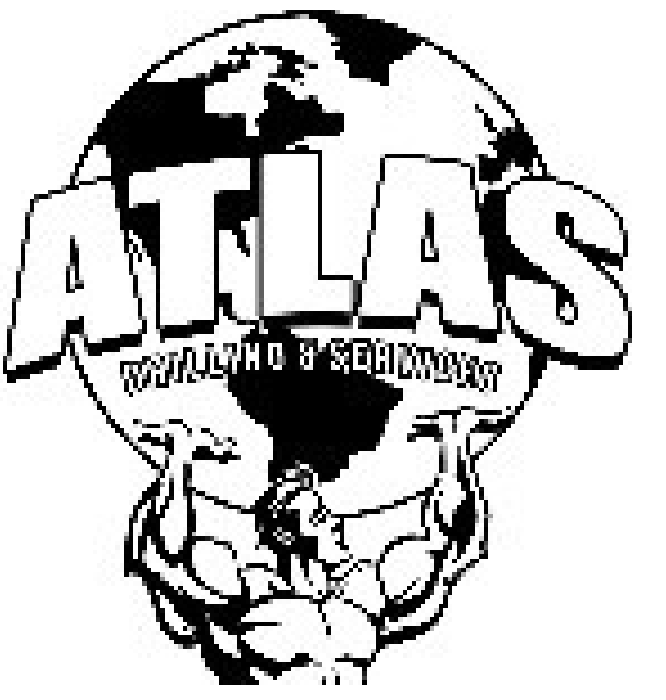


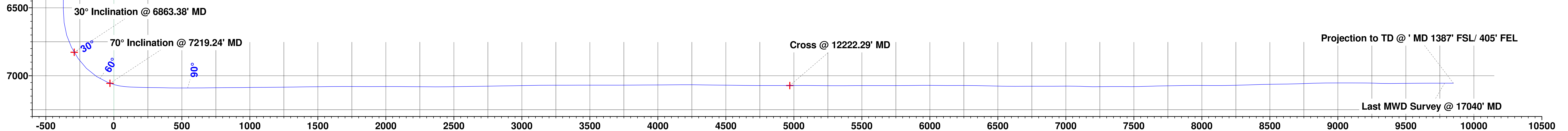
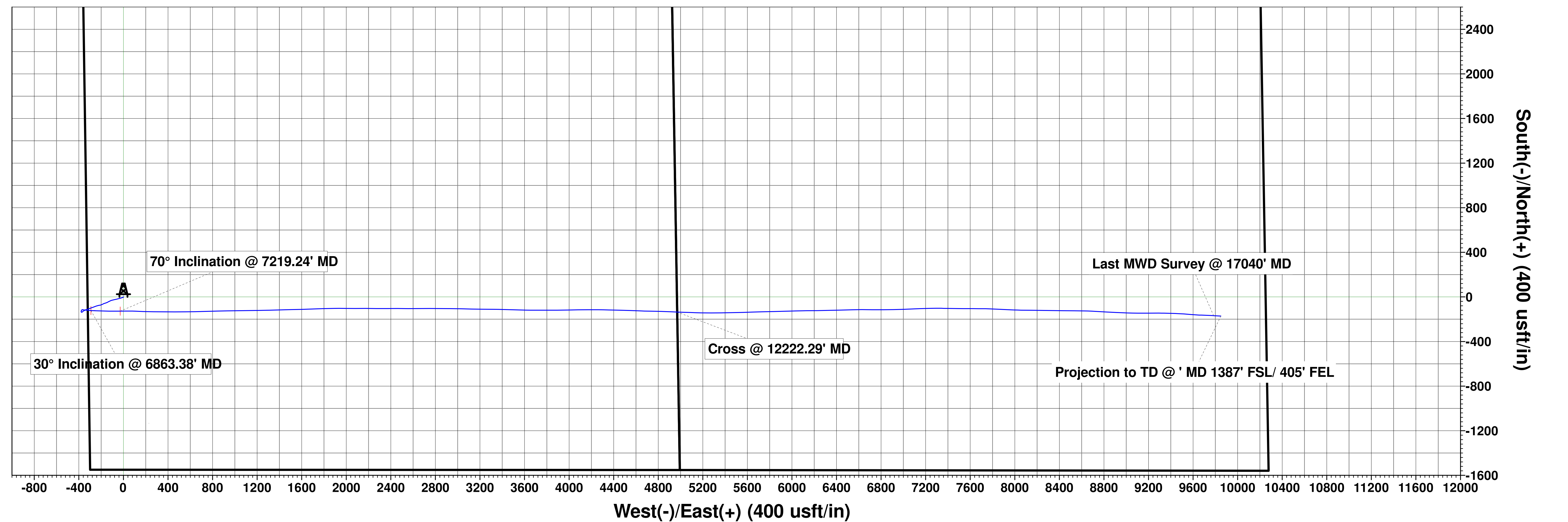
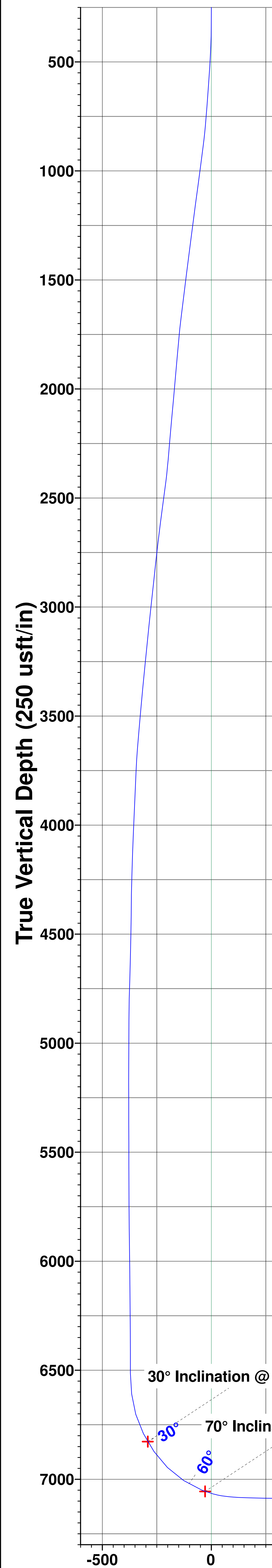


