



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

Project: Weld County, CO NAD 83
Site: Lion Creek 23 NWNW Pad
Well: Lion Creek 23-0362B
Wellbore: OH
Design: Plan 1



Azimuths to True North
Magnetic North: 8.37°



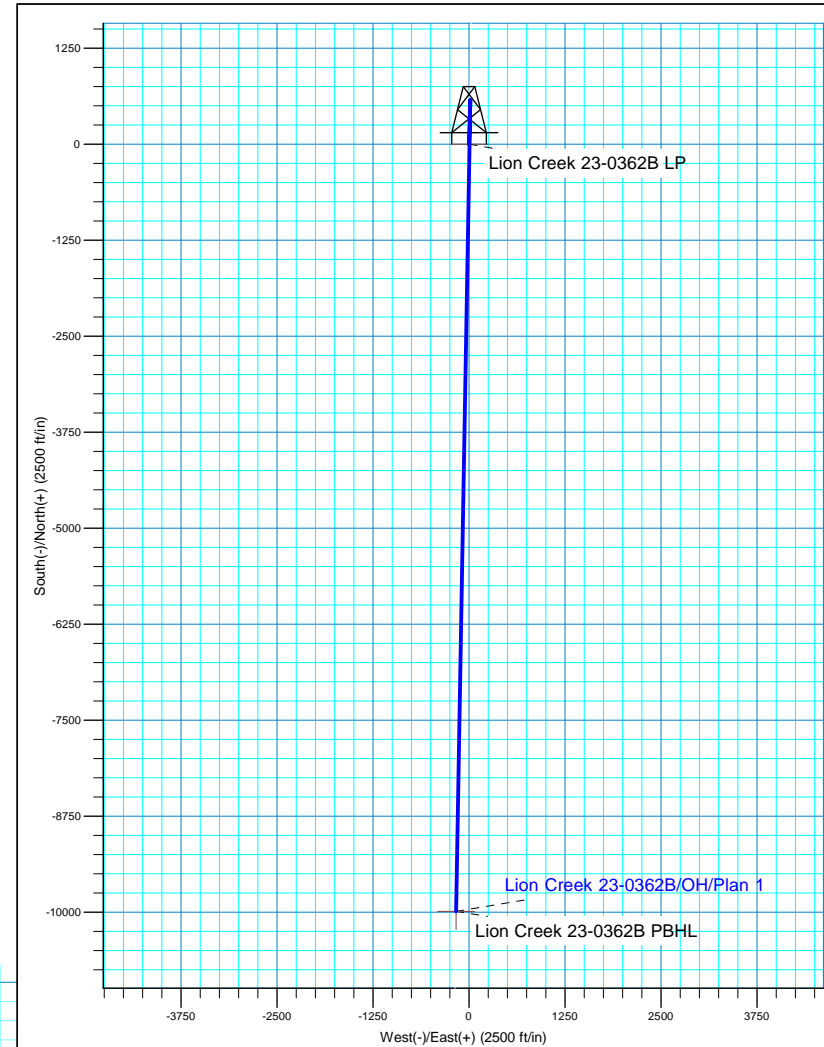
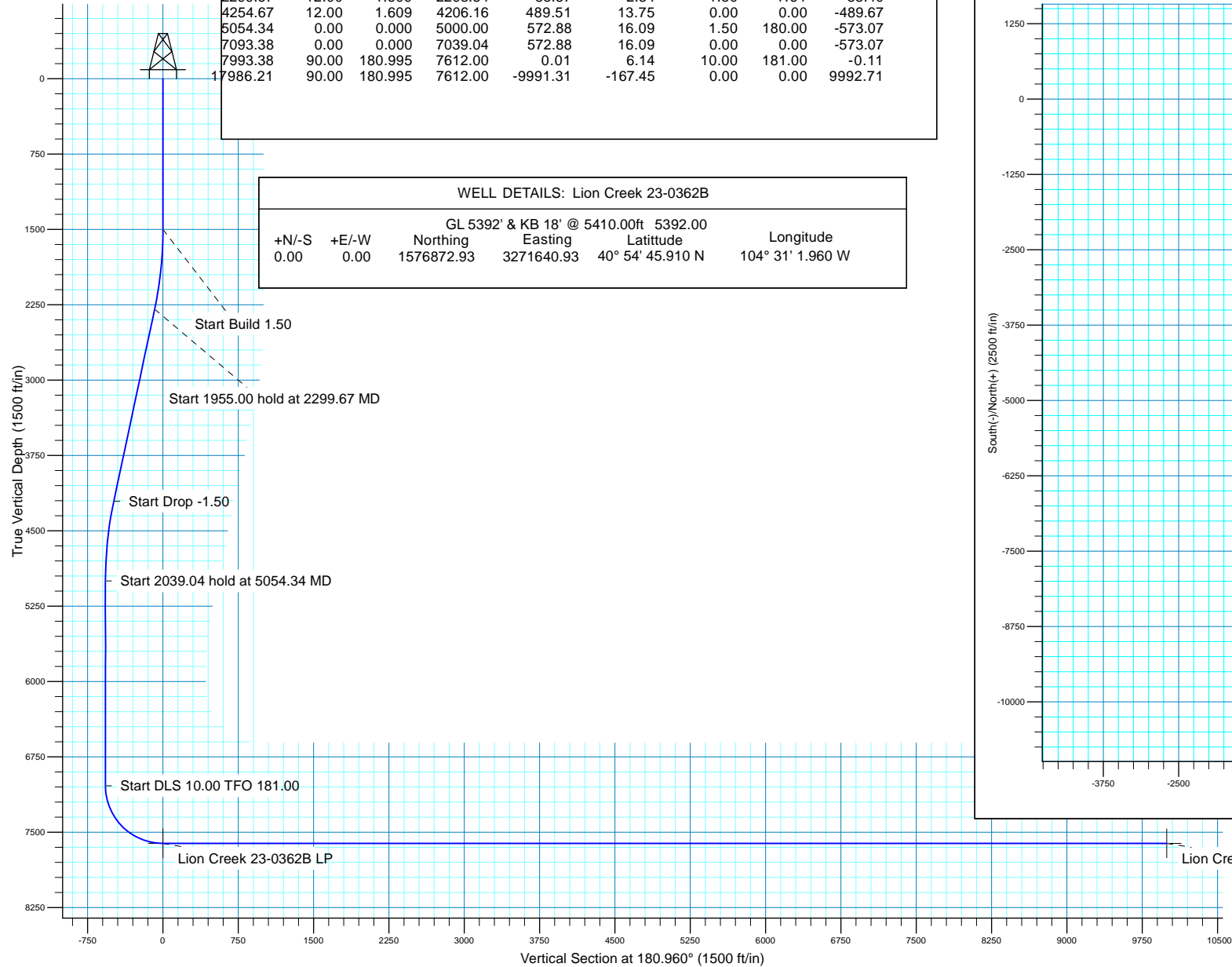
Magnetic Field
Strength: 52713.9nT
Dip Angle: 67.18°
Date: 6/19/2018
Model: HDGM

