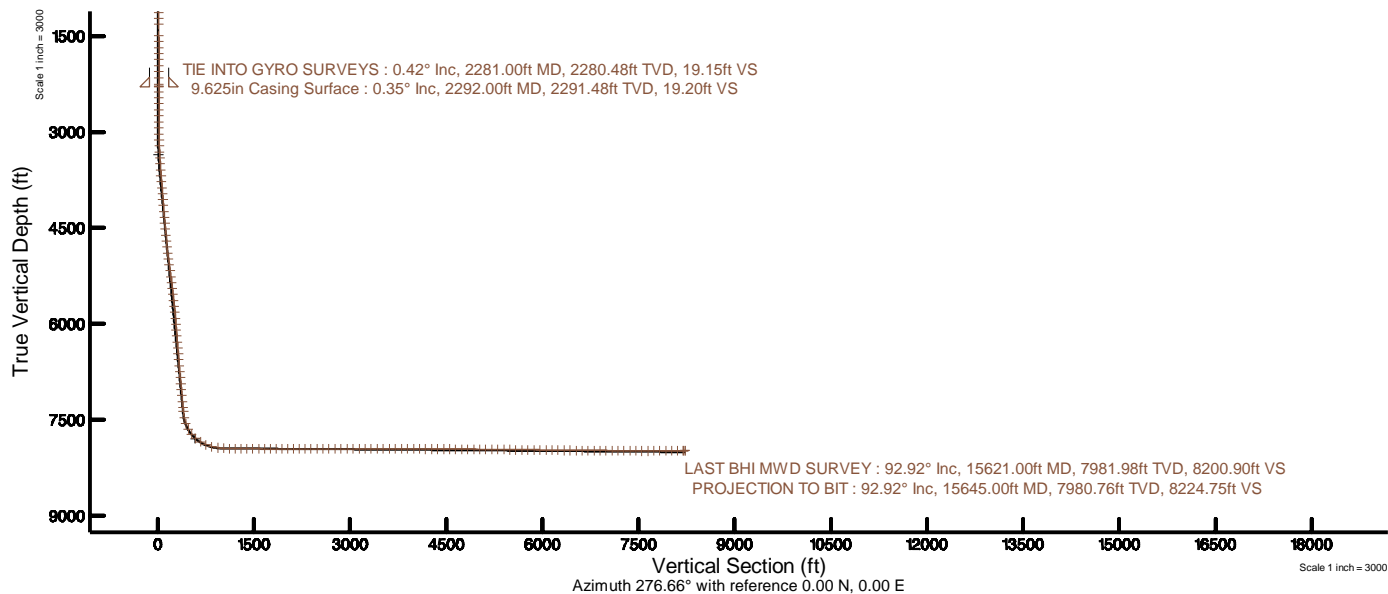
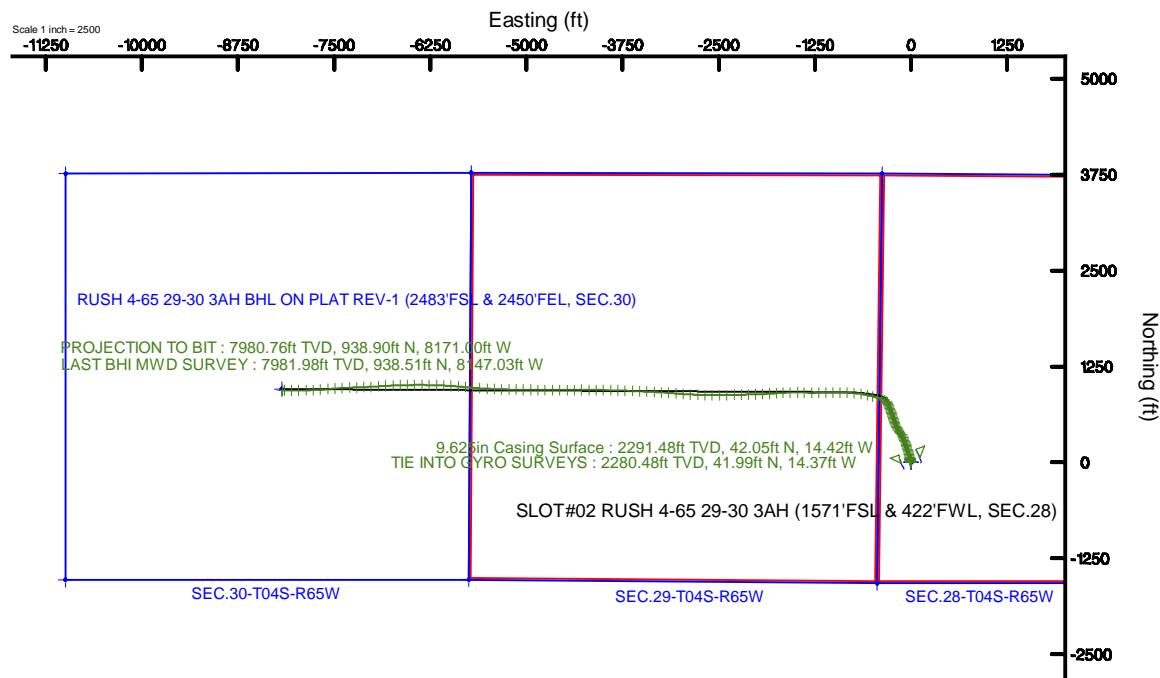


