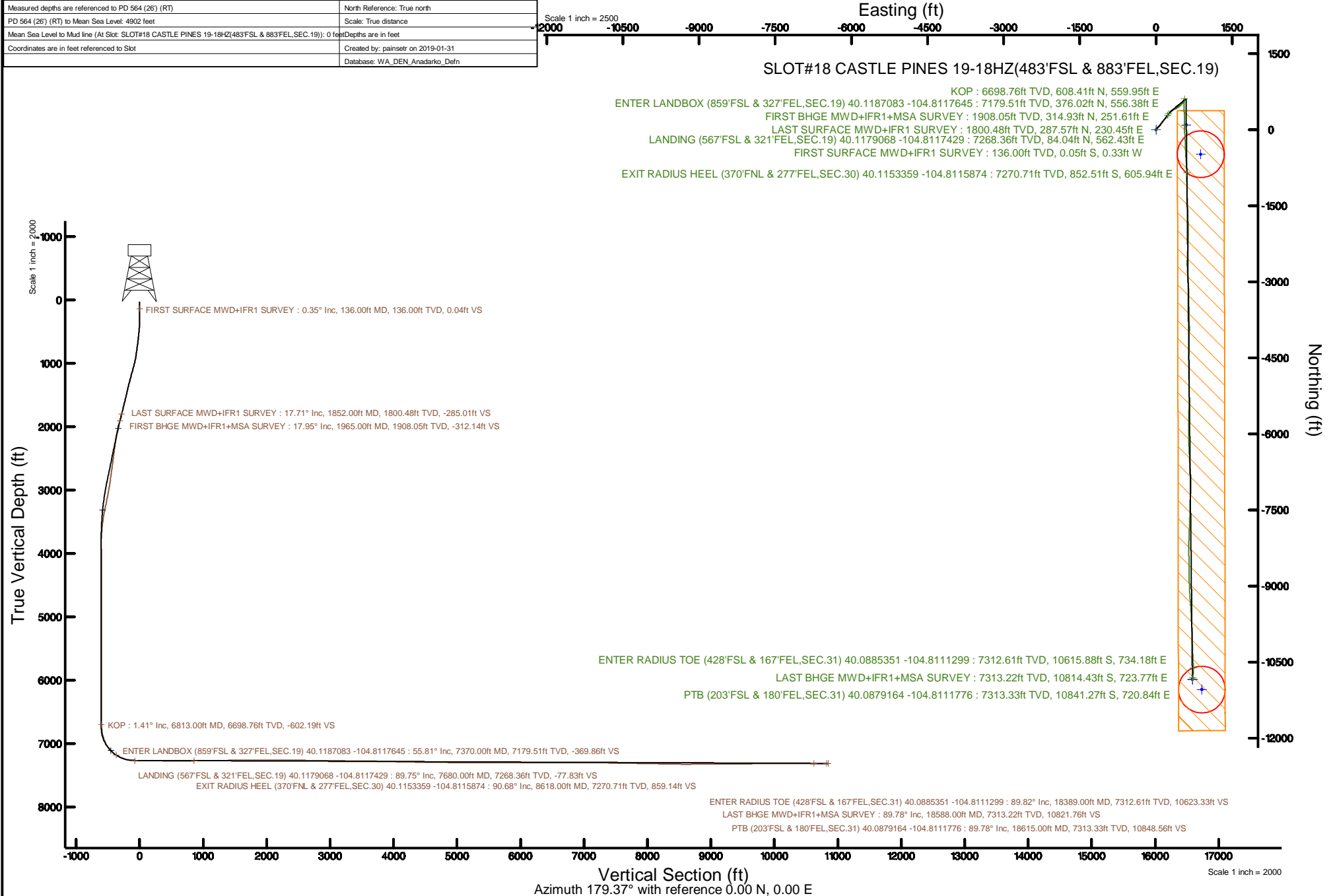


# KERR-MCGEE OIL & GAS ONSHORE LP (WA)

Location: COLORADO Slot: SLOT#18 CASTLE PINES 19-18HZ(483'FSL & 883'FEL,SEC.19)  
 Field: WELD COUNTY (UTM/TRUE NORTH) Well: CASTLE PINES 19-18HZ  
 Facility: SEC.19-T2N-R66W Wellbore: CASTLE PINES 19-18HZ PWB

Plot reference wellpath is CASTLE PINES 19-18HZ PWP Rev-B.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: 4902 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#18 CASTLE PINES 19-18HZ(483'FSL & 883'FEL,SEC.19)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: painsetr on 2019-01-31
	Database: WA_DEN-Anadarko_Defn



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#18 CASTLE PINES 19-18HZ(483'FSL & 883'FEL,SEC.19)
Area	COLORADO	Well	CASTLE PINES 19-18HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CASTLE PINES 19-18HZ AWB
Facility	SEC.19-T2N-R66W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / UTM Zone 13 North, US feet	Software System	WellArchitect® 5.0
North Reference	True	User	Painsetr
Scale	0.999603	Report Generated	1/31/2019 at 7:59 AM
Convergence at slot	0.13° East	Database/Source file	WA_DEN_Anadarko_Defn/CASTLE_PINES_19-18HZ_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-2.12	255.13	1692485.44	14569639.07	40°07'03.634"N	104°48'49.514"W
Facility Reference Pt			1692230.40	14569640.66	40°07'03.655"N	104°48'52.798"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	4902.00ft
Horizontal Reference Pt	Slot	PD 564 (26') (RT) to Mean Sea Level	4902.00ft
Vertical Reference Pt	PD 564 (26') (RT)	PD 564 (26') (RT) to Mud Line at Slot (SLOT#18 CASTLE PINES 19-18HZ(483'FSL & 883'FEL,SEC.19))	4902.00ft
MD Reference Pt	PD 564 (26') (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	179.37°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#18 CASTLE PINES 19-18HZ(483'FSL & 883'FEL,SEC.19)
Area	COLORADO	Well	CASTLE PINES 19-18HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CASTLE PINES 19-18HZ AWB
Facility	SEC.19-T2N-R66W		

