



CHESAPEAKE APPALACHIA, LLC

Location: Brooke County, WV
 Field: Brooke
 Facility: Barry Greathouse A

Slot: Slot 10H
 Well: Barry Greathouse A 10H
 Wellbore: Barry Greathouse A 10H (PWB)



Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	5433.00	20.900	69.310	5230.09	346.92	1063.63	0.00	37.79
KOP1	5480.00	20.900	69.310	5274.00	352.84	1079.31	0.00	37.58
End of 3D Arc	5535.04	21.680	71.450	5325.28	359.54	1098.14	2.00	37.72
End of Tangent	5583.04	21.680	71.450	5369.89	365.19	1114.95	0.00	38.17
LP	6320.62	89.008	159.910	5810.24	-16.97	1437.65	12.00	507.65
PBHL	11505.95	89.008	159.910	5900.00	-4886.06	3218.54	0.00	5692.20

Tie-On Position

MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
5433.00	20.900	69.310	5230.09	346.92	1063.63	1683728.21	618419.11	40°11'32.607"N	80°37'55.515"W

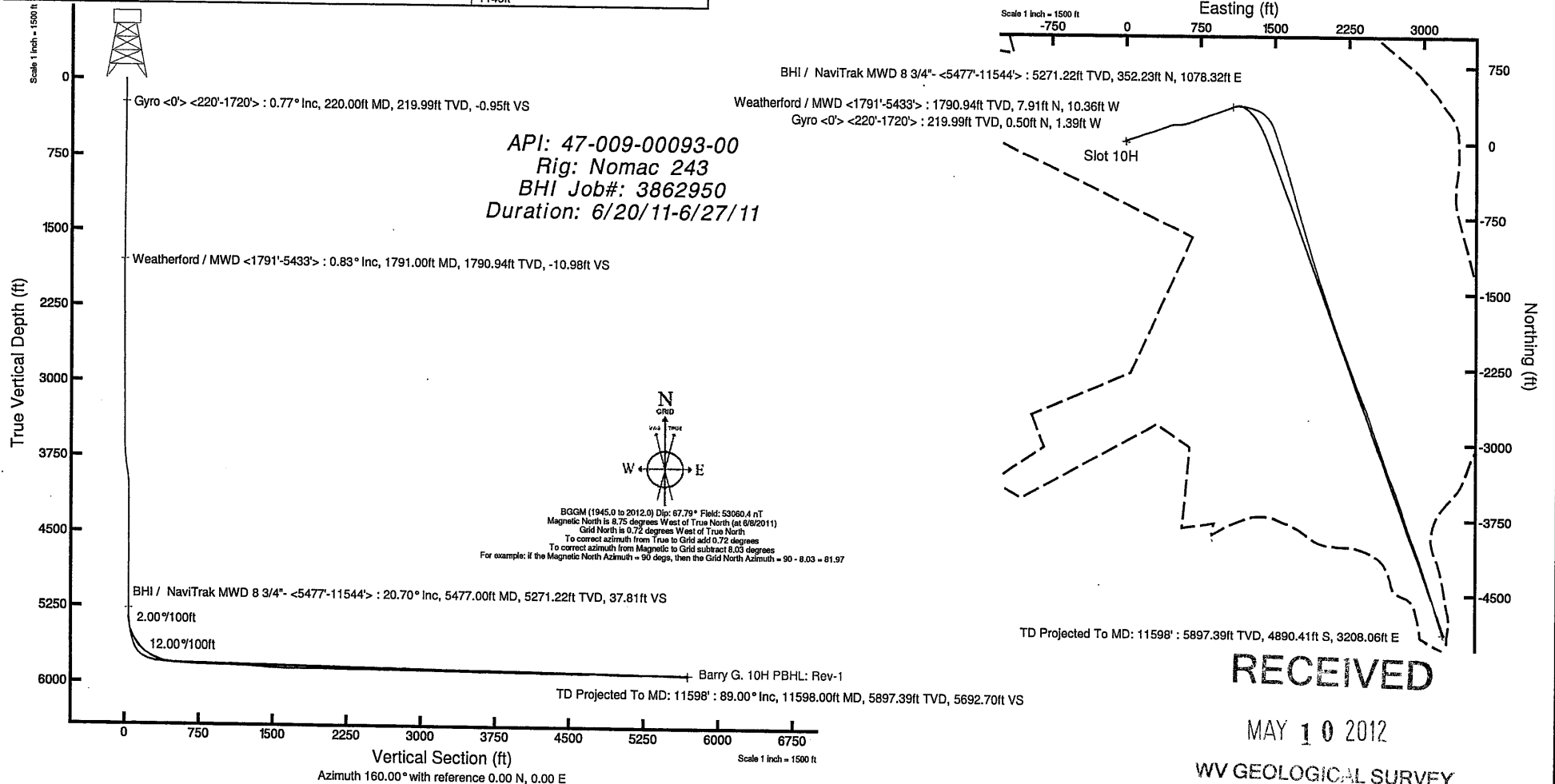
Hole and Casing Sections

Name	Start MD (ft)	End MD (ft)	Interval (ft)	Start TVD (ft)	End TVD (ft)	Start Local N (ft)	Start Local E (ft)	End Local N (ft)	End Local E (ft)	Wellbore
13.37ft Casing Surface	0.00	346.00	346.00	0.00	346.98	0.00	0.00	0.84	-3.14	Barry Greathouse A 10H (PWB)
8.62ft Casing Intermediate	0.00	1666.00	1666.00	0.00	1665.94	0.00	0.00	7.24	-10.00	Barry Greathouse A 10H (PWB)
5.5in Casing	0.00	11505.00	11505.00	0.00	5899.98	0.00	0.00	-4885.17	3218.21	Barry Greathouse A 10H (PWB)

Location Information

Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude		
Barry Greathouse A	1682662.600	618072.200	40°11'29.047"N	80°38'09.163"W		
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Slot 10H	0.00	0.00	1682662.600	618072.200	40°11'29.047"N	80°38'09.163"W
Nomac 243 (RKB) to Mud line (At Slot: Slot 10H)					16ft	
Mean Sea Level to Mud line (At Slot: Slot 10H)					-1130ft	
Nomac 243 (RKB) to Mean Sea Level					1146ft	

Plot reference wellpath is Rev-D.0	
True vertical depths are referenced to Nomac 243 (RKB)	Grid System: NAD27 / Lambert West Virginia SP, Northern Zone (4701), US feet
Measured depths are referenced to Nomac 243 (RKB)	North Reference: Grid north
Nomac 243 (RKB) to Mean Sea Level: 1146 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: Slot 10H): -1130 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: alvayes on 7/7/2011



