



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 4-63-4-1609D/OH)

Created By: Seth Burstad

Project: Weld County, CO NAD 83
Site: Park 4-63-4 NE Pad
Well: Park 4-63-4-1609D
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

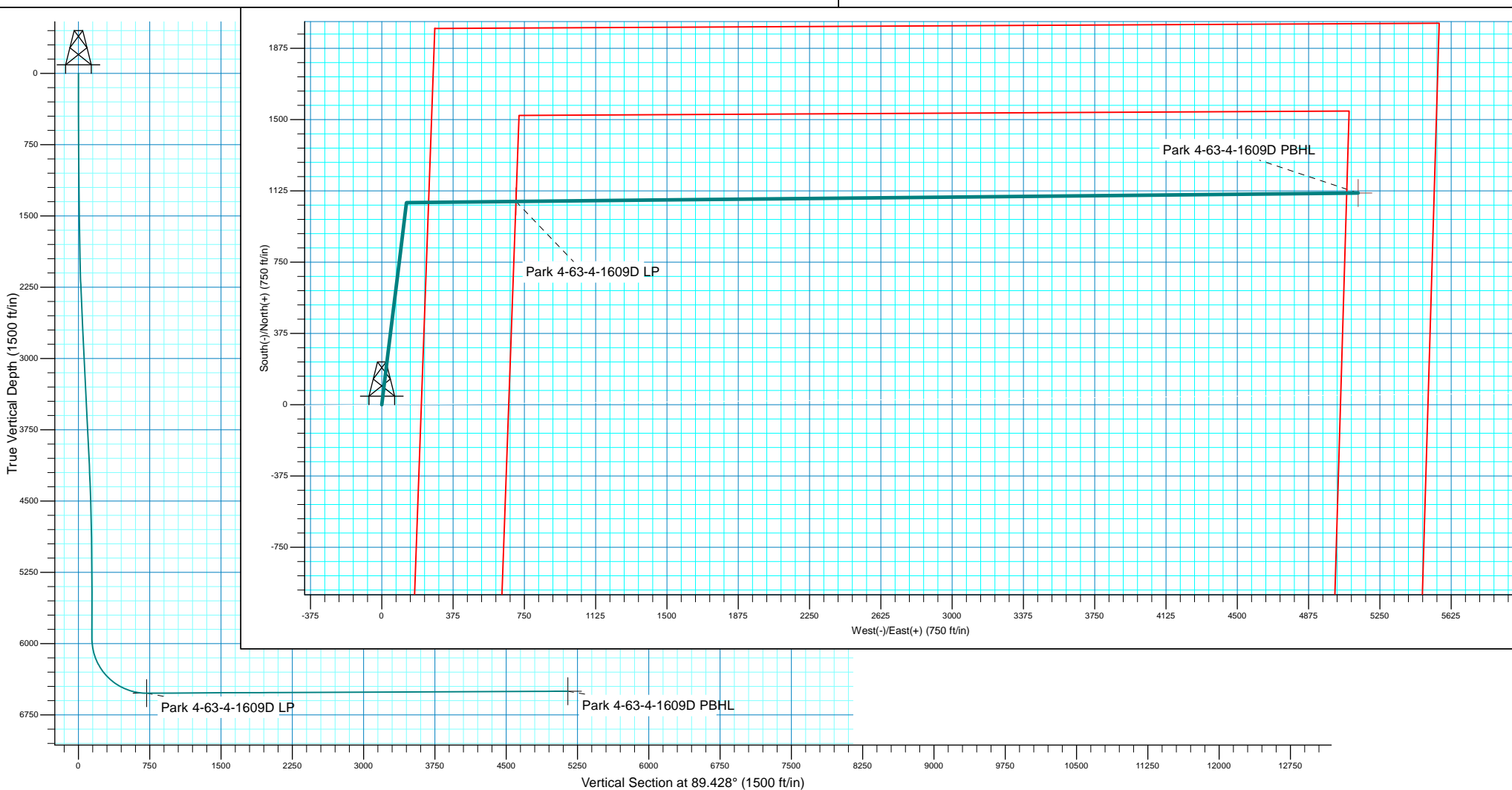


SECTION DETAILS

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	6.994	999.37	21.64	2.65	1.00	6.99	2.87
1703.31	5.00	6.994	1700.00	82.48	10.12	0.00	0.00	10.94
2453.25	20.00	6.994	2430.08	243.12	29.83	2.00	0.00	32.25
4197.50	20.00	6.994	4069.15	835.22	102.46	0.00	0.00	110.80
5530.76	0.00	0.000	5375.50	1063.84	130.51	1.50	180.00	141.12
6103.31	0.00	0.000	5948.05	1063.84	130.51	0.00	0.00	141.12
7005.90	90.26	89.428	6521.00	1069.59	706.03	10.00	89.43	716.67
11436.32	90.26	89.428	6501.00	1113.83	5136.18	0.00	0.00	5147.05