WELLPATH DATA (208 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	262.180	0.00	0.00	0.00	0.00	1692485.44	14569639.07	40°07'03.634°N	104°48'49.514°W	0.00	
26.00	0.000	262.180	26.00	0.00	0.00	0.00	1692485.44	14569639.07	40°07'03.634°N	104°48'49.514°W	0.00	
136.00	0.350	262.180	136.00	0.04	-0.05	-0.33	1692485.10	14569639.02	40°07'03.634°N	104°48'49.518°W	0.32	FIRST SURFACE MWD+IFR1 SURVEY
231.00	0.620	221.930	231.00	0.46	-0.47	-0.96	1692484.48	14569638.60	40°07'03.629°N	104°48'49.526°W	0.44	
327.00	1.010	10.110	326.99	0.01	-0.02	-1.16	1692484.28	14569639.05	40°07'03.634°N	104°48'49.529°W	1.64	
422.00	4.610	30.240	421.86	-4.09	4.10	0.91	1692486.34	14569643.17	40°07'03.675°N	104°48'49.502°W	3.87	
518.00	7.560	37.180	517.31	-12.39	12.47	6.67	1692492.08	14569651.55	40°07'03.757°N	104°48'49.428°W	3.16	
613.00	9.230	41.050	611.29	-23.02	23.19	15.45	1692500.83	14569662.29	40°07'03.863°N	104°48'49.315°W	1.85	
707.00	9.620	43.950	704.02	-34.25	34.53	25.85	1692511.21	14569673.64	40°07'03.975°N	104°48'49.181°W	0.65	
803.00	11.250	47.990	798.43	-46.15	46.58	38.38	1692523.70	14569685.71	40°07'04.094°N	104°48'49.020°W	1.86	
898.00	14.060	45.530	891.12	-60.27	60.87	53.50	1692538.79	14569700.02	40°07'04.235°N	104°48'48.825°W	3.01	
993.00	16.440	39.120	982.77	-78.60	79.38	70.22	1692555.46	14569718.57	40°07'04.418°N	104°48'48.610°W	3.07	
1089.00	19.160	36.390	1074.17	-101.63	102.61	88.14	1692573.33	14569741.82	40°07'04.648°N	104°48'48.379°W	2.96	
1184.00	18.810	36.390	1164.00	-126.31	127.49	106.48	1692591.61	14569766.73	40°07'04.894°N	104°48'48.143°W	0.37	
1279.00	19.290	36.650	1253.80	-151.02	152.41	124.93	1692610.00	14569791.68	40°07'05.140°N	104°48'47.906°W	0.51	
1373.00	18.150	38.150	1342.83	-174.79	176.38	143.24	1692628.25	14569815.68	40°07'05.377°N	104°48'47.670°W	1.32	
1469.00	15.800	39.640	1434.64	-196.42	198.20	160.82	1692645.78	14569837.53	40°07'05.593°N	104°48'47.444°W	2.49	
1563.00	17.750	39.910	1524.63	-217.07	219.05	178.18	1692663.09	14569858.41	40°07'05.799°N	104°48'47.220°W	2.08	
1658.00	16.920	36.390	1615.32	-239.12	241.29	195.67	1692680.53	14569880.67	40°07'06.018°N	104°48'46.995°W	1.41	
1753.00	17.400	37.270	1706.09	-261.36	263.72	212.48	1692697.28	14569903.13	40°07'06.240°N	104°48'46.779°W	0.57	
1852.00	17.710	36.740	1800.48	-285.01	287.57	230.45	1692715.19	14569927.00	40°07'06.476°N	104°48'46.548°W	0.35	LAST SURFACE MWD+IFR1 SURVEY
1965.00	17.950	38.690	1908.05	-312.14	314.93	251.61	1692736.29	14569954.40	40°07'06.746°N	104°48'46.275°W	0.57	FIRST BHGE MWD+IFR1+MSA SURVEY
2054.00	17.720	42.930	1992.78	-332.56	335.55	269.41	1692754.04	14569975.05	40°07'06.950°N	104°48'46.046°W	1.48	
2143.00	17.370	47.380	2077.64	-351.27	354.47	288.41	1692772.99	14569994.00	40°07'07.137°N	104°48'45.802°W	1.56	
2233.00	17.410	53.910	2163.54	-368.07	371.50	309.18	1692793.72	14570011.07	40°07'07.305°N	104°48'45.534°W	2.17	
2323.00	16.310	59.860	2249.67	-382.10	385.78	330.99	1692815.49	14570025.38	40°07'07.446°N	104°48'45.253°W	2.27	
2412.00	17.330	62.840	2334.87	-394.18	398.10	353.60	1692838.06	14570037.75	40°07'07.568°N	104°48'44.963°W	1.50	
2501.00	16.950	62.610	2419.91	-405.94	410.12	376.91	1692861.34	14570049.82	40°07'07.687°N	104°48'44.662°W	0.43	
2591.00	15.590	61.490	2506.31	-417.50	421.93	399.19	1692883.58	14570061.67	40°07'07.804°N	104°48'44.376°W	1.55	
2680.00	14.310	58.230	2592.30	-428.78	433.43	419.05	1692903.41	14570073.20	40°07'07.917°N	104°48'44.120°W	1.72	

REFERENCE WELLPATH IDENTIFICATION			
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Area	COLORADO	Well	CASTLE PINES 19-18HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CASTLE PINES 19-18HZ AWB
Facility	SEC.19-T2N-R66W		

