

Location:	COLORADO	Slot:	SLOT#01 STATE BIERSTADT 4-65 35-34 1CH (1251°FNL & 610°FEL, SEC.35)
Field:	ARAPAHOE COUNTY (NAD83/TN)	Well:	STATE BIERSTADT 4-65 35-34 1CH
Facility:	SEC.35-T04S-R6SW	Wellbore:	STATE BIERSTADT 4-65 35-34 1CH PWB

Plot reference wellpath is STATE BIERSTADT 4-65 35-34 1CH (REV-A.0) PWP	Grid System: NAD83 / Lambert Colorado SP, Central Zone (502), US feet
True vertical depths are referenced to H&P 448 (24KB) (RKB)	* = Wellpath was transformed from a different geodetic datum
Measured depths are referenced to H&P 448 (24KB) (RKB)	North Reference: True north
H&P 448 (24KB) (RKB) to Mean Sea Level: 5896.3 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#01 STATE BIERSTADT 4-65 35-34 1CH (1251FNL & 610TFEL, SEC.35)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: adamkat on 2017-07-13
	Database: WA DEN Denver Defn

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	24.00	0.000	112.046	24.00	0.00	0.00	0.00	0.00
End of Tangent	5000.00	0.000	112.046	5000.00	0.00	0.00	0.00	0.00
End of Build	5482.52	7.238	112.046	5481.24	-11.42	28.21	1.50	-28.09
End of Tangent	7322.70	7.238	112.046	7306.75	-98.45	243.10	0.00	-242.05
End of 3D Arc	8284.46	89.459	270.224	7946.00	-126.14	-320.63	10.00	321.95
End of Tangent	16751.86	89.459	270.224	8026.00	-93.02	-8787.59	0.00	8788.00

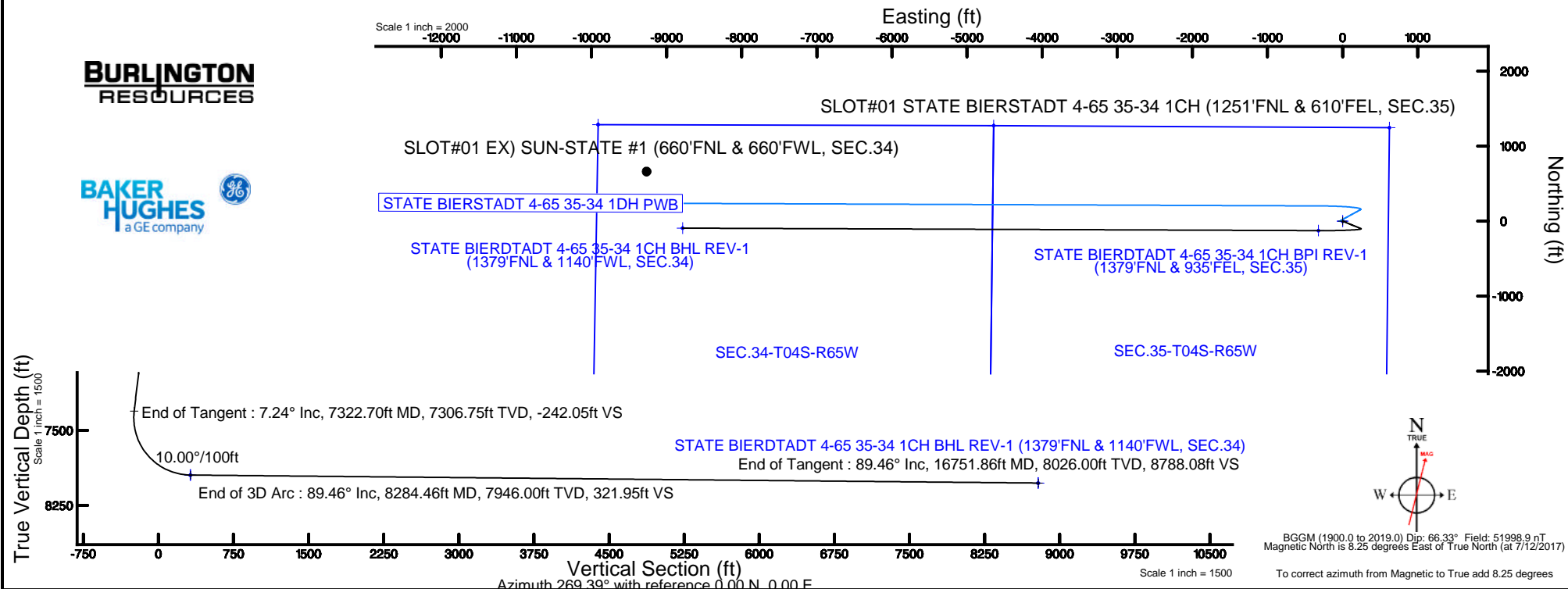
Name	Start MD (ft)	End MD (ft)	Interval (ft)	Start TVD (ft)	End TVD (ft)	Start Local N (ft)	Start Local E (ft)	End Local N (ft)	End Local E (ft)	Wellbore
9.625in Casing Surface	24.00	2276.00	2252.00	24.00	2276.00	0.00	0.00	0.00	0.00	STATE BIERSTADT 4-65 35-34 1CH PWB
8.75in Open Hole	2276.00	16751.86	14475.86	2276.00	N/A	0.00	0.00	N/A	N/A	STATE BIERSTADT 4-65 35-34 1CH PWB
5.5in Casing Production	24.00	16751.86	16727.86	24.00	N/A	0.00	0.00	N/A	N/A	STATE BIERSTADT 4-65 35-34 1CH PWB

Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
24.00	16758.98	BHI NavTrak	Custom BHI NavTrak (IFR1, Standard Rotating) (Rockies 0.03Gt model)		STATE BIERSTADT 4-65 35-34 1CH PWB

Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.35-T04S-R65W			3246487.438	1667887.008	39°39'49.990"N	104°37'28.020"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#01 STATE BIERSTADT 4-65 35-34 1CH (1251FNL & 610FEL, SEC.35)	0.00	0.00	3246487.438	1667887.008	39°39'49.990"N	104°37'28.020"W
H&P 448 (24KB) (RKB) to Mud line (At Slot: SLOT#01 STATE BIERSTADT 4-65 35-34 1CH (1251FNL & 610FEL, SEC.35))					5896.3ft	
Mean Sea Level to Mud line (At Slot: SLOT#01 STATE BIERSTADT 4-65 35-34 1CH (1251FNL & 610FEL, SEC.35))					0ft	
H&P 448 (24KB) (RKB) to Mean Sea Level					5896.3ft	

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.34-TD4S-R65W		0.00	0.00	0.00	3246487.44	1667887.01	39°39'49.990"N	104°37'28.020"W
SEC.34-TD4S-R65W NE CORNER		0.00	1274.22	-4645.05	3241830.40	1669116.38	39°40'02.579"N	104°38'27.420"W
SEC.34-TD4S-R65W NW CORNER		0.00	1288.63	-9912.54	3236563.12	1669080.23	39°40'02.708"N	104°39'34.780"W
SEC.34-TD4S-R65W SE CORNER		0.00	-4009.44	-4707.68	3241818.70	1663832.46	39°39'10.361"N	104°38'28.208"W
SEC.34-TD4S-R65W SW CORNER		0.00	-3985.69	-10001.31	3236525.19	1663805.18	39°39'10.580"N	104°39'35.888"W
SEC.35-TD4S-R65W		0.00	0.00	0.00	3246487.44	1667887.01	39°39'49.990"N	104°37'28.020"W
SEC.35-TD4S-R65W NE CORNER		0.00	1247.58	624.69	3247100.06	1669140.53	39°40'02.320"N	104°37'20.032"W
SEC.35-TD4S-R65W SE CORNER		0.00	-4029.17	563.15	3247089.39	1663863.53	39°39'10.170"N	104°37'20.820"W
STATE BIERDTADT 4-65 35-34 1CH BPI ON PLAT (899FWL & 935FEL, SEC.35)		7946.00	353.14	-320.63	3246163.43	1668237.03	39°39'53.480"N	104°37'32.120"W
STATE BIERDTADT 4-65 35-34 1CH BPI REV-1 (1379FWL & 935FEL, SEC.35)	8284.86	7946.00	-126.14	-320.63	3246168.04	1667575.79	39°39'48.743"N	104°37'32.120"W
STATE BIERDTADT 4-65 35-34 1CH BHL ON PLAT (899FWL & 1140FWL, SEC.34)		8026.00	387.02	-8787.59	3237696.69	1668189.32	39°39'53.800"N	104°39'20.390"W
STATE BIERDTADT 4-65 35-34 1CH BHL REV-1 (1379FWL & 1140FWL, SEC.34)	16751.86	8026.00	-93.02	-8787.59	3237701.31	1667709.30	39°39'49.056"N	104°39'20.390"W

MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
16751.86	89.459	270.224	8026.00	-93.02	-8787.59	3237701.31	1667709.30	39°39'49.056"N	104°39'20.388"W



REFERENCE WELLPATH IDENTIFICATION			
Operator	Burlington Resources	Slot	SLOT#01 STATE BIERSTADT 4-65 35-34 1CH (1251'FNL & 610'FEL, SEC.35)
Area	COLORADO	Well	STATE BIERSTADT 4-65 35-34 1CH
Field	ARAPAHOE COUNTY (NAD83/TN)	Wellbore	STATE BIERSTADT 4-65 35-34 1CH PWB
Facility	SEC.35-T04S-R65W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Colorado SP, Central Zone (502), US feet	Software System	WellArchitect® 5.0
North Reference	True	User	Adamkat
Scale	0.999984	Report Generated	7/13/2017 at 11:59:16 AM
Convergence at slot	0.56° East	Database/Source file	WA_DEN_Denver_Defn/STATE_BIERSTADT_4-65_35-34_1CH_REV-A.0_PWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	0.00	3246487.44	1667887.01	39°39'49.990"N	104°37'28.020"W
Facility Reference Pt			3246487.44	1667887.01	39°39'49.990"N	104°37'28.020"W
Field Reference Pt			3256721.09	1679994.75	39°41'48.650"N	104°35'15.610"W

