

BILL BARRETT CORPORATION

**ADAMS COUNTY, COLORADO (NAD 83)
SW NW SEC. 36 T1S R66W 6th P.M.
STATE OF COLORADO 1S-66-36-1609BH
JOB # 2009-269**

25 March, 2014

Survey: FINAL SURVEYS





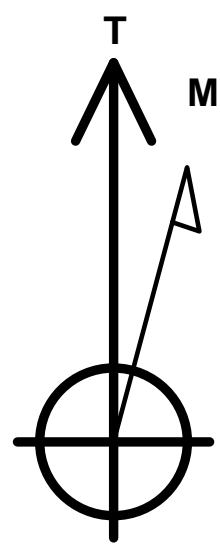
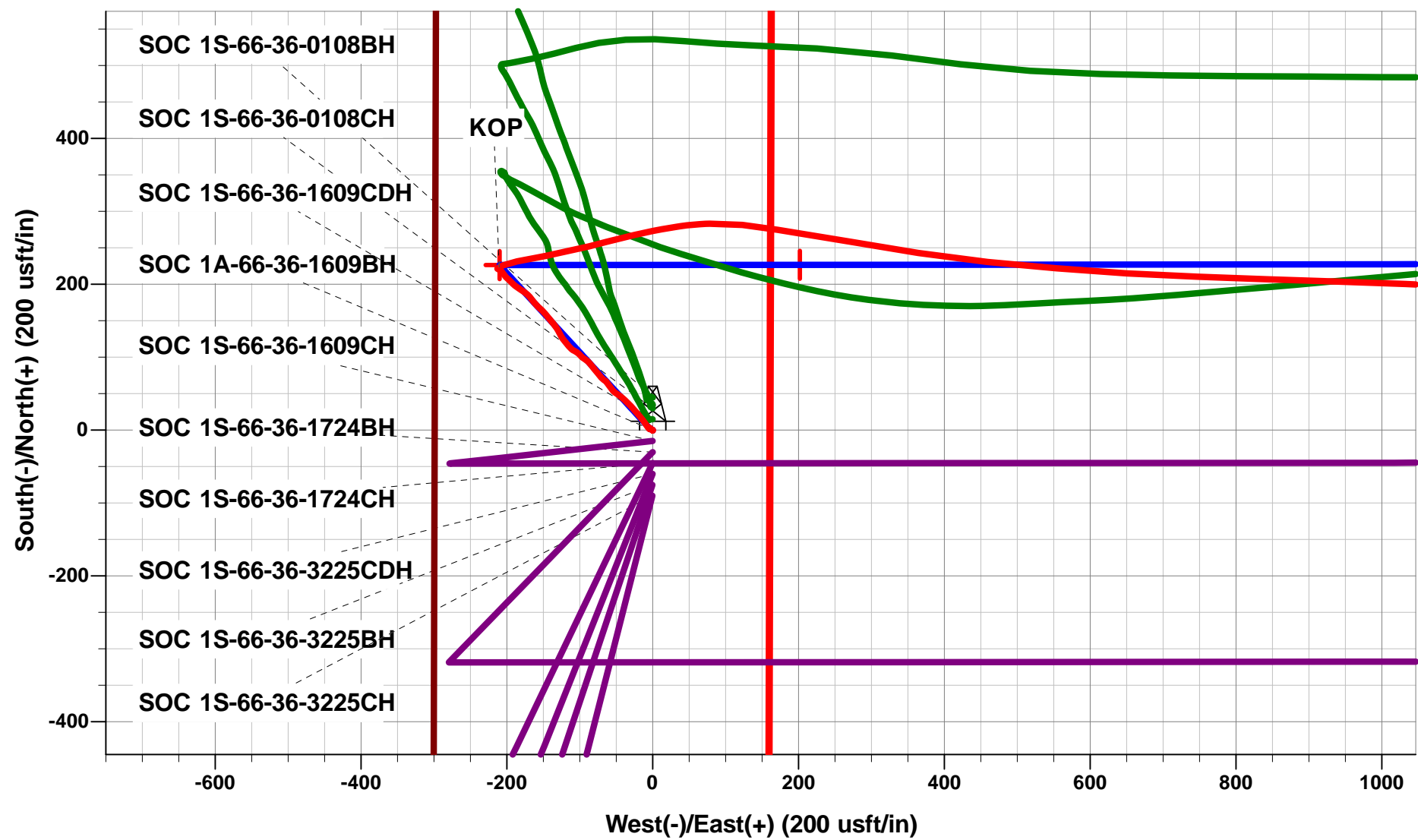
Project: ADAMS COUNTY, COLORADO (NAD 83)
Site: SW NW SEC. 36 T1S R66W 6th P.M.
Well: STATE OF COLORADO 1S-66-36-1609BH
Wellbore: JOB # 2009-269
Design: FINAL SURVEYS

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Dep	Annotation
1451.0	1451.0	0.82	316.72	3.7	-5.3	-5.1	12.6	SURFACE CASING
7136.5	7147.0	5.01	60.97	223.5	-210.4	-198.7	330.3	KOP
7517.5	12041.0	89.30	90.69	181.3	4442.4	4445.9	4995.1	LAST SURVEY - MAR 25, 2014
7518.1	12090.0	89.30	90.69	180.7	4491.4	4494.8	5044.1	PROJECTION TO TD

