



**Bill Barrett Corporation**

## **Bill Barrett Corp.**

Garfield County, Colorado [NAD83]

MDP 25 Pad

Federal 34D-33-691

Wellbore #1

Plan: plan1 06may11 rbw

## **Standard Planning Report**

13 May, 2011

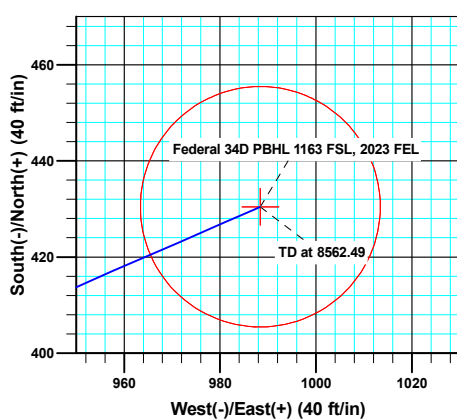
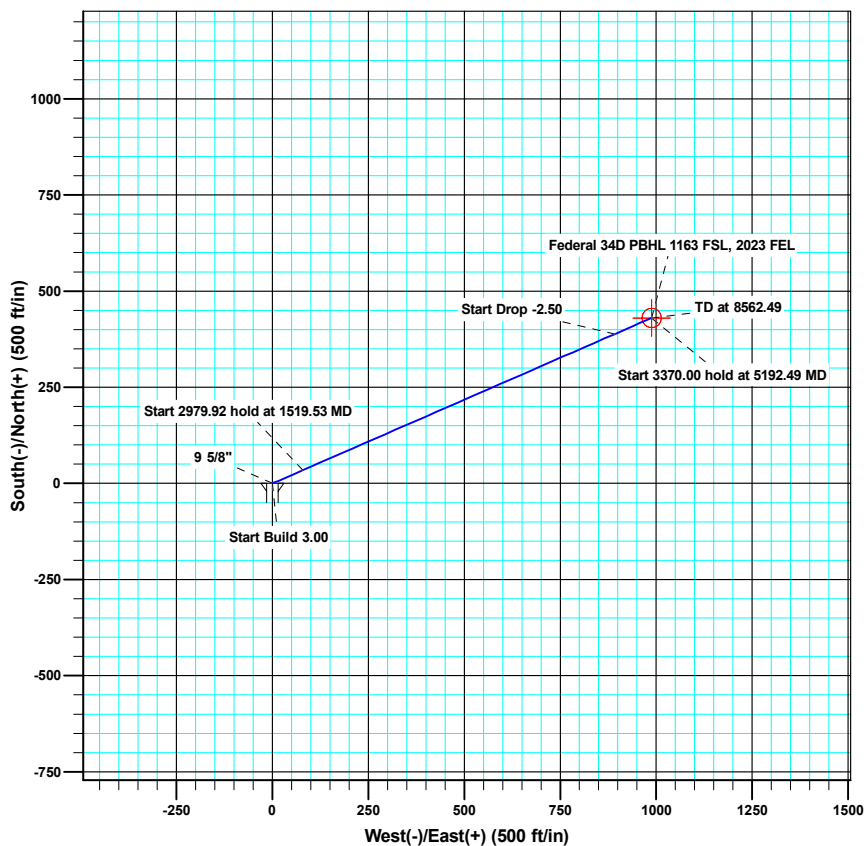
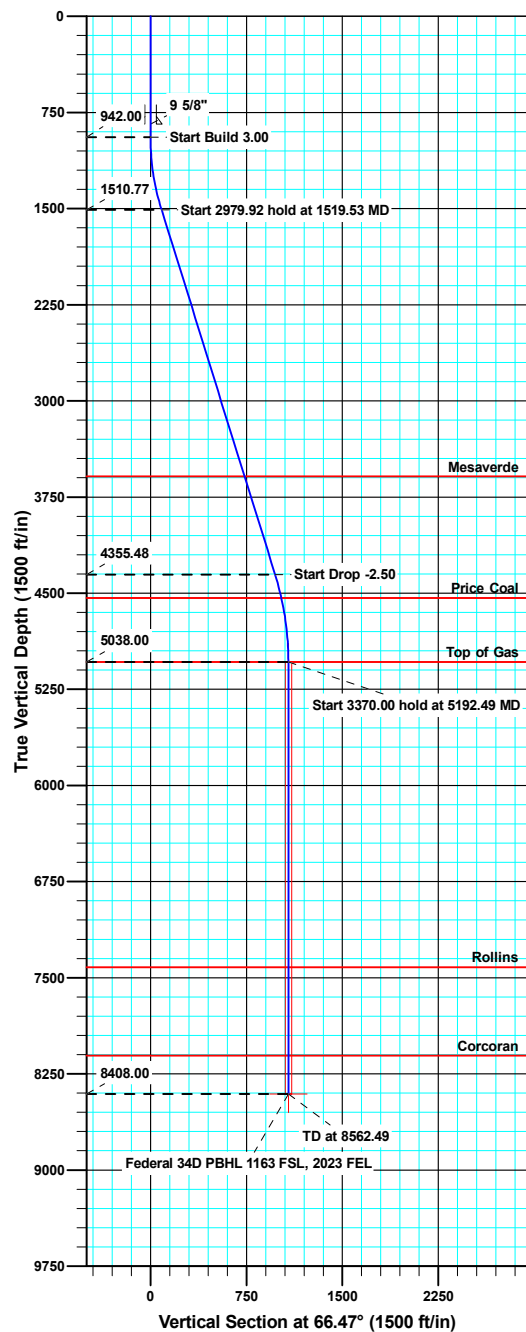


