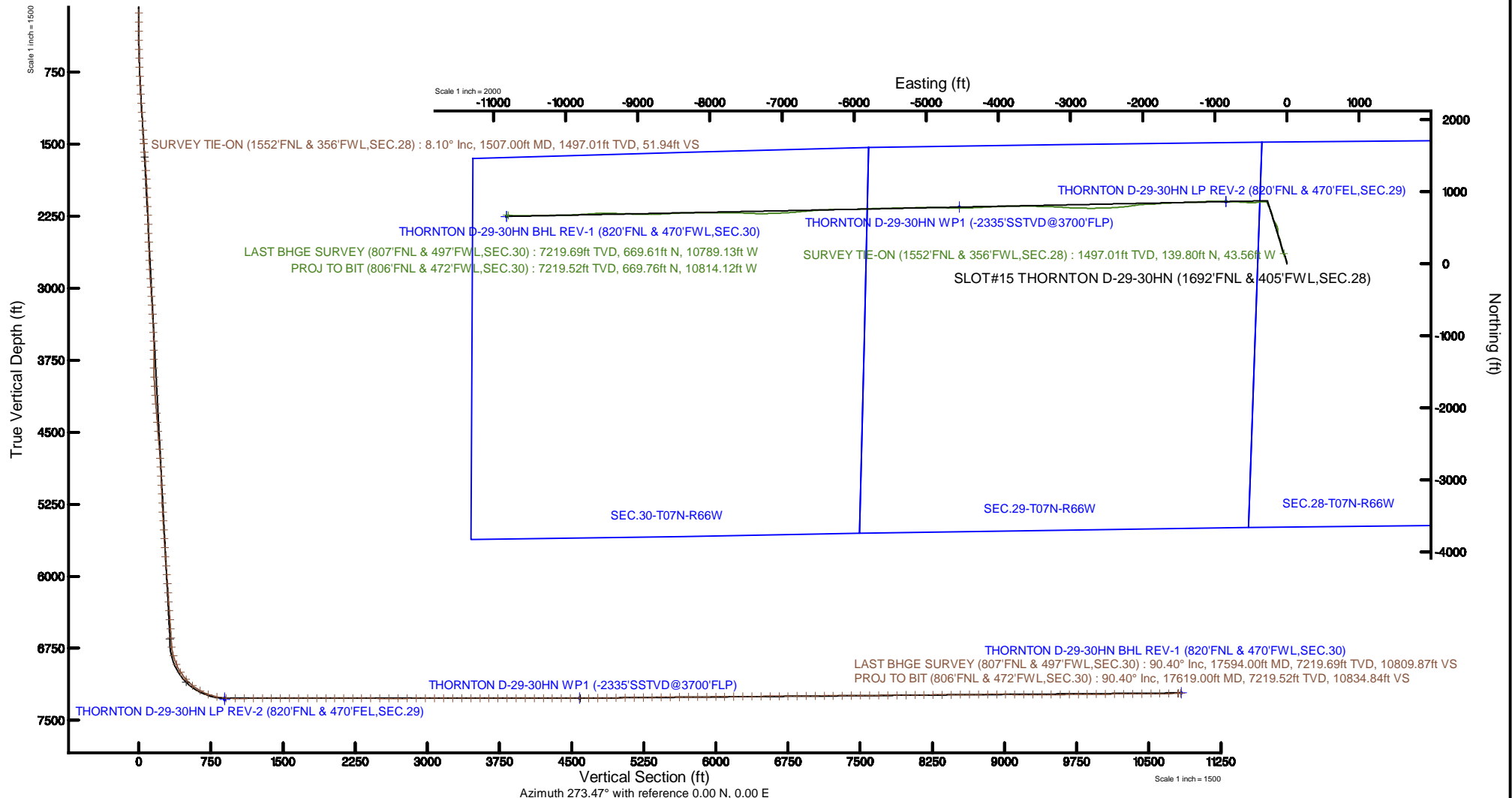


# BAYSWATER E & P LLC

Location: COLORADO Slot: SLOT#15 THORNTON D-29-30HN (1692'FNL & 405'FWL,SEC.28)  
 Field: WELD COUNTY (NAD83/TRUE NORTH) Well: THORNTON D-29-30HN  
 Facility: SEC.28-T07N-R66W Wellbore: THORNTON D-29-30HN PWB



