



**Bill Barrett Corporation**

## **Bill Barrett Corp.**

**Weld Co., CO**

**Sec.19-T6N-R61W**

**Greasewood #9-19H**

**Wellbore #1**

**Plan: Design #1**

## **Standard Planning Report**

**13 August, 2013**

# **Archer**



Bill Barrett Corp.  
Project: Weld Co., CO  
Site: Sec.19-T6N-R61W  
Well: Greasewood #9-19H  
Wellbore: Wellbore #1  
Design: Design #1  
Lat: 40° 28' 45.502 N  
Long: 104° 15' 35.060 W  
Pad GL: 4672.00  
KB: WELL @ 4688.00usft

# Archer

## SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.00°
1247.73	6.95	12.37	1246.88	20.59	4.52	2.00	12.37	-20.54	Start 3709.07' hold at 1247.73 MD
4956.80	6.95	12.37	4928.66	459.26	100.75	0.00	0.00	-458.15	Start Drop -2.00°
5304.53	0.00	0.00	5275.54	479.85	105.27	2.00	180.00	-478.68	Start 500.00' hold at 5304.53 MD
5804.53	0.00	0.00	5775.54	479.85	105.27	0.00	0.00	-478.68	KOP / Start Build 12.00°
6555.66	90.14	180.73	6253.00	1.29	99.21	12.00	180.73	-0.22	EOC / Start 4225.49' hold at 6555.66 MD
10781.16	90.14	180.73	6243.00	-4223.85	45.68	0.00	0.00	4224.10	TD at 10781.16

## WELL DETAILS: Greasewood #9-19H

+N/-S	+E/-W	Northing	Ground Level: Easting	4672.00 Latitude	Longitude	Slot
0.00	0.00	1419864.378	3345010.194	40° 28' 45.502 N	104° 15' 35.060 W	

## WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape Point
Greasewood 9-19H PBHL	6243.00	-4223.85	45.68	40° 28' 3.762 N	104° 15' 34.469 W	

## PROJECT DETAILS: Weld Co., CO

Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: Colorado Northern Zone

System Datum: Mean Sea Level

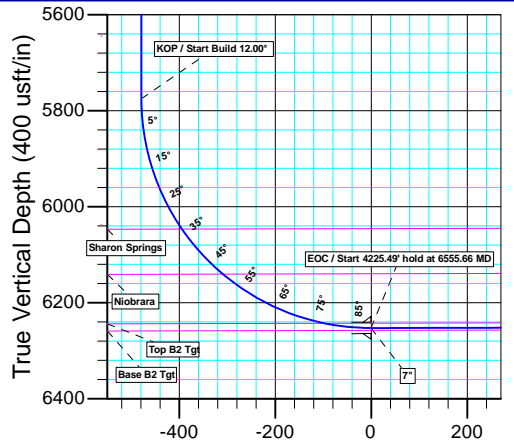
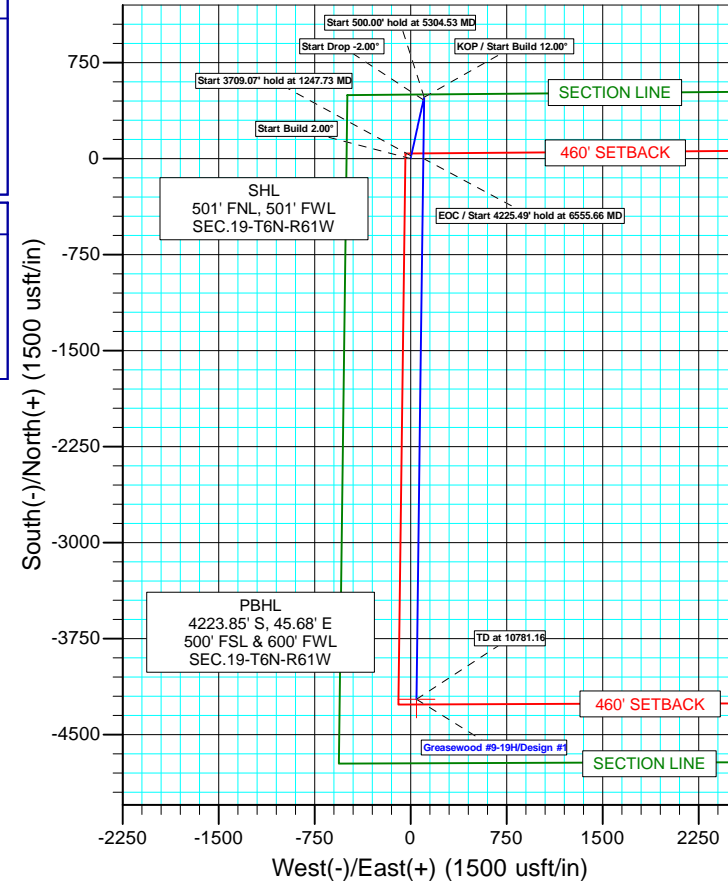
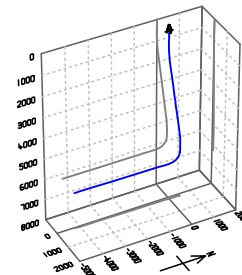
## CASING DETAILS

