	_	1056.97	-3.48	3.60	0.11	4.94	5.00 4.92	32.00	-0.19	-115.84
_	1088.00	0.18	336.08	-	1087.97 1118.97	-3.37 -3.24	3.56	0.46	4.73	4.92	31.00	0.45	58.32
	1119.00 1150.00	0.32	354.16 9.93		1149.97	-3.24	3.56	0.29	4.60	4.71	31.00	-0.13	50.87
	1181.00	0.34	345.22		1180.97	-3.06	3.55	0.47	4.46	4.60	31.00	0.19	-79.71
	1213.00	0.34	22.79		1212.97	2.74	3.56	0.66	4.33	4.50	32.00	-0.09	117.41
-	1213.00	0.31	8.95		1243.97	-2.74	3.61	0.00	4.33	4.50	31.00	-0.09	-44.65
	1275.00	0.29	13.53	-	1274.97	-2.45	3.64	0.18	4.25	4.38	31.00	-0.16	14.77
	1306.00	0.24	359.67		1305.97	-2.43	3.65	0.10	4.05	4.33	31.00	-0.10	44.71
	1338.00	0.21	325.99	+	1337.97	-2.23	3.62	0.36	3.96	4.26	32.00	-0.12	-105.25
	1354.00	0.20	320.24	1	1353.97	-2.19	3.59	0.22	3.90	4.21	16.00	0.19	-35.94
_	1402.00	0.31	322.21	-	1401.97	-2.02	3.46	0.23	3.69	4.01	48.00	0.23	4.10 RECEIVED
	1433.00	0.59	290.20	+	1432.97	-1.90	3.26	1.18	3.47	3.77	31.00	0.90	-103.26Office of Oil and Gas
-	1465.00	1.23	298.82	1	1464.97	-1.68	2.80	2.04	3.02	3.27	32.00	2.00	26.94 Oil and Gas
	1496.00	2.19	310.67	1	1495.95	-1.13	2.06	3.28	2.14	2.35	31.00	3.10	20.22
	1527.00	3.04	306.18		1526.92	-0.26	0.95	2.82	0.78	0.98	31.00	2.74	14.48 OCT 1 9 2018
	1558.00	3.76	306.45		1557.86	0.83	-0.53	2.32	-0.98	0.98	31.00	2.32	0.87
	1589.00	4.58	308.43		1588.78	2.20	-2.32	2.69	-3.15	3.20	31.00	2.65	6.39
	1620.00	5.33	312.27		1619.67	3.94	-4.35	2.64	-5.76	5.87	31.00	2.42	12.39 WV Department of
-	1652.00	5.98	313.13		1651.51	6.08	-6.67	2.05	-8.86	9.02	32.00	2.03	2.6 nvironmental Protection
	1683.00	6.47	314.51		1682.33	8.41	-9.09	1.65	-12.18	12.38	31.00	1.58	4.45
	1714.00	6.80	316.83		1713.12	10.97	-11.60	1.37	-15.73	15.96	31.00	1.06	7.48



1745.00	6.89	315.12	1743.90	13.63	-14.16	0.72	-19.39	19.65	31.00	0.29	-5.52
1776.00	7.11	315.14	1774.67	16.30	16.83	0.71	23,13	23.43	31.00	0.71	0.06
1808.00	7.22	314.84	1806.42	19.13	-19.65	0.36	-27.08	27.42	32.00	0.34	-0.94
1839.00	6.95	316.49	1837.18	21.86	-22.32	1.09	-30.87	31.24	31.00	-0.87	5.32
1870.00	6.63	323.12	1867.96	24.65	-24.69	2.73	34.53	34.89	31.00	-1.03	21.39
1901.00	6.51	329.45	1898.76	27.60	-26.66	2,37	-38.06	38.37	31.00	-0.39	20.42
1931.00	6,56	335.53	1928.57	30.62	-28.23	2.31	-41.43	41.65	30.00	0.17	20.27
1962.00	6.24	339.17	1959.37	33.81	-29.56	1.67	44,78	44.91	31.00	-1.03	11.74
1993.00	6.14	341.65	1990.19	36.95	-30.68	0.92	-47.97	48.03	31.00	-0.32	8.00
2024.00	5.53	344.31	2021.03	39.97	-31.61	2.15	-50.94	50.96	31.00	-1.97	8,58
2056.00	5.25	343.10	2052.89	42.85	32.45	0.94	53.75	53.75	32.00	-0.87	-3.78
2087.00	4.88	343.16	2083.77	45.47	-33.25	1.19	-56.33	56.33	31.00	-1.19	0.19
2118.00	4.96	342.01	2114.65	48.01	-34.04	0.41	-58.83	58.85	31.00	0.26	-3.71
2149.00	4.74	342.48	2145.54	50.50	-34.84	0.72	61.31	61.36	31.00	-0.71	1.52
2180.00	4.77	342.81	2176.44	52.96	-35.61	0.13	-63.74	63.82	31.00	0.10	1.06
2212.00	4.64	344.96	2208.33	55.48	-36.34	0.68	-66.19	66.32	32.00	0.41	6.72
2243.00	4.59	345.09	2239.23	57.89	-36.98	0.16	-68.51	68.69	31.00	-0.16	0.42