## WELL DETAILS: Federal 34D-33-691

North American Datum 1983 , US State Plane 1983 , Colorado Central Zone

Ground Level: 6595.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	1606014.00	2418648.27	39° 28' 45.08 N	107° 33' 35.10 W



Azimuths to True North  
Magnetic North: 10.17°

Magnetic Field  
Strength: 52303.9snT  
Dip Angle: 65.81°  
Date: 05/06/2011  
Model: IGRF2010

## SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
942.00	0.000	0.00	942.00	0.00	0.00	0.00	0.00	0.00	
1519.53	17.326	66.47	1510.77	34.60	79.45	3.00	66.47	86.66	
4499.45	17.326	66.47	4355.48	388.96	893.07	0.00	0.00	974.10	
5192.49	0.000	0.00	5038.00	430.48	988.41	2.50	180.00	1078.09	Federal 34D Target
8562.49	0.000	0.00	8408.00	430.48	988.41	0.00	0.00	1078.09	Federal 34D PBHL 1163 FSL, 2023 FEL

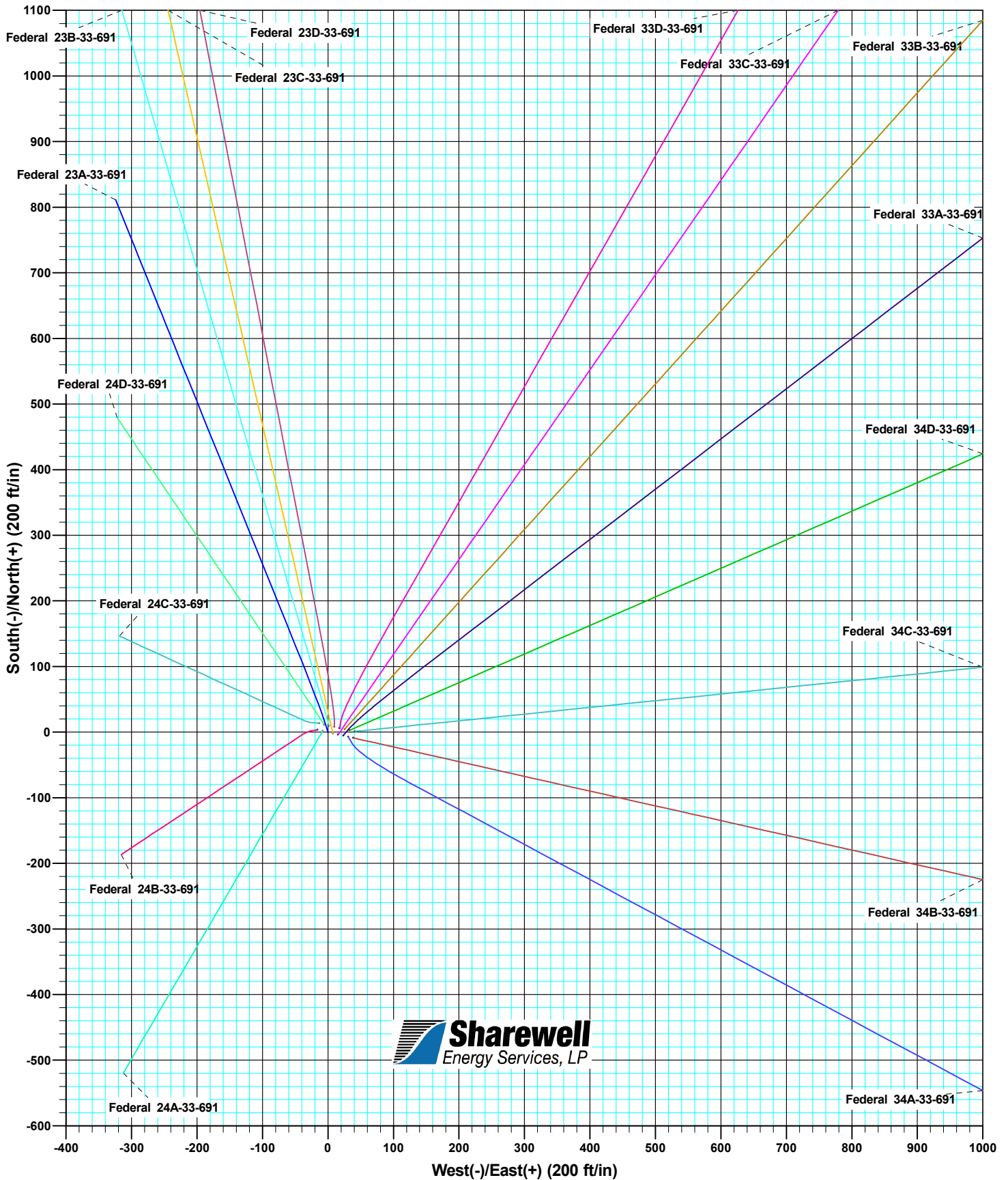
WELL DETAILS: MDP 25 Pad

Ground Level: 6595.00



Bill Barrett Corporation

North American Datum 1983		US State Plane 1983		Colorado Central Zone	
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	1606011.85	2418614.90	39° 28' 45.05 N	107° 33' 35.53 W



<b>Database:</b>	Compass VM	<b>Local Co-ordinate Reference:</b>	Well Federal 34D-33-691
<b>Company:</b>	Bill Barrett Corp.	<b>TVD Reference:</b>	KB @ 6618.00ft
<b>Project:</b>	Garfield County, Colorado [NAD83]	<b>MD Reference:</b>	KB @ 6618.00ft
<b>Site:</b>	MDP 25 Pad	<b>North Reference:</b>	True