Ground Elevation:: 5030.00  
RKB Elevation: KB @ 5046.50usft (Cade 23)  
Rig Name: Cade 23

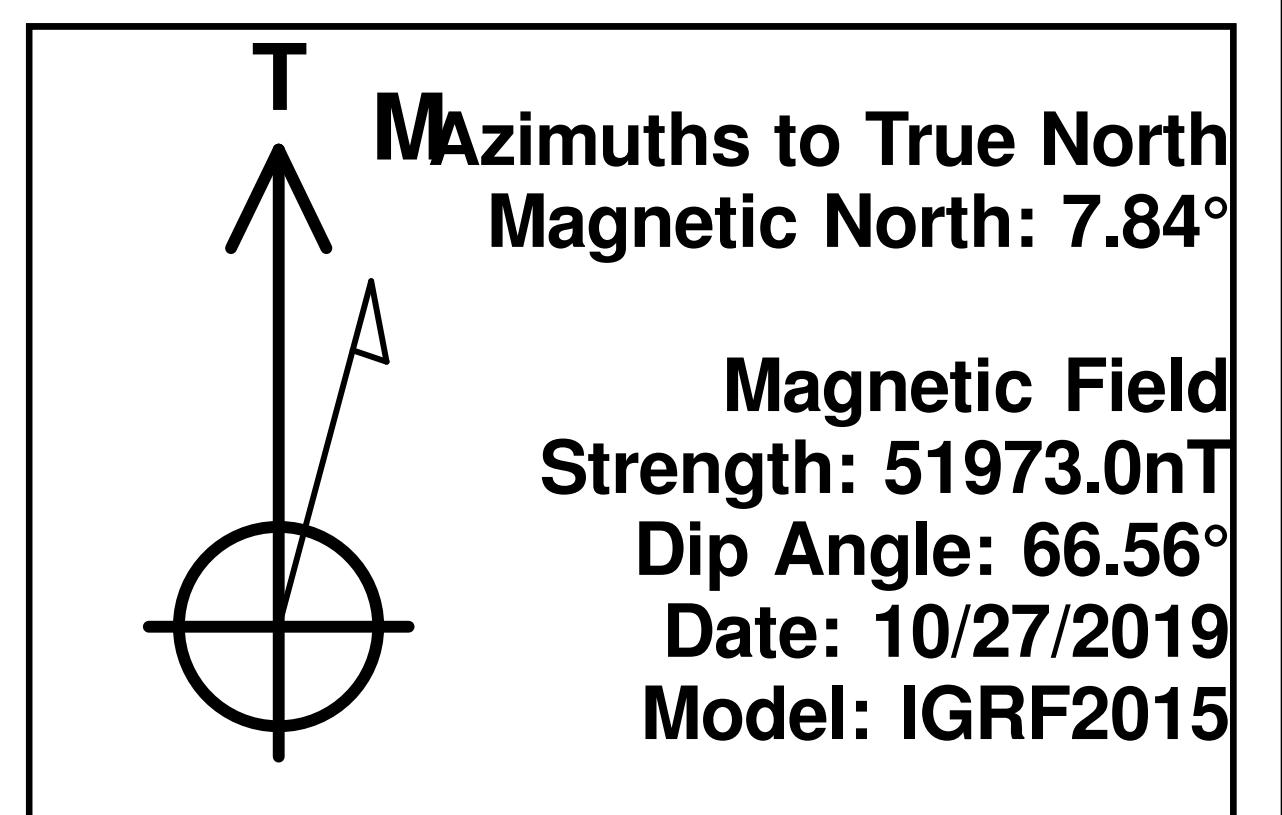


Northing	Easting	Latitude	Longitude
1272404.65	3256573.54	40.077500	-104.583110

ANNOTATIONS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation	
152.00	0.18	169.01	152.00	-0.23	0.05	0.05	0.24	First MWD Survey @ 152.00' MD	
6863.38	30.00	93.17	6827.41	-121.86	-291.48	-291.42	513.34	30° Inclination @ 6863.38' MD	
7219.24	70.00	88.78	7055.79	-127.41	-28.56	-28.49	775.33	70° Inclination @ 7219.24' MD	
12222.29	90.34	92.08	7072.25	-135.48	4970.00	4970.07	5774.70	Cross @ 12222.29' MD	
17040.00	90.03	93.25	7055.33	-168.08	9784.85	9784.94	10591.78	Last MWD Survey @ 17040' MD	
17105.00	90.03	93.25	7055.29	-171.77	9849.75	9849.84	10656.78	Projection to TD @ ' MD 1387' FSL/ 405' FEL	