TVD	MD	Name
800.00	800.00	9 5/8"
6253.00	6555.66	7"

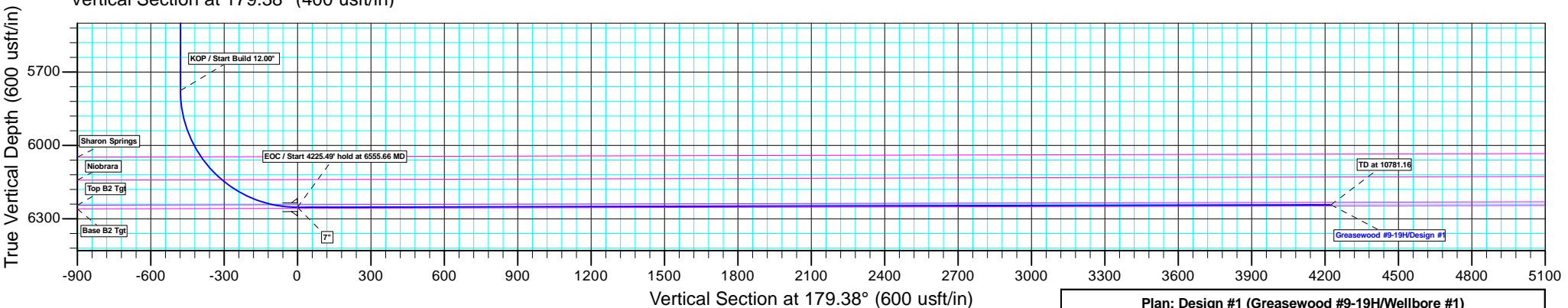


Azimuths to True North  
Magnetic North: 8.30°

Magnetic Field  
Strength: 52998.6snT  
Dip Angle: 67.12°  
Date: 2013/08/13  
Model: IGRF2010



Vertical Section at 179.38° (400 usft/in)



Vertical Section at 179.38° (600 usft/in)

Plan: Design #1 (Greasewood #9-19H/Wellbore #1)

Created By: Bret Wolford

Date: 11:22, August 13 2013

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Greasewood #9-19H
<b>Company:</b>	Bill Barrett Corp.	<b>TVD Reference:</b>	WELL @ 4688.00usft
<b>Project:</b>	Weld Co., CO	<b>MD Reference:</b>	WELL @ 4688.00usft
<b>Site:</b>	Sec.19-T6N-R61W	<b>North Reference:</b>	True
<b>Well:</b>	Greasewood #9-19H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

<b>Project</b>	Weld Co., CO		
<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.19-T6N-R61W			
Site Position:		Northing:	1,419,864.382 usft	Latitude:	40° 28' 45.502 N
From:	Lat/Long	Easting:	3,345,010.194 usft	Longitude:	104° 15' 35.060 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.80 °