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Actual Wellpath Report

Gyro/MWD Surveys (220'-11544') Proj: 11598'
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REFERENCE WELLPATH IDENTIFICATION

Operator	CHESAPEAKE APPALACHIA, LLC	Slot	Slot 10H
Area	Brooke County, WV	Well	Barry Greathouse A 10H
Field	Brooke	Wellbore	Barry Greathouse A 10H (AWB)
Facility	Barry Greathouse A		

REPORT SETUP INFORMATION

Projection System	NAD27 / Lambert West Virginia SP, Northern Zone (4701), US feet	Software System	WellArchitect® 3.0.0
North Reference	Grid	User	Alvayes
Scale	0.999989	Report Generated	7/7/2011 at 11:43:58 AM
Convergence at slot	0.72° West	Database/Source file	WA_EasternUS/Barry_Greathouse_A_10H_AWB_.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	0.00	1682662.60	618072.20	40°11'29.047"N	80°38'09.163"W
Facility Reference Pt			1682662.60	618072.20	40°11'29.047"N	80°38'09.163"W
Field Reference Pt			0.00	0.00	38°17'12.460"N	86°28'23.077"W

WELLPATH DATUM

Calculation method	Minimum curvature	Nomac 243 (RKB) to Facility Vertical Datum	16.00ft
Horizontal Reference Pt	Slot	Nomac 243 (RKB) to Mean Sea Level	1146.00ft
Vertical Reference Pt	Nomac 243 (RKB)	Nomac 243 (RKB) to Mud Line at Slot (Slot 10H)	16.00ft
MD Reference Pt	Nomac 243 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	160.00°

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Field	Brooke	Wellbore	Barry Greathouse A 10H (AWB)
Facility	Barry Greathouse A		

WELLPATH DATA (189 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
0.00	0.000	289.770	0.00	0.00	0.00	0.00	1682662.60	618072.20	40°11'29.047"N	80°38'09.163"W	0.00	0.000	0.00	0.00	0.00
220.00	0.770	289.770	219.99	-0.95	0.50	-1.39	1682661.21	618072.70	40°11'29.051"N	80°38'09.181"W	1.48	289.770	0.35	0.35	0.00
340.00	0.870	279.810	339.98	-1.91	0.93	-3.05	1682659.55	618073.13	40°11'29.055"N	80°38'09.202"W	3.19	286.935	0.14	0.08	-8.30
640.00	0.420	342.980	639.96	-4.14	2.37	-5.61	1682656.99	618074.57	40°11'29.069"N	80°38'09.235"W	6.09	292.866	0.26	-0.15	21.06
870.00	0.360	338.020	869.96	-5.71	3.84	-6.13	1682656.47	618076.04	40°11'29.084"N	80°38'09.242"W	7.24	302.084	0.03	-0.03	-2.16
1170.00	0.480	319.300	1169.95	-7.83	5.67	-7.30	1682655.30	618077.87	40°11'29.102"N	80°38'09.258"W	9.25	307.826	0.06	0.04	-6.24
1470.00	0.290	286.960	1469.94	-9.46	6.84	-8.85	1682653.75	618079.04	40°11'29.113"N	80°38'09.278"W	11.19	307.721	0.09	-0.06	-10.78
1720.00	0.460	291.010	1719.94	-10.50	7.39	-10.39	1682652.21	618079.59	40°11'29.118"N	80°38'09.298"W	12.75	305.416	0.07	0.07	1.62
1791.00	0.830	35.510	1790.94	-10.98	7.91	-10.36	1682652.24	618080.11	40°11'29.124"N	80°38'09.297"W	13.03	307.365	1.47	0.52	147.18
1822.00	1.500	57.890	1821.93	-11.19	8.31	-9.88	1682652.72	618080.51	40°11'29.128"N	80°38'09.291"W	12.91	310.048	2.57	2.16	72.19
1853.00	1.780	62.400	1852.92	-11.34	8.75	-9.11	1682653.49	618080.95	40°11'29.132"N	80°38'09.282"W	12.63	313.823	0.99	0.90	14.55
1884.00	2.870	67.990	1883.89	-11.43	9.26	-7.97	1682654.63	618081.46	40°11'29.137"N	80°38'09.267"W	12.22	319.293	3.59	3.52	18.03
1916.00	3.330	66.770	1915.84	-11.51	9.93	-6.37	1682656.23	618082.13	40°11'29.144"N	80°38'09.246"W	11.80	327.311	1.45	1.44	-3.81
1946.00	3.470	67.470	1945.79	-11.60	10.62	-4.73	1682657.87	618082.82	40°11'29.151"N	80°38'09.225"W	11.63	335.984	0.49	0.47	2.33
1976.00	4.040	69.720	1975.73	-11.64	11.33	-2.90	1682659.70	618083.53	40°11'29.158"N	80°38'09.202"W	11.70	345.639	1.96	1.90	7.50
2007.00	4.710	67.520	2006.64	-11.70	12.20	-0.70	1682661.90	618084.40	40°11'29.167"N	80°38'09.174"W	12.22	356.710	2.23	2.16	-7.10
2039.00	4.910	69.990	2038.52	-11.76	13.17	1.80	1682664.40	618085.37	40°11'29.177"N	80°38'09.142"W	13.29	7.781	0.90	0.63	7.72
2071.00	5.570	68.100	2070.39	-11.81	14.22	4.53	1682667.13	618086.42	40°11'29.188"N	80°38'09.107"W	14.92	17.664	2.13	2.06	-5.91
2101.00	6.490	72.400	2100.22	-11.79	15.27	7.49	1682670.09	618087.47	40°11'29.199"N	80°38'09.069"W	17.01	26.137	3.41	3.07	14.33
2133.00	7.110	73.100	2132.00	-11.61	16.40	11.11	1682673.71	618088.60	40°11'29.210"N	80°38'09.022"W	19.81	34.130	1.95	1.94	2.19
2165.00	7.540	74.900	2163.74	-11.32	17.52	15.03	1682677.63	618089.72	40°11'29.222"N	80°38'08.972"W	23.09	40.638	1.52	1.34	5.62
2196.00	8.300	72.450	2194.44	-11.05	18.72	19.13	1682681.73	618090.92	40°11'29.234"N	80°38'08.919"W	26.77	45.620	2.68	2.45	-7.90
2228.00	8.330	70.570	2226.11	-10.93	20.19	23.52	1682686.12	618092.39	40°11'29.249"N	80°38'08.863"W	31.00	49.357	0.85	0.09	-5.88
2259.00	8.740	69.800	2256.76	-10.91	21.75	27.85	1682690.45	618093.95	40°11'29.265"N	80°38'08.807"W	35.34	52.009	1.37	1.32	-2.48
2291.00	8.940	69.700	2288.38	-10.94	23.45	32.46	1682695.06	618095.65	40°11'29.282"N	80°38'08.748"W	40.05	54.153	0.63	0.62	-0.31
2322.00	9.490	72.900	2318.98	-10.82	25.04	37.16	1682699.76	618097.24	40°11'29.299"N	80°38'08.688"W	44.81	56.029	2.42	1.77	10.32
2352.00	9.640	72.800	2348.56	-10.57	26.51	41.93	1682704.53	618098.71	40°11'29.314"N	80°38'08.627"W	49.60	57.696	0.50	0.50	-0.33
2384.00	10.580	71.600	2380.07	-10.36	28.23	47.27	1682709.87	618100.43	40°11'29.332"N	80°38'08.558"W	55.06	59.157	3.01	2.94	-3.75
2415.00	10.980	70.390	2410.52	-10.26	30.12	52.76	1682715.35	618102.32	40°11'29.351"N	80°38'08.488"W	60.75	60.278	1.48	1.29	-3.90
2447.00	11.750	69.800	2441.89	-10.25	32.27	58.68	1682721.28	618104.47	40°11'29.373"N	80°38'08.412"W	66.97	61.197	2.43	2.41	-1.84