2274.00	4.69	345.76	2270.13	60.31	-37.61	0.37	-70.83	71.08	31.00	0.32	2.16
2305.00	4,99	345.55	2301.02	62.85	-38.26	0.97	73.25	73.58	31.00	0.97	-0.68
2336.00	5.26	345.07	2331,89	65,53	38.96	0.88	-75.81	76.24	31.00	0.87	1.55
2368.00	5.61	344.61	2363.75	68.45	-39.76	1.10	-78.63	79.16	32.00	1.09	-1.44
2399.00	5.67	345.36	2394.60	71.39	40.55	0.31	-81.46	82.10	31.00	0.19	2.42
2430.00	5.69	347.59	2425.45	74.38	-41.26	0.71	-84.28	85.06	31.00	0.06	7.19
2461.00	5.77	347.65	2456.29	77.40	-41,93	0.26	-87.10	88.03	31.00	0.26	0.19
2492.00 2524.00	5.58	350.23	2487.14	80.41	42,52	1,03	-89.86	90.96	31.00	-0.61	8.32
	5.79	350.16 350.87	2518.98	83.53	-43.06	0.66	92.69	93,97	32.00	0.66	-0.22
2555.00 2586.00	5.88	the state of the s	2549.82 2580.66	86.64	-43.58	0.37	-95.49	96.98	31.00	0.29	2.29
2617.00	5.83	351.70 353.10	2611.50	89.77 92.89	-44.05 -44.47	0.32	-98.28	99.99	31.00	-0.16 0.03	2.68 4.52
2649.00	5.94	351.59	2643.33	96.14	-44.47	0.58	-101.03 -103.90	106.11	32.00	0.31	-4.72
2680.00	5.79	349.69	2674.17	99.27	-45.42	0.79	106.71	109.17	31.00	0.51	-6.13
2704.00	5.83	348.23	2698.04	101.65	-45.89	0.64	-108.90	111.53	24.00	0.17	-6.08
2774.00	5.77	340.74	2767.69	108.45	-47.77	1.08	-115.48	118,51	70.00	-0.09	-10.70
2805.00	5,30	335.97	2798.54	111.23	-48.87	2.12	-118.36	121.50	31.00	-1.52	-15.39
2836.00	5.01	338.26	2829.42	113.80	-49.96	1.15	121.06	124.28	31.00	0.94	7.39
2867.00	5.26	347.89	2860.29	116.45	-50.76	2.89	-123.66	127.03	31.00	0.81	31.06
2899.00	6.11	353.93	2892.14	119.57	-51.24	3.24	-126.46	130.09	32.00	2.66	18.87
2930.00	6.91	358.89	2922.94	123.08	-51.45	3.15	129.39	133.40	31.00	2.58	16.00
2961.00	7.29	358.55	2953.70	126.91	-51.54	1.23	-132.51	136.98	31.00	1.23	-1.10
2992.00	7.08	359.13	2984.45	130.79	51,62	0.72	-135.66	140,60	31.00	-0.68	1.87
3023.00	7.83	2.78	3015.19	134.80	-51.55	2.86	138.84	144.32	31.00	2.42	11.77
3055.00	8.43	2.38	3046.87	139.33	-51.34	1.88	-142.34	148.48	32.00	1.87	-1.25
3117.00	8.35	5.69	3108.21	148.35	-50.71	0.79	-149.19	156.77	62.00	0.13	5.34
3148.00	9.11	7.66	3138.85	153.02	-50.16	2.63	-152.60	161.03	31.00	2.45	6,35
3180.00	9.50	7.04	3170.43	158.15	-49.50	1.26	-156.31	165.71	32.00	1.22	-1.94
3211.00	9.78	8.17	3200.99	163.29	-48.81	1.09	-160,02	170.43	31.00	0,90	3.65
3242.00	10.11	6.66	3231.52	168,60	-48.12	1.36	-163.86	175.34	31.00	1.06	-4.87
3273,00	10.07	8,53	3262,04	173,99	-47.40	1.06	167.74	180.33	31.00	-0.13	6.03
3304,00	10.08	6.96	3292.57	179.36	-46.67	0.89	171.61	185.33	31.00	0.03	-5.06
3336.00	10.14	6.74	3324,07	184.94	-46.00	0.22	-175.68	190.57	32.00	0.19	-0.69
3367,00	9,98	7.96	3354,59	190.31	-45.31	0.86	-179.57	195.63	31.00	-0.52	3.94
3398.00	10.25	8.04	3385.11	195.70	44.55	0.87	-183.43	200.70	31.00	0.87	0.26
3429.00	10.04	8.20	3415.63	201.10	-43.78	0.68	-187.30	205.81	31.00	-0.68	0.52
3460.00	9.83	8.37	3446.16	206.40	-43.01	0.68	-191,08	210.83	31.00	-0.68	0.55
3491.00	9.65	8.93	3476.71	211.58	42.22	0.66	194.76	215.75	31.00	-0.58	1.81
3522.00	9,55	7.13	3507.28	216.70	-41.50	1.02	-198.43	220.64	31.00	0.32	-5.81
