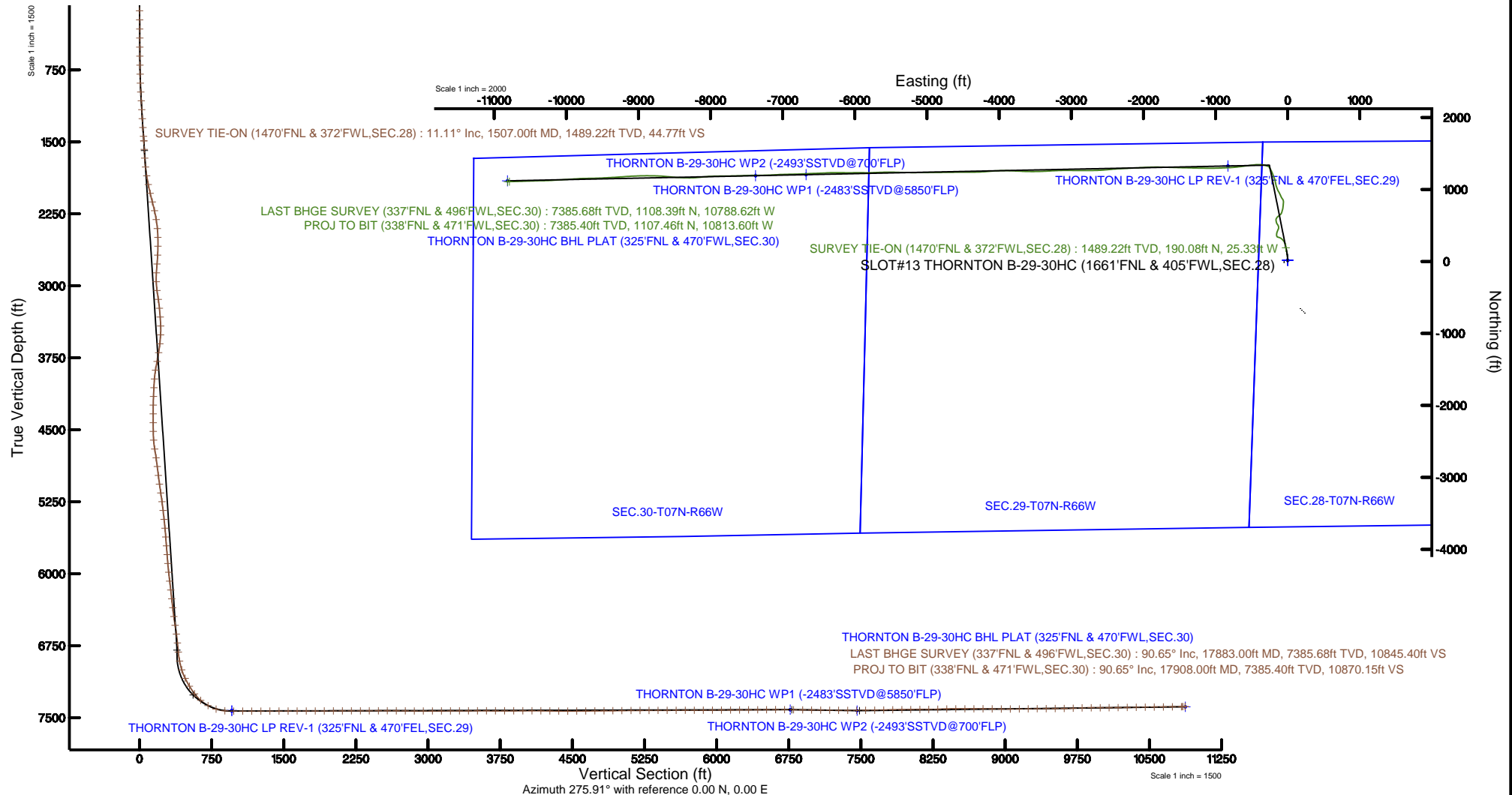


# BAYSWATER E & P LLC

Location: COLORADO Slot: SLOT#13 THORNTON B-29-30HC (1661'FNL & 405'FWL, SEC.28)  
 Field: WELD COUNTY (NAD83/TRUE NORTH) Well: THORNTON B-29-30HC  
 Facility: SEC.28-T07N-R66W Wellbore: THORNTON B-29-30HC PWB



Plot reference wellpath is THORNTON B-29-30HC PWP (REV-B.0)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to TRUE 38 (4909'GL+25KB @ 4934'RKB) (RKB)	North Reference: True north
Measured depths are referenced to TRUE 38 (4909'GL+25KB @ 4934'RKB) (RKB)	Scale: True distance
TRUE 38 (4909'GL+25KB @ 4934'RKB) (RKB) to Mean Sea Level: 4934 feet	Depths are in feet
Mean Sea Level to Ground level (At Slot: SLOT#13 THORNTON B-29-30HC (1661'FNL & 405'FWL, SEC.28)): 0 feet	Created by: bushjarnh on 2018-08-29
Coordinates are in feet referenced to Slot	Database: Denver