<b>Well:</b>	Federal 34D-33-691	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	plan1 06may11 rbw		

<b>Project</b>	Garfield County, Colorado [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 Central Zone		

Site		MDP 25 Pad			
Site Position:		Northing:	1,606,013.85 usft	Latitude:	39° 28' 45.07 N
From:	Lat/Long	Easting:	2,418,607.05 usft	Longitude:	107° 33' 35.63 W
Position Uncertainty:	0.00 ft	Slot Radius:	1.10 ft	Grid Convergence:	-1.30

Well	Federal 34D-33-691					
Well Position	+N/-S	1.08 ft	Northing:	1,606,014.00 usft	Latitude:	39° 28' 45.08 N
	+E/-W	41.21 ft	Easting:	2,418,648.27 usft	Longitude:	107° 33' 35.10 W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	6,595.00 ft

<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>
	IGRF2010	05/06/11	10.17	65.81	52,304

<b>Design</b>	plan1 06may11 rbw			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	66.47

<b>Plan Sections</b>										
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	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
942.00	0.000	0.00	942.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,519.53	17.326	66.47	1,510.77	34.60	79.45	3.00	3.00	0.00	66.47	
4,499.45	17.326	66.47	4,355.48	388.96	893.07	0.00	0.00	0.00	0.00	
5,192.49	0.000	0.00	5,038.00	430.48	988.41	2.50	-2.50	0.00	180.00	Federal 34D Target
8,562.49	0.000	0.00	8,408.00	430.48	988.41	0.00	0.00	0.00	0.00	Federal 34D PBHL 11