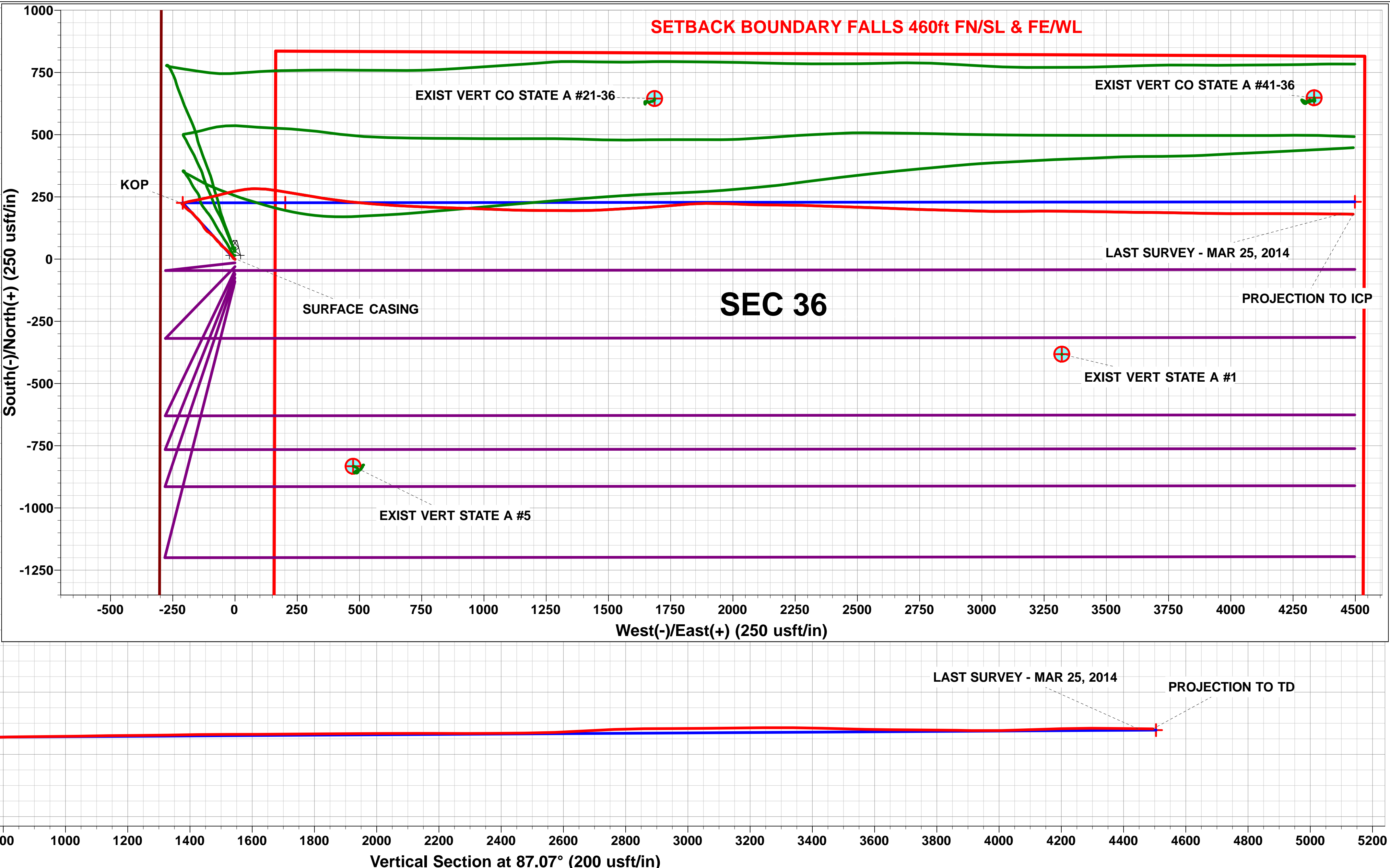
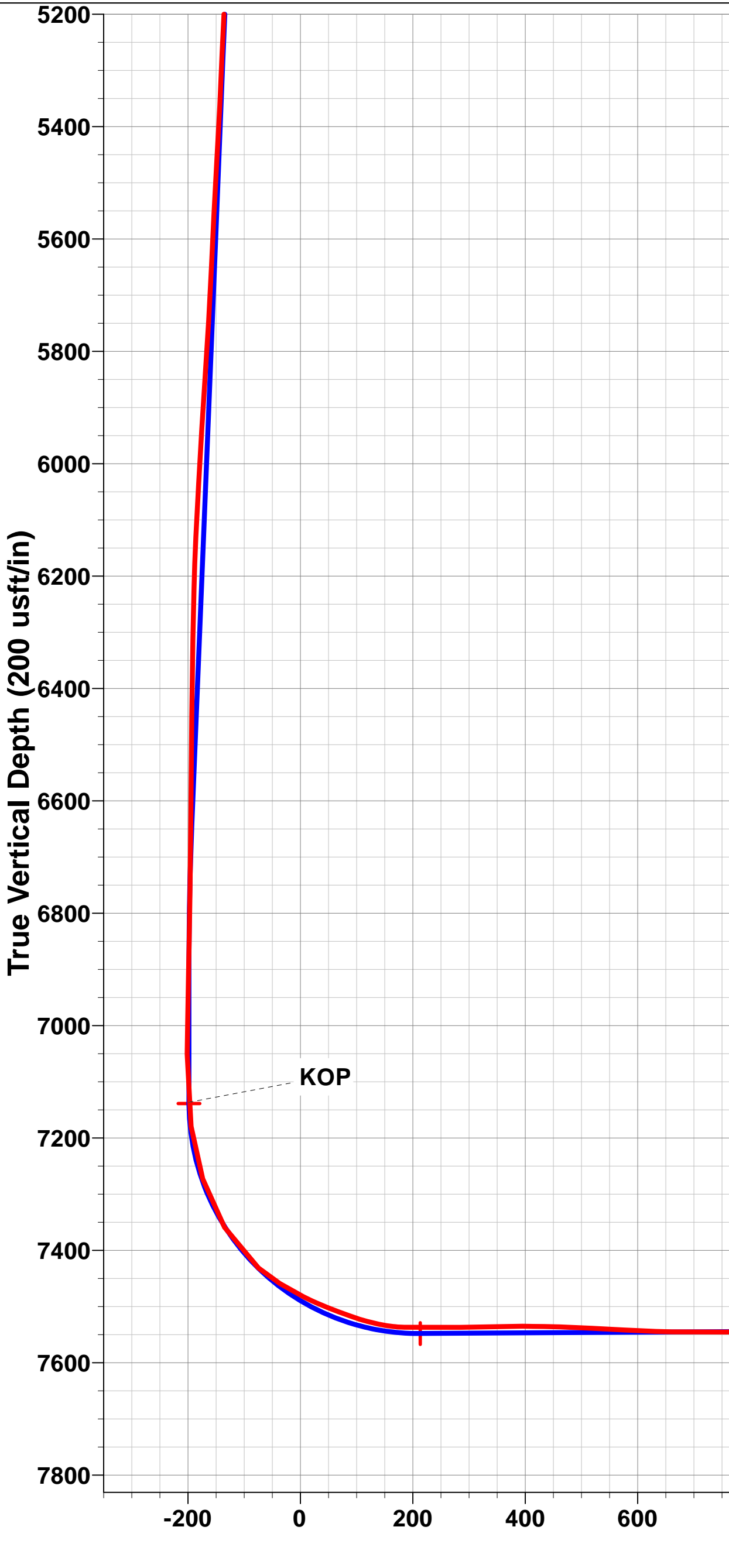
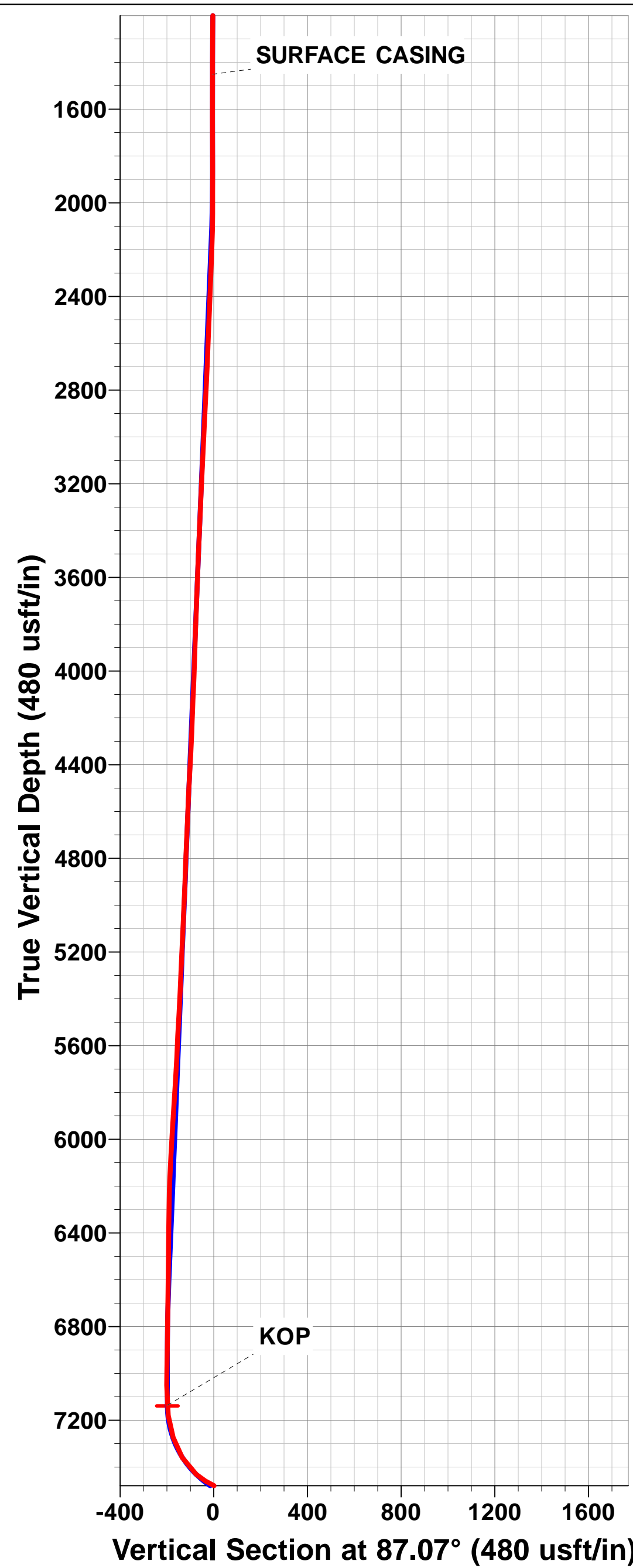
WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
BHL - SOC 1S-66-36-1609BH (P2)	7522.0	230.3	4498.7	39° 55' 33.272 N	104° 42' 58.943 W	Point
BTV - SOC 1S-66-36-1609BH (P2)	7138.7	226.2	-209.9	39° 55' 33.236 N	104° 43' 59.381 W	Point
ICP - SOC 1S-66-36-1609BH (P2)	7548.0	226.6	201.9	39° 55' 33.240 N	104° 43' 54.095 W	Point



