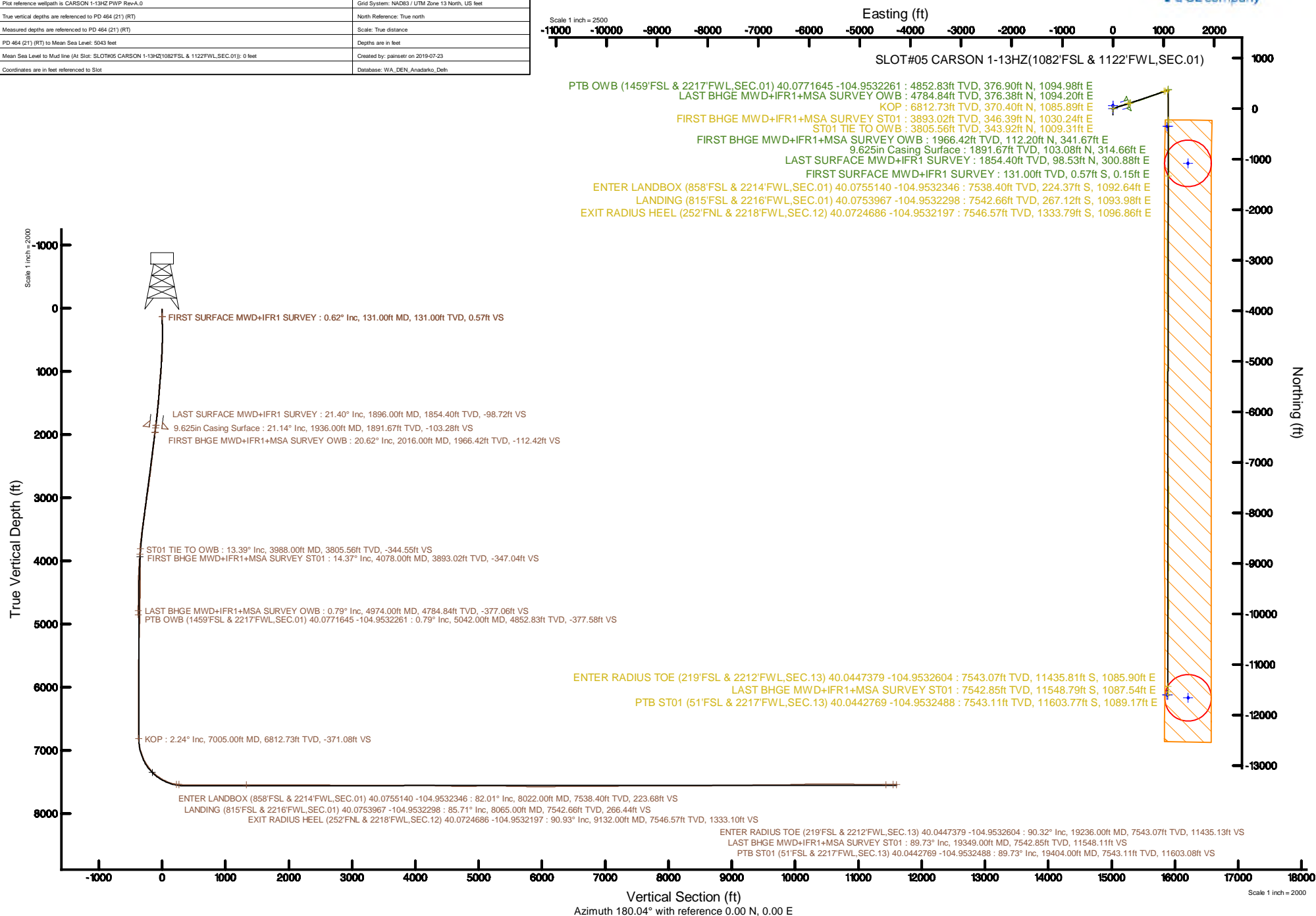


Location:	COLORADO	Slot:	SLOT#05 CARSON 1-13HZ(1082FSL & 1122FWL,SEC.01)
Field:	WELD COUNTY (UTM/TRUE NORTH)	Well:	CARSON 1-13HZ
Facility:	SEC.01-T1N-R68W	Wellbore:	CARSON 1-13HZ PWB

Plot reference wellpath is CARSON 1-13HZ PWP RevA.0	Grid System: NAD83 / UTM Zone 13 North, US feet
True vertical depths are referenced to PD 464 (21) (RT)	North Reference: True north
Measured depths are referenced to PD 464 (21) (RT)	Scale: True distance
PD 464 (21) (RT) to Mean Sea Level: 5043 feet	Depths are in feet
Mean Sea Level to Mud line (At Slot: SLOTR05 CARSON 1-13HZ1082FSL & 1122FWL,SEC.01): 0 feet	Created by: painere on 2019-07-23
Coordinates are in feet referenced to Sisd	Database: WA DEN Acordado.Dmh



Actual Wellpath Report

CARSON 1-13HZ ST01 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#05 CARSON 1-13HZ(1082'FSL & 1122'FWL,SEC.01)
Area	COLORADO	Well	CARSON 1-13HZ ST01
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CARSON 1-13HZ ST01 AWP
Facility	SEC.01-T1N-R68W	Sidetrack from	CARSON 1-13HZ AWP at 3988.00 MD

REPORT SETUP INFORMATION			
Projection System	NAD83 / UTM Zone 13 North, US feet	Software System	WellArchitect® 5.1
North Reference	True	User	Painsetr
Scale	0.999600	Report Generated	7/23/2019 at 1:42:07 PM
Convergence at slot	0.03° East	Database/Source file	WA_DEN_Anadarko_Defn/CARSON_1-13HZ_ST01_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-59.91	-0.00	1652406.62	14554458.55	40°04'34.068"N	104°57'25.700"W
Facility Reference Pt			1652406.59	14554518.44	40°04'34.660"N	104°57'25.700"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 464 (21') (RT) to Facility Vertical Datum	5043.00ft
Horizontal Reference Pt	Slot	PD 464 (21') (RT) to Mean Sea Level	5043.00ft
Vertical Reference Pt	PD 464 (21') (RT)	PD 464 (21') (RT) to Mud Line at Slot (SLOT#05 CARSON 1-13HZ (1082'FSL & 1122'FWL,SEC.01))	5043.00ft
MD Reference Pt	PD 464 (21') (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	180.04°

Actual Wellpath Report

CARSON 1-13HZ ST01 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#05 CARSON 1-13HZ(1082'FSL & 1122'FWL,SEC.01)
Area	COLORADO	Well	CARSON 1-13HZ ST01
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CARSON 1-13HZ ST01 AWB
Facility	SEC.01-T1N-R68W	Sidetrack from	CARSON 1-13HZ AWP at 3988.00 MD