### Vertical Section at 90.03° (250 usft/in)



# **HighPoint Resources**

**Weld County, CO (NAD83)**

**Sec 05-T01N-R64W Grinde Pad**

**Grinde 01-64-05-4841B**

**Wellbore #1**

**Design: Wellbore #1**

## **Standard Survey Report**

**14 January, 2020**

## Survey Report

<b>Company:</b>	HighPoint Resources	<b>Local Co-ordinate Reference:</b>	Well Grinde 01-64-05-4841B
<b>Project:</b>	Weld County, CO (NAD83)	<b>TVD Reference:</b>	KB @ 5046.50usft (Cade 23)
<b>Site:</b>	Sec 05-T01N-R64W Grinde Pad	<b>MD Reference:</b>	KB @ 5046.50usft (Cade 23)
<b>Well:</b>	Grinde 01-64-05-4841B	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	EDM 5000.15 Single User Db

<b>Project</b>	Weld County, CO (NAD83)		
<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		Sec 05-T01N-R64W Grinde Pad			
Site Position:		Northing:	1,276,126.40 usft	Latitude:	40.087728
From:	Lat/Long	Easting:	3,256,159.56 usft	Longitude:	-104.584452
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.59 °

Well		Grinde 01-64-05-4841B				
Well Position	+N/-S	0.00 usft	Northing:	1,272,404.65 usft	Latitude:	40.077500
	+E/-W	0.00 usft	Easting:	3,256,573.55 usft	Longitude:	-104.583110
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	5,030.00 usft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2015	10/27/2019	7.84	66.56	51,972.97423412

<b>Design</b>	Wellbore #1				
<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) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00	90.03	

<b>Survey Program</b>	<b>Date</b>	1/14/2020			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
152.00	17,105.00	Atlas MWD Surveys (Wellbore #1)	MWD	MWD - Standard	

<b>Survey</b>									
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Vertical Section (usft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
152.00	0.18	169.01	152.00	-0.23	0.05	0.05	0.12	0.12	0.00
<b>First MWD Survey @ 152.00' MD</b>									
243.00	0.38	147.76	243.00	-0.63	0.23	0.23	0.24	0.22	-23.35
336.00	0.67	228.93	336.00	-1.25	-0.01	-0.01	0.77	0.31	87.28
427.00	2.44	242.37	426.96	-2.50	-2.13	-2.13	1.97	1.95	14.77
519.00	3.70	248.90	518.83	-4.47	-6.63	-6.63	1.42	1.37	7.10
611.00	4.61	251.09	610.58	-6.74	-12.90	-12.90	1.00	0.99	2.38
703.00	4.53	250.99	702.29	-9.12	-19.83	-19.83	0.09	-0.09	-0.11
795.00	5.18	254.35	793.96	-11.43	-27.27	-27.26	0.77	0.71	3.65
887.00	7.68	254.93	885.37	-14.14	-37.20	-37.20	2.72	2.72	0.63

