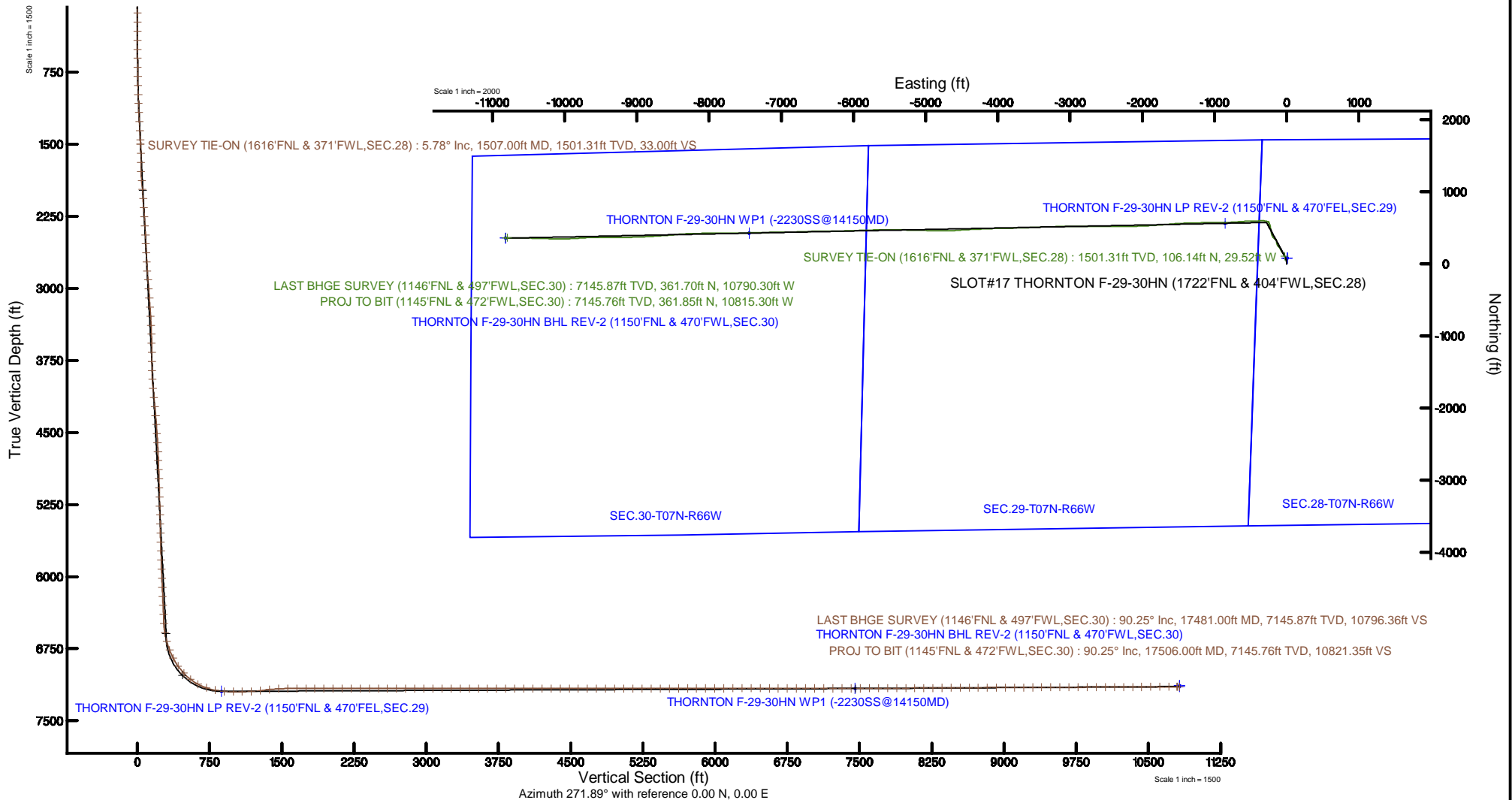


# BAYSWATER E & P LLC

Location: COLORADO Slot: SLOT#17 THORNTON F-29-30HN (1722'FNL & 404'FWL,SEC.28)  
 Field: WELD COUNTY (NAD83/TRUE NORTH) Well: THORNTON F-29-30HN  
 Facility: SEC.28-T07N-R66W Wellbore: THORNTON F-29-30HN PWB



Plot reference wellpath is THORNTON F-29-30HN PWB (REV-E.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#17 THORNTON F-29-30HN (1722'FNL & 404'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 F-29-30HN AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BAYSWATER E & P LLC	Slot	SLOT#17 THORNTON F-29-30HN (1722'FNL & 404'FWL,SEC.28)
Area	COLORADO	Well	THORNTON F-29-30HN
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	THORNTON F-29-30HN 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 5:54:44 PM
Convergence at slot	0.46° East	Database/Source file	Denver/THORNTON_F-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	-77.56	46.66	3196929.13	1443413.87	40°32'54.280"N	104°47'28.900"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#17 THORNTON F-29-30HN (1722'FNL & 404'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	271.89°