Azimuths to True North
Magnetic North: 8.45°

Magnetic Field
Strength: 52606.8snT
Dip Angle: 66.58°
Date: 24/01/2014
Model: IGRF2010



Survey Report



Company:	BILL BARRETT CORPORATION	Local Co-ordinate Reference:	Well STATE OF COLORADO 1S-66-36-1609BH
Project:	ADAMS COUNTY, COLORADO (NAD 83)	TVD Reference:	KB @ 5203.0usft (NABORS M37)
Site:	SW NW SEC. 36 T1S R66W 6th P.M.	MD Reference:	KB @ 5203.0usft (NABORS M37)
Well:	STATE OF COLORADO 1S-66-36-1609BH	North Reference:	True
Wellbore:	JOB # 2009-269	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	EDM 5000.1 Single User Db

Project	ADAMS COUNTY, COLORADO (NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site	SW NW SEC. 36 T1S R66W 6th P.M.				
Site Position:		Northing:	1,216,544.45 usft	Latitude:	39° 55' 30.853 N
From:	Lat/Long	Easting:	3,215,275.31 usft	Longitude:	104° 43' 56.687 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.50 °

Well	STATE OF COLORADO 1S-66-36-1609BH					
Well Position	+N/-S	0.0 usft	Northing:	1,216,559.37 usft	Latitude:	39° 55' 31.001 N
	+E/-W	0.0 usft	Easting:	3,215,275.18 usft	Longitude:	104° 43' 56.687 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	5,180.0 usft

Wellbore	JOB # 2009-269				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	24/01/2014	8.46	66.58	52,607

Design	FINAL SURVEYS				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	87.07	

Survey Program	Date	25/03/2014			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
100.0	12,090.0	FINAL SURVEYS (JOB # 2009-269)	MWD	MWD - Standard	

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	5,203.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.58	174.44	100.0	5,103.0	-0.5	0.0	0.0	0.58	0.58	0.00
200.0	0.60	354.82	200.0	5,003.0	-0.5	0.1	0.0	1.18	0.02	-179.62
300.0	0.11	176.97	300.0	4,903.0	-0.1	0.0	0.0	0.71	-0.49	-177.85
400.0	0.78	299.88	400.0	4,803.0	0.2	-0.6	-0.6	0.84	0.67	122.91
500.0	0.58	278.52	500.0	4,703.0	0.6	-1.7	-1.6	0.32	-0.20	-21.36
600.0	0.76	349.93	600.0	4,603.0	1.3	-2.3	-2.2	0.80	0.18	71.41
700.0	0.44	315.01	700.0	4,503.0	2.2	-2.7	-2.6	0.47	-0.32	-34.92
800.0	0.25	273.83	800.0	4,403.0	2.5	-3.2	-3.0	0.30	-0.19	-41.18
900.0	0.35	241.37	900.0	4,303.0	2.4	-3.6	-3.5	0.19	0.10	-32.46
1,000.0	0.44	217.02	1,000.0	4,203.0	2.0	-4.1	-4.0	0.19	0.09	-24.35
1,100.0	0.37	137.98	1,100.0	4,103.0	1.4	-4.2	-4.1	0.52	-0.07	-79.04
1,200.0	0.73	327.03	1,200.0	4,003.0	1.7	-4.3	-4.2	1.10	0.36	-170.95