WELLPATH DATA (208 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
2769.00	13.260	55.720	2678.73	-440.13	444.97	436.83	1692921.16	14570084.78	40°07'08.031"N	104°48'43.891"W	1.36	
2858.00	12.350	50.410	2765.52	-451.77	456.79	452.60	1692936.90	14570096.62	40°07'08.148"N	104°48'43.688"W	1.67	
2948.00	12.410	48.480	2853.43	-464.15	469.33	467.26	1692951.53	14570109.19	40°07'08.272"N	104°48'43.499"W	0.46	
3038.00	13.690	47.890	2941.10	-477.53	482.88	482.40	1692966.64	14570122.77	40°07'08.406"N	104°48'43.305"W	1.43	
3127.00	14.870	44.010	3027.35	-492.63	498.16	498.15	1692982.35	14570138.07	40°07'08.557"N	104°48'43.102"W	1.71	
3216.00	15.370	41.490	3113.27	-509.51	515.21	513.90	1692998.05	14570155.15	40°07'08.725"N	104°48'42.899"W	0.93	
3306.00	15.370	41.040	3200.05	-527.26	533.14	529.63	1693013.74	14570173.10	40°07'08.902"N	104°48'42.697"W	0.13	
3395.00	13.720	30.630	3286.21	-545.10	551.12	542.76	1693026.82	14570191.11	40°07'09.080"N	104°48'42.528"W	3.47	
3484.00	10.850	20.920	3373.17	-561.92	568.03	551.13	1693035.16	14570208.03	40°07'09.247"N	104°48'42.420"W	3.96	
3574.00	9.560	28.850	3461.75	-576.31	582.49	557.76	1693041.75	14570222.50	40°07'09.390"N	104°48'42.334"W	2.12	
3663.00	7.150	27.260	3549.80	-587.64	593.89	563.86	1693047.83	14570233.90	40°07'09.503"N	104°48'42.256"W	2.72	
3753.00	5.800	25.390	3639.23	-596.67	602.98	568.38	1693052.33	14570243.00	40°07'09.593"N	104°48'42.198"W	1.52	
3842.00	3.430	341.970	3727.96	-603.26	609.58	569.48	1693053.42	14570249.59	40°07'09.658"N	104°48'42.184"W	4.56	
3932.00	2.540	273.490	3817.86	-605.97	612.26	566.66	1693050.59	14570252.27	40°07'09.684"N	104°48'42.220"W	3.82	
4021.00	1.890	219.430	3906.80	-604.99	611.24	563.76	1693047.69	14570251.25	40°07'09.674"N	104°48'42.257"W	2.35	
4199.00	0.070	267.570	4084.77	-602.74	608.97	561.79	1693045.72	14570248.97	40°07'09.652"N	104°48'42.283"W	1.04	
4289.00	0.000	8.150	4174.77	-602.74	608.97	561.73	1693045.67	14570248.97	40°07'09.652"N	104°48'42.283"W	0.08	
4378.00	0.120	202.690	4263.77	-602.65	608.88	561.69	1693045.63	14570248.89	40°07'09.651"N	104°48'42.284"W	0.13	
4467.00	0.130	104.640	4352.77	-602.54	608.77	561.76	1693045.69	14570248.77	40°07'09.650"N	104°48'42.283"W	0.21	
4557.00	0.030	114.190	4442.77	-602.50	608.74	561.88	1693045.81	14570248.74	40°07'09.650"N	104°48'42.281"W	0.11	
4646.00	0.040	225.810	4531.77	-602.47	608.71	561.88	1693045.81	14570248.71	40°07'09.649"N	104°48'42.281"W	0.07	
4736.00	0.130	341.350	4621.77	-602.55	608.78	561.82	1693045.76	14570248.78	40°07'09.650"N	104°48'42.282"W	0.17	
4825.00	0.040	199.660	4710.77	-602.61	608.85	561.78	1693045.72	14570248.85	40°07'09.651"N	104°48'42.283"W	0.18	
4914.00	0.170	222.750	4799.77	-602.49	608.72	561.68	1693045.62	14570248.72	40°07'09.649"N	104°48'42.284"W	0.15	
5004.00	0.180	239.740	4889.77	-602.32	608.55	561.46	1693045.40	14570248.55	40°07'09.648"N	104°48'42.287"W	0.06	
5093.00	0.060	203.980	4978.77	-602.21	608.44	561.33	1693045.26	14570248.44	40°07'09.647"N	104°48'42.289"W	0.15	
5183.00	0.150	333.600	5068.77	-602.27	608.50	561.25	1693045.19	14570248.50	40°07'09.647"N	104°48'42.290"W	0.22	
5272.00	0.110	301.440	5157.77	-602.42	608.65	561.13	1693045.07	14570248.65	40°07'09.649"N	104°48'42.291"W	0.09	
5450.00	0.000	8.160	5335.77	-602.51	608.74	560.98	1693044.92	14570248.74	40°07'09.650"N	104°48'42.293"W	0.06	
5539.00	0.060	306.460	5424.77	-602.54	608.77	560.95	1693044.88	14570248.77	40°07'09.650"N	104°48'42.293"W	0.07	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#18 CASTLE PINES 19-18HZ(483'FSL & 883'FEL,SEC.19)
Area	COLORADO	Well	CASTLE PINES 19-18HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CASTLE PINES 19-18HZ AWB
Facility	SEC.19-T2N-R66W		

