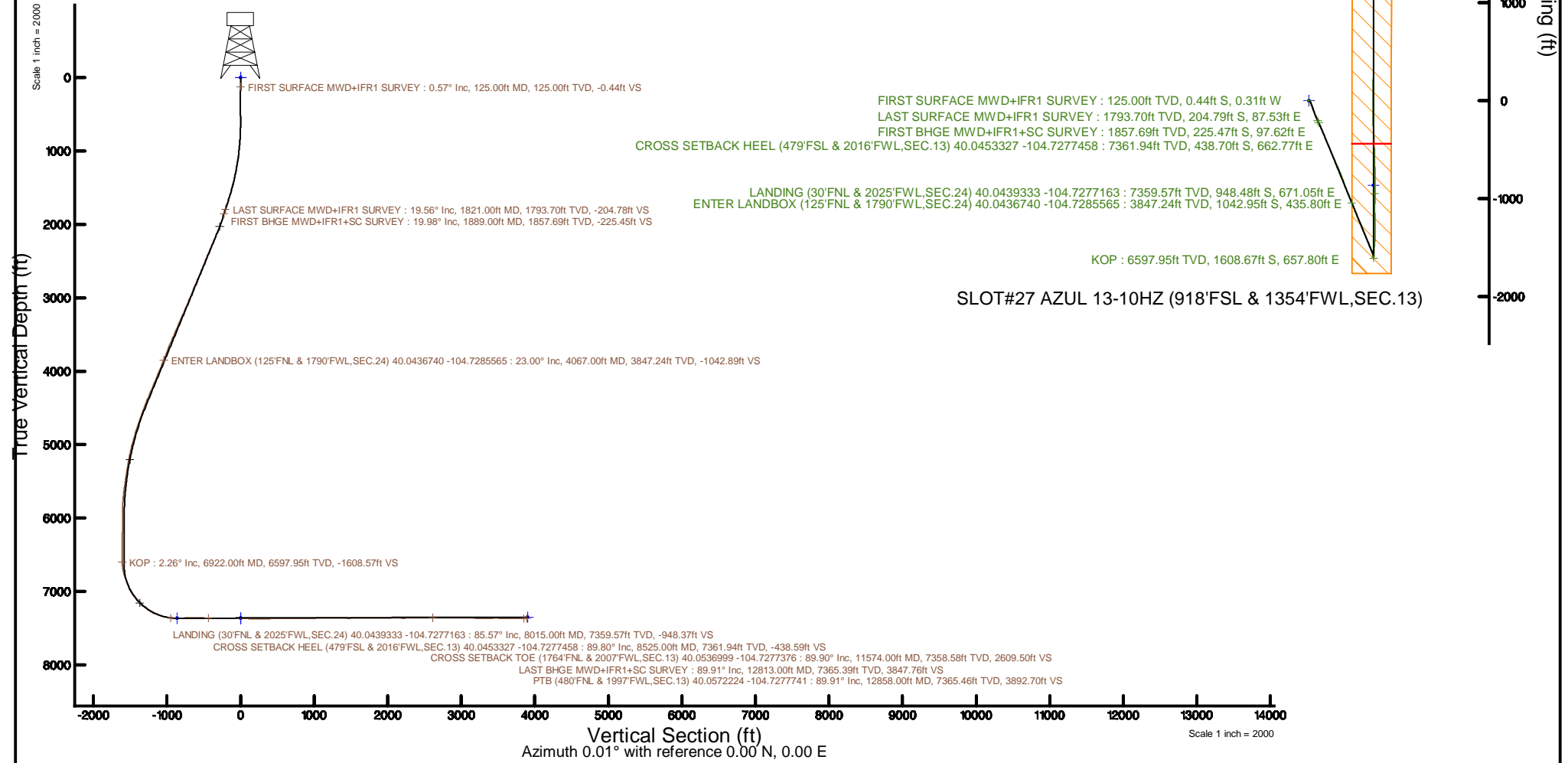


KERR-MCGEE OIL & GAS ONSHORE LP (WA)

Location: COLORADO	Slot: SLOT#27 AZUL 13-10HZ (918'FSL & 1354'FWL,SEC.13)
Field: WELD COUNTY (UTM/TRUE NORTH)	Well: AZUL 13-10HZ
Facility: SEC.13-T1N-R66W	Wellbore: AZUL 13-10HZ PWB
Plot reference wellpath is AZUL 13-10HZ PWP Rev-B.0	Grid System: NAD83 / UTM Zone 13 North, US feet
True vertical depths are referenced to Xtreme 22 (17) (RT)	* = Wellpath was transformed from a different geodetic datum
Measured depths are referenced to Xtreme 22 (17) (RT)	North Reference: True north
Xtreme 22 (17) (RT) to Mean Sea Level: 5088 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#27 AZUL 13-10HZ (918'FSL & 1354'FWL,SEC.13)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: painsetr on 2018-03-22
	Database: WA_DEN_Anadarko_DeIn



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#27 AZUL 13-10HZ (918'FSL & 1354'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-10HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-10HZ AWB
Facility	SEC.13-T1N-R66W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / UTM Zone 13 North, US feet	Software System	WellArchitect® 5.0
North Reference	True	User	Painsetr
Scale	0.999607	Report Generated	3/22/2018 at 11:02 AM
Convergence at slot	0.18° East	Database/Source file	WA_DEN_Anadarko_Defn/AZUL_13-10HZ_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-4159.03	-1536.20	1715947.48	14543793.98	40°02'47.533"N	104°43'48.407"W
Facility Reference Pt			1717470.20	14547956.10	40°03'28.634"N	104°43'28.654"W
Field Reference Pt			1698235.31	14552047.82	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Xtreme 22 (17") (RT) to Facility Vertical Datum	5088.00ft
Horizontal Reference Pt	Slot	Xtreme 22 (17") (RT) to Mean Sea Level	5088.00ft
Vertical Reference Pt	Xtreme 22 (17") (RT)	Xtreme 22 (17") (RT) to Mud Line at Slot (SLOT#27 AZUL 13-10HZ (918'FSL & 1354'FWL,SEC.13))	5088.00ft
MD Reference Pt	Xtreme 22 (17") (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	0.01°

Actual Wellpath Report

AZUL 13-10HZ AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#27 AZUL 13-10HZ (918'FSL & 1354'FWL, SEC.13)
Area	COLORADO	Well	AZUL 13-10HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-10HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (188 stations) † = interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00†	0.000	215.080	0.00	0.00	0.00	0.00	1715947.48	14543793.98	40°02'47.533"N	104°43'48.407"W	0.00	
17.00	0.000	215.080	17.00	0.00	0.00	0.00	1715947.48	14543793.98	40°02'47.533"N	104°43'48.407"W	0.00	
125.00	0.570	215.080	125.00	-0.44	-0.44	-0.31	1715947.17	14543793.54	40°02'47.529"N	104°43'48.411"W	0.53	FIRST SURFACE MWD+IFR1 SURVEY
157.00	0.310	213.320	157.00	-0.64	-0.64	-0.45	1715947.03	14543793.34	40°02'47.527"N	104°43'48.413"W	0.81	
188.00	0.620	260.170	188.00	-0.74	-0.74	-0.66	1715946.82	14543793.24	40°02'47.526"N	104°43'48.415"W	1.50	
220.00	0.660	260.170	219.99	-0.80	-0.80	-1.01	1715946.47	14543793.18	40°02'47.525"N	104°43'48.420"W	0.12	
251.00	0.750	227.120	250.99	-0.97	-0.97	-1.34	1715946.14	14543793.01	40°02'47.523"N	104°43'48.424"W	1.32	
283.00	0.620	213.320	282.99	-1.26	-1.26	-1.58	1715945.90	14543792.72	40°02'47.521"N	104°43'48.427"W	0.65	
314.00	0.130	130.710	313.99	-1.42	-1.42	-1.65	1715945.83	14543792.56	40°02'47.519"N	104°43'48.428"W	1.99	
346.00	0.350	90.010	345.99	-1.44	-1.44	-1.52	1715945.96	14543792.53	40°02'47.519"N	104°43'48.427"W	0.83	