WELLPATH DATA (222 stations) † = interpolated/extrapolated station												Comments
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]	
0.00†	0.000	164.970	0.00	0.00	0.00	0.00	1652406.62	14554458.55	40°04'34.068"N	104°57'25.700"W	0.00	
21.00	0.000	164.970	21.00	0.00	0.00	0.00	1652406.62	14554458.55	40°04'34.068"N	104°57'25.700"W	0.00	
131.00	0.620	164.970	131.00	0.57	-0.57	0.15	1652406.78	14554457.98	40°04'34.062"N	104°57'25.698"W	0.56	FIRST SURFACE MWD+IFR1 SURVEY
225.00	1.410	174.200	224.98	2.22	-2.22	0.40	1652407.02	14554456.34	40°04'34.046"N	104°57'25.695"W	0.86	
320.00	1.360	151.090	319.96	4.37	-4.37	1.07	1652407.69	14554454.19	40°04'34.025"N	104°57'25.686"W	0.59	
416.00	2.940	79.900	415.90	4.93	-4.93	4.04	1652410.66	14554453.63	40°04'34.019"N	104°57'25.648"W	2.93	
511.00	4.610	77.960	510.69	3.70	-3.71	10.17	1652416.79	14554454.85	40°04'34.031"N	104°57'25.569"W	1.76	
606.00	4.970	66.710	605.36	1.27	-1.28	17.69	1652424.30	14554457.28	40°04'34.055"N	104°57'25.472"W	1.06	
701.00	5.800	62.850	699.94	-2.55	2.53	25.74	1652432.35	14554461.10	40°04'34.093"N	104°57'25.369"W	0.95	
796.00	6.720	62.230	794.37	-7.33	7.31	34.93	1652441.53	14554465.88	40°04'34.140"N	104°57'25.251"W	0.97	
892.00	7.730	63.290	889.61	-12.86	12.83	45.67	1652452.26	14554471.40	40°04'34.195"N	104°57'25.113"W	1.06	
987.00	9.620	62.930	983.52	-19.35	19.32	58.44	1652465.03	14554477.89	40°04'34.259"N	104°57'24.948"W	1.99	
1082.00	11.690	68.210	1076.88	-26.55	26.50	74.45	1652481.03	14554485.08	40°04'34.330"N	104°57'24.742"W	2.41	
1177.00	13.010	68.910	1169.68	-33.98	33.92	93.36	1652499.93	14554492.51	40°04'34.403"N	104°57'24.499"W	1.40	
1272.00	14.190	71.460	1262.01	-41.55	41.47	114.38	1652520.94	14554500.07	40°04'34.478"N	104°57'24.229"W	1.39	
1367.00	15.910	74.010	1353.75	-48.85	48.76	137.94	1652544.48	14554507.36	40°04'34.550"N	104°57'23.926"W	1.94	
1462.00	17.230	73.920	1444.80	-56.35	56.25	163.98	1652570.51	14554514.86	40°04'34.624"N	104°57'23.591"W	1.39	
1557.00	18.540	73.540	1535.21	-64.55	64.43	191.98	1652598.50	14554523.05	40°04'34.705"N	104°57'23.230"W	1.38	
1652.00	19.200	72.690	1625.10	-73.49	73.35	221.38	1652627.88	14554531.98	40°04'34.793"N	104°57'22.852"W	0.75	
1747.00	19.600	72.780	1714.71	-82.88	82.72	251.52	1652658.00	14554541.36	40°04'34.885"N	104°57'22.465"W	0.42	
1843.00	20.480	72.070	1804.90	-92.83	92.65	282.88	1652689.34	14554551.31	40°04'34.984"N	104°57'22.061"W	0.95	
1896.00	21.400	71.810	1854.40	-98.72	98.53	300.88	1652707.34	14554557.19	40°04'35.042"N	104°57'21.829"W	1.74	LAST SURFACE MWD+IFR1 SURVEY
2016.00	20.620	71.110	1966.42	-112.42	112.20	341.67	1652748.10	14554570.88	40°04'35.177"N	104°57'21.305"W	0.68	FIRST BHGE MWD+IFR1+MSA SURVEY OWB
2105.00	22.190	72.950	2049.28	-122.44	122.21	372.57	1652778.98	14554580.89	40°04'35.276"N	104°57'20.907"W	1.92	
2195.00	22.710	72.870	2132.46	-132.56	132.31	405.42	1652811.82	14554591.00	40°04'35.375"N	104°57'20.485"W	0.58	
2285.00	21.200	72.100	2215.93	-142.70	142.43	437.51	1652843.89	14554601.13	40°04'35.475"N	104°57'20.072"W	1.71	
2375.00	22.350	73.850	2299.50	-152.48	152.19	469.44	1652875.80	14554610.91	40°04'35.572"N	104°57'19.661"W	1.47	
2464.00	22.860	73.280	2381.67	-162.18	161.87	502.25	1652908.59	14554620.60	40°04'35.668"N	104°57'19.239"W	0.62	
2554.00	21.140	72.200	2465.11	-172.19	171.86	534.44	1652940.77	14554630.60	40°04'35.766"N	104°57'18.825"W	1.96	
2644.00	21.440	72.270	2548.97	-182.18	181.83	565.56	1652971.87	14554640.58	40°04'35.865"N	104°57'18.425"W	0.33	
2734.00	21.940	70.330	2632.60	-192.87	192.50	597.06	1653003.35	14554651.26	40°04'35.970"N	104°57'18.019"W	0.97	
2823.00	22.490	70.930	2714.99	-204.05	203.66	628.81	1653035.08	14554662.43	40°04'36.080"N	104°57'17.611"W	0.67	
2913.00	22.320	70.870	2798.20	-215.30	214.88	661.22	1653067.48	14554673.67	40°04'36.191"N	104°57'17.194"W	0.19	
3002.00	23.470	69.220	2880.18	-227.14	226.71	693.76	1653100.00	14554685.50	40°04'36.308"N	104°57'16.775"W	1.48	
3092.00	21.390	68.310	2963.37	-239.59	239.13	725.77	1653131.99	14554697.94	40°04'36.431"N	104°57'16.364"W	2.34	
3181.00	22.570	71.270	3045.90	-251.09	250.62	757.03	1653163.23	14554709.43	40°04'36.545"N	104°57'15.962"W	1.82	
3271.00	22.060	71.400	3129.16	-262.05	261.55	789.41	1653195.58	14554720.38	40°04'36.653"N	104°57'15.545"W	0.57	
3361.00	22.020	70.420	3212.59	-273.11	272.60	821.32	1653227.48	14554731.44	40°04'36.762"N	104°57'15.134"W	0.41	
3450.00	22.290	72.420	3295.02	-283.82	283.29	853.13	1653259.27	14554742.14	40°04'36.867"N	104°57'14.725"W	0.90	
3540.00	22.180	69.570	3378.33	-294.93	294.37	885.32	1653291.45	14554753.24	40°04'36.977"N	104°57'14.311"W	1.20	
3630.00	19.690	68.520	3462.38	-306.43	305.86	915.36	1653321.46	14554764.73	40°04'37.090"N	104°57'13.925"W	2.80	
3719.00	17.220	67.310	3546.80	-317.02	316.43	941.47	1653347.56	14554775.31	40°04'37.195"N	104°57'13.589"W	2.81	
3809.00	17.240	68.160	3632.76	-327.14	326.53	966.14	1653372.21	14554785.42	40°04'37.295"N	104°57'13.272"W	0.28	
3898.00	14.850	67.100	3718.28	-336.50	335.88	988.89	1653394.95	14554794.77	40°04'37.387"N	104°57'12.979"W	2.71	
3988.00	13.390	70.060	3805.56	-344.55	343.92	1009.31	1653415.36	14554802.82	40°04'37.466"N	104°57'12.716"W	1.81	ST01 TIE TO OWB