# Actual Wellpath Report

THORNTON B-29-30HC AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BAYSWATER E & P LLC	Slot	SLOT#13 THORNTON B-29-30HC (1661'FNL & 405'FWL,SEC.28)
Area	COLORADO	Well	THORNTON B-29-30HC
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	THORNTON B-29-30HC AWB
Facility	SEC.28-T07N-R66W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 5.1
North Reference	True	User	Bushjamh
Scale	0.999970	Report Generated	8/29/2018 at 5:55:18 PM
Convergence at slot	0.46° East	Database/Source file	Denver/THORNTON_B-29-30HC_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-15.99	48.88	3196930.87	1443475.46	40°32'54.888"N	104°47'28.871"W
Facility Reference Pt			3196881.86	1443491.05	40°32'55.046"N	104°47'29.504"W
Field Reference Pt			3174587.00	1430859.71	40°30'51.890"N	104°52'19.470"W

WELLPATH DATUM			
Calculation method	Minimum curvature	TRUE 38 (4909'GL+25'KB @ 4934'RKB) (RKB) to Facility Vertical Datum	4934.00ft
Horizontal Reference Pt	Slot	TRUE 38 (4909'GL+25'KB @ 4934'RKB) (RKB) to Mean Sea Level	4934.00ft
Vertical Reference Pt	TRUE 38 (4909'GL+25'KB @ 4934'RKB) (RKB)	TRUE 38 (4909'GL+25'KB @ 4934'RKB) (RKB) to Ground Level at Slot (SLOT#13 THORNTON B-29-30HC (1661'FNL & 405'FWL,SEC.28))	4934.00ft
MD Reference Pt	TRUE 38 (4909'GL+25'KB @ 4934'RKB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	275.91°

# Actual Wellpath Report

THORNTON B-29-30HC AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BAYSWATER E & P LLC	Slot	SLOT#13 THORNTON B-29-30HC (1661'FNL & 405'FWL,SEC.28)
Area	COLORADO	Well	THORNTON B-29-30HC
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	THORNTON B-29-30HC AWB
Facility	SEC.28-T07N-R66W		

## WELLPATH DATA (193 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00†	0.000	324.310	0.00	0.00	0.00	0.00	40°32'54.888"N	104°47'28.871"W	0.00	
25.00	0.000	324.310	25.00	0.00	0.00	0.00	40°32'54.888"N	104°47'28.871"W	0.00	
134.00	0.770	324.310	134.00	0.49	0.59	-0.43	40°32'54.894"N	104°47'28.876"W	0.71	
229.00	1.060	308.270	228.98	1.65	1.66	-1.49	40°32'54.904"N	104°47'28.890"W	0.40	
324.00	1.010	349.010	323.97	2.64	3.02	-2.34	40°32'54.918"N	104°47'28.901"W	0.76	
418.00	2.740	4.790	417.92	2.92	6.08	-2.31	40°32'54.948"N	104°47'28.901"W	1.90	
513.00	4.340	1.850	512.73	3.22	11.93	-2.00	40°32'55.006"N	104°47'28.897"W	1.69	
607.00	5.710	0.900	606.37	3.88	20.16	-1.82	40°32'55.087"N	104°47'28.894"W	1.46	
702.00	7.460	0.640	700.74	4.86	31.06	-1.67	40°32'55.195"N	104°47'28.892"W	1.84	
796.00	9.390	357.470	793.72	6.55	44.82	-1.94	40°32'55.331"N	104°47'28.896"W	2.11	
891.00	11.250	355.760	887.18	9.32	61.80	-2.97	40°32'55.499"N	104°47'28.909"W	1.98	
986.00	12.890	352.220	980.08	13.46	81.55	-5.09	40°32'55.694"N	104°47'28.937"W	1.89	
1080.00	12.690	351.360	1071.75	18.54	102.14	-8.06	40°32'55.897"N	104°47'28.975"W	0.29	
1175.00	11.750	350.850	1164.59	23.67	122.01	-11.17	40°32'56.094"N	104°47'29.015"W	1.00	
1270.00	12.430	349.510	1257.48	29.07	141.61	-14.57	40°32'56.287"N	104°47'29.059"W	0.77	
1365.00	12.440	346.940	1350.26	35.29	161.63	-18.74	40°32'56.485"N	104°47'29.114"W	0.58	
1459.00	11.740	346.800	1442.17	41.71	180.81	-23.21	40°32'56.675"N	104°47'29.171"W	0.75	
1507.00	11.110	347.500	1489.22	44.77	190.08	-25.33	40°32'56.766"N	104°47'29.199"W	1.34	SURVEY TIE-ON (1470'FNL & 372'FWL,SEC.28)
1597.00	11.840	353.120	1577.42	49.55	207.71	-28.31	40°32'56.940"N	104°47'29.238"W	1.48	
1691.00	12.630	350.040	1669.29	54.50	227.41	-31.24	40°32'57.135"N	104°47'29.276"W	1.09	
1786.00	14.140	339.030	1761.72	62.58	248.48	-37.19	40°32'57.343"N	104°47'29.353"W	3.11	
1880.00	15.310	330.480	1852.64	74.97	270.00	-47.42	40°32'57.556"N	104°47'29.485"W	2.62	
1975.00	15.750	320.840	1944.19	91.37	290.91	-61.74	40°32'57.763"N	104°47'29.671"W	2.75	
2070.00	16.300	311.710	2035.51	111.32	309.78	-79.84	40°32'57.949"N	104°47'29.905"W	2.71	
2164.00	15.790	300.410	2125.87	133.66	325.04	-100.72	40°32'58.100"N	104°47'30.176"W	3.36	
2258.00	12.920	281.350	2216.98	155.78	333.59	-122.07	40°32'58.184"N	104°47'30.452"W	5.84	
2352.00	9.410	291.820	2309.19	173.64	338.51	-139.52	40°32'58.233"N	104°47'30.678"W	4.30	
2447.00	10.230	334.150	2402.92	185.56	349.01	-150.42	40°32'58.337"N	104°47'30.819"W	7.48	
2541.00	13.260	359.430	2495.00	191.18	367.31	-154.17	40°32'58.518"N	104°47'30.868"W	6.28	
2636.00	13.060	9.940	2587.52	191.65	388.78	-152.42	40°32'58.730"N	104°47'30.845"W	2.52	