Well	Greasewood #9-19H					
Well Position	+N/-S	0.00 usft	Northing:	1,419,864.378 usft	Latitude:	40° 28' 45.502 N
	+E/-W	0.00 usft	Easting:	3,345,010.194 usft	Longitude:	104° 15' 35.060 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	4,672.00 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>
	IGRF2010	08/13/13	8.30	67.12	52,999

<b>Design</b>	Design #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<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>
	6,243.00	0.00	0.00	179.38

<b>Plan Sections</b>										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,247.73	6.95	12.37	1,246.88	20.59	4.52	2.00	2.00	0.00	12.37	
4,956.80	6.95	12.37	4,928.66	459.26	100.75	0.00	0.00	0.00	0.00	
5,304.53	0.00	0.00	5,275.54	479.85	105.27	2.00	-2.00	0.00	180.00	
5,804.53	0.00	0.00	5,775.54	479.85	105.27	0.00	0.00	0.00	0.00	
6,555.66	90.14	180.73	6,253.00	1.29	99.21	12.00	12.00	0.00	180.73	Greasewood 9-19H P
10,781.16	90.14	180.73	6,243.00	-4,223.85	45.68	0.00	0.00	0.00	0.00	Greasewood 9-19H P

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Greasewood #9-19H
<b>Company:</b>	Bill Barrett Corp.	<b>TVD Reference:</b>	WELL @ 4688.00usft
<b>Project:</b>	Weld Co., CO	<b>MD Reference:</b>	WELL @ 4688.00usft
<b>Site:</b>	Sec.19-T6N-R61W	<b>North Reference:</b>	True
<b>Well:</b>	Greasewood #9-19H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