Actual Wellpath Report

CARSON 1-13HZ ST01 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#05 CARSON 1-13HZ(1082'FSL & 1122'FWL,SEC.01)
Area	COLORADO	Well	CARSON 1-13HZ ST01
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CARSON 1-13HZ ST01 AWB
Facility	SEC.01-T1N-R68W	Sidetrack from	CARSON 1-13HZ AWP at 3988.00 MD

WELLPATH DATA (222 stations) † = interpolated/extrapolated station												Comments
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]	
4078.00	14.370	95.560	3893.02	-347.04	346.39	1030.24	1653436.28	14554805.30	40°04'37.491"N	104°57'12.447"W	6.83	FIRST BHGE MWD+IFR1+MSA SURVEY ST01
4167.00	12.470	94.890	3979.58	-345.16	344.50	1050.81	1653456.84	14554803.43	40°04'37.472"N	104°57'12.182"W	2.14	
4257.00	11.240	94.170	4067.66	-343.71	343.04	1069.24	1653475.27	14554801.97	40°04'37.458"N	104°57'11.945"W	1.38	
4347.00	7.940	81.860	4156.40	-343.96	343.28	1084.15	1653490.17	14554802.22	40°04'37.460"N	104°57'11.753"W	4.30	
4436.00	6.030	79.120	4244.74	-345.72	345.03	1094.82	1653500.84	14554803.98	40°04'37.477"N	104°57'11.616"W	2.18	
4526.00	3.760	70.130	4334.40	-347.62	346.93	1102.24	1653508.25	14554805.87	40°04'37.496"N	104°57'11.521"W	2.65	
4616.00	0.890	79.600	4424.32	-348.75	348.06	1105.71	1653511.72	14554807.00	40°04'37.507"N	104°57'11.476"W	3.21	
4705.00	0.920	60.660	4513.31	-349.23	348.53	1107.01	1653513.02	14554807.48	40°04'37.512"N	104°57'11.459"W	0.34	
4795.00	0.800	49.980	4603.30	-349.99	349.29	1108.12	1653514.13	14554808.24	40°04'37.520"N	104°57'11.445"W	0.22	
4884.00	0.700	58.600	4692.29	-350.67	349.97	1109.06	1653515.07	14554808.92	40°04'37.526"N	104°57'11.433"W	0.17	
4974.00	0.570	75.140	4782.29	-351.07	350.37	1109.96	1653515.97	14554809.32	40°04'37.530"N	104°57'11.421"W	0.25	
5063.00	1.720	326.210	4871.27	-352.30	351.60	1109.65	1653515.65	14554810.55	40°04'37.542"N	104°57'11.425"W	2.22	
5152.00	2.660	330.160	4960.21	-355.20	354.50	1107.88	1653513.88	14554813.45	40°04'37.571"N	104°57'11.448"W	1.07	
5242.00	2.130	322.190	5050.13	-358.33	357.63	1105.81	1653511.82	14554816.58	40°04'37.602"N	104°57'11.475"W	0.69	
5331.00	1.890	319.240	5139.07	-360.74	360.05	1103.84	1653509.84	14554818.99	40°04'37.626"N	104°57'11.500"W	0.29	
5421.00	3.210	315.420	5228.98	-363.66	362.97	1101.10	1653507.11	14554821.91	40°04'37.655"N	104°57'11.535"W	1.48	
5511.00	2.660	312.000	5318.86	-366.85	366.16	1097.78	1653503.79	14554825.10	40°04'37.686"N	104°57'11.578"W	0.64	
5601.00	0.920	309.540	5408.82	-368.71	368.02	1095.67	1653501.68	14554826.95	40°04'37.705"N	104°57'11.605"W	1.93	
5690.00	0.520	309.940	5497.81	-369.42	368.73	1094.81	1653500.82	14554827.67	40°04'37.712"N	104°57'11.616"W	0.45	
5780.00	0.630	312.360	5587.80	-370.02	369.33	1094.13	1653500.14	14554828.26	40°04'37.718"N	104°57'11.625"W	0.13	
5870.00	0.680	302.500	5677.80	-370.64	369.95	1093.32	1653499.32	14554828.88	40°04'37.724"N	104°57'11.635"W	0.14	
5960.00	0.750	304.750	5767.79	-371.26	370.57	1092.38	1653498.39	14554829.50	40°04'37.730"N	104°57'11.647"W	0.08	
6078.00	0.760	297.740	5885.78	-372.06	371.38	1091.06	1653497.06	14554830.31	40°04'37.738"N	104°57'11.665"W	0.08	
6168.00	0.450	306.150	5975.78	-372.55	371.86	1090.24	1653496.25	14554830.79	40°04'37.743"N	104°57'11.675"W	0.36	
6258.00	0.580	273.300	6065.77	-372.78	372.10	1089.50	1653495.51	14554831.03	40°04'37.745"N	104°57'11.685"W	0.35	
6347.00	0.630	229.480	6154.77	-372.49	371.81	1088.68	1653494.68	14554830.74	40°04'37.742"N	104°57'11.695"W	0.51	
6437.00	0.970	212.020	6244.76	-371.52	370.84	1087.90	1653493.91	14554829.77	40°04'37.732"N	104°57'11.705"W	0.46	
6527.00	0.580	227.310	6334.75	-370.57	369.88	1087.16	1653493.17	14554828.81	40°04'37.723"N	104°57'11.715"W	0.49	
6616.00	0.400	236.590	6423.75	-370.09	369.41	1086.57	1653492.58	14554828.34	40°04'37.718"N	104°57'11.722"W	0.22	
6706.00	0.400	8.940	6513.75	-370.23	369.55	1086.36	1653492.36	14554828.47	40°04'37.720"N	104°57'11.725"W	0.81	
6796.00	0.380	6.940	6603.74	-370.83	370.15	1086.44	1653492.45	14554829.08	40°04'37.726"N	104°57'11.724"W	0.03	
6885.00	0.300	325.780	6692.74	-371.32	370.64	1086.35	1653492.35	14554829.57	40°04'37.730"N	104°57'11.725"W	0.28	
6975.00	0.310	298.370	6782.74	-371.63	370.95	1086.00	1653492.01	14554829.88	40°04'37.734"N	104°57'11.730"W	0.16	
7005.00†	2.241	184.016	6812.73	-371.08	370.40	1085.89	1653491.89	14554829.33	40°04'37.728"N	104°57'11.731"W	7.95	KOP
7065.00	7.000	179.380	6872.52	-366.26	365.57	1085.85	1653491.85	14554824.50	40°04'37.680"N	104°57'11.732"W	7.95	
7154.00	12.100	183.250	6960.26	-351.51	350.83	1085.37	1653491.39	14554809.76	40°04'37.535"N	104°57'11.738"W	5.77	
7244.00	17.830	181.760	7047.17	-328.30	327.62	1084.42	1653490.44	14554786.56	40°04'37.305"N	104°57'11.750"W	6.38	
7334.00	23.870	177.210	7131.25	-296.31	295.63	1084.88	1653490.92	14554754.58	40°04'36.989"N	104°57'11.744"W	6.94	
7423.00	31.420	177.150	7210.03	-255.09	254.41	1086.91	1653492.97	14554713.39	40°04'36.582"N	104°57'11.718"W	8.48	
7513.00	38.870	178.230	7283.57	-203.36	202.68	1088.95	1653495.04	14554661.68	40°04'36.071"N	104°57'11.692"W	8.31	
7602.00	44.470	179.000	7350.03	-144.24	143.55	1090.36	1653496.48	14554602.57	40°04'35.486"N	104°57'11.674"W	6.32	
7692.00	53.500	181.720	7409.03	-76.41	75.73	1089.83	1653495.97	14554534.78	40°04'34.816"N	104°57'11.681"W	10.29	
7782.00	60.320	179.820	7458.14	-1.06	0.38	1088.86	1653495.04	14554459.46	40°04'34.072"N	104°57'11.693"W	7.78	
7871.00	67.620	179.030	7497.18	78.85	-79.53	1089.68	1653495.90	14554379.58	40°04'33.282"N	104°57'11.682"W	8.24	
7961.00	74.800	178.910	7526.15	163.98	-164.67	1091.21	1653497.47	14554294.48	40°04'32.440"N	104°57'11.663"W	7.98	