# Actual Wellpath Report

THORNTON F-29-30HN AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BAYSWATER E & P LLC	Slot	SLOT#17 THORNTON F-29-30HN (1722'FNL & 404'FWL,SEC.28)
Area	COLORADO	Well	THORNTON F-29-30HN
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	THORNTON F-29-30HN AWB
Facility	SEC.28-T07N-R66W		

WELLPATH DATA (188 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	333.530	0.00	0.00	0.00	0.00	40°32'54.280"N	104°47'28.900"W	0.00	
25.00	0.000	333.530	25.00	0.00	0.00	0.00	40°32'54.280"N	104°47'28.900"W	0.00	
134.00	0.180	333.530	134.00	0.08	0.15	-0.08	40°32'54.281"N	104°47'28.901"W	0.17	
229.00	0.220	341.140	229.00	0.22	0.46	-0.20	40°32'54.284"N	104°47'28.902"W	0.05	
324.00	0.710	357.760	324.00	0.32	1.22	-0.28	40°32'54.292"N	104°47'28.903"W	0.53	
418.00	1.940	355.010	417.97	0.56	3.39	-0.44	40°32'54.313"N	104°47'28.905"W	1.31	
513.00	2.970	2.170	512.88	0.74	7.45	-0.49	40°32'54.353"N	104°47'28.906"W	1.13	
607.00	4.450	354.110	606.68	1.22	13.51	-0.77	40°32'54.413"N	104°47'28.910"W	1.67	
702.00	5.980	355.560	701.29	2.26	22.11	-1.53	40°32'54.498"N	104°47'28.919"W	1.62	
796.00	6.400	350.740	794.74	3.81	32.16	-2.76	40°32'54.597"N	104°47'28.935"W	0.71	
891.00	5.980	349.170	889.18	5.93	42.25	-4.54	40°32'54.697"N	104°47'28.958"W	0.48	
986.00	7.040	343.950	983.57	8.81	52.70	-7.08	40°32'54.800"N	104°47'28.991"W	1.28	
1080.00	6.730	344.320	1076.89	12.24	63.54	-10.16	40°32'54.908"N	104°47'29.031"W	0.33	
1175.00	6.530	337.280	1171.26	16.17	73.89	-13.75	40°32'55.010"N	104°47'29.078"W	0.88	
1270.00	6.110	334.810	1265.68	20.72	83.44	-17.99	40°32'55.104"N	104°47'29.133"W	0.53	
1365.00	6.370	333.020	1360.12	25.57	92.72	-22.53	40°32'55.196"N	104°47'29.191"W	0.34	
1459.00	6.070	331.990	1453.57	30.56	101.75	-27.23	40°32'55.285"N	104°47'29.252"W	0.34	
1507.00	5.780	332.880	1501.31	33.00	106.14	-29.52	40°32'55.328"N	104°47'29.282"W	0.63	SURVEY TIE-ON (1616'FNL & 371'FWL,SEC.28)
1602.00	3.770	342.890	1595.98	36.34	113.39	-32.62	40°32'55.400"N	104°47'29.322"W	2.28	
1697.00	5.950	7.900	1690.64	36.84	121.25	-32.87	40°32'55.478"N	104°47'29.325"W	3.15	
1791.00	6.240	342.400	1784.12	38.03	130.95	-33.74	40°32'55.574"N	104°47'29.337"W	2.87	
1886.00	5.840	291.710	1878.66	44.31	137.66	-39.80	40°32'55.640"N	104°47'29.415"W	5.45	
1981.00	5.950	316.100	1973.17	52.38	143.00	-47.70	40°32'55.693"N	104°47'29.518"W	2.62	
2076.00	6.020	322.690	2067.66	59.06	150.51	-54.14	40°32'55.767"N	104°47'29.601"W	0.73	
2171.00	6.270	324.270	2162.11	65.37	158.68	-60.19	40°32'55.848"N	104°47'29.679"W	0.32	
2265.00	6.310	326.420	2255.55	71.51	167.15	-66.04	40°32'55.931"N	104°47'29.755"W	0.25	
2360.00	6.250	323.770	2349.98	77.73	175.67	-71.98	40°32'56.015"N	104°47'29.832"W	0.31	
2455.00	6.310	333.600	2444.41	83.39	184.52	-77.36	40°32'56.103"N	104°47'29.902"W	1.13	
2549.00	6.150	334.900	2537.85	88.12	193.71	-81.80	40°32'56.194"N	104°47'29.959"W	0.23	
2643.00	6.350	336.470	2631.29	92.64	203.03	-86.01	40°32'56.286"N	104°47'30.014"W	0.28	