3553,00	9.58	6.47	3537.85	221.81	40.89	0.37	202.16	225.55	31.00	0.10	-2:13
3584.00	9.64	5.96	3568.41	226.96	-40.33	0.34	-205.94	230.51	31.00	0.19	1,65
3615.00	9.41	5.20	3598.99	232.06	-39.83	0.85	-209.74	235,46	31.00	-0.74	2,45
3646,00	9.69	3.68	3629.56	237.19	-39.43	1.22	213.60	240.45	31.00	0.90	-4.90
3677.00	9.63	4.67	3660.12	242,38	-39.05	0.57	-217.53	245.51	31.00	-0.19 -0.23	3.19 -1.71
3708.00	9.56	4.14	3690.68	247.53	38.66	0.36	-221.42 -225.30	250.53 255.55	31.00	-0.23	0.81
3739,00	9.55	4.39 3.21	3721.25 3751.82	252.66 257.84	-38.27 -37.93	0.14	229.24	260.61	31.00	0.52	-3.81
3770.00 3801.00	9.71	4.22	3782,38	263.04	-37.59	0.82	-233.21	265.71	31.00	-0.16	3.26
3832,00	9.66	6.41	3812.95	268.15	-37.12	1.42	-233.21	270.71	31.00	-0.16	7.06
3854.00	9.41	4.96	3844.51	273.42	36.59	1.02	240.93	275.86	32.00	0.69	-4.53
3895.00	9.54	4.82	3875.07	278.56	-36.15	0.30	-244.78	280.90	31.00	-0.29	-0.45
3926.00	9.50	4.78	3905.65	283.67	-35.72	0.13	248.62	285.91	31.00	-0.13	0.10
3957.00	9.41	4.62	3936.23	288.75	-35.31	0.30	-252.43	290.90	31.00	0.29	-0.13 Env
3988.00	9.24	5.96	3966.82	293.75	34.84	0.89	256.16	295.81	31,00	-0.55	4.32
	the same of	W. W. W.	2200.02	A	2 20 71007.5	1.24	-259.89	300.69	31.00		1.00

RECEIVED Office of Oil and Gas

OCT 1 9 2018

WV Department of vironmental Protection



4050.00	9.01	5.95		4028.02	303.61	34.03	1.43	-263.57	305.51	31.00	-0.74	7.71	
4081.00	9.22	4.99		4058.63	308.49	-33.56	0.84	-267.21	310.31	31.00	0.68	-3.10	
1112.00	9.19	5.49		4089.23	313.43	-33.11	0.28	270.89	315.18	31.00	-0.10	1.61	
4143.00	9.08	5.72		4119.84	318.33	-32.62	0.37	-274.53	320.00	31.00	-0.35	0.74	
4174.00	9.06	6.71		4150.45	323.19	-32.10	0.51	-278.10	324.78	31.00	-0.06	3.19	
4205.00	9.34	6.76		4181.05	328,11	-31.51	0.90	-281.70	329,62	31.00	0.90	0.16	
4237.00	9.24	7.27		4212.63	333,24	-30.88	0.40	-285.43	334.67	32.00	-0.31	1.59	
4268.00	9.93	8.32		4243.20	338.35	-30.18	2.30	289.10	339.70	31.00	2,23	3.39	
4299.00	10.00	10.12		4273,73	343.65	-29,32	1.03	-292.83	344.90	31.00	0.23	5.81	
4330.00	9.76	8.38		4304.27	348.90	-28.47	1.24	296.52	350.06	31.00	-0.77	-5.61	
4361.00	9.28	8.81	60	4334.84	353.97	-27.70	1.57	-300.12	355.05	31.00	1.55	1.39	
4392.00	9.37	7.26		4365.44	358.94	-27,00	0.86	-303.69	359.95	31.00	0.29	-5.00	
4423.00	9.48	9.55	1	4396.02	363,96	-26.26	1,26	-307.27	364,91	31,00	0.35	7.39	
4454.00	9.72	10.32		4426.58	369.05	-25.36	0.88	-310.81	369.92	31.00	0.77	2.48	
4485.00	9.27	9.40	-	4457.16	374.09	-24.49	1.53	-314.32	374.89	31.00	-1.45	-2.97	
4516.00 4547.00	8.51 8.42	7.62 9.29	-	4487.79 4518.45	378.83	-23.78	2.61	-317.69	379.57	31,00	-2.45	-5.74	
4579.00	8.14	6.49	-	and the state of the same of the same of	383,34	-23.10 -22.47	0.84	320.90	384.04	31.00	0.29	5.39 -8.75	
4610.00	7.88	3.60	+	4550.11 4580.81	387.90 392.20	-22.09	1.53	-324.18 -327.40	392.83	32.00	-0.87 -0.84	-9.32	-
4641.00	7.74	5.28	-	4611,52	396,40	-21.76	0.86	330.57	397.00	31.00	-0.45	5.42	-
4672.00	8.08	4.90		4642.23	400.65	-21.39	1.11	333.74	401.22	31.00	1.10	1,23	
