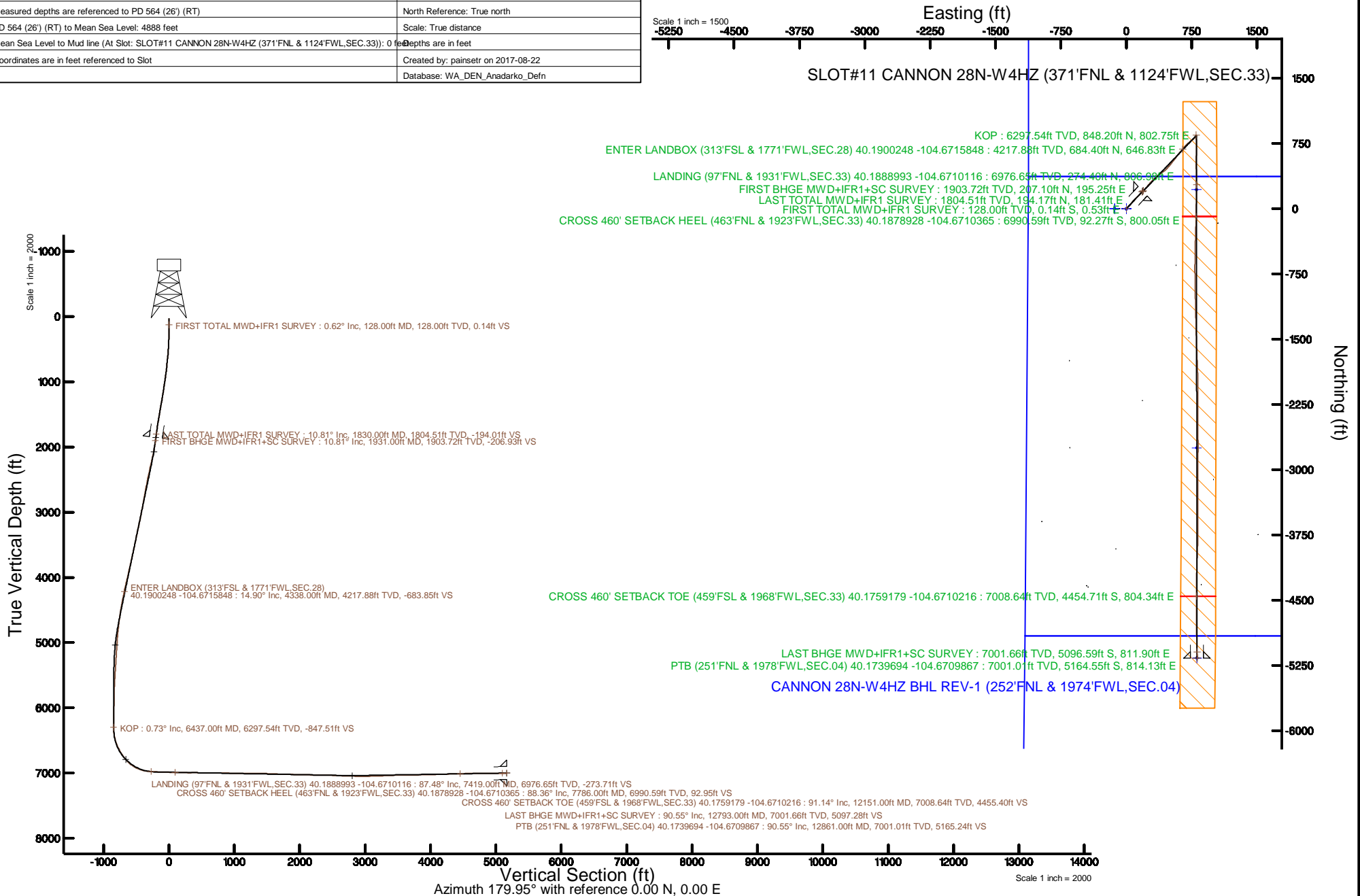


# KERR-MCGEE OIL & GAS ONSHORE LP (WA)

Location: COLORADO Slot: SLOT#11 CANNON 28N-W4HZ (371'FNL & 1124'FWL,SEC.33)  
 Field: WELD COUNTY (UTM/TRUE NORTH) Well: CANNON 28N-W4HZ  
 Facility: SEC.33-T3N-R65W Wellbore: CANNON 28N-W4HZ PWB

Plot reference wellpath is CANNON 28N-W4HZ PWP Rev-A.0	Grid System: NAD83 / UTM Zone 13 North, US feet
True vertical depths are referenced to PD 564 (26') (RT)	* = Wellpath was transformed from a different geodetic datum
Measured depths are referenced to PD 564 (26') (RT)	North Reference: True north
PD 564 (26') (RT) to Mean Sea Level: 4888 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#11 CANNON 28N-W4HZ (371'FNL & 1124'FWL,SEC.33)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: painsetr on 2017-08-22
	Database: WA_DEN_Anadarko_Defn



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#11 CANNON 28N-W4HZ (371'FNL & 1124'FWL,SEC.33)
Area	COLORADO	Well	CANNON 28N-W4HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CANNON 28N-W4HZ AWB
Facility	SEC.33-T3N-R65W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / UTM Zone 13 North, US feet	Software System	WellArchitect® 5.0
North Reference	True	User	Painsetr
Scale	0.999609	Report Generated	8/22/2017 at 1:24 PM
Convergence at slot	0.22° East	Database/Source file	WA_DEN_Anadarko_Defn/CANNON_28N-W4HZ_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	1587.01	-2011.63	1731490.22	14595413.44	40°11'17.326"N	104°40'26.040"W
Facility Reference Pt			1733507.01	14593834.61	40°11'01.644"N	104°40'00.120"W
Field Reference Pt			1698235.31	14552047.82	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM			
Calculation method	Minimum curvature	PD 564 (26') (RT) to Facility Vertical Datum	4888.00ft
Horizontal Reference Pt	Slot	PD 564 (26') (RT) to Mean Sea Level	4888.00ft
Vertical Reference Pt	PD 564 (26') (RT)	PD 564 (26') (RT) to Mud Line at Slot (SLOT#11 CANNON 28N-W4HZ (371'FNL & 1124'FWL,SEC.33))	4888.00ft
MD Reference Pt	PD 564 (26') (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	179.95°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#11 CANNON 28N-W4HZ (371'FNL & 1124'FWL, SEC.33)
Area	COLORADO	Well	CANNON 28N-W4HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CANNON 28N-W4HZ AWB
Facility	SEC.33-T3N-R65W		

WELLPATH DATA (180 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	105.000	0.00	0.00	0.00	0.00	1731490.22	14595413.44	40°11'17.326"N	104°40'26.040"W	0.00	
26.00	0.000	105.000	26.00	0.00	0.00	0.00	1731490.22	14595413.44	40°11'17.326"N	104°40'26.040"W	0.00	
128.00	0.620	105.000	128.00	0.14	-0.14	0.53	1731490.76	14595413.30	40°11'17.325"N	104°40'26.033"W	0.61	FIRST TOTAL MWD+IFR1 SURVEY
160.00	0.750	89.600	160.00	0.19	-0.19	0.91	1731491.13	14595413.26	40°11'17.324"N	104°40'26.028"W	0.70	
191.00	0.700	72.390	190.99	0.13	-0.13	1.29	1731491.52	14595413.32	40°11'17.325"N	104°40'26.023"W	0.72	
223.00	1.050	63.860	222.99	-0.06	0.06	1.74	1731491.97	14595413.51	40°11'17.327"N	104°40'26.018"W	1.16	
255.00	1.320	44.260	254.98	-0.45	0.45	2.26	1731492.48	14595413.90	40°11'17.330"N	104°40'26.011"W	1.51	
287.00	1.710	39.960	286.97	-1.08	1.08	2.83	1731493.05	14595414.53	40°11'17.337"N	104°40'26.004"W	1.27	
318.00	2.110	42.940	317.95	-1.85	1.86	3.51	1731493.73	14595415.31	40°11'17.344"N	104°40'25.995"W	1.33	