# Actual Wellpath Report

THORNTON F-29-30HN AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BAYSWATER E & P LLC	Slot	SLOT#17 THORNTON F-29-30HN (1722'FNL & 404'FWL,SEC.28)
Area	COLORADO	Well	THORNTON F-29-30HN
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	THORNTON F-29-30HN AWB
Facility	SEC.28-T07N-R66W		

## WELLPATH DATA (188 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2737.00	6.250	336.060	2724.73	97.10	212.47	-90.16	40°32'56.379"N	104°47'30.068"W	0.12	
2832.00	6.380	327.030	2819.15	102.37	221.63	-95.13	40°32'56.470"N	104°47'30.132"W	1.05	
2927.00	6.280	315.370	2913.58	109.16	229.76	-101.65	40°32'56.550"N	104°47'30.216"W	1.35	
3022.00	6.170	314.660	3008.02	116.67	237.04	-108.93	40°32'56.622"N	104°47'30.311"W	0.14	
3116.00	6.070	319.180	3101.48	123.75	244.35	-115.78	40°32'56.694"N	104°47'30.399"W	0.52	
3211.00	6.200	322.200	3195.94	130.44	252.21	-122.20	40°32'56.772"N	104°47'30.483"W	0.37	
3306.00	6.120	326.770	3290.39	136.62	260.50	-128.12	40°32'56.854"N	104°47'30.559"W	0.52	
3400.00	6.300	336.920	3383.84	141.68	269.43	-132.89	40°32'56.942"N	104°47'30.621"W	1.18	
3495.00	6.200	346.700	3478.28	145.23	279.22	-136.11	40°32'57.039"N	104°47'30.663"W	1.12	
3589.00	6.220	347.730	3571.73	147.80	289.14	-138.36	40°32'57.137"N	104°47'30.692"W	0.12	
3684.00	6.190	353.830	3666.17	149.78	299.26	-140.01	40°32'57.237"N	104°47'30.713"W	0.69	
3778.00	6.250	356.900	3759.62	150.93	309.41	-140.83	40°32'57.337"N	104°47'30.724"W	0.36	
3873.00	6.310	351.930	3854.05	152.29	319.74	-141.84	40°32'57.439"N	104°47'30.737"W	0.58	
3968.00	6.350	331.360	3948.48	155.86	329.52	-145.09	40°32'57.536"N	104°47'30.779"W	2.38	
4062.00	6.470	310.900	4041.91	162.61	337.55	-151.59	40°32'57.615"N	104°47'30.863"W	2.42	
4157.00	6.310	301.490	4136.32	171.31	343.78	-160.09	40°32'57.677"N	104°47'30.973"W	1.11	
4251.00	6.190	303.510	4229.76	180.12	349.28	-168.72	40°32'57.731"N	104°47'31.085"W	0.27	
4346.00	6.340	311.510	4324.20	188.52	355.58	-176.92	40°32'57.793"N	104°47'31.191"W	0.93	
4441.00	6.270	318.060	4418.62	196.15	362.92	-184.31	40°32'57.866"N	104°47'31.287"W	0.76	
4535.00	6.420	325.330	4512.05	202.84	371.06	-190.73	40°32'57.946"N	104°47'31.370"W	0.87	
4630.00	6.420	331.670	4606.45	208.67	380.10	-196.27	40°32'58.036"N	104°47'31.442"W	0.75	
4725.00	6.320	337.300	4700.87	213.52	389.60	-200.81	40°32'58.129"N	104°47'31.501"W	0.67	
4819.00	6.710	343.610	4794.26	217.40	399.64	-204.36	40°32'58.229"N	104°47'31.547"W	0.87	
4914.00	6.800	346.060	4888.60	220.67	410.43	-207.28	40°32'58.335"N	104°47'31.585"W	0.32	
5009.00	6.800	348.480	4982.93	223.51	421.40	-209.76	40°32'58.444"N	104°47'31.617"W	0.30	
5104.00	7.010	348.920	5077.25	226.11	432.60	-211.99	40°32'58.554"N	104°47'31.646"W	0.23	
5198.00	6.960	347.660	5170.55	228.80	443.79	-214.31	40°32'58.665"N	104°47'31.676"W	0.17	
5293.00	6.760	347.560	5264.87	231.60	454.87	-216.75	40°32'58.774"N	104°47'31.707"W	0.21	
5388.00	6.850	347.520	5359.20	234.39	465.86	-219.18	40°32'58.883"N	104°47'31.739"W	0.09	
5482.00	6.820	349.420	5452.53	236.98	476.82	-221.41	40°32'58.991"N	104°47'31.768"W	0.24	

# Actual Wellpath Report

THORNTON F-29-30HN AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BAYSWATER E & P LLC	Slot	SLOT#17 THORNTON F-29-30HN (1722'FNL & 404'FWL,SEC.28)
Area	COLORADO	Well	THORNTON F-29-30HN
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	THORNTON F-29-30HN AWB
Facility	SEC.28-T07N-R66W		