Actual Wellpath Report

CARSON 1-13HZ ST01 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#05 CARSON 1-13HZ(1082'FSL & 1122'FWL,SEC.01)
Area	COLORADO	Well	CARSON 1-13HZ ST01
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CARSON 1-13HZ ST01 AWB
Facility	SEC.01-T1N-R68W	Sidetrack from	CARSON 1-13HZ AWP at 3988.00 MD

WELLPATH DATA (222 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
8022.00†	82.010	178.363	7538.40	223.68	-224.37	1092.64	1653498.93	14554234.80	40°04'31.851"N	104°57'11.645"W	11.85	ENTER LANDBOX (858'FSL & 2214'FWL,SEC.01) 40.0755140 -104.9532346
8050.00	85.320	178.120	7541.49	251.49	-252.18	1093.49	1653499.79	14554207.00	40°04'31.576"N	104°57'11.634"W	11.85	
8065.00†	85.707	178.102	7542.66	266.44	-267.12	1093.98	1653500.29	14554192.06	40°04'31.428"N	104°57'11.627"W	2.58	LANDING (815'FSL & 2216'FWL,SEC.01) 40.0753967 -104.9532298
8140.00	87.640	178.010	7547.01	341.26	-341.95	1096.52	1653502.87	14554117.27	40°04'30.689"N	104°57'11.595"W	2.58	
8230.00	88.580	178.840	7549.98	431.18	-431.87	1099.00	1653505.38	14554027.39	40°04'29.800"N	104°57'11.563"W	1.39	
8319.00	90.480	179.550	7550.71	520.16	-520.85	1100.25	1653506.68	14553938.44	40°04'28.921"N	104°57'11.547"W	2.28	
8409.00	90.240	179.170	7550.15	610.15	-610.84	1101.25	1653507.72	14553848.49	40°04'28.031"N	104°57'11.534"W	0.50	
8498.00	89.790	180.090	7550.12	699.15	-699.84	1101.83	1653508.34	14553759.53	40°04'27.152"N	104°57'11.527"W	1.15	
8588.00	90.070	179.680	7550.23	789.15	-789.84	1102.01	1653508.57	14553669.56	40°04'26.262"N	104°57'11.524"W	0.55	
8678.00	90.120	181.170	7550.08	879.14	-879.83	1101.34	1653507.94	14553579.60	40°04'25.373"N	104°57'11.533"W	1.66	
8767.00	90.280	181.040	7549.77	968.12	-968.82	1099.62	1653506.27	14553490.66	40°04'24.494"N	104°57'11.555"W	0.23	
8857.00	90.270	180.440	7549.34	1058.12	-1058.81	1098.46	1653505.15	14553400.70	40°04'23.604"N	104°57'11.570"W	0.67	
8946.00	90.870	180.200	7548.45	1147.11	-1147.80	1097.96	1653504.70	14553311.74	40°04'22.725"N	104°57'11.577"W	0.73	
9036.00	90.180	180.420	7547.63	1237.11	-1237.79	1097.48	1653504.25	14553221.78	40°04'21.836"N	104°57'11.583"W	0.80	
9126.00	91.040	180.320	7546.67	1327.10	-1327.79	1096.90	1653503.71	14553131.83	40°04'20.946"N	104°57'11.590"W	0.96	
9132.00†	90.929	180.383	7546.57	1333.10	-1333.79	1096.86	1653503.68	14553125.83	40°04'20.887"N	104°57'11.591"W	2.13	EXIT RADIUS HEEL (252'FNL & 2218'FWL,SEC.12) 40.0724686 -104.9532197
9215.00	89.390	181.260	7546.34	1416.09	-1416.77	1095.67	1653502.53	14553042.88	40°04'20.067"N	104°57'11.606"W	2.13	
9305.00	89.560	181.020	7547.16	1506.06	-1506.75	1093.88	1653500.78	14552952.93	40°04'19.178"N	104°57'11.629"W	0.33	
9395.00	89.820	180.770	7547.65	1596.05	-1596.74	1092.47	1653499.42	14552862.98	40°04'18.288"N	104°57'11.647"W	0.40	
9485.00	90.550	180.400	7547.36	1686.05	-1686.73	1091.55	1653498.55	14552773.02	40°04'17.399"N	104°57'11.659"W	0.91	
9574.00	89.360	180.570	7547.43	1775.04	-1775.73	1090.80	1653497.84	14552684.06	40°04'16.520"N	104°57'11.669"W	1.35	
9664.00	90.100	180.370	7547.85	1865.04	-1865.72	1090.06	1653497.14	14552594.10	40°04'15.630"N	104°57'11.679"W	0.85	