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

		GL 4560' & KB 20' @ 4580.00ft		4560.00	Longitude
+N/-S	+E/-W	Northing	Easting	Latitude	
0.00	0.00	1369683.31	3297080.04	40° 20' 35.811 N	104° 26' 3.088 W





HighPoint Resources

Weld County, CO NAD 83

Park 4-63-4 NE Pad

Park 4-63-4-1609D

OH

Plan: Plan 1

Standard Planning Report

23 August, 2018



Database:	Casper District	Local Co-ordinate Reference:	Well Park 4-63-4-1609D
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 4-63-4-1609D	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	Latitude:	40° 20' 35.963 N
From:	Lat/Long	Easting:	3,297,080.42 usft	Longitude:	104° 26' 3.080 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.69 °

Well	Park 4-63-4-1609D, 1979' FNL 207' FEL Sec 4 T4N R63W					
Well Position	+N/-S	-15.32 ft	Northing:	1,369,683.31 usft	Latitude:	40° 20' 35.811 N
	+E/-W	-0.56 ft	Easting:	3,297,080.04 usft	Longitude:	104° 26' 3.088 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)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.00	0.00	0.00	89.428

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	6.994	999.37	21.64	2.65	1.00	1.00	0.00	6.99	
1,703.31	5.00	6.994	1,700.00	82.48	10.12	0.00	0.00	0.00	0.00	
2,453.25	20.00	6.994	2,430.08	243.12	29.83	2.00	2.00	0.00	0.00	
4,197.50	20.00	6.994	4,069.15	835.22	102.46	0.00	0.00	0.00	0.00	
5,530.76	0.00	0.000	5,375.50	1,063.84	130.51	1.50	-1.50	0.00	180.00	
6,103.31	0.00	0.000	5,948.05	1,063.84	130.51	0.00	0.00	0.00	0.00	
7,005.90	90.26	89.428	6,521.00	1,069.59	706.03	10.00	10.00	9.91	89.43	
11,436.32	90.26	89.428	6,501.00	1,113.83	5,136.18	0.00	0.00	0.00	0.00	Park 4-63-4-1609D PI

