

Location:	COLORADO	Slot:	SLOT#35 CREAM STATE 28N-21HZ (422'FNL & 1465' FEL, SEC.28)
Field:	WELD COUNTY (UTM/TRUE NORTH)	Well:	CREAM STATE 28N-21HZ
Facility:	SEC.28-T3N-R65W	Wellbore:	CREAM STATE 28N-21HZ PWB

Plot reference wellpath is CREAM STATE 28N-21HZ (REV-B.0) PWP

True vertical depths are referenced to PRECISION 462 (20'KB) (RKB)

Grid System: NAD83 / UTM Zone 13 North, US feet

Measured depths are referenced to PRECISION 462 (20'KB) (RKB)

North Reference: True north

PRECISION 462 (20'KB) (RKB) to Mean Sea Level: 4844 feet

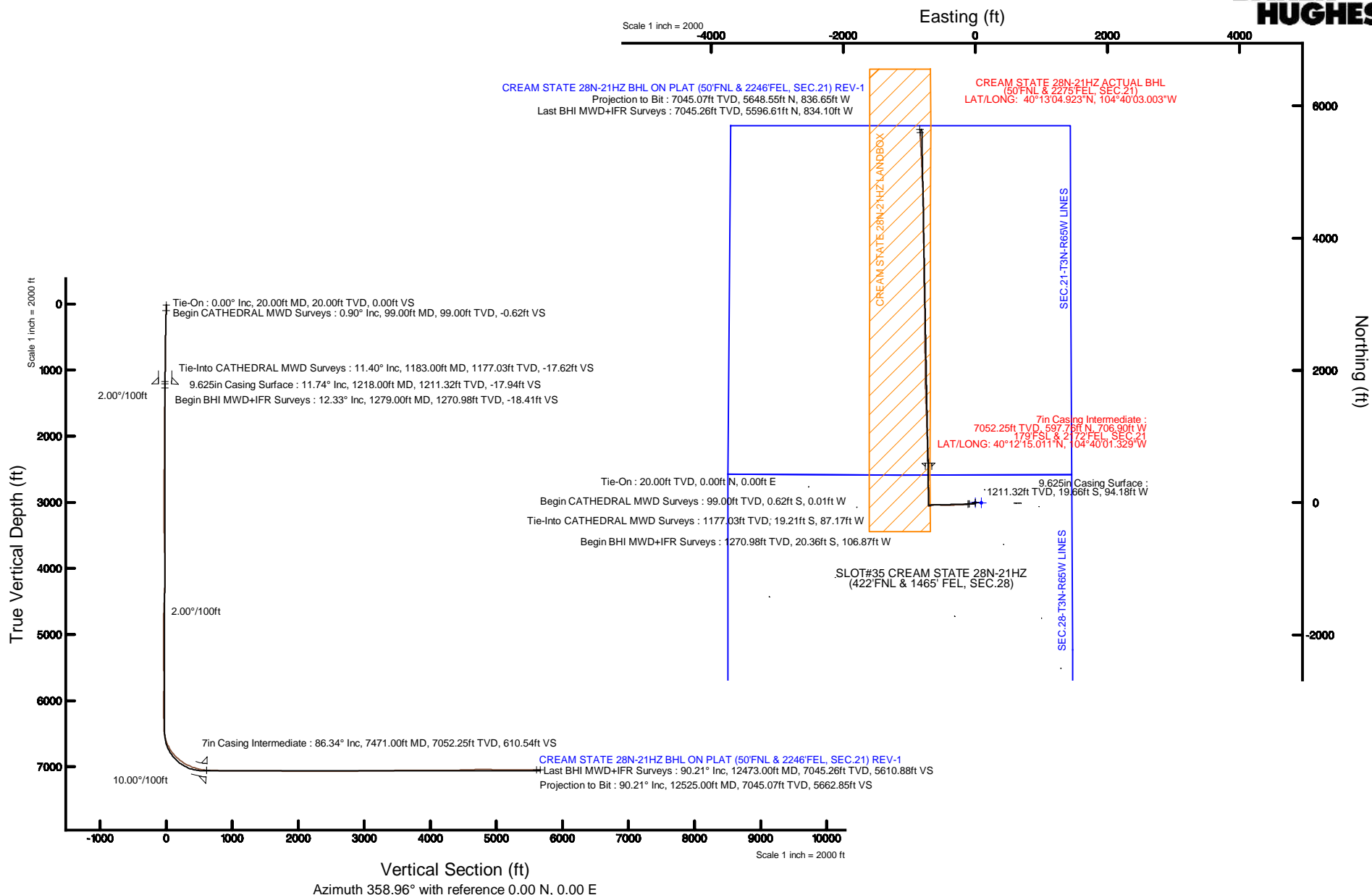
Scale: True distance

Mean Sea Level to Mud line (At Slot: SLOT#35 CREAM STATE 28N-21HZ (422'FNL & 1465' FEL, SEC.28)): 0 feet

Depths are in feet

Coordinates are in feet referenced to Slot

Created by: precain on 7/29/2015



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#35 CREAM STATE 28N-21HZ (422'FNL & 1465' FEL, SEC.28)
Area	COLORADO	Well	CREAM STATE 28N-21HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CREAM STATE 28N-21HZ AWB <12525>
Facility	SEC.28-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	7/29/2015 at 11:30:49 AM
Convergence at slot	0.22° East	Database/Source file	WellArchitectAPC/CREAM_STATE_28N-21HZ_AWB__12525_.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	2844.84	1741.65	1734094.28	14600660.76	40°12'09.104"N	104°39'52.218"W
Facility Reference Pt			1732363.88	14597810.60	40°11'40.992"N	104°40'14.664"W
Field Reference Pt			1698235.31	14552047.82	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM

Calculation method	Minimum curvature	PRECISON 462 (20'KB) (RKB) to Facility Vertical Datum	4844.00ft
Horizontal Reference Pt	Slot	PRECISON 462 (20'KB) (RKB) to Mean Sea Level	4844.00ft
Vertical Reference Pt	PRECISON 462 (20'KB) (RKB)	PRECISON 462 (20'KB) (RKB) to Mud Line at Slot (SLOT#35 CREAM STATE 28N-21HZ (422'FNL & 1465' FEL, SEC.28))	4844.00ft
MD Reference Pt	PRECISON 462 (20'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	358.96°

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Area	COLORADO	Well	CREAM STATE 28N-21HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CREAM STATE 28N-21HZ AWB <12525>
Facility	SEC.28-T3N-R65W		