# Actual Wellpath Report

THORNTON B-29-30HC AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BAYSWATER E & P LLC	Slot	SLOT#13 THORNTON B-29-30HC (1661'FNL & 405'FWL,SEC.28)
Area	COLORADO	Well	THORNTON B-29-30HC
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	THORNTON B-29-30HC AWB
Facility	SEC.28-T07N-R66W		

## WELLPATH DATA (193 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2731.00	13.360	17.870	2680.01	188.62	409.81	-147.20	40°32'58.937"N	104°47'30.778"W	1.93	
2826.00	13.300	26.490	2772.46	182.51	430.03	-138.96	40°32'59.137"N	104°47'30.671"W	2.09	
2921.00	13.630	22.540	2864.85	175.46	450.15	-129.80	40°32'59.336"N	104°47'30.552"W	1.03	
3016.00	15.430	357.160	2956.90	174.18	473.14	-126.13	40°32'59.563"N	104°47'30.505"W	6.90	
3111.00	14.710	335.360	3048.71	182.24	496.74	-131.79	40°32'59.797"N	104°47'30.578"W	5.98	
3206.00	12.260	320.680	3141.11	195.54	515.52	-143.21	40°32'59.982"N	104°47'30.726"W	4.41	
3301.00	12.820	341.250	3233.89	207.10	533.31	-153.00	40°33'00.158"N	104°47'30.853"W	4.71	
3395.00	12.860	345.780	3325.54	215.06	553.33	-158.92	40°33'00.356"N	104°47'30.929"W	1.07	
3490.00	12.410	356.840	3418.26	220.31	573.77	-162.08	40°33'00.558"N	104°47'30.970"W	2.59	
3585.00	11.440	23.320	3511.27	219.09	592.63	-158.91	40°33'00.744"N	104°47'30.929"W	5.80	
3679.00	11.910	35.520	3603.34	211.51	609.09	-149.58	40°33'00.907"N	104°47'30.809"W	2.67	
3774.00	13.350	50.160	3696.07	199.01	624.10	-135.46	40°33'01.055"N	104°47'30.626"W	3.68	
3868.00	14.080	55.130	3787.39	182.78	637.59	-117.75	40°33'01.188"N	104°47'30.396"W	1.47	
3962.00	14.730	45.860	3878.45	166.45	652.45	-99.79	40°33'01.335"N	104°47'30.163"W	2.55	
4057.00	14.470	23.030	3970.45	155.19	671.80	-86.46	40°33'01.526"N	104°47'29.991"W	6.03	
4151.00	14.490	15.380	4061.48	149.80	693.95	-78.75	40°33'01.745"N	104°47'29.891"W	2.03	
4245.00	15.400	16.120	4152.30	145.65	717.28	-72.17	40°33'01.976"N	104°47'29.806"W	0.99	
4339.00	15.180	8.110	4242.98	142.97	741.45	-66.96	40°33'02.215"N	104°47'29.738"W	2.26	
4434.00	15.310	6.000	4334.64	142.47	766.24	-63.90	40°33'02.460"N	104°47'29.699"W	0.60	
4529.00	15.290	5.010	4426.27	142.65	791.19	-61.49	40°33'02.706"N	104°47'29.667"W	0.28	
4623.00	15.480	4.510	4516.90	143.15	816.04	-59.42	40°33'02.952"N	104°47'29.641"W	0.25	
4718.00	15.510	349.870	4608.48	146.97	841.20	-60.66	40°33'03.200"N	104°47'29.657"W	4.11	
4813.00	13.710	323.410	4700.51	158.10	862.77	-69.62	40°33'03.413"N	104°47'29.773"W	7.21	
4907.00	14.020	329.730	4791.78	172.35	881.54	-82.00	40°33'03.599"N	104°47'29.933"W	1.64	
5001.00	13.730	335.370	4883.04	184.74	901.52	-92.39	40°33'03.796"N	104°47'30.068"W	1.47	
5096.00	13.950	335.850	4975.28	196.20	922.22	-101.77	40°33'04.001"N	104°47'30.189"W	0.26	
5190.00	14.120	333.220	5066.47	208.07	942.79	-111.57	40°33'04.204"N	104°47'30.316"W	0.70	
5284.00	13.970	329.940	5157.67	220.93	962.85	-122.42	40°33'04.402"N	104°47'30.457"W	0.86	
5379.00	14.000	331.460	5249.85	234.16	982.87	-133.66	40°33'04.600"N	104°47'30.602"W	0.39	
5473.00	13.710	339.920	5341.12	245.48	1003.32	-142.91	40°33'04.802"N	104°47'30.722"W	2.18	