Plot reference wellpath is THORNTON D-29-30HN PWB (REV-D.0)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to TRUE 38 (4909'GL+25'KB @ 4934'RKB) (RKB)	North Reference: True north
Measured depths are referenced to TRUE 38 (4909'GL+25'KB @ 4934'RKB) (RKB)	Scale: True distance
TRUE 38 (4909'GL+25'KB @ 4934'RKB) (RKB) to Mean Sea Level: 4934 feet	Depths are in feet
Mean Sea Level to Ground level (At Slot: SLOT#15 THORNTON D-29-30HN (1692'FNL & 405'FWL,SEC.28)): 0 feet	Created by: bushjamh on 2018-08-29
Coordinates are in feet referenced to Slot	Database: Denver



# Actual Wellpath Report

THORNTON D-29-30HN AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BAYSWATER E & P LLC	Slot	SLOT#15 THORNTON D-29-30HN (1692'FNL & 405'FWL,SEC.28)
Area	COLORADO	Well	THORNTON D-29-30HN
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	THORNTON D-29-30HN AWP
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 5:54:55 PM
Convergence at slot	0.46° East	Database/Source file	Denver/THORNTON_D-29-30HN_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-46.96	47.77	3196930.00	1443444.48	40°32'54.582"N	104°47'28.885"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#15 THORNTON D-29-30HN (1692'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	273.54°

# Actual Wellpath Report

THORNTON D-29-30HN AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BAYSWATER E & P LLC	Slot	SLOT#15 THORNTON D-29-30HN (1692'FNL & 405'FWL, SEC.28)
Area	COLORADO	Well	THORNTON D-29-30HN
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	THORNTON D-29-30HN AWP
Facility	SEC.28-T07N-R66W		

## WELLPATH DATA (190 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	340.790	0.00	0.00	0.00	0.00	40°32'54.582"N	104°47'28.885"W	0.00	
25.00	0.000	340.790	25.00	0.00	0.00	0.00	40°32'54.582"N	104°47'28.885"W	0.00	
134.00	0.280	340.790	134.00	0.10	0.25	-0.09	40°32'54.584"N	104°47'28.886"W	0.26	
229.00	0.220	36.310	229.00	0.09	0.62	-0.06	40°32'54.588"N	104°47'28.886"W	0.25	
324.00	0.860	15.850	323.99	-0.16	1.45	0.25	40°32'54.596"N	104°47'28.882"W	0.69	
418.00	2.590	349.080	417.95	0.22	4.21	0.04	40°32'54.624"N	104°47'28.885"W	1.98	
513.00	4.060	341.320	512.79	2.03	9.51	-1.45	40°32'54.676"N	104°47'28.904"W	1.61	
607.00	5.350	346.610	606.47	4.57	16.92	-3.53	40°32'54.749"N	104°47'28.931"W	1.45	
702.00	6.870	345.630	700.93	7.60	26.74	-5.96	40°32'54.846"N	104°47'28.962"W	1.60	
796.00	8.590	344.330	794.07	11.64	38.94	-9.26	40°32'54.967"N	104°47'29.005"W	1.84	
891.00	8.890	344.760	887.97	16.34	52.86	-13.10	40°32'55.104"N	104°47'29.055"W	0.32	
986.00	8.210	346.760	981.91	20.67	66.54	-16.58	40°32'55.240"N	104°47'29.100"W	0.78	
1080.00	8.880	340.490	1074.87	25.45	79.91	-20.54	40°32'55.372"N	104°47'29.151"W	1.22	
1175.00	9.250	337.690	1168.68	31.65	93.89	-25.89	40°32'55.510"N	104°47'29.221"W	0.61	
1270.00	8.090	337.700	1262.59	37.89	107.14	-31.33	40°32'55.641"N	104°47'29.291"W	1.22	
1365.00	8.710	340.240	1356.57	43.65	120.09	-36.30	40°32'55.769"N	104°47'29.355"W	0.76	
1459.00	8.510	339.720	1449.52	49.27	133.32	-41.11	40°32'55.899"N	104°47'29.418"W	0.23	
1507.00	8.100	338.920	1497.01	52.12	139.80	-43.56	40°32'55.963"N	104°47'29.449"W	0.89	SURVEY TIE-ON (1552'FNL & 356'FWL, SEC.28)
1598.00	8.520	325.470	1587.06	58.95	151.34	-49.69	40°32'56.077"N	104°47'29.529"W	2.18	
1692.00	8.850	331.010	1679.99	67.13	163.40	-57.14	40°32'56.197"N	104°47'29.625"W	0.96	
1787.00	8.500	339.980	1773.91	73.87	176.39	-63.08	40°32'56.325"N	104°47'29.702"W	1.47	
1882.00	8.520	343.040	1867.86	79.14	189.72	-67.54	40°32'56.457"N	104°47'29.760"W	0.48	
1977.00	8.560	346.420	1961.81	83.69	203.32	-71.25	40°32'56.591"N	104°47'29.808"W	0.53	
2071.00	8.410	345.710	2054.78	87.85	216.78	-74.59	40°32'56.724"N	104°47'29.851"W	0.19	
2166.00	8.570	344.880	2148.74	92.24	230.35	-78.15	40°32'56.858"N	104°47'29.898"W	0.21	
2261.00	8.500	350.330	2242.69	96.11	244.10	-81.18	40°32'56.994"N	104°47'29.937"W	0.85	
2355.00	8.530	352.500	2335.65	99.04	257.86	-83.26	40°32'57.130"N	104°47'29.964"W	0.34	
2449.00	8.390	354.150	2428.63	101.49	271.60	-84.87	40°32'57.266"N	104°47'29.985"W	0.30	
2543.00	8.440	351.080	2521.62	104.10	285.23	-86.63	40°32'57.401"N	104°47'30.007"W	0.48	
2638.00	8.440	351.410	2615.59	107.07	299.02	-88.76	40°32'57.537"N	104°47'30.035"W	0.05	