Planned 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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>9 5/8"</b>									
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Start Build 2.00°</b>									
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	2.00	12.37	999.98	1.70	0.37	-1.70	2.00	2.00	0.00
1,100.00	4.00	12.37	1,099.84	6.82	1.50	-6.80	2.00	2.00	0.00
1,200.00	6.00	12.37	1,199.45	15.33	3.36	-15.29	2.00	2.00	0.00
<b>Start 3709.07' hold at 1247.73 MD</b>									
1,247.73	6.95	12.37	1,246.88	20.59	4.52	-20.54	2.00	2.00	0.00
1,300.00	6.95	12.37	1,298.76	26.77	5.87	-26.71	0.00	0.00	0.00
1,400.00	6.95	12.37	1,398.03	38.60	8.47	-38.50	0.00	0.00	0.00
1,500.00	6.95	12.37	1,497.29	50.42	11.06	-50.30	0.00	0.00	0.00
1,600.00	6.95	12.37	1,596.55	62.25	13.66	-62.10	0.00	0.00	0.00
1,700.00	6.95	12.37	1,695.82	74.08	16.25	-73.90	0.00	0.00	0.00
1,800.00	6.95	12.37	1,795.08	85.91	18.85	-85.70	0.00	0.00	0.00
1,900.00	6.95	12.37	1,894.35	97.73	21.44	-97.49	0.00	0.00	0.00
2,000.00	6.95	12.37	1,993.61	109.56	24.04	-109.29	0.00	0.00	0.00
2,100.00	6.95	12.37	2,092.88	121.39	26.63	-121.09	0.00	0.00	0.00
2,200.00	6.95	12.37	2,192.14	133.21	29.22	-132.89	0.00	0.00	0.00
2,300.00	6.95	12.37	2,291.40	145.04	31.82	-144.69	0.00	0.00	0.00
2,400.00	6.95	12.37	2,390.67	156.87	34.41	-156.49	0.00	0.00	0.00
2,500.00	6.95	12.37	2,489.93	168.69	37.01	-168.28	0.00	0.00	0.00
2,600.00	6.95	12.37	2,589.20	180.52	39.60	-180.08	0.00	0.00	0.00
2,700.00	6.95	12.37	2,688.46	192.35	42.20	-191.88	0.00	0.00	0.00
2,800.00	6.95	12.37	2,787.73	204.18	44.79	-203.68	0.00	0.00	0.00
2,900.00	6.95	12.37	2,886.99	216.00	47.39	-215.48	0.00	0.00	0.00
3,000.00	6.95	12.37	2,986.25	227.83	49.98	-227.28	0.00	0.00	0.00
3,100.00	6.95	12.37	3,085.52	239.66	52.58	-239.07	0.00	0.00	0.00
3,200.00	6.95	12.37	3,184.78	251.48	55.17	-250.87	0.00	0.00	0.00
3,300.00	6.95	12.37	3,284.05	263.31	57.77	-262.67	0.00	0.00	0.00
3,400.00	6.95	12.37	3,383.31	275.14	60.36	-274.47	0.00	0.00	0.00
3,500.00	6.95	12.37	3,482.58	286.97	62.95	-286.27	0.00	0.00	0.00
3,600.00	6.95	12.37	3,581.84	298.79	65.55	-298.07	0.00	0.00	0.00
3,700.00	6.95	12.37	3,681.10	310.62	68.14	-309.86	0.00	0.00	0.00
3,800.00	6.95	12.37	3,780.37	322.45	70.74	-321.66	0.00	0.00	0.00
3,900.00	6.95	12.37	3,879.63	334.27	73.33	-333.46	0.00	0.00	0.00
4,000.00	6.95	12.37	3,978.90	346.10	75.93	-345.26	0.00	0.00	0.00
<b>Terry/Sussex</b>									
4,089.64	6.95	12.37	4,067.87	356.70	78.25	-355.83	0.00	0.00	0.00
4,100.00	6.95	12.37	4,078.16	357.93	78.52	-357.06	0.00	0.00	0.00
4,200.00	6.95	12.37	4,177.43	369.75	81.12	-368.86	0.00	0.00	0.00
4,300.00	6.95	12.37	4,276.69	381.58	83.71	-380.65	0.00	0.00	0.00
4,400.00	6.95	12.37	4,375.95	393.41	86.31	-392.45	0.00	0.00	0.00
4,500.00	6.95	12.37	4,475.22	405.24	88.90	-404.25	0.00	0.00	0.00
4,600.00	6.95	12.37	4,574.48	417.06	91.50	-416.05	0.00	0.00	0.00
<b>Shannon</b>									

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Greasewood #9-19H
<b>Company:</b>	Bill Barrett Corp.	<b>TVD Reference:</b>	WELL @ 4688.00usft
<b>Project:</b>	Weld Co., CO	<b>MD Reference:</b>	WELL @ 4688.00usft
<b>Site:</b>	Sec.19-T6N-R61W	<b>North Reference:</b>	True
<b>Well:</b>	Greasewood #9-19H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