4703.00	8.49	0.17	1	4672.91	405.11	-21.19	2.56	-337.20	405.67	31.00	1.32	-15.26	
4734.00	8.73	358.58		4703.56	409.75	21.24	1.09	-340.95	410.30	31.00	0.77	-5.13	
4765.00	9.41	355.64		4734.17	414.63	-21.49	2.65	345.01	415.19	31.00	2.19	9.48	
4796.00	9.15	352.83		4764.76	419.60	-22.00	1.69	-349.29	420.18	31.00	-0.84	-9.06	-
4827.00	9.27	347.04		4795.36	424.48	-22.86	3.01	-353.72	425.10	31.00	0.39	-18.68	
4858.00	9.27	347.04		4825.96	429.35	-23.98	0.00	-358.28	430,02	31,00	0.00	0.00	
4889.00	9.27	343.57		4856.56	434.18	-25.25	1.80	-362.91	434.91	31.00	0.00	-11.19	
4920.00	9.29	340.80		4887.15	438.94	-26.78	1.44	-367.64	439.75	31.00	0.06	-8.94	
4951.00	9.17	341.26		4917.75	443.64	-28.39	0.45	372.37	444.55	31.00	-0.39	1.48	
4982.00	9.32	341.63		4948.35	448.36	-29.98	0.52	-377.10	449.36	31.00	0.48	1.19	
5013.00	10.02	339.98		4978.91	453.28	-31.69	2.43	-382.07	454.38	31.00	2.26	-5,32	
5044.00	10.65	339.36		5009.40	458.49	-33.63	2.06	-387.40	459.72	31.00	2.03	2.00	
5075.00	10.78	339.65		5039.86	463.89	-35.64	0.45	392.93	465,26	31.00	0.42	0.94	
5106.00	10,51	343.40		5070.33	469.32	-37.46	2.40	-398.37	470.81	31.00	-0.87	12.10	
5138.00	10.68	344.22		5101.78	474.97	-39.10	0.71	-403.88	476,57	32.00	0.53	2.56	
5169.00	10,46	347,59		5132.26	480.48	-40.49	2.12	-409.12	482.18	31.00	-0.71	10.87	
5200.00	10,47	347.76		5162.74	485.98	41.69	0.10	414.25	487.76	31.00	0.03	0.55	4
5231.00	9.43	349.14		5193.27	491.23	42.76	3.44	419.09	493.08	31.00	-3.35	4.45	
5262.00	9.02	350.15		5223.87	496.12	-43.66	1.42	-423.54	498.03	31.00	-1,32	3.26	
5293.00	9.08	352.01		5254.49	500.93	-44,41	0.96	-427.86	502.90	31.00	0.19	6.00	
5324.00	9.66	351.46		5285.07	505.93	-45.14	1.89	-432.29	507.94	31.00	1.87	-1.77	
5355.00	9.55	354.34		5315.64	511,06	-45.78	1.59	-436.78	513.10	31.00	-0.35	9.29	
5387.00	9.14	355,18	1	5347.21	516,23	-46.26	1.35	441.21	518.30	32.00	-1.28	2.62	4
5418,00	9.15	358.16		5377.82	521.15	-46.54	1.53	-445.32	523.22	31.00	0.03	9,61	_
5449.00	9.27	1.59		5408.42	526.11	-46.55	1.81	-449.30	528.16	31.00	0.39	11.06	-
5480.00	9.17	4.58	-	5439,02	531.07	-46.28	1.58	-453.11	533.08	31.00	-0.32	9.65	
5511.00	9.00	6.20		5469.63	535.94	-45.83	0.99	-456.74	537.89	31.00	-0.55	5.23	-
5542.00	9.09	7.60		5500.25	540.78	-45.24	0.77	-460.27	542.67	31.00	0.29	4.52	
5573.00	9.11	8.28	+	5530,86	545.63	-44.56	0.35	-463.75	547.45	31.00	0.06	2.19	-
5604.00	8.63	7.85		5561.49	550.37	-43.89	1.56	-467.14	552.11	31.00	-1.55 -1.52	-1.39 -2.03	-
5635,00	8.16	7.22	+	5592.15	554.85	-43.30	1.54	470.38	556.54	31.00		15.29	
5666.00	8.59	2.48	-	5622,82	559.35	-42.92 -42.80	2.62	-473.76 -477.68	560.99 565.95	31.00	2.31	-6.87	-
5698.00	9.33	0.28	-	5654.43	564.33 569.34	-	0.40	-477.68	570.95	31.00	-0.13	2.32	
5729.00 5760.00	9.29	1.00		5685.02 5715.62		-42.75 -42.63	0.40	-485.59	575.92	31.00	-0.13	2.35	-
5791.00	8,97	1.73 4.81		5746.23	574.34 579.23	-42.63	1.81	-489.35	580.78	31.00	-0.13	9.94	
5822,00	8.95	6,31		5776.85	584.04	-42.55	0.76	492.91	585.54	31.00	-0.06	4.84	