377.00	0.660	82.280	376.99	-1.42	-1.42	-1.25	1715946.23	14543792.56	40°02'47.519"N	104°43'48.423"W	1.02	
409.00	0.480	60.480	408.99	-1.33	-1.33	-0.95	1715946.53	14543792.65	40°02'47.520"N	104°43'48.419"W	0.87	
441.00	0.830	83.770	440.98	-1.24	-1.24	-0.61	1715946.87	14543792.74	40°02'47.521"N	104°43'48.415"W	1.35	
472.00	0.880	62.240	471.98	-1.10	-1.10	-0.17	1715947.31	14543792.88	40°02'47.522"N	104°43'48.409"W	1.04	
504.00	0.830	62.590	503.98	-0.88	-0.88	0.25	1715947.73	14543793.10	40°02'47.524"N	104°43'48.404"W	0.16	
535.00	0.880	67.430	534.97	-0.69	-0.69	0.67	1715948.15	14543793.30	40°02'47.526"N	104°43'48.398"W	0.28	
567.00	1.010	76.920	566.97	-0.53	-0.53	1.17	1715948.65	14543793.46	40°02'47.528"N	104°43'48.392"W	0.63	
599.00	1.050	68.220	598.96	-0.36	-0.36	1.72	1715949.19	14543793.63	40°02'47.529"N	104°43'48.385"W	0.50	
631.00	1.410	85.000	630.96	-0.21	-0.21	2.38	1715949.86	14543793.78	40°02'47.531"N	104°43'48.376"W	1.58	
663.00	1.930	110.670	662.94	-0.37	-0.37	3.28	1715950.75	14543793.62	40°02'47.529"N	104°43'48.365"W	2.81	
695.00	2.500	125.610	694.92	-0.97	-0.97	4.35	1715951.83	14543793.03	40°02'47.523"N	104°43'48.351"W	2.52	
726.00	2.990	135.890	725.88	-1.94	-1.94	5.46	1715952.94	14543792.06	40°02'47.514"N	104°43'48.337"W	2.23	
758.00	3.430	137.210	757.83	-3.24	-3.24	6.69	1715954.18	14543790.76	40°02'47.501"N	104°43'48.321"W	1.39	
790.00	3.300	139.320	789.78	-4.64	-4.64	7.94	1715955.43	14543789.37	40°02'47.487"N	104°43'48.305"W	0.56	
822.00	4.220	151.270	821.71	-6.37	-6.37	9.11	1715956.60	14543787.64	40°02'47.470"N	104°43'48.290"W	3.76	
854.00	4.570	153.560	853.62	-8.55	-8.55	10.24	1715957.74	14543785.47	40°02'47.449"N	104°43'48.275"W	1.22	
885.00	4.880	155.050	884.51	-10.85	-10.85	11.35	1715958.85	14543783.17	40°02'47.426"N	104°43'48.261"W	1.08	
917.00	5.230	159.180	916.39	-13.44	-13.45	12.44	1715959.95	14543780.58	40°02'47.400"N	104°43'48.247"W	1.58	
949.00	5.670	153.470	948.24	-16.22	-16.22	13.67	1715961.19	14543777.81	40°02'47.373"N	104°43'48.231"W	2.18	
980.00	6.110	155.840	979.08	-19.10	-19.10	15.03	1715962.55	14543774.94	40°02'47.344"N	104°43'48.214"W	1.62	
1012.00	6.460	157.600	1010.89	-22.32	-22.32	16.41	1715963.95	14543771.72	40°02'47.312"N	104°43'48.196"W	1.25	
1044.00	6.940	157.600	1042.67	-25.77	-25.77	17.83	1715965.38	14543768.28	40°02'47.278"N	104°43'48.178"W	1.50	
1076.00	7.690	157.250	1074.41	-29.53	-29.53	19.40	1715966.95	14543764.52	40°02'47.241"N	104°43'48.158"W	2.35	
1107.00	9.100	157.250	1105.07	-33.70	-33.70	21.15	1715968.72	14543760.35	40°02'47.200"N	104°43'48.135"W	4.55	
1139.00	10.020	160.770	1136.63	-38.66	-38.67	23.04	1715970.63	14543755.40	40°02'47.151"N	104°43'48.111"W	3.41	
1171.00	10.240	160.240	1168.13	-43.97	-43.97	24.92	1715972.52	14543750.10	40°02'47.098"N	104°43'48.087"W	0.75	
1202.00	10.500	160.590	1198.62	-49.23	-49.23	26.79	1715974.41	14543744.85	40°02'47.046"N	104°43'48.062"W	0.86	
1234.00	10.630	159.710	1230.08	-54.74	-54.75	28.78	1715976.41	14543739.34	40°02'46.992"N	104°43'48.037"W	0.65	
1266.00	11.600	159.360	1261.48	-60.52	-60.53	30.94	1715978.59	14543733.57	40°02'46.935"N	104°43'48.009"W	3.04	
1298.00	12.440	159.540	1292.78	-66.76	-66.77	33.28	1715980.95	14543727.34	40°02'46.873"N	104°43'47.979"W	2.63	
1330.00	12.220	159.360	1324.04	-73.16	-73.17	35.68	1715983.36	14543720.95	40°02'46.810"N	104°43'47.948"W	0.70	
1361.00	12.260	159.970	1354.34	-79.32	-79.33	37.96	1715985.66	14543714.80	40°02'46.749"N	104°43'47.919"W	0.44	
