



PROJECT DETAILS: Weld County, CO (NAD83)  
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

WELL DETAILS: ANSCHUTZ EQUUS FARMS FED 5-61-35-4956B

Ground Elevation:: 4479.60  
RKB Elevation: KB @ 4496.10usft (Cade 23)  
Rig Name: Cade 23



HighPoint Resources  
Project: Weld County, CO (NAD83)  
Site: Sec 34-T05N-R61W

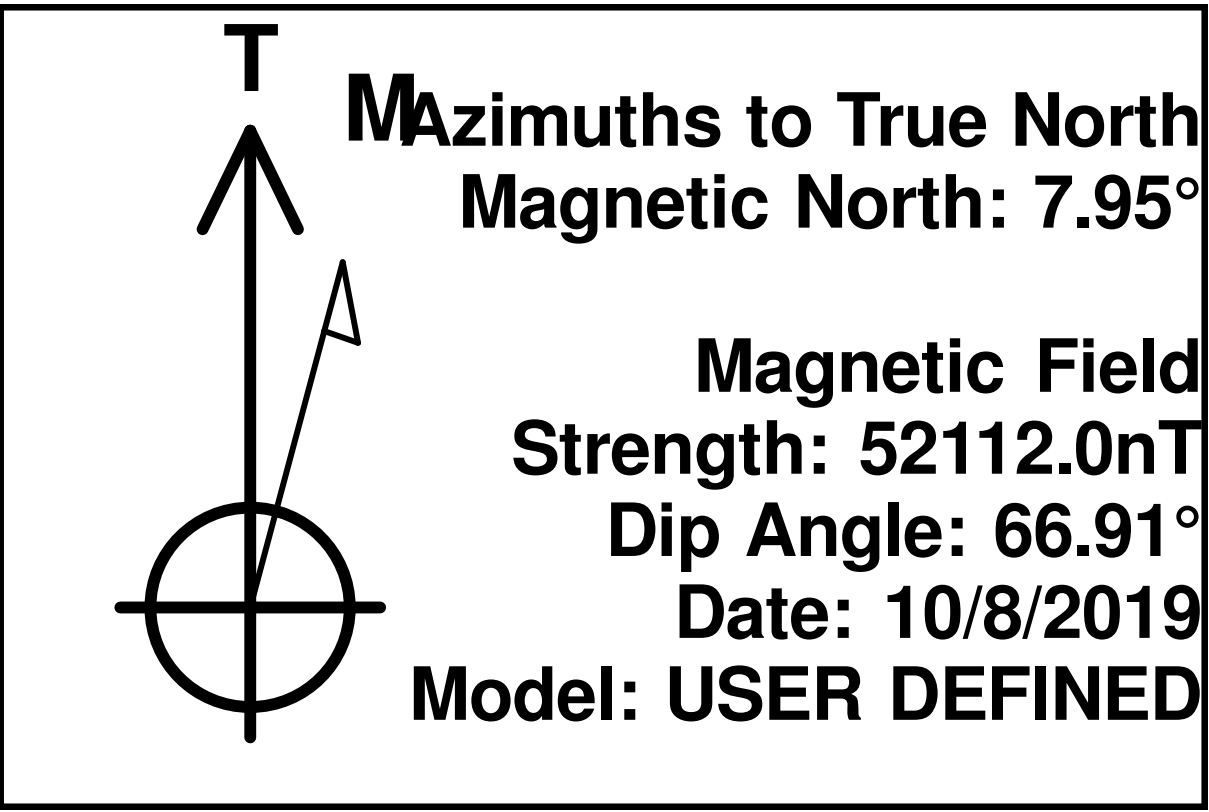
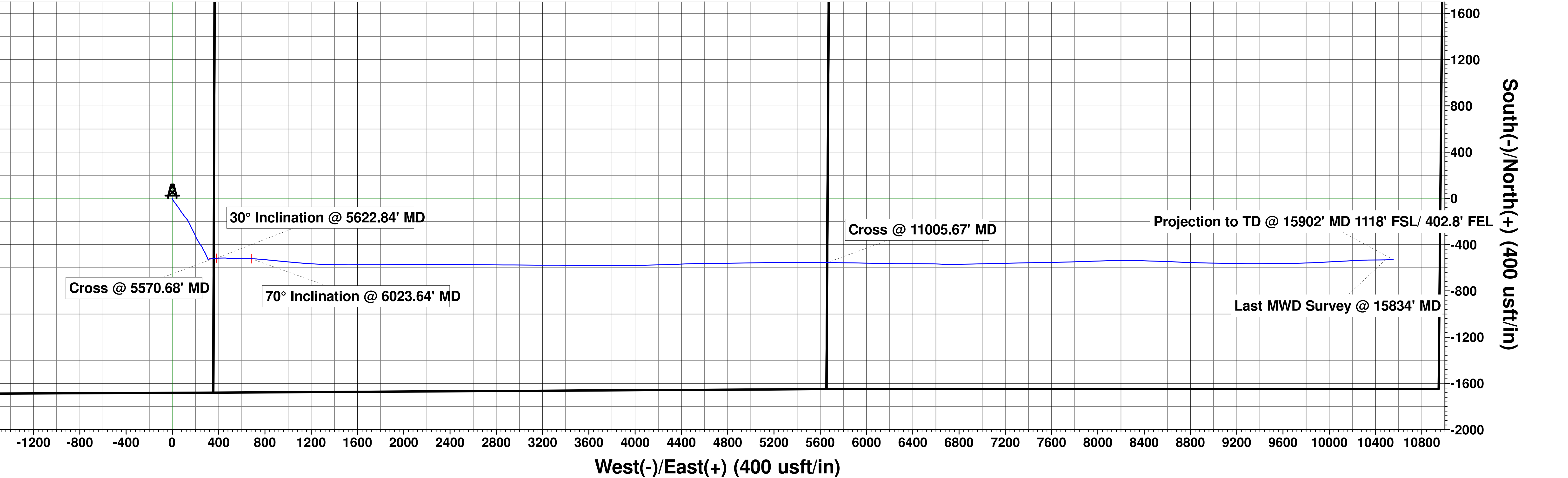
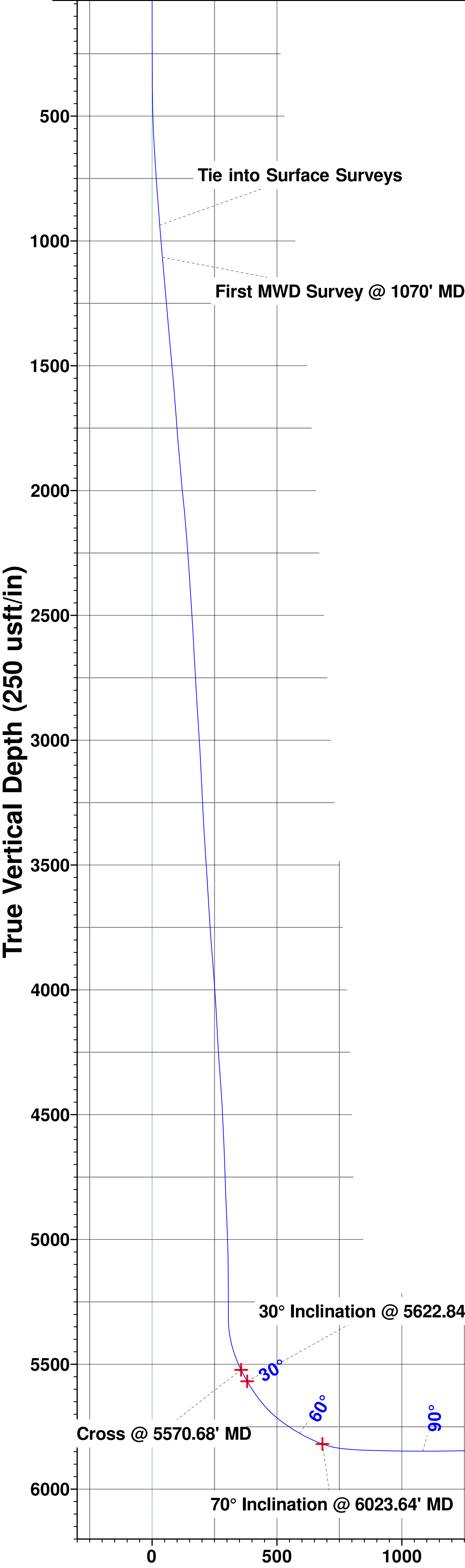
Well: ANSCHUTZ EQUUS FARMS FED 5-61-35-4956B