350.00	2.550	41.100	349.93	-2.82	2.82	4.38	1731494.59	14595416.28	40°11'17.354"N	104°40'25.984"W	1.39	
382.00	2.940	42.150	381.89	-3.96	3.97	5.40	1731495.61	14595417.43	40°11'17.365"N	104°40'25.970"W	1.23	
413.00	3.160	40.570	412.85	-5.20	5.21	6.49	1731496.69	14595418.67	40°11'17.377"N	104°40'25.956"W	0.76	
445.00	3.870	38.370	444.79	-6.72	6.72	7.73	1731497.93	14595420.19	40°11'17.392"N	104°40'25.940"W	2.26	
477.00	4.390	38.110	476.70	-8.53	8.53	9.16	1731499.35	14595422.00	40°11'17.410"N	104°40'25.922"W	1.63	
509.00	4.920	38.730	508.60	-10.56	10.57	10.77	1731500.96	14595424.04	40°11'17.430"N	104°40'25.901"W	1.66	
541.00	5.100	43.380	540.48	-12.66	12.67	12.61	1731502.78	14595426.15	40°11'17.451"N	104°40'25.878"W	1.39	
571.00	6.330	43.030	570.33	-14.84	14.85	14.65	1731504.82	14595428.34	40°11'17.473"N	104°40'25.851"W	4.10	
603.00	7.160	42.150	602.10	-17.60	17.62	17.20	1731507.35	14595431.11	40°11'17.500"N	104°40'25.818"W	2.61	
635.00	7.780	44.260	633.83	-20.63	20.65	20.05	1731510.19	14595434.15	40°11'17.530"N	104°40'25.782"W	2.12	
667.00	8.260	43.910	665.52	-23.84	23.86	23.15	1731513.28	14595437.37	40°11'17.562"N	104°40'25.742"W	1.51	
698.00	8.220	43.650	696.20	-27.04	27.06	26.23	1731516.34	14595440.59	40°11'17.593"N	104°40'25.702"W	0.18	
730.00	7.910	42.590	727.88	-30.31	30.34	29.30	1731519.40	14595443.87	40°11'17.626"N	104°40'25.663"W	1.07	
762.00	8.610	43.560	759.55	-33.67	33.70	32.44	1731522.52	14595447.24	40°11'17.659"N	104°40'25.622"W	2.23	
825.00	8.570	42.680	821.84	-40.53	40.56	38.87	1731528.93	14595454.13	40°11'17.727"N	104°40'25.539"W	0.22	
857.00	9.050	41.980	853.47	-44.15	44.19	42.17	1731532.21	14595457.76	40°11'17.763"N	104°40'25.497"W	1.54	
888.00	9.930	41.100	884.04	-47.98	48.02	45.56	1731535.59	14595461.60	40°11'17.800"N	104°40'25.453"W	2.88	
951.00	10.940	41.100	946.00	-56.57	56.61	53.06	1731543.05	14595470.22	40°11'17.885"N	104°40'25.356"W	1.60	
1015.00	11.420	41.010	1008.78	-65.92	65.97	61.21	1731551.16	14595479.61	40°11'17.978"N	104°40'25.251"W	0.75	
1046.00	11.730	42.330	1039.15	-70.56	70.62	65.34	1731555.28	14595484.27	40°11'18.024"N	104°40'25.198"W	1.32	
1078.00	12.000	45.580	1070.47	-75.29	75.35	69.91	1731559.83	14595489.01	40°11'18.071"N	104°40'25.139"W	2.25	
1141.00	11.290	43.120	1132.17	-84.37	84.44	78.80	1731568.68	14595498.13	40°11'18.160"N	104°40'25.025"W	1.38	
1173.00	11.560	42.590	1163.54	-89.01	89.08	83.11	1731572.98	14595502.79	40°11'18.206"N	104°40'24.969"W	0.91	
1204.00	12.300	43.740	1193.87	-93.68	93.75	87.50	1731577.34	14595507.48	40°11'18.252"N	104°40'24.913"W	2.51	
1236.00	12.740	42.940	1225.11	-98.72	98.80	92.26	1731582.08	14595512.54	40°11'18.302"N	104°40'24.851"W	1.48	
1268.00	12.660	41.010	1256.33	-103.95	104.03	96.96	1731586.77	14595517.78	40°11'18.354"N	104°40'24.791"W	1.35	
1300.00	13.010	41.010	1287.53	-109.31	109.39	101.63	1731591.41	14595523.16	40°11'18.407"N	104°40'24.731"W	1.09	
1331.00	13.230	42.860	1317.72	-114.54	114.63	106.33	1731596.09	14595528.41	40°11'18.459"N	104°40'24.670"W	1.53	
1363.00	13.320	44.090	1348.86	-119.86	119.96	111.39	1731601.13	14595533.76	40°11'18.511"N	104°40'24.605"W	0.93	
1394.00	13.800	43.650	1379.00	-125.10	125.20	116.42	1731606.14	14595539.01	40°11'18.563"N	104°40'24.540"W	1.58	
1426.00	14.150	42.510	1410.05	-130.74	130.84	121.70	1731611.40	14595544.68	40°11'18.619"N	104°40'24.472"W	1.39	