WELLPATH DATUM			
Calculation method	Minimum curvature	H&P 448 (24'KB) (RKB) to Facility Vertical Datum	5896.30ft
Horizontal Reference Pt	Slot	H&P 448 (24'KB) (RKB) to Mean Sea Level	5896.30ft
Vertical Reference Pt	H&P 448 (24'KB) (RKB)	H&P 448 (24'KB) (RKB) to Mud Line at Slot (SLOT#01 STATE BIERSTADT 4-65 35-34 1CH (1251'FNL & 610'FEL, SEC.35))	5896.30ft
MD Reference Pt	H&P 448 (24'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	269.39°

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Field	ARAPAHOE COUNTY (NAD83/TN)	Wellbore	STATE BIERSTADT 4-65 35-34 1CH PWB
Facility	SEC.35-T04S-R65W		

WELLPATH DATA (187 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments		
0.00†	0.000	112.046	0.00	0.00	0.00	0.00	0.00			
24.00	0.000	112.046	24.00	0.00	0.00	0.00	0.00	Tie On		
124.00†	0.000	112.046	124.00	0.00	0.00	0.00	0.00			
224.00†	0.000	112.046	224.00	0.00	0.00	0.00	0.00			
324.00†	0.000	112.046	324.00	0.00	0.00	0.00	0.00			
424.00†	0.000	112.046	424.00	0.00	0.00	0.00	0.00			
524.00†	0.000	112.046	524.00	0.00	0.00	0.00	0.00			
624.00†	0.000	112.046	624.00	0.00	0.00	0.00	0.00			
724.00†	0.000	112.046	724.00	0.00	0.00	0.00	0.00			
824.00†	0.000	112.046	824.00	0.00	0.00	0.00	0.00			
924.00†	0.000	112.046	924.00	0.00	0.00	0.00	0.00			
1024.00†	0.000	112.046	1024.00	0.00	0.00	0.00	0.00			
1124.00†	0.000	112.046	1124.00	0.00	0.00	0.00	0.00			
1224.00†	0.000	112.046	1224.00	0.00	0.00	0.00	0.00			
1324.00†	0.000	112.046	1324.00	0.00	0.00	0.00	0.00			
1424.00†	0.000	112.046	1424.00	0.00	0.00	0.00	0.00			
1524.00†	0.000	112.046	1524.00	0.00	0.00	0.00	0.00			
1624.00†	0.000	112.046	1624.00	0.00	0.00	0.00	0.00			
1724.00†	0.000	112.046	1724.00	0.00	0.00	0.00	0.00			
1824.00†	0.000	112.046	1824.00	0.00	0.00	0.00	0.00			
1855.00†	0.000	112.046	1855.00	0.00	0.00	0.00	0.00	Fox Hills		
1924.00†	0.000	112.046	1924.00	0.00	0.00	0.00	0.00			
2024.00†	0.000	112.046	2024.00	0.00	0.00	0.00	0.00			
2076.00†	0.000	112.046	2076.00	0.00	0.00	0.00	0.00	Pierre		
2124.00†	0.000	112.046	2124.00	0.00	0.00	0.00	0.00			
2224.00†	0.000	112.046	2224.00	0.00	0.00	0.00	0.00			
2276.00†	0.000	112.046	2276.00	0.00	0.00	0.00	0.00	SURFACE CASING		
2324.00†	0.000	112.046	2324.00	0.00	0.00	0.00	0.00			
2424.00†	0.000	112.046	2424.00	0.00	0.00	0.00	0.00			
2524.00†	0.000	112.046	2524.00	0.00	0.00	0.00	0.00			

REFERENCE WELLPATH IDENTIFICATION			
Operator	Burlington Resources	Slot	SLOT#01 STATE BIERSTADT 4-65 35-34 1CH (1251'FNL & 610'FEL, SEC.35)
Area	COLORADO	Well	STATE BIERSTADT 4-65 35-34 1CH
Field	ARAPAHOE COUNTY (NAD83/TN)	Wellbore	STATE BIERSTADT 4-65 35-34 1CH PWB
Facility	SEC.35-T04S-R65W		