Burlington Resources

Location: COLORADO Slot: SLOT#02 RUSH 4-65 29-30 3AH (1571'FSL & 422'FWL, SEC.28)
Field: ARAPAHOE COUNTY (NAD83/TN) Well: RUSH 4-65 29-30 3AH
Facility: SEC.28-T04S-R65W Wellbore: RUSH 4-65 29-30 3AH PWB

Plot reference wellpath is RUSH 4-65 29-30 3AH (REV-A-Q) PWP	Grid System: NAD83 / Lambert Colorado SP, Central Zone (502), US feet
True vertical depths are referenced to RIG (24KB) (RKB)	North Reference: True north
Measured depths are referenced to RIG (24KB) (RKB)	Scale: True distance
RIG (24KB) (RKB) to Mean Sea Level: 5720 feet	Depths are in feet
Mean Sea Level to Mud line (At Slot: SLOT#02 RUSH 4-65 29-30 3AH (1571'FSL & 422'FWL, SEC.28)): 0 feet	Created by: bensajac on 2017-07-24
Coordinates are in feet referenced to Slot	Database: WA_DEN_Denver_Defn

BURLINGTON RESOURCES



REFERENCE WELLPATH IDENTIFICATION

Operator	Burlington Resources	Slot	SLOT#02 RUSH 4-65 29-30 3AH (1571'FSL & 422'FWL, SEC.28)
Area	COLORADO	Well	RUSH 4-65 29-30 3AH
Field	ARAPAHOE COUNTY (NAD83/TN)	Wellbore	RUSH 4-65 29-30 3AH AWP
Facility	SEC.28-T04S-R65W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Central Zone (502), US feet	Software System	WellArchitect® 5.1
North Reference	True	User	Bensjacj
Scale	0.999985	Report Generated	07/24/2017 at 2:41 PM
Convergence at slot	0.52° East	Database/Source file	WA_DEN_Denver_Defn/RUSH_4-65_29-30_3AH_AWP.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	39.46	-0.00	3231637.46	1670603.70	39°40'18.210"N	104°40'37.590"W
Facility Reference Pt			3231637.82	1670564.24	39°40'17.820"N	104°40'37.590"W
Field Reference Pt			3256721.09	1679994.75	39°41'48.650"N	104°35'15.610"W

WELLPATH DATUM

Calculation method	Minimum curvature	RIG (24'KB) (RKB) to Facility Vertical Datum	5720.00ft
Horizontal Reference Pt	Slot	RIG (24'KB) (RKB) to Mean Sea Level	5720.00ft
Vertical Reference Pt	RIG (24'KB) (RKB)	RIG (24'KB) (RKB) to Mud Line at Slot (SLOT#02 RUSH 4-65 29-30 3AH (1571'FSL & 422'FWL, SEC.28))	5720.00ft
MD Reference Pt	RIG (24'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	276.66°