9753.00	90.700	180.590	7547.23	1954.03	-1954.72	1089.32	1653496.44	14552505.15	40°04'14.751"N	104°57'11.688"W	0.72	
9843.00	90.270	180.830	7546.47	2044.02	-2044.71	1088.20	1653495.37	14552415.19	40°04'13.862"N	104°57'11.703"W	0.55	
9933.00	89.180	181.560	7546.90	2134.00	-2134.69	1086.32	1653493.54	14552325.25	40°04'12.972"N	104°57'11.727"W	1.46	
10022.00	90.210	181.900	7547.38	2222.96	-2223.64	1083.64	1653490.89	14552236.33	40°04'12.093"N	104°57'11.761"W	1.22	
10112.00	88.780	180.820	7548.17	2312.93	-2313.61	1081.50	1653488.80	14552146.39	40°04'11.204"N	104°57'11.789"W	1.99	
10201.00	89.670	180.990	7549.37	2401.91	-2402.59	1080.10	1653487.44	14552057.45	40°04'10.325"N	104°57'11.807"W	1.02	
10291.00	90.160	180.340	7549.51	2491.90	-2492.58	1079.05	1653486.44	14551967.49	40°04'09.436"N	104°57'11.821"W	0.90	
10381.00	88.530	179.970	7550.53	2581.90	-2582.57	1078.81	1653486.24	14551877.54	40°04'08.546"N	104°57'11.824"W	1.86	
10470.00	88.110	180.010	7553.14	2670.86	-2671.54	1078.82	1653486.30	14551788.61	40°04'07.667"N	104°57'11.824"W	0.47	
10560.00	88.480	180.000	7555.82	2760.82	-2761.50	1078.82	1653486.33	14551698.69	40°04'06.778"N	104°57'11.824"W	0.41	
10650.00	90.320	179.900	7556.76	2850.81	-2851.49	1078.89	1653486.45	14551608.73	40°04'05.889"N	104°57'11.823"W	2.05	
10739.00	90.700	180.060	7555.97	2939.80	-2940.48	1078.93	1653486.53	14551519.77	40°04'05.009"N	104°57'11.822"W	0.46	
10829.00	90.300	179.820	7555.19	3029.80	-3030.48	1079.02	1653486.67	14551429.81	40°04'04.120"N	104°57'11.821"W	0.52	
10919.00	91.010	179.870	7554.16	3119.79	-3120.47	1079.26	1653486.95	14551339.86	40°04'03.231"N	104°57'11.818"W	0.79	
11008.00	90.250	179.960	7553.18	3208.79	-3209.47	1079.39	1653487.13	14551250.90	40°04'02.351"N	104°57'11.817"W	0.86	
11098.00	90.020	180.130	7552.97	3298.79	-3299.47	1079.32	1653487.10	14551160.93	40°04'01.462"N	104°57'11.817"W	0.32	
11187.00	89.790	180.460	7553.11	3387.79	-3388.46	1078.87	1653486.68	14551071.97	40°04'00.582"N	104°57'11.823"W	0.45	
11277.00	90.020	181.500	7553.26	3477.77	-3478.45	1077.33	1653485.19	14550982.02	40°03'59.693"N	104°57'11.843"W	1.18	
11367.00	89.390	180.480	7553.73	3567.76	-3568.43	1075.77	1653483.68	14550892.07	40°03'58.804"N	104°57'11.863"W	1.33	
11456.00	89.330	180.510	7554.72	3656.75	-3657.42	1075.00	1653482.95	14550803.12	40°03'57.924"N	104°57'11.873"W	0.08	
11546.00	89.780	179.200	7555.42	3746.74	-3747.42	1075.23	1653483.22	14550713.16	40°03'57.035"N	104°57'11.870"W	1.54	
11636.00	89.730	178.930	7555.81	3836.73	-3837.41	1076.70	1653484.73	14550623.21	40°03'56.146"N	104°57'11.852"W	0.31	
11725.00	89.930	178.630	7556.07	3925.71	-3926.39	1078.59	1653486.67	14550534.27	40°03'55.266"N	104°57'11.827"W	0.41	

Actual Wellpath Report

CARSON 1-13HZ ST01 AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#05 CARSON 1-13HZ(1082'FSL & 1122'FWL,SEC.01)
Area	COLORADO	Well	CARSON 1-13HZ ST01
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CARSON 1-13HZ ST01 AWB
Facility	SEC.01-T1N-R68W	Sidetrack from	CARSON 1-13HZ AWP at 3988.00 MD