WELLPATH DATA (187 stations) † = interpolated/extrapolated station											
MD [ft]	Inclination [°]		Azimuth [°]	TVD [ft]	Vert Sect [ft]		North [ft]	East [ft]	DLS [°/100ft]		Comments
2624.00†	0.000		112.046	2624.00	0.00		0.00	0.00	0.00		
2659.00†	0.000		112.046	2659.00	0.00		0.00	0.00	0.00		Pierre Mkr 900
2724.00†	0.000		112.046	2724.00	0.00		0.00	0.00	0.00		
2824.00†	0.000		112.046	2824.00	0.00		0.00	0.00	0.00		
2924.00†	0.000		112.046	2924.00	0.00		0.00	0.00	0.00		
3024.00†	0.000		112.046	3024.00	0.00		0.00	0.00	0.00		
3124.00†	0.000		112.046	3124.00	0.00		0.00	0.00	0.00		
3224.00†	0.000		112.046	3224.00	0.00		0.00	0.00	0.00		
3324.00†	0.000		112.046	3324.00	0.00		0.00	0.00	0.00		
3424.00†	0.000		112.046	3424.00	0.00		0.00	0.00	0.00		
3524.00†	0.000		112.046	3524.00	0.00		0.00	0.00	0.00		
3624.00†	0.000		112.046	3624.00	0.00		0.00	0.00	0.00		
3724.00†	0.000		112.046	3724.00	0.00		0.00	0.00	0.00		
3824.00†	0.000		112.046	3824.00	0.00		0.00	0.00	0.00		
3924.00†	0.000		112.046	3924.00	0.00		0.00	0.00	0.00		
4024.00†	0.000		112.046	4024.00	0.00		0.00	0.00	0.00		
4124.00†	0.000		112.046	4124.00	0.00		0.00	0.00	0.00		
4224.00†	0.000		112.046	4224.00	0.00		0.00	0.00	0.00		
4324.00†	0.000		112.046	4324.00	0.00		0.00	0.00	0.00		
4424.00†	0.000		112.046	4424.00	0.00		0.00	0.00	0.00		
4524.00†	0.000		112.046	4524.00	0.00		0.00	0.00	0.00		
4624.00†	0.000		112.046	4624.00	0.00		0.00	0.00	0.00		
4724.00†	0.000		112.046	4724.00	0.00		0.00	0.00	0.00		
4824.00†	0.000		112.046	4824.00	0.00		0.00	0.00	0.00		
4924.00†	0.000		112.046	4924.00	0.00		0.00	0.00	0.00		
5000.00	0.000		112.046	5000.00	0.00		0.00	0.00	0.00		End of Tangent
5024.00†	0.360		112.046	5024.00	-0.07		-0.03	0.07	1.50		
5124.00†	1.860		112.046	5123.98	-1.86		-0.76	1.87	1.50		
5224.00†	3.360		112.046	5223.87	-6.06		-2.46	6.09	1.50		
5324.00†	4.860		112.046	5323.61	-12.67		-5.15	12.73	1.50		

REFERENCE WELLPATH IDENTIFICATION			
Operator	Burlington Resources	Slot	SLOT#01 STATE BIERSTADT 4-65 35-34 1CH (1251'FNL & 610'FEL, SEC.35)
Area	COLORADO	Well	STATE BIERSTADT 4-65 35-34 1CH
Field	ARAPAHOE COUNTY (NAD83/TN)	Wellbore	STATE BIERSTADT 4-65 35-34 1CH PWB
Facility	SEC.35-T04S-R65W		

WELLPATH DATA (187 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments		
5424.00†	6.360	112.046	5423.13	-21.69	-8.82	21.79	1.50			
5482.52	7.238	112.046	5481.24	-28.09	-11.42	28.21	1.50	End of Build		
5524.00†	7.238	112.046	5522.39	-32.91	-13.39	33.05	0.00			
5624.00†	7.238	112.046	5621.59	-44.54	-18.12	44.73	0.00			
5724.00†	7.238	112.046	5720.79	-56.17	-22.84	56.41	0.00			
5824.00†	7.238	112.046	5820.00	-67.79	-27.57	68.09	0.00			
5924.00†	7.238	112.046	5919.20	-79.42	-32.30	79.77	0.00			
6024.00†	7.238	112.046	6018.40	-91.05	-37.03	91.44	0.00			
6124.00†	7.238	112.046	6117.61	-102.67	-41.76	103.12	0.00			
6224.00†	7.238	112.046	6216.81	-114.30	-46.49	114.80	0.00			
6324.00†	7.238	112.046	6316.01	-125.93	-51.22	126.48	0.00			
6424.00†	7.238	112.046	6415.22	-137.55	-55.95	138.15	0.00			
6524.00†	7.238	112.046	6514.42	-149.18	-60.68	149.83	0.00			
6624.00†	7.238	112.046	6613.62	-160.81	-65.41	161.51	0.00			
6724.00†	7.238	112.046	6712.83	-172.43	-70.13	173.19	0.00			
6824.00†	7.238	112.046	6812.03	-184.06	-74.86	184.86	0.00			
6924.00†	7.238	112.046	6911.23	-195.69	-79.59	196.54	0.00			
7024.00†	7.238	112.046	7010.43	-207.32	-84.32	208.22	0.00			
7124.00†	7.238	112.046	7109.64	-218.94	-89.05	219.90	0.00			
7224.00†	7.238	112.046	7208.84	-230.57	-93.78	231.58	0.00			
7292.71†	7.238	112.046	7277.00	-238.56	-97.03	239.60	0.00	Pierre Mkr 300		
7322.70	7.238	112.046	7306.75	-242.05	-98.45	243.10	0.00	End of Tangent		
7324.00†	7.117	112.439	7308.04	-242.20	-98.51	243.25	10.00			
7424.00†	4.350	231.940	7407.77	-244.89	-103.22	246.00	10.00			
7524.00†	13.676	259.075	7506.46	-230.21	-107.81	231.37	10.00			
7574.56†	18.657	262.221	7555.00	-216.30	-110.04	217.48	10.00	Pierre Mkr 125		
7624.00†	23.559	264.041	7601.11	-198.60	-112.14	199.80	10.00			
7724.00†	33.509	266.165	7688.86	-151.03	-116.07	152.26	10.00			
7768.53†	37.947	266.783	7725.00	-125.06	-117.66	126.32	10.00	Sharon Spr GR Mkr		
7824.00†	43.479	267.399	7767.03	-88.93	-119.49	90.20	10.00			