Database:	Casper District	Local Co-ordinate Reference:	Well Park 4-63-4-1609D
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 4-63-4-1609D	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	6.994	599.99	0.87	0.11	0.11	1.00	1.00	0.00
700.00	2.00	6.994	699.96	3.46	0.42	0.46	1.00	1.00	0.00
800.00	3.00	6.994	799.86	7.79	0.96	1.03	1.00	1.00	0.00
900.00	4.00	6.994	899.68	13.85	1.70	1.84	1.00	1.00	0.00
1,000.00	5.00	6.994	999.37	21.64	2.65	2.87	1.00	1.00	0.00
Start 703.31 hold at 1000.00 MD									
1,100.00	5.00	6.994	1,098.99	30.29	3.72	4.02	0.00	0.00	0.00
1,200.00	5.00	6.994	1,198.60	38.94	4.78	5.17	0.00	0.00	0.00
1,300.00	5.00	6.994	1,298.22	47.59	5.84	6.31	0.00	0.00	0.00
1,400.00	5.00	6.994	1,397.84	56.24	6.90	7.46	0.00	0.00	0.00
1,500.00	5.00	6.994	1,497.46	64.89	7.96	8.61	0.00	0.00	0.00
1,600.00	5.00	6.994	1,597.08	73.54	9.02	9.76	0.00	0.00	0.00
1,700.00	5.00	6.994	1,696.70	82.20	10.08	10.90	0.00	0.00	0.00
1,703.31	5.00	6.994	1,700.00	82.48	10.12	10.94	0.00	0.00	0.00
Start DLS 2.00 TFO 0.00									
1,800.00	6.93	6.994	1,796.16	92.46	11.34	12.27	2.00	2.00	0.00
1,900.00	8.93	6.994	1,895.20	106.16	13.02	14.08	2.00	2.00	0.00
2,000.00	10.93	6.994	1,993.69	123.28	15.12	16.35	2.00	2.00	0.00
2,100.00	12.93	6.994	2,091.53	143.80	17.64	19.08	2.00	2.00	0.00
2,200.00	14.93	6.994	2,188.58	167.70	20.57	22.25	2.00	2.00	0.00
2,300.00	16.93	6.994	2,284.73	194.95	23.92	25.86	2.00	2.00	0.00
2,400.00	18.93	6.994	2,379.87	225.51	27.67	29.92	2.00	2.00	0.00
2,453.25	20.00	6.994	2,430.08	243.12	29.83	32.25	2.00	2.00	0.00
Start 1744.25 hold at 2453.25 MD									
2,500.00	20.00	6.994	2,474.01	258.99	31.77	34.36	0.00	0.00	0.00
2,600.00	20.00	6.994	2,567.98	292.94	35.94	38.86	0.00	0.00	0.00
2,700.00	20.00	6.994	2,661.95	326.88	40.10	43.36	0.00	0.00	0.00
2,800.00	20.00	6.994	2,755.92	360.83	44.27	47.87	0.00	0.00	0.00
2,900.00	20.00	6.994	2,849.89	394.78	48.43	52.37	0.00	0.00	0.00
3,000.00	20.00	6.994	2,943.86	428.72	52.59	56.87	0.00	0.00	0.00
3,100.00	20.00	6.994	3,037.83	462.67	56.76	61.38	0.00	0.00	0.00
3,200.00	20.00	6.994	3,131.80	496.61	60.92	65.88	0.00	0.00	0.00
3,300.00	20.00	6.994	3,225.77	530.56	65.09	70.38	0.00	0.00	0.00
3,400.00	20.00	6.994	3,319.74	564.50	69.25	74.88	0.00	0.00	0.00
3,500.00	20.00	6.994	3,413.71	598.45	73.42	79.39	0.00	0.00	0.00
3,600.00	20.00	6.994	3,507.68	632.40	77.58	83.89	0.00	0.00	0.00
3,700.00	20.00	6.994	3,601.65	666.34	81.75	88.39	0.00	0.00	0.00
3,800.00	20.00	6.994	3,695.62	700.29	85.91	92.90	0.00	0.00	0.00
3,900.00	20.00	6.994	3,789.59	734.23	90.07	97.40	0.00	0.00	0.00
4,000.00	20.00	6.994	3,883.56	768.18	94.24	101.90	0.00	0.00	0.00
4,100.00	20.00	6.994	3,977.53	802.12	98.40	106.41	0.00	0.00	0.00
4,197.50	20.00	6.994	4,069.15	835.22	102.46	110.80	0.00	0.00	0.00
Start Drop -1.50									
4,200.00	19.96	6.994	4,071.50	836.07	102.57	110.91	1.50	-1.50	0.00
4,300.00	18.46	6.994	4,165.92	868.73	106.57	115.24	1.50	-1.50	0.00
4,400.00	16.96	6.994	4,261.18	898.92	110.28	119.25	1.50	-1.50	0.00
4,500.00	15.46	6.994	4,357.20	926.63	113.68	122.92	1.50	-1.50	0.00