<b>Database:</b>	Compass VM	<b>Local Co-ordinate Reference:</b>	Well Federal 34D-33-691
<b>Company:</b>	Bill Barrett Corp.	<b>TVD Reference:</b>	KB @ 6618.00ft
<b>Project:</b>	Garfield County, Colorado [NAD83]	<b>MD Reference:</b>	KB @ 6618.00ft
<b>Site:</b>	MDP 25 Pad	<b>North Reference:</b>	True
<b>Well:</b>	Federal 34D-33-691	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	plan1 06may11 rbw		

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)
942.00	0.000	0.00	942.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Start Build 3.00</b>									
1,000.00	1.740	66.47	999.99	0.35	0.81	0.88	3.00	3.00	0.00
1,100.00	4.740	66.47	1,099.82	2.61	5.99	6.53	3.00	3.00	0.00
1,200.00	7.740	66.47	1,199.22	6.95	15.95	17.40	3.00	3.00	0.00
1,300.00	10.740	66.47	1,297.91	13.36	30.67	33.46	3.00	3.00	0.00
1,400.00	13.740	66.47	1,395.62	21.82	50.11	54.65	3.00	3.00	0.00
1,500.00	16.740	66.47	1,492.10	32.32	74.20	80.94	3.00	3.00	0.00
1,519.53	17.326	66.47	1,510.77	34.60	79.45	86.66	3.00	3.00	0.00
<b>Start 2979.92 hold at 1519.53 MD</b>									
1,600.00	17.326	66.47	1,587.59	44.17	101.42	110.62	0.00	0.00	0.00
1,700.00	17.326	66.47	1,683.05	56.06	128.72	140.40	0.00	0.00	0.00
1,800.00	17.326	66.47	1,778.51	67.95	156.03	170.18	0.00	0.00	0.00
1,900.00	17.326	66.47	1,873.98	79.85	183.33	199.96	0.00	0.00	0.00
2,000.00	17.326	66.47	1,969.44	91.74	210.63	229.74	0.00	0.00	0.00
2,100.00	17.326	66.47	2,064.90	103.63	237.94	259.53	0.00	0.00	0.00
2,200.00	17.326	66.47	2,160.36	115.52	265.24	289.31	0.00	0.00	0.00
2,300.00	17.326	66.47	2,255.83	127.41	292.54	319.09	0.00	0.00	0.00
2,400.00	17.326	66.47	2,351.29	139.30	319.85	348.87	0.00	0.00	0.00
2,500.00	17.326	66.47	2,446.75	151.19	347.15	378.65	0.00	0.00	0.00
2,600.00	17.326	66.47	2,542.21	163.09	374.46	408.43	0.00	0.00	0.00
2,700.00	17.326	66.47	2,637.68	174.98	401.76	438.21	0.00	0.00	0.00
2,800.00	17.326	66.47	2,733.14	186.87	429.06	467.99	0.00	0.00	0.00
2,900.00	17.326	66.47	2,828.60	198.76	456.37	497.77	0.00	0.00	0.00
3,000.00	17.326	66.47	2,924.06	210.65	483.67	527.55	0.00	0.00	0.00
3,100.00	17.326	66.47	3,019.53	222.54	510.97	557.33	0.00	0.00	0.00
3,200.00	17.326	66.47	3,114.99	234.43	538.28	587.11	0.00	0.00	0.00
3,300.00	17.326	66.47	3,210.45	246.33	565.58	616.89	0.00	0.00	0.00
3,400.00	17.326	66.47	3,305.91	258.22	592.88	646.67	0.00	0.00	0.00
3,500.00	17.326	66.47	3,401.38	270.11	620.19	676.45	0.00	0.00	0.00
3,600.00	17.326	66.47	3,496.84	282.00	647.49	706.23	0.00	0.00	0.00
3,695.49	17.326	66.47	3,588.00	293.36	673.56	734.67	0.00	0.00	0.00
<b>Mesaverde</b>									
3,700.00	17.326	66.47	3,592.30	293.89	674.79	736.02	0.00	0.00	0.00
3,800.00	17.326	66.47	3,687.77	305.78	702.10	765.80	0.00	0.00	0.00
3,900.00	17.326	66.47	3,783.23	317.67	729.40	795.58	0.00	0.00	0.00
4,000.00	17.326	66.47	3,878.69	329.57	756.70	825.36	0.00	0.00	0.00
4,100.00	17.326	66.47	3,974.15	341.46	784.01	855.14	0.00	0.00	0.00
4,200.00	17.326	66.47	4,069.62	353.35	811.31	884.92	0.00	0.00	0.00
4,300.00	17.326	66.47	4,165.08	365.24	838.61	914.70	0.00	0.00	0.00
4,400.00	17.326	66.47	4,260.54	377.13	865.92	944.48	0.00	0.00	0.00
4,499.45	17.326	66.47	4,355.48	388.96	893.07	974.10	0.00	0.00	0.00
<b>Start Drop -2.50</b>									
4,500.00	17.312	66.47	4,356.00	389.02	893.22	974.26	2.50	-2.50	0.00
4,600.00	14.812	66.47	4,452.09	400.07	918.59	1,001.93	2.50	-2.50	0.00
4,688.43	12.601	66.47	4,538.00	408.44	937.80	1,022.88	2.50	-2.50	0.00
<b>Price Coal</b>									
4,700.00	12.312	66.47	4,549.30	409.43	940.08	1,025.37	2.50	-2.50	0.00
4,800.00	9.812	66.47	4,647.43	417.09	957.67	1,044.56	2.50	-2.50	0.00
4,900.00	7.312	66.47	4,746.31	423.04	971.32	1,059.45	2.50	-2.50	0.00
5,000.00	4.812	66.47	4,845.74	427.25	981.00	1,070.01	2.50	-2.50	0.00
5,100.00	2.312	66.47	4,945.54	429.73	986.70	1,076.22	2.50	-2.50	0.00
5,192.49	0.000	0.00	5,038.00	430.48	988.41	1,078.09	2.50	-2.50	0.00

