



# Actual Wellpath Report

LEFFLER I-26-28HN AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	BAYSWATER E&P, LLC	Slot	SLOT#18 LEFFLER I-26-28HN (250'FNL & 280'FWL, SEC.26)
Area	COLORADO	Well	LEFFLER I-26-28HN
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	LEFFLER I-26-28HN AWP
Facility	SEC.26-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	Manajohj
Scale	0.999971	Report Generated	8/29/2019 at 2:43:13 PM
Convergence at slot	0.48° East	Database/Source file	WADB/LEFFLER_I-26-28HN_AWP.xml

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-48.81	-685.56	3207502.84	1445058.49	40°33'09.673"N	104°45'11.750"W
Facility Reference Pt			3208187.94	1445113.08	40°33'10.156"N	104°45'02.869"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 (4898.0'GL+25'KB@4923.0'RKB) (RKB) to Facility Vertical Datum	4923.00ft
Horizontal Reference Pt	Slot	TRUE 38 (4898.0'GL+25'KB@4923.0'RKB) (RKB) to Mean Sea Level	4923.00ft
Vertical Reference Pt	TRUE 38 (4898.0'GL+25'KB@4923.0'RKB) (RKB)	TRUE 38 (4898.0'GL+25'KB@4923.0'RKB) (RKB) to Ground Level at Slot (SLOT#18 LEFFLER I-26-28HN (250'FNL & 280'FWL, SEC.26))	4923.00ft
MD Reference Pt	TRUE 38 (4898.0'GL+25'KB@4923.0'RKB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	261.48°

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Area	COLORADO	Well	LEFFLER I-26-28HN
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	LEFFLER I-26-28HN AWB
Facility	SEC.26-T07N-R66W		