5853.00	9.36	6.09	-	5807.46	588.94	-41.35	1.33	-496.52	590.39	31.00	1.32	0.71	
5884.00	9.46	8.52		5838.04	593.97	-40.71	1.32	500.16	595.36	31.00	0.32	7.84	
5915.00	9.06	10.06	-	5868.63	598.89	-39.90	1.52	-503.63	600.22	31.00	-1.29	4.97	
5946.00	9.20	11.65	1	5899.24	603.72	-38.98	0.93	-506.94	604.98	31.00	0.45	5.13	
5978.00	8.96	10.28	1	5930.84	608.68	-38.02	1.01	-510.34	609.87	32,00	-0.75		DEC
5998.00	9.22	10.43	109.47	5950.59	611.79	37.45	1,31	-512.49	612.93	20.00	1.30	0.75	HECEIVED
6094.00	7.43	43.27	125.69	6045.63	623.88	-31.80	5.20	-518.79	624.69	96.00	1.86	34.21	RECEIVED Office of Oil and
6189.00	7.44	85.65	131.09	6139.90	628.82	-21.45	5.64	-516.55	629.19	95.00	0.01	44.61	
6284.00	5.66	92.01	136.50	6234.18	629.09	-9.81	1.16	-509.80	629,17	95.00	-0,82	6.69	ACT 10 200
6379.00	6.99	89.96	136.50	6328.51	628.91	1.48	0.43	-502.90	628.91	95.00	0.35	-2.16	OCT 1 9 2018
6474.00	6.61	91.24	139.20	6422.84	628.79	12.73	0.43	-496.07	628.92	95.00	-0.40	1.35	
6569.00	6.48	93.20	141.91	6517.22	628,37	23.54	0.27	-489.26	628.81	95.00	0.14	2.06	WV Department o
6664.00	6.42	94.67	139.20	6611.62	627.64	34.19	0.18	-482.30	628.57	95.00	-0,06	1.55 Env	ironmental Protec
	7.21	96.01	141.91	6704.95	626.60	45.30	0.86	474.82	628.23	94.00	0.84		Triblial Proto



6853.00	7.34	94.80	144.61	6799.19	625.46	57.27	0.21	-466.74	628.08	95.00	0.14	1.27	
6948.00	8.16	94.79	144.61	6893.32	624.39	70.04	0.86	-458.24	628.31	95.00	0.86	-0.01	
7043.00	8.16	95.44	147.31	6987.36	623.19	83.47	0.10	-449.24	628.76	95.00	0.00	0.68	
7139,00	7.97	98.23	147.31	7082.41	621.59	96.84	0.45	439.96	629.09	96.00	-0.20	2.91	
7233.00	7.86	96.22	150.02	7175.51	619.96	109.68	0.32	-430.97	629.59	94.00	-0.12	-2.14	
7328.00	7.36	93.99	352.75	7269.68	618.84	122.20	0.61	-422.56	630.79	95.00	-0.53	-2.35	-
7423.00 7518.00	7.03	92.33 93.54	150.02 150.02	7363.93 7458.20	618.18 617.58	134.08	0.41	-414.93 -407.44	632.55 634.55	95.00	-0.35 0.12	1.27	-
7613.00	7.77	97.78	152.72	7552.40	616.34	158.04	0.20	399.11	636.28	95.00	0.66	4.46	-
7707.00	8.31	102.33	152.72	7645.48	614.03	170.97	0.89	-389.52	637.39	94.00	0.57	4.84	
7802.00	13.96	122.38	144.61	7738.68	606.42	187.38	7.13	-373.61	634.71	95.00	5.95	21.11	
7897.00	21.94	129.19	147.31	7829.00	589.04	210.85	8.67	-345.63	625.64	95.00	8.40	7.17	
7992.00	31.13	133.53	150.02	7913.91	560.85	242.48	9.88	-304.12	611.02	95.00	9,67	4.57	
8086.00	39.58	135.98	152.72	7990.50	522.51	280.98	9.11	-250.36	593.26	94.00	8.99	2.61	
8181.00	47.33	137.09	155.42	8059.42	475.09	325.86	8.20	-185.51	576.10	95.00	8.16	1.17	
8275.00	55.75	137.19	155.42	8117.83	421.18	375.88	8.96	112.39	564.51	94.00	8,96	0.11	
8370.00	65.13	139.74	158.12	8164.65	359.35	430.54	10.14	30.13	560.80	95.00	9.87	2.68	_
8464.00	72.31	141.11	158.12	8198.74	291.86	486.28	7.76	57.30	567.14	94,00	7.64	1.46	-
8559.00	79.35	142.70	158.12	8221,98	219.41	543.06	7,59	149,32	585,71	95,00	7.41	1.67	
8654.00	87.17 89.11	142.63	158.12	8233.13	71.99	600.23	8.23 2.50	243.59 335.51	617.37	95.00 92.00	8.23 2.11	-0.07	