WELLPATH DATA (188 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5577.00	6.600	348.580	5546.88	239.46	487.72	-223.53	40°32'59.099"N	104°47'31.795"W	0.25	
5671.00	6.630	347.670	5640.25	242.03	498.31	-225.76	40°32'59.204"N	104°47'31.824"W	0.12	
5766.00	6.700	345.800	5734.61	244.91	509.04	-228.29	40°32'59.310"N	104°47'31.857"W	0.24	
5861.00	6.670	349.930	5828.97	247.59	519.85	-230.61	40°32'59.416"N	104°47'31.887"W	0.51	
5956.00	6.810	346.870	5923.31	250.19	530.77	-232.86	40°32'59.524"N	104°47'31.916"W	0.41	
6050.00	6.700	338.980	6016.66	253.77	541.31	-236.09	40°32'59.629"N	104°47'31.958"W	0.99	
6145.00	6.590	335.430	6111.02	258.36	551.44	-240.34	40°32'59.729"N	104°47'32.013"W	0.45	
6240.00	6.610	338.120	6205.39	262.99	561.48	-244.65	40°32'59.828"N	104°47'32.069"W	0.33	
6334.00	6.680	342.940	6298.76	266.95	571.72	-248.27	40°32'59.929"N	104°47'32.116"W	0.60	
6429.00	6.220	333.040	6393.16	271.22	581.59	-252.22	40°33'00.027"N	104°47'32.167"W	1.26	
6524.00	2.340	280.640	6487.91	275.63	586.54	-256.47	40°33'00.075"N	104°47'32.222"W	5.41	
6619.00	8.470	275.120	6582.44	284.54	587.52	-265.35	40°33'00.085"N	104°47'32.337"W	6.47	
6713.00	15.860	284.500	6674.27	304.01	591.36	-284.71	40°33'00.123"N	104°47'32.588"W	8.11	
6808.00	21.300	276.390	6764.30	333.91	596.54	-314.45	40°33'00.174"N	104°47'32.973"W	6.33	
6902.00	27.740	267.470	6849.81	372.79	597.48	-353.33	40°33'00.183"N	104°47'33.477"W	7.88	
6997.00	34.920	269.030	6930.91	422.06	596.04	-402.67	40°33'00.169"N	104°47'34.116"W	7.61	
7092.00	42.780	270.330	7004.84	481.56	595.76	-462.21	40°33'00.167"N	104°47'34.887"W	8.32	
7187.00	52.130	266.060	7069.02	551.28	593.37	-532.05	40°33'00.143"N	104°47'35.792"W	10.38	
7281.00	62.200	265.520	7119.92	629.72	587.55	-610.71	40°33'00.085"N	104°47'36.811"W	10.72	
7376.00	71.810	265.340	7156.99	716.51	580.59	-697.78	40°33'00.017"N	104°47'37.939"W	10.12	
7471.00	77.990	267.820	7181.73	807.79	575.15	-789.29	40°32'59.963"N	104°47'39.124"W	6.98	
7565.00	86.830	269.980	7194.13	900.74	573.38	-882.35	40°32'59.945"N	104°47'40.330"W	9.68	
7660.00	90.460	270.130	7196.38	995.65	573.47	-977.31	40°32'59.946"N	104°47'41.560"W	3.82	
7754.00	90.400	269.570	7195.67	1089.59	573.23	-1071.31	40°32'59.944"N	104°47'42.777"W	0.60	
7849.00	90.250	267.590	7195.13	1184.42	570.87	-1166.27	40°32'59.920"N	104°47'44.008"W	2.09	
7944.00	99.900	268.560	7186.74	1278.73	567.69	-1260.73	40°32'59.889"N	104°47'45.231"W	10.21	
8039.00	95.120	268.690	7174.33	1372.73	565.43	-1354.86	40°32'59.866"N	104°47'46.451"W	5.03	
8134.00	93.140	267.490	7167.49	1467.27	562.27	-1449.56	40°32'59.835"N	104°47'47.677"W	2.44	
8228.00	90.000	265.370	7164.91	1560.79	556.42	-1543.32	40°32'59.777"N	104°47'48.892"W	4.03	
8323.00	90.090	265.590	7164.84	1655.20	548.94	-1638.03	40°32'59.703"N	104°47'50.119"W	0.25	

# Actual Wellpath Report

THORNTON F-29-30HN AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BAYSWATER E & P LLC	Slot	SLOT#17 THORNTON F-29-30HN (1722'FNL & 404'FWL,SEC.28)
Area	COLORADO	Well	THORNTON F-29-30HN
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	THORNTON F-29-30HN AWB
Facility	SEC.28-T07N-R66W		

