



## Survey Certification

7327 West Barton Road  
Casper, WY 82604  
(307)-472-6621 Fax (307) 472-5439

Operator	HighPoint Resources
Well Name & No.	Critter Creek 15-6104BW
API #	05-123-47300
County & State	Weld County, CO
SDI Job #	OP.012689
Rig	Cade 24
Survey Date	6-Sep-2018

I, Seth M. Burstad, having personal knowledge of all the facts, hereby certify that the attached directional survey run from a measured depth of 1493 feet to a measured depth of 17829 feet is true and correct as determined from all available records.

*Seth M. Burstad*

Signature

7-Sep-2018

Date

### Seth M. Burstad

Rockies Region Well Planner  
Scientific Drilling - Rocky Mountain District



Project: Weld County, CO NAD 83  
Site: Critter Creek 15 SW Pad  
Well: Critter Creek 15-6104BW  
Wellbore: OH  
Design: OH

WELL DETAILS: Critter Creek 15-6104BW

Design: OH (Critter Creek 15-6104BW/OH)

GL 5242.3' & KB 16.5' @ 5258.80ft (Cade 24) 5242.30  
Northing 1578442.65 Easting 3297313.31 Latitude 40° 54' 58.474 N Longitude 104° 25' 27.368 W

Created By: Seth Burstad

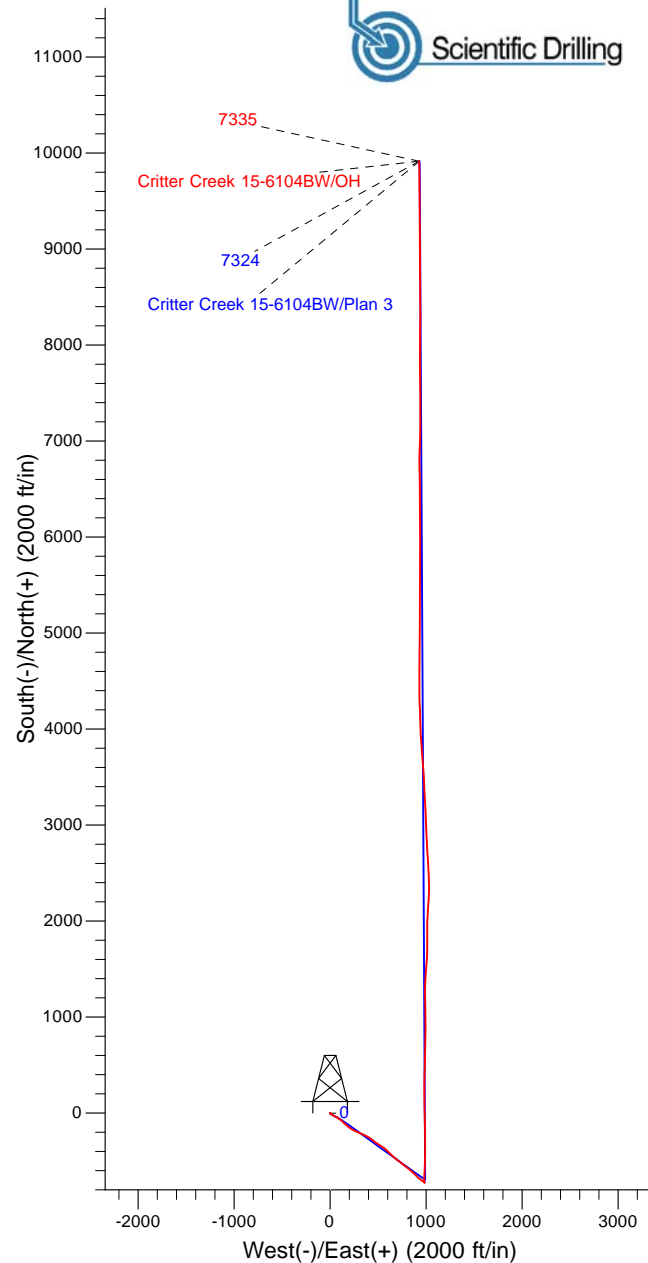
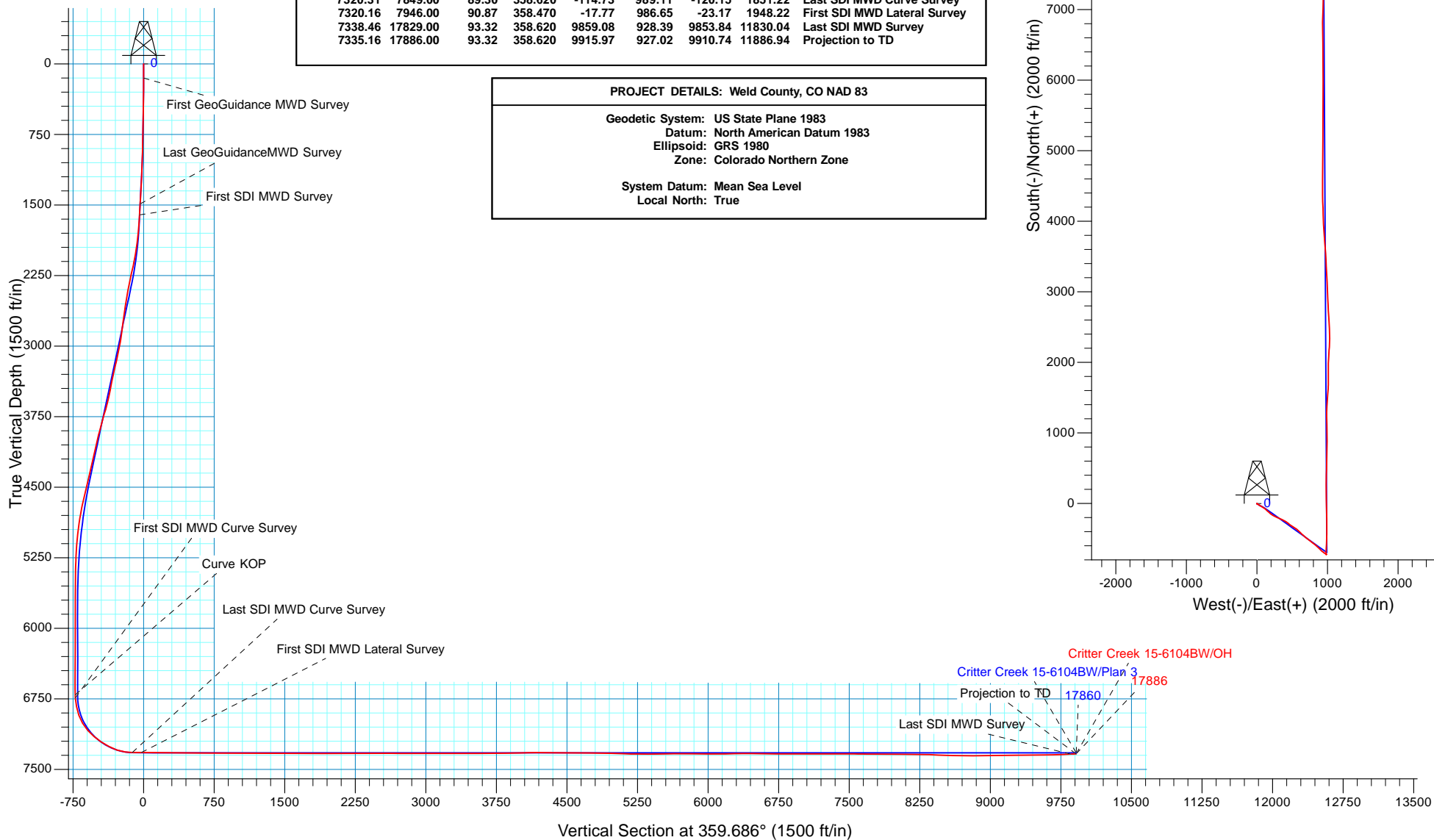
ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	V	Sect	Departure	Annotation
151.00	151.00	0.40	285.210	0.14	-0.51	0.14	0.53		First GeoGuidance MWD Survey
1490.44	1493.00	6.24	116.200	-36.65	55.83	-36.95	69.04		Last GeoGuidanceMWD Survey