Wellbore: Wellbore #1

Design: Wellbore #1 (ANSCHUTZ EQUUS FARMS FED 5-61-35-4956B/Wellbore #1)  
Cade 23

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation
940.00	7.52	142.41	937.05	-50.27	30.84	30.69	59.53	Tie into Surface Surveys
1070.00	8.00	142.77	1065.86	-64.21	41.50	41.31	77.08	First MWD Survey @ 1070' MD
5570.68	26.21	81.64	5522.37	-519.42	358.00	356.46	665.62	Cross @ 5570.68' MD
5622.84	29.97	85.63	5568.39	-516.75	382.40	380.87	689.89	30° Inclination @ 5622.84' MD
6023.64	70.00	90.30	5819.49	-522.34	683.55	682.00	990.74	70° Inclination @ 6023.64' MD
11005.67	89.25	90.75	5837.54	-554.69	5660.00	5658.33	5969.47	Cross @ 11005.67' MD
15834.00	89.36	88.78	5837.67	-531.37	10485.77	10484.15	10797.03	Last MWD Survey @ 15834' MD
15902.00	89.36	88.78	5838.43	-529.92	10553.75	10552.14	10865.02	Projection to TD @ 15902' MD 1118' FSL/ 402.8' FEL



Vertical Section at 89.83° (250 usft/in)

# **HighPoint Resources**

**Weld County, CO (NAD83)**

**Sec 34-T05N-R61W**

**ANSCHUTZ EQUUS FARMS FED 5-61-35-4956B**

**Wellbore #1**

**Design: Wellbore #1**

## **Standard Survey Report**

**17 November, 2019**

## Survey Report

<b>Company:</b>	HighPoint Resources	<b>Local Co-ordinate Reference:</b>	Well ANSCHUTZ EQUUS FARMS FED 5-61-35-4956B
<b>Project:</b>	Weld County, CO (NAD83)	<b>TVD Reference:</b>	KB @ 4496.10usft (Cade 23)
<b>Site:</b>	Sec 34-T05N-R61W	<b>MD Reference:</b>	KB @ 4496.10usft (Cade 23)
<b>Well:</b>	ANSCHUTZ EQUUS FARMS FED 5-61-35-4956B	<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 34-T05N-R61W						
Site Position:		Northing:	1,375,662.52	usft	Latitude:	40.357356		
From:	Lat/Long	Easting:	3,361,016.48	usft	Longitude:	-104.204528		
Position Uncertainty:	0.00	usft	Slot Radius:	13-3/16	"	Grid Convergence:	0.84	°

Well		ANSCHUTZ EQUUS FARMS FED 5-61-35-4956B				
Well Position	+N/-S	0.00 usft	Northing:	1,374,777.83 usft	Latitude:	40.354728
	+E/-W	0.00 usft	Easting:	3,365,964.53 usft	Longitude:	-104.186822
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	4,479.60 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>
	User Defined	10/8/2019	7.95	66.91	52,112.00000000

<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		89.83

<b>Survey Program</b>	<b>Date</b>	11/17/2019			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
152.00	940.00	Surface Surveys (Wellbore #1)	MWD	MWD - Standard	
940.00	15,902.00	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	0.68	174.53	152.00	-0.90	0.09	0.08	0.45	0.45	0.00	
244.00	0.79	155.43	243.99	-2.02	0.40	0.40	0.29	0.12	-20.76	
335.00	1.39	171.18	334.97	-3.68	0.83	0.82	0.73	0.66	17.31	
427.00	2.51	160.07	426.92	-6.68	1.69	1.67	1.28	1.22	-12.08	
519.00	4.21	151.79	518.76	-11.55	3.97	3.94	1.92	1.85	-9.00	
611.00	5.85	149.28	610.40	-18.55	7.96	7.91	1.80	1.78	-2.73	
703.00	6.50	144.40	701.87	-26.82	13.39	13.31	0.91	0.71	-5.30	