1393.00	13.400	161.560	1385.54	-86.03	-86.04	40.30	1715988.02	14543708.10	40°02'46.683"N	104°43'47.889"W	3.73	
1425.00	14.060	162.700	1416.62	-93.26	-93.27	42.63	1715990.37	14543700.88	40°02'46.611"N	104°43'47.859"W	2.23	
1456.00	14.150	162.080	1446.69	-100.46	-100.47	44.91	1715992.68	14543693.69	40°02'46.540"N	104°43'47.829"W	0.57	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#27 AZUL 13-10HZ (918'FSL & 1354'FWL, SEC.13)
Area	COLORADO	Well	AZUL 13-10HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-10HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (188 stations) † = interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
1488.00	15.250	160.330	1477.64	-108.15	-108.15	47.53	1715995.32	14543686.02	40°02'46.464"N	104°43'47.796"W	3.71	
1519.00	15.950	158.390	1507.50	-115.94	-115.95	50.48	1715998.28	14543678.23	40°02'46.387"N	104°43'47.758"W	2.82	
1551.00	17.230	157.600	1538.17	-124.41	-124.42	53.90	1716001.73	14543669.77	40°02'46.303"N	104°43'47.714"W	4.06	
1583.00	17.970	157.250	1568.67	-133.35	-133.36	57.62	1716005.47	14543660.85	40°02'46.215"N	104°43'47.666"W	2.34	
1615.00	18.240	158.390	1599.08	-142.55	-142.56	61.37	1716009.25	14543651.66	40°02'46.124"N	104°43'47.618"W	1.39	
1646.00	18.410	157.950	1628.51	-151.60	-151.61	64.99	1716012.90	14543642.63	40°02'46.035"N	104°43'47.571"W	0.71	
1678.00	19.160	157.780	1658.81	-161.15	-161.16	68.88	1716016.81	14543633.10	40°02'45.940"N	104°43'47.521"W	2.35	
1710.00	19.560	158.040	1689.00	-170.97	-170.99	72.87	1716020.83	14543623.29	40°02'45.843"N	104°43'47.470"W	1.28	
1742.00	19.290	157.070	1719.17	-180.81	-180.82	76.93	1716024.92	14543613.47	40°02'45.746"N	104°43'47.418"W	1.31	
1773.00	19.380	156.200	1748.43	-190.23	-190.24	81.00	1716029.02	14543604.06	40°02'45.653"N	104°43'47.365"W	0.97	
1805.00	19.380	155.930	1778.61	-199.94	-199.95	85.31	1716033.35	14543594.37	40°02'45.557"N	104°43'47.310"W	0.28	
1821.00	19.560	154.700	1793.70	-204.78	-204.79	87.53	1716035.60	14543589.53	40°02'45.509"N	104°43'47.281"W	2.80	LAST SURFACE MWD+IFR1 SURVEY
1889.00	19.980	153.310	1857.69	-225.45	-225.47	97.62	1716045.74	14543568.90	40°02'45.305"N	104°43'47.152"W	0.93	FIRST BHGE MWD+IFR1+SC SURVEY
1977.00	20.650	155.700	1940.22	-253.02	-253.04	110.76	1716058.95	14543541.38	40°02'45.032"N	104°43'46.983"W	1.21	
2064.00	21.640	156.880	2021.36	-281.76	-281.78	123.37	1716071.65	14543512.69	40°02'44.748"N	104°43'46.821"W	1.24	
2152.00	23.130	159.150	2102.73	-312.83	-312.85	135.89	1716084.26	14543481.66	40°02'44.441"N	104°43'46.660"W	1.96	
2240.00	24.870	157.700	2183.12	-346.11	-346.13	149.07	1716097.53	14543448.44	40°02'44.112"N	104°43'46.490"W	2.09	
2328.00	24.770	157.290	2262.99	-380.23	-380.26	163.21	1716111.77	14543414.37	40°02'43.775"N	104°43'46.308"W	0.23	
2416.00	24.280	155.610	2343.05	-413.71	-413.74	177.79	1716126.45	14543380.95	40°02'43.444"N	104°43'46.121"W	0.97	
2503.00	24.840	157.770	2422.18	-446.92	-446.95	192.09	1716140.85	14543347.79	40°02'43.116"N	104°43'45.937"W	1.22	
2591.00	23.820	155.770	2502.37	-480.23	-480.26	206.38	1716155.23	14543314.54	40°02'42.787"N	104°43'45.753"W	1.49	
2678.00	23.730	157.350	2581.98	-512.41	-512.44	220.33	1716169.27	14543282.41	40°02'42.469"N	104°43'45.574"W	0.74	
2766.00	24.590	157.320	2662.27	-545.64	-545.68	234.21	1716183.25	14543249.23	40°02'42.140"N	104°43'45.395"W	0.98	
2854.00	25.630	156.970	2741.96	-580.05	-580.09	248.72	1716197.85	14543214.88	40°02'41.800"N	104°43'45.209"W	1.19	
2941.00	23.910	155.770	2820.95	-613.44	-613.48	263.32	1716212.54	14543181.54	40°02'41.470"N	104°43'45.021"W	2.06	