## WELLPATH DATA (188 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8418.00	90.090	265.650	7164.69	1749.63	541.68	-1732.75	40°32'59.632"N	104°47'51.346"W	0.06	
8512.00	90.120	266.240	7164.51	1843.13	535.03	-1826.51	40°32'59.566"N	104°47'52.561"W	0.63	
8607.00	90.060	266.920	7164.36	1937.72	529.37	-1921.34	40°32'59.510"N	104°47'53.789"W	0.72	
8702.00	90.060	267.560	7164.27	2032.41	524.79	-2016.23	40°32'59.464"N	104°47'55.018"W	0.67	
8796.00	89.940	268.630	7164.27	2126.20	521.67	-2110.18	40°32'59.433"N	104°47'56.235"W	1.15	
8890.00	90.000	269.580	7164.31	2220.09	520.20	-2204.17	40°32'59.419"N	104°47'57.453"W	1.01	
8984.00	90.060	269.820	7164.27	2314.02	519.71	-2298.17	40°32'59.414"N	104°47'58.670"W	0.26	
9078.00	90.000	269.580	7164.22	2407.95	519.21	-2392.16	40°32'59.409"N	104°47'59.888"W	0.26	
9173.00	89.880	270.010	7164.32	2502.89	518.87	-2487.16	40°32'59.406"N	104°48'01.119"W	0.47	
9267.00	90.060	269.890	7164.36	2596.84	518.79	-2581.16	40°32'59.405"N	104°48'02.336"W	0.23	
9361.00	90.150	270.600	7164.19	2690.80	519.19	-2675.16	40°32'59.409"N	104°48'03.554"W	0.76	
9455.00	90.090	270.920	7164.00	2784.78	520.44	-2769.15	40°32'59.421"N	104°48'04.772"W	0.35	
9550.00	90.000	270.940	7163.92	2879.76	521.98	-2864.14	40°32'59.436"N	104°48'06.002"W	0.10	
9645.00	90.000	270.060	7163.92	2974.74	522.81	-2959.14	40°32'59.444"N	104°48'07.233"W	0.93	
9739.00	90.000	268.190	7163.92	3068.62	521.38	-3053.12	40°32'59.430"N	104°48'08.450"W	1.99	
9834.00	89.940	267.890	7163.97	3163.41	518.13	-3148.06	40°32'59.397"N	104°48'09.680"W	0.32	
9929.00	90.150	268.340	7163.90	3258.20	515.00	-3243.01	40°32'59.366"N	104°48'10.910"W	0.52	
10023.00	90.090	268.120	7163.70	3352.01	512.10	-3336.97	40°32'59.338"N	104°48'12.127"W	0.24	
10118.00	89.910	267.820	7163.70	3446.79	508.73	-3431.91	40°32'59.304"N	104°48'13.357"W	0.37	
10213.00	89.970	267.650	7163.80	3541.54	504.98	-3526.83	40°32'59.267"N	104°48'14.587"W	0.19	
10307.00	90.030	267.380	7163.80	3635.27	500.90	-3620.75	40°32'59.227"N	104°48'15.803"W	0.29	
10402.00	89.970	268.550	7163.80	3730.04	497.53	-3715.68	40°32'59.193"N	104°48'17.033"W	1.23	
10497.00	90.120	269.630	7163.72	3824.93	496.02	-3810.67	40°32'59.178"N	104°48'18.263"W	1.15	
10591.00	89.970	268.620	7163.65	3918.82	494.59	-3904.66	40°32'59.164"N	104°48'19.481"W	1.09	
10686.00	90.120	267.780	7163.58	4013.62	491.60	-3999.61	40°32'59.134"N	104°48'20.711"W	0.90	
10780.00	89.880	268.800	7163.58	4107.43	488.80	-4093.57	40°32'59.106"N	104°48'21.928"W	1.11	
10875.00	90.000	266.600	7163.68	4202.17	484.98	-4188.48	40°32'59.068"N	104°48'23.158"W	2.32	
10969.00	89.970	267.320	7163.70	4295.83	480.00	-4282.35	40°32'59.019"N	104°48'24.374"W	0.77	
11064.00	89.940	268.400	7163.77	4390.59	476.45	-4377.28	40°32'58.984"N	104°48'25.603"W	1.14	
11159.00	89.910	265.650	7163.90	4485.24	471.52	-4472.15	40°32'58.935"N	104°48'26.832"W	2.89	

# Actual Wellpath Report

THORNTON F-29-30HN AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BAYSWATER E & P LLC	Slot	SLOT#17 THORNTON F-29-30HN (1722'FNL & 404'FWL,SEC.28)
Area	COLORADO	Well	THORNTON F-29-30HN
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	THORNTON F-29-30HN AWB
Facility	SEC.28-T07N-R66W		