Planned 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)
4,684.18	6.95	12.37	4,658.05	427.02	93.68	-425.98	0.00	0.00	0.00
4,700.00	6.95	12.37	4,673.75	428.89	94.09	-427.85	0.00	0.00	0.00
4,800.00	6.95	12.37	4,773.01	440.72	96.68	-439.65	0.00	0.00	0.00
4,900.00	6.95	12.37	4,872.27	452.54	99.28	-451.44	0.00	0.00	0.00
<b>Start Drop -2.00°</b>									
4,956.80	6.95	12.37	4,928.66	459.26	100.75	-458.15	0.00	0.00	0.00
5,000.00	6.09	12.37	4,971.58	464.05	101.80	-462.93	2.00	-2.00	0.00
5,100.00	4.09	12.37	5,071.18	472.72	103.71	-471.57	2.00	-2.00	0.00
5,200.00	2.09	12.37	5,171.03	477.99	104.86	-476.83	2.00	-2.00	0.00
<b>Start 500.00' hold at 5304.53 MD</b>									
5,304.53	0.00	0.00	5,275.54	479.85	105.27	-478.68	2.00	-2.00	0.00
5,400.00	0.00	0.00	5,371.00	479.85	105.27	-478.68	0.00	0.00	0.00
5,500.00	0.00	0.00	5,471.00	479.85	105.27	-478.68	0.00	0.00	0.00
5,600.00	0.00	0.00	5,571.00	479.85	105.27	-478.68	0.00	0.00	0.00
5,700.00	0.00	0.00	5,671.00	479.85	105.27	-478.68	0.00	0.00	0.00
<b>KOP / Start Build 12.00°</b>									
5,804.53	0.00	0.00	5,775.54	479.85	105.27	-478.68	0.00	0.00	0.00
5,825.00	2.46	180.73	5,796.00	479.41	105.26	-478.24	12.00	12.00	0.00
5,850.00	5.46	180.73	5,820.93	477.69	105.24	-476.52	12.00	12.00	0.00
5,875.00	8.46	180.73	5,845.75	474.66	105.20	-473.49	12.00	12.00	0.00
5,900.00	11.46	180.73	5,870.37	470.34	105.15	-469.17	12.00	12.00	0.00
5,925.00	14.46	180.73	5,894.73	464.73	105.08	-463.57	12.00	12.00	0.00
5,950.00	17.46	180.73	5,918.76	457.86	104.99	-456.70	12.00	12.00	0.00
5,975.00	20.46	180.73	5,942.41	449.74	104.89	-448.58	12.00	12.00	0.00
6,000.00	23.46	180.73	5,965.59	440.40	104.77	-439.24	12.00	12.00	0.00
6,025.00	26.46	180.73	5,988.25	429.85	104.64	-428.70	12.00	12.00	0.00
6,050.00	29.46	180.73	6,010.33	418.13	104.49	-416.98	12.00	12.00	0.00
6,075.00	32.46	180.73	6,031.77	405.28	104.33	-404.13	12.00	12.00	0.00
<b>Sharon Springs</b>									
6,093.24	34.64	180.73	6,046.97	395.20	104.20	-394.05	12.00	12.00	0.00
6,100.00	35.46	180.73	6,052.50	391.32	104.15	-390.17	12.00	12.00	0.00
6,125.00	38.46	180.73	6,072.48	376.29	103.96	-375.14	12.00	12.00	0.00
6,150.00	41.46	180.73	6,091.64	360.24	103.75	-359.09	12.00	12.00	0.00
6,175.00	44.46	180.73	6,109.93	343.20	103.54	-342.06	12.00	12.00	0.00
6,200.00	47.46	180.73	6,127.31	325.24	103.31	-324.10	12.00	12.00	0.00
<b>Niobrara</b>									
6,220.37	49.90	180.73	6,140.76	309.94	103.12	-308.81	12.00	12.00	0.00
6,225.00	50.46	180.73	6,143.73	306.39	103.07	-305.25	12.00	12.00	0.00
6,250.00	53.46	180.73	6,159.13	286.70	102.82	-285.57	12.00	12.00	0.00
6,275.00	56.46	180.73	6,173.49	266.24	102.56	-265.11	12.00	12.00	0.00
6,300.00	59.46	180.73	6,186.75	245.05	102.30	-243.93	12.00	12.00	0.00
6,325.00	62.46	180.73	6,198.88	223.20	102.02	-222.08	12.00	12.00	0.00
6,350.00	65.46	180.73	6,209.86	200.74	101.73	-199.63	12.00	12.00	0.00
6,375.00	68.46	180.73	6,219.64	177.74	101.44	-176.63	12.00	12.00	0.00
6,400.00	71.46	180.73	6,228.21	154.26	101.15	-153.16	12.00	12.00	0.00
6,425.00	74.46	180.73	6,235.54	130.36	100.84	-129.26	12.00	12.00	0.00
6,450.00	77.46	180.73	6,241.60	106.11	100.54	-105.02	12.00	12.00	0.00
<b>Top B2 Tgt</b>									
6,457.84	78.40	180.73	6,243.24	98.45	100.44	-97.36	12.00	12.00	0.00
6,475.00	80.46	180.73	6,246.39	81.58	100.22	-80.49	12.00	12.00	0.00
6,500.00	83.46	180.73	6,249.89	56.83	99.91	-55.75	12.00	12.00	0.00
6,525.00	86.46	180.73	6,252.09	31.94	99.60	-30.86	12.00	12.00	0.00
6,550.00	89.46	180.73	6,252.98	6.96	99.28	-5.88	12.00	12.00	0.00