Database:	Casper District	Local Co-ordinate Reference:	Well Park 4-63-4-1609D
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 4-63-4-1609D	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)
4,600.00	13.96	6.994	4,453.92	951.84	116.77	126.27	1.50	-1.50	0.00
4,700.00	12.46	6.994	4,551.27	974.52	119.55	129.28	1.50	-1.50	0.00
4,800.00	10.96	6.994	4,649.19	994.67	122.02	131.95	1.50	-1.50	0.00
4,900.00	9.46	6.994	4,747.60	1,012.27	124.18	134.28	1.50	-1.50	0.00
5,000.00	7.96	6.994	4,846.44	1,027.30	126.03	136.28	1.50	-1.50	0.00
5,100.00	6.46	6.994	4,945.65	1,039.76	127.56	137.93	1.50	-1.50	0.00
5,200.00	4.96	6.994	5,045.15	1,049.63	128.77	139.24	1.50	-1.50	0.00
5,300.00	3.46	6.994	5,144.88	1,056.92	129.66	140.21	1.50	-1.50	0.00
5,400.00	1.96	6.994	5,244.76	1,061.62	130.24	140.83	1.50	-1.50	0.00
5,500.00	0.46	6.994	5,344.74	1,063.72	130.49	141.11	1.50	-1.50	0.00
5,530.76	0.00	0.000	5,375.50	1,063.84	130.51	141.12	1.50	-1.50	0.00
Start 572.55 hold at 5530.76 MD									
5,600.00	0.00	0.000	5,444.74	1,063.84	130.51	141.12	0.00	0.00	0.00
5,700.00	0.00	0.000	5,544.74	1,063.84	130.51	141.12	0.00	0.00	0.00
5,800.00	0.00	0.000	5,644.74	1,063.84	130.51	141.12	0.00	0.00	0.00
5,900.00	0.00	0.000	5,744.74	1,063.84	130.51	141.12	0.00	0.00	0.00
6,000.00	0.00	0.000	5,844.74	1,063.84	130.51	141.12	0.00	0.00	0.00
6,100.00	0.00	0.000	5,944.74	1,063.84	130.51	141.12	0.00	0.00	0.00
6,103.31	0.00	0.000	5,948.05	1,063.84	130.51	141.12	0.00	0.00	0.00
Start DLS 10.00 TFO 89.43									
6,200.00	9.67	89.428	6,044.28	1,063.92	138.65	149.26	10.00	10.00	0.00
6,300.00	19.67	89.428	6,140.90	1,064.17	163.94	174.55	10.00	10.00	0.00
6,400.00	29.67	89.428	6,231.66	1,064.59	205.62	216.24	10.00	10.00	0.00
6,500.00	39.67	89.428	6,313.80	1,065.16	262.43	273.05	10.00	10.00	0.00
6,600.00	49.67	89.428	6,384.82	1,065.86	332.64	343.26	10.00	10.00	0.00
6,700.00	59.67	89.428	6,442.58	1,066.67	414.11	424.74	10.00	10.00	0.00
6,800.00	69.67	89.428	6,485.31	1,067.57	504.38	515.01	10.00	10.00	0.00
6,900.00	79.67	89.428	6,511.72	1,068.54	600.69	611.33	10.00	10.00	0.00
7,000.00	89.67	89.428	6,521.00	1,069.53	700.13	710.77	10.00	10.00	0.00
7,005.90	90.26	89.428	6,521.00	1,069.59	706.03	716.67	10.00	10.00	0.00
Start 4430.42 hold at 7005.90 MD									
7,100.00	90.26	89.428	6,520.58	1,070.53	800.12	810.77	0.00	0.00	0.00
7,200.00	90.26	89.428	6,520.13	1,071.53	900.12	910.77	0.00	0.00	0.00
7,300.00	90.26	89.428	6,519.67	1,072.52	1,000.11	1,010.77	0.00	0.00	0.00
7,400.00	90.26	89.428	6,519.22	1,073.52	1,100.10	1,110.77	0.00	0.00	0.00
7,500.00	90.26	89.428	6,518.77	1,074.52	1,200.10	1,210.76	0.00	0.00	0.00
7,600.00	90.26	89.428	6,518.32	1,075.52	1,300.09	1,310.76	0.00	0.00	0.00
7,700.00	90.26	89.428	6,517.87	1,076.52	1,400.09	1,410.76	0.00	0.00	0.00
7,800.00	90.26	89.428	6,517.42	1,077.52	1,500.08	1,510.76	0.00	0.00	0.00
7,900.00	90.26	89.428	6,516.97	1,078.52	1,600.07	1,610.76	0.00	0.00	0.00
8,000.00	90.26	89.428	6,516.51	1,079.51	1,700.07	1,710.76	0.00	0.00	0.00
8,100.00	90.26	89.428	6,516.06	1,080.51	1,800.06	1,810.76	0.00	0.00	0.00
8,200.00	90.26	89.428	6,515.61	1,081.51	1,900.06	1,910.76	0.00	0.00	0.00
8,300.00	90.26	89.428	6,515.16	1,082.51	2,000.05	2,010.76	0.00	0.00	0.00
8,400.00	90.26	89.428	6,514.71	1,083.51	2,100.04	2,110.76	0.00	0.00	0.00
8,500.00	90.26	89.428	6,514.26	1,084.51	2,200.04	2,210.75	0.00	0.00	0.00
8,600.00	90.26	89.428	6,513.81	1,085.51	2,300.03	2,310.75	0.00	0.00	0.00
8,700.00	90.26	89.428	6,513.35	1,086.51	2,400.03	2,410.75	0.00	0.00	0.00
8,800.00	90.26	89.428	6,512.90	1,087.50	2,500.02	2,510.75	0.00	0.00	0.00
8,900.00	90.26	89.428	6,512.45	1,088.50	2,600.01	2,610.75	0.00	0.00	0.00
9,000.00	90.26	89.428	6,512.00	1,089.50	2,700.01	2,710.75	0.00	0.00	0.00
9,100.00	90.26	89.428	6,511.55	1,090.50	2,800.00	2,810.75	0.00	0.00	0.00
9,200.00	90.26	89.428	6,511.10	1,091.50	2,900.00	2,910.75	0.00	0.00	0.00