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
1500.00	0.00	0.000	1500.00	0.00	0.00	0.00	0.00	0.00
2299.67	12.00	1.609	2293.84	83.37	2.34	1.50	1.61	-83.40
4254.67	12.00	1.609	4206.16	489.51	13.75	0.00	0.00	-489.67
5054.34	0.00	0.000	5000.00	572.88	16.09	1.50	180.00	-573.07
7093.38	0.00	0.000	7039.04	572.88	16.09	0.00	0.00	-573.07
7993.38	90.00	180.995	7612.00	0.01	6.14	10.00	181.00	-0.11
17986.21	90.00	180.995	7612.00	-9991.31	-167.45	0.00	0.00	9992.71

WELL DETAILS: Lion Creek 23-0362B

		GL 5392' & KB 18' @ 5410.00ft				
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.00	0.00	1576872.93	3271640.93	40° 54' 45.910 N	104° 31' 1.960 W	



HighPoint Resources

Weld County, CO NAD 83
Lion Creek 23 NWNW Pad
Lion Creek 23-0362B

OH

Plan: Plan 1

Standard Planning Report

19 June, 2018



Scientific Drilling, Intl

Planning Report

Database:	Casper District	Local Co-ordinate Reference:	Well Lion Creek 23-0362B
Company:	HighPoint Resources	TVD Reference:	GL 5392' & KB 18' @ 5410.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 5392' & KB 18' @ 5410.00ft
Site:	Lion Creek 23 NWNW Pad	North Reference:	True
Well:	Lion Creek 23-0362B	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

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

Site		Lion Creek 23 NWNW Pad, Site Center: Lion Creek 23-0164B			
Site Position:		Northing:	1,576,873.61 usft	Latitude:	40° 54' 45.920 N
From:	Lat/Long	Easting:	3,271,610.98 usft	Longitude:	104° 31' 2.350 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.63 °

Well	Lion Creek 23-0362B, 300' FNL 1350' FWL Sec 23 T11N R64W					
Well Position	+N/-S	-1.02 ft	Northing:	1,576,872.92 usft	Latitude:	40° 54' 45.910 N
	+E/-W	29.94 ft	Easting:	3,271,640.93 usft	Longitude:	104° 31' 1.960 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	5,392.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	6/19/2018	8.37	67.18	52,714

Design	Plan 1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	180.960

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,500.00	0.00	0.000	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,299.67	12.00	1.609	2,293.84	83.37	2.34	1.50	1.50	0.00	1.61	
4,254.67	12.00	1.609	4,206.16	489.51	13.75	0.00	0.00	0.00	0.00	
5,054.34	0.00	0.000	5,000.00	572.88	16.09	1.50	-1.50	0.00	180.00	
7,093.38	0.00	0.000	7,039.04	572.88	16.09	0.00	0.00	0.00	0.00	
7,993.38	90.00	180.995	7,612.00	0.01	6.14	10.00	10.00	-19.89	181.00	
17,986.21	90.00	180.995	7,612.00	-9,991.31	-167.45	0.00	0.00	0.00	0.00	Lion Creek 23-0362B

