



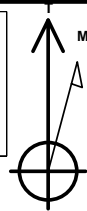
PROJECT DETAILS: Weld County, CO NAD 83

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

Plan: Plan 1 (Park 4-63-4-1609B/OH)

Created By: Seth Burstad

Project: Weld County, CO NAD 83
Site: Park 4-63-4 NE Pad
Well: Park 4-63-4-1609B
Wellbore: OH
Design: Plan 1



Azimuths to True North
Magnetic North: 8.05°

Magnetic Field
Strength: 52202.9nT
Dip Angle: 66.88°
Date: 8/23/2018
Model: HDGM

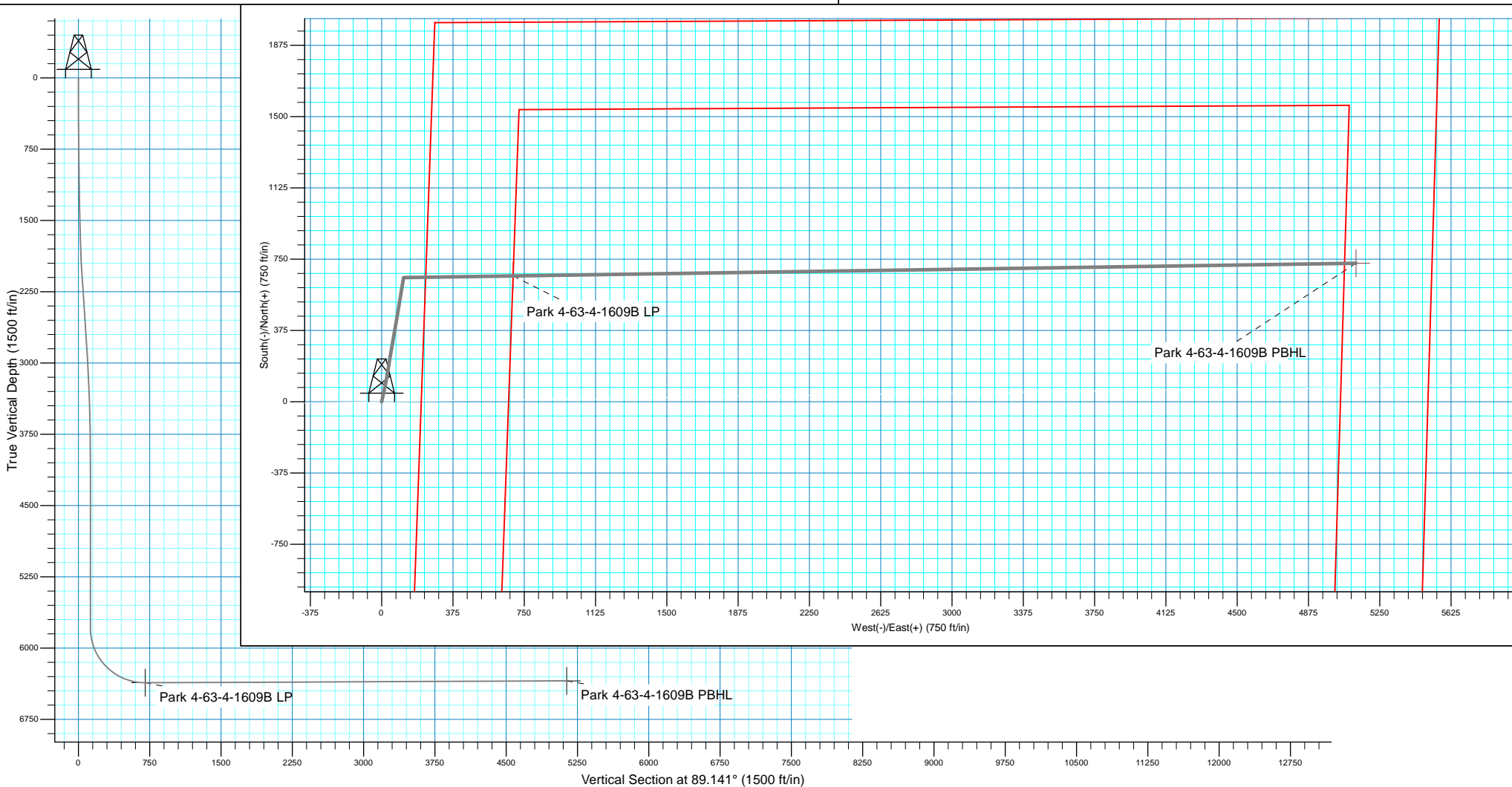


SECTION DETAILS

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
500.00	0.00	0.000	500.00	0.00	0.00	0.00	0.00	0.00
1000.00	5.00	12.508	999.37	21.29	4.72	1.00	12.51	5.04
1703.31	5.00	12.508	1700.00	81.13	18.00	0.00	0.00	19.21
2003.55	20.00	9.627	1992.28	144.89	29.48	5.00	-3.81	31.65
2838.50	20.00	9.627	2776.87	426.49	77.25	0.00	0.00	83.64
4172.06	0.00	0.000	4083.50	653.68	115.79	1.50	180.00	125.58
5880.61	0.00	0.000	5792.05	653.68	115.79	0.00	0.00	125.58
6783.20	90.26	89.141	6365.00	662.31	691.27	10.00	89.14	701.12
11217.59	90.26	89.141	6345.00	728.77	5125.12	0.00	0.00	5135.47

WELL DETAILS: Park 4-63-4-1609B

		GL 4560' & KB 20' @ 4580.00ft			Longitude
+N/-S	+E/-W	Northing	Easting	Latitude	
0.00	0.00	1369668.37	3297079.66	40° 20' 35.664 N	104° 26' 3.095 W





HighPoint Resources

Weld County, CO NAD 83

Park 4-63-4 NE Pad

Park 4-63-4-1609B

OH

Plan: Plan 1

Standard Planning Report

23 August, 2018



Database:	Casper District	Local Co-ordinate Reference:	Well Park 4-63-4-1609B
Company:	HighPoint Resources	TVD Reference:	GL 4560' & KB 20' @ 4580.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4560' & KB 20' @ 4580.00ft