## Survey Report

<b>Company:</b>	HighPoint Resources	<b>Local Co-ordinate Reference:</b>	Well ANSCHUTZ EQUUS FARMS FED 5-61-35-4956B
<b>Project:</b>	Weld County, CO (NAD83)	<b>TVD Reference:</b>	KB @ 4496.10usft (Cade 23)
<b>Site:</b>	Sec 34-T05N-R61W	<b>MD Reference:</b>	KB @ 4496.10usft (Cade 23)
<b>Well:</b>	ANSCHUTZ EQUUS FARMS FED 5-61-35-4956B	<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)	
795.00	7.01	143.94	793.23	-35.59	19.73	19.62	0.56	0.55	-0.50	
887.00	7.39	142.41	884.50	-44.82	26.64	26.51	0.46	0.41	-1.66	
940.00	7.52	142.41	937.05	-50.27	30.84	30.69	0.25	0.25	0.00	
Tie into Surface Surveys										
1,070.00	8.00	142.77	1,065.86	-64.21	41.50	41.31	0.37	0.37	0.28	
First MWD Survey @ 1070' MD										
1,162.00	8.64	143.73	1,156.89	-74.88	49.46	49.24	0.71	0.70	1.04	
1,254.00	9.06	146.07	1,247.80	-86.46	57.59	57.33	0.60	0.46	2.54	
1,346.00	9.60	150.63	1,338.58	-99.16	65.40	65.10	0.99	0.59	4.96	
1,438.00	8.84	144.75	1,429.40	-111.61	73.24	72.91	1.31	-0.83	-6.39	
1,530.00	9.08	143.42	1,520.27	-123.22	81.65	81.28	0.34	0.26	-1.45	
1,625.00	7.78	145.28	1,614.24	-134.52	89.78	89.38	1.40	-1.37	1.96	
1,721.00	7.18	144.62	1,709.43	-144.75	96.95	96.52	0.63	-0.63	-0.69	
1,817.00	7.09	138.08	1,804.69	-154.05	104.38	103.92	0.85	-0.09	-6.81	
1,913.00	7.64	139.26	1,899.89	-163.30	112.50	112.02	0.59	0.57	1.23	
2,009.00	9.20	143.46	1,994.86	-174.30	121.24	120.72	1.75	1.63	4.38	
2,104.00	9.60	143.44	2,088.58	-186.76	130.48	129.92	0.42	0.42	-0.02	
2,200.00	9.15	152.67	2,183.30	-199.98	138.75	138.16	1.63	-0.47	9.61	
2,296.00	8.72	153.36	2,278.14	-213.26	145.52	144.89	0.46	-0.45	0.72	
2,392.00	8.64	153.81	2,373.04	-226.24	151.97	151.29	0.11	-0.08	0.47	
2,487.00	8.73	154.42	2,466.95	-239.14	158.23	157.52	0.14	0.09	0.64	
2,583.00	7.63	154.90	2,561.97	-251.49	164.08	163.33	1.15	-1.15	0.50	
2,679.00	6.93	154.94	2,657.20	-262.50	169.23	168.45	0.73	-0.73	0.04	
2,774.00	6.95	151.43	2,751.50	-272.74	174.41	173.60	0.45	0.02	-3.69	
2,870.00	7.71	152.79	2,846.72	-283.57	180.13	179.29	0.81	0.79	1.42	
2,966.00	8.31	152.27	2,941.78	-295.44	186.30	185.43	0.63	0.63	-0.54	
3,061.00	7.28	153.54	3,035.90	-306.90	192.18	191.27	1.10	-1.08	1.34	
3,157.00	6.93	156.26	3,131.16	-317.65	197.22	196.28	0.51	-0.36	2.83	
3,252.00	7.31	158.28	3,225.43	-328.51	201.77	200.79	0.48	0.40	2.13	
3,347.00	7.90	158.68	3,319.59	-340.21	206.38	205.37	0.62	0.62	0.42	
3,443.00	7.96	149.34	3,414.68	-352.07	212.17	211.12	1.34	0.06	-9.73	
3,539.00	6.82	146.42	3,509.88	-362.54	218.71	217.63	1.25	-1.19	-3.04	
3,635.00	6.15	148.28	3,605.27	-371.66	224.56	223.46	0.73	-0.70	1.94	
3,731.00	7.18	149.85	3,700.62	-381.23	230.28	229.15	1.09	1.07	1.64	
3,826.00	7.66	147.71	3,794.82	-391.71	236.65	235.48	0.58	0.51	-2.25	
3,922.00	7.82	143.29	3,889.95	-402.36	243.97	242.77	0.64	0.17	-4.60	
4,017.00	7.20	143.20	3,984.13	-412.30	251.40	250.17	0.65	-0.65	-0.09	
4,113.00	7.24	154.85	4,079.38	-422.60	257.57	256.32	1.52	0.04	12.14	
4,209.00	7.92	159.27	4,174.54	-434.26	262.48	261.19	0.93	0.71	4.60	
4,304.00	7.95	150.07	4,268.63	-446.07	268.08	266.75	1.34	0.03	-9.68	
4,400.00	7.77	147.04	4,363.73	-457.27	274.92	273.56	0.47	-0.19	-3.16	
4,495.00	6.83	150.43	4,457.96	-467.57	281.20	279.82	1.09	-0.99	3.57	