WELLPATH DATA (136 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	180.900	0.00	0.00	0.00	0.00	40°12'09.104"N	104°39'52.218"W	0.00	
20.00	0.000	180.900	20.00	0.00	0.00	0.00	40°12'09.104"N	104°39'52.218"W	0.00	Tie-On
99.00	0.900	180.900	99.00	-0.62	-0.62	-0.01	40°12'09.098"N	104°39'52.218"W	1.14	Begin CATHEDRAL MWD Surveys
163.00	1.100	170.300	162.99	-1.73	-1.73	0.09	40°12'09.087"N	104°39'52.217"W	0.42	
221.00	1.300	166.400	220.97	-2.92	-2.92	0.33	40°12'09.075"N	104°39'52.214"W	0.37	
278.00	1.200	197.100	277.96	-4.12	-4.12	0.31	40°12'09.063"N	104°39'52.214"W	1.17	
335.00	1.700	213.800	334.94	-5.38	-5.39	-0.33	40°12'09.051"N	104°39'52.222"W	1.14	
399.00	2.000	226.600	398.91	-6.91	-6.94	-1.67	40°12'09.035"N	104°39'52.240"W	0.80	
463.00	2.800	236.900	462.85	-8.50	-8.57	-3.80	40°12'09.019"N	104°39'52.267"W	1.42	
527.00	2.700	240.400	526.78	-10.05	-10.16	-6.42	40°12'09.004"N	104°39'52.301"W	0.31	
591.00	3.600	244.200	590.68	-11.61	-11.78	-9.54	40°12'08.988"N	104°39'52.341"W	1.44	
655.00	4.500	255.800	654.52	-13.02	-13.27	-13.78	40°12'08.973"N	104°39'52.396"W	1.89	
719.00	5.400	265.700	718.29	-13.76	-14.12	-19.22	40°12'08.965"N	104°39'52.466"W	1.93	
783.00	6.200	266.700	781.96	-14.07	-14.54	-25.67	40°12'08.960"N	104°39'52.549"W	1.26	
846.00	7.000	267.400	844.54	-14.31	-14.91	-32.90	40°12'08.957"N	104°39'52.642"W	1.28	
910.00	8.200	264.900	907.98	-14.74	-15.49	-41.34	40°12'08.951"N	104°39'52.751"W	1.94	
974.00	8.700	265.900	971.28	-15.32	-16.24	-50.72	40°12'08.943"N	104°39'52.872"W	0.81	
1036.00	9.300	265.400	1032.52	-15.88	-16.98	-60.39	40°12'08.936"N	104°39'52.996"W	0.98	
1101.00	10.600	264.600	1096.54	-16.66	-17.97	-71.58	40°12'08.926"N	104°39'53.140"W	2.01	
1183.00	11.400	266.200	1177.03	-17.62	-19.21	-87.17	40°12'08.914"N	104°39'53.341"W	1.04	Tie-Into CATHEDRAL MWD Surveys
1279.00	12.330	267.100	1270.98	-18.41	-20.36	-106.87	40°12'08.903"N	104°39'53.595"W	0.99	Begin BHI MWD+IFR Surveys
1372.00	11.170	265.940	1362.03	-19.20	-21.50	-125.78	40°12'08.892"N	104°39'53.839"W	1.27	
1465.00	11.220	264.170	1453.26	-20.43	-23.06	-143.76	40°12'08.876"N	104°39'54.071"W	0.37	
1559.00	10.470	261.610	1545.58	-22.29	-25.23	-161.31	40°12'08.855"N	104°39'54.297"W	0.95	
1652.00	10.360	269.820	1637.05	-24.70	-27.94	-177.90	40°12'08.828"N	104°39'54.511"W	0.37	
1745.00	9.570	263.080	1728.65	-26.82	-30.35	-193.81	40°12'08.804"N	104°39'54.716"W	1.04	
1839.00	9.360	261.540	1821.37	-28.60	-32.42	-209.12	40°12'08.784"N	104°39'54.913"W	0.35	
1932.00	8.860	269.620	1913.20	-29.50	-33.58	-223.77	40°12'08.772"N	104°39'55.102"W	1.48	
2025.00	9.180	268.380	2005.05	-29.49	-33.84	-238.34	40°12'08.770"N	104°39'55.290"W	0.40	
2118.00	10.340	271.510	2096.70	-29.19	-33.83	-254.10	40°12'08.770"N	104°39'55.493"W	1.37	
2212.00	10.260	269.750	2189.18	-28.70	-33.64	-270.91	40°12'08.772"N	104°39'55.709"W	0.35	
2305.00	10.340	269.190	2280.69	-28.55	-33.79	-287.54	40°12'08.770"N	104°39'55.924"W	0.14	
2399.00	10.350	267.240	2373.16	-28.77	-34.32	-304.41	40°12'08.765"N	104°39'56.141"W	0.37	
2492.00	10.100	265.760	2464.68	-29.47	-35.32	-320.88	40°12'08.755"N	104°39'56.353"W	0.39	
2585.00	9.710	265.110	2556.30	-30.45	-36.60	-336.83	40°12'08.742"N	104°39'56.559"W	0.44	
2677.00	9.690	265.410	2646.98	-31.45	-37.88	-352.28	40°12'08.730"N	104°39'56.758"W	0.06	
2770.00	9.910	270.780	2738.62	-31.68	-38.39	-368.08	40°12'08.725"N	104°39'56.962"W	1.01	
2863.00	9.910	269.350	2830.24	-31.37	-38.38	-384.09	40°12'08.725"N	104°39'57.168"W	0.26	
3043.00	9.790	268.920	3007.58	-31.28	-38.84	-414.87	40°12'08.720"N	104°39'57.565"W	0.08	
3222.00	9.510	265.870	3184.05	-32.08	-40.19	-444.84	40°12'08.707"N	104°39'57.951"W	0.33	
3312.00	9.020	271.600	3272.88	-32.16	-40.53	-459.31	40°12'08.703"N	104°39'58.137"W	1.16	
3402.00	9.780	274.240	3361.67	-31.13	-39.77	-473.98	40°12'08.711"N	104°39'58.327"W	0.97	
3491.00	9.230	272.150	3449.45	-30.03	-38.94	-488.65	40°12'08.719"N	104°39'58.516"W	0.73	
3580.00	10.350	278.050	3537.15	-28.37	-37.55	-503.70	40°12'08.733"N	104°39'58.710"W	1.69	
3760.00	8.980	277.430	3714.59	-23.74	-33.47	-533.65	40°12'08.773"N	104°39'59.095"W	0.76	