3029.00	23.850	156.170	2901.42	-645.98	-646.02	277.82	1716227.14	14543149.06	40°02'41.149"N	104°43'44.835"W	0.20	
3116.00	24.130	156.840	2980.90	-678.41	-678.46	291.92	1716241.34	14543116.68	40°02'40.828"N	104°43'44.653"W	0.45	
3204.00	24.440	156.450	3061.11	-711.64	-711.69	306.27	1716255.78	14543083.51	40°02'40.500"N	104°43'44.469"W	0.40	
3291.00	24.660	158.840	3140.25	-745.06	-745.11	320.01	1716269.62	14543050.14	40°02'40.170"N	104°43'44.292"W	1.17	
3379.00	25.820	160.050	3219.85	-780.19	-780.25	333.18	1716282.89	14543015.06	40°02'39.822"N	104°43'44.123"W	1.44	
3466.00	24.130	158.950	3298.71	-814.60	-814.66	346.03	1716295.84	14542980.70	40°02'39.482"N	104°43'43.958"W	2.01	
3554.00	24.290	161.470	3378.97	-848.55	-848.60	358.25	1716308.15	14542946.80	40°02'39.147"N	104°43'43.801"W	1.19	
3641.00	24.630	160.260	3458.17	-882.58	-882.63	370.06	1716320.06	14542912.82	40°02'38.811"N	104°43'43.649"W	0.70	
3728.00	24.430	159.280	3537.31	-916.47	-916.53	382.54	1716332.64	14542878.98	40°02'38.476"N	104°43'43.488"W	0.52	
3815.00	25.490	159.480	3616.19	-950.82	-950.89	395.47	1716345.67	14542844.67	40°02'38.136"N	104°43'43.322"W	1.22	
3903.00	23.500	155.440	3696.27	-984.52	-984.58	409.40	1716359.70	14542811.03	40°02'37.803"N	104°43'43.143"W	2.95	
3990.00	22.730	154.880	3776.28	-1015.51	-1015.58	423.75	1716374.13	14542780.09	40°02'37.497"N	104°43'42.958"W	0.92	
4067.00†	22.998	157.579	3847.24	-1042.89	-1042.95	435.80	1716386.26	14542752.77	40°02'37.226"N	104°43'42.804"W	1.41	ENTER LANDBOX (125'FNL & 1790'FWL, SEC.24) 40.0436740 -104.7285565
4078.00	23.040	157.960	3857.36	-1046.87	-1046.94	437.43	1716387.90	14542748.79	40°02'37.187"N	104°43'42.783"W	1.41	
4165.00	23.800	159.850	3937.19	-1079.13	-1079.20	449.87	1716400.43	14542716.58	40°02'36.868"N	104°43'42.623"W	1.23	
4253.00	23.630	159.100	4017.76	-1112.27	-1112.34	462.27	1716412.93	14542683.49	40°02'36.541"N	104°43'42.463"W	0.39	
4340.00	23.960	157.170	4097.37	-1144.84	-1144.91	475.35	1716426.10	14542650.97	40°02'36.219"N	104°43'42.295"W	0.97	
4428.00	24.360	157.310	4177.66	-1178.05	-1178.13	489.28	1716440.13	14542617.81	40°02'35.890"N	104°43'42.116"W	0.46	
4515.00	24.840	157.530	4256.76	-1211.49	-1211.57	503.19	1716454.13	14542584.43	40°02'35.560"N	104°43'41.937"W	0.56	
4603.00	24.590	156.730	4336.70	-1245.39	-1245.47	517.48	1716468.53	14542550.58	40°02'35.225"N	104°43'41.753"W	0.47	

Actual Wellpath Report

AZUL 13-10HZ AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#27 AZUL 13-10HZ (918'FSL & 1354'FWL, SEC.13)
Area	COLORADO	Well	AZUL 13-10HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-10HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (188 stations) † = interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4690.00	24.660	157.870	4415.79	-1278.82	-1278.91	531.47	1716482.61	14542517.20	40°02'34.894"N	104°43'41.573"W	0.55	
4777.00	22.860	157.520	4495.41	-1311.25	-1311.34	544.77	1716496.00	14542484.82	40°02'34.574"N	104°43'41.402"W	2.08	
4865.00	20.720	157.920	4577.12	-1341.47	-1341.56	557.16	1716508.48	14542454.65	40°02'34.275"N	104°43'41.243"W	2.44	
4952.00	20.720	155.510	4658.49	-1369.74	-1369.83	569.33	1716520.73	14542426.43	40°02'33.996"N	104°43'41.087"W	0.98	
5040.00	19.580	157.320	4741.11	-1397.51	-1397.60	581.47	1716532.94	14542398.70	40°02'33.721"N	104°43'40.931"W	1.48	
5127.00	18.310	155.560	4823.39	-1423.40	-1423.50	592.74	1716544.29	14542372.85	40°02'33.466"N	104°43'40.786"W	1.60	