# Survey Report

<b>Company:</b>	HighPoint Resources	<b>Local Co-ordinate Reference:</b>	Well ANSCHUTZ EQUUS FARMS FED 5-61-35-4956B
<b>Project:</b>	Weld County, CO (NAD83)	<b>TVD Reference:</b>	KB @ 4496.10usft (Cade 23)
<b>Site:</b>	Sec 34-T05N-R61W	<b>MD Reference:</b>	KB @ 4496.10usft (Cade 23)
<b>Well:</b>	ANSCHUTZ EQUUS FARMS FED 5-61-35-4956B	<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)
4,591.00	6.10	155.50	4,553.35	-477.18	286.14	284.72	0.96	-0.76	5.28
4,686.00	5.71	156.26	4,647.84	-486.10	290.13	288.69	0.42	-0.41	0.80
4,781.00	5.46	158.71	4,742.39	-494.64	293.68	292.21	0.36	-0.26	2.58
4,876.00	5.20	154.00	4,836.98	-502.72	297.20	295.71	0.54	-0.27	-4.96
4,971.00	5.21	151.07	4,931.59	-510.36	301.18	299.66	0.28	0.01	-3.08
5,066.00	4.75	161.31	5,026.24	-517.86	304.52	302.99	1.05	-0.48	10.78
5,162.00	2.55	167.44	5,122.03	-523.71	306.26	304.71	2.32	-2.29	6.39
5,258.00	0.25	41.93	5,218.00	-525.64	306.87	305.31	2.82	-2.40	-130.74
5,354.00	0.19	321.65	5,314.00	-525.36	306.91	305.35	0.30	-0.06	-83.63
5,449.00	12.51	89.36	5,408.26	-525.12	317.14	315.58	13.29	12.97	134.43
5,544.00	24.34	79.16	5,498.25	-521.31	346.77	345.22	12.86	12.45	-10.74
5,570.68	26.21	81.64	5,522.37	-519.42	358.00	356.46	8.06	7.02	9.29
Cross @ 5570.68' MD									
5,622.84	29.97	85.63	5,568.39	-516.75	382.40	380.87	8.06	7.21	7.66
30° Inclination @ 5622.84' MD									
5,639.00	31.16	86.69	5,582.30	-516.20	390.60	389.07	8.06	7.34	6.54
5,735.00	40.06	91.33	5,660.28	-515.49	446.40	444.87	9.68	9.27	4.83
5,830.00	53.08	94.33	5,725.46	-519.08	515.13	513.59	13.89	13.71	3.16
5,925.00	60.15	90.27	5,777.72	-522.14	594.32	592.77	8.25	7.44	-4.27
6,019.00	69.21	89.99	5,817.88	-522.33	679.20	677.65	9.64	9.64	-0.30
6,023.64	70.00	90.30	5,819.49	-522.34	683.55	682.00	18.04	16.96	6.58
70° Inclination @ 6023.64' MD									
6,097.00	82.49	94.81	5,836.91	-525.58	754.57	753.01	18.04	17.03	6.15
6,115.00	84.46	95.79	5,838.96	-527.23	772.38	770.81	12.21	10.94	5.44
6,125.00	84.92	95.56	5,839.88	-528.22	782.29	780.72	5.14	4.60	-2.30
6,204.00	88.43	95.71	5,844.46	-535.96	860.76	859.17	4.45	4.44	0.19
6,299.00	88.60	95.44	5,846.93	-545.19	955.28	953.66	0.34	0.18	-0.28
6,394.00	89.64	94.92	5,848.39	-553.76	1,049.88	1,048.23	1.22	1.09	-0.55
6,489.00	90.61	94.19	5,848.18	-561.31	1,144.58	1,142.91	1.28	1.02	-0.77
6,585.00	91.46	93.12	5,846.44	-567.43	1,240.36	1,238.67	1.42	0.89	-1.11
6,680.00	91.38	92.07	5,844.09	-571.73	1,335.23	1,333.53	1.11	-0.08	-1.11
6,775.00	91.77	90.93	5,841.48	-574.21	1,430.16	1,428.45	1.27	0.41	-1.20
6,870.00	91.25	89.67	5,838.98	-574.71	1,525.13	1,523.42	1.43	-0.55	-1.33
6,966.00	91.73	89.81	5,836.48	-574.27	1,621.09	1,619.38	0.52	0.50	0.15
7,060.00	91.14	90.21	5,834.12	-574.29	1,715.06	1,713.35	0.76	-0.63	0.43
7,155.00	90.41	89.61	5,832.84	-574.14	1,810.05	1,808.34	0.99	-0.77	-0.63
7,250.00	89.90	89.25	5,832.58	-573.20	1,905.05	1,903.34	0.66	-0.54	-0.38
7,345.00	90.25	89.51	5,832.46	-572.17	2,000.04	1,998.34	0.46	0.37	0.27
7,440.00	89.40	90.18	5,832.75	-571.91	2,095.04	2,093.33	1.14	-0.89	0.71
7,535.00	89.45	89.82	5,833.70	-571.91	2,190.04	2,188.33	0.38	0.05	-0.38
7,631.00	89.78	90.00	5,834.35	-571.76	2,286.03	2,284.33	0.39	0.34	0.19
7,726.00	90.05	90.19	5,834.49	-571.92	2,381.03	2,379.33	0.35	0.28	0.20