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Area	COLORADO	Well	STATE BIERSTADT 4-65 35-34 1CH
Field	ARAPAHOE COUNTY (NAD83/TN)	Wellbore	STATE BIERSTADT 4-65 35-34 1CH PWB
Facility	SEC.35-T04S-R65W		

WELLPATH DATA (187 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments		
7915.28†	52.589	268.183	7828.00	-21.16	-122.07	22.45	10.00	Niobrara (KOP)		
7924.00†	53.459	268.247	7833.25	-14.19	-122.28	15.48	10.00			
7962.29†	57.282	268.514	7855.00	17.30	-123.17	-16.00	10.00	Nio A Marl		
8024.00†	63.444	268.899	7885.50	70.91	-124.38	-69.60	10.00			
8088.39†	69.874	269.259	7911.00	130.00	-125.32	-128.68	10.00	Nio B Marl Lower		
8124.00†	73.431	269.446	7922.21	163.80	-125.70	-162.48	10.00			
8182.48†	79.272	269.738	7936.00	220.60	-126.11	-219.27	10.00	Nio C Chalk		
8224.00†	83.420	269.938	7942.25	261.64	-126.22	-260.32	10.00			
8284.46	89.459	270.224	7946.00†	321.95	-126.14	-320.63	10.00	End of 3D Arc; LP Target		
8324.00†	89.459	270.224	7946.37	361.48	-125.98	-360.17	0.00			
8424.00†	89.459	270.224	7947.32	461.47	-125.59	-460.16	0.00			
8524.00†	89.459	270.224	7948.26	561.45	-125.20	-560.16	0.00			
8624.00†	89.459	270.224	7949.21	661.44	-124.81	-660.15	0.00			
8724.00†	89.459	270.224	7950.15	761.42	-124.42	-760.15	0.00			
8824.00†	89.459	270.224	7951.10	861.41	-124.03	-860.14	0.00			
8924.00†	89.459	270.224	7952.04	961.39	-123.64	-960.14	0.00			
9024.00†	89.459	270.224	7952.99	1061.38	-123.24	-1060.13	0.00			
9124.00†	89.459	270.224	7953.93	1161.36	-122.85	-1160.13	0.00			
9224.00†	89.459	270.224	7954.88	1261.35	-122.46	-1260.12	0.00			
9324.00†	89.459	270.224	7955.82	1361.33	-122.07	-1360.12	0.00			
9424.00†	89.459	270.224	7956.77	1461.32	-121.68	-1460.11	0.00			
9524.00†	89.459	270.224	7957.71	1561.30	-121.29	-1560.11	0.00			
9624.00†	89.459	270.224	7958.66	1661.29	-120.90	-1660.10	0.00			
9724.00†	89.459	270.224	7959.60	1761.27	-120.51	-1760.10	0.00			
9824.00†	89.459	270.224	7960.55	1861.26	-120.12	-1860.09	0.00			
9924.00†	89.459	270.224	7961.49	1961.24	-119.73	-1960.09	0.00			
10024.00†	89.459	270.224	7962.44	2061.23	-119.33	-2060.08	0.00			
10124.00†	89.459	270.224	7963.38	2161.21	-118.94	-2160.08	0.00			
10224.00†	89.459	270.224	7964.32	2261.20	-118.55	-2260.07	0.00			
10324.00†	89.459	270.224	7965.27	2361.18	-118.16	-2360.06	0.00			