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WV GEOLOGICAL SURVEY
MORGANTOWN, WV

Actual Wellpath Report

Gyro/MWD Surveys (220'-11544') Proj: 11598'

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Area	Brooke County, WV	Well	Barry Greathouse A 10H
Field	Brooke	Wellbore	Barry Greathouse A 10H (AWB)
Facility	Barry Greathouse A		

WELLPATH DATA (189 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
2479.00	12.050	70.100	2473.20	-10.25	34.53	64.88	1682727.48	618106.73	40°11'29.396"N	80°38'08.332"W	73.50	61.980	0.96	0.94	0.94
2510.00	12.900	70.300	2503.47	-10.23	36.80	71.18	1682733.78	618109.00	40°11'29.419"N	80°38'08.252"W	80.13	62.665	2.75	2.74	0.65
2542.00	13.790	69.770	2534.61	-10.23	39.32	78.13	1682740.72	618111.52	40°11'29.445"N	80°38'08.162"W	87.46	63.285	2.81	2.78	-1.66
2573.00	14.680	70.010	2564.66	-10.24	41.94	85.28	1682747.88	618114.14	40°11'29.472"N	80°38'08.071"W	95.04	63.814	2.88	2.87	0.77
2605.00	15.380	71.460	2595.56	-10.13	44.68	93.12	1682755.72	618116.87	40°11'29.500"N	80°38'07.970"W	103.28	64.370	2.48	2.19	4.53
2636.00	16.540	73.280	2625.37	-9.78	47.25	101.24	1682763.84	618119.45	40°11'29.526"N	80°38'07.866"W	111.73	64.980	4.07	3.74	5.87
2667.00	17.500	72.420	2655.01	-9.33	49.93	109.91	1682772.51	618122.13	40°11'29.554"N	80°38'07.755"W	120.72	65.569	3.20	3.10	-2.77
2698.00	18.100	72.740	2684.52	-8.90	52.77	118.95	1682781.55	618124.97	40°11'29.583"N	80°38'07.639"W	130.13	66.079	1.96	1.94	1.03
2730.00	17.840	72.320	2714.96	-8.46	55.73	128.37	1682790.97	618127.93	40°11'29.613"N	80°38'07.518"W	139.95	66.533	0.91	-0.81	-1.31
2761.00	18.820	71.020	2744.39	-8.18	58.80	137.62	1682800.22	618131.00	40°11'29.645"N	80°38'07.399"W	149.66	66.866	3.43	3.16	-4.19
2792.00	20.060	68.980	2773.62	-8.19	62.33	147.31	1682809.91	618134.53	40°11'29.681"N	80°38'07.275"W	159.96	67.066	4.56	4.00	-6.58
2824.00	20.870	68.920	2803.60	-8.39	66.35	157.76	1682820.35	618138.55	40°11'29.722"N	80°38'07.141"W	171.14	67.189	2.53	2.53	-0.19
2856.00	21.160	69.300	2833.47	-8.57	70.44	168.48	1682831.08	618142.64	40°11'29.764"N	80°38'07.003"W	182.61	67.310	1.00	0.91	1.19
2918.00	21.270	70.970	2891.27	-8.52	78.06	189.58	1682852.17	618150.26	40°11'29.842"N	80°38'06.733"W	205.02	67.619	0.99	0.18	2.69
2979.00	22.090	72.370	2947.96	-7.86	85.15	210.97	1682873.57	618157.34	40°11'29.914"N	80°38'06.458"W	227.50	68.021	1.59	1.34	2.30
3041.00	21.360	72.480	3005.55	-6.88	92.08	232.85	1682895.44	618164.27	40°11'29.986"N	80°38'06.178"W	250.39	68.424	1.18	-1.18	0.18
3104.00	20.290	71.800	3064.44	-6.05	98.94	254.16	1682916.76	618171.14	40°11'30.056"N	80°38'05.904"W	272.74	68.730	1.74	-1.70	-1.08
3166.00	21.220	69.820	3122.41	-5.74	106.17	274.91	1682937.51	618178.37	40°11'30.130"N	80°38'05.638"W	294.70	68.883	1.88	1.50	-3.19
3230.00	21.610	70.030	3181.99	-5.77	114.19	296.86	1682959.45	618186.39	40°11'30.212"N	80°38'05.356"W	318.06	68.960	0.62	0.61	0.33
3293.00	22.860	70.590	3240.31	-5.64	122.22	319.30	1682981.90	618194.42	40°11'30.294"N	80°38'05.069"W	341.89	69.055	2.01	1.98	0.89
3354.00	22.150	70.700	3296.66	-5.38	129.96	341.33	1683003.93	618202.16	40°11'30.373"N	80°38'04.786"W	365.23	69.156	1.17	-1.16	0.18
3418.00	21.430	71.660	3356.09	-4.89	137.62	363.82	1683026.41	618209.82	40°11'30.452"N	80°38'04.498"W	388.98	69.279	1.26	-1.13	1.50
3480.00	20.130	71.700	3414.06	-4.25	144.54	384.70	1683047.29	618216.74	40°11'30.523"N	80°38'04.230"W	410.95	69.408	2.10	-2.10	0.06
3543.00	19.610	71.060	3473.31	-3.73	151.37	404.99	1683067.58	618223.57	40°11'30.593"N	80°38'03.969"W	432.36	69.506	0.89	-0.83	-1.02
3604.00	17.070	67.930	3531.20	-3.86	158.06	422.97	1683085.57	618230.26	40°11'30.661"N	80°38'03.739"W	451.54	69.510	4.46	-4.16	-5.13
3667.00	18.570	67.640	3591.18	-4.61	165.35	440.82	1683103.41	618237.55	40°11'30.736"N	80°38'03.510"W	470.81	69.439	2.39	2.38	-0.46
3729.00	15.700	75.430	3650.43	-4.22	171.22	458.07	1683120.67	618243.42	40°11'30.796"N	80°38'03.289"W	489.03	69.505	5.92	-4.63	12.56
3793.00	16.670	83.800	3711.90	-1.21	174.39	475.58	1683138.18	618246.59	40°11'30.829"N	80°38'03.063"W	506.55	69.863	3.94	1.52	13.08
3855.00	18.840	88.600	3770.95	4.10	175.60	494.44	1683157.03	618247.79	40°11'30.844"N	80°38'02.821"W	524.69	70.448	4.22	3.50	7.74
3918.00	21.190	90.100	3830.14	11.26	175.82	515.99	1683178.59	618248.02	40°11'30.849"N	80°38'02.543"W	545.13	71.183	3.82	3.73	2.38