1458.00	13.490	43.820	1441.12	-136.31	136.42	126.93	1731616.60	14595550.27	40°11'18.674"N	104°40'24.405"W	2.28	
1489.00	13.230	43.560	1471.29	-141.49	141.60	131.88	1731621.53	14595555.47	40°11'18.725"N	104°40'24.341"W	0.86	
1521.00	13.490	42.590	1502.42	-146.88	147.00	136.92	1731626.55	14595560.88	40°11'18.779"N	104°40'24.276"W	1.07	
1553.00	13.540	42.940	1533.53	-152.37	152.49	142.00	1731631.61	14595566.39	40°11'18.833"N	104°40'24.210"W	0.30	
1585.00	12.610	44.000	1564.70	-157.62	157.75	146.98	1731636.57	14595571.66	40°11'18.885"N	104°40'24.146"W	3.00	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#11 CANNON 28N-W4HZ (371°FNL & 1124°FWL, SEC.33)
Area	COLORADO	Well	CANNON 28N-W4HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CANNON 28N-W4HZ AWB
Facility	SEC.33-T3N-R65W		

WELLPATH DATA (180 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
1616.00	12.220	44.090	1594.98	-162.41	162.54	151.61	1731641.18	14595576.47	40°11'18.932"N	104°40'24.086"W	1.26	
1647.00	12.350	43.380	1625.27	-167.17	167.30	156.17	1731645.72	14595581.25	40°11'18.979"N	104°40'24.028"W	0.64	
1679.00	12.170	41.360	1656.54	-172.18	172.32	160.75	1731650.28	14595586.28	40°11'19.029"N	104°40'23.969"W	1.45	
1710.00	11.950	40.400	1686.86	-177.08	177.22	164.99	1731654.50	14595591.19	40°11'19.077"N	104°40'23.914"W	0.96	
1742.00	11.510	42.240	1718.19	-181.96	182.11	169.29	1731658.77	14595596.09	40°11'19.126"N	104°40'23.859"W	1.80	
1774.00	11.290	44.700	1749.56	-186.55	186.70	173.64	1731663.11	14595600.70	40°11'19.171"N	104°40'23.803"W	1.67	
1806.00	11.120	46.500	1780.95	-190.89	191.04	178.08	1731667.53	14595605.06	40°11'19.214"N	104°40'23.745"W	1.24	
1830.00	10.810	47.160	1804.51	-194.01	194.17	181.41	1731670.85	14595608.19	40°11'19.245"N	104°40'23.703"W	1.38	LAST TOTAL MWD+IFR1 SURVEY
1931.00	10.810	46.710	1903.72	-206.93	207.10	195.25	1731684.63	14595621.17	40°11'19.373"N	104°40'23.524"W	0.08	FIRST BHGE MWD+IFR1+SC SURVEY
2020.00	12.710	44.590	1990.84	-219.62	219.80	208.20	1731697.53	14595633.91	40°11'19.498"N	104°40'23.357"W	2.19	
2110.00	15.120	42.280	2078.20	-235.34	235.53	223.05	1731712.32	14595649.70	40°11'19.654"N	104°40'23.166"W	2.75	
2199.00	16.790	40.570	2163.77	-253.68	253.89	239.22	1731728.42	14595668.10	40°11'19.835"N	104°40'22.958"W	1.95	
2289.00	16.400	39.680	2250.02	-273.32	273.54	255.79	1731744.90	14595687.81	40°11'20.029"N	104°40'22.744"W	0.52	
2378.00	15.860	38.850	2335.51	-292.45	292.68	271.44	1731760.48	14595707.00	40°11'20.218"N	104°40'22.542"W	0.66	
2468.00	16.790	45.500	2421.89	-311.13	311.37	288.42	1731777.39	14595725.75	40°11'20.403"N	104°40'22.324"W	2.32	
2558.00	15.910	44.390	2508.25	-329.04	329.30	306.32	1731795.22	14595743.73	40°11'20.580"N	104°40'22.093"W	1.04	
2647.00	15.050	45.070	2594.02	-345.90	346.18	323.04	1731811.86	14595760.66	40°11'20.747"N	104°40'21.878"W	0.99	
2737.00	16.650	51.780	2680.60	-362.12	362.41	341.44	1731830.20	14595776.96	40°11'20.907"N	104°40'21.640"W	2.70	
2826.00	16.060	51.220	2766.00	-377.70	378.01	361.06	1731849.75	14595792.62	40°11'21.061"N	104°40'21.388"W	0.69	
2916.00	15.690	51.170	2852.57	-393.11	393.44	380.24	1731868.87	14595808.11	40°11'21.214"N	104°40'21.140"W	0.41	
3005.00	17.590	52.150	2937.84	-408.89	409.23	400.24	1731888.80	14595823.98	40°11'21.370"N	104°40'20.883"W	2.16	
3095.00	18.300	56.240	3023.46	-425.07	425.43	422.73	1731911.22	14595840.25	40°11'21.530"N	104°40'20.593"W	1.61	
