

Chevron Appalachia, LLC Berger 6H Gyro+MWD



Report Date: 11/16/2015	Survey / DLS Computation Method: Minimum Curvature / Lubinski
Client: Chevron Appalachia, LLC	Vertical Section Azimuth: 318.775° (TrueNorth)
Field: WV Marshall County	Vertical Section Origin: 0 ft, 0 ft
Structure / Slot: Chevron Appalachia, LLC Berger 6H / Chevron Appalachia, LLC Berger 6H	TVD Reference Datum: DF
Well: Berger 6H	TVD Reference Elevation: 1319.5 ft above MSL
Borehole: Original Borehole	Sea Bed / Ground Level Elevation: 1287.5 ft above MSL
UWI/API#: Unknown / 47-051-01706-00	Magnetic Declination: -7.68807 °
Survey Name / Date: Chevron Appalachia, LLC Berger 6H Gyro+MWD 10-Jan-2015	Total Field Strength: 52755.37 nT
Grid Coordinate System: NAD83 West Virginia State	Magnetic Dip: 67.30902 °
Location Lat/Long: 39° 52' 28.517" N, 80° 45' 16.592" W	Declination Date: 12/31/2014
Location Grid N/E Y/X: E 1616391.790 ftUSN 503128.690 ftUS	Magnetic Declination Model: HDGM 2013
Grid Convergence Angle: 0 °	North Reference: TrueNorth
Grid Scale Factor: 0.99991045	Total Corr Mag North -> Grid North: -7.757 °
	Local Coordinates Referenced To: GridNorth

MD	INCL	AZIM	TVD	VSEC	ND	ED	DLS
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20.00	0.29	227.72	20.00	0.00	-0.03	-0.04	1.45
50.00	0.35	211.60	50.00	-0.03	-0.16	-0.14	0.36
80.00	0.34	213.90	80.00	-0.08	-0.32	-0.24	0.06
110.00	0.36	212.37	110.00	-0.13	-0.47	-0.34	0.07
140.00	0.40	221.89	140.00	-0.17	-0.63	-0.46	0.25
170.00	0.30	205.65	170.00	-0.21	-0.77	-0.56	0.47
200.00	0.40	224.29	200.00	-0.25	-0.92	-0.67	0.50
230.00	0.36	220.04	230.00	-0.27	-1.07	-0.80	0.16
260.00	0.55	239.16	259.99	-0.26	-1.21	-0.99	0.80
290.00	0.68	246.89	289.99	-0.18	-1.36	-1.28	0.51
320.00	0.74	244.01	319.99	-0.07	-1.51	-1.61	0.23
350.00	0.70	246.31	349.99	0.03	-1.67	-1.96	0.16
380.00	0.74	244.59	379.99	0.14	-1.83	-2.30	0.15
410.00	0.76	246.99	409.98	0.26	-1.99	-2.66	0.12
440.00	0.78	245.07	439.98	0.37	-2.15	-3.03	0.11
470.00	0.77	249.27	469.98	0.50	-2.31	-3.40	0.19
500.00	0.26	278.59	499.98	0.63	-2.37	-3.65	1.86
530.00	0.83	48.83	529.98	0.68	-2.22	-3.56	3.39
560.00	1.03	55.82	559.97	0.64	-1.92	-3.17	0.77
590.00	0.99	54.92	589.97	0.58	-1.62	-2.74	0.14
620.00	1.19	50.66	619.96	0.55	-1.28	-2.28	0.72
650.00	1.28	49.82	649.95	0.53	-0.86	-1.79	0.31
680.00	1.35	52.70	679.95	0.50	-0.43	-1.25	0.32
719.00	1.00	62.12	718.94	0.39	0.01	-0.58	1.02
750.00	0.78	44.44	749.94	0.34	0.28	-0.20	1.13
810.00	0.37	343.71	809.93	0.55	0.76	0.04	1.13
898.00	0.75	296.02	897.93	1.34	1.29	-0.56	0.65
993.00	2.17	295.81	992.90	3.57	2.34	-2.74	1.49
1088.00	2.65	291.87	1087.81	7.18	3.94	-6.40	0.53
1183.00	4.10	291.94	1182.64	12.17	6.03	-11.59	1.53
1278.00	3.97	286.88	1277.41	17.99	8.25	-17.88	0.40
1372.00	5.17	289.32	1371.11	24.44	10.60	-24.99	1.29
1468.00	5.32	287.62	1466.71	32.02	13.38	-33.32	0.22
1562.00	5.51	285.57	1560.29	39.52	15.91	-41.82	0.29
1657.00	4.42	279.20	1654.93	46.16	17.72	-49.83	1.28
1752.00	2.93	254.91	1749.74	50.05	17.67	-55.78	2.24
1847.00	1.57	255.33	1844.66	51.70	16.71	-59.39	1.43
1942.00	1.36	265.22	1939.63	52.96	16.29	-61.77	0.35
2037.00	1.68	259.42	2034.60	54.34	15.94	-64.26	0.37
2132.00	1.73	267.68	2129.56	55.95	15.62	-67.06	0.26
2227.00	1.98	267.53	2224.51	57.87	15.49	-70.14	0.26
2322.00	2.15	265.80	2319.44	59.97	15.29	-73.55	0.19
2417.00	1.87	269.87	2414.39	62.07	15.16	-76.88	0.33
2512.00	1.65	268.58	2509.34	63.96	15.12	-79.80	0.24
2607.00	1.62	273.70	2604.30	65.78	15.17	-82.51	0.16
2653.00	2.00	277.96	2650.28	66.85	15.33	-83.95	0.88
2795.00	1.89	283.62	2792.20	70.64	16.22	-88.67	0.16
2889.00	0.13	38.26	2886.18	71.92	16.67	-90.11	2.07
2983.00	0.34	80.11	2980.18	71.80	16.80	-89.77	0.27