1604.83	1608.00	5.60	121.930	-42.38	66.20	-42.74	80.90		First SDI MWD Survey
6708.06	6896.00	3.10	350.367	-722.45	979.90	-727.81	1243.93		Curve KOP
6741.98	6930.00	4.80	353.880	-720.13	979.60	-725.49	1245.51		First SDI MWD Curve Survey
7320.31	7849.00	89.30	358.620	-114.73	989.11	-120.15	1851.22		Last SDI MWD Curve Survey
7320.16	7946.00	90.87	358.470	-17.77	986.65	-23.17	1948.22		First SDI MWD Lateral Survey
7338.46	17829.00	93.32	358.620	9859.08	928.39	9853.84	11830.04		Last SDI MWD Survey
7335.16	17886.00	93.32	358.620	9915.97	927.02	9910.74	11886.94		Projection to TD

PROJECT DETAILS: Weld County, CO NAD 83

Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: Colorado Northern Zone

System Datum: Mean Sea Level  
Local North: True





# HighPoint Resources

Weld County, CO NAD 83  
Crittter Creek 15 SW Pad  
Crittter Creek 15-6104BW

OH

Design: OH

## Standard Survey Report

07 September, 2018



<b>Company:</b>	HighPoint Resources	<b>Local Co-ordinate Reference:</b>	Well Critter Creek 15-6104BW
<b>Project:</b>	Weld County, CO NAD 83	<b>TVD Reference:</b>	GL 5242.3' & KB 16.5' @ 5258.80ft (Cade 24)
<b>Site:</b>	Critter Creek 15 SW Pad	<b>MD Reference:</b>	GL 5242.3' & KB 16.5' @ 5258.80ft (Cade 24)
<b>Well:</b>	Critter Creek 15-6104BW	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	Casper District

<b>Project</b>	Weld County, CO NAD 83		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		