MAY 10 2012

Actual Wellpath Report

WV GEOLOGICAL SURVEY Gyro/MWD Surveys (220'-11544') Proj: 11598'

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3979.00	23.470	90.100	3886.56	19.22	175.78	539.17	1683201.76	618247.98	40°11'30.851"N	80°38'02.244"W	567.10	71.943	3.74	3.74	0.00
4042.00	25.910	83.780	3943.81	26.82	177.25	565.41	1683228.00	618249.45	40°11'30.869"N	80°38'01.907"W	592.54	72.594	5.70	3.87	-10.03
4103.00	26.480	78.810	3998.55	32.07	181.34	592.00	1683254.59	618253.54	40°11'30.912"N	80°38'01.565"W	619.15	72.969	3.71	0.93	-8.15
4166.00	26.450	75.650	4054.95	35.61	187.54	619.37	1683281.96	618259.74	40°11'30.977"N	80°38'01.213"W	647.14	73.154	2.24	-0.05	-5.02
4228.00	25.550	74.030	4110.67	37.91	194.64	645.60	1683308.20	618266.84	40°11'31.051"N	80°38'00.876"W	674.31	73.223	1.85	-1.45	-2.61
4290.00	25.050	70.980	4166.73	39.07	202.60	670.87	1683333.46	618274.80	40°11'31.132"N	80°38'00.552"W	700.79	73.196	2.25	-0.81	-4.92
4353.00	24.240	69.100	4223.99	39.09	211.56	695.56	1683358.15	618283.76	40°11'31.224"N	80°38'00.235"W	727.02	73.082	1.79	-1.29	-2.98
4416.00	22.930	68.290	4281.73	38.53	220.71	719.05	1683381.64	618292.91	40°11'31.317"N	80°37'59.934"W	752.16	72.936	2.14	-2.08	-1.29
4479.00	21.730	67.500	4340.00	37.65	229.72	741.22	1683403.81	618301.91	40°11'31.409"N	80°37'59.650"W	776.00	72.781	1.96	-1.90	-1.25
4542.00	19.760	69.000	4398.91	36.96	238.00	761.94	1683424.53	618310.19	40°11'31.494"N	80°37'59.384"W	798.25	72.654	3.24	-3.13	2.38
4605.00	20.000	71.600	4458.16	37.07	245.21	782.11	1683444.70	618317.41	40°11'31.567"N	80°37'59.126"W	819.65	72.592	1.45	0.38	4.13
4669.00	21.480	71.490	4518.01	37.68	252.39	803.60	1683466.19	618324.59	40°11'31.641"N	80°37'58.850"W	842.31	72.564	2.31	2.31	-0.17
4732.00	21.090	71.500	4576.72	38.28	259.65	825.29	1683487.88	618331.84	40°11'31.715"N	80°37'58.572"W	865.17	72.536	0.62	-0.62	0.02
4796.00	21.190	71.600	4636.41	38.90	266.95	847.19	1683509.78	618339.15	40°11'31.790"N	80°37'58.291"W	888.25	72.510	0.17	0.16	0.16
4859.00	21.860	71.080	4695.01	39.44	274.35	869.09	1683531.68	618346.55	40°11'31.866"N	80°37'58.010"W	911.36	72.480	1.11	1.06	-0.83
4922.00	22.330	69.650	4753.39	39.59	282.31	891.40	1683553.99	618354.51	40°11'31.948"N	80°37'57.723"W	935.04	72.427	1.13	0.75	-2.27
4986.00	21.650	68.800	4812.73	39.27	290.81	913.81	1683576.40	618363.01	40°11'32.034"N	80°37'57.436"W	958.97	72.347	1.17	-1.06	-1.33
5049.00	20.030	69.500	4871.61	38.93	298.79	934.75	1683597.34	618370.99	40°11'32.116"N	80°37'57.168"W	981.34	72.274	2.60	-2.57	1.11
5109.00	19.910	68.900	4928.00	38.64	306.07	953.91	1683616.50	618378.27	40°11'32.190"N	80°37'56.922"W	1001.81	72.211	0.40	-0.20	-1.00
5171.00	20.740	68.800	4986.14	38.21	313.84	973.99	1683636.58	618386.04	40°11'32.269"N	80°37'56.664"W	1023.31	72.140	1.34	1.34	-0.16
5235.00	21.450	71.180	5045.85	38.22	321.71	995.63	1683658.22	618393.91	40°11'32.350"N	80°37'56.387"W	1046.32	72.093	1.74	1.11	3.72
5297.00	22.130	69.440	5103.42	38.33	329.47	1017.30	1683679.89	618401.67	40°11'32.429"N	80°37'56.109"W	1069.32	72.054	1.51	1.10	-2.81
5358.00	21.240	69.360	5160.10	38.10	337.40	1038.40	1683700.98	618409.60	40°11'32.510"N	80°37'55.838"W	1091.84	72.000	1.46	-1.46	-0.13
5433.00	20.900	69.310	5230.09	37.79	346.92	1063.63	1683726.21	618419.11	40°11'32.607"N	80°37'55.515"W	1118.77	71.935	0.45	-0.45	-0.07
5477.00	20.700	70.900	5271.22	37.81	352.23	1078.32	1683740.90	618424.43	40°11'32.662"N	80°37'55.326"W	1134.39	71.910	1.36	-0.45	3.61
5519.00	19.500	69.500	5310.66	37.87	357.12	1091.90	1683754.48	618429.31	40°11'32.712"N	80°37'55.152"W	1148.81	71.889	3.08	-2.86	-3.33
5559.00	17.300	78.000	5348.62	38.64	360.69	1103.97	1683766.56	618432.89	40°11'32.749"N	80°37'54.997"W	1161.40	71.907	8.66	-5.50	21.25
5606.00	16.500	85.100	5393.60	41.35	362.72	1117.46	1683780.04	618434.91	40°11'32.770"N	80°37'54.824"W	1174.85	72.017	4.71	-1.70	15.11
5649.00	17.300	92.400	5434.75	45.38	362.97	1129.93	1683792.52	618435.17	40°11'32.774"N	80°37'54.663"W	1186.80	72.191	5.27	1.86	16.98
5694.00	20.200	95.900	5477.35	51.32	361.89	1144.35	1683806.93	618434.09	40°11'32.765"N	80°37'54.477"W	1200.21	72.451	6.91	6.44	7.78