Database:	Casper District	Local Co-ordinate Reference:	Well Park 4-63-4-1609D
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 4-63-4-1609D	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	89.428	6,510.64	1,092.50	2,999.99	3,010.75	0.00	0.00	0.00
9,400.00	90.26	89.428	6,510.19	1,093.50	3,099.98	3,110.75	0.00	0.00	0.00
9,500.00	90.26	89.428	6,509.74	1,094.49	3,199.98	3,210.74	0.00	0.00	0.00
9,600.00	90.26	89.428	6,509.29	1,095.49	3,299.97	3,310.74	0.00	0.00	0.00
9,700.00	90.26	89.428	6,508.84	1,096.49	3,399.97	3,410.74	0.00	0.00	0.00
9,800.00	90.26	89.428	6,508.39	1,097.49	3,499.96	3,510.74	0.00	0.00	0.00
9,900.00	90.26	89.428	6,507.94	1,098.49	3,599.95	3,610.74	0.00	0.00	0.00
10,000.00	90.26	89.428	6,507.48	1,099.49	3,699.95	3,710.74	0.00	0.00	0.00
10,100.00	90.26	89.428	6,507.03	1,100.49	3,799.94	3,810.74	0.00	0.00	0.00
10,200.00	90.26	89.428	6,506.58	1,101.48	3,899.94	3,910.74	0.00	0.00	0.00
10,300.00	90.26	89.428	6,506.13	1,102.48	3,999.93	4,010.74	0.00	0.00	0.00
10,400.00	90.26	89.428	6,505.68	1,103.48	4,099.92	4,110.74	0.00	0.00	0.00
10,500.00	90.26	89.428	6,505.23	1,104.48	4,199.92	4,210.73	0.00	0.00	0.00
10,600.00	90.26	89.428	6,504.78	1,105.48	4,299.91	4,310.73	0.00	0.00	0.00
10,700.00	90.26	89.428	6,504.32	1,106.48	4,399.91	4,410.73	0.00	0.00	0.00
10,800.00	90.26	89.428	6,503.87	1,107.48	4,499.90	4,510.73	0.00	0.00	0.00
10,900.00	90.26	89.428	6,503.42	1,108.47	4,599.89	4,610.73	0.00	0.00	0.00
11,000.00	90.26	89.428	6,502.97	1,109.47	4,699.89	4,710.73	0.00	0.00	0.00
11,100.00	90.26	89.428	6,502.52	1,110.47	4,799.88	4,810.73	0.00	0.00	0.00
11,200.00	90.26	89.428	6,502.07	1,111.47	4,899.88	4,910.73	0.00	0.00	0.00
11,300.00	90.26	89.428	6,501.62	1,112.47	4,999.87	5,010.73	0.00	0.00	0.00
11,400.00	90.26	89.428	6,501.16	1,113.47	5,099.86	5,110.72	0.00	0.00	0.00
11,436.32	90.26	89.428	6,501.00	1,113.83	5,136.18	5,147.05	0.00	0.00	0.00
TD at 11436.32									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Park 4-63-4-1609D PBH - hit/miss target - Shape - Point	0.00	0.000	6,501.00	1,113.83	5,136.18	1,370,858.79	3,302,202.46	40° 20' 46.813 N	104° 24' 56.750 W
Park 4-63-4-1609D LP - plan hits target center - Point	0.00	0.000	6,521.00	1,069.59	706.03	1,370,761.31	3,297,773.16	40° 20' 46.381 N	104° 25' 53.969 W

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
500.00	500.00	0.00	0.00	Start Build 1.00
1,000.00	999.37	21.64	2.65	Start 703.31 hold at 1000.00 MD
1,703.31	1,700.00	82.48	10.12	Start DLS 2.00 TFO 0.00
2,453.25	2,430.08	243.12	29.83	Start 1744.25 hold at 2453.25 MD
4,197.50	4,069.15	835.22	102.46	Start Drop -1.50
5,530.76	5,375.50	1,063.84	130.51	Start 572.55 hold at 5530.76 MD
6,103.31	5,948.05	1,063.84	130.51	Start DLS 10.00 TFO 89.43
7,005.90	6,521.00	1,069.59	706.03	Start 4430.42 hold at 7005.90 MD
11,436.32	6,501.00	1,113.83	5,136.18	TD at 11436.32