Scientific Drilling, Intl

Planning Report

Database:	Casper District	Local Co-ordinate Reference:	Well Lion Creek 23-0362B
Company:	HighPoint Resources	TVD Reference:	GL 5392' & KB 18' @ 5410.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 5392' & KB 18' @ 5410.00ft
Site:	Lion Creek 23 NWNW Pad	North Reference:	True
Well:	Lion Creek 23-0362B	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Planned 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)
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.000	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.000	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.000	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.000	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.000	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.000	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.000	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.000	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.000	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.000	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.000	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.000	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.000	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.000	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.000	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	1.50	1.609	1,599.99	1.31	0.04	-1.31	1.50	1.50	0.00
1,700.00	3.00	1.609	1,699.91	5.23	0.15	-5.23	1.50	1.50	0.00
1,800.00	4.50	1.609	1,799.69	11.77	0.33	-11.77	1.50	1.50	0.00
1,900.00	6.00	1.609	1,899.27	20.92	0.59	-20.92	1.50	1.50	0.00
2,000.00	7.50	1.609	1,998.57	32.67	0.92	-32.68	1.50	1.50	0.00
2,100.00	9.00	1.609	2,097.54	47.01	1.32	-47.02	1.50	1.50	0.00
2,200.00	10.50	1.609	2,196.09	63.94	1.80	-63.96	1.50	1.50	0.00
2,299.67	12.00	1.609	2,293.84	83.37	2.34	-83.40	1.50	1.50	0.00
2,300.00	12.00	1.609	2,294.16	83.44	2.34	-83.46	0.00	0.00	0.00
2,400.00	12.00	1.609	2,391.98	104.21	2.93	-104.25	0.00	0.00	0.00
2,500.00	12.00	1.609	2,489.80	124.99	3.51	-125.03	0.00	0.00	0.00
2,600.00	12.00	1.609	2,587.61	145.76	4.09	-145.81	0.00	0.00	0.00
2,700.00	12.00	1.609	2,685.43	166.54	4.68	-166.59	0.00	0.00	0.00
2,800.00	12.00	1.609	2,783.25	187.31	5.26	-187.37	0.00	0.00	0.00
2,900.00	12.00	1.609	2,881.06	208.08	5.84	-208.15	0.00	0.00	0.00
3,000.00	12.00	1.609	2,978.88	228.86	6.43	-228.93	0.00	0.00	0.00
3,100.00	12.00	1.609	3,076.70	249.63	7.01	-249.72	0.00	0.00	0.00
3,200.00	12.00	1.609	3,174.51	270.41	7.59	-270.50	0.00	0.00	0.00
3,300.00	12.00	1.609	3,272.33	291.18	8.18	-291.28	0.00	0.00	0.00
3,400.00	12.00	1.609	3,370.15	311.96	8.76	-312.06	0.00	0.00	0.00
3,500.00	12.00	1.609	3,467.96	332.73	9.35	-332.84	0.00	0.00	0.00
3,600.00	12.00	1.609	3,565.78	353.51	9.93	-353.62	0.00	0.00	0.00
3,700.00	12.00	1.609	3,663.60	374.28	10.51	-374.40	0.00	0.00	0.00
3,800.00	12.00	1.609	3,761.41	395.06	11.10	-395.19	0.00	0.00	0.00
3,900.00	12.00	1.609	3,859.23	415.83	11.68	-415.97	0.00	0.00	0.00
4,000.00	12.00	1.609	3,957.05	436.60	12.26	-436.75	0.00	0.00	0.00
4,100.00	12.00	1.609	4,054.86	457.38	12.85	-457.53	0.00	0.00	0.00
4,200.00	12.00	1.609	4,152.68	478.15	13.43	-478.31	0.00	0.00	0.00
4,254.67	12.00	1.609	4,206.16	489.51	13.75	-489.67	0.00	0.00	0.00
4,300.00	11.32	1.609	4,250.55	498.66	14.01	-498.83	1.50	-1.50	0.00
4,400.00	9.82	1.609	4,348.85	516.99	14.52	-517.16	1.50	-1.50	0.00
4,500.00	8.32	1.609	4,447.60	532.74	14.96	-532.92	1.50	-1.50	0.00
4,600.00	6.82	1.609	4,546.73	545.90	15.33	-546.08	1.50	-1.50	0.00
4,700.00	5.32	1.609	4,646.16	556.46	15.63	-556.65	1.50	-1.50	0.00
4,800.00	3.82	1.609	4,745.84	564.42	15.85	-564.60	1.50	-1.50	0.00
4,900.00	2.32	1.609	4,845.70	569.76	16.00	-569.95	1.50	-1.50	0.00
5,000.00	0.82	1.609	4,945.66	572.49	16.08	-572.68	1.50	-1.50	0.00
5,054.34	0.00	0.000	5,000.00	572.88	16.09	-573.07	1.50	-1.50	0.00