WELLPATH DATA (200 stations) † = interpolated/extrapolated station														
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	TVDSS [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Tooface [°]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
0.00†	0.000	190.500	0.00	-4923.00	0.00	0.00	0.00	40°33'09.673"N	104°45'11.750"W	0.00	0.00	0.00	0.00	KB.
25.00	0.000	190.500	25.00	-4898.00	0.00	0.00	0.00	40°33'09.673"N	104°45'11.750"W	0.00	-169.50	0.00	0.00	GL.
231.00	2.080	190.500	230.95	-4692.05	1.22	-3.68	-0.68	40°33'09.637"N	104°45'11.759"W	1.01	1.53	1.01	-82.28	First BHGE MWD Survey
325.00	3.320	191.070	324.85	-4598.15	2.69	-8.02	-1.51	40°33'09.594"N	104°45'11.770"W	1.32	-2.17	1.32	0.61	
419.00	4.960	190.350	418.60	-4504.40	4.91	-14.69	-2.77	40°33'09.528"N	104°45'11.786"W	1.75	-11.10	1.74	-0.77	
514.00	6.780	187.340	513.10	-4409.90	7.77	-24.30	-4.22	40°33'09.433"N	104°45'11.805"W	1.94	2.69	1.92	-3.17	
609.00	8.890	187.980	607.21	-4315.79	11.39	-37.13	-5.96	40°33'09.306"N	104°45'11.828"W	2.22	-4.24	2.22	0.67	
703.00	12.650	186.710	699.53	-4223.47	16.16	-54.55	-8.17	40°33'09.134"N	104°45'11.856"W	4.01	-7.49	4.00	-1.35	
798.00	15.450	185.330	791.68	-4131.32	21.92	-77.49	-10.56	40°33'08.908"N	104°45'11.887"W	2.97	-26.80	2.95	-1.45	
893.00	16.200	183.980	883.08	-4039.92	27.81	-103.31	-12.66	40°33'08.652"N	104°45'11.914"W	0.88	-27.96	0.79	-1.42	
987.00	17.320	182.000	973.09	-3949.91	33.21	-130.37	-14.05	40°33'08.385"N	104°45'11.932"W	1.34	-57.31	1.19	-2.11	
1082.00	17.940	178.980	1063.63	-3859.37	37.70	-159.13	-14.29	40°33'08.101"N	104°45'11.935"W	1.16	-176.04	0.65	-3.18	
1177.00	17.720	178.930	1154.06	-3768.94	41.48	-188.22	-13.76	40°33'07.813"N	104°45'11.929"W	0.23	-172.24	-0.23	-0.05	
1271.00	16.570	178.380	1243.89	-3679.11	44.94	-215.92	-13.11	40°33'07.540"N	104°45'11.920"W	1.24	-165.39	-1.22	-0.59	
1365.00	15.670	177.510	1334.19	-3588.81	47.88	-242.00	-12.18	40°33'07.282"N	104°45'11.908"W	0.99	-116.32	-0.96	-0.93	
1460.00	15.220	173.810	1425.76	-3497.24	49.74	-267.22	-10.28	40°33'07.033"N	104°45'11.884"W	1.14	-14.24	-0.47	-3.89	
1528.00	15.800	173.270	1491.28	-3431.72	50.39	-285.28	-8.23	40°33'06.854"N	104°45'11.857"W	0.88	-36.23	0.85	-0.79	
1584.00†	16.817	170.733	1545.03	-3377.97	50.52	-300.85	-6.03	40°33'06.700"N	104°45'11.829"W	2.22	-33.80	1.82	-4.53	9 5/8" SURFACE CASING (INTERPOLATED)
1595.00	17.020	170.270	1555.55	-3367.45	50.46	-304.01	-5.51	40°33'06.669"N	104°45'11.822"W	2.22	173.49	1.85	-4.21	
1690.00	15.760	170.800	1646.69	-3276.31	50.02	-330.45	-1.09	40°33'06.408"N	104°45'11.765"W	1.34	-99.59	-1.33	0.56	
1784.00	15.710	169.640	1737.17	-3185.83	49.45	-355.57	3.24	40°33'06.160"N	104°45'11.708"W	0.34	34.12	-0.05	-1.23	
1879.00	18.370	175.190	1828.00	-3095.00	50.01	-383.14	6.81	40°33'05.887"N	104°45'11.662"W	3.28	-43.33	2.80	5.84	
1973.00	19.430	172.250	1916.93	-3006.07	51.17	-413.40	10.16	40°33'05.588"N	104°45'11.619"W	1.52	-48.16	1.13	-3.13	
2068.00	19.890	170.760	2006.39	-2916.61	51.18	-445.00	14.88	40°33'05.276"N	104°45'11.558"W	0.72	-117.97	0.48	-1.57	
2162.00	18.570	161.630	2095.17	-2827.83	48.42	-475.00	22.17	40°33'04.980"N	104°45'11.463"W	3.49	66.22	-1.40	-9.71	
2257.00	19.900	169.390	2184.88	-2738.12	45.24	-505.25	29.91	40°33'04.681"N	104°45'11.363"W	3.03	-142.55	1.40	8.17	
2351.00	18.850	166.860	2273.55	-2649.45	43.43	-535.77	36.31	40°33'04.379"N	104°45'11.280"W	1.43	1.82	-1.12	-2.69	
2446.00	19.590	166.930	2363.26	-2559.74	40.93	-566.23	43.40	40°33'04.078"N	104°45'11.188"W	0.78	-134.79	0.78	0.07	
2540.00	18.690	164.030	2452.06	-2470.94	37.72	-596.06	51.11	40°33'03.783"N	104°45'11.088"W	1.39	8.35	-0.96	-3.09	
2635.00	19.750	164.490	2541.77	-2381.23	33.79	-626.16	59.59	40°33'03.486"N	104°45'10.978"W	1.13	58.02	1.12	0.48	
2730.00	20.160	166.350	2631.06	-2291.94	30.37	-657.53	67.75	40°33'03.176"N	104°45'10.873"W	0.80	173.63	0.43	1.96	
2825.00	18.590	166.900	2720.68	-2202.32	27.70	-688.19	75.04	40°33'02.873"N	104°45'10.778"W	1.66	-101.77	-1.65	0.58	
2920.00	18.440	164.370	2810.76	-2112.24	24.63	-717.41	82.52	40°33'02.584"N	104°45'10.681"W	0.86	38.32	-0.16	-2.66	
3014.00	20.150	168.200	2899.48	-2023.52	21.86	-747.58	89.84	40°33'02.286"N	104°45'10.587"W	2.26	-102.58	1.82	4.07	
3109.00	19.890	164.180	2988.75	-1934.25	18.87	-779.15	97.59	40°33'01.974"N	104°45'10.486"W	1.47	104.33	-0.27	-4.23	
3204.00	19.690	166.710	3078.14	-1844.86	15.48	-810.27	105.68	40°33'01.667"N	104°45'10.381"W	0.93	152.86	-0.21	2.66	
3298.00	19.450	167.080	3166.71	-1756.29	12.96	-840.94	112.82	40°33'01.364"N	104°45'10.289"W	0.29	179.26	-0.26	0.39	
3393.00	18.240	167.130	3256.61	-1666.39	10.62	-870.85	119.66	40°33'01.068"N	104°45'10.200"W	1.27	-52.22	-1.27	0.05	
3487.00	19.400	162.820	3345.59	-1577.41	7.15	-900.11	127.55	40°33'00.779"N	104°45'10.098"W	1.93	91.11	1.23	-4.59	
3582.00	19.470	169.180	3435.19	-1487.81	4.13	-930.74	135.19	40°33'00.476"N	104°45'09.999"W	2.23	-83.08	0.07	6.69	
3675.00	19.660	165.460	3522.82	-1400.18	1.87	-961.10	142.02	40°33'00.176"N	104°45'09.911"W	1.35	159.92	0.20	-4.00	
3770.00	18.690	166.570	3612.55	-1310.45	-1.11	-991.38	149.57	40°32'59.877"N	104°45'09.813"W	1.09	-179.87	-1.02	1.17	
3864.00	16.220	166.550	3702.22	-1220.78	-3.53	-1018.80	156.12	40°32'59.606"N	104°45'09.728"W	2.63	-0.34	-2.63	-0.02	
3959.00	19.620	166.490	3792.59	-1130.41	-6.06	-1047.22	162.94	40°32'59.325"N	104°45'09.640"W	3.58	-26.27	3.58	-0.06	
4053.00	20.210	165.650	3880.97	-1042.03	-9.08	-1078.30	170.65	40°32'59.018"N	104°45'09.540"W	0.70	-117.53	0.63	-0.89	

REFERENCE WELLPATH IDENTIFICATION			
Operator	BAYSWATER E&P, LLC	Slot	SLOT#18 LEFFLER I-26-28HN (250'FNL & 280'FWL, SEC.26)
Area	COLORADO	Well	LEFFLER I-26-28HN
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	LEFFLER I-26-28HN AWB
Facility	SEC.26-T07N-R66W		