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Area	COLORADO	Well	CREAM STATE 28N-21HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CREAM STATE 28N-21HZ AWB <12525>
Facility	SEC.28-T3N-R65W		

WELLPATH DATA (136 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
3849.00	10.120	276.600	3802.36	-21.68	-31.68	-548.30	40°12'08.791"N	104°39'59.284"W	1.29	
3939.00	9.560	274.700	3891.04	-19.88	-30.16	-563.60	40°12'08.806"N	104°39'59.482"W	0.72	
4029.00	9.380	274.530	3979.81	-18.42	-28.96	-578.36	40°12'08.818"N	104°39'59.672"W	0.20	
4119.00	10.140	264.010	4068.51	-18.39	-29.21	-593.56	40°12'08.815"N	104°39'59.868"W	2.15	
4209.00	9.630	262.170	4157.18	-19.96	-31.06	-608.89	40°12'08.797"N	104°40'00.065"W	0.67	
4299.00	8.750	261.600	4246.02	-21.73	-33.09	-623.12	40°12'08.777"N	104°40'00.249"W	0.98	
4389.00	8.420	258.690	4335.01	-23.78	-35.38	-636.36	40°12'08.754"N	104°40'00.419"W	0.61	
4478.00	8.300	258.000	4423.07	-26.16	-38.00	-649.03	40°12'08.728"N	104°40'00.583"W	0.18	
4568.00	7.010	243.950	4512.27	-29.72	-41.76	-660.32	40°12'08.691"N	104°40'00.728"W	2.52	
4658.00	6.960	244.990	4601.60	-34.26	-46.48	-670.19	40°12'08.645"N	104°40'00.855"W	0.15	
4748.00	4.930	256.380	4691.12	-37.31	-49.69	-678.90	40°12'08.613"N	104°40'00.967"W	2.60	
4838.00	4.100	265.390	4780.84	-38.36	-50.86	-685.86	40°12'08.601"N	104°40'01.057"W	1.21	
4928.00	2.000	249.660	4870.71	-39.08	-51.67	-690.54	40°12'08.593"N	104°40'01.118"W	2.49	
5017.00	1.400	258.080	4959.67	-39.79	-52.43	-693.06	40°12'08.586"N	104°40'01.150"W	0.73	
5107.00	0.520	297.740	5049.65	-39.80	-52.47	-694.50	40°12'08.585"N	104°40'01.169"W	1.17	
5287.00	1.000	318.710	5229.64	-38.21	-50.91	-696.26	40°12'08.601"N	104°40'01.191"W	0.30	
5376.00	0.760	260.730	5318.63	-37.70	-50.42	-697.35	40°12'08.606"N	104°40'01.205"W	0.99	
5736.00	1.330	311.150	5678.58	-35.24	-48.05	-702.86	40°12'08.629"N	104°40'01.276"W	0.29	
5825.00	0.910	203.810	5767.57	-35.19	-48.02	-703.92	40°12'08.629"N	104°40'01.290"W	2.05	
5915.00	1.160	161.620	5857.55	-36.70	-49.54	-703.92	40°12'08.614"N	104°40'01.290"W	0.87	
6095.00	0.130	178.190	6037.54	-38.65	-51.47	-703.34	40°12'08.595"N	104°40'01.282"W	0.58	
