

BILL BARRETT CORP
Merritt 6-66-9-0659BH
WELD COUNTY, COLORADO

Geodetic System: US State Plane 1983
Zone: Colorado Northern Zone
Revised @ 4844.0usft (Nabors M22)
Ground Level: 4822.0
Latitude: 40° 30' 33.600 N
Longitude: 104° 46' 52.300 W

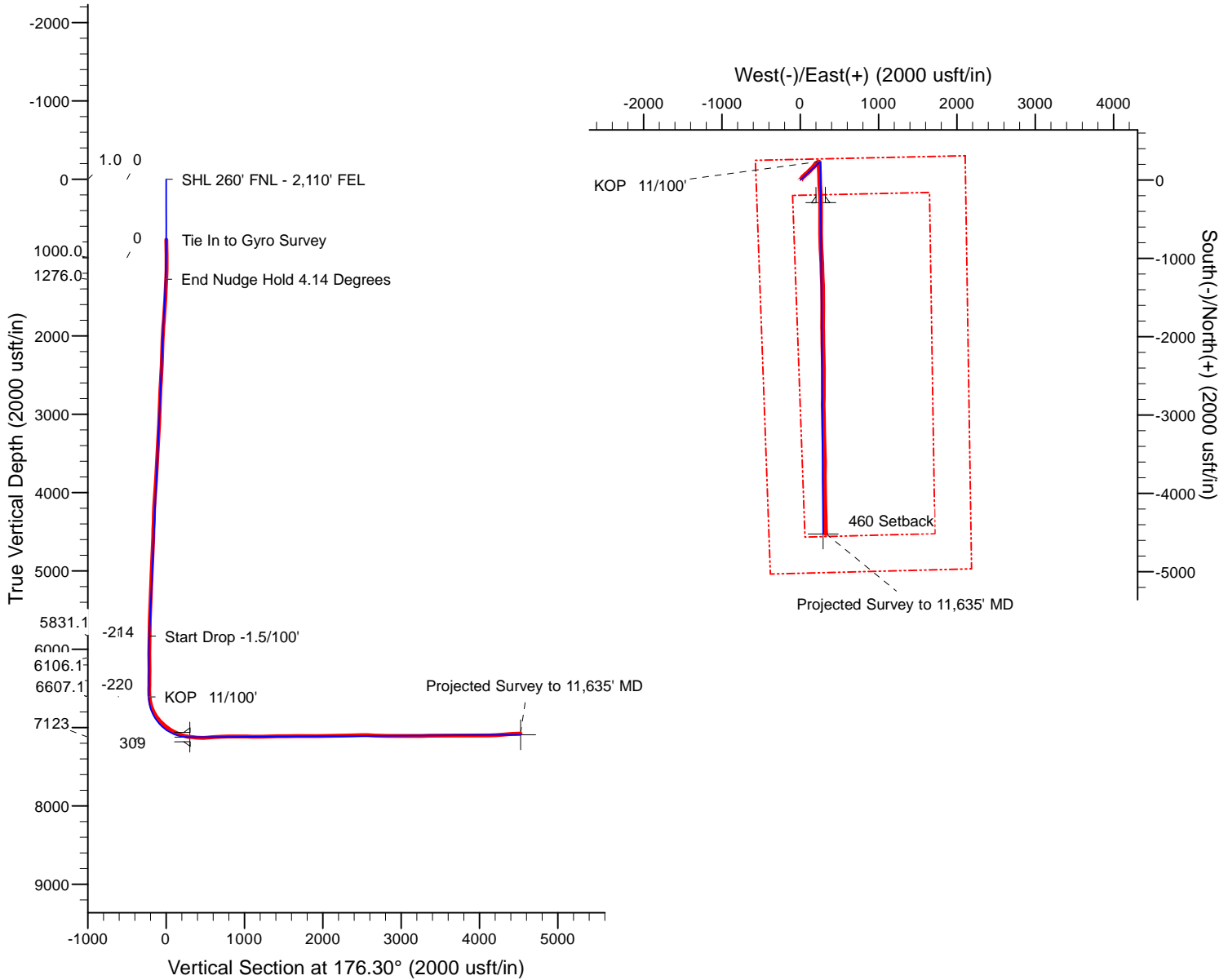
Magnetic North is 8.58° East of True North (Magnetic Declination)