# Actual Wellpath Report

THORNTON B-29-30HC AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BAYSWATER E & P LLC	Slot	SLOT#13 THORNTON B-29-30HC (1661'FNL & 405'FWL, SEC.28)
Area	COLORADO	Well	THORNTON B-29-30HC
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	THORNTON B-29-30HC AWB
Facility	SEC.28-T07N-R66W		

## WELLPATH DATA (193 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5568.00	13.730	339.950	5433.41	255.35	1024.49	-150.64	40°33'05.011"N	104°47'30.822"W	0.02	
5663.00	13.920	341.730	5525.66	264.96	1045.93	-158.09	40°33'05.223"N	104°47'30.919"W	0.49	
5757.00	13.720	349.610	5616.95	272.73	1067.63	-163.65	40°33'05.438"N	104°47'30.991"W	2.01	
5852.00	14.140	346.730	5709.16	279.70	1090.01	-168.34	40°33'05.659"N	104°47'31.052"W	0.85	
5947.00	13.550	347.830	5801.40	286.97	1112.18	-173.35	40°33'05.878"N	104°47'31.116"W	0.68	
6042.00	13.910	345.820	5893.68	294.34	1134.13	-178.50	40°33'06.095"N	104°47'31.183"W	0.63	
6136.00	13.920	338.700	5984.93	303.40	1155.62	-185.37	40°33'06.307"N	104°47'31.272"W	1.82	
6231.00	13.890	336.180	6077.15	314.28	1176.70	-194.13	40°33'06.515"N	104°47'31.386"W	0.64	
6326.00	13.860	340.460	6169.38	324.82	1197.85	-202.54	40°33'06.724"N	104°47'31.495"W	1.08	
6421.00	13.920	338.770	6261.60	334.92	1219.23	-210.48	40°33'06.936"N	104°47'31.597"W	0.43	
6516.00	14.030	338.180	6353.79	345.50	1240.57	-218.90	40°33'07.147"N	104°47'31.707"W	0.19	
6611.00	13.940	332.990	6445.98	357.07	1261.46	-228.38	40°33'07.353"N	104°47'31.829"W	1.32	
6705.00	13.950	328.360	6537.21	370.13	1281.19	-239.46	40°33'07.548"N	104°47'31.973"W	1.19	
6800.00	13.840	331.910	6629.43	383.47	1300.96	-250.82	40°33'07.743"N	104°47'32.120"W	0.90	
6894.00	8.610	322.000	6721.61	394.64	1316.44	-260.45	40°33'07.896"N	104°47'32.245"W	5.91	
6989.00	4.790	269.270	6816.02	403.52	1322.00	-268.81	40°33'07.951"N	104°47'32.353"W	7.22	
7084.00	11.140	289.780	6910.07	416.39	1325.06	-281.42	40°33'07.981"N	104°47'32.517"W	7.22	
7178.00	17.670	290.190	7001.07	439.05	1333.06	-303.38	40°33'08.060"N	104°47'32.801"W	6.95	
7274.00	26.410	277.960	7090.01	474.60	1341.07	-338.29	40°33'08.140"N	104°47'33.253"W	10.24	
7368.00	30.770	272.400	7172.54	519.52	1344.97	-383.04	40°33'08.178"N	104°47'33.833"W	5.43	
7463.00	37.720	266.480	7251.05	572.52	1344.21	-436.41	40°33'08.171"N	104°47'34.524"W	8.11	
7558.00	49.390	262.530	7319.79	636.50	1337.71	-501.41	40°33'08.106"N	104°47'35.366"W	12.61	
7653.00	60.960	262.020	7373.95	712.16	1327.22	-578.55	40°33'08.003"N	104°47'36.366"W	12.19	
7747.00	72.600	263.040	7410.95	796.06	1316.04	-664.06	40°33'07.892"N	104°47'37.473"W	12.42	
7842.00	85.940	265.310	7428.60	887.24	1306.63	-756.70	40°33'07.799"N	104°47'38.674"W	14.24	
7936.00	90.090	267.800	7431.85	979.91	1300.99	-850.45	40°33'07.743"N	104°47'39.888"W	5.15	
8031.00	89.940	267.840	7431.83	1073.96	1297.38	-945.38	40°33'07.708"N	104°47'41.118"W	0.16	
8125.00	89.970	269.370	7431.90	1167.20	1295.09	-1039.35	40°33'07.685"N	104°47'42.335"W	1.63	
8220.00	90.280	270.900	7431.69	1261.71	1295.31	-1134.35	40°33'07.687"N	104°47'43.566"W	1.64	
8314.00	90.060	271.190	7431.42	1355.37	1297.03	-1228.33	40°33'07.704"N	104°47'44.783"W	0.39	

# Actual Wellpath Report

THORNTON B-29-30HC AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BAYSWATER E & P LLC	Slot	SLOT#13 THORNTON B-29-30HC (1661'FNL & 405'FWL, SEC.28)
Area	COLORADO	Well	THORNTON B-29-30HC
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	THORNTON B-29-30HC AWB
Facility	SEC.28-T07N-R66W		