WELLPATH DATA (222 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
11815.00	90.330	178.470	7555.87	4015.68	-4016.36	1080.87	1653488.99	14550444.33	40°03'54.377"N	104°57'11.798"W	0.48	
11905.00	90.320	180.130	7555.35	4105.66	-4106.34	1081.97	1653490.13	14550354.38	40°03'53.488"N	104°57'11.784"W	1.84	
11995.00	88.500	180.190	7556.28	4195.66	-4196.34	1081.72	1653489.93	14550264.43	40°03'52.599"N	104°57'11.787"W	2.02	
12084.00	88.480	179.860	7558.63	4284.62	-4285.30	1081.68	1653489.93	14550175.49	40°03'51.720"N	104°57'11.788"W	0.37	
12174.00	88.510	179.430	7560.99	4374.59	-4375.27	1082.24	1653490.53	14550085.56	40°03'50.830"N	104°57'11.781"W	0.48	
12264.00	88.110	179.040	7563.64	4464.54	-4465.22	1083.44	1653491.77	14549995.65	40°03'49.942"N	104°57'11.765"W	0.62	
12353.00	89.220	179.210	7565.72	4553.51	-4554.19	1084.80	1653493.18	14549906.72	40°03'49.062"N	104°57'11.748"W	1.26	
12443.00	88.510	179.470	7567.50	4643.48	-4644.16	1085.83	1653494.25	14549816.78	40°03'48.173"N	104°57'11.734"W	0.84	
12533.00	89.130	180.080	7569.35	4733.46	-4734.14	1086.19	1653494.65	14549726.84	40°03'47.284"N	104°57'11.730"W	0.97	
12623.00	90.850	180.950	7569.37	4823.45	-4824.14	1085.38	1653493.89	14549636.88	40°03'46.395"N	104°57'11.740"W	2.14	
12712.00	91.450	180.630	7567.58	4912.43	-4913.11	1084.15	1653492.70	14549547.94	40°03'45.515"N	104°57'11.756"W	0.76	
12802.00	91.380	181.640	7565.36	5002.38	-5003.06	1082.37	1653490.96	14549458.02	40°03'44.626"N	104°57'11.779"W	1.12	
12892.00	89.930	180.690	7564.33	5092.35	-5093.03	1080.54	1653489.18	14549368.09	40°03'43.737"N	104°57'11.803"W	1.93	
12982.00	90.240	180.720	7564.20	5182.35	-5183.03	1079.43	1653488.12	14549278.13	40°03'42.848"N	104°57'11.817"W	0.35	
13071.00	90.320	180.780	7563.76	5271.34	-5272.02	1078.27	1653486.99	14549189.17	40°03'41.969"N	104°57'11.832"W	0.11	
13161.00	89.020	180.770	7564.28	5361.33	-5362.01	1077.05	1653485.82	14549099.22	40°03'41.079"N	104°57'11.848"W	1.44	
13251.00	88.500	180.380	7566.23	5451.30	-5451.98	1076.15	1653484.96	14549009.28	40°03'40.190"N	104°57'11.860"W	0.72	
13341.00	88.680	180.140	7568.44	5541.28	-5541.95	1075.74	1653484.60	14548919.35	40°03'39.301"N	104°57'11.865"W	0.33	
13431.00	88.760	179.710	7570.45	5631.25	-5631.93	1075.86	1653484.76	14548829.41	40°03'38.412"N	104°57'11.863"W	0.49	
13520.00	89.040	179.660	7572.16	5720.23	-5720.91	1076.35	1653485.29	14548740.46	40°03'37.533"N	104°57'11.857"W	0.32	
13610.00	88.610	179.640	7574.01	5810.21	-5810.89	1076.90	1653485.88	14548650.52	40°03'36.643"N	104°57'11.850"W	0.48	
13700.00	90.150	179.540	7574.98	5900.20	-5900.88	1077.54	1653486.57	14548560.56	40°03'35.754"N	104°57'11.842"W	1.71	
13789.00	90.360	179.640	7574.59	5989.20	-5989.88	1078.18	1653487.25	14548471.60	40°03'34.875"N	104°57'11.834"W	0.26	
13879.00	89.900	179.890	7574.38	6079.20	-6079.88	1078.55	1653487.66	14548381.64	40°03'33.985"N	104°57'11.829"W	0.58	
13969.00	91.360	179.140	7573.39	6169.19	-6169.86	1079.31	1653488.47	14548291.69	40°03'33.096"N	104°57'11.819"W	1.82	
14058.00	90.190	178.730	7572.19	6258.16	-6258.84	1080.96	1653490.16	14548202.75	40°03'32.217"N	104°57'11.798"W	1.39	
14148.00	89.810	178.790	7572.19	6348.14	-6348.82	1082.91	1653492.15	14548112.81	40°03'31.327"N	104°57'11.773"W	0.43	
14238.00	90.240	180.510	7572.15	6438.13	-6438.81	1083.46	1653492.74	14548022.85	40°03'30.438"N	104°57'11.766"W	1.97	
14328.00	91.550	180.080	7570.74	6528.12	-6528.80	1083.00	1653492.32	14547932.90	40°03'29.549"N	104°57'11.772"W	1.53	
14418.00	89.900	179.100	7569.61	6618.10	-6618.78	1083.64	1653493.01	14547842.95	40°03'28.660"N	104°57'11.764"W	2.13	
14508.00	90.010	179.860	7569.68	6708.10	-6708.78	1084.46	1653493.87	14547752.99	40°03'27.770"N	104°57'11.753"W	0.85	
14598.00	89.210	178.860	7570.29	6798.09	-6798.77	1085.46	1653494.92	14547663.04	40°03'26.881"N	104°57'11.740"W	1.42	
14687.00	90.810	179.960	7570.27	6887.08	-6887.76	1086.38	1653495.88	14547574.08	40°03'26.001"N	104°57'11.729"W	2.18	
14777.00	90.720	179.530	7569.07	6977.07	-6977.75	1086.78	1653496.32	14547484.13	40°03'25.112"N	104°57'11.724"W	0.49	
14866.00	90.900	179.280	7567.81	7066.05	-7066.74	1087.70	1653497.29	14547395.18	40°03'24.233"N	104°57'11.712"W	0.35	
14956.00	90.580	179.060	7566.65	7156.04	-7156.72	1089.01	1653498.64	14547305.23	40°03'23.344"N	104°57'11.695"W	0.43	
15046.00	90.920	179.210	7565.47	7246.02	-7246.70	1090.37	1653500.04	14547215.29	40°03'22.454"N	104°57'11.678"W	0.41	
15135.00	90.020	178.210	7564.74	7334.99	-7335.68	1092.37	1653502.08	14547126.35	40°03'21.575"N	104°57'11.652"W	1.51	
15225.00	90.050	178.260	7564.69	7424.94	-7425.63	1095.14	1653504.90	14547036.43	40°03'20.686"N	104°57'11.616"W	0.06	
15315.00	90.790	179.200	7564.03	7514.92	-7515.61	1097.14	1653506.93	14546946.50	40°03'19.797"N	104°57'11.591"W	1.33	
15405.00	90.300	179.810	7563.17	7604.91	-7605.60	1097.91	1653507.75	14546856.54	40°03'18.908"N	104°57'11.581"W	0.87	
15494.00	90.890	180.600	7562.25	7693.90	-7694.59	1097.59	1653507.48	14546767.58	40°03'18.028"N	104°57'11.585"W	1.11	
15584.00	90.560	180.560	7561.11	7783.89	-7784.58	1096.68	1653506.61	14546677.63	40°03'17.139"N	104°57'11.597"W	0.37	
15674.00	90.050	179.860	7560.63	7873.89	-7874.58	1096.35	1653506.32	14546587.67	40°03'16.250"N	104°57'11.601"W	0.96	
15763.00	90.580	179.820	7560.14	7962.89	-7963.58	1096.60	1653506.62	14546498.71	40°03'15.370"N	104°57'11.598"W	0.60	