# Actual Wellpath Report

THORNTON D-29-30HN AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BAYSWATER E & P LLC	Slot	SLOT#15 THORNTON D-29-30HN (1692'FNL & 405'FWL, SEC.28)
Area	COLORADO	Well	THORNTON D-29-30HN
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	THORNTON D-29-30HN AWB
Facility	SEC.28-T07N-R66W		

## WELLPATH DATA (190 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2733.00	8.370	347.260	2709.57	110.48	312.65	-91.32	40°32'57.671"N	104°47'30.068"W	0.64	
2829.00	7.960	342.950	2804.60	114.77	325.82	-94.81	40°32'57.802"N	104°47'30.113"W	0.77	
2924.00	8.480	336.250	2898.62	120.30	338.52	-99.56	40°32'57.927"N	104°47'30.175"W	1.15	
3019.00	8.380	334.710	2992.60	126.85	351.19	-105.34	40°32'58.052"N	104°47'30.250"W	0.26	
3113.00	8.260	338.280	3085.61	133.03	363.66	-110.77	40°32'58.175"N	104°47'30.320"W	0.56	
3207.00	8.730	341.180	3178.58	138.63	376.69	-115.57	40°32'58.304"N	104°47'30.382"W	0.68	
3302.00	8.940	342.190	3272.45	144.06	390.54	-120.15	40°32'58.441"N	104°47'30.442"W	0.27	
3396.00	8.810	342.660	3365.32	149.29	404.36	-124.53	40°32'58.578"N	104°47'30.498"W	0.16	
3491.00	8.800	349.790	3459.21	153.61	418.46	-127.99	40°32'58.717"N	104°47'30.543"W	1.15	
3586.00	8.520	353.220	3553.12	156.60	432.60	-130.10	40°32'58.857"N	104°47'30.571"W	0.62	
3681.00	8.640	2.740	3647.07	157.96	446.72	-130.59	40°32'58.996"N	104°47'30.577"W	1.50	
3775.00	8.630	2.160	3740.00	158.23	460.82	-129.99	40°32'59.135"N	104°47'30.569"W	0.09	
3870.00	8.750	1.260	3833.91	158.69	475.16	-129.56	40°32'59.277"N	104°47'30.564"W	0.19	
3965.00	8.720	349.470	3927.82	160.73	489.47	-130.72	40°32'59.419"N	104°47'30.579"W	1.88	
4060.00	8.640	339.590	4021.73	165.38	503.24	-134.53	40°32'59.555"N	104°47'30.628"W	1.57	
4154.00	8.610	336.140	4114.67	171.48	516.29	-139.83	40°32'59.684"N	104°47'30.697"W	0.55	
4249.00	8.660	331.700	4208.59	178.53	529.09	-146.10	40°32'59.810"N	104°47'30.778"W	0.70	
4344.00	8.500	331.550	4302.53	186.02	541.56	-152.84	40°32'59.933"N	104°47'30.865"W	0.17	
4438.00	8.620	334.000	4395.48	193.18	554.00	-159.23	40°33'00.056"N	104°47'30.948"W	0.41	
4533.00	8.650	331.180	4489.41	200.51	566.66	-165.80	40°33'00.181"N	104°47'31.033"W	0.45	
4627.00	8.720	329.920	4582.33	208.24	579.02	-172.78	40°33'00.303"N	104°47'31.123"W	0.22	
4722.00	8.710	331.450	4676.23	216.05	591.57	-179.82	40°33'00.427"N	104°47'31.215"W	0.24	
4817.00	8.650	336.060	4770.15	223.17	604.41	-186.16	40°33'00.554"N	104°47'31.297"W	0.73	
4911.00	8.530	341.460	4863.09	229.05	617.48	-191.25	40°33'00.684"N	104°47'31.363"W	0.87	
5006.00	8.690	347.940	4957.03	233.63	631.18	-194.99	40°33'00.819"N	104°47'31.411"W	1.03	
5101.00	8.650	348.770	5050.94	237.38	645.21	-197.88	40°33'00.958"N	104°47'31.449"W	0.14	
5195.00	8.700	348.040	5143.86	241.09	659.10	-200.73	40°33'01.095"N	104°47'31.485"W	0.13	
5289.00	8.660	346.460	5236.79	245.06	672.93	-203.86	40°33'01.231"N	104°47'31.526"W	0.26	
5383.00	8.570	343.670	5329.73	249.52	686.53	-207.48	40°33'01.366"N	104°47'31.573"W	0.45	
5477.00	8.550	339.920	5422.68	254.71	699.82	-211.85	40°33'01.497"N	104°47'31.630"W	0.59	

