

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#42 SKIM STATE 30N-21HZ (639'FSL & 1211'FWL, SEC.21)
Area	COLORADO	Well	SKIM STATE 30N-21HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	SKIM STATE 30N-21HZ AWP <12685>
Facility	SEC.21-T3N-R65W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / UTM Zone 13 North, US feet	Software System	WellArchitect® 4.1.1
North Reference	True	User	Precain
Scale	0.99961	Report Generated	6/11/2015 at 4:29:59 PM
Convergence at slot	0.21° East	Database/Source file	WellArchitectAPC/SKIM_STATE_30N-21HZ_AWP__12685_.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-3678.90	-2442.67	1731563.40	14601715.47	40°12'19.624"N	104°40'24.798"W
Facility Reference Pt			1733991.21	14605402.13	40°12'55.980"N	104°39'53.316"W
Field Reference Pt			1698235.31	14552047.82	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM			
Calculation method	Minimum curvature	XTREME 23 (16'KB) (RKB) to Facility Vertical Datum	4862.00ft
Horizontal Reference Pt	Slot	XTREME 23 (16'KB) (RKB) to Mean Sea Level	4862.00ft
Vertical Reference Pt	XTREME 23 (16'KB) (RKB)	XTREME 23 (16'KB) (RKB) to Mud Line at Slot (SLOT#42 SKIM STATE 30N-21HZ (639'FSL & 1211'FWL, SEC.21))	4862.00ft
MD Reference Pt	XTREME 23 (16'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	359.97°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#42 SKIM STATE 30N-21HZ (639'FSL & 1211'FWL, SEC.21)
Area	COLORADO	Well	SKIM STATE 30N-21HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	SKIM STATE 30N-21HZ AWB <12685>
Facility	SEC.21-T3N-R65W		

WELLPATH DATA (140 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00†	0.000	17.200	0.00	0.00	0.00	0.00	40°12'19.624"N	104°40'24.798"W	0.00	
16.00	0.000	17.200	16.00	0.00	0.00	0.00	40°12'19.624"N	104°40'24.798"W	0.00	Tie-On
95.00	0.400	17.200	95.00	0.26	0.26	0.08	40°12'19.627"N	104°40'24.797"W	0.51	Begin CATHEDRAL MWD Surveys
158.00	0.400	6.800	158.00	0.69	0.69	0.17	40°12'19.631"N	104°40'24.796"W	0.12	
215.00	0.400	25.400	215.00	1.07	1.07	0.28	40°12'19.635"N	104°40'24.794"W	0.23	
276.00	0.600	15.100	275.99	1.57	1.57	0.46	40°12'19.640"N	104°40'24.792"W	0.36	
334.00	0.700	170.100	333.99	1.51	1.51	0.60	40°12'19.639"N	104°40'24.790"W	2.19	
398.00	1.600	190.800	397.98	0.25	0.25	0.50	40°12'19.626"N	104°40'24.792"W	1.53	
462.00	2.500	202.800	461.94	-1.91	-1.91	-0.21	40°12'19.605"N	104°40'24.801"W	1.55	
526.00	3.800	207.000	525.84	-5.09	-5.09	-1.72	40°12'19.574"N	104°40'24.820"W	2.06	
590.00	4.900	210.300	589.65	-9.34	-9.34	-4.06	40°12'19.532"N	104°40'24.850"W	1.76	
654.00	6.800	213.900	653.32	-14.84	-14.84	-7.55	40°12'19.477"N	104°40'24.895"W	3.02	
718.00	8.600	218.800	716.74	-21.71	-21.72	-12.66	40°12'19.409"N	104°40'24.961"W	2.99	
782.00	10.300	221.800	779.87	-29.70	-29.71	-19.48	40°12'19.330"N	104°40'25.049"W	2.76	
845.00	10.900	217.000	841.80	-38.65	-38.67	-26.81	40°12'19.242"N	104°40'25.144"W	1.69	
909.00	12.300	216.900	904.49	-48.93	-48.96	-34.55	40°12'19.140"N	104°40'25.243"W	2.19	