WELLPATH DATA (208 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
5628.00	0.040	112.350	5513.77	-602.56	608.78	560.94	1693044.87	14570248.78	40°07'09.650"N	104°48'42.294"W	0.11	
5717.00	0.060	78.040	5602.77	-602.56	608.78	561.01	1693044.95	14570248.78	40°07'09.650"N	104°48'42.293"W	0.04	
5806.00	0.000	8.160	5691.77	-602.57	608.79	561.06	1693044.99	14570248.79	40°07'09.650"N	104°48'42.292"W	0.07	
5896.00	0.190	291.540	5781.77	-602.62	608.85	560.92	1693044.86	14570248.84	40°07'09.651"N	104°48'42.294"W	0.21	
5986.00	0.030	353.080	5871.77	-602.70	608.92	560.78	1693044.71	14570248.92	40°07'09.651"N	104°48'42.296"W	0.20	
6075.00	0.030	316.600	5960.77	-602.74	608.96	560.76	1693044.70	14570248.96	40°07'09.652"N	104°48'42.296"W	0.02	
6164.00	0.160	283.280	6049.76	-602.79	609.01	560.62	1693044.56	14570249.01	40°07'09.652"N	104°48'42.298"W	0.15	
6254.00	0.100	290.770	6139.76	-602.85	609.07	560.42	1693044.36	14570249.06	40°07'09.653"N	104°48'42.300"W	0.07	
6343.00	0.030	183.380	6228.76	-602.85	609.07	560.35	1693044.29	14570249.07	40°07'09.653"N	104°48'42.301"W	0.13	
6521.00	0.140	208.040	6406.76	-602.62	608.83	560.25	1693044.18	14570248.83	40°07'09.650"N	104°48'42.302"W	0.06	
6610.00	0.130	273.860	6495.76	-602.53	608.74	560.09	1693044.03	14570248.74	40°07'09.650"N	104°48'42.304"W	0.17	
6700.00	0.070	138.700	6585.76	-602.49	608.71	560.03	1693043.97	14570248.71	40°07'09.649"N	104°48'42.305"W	0.21	
6789.00	0.040	304.450	6674.76	-602.47	608.68	560.04	1693043.98	14570248.68	40°07'09.649"N	104°48'42.305"W	0.12	
6813.00†	1.406	196.164	6698.76	-602.19	608.41	559.95	1693043.89	14570248.40	40°07'09.646"N	104°48'42.306"W	5.91	KOP
6878.00	5.250	195.040	6763.64	-598.57	604.77	558.96	1693042.90	14570244.76	40°07'09.610"N	104°48'42.319"W	5.91	
6967.00	11.720	185.260	6851.62	-585.64	591.82	557.07	1693041.04	14570231.82	40°07'09.482"N	104°48'42.343"W	7.42	
7057.00	20.010	183.380	6938.12	-561.14	567.30	555.32	1693039.35	14570207.31	40°07'09.240"N	104°48'42.366"W	9.23	
7146.00	31.140	180.960	7018.28	-522.83	528.97	554.03	1693038.14	14570168.99	40°07'08.861"N	104°48'42.382"W	12.56	
7235.00	40.950	179.380	7090.15	-470.53	476.67	553.96	1693038.18	14570116.71	40°07'08.344"N	104°48'42.383"W	11.07	
7324.00	50.810	178.520	7152.03	-406.72	412.87	555.17	1693039.52	14570052.94	40°07'07.714"N	104°48'42.368"W	11.10	
7370.00†	55.806	177.745	7179.51	-369.86	376.02	556.38	1693040.81	14570016.10	40°07'07.350"N	104°48'42.352"W	10.94	ENTER LANDBOX (859'FSL & 327'FEL,SEC.19) 40.1187083 -104.8117645
7413.00	60.480	177.100	7202.20	-333.36	339.54	558.03	1693042.53	14569979.64	40°07'06.989"N	104°48'42.331"W	10.94	
7502.00	70.600	177.390	7239.00	-252.51	258.73	561.91	1693046.58	14569898.87	40°07'06.191"N	104°48'42.281"W	11.37	
7591.00	80.750	180.240	7261.00	-166.41	172.63	563.64	1693048.49	14569812.81	40°07'05.340"N	104°48'42.259"W	11.82	
7680.00	89.750	181.320	7268.36	-77.83	84.04	562.43	1693047.47	14569724.25	40°07'04.464"N	104°48'42.275"W	10.18	LANDING (567'FSL & 321'FEL,SEC.19) 40.1179068 -104.8117429
7770.00	89.750	178.480	7268.75	12.15	-5.95	562.59	1693047.81	14569634.30	40°07'03.575"N	104°48'42.273"W	3.16	
7859.00	89.660	175.870	7269.21	101.08	-94.83	566.97	1693052.38	14569545.46	40°07'02.697"N	104°48'42.216"W	2.93	
7948.00	89.690	177.020	7269.72	189.96	-183.66	572.49	1693058.08	14569456.68	40°07'01.819"N	104°48'42.145"W	1.29	
8038.00	89.630	177.750	7270.25	279.91	-273.56	576.60	1693062.38	14569366.82	40°07'00.931"N	104°48'42.092"W	0.81	
8127.00	89.660	177.940	7270.80	368.87	-362.50	579.94	1693065.91	14569277.93	40°07'00.052"N	104°48'42.049"W	0.22	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#18 CASTLE PINES 19-18HZ(483'FSL & 883'FEL,SEC.19)
Area	COLORADO	Well	CASTLE PINES 19-18HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CASTLE PINES 19-18HZ AWB
Facility	SEC.19-T2N-R66W		