Actual Wellpath Report

CARSON 1-13HZ ST01 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#05 CARSON 1-13HZ(1082'FSL & 1122'FWL,SEC.01)
Area	COLORADO	Well	CARSON 1-13HZ ST01
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CARSON 1-13HZ ST01 AWB
Facility	SEC.01-T1N-R68W	Sidetrack from	CARSON 1-13HZ AWP at 3988.00 MD

WELLPATH DATA (222 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
15853.00	89.580	178.140	7560.01	8052.87	-8053.56	1098.20	1653508.26	14546408.76	40°03'14.481"N	104°57'11.577"W	2.17	
15943.00	89.810	180.620	7560.49	8142.85	-8143.54	1099.18	1653509.28	14546318.81	40°03'13.592"N	104°57'11.565"W	2.77	
16032.00	90.160	180.660	7560.52	8231.85	-8232.54	1098.18	1653508.33	14546229.85	40°03'12.712"N	104°57'11.578"W	0.40	
16122.00	90.300	181.860	7560.16	8321.82	-8322.51	1096.20	1653506.39	14546139.91	40°03'11.823"N	104°57'11.603"W	1.34	
16212.00	89.700	181.050	7560.16	8411.79	-8412.48	1093.92	1653504.15	14546049.98	40°03'10.934"N	104°57'11.633"W	1.12	
16301.00	90.250	181.780	7560.19	8500.77	-8501.46	1091.72	1653502.00	14545961.04	40°03'10.055"N	104°57'11.661"W	1.03	
16391.00	89.750	181.250	7560.19	8590.74	-8591.42	1089.34	1653499.66	14545871.11	40°03'09.165"N	104°57'11.692"W	0.81	
16481.00	91.240	179.920	7559.42	8680.73	-8681.41	1088.42	1653498.79	14545781.16	40°03'08.276"N	104°57'11.703"W	2.22	
16570.00	90.760	179.270	7557.86	8769.71	-8770.39	1089.05	1653499.46	14545692.21	40°03'07.397"N	104°57'11.695"W	0.91	
16660.00	90.440	176.940	7556.92	8859.65	-8860.33	1092.03	1653502.48	14545602.31	40°03'06.508"N	104°57'11.657"W	2.61	
16750.00	91.100	178.360	7555.71	8949.56	-8950.25	1095.72	1653506.21	14545512.43	40°03'05.620"N	104°57'11.610"W	1.74	
16839.00	90.900	179.820	7554.16	9038.53	-9039.22	1097.13	1653507.66	14545423.50	40°03'04.740"N	104°57'11.592"W	1.66	
16928.00	90.380	180.760	7553.16	9127.52	-9128.21	1096.68	1653507.26	14545334.54	40°03'03.861"N	104°57'11.598"W	1.21	
17018.00	89.720	180.490	7553.09	9217.52	-9218.21	1095.70	1653506.32	14545244.58	40°03'02.971"N	104°57'11.610"W	0.79	
17107.00	90.690	180.450	7552.77	9306.51	-9307.20	1094.97	1653505.63	14545155.62	40°03'02.092"N	104°57'11.620"W	1.09	
17197.00	90.160	179.720	7552.10	9396.51	-9397.20	1094.84	1653505.54	14545065.66	40°03'01.203"N	104°57'11.621"W	1.00	
17287.00	90.820	179.960	7551.33	9486.50	-9487.19	1095.09	1653505.84	14544975.70	40°03'00.313"N	104°57'11.618"W	0.78	
17376.00	90.450	179.770	7550.34	9575.50	-9576.19	1095.30	1653506.09	14544886.74	40°02'59.434"N	104°57'11.616"W	0.47	
17466.00	90.490	179.390	7549.61	9665.49	-9666.18	1095.96	1653506.79	14544796.78	40°02'58.544"N	104°57'11.607"W	0.42	
17556.00	90.360	179.140	7548.94	9755.48	-9756.17	1097.11	1653507.99	14544706.83	40°02'57.655"N	104°57'11.592"W	0.31	
17645.00	91.240	180.840	7547.70	9844.47	-9845.16	1097.13	1653508.05	14544617.88	40°02'56.776"N	104°57'11.592"W	2.15	
17735.00	91.440	180.160	7545.59	9934.44	-9935.13	1096.34	1653507.30	14544527.94	40°02'55.887"N	104°57'11.602"W	0.79	
17824.00	91.870	179.890	7543.02	10023.40	-10024.09	1096.30	1653507.31	14544439.02	40°02'55.008"N	104°57'11.603"W	0.57	
17914.00	91.720	181.240	7540.20	10113.35	-10114.04	1095.42	1653506.47	14544349.10	40°02'54.119"N	104°57'11.614"W	1.51	
18004.00	92.010	181.080	7537.27	10203.29	-10203.98	1093.59	1653504.69	14544259.21	40°02'53.230"N	104°57'11.638"W	0.37	
18093.00	90.650	181.050	7535.21	10292.25	-10292.94	1091.94	1653503.08	14544170.28	40°02'52.351"N	104°57'11.659"W	1.53	
18183.00	91.070	180.910	7533.86	10382.22	-10382.91	1090.40	1653501.58	14544080.34	40°02'51.462"N	104°57'11.679"W	0.49	
18273.00	89.190	180.930	7533.65	10472.21	-10472.90	1088.96	1653500.18	14543990.39	40°02'50.572"N	104°57'11.698"W	2.09	
18362.00	89.130	180.220	7534.96	10561.20	-10561.88	1088.06	1653499.33	14543901.44	40°02'49.693"N	104°57'11.709"W	0.80	
18452.00	89.010	179.770	7536.42	10651.18	-10651.87	1088.07	1653499.38	14543811.49	40°02'48.804"N	104°57'11.709"W	0.52	
18542.00	89.620	180.790	7537.49	10741.17	-10741.86	1087.63	1653498.99	14543721.54	40°02'47.914"N	104°57'11.715"W	1.32	
18632.00	89.560	180.180	7538.14	10831.17	-10831.85	1086.87	1653498.27	14543631.58	40°02'47.025"N	104°57'11.725"W	0.68	
18721.00	89.240	179.650	7539.07	10920.16	-10920.85	1087.00	1653498.44	14543542.62	40°02'46.146"N	104°57'11.723"W	0.70	
18811.00	88.930	180.400	7540.51	11010.15	-11010.84	1086.96	1653498.45	14543452.67	40°02'45.256"N	104°57'11.724"W	0.90	
18900.00	89.240	180.410	7541.93	11099.14	-11099.82	1086.33	1653497.86	14543363.72	40°02'44.377"N	104°57'11.732"W	0.35	
18990.00	89.440	180.070	7542.96	11189.13	-11189.82	1085.96	1653497.53	14543273.76	40°02'43.488"N	104°57'11.737"W	0.44	
19080.00	89.980	180.440	7543.42	11279.13	-11279.81	1085.56	1653497.17	14543183.80	40°02'42.598"N	104°57'11.742"W	0.73	
19169.00	90.130	179.620	7543.33	11368.13	-11368.81	1085.51	1653497.17	14543094.83	40°02'41.719"N	104°57'11.742"W	0.94	
19236.00†	90.316†	179.717	7543.07	11435.13	-11435.81	1085.90	1653497.59	14543027.86	40°02'41.057"N	104°57'11.737"W	0.31	ENTER RADIUS TOE (219'FSL & 2212'FWL,SEC.13) 40.0447379 -104.9532604
19259.00	90.380	179.750	7542.93	11458.13	-11458.81	1086.00	1653497.71	14543004.87	40°02'40.829"N	104°57'11.736"W	0.31	
19349.00	89.730	178.300	7542.85	11548.11	-11548.79	1087.54	1653499.28	14542914.93	40°02'39.940"N	104°57'11.716"W	1.77	LAST BHGE MWD+IFR1+MSA SURVEY ST01
19404.00	89.730	178.300	7543.11	11603.08	-11603.77	1089.17	1653500.94	14542859.97	40°02'39.397"N	104°57'11.696"W	0.00	PTB ST01 (51'FSL & 2217'FWL,SEC.13) 40.0442769 -104.9532488