Survey Report



Company:	BILL BARRETT CORPORATION	Local Co-ordinate Reference:	Well STATE OF COLORADO 1S-66-36-1609BH
Project:	ADAMS COUNTY, COLORADO (NAD 83)	TVD Reference:	KB @ 5203.0usft (NABORS M37)
Site:	SW NW SEC. 36 T1S R66W 6th P.M.	MD Reference:	KB @ 5203.0usft (NABORS M37)
Well:	STATE OF COLORADO 1S-66-36-1609BH	North Reference:	True
Wellbore:	JOB # 2009-269	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,300.0	0.59	303.68	1,300.0	3,903.0	2.5	-5.1	-4.9	0.30	-0.14	-23.35
1,400.0	0.58	33.33	1,400.0	3,803.0	3.2	-5.2	-5.0	0.82	-0.01	89.65
SURFACE CASING										
1,451.0	0.82	316.72	1,451.0	3,752.0	3.7	-5.3	-5.1	1.74	0.47	-150.22
1,634.0	0.70	152.50	1,633.9	3,569.1	3.7	-5.7	-5.5	0.82	-0.07	-89.74
1,729.0	0.60	153.10	1,728.9	3,474.1	2.7	-5.2	-5.1	0.11	-0.11	0.63
1,824.0	0.20	199.10	1,823.9	3,379.1	2.1	-5.0	-4.9	0.51	-0.42	48.42
1,919.0	0.10	51.50	1,918.9	3,284.1	2.0	-5.0	-4.9	0.30	-0.11	-155.37
2,015.0	0.30	67.60	2,014.9	3,188.1	2.2	-4.7	-4.6	0.21	0.21	16.77
2,112.0	2.20	313.50	2,111.9	3,091.1	3.5	-5.8	-5.7	2.41	1.96	-117.63
2,206.0	4.00	324.30	2,205.8	2,997.2	7.4	-9.1	-8.7	2.00	1.91	11.49
2,302.0	3.90	324.80	2,301.5	2,901.5	12.8	-12.9	-12.2	0.11	-0.10	0.52
2,398.0	4.10	319.50	2,397.3	2,805.7	18.1	-17.0	-16.1	0.44	0.21	-5.52
2,495.0	3.90	319.20	2,494.1	2,708.9	23.2	-21.4	-20.2	0.21	-0.21	-0.31
2,591.0	3.60	318.60	2,589.9	2,613.1	28.0	-25.6	-24.1	0.32	-0.31	-0.62
2,687.0	3.50	320.00	2,685.7	2,517.3	32.5	-29.4	-27.7	0.14	-0.10	1.46
2,782.0	4.10	312.40	2,780.5	2,422.5	37.0	-33.8	-31.9	0.82	0.63	-8.00
2,877.0	3.70	312.00	2,875.3	2,327.7	41.3	-38.6	-36.4	0.42	-0.42	-0.42
2,973.0	3.50	311.10	2,971.1	2,231.9	45.3	-43.1	-40.7	0.22	-0.21	-0.94
3,068.0	4.70	301.60	3,065.8	2,137.2	49.3	-48.6	-46.0	1.45	1.26	-10.00
3,164.0	4.30	319.70	3,161.5	2,041.5	54.1	-54.3	-51.4	1.53	-0.42	18.85
3,260.0	4.00	323.40	3,257.3	1,945.7	59.5	-58.6	-55.5	0.42	-0.31	3.85
3,356.0	3.60	327.50	3,353.1	1,849.9	64.7	-62.2	-58.8	0.50	-0.42	4.27
3,451.0	3.90	299.80	3,447.9	1,755.1	68.9	-66.6	-63.0	1.91	0.32	-29.16
3,547.0	4.00	327.10	3,543.7	1,659.3	73.3	-71.3	-67.4	1.94	0.10	28.44
3,643.0	3.60	313.80	3,639.4	1,563.6	78.2	-75.3	-71.2	1.01	-0.42	-13.85
3,738.0	3.30	323.00	3,734.3	1,468.7	82.4	-79.1	-74.7	0.66	-0.32	9.68
3,834.0	3.00	323.90	3,830.1	1,372.9	86.7	-82.2	-77.7	0.32	-0.31	0.94
3,931.0	3.70	317.20	3,927.0	1,276.0	91.0	-85.8	-81.1	0.83	0.72	-6.91
4,027.0	2.50	312.90	4,022.8	1,180.2	94.7	-89.5	-84.5	1.27	-1.25	-4.48
4,124.0	3.70	300.60	4,119.7	1,083.3	97.8	-93.7	-88.6	1.41	1.24	-12.68
4,219.0	2.50	321.80	4,214.5	988.5	100.9	-97.6	-92.3	1.73	-1.26	22.32
4,315.0	4.10	310.40	4,310.4	892.6	104.8	-101.5	-96.1	1.79	1.67	-11.87
4,411.0	3.40	295.30	4,406.2	796.8	108.3	-106.7	-101.1	1.25	-0.73	-15.73
4,506.0	3.90	310.90	4,501.0	702.0	111.6	-111.7	-105.9	1.17	0.53	16.42
4,603.0	4.70	324.50	4,597.7	605.3	117.0	-116.5	-110.4	1.33	0.82	14.02
4,698.0	4.50	317.90	4,692.4	510.6	122.9	-121.3	-114.8	0.60	-0.21	-6.95
4,796.0	5.00	331.50	4,790.1	412.9	129.5	-125.9	-119.1	1.25	0.51	13.88
4,892.0	4.20	333.50	4,885.8	317.2	136.3	-129.5	-122.3	0.85	-0.83	2.08
4,988.0	4.70	320.40	4,981.5	221.5	142.5	-133.5	-126.1	1.18	0.52	-13.65
5,084.0	4.50	322.50	5,077.2	125.8	148.5	-138.3	-130.6	0.27	-0.21	2.19
5,180.0	4.40	318.90	5,172.9	30.1	154.3	-143.0	-135.0	0.31	-0.10	-3.75
5,276.0	3.90	321.90	5,268.6	-65.6	159.6	-147.5	-139.1	0.57	-0.52	3.12
5,371.0	4.00	311.60	5,363.4	-160.4	164.4	-152.0	-143.4	0.75	0.11	-10.84
5,467.0	4.80	314.10	5,459.1	-256.1	169.4	-157.3	-148.5	0.86	0.83	2.60
5,564.0	4.80	319.00	5,555.8	-352.8	175.3	-162.9	-153.7	0.42	0.00	5.05
5,659.0	4.30	325.40	5,650.5	-447.5	181.2	-167.5	-158.1	0.75	-0.53	6.74
5,756.0	5.00	309.10	5,747.2	-544.2	186.9	-172.9	-163.1	1.53	0.72	-16.80
5,851.0	4.50	303.70	5,841.8	-638.8	191.6	-179.2	-169.2	0.71	-0.53	-5.68
5,948.0	4.50	303.20	5,938.5	-735.5	195.7	-185.6	-175.3	0.04	0.00	-0.52
6,044.0	4.60	314.80	6,034.2	-831.2	200.5	-191.4	-180.9	0.96	0.10	12.08
6,140.0	3.90	312.20	6,130.0	-927.0	205.4	-196.6	-185.8	0.76	-0.73	-2.71
6,236.0	2.30	317.10	6,225.8	-1,022.8	209.0	-200.3	-189.4	1.69	-1.67	5.10