## WELLPATH DATA (193 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8409.00	90.180	271.240	7431.22	1450.05	1299.04	-1323.31	40°33'07.724"N	104°47'46.014"W	0.14	
8504.00	90.150	271.160	7430.94	1544.73	1301.03	-1418.29	40°33'07.744"N	104°47'47.244"W	0.09	
8599.00	90.150	271.800	7430.69	1639.45	1303.48	-1513.25	40°33'07.768"N	104°47'48.474"W	0.67	
8693.00	90.120	271.560	7430.47	1733.19	1306.24	-1607.21	40°33'07.795"N	104°47'49.692"W	0.26	
8787.00	90.120	271.650	7430.28	1826.93	1308.87	-1701.18	40°33'07.821"N	104°47'50.909"W	0.10	
8882.00	90.120	270.520	7430.08	1921.59	1310.67	-1796.16	40°33'07.839"N	104°47'52.139"W	1.19	
8977.00	90.150	268.250	7429.85	2015.96	1309.65	-1891.15	40°33'07.828"N	104°47'53.370"W	2.39	
9071.00	90.120	266.890	7429.63	2108.97	1305.67	-1985.06	40°33'07.789"N	104°47'54.586"W	1.45	
9166.00	90.060	266.810	7429.48	2202.78	1300.45	-2079.92	40°33'07.737"N	104°47'55.815"W	0.11	
9261.00	90.310	267.410	7429.18	2296.66	1295.66	-2174.79	40°33'07.690"N	104°47'57.044"W	0.68	
9355.00	90.220	267.030	7428.74	2389.58	1291.10	-2268.68	40°33'07.645"N	104°47'58.261"W	0.42	
9450.00	90.220	266.880	7428.38	2483.42	1286.05	-2363.55	40°33'07.595"N	104°47'59.490"W	0.16	
9545.00	90.120	264.270	7428.09	2576.87	1278.72	-2458.26	40°33'07.522"N	104°48'00.716"W	2.75	
9640.00	89.450	265.540	7428.45	2670.12	1270.29	-2552.88	40°33'07.439"N	104°48'01.942"W	1.51	
9734.00	89.480	268.030	7429.33	2762.92	1265.02	-2646.72	40°33'07.387"N	104°48'03.158"W	2.65	
9829.00	89.380	269.490	7430.27	2857.18	1262.96	-2741.69	40°33'07.366"N	104°48'04.388"W	1.54	
9923.00	90.150	270.120	7430.66	2950.64	1262.64	-2835.69	40°33'07.363"N	104°48'05.606"W	1.06	
10018.00	90.150	270.760	7430.41	3045.21	1263.37	-2930.68	40°33'07.370"N	104°48'06.836"W	0.67	
10112.00	90.250	270.260	7430.08	3138.79	1264.21	-3024.68	40°33'07.378"N	104°48'08.054"W	0.54	
10207.00	90.310	269.460	7429.62	3233.26	1263.97	-3119.67	40°33'07.376"N	104°48'09.285"W	0.84	
10301.00	90.220	267.520	7429.18	3326.46	1261.50	-3213.64	40°33'07.351"N	104°48'10.502"W	2.07	
10396.00	90.280	266.380	7428.77	3420.30	1256.44	-3308.50	40°33'07.301"N	104°48'11.731"W	1.20	
10490.00	90.090	267.800	7428.46	3513.19	1251.67	-3402.38	40°33'07.254"N	104°48'12.947"W	1.52	
10585.00	89.850	269.150	7428.51	3607.39	1249.14	-3497.34	40°33'07.229"N	104°48'14.177"W	1.44	
10679.00	89.970	270.970	7428.66	3700.89	1249.24	-3591.34	40°33'07.230"N	104°48'15.395"W	1.94	
10774.00	90.030	273.120	7428.66	3795.67	1252.63	-3686.27	40°33'07.263"N	104°48'16.625"W	2.26	
10869.00	90.030	272.560	7428.61	3890.53	1257.34	-3781.15	40°33'07.309"N	104°48'17.854"W	0.59	
10964.00	90.030	271.600	7428.56	3985.32	1260.79	-3876.09	40°33'07.343"N	104°48'19.084"W	1.01	
11059.00	90.180	268.840	7428.39	4079.84	1261.15	-3971.08	40°33'07.347"N	104°48'20.314"W	2.91	
11153.00	89.570	265.900	7428.59	4172.79	1256.84	-4064.97	40°33'07.304"N	104°48'21.531"W	3.19	



# Actual Wellpath Report

THORNTON B-29-30HC AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BAYSWATER E & P LLC	Slot	SLOT#13 THORNTON B-29-30HC (1661'FNL & 405'FWL, SEC.28)
Area	COLORADO	Well	THORNTON B-29-30HC
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	THORNTON B-29-30HC AWB
Facility	SEC.28-T07N-R66W		