WELLPATH DATA (208 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
8216.00	89.630	177.530	7271.35	457.83	-451.43	583.46	1693069.61	14569189.05	40°06'59.173"N	104°48'42.004"W	0.46	
8305.00	89.690	174.590	7271.88	546.67	-540.20	589.58	1693075.91	14569100.32	40°06'58.296"N	104°48'41.925"W	3.30	
8394.00	89.570	174.270	7272.46	635.34	-628.78	598.21	1693084.73	14569011.79	40°06'57.420"N	104°48'41.814"W	0.38	
8483.00	90.650	177.580	7272.29	724.17	-717.54	604.54	1693091.23	14568923.08	40°06'56.543"N	104°48'41.733"W	3.91	
8572.00	90.680	180.360	7271.25	813.15	-806.51	606.14	1693093.02	14568834.15	40°06'55.664"N	104°48'41.712"W	3.12	
8618.00†	90.680	180.120	7270.71	859.14	-852.51	605.94	1693092.92	14568788.17	40°06'55.209"N	104°48'41.715"W	0.52	EXIT RADIUS HEEL (370'FNL & 277'FEL,SEC.30) 40.1153359 -104.8115874
8662.00	90.680	179.890	7270.19	903.14	-896.51	605.94	1693093.01	14568744.19	40°06'54.775"N	104°48'41.715"W	0.52	
8751.00	90.770	179.350	7269.06	992.13	-985.50	606.53	1693093.79	14568655.24	40°06'53.895"N	104°48'41.707"W	0.62	
8840.00	90.620	178.850	7267.98	1081.12	-1074.48	607.93	1693095.37	14568566.29	40°06'53.016"N	104°48'41.689"W	0.59	
8929.00	90.680	178.700	7266.97	1170.11	-1163.45	609.83	1693097.46	14568477.36	40°06'52.137"N	104°48'41.665"W	0.18	
9019.00	90.830	178.450	7265.78	1260.09	-1253.42	612.07	1693099.89	14568387.44	40°06'51.247"N	104°48'41.636"W	0.32	
9108.00	90.740	177.700	7264.56	1349.06	-1342.36	615.06	1693103.06	14568298.54	40°06'50.369"N	104°48'41.598"W	0.85	
9197.00	90.680	177.700	7263.46	1438.02	-1431.28	618.63	1693106.82	14568209.66	40°06'49.490"N	104°48'41.552"W	0.07	
9286.00	90.490	177.920	7262.55	1526.98	-1520.21	622.03	1693110.40	14568120.77	40°06'48.611"N	104°48'41.508"W	0.33	
9376.00	90.580	178.030	7261.71	1616.95	-1610.15	625.21	1693113.77	14568030.87	40°06'47.722"N	104°48'41.467"W	0.16	
9465.00	90.710	178.200	7260.71	1705.92	-1699.10	628.14	1693116.88	14567941.97	40°06'46.843"N	104°48'41.429"W	0.24	
9554.00	89.820	177.790	7260.30	1794.89	-1788.04	631.25	1693120.18	14567853.07	40°06'45.964"N	104°48'41.389"W	1.10	
9644.00	89.850	177.860	7260.56	1884.86	-1877.97	634.67	1693123.78	14567763.18	40°06'45.076"N	104°48'41.345"W	0.08	
9733.00	89.940	178.730	7260.72	1973.84	-1966.93	637.32	1693126.62	14567674.26	40°06'44.196"N	104°48'41.311"W	0.98	
9822.00	89.910	179.830	7260.84	2062.84	-2055.93	638.43	1693127.92	14567585.30	40°06'43.317"N	104°48'41.297"W	1.24	
9911.00	89.880	181.950	7261.00	2151.81	-2144.91	637.05	1693126.72	14567496.35	40°06'42.438"N	104°48'41.315"W	2.38	
10001.00	89.910	182.860	7261.17	2241.68	-2234.83	633.28	1693123.14	14567406.46	40°06'41.549"N	104°48'41.363"W	1.01	
10090.00	89.880	183.990	7261.33	2330.45	-2323.67	627.96	1693118.01	14567317.65	40°06'40.671"N	104°48'41.432"W	1.27	
10179.00	89.320	183.440	7261.95	2419.20	-2412.48	622.19	1693112.43	14567228.86	40°06'39.793"N	104°48'41.506"W	0.88	
10269.00	89.380	182.290	7262.97	2509.02	-2502.36	617.69	1693108.12	14567139.01	40°06'38.905"N	104°48'41.564"W	1.28	
10358.00	89.380	181.450	7263.93	2597.93	-2591.31	614.79	1693105.41	14567050.09	40°06'38.026"N	104°48'41.601"W	0.94	
10448.00	89.450	178.260	7264.85	2687.91	-2681.29	615.02	1693105.82	14566960.14	40°06'37.137"N	104°48'41.598"W	3.55	
10537.00	89.290	175.800	7265.83	2776.82	-2770.16	619.63	1693110.62	14566871.32	40°06'36.259"N	104°48'41.539"W	2.77	
10626.00	89.380	175.580	7266.87	2865.63	-2858.90	626.32	1693117.49	14566782.63	40°06'35.382"N	104°48'41.453"W	0.27	
10716.00	89.380	176.030	7267.84	2955.46	-2948.65	632.90	1693124.26	14566692.92	40°06'34.495"N	104°48'41.368"W	0.50	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#18 CASTLE PINES 19-18HZ(483'FSL & 883'FEL,SEC.19)
Area	COLORADO	Well	CASTLE PINES 19-18HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CASTLE PINES 19-18HZ AWP
Facility	SEC.19-T2N-R66W		