# Survey Report

<b>Company:</b>	HighPoint Resources	<b>Local Co-ordinate Reference:</b>	Well Grinde 01-64-05-4841B
<b>Project:</b>	Weld County, CO (NAD83)	<b>TVD Reference:</b>	KB @ 5046.50usft (Cade 23)
<b>Site:</b>	Sec 05-T01N-R64W Grinde Pad	<b>MD Reference:</b>	KB @ 5046.50usft (Cade 23)
<b>Well:</b>	Grinde 01-64-05-4841B	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	EDM 5000.15 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
978.00	7.67	256.15	975.56	-17.18	-48.97	-48.96	0.18	-0.01	1.34
1,071.00	7.82	257.11	1,067.71	-20.08	-61.17	-61.16	0.21	0.16	1.03
1,163.00	7.82	257.65	1,158.85	-22.81	-73.38	-73.37	0.08	0.00	0.59
1,196.00	7.65	256.74	1,191.55	-23.79	-77.71	-77.70	0.63	-0.52	-2.76
1,299.00	7.46	255.58	1,293.66	-27.03	-90.86	-90.85	0.24	-0.18	-1.13
1,391.00	7.69	257.40	1,384.86	-29.86	-102.65	-102.64	0.36	0.25	1.98
1,483.00	7.62	247.32	1,476.04	-33.56	-114.29	-114.27	1.46	-0.08	-10.96
1,575.00	7.90	243.24	1,567.20	-38.76	-125.56	-125.54	0.67	0.30	-4.43
1,670.00	8.05	242.37	1,661.28	-44.78	-137.28	-137.26	0.20	0.16	-0.92
1,766.00	5.85	244.09	1,756.57	-50.04	-147.64	-147.61	2.30	-2.29	1.79
1,862.00	5.40	252.62	1,852.11	-53.52	-156.35	-156.32	0.99	-0.47	8.89
1,957.00	5.27	252.08	1,946.70	-56.20	-164.77	-164.74	0.15	-0.14	-0.57
2,053.00	5.48	249.35	2,042.28	-59.17	-173.25	-173.22	0.34	0.22	-2.84
2,148.00	5.51	246.56	2,136.84	-62.59	-181.68	-181.65	0.28	0.03	-2.94
2,243.00	5.76	243.56	2,231.38	-66.53	-190.14	-190.10	0.41	0.26	-3.16
2,338.00	5.22	243.88	2,325.94	-70.55	-198.29	-198.25	0.57	-0.57	0.34
2,434.00	7.33	259.30	2,421.37	-73.61	-208.23	-208.19	2.79	2.20	16.06
2,529.00	7.75	260.32	2,515.55	-75.81	-220.49	-220.46	0.46	0.44	1.07
2,625.00	7.62	255.68	2,610.69	-78.48	-233.04	-233.00	0.66	-0.14	-4.83
2,720.00	7.02	250.18	2,704.91	-82.00	-244.61	-244.56	0.97	-0.63	-5.79
2,816.00	6.82	247.98	2,800.21	-86.13	-255.41	-255.37	0.35	-0.21	-2.29
2,911.00	6.42	250.02	2,894.58	-90.06	-265.63	-265.58	0.49	-0.42	2.15
3,007.00	6.51	250.92	2,989.97	-93.67	-275.82	-275.77	0.14	0.09	0.94
3,102.00	6.42	248.59	3,084.37	-97.37	-285.85	-285.80	0.29	-0.09	-2.45
3,198.00	6.18	251.18	3,179.79	-101.00	-295.74	-295.69	0.39	-0.25	2.70
3,294.00	5.83	250.36	3,275.26	-104.30	-305.22	-305.17	0.38	-0.36	-0.85
3,388.00	5.66	251.02	3,368.79	-107.41	-314.10	-314.05	0.19	-0.18	0.70
3,484.00	5.44	250.31	3,464.34	-110.49	-322.86	-322.81	0.24	-0.23	-0.74
3,579.00	5.34	252.71	3,558.92	-113.32	-331.33	-331.27	0.26	-0.11	2.53
3,674.00	4.81	250.61	3,653.55	-115.95	-339.30	-339.24	0.59	-0.56	-2.21
3,770.00	2.96	240.85	3,749.32	-118.50	-345.27	-345.20	2.04	-1.93	-10.17
3,866.00	2.89	238.83	3,845.20	-120.96	-349.50	-349.44	0.13	-0.07	-2.10
3,960.00	2.83	239.10	3,939.08	-123.38	-353.52	-353.45	0.07	-0.06	0.29
4,056.00	2.67	239.03	4,034.97	-125.74	-357.47	-357.40	0.17	-0.17	-0.07
4,151.00	2.60	237.25	4,129.87	-128.05	-361.18	-361.11	0.11	-0.07	-1.87
4,246.00	2.30	232.86	4,224.78	-130.36	-364.51	-364.44	0.37	-0.32	-4.62
4,342.00	1.12	219.93	4,320.74	-132.25	-366.65	-366.58	1.29	-1.23	-13.47
4,437.00	1.10	214.60	4,415.72	-133.71	-367.76	-367.69	0.11	-0.02	-5.61
4,532.00	1.34	226.20	4,510.70	-135.23	-369.08	-369.01	0.36	0.25	12.21
4,628.00	1.95	238.66	4,606.66	-136.86	-371.29	-371.22	0.73	0.64	12.98
4,723.00	1.67	272.70	4,701.61	-137.63	-374.05	-373.98	1.15	-0.29	35.83
4,818.00	1.54	292.79	4,796.58	-137.07	-376.61	-376.54	0.60	-0.14	21.15
4,914.00	1.32	342.01	4,892.55	-135.52	-378.14	-378.07	1.26	-0.23	51.27