## WELLPATH DATA (193 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11248.00	88.950	265.300	7429.82	4266.25	1249.55	-4159.68	40°33'07.232"N	104°48'22.758"W	0.91	
11342.00	88.860	266.950	7431.62	4358.86	1243.20	-4253.44	40°33'07.169"N	104°48'23.972"W	1.76	
11436.00	90.550	269.560	7432.10	4452.01	1240.34	-4347.39	40°33'07.140"N	104°48'25.189"W	3.31	
11531.00	90.520	270.060	7431.21	4546.47	1240.02	-4442.38	40°33'07.137"N	104°48'26.420"W	0.53	
11625.00	90.620	269.540	7430.28	4639.93	1239.69	-4536.38	40°33'07.134"N	104°48'27.638"W	0.56	
11720.00	90.520	269.410	7429.33	4734.32	1238.82	-4631.37	40°33'07.125"N	104°48'28.868"W	0.17	
11815.00	90.490	269.410	7428.50	4828.71	1237.84	-4726.36	40°33'07.115"N	104°48'30.099"W	0.03	
11908.00	90.520	269.490	7427.68	4921.11	1236.95	-4819.35	40°33'07.106"N	104°48'31.303"W	0.09	
12003.00	90.650	269.390	7426.71	5015.50	1236.02	-4914.34	40°33'07.097"N	104°48'32.534"W	0.17	
12098.00	90.580	269.630	7425.69	5109.91	1235.21	-5009.33	40°33'07.089"N	104°48'33.764"W	0.26	
12192.00	90.280	269.310	7424.98	5203.31	1234.34	-5103.33	40°33'07.080"N	104°48'34.982"W	0.47	
12287.00	90.150	270.070	7424.63	5297.75	1233.83	-5198.32	40°33'07.075"N	104°48'36.213"W	0.81	
12381.00	90.280	271.310	7424.27	5391.36	1234.96	-5292.31	40°33'07.085"N	104°48'37.430"W	1.33	
12476.00	90.310	271.790	7423.78	5486.08	1237.53	-5387.28	40°33'07.111"N	104°48'38.661"W	0.51	
12570.00	90.150	270.870	7423.41	5579.78	1239.71	-5481.25	40°33'07.132"N	104°48'39.878"W	0.99	
12665.00	90.180	269.080	7423.13	5674.26	1239.67	-5576.25	40°33'07.131"N	104°48'41.109"W	1.88	
12759.00	89.850	267.470	7423.11	5767.43	1236.84	-5670.20	40°33'07.103"N	104°48'42.326"W	1.75	
12854.00	90.680	268.170	7422.67	5861.48	1233.23	-5765.13	40°33'07.067"N	104°48'43.555"W	1.14	
12949.00	90.490	270.630	7421.70	5955.85	1232.23	-5860.11	40°33'07.057"N	104°48'44.786"W	2.60	
13044.00	90.460	269.830	7420.91	6050.38	1232.61	-5955.11	40°33'07.061"N	104°48'46.016"W	0.84	
13139.00	90.340	269.610	7420.25	6144.83	1232.15	-6050.10	40°33'07.056"N	104°48'47.247"W	0.26	
13233.00	90.430	270.640	7419.62	6238.35	1232.35	-6144.10	40°33'07.058"N	104°48'48.465"W	1.10	
13327.00	90.520	270.780	7418.84	6331.96	1233.52	-6238.09	40°33'07.069"N	104°48'49.682"W	0.18	
13422.00	90.460	267.990	7418.02	6426.33	1232.50	-6333.07	40°33'07.059"N	104°48'50.913"W	2.94	
13516.00	90.520	266.910	7417.22	6519.30	1228.32	-6426.97	40°33'07.017"N	104°48'52.129"W	1.15	
13610.00	90.580	268.120	7416.32	6612.29	1224.24	-6520.88	40°33'06.977"N	104°48'53.346"W	1.29	
13705.00	89.170	267.550	7416.53	6706.34	1220.65	-6615.81	40°33'06.941"N	104°48'54.576"W	1.60	
13800.00	89.260	267.770	7417.83	6800.35	1216.77	-6710.72	40°33'06.902"N	104°48'55.805"W	0.25	
13895.00	89.170	268.190	7419.13	6894.43	1213.43	-6805.65	40°33'06.869"N	104°48'57.035"W	0.45	
13989.00	89.320	268.970	7420.37	6987.65	1211.10	-6899.61	40°33'06.846"N	104°48'58.252"W	0.84	

# Actual Wellpath Report

THORNTON B-29-30HC AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BAYSWATER E & P LLC	Slot	SLOT#13 THORNTON B-29-30HC (1661'FNL & 405'FWL,SEC.28)
Area	COLORADO	Well	THORNTON B-29-30HC
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	THORNTON B-29-30HC AWB
Facility	SEC.28-T07N-R66W		