REFERENCE WELLPATH IDENTIFICATION

Operator	Burlington Resources	Slot	SLOT#02 RUSH 4-65 29-30 3AH (1571'FSL & 422'FWL, SEC.28)
Area	COLORADO	Well	RUSH 4-65 29-30 3AH
Field	ARAPAHOE COUNTY (NAD83/TN)	Wellbore	RUSH 4-65 29-30 3AH AWP
Facility	SEC.28-T04S-R65W		

WELLPATH DATA (144 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
2281.00	0.420	321.870	2280.48	19.15	41.99	-14.37	0.08	TIE INTO GYRO SURVEYS
2371.00	0.250	82.950	2370.48	19.19	42.27	-14.38	0.65	
2465.00	0.220	129.900	2464.48	18.84	42.18	-14.04	0.20	
2559.00	0.190	151.830	2558.48	18.60	41.93	-13.83	0.09	
2654.00	0.300	147.840	2653.48	18.35	41.58	-13.62	0.12	
2748.00	0.330	170.870	2747.47	18.12	41.10	-13.45	0.14	
2843.00	0.160	199.270	2842.47	18.08	40.71	-13.45	0.21	
2937.00	0.170	202.190	2936.47	18.14	40.45	-13.54	0.01	
3032.00	2.220	354.790	3031.45	18.56	42.16	-13.76	2.50	
3126.00	6.380	352.800	3125.17	20.19	49.15	-14.58	4.43	
3221.00	6.390	349.690	3219.58	22.99	59.59	-16.19	0.36	
3315.00	7.690	341.690	3312.87	27.18	70.71	-19.10	1.73	
3410.00	9.520	345.040	3406.80	32.75	84.34	-23.13	2.00	
3504.00	12.170	348.310	3499.11	38.74	101.55	-27.14	2.89	
3598.00	11.160	348.430	3591.17	44.70	120.17	-30.98	1.07	
3693.00	10.200	348.050	3684.52	50.26	137.40	-34.56	1.01	
3787.00	11.340	338.450	3776.87	57.29	154.14	-39.68	2.26	
3882.00	10.400	337.330	3870.16	65.90	170.74	-46.42	1.01	
3976.00	11.400	343.210	3962.47	73.76	187.47	-52.37	1.59	
4071.00	10.800	344.550	4055.69	80.84	205.03	-57.45	0.69	
4165.00	8.990	346.850	4148.29	86.65	220.68	-61.47	1.97	
4260.00	10.840	338.350	4241.87	93.40	236.21	-66.46	2.48	
4354.00	10.180	339.340	4334.30	101.41	252.20	-72.65	0.73	
4449.00	11.810	336.620	4427.55	110.13	268.98	-79.47	1.80	
4543.00	10.700	337.540	4519.74	119.19	285.87	-86.62	1.20	
4637.00	11.030	336.900	4612.06	127.90	302.21	-93.48	0.37	
4731.00	9.900	338.140	4704.49	136.22	317.98	-100.02	1.23	
4826.00	10.480	335.080	4797.99	144.64	333.39	-106.70	0.83	
4920.00	10.940	326.590	4890.36	154.86	348.59	-115.21	1.75	
5014.00	9.830	321.460	4982.82	166.30	362.32	-125.13	1.54	
5109.00	10.600	319.450	5076.31	178.47	375.30	-135.86	0.89	
5203.00	11.990	322.960	5168.49	191.56	389.66	-147.36	1.65	
5298.00	10.660	323.920	5261.64	204.34	404.64	-158.48	1.41	
5392.00	11.290	332.330	5353.93	215.43	419.82	-167.87	1.83	
5487.00	10.370	332.000	5447.23	225.53	435.60	-176.21	0.97	
5582.00	11.600	332.660	5540.49	235.74	451.64	-184.61	1.30	
5676.00	12.430	333.030	5632.43	246.63	469.05	-193.54	0.89	
5771.00	11.330	332.980	5725.40	257.46	486.48	-202.41	1.16	
5865.00	10.190	333.280	5817.74	267.16	502.13	-210.35	1.21	
5960.00	10.660	340.640	5911.18	275.64	517.93	-217.04	1.49	
6055.00	11.160	349.680	6004.47	282.18	535.26	-221.60	1.87	
6149.00	11.900	341.550	6096.58	288.95	553.41	-226.30	1.90	
6244.00	10.120	339.220	6189.82	296.95	570.50	-232.36	1.93	
6338.00	11.050	342.010	6282.22	304.51	586.79	-238.07	1.13	
6433.00	12.600	345.060	6375.21	312.12	605.46	-243.55	1.76	