## Survey Report

<b>Company:</b>	HighPoint Resources	<b>Local Co-ordinate Reference:</b>	Well ANSCHUTZ EQUUS FARMS FED 5-61-35-4956B
<b>Project:</b>	Weld County, CO (NAD83)	<b>TVD Reference:</b>	KB @ 4496.10usft (Cade 23)
<b>Site:</b>	Sec 34-T05N-R61W	<b>MD Reference:</b>	KB @ 4496.10usft (Cade 23)
<b>Well:</b>	ANSCHUTZ EQUUS FARMS FED 5-61-35-4956B	<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)	
7,822.00	90.45	90.34	5,834.07	-572.36	2,477.03	2,475.32	0.44	0.42	0.16	
7,918.00	90.61	90.52	5,833.18	-573.08	2,573.02	2,571.31	0.25	0.17	0.19	
8,013.00	90.96	90.77	5,831.88	-574.15	2,668.01	2,666.29	0.45	0.37	0.26	
8,109.00	90.15	90.26	5,830.95	-575.01	2,764.00	2,762.28	1.00	-0.84	-0.53	
8,205.00	90.23	90.11	5,830.63	-575.32	2,860.00	2,858.28	0.18	0.08	-0.16	
8,300.00	89.45	90.56	5,830.90	-575.88	2,955.00	2,953.27	0.95	-0.82	0.47	
8,395.00	89.20	90.02	5,832.02	-576.36	3,049.99	3,048.26	0.63	-0.26	-0.57	
8,491.00	89.42	90.37	5,833.17	-576.69	3,145.98	3,144.25	0.43	0.23	0.36	
8,587.00	89.51	90.02	5,834.07	-577.01	3,241.97	3,240.25	0.38	0.09	-0.36	
8,683.00	89.44	89.97	5,834.95	-577.00	3,337.97	3,336.24	0.09	-0.07	-0.05	
8,779.00	90.38	90.96	5,835.10	-577.78	3,433.96	3,432.24	1.42	0.98	1.03	
8,874.00	88.91	90.17	5,835.69	-578.72	3,528.96	3,527.22	1.76	-1.55	-0.83	
8,970.00	90.11	90.26	5,836.51	-579.08	3,624.95	3,623.22	1.25	1.25	0.09	
9,065.00	90.49	89.85	5,836.01	-579.17	3,719.95	3,718.21	0.59	0.40	-0.43	
9,160.00	90.14	89.70	5,835.49	-578.80	3,814.95	3,813.21	0.40	-0.37	-0.16	
9,256.00	90.63	90.40	5,834.84	-578.88	3,910.94	3,909.21	0.89	0.51	0.73	
9,351.00	88.85	89.22	5,835.27	-578.57	4,005.94	4,004.20	2.25	-1.87	-1.24	
9,447.00	88.36	88.76	5,837.61	-576.88	4,101.89	4,100.16	0.70	-0.51	-0.48	
9,542.00	87.76	89.04	5,840.83	-575.05	4,196.82	4,195.09	0.70	-0.63	0.29	
9,638.00	88.88	87.54	5,843.64	-572.19	4,292.73	4,291.01	1.95	1.17	-1.56	
9,733.00	88.09	87.88	5,846.15	-568.39	4,387.62	4,385.91	0.91	-0.83	0.36	
9,829.00	89.50	88.01	5,848.17	-564.95	4,483.54	4,481.84	1.47	1.47	0.14	
9,925.00	90.31	89.42	5,848.33	-562.80	4,579.51	4,577.82	1.69	0.84	1.47	
10,021.00	89.87	89.35	5,848.18	-561.77	4,675.50	4,673.81	0.46	-0.46	-0.07	
10,116.00	91.42	89.15	5,847.11	-560.53	4,770.48	4,768.80	1.65	1.63	-0.21	
10,212.00	91.63	89.37	5,844.56	-559.29	4,866.44	4,864.76	0.32	0.22	0.23	
10,308.00	91.22	89.16	5,842.17	-558.06	4,962.40	4,960.73	0.48	-0.43	-0.22	
10,403.00	91.15	89.38	5,840.21	-556.85	5,057.38	5,055.70	0.24	-0.07	0.23	
10,499.00	90.71	89.41	5,838.65	-555.83	5,153.36	5,151.69	0.46	-0.46	0.03	
10,593.00	90.36	89.37	5,837.77	-554.83	5,247.35	5,245.68	0.37	-0.37	-0.04	
10,685.00	89.96	89.81	5,837.51	-554.17	5,339.35	5,337.68	0.65	-0.43	0.48	
10,777.00	90.51	89.79	5,837.13	-553.85	5,431.34	5,429.68	0.60	0.60	-0.02	
10,869.00	90.03	89.94	5,836.70	-553.64	5,523.34	5,521.68	0.55	-0.52	0.16	
10,961.00	89.52	90.68	5,837.06	-554.13	5,615.34	5,613.67	0.98	-0.55	0.80	
11,005.67	89.25	90.75	5,837.54	-554.69	5,660.00	5,658.33	0.62	-0.60	0.16	
Cross @ 11005.67' MD										
11,053.00	88.97	90.83	5,838.27	-555.35	5,707.32	5,705.65	0.62	-0.60	0.16	
11,145.00	90.01	90.80	5,839.09	-556.65	5,799.31	5,797.63	1.13	1.13	-0.03	
11,237.00	89.28	90.70	5,839.66	-557.86	5,891.30	5,889.62	0.80	-0.79	-0.11	
11,329.00	90.46	91.03	5,839.87	-559.25	5,983.29	5,981.60	1.33	1.28	0.36	
11,421.00	91.20	91.35	5,838.54	-561.16	6,075.26	6,073.56	0.88	0.80	0.35	
11,513.00	91.25	91.35	5,836.57	-563.32	6,167.21	6,165.51	0.05	0.05	0.00	