Site	Critter Creek 15 SW Pad, Site Center : Critter Creek 15-6104BE				
Site Position:		Northing:	1,578,441.59 usft	Latitude:	40° 54' 58.471 N
From:	Lat/Long	Easting:	3,297,253.35 usft	Longitude:	104° 25' 28.150 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.69 °

Well	Critter Creek 15-6104BW, 400' FSL 1160' FWL Sec 15 T11N R63W					
Well Position	+N/-S	0.00 ft	Northing:	1,578,442.65 usft	Latitude:	40° 54' 58.474 N
	+E/-W	0.00 ft	Easting:	3,297,313.32 usft	Longitude:	104° 25' 27.368 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	5,242.30 ft

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	HDGM	8/17/2018	8.27	67.18	52,754

<b>Design</b>	OH				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00	359.686	

<b>Survey Program</b>	<b>Date</b>	9/7/2018			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
151.00	1,493.00	Survey #1 - Surface (OH)	OWSG MWD	OWSG MWD - Standard	
1,608.00	7,849.00	Survey #2 - Intermediate (OH)	OWSG MWD	OWSG MWD - Standard	
7,946.00	17,886.00	Survey #3 - Lateral (OH)	OWSG MWD	OWSG MWD - Standard	

<b>Survey</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Vertical Section (ft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>	
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
151.00	0.40	285.210	151.00	0.14	-0.51	0.14	0.26	0.26	0.00	
<b>First GeoGuidance MWD Survey</b>										
196.00	0.13	250.010	196.00	0.16	-0.71	0.17	0.67	-0.60	-78.22	
240.00	0.44	147.880	240.00	0.00	-0.67	0.01	1.10	0.70	-232.11	
284.00	0.88	124.240	283.99	-0.33	-0.30	-0.33	1.16	1.00	-53.73	
328.00	0.57	137.600	327.99	-0.68	0.13	-0.68	0.80	-0.70	30.36	
373.00	1.01	136.850	372.99	-1.14	0.55	-1.14	0.98	0.98	-1.67	
417.00	1.05	159.880	416.98	-1.80	0.96	-1.80	0.94	0.09	52.34	

<b>Company:</b>	HighPoint Resources	<b>Local Co-ordinate Reference:</b>	Well Critter Creek 15-6104BW
<b>Project:</b>	Weld County, CO NAD 83	<b>TVD Reference:</b>	GL 5242.3' & KB 16.5' @ 5258.80ft (Cade 24)
<b>Site:</b>	Critter Creek 15 SW Pad	<b>MD Reference:</b>	GL 5242.3' & KB 16.5' @ 5258.80ft (Cade 24)
<b>Well:</b>	Critter Creek 15-6104BW	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	Casper District