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#05 CARSON 1-13HZ(1082'FSL & 1122'FWL,SEC.01)
Area	COLORADO	Well	CARSON 1-13HZ ST01
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CARSON 1-13HZ ST01 AWB
Facility	SEC.01-T1N-R68W	Sidetrack from	CARSON 1-13HZ AWP at 3988.00 MD

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.12-T1N-R68W	-5.00	60.11	0.00	1652406.59	14554518.64	40°04'34.662"N	104°57'25.700"W	polygon
SEC.13-T1N-R68W	-5.00	60.11	0.00	1652406.59	14554518.64	40°04'34.662"N	104°57'25.700"W	polygon
CARSON 1-13HZ BHL REV-1(50'FSL & 2194'FWL,SEC.13)	7553.00	-11604.82	1066.14	1653477.92	14542858.91	40°02'39.386"N	104°57'11.992"W	point
CARSON 1-13HZ BHL REV-2(50'FSL & 2212'FWL,SEC.13)	7553.00	-11604.82	1084.14	1653495.91	14542858.92	40°02'39.386"N	104°57'11.760"W	point
CARSON 1-13HZ HEEL REV-1(730'FSL & 2191'FWL,SEC.01)	7562.00	-352.61	1071.26	1653477.62	14554106.60	40°04'30.583"N	104°57'11.920"W	point
CARSON 1-13HZ HEEL REV-2(730'FSL & 2211'FWL,SEC.01)	7562.00	-352.61	1091.26	1653497.61	14554106.61	40°04'30.583"N	104°57'11.662"W	point
CARSON 1-13HZ LANDBOX	7562.00	0.00	0.00	1652406.62	14554458.55	40°04'34.068"N	104°57'25.700"W	polygon
CARSON 1-13HZ RADIUS 1	7562.00	-1082.60	1481.05	1653887.60	14553377.10	40°04'23.369"N	104°57'06.649"W	polygon
CARSON 1-13HZ RADIUS 2	7562.00	-11661.66	1484.76	1653896.40	14542802.30	40°02'38.825"N	104°57'06.609"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: CARSON 1-13HZ ST01 AWB Ref Wellpath: CARSON 1-13HZ ST01 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
21.00	1896.00	Custom APC_ISCWSA REV 2 MWD+IFR1 (approximation)	Custom APC ISCWSA Rev-2 MWD+IFR1 <131 - 1896>	CARSON 1-13HZ AWB
1896.00	3988.00	Custom APC_ISCWSA REV 2 MWD+IFR1+MSA (approximation)	BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+MSA <2016 - 4974>	CARSON 1-13HZ AWB
3988.00	19349.00	Custom APC_ISCWSA REV 2 MWD+IFR1+MSA (approximation)	BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+MSA <4078 - 19349>	CARSON 1-13HZ ST01 AWB
19349.00	19404.00	Blind Drilling (std)	Projection to bit	CARSON 1-13HZ ST01 AWB

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#05 CARSON 1-13HZ(1082'FSL & 1122'FWL,SEC.01)
Area	COLORADO	Well	CARSON 1-13HZ ST01
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CARSON 1-13HZ ST01 AWP
Facility	SEC.01-T1N-R68W	Sidetrack from	CARSON 1-13HZ AWP at 3988.00 MD

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
131.00	0.620	164.970	131.00	FIRST SURFACE MWD+IFR1 SURVEY
1896.00	21.400	71.810	1854.40	LAST SURFACE MWD+IFR1 SURVEY
2016.00	20.620	71.110	1966.42	FIRST BHGE MWD+IFR1+MSA SURVEY OWB
3988.00	13.390	70.060	3805.56	ST01 TIE TO OWB
4078.00	14.370	95.560	3893.02	FIRST BHGE MWD+IFR1+MSA SURVEY ST01
7005.00	2.241	184.016	6812.73	KOP
8022.00	82.010	178.363	7538.40	ENTER LANDBOX (858'FSL & 2214'FWL,SEC.01) 40.0755140 -104.9532346
8065.00	85.707	178.102	7542.66	LANDING (815'FSL & 2216'FWL,SEC.01) 40.0753967 -104.9532298
9132.00	90.929	180.383	7546.57	EXIT RADIUS HEEL (252'FNL & 2218'FWL,SEC.12) 40.0724686 -104.9532197
19236.00	90.316	179.717	7543.07	ENTER RADIUS TOE (219'FSL & 2212'FWL,SEC.13) 40.0447379 -104.9532604
19349.00	89.730	178.300	7542.85	LAST BHGE MWD+IFR1+MSA SURVEY ST01
19404.00	89.730	178.300	7543.11	PTB ST01 (51'FSL & 2217'FWL,SEC.13) 40.0442769 -104.9532488