3184.00	17.490	50.890	3108.16	-441.25	441.63	444.72	1731933.15	14595856.53	40°11'21.690"N	104°40'20.310"W	2.06	
3274.00	17.140	42.300	3194.10	-459.58	459.98	464.14	1731952.49	14595874.94	40°11'21.871"N	104°40'20.059"W	2.86	
3363.00	16.320	42.050	3279.33	-478.55	478.96	481.35	1731969.62	14595893.98	40°11'22.059"N	104°40'19.838"W	0.92	
3453.00	15.050	39.930	3365.98	-496.89	497.31	497.32	1731985.52	14595912.38	40°11'22.240"N	104°40'19.632"W	1.55	
3543.00	14.520	38.200	3453.00	-514.70	515.14	511.79	1731999.92	14595930.25	40°11'22.417"N	104°40'19.445"W	0.77	
3632.00	14.590	38.120	3539.14	-532.28	532.73	525.61	1732013.67	14595947.88	40°11'22.590"N	104°40'19.267"W	0.08	
3722.00	15.550	38.830	3626.05	-550.58	551.04	540.17	1732028.16	14595966.24	40°11'22.771"N	104°40'19.080"W	1.09	
3811.00	16.090	35.810	3711.68	-569.86	570.34	554.87	1732042.78	14595985.59	40°11'22.962"N	104°40'18.890"W	1.11	
3901.00	15.920	38.060	3798.19	-589.68	590.17	569.78	1732057.61	14596005.47	40°11'23.158"N	104°40'18.698"W	0.71	
3990.00	16.440	39.150	3883.66	-609.05	609.55	585.25	1732073.01	14596024.89	40°11'23.349"N	104°40'18.499"W	0.68	
4080.00	15.810	38.060	3970.12	-628.56	629.08	600.85	1732088.53	14596044.47	40°11'23.542"N	104°40'18.298"W	0.78	
4169.00	17.050	40.670	4055.49	-647.99	648.52	616.83	1732104.43	14596063.97	40°11'23.735"N	104°40'18.092"W	1.62	
4259.00	16.090	40.180	4141.75	-667.52	668.06	633.48	1732121.00	14596083.56	40°11'23.928"N	104°40'17.877"W	1.08	
4338.00†	14.904	38.252	4217.88	-683.85	684.40	646.83	1732134.28	14596099.94	40°11'24.089"N	104°40'17.705"W	1.64	ENTER LANDBOX (313°FSL & 1771°FWL, SEC.28) 40.1900248 -104.6715848
4349.00	14.740	37.960	4228.51	-686.06	686.62	648.57	1732136.01	14596102.16	40°11'24.111"N	104°40'17.683"W	1.64	
4438.00	15.060	35.940	4314.52	-704.34	704.90	662.32	1732149.69	14596120.49	40°11'24.292"N	104°40'17.506"W	0.69	
4528.00	13.940	44.670	4401.66	-721.50	722.08	676.80	1732164.11	14596137.72	40°11'24.462"N	104°40'17.319"W	2.73	
4617.00	13.170	46.340	4488.18	-736.11	736.71	691.68	1732178.92	14596152.39	40°11'24.606"N	104°40'17.127"W	0.97	
4732.00	11.830	48.560	4600.45	-752.95	753.55	709.99	1732197.17	14596169.30	40°11'24.773"N	104°40'16.891"W	1.24	
4822.00	11.030	49.330	4688.67	-764.65	765.27	723.44	1732210.56	14596181.06	40°11'24.888"N	104°40'16.718"W	0.90	
4912.00	9.660	51.520	4777.20	-774.95	775.58	735.88	1732222.96	14596191.41	40°11'24.990"N	104°40'16.558"W	1.58	
5001.00	8.470	51.480	4865.09	-783.67	784.31	746.85	1732233.90	14596200.18	40°11'25.076"N	104°40'16.416"W	1.34	
5091.00	7.050	53.540	4954.26	-791.07	791.72	756.48	1732243.50	14596207.62	40°11'25.150"N	104°40'16.292"W	1.61	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#11 CANNON 28N-W4HZ (371'FNL & 1124'FWL, SEC.33)
Area	COLORADO	Well	CANNON 28N-W4HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CANNON 28N-W4HZ AWB
Facility	SEC.33-T3N-R65W		

WELLPATH DATA (180 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
5180.00	5.790	55.580	5042.70	-796.85	797.50	764.58	1732251.57	14596213.43	40°11'25.207"N	104°40'16.188"W	1.44	
5270.00	5.700	46.930	5132.25	-802.46	803.12	771.59	1732258.56	14596219.07	40°11'25.262"N	104°40'16.098"W	0.97	
5359.00	4.780	43.590	5220.88	-808.16	808.83	777.37	1732264.32	14596224.79	40°11'25.319"N	104°40'16.023"W	1.09	