Azimuths to True North
Magnetic North: 8.58°

Magnetic Field
Strength: 52946.8snT
Dip Angle: 67.06°
Date: 9/24/2013
Model: IGRF2010

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target	FORMATION TOP DETAILS		
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0				
1000.0	0.00	0.00	1000.0	0.0	0.0	0.00	0.00	0.0		TVDPATH	MDPATH	Formation
1276.5	4.15	47.39	1276.2	6.8	7.4	1.50	47.39	-6.3		4469.2	4477.8	Sussex
5838.1	4.15	47.39	5825.9	230.1	250.1	0.00	0.00	-213.5		4868.3	4878.0	Shannon
6114.5	0.00	0.00	6102.1	236.9	257.5	1.50	180.00	-219.8		6889.1	6918.4	Sharon Springs
6614.5	0.00	0.00	6602.1	236.9	257.5	0.00	0.00	-219.8		6955.7	7003.2	Niobrara
7436.4	90.41	179.58	7123.0	-287.7	261.3	11.00	179.58	303.9		7116.5	7350.7	Top B2 Target
11666.3	90.41	179.58	7093.0	-4517.4	292.0	0.00	0.00	4526.8				



Plan: Revised Plan 10-02-13 (Merritt 6-66-9-0659BH/Nabors #M22)

Created By: Mike Kirby Date: 8:05, October 04 2013
Checked: Date:
Reviewed: Date:
Approved: x Date: x

Survey Report

Company:	BILL BARRETT CORP	Local Co-ordinate Reference:	Well Merritt 6-66-9-0659BH
Project:	WELD COUNTY, COLORADO	TVD Reference:	Revised @ 4844.0usft (Nabors M22)
Site:	Merritt 6-66-9 Pad	MD Reference:	Revised @ 4844.0usft (Nabors M22)
Well:	Merritt 6-66-9-0659BH	North Reference:	True
Wellbore:	Nabors #M22	Survey Calculation Method:	Minimum Curvature
Design:	Nabors #M22	Database:	Rocky Mountain R5000 Database

Project	WELD COUNTY, COLORADO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site	Merritt 6-66-9 Pad		
Site Position:		Northing:	1,429,200.77 usft
From:	Lat/Long	Easting:	3,199,869.74 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	40° 30' 33.600 N
		Longitude:	104° 46' 52.300 W
		Grid Convergence:	0.46 °

Well	Merritt 6-66-9-0659BH		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	4,844.0 usft
		Latitude:	40° 30' 33.552 N
		Longitude:	104° 46' 51.708 W
		Ground Level:	4,822.0 usft

Wellbore	Nabors #M22		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2010	9/24/2013	8.58
			Dip Angle
			(°)
			67.06
			Field Strength
			(nT)
			52,947

Design	Nabors #M22		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			(°)
			176.30

Survey Program	Date	10/4/2013		
From	To	Survey (Wellbore)	Tool Name	Description
(usft)	(usft)			
772.0	11,635.0	Final Survey Report (Nabors #M22)	MWD	MWD - Standard

Survey									
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Vertical	Dogleg	Build	Turn
Depth	(°)	(°)	Depth	(usft)	(usft)	Section	Rate	Rate	Rate
(usft)			(usft)			(usft)	(°/100usft)	(°/100usft)	(°/100usft)
772.0	1.28	209.97	772.0	-4.1	-3.5	3.9	0.00	0.00	0.00
Tie In to Gyro Survey									
877.0	1.20	217.70	876.9	-6.0	-4.8	5.7	0.18	-0.08	7.36
971.0	1.20	217.00	970.9	-7.6	-6.0	7.2	0.02	0.00	-0.74
1,063.0	0.60	41.60	1,062.9	-8.0	-6.2	7.6	1.96	-0.65	-190.65
1,155.0	1.80	50.30	1,154.9	-6.7	-4.8	6.4	1.32	1.30	9.46
1,247.0	3.00	41.10	1,246.8	-4.0	-2.1	3.8	1.37	1.30	-10.00
1,340.0	4.70	43.30	1,339.6	0.6	2.1	-0.5	1.83	1.83	2.37
1,432.0	4.70	44.80	1,431.3	6.1	7.4	-5.6	0.13	0.00	1.63
1,527.0	4.50	43.60	1,526.0	11.5	12.7	-10.7	0.23	-0.21	-1.26
1,622.0	4.10	39.50	1,620.7	16.8	17.4	-15.7	0.53	-0.42	-4.32