WELLPATH DATA (208 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
10805.00	89.420	177.650	7268.77	3044.36	-3037.51	637.80	1693129.35	14566604.11	40°06'33.617"N	104°48'41.305"W	1.82	
10894.00	89.420	179.000	7269.67	3133.34	-3126.47	640.41	1693132.13	14566515.20	40°06'32.738"N	104°48'41.272"W	1.52	
10984.00	89.420	179.280	7270.58	3223.33	-3216.45	641.76	1693133.67	14566425.25	40°06'31.849"N	104°48'41.255"W	0.31	
11073.00	89.540	178.790	7271.39	3312.33	-3305.43	643.26	1693135.36	14566336.31	40°06'30.969"N	104°48'41.235"W	0.57	
11163.00	89.450	178.150	7272.18	3402.31	-3395.40	645.66	1693137.95	14566246.38	40°06'30.080"N	104°48'41.204"W	0.72	
11252.00	89.450	178.440	7273.04	3491.29	-3484.35	648.31	1693140.78	14566157.47	40°06'29.201"N	104°48'41.170"W	0.33	
11341.00	88.740	178.480	7274.44	3580.27	-3573.31	650.70	1693143.36	14566068.55	40°06'28.322"N	104°48'41.140"W	0.80	
11431.00	88.920	178.540	7276.28	3670.24	-3663.26	653.04	1693145.88	14565978.64	40°06'27.433"N	104°48'41.109"W	0.21	
11520.00	88.860	178.830	7278.01	3759.22	-3752.22	655.08	1693148.11	14565889.72	40°06'26.554"N	104°48'41.083"W	0.33	
11610.00	88.740	179.210	7279.89	3849.20	-3842.19	656.62	1693149.84	14565799.80	40°06'25.665"N	104°48'41.063"W	0.44	
11700.00	88.770	180.060	7281.85	3939.17	-3932.16	657.19	1693150.60	14565709.86	40°06'24.776"N	104°48'41.056"W	0.94	
11789.00	88.740	182.780	7283.78	4028.09	-4021.11	654.99	1693148.58	14565620.95	40°06'23.897"N	104°48'41.085"W	3.06	
11878.00	88.650	181.740	7285.81	4116.95	-4110.01	651.48	1693145.26	14565532.07	40°06'23.018"N	104°48'41.130"W	1.17	
11968.00	88.710	180.650	7287.88	4206.88	-4199.97	649.60	1693143.57	14565442.14	40°06'22.129"N	104°48'41.154"W	1.21	
12057.00	88.740	179.460	7289.86	4295.85	-4288.95	649.52	1693143.67	14565353.20	40°06'21.250"N	104°48'41.155"W	1.34	
12147.00	89.230	180.400	7291.46	4385.83	-4378.93	649.63	1693143.97	14565263.26	40°06'20.361"N	104°48'41.154"W	1.18	
12237.00	89.260	181.440	7292.64	4475.79	-4468.91	648.18	1693142.72	14565173.31	40°06'19.472"N	104°48'41.172"W	1.16	
12326.00	89.320	181.540	7293.74	4564.72	-4557.87	645.87	1693140.59	14565084.38	40°06'18.592"N	104°48'41.202"W	0.13	
12415.00	89.320	180.850	7294.80	4653.67	-4646.85	644.01	1693138.92	14564995.44	40°06'17.713"N	104°48'41.226"W	0.78	
12505.00	89.290	179.220	7295.89	4743.65	-4736.84	643.96	1693139.05	14564905.48	40°06'16.824"N	104°48'41.227"W	1.81	
12594.00	89.230	178.530	7297.04	4832.64	-4825.81	645.70	1693140.99	14564816.55	40°06'15.945"N	104°48'41.204"W	0.78	
12684.00	89.290	178.090	7298.20	4922.62	-4915.76	648.36	1693143.83	14564726.63	40°06'15.056"N	104°48'41.170"W	0.49	
12773.00	89.320	178.140	7299.28	5011.59	-5004.71	651.29	1693146.94	14564637.73	40°06'14.177"N	104°48'41.132"W	0.07	
12863.00	89.600	178.960	7300.13	5101.58	-5094.68	653.56	1693149.41	14564547.80	40°06'13.288"N	104°48'41.103"W	0.96	
12952.00	89.690	179.710	7300.68	5190.57	-5183.67	654.60	1693150.62	14564458.85	40°06'12.408"N	104°48'41.090"W	0.85	
13042.00	89.690	180.420	7301.17	5280.56	-5273.67	654.49	1693150.71	14564368.89	40°06'11.519"N	104°48'41.091"W	0.79	
13132.00	89.780	181.290	7301.59	5370.53	-5363.65	653.15	1693149.56	14564278.93	40°06'10.630"N	104°48'41.109"W	0.97	
13221.00	89.290	181.840	7302.31	5459.46	-5452.62	650.72	1693147.31	14564190.00	40°06'09.750"N	104°48'41.140"W	0.83	
13310.00	89.320	181.100	7303.39	5548.40	-5541.58	648.44	1693145.22	14564101.07	40°06'08.871"N	104°48'41.169"W	0.83	
13400.00	90.280	180.420	7303.70	5638.37	-5631.57	647.24	1693144.21	14564011.11	40°06'07.982"N	104°48'41.185"W	1.31	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#18 CASTLE PINES 19-18HZ(483'FSL & 883'FEL,SEC.19)
Area	COLORADO	Well	CASTLE PINES 19-18HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CASTLE PINES 19-18HZ AWP
Facility	SEC.19-T2N-R66W		

WELLPATH DATA (208 stations)												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
13489.00	90.310	181.190	7303.24	5727.34	-5720.56	645.99	1693143.15	14563922.16	40°06'07.103"N	104°48'41.201"W	0.87	
13578.00	90.370	180.900	7302.72	5816.30	-5809.54	644.37	1693141.71	14563833.20	40°06'06.223"N	104°48'41.222"W	0.33	
13668.00	90.370	180.680	7302.14	5906.27	-5899.53	643.13	1693140.66	14563743.25	40°06'05.334"N	104°48'41.238"W	0.24	
13757.00	90.250	179.840	7301.65	5995.26	-5988.53	642.73	1693140.44	14563654.29	40°06'04.454"N	104°48'41.243"W	0.95	
13847.00	90.340	178.810	7301.19	6085.25	-6078.52	643.79	1693141.69	14563564.33	40°06'03.565"N	104°48'41.229"W	1.15	
13936.00	90.340	178.240	7300.66	6174.24	-6167.49	646.08	1693144.17	14563475.41	40°06'02.686"N	104°48'41.200"W	0.64	
14025.00	90.340	177.920	7300.13	6263.22	-6256.44	649.06	1693147.33	14563386.50	40°06'01.807"N	104°48'41.162"W	0.36	
14115.00	90.280	176.920	7299.65	6353.16	-6346.34	653.11	1693151.57	14563296.64	40°06'00.918"N	104°48'41.109"W	1.11	
14204.00	90.220	176.630	7299.26	6442.07	-6435.20	658.12	1693156.76	14563207.83	40°06'00.040"N	104°48'41.045"W	0.33	
14294.00	90.250	176.760	7298.89	6531.97	-6525.05	663.30	1693162.14	14563118.02	40°05'59.152"N	104°48'40.978"W	0.15	
14383.00	90.370	176.630	7298.41	6620.87	-6613.90	668.44	1693167.45	14563029.22	40°05'58.274"N	104°48'40.912"W	0.20	
14472.00	90.280	176.080	7297.90	6709.75	-6702.72	674.09	1693173.29	14562940.45	40°05'57.397"N	104°48'40.840"W	0.63	
14562.00	89.350	175.740	7298.19	6799.58	-6792.49	680.51	1693179.90	14562850.73	40°05'56.510"N	104°48'40.757"W	1.10	
14651.00	89.480	177.180	7299.10	6888.46	-6881.31	686.01	1693185.58	14562761.95	40°05'55.632"N	104°48'40.686"W	1.62	
14741.00	89.410	178.940	7299.97	6978.43	-6971.25	689.05	1693188.81	14562672.05	40°05'54.743"N	104°48'40.647"W	1.96	
14830.00	89.450	181.080	7300.86	7067.42	-7060.24	689.04	1693188.98	14562583.10	40°05'53.864"N	104°48'40.647"W	2.40	
14920.00	89.480	184.820	7301.70	7157.22	-7150.11	684.41	1693184.54	14562493.26	40°05'52.976"N	104°48'40.707"W	4.16	
15009.00	89.380	183.830	7302.59	7245.88	-7238.85	677.70	1693178.02	14562404.54	40°05'52.099"N	104°48'40.793"W	1.12	
15099.00	89.420	182.800	7303.53	7335.66	-7328.69	672.49	1693173.00	14562314.73	40°05'51.211"N	104°48'40.860"W	1.15	
15188.00	89.510	182.290	7304.36	7424.52	-7417.60	668.54	1693169.24	14562225.85	40°05'50.332"N	104°48'40.911"W	0.58	
15278.00	89.450	180.080	7305.18	7514.47	-7507.57	666.68	1693167.57	14562135.91	40°05'49.443"N	104°48'40.935"W	2.46	
15368.00	88.920	180.590	7306.46	7604.44	-7597.56	666.15	1693167.23	14562045.95	40°05'48.554"N	104°48'40.942"W	0.82	
15457.00	88.830	181.500	7308.20	7693.39	-7686.53	664.53	1693165.79	14561957.02	40°05'47.675"N	104°48'40.963"W	1.03	
15546.00	88.920	182.480	7309.95	7782.28	-7775.45	661.44	1693162.89	14561868.12	40°05'46.796"N	104°48'41.003"W	1.11	
15636.00	88.920	182.490	7311.65	7872.13	-7865.35	657.54	1693159.18	14561778.25	40°05'45.907"N	104°48'41.053"W	0.01	
15725.00	88.800	182.460	7313.42	7960.98	-7954.25	653.70	1693155.53	14561689.38	40°05'45.029"N	104°48'41.102"W	0.14	
15815.00	88.920	181.900	7315.21	8050.85	-8044.17	650.27	1693152.29	14561599.49	40°05'44.140"N	104°48'41.146"W	0.64	
15904.00	88.950	181.350	7316.86	8139.77	-8133.12	647.75	1693149.96	14561510.57	40°05'43.261"N	104°48'41.179"W	0.62	
15994.00	88.920	180.320	7318.54	8229.72	-8223.09	646.44	1693148.83	14561420.63	40°05'42.372"N	104°48'41.196"W	1.14	
16083.00	88.950	179.380	7320.19	8318.70	-8312.07	646.67	1693149.25	14561331.68	40°05'41.493"N	104°48'41.193"W	1.06	