8746.00 8841.00	88.83	141.39 139.54	163.53 166.23	8236.11 8237.82	-1.26	656.83 717.28	1.97	430.38	660.76 717.29	95.00	-0.29	-1.35 -1.95	-
8936.00	88.71	145.15	171.64	8239.86	76.43	775.28	5.91	52531	779.04	95.00	-0.13	5.91	-
9030.00	88.92	142.59	168.94	8241.80	-152.33	830.69	2.73	619.28	844.54	94.00	0.22	-2.72	-
9125.00	88.89	143.32	171.64	8243.62	-228.14	887.91	0.77	714.26	916.75	95.00	-0.03	0.77	
9220.00	88.89	144.24	174.34	8245.46	-304.76	944.04	0.97	809.23	992.01	95,00	0.00	0.97	
9315.00	89.20	145.02	177.05	8247.04	-382,22	999.02	0.88	904.19	1069.64	95.00	0.33	0.82	
9410.00	89.57	148,47	177.05	8248.06	461.64	1051.10	3.65	998.99	1148.01	95.00	0.39	3.63	
9504.00	89.66	149,23	177.05	8248.70	-542.09	1099.73	0.81	1092,54	1226.07	94.00	0.10	0.81	
9599.00	90.18	145.83	179.75	8248.83	-622.22	1150.72	3.62	1187.26	1308.17	95.00	0.55	-3.58	
9692.00	89.54	147.49	179,75	8249.06	-699.92	1201.83	1.91	1280.09	1390.78	93.00	-0.69	1.78	
9787.00	89.32	150.06	179.75	8250.00	-781.14	1251.07	2.72	1374.63	1474.91	95,00	-0.23	2.71	-
9881.00	89.29	140.97	179.75	8251.14	-858.54	1304.23	9.67	1468.45	1561.45	94.00	-0.03	-9.67	
9976.00	89,60	138,79	182.45	8252.06	-931.18	1365.45	2.32	1563.28	1652.73	95.00	0.33	2.29	-
10071.00	89.29 89.14	140.94	185.16 182.45	8252.98 8254.29	-1003.80 -1077.39	1426.67	0.37	1658.10 1753.01	1744.42	95.00	-0.33 -0.16	-0.34	
10261.00	90.34	138.98	185.16	8254.72	1149.95	1548.05	2.14	1847.83	1928.43	95.00	1.26	-1,73	
10356.00	90.09	138.03	185.16	8254.36	-1221.10	1610.99	1.03	1942.50	2021.48	95.00	-0.26	-1.00	
10451.00	90.12	140.70	187.86	8254.19	-1293.19	1672,86	2.81	2037.28	2114.42	95,00	0.03	2.81	
10545.00	89.57	143.68	182.45	8254.44	-1367.44	1730.47	3.22	2131.25	2205.55	94.00	-0.59	3.17	
10640.00	89.48	147.68	187.86	8255.23	-1445.89	1784.02	4.21	2226.14	2296.37	95.00	-0.09	4.21	
10735.00	89,51	148,24	187,86	8256.07	-1526.41	1834.42	0.59	2320.82	2386.43	95.00	0.03	0.59	
10831.00	89.23	148.03	187,86	8257.12	-1607.94	1885.10	0.36	2416.46	2477.71	96.00	-0.29	-0.22	
10926.00	89.01	141.62	190.56	8258.58	-1685.54	1939.79	6.75	2511.36	2569.79	95.00	-0,23	-6.75	
11020.00	89.63	141.97	193.27	8259.70	-1759.40	1997.92	0.76	2605.32	2662.18	94.00	0.66	0.37	_
11115.00	89.72	141.19	193.27	8260,24	-1833.83	2056.96	0.83	2700,28	2755.72	95.00	0.09	-0.82	_
11211.00	90.09	140.27	195,97	8260,40 8260,25	-1908,15	2117.72 2179.82	2.29	2796.19 2890.95	2850.57 2944.85	96.00 95.00	0.00	-0.96 -2.29	-
11306.00	90.09	138.09 138.55	195,97	8260.02	-1980.04 -2050.99	2242.99	0.49	2985.60	3039.34	95.00	0.00	0.48	-
11495.00	89.97	139.25	198.67	8259.90	-2121.82	2304.78	0.78	3079.33	3132.76	94.00	-0.22	0.74	-
11590.00	89.51	142.51	198.67	8260.33	2195.52	2364.71	3.47	3174.23	3226.79	95.00	-0.48	3.43	
11684.00	89.23	141.10	198.67	8261.36	-2269,39	2422.83	1.53	3268.20	3319.67	94.00	-0.30	-1.50	
11780.00	89.26	145.37	201.37	8262,63	-2346,27	2480.27	4.45	3364.17	3414.19	96.00	0.03	4.45	