Survey Report

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Project:	WELD COUNTY, COLORADO	TVD Reference:	Revised @ 4844.0usft (Nabors M22)
Site:	Merritt 6-66-9 Pad	MD Reference:	Revised @ 4844.0usft (Nabors M22)
Well:	Merritt 6-66-9-0659BH	North Reference:	True
Wellbore:	Nabors #M22	Survey Calculation Method:	Minimum Curvature
Design:	Nabors #M22	Database:	Rocky Mountain R5000 Database

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)
1,714.0	5.50	30.20	1,712.4	23.2	21.7	-21.7	1.74	1.52	-10.11
1,814.0	5.70	31.90	1,811.9	31.6	26.8	-29.8	0.26	0.20	1.70
1,909.0	4.70	42.70	1,906.5	38.4	31.9	-36.3	1.47	-1.05	11.37
2,004.0	4.10	39.20	2,001.2	43.9	36.7	-41.5	0.69	-0.63	-3.68
2,100.0	4.40	59.10	2,097.0	48.5	42.0	-45.6	1.56	0.31	20.73
2,194.0	4.00	52.20	2,190.7	52.3	47.7	-49.1	0.68	-0.43	-7.34
2,290.0	2.80	50.10	2,286.6	55.9	52.1	-52.4	1.26	-1.25	-2.19
2,385.0	3.50	48.10	2,381.4	59.3	56.1	-55.6	0.75	0.74	-2.11
2,480.0	4.00	34.80	2,476.2	64.0	60.1	-59.9	1.05	0.53	-14.00
2,575.0	5.10	40.50	2,570.9	69.9	64.8	-65.6	1.25	1.16	6.00
2,670.0	4.70	57.30	2,665.6	75.2	70.8	-70.5	1.56	-0.42	17.68
2,765.0	4.30	57.40	2,760.3	79.2	77.0	-74.1	0.42	-0.42	0.11
2,860.0	4.30	57.50	2,855.0	83.1	83.1	-77.5	0.01	0.00	0.11
2,955.0	3.60	52.80	2,949.8	86.8	88.4	-80.9	0.81	-0.74	-4.95
3,050.0	4.20	42.80	3,044.6	91.1	93.2	-84.9	0.95	0.63	-10.53
3,146.0	4.00	35.20	3,140.3	96.4	97.5	-90.0	0.60	-0.21	-7.92
3,241.0	4.40	38.40	3,235.1	102.0	101.7	-95.2	0.49	0.42	3.37
3,336.0	5.50	46.40	3,329.7	108.0	107.2	-100.9	1.36	1.16	8.42
3,432.0	4.90	47.00	3,425.3	114.0	113.6	-106.4	0.63	-0.63	0.63
3,527.0	4.10	51.60	3,520.0	118.9	119.2	-110.9	0.92	-0.84	4.84
3,622.0	3.50	51.10	3,614.8	122.8	124.1	-114.5	0.63	-0.63	-0.53
3,716.0	4.90	35.90	3,708.6	127.8	128.7	-119.3	1.89	1.49	-16.17
3,812.0	6.00	45.00	3,804.1	134.7	134.6	-125.7	1.45	1.15	9.48
3,908.0	6.10	45.60	3,899.6	141.8	141.8	-132.4	0.12	0.10	0.63
4,004.0	6.20	46.00	3,995.0	149.0	149.2	-139.1	0.11	0.10	0.42
4,099.0	5.30	47.30	4,089.6	155.5	156.1	-145.1	0.96	-0.95	1.37
4,194.0	4.10	45.40	4,184.2	160.9	161.8	-150.1	1.27	-1.26	-2.00
4,289.0	3.80	45.20	4,279.0	165.5	166.4	-154.4	0.32	-0.32	-0.21
4,384.0	2.90	51.50	4,373.9	169.2	170.5	-157.9	1.02	-0.95	6.63
4,478.0	2.30	44.90	4,467.8	172.0	173.7	-160.5	0.71	-0.64	-7.02
4,574.0	2.60	31.40	4,563.7	175.2	176.2	-163.5	0.68	0.31	-14.06
4,670.0	2.50	25.90	4,659.6	179.0	178.3	-167.1	0.28	-0.10	-5.73
4,765.0	2.20	9.40	4,754.5	182.7	179.5	-170.7	0.78	-0.32	-17.37
4,860.0	2.70	29.00	4,849.4	186.4	180.9	-174.4	1.02	0.53	20.63
4,955.0	3.90	43.90	4,944.3	190.7	184.2	-178.4	1.54	1.26	15.68
5,050.0	4.70	38.60	5,039.0	196.1	188.8	-183.5	0.94	0.84	-5.58
5,145.0	4.70	38.00	5,133.7	202.2	193.7	-189.3	0.05	0.00	-0.63
5,240.0	5.30	52.20	5,228.3	207.9	199.5	-194.6	1.44	0.63	14.95
5,335.0	4.50	53.60	5,323.0	212.8	206.0	-199.1	0.85	-0.84	1.47
5,430.0	3.70	57.80	5,417.7	216.7	211.6	-202.6	0.90	-0.84	4.42
5,525.0	3.20	56.00	5,512.5	219.8	216.4	-205.4	0.54	-0.53	-1.89
5,620.0	2.70	55.40	5,607.4	222.5	220.4	-207.9	0.53	-0.53	-0.63
5,716.0	2.20	63.10	5,703.3	224.7	223.9	-209.7	0.62	-0.52	8.02