972.00	14.000	215.500	965.83	-60.50	-60.53	-43.00	40°12'19.026"N	104°40'25.352"W	2.75	
1035.00	14.600	213.200	1026.88	-73.34	-73.37	-51.78	40°12'18.899"N	104°40'25.465"W	1.31	
1099.00	15.600	214.600	1088.67	-87.17	-87.21	-61.08	40°12'18.762"N	104°40'25.585"W	1.66	
1163.00	16.100	214.600	1150.24	-101.55	-101.60	-71.01	40°12'18.620"N	104°40'25.713"W	0.78	
1204.00	16.700	216.300	1189.57	-110.98	-111.02	-77.72	40°12'18.527"N	104°40'25.800"W	1.87	Tie-Into CATHEDRAL MWD Surveys
1295.00	17.360	218.960	1276.58	-132.06	-132.12	-94.00	40°12'18.318"N	104°40'26.009"W	1.12	Begin BHI MWD+IFR Surveys
1390.00	17.530	218.510	1367.21	-154.27	-154.33	-111.82	40°12'18.099"N	104°40'26.239"W	0.23	
1485.00	15.960	217.390	1458.18	-175.83	-175.91	-128.66	40°12'17.886"N	104°40'26.456"W	1.69	
1580.00	14.400	213.040	1549.86	-196.10	-196.19	-143.03	40°12'17.685"N	104°40'26.641"W	2.03	
1675.00	15.720	211.800	1641.60	-216.94	-217.03	-156.26	40°12'17.479"N	104°40'26.812"W	1.43	
1770.00	16.370	214.870	1732.90	-238.85	-238.95	-170.69	40°12'17.263"N	104°40'26.998"W	1.12	
1865.00	15.900	212.880	1824.16	-260.76	-260.87	-185.41	40°12'17.046"N	104°40'27.188"W	0.76	
1960.00	15.260	218.510	1915.67	-281.46	-281.58	-200.26	40°12'16.841"N	104°40'27.379"W	1.73	
2055.00	14.970	218.250	2007.39	-300.87	-301.00	-215.64	40°12'16.650"N	104°40'27.577"W	0.31	
2151.00	14.220	218.290	2100.29	-319.85	-319.99	-230.62	40°12'16.462"N	104°40'27.770"W	0.78	
2245.00	13.800	217.170	2191.49	-337.84	-337.98	-244.55	40°12'16.284"N	104°40'27.950"W	0.53	
2340.00	14.810	217.000	2283.54	-356.56	-356.71	-258.70	40°12'16.099"N	104°40'28.132"W	1.06	
2434.00	13.880	215.500	2374.61	-375.32	-375.48	-272.48	40°12'15.913"N	104°40'28.310"W	1.07	
2530.00	14.250	213.770	2467.74	-394.51	-394.68	-285.74	40°12'15.724"N	104°40'28.481"W	0.58	
2625.00	14.460	213.660	2559.77	-414.09	-414.27	-298.81	40°12'15.530"N	104°40'28.649"W	0.22	
2720.00	14.680	218.190	2651.72	-433.42	-433.61	-312.83	40°12'15.339"N	104°40'28.830"W	1.22	
2816.00	15.980	218.080	2744.30	-453.37	-453.57	-328.50	40°12'15.142"N	104°40'29.032"W	1.35	
2911.00	15.830	216.790	2835.66	-474.04	-474.24	-344.32	40°12'14.938"N	104°40'29.236"W	0.40	
3006.00	15.440	217.680	2927.15	-494.41	-494.62	-359.81	40°12'14.736"N	104°40'29.435"W	0.48	
3102.00	15.200	216.950	3019.74	-514.57	-514.80	-375.19	40°12'14.537"N	104°40'29.633"W	0.32	
3197.00	14.220	217.560	3111.62	-533.77	-534.00	-389.79	40°12'14.347"N	104°40'29.822"W	1.04	
3292.00	13.510	218.770	3203.85	-551.66	-551.90	-403.85	40°12'14.170"N	104°40'30.003"W	0.81	
3387.00	13.870	217.000	3296.15	-569.40	-569.65	-417.65	40°12'13.995"N	104°40'30.181"W	0.58	
3482.00	14.030	215.650	3388.35	-587.84	-588.10	-431.22	40°12'13.812"N	104°40'30.356"W	0.38	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#42 SKIM STATE 30N-21HZ (639'FSL & 1211'FWL, SEC.21)
Area	COLORADO	Well	SKIM STATE 30N-21HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	SKIM STATE 30N-21HZ AWB <12685>