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
461.00	1.27	156.580	460.97	-2.63	1.29	-2.63	0.52	0.50	-7.50
505.00	2.02	131.340	504.95	-3.58	2.07	-3.60	2.33	1.70	-57.36
550.00	1.85	124.420	549.93	-4.52	3.26	-4.54	0.64	-0.38	-15.38
594.00	1.31	121.470	593.91	-5.18	4.27	-5.21	1.24	-1.23	-6.70
638.00	1.32	134.960	637.90	-5.80	5.06	-5.83	0.70	0.02	30.66
683.00	1.41	125.820	682.89	-6.49	5.88	-6.53	0.52	0.20	-20.31
727.00	1.76	112.990	726.87	-7.07	6.94	-7.11	1.13	0.80	-29.16
771.00	2.15	117.120	770.84	-7.72	8.30	-7.76	0.94	0.89	9.39
815.00	2.33	105.170	814.81	-8.33	9.89	-8.38	1.14	0.41	-27.16
860.00	2.29	108.950	859.77	-8.86	11.63	-8.92	0.35	-0.09	8.40
904.00	2.46	119.100	903.74	-9.60	13.28	-9.67	1.03	0.39	23.07
935.00	3.16	125.490	934.70	-10.42	14.56	-10.50	2.47	2.26	20.61
967.00	3.38	124.770	966.65	-11.47	16.05	-11.56	0.70	0.69	-2.25
999.00	3.52	123.050	998.59	-12.54	17.65	-12.64	0.54	0.44	-5.38
1,030.00	3.47	124.590	1,029.53	-13.60	19.22	-13.70	0.34	-0.16	4.97
1,062.00	3.78	128.240	1,061.47	-14.80	20.85	-14.91	1.21	0.97	11.41
1,094.00	4.57	131.090	1,093.38	-16.29	22.64	-16.41	2.55	2.47	8.91
1,126.00	4.39	129.120	1,125.28	-17.90	24.55	-18.03	0.74	-0.56	-6.16
1,189.00	5.10	127.010	1,188.07	-21.11	28.65	-21.26	1.16	1.13	-3.35
1,221.00	5.80	124.200	1,219.92	-22.87	31.13	-23.04	2.34	2.19	-8.78
1,252.00	5.71	122.200	1,250.77	-24.57	33.73	-24.76	0.71	-0.29	-6.45
1,284.00	6.46	121.560	1,282.59	-26.37	36.61	-26.57	2.35	2.34	-2.00
1,316.00	6.20	118.570	1,314.39	-28.13	39.66	-28.35	1.31	-0.81	-9.34
1,347.00	6.24	120.280	1,345.21	-29.78	42.59	-30.02	0.61	0.13	5.52
1,379.00	5.84	118.440	1,377.03	-31.44	45.52	-31.68	1.39	-1.25	-5.75
1,411.00	5.61	115.800	1,408.87	-32.89	48.36	-33.16	1.09	-0.72	-8.25
1,443.00	5.71	117.380	1,440.72	-34.30	51.18	-34.58	0.58	0.31	4.94
1,493.00	6.24	116.200	1,490.44	-36.65	55.83	-36.95	1.09	1.06	-2.36
Last GeoGuidanceMWD Survey									
1,608.00	5.60	121.930	1,604.83	-42.38	66.20	-42.74	0.76	-0.56	4.98
First SDI MWD Survey									
1,699.00	7.76	127.860	1,695.21	-48.50	74.82	-48.90	2.49	2.37	6.52
1,791.00	9.91	120.370	1,786.12	-56.31	86.55	-56.78	2.65	2.34	-8.14
1,882.00	11.63	125.100	1,875.51	-65.54	100.81	-66.10	2.12	1.89	5.20
1,972.00	12.96	128.660	1,963.45	-77.07	116.12	-77.70	1.70	1.48	3.96
2,063.00	14.83	131.120	2,051.78	-91.10	132.86	-91.83	2.15	2.05	2.70
2,155.00	17.00	133.130	2,140.25	-108.04	151.55	-108.87	2.43	2.36	2.18
2,246.00	18.51	131.950	2,226.91	-126.79	172.00	-127.73	1.71	1.66	-1.30
2,338.00	19.59	129.580	2,313.87	-146.38	194.75	-147.45	1.44	1.17	-2.58
2,432.00	19.79	123.400	2,402.39	-165.19	220.18	-166.39	2.22	0.21	-6.57
2,525.00	18.65	116.440	2,490.21	-180.48	246.65	-181.82	2.75	-1.23	-7.48
2,619.00	19.21	114.350	2,579.13	-193.54	274.19	-195.04	0.94	0.60	-2.22
2,712.00	18.93	111.730	2,667.03	-205.44	302.15	-207.09	0.97	-0.30	-2.82
2,806.00	19.06	114.300	2,755.91	-217.40	330.30	-219.21	0.90	0.14	2.73

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<b>Well:</b>	Critter Creek 15-6104BW	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	Casper District