Survey Report



Company:	BILL BARRETT CORPORATION	Local Co-ordinate Reference:	Well STATE OF COLORADO 1S-66-36-1609BH
Project:	ADAMS COUNTY, COLORADO (NAD 83)	TVD Reference:	KB @ 5203.0usft (NABORS M37)
Site:	SW NW SEC. 36 T1S R66W 6th P.M.	MD Reference:	KB @ 5203.0usft (NABORS M37)
Well:	STATE OF COLORADO 1S-66-36-1609BH	North Reference:	True
Wellbore:	JOB # 2009-269	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
6,332.0	1.40	319.90	6,321.8	-1,118.8	211.3	-202.4	-191.3	0.94	-0.94	2.92
6,428.0	1.20	322.00	6,417.8	-1,214.8	213.0	-203.8	-192.6	0.21	-0.21	2.19
6,523.0	1.30	324.30	6,512.7	-1,309.7	214.7	-205.0	-193.8	0.12	0.11	2.42
6,618.0	1.00	331.20	6,607.7	-1,404.7	216.3	-206.0	-194.7	0.35	-0.32	7.26
6,714.0	1.00	312.40	6,703.7	-1,500.7	217.6	-207.1	-195.7	0.34	0.00	-19.58
6,810.0	1.10	302.50	6,799.7	-1,596.7	218.6	-208.5	-197.0	0.22	0.10	-10.31
6,904.0	1.30	299.20	6,893.7	-1,690.7	219.7	-210.1	-198.6	0.23	0.21	-3.51
6,999.0	1.00	304.60	6,988.6	-1,785.6	220.7	-211.8	-200.2	0.34	-0.32	5.68
7,061.0	1.30	297.00	7,050.6	-1,847.6	221.3	-212.8	-201.2	0.54	0.48	-12.26
KOP										
7,147.0	5.01	60.97	7,136.5	-1,933.5	223.5	-210.4	-198.7	6.79	4.32	144.15
7,190.0	7.90	64.90	7,179.3	-1,976.3	225.7	-206.1	-194.3	6.79	6.72	9.14
7,286.0	17.60	78.80	7,272.8	-2,069.8	231.3	-185.8	-173.8	10.53	10.10	14.48
7,381.0	31.20	79.40	7,359.1	-2,156.1	238.7	-147.4	-135.0	14.32	14.32	0.63
7,476.0	49.50	76.30	7,431.2	-2,228.2	251.9	-87.6	-74.6	19.37	19.26	-3.26
7,524.0	59.10	75.40	7,459.2	-2,256.2	261.4	-49.8	-36.4	20.06	20.00	-1.87
7,573.0	63.60	77.90	7,482.7	-2,279.7	271.3	-8.0	5.9	10.22	9.18	5.10
7,619.0	68.30	81.10	7,501.4	-2,298.4	279.0	33.3	47.5	12.03	10.22	6.96
7,667.0	70.80	88.30	7,518.2	-2,315.2	283.1	78.0	92.4	14.99	5.21	15.00
7,714.0	77.70	96.10	7,531.0	-2,328.0	281.3	123.2	137.4	21.69	14.68	16.60
7,763.0	88.50	99.30	7,536.9	-2,333.9	274.8	171.3	185.1	22.97	22.04	6.53
7,864.0	91.20	99.40	7,537.1	-2,334.1	258.4	270.9	283.8	2.68	2.67	0.10
7,959.0	90.90	99.30	7,535.4	-2,332.4	242.9	364.7	376.6	0.33	-0.32	-0.11
8,055.0	87.60	95.70	7,536.6	-2,333.6	230.4	459.8	471.0	5.09	-3.44	-3.75
8,150.0	86.90	94.60	7,541.2	-2,338.2	221.9	554.3	564.9	1.37	-0.74	-1.16
8,247.0	88.50	93.60	7,545.1	-2,342.1	215.0	651.0	661.1	1.94	1.65	-1.03
8,343.0	91.30	92.00	7,545.3	-2,342.3	210.3	746.8	756.6	3.36	2.92	-1.67
8,438.0	90.70	92.00	7,543.6	-2,340.6	207.0	841.8	851.2	0.63	-0.63	0.00
8,534.0	90.50	92.00	7,542.6	-2,339.6	203.6	937.7	946.9	0.21	-0.21	0.00
8,629.0	90.90	92.00	7,541.4	-2,338.4	200.3	1,032.6	1,041.5	0.42	0.42	0.00
8,725.0	90.90	92.00	7,539.9	-2,336.9	196.9	1,128.6	1,137.2	0.00	0.00	0.00
8,821.0	90.10	89.80	7,539.1	-2,336.1	195.4	1,224.5	1,232.9	2.44	-0.83	-2.29
8,917.0	91.00	90.70	7,538.2	-2,335.2	195.0	1,320.5	1,328.8	1.33	0.94	0.94
9,014.0	91.10	88.50	7,536.4	-2,333.4	195.7	1,417.5	1,425.7	2.27	0.10	-2.27
9,109.0	89.80	86.80	7,535.6	-2,332.6	199.6	1,512.4	1,520.7	2.25	-1.37	-1.79
9,204.0	90.30	86.90	7,535.6	-2,332.6	204.8	1,607.3	1,615.7	0.54	0.53	0.11
9,299.0	90.60	85.40	7,534.8	-2,331.8	211.2	1,702.1	1,710.6	1.61	0.32	-1.58
9,394.0	90.20	85.20	7,534.1	-2,331.1	219.0	1,796.7	1,805.6	0.47	-0.42	-0.21
9,489.0	90.40	88.90	7,533.6	-2,330.6	223.9	1,891.6	1,900.6	3.90	0.21	3.89
9,585.0	90.50	92.90	7,532.9	-2,329.9	222.4	1,987.6	1,996.3	4.17	0.10	4.17
9,682.0	90.00	91.50	7,532.5	-2,329.5	218.6	2,084.5	2,092.9	1.53	-0.52	-1.44
9,779.0	89.90	90.10	7,532.6	-2,329.6	217.3	2,181.5	2,189.7	1.45	-0.10	-1.44
9,874.0	89.60	91.40	7,533.0	-2,330.0	216.0	2,276.5	2,284.5	1.40	-0.32	1.37
9,970.0	91.20	92.50	7,532.3	-2,329.3	212.8	2,372.4	2,380.2	2.02	1.67	1.15
10,066.0	89.70	91.30	7,531.5	-2,328.5	209.6	2,468.3	2,475.8	2.00	-1.56	-1.25
10,163.0	92.90	92.30	7,529.3	-2,326.3	206.5	2,565.3	2,572.5	3.46	3.30	1.03
10,258.0	92.80	92.20	7,524.6	-2,321.6	202.8	2,660.1	2,667.0	0.15	-0.11	-0.11
10,355.0	92.80	91.80	7,519.9	-2,316.9	199.4	2,756.9	2,763.5	0.41	0.00	-0.41
10,451.0	90.00	91.40	7,517.5	-2,314.5	196.8	2,852.8	2,859.1	2.95	-2.92	-0.42
10,547.0	90.50	91.70	7,517.1	-2,314.1	194.2	2,948.8	2,954.8	0.61	0.52	0.31
10,643.0	90.50	91.00	7,516.3	-2,313.3	191.9	3,044.7	3,050.6	0.73	0.00	-0.73
10,738.0	90.60	89.10	7,515.4	-2,312.4	191.8	3,139.7	3,145.4	2.00	0.11	-2.00
10,834.0	90.70	89.70	7,514.3	-2,311.3	192.8	3,235.7	3,241.4	0.63	0.10	0.62