## WELLPATH DATA (188 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11253.00	90.030	266.040	7163.95	4578.72	464.71	-4565.90	40°32'58.867"N	104°48'28.047"W	0.43	
11348.00	90.030	268.380	7163.90	4673.40	460.09	-4660.78	40°32'58.822"N	104°48'29.276"W	2.46	
11443.00	90.060	270.390	7163.82	4768.30	459.07	-4755.77	40°32'58.811"N	104°48'30.506"W	2.12	
11537.00	90.030	271.020	7163.75	4862.28	460.22	-4849.76	40°32'58.823"N	104°48'31.724"W	0.67	
11632.00	90.000	270.950	7163.73	4957.27	461.86	-4944.75	40°32'58.838"N	104°48'32.954"W	0.08	
11727.00	90.030	271.200	7163.70	5052.26	463.64	-5039.73	40°32'58.856"N	104°48'34.185"W	0.27	
11821.00	90.060	271.100	7163.63	5146.25	465.53	-5133.71	40°32'58.874"N	104°48'35.402"W	0.11	
11915.00	90.060	271.980	7163.53	5240.25	468.05	-5227.68	40°32'58.899"N	104°48'36.619"W	0.94	
12010.00	90.030	271.920	7163.45	5335.25	471.29	-5322.62	40°32'58.931"N	104°48'37.849"W	0.07	
12105.00	90.000	270.800	7163.43	5430.24	473.54	-5417.59	40°32'58.953"N	104°48'39.080"W	1.18	
12199.00	90.090	269.740	7163.35	5524.20	473.98	-5511.59	40°32'58.957"N	104°48'40.297"W	1.13	
12293.00	90.090	268.770	7163.21	5618.10	472.76	-5605.58	40°32'58.945"N	104°48'41.515"W	1.03	
12388.00	90.060	268.460	7163.08	5712.95	470.46	-5700.55	40°32'58.922"N	104°48'42.745"W	0.33	
12482.00	90.060	267.990	7162.98	5806.76	467.55	-5794.51	40°32'58.893"N	104°48'43.962"W	0.50	
12577.00	90.060	267.970	7162.88	5901.54	464.20	-5889.45	40°32'58.860"N	104°48'45.192"W	0.02	
12672.00	90.150	268.040	7162.71	5996.32	460.90	-5984.39	40°32'58.827"N	104°48'46.422"W	0.12	
12766.00	90.060	267.970	7162.54	6090.10	457.62	-6078.34	40°32'58.794"N	104°48'47.639"W	0.12	
12860.00	90.060	268.860	7162.44	6183.93	455.02	-6172.30	40°32'58.768"N	104°48'48.856"W	0.95	
12954.00	90.000	269.350	7162.39	6277.82	453.56	-6266.29	40°32'58.753"N	104°48'50.074"W	0.53	
13049.00	89.970	269.440	7162.42	6372.73	452.55	-6361.28	40°32'58.743"N	104°48'51.304"W	0.10	
13144.00	89.940	269.200	7162.49	6467.63	451.43	-6456.27	40°32'58.732"N	104°48'52.535"W	0.25	
13239.00	89.970	269.040	7162.56	6562.52	449.97	-6551.26	40°32'58.717"N	104°48'53.765"W	0.17	
13333.00	89.970	268.230	7162.61	6656.37	447.73	-6645.24	40°32'58.695"N	104°48'54.983"W	0.86	
13428.00	89.910	267.600	7162.71	6751.14	444.27	-6740.17	40°32'58.661"N	104°48'56.212"W	0.67	
13523.00	89.880	268.170	7162.89	6845.91	440.77	-6835.11	40°32'58.626"N	104°48'57.442"W	0.60	
13618.00	89.940	268.720	7163.04	6940.74	438.19	-6930.07	40°32'58.600"N	104°48'58.672"W	0.58	
13712.00	89.970	270.010	7163.11	7034.64	437.15	-7024.06	40°32'58.589"N	104°48'59.890"W	1.37	
13807.00	89.970	269.370	7163.16	7129.57	436.63	-7119.06	40°32'58.584"N	104°49'01.121"W	0.67	
13901.00	90.000	268.940	7163.18	7223.47	435.25	-7213.05	40°32'58.570"N	104°49'02.338"W	0.46	
13996.00	90.090	269.410	7163.11	7318.36	433.88	-7308.04	40°32'58.556"N	104°49'03.569"W	0.50	

# Actual Wellpath Report

THORNTON F-29-30HN AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BAYSWATER E & P LLC	Slot	SLOT#17 THORNTON F-29-30HN (1722'FNL & 404'FWL,SEC.28)
Area	COLORADO	Well	THORNTON F-29-30HN
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	THORNTON F-29-30HN AWB
Facility	SEC.28-T07N-R66W		