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Well:	Merritt 6-66-9-0659BH	North Reference:	True
Wellbore:	Nabors #M22	Survey Calculation Method:	Minimum Curvature
Design:	Nabors #M22	Database:	Rocky Mountain R5000 Database

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)	
5,811.0	1.80	68.00	5,798.3	226.0	226.9	-210.9	0.46	-0.42	5.16	
5,905.0	1.10	73.80	5,892.2	226.9	229.2	-211.6	0.76	-0.74	6.17	
6,000.0	0.70	78.10	5,987.2	227.2	230.6	-211.9	0.43	-0.42	4.53	
6,095.0	1.10	93.70	6,082.2	227.3	232.1	-211.8	0.49	0.42	16.42	
6,190.0	0.70	91.00	6,177.2	227.2	233.6	-211.7	0.42	-0.42	-2.84	
6,285.0	0.10	264.90	6,272.2	227.2	234.1	-211.6	0.84	-0.63	183.05	
6,380.0	0.60	337.40	6,367.2	227.7	233.8	-212.1	0.61	0.53	76.32	
6,476.0	0.40	340.60	6,463.2	228.4	233.5	-212.9	0.21	-0.21	3.33	
6,535.0	0.50	329.20	6,522.2	228.8	233.3	-213.3	0.23	0.17	-19.32	
6,570.0	0.50	314.40	6,557.2	229.1	233.1	-213.6	0.37	0.00	-42.29	
6,602.0	1.70	161.40	6,589.2	228.7	233.2	-213.2	6.74	3.75	-478.13	
6,634.0	5.80	164.70	6,621.1	226.7	233.7	-211.2	12.82	12.81	10.31	
6,666.0	9.90	166.90	6,652.8	222.5	234.8	-206.9	12.84	12.81	6.88	
6,697.0	14.10	167.80	6,683.1	216.2	236.2	-200.5	13.56	13.55	2.90	
6,729.0	17.10	170.10	6,713.9	207.7	237.8	-192.0	9.57	9.38	7.19	
6,761.0	19.50	173.40	6,744.3	197.8	239.3	-182.0	8.17	7.50	10.31	
6,793.0	22.50	176.20	6,774.2	186.4	240.3	-170.5	9.88	9.38	8.75	
6,825.0	26.60	177.80	6,803.3	173.1	241.0	-157.2	12.98	12.81	5.00	
6,857.0	31.00	177.70	6,831.3	157.7	241.6	-141.8	13.75	13.75	-0.31	
6,888.0	34.80	177.90	6,857.4	140.9	242.2	-125.0	12.26	12.26	0.65	
6,920.0	37.90	177.10	6,883.1	121.9	243.0	-106.0	9.80	9.69	-2.50	
6,952.0	41.00	177.00	6,907.8	101.6	244.1	-85.7	9.69	9.69	-0.31	
6,984.0	44.70	178.50	6,931.3	79.9	244.9	-63.9	11.99	11.56	4.69	
7,015.0	48.80	179.10	6,952.5	57.3	245.4	-41.4	13.30	13.23	1.94	
7,047.0	50.20	178.70	6,973.3	33.0	245.9	-17.1	4.48	4.38	-1.25	
7,078.0	50.90	178.10	6,993.0	9.1	246.5	6.9	2.71	2.26	-1.94	
7,110.0	54.40	178.00	7,012.4	-16.3	247.4	32.3	10.94	10.94	-0.31	
7,142.0	58.70	177.80	7,030.1	-43.0	248.4	59.0	13.45	13.44	-0.63	
7,174.0	61.70	177.10	7,046.0	-70.8	249.6	86.7	9.57	9.38	-2.19	
7,206.0	64.40	176.80	7,060.5	-99.2	251.1	115.2	8.48	8.44	-0.94	
7,237.0	65.60	176.50	7,073.6	-127.3	252.8	143.3	3.97	3.87	-0.97	
7,269.0	68.00	176.50	7,086.2	-156.6	254.6	172.7	7.50	7.50	0.00	
7,301.0	71.80	177.10	7,097.2	-186.6	256.3	202.8	12.00	11.88	1.88	
7,332.0	75.50	178.00	7,105.9	-216.4	257.5	232.5	12.26	11.94	2.90	
7,364.0	78.70	179.40	7,113.0	-247.5	258.2	263.7	10.87	10.00	4.38	
7,389.0	82.50	179.60	7,117.1	-272.2	258.4	288.3	15.22	15.20	0.80	
7,405.0	82.98	179.55	7,119.1	-288.1	258.6	304.2	3.03	3.02	-0.32	
M 0659BH LP										
7,452.0	84.40	179.40	7,124.3	-334.8	259.0	350.8	3.03	3.02	-0.32	
7,484.0	84.70	179.40	7,127.3	-366.6	259.3	382.6	0.94	0.94	0.00	
7,515.0	85.50	179.80	7,130.0	-397.5	259.5	413.4	2.88	2.58	1.29	
7,547.0	87.60	180.50	7,131.9	-429.5	259.5	445.3	6.92	6.56	2.19	
7,579.0	91.60	181.10	7,132.1	-461.4	259.0	477.2	12.64	12.50	1.88	