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#18 CASTLE PINES 19-18HZ(483'FSL & 883'FEL,SEC.19)
Area	COLORADO	Well	CASTLE PINES 19-18HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CASTLE PINES 19-18HZ AWP
Facility	SEC.19-T2N-R66W		

WELLPATH DATA (208 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
16173.00	88.950	178.400	7321.84	8408.68	-8402.04	648.41	1693151.18	14561241.76	40°05'40.604"N	104°48'41.171"W	1.09	
16262.00	88.830	177.610	7323.56	8497.64	-8490.97	651.51	1693154.47	14561152.87	40°05'39.725"N	104°48'41.131"W	0.90	
16352.00	90.150	178.420	7324.37	8587.61	-8580.91	654.63	1693157.77	14561062.97	40°05'38.836"N	104°48'41.091"W	1.72	
16441.00	90.180	179.590	7324.11	8676.60	-8669.89	656.18	1693159.50	14560974.03	40°05'37.957"N	104°48'41.071"W	1.32	
16531.00	90.180	180.300	7323.83	8766.60	-8759.89	656.26	1693159.78	14560884.06	40°05'37.067"N	104°48'41.070"W	0.79	
16710.00	90.430	179.340	7322.87	8945.59	-8938.89	656.82	1693160.71	14560705.14	40°05'35.299"N	104°48'41.062"W	0.55	
16799.00	90.460	178.130	7322.18	9034.58	-9027.86	658.79	1693162.86	14560616.21	40°05'34.419"N	104°48'41.037"W	1.36	
16889.00	90.490	176.020	7321.44	9124.50	-9117.74	663.38	1693167.64	14560526.38	40°05'33.531"N	104°48'40.978"W	2.34	
16978.00	90.460	175.990	7320.70	9213.34	-9206.52	669.58	1693174.03	14560437.65	40°05'32.654"N	104°48'40.898"W	0.05	
17068.00	90.400	175.910	7320.02	9303.18	-9296.29	675.94	1693180.57	14560347.92	40°05'31.767"N	104°48'40.817"W	0.11	
17158.00	90.400	176.530	7319.39	9393.04	-9386.09	681.87	1693186.69	14560258.17	40°05'30.879"N	104°48'40.740"W	0.69	
17247.00	90.430	176.440	7318.75	9481.93	-9474.92	687.33	1693192.33	14560169.39	40°05'30.001"N	104°48'40.670"W	0.11	
17337.00	90.430	177.130	7318.07	9571.83	-9564.78	692.37	1693197.56	14560079.58	40°05'29.113"N	104°48'40.605"W	0.77	
17426.00	90.460	177.640	7317.38	9660.78	-9653.68	696.43	1693201.81	14559990.72	40°05'28.235"N	104°48'40.553"W	0.57	
17516.00	90.340	177.460	7316.75	9750.73	-9743.60	700.28	1693205.84	14559900.85	40°05'27.346"N	104°48'40.504"W	0.24	
17605.00	90.370	177.950	7316.20	9839.69	-9832.52	703.85	1693209.59	14559811.96	40°05'26.468"N	104°48'40.458"W	0.55	
17695.00	90.400	177.580	7315.60	9929.65	-9922.45	707.36	1693213.28	14559722.08	40°05'25.579"N	104°48'40.413"W	0.41	
17784.00	90.430	178.220	7314.95	10018.62	-10011.39	710.62	1693216.73	14559633.18	40°05'24.700"N	104°48'40.371"W	0.72	
17962.00	90.460	177.480	7313.57	10196.55	-10189.26	717.29	1693223.78	14559455.40	40°05'22.942"N	104°48'40.285"W	0.42	
18052.00	90.490	178.080	7312.83	10286.51	-10279.19	720.78	1693227.45	14559365.51	40°05'22.053"N	104°48'40.240"W	0.67	
18141.00	90.400	176.290	7312.13	10375.44	-10368.07	725.15	1693232.01	14559276.67	40°05'21.175"N	104°48'40.184"W	2.01	
18231.00	89.720	177.670	7312.04	10465.36	-10457.95	729.89	1693236.93	14559186.85	40°05'20.287"N	104°48'40.123"W	1.71	
18320.00	89.820	178.650	7312.40	10554.34	-10546.90	732.75	1693239.98	14559097.94	40°05'19.408"N	104°48'40.086"W	1.11	
18389.00†	89.820	178.980	7312.61	10623.33	-10615.88	734.18	1693241.55	14559028.98	40°05'18.726"N	104°48'40.068"W	0.48	ENTER RADIUS TOE (428'FSL & 167'FEL,SEC.31) 40.0885351 -104.8111299
18410.00	89.820	179.080	7312.68	10644.33	-10636.88	734.53	1693241.95	14559007.99	40°05'18.519"N	104°48'40.063"W	0.48	
18499.00	89.850	184.290	7312.94	10733.23	-10725.81	731.92	1693239.52	14558919.09	40°05'17.640"N	104°48'40.097"W	5.85	
18588.00	89.780	186.220	7313.22	10821.76	-10814.43	723.77	1693231.56	14558830.49	40°05'16.764"N	104°48'40.202"W	2.17	LAST BHGE MWD+IFR1+MSA SURVEY
18615.00	89.780	186.220	7313.33	10848.56	-10841.27	720.84	1693228.69	14558803.65	40°05'16.499"N	104°48'40.239"W	0.00	PTB (203'FSL & 180'FEL,SEC.31) 40.0879164 -104.8111776