Site:	Park 4-63-4 NE Pad	North Reference:	True
Well:	Park 4-63-4-1609B	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		Park 4-63-4 NE Pad, Site Center : Park 4-63-4-0108B			
Site Position:		Northing:		1,369,698.64 usft	
From:		Easting:		3,297,080.42 usft	
Position Uncertainty:		Slot Radius:		Grid Convergence:	
Lat/Long		0.00 ft		13.200 in	
				0.69 °	
				40° 20' 35.963 N	
				104° 26' 3.080 W	

Well	Park 4-63-4-1609B, 1994' FNL 207' FEL Sec 4 T4N R63W					
Well Position	+N/-S	-30.25 ft	Northing:	1,369,668.37 usft	Latitude:	40° 20' 35.664 N
	+E/-W	-1.11 ft	Easting:	3,297,079.67 usft	Longitude:	104° 26' 3.095 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	4,560.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	8/23/2018	8.05	66.88	52,203

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	89.141

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	
500.00	0.00	0.000	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,000.00	5.00	12.508	999.37	21.29	4.72	1.00	1.00	0.00	12.51	
1,703.31	5.00	12.508	1,700.00	81.13	18.00	0.00	0.00	0.00	0.00	
2,003.55	20.00	9.627	1,992.28	144.89	29.48	5.00	5.00	-0.96	-3.81	
2,838.50	20.00	9.627	2,776.87	426.49	77.25	0.00	0.00	0.00	0.00	
4,172.06	0.00	0.000	4,083.50	653.68	115.79	1.50	-1.50	0.00	180.00	
5,880.61	0.00	0.000	5,792.05	653.68	115.79	0.00	0.00	0.00	0.00	
6,783.20	90.26	89.141	6,365.00	662.31	691.27	10.00	10.00	9.88	89.14	
11,217.59	90.26	89.141	6,345.00	728.77	5,125.12	0.00	0.00	0.00	0.00	Park 4-63-4-1609B PI