5215.00	16.570	158.740	4907.35	-1447.68	-1447.78	603.01	1716554.63	14542348.61	40°02'33.226"N	104°43'40.654"W	2.25	
5303.00	16.050	158.340	4991.81	-1470.68	-1470.78	612.05	1716563.74	14542325.65	40°02'32.998"N	104°43'40.537"W	0.60	
5390.00	14.130	159.630	5075.80	-1491.81	-1491.91	620.19	1716571.94	14542304.55	40°02'32.789"N	104°43'40.433"W	2.24	
5477.00	12.350	156.790	5160.49	-1510.32	-1510.42	627.55	1716579.35	14542286.07	40°02'32.607"N	104°43'40.338"W	2.18	
5565.00	11.070	154.300	5246.65	-1526.58	-1526.68	634.93	1716586.77	14542269.83	40°02'32.446"N	104°43'40.243"W	1.56	
5652.00	9.530	160.790	5332.25	-1540.91	-1541.01	640.92	1716592.81	14542255.53	40°02'32.304"N	104°43'40.166"W	2.21	
5739.00	8.750	159.050	5418.15	-1553.89	-1553.99	645.65	1716597.58	14542242.57	40°02'32.176"N	104°43'40.105"W	0.95	
5827.00	8.450	170.940	5505.17	-1566.53	-1566.63	649.07	1716601.03	14542229.95	40°02'32.051"N	104°43'40.062"W	2.05	
5914.00	7.920	169.070	5591.28	-1578.72	-1578.83	651.21	1716603.21	14542217.76	40°02'31.931"N	104°43'40.034"W	0.68	
6002.00	6.410	173.230	5678.59	-1589.56	-1589.66	652.94	1716604.97	14542206.94	40°02'31.824"N	104°43'40.012"W	1.81	
6089.00	4.380	172.600	5765.20	-1597.67	-1597.78	653.94	1716605.99	14542198.83	40°02'31.743"N	104°43'39.999"W	2.33	
6177.00	2.480	149.230	5853.04	-1602.64	-1602.74	655.34	1716607.41	14542193.86	40°02'31.694"N	104°43'39.981"W	2.64	
6265.00	1.330	98.890	5941.00	-1604.44	-1604.54	657.33	1716609.40	14542192.08	40°02'31.676"N	104°43'39.955"W	2.19	
6352.00	0.240	288.650	6027.99	-1604.53	-1604.64	658.15	1716610.23	14542191.98	40°02'31.676"N	104°43'39.945"W	1.80	
6440.00	0.320	184.900	6115.99	-1604.72	-1604.82	657.96	1716610.03	14542191.80	40°02'31.674"N	104°43'39.947"W	0.50	
6527.00	0.530	177.950	6202.99	-1605.36	-1605.47	657.95	1716610.03	14542191.15	40°02'31.667"N	104°43'39.947"W	0.25	
6615.00	1.030	204.640	6290.98	-1606.49	-1606.59	657.64	1716609.72	14542190.02	40°02'31.656"N	104°43'39.951"W	0.69	
6702.00	0.750	171.140	6377.97	-1607.76	-1607.87	657.40	1716609.48	14542188.75	40°02'31.644"N	104°43'39.954"W	0.67	
6790.00	0.510	161.790	6465.96	-1608.70	-1608.81	657.61	1716609.69	14542187.81	40°02'31.634"N	104°43'39.952"W	0.30	
6877.00	0.330	185.300	6552.96	-1609.32	-1609.42	657.71	1716609.79	14542187.19	40°02'31.628"N	104°43'39.951"W	0.28	
6922.00†	2.256	7.109	6597.95	-1608.57	-1608.67	657.80	1716609.89	14542187.94	40°02'31.636"N	104°43'39.949"W	5.75	KOP
6964.00	4.670	6.990	6639.87	-1606.05	-1606.16	658.11	1716610.19	14542190.46	40°02'31.660"N	104°43'39.945"W	5.75	
7052.00	12.510	7.930	6726.82	-1593.04	-1593.14	659.87	1716611.91	14542203.48	40°02'31.789"N	104°43'39.923"W	8.91	
7139.00	19.380	0.080	6810.43	-1569.24	-1569.34	661.19	1716613.16	14542227.27	40°02'32.024"N	104°43'39.906"W	8.26	
7227.00	23.230	0.520	6892.40	-1537.27	-1537.38	661.37	1716613.24	14542259.23	40°02'32.340"N	104°43'39.903"W	4.38	
7314.00	27.860	4.820	6970.88	-1499.83	-1499.94	663.23	1716614.99	14542296.65	40°02'32.710"N	104°43'39.879"W	5.73	
7402.00	36.030	6.750	7045.49	-1453.56	-1453.67	668.01	1716619.62	14542342.92	40°02'33.167"N	104°43'39.818"W	9.36	
7490.00	42.200	2.330	7113.75	-1398.27	-1398.37	672.26	1716623.70	14542398.21	40°02'33.714"N	104°43'39.763"W	7.69	
7578.00	47.060	0.930	7176.36	-1336.49	-1336.59	673.98	1716625.24	14542459.96	40°02'34.324"N	104°43'39.741"W	5.63	
7665.00	54.330	357.900	7231.44	-1269.23	-1269.34	673.21	1716624.26	14542527.19	40°02'34.989"N	104°43'39.751"W	8.78	