# Actual Wellpath Report

THORNTON D-29-30HN AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BAYSWATER E & P LLC	Slot	SLOT#15 THORNTON D-29-30HN (1692'FNL & 405'FWL, SEC.28)
Area	COLORADO	Well	THORNTON D-29-30HN
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	THORNTON D-29-30HN AWB
Facility	SEC.28-T07N-R66W		

## WELLPATH DATA (190 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5572.00	8.560	337.720	5516.62	260.62	712.99	-216.96	40°33'01.627"N	104°47'31.696"W	0.34	
5666.00	8.510	341.500	5609.58	266.27	726.06	-221.82	40°33'01.756"N	104°47'31.759"W	0.60	
5761.00	8.540	337.700	5703.54	271.99	739.25	-226.72	40°33'01.887"N	104°47'31.822"W	0.59	
5856.00	8.500	335.760	5797.49	278.33	752.18	-232.28	40°33'02.015"N	104°47'31.894"W	0.31	
5950.00	8.680	334.030	5890.43	285.07	764.89	-238.24	40°33'02.140"N	104°47'31.971"W	0.33	
6045.00	8.770	333.340	5984.33	292.24	777.81	-244.63	40°33'02.268"N	104°47'32.054"W	0.15	
6140.00	8.430	334.640	6078.27	299.25	790.58	-250.86	40°33'02.394"N	104°47'32.135"W	0.41	
6235.00	8.580	338.120	6172.22	305.66	803.44	-256.48	40°33'02.521"N	104°47'32.208"W	0.56	
6329.00	8.010	337.870	6265.24	311.51	816.02	-261.56	40°33'02.645"N	104°47'32.274"W	0.61	
6424.00	8.500	334.030	6359.25	317.83	828.46	-267.13	40°33'02.768"N	104°47'32.346"W	0.78	
6518.00	8.480	335.940	6452.22	324.47	841.04	-273.00	40°33'02.893"N	104°47'32.422"W	0.30	
6613.00	8.440	337.640	6546.19	330.76	853.88	-278.51	40°33'03.019"N	104°47'32.493"W	0.27	
6708.00	2.440	308.230	6640.73	335.47	861.59	-282.75	40°33'03.096"N	104°47'32.548"W	6.76	
6803.00	5.790	266.480	6735.49	341.89	862.54	-289.13	40°33'03.105"N	104°47'32.631"W	4.51	
6897.00	16.250	269.790	6827.63	359.77	862.20	-307.06	40°33'03.102"N	104°47'32.863"W	11.14	
6991.00	24.500	263.150	6915.68	392.13	859.83	-339.63	40°33'03.078"N	104°47'33.285"W	9.10	
7085.00	32.510	261.380	6998.22	436.06	853.71	-384.03	40°33'03.018"N	104°47'33.860"W	8.57	
7180.00	42.470	267.240	7073.53	493.06	848.32	-441.46	40°33'02.965"N	104°47'34.604"W	11.13	
7274.00	50.150	271.740	7138.43	560.79	847.89	-509.35	40°33'02.960"N	104°47'35.483"W	8.87	
7369.00	60.350	273.620	7192.51	638.73	851.61	-587.21	40°33'02.997"N	104°47'36.492"W	10.86	
7463.00	70.290	272.920	7231.71	724.03	856.46	-672.37	40°33'03.045"N	104°47'37.595"W	10.60	
7558.00	78.980	272.350	7256.86	815.54	860.65	-763.79	40°33'03.086"N	104°47'38.780"W	9.17	
7652.00	87.010	271.460	7268.32	908.72	863.75	-856.96	40°33'03.117"N	104°47'39.987"W	8.59	
7747.00	89.940	270.330	7270.84	1003.57	865.23	-951.91	40°33'03.131"N	104°47'41.217"W	3.31	
7841.00	90.340	269.440	7270.61	1097.38	865.04	-1045.91	40°33'03.130"N	104°47'42.434"W	1.04	
7936.00	90.280	267.270	7270.10	1191.98	862.31	-1140.86	40°33'03.103"N	104°47'43.664"W	2.29	
8031.00	90.340	266.040	7269.59	1286.29	856.77	-1235.69	40°33'03.048"N	104°47'44.893"W	1.30	
8125.00	90.030	268.310	7269.28	1379.71	852.14	-1329.57	40°33'03.002"N	104°47'46.109"W	2.44	
8220.00	90.120	268.340	7269.16	1474.31	849.36	-1424.53	40°33'02.974"N	104°47'47.339"W	0.10	
8314.00	90.280	267.740	7268.83	1567.88	846.15	-1518.48	40°33'02.943"N	104°47'48.556"W	0.66	