Database:	Casper District	Local Co-ordinate Reference:	Well Park 4-63-4-1609B
Company:	HighPoint Resources	TVD Reference:	GL 4560' & KB 20' @ 4580.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4560' & KB 20' @ 4580.00ft
Site:	Park 4-63-4 NE Pad	North Reference:	True
Well:	Park 4-63-4-1609B	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
Start Build 1.00									
600.00	1.00	12.508	599.99	0.85	0.19	0.20	1.00	1.00	0.00
700.00	2.00	12.508	699.96	3.41	0.76	0.81	1.00	1.00	0.00
800.00	3.00	12.508	799.86	7.67	1.70	1.82	1.00	1.00	0.00
900.00	4.00	12.508	899.68	13.63	3.02	3.23	1.00	1.00	0.00
1,000.00	5.00	12.508	999.37	21.29	4.72	5.04	1.00	1.00	0.00
Start 703.31 hold at 1000.00 MD									
1,100.00	5.00	12.508	1,098.99	29.79	6.61	7.06	0.00	0.00	0.00
1,200.00	5.00	12.508	1,198.60	38.30	8.50	9.07	0.00	0.00	0.00
1,300.00	5.00	12.508	1,298.22	46.81	10.38	11.09	0.00	0.00	0.00
1,400.00	5.00	12.508	1,397.84	55.32	12.27	13.10	0.00	0.00	0.00
1,500.00	5.00	12.508	1,497.46	63.83	14.16	15.12	0.00	0.00	0.00
1,600.00	5.00	12.508	1,597.08	72.34	16.05	17.13	0.00	0.00	0.00
1,700.00	5.00	12.508	1,696.70	80.85	17.94	19.15	0.00	0.00	0.00
1,703.31	5.00	12.508	1,700.00	81.13	18.00	19.21	0.00	0.00	0.00
Start DLS 5.00 TFO -3.81									
1,800.00	9.83	10.630	1,795.85	93.36	20.43	21.83	5.00	4.99	-1.94
1,900.00	14.83	9.969	1,893.52	114.36	24.23	25.94	5.00	5.00	-0.66
2,000.00	19.83	9.636	1,988.95	143.70	29.28	31.43	5.00	5.00	-0.33
2,003.55	20.00	9.627	1,992.28	144.89	29.48	31.65	5.00	5.00	-0.25
Start 834.95 hold at 2003.55 MD									
2,100.00	20.00	9.627	2,082.92	177.42	35.00	37.66	0.00	0.00	0.00
2,200.00	20.00	9.627	2,176.88	211.15	40.72	43.88	0.00	0.00	0.00
2,300.00	20.00	9.627	2,270.85	244.88	46.44	50.11	0.00	0.00	0.00
2,400.00	20.00	9.627	2,364.82	278.60	52.17	56.34	0.00	0.00	0.00
2,500.00	20.00	9.627	2,458.79	312.33	57.89	62.56	0.00	0.00	0.00
2,600.00	20.00	9.627	2,552.75	346.05	63.61	68.79	0.00	0.00	0.00
2,700.00	20.00	9.627	2,646.72	379.78	69.33	75.01	0.00	0.00	0.00
2,800.00	20.00	9.627	2,740.69	413.51	75.05	81.24	0.00	0.00	0.00
2,838.50	20.00	9.627	2,776.87	426.49	77.25	83.64	0.00	0.00	0.00
Start Drop -1.50									
2,900.00	19.08	9.627	2,834.82	446.77	80.69	87.38	1.50	-1.50	0.00
3,000.00	17.58	9.627	2,929.74	477.78	85.95	93.11	1.50	-1.50	0.00
3,100.00	16.08	9.627	3,025.46	506.32	90.79	98.37	1.50	-1.50	0.00
3,200.00	14.58	9.627	3,121.90	532.39	95.22	103.19	1.50	-1.50	0.00
3,300.00	13.08	9.627	3,218.99	555.96	99.21	107.54	1.50	-1.50	0.00
3,400.00	11.58	9.627	3,316.68	577.01	102.79	111.42	1.50	-1.50	0.00
3,500.00	10.08	9.627	3,414.90	595.54	105.93	114.84	1.50	-1.50	0.00
3,600.00	8.58	9.627	3,513.57	611.52	108.64	117.79	1.50	-1.50	0.00
3,700.00	7.08	9.627	3,612.64	624.96	110.92	120.27	1.50	-1.50	0.00
3,800.00	5.58	9.627	3,712.03	635.83	112.76	122.28	1.50	-1.50	0.00
3,900.00	4.08	9.627	3,811.67	644.13	114.17	123.81	1.50	-1.50	0.00
4,000.00	2.58	9.627	3,911.50	649.86	115.14	124.87	1.50	-1.50	0.00
4,100.00	1.08	9.627	4,011.44	653.01	115.68	125.45	1.50	-1.50	0.00
4,172.06	0.00	0.000	4,083.50	653.68	115.79	125.58	1.50	-1.50	0.00
Start 1708.55 hold at 4172.06 MD									
4,200.00	0.00	0.000	4,111.44	653.68	115.79	125.58	0.00	0.00	0.00