7753.00	60.680	357.900	7278.69	-1195.10	-1195.20	670.49	1716621.32	14542601.29	40°02'35.722"N	104°43'39.786"W	7.22	
7840.00	65.980	359.950	7317.73	-1117.40	-1117.51	669.06	1716619.65	14542678.95	40°02'36.489"N	104°43'39.804"W	6.45	
7928.00	76.480	0.470	7346.01	-1034.20	-1034.30	669.38	1716619.72	14542762.12	40°02'37.312"N	104°43'39.800"W	11.94	
8015.00	85.570	1.740	7359.57	-948.37	-948.48	671.05	1716621.13	14542847.92	40°02'38.160"N	104°43'39.779"W	10.55	LANDING (30'FNL & 2025'FWL, SEC.24) 40.0439333 -104.7277163
8103.00	90.310	359.000	7362.73	-860.46	-860.57	671.61	1716621.42	14542935.79	40°02'39.029"N	104°43'39.771"W	6.22	
8190.00	91.140	359.480	7361.63	-773.48	-773.59	670.46	1716620.01	14543022.74	40°02'39.888"N	104°43'39.786"W	1.10	
8278.00	89.630	358.930	7361.04	-685.49	-685.60	669.24	1716618.52	14543110.68	40°02'40.758"N	104°43'39.802"W	1.83	
8365.00	90.490	358.770	7360.95	-598.51	-598.62	667.49	1716616.51	14543197.63	40°02'41.617"N	104°43'39.824"W	1.01	
8453.00	89.110	358.240	7361.25	-510.55	-510.65	665.19	1716613.95	14543285.55	40°02'42.487"N	104°43'39.854"W	1.68	

Actual Wellpath Report

AZUL 13-10HZ AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#27 AZUL 13-10HZ (918'FSL & 1354'FWL, SEC.13)
Area	COLORADO	Well	AZUL 13-10HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-10HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (188 stations) † = interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS ["/100ft]	Comments
8525.00†	89.797	357.901	7361.94	-438.59	-438.70	662.77	1716611.31	14543357.47	40°02'43.198"N	104°43'39.885"W	1.06	CROSS SETBACK HEEL (479'FSL & 2016'FWL, SEC.13) 40.0453327 -104.7277458
8540.00	89.940	357.830	7361.97	-423.60	-423.71	662.21	1716610.70	14543372.45	40°02'43.346"N	104°43'39.892"W	1.06	
8627.00	88.800	357.290	7362.93	-336.69	-336.79	658.51	1716606.74	14543459.32	40°02'44.205"N	104°43'39.940"W	1.45	
8715.00	88.460	356.870	7365.03	-248.83	-248.93	654.03	1716601.99	14543547.13	40°02'45.073"N	104°43'39.997"W	0.61	
8803.00	89.630	359.290	7366.50	-160.90	-161.00	651.08	1716598.78	14543635.02	40°02'45.942"N	104°43'40.035"W	3.05	
8890.00	89.910	0.010	7366.85	-73.90	-74.00	650.55	1716597.99	14543721.98	40°02'46.802"N	104°43'40.042"W	0.89	
8977.00	89.600	359.660	7367.22	13.10	12.99	650.30	1716597.47	14543808.94	40°02'47.661"N	104°43'40.045"W	0.54	
9065.00	89.260	1.080	7368.10	101.09	100.99	650.86	1716597.77	14543896.90	40°02'48.531"N	104°43'40.038"W	1.66	
9152.00	90.120	1.850	7368.57	188.06	187.96	653.09	1716599.73	14543983.84	40°02'49.390"N	104°43'40.009"W	1.33	
9240.00	89.970	1.710	7368.50	276.02	275.91	655.82	1716602.20	14544071.77	40°02'50.260"N	104°43'39.974"W	0.23	
9328.00	90.220	0.890	7368.35	363.99	363.89	657.82	1716603.93	14544159.72	40°02'51.129"N	104°43'39.948"W	0.97	
9415.00	90.920	359.730	7367.49	450.98	450.88	658.29	1716604.14	14544246.68	40°02'51.989"N	104°43'39.942"W	1.56	
9502.00	91.670	359.340	7365.52	537.96	537.86	657.58	1716603.17	14544333.61	40°02'52.848"N	104°43'39.951"W	0.97	
9590.00	89.780	0.000	7364.41	625.95	625.84	657.08	1716602.39	14544421.56	40°02'53.718"N	104°43'39.958"W	2.27	
9677.00	89.880	359.990	7364.67	712.95	712.84	657.07	1716602.12	14544508.53	40°02'54.577"N	104°43'39.958"W	0.12	
9764.00	89.940	359.870	7364.80	799.95	799.84	656.96	1716601.75	14544595.49	40°02'55.437"N	104°43'39.959"W	0.15	
9851.00	90.860	359.470	7364.20	886.94	886.84	656.46	1716600.99	14544682.45	40°02'56.297"N	104°43'39.966"W	1.15	