# Survey Report

<b>Company:</b>	HighPoint Resources	<b>Local Co-ordinate Reference:</b>	Well Grinde 01-64-05-4841B
<b>Project:</b>	Weld County, CO (NAD83)	<b>TVD Reference:</b>	KB @ 5046.50usft (Cade 23)
<b>Site:</b>	Sec 05-T01N-R64W Grinde Pad	<b>MD Reference:</b>	KB @ 5046.50usft (Cade 23)
<b>Well:</b>	Grinde 01-64-05-4841B	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	EDM 5000.15 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
5,009.00	1.03	355.05	4,987.53	-133.63	-378.55	-378.48	0.41	-0.31	13.73	
5,105.00	1.10	331.69	5,083.51	-131.96	-379.06	-379.00	0.45	0.07	-24.33	
5,201.00	0.67	9.92	5,179.50	-130.59	-379.41	-379.34	0.74	-0.45	39.82	
5,296.00	0.78	22.45	5,274.50	-129.45	-379.06	-378.99	0.20	0.12	13.19	
5,391.00	0.76	13.92	5,369.49	-128.24	-378.66	-378.60	0.12	-0.02	-8.98	
5,485.00	0.68	355.84	5,463.48	-127.08	-378.55	-378.49	0.25	-0.09	-19.23	
5,581.00	0.47	22.90	5,559.48	-126.15	-378.44	-378.38	0.35	-0.22	28.19	
5,677.00	0.86	23.78	5,655.47	-125.13	-378.00	-377.93	0.41	0.41	0.92	
5,771.00	0.85	28.09	5,749.46	-123.86	-377.39	-377.32	0.07	-0.01	4.59	
5,867.00	1.15	29.38	5,845.44	-122.40	-376.58	-376.51	0.31	0.31	1.34	
5,963.00	1.16	41.79	5,941.42	-120.83	-375.46	-375.39	0.26	0.01	12.93	
6,058.00	0.87	48.15	6,036.41	-119.63	-374.28	-374.22	0.33	-0.31	6.69	
6,154.00	0.95	31.47	6,132.40	-118.47	-373.32	-373.26	0.29	0.08	-17.38	
6,249.00	1.07	20.56	6,227.38	-116.97	-372.60	-372.54	0.24	0.13	-11.48	
6,345.00	0.74	37.27	6,323.37	-115.64	-371.91	-371.85	0.44	-0.34	17.41	
6,440.00	0.47	21.85	6,418.37	-114.79	-371.39	-371.33	0.33	-0.28	-16.23	
6,536.00	0.29	25.26	6,514.36	-114.20	-371.14	-371.08	0.19	-0.19	3.55	
6,631.00	6.40	97.82	6,609.16	-114.70	-365.79	-365.73	6.65	6.43	76.38	
6,726.00	17.02	98.58	6,702.05	-117.51	-346.74	-346.68	11.18	11.18	0.80	
6,821.00	26.72	93.12	6,790.12	-120.75	-311.58	-311.52	10.42	10.21	-5.75	
6,863.38	30.00	93.17	6,827.41	-121.86	-291.48	-291.42	7.74	7.74	0.13	
30° Inclination @ 6863.38' MD										
6,917.00	34.15	93.23	6,872.83	-123.45	-263.06	-262.99	7.74	7.74	0.10	
7,013.00	45.88	90.84	6,946.23	-125.48	-201.48	-201.42	12.32	12.22	-2.49	
7,108.00	56.55	91.99	7,005.66	-127.36	-127.56	-127.50	11.27	11.23	1.21	
7,203.00	67.79	88.70	7,049.95	-127.74	-43.70	-43.64	12.22	11.83	-3.46	
7,219.24	70.00	88.78	7,055.79	-127.41	-28.56	-28.49	13.61	13.61	0.50	
70° Inclination @ 7219.24' MD										
7,259.00	75.41	88.97	7,067.61	-126.66	9.38	9.45	13.61	13.61	0.48	
7,298.00	80.44	90.42	7,075.76	-126.46	47.51	47.57	13.40	12.90	3.72	
7,332.00	84.74	91.99	7,080.15	-127.18	81.21	81.27	13.45	12.65	4.62	
7,352.00	85.98	92.39	7,081.77	-127.94	101.13	101.19	6.51	6.20	2.00	
7,424.00	88.25	91.85	7,085.39	-130.60	172.98	173.05	3.24	3.15	-0.75	
7,520.00	89.73	90.33	7,087.08	-132.42	268.94	269.01	2.21	1.54	-1.58	
7,615.00	88.44	90.85	7,088.60	-133.40	363.92	363.99	1.46	-1.36	0.55	
7,709.00	89.85	90.26	7,090.00	-134.31	457.91	457.98	1.63	1.50	-0.63	
7,805.00	90.02	89.24	7,090.11	-133.89	553.90	553.97	1.08	0.18	-1.06	
7,900.00	90.57	88.49	7,089.62	-132.01	648.88	648.95	0.98	0.58	-0.79	
7,996.00	90.52	88.35	7,088.71	-129.36	744.84	744.91	0.15	-0.05	-0.15	
8,091.00	90.50	88.74	7,087.86	-126.95	839.81	839.87	0.41	-0.02	0.41	
8,187.00	90.45	89.12	7,087.07	-125.16	935.79	935.85	0.40	-0.05	0.40	
8,282.00	90.56	89.00	7,086.23	-123.60	1,030.77	1,030.84	0.17	0.12	-0.13	
8,378.00	90.13	89.44	7,085.65	-122.29	1,126.76	1,126.82	0.64	-0.45	0.46	
8,474.00	90.69	88.81	7,084.97	-120.83	1,222.75	1,222.81	0.88	0.58	-0.66	