Survey Report



Company:	BILL BARRETT CORPORATION	Local Co-ordinate Reference:	Well STATE OF COLORADO 1S-66-36-1609BH
Project:	ADAMS COUNTY, COLORADO (NAD 83)	TVD Reference:	KB @ 5203.0usft (NABORS M37)
Site:	SW NW SEC. 36 T1S R66W 6th P.M.	MD Reference:	KB @ 5203.0usft (NABORS M37)
Well:	STATE OF COLORADO 1S-66-36-1609BH	North Reference:	True
Wellbore:	JOB # 2009-269	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,930.0	89.20	90.80	7,514.4	-2,311.4	192.4	3,331.7	3,337.2	1.94	-1.56	1.15
11,025.0	88.80	90.80	7,516.0	-2,313.0	191.1	3,426.7	3,432.0	0.42	-0.42	0.00
11,120.0	88.30	91.00	7,518.4	-2,315.4	189.6	3,521.7	3,526.7	0.57	-0.53	0.21
11,217.0	89.50	90.60	7,520.3	-2,317.3	188.2	3,618.6	3,623.5	1.30	1.24	-0.41
11,312.0	89.30	90.70	7,521.3	-2,318.3	187.2	3,713.6	3,718.3	0.24	-0.21	0.11
11,409.0	89.70	91.10	7,522.1	-2,319.1	185.6	3,810.6	3,815.1	0.58	0.41	0.41
11,506.0	88.70	91.20	7,523.5	-2,320.5	183.7	3,907.6	3,911.8	1.04	-1.03	0.10
11,601.0	91.50	89.80	7,523.3	-2,320.3	182.9	4,002.6	4,006.7	3.30	2.95	-1.47
11,698.0	91.80	89.90	7,520.5	-2,317.5	183.1	4,099.5	4,103.5	0.33	0.31	0.10
11,794.0	91.80	90.40	7,517.5	-2,314.5	182.9	4,195.5	4,199.3	0.52	0.00	0.52
11,890.0	89.80	90.20	7,516.2	-2,313.2	182.4	4,291.4	4,295.2	2.09	-2.08	-0.21
11,985.0	89.40	90.40	7,516.8	-2,313.8	181.9	4,386.4	4,390.0	0.47	-0.42	0.21
LAST SURVEY - MAR 25, 2014										
12,041.0	89.30	90.69	7,517.5	-2,314.5	181.3	4,442.4	4,445.9	0.55	-0.18	0.52
PROJECTION TO TD										
12,090.0	89.30	90.69	7,518.1	-2,315.1	180.7	4,491.4	4,494.8	0.00	0.00	0.00