Database:	Casper District	Local Co-ordinate Reference:	Well Park 4-63-4-1609B
Company:	HighPoint Resources	TVD Reference:	GL 4560' & KB 20' @ 4580.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4560' & KB 20' @ 4580.00ft
Site:	Park 4-63-4 NE Pad	North Reference:	True
Well:	Park 4-63-4-1609B	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)
4,300.00	0.00	0.000	4,211.44	653.68	115.79	125.58	0.00	0.00	0.00
4,400.00	0.00	0.000	4,311.44	653.68	115.79	125.58	0.00	0.00	0.00
4,500.00	0.00	0.000	4,411.44	653.68	115.79	125.58	0.00	0.00	0.00
4,600.00	0.00	0.000	4,511.44	653.68	115.79	125.58	0.00	0.00	0.00
4,700.00	0.00	0.000	4,611.44	653.68	115.79	125.58	0.00	0.00	0.00
4,800.00	0.00	0.000	4,711.44	653.68	115.79	125.58	0.00	0.00	0.00
4,900.00	0.00	0.000	4,811.44	653.68	115.79	125.58	0.00	0.00	0.00
5,000.00	0.00	0.000	4,911.44	653.68	115.79	125.58	0.00	0.00	0.00
5,100.00	0.00	0.000	5,011.44	653.68	115.79	125.58	0.00	0.00	0.00
5,200.00	0.00	0.000	5,111.44	653.68	115.79	125.58	0.00	0.00	0.00
5,300.00	0.00	0.000	5,211.44	653.68	115.79	125.58	0.00	0.00	0.00
5,400.00	0.00	0.000	5,311.44	653.68	115.79	125.58	0.00	0.00	0.00
5,500.00	0.00	0.000	5,411.44	653.68	115.79	125.58	0.00	0.00	0.00
5,600.00	0.00	0.000	5,511.44	653.68	115.79	125.58	0.00	0.00	0.00
5,700.00	0.00	0.000	5,611.44	653.68	115.79	125.58	0.00	0.00	0.00
5,800.00	0.00	0.000	5,711.44	653.68	115.79	125.58	0.00	0.00	0.00
5,880.61	0.00	0.000	5,792.05	653.68	115.79	125.58	0.00	0.00	0.00
Start DLS 10.00 TFO 89.14									
5,900.00	1.94	89.141	5,811.43	653.68	116.12	125.90	10.00	10.00	0.00
6,000.00	11.94	89.141	5,910.58	653.87	128.18	137.97	10.00	10.00	0.00
6,100.00	21.94	89.141	6,006.12	654.30	157.28	167.07	10.00	10.00	0.00
6,200.00	31.94	89.141	6,095.15	654.98	202.52	212.31	10.00	10.00	0.00
6,300.00	41.94	89.141	6,174.98	655.88	262.53	272.33	10.00	10.00	0.00
6,400.00	51.94	89.141	6,243.17	656.97	335.49	345.30	10.00	10.00	0.00
6,500.00	61.94	89.141	6,297.65	658.23	419.19	429.01	10.00	10.00	0.00
6,600.00	71.94	89.141	6,336.78	659.61	511.07	520.90	10.00	10.00	0.00
6,700.00	81.94	89.141	6,359.35	661.06	608.35	618.19	10.00	10.00	0.00
6,783.20	90.26	89.141	6,365.00	662.31	691.27	701.12	10.00	10.00	0.00
Start 4434.39 hold at 6783.20 MD									
6,800.00	90.26	89.141	6,364.93	662.56	708.07	717.92	0.00	0.00	0.00
6,900.00	90.26	89.141	6,364.48	664.06	808.06	817.92	0.00	0.00	0.00
7,000.00	90.26	89.141	6,364.02	665.56	908.04	917.92	0.00	0.00	0.00
7,100.00	90.26	89.141	6,363.57	667.05	1,008.03	1,017.92	0.00	0.00	0.00
7,200.00	90.26	89.141	6,363.12	668.55	1,108.02	1,117.92	0.00	0.00	0.00
7,300.00	90.26	89.141	6,362.67	670.05	1,208.01	1,217.92	0.00	0.00	0.00
7,400.00	90.26	89.141	6,362.22	671.55	1,308.00	1,317.92	0.00	0.00	0.00
7,500.00	90.26	89.141	6,361.77	673.05	1,407.98	1,417.92	0.00	0.00	0.00
7,600.00	90.26	89.141	6,361.32	674.55	1,507.97	1,517.91	0.00	0.00	0.00
7,700.00	90.26	89.141	6,360.87	676.05	1,607.96	1,617.91	0.00	0.00	0.00
7,800.00	90.26	89.141	6,360.42	677.55	1,707.95	1,717.91	0.00	0.00	0.00
7,900.00	90.26	89.141	6,359.96	679.05	1,807.93	1,817.91	0.00	0.00	0.00
8,000.00	90.26	89.141	6,359.51	680.54	1,907.92	1,917.91	0.00	0.00	0.00
8,100.00	90.26	89.141	6,359.06	682.04	2,007.91	2,017.91	0.00	0.00	0.00
8,200.00	90.26	89.141	6,358.61	683.54	2,107.90	2,117.91	0.00	0.00	0.00
8,300.00	90.26	89.141	6,358.16	685.04	2,207.89	2,217.91	0.00	0.00	0.00
8,400.00	90.26	89.141	6,357.71	686.54	2,307.87	2,317.91	0.00	0.00	0.00
8,500.00	90.26	89.141	6,357.26	688.04	2,407.86	2,417.91	0.00	0.00	0.00
8,600.00	90.26	89.141	6,356.81	689.54	2,507.85	2,517.90	0.00	0.00	0.00
8,700.00	90.26	89.141	6,356.36	691.04	2,607.84	2,617.90	0.00	0.00	0.00
8,800.00	90.26	89.141	6,355.91	692.53	2,707.82	2,717.90	0.00	0.00	0.00
8,900.00	90.26	89.141	6,355.45	694.03	2,807.81	2,817.90	0.00	0.00	0.00
9,000.00	90.26	89.141	6,355.00	695.53	2,907.80	2,917.90	0.00	0.00	0.00
9,100.00	90.26	89.141	6,354.55	697.03	3,007.79	3,017.90	0.00	0.00	0.00
9,200.00	90.26	89.141	6,354.10	698.53	3,107.78	3,117.90	0.00	0.00	0.00