# Survey Report

<b>Company:</b>	HighPoint Resources	<b>Local Co-ordinate Reference:</b>	Well Grinde 01-64-05-4841B
<b>Project:</b>	Weld County, CO (NAD83)	<b>TVD Reference:</b>	KB @ 5046.50usft (Cade 23)
<b>Site:</b>	Sec 05-T01N-R64W Grinde Pad	<b>MD Reference:</b>	KB @ 5046.50usft (Cade 23)
<b>Well:</b>	Grinde 01-64-05-4841B	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	EDM 5000.15 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,569.00	91.27	88.70	7,083.34	-118.76	1,317.71	1,317.77	0.62	0.61	-0.12
8,664.00	90.57	88.05	7,081.82	-116.07	1,412.66	1,412.72	1.01	-0.74	-0.68
8,758.00	90.43	88.70	7,080.99	-113.40	1,506.61	1,506.67	0.71	-0.15	0.69
8,854.00	90.95	88.76	7,079.84	-111.28	1,602.58	1,602.64	0.55	0.54	0.06
8,949.00	89.68	87.72	7,079.32	-108.36	1,697.53	1,697.59	1.73	-1.34	-1.09
9,044.00	89.50	87.86	7,080.00	-104.70	1,792.46	1,792.52	0.24	-0.19	0.15
9,139.00	90.28	89.39	7,080.18	-102.42	1,887.43	1,887.48	1.81	0.82	1.61
9,234.00	90.32	91.28	7,079.68	-102.97	1,982.42	1,982.48	1.99	0.04	1.99
9,330.00	89.41	89.21	7,079.91	-103.38	2,078.42	2,078.47	2.36	-0.95	-2.16
9,425.00	89.80	90.26	7,080.56	-102.94	2,173.41	2,173.46	1.18	0.41	1.11
9,521.00	89.81	91.02	7,080.89	-104.02	2,269.40	2,269.46	0.79	0.01	0.79
9,616.00	89.06	89.09	7,081.83	-104.11	2,364.39	2,364.45	2.18	-0.79	-2.03
9,712.00	91.07	90.61	7,081.72	-103.86	2,460.39	2,460.44	2.62	2.09	1.58
9,807.00	91.21	90.06	7,079.83	-104.41	2,555.36	2,555.42	0.60	0.15	-0.58
9,902.00	90.59	89.73	7,078.33	-104.24	2,650.35	2,650.41	0.74	-0.65	-0.35
9,998.00	90.99	89.93	7,077.01	-103.95	2,746.34	2,746.40	0.47	0.42	0.21
10,094.00	90.94	90.15	7,075.39	-104.02	2,842.33	2,842.38	0.23	-0.05	0.23
10,189.00	90.62	90.45	7,074.10	-104.52	2,937.32	2,937.37	0.46	-0.34	0.32
10,284.00	91.36	91.35	7,072.46	-106.01	3,032.29	3,032.35	1.23	0.78	0.95
10,380.00	90.96	91.54	7,070.52	-108.43	3,128.24	3,128.30	0.46	-0.42	0.20
10,476.00	89.36	90.58	7,070.25	-110.20	3,224.22	3,224.28	1.94	-1.67	-1.00
10,571.00	90.47	90.48	7,070.39	-111.08	3,319.21	3,319.27	1.17	1.17	-0.11
10,667.00	90.09	91.62	7,069.92	-112.84	3,415.19	3,415.25	1.25	-0.40	1.19
10,763.00	89.97	91.66	7,069.87	-115.59	3,511.16	3,511.22	0.13	-0.13	0.04
10,858.00	90.06	91.27	7,069.84	-118.02	3,606.12	3,606.19	0.42	0.09	-0.41
10,954.00	89.99	89.70	7,069.80	-118.83	3,702.12	3,702.18	1.64	-0.07	-1.64
11,049.00	90.65	90.16	7,069.27	-118.71	3,797.12	3,797.18	0.85	0.69	0.48
11,145.00	90.15	89.79	7,068.60	-118.67	3,893.11	3,893.17	0.65	-0.52	-0.39
11,241.00	90.54	88.79	7,068.02	-117.48	3,989.10	3,989.16	1.12	0.41	-1.04
11,332.00	90.30	88.97	7,067.36	-115.70	4,080.08	4,080.14	0.33	-0.26	0.20
11,424.00	90.69	89.57	7,066.56	-114.53	4,172.07	4,172.13	0.78	0.42	0.65
11,516.00	89.15	90.60	7,066.69	-114.67	4,264.07	4,264.13	2.01	-1.67	1.12
11,608.00	89.14	91.68	7,068.06	-116.50	4,356.04	4,356.10	1.17	-0.01	1.17
11,700.00	89.21	91.54	7,069.39	-119.08	4,447.99	4,448.05	0.17	0.08	-0.15
11,792.00	89.44	91.79	7,070.47	-121.76	4,539.95	4,540.01	0.37	0.25	0.27
11,884.00	89.38	92.22	7,071.42	-124.98	4,631.88	4,631.95	0.47	-0.07	0.47
11,976.00	89.64	91.07	7,072.21	-127.62	4,723.84	4,723.91	1.28	0.28	-1.25
12,068.00	90.12	91.72	7,072.40	-129.86	4,815.81	4,815.88	0.88	0.52	0.71
12,160.00	89.90	92.31	7,072.38	-133.09	4,907.76	4,907.82	0.68	-0.24	0.64
12,222.29	90.34	92.08	7,072.25	-135.48	4,970.00	4,970.07	0.80	0.71	-0.37
Cross @ 12222.29' MD									
12,252.00	90.55	91.97	7,072.02	-136.53	4,999.69	4,999.76	0.80	0.71	-0.37
12,343.00	89.62	92.27	7,071.89	-139.89	5,090.63	5,090.70	1.07	-1.02	0.33