<b>Database:</b>	Compass VM	<b>Local Co-ordinate Reference:</b>	Well Federal 34D-33-691
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<b>Project:</b>	Garfield County, Colorado [NAD83]	<b>MD Reference:</b>	KB @ 6618.00ft
<b>Site:</b>	MDP 25 Pad	<b>North Reference:</b>	True
<b>Well:</b>	Federal 34D-33-691	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	plan1 06may11 rbw		

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)	
<b>Start 3370.00 hold at 5192.49 MD - Top of Gas - Federal 34D Target</b>										
5,200.00	0.000	0.00	5,045.51	430.48	988.41	1,078.09	0.00	0.00	0.00	
5,300.00	0.000	0.00	5,145.51	430.48	988.41	1,078.09	0.00	0.00	0.00	
5,400.00	0.000	0.00	5,245.51	430.48	988.41	1,078.09	0.00	0.00	0.00	
5,500.00	0.000	0.00	5,345.51	430.48	988.41	1,078.09	0.00	0.00	0.00	
5,600.00	0.000	0.00	5,445.51	430.48	988.41	1,078.09	0.00	0.00	0.00	
5,700.00	0.000	0.00	5,545.51	430.48	988.41	1,078.09	0.00	0.00	0.00	
5,800.00	0.000	0.00	5,645.51	430.48	988.41	1,078.09	0.00	0.00	0.00	
5,900.00	0.000	0.00	5,745.51	430.48	988.41	1,078.09	0.00	0.00	0.00	
6,000.00	0.000	0.00	5,845.51	430.48	988.41	1,078.09	0.00	0.00	0.00	
6,100.00	0.000	0.00	5,945.51	430.48	988.41	1,078.09	0.00	0.00	0.00	
6,200.00	0.000	0.00	6,045.51	430.48	988.41	1,078.09	0.00	0.00	0.00	
6,300.00	0.000	0.00	6,145.51	430.48	988.41	1,078.09	0.00	0.00	0.00	
6,400.00	0.000	0.00	6,245.51	430.48	988.41	1,078.09	0.00	0.00	0.00	
6,500.00	0.000	0.00	6,345.51	430.48	988.41	1,078.09	0.00	0.00	0.00	
6,600.00	0.000	0.00	6,445.51	430.48	988.41	1,078.09	0.00	0.00	0.00	
6,700.00	0.000	0.00	6,545.51	430.48	988.41	1,078.09	0.00	0.00	0.00	
6,800.00	0.000	0.00	6,645.51	430.48	988.41	1,078.09	0.00	0.00	0.00	
6,900.00	0.000	0.00	6,745.51	430.48	988.41	1,078.09	0.00	0.00	0.00	
7,000.00	0.000	0.00	6,845.51	430.48	988.41	1,078.09	0.00	0.00	0.00	
7,100.00	0.000	0.00	6,945.51	430.48	988.41	1,078.09	0.00	0.00	0.00	
7,200.00	0.000	0.00	7,045.51	430.48	988.41	1,078.09	0.00	0.00	0.00	
7,300.00	0.000	0.00	7,145.51	430.48	988.41	1,078.09	0.00	0.00	0.00	
7,400.00	0.000	0.00	7,245.51	430.48	988.41	1,078.09	0.00	0.00	0.00	
7,500.00	0.000	0.00	7,345.51	430.48	988.41	1,078.09	0.00	0.00	0.00	
7,572.49	0.000	0.00	7,418.00	430.48	988.41	1,078.09	0.00	0.00	0.00	
<b>Rollins</b>										
7,600.00	0.000	0.00	7,445.51	430.48	988.41	1,078.09	0.00	0.00	0.00	
7,700.00	0.000	0.00	7,545.51	430.48	988.41	1,078.09	0.00	0.00	0.00	
7,800.00	0.000	0.00	7,645.51	430.48	988.41	1,078.09	0.00	0.00	0.00	
7,900.00	0.000	0.00	7,745.51	430.48	988.41	1,078.09	0.00	0.00	0.00	
8,000.00	0.000	0.00	7,845.51	430.48	988.41	1,078.09	0.00	0.00	0.00	
8,100.00	0.000	0.00	7,945.51	430.48	988.41	1,078.09	0.00	0.00	0.00	
8,200.00	0.000	0.00	8,045.51	430.48	988.41	1,078.09	0.00	0.00	0.00	
8,262.49	0.000	0.00	8,108.00	430.48	988.41	1,078.09	0.00	0.00	0.00	
<b>Corcoran</b>										
8,300.00	0.000	0.00	8,145.51	430.48	988.41	1,078.09	0.00	0.00	0.00	
8,400.00	0.000	0.00	8,245.51	430.48	988.41	1,078.09	0.00	0.00	0.00	
8,500.00	0.000	0.00	8,345.51	430.48	988.41	1,078.09	0.00	0.00	0.00	
8,562.49	0.000	0.00	8,408.00	430.48	988.41	1,078.09	0.00	0.00	0.00	
<b>TD at 8562.49 - Federal 34D PBHL 1163 FSL, 2023 FEL</b>										