5449.00	4.640	37.970	5310.58	-813.74	814.41	782.20	1732269.12	14596230.40	40°11'25.374"N	104°40'15.961"W	0.54	
5538.00	4.370	33.620	5399.30	-819.40	820.07	786.29	1732273.19	14596236.07	40°11'25.430"N	104°40'15.908"W	0.49	
5628.00	3.890	31.260	5489.07	-824.86	825.54	789.77	1732276.65	14596241.55	40°11'25.484"N	104°40'15.863"W	0.57	
5717.00	3.390	24.950	5577.89	-829.83	830.50	792.45	1732279.31	14596246.52	40°11'25.533"N	104°40'15.829"W	0.72	
5807.00	2.910	21.560	5667.75	-834.36	835.04	794.41	1732281.25	14596251.06	40°11'25.578"N	104°40'15.804"W	0.57	
5896.00	1.760	33.960	5756.68	-837.60	838.28	796.01	1732282.83	14596254.30	40°11'25.610"N	104°40'15.783"W	1.40	
5986.00	1.410	45.600	5846.64	-839.52	840.20	797.57	1732284.39	14596256.23	40°11'25.629"N	104°40'15.763"W	0.53	
6076.00	1.320	42.720	5936.62	-841.05	841.73	799.06	1732285.88	14596257.77	40°11'25.644"N	104°40'15.744"W	0.13	
6165.00	1.350	27.820	6025.59	-842.73	843.41	800.25	1732287.06	14596259.45	40°11'25.660"N	104°40'15.728"W	0.39	
6255.00	1.220	26.100	6115.57	-844.53	845.21	801.16	1732287.97	14596261.25	40°11'25.678"N	104°40'15.717"W	0.15	
6345.00	1.100	22.330	6205.55	-846.19	846.87	801.91	1732288.71	14596262.92	40°11'25.695"N	104°40'15.707"W	0.16	
6434.00	0.900	42.960	6294.54	-847.49	848.17	802.72	1732289.51	14596264.22	40°11'25.708"N	104°40'15.697"W	0.46	
6437.00†	0.733	56.424	6297.54	-847.51	848.20	802.75	1732289.54	14596264.25	40°11'25.708"N	104°40'15.696"W	8.44	KOP
6524.00	6.960	175.630	6384.33	-842.56	843.25	803.61	1732290.42	14596269.30	40°11'25.659"N	104°40'15.685"W	8.44	
6613.00	14.210	184.960	6471.77	-826.28	826.96	803.08	1732289.95	14596243.02	40°11'25.498"N	104°40'15.692"W	8.34	
6703.00	20.990	178.720	6557.51	-799.12	799.81	802.48	1732289.45	14596215.88	40°11'25.230"N	104°40'15.700"W	7.81	
6793.00	28.370	174.160	6639.24	-761.68	762.37	805.02	1732292.13	14596178.46	40°11'24.860"N	104°40'15.667"W	8.46	
6882.00	33.110	180.250	6715.73	-716.30	716.99	807.07	1732294.34	14596133.10	40°11'24.411"N	104°40'15.641"W	6.37	
6972.00	38.520	183.200	6788.69	-663.69	664.38	805.40	1732292.86	14596080.51	40°11'23.891"N	104°40'15.662"W	6.31	
7061.00	48.770	182.170	6853.01	-602.42	603.10	802.58	1732290.27	14596019.25	40°11'23.286"N	104°40'15.699"W	11.54	
7151.00	60.000	179.840	6905.34	-529.39	530.07	801.40	1732289.36	14595946.24	40°11'22.564"N	104°40'15.714"W	12.65	
7240.00	70.540	177.710	6942.53	-448.69	449.38	803.19	1732291.44	14595865.58	40°11'21.767"N	104°40'15.691"W	12.04	
7330.00	78.980	177.940	6966.16	-361.99	362.68	806.48	1732295.05	14595778.94	40°11'20.910"N	104°40'15.648"W	9.38	
7419.00	87.480	181.380	6976.65	-273.71	274.40	806.98	1732295.87	14595690.69	40°11'20.037"N	104°40'15.642"W	10.29	LANDING (97'FNL & 1931'FWL, SEC.33) 40.1888993 -104.6710116
7508.00	87.690	181.100	6980.40	-184.81	185.50	805.05	1732294.28	14595601.82	40°11'19.159"N	104°40'15.667"W	0.39	
7598.00	87.660	180.940	6984.05	-94.90	95.59	803.45	1732293.01	14595511.94	40°11'18.270"N	104°40'15.687"W	0.18	
7687.00	88.000	180.930	6987.42	-5.98	6.66	802.00	1732291.88	14595423.04	40°11'17.392"N	104°40'15.706"W	0.38	
7777.00	88.300	181.300	6990.33	83.96	-83.27	800.25	1732290.46	14595333.14	40°11'16.503"N	104°40'15.729"W	0.53	
7786.00†	88.359	181.282	6990.59	92.95	-92.27	800.05	1732290.29	14595324.15	40°11'16.414"N	104°40'15.731"W	0.69	CROSS 460' SETBACK HEEL (463'FNL & 1923'FWL, SEC.33) 40.1878928 -104.6710365