## Survey Report

<b>Company:</b>	HighPoint Resources	<b>Local Co-ordinate Reference:</b>	Well Grinde 01-64-05-4841B
<b>Project:</b>	Weld County, CO (NAD83)	<b>TVD Reference:</b>	KB @ 5046.50usft (Cade 23)
<b>Site:</b>	Sec 05-T01N-R64W Grinde Pad	<b>MD Reference:</b>	KB @ 5046.50usft (Cade 23)
<b>Well:</b>	Grinde 01-64-05-4841B	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	EDM 5000.15 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
12,436.00	89.26	90.89	7,072.80	-142.46	5,183.58	5,183.66	1.53	-0.39	-1.48	
12,527.00	89.68	90.45	7,073.64	-143.52	5,274.57	5,274.65	0.67	0.46	-0.48	
12,620.00	90.73	88.47	7,073.30	-142.64	5,367.56	5,367.64	2.41	1.13	-2.13	
12,715.00	89.65	89.49	7,072.99	-140.95	5,462.55	5,462.62	1.56	-1.14	1.07	
12,811.00	90.45	87.77	7,072.91	-138.66	5,558.51	5,558.59	1.98	0.83	-1.79	
12,906.00	89.76	88.70	7,072.73	-135.73	5,653.47	5,653.54	1.22	-0.73	0.98	
13,001.00	90.00	87.98	7,072.93	-132.98	5,748.43	5,748.49	0.80	0.25	-0.76	
13,097.00	90.88	89.11	7,072.19	-130.54	5,844.39	5,844.46	1.49	0.92	1.18	
13,192.00	90.64	87.90	7,070.93	-128.06	5,939.35	5,939.41	1.30	-0.25	-1.27	
13,288.00	88.68	88.81	7,071.50	-125.31	6,035.30	6,035.36	2.25	-2.04	0.95	
13,384.00	90.45	89.33	7,072.23	-123.75	6,131.28	6,131.34	1.92	1.84	0.54	
13,479.00	89.83	89.22	7,072.00	-122.55	6,226.27	6,226.34	0.66	-0.65	-0.12	
13,593.00	89.25	88.58	7,072.91	-120.36	6,340.25	6,340.31	0.76	-0.51	-0.56	
13,688.00	88.32	88.74	7,074.93	-118.14	6,435.20	6,435.26	0.99	-0.98	0.17	
13,783.00	88.84	87.76	7,077.28	-115.24	6,530.12	6,530.18	1.17	0.55	-1.03	
13,879.00	90.25	90.36	7,078.05	-113.66	6,626.10	6,626.15	3.08	1.47	2.71	
13,975.00	90.11	91.25	7,077.74	-115.01	6,722.09	6,722.14	0.94	-0.15	0.93	
14,070.00	89.72	88.93	7,077.89	-115.16	6,817.08	6,817.14	2.48	-0.41	-2.44	
14,166.00	90.66	89.06	7,077.57	-113.48	6,913.06	6,913.12	0.99	0.98	0.14	
14,261.00	90.16	87.57	7,076.89	-110.69	7,008.02	7,008.07	1.65	-0.53	-1.57	
14,357.00	88.44	88.02	7,078.06	-106.99	7,103.93	7,103.99	1.85	-1.79	0.47	
14,405.00	87.42	87.48	7,079.79	-105.11	7,151.86	7,151.92	2.40	-2.13	-1.13	
14,452.00	90.11	88.02	7,080.81	-103.26	7,198.81	7,198.87	5.84	5.72	1.15	
14,499.00	90.55	89.43	7,080.54	-102.22	7,245.80	7,245.85	3.14	0.94	3.00	
14,547.00	90.20	88.93	7,080.22	-101.53	7,293.79	7,293.84	1.27	-0.73	-1.04	
14,594.00	90.79	91.96	7,079.82	-101.90	7,340.78	7,340.84	6.57	1.26	6.45	
14,643.00	89.92	90.57	7,079.51	-102.98	7,389.77	7,389.82	3.35	-1.78	-2.84	
14,690.00	88.70	90.99	7,080.08	-103.62	7,436.76	7,436.81	2.75	-2.60	0.89	
14,738.00	90.29	90.50	7,080.50	-104.24	7,484.75	7,484.81	3.47	3.31	-1.02	
14,785.00	91.14	90.11	7,079.91	-104.49	7,531.75	7,531.80	1.99	1.81	-0.83	
14,834.00	91.66	90.23	7,078.72	-104.64	7,580.73	7,580.79	1.09	1.06	0.24	
14,882.00	92.38	90.63	7,077.03	-105.00	7,628.70	7,628.76	1.72	1.50	0.83	
14,929.00	91.24	89.92	7,075.54	-105.22	7,675.68	7,675.73	2.86	-2.43	-1.51	
15,024.00	90.86	92.01	7,073.80	-106.82	7,770.64	7,770.70	2.24	-0.40	2.20	
15,119.00	90.81	92.58	7,072.42	-110.63	7,865.55	7,865.61	0.60	-0.05	0.60	
15,214.00	90.00	93.07	7,071.74	-115.31	7,960.44	7,960.50	1.00	-0.85	0.52	
15,309.00	89.28	90.92	7,072.34	-118.62	8,055.37	8,055.43	2.39	-0.76	-2.26	
15,403.00	90.80	90.71	7,072.28	-119.95	8,149.36	8,149.42	1.63	1.62	-0.22	
15,498.00	91.09	90.61	7,070.71	-121.05	8,244.34	8,244.40	0.32	0.31	-0.11	
15,594.00	92.35	90.58	7,067.83	-122.04	8,340.29	8,340.35	1.31	1.31	-0.03	
15,689.00	91.74	90.86	7,064.44	-123.24	8,435.22	8,435.28	0.71	-0.64	0.29	
15,784.00	90.40	90.46	7,062.66	-124.33	8,530.19	8,530.26	1.47	-1.41	-0.42	
15,880.00	91.08	91.01	7,061.42	-125.56	8,626.18	8,626.24	0.91	0.71	0.57	