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
2,899.00	18.04	113.060	2,844.08	-229.29	357.39	-231.24	1.18	-1.10	-1.33
2,993.00	17.92	119.060	2,933.50	-242.01	383.42	-244.11	1.97	-0.13	6.38
3,087.00	19.23	125.140	3,022.61	-257.95	408.73	-260.19	2.49	1.39	6.47
3,180.00	20.14	125.870	3,110.17	-276.15	434.23	-278.52	1.01	0.98	0.78
3,274.00	21.60	126.860	3,198.00	-296.01	461.18	-298.53	1.60	1.55	1.05
3,369.00	20.92	124.410	3,286.54	-316.08	489.17	-318.76	1.18	-0.72	-2.58
3,463.00	20.54	121.780	3,374.45	-334.25	517.03	-337.08	1.07	-0.40	-2.80
3,556.00	19.04	122.390	3,461.96	-350.97	543.71	-353.95	1.63	-1.61	0.66
3,651.00	20.07	128.820	3,551.49	-369.50	569.50	-372.61	2.51	1.08	6.77
3,744.00	21.62	134.930	3,638.41	-391.60	594.07	-394.85	2.87	1.67	6.57
3,839.00	21.55	134.030	3,726.75	-416.09	619.00	-419.48	0.36	-0.07	-0.95
3,932.00	21.73	133.670	3,813.19	-439.85	643.74	-443.37	0.24	0.19	-0.39
4,026.00	21.63	130.840	3,900.54	-463.19	669.43	-466.86	1.12	-0.11	-3.01
4,120.00	20.51	128.260	3,988.26	-484.72	695.47	-488.53	1.55	-1.19	-2.74
4,214.00	20.44	128.890	4,076.32	-505.22	721.18	-509.17	0.25	-0.07	0.67
4,308.00	19.46	127.800	4,164.68	-525.13	746.32	-529.21	1.12	-1.04	-1.16
4,401.00	20.09	128.100	4,252.20	-544.48	771.13	-548.69	0.69	0.68	0.32
4,495.00	21.54	126.930	4,340.06	-564.81	797.63	-569.17	1.60	1.54	-1.24
4,589.00	20.90	129.430	4,427.69	-585.83	824.38	-590.33	1.18	-0.68	2.66
4,683.00	19.57	132.860	4,515.89	-607.18	848.87	-611.83	1.90	-1.41	3.65
4,777.00	17.56	133.660	4,604.99	-627.69	870.67	-632.45	2.16	-2.14	0.85
4,870.00	16.78	134.710	4,693.84	-646.82	890.36	-651.68	0.90	-0.84	1.13
4,964.00	14.64	132.870	4,784.33	-664.44	908.71	-669.42	2.34	-2.28	-1.96
5,057.00	13.33	129.530	4,874.57	-679.27	925.60	-684.33	1.65	-1.41	-3.59
5,151.00	11.33	127.940	4,966.40	-691.84	941.24	-696.99	2.16	-2.13	-1.69
5,245.00	9.43	123.230	5,058.86	-701.74	954.96	-706.96	2.21	-2.02	-5.01
5,338.00	6.51	121.250	5,150.95	-708.65	965.85	-713.93	3.15	-3.14	-2.13
5,432.00	4.58	118.200	5,244.51	-713.19	973.71	-718.51	2.08	-2.05	-3.24
5,526.00	3.32	134.140	5,338.28	-716.86	978.97	-722.21	1.77	-1.34	16.96
5,619.00	1.97	119.160	5,431.18	-719.51	982.30	-724.89	1.62	-1.45	-16.11
5,712.00	1.01	105.170	5,524.15	-720.51	984.49	-725.89	1.10	-1.03	-15.04
5,806.00	0.37	19.040	5,618.15	-720.44	985.39	-725.83	1.12	-0.68	-91.63
5,899.00	0.26	30.900	5,711.14	-719.97	985.59	-725.36	0.14	-0.12	12.75
5,993.00	0.53	82.650	5,805.14	-719.73	986.13	-725.13	0.45	0.29	55.05
6,086.00	0.38	116.620	5,898.14	-719.82	986.84	-725.21	0.32	-0.16	36.53
6,180.00	0.37	237.610	5,992.14	-720.12	986.86	-725.52	0.69	-0.01	128.71
6,273.00	0.57	245.870	6,085.14	-720.47	986.18	-725.86	0.23	0.22	8.88
6,367.00	0.64	211.290	6,179.13	-721.11	985.48	-726.50	0.39	0.07	-36.79
6,461.00	0.84	223.050	6,273.12	-722.06	984.74	-727.45	0.27	0.21	12.51
6,555.00	0.93	224.670	6,367.11	-723.11	983.73	-728.49	0.10	0.10	1.72
6,647.00	0.71	247.710	6,459.10	-723.85	982.68	-729.23	0.43	-0.24	25.04
6,741.00	0.76	271.890	6,553.09	-724.05	981.52	-729.42	0.33	0.05	25.72
6,835.00	0.53	266.500	6,647.09	-724.06	980.46	-729.42	0.25	-0.24	-5.73

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<b>Site:</b>	Critter Creek 15 SW Pad	<b>MD Reference:</b>	GL 5242.3' & KB 16.5' @ 5258.80ft (Cade 24)
<b>Well:</b>	Critter Creek 15-6104BW	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	Casper District