REFERENCE WELLPATH IDENTIFICATION

Operator	Burlington Resources	Slot	SLOT#02 RUSH 4-65 29-30 3AH (1571'FSL & 422'FWL, SEC.28)
Area	COLORADO	Well	RUSH 4-65 29-30 3AH
Field	ARAPAHOE COUNTY (NAD83/TN)	Wellbore	RUSH 4-65 29-30 3AH AWP
Facility	SEC.28-T04S-R65W		

WELLPATH DATA (144 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
6528.00	11.740	343.380	6468.07	319.76	624.74	-248.99	0.98	
6622.00	9.320	342.550	6560.48	326.65	641.16	-254.01	2.58	
6716.00	9.810	335.260	6653.18	333.93	655.70	-259.64	1.39	
6811.00	10.460	336.820	6746.69	342.44	670.98	-266.42	0.74	
6905.00	11.070	339.620	6839.04	350.79	687.28	-272.92	0.85	
7000.00	12.290	339.350	6932.07	359.57	705.29	-279.67	1.29	
7095.00	9.960	338.220	7025.28	368.12	722.38	-286.28	2.46	
7189.00	9.370	343.330	7117.95	375.03	737.26	-291.49	1.11	
7284.00	11.640	336.000	7211.35	382.98	753.43	-297.61	2.77	
7378.00	11.650	331.630	7303.42	393.26	770.44	-305.98	0.94	
7441.00	10.070	331.480	7365.29	400.09	780.88	-311.63	2.51	
7546.00	11.810	308.100	7468.43	414.55	795.59	-324.48	4.50	
7640.00	21.200	300.290	7558.46	438.38	810.13	-346.77	10.24	
7735.00	29.070	292.480	7644.42	476.40	827.65	-383.00	8.97	
7829.00	39.410	284.590	7722.07	528.09	843.95	-433.14	11.95	
7924.00	48.800	284.790	7790.21	593.48	860.71	-497.02	9.89	
8018.00	58.610	282.180	7845.79	668.62	878.24	-570.62	10.67	
8112.00	66.630	277.450	7889.00	751.86	892.33	-652.79	9.63	
8207.00	76.530	275.310	7918.98	841.88	902.29	-742.25	10.64	
8301.00	81.970	273.310	7936.51	934.11	909.21	-834.30	6.15	
8396.00	87.290	269.480	7945.40	1028.24	911.50	-928.80	6.89	
8487.00	89.570	269.740	7947.90	1118.51	910.88	-1019.76	2.52	
8578.00	89.320	269.980	7948.78	1208.87	910.66	-1110.76	0.38	
8669.00	89.540	268.530	7949.68	1299.10	909.47	-1201.74	1.61	
8761.00	89.720	269.860	7950.28	1390.32	908.18	-1293.73	1.46	
8854.00	89.660	272.750	7950.78	1482.90	910.30	-1386.69	3.11	
8945.00	89.540	270.620	7951.42	1573.55	912.97	-1477.65	2.34	
9038.00	89.940	267.790	7951.84	1665.76	911.68	-1570.63	3.07	
9129.00	89.970	266.570	7951.91	1755.51	907.21	-1661.51	1.34	
9220.00	89.970	266.170	7951.96	1845.05	901.44	-1752.33	0.44	
9311.00	89.720	266.650	7952.20	1934.60	895.75	-1843.15	0.59	
9402.00	89.910	267.400	7952.50	2024.31	891.02	-1934.03	0.85	
9493.00	89.880	267.990	7952.66	2114.20	887.36	-2024.95	0.65	
9584.00	90.000	268.350	7952.76	2204.20	884.46	-2115.91	0.42	
9676.00	90.000	269.150	7952.76	2295.33	882.45	-2207.89	0.87	
9770.00	89.850	268.310	7952.88	2388.43	880.37	-2301.86	0.91	
9864.00	89.910	268.850	7953.08	2481.49	878.04	-2395.83	0.58	
9959.00	89.820	269.510	7953.30	2575.68	876.68	-2490.82	0.70	
10053.00	89.820	269.990	7953.60	2669.00	876.27	-2584.82	0.51	
10148.00	89.850	271.590	7953.87	2763.50	877.58	-2679.81	1.68	
10242.00	89.970	272.760	7954.02	2857.21	881.15	-2773.74	1.25	
10337.00	89.820	273.100	7954.19	2952.01	886.00	-2868.61	0.39	
10431.00	90.000	273.770	7954.34	3045.86	891.63	-2962.44	0.74	
10526.00	90.000	274.720	7954.34	3140.77	898.67	-3057.18	1.00	
10621.00	89.750	273.920	7954.55	3235.69	905.82	-3151.91	0.88	