## WELLPATH DATA (193 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
14084.00	89.230	268.260	7421.57	7081.88	1208.80	-6994.58	40°33'06.823"N	104°48'59.482"W	0.75	
14179.00	89.320	266.790	7422.77	7175.85	1204.70	-7089.48	40°33'06.782"N	104°49'00.712"W	1.55	
14273.00	89.420	267.240	7423.80	7268.71	1199.80	-7183.35	40°33'06.733"N	104°49'01.928"W	0.49	
14368.00	90.120	269.330	7424.19	7362.87	1196.96	-7278.30	40°33'06.705"N	104°49'03.158"W	2.32	
14461.00	90.150	270.210	7423.97	7455.33	1196.59	-7371.29	40°33'06.701"N	104°49'04.362"W	0.95	
14556.00	90.710	267.910	7423.25	7549.64	1195.03	-7466.27	40°33'06.685"N	104°49'05.593"W	2.49	
14651.00	90.800	267.830	7422.00	7643.70	1191.50	-7561.20	40°33'06.650"N	104°49'06.822"W	0.13	
14746.00	91.260	268.610	7420.29	7737.83	1188.55	-7656.14	40°33'06.621"N	104°49'08.052"W	0.95	
14840.00	91.260	269.490	7418.23	7831.13	1186.99	-7750.10	40°33'06.605"N	104°49'09.270"W	0.94	
14935.00	90.770	269.600	7416.54	7925.53	1186.24	-7845.08	40°33'06.597"N	104°49'10.500"W	0.53	
15029.00	90.710	268.260	7415.33	8018.83	1184.48	-7939.06	40°33'06.580"N	104°49'11.717"W	1.43	
15124.00	90.060	265.650	7414.69	8112.66	1179.44	-8033.91	40°33'06.530"N	104°49'12.946"W	2.83	
15219.00	89.970	263.800	7414.67	8205.85	1170.70	-8128.50	40°33'06.443"N	104°49'14.172"W	1.95	
15314.00	92.550	266.450	7412.58	8299.13	1162.63	-8223.12	40°33'06.363"N	104°49'15.397"W	3.89	
15408.00	91.540	271.180	7409.22	8392.32	1160.69	-8317.01	40°33'06.343"N	104°49'16.614"W	5.14	
15502.00	90.120	272.230	7407.86	8486.06	1163.49	-8410.96	40°33'06.371"N	104°49'17.831"W	1.88	
15597.00	89.450	275.340	7408.22	8580.98	1169.76	-8505.74	40°33'06.432"N	104°49'19.058"W	3.35	
15691.00	90.920	275.640	7407.91	8674.97	1178.75	-8599.30	40°33'06.521"N	104°49'20.271"W	1.60	
15786.00	89.380	272.880	7407.66	8769.92	1185.81	-8694.03	40°33'06.590"N	104°49'21.498"W	3.33	
15881.00	89.320	271.460	7408.74	8864.71	1189.40	-8788.95	40°33'06.625"N	104°49'22.727"W	1.50	
15976.00	89.380	270.080	7409.82	8959.32	1190.68	-8883.94	40°33'06.638"N	104°49'23.958"W	1.45	
16070.00	90.520	268.040	7409.90	9052.64	1189.14	-8977.92	40°33'06.622"N	104°49'25.175"W	2.49	
16165.00	90.620	267.140	7408.96	9146.64	1185.14	-9072.83	40°33'06.582"N	104°49'26.405"W	0.95	
16259.00	90.620	266.240	7407.94	9239.42	1179.72	-9166.66	40°33'06.528"N	104°49'27.620"W	0.96	
16354.00	90.580	266.160	7406.94	9333.05	1173.42	-9261.45	40°33'06.466"N	104°49'28.848"W	0.09	
16449.00	90.650	266.490	7405.93	9426.72	1167.33	-9356.25	40°33'06.405"N	104°49'30.076"W	0.36	
16544.00	90.520	266.750	7404.96	9520.47	1161.73	-9451.08	40°33'06.350"N	104°49'31.305"W	0.31	
16638.00	90.620	267.960	7404.02	9613.41	1157.39	-9544.97	40°33'06.306"N	104°49'32.521"W	1.29	
16732.00	91.910	269.100	7401.94	9706.61	1154.98	-9638.91	40°33'06.282"N	104°49'33.738"W	1.83	
16826.00	92.000	269.000	7398.74	9799.88	1153.42	-9732.85	40°33'06.266"N	104°49'34.955"W	0.14	



# Actual Wellpath Report

THORNTON B-29-30HC AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BAYSWATER E & P LLC	Slot	SLOT#13 THORNTON B-29-30HC (1661'FNL & 405'FWL,SEC.28)
Area	COLORADO	Well	THORNTON B-29-30HC
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	THORNTON B-29-30HC AWB
Facility	SEC.28-T07N-R66W		