WELLPATH DATA (200 stations)														
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	TVDSS [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Tooface [°]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
4148.00	19.700	162.600	3970.27	-952.73	-13.23	-1109.47	179.51	40°32'58.710"N	104°45'09.425"W	1.22	-51.21	-0.54	-3.21	
4242.00	19.890	161.910	4058.72	-864.28	-18.33	-1139.79	189.21	40°32'58.410"N	104°45'09.299"W	0.32	-19.15	0.20	-0.73	
4337.00	20.300	161.500	4147.93	-775.07	-23.88	-1170.78	199.46	40°32'58.104"N	104°45'09.167"W	0.46	55.53	0.43	-0.43	
4432.00	20.870	163.770	4236.87	-686.13	-29.01	-1202.66	209.41	40°32'57.789"N	104°45'09.038"W	1.03	-170.84	0.60	2.39	
4527.00	19.050	162.870	4326.16	-596.84	-33.60	-1233.72	218.71	40°32'57.482"N	104°45'08.917"W	1.94	151.54	-1.92	-0.95	
4621.00	18.650	163.550	4415.12	-507.88	-37.97	-1262.80	227.49	40°32'57.195"N	104°45'08.804"W	0.49	95.06	-0.43	0.72	
4716.00	18.600	165.790	4505.14	-417.86	-41.57	-1292.05	235.51	40°32'56.906"N	104°45'08.700"W	0.75	17.58	-0.05	2.36	
4811.00	19.300	166.460	4594.99	-328.01	-44.45	-1322.00	242.90	40°32'56.610"N	104°45'08.604"W	0.77	1.42	0.74	0.71	
4906.00	19.850	166.500	4684.50	-238.50	-47.23	-1352.95	250.34	40°32'56.304"N	104°45'08.507"W	0.58	-16.13	0.58	0.04	
5000.00	20.720	165.790	4772.67	-150.33	-50.26	-1384.59	258.15	40°32'55.992"N	104°45'08.406"W	0.96	-161.45	0.93	-0.76	
5094.00	19.380	164.430	4860.97	-62.03	-53.83	-1415.74	266.42	40°32'55.684"N	104°45'08.299"W	1.51	175.17	-1.43	-1.45	
5188.00	16.020	165.460	4950.51	27.51	-57.10	-1443.32	273.86	40°32'55.411"N	104°45'08.203"W	3.59	162.58	-3.57	1.10	
5282.00	14.670	167.140	5041.16	118.16	-59.37	-1467.48	279.77	40°32'55.172"N	104°45'08.126"W	1.51	174.89	-1.44	1.79	
5377.00	14.020	167.380	5133.20	210.20	-61.10	-1490.44	284.96	40°32'54.946"N	104°45'08.059"W	0.69	169.05	-0.68	0.25	
5472.00	12.860	168.390	5225.59	302.59	-62.50	-1512.03	289.60	40°32'54.732"N	104°45'07.999"W	1.25	179.40	-1.22	1.06	
5566.00	6.730	168.940	5318.18	395.18	-63.31	-1527.69	292.77	40°32'54.577"N	104°45'07.958"W	6.52	-130.15	-6.52	0.59	
5661.00	6.540	166.920	5412.54	489.54	-63.98	-1538.43	295.06	40°32'54.471"N	104°45'07.928"W	0.32	-172.92	-0.20	-2.13	
5755.00	5.070	164.850	5506.06	583.06	-64.89	-1547.65	297.36	40°32'54.380"N	104°45'07.898"W	1.58	173.81	-1.56	-2.20	
5850.00	3.730	167.090	5600.78	677.78	-65.61	-1554.72	299.14	40°32'54.310"N	104°45'07.875"W	1.42	-172.70	-1.41	2.36	
5944.00	0.520	108.700	5694.70	771.70	-66.22	-1557.83	300.23	40°32'54.280"N	104°45'07.861"W	3.71	-148.77	-3.41	-62.12	
6039.00	0.280	34.280	5789.70	866.70	-66.77	-1557.78	300.77	40°32'54.280"N	104°45'07.854"W	0.55	-167.34	-0.25	-78.34	
6133.00	0.070	288.170	5883.70	960.70	-66.87	-1557.57	300.85	40°32'54.282"N	104°45'07.853"W	0.33	168.28	-0.22	-112.88	
6228.00	0.030	304.750	5978.70	1055.70	-66.80	-1557.54	300.77	40°32'54.283"N	104°45'07.854"W	0.04	-65.70	-0.04	17.45	
6323.00	0.040	282.170	6073.70	1150.70	-66.75	-1557.52	300.72	40°32'54.283"N	104°45'07.855"W	0.02	139.85	0.01	-23.77	
6417.00	0.030	2.750	6167.70	1244.70	-66.73	-1557.49	300.69	40°32'54.283"N	104°45'07.855"W	0.05	-26.16	-0.01	85.72	
6512.00	0.040	355.900	6262.70	1339.70	-66.73	-1557.43	300.69	40°32'54.284"N	104°45'07.855"W	0.01	180.00	0.01	-7.21	
6606.00	0.000	98.190	6356.70	1433.70	-66.73	-1557.40	300.68	40°32'54.284"N	104°45'07.855"W	0.04	149.45	-0.04	4.36	
6701.00	0.040	149.450	6451.70	1528.70	-66.75	-1557.42	300.70	40°32'54.284"N	104°45'07.855"W	0.04	-147.96	0.04	157.32	
6795.00	0.040	33.540	6545.70	1622.70	-66.78	-1557.43	300.73	40°32'54.284"N	104°45'07.855"W	0.07	-139.81	0.00	-123.31	
6889.00	0.030	14.360	6639.70	1716.70	-66.81	-1557.37	300.76	40°32'54.284"N	104°45'07.854"W	0.02	-85.39	-0.01	-20.40	
6984.00	0.060	318.860	6734.70	1811.70	-66.80	-1557.31	300.73	40°32'54.285"N	104°45'07.855"W	0.05	-33.53	0.03	-58.42	
7078.00	8.380	285.550	6828.36	1905.36	-60.50	-1555.44	294.09	40°32'54.303"N	104°45'07.941"W	8.86	10.20	8.85	-35.44	
7172.00	16.650	290.690	6920.05	1997.05	-42.46	-1548.83	274.86	40°32'54.369"N	104°45'08.190"W	8.87	-45.83	8.80	5.47	
7267.00	23.980	274.260	7009.15	2086.15	-11.69	-1542.57	242.81	40°32'54.430"N	104°45'08.605"W	9.71	-25.49	7.72	-17.29	
7362.00	33.700	266.170	7092.30	2169.30	33.53	-1542.90	197.13	40°32'54.427"N	104°45'09.197"W	11.00	23.82	10.23	-8.52	
7456.00	43.570	272.350	7165.67	2242.67	91.50	-1543.32	138.58	40°32'54.423"N	104°45'09.955"W	11.26	4.66	10.50	6.57	
7551.00	53.840	273.380	7228.28	2305.28	161.36	-1539.70	67.39	40°32'54.459"N	104°45'10.877"W	10.84	-26.45	10.81	-1.08	
7646.00	63.640	268.030	7277.54	2354.54	241.41	-1538.90	-13.67	40°32'54.467"N	104°45'11.927"W	11.38	-14.61	10.32	-5.63	
7739.00	73.850	265.280	7311.22	2388.22	327.62	-1544.03	-100.07	40°32'54.416"N	104°45'13.047"W	11.32	16.34	10.98	-2.96	
7834.00	84.240	268.320	7329.25	2406.25	420.34	-1549.18	-193.05	40°32'54.365"N	104°45'14.251"W	11.38	11.28	10.94	3.20	
7928.00	90.370	269.540	7333.67	2410.67	513.40	-1550.93	-286.89	40°32'54.348"N	104°45'15.467"W	6.65	-103.99	6.52	1.30	
8023.00	89.570	266.330	7333.72	2410.72	607.78	-1554.35	-381.81	40°32'54.314"N	104°45'16.696"W	3.48	-117.67	-0.84	-3.38	
8117.00	88.250	263.810	7335.51	2412.51	701.57	-1562.43	-475.44	40°32'54.234"N	104°45'17.909"W	3.03	53.84	-1.40	-2.68	
8212.00	90.430	266.790	7336.60	2413.60	796.34	-1570.21	-570.09	40°32'54.157"N	104°45'19.135"W	3.89	129.91	2.29	3.14	
8306.00	89.970	267.340	7336.27	2413.27	889.89	-1575.02	-663.97	40°32'54.110"N	104°45'20.351"W	0.76	73.97	-0.49	0.59	