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Greasewood #9-19H
<b>Company:</b>	Bill Barrett Corp.	<b>TVD Reference:</b>	WELL @ 4688.00usft
<b>Project:</b>	Weld Co., CO	<b>MD Reference:</b>	WELL @ 4688.00usft
<b>Site:</b>	Sec.19-T6N-R61W	<b>North Reference:</b>	True
<b>Well:</b>	Greasewood #9-19H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

Planned 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)
EOC / Start 4225.49' hold at 6555.66 MD - 7"									
6,555.66	90.14	180.73	6,253.00	1.30	99.21	-0.22	12.00	12.00	0.00
6,600.00	90.14	180.73	6,252.90	-43.04	98.65	44.10	0.00	0.00	0.00
6,700.00	90.14	180.73	6,252.66	-143.03	97.38	144.08	0.00	0.00	0.00
6,800.00	90.14	180.73	6,252.42	-243.02	96.11	244.05	0.00	0.00	0.00
6,900.00	90.14	180.73	6,252.19	-343.01	94.85	344.02	0.00	0.00	0.00
7,000.00	90.14	180.73	6,251.95	-443.01	93.58	443.99	0.00	0.00	0.00
7,100.00	90.14	180.73	6,251.71	-543.00	92.31	543.96	0.00	0.00	0.00
7,200.00	90.14	180.73	6,251.48	-642.99	91.05	643.94	0.00	0.00	0.00
7,300.00	90.14	180.73	6,251.24	-742.98	89.78	743.91	0.00	0.00	0.00
7,400.00	90.14	180.73	6,251.00	-842.97	88.51	843.88	0.00	0.00	0.00
7,500.00	90.14	180.73	6,250.77	-942.97	87.25	943.85	0.00	0.00	0.00
7,600.00	90.14	180.73	6,250.53	-1,042.96	85.98	1,043.83	0.00	0.00	0.00
7,700.00	90.14	180.73	6,250.29	-1,142.95	84.71	1,143.80	0.00	0.00	0.00
7,800.00	90.14	180.73	6,250.06	-1,242.94	83.45	1,243.77	0.00	0.00	0.00
7,900.00	90.14	180.73	6,249.82	-1,342.93	82.18	1,343.74	0.00	0.00	0.00
8,000.00	90.14	180.73	6,249.58	-1,442.92	80.91	1,443.71	0.00	0.00	0.00
8,100.00	90.14	180.73	6,249.35	-1,542.92	79.65	1,543.69	0.00	0.00	0.00
8,200.00	90.14	180.73	6,249.11	-1,642.91	78.38	1,643.66	0.00	0.00	0.00
8,300.00	90.14	180.73	6,248.87	-1,742.90	77.11	1,743.63	0.00	0.00	0.00
8,400.00	90.14	180.73	6,248.64	-1,842.89	75.85	1,843.60	0.00	0.00	0.00
8,500.00	90.14	180.73	6,248.40	-1,942.88	74.58	1,943.58	0.00	0.00	0.00
8,600.00	90.14	180.73	6,248.16	-2,042.87	73.31	2,043.55	0.00	0.00	0.00
8,700.00	90.14	180.73	6,247.93	-2,142.87	72.05	2,143.52	0.00	0.00	0.00
8,800.00	90.14	180.73	6,247.69	-2,242.86	70.78	2,243.49	0.00	0.00	0.00
8,900.00	90.14	180.73	6,247.45	-2,342.85	69.51	2,343.46	0.00	0.00	0.00
9,000.00	90.14	180.73	6,247.22	-2,442.84	68.25	2,443.44	0.00	0.00	0.00
9,100.00	90.14	180.73	6,246.98	-2,542.83	66.98	2,543.41	0.00	0.00	0.00
9,200.00	90.14	180.73	6,246.74	-2,642.82	65.71	2,643.38	0.00	0.00	0.00
9,300.00	90.14	180.73	6,246.51	-2,742.82	64.45	2,743.35	0.00	0.00	0.00
9,400.00	90.14	180.73	6,246.27	-2,842.81	63.18	2,843.32	0.00	0.00	0.00
9,500.00	90.14	180.73	6,246.03	-2,942.80	61.91	2,943.30	0.00	0.00	0.00
9,600.00	90.14	180.73	6,245.80	-3,042.79	60.65	3,043.27	0.00	0.00	0.00
9,700.00	90.14	180.73	6,245.56	-3,142.78	59.38	3,143.24	0.00	0.00	0.00
9,800.00	90.14	180.73	6,245.32	-3,242.77	58.11	3,243.21	0.00	0.00	0.00
9,900.00	90.14	180.73	6,245.09	-3,342.77	56.85	3,343.19	0.00	0.00	0.00
10,000.00	90.14	180.73	6,244.85	-3,442.76	55.58	3,443.16	0.00	0.00	0.00
10,100.00	90.14	180.73	6,244.61	-3,542.75	54.31	3,543.13	0.00	0.00	0.00
10,200.00	90.14	180.73	6,244.38	-3,642.74	53.05	3,643.10	0.00	0.00	0.00
10,300.00	90.14	180.73	6,244.14	-3,742.73	51.78	3,743.07	0.00	0.00	0.00
10,400.00	90.14	180.73	6,243.90	-3,842.72	50.51	3,843.05	0.00	0.00	0.00
10,500.00	90.14	180.73	6,243.67	-3,942.72	49.25	3,943.02	0.00	0.00	0.00
10,600.00	90.14	180.73	6,243.43	-4,042.71	47.98	4,042.99	0.00	0.00	0.00
10,700.00	90.14	180.73	6,243.19	-4,142.70	46.71	4,142.96	0.00	0.00	0.00
TD at 10781.16									
10,781.16	90.14	180.73	6,243.00	-4,223.85	45.68	4,224.10	0.00	0.00	0.00