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WV GEOLOGICAL SURVEY
MORGANTOWN, WV

Actual Wellpath Report

Gyro/MWD Surveys (220'-11544') Proj: 11598'

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REFERENCE WELLPATH IDENTIFICATION

Operator	CHESAPEAKE APPALACHIA, LLC	Slot	Slot 10H
Area	Brooke County, WV	Well	Barry Greathouse A 10H
Field	Brooke	Wellbore	Barry Greathouse A 10H (AWB)
Facility	Barry Greathouse A		

WELLPATH DATA (189 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
5737.00	24.200	94.100	5517.16	58.17	360.50	1160.53	1683823.12	618432.69	40°11'32.754"N	80°37'54.269"W	1215.23	72.744	9.43	9.30	-4.19
5781.00	28.800	94.000	5556.53	66.16	359.11	1180.11	1683842.70	618431.31	40°11'32.742"N	80°37'54.016"W	1233.54	73.075	10.46	10.45	-0.23
5824.00	33.200	97.500	5593.38	75.82	356.85	1202.13	1683864.71	618429.05	40°11'32.723"N	80°37'53.732"W	1253.98	73.466	11.05	10.23	8.14
5868.00	37.500	101.800	5629.26	88.45	352.54	1227.20	1683889.78	618424.74	40°11'32.683"N	80°37'53.408"W	1276.83	73.972	11.29	9.77	9.77
5911.00	41.900	105.200	5662.34	103.63	346.09	1253.88	1683916.46	618418.29	40°11'32.623"N	80°37'53.063"W	1300.77	74.569	11.41	10.23	7.91
5955.00	47.800	106.900	5693.52	121.90	337.50	1283.68	1683946.26	618409.69	40°11'32.542"N	80°37'52.678"W	1327.30	75.270	13.68	13.41	3.86
5998.00	54.700	111.500	5720.43	143.12	326.42	1315.29	1683977.88	618398.61	40°11'32.436"N	80°37'52.269"W	1355.19	76.062	18.08	16.05	10.70
6041.00	61.600	118.700	5743.13	169.01	310.87	1348.28	1684010.86	618383.07	40°11'32.287"N	80°37'51.841"W	1383.65	77.016	21.43	16.05	16.74
6085.00	68.200	125.300	5761.80	200.41	289.73	1381.99	1684044.58	618361.93	40°11'32.082"N	80°37'51.404"W	1412.04	78.160	20.23	15.00	15.00
6128.00	72.100	133.500	5776.42	235.20	264.07	1413.19	1684075.77	618336.26	40°11'31.832"N	80°37'50.998"W	1437.64	79.416	20.09	9.07	19.07
6172.00	77.000	141.700	5788.16	274.37	232.76	1441.72	1684104.30	618304.96	40°11'31.526"N	80°37'50.625"W	1460.39	80.829	21.13	11.14	18.64
6215.00	82.100	150.300	5795.97	315.35	197.74	1465.31	1684127.89	618269.94	40°11'31.183"N	80°37'50.315"W	1478.59	82.315	22.96	11.86	20.00
6226.00	83.400	151.700	5797.36	326.13	188.19	1470.60	1684133.18	618260.39	40°11'31.090"N	80°37'50.245"W	1482.60	82.707	17.29	11.82	12.73
6259.00	85.300	158.700	5800.61	358.83	158.40	1484.36	1684146.95	618230.60	40°11'30.797"N	80°37'50.063"W	1492.79	83.909	21.88	5.76	21.21
6302.00	85.300	161.000	5804.13	401.69	118.17	1499.13	1684161.71	618190.37	40°11'30.401"N	80°37'49.867"W	1503.78	85.493	5.33	0.00	5.35
6345.00	85.900	161.100	5807.43	444.55	77.62	1513.05	1684175.63	618149.82	40°11'30.002"N	80°37'49.681"W	1515.04	87.063	1.41	1.40	0.23
6388.00	85.800	160.100	5810.54	487.44	37.17	1527.29	1684189.88	618109.37	40°11'29.604"N	80°37'49.491"W	1527.75	88.606	2.33	-0.23	-2.33
6432.00	85.800	159.800	5813.77	531.32	-4.05	1542.34	1684204.92	618068.15	40°11'29.199"N	80°37'49.290"W	1542.34	90.150	0.68	0.00	-0.68
6475.00	87.000	162.000	5816.47	574.22	-44.60	1556.38	1684218.96	618027.60	40°11'28.800"N	80°37'49.103"W	1557.02	91.641	5.82	2.79	5.12
6519.00	87.400	162.400	5818.62	618.14	-86.44	1569.81	1684232.39	617985.76	40°11'28.388"N	80°37'48.923"W	1572.19	93.152	1.28	0.91	0.91
6562.00	87.200	162.000	5820.64	661.06	-127.34	1582.94	1684245.52	617944.86	40°11'27.986"N	80°37'48.747"W	1588.06	94.599	1.04	-0.47	-0.93
6606.00	87.700	162.500	5822.60	704.98	-169.20	1596.35	1684258.93	617903.00	40°11'27.574"N	80°37'48.567"W	1605.29	96.050	1.61	1.14	1.14
6649.00	88.200	164.200	5824.14	747.88	-210.37	1608.66	1684271.24	617861.83	40°11'27.168"N	80°37'48.402"W	1622.35	97.451	4.12	1.16	3.95
6692.00	88.500	164.400	5825.38	790.74	-251.75	1620.29	1684282.87	617820.45	40°11'26.761"N	80°37'48.246"W	1639.73	98.832	0.84	0.70	0.47
6736.00	89.100	164.400	5826.30	834.60	-294.12	1632.12	1684294.70	617778.08	40°11'26.344"N	80°37'48.086"W	1658.41	100.216	1.36	1.36	0.00
6779.00	89.300	164.100	5826.90	877.48	-335.50	1643.79	1684306.37	617736.70	40°11'25.936"N	80°37'47.929"W	1677.68	101.536	0.84	0.47	-0.70
6822.00	89.700	163.800	5827.27	920.37	-376.82	1655.68	1684318.26	617695.38	40°11'25.529"N	80°37'47.769"W	1698.02	102.822	1.16	0.93	-0.70
6866.00	90.100	164.300	5827.35	964.26	-419.13	1667.77	1684330.35	617653.07	40°11'25.113"N	80°37'47.607"W	1719.63	104.107	1.46	0.91	1.14
6909.00	89.600	163.600	5827.46	1007.16	-460.45	1679.66	1684342.24	617611.75	40°11'24.706"N	80°37'47.447"W	1741.63	105.330	2.00	-1.16	-1.63
6953.00	88.600	163.800	5828.15	1051.06	-502.68	1692.00	1684354.58	617569.53	40°11'24.290"N	80°37'47.281"W	1765.10	106.546	2.32	-2.27	0.45