11874.00	89.26	151.23	201.37	8263.84	-2426.20	2529.64	6.23	3457.75	3505.07	94.00	0.00	6.23	
11969.00	89.51	147,32	201.37	8264.86	-2507.85	2578.17	4.12	3552.20	3596.70	95.00	0.26	-4.12	
12064.00	90.06	144.75	201.37	8265.22	-2586.63	2631.24	2.77	3647.08	3689.72	95.00	0.58	-2.71	
12159.00	90.25	141.06	204.08	8264.96	-2662.39	2688.52	3.89	3742.06	3783.71	95,00	0.20	-3.88	
12254.00	90.18	140.03	201.37	8264.61	2735.74	2748.89	1.09	3836.95	3878.23	95.00	-0.07	-1.08	
12349.00	89.97	141.70	204.08	8264.48	2809.43	2808.85	1.77	3931.87	3972.72	95.00	-0.22	1.76	
12444.00	89,97	142,99	204.08	8264.53	-2884.64	2866.89	1.36	4026.85	4066.96	95.00	0.00	1.36	-
12539,00	90.03	141.94	204.08	8264.53	-2959.97 -3034.74	2924.76 2981.72	1.11	4121.84 4215.84	4161.21 4254.45	95.00 94.00	0.06	1.62	-
12633.00	90.43	143.46 141.62	206.78	8264.16 8263.47	-3110.14	3039.50	1.94	4310.82	4348.74	95.00	-0.03	-1.94	
12822.00	90.00	139.70	204.08	8263.14	-3182.84	3099.08	2.09	4404.72	4442.39	94.00	-0.43	-2.04	
12917.00	89.97	141.42	206.78	8263.16	-3256.20	3159.43	1.81	4499.62	4537.06	95.00	-0.03	1.81	
13011.00	90.28	142.96	206.78	8262.96	3330.47	3217.06	1.67	4593,60	4630,49	94.00	0.33	1.64	
13106.00	90.22	145.58	206.78	8262.54	-3407.58	3272.53	2.76	4688.57	4724.51	95.00	-0.06	276	RECEIVED
13200.00	90.18	143.37	206.78	8262.22	3484.08	3327.14	2.35	4782.54	4817.54	94.00	-0.04	-2.35	Office of Oil and G
13295.00	90.28	140.53	206.78	8261.84	-3558.88	3385.69	2.99	4877.51	4912.08	95.00	0.11		on and G
13390.00	90.18	140.79	209.48	8261.45	-3632.35	3445.91	0.29	4972.41	5006.82	95.00	-0.11	0.27	DCT 10 -
13484.00	90.37	145.59	206.78	8261.00	-3707.59	3502.22	5.11	5066.38	5100.17	94.00 95.00	0.20	5.11 3.22	DCT 1 9 2018
13579.00	90.06	148.65	204.08	8260.65	-3787.36	3553.78	3.24	5161.15	5193.60		-0.33		

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	13674.00	90.15	148.14	206.78	8260.47	3868.27	3603.57	0.55	5255.77	5286.70	95.00	0.09	-0.54
	13769.00	90.46	148.61	206.78	8259.97	-3949.16	3653.38	0.59	5350.38	5379.87	95.00	0.33	0.49
	13864.00	90.65	143.44	206.78	8259.05	-4027.91	3706.45	5.45	5445.23	5473.74	95.00	0.20	5.44
ī	13958.00	90.28	140.47	206.78	8258.28	-4101.93	3764.37	3.18	5539.20	5567.43	94.00	-0.39	-3.16
	14053.00	90.09	143.48	206.78	8257.98	-4176.75	3822,89	3.17	5634.16	5662.13	95.00	-0.20	3.17
	14147.00	90.65	146.21	206.78	8257.37	-4253.60	3877.00	2.96	5728.11	5755.37	94.00	0.60	2.90
	14241.00	90.55	148.46	209.48	8256,38	-4332.72	3927.73	2.40	5821.86	5848.04	94.00	-0.11	2.39
ī	14336.00	90.40	145.63	209.48	8255.60	-4412.42	3979.40	2.98	5916.64	5941.81	95.00	-0.16	-2.98
	14432.00	90.49	143.09	209.48	8254.85	-4490.43	4035.34	2.65	6012.61	6037.21	96,00	0.09	2.65
	14527.00	90.43	140.83	209.48	8254.09	-4565.25	4093.87	2.38	6107.58	6131.99	95.00	-0.06	-2.38
1	14621.00	90.43	139.39	212.19	8253,38	-4637.37	4154.15	1.53	6201.43	6225,92	94.00	0.00	-1.53
	14715.00	90.12	140.32	212.19	8252.93	-4709.22	4214.75	1.04	6295.27	6319.88	94.00	-0.33	0.99
Τ	14810.00	90.22	140.26	212.19	8252.65	-4782.30	4275.45	0.12	6390.14	6414.82	95.00	0.11	-0.06