Scientific Drilling, Intl

Planning Report

Database:	Casper District	Local Co-ordinate Reference:	Well Lion Creek 23-0362B
Company:	HighPoint Resources	TVD Reference:	GL 5392' & KB 18' @ 5410.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 5392' & KB 18' @ 5410.00ft
Site:	Lion Creek 23 NWNW Pad	North Reference:	True
Well:	Lion Creek 23-0362B	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Planned 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)
5,100.00	0.00	0.000	5,045.66	572.88	16.09	-573.07	0.00	0.00	0.00
5,200.00	0.00	0.000	5,145.66	572.88	16.09	-573.07	0.00	0.00	0.00
5,300.00	0.00	0.000	5,245.66	572.88	16.09	-573.07	0.00	0.00	0.00
5,400.00	0.00	0.000	5,345.66	572.88	16.09	-573.07	0.00	0.00	0.00
5,500.00	0.00	0.000	5,445.66	572.88	16.09	-573.07	0.00	0.00	0.00
5,600.00	0.00	0.000	5,545.66	572.88	16.09	-573.07	0.00	0.00	0.00
5,700.00	0.00	0.000	5,645.66	572.88	16.09	-573.07	0.00	0.00	0.00
5,800.00	0.00	0.000	5,745.66	572.88	16.09	-573.07	0.00	0.00	0.00
5,900.00	0.00	0.000	5,845.66	572.88	16.09	-573.07	0.00	0.00	0.00
6,000.00	0.00	0.000	5,945.66	572.88	16.09	-573.07	0.00	0.00	0.00
6,100.00	0.00	0.000	6,045.66	572.88	16.09	-573.07	0.00	0.00	0.00
6,200.00	0.00	0.000	6,145.66	572.88	16.09	-573.07	0.00	0.00	0.00
6,300.00	0.00	0.000	6,245.66	572.88	16.09	-573.07	0.00	0.00	0.00
6,400.00	0.00	0.000	6,345.66	572.88	16.09	-573.07	0.00	0.00	0.00
6,500.00	0.00	0.000	6,445.66	572.88	16.09	-573.07	0.00	0.00	0.00
6,600.00	0.00	0.000	6,545.66	572.88	16.09	-573.07	0.00	0.00	0.00
6,700.00	0.00	0.000	6,645.66	572.88	16.09	-573.07	0.00	0.00	0.00
6,800.00	0.00	0.000	6,745.66	572.88	16.09	-573.07	0.00	0.00	0.00
6,900.00	0.00	0.000	6,845.66	572.88	16.09	-573.07	0.00	0.00	0.00
7,000.00	0.00	0.000	6,945.66	572.88	16.09	-573.07	0.00	0.00	0.00
7,093.38	0.00	0.000	7,039.04	572.88	16.09	-573.07	0.00	0.00	0.00
7,100.00	0.66	180.995	7,045.66	572.84	16.09	-573.03	10.00	10.00	0.00
7,200.00	10.66	180.995	7,145.04	562.99	15.92	-563.18	10.00	10.00	0.00
7,300.00	20.66	180.995	7,241.21	536.03	15.45	-536.22	10.00	10.00	0.00
7,400.00	30.66	180.995	7,331.23	492.79	14.70	-492.97	10.00	10.00	0.00
7,500.00	40.66	180.995	7,412.37	434.57	13.69	-434.74	10.00	10.00	0.00
7,600.00	50.66	180.995	7,482.17	363.15	12.45	-363.31	10.00	10.00	0.00
7,700.00	60.66	180.995	7,538.51	280.70	11.01	-280.84	10.00	10.00	0.00
7,800.00	70.66	180.995	7,579.67	189.71	9.43	-189.84	10.00	10.00	0.00
7,900.00	80.66	180.995	7,604.40	92.97	7.75	-93.08	10.00	10.00	0.00
7,993.38	90.00	180.995	7,612.00	0.01	6.14	-0.11	10.00	10.00	0.00
8,000.00	90.00	180.995	7,612.00	-6.61	6.02	6.50	0.00	0.00	0.00
8,100.00	90.00	180.995	7,612.00	-106.59	4.29	106.50	0.00	0.00	0.00
8,200.00	90.00	180.995	7,612.00	-206.58	2.55	206.50	0.00	0.00	0.00
8,300.00	90.00	180.995	7,612.00	-306.56	0.81	306.50	0.00	0.00	0.00
8,400.00	90.00	180.995	7,612.00	-406.55	-0.93	406.50	0.00	0.00	0.00
8,500.00	90.00	180.995	7,612.00	-506.53	-2.66	506.50	0.00	0.00	0.00
8,600.00	90.00	180.995	7,612.00	-606.52	-4.40	606.50	0.00	0.00	0.00
8,700.00	90.00	180.995	7,612.00	-706.50	-6.14	706.50	0.00	0.00	0.00
8,800.00	90.00	180.995	7,612.00	-806.49	-7.87	806.50	0.00	0.00	0.00
8,900.00	90.00	180.995	7,612.00	-906.47	-9.61	906.50	0.00	0.00	0.00
9,000.00	90.00	180.995	7,612.00	-1,006.46	-11.35	1,006.50	0.00	0.00	0.00
9,100.00	90.00	180.995	7,612.00	-1,106.44	-13.09	1,106.50	0.00	0.00	0.00
9,200.00	90.00	180.995	7,612.00	-1,206.43	-14.82	1,206.50	0.00	0.00	0.00
9,300.00	90.00	180.995	7,612.00	-1,306.41	-16.56	1,306.50	0.00	0.00	0.00
9,400.00	90.00	180.995	7,612.00	-1,406.40	-18.30	1,406.50	0.00	0.00	0.00
9,500.00	90.00	180.995	7,612.00	-1,506.38	-20.03	1,506.50	0.00	0.00	0.00
9,600.00	90.00	180.995	7,612.00	-1,606.37	-21.77	1,606.50	0.00	0.00	0.00
9,700.00	90.00	180.995	7,612.00	-1,706.35	-23.51	1,706.50	0.00	0.00	0.00
9,800.00	90.00	180.995	7,612.00	-1,806.34	-25.25	1,806.50	0.00	0.00	0.00
9,900.00	90.00	180.995	7,612.00	-1,906.32	-26.98	1,906.50	0.00	0.00	0.00
10,000.00	90.00	180.995	7,612.00	-2,006.30	-28.72	2,006.50	0.00	0.00	0.00
10,100.00	90.00	180.995	7,612.00	-2,106.29	-30.46	2,106.50	0.00	0.00	0.00
10,200.00	90.00	180.995	7,612.00	-2,206.27	-32.19	2,206.50	0.00	0.00	0.00