<b>Database:</b>	Compass VM	<b>Local Co-ordinate Reference:</b>	Well Federal 34D-33-691
<b>Company:</b>	Bill Barrett Corp.	<b>TVD Reference:</b>	KB @ 6618.00ft
<b>Project:</b>	Garfield County, Colorado [NAD83]	<b>MD Reference:</b>	KB @ 6618.00ft
<b>Site:</b>	MDP 25 Pad	<b>North Reference:</b>	True
<b>Well:</b>	Federal 34D-33-691	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	plan1 06may11 rbw		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)		
- Shape									
Federal 34D Target	0.000	0.00	5,038.00	430.48	988.41	1,606,421.96	2,419,646.19	39° 28' 49.33 N	107° 33' 22.50 W
- plan hits target center									
- Circle (radius 25.00)									
Federal 34D PBHL 1163	0.000	0.00	8,408.00	430.48	988.41	1,606,421.96	2,419,646.19	39° 28' 49.33 N	107° 33' 22.50 W
- plan hits target center									
- Point									

Casing Points				
Measured Depth	Vertical Depth	Name	Casing Diameter	Hole Diameter
(ft)	(ft)		(ft)	(ft)
841.00	841.00	9 5/8"	0.80	1.02

Formations					
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction
(ft)	(ft)			(°)	(°)
3,695.49	3,588.00	Mesaverde		0.00	
4,688.43	4,538.00	Price Coal		0.00	
5,192.49	5,038.00	Top of Gas		0.00	
7,572.49	7,418.00	Rollins		0.00	
8,262.49	8,108.00	Corcoran		0.00	

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	
942.00	942.00	0.00	0.00	Start Build 3.00
1,519.53	1,510.77	34.60	79.45	Start 2979.92 hold at 1519.53 MD
4,499.45	4,355.48	388.96	893.07	Start Drop -2.50
5,192.49	5,038.00	430.48	988.41	Start 3370.00 hold at 5192.49 MD
8,562.49	8,408.00	430.48	988.41	TD at 8562.49