# Actual Wellpath Report

THORNTON D-29-30HN AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BAYSWATER E & P LLC	Slot	SLOT#15 THORNTON D-29-30HN (1692'FNL & 405'FWL, SEC.28)
Area	COLORADO	Well	THORNTON D-29-30HN
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	THORNTON D-29-30HN AWB
Facility	SEC.28-T07N-R66W		

## WELLPATH DATA (190 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8409.00	90.060	267.980	7268.55	1662.41	842.60	-1613.41	40°33'02.908"N	104°47'49.786"W	0.34	
8504.00	90.030	266.510	7268.47	1756.83	838.03	-1708.30	40°33'02.862"N	104°47'51.015"W	1.55	
8598.00	89.750	265.120	7268.65	1849.98	831.17	-1802.04	40°33'02.794"N	104°47'52.229"W	1.51	
8693.00	90.280	269.020	7268.63	1944.35	826.32	-1896.90	40°33'02.746"N	104°47'53.458"W	4.14	
8788.00	89.850	266.060	7268.52	2038.82	822.24	-1991.80	40°33'02.706"N	104°47'54.688"W	3.15	
8882.00	89.820	261.750	7268.79	2131.47	812.26	-2085.25	40°33'02.607"N	104°47'55.898"W	4.59	
8977.00	89.570	261.620	7269.30	2224.44	798.52	-2179.25	40°33'02.472"N	104°47'57.116"W	0.30	
9072.00	89.940	264.960	7269.70	2317.91	787.43	-2273.58	40°33'02.362"N	104°47'58.338"W	3.54	
9167.00	89.720	266.210	7269.99	2411.99	780.11	-2368.30	40°33'02.289"N	104°47'59.565"W	1.34	
9262.00	89.570	268.030	7270.58	2506.39	775.34	-2463.17	40°33'02.242"N	104°48'00.794"W	1.92	
9357.00	89.780	268.440	7271.11	2600.98	772.41	-2558.13	40°33'02.213"N	104°48'02.024"W	0.48	
9451.00	90.460	268.370	7270.92	2694.60	769.80	-2652.09	40°33'02.187"N	104°48'03.241"W	0.73	
9546.00	90.120	270.780	7270.44	2789.37	769.09	-2747.08	40°33'02.180"N	104°48'04.472"W	2.56	
9641.00	90.250	271.010	7270.13	2884.27	770.58	-2842.07	40°33'02.195"N	104°48'05.702"W	0.28	
9736.00	90.430	272.170	7269.57	2979.21	773.21	-2937.03	40°33'02.221"N	104°48'06.932"W	1.24	
9831.00	89.750	273.090	7269.42	3074.19	777.57	-3031.92	40°33'02.264"N	104°48'08.162"W	1.20	
9925.00	90.120	273.500	7269.52	3168.19	782.97	-3125.77	40°33'02.317"N	104°48'09.377"W	0.59	
10020.00	90.000	273.220	7269.42	3263.19	788.54	-3220.61	40°33'02.372"N	104°48'10.606"W	0.32	
10114.00	89.850	270.610	7269.55	3357.14	791.68	-3314.54	40°33'02.403"N	104°48'11.823"W	2.78	
10209.00	90.030	272.000	7269.65	3452.07	793.85	-3409.52	40°33'02.424"N	104°48'13.053"W	1.48	
10304.00	90.120	271.580	7269.52	3547.02	796.81	-3504.47	40°33'02.453"N	104°48'14.283"W	0.45	
10398.00	90.060	272.250	7269.37	3640.99	799.96	-3598.42	40°33'02.484"N	104°48'15.500"W	0.72	
10493.00	89.940	269.610	7269.37	3735.88	801.50	-3693.40	40°33'02.499"N	104°48'16.731"W	2.78	
10587.00	90.120	268.070	7269.32	3829.56	799.59	-3787.37	40°33'02.480"N	104°48'17.948"W	1.65	
10682.00	90.090	268.070	7269.15	3924.13	796.39	-3882.32	40°33'02.448"N	104°48'19.178"W	0.03	
10777.00	90.060	268.370	7269.03	4018.72	793.44	-3977.27	40°33'02.419"N	104°48'20.408"W	0.32	
10871.00	89.880	267.670	7269.08	4112.28	790.20	-4071.22	40°33'02.387"N	104°48'21.625"W	0.77	
10966.00	90.030	266.790	7269.15	4206.70	785.60	-4166.11	40°33'02.341"N	104°48'22.854"W	0.94	
11060.00	89.970	267.110	7269.15	4300.08	780.60	-4259.97	40°33'02.292"N	104°48'24.070"W	0.35	
11155.00	90.000	267.580	7269.18	4394.52	776.20	-4354.87	40°33'02.248"N	104°48'25.299"W	0.50	