# Survey Report

<b>Company:</b>	HighPoint Resources	<b>Local Co-ordinate Reference:</b>	Well ANSCHUTZ EQUUS FARMS FED 5-61-35-4956B
<b>Project:</b>	Weld County, CO (NAD83)	<b>TVD Reference:</b>	KB @ 4496.10usft (Cade 23)
<b>Site:</b>	Sec 34-T05N-R61W	<b>MD Reference:</b>	KB @ 4496.10usft (Cade 23)
<b>Well:</b>	ANSCHUTZ EQUUS FARMS FED 5-61-35-4956B	<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)	
11,605.00	90.92	90.09	5,834.83	-564.48	6,259.18	6,257.48	1.42	-0.36	-1.37	
11,697.00	90.35	90.03	5,833.81	-564.58	6,351.18	6,349.47	0.62	-0.62	-0.07	
11,789.00	89.96	89.99	5,833.56	-564.59	6,443.18	6,441.47	0.43	-0.42	-0.04	
11,881.00	90.00	90.84	5,833.59	-565.26	6,535.17	6,533.47	0.92	0.04	0.92	
11,972.00	91.33	92.09	5,832.54	-567.59	6,626.13	6,624.42	2.01	1.46	1.37	
12,068.00	89.53	89.98	5,831.82	-569.32	6,722.11	6,720.39	2.89	-1.88	-2.20	
12,164.00	88.63	89.24	5,833.36	-568.67	6,818.09	6,816.37	1.21	-0.94	-0.77	
12,260.00	88.01	89.18	5,836.17	-567.34	6,914.04	6,912.33	0.65	-0.65	-0.06	
12,355.00	88.12	88.68	5,839.38	-565.57	7,008.97	7,007.26	0.54	0.12	-0.53	
12,449.00	87.38	88.41	5,843.07	-563.18	7,102.86	7,101.16	0.84	-0.79	-0.29	
12,543.00	89.43	89.01	5,845.69	-561.07	7,196.80	7,195.10	2.27	2.18	0.64	
12,638.00	90.41	88.20	5,845.82	-558.76	7,291.77	7,290.08	1.34	1.03	-0.85	
12,734.00	90.99	89.14	5,844.65	-556.53	7,387.73	7,386.05	1.15	0.60	0.98	
12,829.00	91.43	89.50	5,842.64	-555.40	7,482.71	7,481.03	0.60	0.46	0.38	
12,924.00	90.81	88.21	5,840.78	-553.50	7,577.67	7,575.99	1.51	-0.65	-1.36	
13,019.00	91.49	89.35	5,838.88	-551.48	7,672.62	7,670.95	1.40	0.72	1.20	
13,114.00	89.30	88.39	5,838.22	-549.61	7,767.60	7,765.93	2.52	-2.31	-1.01	
13,210.00	89.27	87.56	5,839.42	-546.22	7,863.53	7,861.87	0.87	-0.03	-0.86	
13,305.00	89.26	88.37	5,840.64	-542.84	7,958.46	7,956.81	0.85	-0.01	0.85	
13,400.00	88.75	88.20	5,842.29	-540.00	8,053.40	8,051.76	0.57	-0.54	-0.18	
13,495.00	88.31	88.27	5,844.73	-537.08	8,148.33	8,146.70	0.47	-0.46	0.07	
13,590.00	89.46	90.01	5,846.58	-535.65	8,243.29	8,241.67	2.20	1.21	1.83	
13,686.00	90.28	92.02	5,846.79	-537.35	8,339.27	8,337.64	2.26	0.85	2.09	
13,780.00	89.56	91.75	5,846.92	-540.44	8,433.22	8,431.58	0.82	-0.77	-0.29	
13,875.00	89.92	91.79	5,847.36	-543.38	8,528.17	8,526.52	0.38	0.38	0.04	
13,970.00	90.28	92.52	5,847.19	-546.95	8,623.10	8,621.44	0.86	0.38	0.77	
14,066.00	90.21	92.97	5,846.78	-551.55	8,718.99	8,717.32	0.47	-0.07	0.47	
14,161.00	91.41	91.45	5,845.44	-555.21	8,813.91	8,812.22	2.04	1.26	-1.60	
14,255.00	91.41	91.75	5,843.12	-557.83	8,907.84	8,906.15	0.32	0.00	0.32	
14,351.00	90.69	90.53	5,841.36	-559.74	9,003.81	9,002.10	1.48	-0.75	-1.27	
14,446.00	90.04	90.75	5,840.76	-560.80	9,098.80	9,097.09	0.72	-0.68	0.23	
14,542.00	90.75	91.97	5,840.10	-563.08	9,194.77	9,193.05	1.47	0.74	1.27	
14,637.00	90.97	90.31	5,838.67	-564.97	9,289.73	9,288.02	1.76	0.23	-1.75	
14,732.00	91.46	89.40	5,836.66	-564.73	9,384.71	9,382.99	1.09	0.52	-0.96	
14,827.00	91.83	89.92	5,833.93	-564.17	9,479.67	9,477.95	0.67	0.39	0.55	
14,922.00	90.86	89.44	5,831.70	-563.64	9,574.64	9,572.92	1.14	-1.02	-0.51	
15,017.00	90.71	88.66	5,830.40	-562.06	9,669.62	9,667.91	0.84	-0.16	-0.82	
15,112.00	90.38	88.57	5,829.49	-559.77	9,764.58	9,762.88	0.36	-0.35	-0.09	
15,208.00	90.12	87.41	5,829.08	-556.40	9,860.52	9,858.83	1.24	-0.27	-1.21	
15,303.00	89.22	86.56	5,829.62	-551.40	9,955.39	9,953.71	1.30	-0.95	-0.89	
15,399.00	88.71	87.13	5,831.36	-546.12	10,051.23	10,049.56	0.80	-0.53	0.59	
15,494.00	88.35	87.22	5,833.79	-541.44	10,146.08	10,144.43	0.39	-0.38	0.09	