Scientific Drilling, Intl

Planning Report

Database:	Casper District	Local Co-ordinate Reference:	Well Lion Creek 23-0362B
Company:	HighPoint Resources	TVD Reference:	GL 5392' & KB 18' @ 5410.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 5392' & KB 18' @ 5410.00ft
Site:	Lion Creek 23 NWNW Pad	North Reference:	True
Well:	Lion Creek 23-0362B	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Planned 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)
10,300.00	90.00	180.995	7,612.00	-2,306.26	-33.93	2,306.50	0.00	0.00	0.00
10,400.00	90.00	180.995	7,612.00	-2,406.24	-35.67	2,406.50	0.00	0.00	0.00
10,500.00	90.00	180.995	7,612.00	-2,506.23	-37.40	2,506.50	0.00	0.00	0.00
10,600.00	90.00	180.995	7,612.00	-2,606.21	-39.14	2,606.50	0.00	0.00	0.00
10,700.00	90.00	180.995	7,612.00	-2,706.20	-40.88	2,706.50	0.00	0.00	0.00
10,800.00	90.00	180.995	7,612.00	-2,806.18	-42.62	2,806.50	0.00	0.00	0.00
10,900.00	90.00	180.995	7,612.00	-2,906.17	-44.35	2,906.50	0.00	0.00	0.00
11,000.00	90.00	180.995	7,612.00	-3,006.15	-46.09	3,006.50	0.00	0.00	0.00
11,100.00	90.00	180.995	7,612.00	-3,106.14	-47.83	3,106.50	0.00	0.00	0.00
11,200.00	90.00	180.995	7,612.00	-3,206.12	-49.56	3,206.50	0.00	0.00	0.00
11,300.00	90.00	180.995	7,612.00	-3,306.11	-51.30	3,306.50	0.00	0.00	0.00
11,400.00	90.00	180.995	7,612.00	-3,406.09	-53.04	3,406.50	0.00	0.00	0.00
11,500.00	90.00	180.995	7,612.00	-3,506.08	-54.78	3,506.50	0.00	0.00	0.00
11,600.00	90.00	180.995	7,612.00	-3,606.06	-56.51	3,606.50	0.00	0.00	0.00
11,700.00	90.00	180.995	7,612.00	-3,706.05	-58.25	3,706.50	0.00	0.00	0.00
11,800.00	90.00	180.995	7,612.00	-3,806.03	-59.99	3,806.50	0.00	0.00	0.00
11,900.00	90.00	180.995	7,612.00	-3,906.02	-61.72	3,906.50	0.00	0.00	0.00
12,000.00	90.00	180.995	7,612.00	-4,006.00	-63.46	4,006.50	0.00	0.00	0.00
12,100.00	90.00	180.995	7,612.00	-4,105.99	-65.20	4,106.50	0.00	0.00	0.00
12,200.00	90.00	180.995	7,612.00	-4,205.97	-66.94	4,206.50	0.00	0.00	0.00
12,300.00	90.00	180.995	7,612.00	-4,305.96	-68.67	4,306.50	0.00	0.00	0.00
12,400.00	90.00	180.995	7,612.00	-4,405.94	-70.41	4,406.50	0.00	0.00	0.00
12,500.00	90.00	180.995	7,612.00	-4,505.93	-72.15	4,506.50	0.00	0.00	0.00
12,600.00	90.00	180.995	7,612.00	-4,605.91	-73.88	4,606.50	0.00	0.00	0.00