Database:	Casper District	Local Co-ordinate Reference:	Well Park 4-63-4-1609B
Company:	HighPoint Resources	TVD Reference:	GL 4560' & KB 20' @ 4580.00ft
Project:	Weld County, CO NAD 83	MD Reference:	GL 4560' & KB 20' @ 4580.00ft
Site:	Park 4-63-4 NE Pad	North Reference:	True
Well:	Park 4-63-4-1609B	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)	
9,300.00	90.26	89.141	6,353.65	700.03	3,207.76	3,217.90	0.00	0.00	0.00	
9,400.00	90.26	89.141	6,353.20	701.53	3,307.75	3,317.90	0.00	0.00	0.00	
9,500.00	90.26	89.141	6,352.75	703.03	3,407.74	3,417.90	0.00	0.00	0.00	
9,600.00	90.26	89.141	6,352.30	704.53	3,507.73	3,517.89	0.00	0.00	0.00	
9,700.00	90.26	89.141	6,351.85	706.02	3,607.71	3,617.89	0.00	0.00	0.00	
9,800.00	90.26	89.141	6,351.39	707.52	3,707.70	3,717.89	0.00	0.00	0.00	
9,900.00	90.26	89.141	6,350.94	709.02	3,807.69	3,817.89	0.00	0.00	0.00	
10,000.00	90.26	89.141	6,350.49	710.52	3,907.68	3,917.89	0.00	0.00	0.00	
10,100.00	90.26	89.141	6,350.04	712.02	4,007.67	4,017.89	0.00	0.00	0.00	
10,200.00	90.26	89.141	6,349.59	713.52	4,107.65	4,117.89	0.00	0.00	0.00	
10,300.00	90.26	89.141	6,349.14	715.02	4,207.64	4,217.89	0.00	0.00	0.00	
10,400.00	90.26	89.141	6,348.69	716.52	4,307.63	4,317.89	0.00	0.00	0.00	
10,500.00	90.26	89.141	6,348.24	718.01	4,407.62	4,417.89	0.00	0.00	0.00	
10,600.00	90.26	89.141	6,347.79	719.51	4,507.60	4,517.88	0.00	0.00	0.00	
10,700.00	90.26	89.141	6,347.33	721.01	4,607.59	4,617.88	0.00	0.00	0.00	
10,800.00	90.26	89.141	6,346.88	722.51	4,707.58	4,717.88	0.00	0.00	0.00	
10,900.00	90.26	89.141	6,346.43	724.01	4,807.57	4,817.88	0.00	0.00	0.00	
11,000.00	90.26	89.141	6,345.98	725.51	4,907.55	4,917.88	0.00	0.00	0.00	
11,100.00	90.26	89.141	6,345.53	727.01	5,007.54	5,017.88	0.00	0.00	0.00	
11,200.00	90.26	89.141	6,345.08	728.51	5,107.53	5,117.88	0.00	0.00	0.00	
11,217.59	90.26	89.141	6,345.00	728.77	5,125.12	5,135.47	0.00	0.00	0.00	
TD at 11217.59										