WELLPATH DATA (188 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
14090.00	90.060	268.200	7162.99	7412.22	431.92	-7402.02	40°32'58.537"N	104°49'04.786"W	1.29	
14185.00	90.060	267.750	7162.89	7507.00	428.56	-7496.96	40°32'58.503"N	104°49'06.016"W	0.47	
14280.00	91.080	269.440	7161.94	7601.84	426.23	-7591.92	40°32'58.480"N	104°49'07.246"W	2.08	
14374.00	90.060	271.590	7161.01	7695.80	427.08	-7685.91	40°32'58.488"N	104°49'08.463"W	2.53	
14469.00	90.030	270.710	7160.93	7790.79	428.98	-7780.89	40°32'58.506"N	104°49'09.694"W	0.93	
14563.00	89.910	269.290	7160.98	7884.73	428.98	-7874.88	40°32'58.506"N	104°49'10.912"W	1.52	
14658.00	90.400	268.140	7160.73	7979.59	426.85	-7969.86	40°32'58.485"N	104°49'12.142"W	1.32	
14752.00	90.460	268.450	7160.02	8073.40	424.06	-8063.81	40°32'58.457"N	104°49'13.359"W	0.34	
14847.00	90.460	268.680	7159.26	8168.24	421.68	-8158.78	40°32'58.433"N	104°49'14.589"W	0.24	
14942.00	90.430	268.130	7158.52	8263.06	419.03	-8253.74	40°32'58.407"N	104°49'15.819"W	0.58	
15036.00	90.400	266.590	7157.84	8356.76	414.70	-8347.63	40°32'58.363"N	104°49'17.036"W	1.64	
15131.00	90.370	264.540	7157.20	8451.18	407.36	-8442.34	40°32'58.291"N	104°49'18.262"W	2.16	
15225.00	90.340	264.890	7156.62	8544.44	398.70	-8535.94	40°32'58.205"N	104°49'19.475"W	0.37	
15320.00	90.220	266.140	7156.15	8638.85	391.27	-8630.65	40°32'58.131"N	104°49'20.702"W	1.32	
15414.00	90.310	266.530	7155.72	8732.41	385.26	-8724.45	40°32'58.071"N	104°49'21.917"W	0.43	
15509.00	90.250	266.490	7155.25	8826.99	379.48	-8819.28	40°32'58.014"N	104°49'23.145"W	0.08	
15603.00	90.310	267.120	7154.79	8920.62	374.24	-8913.13	40°32'57.962"N	104°49'24.361"W	0.67	
15698.00	90.310	268.660	7154.28	9015.38	370.74	-9008.06	40°32'57.927"N	104°49'25.591"W	1.62	
15792.00	90.310	268.790	7153.77	9109.24	368.65	-9102.04	40°32'57.906"N	104°49'26.808"W	0.14	
15886.00	90.250	269.220	7153.31	9203.12	367.02	-9196.02	40°32'57.889"N	104°49'28.025"W	0.46	
15981.00	90.310	269.690	7152.85	9298.03	366.12	-9291.01	40°32'57.880"N	104°49'29.256"W	0.50	
16075.00	90.310	270.260	7152.34	9391.98	366.07	-9385.01	40°32'57.879"N	104°49'30.474"W	0.61	
16170.00	90.280	270.180	7151.85	9486.94	366.44	-9480.01	40°32'57.883"N	104°49'31.704"W	0.09	
16264.00	90.220	270.430	7151.44	9580.90	366.94	-9574.01	40°32'57.887"N	104°49'32.922"W	0.27	
16358.00	90.180	267.300	7151.11	9674.76	365.08	-9667.98	40°32'57.868"N	104°49'34.139"W	3.33	
16453.00	90.250	265.350	7150.76	9769.30	358.99	-9762.78	40°32'57.808"N	104°49'35.367"W	2.05	
16548.00	90.280	266.870	7150.32	9863.82	352.54	-9857.55	40°32'57.744"N	104°49'36.595"W	1.60	
16643.00	90.180	268.590	7149.94	9958.56	348.78	-9952.48	40°32'57.706"N	104°49'37.824"W	1.81	
16738.00	90.280	270.020	7149.55	10053.46	347.63	-10047.47	40°32'57.694"N	104°49'39.055"W	1.51	
16833.00	90.310	270.650	7149.06	10148.43	348.18	-10142.46	40°32'57.700"N	104°49'40.285"W	0.66	

# Actual Wellpath Report

THORNTON F-29-30HN AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BAYSWATER E & P LLC	Slot	SLOT#17 THORNTON F-29-30HN (1722'FNL & 404'FWL,SEC.28)
Area	COLORADO	Well	THORNTON F-29-30HN
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	THORNTON F-29-30HN AWB
Facility	SEC.28-T07N-R66W		