	14905.00	90.31	139.54	214.89	8252,21	4854.97	4336.64	0.76	6484.98	6509.77	95.00	0.09	-0.76
7	14999.00	90.28	144.21	212.19	8251.73	4928.89	4394.66	4.97	6578.92	6603.56	94.00	-0.03	4.97
	15094.00	90.43	148.75	212.19	8251.14	-5008.07	4447.10	4.78	6673.75	6697.58	95.00	0.16	4.78
7	15189.00	90.43	147.41	212.19	8250.42	-5088.70	4497.33	1.41	6768.40	6791.24	95.00	0.00	-1.41
7	15284.00	90.28	143.58	212.19	8249.83	-5166.97	4551.13	4.03	6863.31	6885.52	95.00	-0.16	-4.03
ī	15378.00	90.31	142.59	214.89	8249.35	-5242.13	4607.59	1.05	6957.30	6979.24	94.00	0.03	-1.05
	15472.00	90.40	144.78	212.19	8248.77	-5317.86	4663.26	2.33	7051.29	7072.88	94.00	0.10	2.33
	15567.00	90.89	145.82	212.19	8247.70	-5395.96	4717.33	1.21	7146.22	7167.26	95.00	0.52	1.09
ī	15662.00	90.80	144.72	214.89	8246.30	-5474.03	4771.45	1.16	7241.15	7261.66	95.00	-0.09	-1.16
	15757.00	90.71	142.71	214.89	8245.05	-5550.59	4827.66	2.12	7336.14	7356.32	95.00	-0.09	-2,12
	15852.00	90.12	138.77	214.89	8244.36	-5624.13	4887.77	4.19	7431.02	7451.25	95.00	-0.62	-4.15
	15946.00	89.85	141.88	214.89	8244.38	-5696.48	4947.77	3.32	7524.89	7545.22	94.00	-0.29	3.31
	16041.00	90.28	142.37	212.19	8244.27	-5771.46	5006.10	0.69	7619.87	7640.08	95.00	0.45	0.52
	16136.00	90.98	141.76	212.19	8243.23	-5846.39	5064.50	0.98	7714.85	7734.94	95.00	0.74	-0.64
	16231.00	91.57	142.49	212.19	8241.12	-5921.35	5122.81	0.99	7809.80	7829.79	95.00	0.62	0.77
	16326.00	91.75	144.08	214.89	8238,36	-5997.47	5179.58	1.68	7904.76	7924.50	95.00	0.19	1.67
	16421.00	90.58	140.76	214.89	8236.43	-6072.73	5237.49	3.70	7999.72	8019.32	95.00	-1.23	3.49
	16515.00	90.77	139.58	304.09	8235.32	-6144.91	5297.70	1.27	8093.58	8113.29	94.00	0.20	-1.26
	16610.00	90.71	144.30	212.19	8234.10	-6219.69	5356.24	4.97	8188.52	8208.16	95.00	-0.06	4.97
	16705.00	90.58	141.95	212.19	8233.03	-6295.67	5413.24	2.48	8283.50	8302.93	95.00	-0.14	-2.47
	16800.00	90.62	138.75	212.19	8232.03	-6368.80	5473.85	3.37	8378.37	8397.90	95.00	0.04	-3.37
7	16895.00	90.00	141.88	212.19	8231.52	-6441.90	5534.50	3.36	8473.23	8492.87	95.00	-0.65	3.29
-	16990.00	90.12	148.16	214.89	8231.42	-6519.70	5588.94	6.61	8568.14	8587.36	95.00	0.13	6,61
	17086.00	90.77	143.86	209.48	8230.67	-6599.28	5642.59	4.53	8664.00	8682.70	96.00	0.68	-4.48
_	17180.00	90.77	145.03	212.19	8229.41	-6675.74	5697.24	1.24	8757.97	8776.34	94.00	0.00	1.24
	17275.00	90.68	146,28	212.19	8228.21	-6754.17	5750.84	1.32	8852.87	8870.79	95.00	-0.09	1.32
_	17370.00	90.98	145.68	212.19	8226.83	-6832.90	5803.98	0.71	8947.75	8965.20	95.00	0.32	-0.63
	17466.00	90.83	142.04	212.19	8225.31	-6910.41	5860.58	3.79	9043.72	9060.91	96.00	-0.16	-3.79
	17561.00	91.14	143.05	214.89	8223.68	-6985.81	5918.35	1.11	9138.69	9155.78	95.00	0.33	1.06
	17595.00	90.77	143.69	214.89	8223.11	-7013.09	5938.63	2.17	9172.69	9189.71	34.00	-1.09	1.88
-	17618.00	90.77	143.69	2.2.1.02	8222.80	-7031.62	5952.25	0.00	9195.69	9212.65	23.00	0.00	0.00

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