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Actual Wellpath Report

WV GEOLOGICAL SURVEY Gyro/MWD Surveys (220'-11544') Proj: 11598'
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REFERENCE WELLPATH IDENTIFICATION

Operator	CHESAPEAKE APPALACHIA, LLC	Slot	Slot 10H
Area	Brooke County, WV	Well	Barry Greathouse A 10H
Field	Brooke	Wellbore	Barry Greathouse A 10H (AWB)
Facility	Barry Greathouse A		

WELLPATH DATA (189 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
6996.00	87.400	163.700	5829.65	1093.94	-543.94	1704.03	1684366.61	617528.27	40°11'23.884"N	80°37'47.119"W	1788.74	107.703	2.80	-2.79	-0.23
7039.00	87.500	163.700	5831.57	1136.81	-585.17	1716.09	1684378.66	617487.04	40°11'23.478"N	80°37'46.957"W	1813.11	108.829	0.23	0.23	0.00
7083.00	87.900	163.100	5833.33	1180.70	-627.30	1728.65	1684391.22	617444.91	40°11'23.064"N	80°37'46.789"W	1838.95	109.945	1.64	0.91	-1.36
7126.00	87.700	163.500	5834.98	1223.60	-668.45	1740.99	1684403.57	617403.75	40°11'22.658"N	80°37'46.623"W	1864.91	111.004	1.04	-0.47	0.93
7169.00	87.100	163.200	5836.93	1266.48	-709.61	1753.30	1684415.88	617362.60	40°11'22.253"N	80°37'46.458"W	1891.46	112.035	1.56	-1.40	-0.70
7213.00	85.700	163.500	5839.70	1310.32	-751.68	1765.88	1684428.46	617320.53	40°11'21.839"N	80°37'46.289"W	1919.21	113.058	3.25	-3.18	0.68
7256.00	85.600	163.200	5842.96	1353.12	-792.76	1778.17	1684440.75	617279.45	40°11'21.435"N	80°37'46.124"W	1946.88	114.029	0.73	-0.23	-0.70
7300.00	87.100	163.700	5845.76	1396.95	-834.85	1790.68	1684453.25	617237.36	40°11'21.020"N	80°37'45.956"W	1975.73	114.996	3.59	3.41	1.14
7343.00	86.600	163.700	5848.12	1439.79	-876.06	1802.73	1684465.30	617196.15	40°11'20.615"N	80°37'45.794"W	2004.32	115.918	1.16	-1.16	0.00
7387.00	86.700	163.300	5850.69	1483.64	-918.17	1815.20	1684477.78	617154.04	40°11'20.200"N	80°37'45.626"W	2034.21	116.831	0.94	0.23	-0.91
7430.00	87.500	163.000	5852.87	1526.52	-959.27	1827.65	1684490.23	617112.94	40°11'19.795"N	80°37'45.459"W	2064.10	117.694	1.99	1.86	-0.70
7473.00	87.500	163.400	5854.75	1569.41	-1000.40	1840.07	1684502.64	617071.81	40°11'19.391"N	80°37'45.293"W	2094.43	118.532	0.93	0.00	0.93
7517.00	89.200	162.900	5856.01	1613.32	-1042.49	1852.81	1684515.39	617029.72	40°11'18.976"N	80°37'45.122"W	2125.96	119.364	4.03	3.86	-1.14
7560.00	89.300	163.100	5856.58	1656.26	-1083.61	1865.39	1684527.96	616988.60	40°11'18.572"N	80°37'44.953"W	2157.28	120.152	0.52	0.23	0.47
7604.00	89.000	163.500	5857.23	1700.18	-1125.75	1878.03	1684540.60	616946.47	40°11'18.157"N	80°37'44.783"W	2189.59	120.940	1.14	-0.68	0.91
7647.00	89.500	163.400	5857.79	1743.10	-1166.96	1890.28	1684552.85	616905.25	40°11'17.751"N	80°37'44.619"W	2221.47	121.689	1.19	1.16	-0.23
7690.00	90.100	162.600	5857.94	1786.04	-1208.08	1902.85	1684565.42	616864.13	40°11'17.346"N	80°37'44.450"W	2253.95	122.411	2.33	1.40	-1.86
7734.00	90.700	162.500	5857.63	1829.99	-1250.06	1916.04	1684578.62	616822.16	40°11'16.933"N	80°37'44.273"W	2287.76	123.121	1.38	1.36	-0.23
7777.00	90.900	162.200	5857.03	1872.95	-1291.03	1929.08	1684591.65	616781.19	40°11'16.530"N	80°37'44.099"W	2321.23	123.792	0.84	0.47	-0.70
7820.00	89.400	161.600	5856.92	1915.93	-1331.90	1942.44	1684605.01	616740.32	40°11'16.128"N	80°37'43.920"W	2355.21	124.438	3.76	-3.49	-1.40
7864.00	89.500	162.400	5857.34	1959.90	-1373.74	1956.03	1684618.61	616698.47	40°11'15.716"N	80°37'43.738"W	2390.24	125.081	1.83	0.23	1.82
7907.00	89.500	161.200	5857.72	2002.88	-1414.59	1969.46	1684632.04	616657.63	40°11'15.314"N	80°37'43.558"W	2424.84	125.688	2.79	0.00	-2.79
7951.00	89.200	160.500	5858.22	2046.87	-1456.15	1983.89	1684646.47	616616.07	40°11'14.905"N	80°37'43.366"W	2460.94	126.278	1.73	-0.68	-1.59
7994.00	89.300	160.500	5858.78	2089.86	-1496.68	1998.25	1684660.82	616575.54	40°11'14.506"N	80°37'43.174"W	2496.61	126.833	0.23	0.23	0.00
8037.00	89.000	160.600	5859.42	2132.86	-1537.22	2012.56	1684675.14	616534.99	40°11'14.107"N	80°37'42.983"W	2532.48	127.373	0.74	-0.70	0.23
8081.00	89.100	161.500	5860.15	2176.84	-1578.83	2026.85	1684689.42	616493.39	40°11'13.698"N	80°37'42.793"W	2569.21	127.917	2.06	0.23	2.05
8124.00	89.200	161.300	5860.79	2219.82	-1619.58	2040.56	1684703.14	616452.64	40°11'13.297"N	80°37'42.609"W	2605.18	128.439	0.52	0.23	-0.47
8167.00	89.300	162.000	5861.35	2262.80	-1660.39	2054.10	1684716.67	616411.83	40°11'12.896"N	80°37'42.428"W	2641.26	128.950	1.64	0.23	1.63
8211.00	89.400	161.300	5861.85	2306.78	-1702.15	2067.95	1684730.53	616370.07	40°11'12.485"N	80°37'42.243"W	2678.39	129.458	1.61	0.23	-1.59
8254.00	89.300	160.700	5862.34	2349.77	-1742.81	2081.95	1684744.52	616329.41	40°11'12.085"N	80°37'42.056"W	2715.12	129.933	1.41	-0.23	-1.40