REFERENCE WELLPATH IDENTIFICATION

Operator	Burlington Resources	Slot	SLOT#02 RUSH 4-65 29-30 3AH (1571'FSL & 422'FWL, SEC.28)
Area	COLORADO	Well	RUSH 4-65 29-30 3AH
Field	ARAPAHOE COUNTY (NAD83/TN)	Wellbore	RUSH 4-65 29-30 3AH AWP
Facility	SEC.28-T04S-R65W		

WELLPATH DATA (144 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
10715.00	90.030	273.690	7954.73	3329.57	912.06	-3245.70	0.39	
10810.00	89.970	273.460	7954.73	3424.44	917.98	-3340.52	0.25	
10904.00	89.880	272.630	7954.85	3518.25	922.98	-3434.38	0.89	
10999.00	89.910	272.680	7955.03	3613.02	927.38	-3529.28	0.06	
11093.00	89.910	272.300	7955.17	3706.77	931.46	-3623.19	0.40	
11188.00	89.940	272.040	7955.30	3801.48	935.06	-3718.13	0.28	
11282.00	89.850	271.520	7955.47	3895.13	937.98	-3812.08	0.56	
11377.00	89.970	271.400	7955.62	3989.74	940.40	-3907.05	0.18	
11471.00	89.940	271.010	7955.69	4083.32	942.38	-4001.03	0.42	
11565.00	89.880	270.790	7955.84	4176.84	943.85	-4095.02	0.24	
11660.00	89.720	270.570	7956.17	4271.33	944.98	-4190.01	0.29	
11754.00	89.940	270.290	7956.45	4364.77	945.68	-4284.00	0.38	
11849.00	89.940	269.470	7956.55	4459.11	945.49	-4379.00	0.86	
11943.00	89.420	269.550	7957.08	4552.37	944.68	-4473.00	0.56	
12037.00	89.260	269.770	7958.16	4645.67	944.12	-4566.99	0.29	
12132.00	89.260	270.070	7959.39	4740.00	943.99	-4661.98	0.32	
12227.00	89.450	270.270	7960.46	4834.39	944.27	-4756.98	0.29	
12321.00	89.510	270.670	7961.31	4927.83	945.04	-4850.97	0.43	
12416.00	89.480	270.250	7962.15	5022.27	945.81	-4945.96	0.44	
12510.00	89.380	270.600	7963.08	5115.71	946.50	-5039.95	0.39	
12604.00	89.510	270.800	7963.99	5209.20	947.65	-5133.94	0.25	
12699.00	89.540	271.910	7964.78	5303.79	949.90	-5228.91	1.17	
12793.00	89.290	271.820	7965.74	5397.46	952.96	-5322.86	0.28	
12888.00	89.290	272.620	7966.92	5492.16	956.64	-5417.78	0.84	
12982.00	89.450	272.800	7967.95	5585.93	961.08	-5511.67	0.26	
13077.00	89.350	274.270	7968.94	5680.79	966.94	-5606.48	1.55	
13171.00	89.450	274.170	7969.93	5774.69	973.86	-5700.22	0.15	
13265.00	89.600	274.440	7970.71	5868.61	980.91	-5793.95	0.33	
13359.00	89.260	275.320	7971.64	5962.56	988.91	-5887.60	1.00	
13453.00	89.230	273.750	7972.88	6056.49	996.34	-5981.30	1.67	
13548.00	89.230	271.750	7974.16	6151.25	1000.90	-6076.17	2.11	
13642.00	89.540	272.620	7975.17	6244.96	1004.48	-6170.10	0.98	
13736.00	89.510	271.350	7975.95	6338.64	1007.74	-6264.04	1.35	
13831.00	89.510	270.480	7976.76	6433.16	1009.25	-6359.02	0.92	
13926.00	89.570	269.210	7977.52	6527.48	1009.00	-6454.02	1.34	
14020.00	89.570	268.960	7978.23	6620.66	1007.49	-6548.00	0.27	
14114.00	89.510	267.930	7978.98	6713.69	1004.94	-6641.96	1.10	
14208.00	89.600	267.610	7979.71	6806.56	1001.29	-6735.89	0.35	
14303.00	89.480	266.910	7980.48	6900.28	996.75	-6830.78	0.75	
14398.00	89.480	266.630	7981.34	6993.86	991.39	-6925.62	0.29	
14492.00	89.480	266.980	7982.19	7086.47	986.15	-7019.47	0.37	
14586.00	89.540	267.680	7982.99	7179.23	981.78	-7113.37	0.75	
14681.00	89.380	267.750	7983.89	7273.07	977.99	-7208.29	0.18	
14775.00	89.480	267.390	7984.82	7365.88	974.00	-7302.20	0.40	
14869.00	89.690	266.350	7985.51	7458.51	968.87	-7396.05	1.13	