12,700.00	90.00	180.995	7,612.00	-4,705.90	-75.62	4,706.50	0.00	0.00	0.00
12,800.00	90.00	180.995	7,612.00	-4,805.88	-77.36	4,806.50	0.00	0.00	0.00
12,900.00	90.00	180.995	7,612.00	-4,905.87	-79.09	4,906.50	0.00	0.00	0.00
13,000.00	90.00	180.995	7,612.00	-5,005.85	-80.83	5,006.50	0.00	0.00	0.00
13,100.00	90.00	180.995	7,612.00	-5,105.84	-82.57	5,106.50	0.00	0.00	0.00
13,200.00	90.00	180.995	7,612.00	-5,205.82	-84.31	5,206.50	0.00	0.00	0.00
13,300.00	90.00	180.995	7,612.00	-5,305.81	-86.04	5,306.50	0.00	0.00	0.00
13,400.00	90.00	180.995	7,612.00	-5,405.79	-87.78	5,406.50	0.00	0.00	0.00
13,500.00	90.00	180.995	7,612.00	-5,505.78	-89.52	5,506.50	0.00	0.00	0.00
13,600.00	90.00	180.995	7,612.00	-5,605.76	-91.25	5,606.50	0.00	0.00	0.00
13,700.00	90.00	180.995	7,612.00	-5,705.75	-92.99	5,706.50	0.00	0.00	0.00
13,800.00	90.00	180.995	7,612.00	-5,805.73	-94.73	5,806.50	0.00	0.00	0.00
13,900.00	90.00	180.995	7,612.00	-5,905.72	-96.47	5,906.50	0.00	0.00	0.00
14,000.00	90.00	180.995	7,612.00	-6,005.70	-98.20	6,006.50	0.00	0.00	0.00
14,100.00	90.00	180.995	7,612.00	-6,105.69	-99.94	6,106.50	0.00	0.00	0.00
14,200.00	90.00	180.995	7,612.00	-6,205.67	-101.68	6,206.50	0.00	0.00	0.00
14,300.00	90.00	180.995	7,612.00	-6,305.66	-103.41	6,306.50	0.00	0.00	0.00
14,400.00	90.00	180.995	7,612.00	-6,405.64	-105.15	6,406.50	0.00	0.00	0.00
14,500.00	90.00	180.995	7,612.00	-6,505.63	-106.89	6,506.50	0.00	0.00	0.00
14,600.00	90.00	180.995	7,612.00	-6,605.61	-108.63	6,606.50	0.00	0.00	0.00
14,700.00	90.00	180.995	7,612.00	-6,705.60	-110.36	6,706.50	0.00	0.00	0.00
14,800.00	90.00	180.995	7,612.00	-6,805.58	-112.10	6,806.50	0.00	0.00	0.00
14,900.00	90.00	180.995	7,612.00	-6,905.57	-113.84	6,906.50	0.00	0.00	0.00
15,000.00	90.00	180.995	7,612.00	-7,005.55	-115.57	7,006.50	0.00	0.00	0.00
15,100.00	90.00	180.995	7,612.00	-7,105.54	-117.31	7,106.50	0.00	0.00	0.00
15,200.00	90.00	180.995	7,612.00	-7,205.52	-119.05	7,206.50	0.00	0.00	0.00
15,300.00	90.00	180.995	7,612.00	-7,305.51	-120.78	7,306.50	0.00	0.00	0.00
15,400.00	90.00	180.995	7,612.00	-7,405.49	-122.52	7,406.50	0.00	0.00	0.00
15,500.00	90.00	180.995	7,612.00	-7,505.48	-124.26	7,506.50	0.00	0.00	0.00
15,600.00	90.00	180.995	7,612.00	-7,605.46	-126.00	7,606.50	0.00	0.00	0.00