WELLPATH DATA (188 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
16927.00	90.180	271.170	7148.66	10242.41	349.68	-10236.45	40°32'57.714"N	104°49'41.503"W	0.57	
17021.00	90.220	271.630	7148.33	10336.41	351.97	-10330.42	40°32'57.736"N	104°49'42.720"W	0.49	
17115.00	90.280	271.710	7147.92	10430.41	354.71	-10424.38	40°32'57.763"N	104°49'43.937"W	0.11	
17210.00	90.370	271.200	7147.39	10525.40	357.13	-10519.35	40°32'57.786"N	104°49'45.168"W	0.55	
17305.00	90.250	270.750	7146.87	10620.39	358.74	-10614.33	40°32'57.802"N	104°49'46.398"W	0.49	
17399.00	90.400	271.360	7146.34	10714.38	360.47	-10708.31	40°32'57.819"N	104°49'47.616"W	0.67	
17481.00	90.250	270.350	7145.87	10796.36	361.70	-10790.30	40°32'57.830"N	104°49'48.678"W	1.25	LAST BHGE SURVEY (1146'FNL & 497'FWL,SEC.30)
17506.00	90.250	270.350	7145.76	10821.35	361.85	-10815.30	40°32'57.832"N	104°49'49.002"W	0.00	PROJ TO BIT (1145'FNL & 472'FWL,SEC.30)

# Actual Wellpath Report

THORNTON F-29-30HN AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BAYSWATER E & P LLC	Slot	SLOT#17 THORNTON F-29-30HN (1722'FNL & 404'FWL,SEC.28)
Area	COLORADO	Well	THORNTON F-29-30HN
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	THORNTON F-29-30HN 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 F-29-30HN BHL REV-1 (1150'FNL & 470'FWL,SEC.30)	7134.00	356.13	-10817.47	3186109.51	1443683.54	40°32'57.775"N	104°49'49.030"W	point
THORNTON F-29-30HN BHL REV-2 (1150'FNL & 470'FWL,SEC.30)	7144.00	356.13	-10817.47	3186109.51	1443683.54	40°32'57.775"N	104°49'49.030"W	point
THORNTON F-29-30HN WP1 (-2230SS@14150MD)	7164.00	425.89	-7445.07	<b>3189481.14</b>	<b>1443780.24</b>	40°32'58.477"N	104°49'05.344"W	point
THORNTON F-29-30HN LP REV-2 (1150'FNL & 470'FEL,SEC.29)	7194.00	562.16	-855.11	3196069.59	1443969.17	<b>40°32'59.834"N</b>	<b>104°47'39.977"W</b>	point
SEC.28-T07N-R66W HDL (460)	7900.00	77.24	2.50	3196931.02	1443491.12	40°32'55.043"N	104°47'28.867"W	polygon
SEC.29-T07N-R66W HDL (460)	7900.00	77.24	2.50	3196931.02	1443491.12	40°32'55.043"N	104°47'28.867"W	polygon
SEC.30-T07N-R66W HDL (460)	7900.00	77.24	2.50	3196931.02	1443491.12	40°32'55.043"N	104°47'28.867"W	polygon
SEC.28-T07N-R66W	8000.00	77.24	2.50	3196931.02	1443491.12	<b>40°32'55.043"N</b>	<b>104°47'28.867"W</b>	polygon
SEC.29-T07N-R66W	8000.00	77.24	2.50	3196931.02	1443491.12	<b>40°32'55.043"N</b>	<b>104°47'28.867"W</b>	polygon
SEC.30-T07N-R66W	8000.00	77.24	2.50	3196931.02	1443491.12	<b>40°32'55.043"N</b>	<b>104°47'28.867"W</b>	polygon

# Actual Wellpath Report

THORNTON F-29-30HN AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BAYSWATER E & P LLC	Slot	SLOT#17 THORNTON F-29-30HN (1722'FNL & 404'FWL,SEC.28)
Area	COLORADO	Well	THORNTON F-29-30HN
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	THORNTON F-29-30HN AWB
Facility	SEC.28-T07N-R66W		

WELLPATH COMPOSITION - Ref Wellbore: THORNTON F-29-30HN AWB    Ref Wellpath: THORNTON F-29-30HN AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
25.00	1507.00	BHI AutoTrak Curve (Short)	BHI AUTOTRAK CURVE (SHORT) <134-1507>	THORNTON F-29-30HN AWB
1507.00	17481.00	BHI AutoTrak Curve (Short)	BHI AUTOTRAK CURVE (SHORT) <1602-17481>	THORNTON F-29-30HN AWB
17481.00	17506.00	Blind Drilling (std)	Projection to bit	THORNTON F-29-30HN AWB

# Actual Wellpath Report

THORNTON F-29-30HN AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BAYSWATER E & P LLC	Slot	SLOT#17 THORNTON F-29-30HN (1722'FNL & 404'FWL,SEC.28)
Area	COLORADO	Well	THORNTON F-29-30HN
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	THORNTON F-29-30HN AWP
Facility	SEC.28-T07N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1507.00	5.780	332.880	1501.31	SURVEY TIE-ON (1616'FNL & 371'FWL,SEC.28)
17481.00	90.250	270.350	7145.87	LAST BHGE SURVEY (1146'FNL & 497'FWL,SEC.30)
17506.00	90.250	270.350	7145.76	PROJ TO BIT (1145'FNL & 472'FWL,SEC.30)