REFERENCE WELLPATH IDENTIFICATION

Operator	Burlington Resources	Slot	SLOT#02 RUSH 4-65 29-30 3AH (1571'FSL & 422'FWL, SEC.28)
Area	COLORADO	Well	RUSH 4-65 29-30 3AH
Field	ARAPAHOE COUNTY (NAD83/TN)	Wellbore	RUSH 4-65 29-30 3AH AWB
Facility	SEC.28-T04S-R65W		

WELLPATH DATA (144 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
14964.00	89.510	266.100	7986.17	7551.94	962.62	-7490.84	0.32	
15058.00	90.770	264.990	7985.94	7644.17	955.31	-7584.56	1.79	
15152.00	90.340	266.320	7985.03	7736.43	948.19	-7678.28	1.49	
15247.00	90.180	267.780	7984.60	7830.10	943.30	-7773.15	1.55	
15341.00	90.030	268.480	7984.43	7923.06	940.24	-7867.10	0.76	
15436.00	90.030	269.180	7984.38	8017.17	938.30	-7962.08	0.74	
15530.00	90.030	270.080	7984.33	8110.46	937.69	-8056.08	0.96	
15621.00	92.920	270.950	7981.98	8200.90	938.51	-8147.03	3.32	LAST BHI MWD SURVEY
15645.00	92.920	270.950	7980.76	8224.75	938.90	-8171.00	0.00	PROJECTION TO BIT

HOLE & CASING SECTIONS - Ref Wellbore: RUSH 4-65 29-30 3AH AWB Ref Wellpath: RUSH 4-65 29-30 3AH AWP

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	2292.00	2268.00	24.00	2291.48	0.00	0.00	42.05	-14.42
8.5in Open Hole	2292.00	15645.00	13353.00	2291.48	7980.76	42.05	-14.42	938.90	-8171.00

REFERENCE WELLPATH IDENTIFICATION

Operator	Burlington Resources	Slot	SLOT#02 RUSH 4-65 29-30 3AH (1571'FSL & 422'FWL, SEC.28)
Area	COLORADO	Well	RUSH 4-65 29-30 3AH
Field	ARAPAHOE COUNTY (NAD83/TN)	Wellbore	RUSH 4-65 29-30 3AH AWB
Facility	SEC.28-T04S-R65W		