Scientific Drilling, Intl

Planning Report

Database:	Casper District	Local Co-ordinate Reference:	Well Lion Creek 23-0362B
Company:	HighPoint Resources	TVD Reference:	GL 5392' & KB 18' @ 5410.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 5392' & KB 18' @ 5410.00ft
Site:	Lion Creek 23 NWNW Pad	North Reference:	True
Well:	Lion Creek 23-0362B	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Planned 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)	
15,700.00	90.00	180.995	7,612.00	-7,705.44	-127.73	7,706.50	0.00	0.00	0.00	
15,800.00	90.00	180.995	7,612.00	-7,805.43	-129.47	7,806.50	0.00	0.00	0.00	
15,900.00	90.00	180.995	7,612.00	-7,905.41	-131.21	7,906.50	0.00	0.00	0.00	
16,000.00	90.00	180.995	7,612.00	-8,005.40	-132.94	8,006.50	0.00	0.00	0.00	
16,100.00	90.00	180.995	7,612.00	-8,105.38	-134.68	8,106.50	0.00	0.00	0.00	
16,200.00	90.00	180.995	7,612.00	-8,205.37	-136.42	8,206.50	0.00	0.00	0.00	
16,300.00	90.00	180.995	7,612.00	-8,305.35	-138.16	8,306.50	0.00	0.00	0.00	
16,400.00	90.00	180.995	7,612.00	-8,405.34	-139.89	8,406.50	0.00	0.00	0.00	
16,500.00	90.00	180.995	7,612.00	-8,505.32	-141.63	8,506.50	0.00	0.00	0.00	
16,600.00	90.00	180.995	7,612.00	-8,605.31	-143.37	8,606.50	0.00	0.00	0.00	
16,700.00	90.00	180.995	7,612.00	-8,705.29	-145.10	8,706.50	0.00	0.00	0.00	
16,800.00	90.00	180.995	7,612.00	-8,805.28	-146.84	8,806.50	0.00	0.00	0.00	
16,900.00	90.00	180.995	7,612.00	-8,905.26	-148.58	8,906.50	0.00	0.00	0.00	
17,000.00	90.00	180.995	7,612.00	-9,005.25	-150.32	9,006.50	0.00	0.00	0.00	
17,100.00	90.00	180.995	7,612.00	-9,105.23	-152.05	9,106.50	0.00	0.00	0.00	
17,200.00	90.00	180.995	7,612.00	-9,205.22	-153.79	9,206.50	0.00	0.00	0.00	
17,300.00	90.00	180.995	7,612.00	-9,305.20	-155.53	9,306.50	0.00	0.00	0.00	
17,400.00	90.00	180.995	7,612.00	-9,405.19	-157.26	9,406.50	0.00	0.00	0.00	
17,500.00	90.00	180.995	7,612.00	-9,505.17	-159.00	9,506.50	0.00	0.00	0.00	
17,600.00	90.00	180.995	7,612.00	-9,605.16	-160.74	9,606.50	0.00	0.00	0.00	
17,700.00	90.00	180.995	7,612.00	-9,705.14	-162.47	9,706.50	0.00	0.00	0.00	
17,800.00	90.00	180.995	7,612.00	-9,805.13	-164.21	9,806.50	0.00	0.00	0.00	
17,900.00	90.00	180.995	7,612.00	-9,905.11	-165.95	9,906.50	0.00	0.00	0.00	
17,986.21	90.00	180.995	7,612.00	-9,991.31	-167.45	9,992.71	0.00	0.00	0.00	

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
- hit/miss target										
- Shape										
Lion Creek 23-0362B LF	0.00	0.000	7,612.00	0.01	6.14	1,576,873.00	3,271,647.07	40° 54' 45.910 N	104° 31' 1.880 W	
- plan misses target center by 0.01ft at 7993.38ft MD (7612.00 TVD, 0.01 N, 6.14 E)										
- Point										
Lion Creek 23-0362B PE	0.00	0.000	7,612.00	-9,991.31	-167.45	1,566,880.39	3,271,584.23	40° 53' 7.190 N	104° 31' 4.140 W	
- plan hits target center										
- Point										