## Survey Report

<b>Company:</b>	HighPoint Resources	<b>Local Co-ordinate Reference:</b>	Well ANSCHUTZ EQUUS FARMS FED 5-61-35-4956B
<b>Project:</b>	Weld County, CO (NAD83)	<b>TVD Reference:</b>	KB @ 4496.10usft (Cade 23)
<b>Site:</b>	Sec 34-T05N-R61W	<b>MD Reference:</b>	KB @ 4496.10usft (Cade 23)
<b>Well:</b>	ANSCHUTZ EQUUS FARMS FED 5-61-35-4956B	<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)	
15,589.00	87.73	86.44	5,837.04	-536.19	10,240.88	10,239.24	1.05	-0.65	-0.82	
15,685.00	90.48	89.76	5,838.54	-533.01	10,336.79	10,335.16	4.49	2.86	3.46	
15,781.00	90.59	89.33	5,837.65	-532.25	10,432.78	10,431.16	0.46	0.11	-0.45	
15,834.00	89.36	88.78	5,837.67	-531.37	10,485.77	10,484.15	2.54	-2.32	-1.04	
Last MWD Survey @ 15834' MD										
15,902.00	89.36	88.78	5,838.43	-529.92	10,553.75	10,552.14	0.00	0.00	0.00	
Projection to TD @ 15902' MD 1118' FSL/ 402.8' 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	
Cross @ 5570.68' MD - actual wellpath hits target center - Point	0.00	0.00	5,522.37	-519.42	358.00	1,374,263.77	3,366,330.18	40.353302	-104.185538	
30° Inclination @ 5622.84' MD - actual wellpath misses target center by 0.08usft at 5622.84usft MD (5568.39 TVD, -516.75 N, 382.40 E) - Point	0.00	0.00	5,568.38	-516.67	382.41	1,374,266.88	3,366,354.55	40.353310	-104.185450	
70° Inclination @ 6023.64' MD - actual wellpath hits target center - Point	0.00	0.00	5,819.49	-522.34	683.55	1,374,265.67	3,366,655.74	40.353294	-104.184370	
Cross @ 11005.67' MD - actual wellpath hits target center - Point	0.00	0.00	5,837.54	-554.69	5,660.00	1,374,307.02	3,371,632.12	40.353204	-104.166514	

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
940.00	937.05	-50.27	30.84	Tie into Surface Surveys	
1,070.00	1,065.86	-64.21	41.50	First MWD Survey @ 1070' MD	
5,570.68	5,522.37	-519.42	358.00	Cross @ 5570.68' MD	
5,622.84	5,568.39	-516.75	382.40	30° Inclination @ 5622.84' MD	
6,023.64	5,819.49	-522.34	683.55	70° Inclination @ 6023.64' MD	
11,005.67	5,837.54	-554.69	5,660.00	Cross @ 11005.67' MD	
15,834.00	5,837.67	-531.37	10,485.77	Last MWD Survey @ 15834' MD	
15,902.00	5,838.43	-529.92	10,553.75	Projection to TD @ 15902' MD 1118' FSL/ 402.8' FEL	

Checked By: _____	Approved By: _____	Date: _____
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