**REFERENCE WELLPATH IDENTIFICATION**

Operator	BAYSWATER E&P, LLC	Slot	SLOT#18 LEFFLER I-26-28HN (250'FNL & 280'FWL,SEC.26)
Area	COLORADO	Well	LEFFLER I-26-28HN
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	LEFFLER I-26-28HN AWB
Facility	SEC.26-T07N-R66W		

**WELLPATH DATA (200 stations)**

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	TVDSS [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Tooface [°]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
8401.00	90.220	268.210	7336.11	2413.11	984.32	-1578.71	-758.90	40°32'54.073"N	104°45'21.581"W	0.95	-88.68	0.26	0.92	
8496.00	90.250	266.910	7335.73	2412.73	1078.78	-1582.76	-853.81	40°32'54.033"N	104°45'22.811"W	1.37	-82.69	0.03	-1.37	
8590.00	90.400	265.740	7335.19	2412.19	1172.44	-1588.78	-947.61	40°32'53.974"N	104°45'24.026"W	1.25	82.75	0.16	-1.24	
8685.00	90.550	266.920	7334.40	2411.40	1267.10	-1594.86	-1042.41	40°32'53.914"N	104°45'25.254"W	1.25	113.05	0.16	1.24	
8779.00	90.150	267.860	7333.83	2410.83	1360.60	-1599.14	-1136.31	40°32'53.871"N	104°45'26.470"W	1.09	66.97	-0.43	1.00	
8874.00	90.830	269.460	7333.02	2410.02	1454.85	-1601.36	-1231.28	40°32'53.849"N	104°45'27.700"W	1.83	100.62	0.72	1.68	
8968.00	90.180	272.920	7332.19	2409.19	1547.48	-1599.41	-1325.24	40°32'53.868"N	104°45'28.917"W	3.75	177.61	-0.69	3.68	
9063.00	89.940	272.930	7332.09	2409.09	1640.59	-1594.56	-1420.12	40°32'53.916"N	104°45'30.146"W	0.25	-93.17	-0.25	0.01	
9156.00	89.820	270.760	7332.28	2409.28	1732.07	-1591.57	-1513.06	40°32'53.946"N	104°45'31.350"W	2.34	133.76	-0.13	-2.33	
9250.00	88.920	271.700	7333.32	2410.32	1824.71	-1589.55	-1607.03	40°32'53.966"N	104°45'32.568"W	1.38	54.01	-0.96	1.00	
9345.00	90.620	274.040	7333.70	2410.70	1917.83	-1584.80	-1701.90	40°32'54.013"N	104°45'33.797"W	3.04	163.57	1.79	2.46	
9439.00	89.230	274.450	7333.82	2410.82	2009.50	-1577.84	-1795.64	40°32'54.081"N	104°45'35.011"W	1.54	17.82	-1.48	0.44	
9534.00	91.780	275.270	7332.99	2409.99	2101.91	-1569.79	-1890.29	40°32'54.161"N	104°45'36.237"W	2.82	108.49	2.68	0.86	
9629.00	91.050	277.450	7330.64	2407.64	2193.70	-1559.27	-1984.67	40°32'54.265"N	104°45'37.460"W	2.42	-107.07	-0.77	2.29	
9723.00	89.350	271.920	7330.31	2407.31	2285.17	-1551.60	-2078.31	40°32'54.340"N	104°45'38.673"W	6.15	-84.05	-1.81	-5.88	
9818.00	90.150	264.280	7330.73	2407.73	2379.47	-1554.74	-2173.19	40°32'54.309"N	104°45'39.902"W	8.09	-80.04	0.84	-8.04	
9912.00	90.280	263.540	7330.37	2407.37	2473.38	-1564.72	-2266.66	40°32'54.211"N	104°45'41.112"W	0.80	89.53	0.14	-0.79	
10007.00	90.340	271.100	7329.86	2406.86	2567.82	-1569.15	-2361.48	40°32'54.167"N	104°45'42.341"W	7.96	88.87	0.06	7.96	
10100.00	90.400	274.180	7329.26	2406.26	2659.05	-1564.87	-2454.37	40°32'54.209"N	104°45'43.544"W	3.31	-107.97	0.06	3.31	
10195.00	90.280	273.810	7328.69	2405.69	2751.79	-1558.25	-2549.14	40°32'54.274"N	104°45'44.772"W	0.41	-86.13	-0.13	-0.39	
10289.00	90.740	266.970	7327.86	2404.86	2844.60	-1557.61	-2643.08	40°32'54.280"N	104°45'45.988"W	7.29	143.91	0.49	-7.28	
10384.00	90.150	267.400	7327.12	2404.12	2939.13	-1562.28	-2737.96	40°32'54.234"N	104°45'47.218"W	0.77	-81.62	-0.62	0.45	