9939.00	91.480	359.030	7362.40	974.91	974.81	655.31	1716599.57	14544770.39	40°02'57.166"N	104°43'39.980"W	0.86	
10026.00	89.910	359.170	7361.34	1061.89	1061.79	653.94	1716597.94	14544857.33	40°02'58.026"N	104°43'39.998"W	1.81	
10114.00	90.310	359.070	7361.18	1149.88	1149.78	652.59	1716596.32	14544945.28	40°02'58.895"N	104°43'40.015"W	0.47	
10202.00	89.850	359.220	7361.05	1237.87	1237.77	651.28	1716594.74	14545033.23	40°02'59.765"N	104°43'40.032"W	0.55	
10290.00	90.220	358.720	7361.00	1325.86	1325.76	649.70	1716592.90	14545121.18	40°03'00.634"N	104°43'40.053"W	0.71	
10378.00	89.440	359.530	7361.26	1413.85	1413.74	648.35	1716591.29	14545209.12	40°03'01.504"N	104°43'40.070"W	1.28	
10465.00	90.310	358.850	7361.45	1500.83	1500.73	647.12	1716589.79	14545296.08	40°03'02.364"N	104°43'40.086"W	1.27	
10552.00	90.460	358.780	7360.86	1587.81	1587.71	645.32	1716587.73	14545383.01	40°03'03.223"N	104°43'40.109"W	0.19	
10640.00	89.780	1.260	7360.68	1675.81	1675.70	645.35	1716587.50	14545470.97	40°03'04.093"N	104°43'40.108"W	2.92	
10727.00	90.400	1.090	7360.54	1762.79	1762.69	647.14	1716589.02	14545557.92	40°03'04.952"N	104°43'40.085"W	0.74	
10816.00	90.590	0.180	7359.77	1851.78	1851.68	648.13	1716589.73	14545646.88	40°03'05.832"N	104°43'40.073"W	1.04	
10903.00	91.230	0.600	7358.39	1938.76	1938.66	648.72	1716590.06	14545733.83	40°03'06.691"N	104°43'40.065"W	0.88	
10991.00	88.370	1.190	7358.70	2026.74	2026.64	650.09	1716591.17	14545821.78	40°03'07.561"N	104°43'40.047"W	3.32	
11078.00	89.010	1.530	7360.69	2113.70	2113.59	652.16	1716592.97	14545908.71	40°03'08.420"N	104°43'40.021"W	0.83	
11165.00	89.910	1.720	7361.51	2200.66	2200.55	654.62	1716595.17	14545995.64	40°03'09.279"N	104°43'39.989"W	1.06	
11253.00	90.620	1.600	7361.10	2288.62	2288.52	657.17	1716597.45	14546083.57	40°03'10.149"N	104°43'39.956"W	0.82	
11341.00	90.460	1.090	7360.27	2376.59	2376.49	659.24	1716599.25	14546171.52	40°03'11.018"N	104°43'39.929"W	0.61	
11428.00	91.170	0.780	7359.04	2463.57	2463.47	660.66	1716600.41	14546258.46	40°03'11.877"N	104°43'39.911"W	0.89	
11516.00	89.690	2.170	7358.37	2551.53	2551.43	662.92	1716602.40	14546346.40	40°03'12.747"N	104°43'39.882"W	2.31	
11574.00†	89.897	1.910	7358.58	2609.50	2609.39	664.99	1716604.29	14546404.35	40°03'13.320"N	104°43'39.855"W	0.57	CROSS SETBACK TOE (1764'FNL & 2007'FWL, SEC.13) 40.0536999 -104.7277376
11603.00	90.000	1.780	7358.61	2638.48	2638.38	665.92	1716605.14	14546433.32	40°03'13.606"N	104°43'39.843"W	0.57	
11691.00	89.850	1.550	7358.73	2726.45	2726.34	668.48	1716607.43	14546521.26	40°03'14.475"N	104°43'39.811"W	0.31	
11778.00	90.400	1.440	7358.54	2813.42	2813.31	670.75	1716609.43	14546608.20	40°03'15.335"N	104°43'39.781"W	0.64	
11866.00	90.250	1.810	7358.04	2901.38	2901.27	673.24	1716611.66	14546696.13	40°03'16.204"N	104°43'39.749"W	0.45	
11953.00	90.460	1.680	7357.50	2988.34	2988.23	675.89	1716614.04	14546783.07	40°03'17.063"N	104°43'39.715"W	0.28	
12041.00	88.490	0.920	7358.30	3076.31	3076.20	677.89	1716615.77	14546871.00	40°03'17.933"N	104°43'39.689"W	2.40	
12128.00	88.000	0.520	7360.97	3163.26	3163.15	678.98	1716616.60	14546957.93	40°03'18.792"N	104°43'39.675"W	0.73	
12215.00	89.110	358.520	7363.16	3250.22	3250.12	678.25	1716615.61	14547044.85	40°03'19.651"N	104°43'39.685"W	2.63	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#27 AZUL 13-10HZ (918'FSL & 1354'FWL, SEC.13)