Survey Report

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Site:	Merritt 6-66-9 Pad	MD Reference:	Revised @ 4844.0usft (Nabors M22)
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Wellbore:	Nabors #M22	Survey Calculation Method:	Minimum Curvature
Design:	Nabors #M22	Database:	Rocky Mountain R5000 Database

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)	
7,610.0	94.10	181.20	7,130.6	-492.4	258.4	508.0	8.07	8.06	0.32	
7,705.0	95.30	180.10	7,122.8	-587.1	257.3	602.5	1.71	1.26	-1.16	
7,801.0	92.00	178.20	7,116.7	-682.8	258.7	698.1	3.96	-3.44	-1.98	
7,895.0	91.30	178.40	7,114.0	-776.8	261.5	792.0	0.77	-0.74	0.21	
7,990.0	89.00	177.50	7,113.7	-871.7	264.9	887.0	2.60	-2.42	-0.95	
8,086.0	89.90	177.00	7,114.7	-967.6	269.5	983.0	1.07	0.94	-0.52	
8,181.0	88.80	178.30	7,115.7	-1,062.5	273.4	1,077.9	1.79	-1.16	1.37	
8,277.0	90.40	178.10	7,116.4	-1,158.4	276.4	1,173.9	1.68	1.67	-0.21	
8,372.0	91.30	177.80	7,115.0	-1,253.4	279.8	1,268.8	1.00	0.95	-0.32	
8,467.0	91.40	178.60	7,112.8	-1,348.3	282.8	1,363.7	0.85	0.11	0.84	
8,563.0	90.50	179.40	7,111.2	-1,444.3	284.5	1,459.6	1.25	-0.94	0.83	
8,657.0	91.20	179.30	7,109.8	-1,538.2	285.6	1,553.5	0.75	0.74	-0.11	
8,752.0	90.00	180.50	7,108.8	-1,633.2	285.7	1,648.3	1.79	-1.26	1.26	
8,847.0	91.20	180.50	7,107.8	-1,728.2	284.9	1,743.0	1.26	1.26	0.00	
8,943.0	91.50	180.20	7,105.5	-1,824.2	284.3	1,838.7	0.44	0.31	-0.31	
9,039.0	88.20	179.00	7,105.8	-1,920.2	285.0	1,934.6	3.66	-3.44	-1.25	
9,134.0	89.10	178.60	7,108.0	-2,015.1	287.0	2,029.4	1.04	0.95	-0.42	
9,230.0	91.00	179.50	7,107.9	-2,111.1	288.6	2,125.3	2.19	1.98	0.94	
9,324.0	92.70	178.60	7,104.9	-2,205.0	290.1	2,219.2	2.05	1.81	-0.96	
9,420.0	92.00	178.20	7,101.0	-2,300.9	292.8	2,315.0	0.84	-0.73	-0.42	
9,514.0	92.30	180.00	7,097.4	-2,394.8	294.3	2,408.8	1.94	0.32	1.91	
9,609.0	90.20	179.80	7,095.4	-2,489.8	294.4	2,503.6	2.22	-2.21	-0.21	
9,705.0	86.90	180.70	7,097.8	-2,585.8	294.0	2,599.4	3.56	-3.44	0.94	
9,801.0	86.90	180.20	7,103.0	-2,681.6	293.3	2,695.0	0.52	0.00	-0.52	
9,896.0	89.50	180.40	7,106.0	-2,776.6	292.8	2,789.7	2.74	2.74	0.21	