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Facility	Barry Greathouse A		

WELLPATH DATA (189 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
8298.00	89.300	160.300	5862.87	2393.77	-1784.28	2096.64	1684759.21	616287.94	40°11'11.677"N	80°37'41.860"W	2753.10	130.398	0.91	0.00	-0.91
8385.00	88.600	159.600	5864.47	2480.75	-1865.99	2126.46	1684789.03	616206.23	40°11'10.873"N	80°37'41.463"W	2829.09	131.267	1.14	-0.80	-0.80
8472.00	89.100	160.100	5866.21	2567.73	-1947.65	2156.42	1684818.99	616124.57	40°11'10.070"N	80°37'41.064"W	2905.77	132.088	0.81	0.57	0.57
8558.00	89.700	160.400	5867.11	2653.73	-2028.59	2185.48	1684848.05	616043.64	40°11'09.274"N	80°37'40.676"W	2981.86	132.868	0.78	0.70	0.35
8645.00	89.300	159.900	5867.87	2740.72	-2110.41	2215.02	1684877.59	615961.81	40°11'08.469"N	80°37'40.282"W	3059.44	133.615	0.74	-0.46	-0.57
8732.00	89.000	158.700	5869.16	2827.71	-2191.79	2245.77	1684908.34	615880.44	40°11'07.668"N	80°37'39.873"W	3138.06	134.303	1.42	-0.34	-1.38
8819.00	89.300	158.900	5870.45	2914.68	-2272.89	2277.23	1684939.80	615799.34	40°11'06.871"N	80°37'39.455"W	3217.42	134.945	0.41	0.34	0.23
8905.00	89.900	159.600	5871.05	3000.67	-2353.31	2307.69	1684970.27	615718.92	40°11'06.080"N	80°37'39.049"W	3295.99	135.561	1.07	0.70	0.81
8992.00	89.000	158.600	5871.89	3087.65	-2434.58	2338.73	1685001.30	615637.65	40°11'05.281"N	80°37'38.636"W	3375.92	136.150	1.55	-1.03	-1.15
9079.00	89.300	158.000	5873.18	3174.60	-2515.41	2370.89	1685033.46	615556.83	40°11'04.486"N	80°37'38.209"W	3456.65	136.694	0.77	0.34	-0.69
9166.00	89.900	158.600	5873.79	3261.56	-2596.24	2403.06	1685065.63	615476.00	40°11'03.691"N	80°37'37.781"W	3537.67	137.213	0.98	0.69	0.69
9252.00	88.600	159.500	5874.91	3347.54	-2676.54	2433.81	1685096.37	615395.69	40°11'02.902"N	80°37'37.372"W	3617.64	137.719	1.84	-1.51	1.05
9339.00	89.000	160.600	5876.74	3434.52	-2758.30	2463.48	1685126.05	615313.93	40°11'02.097"N	80°37'36.977"W	3698.24	138.231	1.35	0.46	1.26
9426.00	89.100	159.600	5878.18	3521.50	-2840.09	2493.09	1685156.66	615232.14	40°11'01.293"N	80°37'36.582"W	3779.11	138.723	1.16	0.11	-1.15
9513.00	88.800	161.300	5879.77	3608.48	-2922.06	2522.20	1685184.77	615150.17	40°11'00.486"N	80°37'36.194"W	3860.04	139.201	1.98	-0.34	1.95
9600.00	89.500	161.500	5881.06	3695.45	-3004.51	2549.94	1685212.51	615067.73	40°10'59.675"N	80°37'35.823"W	3940.72	139.679	0.84	0.80	0.23
9687.00	89.800	161.300	5881.59	3782.42	-3086.96	2577.69	1685240.26	614985.28	40°10'58.864"N	80°37'35.452"W	4021.67	140.137	0.41	0.34	-0.23
9773.00	89.000	160.200	5882.50	3868.41	-3168.15	2606.04	1685268.61	614904.09	40°10'58.065"N	80°37'35.074"W	4102.27	140.560	1.58	-0.93	-1.28
9860.00	89.500	159.600	5883.63	3955.40	-3249.84	2635.94	1685298.51	614822.40	40°10'57.262"N	80°37'34.675"W	4184.45	140.955	0.90	0.57	-0.69
9947.00	89.200	158.000	5884.62	4042.37	-3330.95	2667.40	1685329.96	614741.30	40°10'56.464"N	80°37'34.257"W	4267.34	141.312	1.87	-0.34	-1.84
10034.00	89.400	159.000	5885.68	4129.33	-3411.89	2699.28	1685361.85	614660.36	40°10'55.668"N	80°37'33.833"W	4350.53	141.651	1.17	0.23	1.15
10121.00	89.800	160.900	5886.29	4216.33	-3493.61	2729.11	1685391.67	614578.64	40°10'54.864"N	80°37'33.436"W	4433.21	142.004	2.23	0.46	2.18
10208.00	89.600	159.100	5886.75	4303.32	-3575.36	2758.86	1685421.43	614496.89	40°10'54.060"N	80°37'33.039"W	4516.02	142.345	2.08	-0.23	-2.07
10295.00	89.200	160.700	5887.66	4390.31	-3657.05	2788.76	1685451.32	614415.20	40°10'53.257"N	80°37'32.641"W	4599.04	142.672	1.90	-0.46	1.84
10381.00	89.500	161.100	5888.63	4476.30	-3738.31	2816.89	1685479.46	614333.94	40°10'52.457"N	80°37'32.265"W	4680.80	143.001	0.58	0.35	0.47
10468.00	89.900	161.000	5889.09	4563.28	-3820.59	2845.15	1685507.71	614251.66	40°10'51.648"N	80°37'31.888"W	4763.59	143.325	0.47	0.46	-0.11
10555.00	90.200	160.800	5889.01	4650.27	-3902.80	2873.61	1685536.18	614169.45	40°10'50.839"N	80°37'31.508"W	4846.60	143.636	0.41	0.34	-0.23
10642.00	90.300	160.400	5888.63	4737.26	-3984.86	2902.51	1685565.08	614087.39	40°10'50.032"N	80°37'31.123"W	4929.88	143.931	0.47	0.11	-0.46
10728.00	88.200	158.700	5889.76	4823.25	-4065.43	2932.55	1685595.12	614006.82	40°10'49.239"N	80°37'30.723"W	5012.74	144.196	3.14	-2.44	-1.98
10815.00	88.600	160.200	5892.19	4910.21	-4146.86	2963.08	1685625.64	613925.39	40°10'48.438"N	80°37'30.316"W	5096.69	144.453	1.78	0.46	1.72