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Greasewood #9-19H
<b>Company:</b>	Bill Barrett Corp.	<b>TVD Reference:</b>	WELL @ 4688.00usft
<b>Project:</b>	Weld Co., CO	<b>MD Reference:</b>	WELL @ 4688.00usft
<b>Site:</b>	Sec.19-T6N-R61W	<b>North Reference:</b>	True
<b>Well:</b>	Greasewood #9-19H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Greasewood 9-19H PBI-	0.00	0.00	6,243.00	-4,223.85	45.68	1,415,641.580	3,345,114.950	40° 28' 3.762 N	104° 15' 34.469 W
- plan hits target center									
- Point									

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,089.64	4,067.00	Terry/Sussex		-0.14	180.73	
4,684.18	4,657.00	Shannon		-0.14	180.73	
6,093.24	6,046.00	Sharon Springs		-0.14	180.73	
6,220.37	6,140.00	Niobrara		-0.14	180.73	
6,457.84	6,243.00	Top B2 Tgt		-0.14	180.73	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
900.00	900.00	0.00	0.00	Start Build 2.00°	
1,247.73	1,246.88	20.59	4.52	Start 3709.07' hold at 1247.73 MD	
4,956.80	4,928.66	459.26	100.75	Start Drop -2.00°	
5,304.53	5,275.54	479.85	105.27	Start 500.00' hold at 5304.53 MD	
5,804.53	5,775.54	479.85	105.27	KOP / Start Build 12.00°	
6,555.66	6,253.00	1.29	99.21	EOC / Start 4225.49' hold at 6555.66 MD	
10,781.16	6,243.00	-4,223.85	45.68	TD at 10781.16	