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#18 CASTLE PINES 19-18HZ(483'FSL & 883'FEL,SEC.19)
Area	COLORADO	Well	CASTLE PINES 19-18HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CASTLE PINES 19-18HZ AWB
Facility	SEC.19-T2N-R66W		

HOLE & CASING SECTIONS - Ref Wellbore: CASTLE PINES 19-18HZ AWB Ref Wellpath: CASTLE PINES 19-18HZ 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]
9.625in Casing Surface	26.00	1892.00	1866.00	26.00	1838.58	0.00	0.00	297.30	237.80

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.30-T2N-R66W	2.00	2.13	-255.13	1692230.40	14569640.66	40°07'03.655"N	104°48'52.798"W	polygon
SEC.31-T2N-R66W	2.00	2.13	-255.13	1692230.40	14569640.66	40°07'03.655"N	104°48'52.798"W	polygon
CASTLE PINES 19-18HZ HEEL REV-1(578'FSL & 285'FEL,SEC.19)	7264.00	93.95	597.65	1693082.65	14569734.24	40°07'04.562"N	104°48'41.821"W	point
CASTLE PINES 19-18HZ BHL REV-1(200'FSL & 183'FEL,SEC.31)	7280.00	-10843.95	718.22	1693226.07	14558800.97	40°05'16.472"N	104°48'40.273"W	point
CASTLE PINES 19-18HZ LANDBOX	7280.00	0.00	0.00	1692485.44	14569639.07	40°07'03.634"N	104°48'49.514"W	polygon
CASTLE PINES 19-18HZ RADIUS 1	7280.00	-484.51	881.50	1693367.60	14569156.60	40°06'58.846"N	104°48'38.168"W	polygon
CASTLE PINES 19-18HZ RADIUS 2	7280.00	-11043.99	902.10	1693410.30	14558601.40	40°05'14.496"N	104°48'37.907"W	polygon
CASTLE PINES 19-18HZ BHL REV-2(200'FSL & 183'FEL,SEC.31)	7312.00	-10843.95	718.22	1693226.07	14558800.97	40°05'16.472"N	104°48'40.273"W	point

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#18 CASTLE PINES 19-18HZ(483'FSL & 883'FEL,SEC.19)
Area	COLORADO	Well	CASTLE PINES 19-18HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CASTLE PINES 19-18HZ AWB
Facility	SEC.19-T2N-R66W		

WELLPATH COMPOSITION - Ref Wellbore: CASTLE PINES 19-18HZ AWB				Ref Wellpath: CASTLE PINES 19-18HZ AWP	
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment		Wellbore
26.00	1852.00	Custom APC ISCWSA REV 2 MWD+IFR1 (approximation)	Custom APC ISCWSA Rev-2 MWD+IFR1 <136 - 1852>		CASTLE PINES 19-18HZ AWB
1852.00	18588.00	Custom APC ISCWSA REV 2 MWD+IFR1+MSA (approximation)	BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+MSA <1965 - 18588>		CASTLE PINES 19-18HZ AWB
18588.00	18615.00	Blind Drilling (std)	Projection to bit		CASTLE PINES 19-18HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#18 CASTLE PINES 19-18HZ(483'FSL & 883'FEL,SEC.19)
Area	COLORADO	Well	CASTLE PINES 19-18HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CASTLE PINES 19-18HZ AWB
Facility	SEC.19-T2N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
136.00	0.350	262.180	136.00	FIRST SURFACE MWD+IFR1 SURVEY
1852.00	17.710	36.740	1800.48	LAST SURFACE MWD+IFR1 SURVEY
1965.00	17.950	38.690	1908.05	FIRST BHGE MWD+IFR1+MSA SURVEY
6813.00	1.406	196.164	6698.76	KOP
7370.00	55.806	177.745	7179.51	ENTER LANDBOX (859'FSL & 327'FEL,SEC.19) 40.1187083 -104.8117645
7680.00	89.750	181.320	7268.36	LANDING (567'FSL & 321'FEL,SEC.19) 40.1179068 -104.8117429
8618.00	90.680	180.120	7270.71	EXIT RADIUS HEEL (370'FNL & 277'FEL,SEC.30) 40.1153359 -104.8115874
18389.00	89.820	178.980	7312.61	ENTER RADIUS TOE (428'FSL & 167'FEL,SEC.31) 40.0885351 -104.8111299
18588.00	89.780	186.220	7313.22	LAST BHGE MWD+IFR1+MSA SURVEY
18615.00	89.780	186.220	7313.33	PTB (203'FSL & 180'FEL,SEC.31) 40.0879164 -104.8111776