# Actual Wellpath Report

THORNTON D-29-30HN AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BAYSWATER E & P LLC	Slot	SLOT#15 THORNTON D-29-30HN (1692'FNL & 405'FWL, SEC.28)
Area	COLORADO	Well	THORNTON D-29-30HN
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	THORNTON D-29-30HN AWB
Facility	SEC.28-T07N-R66W		

## WELLPATH DATA (190 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11250.00	90.220	268.910	7268.99	4489.12	773.29	-4449.82	40°33'02.219"N	104°48'26.529"W	1.42	
11344.00	90.060	269.920	7268.76	4582.87	772.33	-4543.82	40°33'02.210"N	104°48'27.747"W	1.09	
11439.00	90.120	271.760	7268.61	4677.76	773.73	-4638.80	40°33'02.223"N	104°48'28.978"W	1.94	
11534.00	90.650	272.680	7267.98	4772.73	777.41	-4733.73	40°33'02.259"N	104°48'30.207"W	1.12	
11628.00	90.740	271.370	7266.84	4866.69	780.73	-4827.66	40°33'02.292"N	104°48'31.424"W	1.40	
11723.00	90.370	269.750	7265.91	4961.55	781.66	-4922.65	40°33'02.301"N	104°48'32.655"W	1.75	
11817.00	90.430	268.110	7265.26	5055.24	779.90	-5016.63	40°33'02.283"N	104°48'33.872"W	1.75	
11912.00	90.770	268.590	7264.26	5149.85	777.17	-5111.58	40°33'02.256"N	104°48'35.102"W	0.62	
12007.00	91.080	268.860	7262.73	5244.50	775.05	-5206.55	40°33'02.235"N	104°48'36.332"W	0.43	
12101.00	91.010	269.190	7261.02	5338.19	773.45	-5300.52	40°33'02.219"N	104°48'37.550"W	0.36	
12196.00	90.580	268.510	7259.70	5432.86	771.55	-5395.49	40°33'02.200"N	104°48'38.780"W	0.85	
12291.00	90.430	268.860	7258.86	5527.52	769.37	-5490.46	40°33'02.178"N	104°48'40.010"W	0.40	
12385.00	90.580	268.600	7258.03	5621.18	767.28	-5584.43	40°33'02.158"N	104°48'41.227"W	0.32	
12480.00	90.370	268.810	7257.24	5715.84	765.14	-5679.40	40°33'02.136"N	104°48'42.458"W	0.31	
12575.00	90.280	268.020	7256.71	5810.46	762.51	-5774.36	40°33'02.110"N	104°48'43.688"W	0.84	
12669.00	90.620	267.070	7255.97	5903.94	758.48	-5868.27	40°33'02.070"N	104°48'44.904"W	1.07	
12764.00	90.490	269.180	7255.05	5998.50	755.37	-5963.21	40°33'02.039"N	104°48'46.134"W	2.23	
12858.00	90.620	269.690	7254.14	6092.26	754.45	-6057.20	40°33'02.030"N	104°48'47.352"W	0.56	
12953.00	90.740	269.760	7253.01	6187.04	753.99	-6152.20	40°33'02.025"N	104°48'48.582"W	0.15	
13048.00	90.370	268.690	7252.09	6281.76	752.71	-6247.18	40°33'02.012"N	104°48'49.813"W	1.19	
13143.00	90.310	268.100	7251.52	6376.38	750.05	-6342.14	40°33'01.985"N	104°48'51.043"W	0.62	
13238.00	90.710	266.860	7250.68	6470.84	745.87	-6437.04	40°33'01.944"N	104°48'52.272"W	1.37	
13332.00	90.400	265.760	7249.77	6564.09	739.82	-6530.84	40°33'01.884"N	104°48'53.487"W	1.22	
13426.00	90.400	265.220	7249.11	6657.16	732.43	-6624.55	40°33'01.811"N	104°48'54.701"W	0.57	
13521.00	90.400	264.830	7248.45	6751.11	724.19	-6719.19	40°33'01.729"N	104°48'55.927"W	0.41	
13615.00	90.430	265.430	7247.77	6844.09	716.21	-6812.85	40°33'01.650"N	104°48'57.141"W	0.64	
13710.00	90.490	266.010	7247.01	6938.20	709.12	-6907.58	40°33'01.580"N	104°48'58.368"W	0.61	
13805.00	90.460	266.960	7246.22	7032.48	703.30	-7002.40	40°33'01.522"N	104°48'59.596"W	1.00	
13900.00	90.550	267.800	7245.38	7126.93	698.95	-7097.29	40°33'01.479"N	104°49'00.825"W	0.89	
13994.00	90.400	269.040	7244.60	7220.54	696.36	-7191.25	40°33'01.453"N	104°49'02.042"W	1.33	