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.28-T04S-R65W	0.00	0.00	0.00	3231637.46	1670603.70	39°40'18.210"N	104°40'37.590"W	polygon
SEC.28-T04S-R65W NE CORNER	0.00	3729.11	4949.84	3236553.24	1674377.44	39°40'55.060"N	104°39'34.279"W	point
SEC.28-T04S-R65W NW CORNER	0.00	3761.06	-378.47	3231224.95	1674361.12	39°40'55.380"N	104°40'42.431"W	point
SEC.28-T04S-R65W SE CORNER	0.00	-1568.06	4911.74	3236563.12	1669080.23	39°40'02.708"N	104°39'34.780"W	point
SEC.28-T04S-R65W SW CORNER	0.00	-1571.44	-439.36	3231212.37	1669028.38	39°40'02.680"N	104°40'43.208"W	point
SEC.29-T04S-R65W	0.00	0.00	0.00	3231637.46	1670603.70	39°40'18.210"N	104°40'37.590"W	polygon
SEC.29-T04S-R65W NW CORNER	0.00	3771.89	-5718.31	3225885.32	1674323.59	39°40'55.481"N	104°41'50.730"W	point
SEC.29-T04S-R65W SW CORNER	0.00	-1526.36	-5746.80	3225904.82	1669025.38	39°40'03.119"N	104°41'51.079"W	point
SEC.30-T04S-R65W	0.00	0.00	0.00	3231637.46	1670603.70	39°40'18.210"N	104°40'37.590"W	polygon
SEC.30-T04S-R65W NW CORNER	0.00	3761.23	-10989.48	3220614.55	1674265.18	39°40'55.358"N	104°42'58.151"W	point
SEC.30-T04S-R65W SW CORNER	0.00	-1527.55	-10994.85	3220657.08	1668976.65	39°40'03.090"N	104°42'58.190"W	point
RUSH 4-65 29-30 3AH BHL ON PLAT REV-1 (2483'FSL & 2450'FEL, SEC.30)	8005.00	955.48	-8183.54	3223445.74	1671485.01	39°40'27.640"N	104°42'22.250"W	point

WELLPATH COMPOSITION - Ref Wellbore: RUSH 4-65 29-30 3AH AWP Ref Wellpath: RUSH 4-65 29-30 3AH AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
24.00	2281.00	BHI Generic gyro - continuous (Standard)	GYRO SURVEYS <24 - 2281>	RUSH 4-65 29-30 3AH AWB
2281.00	7441.00	Custom BHI NaviTrak (IFR1, Standard Rotating+Axial Corr) (Rockies 0.03Gt model)	BHI MWD NAVITRAK (IFR1, STANDARD + AXIAL CORR) INTERMEDIATE SURVEYS <2371 - 7441>	RUSH 4-65 29-30 3AH AWB
7441.00	15621.00	Custom BHI AutoTrak Curve (IFR1, Short) (Rockies 0.03Gt model)	BHI AUTOTRAK CURVE/LATERAL (IFR1, SHORT) <7441 - 15621>	RUSH 4-65 29-30 3AH AWB
15621.00	15645.00	Blind Drilling (std)	Projection to bit	RUSH 4-65 29-30 3AH AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	Burlington Resources	Slot	SLOT#02 RUSH 4-65 29-30 3AH (1571'FSL & 422'FWL, SEC.28)
Area	COLORADO	Well	RUSH 4-65 29-30 3AH
Field	ARAPAHOE COUNTY (NAD83/TN)	Wellbore	RUSH 4-65 29-30 3AH AWB
Facility	SEC.28-T04S-R65W		

WELLPATH COMMENTS					
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment	
2281.00	0.420	321.870	2280.48	TIE INTO GYRO SURVEYS	
15621.00	92.920	270.950	7981.98	LAST BHI MWD SURVEY	
15645.00	92.920	270.950	7980.76	PROJECTION TO BIT	