10478.00	90.490	265.090	7326.59	2403.59	3032.79	-1568.43	-2831.75	40°32'54.173"N	104°45'48.432"W	2.48	-129.29	0.36	-2.46	
10573.00	90.400	264.980	7325.86	2402.86	3127.61	-1576.66	-2926.39	40°32'54.092"N	104°45'49.658"W	0.15	-104.04	-0.09	-0.12	
10667.00	90.310	264.620	7325.27	2402.27	3221.45	-1585.18	-3020.00	40°32'54.008"N	104°45'50.871"W	0.39	-86.39	-0.10	-0.38	
10762.00	90.400	263.190	7324.68	2401.68	3316.36	-1595.26	-3114.46	40°32'53.908"N	104°45'52.095"W	1.51	88.74	0.09	-1.51	
10856.00	90.460	265.930	7323.98	2400.98	3410.21	-1604.17	-3208.03	40°32'53.820"N	104°45'53.307"W	2.92	103.19	0.06	2.91	
10951.00	90.310	266.570	7323.34	2400.34	3504.88	-1610.39	-3302.82	40°32'53.758"N	104°45'54.535"W	0.69	85.95	-0.16	0.67	
11046.00	90.460	268.690	7322.70	2399.70	3599.33	-1614.31	-3397.73	40°32'53.719"N	104°45'55.764"W	2.24	91.79	0.16	2.23	
11141.00	90.370	271.560	7322.01	2399.01	3693.24	-1614.11	-3492.72	40°32'53.721"N	104°45'56.994"W	3.02	109.69	-0.09	3.02	
11236.00	90.030	272.510	7321.68	2398.68	3786.63	-1610.73	-3587.66	40°32'53.754"N	104°45'58.224"W	1.06	65.42	-0.36	1.00	
11330.00	90.460	273.450	7321.28	2398.28	3878.74	-1605.85	-3681.53	40°32'53.803"N	104°45'59.440"W	1.10	111.34	0.46	1.00	
11424.00	90.120	274.320	7320.80	2397.80	3970.55	-1599.48	-3775.31	40°32'53.865"N	104°46'00.655"W	0.99	-62.80	-0.36	0.93	
11519.00	90.680	273.230	7320.14	2397.14	4063.36	-1593.22	-3870.10	40°32'53.927"N	104°46'01.883"W	1.29	-110.74	0.59	-1.15	
11614.00	90.180	271.910	7319.43	2396.43	4156.59	-1588.96	-3965.00	40°32'53.969"N	104°46'03.112"W	1.49	-78.59	-0.53	-1.39	
11708.00	90.400	270.820	7318.95	2395.95	4249.19	-1586.72	-4058.97	40°32'53.991"N	104°46'04.330"W	1.18	-87.43	0.23	-1.16	
11803.00	90.430	270.150	7318.26	2395.26	4343.02	-1585.92	-4153.96	40°32'53.999"N	104°46'05.560"W	0.71	80.65	0.03	-0.71	
11897.00	90.800	272.400	7317.26	2394.26	4435.64	-1583.83	-4247.93	40°32'54.019"N	104°46'06.777"W	2.43	100.04	0.39	2.39	
11992.00	90.490	274.150	7316.19	2393.19	4528.62	-1578.40	-4342.76	40°32'54.073"N	104°46'08.006"W	1.87	-83.49	-0.33	1.84	
12086.00	90.620	273.010	7315.28	2392.28	4620.53	-1572.53	-4436.57	40°32'54.130"N	104°46'09.221"W	1.22	-95.12	0.14	-1.21	
12181.00	90.180	268.120	7314.61	2391.61	4714.31	-1571.60	-4531.54	40°32'54.140"N	104°46'10.451"W	5.17	-71.25	-0.46	-5.15	
12275.00	90.740	266.470	7313.86	2390.86	4807.82	-1576.03	-4625.43	40°32'54.096"N	104°46'11.667"W	1.85	87.48	0.60	-1.76	
12370.00	90.800	267.840	7312.58	2389.58	4902.34	-1580.75	-4720.30	40°32'54.049"N	104°46'12.896"W	1.44	90.00	0.06	1.44	
12464.00	90.800	268.560	7311.27	2388.27	4995.69	-1583.70	-4814.24	40°32'54.019"N	104°46'14.113"W	0.77	-172.09	0.00	0.77	
12559.00	89.720	268.410	7310.84	2387.84	5089.98	-1586.21	-4909.21	40°32'53.994"N	104°46'15.344"W	1.15	-100.16	-1.14	-0.16	

**REFERENCE WELLPATH IDENTIFICATION**

Operator	BAYSWATER E&P, LLC	Slot	SLOT#18 LEFFLER I-26-28HN (250'FNL & 280'FWL,SEC.26)
Area	COLORADO	Well	LEFFLER I-26-28HN
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	LEFFLER I-26-28HN AWB
Facility	SEC.26-T07N-R66W		