REFERENCE WELLPATH IDENTIFICATION			
Operator	Burlington Resources	Slot	SLOT#01 STATE BIERSTADT 4-65 35-34 1CH (1251'FNL & 610'FEL, SEC.35)
Area	COLORADO	Well	STATE BIERSTADT 4-65 35-34 1CH
Field	ARAPAHOE COUNTY (NAD83/TN)	Wellbore	STATE BIERSTADT 4-65 35-34 1CH PWB
Facility	SEC.35-T04S-R65W		

WELLPATH DATA (187 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments		
10424.00†	89.459	270.224	7966.21	2461.17	-117.77	-2460.06	0.00			
10524.00†	89.459	270.224	7967.16	2561.15	-117.38	-2560.05	0.00			
10624.00†	89.459	270.224	7968.10	2661.14	-116.99	-2660.05	0.00			
10724.00†	89.459	270.224	7969.05	2761.12	-116.60	-2760.04	0.00			
10824.00†	89.459	270.224	7969.99	2861.11	-116.21	-2860.04	0.00			
10924.00†	89.459	270.224	7970.94	2961.09	-115.81	-2960.03	0.00			
11024.00†	89.459	270.224	7971.88	3061.08	-115.42	-3060.03	0.00			
11124.00†	89.459	270.224	7972.83	3161.06	-115.03	-3160.02	0.00			
11224.00†	89.459	270.224	7973.77	3261.05	-114.64	-3260.02	0.00			
11324.00†	89.459	270.224	7974.72	3361.03	-114.25	-3360.01	0.00			
11424.00†	89.459	270.224	7975.66	3461.02	-113.86	-3460.01	0.00			
11524.00†	89.459	270.224	7976.61	3561.00	-113.47	-3560.00	0.00			
11624.00†	89.459	270.224	7977.55	3660.99	-113.08	-3660.00	0.00			
11724.00†	89.459	270.224	7978.50	3760.97	-112.69	-3759.99	0.00			
11824.00†	89.459	270.224	7979.44	3860.96	-112.30	-3859.99	0.00			
11924.00†	89.459	270.224	7980.39	3960.94	-111.90	-3959.98	0.00			
12024.00†	89.459	270.224	7981.33	4060.93	-111.51	-4059.98	0.00			
12124.00†	89.459	270.224	7982.28	4160.91	-111.12	-4159.97	0.00			
12224.00†	89.459	270.224	7983.22	4260.90	-110.73	-4259.97	0.00			
12324.00†	89.459	270.224	7984.17	4360.88	-110.34	-4359.96	0.00			
12424.00†	89.459	270.224	7985.11	4460.87	-109.95	-4459.96	0.00			
12524.00†	89.459	270.224	7986.06	4560.85	-109.56	-4559.95	0.00			
12624.00†	89.459	270.224	7987.00	4660.84	-109.17	-4659.94	0.00			
12724.00†	89.459	270.224	7987.94	4760.82	-108.78	-4759.94	0.00			
12824.00†	89.459	270.224	7988.89	4860.81	-108.38	-4859.93	0.00			
12924.00†	89.459	270.224	7989.83	4960.79	-107.99	-4959.93	0.00			
12941.53†	89.459	270.224	7990.00	4978.32	-107.92	-4977.46	0.00	Nio C Marl		
13024.00†	89.459	270.224	7990.78	5060.78	-107.60	-5059.92	0.00			
13124.00†	89.459	270.224	7991.72	5160.76	-107.21	-5159.92	0.00			
13224.00†	89.459	270.224	7992.67	5260.75	-106.82	-5259.91	0.00			

REFERENCE WELLPATH IDENTIFICATION			
Operator	Burlington Resources	Slot	SLOT#01 STATE BIERSTADT 4-65 35-34 1CH (1251'FNL & 610'FEL, SEC.35)
Area	COLORADO	Well	STATE BIERSTADT 4-65 35-34 1CH
Field	ARAPAHOE COUNTY (NAD83/TN)	Wellbore	STATE BIERSTADT 4-65 35-34 1CH PWB
Facility	SEC.35-T04S-R65W		