# Actual Wellpath Report

THORNTON D-29-30HN AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BAYSWATER E & P LLC	Slot	SLOT#15 THORNTON D-29-30HN (1692'FNL & 405'FWL, SEC.28)
Area	COLORADO	Well	THORNTON D-29-30HN
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	THORNTON D-29-30HN AWB
Facility	SEC.28-T07N-R66W		

## WELLPATH DATA (190 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
14088.00	90.460	269.530	7243.90	7314.28	695.19	-7285.24	40°33'01.441"N	104°49'03.260"W	0.53	
14183.00	90.430	271.990	7243.16	7409.16	696.45	-7380.22	40°33'01.453"N	104°49'04.490"W	2.59	
14278.00	90.680	272.680	7242.24	7504.13	700.32	-7475.14	40°33'01.491"N	104°49'05.720"W	0.77	
14372.00	90.430	271.770	7241.33	7598.10	703.97	-7569.06	40°33'01.527"N	104°49'06.937"W	1.00	
14467.00	90.550	271.180	7240.51	7693.04	706.41	-7664.03	40°33'01.551"N	104°49'08.167"W	0.63	
14562.00	90.490	270.960	7239.65	7787.94	708.19	-7759.01	40°33'01.568"N	104°49'09.397"W	0.24	
14656.00	90.430	270.160	7238.90	7881.81	709.11	-7853.00	40°33'01.577"N	104°49'10.615"W	0.85	
14750.00	90.580	269.750	7238.07	7975.63	709.03	-7946.99	40°33'01.576"N	104°49'11.833"W	0.46	
14845.00	90.490	270.240	7237.18	8070.44	709.02	-8041.99	40°33'01.575"N	104°49'13.063"W	0.52	
14939.00	90.580	270.270	7236.30	8164.28	709.44	-8135.98	40°33'01.579"N	104°49'14.281"W	0.10	
15034.00	90.620	269.410	7235.31	8259.08	709.18	-8230.98	40°33'01.576"N	104°49'15.511"W	0.91	
15129.00	90.550	267.540	7234.34	8353.69	706.65	-8325.94	40°33'01.551"N	104°49'16.741"W	1.97	
15223.00	90.770	267.570	7233.26	8447.18	702.64	-8419.84	40°33'01.511"N	104°49'17.958"W	0.24	
15318.00	90.490	266.750	7232.21	8541.58	697.93	-8514.72	40°33'01.464"N	104°49'19.187"W	0.91	
15413.00	90.180	266.860	7231.66	8635.92	692.64	-8609.57	40°33'01.411"N	104°49'20.416"W	0.35	
15507.00	90.580	266.850	7231.03	8729.28	687.48	-8703.43	40°33'01.360"N	104°49'21.631"W	0.43	
15602.00	90.550	268.830	7230.10	8823.80	683.90	-8798.35	40°33'01.324"N	104°49'22.861"W	2.08	
15697.00	90.250	270.940	7229.43	8918.60	683.71	-8893.34	40°33'01.322"N	104°49'24.092"W	2.24	
15791.00	89.350	271.580	7229.76	9012.52	685.78	-8987.32	40°33'01.342"N	104°49'25.309"W	1.17	
15886.00	89.290	272.170	7230.89	9107.47	688.89	-9082.26	40°33'01.373"N	104°49'26.539"W	0.62	
15980.00	89.230	271.810	7232.10	9201.43	692.15	-9176.19	40°33'01.405"N	104°49'27.756"W	0.39	
16075.00	90.370	272.160	7232.43	9296.39	695.44	-9271.14	40°33'01.437"N	104°49'28.986"W	1.26	
16169.00	90.490	271.420	7231.73	9390.35	698.38	-9365.09	40°33'01.465"N	104°49'30.203"W	0.80	
16263.00	90.340	270.810	7231.05	9484.26	700.20	-9459.07	40°33'01.483"N	104°49'31.420"W	0.67	
16358.00	90.090	267.200	7230.69	9578.95	698.56	-9554.03	40°33'01.466"N	104°49'32.650"W	3.81	
16453.00	90.680	265.560	7230.05	9673.20	692.56	-9648.84	40°33'01.407"N	104°49'33.879"W	1.83	
16548.00	90.710	265.950	7228.90	9767.31	685.53	-9743.57	40°33'01.337"N	104°49'35.106"W	0.41	
16643.00	90.770	266.970	7227.67	9861.58	679.66	-9838.38	40°33'01.279"N	104°49'36.334"W	1.08	
16737.00	90.250	267.690	7226.84	9955.02	675.28	-9932.27	40°33'01.235"N	104°49'37.550"W	0.94	
16833.00	90.680	269.010	7226.06	10050.62	672.52	-10028.23	40°33'01.207"N	104°49'38.793"W	1.45	