Facility	SEC.21-T3N-R65W		

WELLPATH DATA (140 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
3578.00	14.360	216.090	3481.42	-606.91	-607.17	-445.01	40°12'13.624"N	104°40'30.533"W	0.36	
3673.00	14.870	213.790	3573.35	-626.55	-626.82	-458.73	40°12'13.430"N	104°40'30.710"W	0.81	
3768.00	14.580	215.150	3665.23	-646.45	-646.73	-472.39	40°12'13.233"N	104°40'30.886"W	0.47	
3864.00	15.460	217.030	3757.95	-666.54	-666.83	-487.06	40°12'13.034"N	104°40'31.075"W	1.05	
3959.00	16.070	215.060	3849.37	-687.40	-687.70	-502.24	40°12'12.828"N	104°40'31.271"W	0.85	
4054.00	15.790	214.900	3940.73	-708.75	-709.06	-517.18	40°12'12.617"N	104°40'31.463"W	0.30	
4149.00	15.730	214.290	4032.16	-729.99	-730.30	-531.83	40°12'12.407"N	104°40'31.652"W	0.19	
4244.00	14.910	214.170	4123.78	-750.73	-751.05	-545.95	40°12'12.202"N	104°40'31.834"W	0.86	
4340.00	15.530	214.900	4216.41	-771.48	-771.81	-560.24	40°12'11.997"N	104°40'32.018"W	0.68	
4434.00	14.930	213.510	4307.11	-791.89	-792.23	-574.13	40°12'11.795"N	104°40'32.197"W	0.75	
4529.00	13.510	218.370	4399.20	-810.79	-811.13	-587.77	40°12'11.608"N	104°40'32.373"W	1.95	
4624.00	14.530	218.050	4491.37	-828.86	-829.22	-602.01	40°12'11.430"N	104°40'32.557"W	1.08	
4720.00	15.730	217.760	4584.04	-848.63	-848.99	-617.40	40°12'11.234"N	104°40'32.755"W	1.25	
4815.00	14.970	218.320	4675.65	-868.42	-868.80	-632.89	40°12'11.038"N	104°40'32.955"W	0.82	
4909.00	15.700	215.550	4766.30	-888.29	-888.67	-647.82	40°12'10.842"N	104°40'33.147"W	1.10	
5004.00	14.580	215.590	4858.00	-908.46	-908.85	-662.25	40°12'10.643"N	104°40'33.333"W	1.18	
5099.00	14.580	218.150	4949.95	-927.58	-927.98	-676.59	40°12'10.454"N	104°40'33.518"W	0.68	
5194.00	13.640	218.580	5042.08	-945.73	-946.14	-690.97	40°12'10.274"N	104°40'33.703"W	1.00	
5289.00	15.080	216.080	5134.11	-964.47	-964.89	-705.23	40°12'10.089"N	104°40'33.887"W	1.65	
5384.00	14.850	218.510	5225.89	-983.97	-984.40	-720.09	40°12'09.896"N	104°40'34.078"W	0.70	
5479.00	13.650	217.900	5317.96	-1002.34	-1002.77	-734.55	40°12'09.715"N	104°40'34.265"W	1.27	
5575.00	14.170	213.880	5411.15	-1021.02	-1021.47	-748.06	40°12'09.530"N	104°40'34.439"W	1.14	
5670.00	12.800	213.390	5503.53	-1039.46	-1039.91	-760.34	40°12'09.348"N	104°40'34.597"W	1.45	
5765.00	11.630	212.490	5596.38	-1056.31	-1056.77	-771.27	40°12'09.181"N	104°40'34.738"W	1.25	
5860.00	10.650	211.800	5689.59	-1071.85	-1072.31	-781.04	40°12'09.027"N	104°40'34.864"W	1.04	
5955.00	9.690	211.440	5783.09	-1086.12	-1086.59	-789.84	40°12'08.886"N	104°40'34.977"W	1.01	
6050.00	9.040	210.950	5876.83	-1099.34	-1099.81	-797.85	40°12'08.756"N	104°40'35.080"W	0.69	
6146.00	8.310	216.880	5971.73	-1111.35	-1111.83	-805.89	40°12'08.637"N	104°40'35.184"W	1.20	
6241.00	6.550	214.220	6065.93	-1121.32	-1121.80	-813.06	40°12'08.538"N	104°40'35.276"W	1.89	
6336.00	3.900	203.830	6160.53	-1128.76	-1129.24	-817.41	40°12'08.465"N	104°40'35.333"W	2.95	
6432.00	2.240	257.690	6256.40	-1132.14	-1132.63	-820.56	40°12'08.431"N	104°40'35.373"W	3.28	