WELLPATH DATA (187 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments		
13324.00†	89.459	270.224	7993.61	5360.73	-106.43	-5359.91	0.00			
13424.00†	89.459	270.224	7994.56	5460.72	-106.04	-5459.90	0.00			
13524.00†	89.459	270.224	7995.50	5560.70	-105.65	-5559.90	0.00			
13624.00†	89.459	270.224	7996.45	5660.69	-105.26	-5659.89	0.00			
13724.00†	89.459	270.224	7997.39	5760.67	-104.86	-5759.89	0.00			
13824.00†	89.459	270.224	7998.34	5860.66	-104.47	-5859.88	0.00			
13924.00†	89.459	270.224	7999.28	5960.64	-104.08	-5959.88	0.00			
14024.00†	89.459	270.224	8000.23	6060.63	-103.69	-6059.87	0.00			
14124.00†	89.459	270.224	8001.17	6160.61	-103.30	-6159.87	0.00			
14224.00†	89.459	270.224	8002.12	6260.60	-102.91	-6259.86	0.00			
14324.00†	89.459	270.224	8003.06	6360.58	-102.52	-6359.86	0.00			
14424.00†	89.459	270.224	8004.01	6460.57	-102.13	-6459.85	0.00			
14524.00†	89.459	270.224	8004.95	6560.55	-101.74	-6559.85	0.00			
14624.00†	89.459	270.224	8005.90	6660.54	-101.35	-6659.84	0.00			
14724.00†	89.459	270.224	8006.84	6760.52	-100.95	-6759.83	0.00			
14824.00†	89.459	270.224	8007.79	6860.51	-100.56	-6859.83	0.00			
14924.00†	89.459	270.224	8008.73	6960.49	-100.17	-6959.82	0.00			
15024.00†	89.459	270.224	8009.68	7060.48	-99.78	-7059.82	0.00			
15124.00†	89.459	270.224	8010.62	7160.46	-99.39	-7159.81	0.00			
15224.00†	89.459	270.224	8011.56	7260.45	-99.00	-7259.81	0.00			
15324.00†	89.459	270.224	8012.51	7360.43	-98.61	-7359.80	0.00			
15424.00†	89.459	270.224	8013.45	7460.42	-98.22	-7459.80	0.00			
15524.00†	89.459	270.224	8014.40	7560.41	-97.83	-7559.79	0.00			
15624.00†	89.459	270.224	8015.34	7660.39	-97.43	-7659.79	0.00			
15693.43†	89.459	270.224	8016.00	7729.81	-97.16	-7729.22	0.00		Nio D Chalk	
15724.00†	89.459	270.224	8016.29	7760.38	-97.04	-7759.78	0.00			
15824.00†	89.459	270.224	8017.23	7860.36	-96.65	-7859.78	0.00			
15924.00†	89.459	270.224	8018.18	7960.35	-96.26	-7959.77	0.00			
16024.00†	89.459	270.224	8019.12	8060.33	-95.87	-8059.77	0.00			
16124.00†	89.459	270.224	8020.07	8160.32	-95.48	-8159.76	0.00			

REFERENCE WELLPATH IDENTIFICATION			
Operator	Burlington Resources	Slot	SLOT#01 STATE BIERSTADT 4-65 35-34 1CH (1251'FNL & 610'FEL, SEC.35)
Area	COLORADO	Well	STATE BIERSTADT 4-65 35-34 1CH
Field	ARAPAHOE COUNTY (NAD83/TN)	Wellbore	STATE BIERSTADT 4-65 35-34 1CH PWB
Facility	SEC.35-T04S-R65W		

WELLPATH DATA (187 stations) † = interpolated/extrapolated station									
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments	
16224.00†	89.459	270.224	8021.01	8260.30	-95.09	-8259.76	0.00		
16324.00†	89.459	270.224	8021.96	8360.29	-94.70	-8359.75	0.00		
16424.00†	89.459	270.224	8022.90	8460.27	-94.31	-8459.75	0.00		
16524.00†	89.459	270.224	8023.85	8560.26	-93.92	-8559.74	0.00		
16624.00†	89.459	270.224	8024.79	8660.24	-93.52	-8659.74	0.00		
16724.00†	89.459	270.224	8025.74	8760.23	-93.13	-8759.73	0.00		
16751.86	89.459	270.224	8026.00	8788.08	-93.02	-8787.59	0.00	End of Tangent; BHL Target, TD (BHL Target)	

HOLE & CASING SECTIONS - Ref Wellbore: STATE BIERSTADT 4-65 35-34 1CH PWB Ref Wellpath: STATE BIERSTADT 4-65 35-34 1CH (REV-A.0) PWP											
String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]		
9.625in Casing Surface	24.00	2276.00	2252.00	24.00	2276.00	0.00	0.00	0.00	0.00		
8.75in Open Hole	2276.00	16751.86	14475.86	2276.00	N/A	0.00	0.00	N/A	N/A		
5.5in Casing Production	24.00	16751.86	16727.86	24.00	N/A	0.00	0.00	N/A	N/A		

REFERENCE WELLPATH IDENTIFICATION			
Operator	Burlington Resources	Slot	SLOT#01 STATE BIERSTADT 4-65 35-34 1CH (1251'FNL & 610'FEL, SEC.35)
Area	COLORADO	Well	STATE BIERSTADT 4-65 35-34 1CH
Field	ARAPAHOE COUNTY (NAD83/TN)	Wellbore	STATE BIERSTADT 4-65 35-34 1CH PWB
Facility	SEC.35-T04S-R65W		