# Actual Wellpath Report

THORNTON D-29-30HN AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BAYSWATER E & P LLC	Slot	SLOT#15 THORNTON D-29-30HN (1692'FNL & 405'FWL,SEC.28)
Area	COLORADO	Well	THORNTON D-29-30HN
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	THORNTON D-29-30HN AWB
Facility	SEC.28-T07N-R66W		

## WELLPATH DATA (190 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
16927.00	90.490	269.280	7225.10	10144.34	671.12	-10122.21	40°33'01.193"N	104°49'40.011"W	0.35	
17021.00	90.310	269.090	7224.44	10238.07	669.78	-10216.20	40°33'01.179"N	104°49'41.228"W	0.28	
17116.00	90.580	268.660	7223.70	10332.75	667.91	-10311.18	40°33'01.161"N	104°49'42.459"W	0.53	
17210.00	90.650	269.460	7222.70	10426.45	666.37	-10405.16	40°33'01.145"N	104°49'43.676"W	0.85	
17305.00	90.340	270.250	7221.87	10521.25	666.13	-10500.16	40°33'01.142"N	104°49'44.907"W	0.89	
17399.00	90.310	270.920	7221.34	10615.13	667.09	-10594.15	40°33'01.151"N	104°49'46.124"W	0.71	
17494.00	90.620	270.850	7220.57	10710.02	668.56	-10689.14	40°33'01.165"N	104°49'47.355"W	0.33	
17588.00	90.400	270.390	7219.73	10803.89	669.58	-10783.13	40°33'01.175"N	104°49'48.572"W	0.54	
17594.00	90.400	270.340	7219.69	10809.88	669.61	-10789.13	40°33'01.175"N	104°49'48.650"W	0.83	LAST BHGE SURVEY (807'FNL & 497'FWL,SEC.30)
17619.00	90.400	270.340	7219.52	10834.85	669.76	-10814.12	40°33'01.177"N	104°49'48.974"W	0.00	PROJ TO BIT (806'FNL & 472'FWL,SEC.30)

## WELLPATH COMPOSITION - Ref Wellbore: THORNTON D-29-30HN AWB Ref Wellpath: THORNTON D-29-30HN 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 D-29-30HN AWB
1507.00	17594.00	BHI AutoTrak Curve (Short)	BHI AUTOTRAK CURVE (SHORT) <1598-17619>	THORNTON D-29-30HN AWB
17594.00	17619.00	Blind Drilling (std)	Projection to bit	THORNTON D-29-30HN AWB

# Actual Wellpath Report

THORNTON D-29-30HN AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BAYSWATER E & P LLC	Slot	SLOT#15 THORNTON D-29-30HN (1692'FNL & 405'FWL,SEC.28)
Area	COLORADO	Well	THORNTON D-29-30HN
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	THORNTON D-29-30HN AWB
Facility	SEC.28-T07N-R66W		

## WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1507.00	8.100	338.920	1497.01	SURVEY TIE-ON (1552'FNL & 356'FWL,SEC.28)
17594.00	90.400	270.340	7219.69	LAST BHGE SURVEY (807'FNL & 497'FWL,SEC.30)
17619.00	90.400	270.340	7219.52	PROJ TO BIT (806'FNL & 472'FWL,SEC.30)