6527.00	3.900	300.650	6351.27	-1130.89	-1131.38	-825.16	40°12'08.444"N	104°40'35.432"W	2.87	
6622.00	4.020	304.030	6446.05	-1127.37	-1127.87	-830.70	40°12'08.478"N	104°40'35.504"W	0.28	
6718.00	14.610	337.800	6540.69	-1114.23	-1114.73	-838.08	40°12'08.608"N	104°40'35.599"W	11.96	
6811.00	23.660	345.080	6628.48	-1085.27	-1085.77	-847.34	40°12'08.894"N	104°40'35.718"W	10.05	
6906.00	27.130	353.160	6714.31	-1045.32	-1045.82	-854.83	40°12'09.289"N	104°40'35.815"W	5.15	
7001.00	33.080	359.590	6796.48	-997.83	-998.34	-857.60	40°12'09.758"N	104°40'35.851"W	7.12	
7096.00	41.970	2.340	6871.75	-940.05	-940.55	-856.49	40°12'10.329"N	104°40'35.836"W	9.52	
7191.00	53.630	4.450	6935.46	-869.93	-870.44	-852.21	40°12'11.022"N	104°40'35.781"W	12.38	SSPG
7286.00	60.700	3.920	6986.94	-790.37	-790.88	-846.40	40°12'11.808"N	104°40'35.706"W	7.46	
7382.00	65.080	0.950	7030.68	-705.03	-705.53	-842.82	40°12'12.652"N	104°40'35.660"W	5.33	
7418.00†	68.278	359.961	7044.93	-671.98	-672.48	-842.56	40°12'12.978"N	104°40'35.657"W	9.23	N700_C_CK
7477.00	73.530	358.430	7064.23	-616.25	-616.75	-843.35	40°12'13.529"N	104°40'35.667"W	9.23	
7572.00	87.560	1.640	7079.80	-522.79	-523.29	-843.24	40°12'14.453"N	104°40'35.666"W	15.14	
7595.00†	88.372	1.853	7080.62	-499.82	-500.32	-842.54	40°12'14.680"N	104°40'35.657"W	3.65	Top of Production

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#42 SKIM STATE 30N-21HZ (639'FSL & 1211'FWL, SEC.21)
Area	COLORADO	Well	SKIM STATE 30N-21HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	SKIM STATE 30N-21HZ AWB <12685>
Facility	SEC.21-T3N-R65W		

WELLPATH DATA (140 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7668.00	90.950	2.530	7081.05	-426.88	-427.38	-839.75	40°12'15.401"N	104°40'35.621"W	3.65	
7763.00	90.590	0.360	7079.77	-331.93	-332.42	-837.35	40°12'16.339"N	104°40'35.590"W	2.32	
7858.00	91.200	359.490	7078.29	-236.94	-237.44	-837.48	40°12'17.278"N	104°40'35.592"W	1.12	
7953.00	90.250	359.570	7077.09	-141.95	-142.45	-838.26	40°12'18.216"N	104°40'35.602"W	1.00	
8048.00	89.720	0.230	7077.11	-46.95	-47.45	-838.42	40°12'19.155"N	104°40'35.604"W	0.89	
8143.00	88.890	0.790	7078.26	48.04	47.54	-837.58	40°12'20.094"N	104°40'35.593"W	1.05	
8239.00	88.980	0.870	7080.05	144.01	143.51	-836.19	40°12'21.042"N	104°40'35.575"W	0.13	
8334.00	89.010	0.360	7081.71	238.99	238.49	-835.17	40°12'21.981"N	104°40'35.562"W	0.54	
8428.00	89.910	0.000	7082.60	332.98	332.49	-834.87	40°12'22.909"N	104°40'35.558"W	1.03	
8524.00	89.380	359.180	7083.19	428.98	428.48	-835.56	40°12'23.858"N	104°40'35.567"W	1.02	
8619.00	89.910	359.080	7083.78	523.96	523.47	-837.00	40°12'24.797"N	104°40'35.586"W	0.57	
8714.00	89.910	359.830	7083.93	618.96	618.46	-837.90	40°12'25.735"N	104°40'35.597"W	0.79	
8809.00	88.890	359.830	7084.93	713.95	713.46	-838.19	40°12'26.674"N	104°40'35.601"W	1.07	
9000.00	90.650	359.480	7085.69	904.94	904.44	-839.34	40°12'28.562"N	104°40'35.616"W	0.94	