7867.00	88.890	181.120	6992.53	173.91	-173.23	798.35	1732288.89	14595243.21	40°11'15.614"N	104°40'15.753"W	0.69	
7956.00	89.050	181.750	6994.13	262.86	-262.18	796.12	1732286.99	14595154.28	40°11'14.735"N	104°40'15.782"W	0.73	
8046.00	90.580	182.270	6994.42	352.80	-352.12	792.97	1732284.17	14595064.37	40°11'13.846"N	104°40'15.823"W	1.80	
8135.00	89.350	180.250	6994.48	441.77	-441.10	791.01	1732282.54	14594975.42	40°11'12.967"N	104°40'15.848"W	2.66	
8225.00	90.060	181.130	6994.94	531.76	-531.09	789.93	1732281.78	14594885.46	40°11'12.078"N	104°40'15.862"W	1.26	
8315.00	90.090	181.200	6994.82	621.74	-621.07	788.10	1732280.29	14594795.51	40°11'11.188"N	104°40'15.886"W	0.08	
8404.00	88.710	179.520	6995.75	710.73	-710.06	787.54	1732280.05	14594706.56	40°11'10.309"N	104°40'15.893"W	2.44	
8494.00	88.340	179.340	6998.07	800.70	-800.02	788.43	1732281.28	14594616.63	40°11'09.420"N	104°40'15.881"W	0.46	
8583.00	88.490	179.130	7000.53	889.65	-888.98	789.62	1732282.79	14594527.71	40°11'08.541"N	104°40'15.866"W	0.29	
8673.00	89.010	178.750	7002.50	979.62	-978.94	791.28	1732284.79	14594437.79	40°11'07.652"N	104°40'15.845"W	0.72	
8762.00	89.540	178.710	7003.62	1068.59	-1067.91	793.26	1732287.08	14594348.86	40°11'06.773"N	104°40'15.819"W	0.60	
8852.00	90.150	178.550	7003.87	1158.57	-1157.89	795.41	1732289.57	14594258.93	40°11'05.884"N	104°40'15.792"W	0.70	
8941.00	90.860	178.870	7003.08	1247.54	-1246.86	797.41	1732291.90	14594170.00	40°11'05.004"N	104°40'15.766"W	0.88	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#11 CANNON 28N-W4HZ (371'FNL & 1124'FWL, SEC.33)
Area	COLORADO	Well	CANNON 28N-W4HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CANNON 28N-W4HZ AWB
Facility	SEC.33-T3N-R65W		

WELLPATH DATA (180 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
9031.00	88.650	178.570	7003.47	1337.51	-1336.83	799.42	1732294.23	14594080.08	40°11'04.115"N	104°40'15.740"W	2.48	
9121.00	89.050	178.510	7005.27	1427.47	-1426.78	801.71	1732296.86	14593990.17	40°11'03.226"N	104°40'15.710"W	0.45	
9210.00	87.320	177.900	7008.09	1516.38	-1515.69	804.50	1732299.97	14593901.31	40°11'02.348"N	104°40'15.675"W	2.06	
9300.00	87.410	178.010	7012.23	1606.23	-1605.54	807.71	1732303.50	14593811.51	40°11'01.460"N	104°40'15.633"W	0.16	
9390.00	88.150	177.790	7015.71	1696.10	-1695.41	811.00	1732307.13	14593721.68	40°11'00.572"N	104°40'15.591"W	0.86	
9479.00	88.610	177.250	7018.23	1784.99	-1784.29	814.85	1732311.30	14593632.85	40°10'59.694"N	104°40'15.541"W	0.80	
9569.00	88.490	179.270	7020.51	1874.91	-1874.22	817.59	1732314.36	14593542.97	40°10'58.805"N	104°40'15.506"W	2.25	
9658.00	88.120	179.070	7023.14	1963.87	-1963.17	818.87	1732315.98	14593454.06	40°10'57.926"N	104°40'15.490"W	0.47	
9748.00	88.430	178.840	7025.85	2053.81	-2053.11	820.51	1732317.95	14593364.16	40°10'57.037"N	104°40'15.468"W	0.43	
9838.00	89.290	180.090	7027.64	2143.79	-2143.09	821.35	1732319.12	14593274.22	40°10'56.148"N	104°40'15.458"W	1.69	
9927.00	89.970	179.580	7028.22	2232.79	-2232.08	821.61	1732319.70	14593185.26	40°10'55.268"N	104°40'15.454"W	0.96	
10017.00	88.680	180.750	7029.28	2322.78	-2322.07	821.35	1732319.77	14593095.31	40°10'54.379"N	104°40'15.458"W	1.93	
10107.00	87.840	180.090	7032.01	2412.73	-2412.03	820.69	1732319.44	14593005.39	40°10'53.490"N	104°40'15.466"W	1.19	