## Survey Report

<b>Company:</b>	HighPoint Resources	<b>Local Co-ordinate Reference:</b>	Well Grinde 01-64-05-4841B
<b>Project:</b>	Weld County, CO (NAD83)	<b>TVD Reference:</b>	KB @ 5046.50usft (Cade 23)
<b>Site:</b>	Sec 05-T01N-R64W Grinde Pad	<b>MD Reference:</b>	KB @ 5046.50usft (Cade 23)
<b>Well:</b>	Grinde 01-64-05-4841B	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	EDM 5000.15 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
15,976.00	91.98	93.41	7,058.86	-129.26	8,722.06	8,722.13	2.67	0.94	2.50	
16,071.00	91.89	93.29	7,055.65	-134.81	8,816.85	8,816.92	0.16	-0.09	-0.13	
16,166.00	90.58	92.73	7,053.60	-139.80	8,911.69	8,911.76	1.50	-1.38	-0.59	
16,261.00	89.88	91.83	7,053.22	-143.58	9,006.61	9,006.69	1.20	-0.74	-0.95	
16,357.00	90.20	90.29	7,053.16	-145.35	9,102.60	9,102.67	1.64	0.33	-1.60	
16,452.00	89.47	89.73	7,053.43	-145.37	9,197.59	9,197.67	0.97	-0.77	-0.59	
16,547.00	87.38	90.04	7,056.04	-145.18	9,292.55	9,292.63	2.22	-2.20	0.33	
16,642.00	90.93	91.71	7,057.44	-146.63	9,387.51	9,387.59	4.13	3.74	1.76	
16,738.00	90.29	92.84	7,056.42	-150.44	9,483.43	9,483.51	1.35	-0.67	1.18	
16,833.00	90.79	95.42	7,055.52	-157.28	9,578.17	9,578.25	2.77	0.53	2.72	
16,929.00	89.69	91.57	7,055.12	-163.13	9,673.97	9,674.06	4.17	-1.15	-4.01	
17,024.00	90.05	93.30	7,055.34	-167.17	9,768.88	9,768.97	1.86	0.38	1.82	
17,040.00	90.03	93.25	7,055.33	-168.08	9,784.86	9,784.94	0.34	-0.13	-0.31	
Last MWD Survey @ 17040' MD										
17,105.00	90.03	93.25	7,055.29	-171.77	9,849.75	9,849.84	0.00	0.00	0.00	
Projection to TD @ ' MD 1387' FSL/ 405' FEL										

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
30° Inclination @ 6863.3 - actual wellpath hits target center - Point	0.00	0.00	6,827.41	-121.86	-291.48	1,272,279.78	3,256,283.34	40.077166	-104.584152
70° Inclination @ 7219.2 - actual wellpath hits target center - Point	0.00	0.00	7,055.79	-127.41	-28.56	1,272,276.95	3,256,546.31	40.077150	-104.583212
Cross @ 12222.29' MD - actual wellpath hits target center - Point	0.00	0.00	7,072.25	-135.48	4,970.00	1,272,320.57	3,261,544.68	40.077127	-104.565350

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
152.00	152.00	-0.23	0.05	First MWD Survey @ 152.00' MD	
6,863.38	6,827.41	-121.86	-291.48	30° Inclination @ 6863.38' MD	
7,219.24	7,055.79	-127.41	-28.56	70° Inclination @ 7219.24' MD	
12,222.29	7,072.25	-135.48	4,970.00	Cross @ 12222.29' MD	
17,040.00	7,055.33	-168.08	9,784.86	Last MWD Survey @ 17040' MD	
17,105.00	7,055.29	-171.77	9,849.75	Projection to TD @ ' MD 1387' FSL/ 405' FEL	

Checked By: _____	Approved By: _____	Date: _____
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