9096.00	88.890	359.340	7086.08	1000.93	1000.43	-840.33	40°12'29.510"N	104°40'35.629"W	1.84	
9287.00	89.450	358.610	7088.85	1191.88	1191.38	-843.74	40°12'31.397"N	104°40'35.673"W	0.48	
9478.00	90.700	356.990	7088.60	1382.73	1382.23	-851.07	40°12'33.283"N	104°40'35.768"W	1.07	
9574.00	90.860	359.540	7087.29	1478.67	1478.17	-853.98	40°12'34.231"N	104°40'35.805"W	2.66	
9669.00	90.120	0.510	7086.48	1573.67	1573.16	-853.94	40°12'35.170"N	104°40'35.805"W	1.28	
9765.00	90.800	0.250	7085.71	1669.66	1669.16	-853.30	40°12'36.118"N	104°40'35.796"W	0.76	
9860.00	90.120	0.000	7084.94	1764.66	1764.15	-853.09	40°12'37.057"N	104°40'35.794"W	0.76	
9956.00	89.480	359.440	7085.28	1860.66	1860.15	-853.56	40°12'38.006"N	104°40'35.800"W	0.89	
10051.00	90.830	0.780	7085.02	1955.65	1955.15	-853.38	40°12'38.945"N	104°40'35.798"W	2.00	
10146.00	89.940	0.420	7084.38	2050.64	2050.14	-852.39	40°12'39.883"N	104°40'35.785"W	1.01	
10242.00	90.520	0.170	7084.00	2146.64	2146.13	-851.89	40°12'40.832"N	104°40'35.778"W	0.66	
10337.00	88.650	0.230	7084.69	2241.63	2241.13	-851.56	40°12'41.771"N	104°40'35.774"W	1.97	
10527.00	87.930	359.130	7090.36	2431.54	2431.04	-852.62	40°12'43.647"N	104°40'35.788"W	0.69	
10622.00	89.200	358.740	7092.73	2526.49	2525.99	-854.39	40°12'44.586"N	104°40'35.811"W	1.40	
10718.00	89.050	358.770	7094.20	2622.46	2621.95	-856.47	40°12'45.534"N	104°40'35.838"W	0.16	
10813.00	89.880	359.870	7095.09	2717.45	2716.94	-857.60	40°12'46.473"N	104°40'35.852"W	1.45	
10908.00	89.140	359.570	7095.90	2812.44	2811.94	-858.06	40°12'47.411"N	104°40'35.858"W	0.84	
11003.00	90.950	358.930	7095.83	2907.43	2906.92	-859.31	40°12'48.350"N	104°40'35.874"W	2.02	
11099.00	90.680	358.410	7094.46	3003.40	3002.89	-861.53	40°12'49.298"N	104°40'35.903"W	0.61	
11194.00	91.600	359.600	7092.57	3098.36	3097.85	-863.18	40°12'50.237"N	104°40'35.924"W	1.58	
11289.00	90.800	0.240	7090.58	3193.34	3192.83	-863.32	40°12'51.175"N	104°40'35.926"W	1.08	
11385.00	90.250	359.790	7089.70	3289.34	3288.82	-863.29	40°12'52.124"N	104°40'35.926"W	0.74	
11479.00	90.150	1.700	7089.37	3383.32	3382.81	-862.07	40°12'53.053"N	104°40'35.910"W	2.03	
11574.00	90.150	1.440	7089.12	3478.28	3477.77	-859.47	40°12'53.991"N	104°40'35.877"W	0.27	
11669.00	89.630	0.930	7089.31	3573.26	3572.75	-857.50	40°12'54.930"N	104°40'35.851"W	0.77	
11764.00	88.710	0.730	7090.68	3668.24	3667.73	-856.13	40°12'55.868"N	104°40'35.834"W	0.99	
11860.00	90.490	1.930	7091.35	3764.20	3763.70	-853.90	40°12'56.817"N	104°40'35.805"W	2.24	
11955.00	91.600	1.700	7089.62	3859.14	3858.63	-850.89	40°12'57.755"N	104°40'35.766"W	1.19	
12050.00	91.940	1.500	7086.69	3954.05	3953.55	-848.24	40°12'58.693"N	104°40'35.732"W	0.42	
12145.00	92.430	0.890	7083.06	4048.96	4048.46	-846.26	40°12'59.631"N	104°40'35.707"W	0.82	
12241.00	91.940	1.200	7079.40	4144.88	4144.37	-844.51	40°13'00.578"N	104°40'35.684"W	0.60	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#42 SKIM STATE 30N-21HZ (639'FSL & 1211'FWL, SEC.21)