10196.00	88.770	179.670	7034.64	2501.69	-2500.99	820.88	1732319.96	14592916.46	40°10'52.611"N	104°40'15.464"W	1.15	
10286.00	86.800	179.400	7038.12	2591.61	-2590.91	821.61	1732321.02	14592826.58	40°10'51.722"N	104°40'15.455"W	2.21	
10375.00	87.080	178.900	7042.87	2680.48	-2679.78	822.93	1732322.66	14592737.75	40°10'50.844"N	104°40'15.438"W	0.64	
10465.00	88.460	180.800	7046.37	2770.40	-2769.70	823.16	1732323.23	14592647.86	40°10'49.956"N	104°40'15.435"W	2.61	
10555.00	89.230	180.830	7048.19	2860.38	-2859.67	821.88	1732322.28	14592557.92	40°10'49.067"N	104°40'15.451"W	0.86	
10644.00	89.910	180.540	7048.85	2949.36	-2948.66	820.82	1732321.54	14592468.96	40°10'48.187"N	104°40'15.465"W	0.83	
10734.00	90.550	180.910	7048.49	3039.36	-3038.66	819.68	1732320.73	14592379.01	40°10'47.298"N	104°40'15.480"W	0.82	
10823.00	91.480	179.760	7046.92	3128.34	-3127.64	819.16	1732320.54	14592290.06	40°10'46.419"N	104°40'15.486"W	1.66	
10913.00	92.530	179.610	7043.77	3218.28	-3217.58	819.65	1732321.36	14592200.15	40°10'45.530"N	104°40'15.480"W	1.18	
11002.00	92.000	180.010	7040.25	3307.21	-3306.51	819.95	1732321.98	14592111.26	40°10'44.651"N	104°40'15.476"W	0.75	
11092.00	92.840	179.490	7036.45	3397.13	-3396.43	820.34	1732322.71	14592021.38	40°10'43.762"N	104°40'15.471"W	1.10	
11181.00	91.300	180.110	7033.24	3486.07	-3485.37	820.65	1732323.34	14591932.48	40°10'42.883"N	104°40'15.467"W	1.87	
11271.00	89.940	178.910	7032.26	3576.05	-3575.35	821.42	1732324.44	14591842.53	40°10'41.994"N	104°40'15.457"W	2.02	
11360.00	91.360	179.710	7031.25	3665.04	-3664.34	822.49	1732325.84	14591753.58	40°10'41.115"N	104°40'15.444"W	1.83	
11450.00	90.920	181.140	7029.46	3755.02	-3754.31	821.82	1732325.50	14591663.64	40°10'40.226"N	104°40'15.452"W	1.66	
11539.00	91.730	182.570	7027.40	3843.94	-3843.24	818.94	1732322.95	14591574.74	40°10'39.347"N	104°40'15.489"W	1.85	
11629.00	92.190	181.930	7024.33	3933.81	-3933.12	815.41	1732319.75	14591484.88	40°10'38.459"N	104°40'15.535"W	0.88	
11719.00	90.650	181.980	7022.10	4023.73	-4023.04	812.34	1732317.01	14591394.99	40°10'37.570"N	104°40'15.575"W	1.71	
11809.00	91.200	181.440	7020.64	4113.67	-4112.98	809.66	1732314.66	14591305.07	40°10'36.681"N	104°40'15.609"W	0.86	
11898.00	92.800	181.590	7017.54	4202.58	-4201.90	807.31	1732312.64	14591216.18	40°10'35.803"N	104°40'15.640"W	1.81	
11987.00	91.630	180.570	7014.10	4291.50	-4290.81	805.63	1732311.29	14591127.30	40°10'34.924"N	104°40'15.661"W	1.74	
12077.00	92.400	180.550	7010.93	4381.44	-4380.75	804.75	1732310.74	14591037.39	40°10'34.035"N	104°40'15.673"W	0.86	
12151.00†	91.145	180.093	7008.64	4455.40	-4454.71	804.34	1732310.60	14590963.46	40°10'33.304"N	104°40'15.678"W	1.81	CROSS 460' SETBACK TOE (459'FSL & 1968'FWL, SEC.33) 40.1759179 -104.6710216
12166.00	90.890	180.000	7008.38	4470.40	-4469.71	804.33	1732310.64	14590948.47	40°10'33.156"N	104°40'15.678"W	1.81	
12256.00	90.150	179.770	7007.56	4560.39	-4559.70	804.51	1732311.15	14590858.51	40°10'32.267"N	104°40'15.676"W	0.86	
12345.00	91.260	179.840	7006.47	4649.38	-4648.70	804.81	1732311.78	14590769.55	40°10'31.387"N	104°40'15.672"W	1.25	
12435.00	89.880	179.650	7005.57	4739.38	-4738.69	805.21	1732312.51	14590679.60	40°10'30.498"N	104°40'15.667"W	1.55	
12524.00	90.590	179.250	7005.21	4828.37	-4827.68	806.06	1732313.69	14590590.64	40°10'29.619"N	104°40'15.656"W	0.92	