**WELLPATH DATA (200 stations)**

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	TVDSS [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Tooface [°]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
12654.00	89.600	267.740	7311.40	2388.40	5184.35	-1589.40	-5004.15	40°32'53.963"N	104°46'16.573"W	0.72	-70.85	-0.13	-0.71	
12749.00	90.430	265.350	7311.38	2388.38	5278.97	-1595.13	-5098.97	40°32'53.906"N	104°46'17.802"W	2.66	122.60	0.87	-2.52	
12843.00	89.880	266.210	7311.12	2388.12	5372.70	-1602.04	-5192.71	40°32'53.837"N	104°46'19.016"W	1.09	-34.02	-0.59	0.91	
12938.00	90.280	265.940	7310.99	2387.99	5467.40	-1608.55	-5287.49	40°32'53.773"N	104°46'20.244"W	0.51	-130.40	0.42	-0.28	
13033.00	89.880	265.470	7310.86	2387.86	5562.14	-1615.66	-5382.22	40°32'53.702"N	104°46'21.471"W	0.65	79.73	-0.42	-0.49	
13128.00	90.150	266.960	7310.83	2387.83	5656.81	-1621.93	-5477.01	40°32'53.640"N	104°46'22.699"W	1.59	75.69	0.28	1.57	
13223.00	90.400	267.940	7310.37	2387.37	5751.30	-1626.16	-5571.92	40°32'53.598"N	104°46'23.928"W	1.06	97.26	0.26	1.03	
13316.00	90.030	270.840	7310.03	2387.03	5843.40	-1627.15	-5664.90	40°32'53.588"N	104°46'25.133"W	3.14	-70.25	-0.40	3.12	
13411.00	90.310	270.060	7309.74	2386.74	5937.24	-1626.40	-5759.90	40°32'53.595"N	104°46'26.363"W	0.87	-121.76	0.29	-0.82	
13505.00	90.180	269.850	7309.34	2386.34	6030.21	-1626.48	-5853.89	40°32'53.594"N	104°46'27.581"W	0.26	-68.75	-0.14	-0.22	
13600.00	90.250	269.670	7308.99	2385.99	6124.22	-1626.87	-5948.89	40°32'53.590"N	104°46'28.811"W	0.20	90.00	0.07	-0.19	
13694.00	90.250	270.390	7308.58	2385.58	6217.18	-1626.83	-6042.89	40°32'53.591"N	104°46'30.029"W	0.77	77.00	0.00	0.77	
13788.00	90.460	271.300	7307.99	2384.99	6309.92	-1625.44	-6136.88	40°32'53.604"N	104°46'31.246"W	0.99	138.08	0.22	0.97	
13883.00	89.970	271.740	7307.64	2384.64	6403.47	-1622.92	-6231.84	40°32'53.629"N	104°46'32.477"W	0.69	-83.16	-0.52	0.46	
13977.00	90.030	271.240	7307.64	2384.64	6496.04	-1620.48	-6325.81	40°32'53.653"N	104°46'33.694"W	0.54	63.44	0.06	-0.53	
14072.00	90.060	271.300	7307.56	2384.56	6589.66	-1618.37	-6420.79	40°32'53.673"N	104°46'34.924"W	0.07	71.57	0.03	0.06	
14167.00	90.090	271.390	7307.44	2384.44	6683.25	-1616.14	-6515.76	40°32'53.695"N	104°46'36.155"W	0.10	144.64	0.03	0.09	
14261.00	89.780	271.610	7307.54	2384.54	6775.82	-1613.68	-6609.73	40°32'53.719"N	104°46'37.372"W	0.40	70.28	-0.33	0.23	
14356.00	89.970	272.140	7307.75	2384.75	6869.26	-1610.57	-6704.68	40°32'53.750"N	104°46'38.602"W	0.59	-106.09	0.20	0.56	
14451.00	89.820	271.620	7307.93	2384.93	6962.70	-1607.45	-6799.63	40°32'53.780"N	104°46'39.832"W	0.57	164.06	-0.16	-0.55	
14546.00	89.750	271.640	7308.28	2385.28	7056.21	-1604.75	-6894.59	40°32'53.807"N	104°46'41.062"W	0.08	31.26	-0.07	0.02	
14640.00	90.030	271.810	7308.46	2385.46	7148.72	-1601.92	-6988.54	40°32'53.834"N	104°46'42.279"W	0.35	-118.56	0.30	0.18	
14735.00	89.600	271.020	7308.77	2385.77	7242.29	-1599.58	-7083.51	40°32'53.857"N	104°46'43.509"W	0.95	-13.57	-0.45	-0.83	
14830.00	90.180	270.880	7308.95	2385.95	7336.00	-1598.00	-7178.50	40°32'53.872"N	104°46'44.740"W	0.63	-98.32	0.61	-0.15	
14924.00	90.000	269.650	7308.80	2385.80	7428.89	-1597.57	-7272.50	40°32'53.876"N	104°46'45.957"W	1.32	170.54	-0.19	-1.31	
15019.00	89.940	269.660	7308.85	2385.85	7522.93	-1598.14	-7367.50	40°32'53.870"N	104°46'47.188"W	0.06	-77.01	-0.06	0.01	
15114.00	90.180	268.620	7308.75	2385.75	7617.08	-1599.56	-7462.48	40°32'53.856"N	104°46'48.418"W	1.12	-99.87	0.25	-1.09	
15208.00	89.940	267.240	7308.66	2385.66	7710.48	-1602.96	-7556.42	40°32'53.822"N	104°46'49.635"W	1.49	-84.06	-0.26	-1.47	
15303.00	90.120	265.510	7308.61	2385.61	7805.13	-1608.97	-7651.23	40°32'53.763"N	104°46'50.863"W	1.83	96.01	0.19	-1.82	
15397.00	89.940	267.220	7308.56	2385.56	7898.79	-1614.93	-7745.03	40°32'53.703"N	104°46'52.078"W	1.83	98.53	-0.19	1.82	
15492.00	89.820	268.020	7308.76	2385.76	7993.24	-1618.87	-7839.95	40°32'53.664"N	104°46'53.308"W	0.85	-84.10	-0.13	0.84	
15587.00	89.880	267.440	7309.00	2386.00	8087.68	-1622.63	-7934.88	40°32'53.627"N	104°46'54.537"W	0.61	87.23	0.06	-0.61	
15682.00	89.970	269.300	7309.13	2386.13	8181.99	-1625.34	-8029.83	40°32'53.600"N	104°46'55.767"W	1.96	-174.81	0.09	1.96	
15777.00	89.750	269.280	7309.36	2386.36	8276.11	-1626.51	-8124.83	40°32'53.588"N	104°46'56.998"W	0.23	-72.55	-0.23	-0.02	
15871.00	89.970	268.580	7309.59	2386.59	8369.32	-1628.27	-8218.81	40°32'53.570"N	104°46'58.215"W	0.78	-107.93	0.23	-0.74	
15966.00	89.750	267.900	7309.82	2386.82	8463.66	-1631.19	-8313.76	40°32'53.541"N	104°46'59.445"W	0.75	-60.95	-0.23	-0.72	
16061.00	90.000	267.450	7310.03	2387.03	8558.10	-1635.04	-8408.68	40°32'53.503"N	104°47'00.675"W	0.54	-112.46	0.26	-0.47	
16156.00	89.690	266.700	7310.29	2387.29	8652.65	-1639.89	-8503.56	40°32'53.454"N	104°47'01.904"W	0.85	79.43	-0.33	-0.79	
16250.00	89.970	268.200	7310.57	2387.57	8746.14	-1644.07	-8597.46	40°32'53.413"N	104°47'03.120"W	1.62	90.00	0.30	1.60	
16345.00	89.970	269.810	7310.62	2387.62	8840.31	-1645.72	-8692.44	40°32'53.396"N	104°47'04.351"W	1.69	101.55	0.00	1.69	
16440.00	89.780	270.740	7310.82	2387.82	8934.20	-1645.26	-8787.44	40°32'53.400"N	104°47'05.581"W	1.00	-69.83	-0.20	0.98	
16534.00	90.430	268.970	7310.65	2387.65	9027.19	-1645.50	-8881.44	40°32'53.398"N	104°47'06.799"W	2.01	95.67	0.69	-1.88	
16629.00	90.250	270.780	7310.09	2387.09	9121.17	-1645.71	-8976.43	40°32'53.395"N	104°47'08.029"W	1.91	-56.31	-0.19	1.91	
16724.00	90.490	270.420	7309.47	2386.47	9214.97	-1644.71	-9071.42	40°32'53.405"N	104°47'09.260"W	0.46	-96.50	0.25	-0.38	
16818.00	90.400	269.630	7308.74	2385.74	9307.92	-1644.67	-9165.42	40°32'53.405"N	104°47'10.478"W	0.85	124.99	-0.10	-0.84	