Area	COLORADO	Well	SKIM STATE 30N-21HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	SKIM STATE 30N-21HZ AWB <12685>
Facility	SEC.21-T3N-R65W		

WELLPATH DATA (140 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12336.00	91.140	0.560	7076.85	4239.83	4239.33	-843.05	40°13'01.517"N	104°40'35.665"W	1.08	
12431.00	90.460	0.170	7075.52	4334.82	4334.32	-842.44	40°13'02.455"N	104°40'35.658"W	0.83	
12526.00	90.550	0.040	7074.69	4429.81	4429.31	-842.27	40°13'03.394"N	104°40'35.655"W	0.17	
12635.00	90.430	359.500	7073.75	4538.81	4538.31	-842.71	40°13'04.471"N	104°40'35.661"W	0.51	Last BHI MWD+IFR Surveys
12685.00	90.430	359.500	7073.38	4588.80	4588.30	-843.14	40°13'04.965"N	104°40'35.667"W	0.00	Projection to Bit

HOLE & CASING SECTIONS - Ref Wellbore: SKIM STATE 30N-21HZ AWB <12685> Ref Wellpath: SKIM STATE 30N-21HZ 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]
13.5in Open Hole	16.00	1244.00	1228.00	16.00	1227.85	0.00	0.00	-120.29	-84.68
9.625in Casing Surface	16.00	1237.00	1221.00	16.00	1221.16	0.00	0.00	-118.67	-83.44
7.875in Open Hole	1244.00	12685.00	11441.00	1227.85	7073.38	-120.29	-84.68	4588.30	-843.14

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.21-T3N-R65W LINES	18.00	-1065.14	2617.90	1734184.18	14600660.39	40°12'09.097"N	104°39'51.059"W	polygon
SEC.28-T3N-R65W LINES	18.00	-1065.14	2617.90	1734184.18	14600660.39	40°12'09.097"N	104°39'51.059"W	polygon
SKIM STATE 30N-21HZ BHL ON PLAT (50'FNL & 352'FWL, SEC.21) REV-1	7078.00	4583.60	-821.62	1730725.26	14606294.22	40°13'04.919"N	104°40'35.389"W	point
SKIM STATE 30N-21HZ LANDBOX	7078.00	0.00	0.00	1731563.40	14601715.47	40°12'19.624"N	104°40'24.798"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: SKIM STATE 30N-21HZ AWB <12685> Ref Wellpath: SKIM STATE 30N-21HZ AWP									
Start MD [ft]	End MD [ft]	Positional Uncertainty Model			Log Name/Comment			Wellbore	
16.00	1204.00	Custom_APC_ISCWSA REV 2 MWD			CATHEDRAL ENERGY MWD SURVEYS <95-1204>			SKIM STATE 30N-21HZ AWB <12685>	
1204.00	12635.00	Custom APC_ISCWSA REV 2 MWD+IFR1+SC (approximation)			BHI MWD+IFR SURVEYS 7 7/8" HOLE <1295-12635>			SKIM STATE 30N-21HZ AWB <12685>	
12635.00	12685.00	Blind Drilling (std)			Projection to bit			SKIM STATE 30N-21HZ AWB <12685>	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#42 SKIM STATE 3QN-21HZ (639'FSL & 1211'FWL, SEC.21)
Area	COLORADO	Well	SKIM STATE 3QN-21HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	SKIM STATE 3QN-21HZ AWB <12685>
Facility	SEC.21-T3N-R65W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
16.00	0.000	17.200	16.00	Tie-On
95.00	0.400	17.200	95.00	Begin CATHEDRAL MWD Surveys
1204.00	16.700	216.300	1189.57	Tie-Into CATHEDRAL MWD Surveys
1295.00	17.360	218.960	1276.58	Begin BHI MWD+IFR Surveys
7191.00	53.630	4.450	6935.46	SSPG
7418.00	68.278	359.961	7044.93	N700_C_CK
7595.00	88.372	1.853	7080.62	Top of Production
12635.00	90.430	359.500	7073.75	Last BHI MWD+IFR Surveys
12685.00	90.430	359.500	7073.38	Projection to Bit