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3078.00	0.07	174.79	3075.18	71.61	16.80	-89.49	0.37
3173.00	0.17	353.83	3170.18	71.68	16.88	-89.50	0.25
3267.00	0.46	324.48	3264.18	72.17	17.33	-89.73	0.34
3362.00	0.57	329.72	3359.17	73.02	18.05	-90.19	0.12
3457.00	0.48	345.52	3454.17	73.83	18.84	-90.53	0.18
3552.00	0.50	337.07	3549.17	74.58	19.60	-90.79	0.08
3647.00	0.72	321.95	3644.16	75.57	20.46	-91.32	0.29
3742.00	0.68	319.19	3739.15	76.73	21.35	-92.06	0.06
3837.00	0.74	329.28	3834.15	77.89	22.31	-92.74	0.15
3932.00	0.63	320.84	3929.14	79.02	23.24	-93.38	0.16
4027.00	0.59	326.02	4024.13	80.02	24.05	-93.98	0.07
4122.00	0.71	315.05	4119.13	81.10	24.87	-94.67	0.19
4217.00	0.63	299.35	4214.12	82.18	25.55	-95.55	0.21
4311.00	0.61	304.54	4308.12	83.16	26.09	-96.41	0.07
4407.00	0.52	293.28	4404.11	84.04	26.55	-97.23	0.15
4501.00	0.66	301.20	4498.11	84.94	27.00	-98.09	0.17
4596.00	0.64	296.39	4593.10	85.96	27.51	-99.03	0.06
4690.00	0.66	296.68	4687.09	86.95	27.99	-99.99	0.02
4785.00	0.93	308.28	4782.09	88.21	28.71	-101.08	0.33
4880.00	0.94	314.82	4877.07	89.74	29.74	-102.23	0.11
4974.00	0.80	312.33	4971.06	91.15	30.72	-103.26	0.15
5069.00	1.04	307.28	5066.05	92.65	31.68	-104.43	0.27
5164.00	0.93	308.06	5161.04	94.25	32.68	-105.72	0.11
5259.00	0.96	307.92	5256.02	95.79	33.64	-106.96	0.02
5354.00	1.09	306.15	5351.01	97.45	34.66	-108.31	0.14
5449.00	0.97	316.60	5445.99	99.13	35.78	-109.59	0.23
5544.00	1.04	319.36	5540.98	100.79	37.01	-110.70	0.09
5651.00	0.58	295.51	5647.97	102.26	37.98	-111.83	0.52
5746.00	12.27	271.85	5742.21	109.63	38.52	-122.39	12.36
5841.00	18.46	256.32	5833.81	123.50	35.29	-147.13	7.76
5936.00	19.97	267.00	5923.54	140.50	30.88	-177.95	4.03
6031.00	20.19	290.68	6012.91	165.04	35.83	-209.55	8.51
6126.00	28.79	294.58	6099.29	200.44	51.17	-245.76	9.20
6220.00	38.94	281.92	6177.34	244.90	66.74	-295.44	13.11
6315.00	50.96	285.46	6244.46	299.83	82.81	-360.46	12.91
6410.00	62.55	294.03	6296.51	369.27	109.93	-434.87	14.33
6505.00	74.08	301.81	6331.60	451.63	151.37	-512.55	14.32
6600.00	81.24	310.28	6351.92	542.02	205.97	-587.40	11.51
6694.00	81.13	312.77	6366.33	634.16	267.54	-656.94	2.61
6789.00	80.71	315.42	6381.32	727.65	332.81	-724.31	2.79
6837.00	82.90	318.64	6388.16	775.13	367.57	-756.69	8.06
6884.00	88.52	320.89	6391.67	821.97	403.34	-786.94	12.87
6979.00	88.25	323.16	6394.35	916.77	478.19	-845.37	2.40
7074.00	91.72	333.97	6394.38	1010.24	559.11	-894.84	11.95
7169.00	90.96	335.32	6392.16	1101.59	644.93	-935.51	1.63
7263.00	87.56	323.04	6393.37	1193.84	725.49	-983.56	13.55
7358.00	87.97	321.99	6397.08	1288.57	800.82	-1041.32	1.19
7453.00	87.66	321.11	6400.69	1383.39	875.16	-1100.35	0.99
7548.00	90.55	321.22	6402.18	1478.28	949.15	-1159.91	3.04
7643.00	90.76	324.48	6401.09	1573.02	1024.85	-1217.27	3.43
7737.00	92.17	320.81	6398.70	1666.76	1099.54	-1274.27	4.18
7832.00	92.06	321.54	6395.19	1761.61	1173.50	-1333.79	0.77
7927.00	91.38	314.85	6392.34	1856.51	1244.23	-1397.06	7.08
8022.00	91.10	295.22	6390.27	1948.32	1298.49	-1474.45	20.66
8117.00	91.00	278.45	6388.52	2028.63	1325.89	-1565.04	17.65
8160.00	89.50	271.00	6388.33	2059.51	1329.43	-1607.86	17.66

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