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										
Park 4-63-4-1609B PBH	0.00	0.000	6,345.00	728.77	5,125.12	1,370,458.69	3,302,195.64	40° 20' 42.860 N	104° 24' 56.902 W	
- plan hits target center										
- Point										
Park 4-63-4-1609B LP	0.00	0.000	6,365.00	662.31	691.27	1,370,338.94	3,297,762.92	40° 20' 42.209 N	104° 25' 54.167 W	
- plan misses target center by 0.01ft at 6783.20ft MD (6365.00 TVD, 662.31 N, 691.27 E)										
- Point										

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
500.00	500.00	0.00	0.00	Start Build 1.00	
1,000.00	999.37	21.29	4.72	Start 703.31 hold at 1000.00 MD	
1,703.31	1,700.00	81.13	18.00	Start DLS 5.00 TFO -3.81	
2,003.55	1,992.28	144.89	29.48	Start 834.95 hold at 2003.55 MD	
2,838.50	2,776.87	426.49	77.25	Start Drop -1.50	
4,172.06	4,083.50	653.68	115.79	Start 1708.55 hold at 4172.06 MD	
5,880.61	5,792.05	653.68	115.79	Start DLS 10.00 TFO 89.14	
6,783.20	6,365.00	662.31	691.27	Start 4434.39 hold at 6783.20 MD	
11,217.59	6,345.00	728.77	5,125.12	TD at 11217.59	