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.34-T04S-R65W		0.00	0.00	0.00	3246487.44	1667887.01	39°39'49.990"N	104°37'28.020"W	polygon
SEC.34-T04S-R65W NE CORNER		0.00	1274.22	-4645.05	3241830.40	1669116.38	39°40'02.579"N	104°38'27.420"W	point
SEC.34-T04S-R65W NW CORNER		0.00	1288.83	-9912.54	3236563.12	1669080.23	39°40'02.708"N	104°39'34.780"W	point
SEC.34-T04S-R65W SE CORNER		0.00	-4009.44	-4707.68	3241818.70	1663832.46	39°39'10.361"N	104°38'28.208"W	point
SEC.34-T04S-R65W SW CORNER		0.00	-3985.69	-10001.31	3236525.19	1663805.18	39°39'10.580"N	104°39'35.888"W	point
SEC.35-T04S-R65W		0.00	0.00	0.00	3246487.44	1667887.01	39°39'49.990"N	104°37'28.020"W	polygon
SEC.35-T04S-R65W NE CORNER		0.00	1247.58	624.69	3247100.06	1669140.53	39°40'02.320"N	104°37'20.032"W	point
SEC.35-T04S-R65W SE CORNER		0.00	-4029.17	563.15	3247089.39	1663863.53	39°39'10.170"N	104°37'20.820"W	point
STATE BIERDTADT 4-65 35-34 1CH BPI ON PLAT (899'FNL & 935'FEL, SEC.35)		7946.00	353.14	-320.63	3246163.43	1668237.03	39°39'53.480"N	104°37'32.120"W	point
1) STATE BIERDTADT 4-65 35-34 1CH BPI REV-1 (1379'FNL & 935'FEL, SEC.35)	8284.46	7946.00	-126.14	-320.63	3246168.04	1667757.79	39°39'48.743"N	104°37'32.120"W	point
STATE BIERDTADT 4-65 35-34 1CH BHL ON PLAT (899'FNL & 1140'FWL, SEC.34)		8026.00	387.02	-8787.59	3237696.69	1668189.32	39°39'53.800"N	104°39'20.390"W	point
2) STATE BIERDTADT 4-65 35-34 1CH BHL REV-1 (1379'FNL & 1140'FWL, SEC.34)	16751.86	8026.00	-93.02	-8787.59	3237701.31	1667709.30	39°39'49.056"N	104°39'20.388"W	point

REFERENCE WELLPATH IDENTIFICATION			
Operator	Burlington Resources	Slot	SLOT#01 STATE BIERSTADT 4-65 35-34 1CH (1251'FNL & 610'FEL, SEC.35)
Area	COLORADO	Well	STATE BIERSTADT 4-65 35-34 1CH
Field	ARAPAHOE COUNTY (NAD83/TN)	Wellbore	STATE BIERSTADT 4-65 35-34 1CH PWB
Facility	SEC.35-T04S-R65W		

SURVEY PROGRAM - Ref Wellbore: STATE BIERSTADT 4-65 35-34 1CH PWB Ref Wellpath: STATE BIERSTADT 4-65 35-34 1CH (REV-A.0) PWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
24.00	16758.98	Custom BHI NaviTrak (IFR1, Standard Rotating) (Rockies 0.03Gt model)		STATE BIERSTADT 4-65 35-34 1CH PWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	Burlington Resources	Slot	SLOT#01 STATE BIERSTADT 4-65 35-34 1CH (1251'FNL & 610'FEL, SEC.35)
Area	COLORADO	Well	STATE BIERSTADT 4-65 35-34 1CH
Field	ARAPAHOE COUNTY (NAD83/TN)	Wellbore	STATE BIERSTADT 4-65 35-34 1CH PWB
Facility	SEC.35-T04S-R65W		

WELLPATH COMMENTS					
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment	
1855.00	0.000	112.046	1855.00	Fox Hills	
2076.00	0.000	112.046	2076.00	Pierre	
2276.00	0.000	112.046	2276.00	SURFACE CASING	
2659.00	0.000	112.046	2659.00	Pierre Mkr 900	
7292.71	7.238	112.046	7277.00	Pierre Mkr 300	
7574.56	18.657	262.221	7555.00	Pierre Mkr 125	
7768.53	37.947	266.783	7725.00	Sharon Spr GR Mkr	
7915.28	52.589	268.183	7828.00	Niobrara (KOP)	
7962.29	57.282	268.514	7855.00	Nio A Marl	
8088.39	69.874	269.259	7911.00	Nio B Marl Lower	
8182.48	79.272	269.738	7936.00	Nio C Chalk	
8284.46	89.459	270.224	7946.00	LP Target	
12941.53	89.459	270.224	7990.00	Nio C Marl	
15693.43	89.459	270.224	8016.00	Nio D Chalk	
16751.86	89.459	270.224	8026.00	BHL Target, TD (BHL Target)	

DESIGN COMMENTS					
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment	
24.00	0.000	112.046	24.00	Tie On	
5000.00	0.000	112.046	5000.00	End of Tangent	
5482.52	7.238	112.046	5481.24	End of Build	
7322.70	7.238	112.046	7306.75	End of Tangent	
8284.46	89.459	270.224	7946.00	End of 3D Arc	
16751.86	89.459	270.224	8026.00	End of Tangent	