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
6,896.00	3.10	350.367	6,708.06	-722.45	979.90	-727.81	5.06	4.21	137.49	
Curve KOP										
6,930.00	4.80	353.880	6,741.98	-720.13	979.60	-725.49	5.06	5.01	10.33	
First SDI MWD Curve Survey										
7,023.00	11.00	1.390	6,834.05	-707.38	979.40	-712.74	6.74	6.67	8.08	
7,117.00	19.57	3.350	6,924.64	-682.65	980.54	-688.02	9.13	9.12	2.09	
7,211.00	29.86	4.020	7,009.92	-643.49	983.11	-648.87	10.95	10.95	0.71	
7,306.00	41.68	1.850	7,086.86	-588.13	985.79	-593.52	12.51	12.44	-2.28	
7,398.00	49.90	0.000	7,150.96	-522.25	986.78	-527.65	9.05	8.93	-2.01	
7,493.00	56.32	2.190	7,207.96	-446.34	988.30	-451.75	7.00	6.76	2.31	
7,587.00	61.72	1.270	7,256.33	-365.81	990.71	-371.24	5.81	5.74	-0.98	
7,681.00	70.67	359.610	7,294.23	-279.90	991.33	-285.33	9.66	9.52	-1.77	
7,775.00	83.18	359.300	7,315.46	-188.53	990.45	-193.95	13.31	13.31	-0.33	
7,849.00	89.30	358.620	7,320.31	-114.73	989.11	-120.15	8.32	8.27	-0.92	
Last SDI MWD Curve Survey										
7,946.00	90.87	358.470	7,320.16	-17.77	986.65	-23.17	1.63	1.62	-0.15	
First SDI MWD Lateral Survey										
7,977.00	90.10	357.340	7,319.90	13.21	985.51	7.81	4.41	-2.48	-3.65	
8,071.00	88.49	358.680	7,321.06	107.14	982.25	101.76	2.23	-1.71	1.43	
8,164.00	88.42	0.860	7,323.57	200.10	981.88	194.72	2.34	-0.08	2.34	
8,258.00	89.09	0.860	7,325.61	294.07	983.29	288.67	0.71	0.71	0.00	
8,352.00	90.71	0.580	7,325.77	388.06	984.47	382.66	1.75	1.72	-0.30	
8,445.00	89.09	1.500	7,325.94	481.04	986.16	475.62	2.00	-1.74	0.99	
8,539.00	89.46	1.500	7,327.12	575.00	988.62	569.57	0.39	0.39	0.00	
8,633.00	90.91	1.100	7,326.82	668.97	990.75	663.53	1.60	1.54	-0.43	
8,728.00	89.16	1.100	7,326.76	763.95	992.57	758.50	1.84	-1.84	0.00	
8,822.00	89.90	1.060	7,327.53	857.93	994.34	852.47	0.79	0.79	-0.04	
8,916.00	90.10	0.300	7,327.53	951.92	995.46	946.45	0.84	0.21	-0.81	
9,009.00	89.40	358.620	7,327.94	1,044.91	994.58	1,039.44	1.96	-0.75	-1.81	
9,103.00	89.76	357.840	7,328.63	1,138.86	991.68	1,133.41	0.91	0.38	-0.83	
9,197.00	89.76	359.310	7,329.02	1,232.83	989.34	1,227.39	1.56	0.00	1.56	
9,291.00	89.80	2.280	7,329.38	1,326.81	990.65	1,321.36	3.16	0.04	3.16	
9,385.00	89.87	3.270	7,329.65	1,420.70	995.20	1,415.22	1.06	0.07	1.05	
9,479.00	90.13	4.550	7,329.65	1,514.48	1,001.61	1,508.97	1.39	0.28	1.36	
9,573.00	89.66	4.440	7,329.83	1,608.19	1,008.97	1,602.63	0.51	-0.50	-0.12	
9,666.00	89.40	1.310	7,330.59	1,701.06	1,013.64	1,695.48	3.38	-0.28	-3.37	
9,761.00	89.83	358.670	7,331.23	1,796.05	1,013.62	1,790.46	2.82	0.45	-2.78	
9,855.00	89.83	0.370	7,331.51	1,890.04	1,012.83	1,884.46	1.81	0.00	1.81	
9,949.00	89.90	0.760	7,331.73	1,984.03	1,013.76	1,978.45	0.42	0.07	0.41	
10,042.00	90.34	3.980	7,331.53	2,076.94	1,017.61	2,071.33	3.49	0.47	3.46	
10,136.00	90.23	3.730	7,331.07	2,170.73	1,023.93	2,165.08	0.29	-0.12	-0.27	
10,230.00	90.00	2.620	7,330.88	2,264.58	1,029.13	2,258.91	1.21	-0.24	-1.18	
10,324.00	89.93	359.250	7,330.94	2,358.56	1,030.67	2,352.87	3.59	-0.07	-3.59	
10,418.00	90.67	359.510	7,330.44	2,452.55	1,029.65	2,446.87	0.83	0.79	0.28	

<b>Company:</b>	HighPoint Resources	<b>Local Co-ordinate Reference:</b>	Well Critter Creek 15-6104BW
<b>Project:</b>	Weld County, CO NAD 83	<b>TVD Reference:</b>	GL 5242.3' & KB 16.5' @ 5258.80ft (Cade 24)
<b>Site:</b>	Critter Creek 15 SW Pad	<b>MD Reference:</b>	GL 5242.3' & KB 16.5' @ 5258.80ft (Cade 24)
<b>Well:</b>	Critter Creek 15-6104BW	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	Casper District