12614.00	91.260	178.740	7003.75	4918.35	-4917.66	807.64	1732315.60	14590500.71	40°10'28.730"N	104°40'15.636"W	0.94	
12704.00	90.430	178.840	7002.42	5008.32	-5007.63	809.54	1732317.83	14590410.78	40°10'27.840"N	104°40'15.611"W	0.93	
12793.00	90.550	178.120	7001.66	5097.28	-5096.59	811.90	1732320.51	14590321.86	40°10'26.961"N	104°40'15.581"W	0.82	LAST BHGE MWD+IFR1+SC SURVEY
12861.00	90.550	178.120	7001.01	5165.24	-5164.55	814.13	1732322.99	14590253.94	40°10'26.290"N	104°40'15.552"W	0.00	PTB (251'FNL & 1978'FWL, SEC.04) 40.1739694 -104.6709867

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#11 CANNON 28N-W4HZ (371'FNL & 1124'FWL,SEC.33)
Area	COLORADO	Well	CANNON 28N-W4HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CANNON 28N-W4HZ AWB
Facility	SEC.33-T3N-R65W		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.04-T2N-R65W	0.00	1.42	-134.96	1731355.31	14595414.36	40°11'17.340"N	104°40'27.779"W	polygon
SEC.28-T3N-R65W	0.00	1.42	-134.96	1731355.31	14595414.36	40°11'17.340"N	104°40'27.779"W	polygon
SEC.33-T3N-R65W	0.00	1.42	-134.96	1731355.31	14595414.36	40°11'17.340"N	104°40'27.779"W	polygon
CANNON 28N-W4HZ HEEL REV-1 (153'FNL & 1928'FWL,SEC.33)	6982.00	218.55	805.76	1732294.86	14595634.86	40°11'19.486"N	104°40'15.658"W	point
CANNON 28N-W4HZ BHL REV-1 (252'FNL & 1974'FWL,SEC.04)	6999.00	-5165.78	810.41	1732319.27	14590252.70	40°10'26.278"N	104°40'15.600"W	point
CANNON 28N-W4HZ 460' 1	7038.00	0.00	0.00	1731490.22	14595413.44	40°11'17.326"N	104°40'26.040"W	polygon
CANNON 28N-W4HZ 460' 2	7038.00	0.00	0.00	1731490.22	14595413.44	40°11'17.326"N	104°40'26.040"W	polygon
CANNON 28N-W4HZ INT. TARGET@2750'VS	7038.00	-2749.31	808.32	1732308.32	14592668.19	40°10'50.157"N	104°40'15.626"W	point
CANNON 28N-W4HZ LANDBOX	7038.00	0.00	0.00	1731490.22	14595413.44	40°11'17.326"N	104°40'26.040"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: CANNON 28N-W4HZ AWB Ref Wellpath: CANNON 28N-W4HZ AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
26.00	1830.00	Custom APC ISCWSA REV 2 MWD+IFR1 (approximation)	TOTAL Custom APC ISCWSA Rev-2 MWD+IFR1 <128 - 1830>	CANNON 28N-W4HZ AWB
1830.00	12793.00	Custom APC ISCWSA REV 2 MWD+IFR1+SC (approximation)	BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+SC <1931 - 12793>	CANNON 28N-W4HZ AWB
12793.00	12861.00	Blind Drilling (std)	Projection to bit	CANNON 28N-W4HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#11 CANNON 28N-W4HZ (371'FNL & 1124'FWL,SEC.33)
Area	COLORADO	Well	CANNON 28N-W4HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CANNON 28N-W4HZ AWB
Facility	SEC.33-T3N-R65W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
128.00	0.620	105.000	128.00	FIRST TOTAL MWD+IFR1 SURVEY
1830.00	10.810	47.160	1804.51	LAST TOTAL MWD+IFR1 SURVEY
1931.00	10.810	46.710	1903.72	FIRST BHGE MWD+IFR1+SC SURVEY
4338.00	14.904	38.252	4217.88	ENTER LANDBOX (313'FSL & 1771'FWL,SEC.28) 40.1900248 -104.6715848
6437.00	0.733	56.424	6297.54	KOP
7419.00	87.480	181.380	6976.65	LANDING (97'FNL & 1931'FWL,SEC.33) 40.1888993 -104.6710116
7786.00	88.359	181.282	6990.59	CROSS 460' SETBACK HEEL (463'FNL & 1923'FWL,SEC.33) 40.1878928 -104.6710365
12151.00	91.145	180.093	7008.64	CROSS 460' SETBACK TOE (459'FSL & 1968'FWL,SEC.33) 40.1759179 -104.6710216
12793.00	90.550	178.120	7001.66	LAST BHGE MWD+IFR1+SC SURVEY
12861.00	90.550	178.120	7001.01	PTB (251'FNL & 1978'FWL,SEC.04) 40.1739694 -104.6709867