6364.00	1.340	340.410	6306.52	-35.97	-48.81	-704.38	40°12'08.622"N	104°40'01.296"W	0.54	
6454.00	2.510	310.600	6396.47	-33.66	-46.54	-706.23	40°12'08.644"N	104°40'01.320"W	1.67	
6543.00	5.050	353.440	6485.28	-28.47	-41.38	-708.16	40°12'08.695"N	104°40'01.345"W	4.08	
6633.00	16.690	5.340	6573.52	-11.62	-24.52	-707.41	40°12'08.862"N	104°40'01.335"W	13.10	
6723.00	23.510	3.090	6657.99	19.16	6.31	-705.24	40°12'09.166"N	104°40'01.307"W	7.62	
6813.00	30.980	0.290	6737.95	60.28	47.46	-704.15	40°12'09.573"N	104°40'01.293"W	8.42	
6903.00	39.990	358.030	6811.16	112.47	99.64	-705.03	40°12'10.089"N	104°40'01.304"W	10.12	
6992.00	49.770	356.370	6874.15	175.15	162.28	-708.17	40°12'10.708"N	104°40'01.345"W	11.07	
7082.00	55.610	358.820	6928.69	246.68	233.76	-711.11	40°12'11.414"N	104°40'01.383"W	6.84	
7172.00	63.930	1.690	6973.97	324.34	311.44	-710.68	40°12'12.182"N	104°40'01.377"W	9.64	
7262.00	70.420	2.180	7008.86	407.13	394.30	-707.88	40°12'13.000"N	104°40'01.341"W	7.23	
7307.00	71.820	1.600	7023.42	449.65	436.85	-706.47	40°12'13.421"N	104°40'01.323"W	3.34	
7352.00	76.270	0.470	7035.79	492.88	480.10	-705.70	40°12'13.848"N	104°40'01.313"W	10.18	
7396.00	80.550	359.650	7044.63	535.96	523.19	-705.65	40°12'14.274"N	104°40'01.313"W	9.90	
7431.00	84.690	359.120	7049.12	570.67	557.89	-706.03	40°12'14.617"N	104°40'01.317"W	11.92	
7471.00†	86.345	358.382	7052.25	610.54	597.76	-706.90	40°12'15.011"N	104°40'01.329"W	4.53	7" Casing Point
7525.00	88.580	357.390	7054.64	664.48	651.67	-708.89	40°12'15.544"N	104°40'01.354"W	4.53	
7615.00	88.890	357.360	7056.63	754.42	741.55	-713.01	40°12'16.432"N	104°40'01.407"W	0.35	
7704.00	89.440	356.860	7057.92	843.36	830.43	-717.49	40°12'17.310"N	104°40'01.465"W	0.84	
7794.00	89.840	357.440	7058.49	933.32	920.31	-721.97	40°12'18.198"N	104°40'01.523"W	0.78	
7884.00	89.690	357.780	7058.86	1023.29	1010.23	-725.72	40°12'19.087"N	104°40'01.571"W	0.41	
7974.00	90.030	357.570	7059.08	1113.27	1100.16	-729.37	40°12'19.976"N	104°40'01.618"W	0.44	
8063.00	90.670	357.440	7058.53	1202.24	1189.07	-733.25	40°12'20.854"N	104°40'01.668"W	0.73	
8152.00	90.210	357.830	7057.85	1291.21	1277.99	-736.92	40°12'21.733"N	104°40'01.716"W	0.68	