# Actual Wellpath Report

LEFFLER I-26-28HN AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BAYSWATER E&P, LLC	Slot	SLOT#18 LEFFLER I-26-28HN (250'FNL & 280'FWL, SEC.26)
Area	COLORADO	Well	LEFFLER I-26-28HN
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	LEFFLER I-26-28HN AWB
Facility	SEC.26-T07N-R66W		

WELLPATH DATA (200 stations)														
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	TVDSS [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Toolface [°]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
16913.00	90.120	270.030	7308.31	2385.31	9401.91	-1644.95	-9260.42	40°32'53.402"N	104°47'11.708"W	0.51	109.98	-0.29	0.42	
17008.00	90.000	270.360	7308.21	2385.21	9495.82	-1644.63	-9355.42	40°32'53.404"N	104°47'12.939"W	0.37	92.99	-0.13	0.35	
17102.00	89.940	271.510	7308.26	2385.26	9588.54	-1643.10	-9449.40	40°32'53.419"N	104°47'14.156"W	1.23	-113.20	-0.06	1.22	
17197.00	89.880	271.370	7308.41	2385.41	9682.11	-1640.71	-9544.37	40°32'53.442"N	104°47'15.387"W	0.16	131.63	-0.06	-0.15	
17291.00	89.720	271.550	7308.74	2385.74	9774.69	-1638.31	-9638.34	40°32'53.466"N	104°47'16.604"W	0.26	-105.65	-0.17	0.19	
17386.00	89.510	270.800	7309.38	2386.38	9868.33	-1636.37	-9733.32	40°32'53.485"N	104°47'17.834"W	0.82	-56.01	-0.22	-0.79	
17481.00	90.090	269.940	7309.71	2386.71	9962.19	-1635.75	-9828.32	40°32'53.490"N	104°47'19.065"W	1.09	-120.26	0.61	-0.91	
17575.00	89.880	269.580	7309.73	2386.73	10055.21	-1636.15	-9922.32	40°32'53.486"N	104°47'20.282"W	0.44	-81.18	-0.22	-0.38	
17670.00	90.060	268.420	7309.78	2386.78	10149.39	-1637.80	-10017.30	40°32'53.469"N	104°47'21.513"W	1.24	-88.29	0.19	-1.22	
17765.00	90.150	265.410	7309.61	2386.61	10243.95	-1642.92	-10112.15	40°32'53.418"N	104°47'22.741"W	3.17	-101.02	0.09	-3.17	
17859.00	89.850	263.870	7309.61	2386.61	10337.81	-1651.70	-10205.74	40°32'53.331"N	104°47'23.954"W	1.67	-15.57	-0.32	-1.64	
17954.00	90.460	263.700	7309.35	2386.35	10432.73	-1661.98	-10300.18	40°32'53.229"N	104°47'25.177"W	0.67	95.20	0.64	-0.18	
18048.00	90.180	266.770	7308.83	2385.83	10526.51	-1669.79	-10393.84	40°32'53.152"N	104°47'26.390"W	3.28	91.59	-0.30	3.27	
18143.00	90.060	271.080	7308.63	2385.63	10620.69	-1671.57	-10488.80	40°32'53.134"N	104°47'27.620"W	4.54	69.06	-0.13	4.54	
18236.00	90.370	271.890	7308.28	2385.28	10712.28	-1669.16	-10581.77	40°32'53.157"N	104°47'28.825"W	0.93	168.69	0.33	0.87	
18331.00	89.970	271.970	7308.00	2385.00	10805.70	-1665.96	-10676.71	40°32'53.188"N	104°47'30.054"W	0.43	81.01	-0.42	0.08	
18425.00	90.310	274.120	7307.77	2384.77	10897.79	-1660.97	-10770.57	40°32'53.237"N	104°47'31.270"W	2.32	137.29	0.36	2.29	
18520.00	90.180	274.240	7307.36	2384.36	10990.47	-1654.04	-10865.32	40°32'53.305"N	104°47'32.498"W	0.19	-100.24	-0.14	0.13	
18615.00	90.030	273.410	7307.19	2384.19	11083.27	-1647.71	-10960.11	40°32'53.367"N	104°47'33.726"W	0.89	0.00	-0.16	-0.87	Last BHGE MWD Survey (1812'FNL & 35'FWL SEC.28)
18643.00	90.030	273.410	7307.17	2384.17	11110.67	-1646.04	-10988.06	40°32'53.384"N	104°47'34.088"W	0.00		0.00	0.00	Extrapolated to TD (1811'FNL & 7'FWL SEC.28)