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
10,512.00	90.00	354.750	7,329.89	2,546.40	1,024.94	2,540.75	5.11	-0.71	-5.06
10,603.00	90.13	357.250	7,329.79	2,637.17	1,018.60	2,631.55	2.75	0.14	2.75
10,694.00	89.53	356.910	7,330.06	2,728.05	1,013.96	2,722.45	0.76	-0.66	-0.37
10,785.00	89.73	356.740	7,330.65	2,818.91	1,008.92	2,813.34	0.29	0.22	-0.19
10,875.00	89.70	357.610	7,331.10	2,908.80	1,004.48	2,903.25	0.97	-0.03	0.97
10,966.00	89.90	357.890	7,331.41	2,999.73	1,000.91	2,994.20	0.38	0.22	0.31
11,057.00	90.03	357.650	7,331.47	3,090.66	997.37	3,085.15	0.30	0.14	-0.26
11,149.00	90.00	356.690	7,331.44	3,182.55	992.83	3,177.06	1.04	-0.03	-1.04
11,240.00	89.93	356.580	7,331.50	3,273.39	987.49	3,267.93	0.14	-0.08	-0.12
11,331.00	90.81	357.560	7,330.91	3,364.27	982.84	3,358.83	1.45	0.97	1.08
11,423.00	90.23	357.980	7,330.08	3,456.19	979.26	3,450.77	0.78	-0.63	0.46
11,514.00	89.40	355.650	7,330.37	3,547.04	974.20	3,541.65	2.72	-0.91	-2.56
11,605.00	91.68	356.170	7,329.51	3,637.80	967.71	3,632.44	2.57	2.51	0.57
11,696.00	88.82	353.930	7,329.12	3,728.45	959.86	3,723.13	3.99	-3.14	-2.46
11,787.00	90.77	356.520	7,329.44	3,819.12	952.29	3,813.84	3.56	2.14	2.85
11,879.00	91.58	356.340	7,327.56	3,910.92	946.56	3,905.67	0.90	0.88	-0.20
11,970.00	90.94	358.290	7,325.55	4,001.79	942.30	3,996.57	2.25	-0.70	2.14
12,062.00	91.91	358.030	7,323.27	4,093.72	939.34	4,088.51	1.09	1.05	-0.28
12,153.00	89.83	358.000	7,321.88	4,184.65	936.19	4,179.45	2.29	-2.29	-0.03
12,245.00	89.66	357.650	7,322.29	4,276.58	932.70	4,271.40	0.42	-0.18	-0.38
12,336.00	88.52	359.980	7,323.74	4,367.54	930.82	4,362.37	2.85	-1.25	2.56
12,426.00	89.26	359.880	7,325.48	4,457.52	930.71	4,452.35	0.83	0.82	-0.11
12,517.00	89.23	0.370	7,326.68	4,548.51	930.91	4,543.34	0.54	-0.03	0.54
12,608.00	90.57	1.430	7,326.84	4,639.50	932.34	4,634.32	1.88	1.47	1.16
12,700.00	89.56	0.060	7,326.74	4,731.49	933.53	4,726.30	1.85	-1.10	-1.49
12,791.00	90.17	0.950	7,326.95	4,822.48	934.34	4,817.29	1.19	0.67	0.98
12,882.00	88.12	358.820	7,328.31	4,913.46	934.15	4,908.27	3.25	-2.25	-2.34
12,973.00	88.29	358.930	7,331.16	5,004.40	932.37	4,999.22	0.22	0.19	0.12
13,064.00	88.36	1.080	7,333.82	5,095.36	932.38	5,090.17	2.36	0.08	2.36
13,155.00	88.76	0.640	7,336.11	5,186.32	933.74	5,181.12	0.65	0.44	-0.48
13,246.00	89.83	1.450	7,337.23	5,277.29	935.40	5,272.09	1.47	1.18	0.89
13,337.00	89.60	359.560	7,337.68	5,368.28	936.20	5,363.07	2.09	-0.25	-2.08
13,428.00	90.67	0.300	7,337.46	5,459.28	936.09	5,454.07	1.43	1.18	0.81
13,518.00	91.21	0.080	7,335.99	5,549.27	936.39	5,544.05	0.65	0.60	-0.24
13,609.00	90.03	0.970	7,335.00	5,640.26	937.22	5,635.04	1.62	-1.30	0.98
13,700.00	90.80	1.090	7,334.34	5,731.24	938.86	5,726.01	0.86	0.85	0.13
13,792.00	88.86	359.910	7,334.62	5,823.23	939.66	5,817.99	2.47	-2.11	-1.28
13,883.00	90.91	0.390	7,334.80	5,914.22	939.90	5,908.98	2.31	2.25	0.53
13,975.00	88.56	359.240	7,335.23	6,006.21	939.60	6,000.97	2.84	-2.55	-1.25
14,066.00	90.07	359.540	7,336.31	6,097.20	938.63	6,091.96	1.69	1.66	0.33
14,157.00	90.47	359.280	7,335.88	6,188.19	937.70	6,182.96	0.52	0.44	-0.29
14,249.00	91.71	359.040	7,334.13	6,280.16	936.35	6,274.94	1.37	1.35	-0.26
14,339.00	90.27	359.800	7,332.58	6,370.14	935.44	6,364.92	1.81	-1.60	0.84



<b>Company:</b>	HighPoint Resources	<b>Local Co-ordinate Reference:</b>	Well Critter Creek 15-6104BW
<b>Project:</b>	Weld County, CO NAD 83	<b>TVD Reference:</b>	GL 5242.3' & KB 16.5' @ 5258.80ft (Cade 24)
<b>Site:</b>	Critter Creek 15 SW Pad	<b>MD Reference:</b>	GL 5242.3' & KB 16.5' @ 5258.80ft (Cade 24)
<b>Well:</b>	Critter Creek 15-6104BW	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	Casper District