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Area	COLORADO	Well	CREAM STATE 28N-21HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CREAM STATE 28N-21HZ AWP <12525>
Facility	SEC.28-T3N-R65W		

WELLPATH DATA (136 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8242.00	88.830	358.270	7058.60	1381.19	1367.94	-739.98	40°12'22.622"N	104°40'01.755"W	1.61	
8331.00	88.950	357.380	7060.33	1470.16	1456.86	-743.36	40°12'23.500"N	104°40'01.799"W	1.01	
8421.00	89.350	357.810	7061.66	1560.12	1546.77	-747.13	40°12'24.389"N	104°40'01.848"W	0.65	
8511.00	89.220	358.740	7062.79	1650.11	1636.72	-749.84	40°12'25.278"N	104°40'01.882"W	1.04	
8601.00	89.260	358.200	7063.98	1740.10	1726.68	-752.25	40°12'26.167"N	104°40'01.913"W	0.60	
8691.00	89.070	359.950	7065.29	1830.08	1816.65	-753.70	40°12'27.056"N	104°40'01.932"W	1.96	
8780.00	89.320	359.310	7066.54	1919.07	1905.64	-754.27	40°12'27.935"N	104°40'01.940"W	0.77	
8870.00	89.560	359.260	7067.42	2009.06	1995.63	-755.40	40°12'28.825"N	104°40'01.954"W	0.27	
8960.00	89.660	358.970	7068.03	2099.06	2085.62	-756.79	40°12'29.714"N	104°40'01.972"W	0.34	
9050.00	89.590	359.170	7068.62	2189.06	2175.60	-758.25	40°12'30.603"N	104°40'01.991"W	0.24	
9140.00	89.960	359.740	7068.98	2279.05	2265.60	-759.10	40°12'31.492"N	104°40'02.002"W	0.76	
9229.00	90.060	359.650	7068.96	2368.04	2354.60	-759.58	40°12'32.372"N	104°40'02.008"W	0.15	
9319.00	89.560	358.600	7069.26	2458.04	2444.58	-760.95	40°12'33.261"N	104°40'02.026"W	1.29	
9409.00	89.660	359.380	7069.87	2548.04	2534.57	-762.54	40°12'34.150"N	104°40'02.046"W	0.87	
9499.00	90.030	359.560	7070.12	2638.04	2624.56	-763.37	40°12'35.040"N	104°40'02.057"W	0.46	
9589.00	91.480	0.450	7068.93	2728.01	2714.55	-763.36	40°12'35.929"N	104°40'02.057"W	1.89	
9679.00	91.690	1.100	7066.44	2817.93	2804.51	-762.15	40°12'36.818"N	104°40'02.041"W	0.76	
9858.00	90.490	357.440	7063.03	2996.86	2983.43	-764.43	40°12'38.586"N	104°40'02.071"W	2.15	
9948.00	90.370	358.550	7062.36	3086.84	3073.37	-767.58	40°12'39.475"N	104°40'02.112"W	1.24	
10038.00	90.760	358.410	7061.47	3176.84	3163.33	-769.96	40°12'40.364"N	104°40'02.142"W	0.46	
10127.00	91.260	358.480	7059.90	3265.82	3252.29	-772.38	40°12'41.243"N	104°40'02.174"W	0.57	