Area	COLORADO	Well	AZUL 13-10HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-10HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (188 stations)												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12303.00	90.680	358.900	7363.32	3338.20	3338.09	676.27	1716613.36	14547132.79	40°03'20.521"N	104°43'39.710"W	1.84	
12391.00	91.350	358.150	7361.76	3426.15	3426.05	674.01	1716610.83	14547220.70	40°03'21.390"N	104°43'39.739"W	1.14	
12478.00	88.950	358.220	7361.54	3513.10	3513.00	671.25	1716607.82	14547307.61	40°03'22.249"N	104°43'39.775"W	2.76	
12566.00	88.950	357.840	7363.15	3601.03	3600.93	668.23	1716604.53	14547395.49	40°03'23.118"N	104°43'39.813"W	0.43	
12653.00	89.480	357.600	7364.34	3687.96	3687.85	664.77	1716600.80	14547482.37	40°03'23.977"N	104°43'39.858"W	0.67	
12740.00	89.570	356.950	7365.06	3774.85	3774.75	660.63	1716596.41	14547569.22	40°03'24.836"N	104°43'39.911"W	0.75	
12813.00	89.910	357.230	7365.39	3847.76	3847.65	656.92	1716592.48	14547642.09	40°03'25.556"N	104°43'39.959"W	0.60	LAST BHGE MWD+IFR1+SC SURVEY
12858.00	89.910	357.230	7365.46	3892.70	3892.60	654.75	1716590.17	14547687.01	40°03'26.001"N	104°43'39.987"W	0.00	PTB (480'FNL & 1997'FWL, SEC.13) 40.0572224 -104.7277741

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.13-T1N-R66W	0.00	1.82	-195.13	1715752.42	14543795.21	40°02'47.551"N	104°43'50.916"W	polygon
SEC.24-T1N-R66W	0.00	1.82	-195.13	1715752.42	14543795.21	40°02'47.551"N	104°43'50.916"W	polygon
AZUL 13-10HZ BHL REV-1(470'FNL & 1999'FWL, SEC.13)	7349.00	3902.67	656.73	1716592.12	14547697.08	40°03'26.100"N	104°43'39.961"W	point
AZUL 13-10HZ HEEL REV-1(50'FSL & 2013'FWL, SEC.13)	7364.00	-863.34	656.02	1716605.84	14542932.98	40°02'39.001"N	104°43'39.972"W	point
AZUL 13-10HZ LANDBOX	7364.00	0.00	0.00	1715947.48	14543793.98	40°02'47.533"N	104°43'48.407"W	polygon
AZUL 13-10HZ SETBACK 1	7364.00	0.00	0.00	1715947.48	14543793.98	40°02'47.533"N	104°43'48.407"W	polygon
AZUL 13-10HZ SETBACK 2	7364.00	0.00	0.00	1715947.48	14543793.98	40°02'47.533"N	104°43'48.407"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: AZUL 13-10HZ AWB				Ref Wellpath: AZUL 13-10HZ AWP			
Start MD [ft]	End MD [ft]	Positional Uncertainty Model		Log Name/Comment		Wellbore	
17.00	1821.00	Custom APC ISCWSA REV 2 MWD+IFR1 (approximation)		Custom APC ISCWSA Rev-2 MWD+IFR1 <125 - 1821>		AZUL 13-10HZ AWB	
1821.00	12813.00	Custom APC ISCWSA REV 2 MWD+IFR1+SC (approximation)		BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+SC <1889 - 12813>		AZUL 13-10HZ AWB	
12813.00	12858.00	Blind Drilling (std)		Projection to bit		AZUL 13-10HZ AWB	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#27 AZUL 13-10HZ (918'FSL & 1354'FWL, SEC.13)
Area	COLORADO	Well	AZUL 13-10HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-10HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
125.00	0.570	215.080	125.00	FIRST SURFACE MWD+IFR1 SURVEY
1821.00	19.560	154.700	1793.70	LAST SURFACE MWD+IFR1 SURVEY
1889.00	19.980	153.310	1857.69	FIRST BHGE MWD+IFR1+SC SURVEY
4067.00	22.998	157.579	3847.24	ENTER LANDBOX (125'FNL & 1790'FWL, SEC.24) 40.0436740 -104.7285565
6922.00	2.256	7.109	6597.95	KOP
8015.00	85.570	1.740	7359.57	LANDING (30'FNL & 2025'FWL, SEC.24) 40.0439333 -104.7277163
8525.00	89.797	357.901	7361.94	CROSS SETBACK HEEL (479'FSL & 2016'FWL, SEC.13) 40.0453327 -104.7277458
11574.00	89.897	1.910	7358.58	CROSS SETBACK TOE (1764'FNL & 2007'FWL, SEC.13) 40.0536999 -104.7277376
12813.00	89.910	357.230	7365.39	LAST BHGE MWD+IFR1+SC SURVEY
12858.00	89.910	357.230	7365.46	PTB (480'FNL & 1997'FWL, SEC.13) 40.0572224 -104.7277741