## WELLPATH DATA (193 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
16921.00	89.970	266.490	7397.10	9893.89	1149.69	-9827.75	40°33'06.229"N	104°49'36.184"W	3.40	
17016.00	90.030	266.160	7397.10	9987.56	1143.60	-9922.55	40°33'06.169"N	104°49'37.412"W	0.35	
17110.00	90.800	266.620	7396.42	10080.27	1137.68	-10016.36	40°33'06.110"N	104°49'38.628"W	0.95	
17205.00	90.490	266.130	7395.35	10173.95	1131.67	-10111.16	40°33'06.050"N	104°49'39.856"W	0.61	
17301.00	91.290	266.450	7393.86	10268.58	1125.46	-10206.95	40°33'05.988"N	104°49'41.097"W	0.90	
17396.00	90.620	269.650	7392.28	10362.67	1122.23	-10301.87	40°33'05.956"N	104°49'42.326"W	3.44	
17490.00	90.890	268.220	7391.04	10455.96	1120.48	-10395.84	40°33'05.938"N	104°49'43.544"W	1.55	
17585.00	90.800	268.410	7389.64	10550.12	1117.69	-10490.79	40°33'05.910"N	104°49'44.774"W	0.22	
17680.00	90.680	267.950	7388.41	10644.24	1114.67	-10585.73	40°33'05.880"N	104°49'46.003"W	0.50	
17775.00	90.860	268.650	7387.14	10738.40	1111.86	-10680.68	40°33'05.852"N	104°49'47.233"W	0.76	
17869.00	90.710	267.770	7385.85	10831.54	1108.92	-10774.63	40°33'05.822"N	104°49'48.450"W	0.95	
17883.00	90.650	267.870	7385.68	10845.40	1108.39	-10788.62	40°33'05.817"N	104°49'48.632"W	0.83	LAST BHGE SURVEY (337'FNL & 496'FWL,SEC.30)
17908.00	90.650	267.870	7385.40	10870.15	1107.46	-10813.60	40°33'05.808"N	104°49'48.955"W	0.00	PROJ TO BIT (338'FNL & 471'FWL,SEC.30)

# Actual Wellpath Report

THORNTON B-29-30HC AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BAYSWATER E & P LLC	Slot	SLOT#13 THORNTON B-29-30HC (1661'FNL & 405'FWL,SEC.28)
Area	COLORADO	Well	THORNTON B-29-30HC
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	THORNTON B-29-30HC AWB
Facility	SEC.28-T07N-R66W		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
THORNTON B-29-30HC BHL PLAT (325'FNL & 470'FWL,SEC.30)	7387.00	1119.75	-10815.16	3186107.44	1444508.71	40°33'05.929"N	104°49'48.976"W	point
THORNTON B-29-30HC WP1 (-2483'SSTVD@5850'FLP)	7417.00	1205.35	-6676.43	3190245.23	1444627.38	40°33'06.790"N	104°48'55.361"W	point
THORNTON B-29-30HC LP PLAT (325'FNL & 470'FEL,SEC.29)	7424.00	1326.14	-827.85	3196092.48	1444794.90	40°33'07.992"N	104°47'39.595"W	point
THORNTON B-29-30HC WP2 (-2493'SSTVD@700'FLP)	7427.00	1190.98	-7376.45	3189545.36	1444607.41	40°33'06.646"N	104°49'04.429"W	point
THORNTON B-29-30HC LP REV-1 (325'FNL & 470'FEL,SEC.29)	7431.00	1326.14	-827.85	3196092.48	1444794.90	40°33'07.992"N	104°47'39.595"W	point
SEC.28-T07N-R66W HDL (460)	7900.00	15.67	0.28	3196931.02	1443491.12	40°32'55.043"N	104°47'28.867"W	polygon
SEC.29-T07N-R66W HDL (460)	7900.00	15.67	0.28	3196931.02	1443491.12	40°32'55.043"N	104°47'28.867"W	polygon
SEC.30-T07N-R66W HDL (460)	7900.00	15.67	0.28	3196931.02	1443491.12	40°32'55.043"N	104°47'28.867"W	polygon
SEC.28-T07N-R66W	8000.00	15.67	0.28	3196931.02	1443491.12	40°32'55.043"N	104°47'28.867"W	polygon
SEC.29-T07N-R66W	8000.00	15.67	0.28	3196931.02	1443491.12	40°32'55.043"N	104°47'28.867"W	polygon
SEC.30-T07N-R66W	8000.00	15.67	0.28	3196931.02	1443491.12	40°32'55.043"N	104°47'28.867"W	polygon

# Actual Wellpath Report

THORNTON B-29-30HC AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BAYSWATER E & P LLC	Slot	SLOT#13 THORNTON B-29-30HC (1661'FNL & 405'FWL,SEC.28)
Area	COLORADO	Well	THORNTON B-29-30HC
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	THORNTON B-29-30HC AWB
Facility	SEC.28-T07N-R66W		

WELLPATH COMPOSITION - Ref Wellbore: THORNTON B-29-30HC AWB    Ref Wellpath: THORNTON B-29-30HC AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
25.00	1507.00	BHI NaviTrak (Axial)	BHI NAVITRAK (AXIAL) <134-1507>	THORNTON B-29-30HC AWB
1507.00	17883.00	BHI AutoTrak Curve (Short)	BHI AUTOTRAK CURVE (SHORT) <1597-17883>	THORNTON B-29-30HC AWB
17883.00	17908.00	Blind Drilling (std)	Projection to bit	THORNTON B-29-30HC AWB

# Actual Wellpath Report

THORNTON B-29-30HC AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BAYSWATER E & P LLC	Slot	SLOT#13 THORNTON B-29-30HC (1661'FNL & 405'FWL,SEC.28)
Area	COLORADO	Well	THORNTON B-29-30HC
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	THORNTON B-29-30HC AWB
Facility	SEC.28-T07N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1507.00	11.110	347.500	1489.22	SURVEY TIE-ON (1470'FNL & 372'FWL,SEC.28)
17883.00	90.650	267.870	7385.68	LAST BHGE SURVEY (337'FNL & 496'FWL,SEC.30)
17908.00	90.650	267.870	7385.40	PROJ TO BIT (338'FNL & 471'FWL,SEC.30)