10217.00	90.890	358.570	7058.21	3355.80	3342.24	-774.69	40°12'42.132"N	104°40'02.203"W	0.42	
10307.00	90.300	359.930	7057.28	3445.79	3432.22	-775.87	40°12'43.021"N	104°40'02.219"W	1.65	
10397.00	90.800	0.560	7056.42	3535.76	3522.22	-775.49	40°12'43.910"N	104°40'02.214"W	0.89	
10487.00	91.040	0.160	7054.97	3625.72	3612.20	-774.92	40°12'44.800"N	104°40'02.206"W	0.52	
10576.00	90.800	359.840	7053.54	3714.70	3701.19	-774.92	40°12'45.679"N	104°40'02.207"W	0.45	
10666.00	90.060	358.550	7052.87	3804.69	3791.18	-776.19	40°12'46.568"N	104°40'02.223"W	1.65	
10756.00	89.930	358.310	7052.87	3894.69	3881.15	-778.65	40°12'47.457"N	104°40'02.255"W	0.30	
10846.00	88.390	357.610	7054.19	3984.66	3971.08	-781.86	40°12'48.346"N	104°40'02.296"W	1.88	
10936.00	90.360	359.180	7055.17	4074.65	4061.03	-784.38	40°12'49.235"N	104°40'02.329"W	2.80	
11025.00	89.870	359.630	7055.00	4163.64	4150.02	-785.30	40°12'50.114"N	104°40'02.340"W	0.75	
11115.00	90.330	0.120	7054.84	4253.63	4240.02	-785.50	40°12'51.004"N	104°40'02.343"W	0.75	
11205.00	91.040	0.410	7053.76	4343.60	4330.01	-785.08	40°12'51.893"N	104°40'02.338"W	0.85	
11295.00	92.240	0.430	7051.19	4433.53	4419.97	-784.42	40°12'52.782"N	104°40'02.329"W	1.33	
11385.00	92.460	359.430	7047.50	4523.44	4509.90	-784.53	40°12'53.671"N	104°40'02.331"W	1.14	
11474.00	91.480	358.270	7044.44	4612.39	4598.82	-786.32	40°12'54.549"N	104°40'02.354"W	1.71	
11564.00	91.260	356.980	7042.29	4702.33	4688.72	-790.04	40°12'55.438"N	104°40'02.402"W	1.45	
11654.00	89.500	357.050	7041.69	4792.28	4778.59	-794.73	40°12'56.326"N	104°40'02.462"W	1.96	
11744.00	89.320	357.020	7042.62	4882.22	4868.46	-799.39	40°12'57.214"N	104°40'02.522"W	0.20	
11833.00	89.410	357.140	7043.60	4971.17	4957.34	-803.92	40°12'58.092"N	104°40'02.581"W	0.17	
11923.00	89.840	358.480	7044.19	5061.15	5047.27	-807.36	40°12'58.981"N	104°40'02.625"W	1.56	
12013.00	89.590	357.400	7044.64	5151.13	5137.21	-810.59	40°12'59.870"N	104°40'02.667"W	1.23	
12103.00	89.780	357.070	7045.13	5241.09	5227.11	-814.93	40°13'00.758"N	104°40'02.723"W	0.42	
12282.00	89.960	356.930	7045.54	5419.98	5405.86	-824.30	40°13'02.524"N	104°40'02.844"W	0.13	
12473.00	90.210	357.190	7045.26	5610.88	5596.61	-834.10	40°13'04.409"N	104°40'02.970"W	0.19	Last BHI MWD+IFR Surveys