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
14,431.00	90.50	358.930	7,331.96	6,462.14	934.42	6,456.92	0.98	0.25	-0.95
14,522.00	89.13	359.410	7,332.26	6,553.12	933.10	6,547.91	1.60	-1.51	0.53
14,612.00	89.30	358.860	7,333.49	6,643.10	931.74	6,637.90	0.64	0.19	-0.61
14,704.00	89.26	359.010	7,334.64	6,735.08	930.03	6,729.88	0.17	-0.04	0.16
14,795.00	88.56	2.060	7,336.38	6,826.05	930.88	6,820.84	3.44	-0.77	3.35
14,887.00	90.10	2.220	7,337.45	6,917.98	934.32	6,912.75	1.68	1.67	0.17
14,978.00	91.07	1.990	7,336.52	7,008.91	937.66	7,003.66	1.10	1.07	-0.25
15,068.00	89.90	1.470	7,335.76	7,098.86	940.38	7,093.60	1.42	-1.30	-0.58
15,159.00	90.70	359.590	7,335.28	7,189.85	941.22	7,184.59	2.25	0.88	-2.07
15,251.00	89.16	359.970	7,335.40	7,281.85	940.86	7,276.58	1.72	-1.67	0.41
15,342.00	90.44	359.530	7,335.71	7,372.84	940.47	7,367.58	1.49	1.41	-0.48
15,433.00	89.83	358.710	7,335.50	7,463.83	939.07	7,458.57	1.12	-0.67	-0.90
15,524.00	89.77	359.470	7,335.82	7,554.82	937.62	7,549.57	0.84	-0.07	0.84
15,615.00	88.59	359.870	7,337.12	7,645.81	937.10	7,640.56	1.37	-1.30	0.44
15,705.00	90.03	359.360	7,338.20	7,735.80	936.50	7,730.55	1.70	1.60	-0.57
15,796.00	88.76	0.690	7,339.16	7,826.79	936.54	7,821.54	2.02	-1.40	1.46
15,887.00	89.77	359.980	7,340.33	7,917.78	937.07	7,912.52	1.36	1.11	-0.78
15,978.00	90.91	0.090	7,339.79	8,008.77	937.12	8,003.52	1.26	1.25	0.12
16,069.00	88.46	0.600	7,340.29	8,099.76	937.67	8,094.50	2.75	-2.69	0.56
16,160.00	88.83	0.530	7,342.44	8,190.73	938.57	8,185.47	0.41	0.41	-0.08
16,251.00	90.91	1.350	7,342.65	8,281.71	940.06	8,276.44	2.46	2.29	0.90
16,342.00	87.15	359.150	7,344.19	8,372.68	940.46	8,367.40	4.79	-4.13	-2.42
16,433.00	87.75	359.110	7,348.24	8,463.58	939.08	8,458.30	0.66	0.66	-0.04
16,524.00	87.89	359.220	7,351.70	8,554.50	937.75	8,549.23	0.20	0.15	0.12
16,615.00	87.99	0.110	7,354.97	8,645.44	937.22	8,640.17	0.98	0.11	0.98
16,707.00	89.66	1.070	7,356.86	8,737.41	938.17	8,732.14	2.09	1.82	1.04
16,798.00	90.91	359.460	7,356.41	8,828.41	938.59	8,823.13	2.24	1.37	-1.77
16,889.00	91.58	359.420	7,354.43	8,919.38	937.70	8,914.11	0.74	0.74	-0.04
16,982.00	90.67	359.500	7,352.60	9,012.36	936.82	9,007.09	0.98	-0.98	0.09
17,075.00	91.61	359.300	7,350.75	9,105.33	935.85	9,100.07	1.03	1.01	-0.22
17,169.00	89.46	0.050	7,349.87	9,199.32	935.32	9,194.06	2.42	-2.29	0.80
17,263.00	89.87	359.380	7,350.42	9,293.32	934.85	9,288.05	0.84	0.44	-0.71
17,358.00	90.84	359.520	7,349.84	9,388.31	933.94	9,383.05	1.03	1.02	0.15
17,451.00	91.07	359.010	7,348.29	9,481.29	932.74	9,476.03	0.60	0.25	-0.55
17,545.00	90.67	0.200	7,346.86	9,575.27	932.10	9,570.02	1.34	-0.43	1.27
17,639.00	90.77	359.320	7,345.68	9,669.26	931.70	9,664.01	0.94	0.11	-0.94
17,732.00	92.28	359.040	7,343.20	9,762.22	930.37	9,756.97	1.65	1.62	-0.30
17,829.00	93.32	358.620	7,338.46	9,859.08	928.39	9,853.85	1.16	1.07	-0.43
Last SDI MWD Survey									
17,886.00	93.32	358.620	7,335.16	9,915.97	927.02	9,910.74	0.00	0.00	0.00
Projection to TD									



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<b>Site:</b>	Critter Creek 15 SW Pad	<b>MD Reference:</b>	GL 5242.3' & KB 16.5' @ 5258.80ft (Cade 24)
<b>Well:</b>	Critter Creek 15-6104BW	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	Casper District

Design Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
151.00	151.00	0.14	-0.51	First GeoGuidance MWD Survey
1,493.00	1,490.44	-36.65	55.83	Last GeoGuidanceMWD Survey
1,608.00	1,604.83	-42.38	66.20	First SDI MWD Survey
6,896.00	6,708.06	-722.45	979.90	Curve KOP
6,930.00	6,741.98	-720.13	979.60	First SDI MWD Curve Survey
7,849.00	7,320.31	-114.73	989.11	Last SDI MWD Curve Survey
7,946.00	7,320.16	-17.77	986.65	First SDI MWD Lateral Survey
17,829.00	7,338.46	9,859.08	928.39	Last SDI MWD Survey
17,886.00	7,335.16	9,915.97	927.02	Projection to TD

Checked By: _____	Approved By: _____	Date: _____
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