HOLE & CASING SECTIONS - Ref Wellbore: LEFFLER I-26-28HN AWB      Ref Wellpath: LEFFLER I-26-28HN 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]
17in Conductor	25.00	105.00	80.00	25.00	105.00	0.00	0.00	-0.55	-0.10
13.5in Open Hole	25.00	1584.00	1559.00	25.00	1545.03	0.00	0.00	-300.85	-6.03
9.625in Casing Surface	25.00	1584.00	1559.00	25.00	1545.03	0.00	0.00	-300.85	-6.03
8.5in Open Hole	1584.00	18643.00	17059.00	1545.03	7307.17	-300.85	-6.03	-1646.04	-10988.06



REFERENCE WELLPATH IDENTIFICATION			
Operator	BAYSWATER E&P, LLC	Slot	SLOT#18 LEFFLER I-26-28HN (250'FNL & 280'FWL,SEC.26)
Area	COLORADO	Well	LEFFLER I-26-28HN
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	LEFFLER I-26-28HN AWB
Facility	SEC.26-T07N-R66W		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
LEFFLER 26 A PAD SEC.26-T07N-R66W	0.00	29.51	-30.29	3207472.30	1445087.74	40°33'09.965"N	104°45'12.143"W	polygon
LEFFLER 26 A PAD SEC.27-T07N-R66W	0.00	29.51	-30.29	3207472.30	1445087.74	40°33'09.965"N	104°45'12.143"W	polygon
LEFFLER 26 A PAD SEC.28-T07N-R66W	0.00	29.51	-30.29	3207472.30	1445087.74	40°33'09.965"N	104°45'12.143"W	polygon
LEFFLER I-26-28HN BHL PLAT (1810'FNL & 5'FWL,SEC.28)	7308.00	-1645.72	-10990.55	3196526.88	1443320.33	40°32'53.387"N	104°47'34.120"W	point
LEFFLER I-26-28HN WAYPOINT #2 REV-1	7308.00	-1605.63	-5725.78	3201790.97	1443404.75	40°32'53.801"N	104°46'25.921"W	point
LEFFLER I-26-28HN WAYPOINT #1 REV-1	7328.00	-1579.59	-2325.83	3205190.47	1443459.42	40°32'54.064"N	104°45'41.879"W	point
LEFFLER I-26-28HN LP PLAT (1810'FNL & 5'FEL,SEC.27)	7333.00	-1564.07	-275.95	3207240.08	1443492.20	40°32'54.218"N	104°45'15.325"W	point

WELLPATH COMPOSITION - Ref Wellbore: LEFFLER I-26-28HN AWB    Ref Wellpath: LEFFLER I-26-28HN AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
25.00	1528.00	BHI NaviTrak (Rotating+Axial Corr)	13.5" Surface - BHI NaviTrak (Rotating+Axial Corr) <25'MD - 1584'MD>	LEFFLER I-26-28HN AWB
1528.00	18615.00	BHI AutoTrak Curve (Short)	8.5" Monobore - BHI AutoTrak Curve (Short) <1595'MD- 18615'MD>	LEFFLER I-26-28HN AWB
18615.00	18643.00	Blind Drilling (std)	Projection to bit	LEFFLER I-26-28HN AWB



REFERENCE WELLPATH IDENTIFICATION			
Operator	BAYSWATER E&P, LLC	Slot	SLOT#18 LEFFLER I-26-28HN (250'FNL & 280'FWL,SEC.26)
Area	COLORADO	Well	LEFFLER I-26-28HN
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	LEFFLER I-26-28HN AWB
Facility	SEC.26-T07N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
0.00	0.000	190.500	0.00	KB.
25.00	0.000	190.500	25.00	GL.
231.00	2.080	190.500	230.95	First BHGE MWD Survey
1584.00	16.817	170.733	1545.03	9 5/8" SURFACE CASING (INTERPOLATED)
18615.00	90.030	273.410	7307.19	Last BHGE MWD Survey (1812'FNL & 35'FWL SEC.28)
18643.00	90.030	273.410	7307.17	Extrapolated to TD (1811'FNL & 7'FWL SEC.28)