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Actual Wellpath Report

WV GEOLOGICAL SURVEY Gyro/MWD Surveys (220'-11544') Proj: 11598'
MORGANTOWN, WV

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REFERENCE WELLPATH IDENTIFICATION

Operator	CHESAPEAKE APPALACHIA, LLC	Slot	Slot 10H
Area	Brooke County, WV	Well	Barry Greathouse A 10H
Field	Brooke	Wellbore	Barry Greathouse A 10H (AWB)
Facility	Barry Greathouse A		

WELLPATH DATA (189 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
10902.00	88.900	160.600	5894.09	4997.18	-4228.80	2992.26	1685654.82	613843.46	40°10'47.632"N	80°37'29.927"W	5180.38	144.717	0.57	0.34	0.46
10989.00	90.000	161.300	5894.92	5084.16	-4311.03	3020.65	1685683.21	613761.23	40°10'46.823"N	80°37'29.548"W	5263.96	144.982	1.50	1.26	0.80
11076.00	90.500	162.100	5894.54	5171.12	-4393.63	3047.97	1685710.53	613678.63	40°10'46.010"N	80°37'29.183"W	5347.34	145.250	1.08	0.57	0.92
11163.00	90.900	162.100	5893.48	5258.06	-4476.41	3074.71	1685737.27	613595.85	40°10'45.196"N	80°37'28.825"W	5430.66	145.516	0.46	0.46	0.00
11250.00	89.500	162.500	5893.18	5344.99	-4559.29	3101.16	1685763.72	613512.97	40°10'44.380"N	80°37'28.471"W	5514.01	145.777	1.67	-1.61	0.46
11336.00	89.500	163.100	5893.93	5430.88	-4641.44	3126.59	1685789.15	613430.82	40°10'43.571"N	80°37'28.130"W	5596.29	146.035	0.70	0.00	0.70
11423.00	89.400	161.900	5894.76	5517.79	-4724.41	3152.75	1685815.31	613347.85	40°10'42.755"N	80°37'27.780"W	5679.77	146.284	1.38	-0.11	-1.38
11544.00	89.000	161.400	5896.45	5638.73	-4839.24	3190.84	1685853.40	613233.02	40°10'41.625"N	80°37'27.271"W	5796.52	146.600	0.53	-0.33	-0.41
11598.00	89.000	161.400	5897.39	5692.70	-4890.41	3208.06	1685870.62	613181.85	40°10'41.121"N	80°37'27.040"W	5848.74	146.736	0.00	0.00	0.00

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Barry G. 10H LP: PLAT		5808.00	-2.66	1440.68	1684103.27	618069.54	40°11'29.200"N	80°37'50.600"W	point
Barry G. 10H LP: Rev-1		5809.36	6.19	1437.95	1684100.53	618078.39	40°11'29.287"N	80°37'50.637"W	point
Barry G. 10H PBHL: Rev-1		5900.00	-4886.06	3218.54	1685881.10	613186.20	40°10'41.166"N	80°37'26.906"W	point

WELLPATH COMPOSITION - Ref Wellbore: Barry Greathouse A 10H (AWB) Ref Wellpath: Gyro/MWD Surveys (220'-11544') Proj: 11598'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	1720.00	Generic gyro - northseeking (Standard)	Gyro <0> <220'-1720>	Barry Greathouse A 10H (AWB)
1720.00	5433.00	ISCWSA MWD, Rev. 2 (Standard)	Weatherford / MWD <1791'-5433>	Barry Greathouse A 10H (AWB)
5433.00	11544.00	NaviTrak (Standard)	BHI / NaviTrak MWD 8 3/4" - <5477'-11544>	Barry Greathouse A 10H (AWB)
11544.00	11598.00	Blind Drilling (std)	Projection to bit	Barry Greathouse A 10H (AWB)

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Actual Wellpath Report

Gyro/MWD Surveys (220'-11544') Proj: 11598'

WV GEOLOGICAL SURVEY
MORGANTOWN, WV

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REFERENCE WELLPATH IDENTIFICATION

Operator	CHESAPEAKE APPALACHIA, LLC	Slot	Slot 10H
Area	Brooke County, WV	Well	Barry Greathouse A 10H
Field	Brooke	Wellbore	Barry Greathouse A 10H (AWB)
Facility	Barry Greathouse A		

COMMENTS

Wellpath general comments
 API: 47-009-00093-00
 Rig: Nomac 243
 BHI Job#: 3862950
 Duration: 6/20/11-6/27/11
 Gyro <0'> <220'-1720'>
 Weatherford / MWD <1791'-5433'>
 BHI / NaviTrak MWD 8 3/4" - <5477'-11544'>
 TD Projected To MD: 11598'