Survey Report



Company:	BILL BARRETT CORPORATION	Local Co-ordinate Reference:	Well STATE OF COLORADO 1S-66-36-1609BH
Project:	ADAMS COUNTY, COLORADO (NAD 83)	TVD Reference:	KB @ 5203.0usft (NABORS M37)
Site:	SW NW SEC. 36 T1S R66W 6th P.M.	MD Reference:	KB @ 5203.0usft (NABORS M37)
Well:	STATE OF COLORADO 1S-66-36-1609BH	North Reference:	True
Wellbore:	JOB # 2009-269	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	EDM 5000.1 Single User Db

Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
BTV - SOC 1S-66-36-16 - survey misses target center by 65.0usft at 7068.2usft MD (7057.8 TVD, 221.4 N, -213.0 E) - Point	0.00	0.00	7,059.5	226.2	-277.8	1,216,783.16	3,214,995.44	39° 55' 33.236 N	104° 44' 0.253 W
ICP - SOC 1S-66-36-16 - survey misses target center by 43.9usft at 7801.1usft MD (7537.5 TVD, 268.6 N, 208.9 E) - Point	0.00	0.00	7,548.0	226.6	201.9	1,216,787.71	3,215,475.14	39° 55' 33.240 N	104° 43' 54.095 W
EXIST VERT CO STATE - survey misses target center by 907.9usft at 9312.4usft MD (7534.7 TVD, 212.3 N, 1715.4 E) - Circle (radius 30.0)	0.00	0.00	8,332.0	645.5	1,685.4	1,217,219.40	3,216,954.90	39° 55' 37.379 N	104° 43' 35.053 W
BHL - SOC 1S-66-36-16 - survey misses target center by 50.1usft at 12090.0usft MD (7518.1 TVD, 180.7 N, 4491.4 E) - Point	0.00	0.00	7,517.0	230.3	4,498.7	1,216,828.58	3,219,771.56	39° 55' 33.272 N	104° 42' 58.943 W
ENTRY PNT - SOC 1S-66-36-16 - survey misses target center by 42.6usft at 7801.1usft MD (7537.5 TVD, 268.6 N, 208.9 E) - Point	0.00	0.00	7,537.0	226.6	201.9	1,216,787.71	3,215,475.14	39° 55' 33.240 N	104° 43' 54.095 W
EXIST VERT CO STATE - survey misses target center by 906.7usft at 11936.3usft MD (7516.4 TVD, 182.2 N, 4337.7 E) - Circle (radius 30.0)	0.00	0.00	8,294.0	648.6	4,334.7	1,217,245.40	3,219,604.00	39° 55' 37.406 N	104° 43' 1.046 W
EXIST VERT STATE A # - survey misses target center by 1309.7usft at 8176.7usft MD (7542.5 TVD, 219.8 N, 580.9 E) - Circle (radius 30.0)	0.00	0.00	8,315.0	-832.4	474.3	1,215,731.10	3,215,756.70	39° 55' 22.774 N	104° 43' 50.598 W
BHL - SOC 1S-66-36-16 - survey misses target center by 50.2usft at 12090.0usft MD (7518.1 TVD, 180.7 N, 4491.4 E) - Point	0.00	0.00	7,522.0	230.3	4,498.7	1,216,828.58	3,219,771.56	39° 55' 33.272 N	104° 42' 58.943 W
BTV - SOC 1S-66-36-16 - survey misses target center by 2.6usft at 7149.3usft MD (7138.9 TVD, 223.6 N, -210.2 E) - Point	0.00	0.00	7,138.7	226.2	-209.9	1,216,783.75	3,215,063.34	39° 55' 33.236 N	104° 43' 59.381 W
EXIST VERT STATE A # - survey misses target center by 1002.4usft at 10941.8usft MD (7514.5 TVD, 192.2 N, 3343.5 E) - Circle (radius 30.0)	0.00	0.00	8,336.0	-381.8	3,321.1	1,216,206.30	3,218,599.40	39° 55' 27.225 N	104° 43' 14.059 W

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,451.0	1,451.0	3.7	-5.3	SURFACE CASING
7,147.0	7,136.5	223.5	-210.4	KOP
12,041.0	7,517.5	181.3	4,442.4	LAST SURVEY - MAR 25, 2014
12,090.0	7,518.1	180.7	4,491.4	PROJECTION TO TD

Checked By: _____ Approved By: _____ Date: _____