9,990.0	90.30	179.70	7,106.1	-2,870.6	292.7	2,883.5	1.13	0.85	-0.74	
10,085.0	89.80	179.00	7,106.0	-2,965.6	293.8	2,978.3	0.91	-0.53	-0.74	
10,180.0	90.30	178.50	7,106.0	-3,060.5	295.8	3,073.3	0.74	0.53	-0.53	
10,275.0	90.00	179.40	7,105.7	-3,155.5	297.6	3,168.1	1.00	-0.32	0.95	
10,371.0	90.50	178.80	7,105.3	-3,251.5	299.1	3,264.0	0.81	0.52	-0.63	
10,465.0	90.50	178.60	7,104.5	-3,345.5	301.2	3,357.9	0.21	0.00	-0.21	
10,561.0	90.30	178.30	7,103.8	-3,441.4	303.8	3,453.9	0.38	-0.21	-0.31	
10,655.0	90.50	177.10	7,103.1	-3,535.4	307.6	3,547.8	1.29	0.21	-1.28	
10,750.0	89.90	180.80	7,102.8	-3,630.3	309.3	3,642.7	3.95	-0.63	3.89	
10,845.0	91.20	180.70	7,101.9	-3,725.3	308.1	3,737.4	1.37	1.37	-0.11	
10,940.0	90.40	180.00	7,100.6	-3,820.3	307.5	3,832.2	1.12	-0.84	-0.74	
11,035.0	90.00	179.10	7,100.2	-3,915.3	308.2	3,927.0	1.04	-0.42	-0.95	
11,130.0	89.50	178.10	7,100.7	-4,010.3	310.6	4,022.0	1.18	-0.53	-1.05	
11,225.0	91.90	179.20	7,099.5	-4,105.2	312.8	4,116.9	2.78	2.53	1.16	
11,320.0	92.90	178.60	7,095.5	-4,200.1	314.6	4,211.7	1.23	1.05	-0.63	
11,415.0	94.30	177.90	7,089.6	-4,294.9	317.5	4,306.4	1.65	1.47	-0.74	
11,510.0	93.80	178.60	7,082.8	-4,389.6	320.4	4,401.1	0.90	-0.53	0.74	
11,583.0	93.40	177.80	7,078.3	-4,462.4	322.7	4,473.9	1.22	-0.55	-1.10	
11,635.0	93.40	177.80	7,075.2	-4,514.3	324.7	4,525.8	0.00	0.00	0.00	

Survey Report

Company:	BILL BARRETT CORP	Local Co-ordinate Reference:	Well Merritt 6-66-9-0659BH
Project:	WELD COUNTY, COLORADO	TVD Reference:	Revised @ 4844.0usft (Nabors M22)
Site:	Merritt 6-66-9 Pad	MD Reference:	Revised @ 4844.0usft (Nabors M22)
Well:	Merritt 6-66-9-0659BH	North Reference:	True
Wellbore:	Nabors #M22	Survey Calculation Method:	Minimum Curvature
Design:	Nabors #M22	Database:	Rocky Mountain R5000 Database

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)
Projected Survey to 11,635' MD - M 0659BH PBHL									

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
772.0	772.0	-4,514.3	324.7	Tie In to Gyro Survey
11,635.0	7,075.2			Projected Survey to 11,635' MD

Checked By: _____ Approved By: _____ Date: _____