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#35 CREAM STATE 28N-21HZ (422'FNL & 1465' FEL, SEC.28)
Area	COLORADO	Well	CREAM STATE 28N-21HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CREAM STATE 28N-21HZ AWB <12525>
Facility	SEC.28-T3N-R65W		

WELLPATH DATA (136 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12525.00	90.210	357.190	7045.07	5662.85	5648.55	-836.65	40°13'04.923"N	104°40'03.003"W	0.00	Projection to Bit

HOLE & CASING SECTIONS - Ref Wellbore: CREAM STATE 28N-21HZ AWB <12525> Ref Wellpath: CREAM STATE 28N-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	20.00	1228.00	1208.00	20.00	1221.11	0.00	0.00	-19.78	-96.21
9.625in Casing Surface	20.00	1218.00	1198.00	20.00	1211.32	0.00	0.00	-19.66	-94.18
8.75in Open Hole	1228.00	7480.00	6252.00	1221.11	7052.79	-19.78	-96.21	606.74	-707.16
7in Casing Intermediate	20.00	7471.00	7451.00	20.00	7052.25	0.00	0.00	597.76	-706.90
6.125in Open Hole	7480.00	12525.00	5045.00	7052.79	7045.07	606.74	-707.16	5648.55	-836.65

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.21-T3N-R65W LINES	0.00	-0.71	89.93	1734184.18	14600660.39	40°12'09.097"N	104°39'51.059"W	polygon
SEC.28-T3N-R65W LINES	0.00	-0.71	89.93	1734184.18	14600660.39	40°12'09.097"N	104°39'51.059"W	polygon
CREAM STATE 28N-21HZ BHL ON PLAT (50'FNL & 2246'FEL, SEC.28) REV-1	7060.00	5648.53	-808.49	1733264.77	14606303.97	40°13'04.922"N	104°40'02.640"W	point
CREAM STATE 28N-21HZ LANDBOX	7060.00	0.00	0.00	1734094.28	14600660.76	40°12'09.104"N	104°39'52.218"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: CREAM STATE 28N-21HZ AWB <12525> Ref Wellpath: CREAM STATE 28N-21HZ AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
20.00	1183.00	Custom APC_ISCWSA REV 2 MWD	CATHEDRAL ENERGY MWD SURVEYS <99-1183>	CREAM STATE 28N-21HZ AWB <12525>
1183.00	7431.00	Custom APC_ISCWSA REV 2 MWD+IFR1+SC (approximation)	BHI MWD+IFR SURVEYS 8 3/4" HOLE <1279-7431>	CREAM STATE 28N-21HZ AWB <12525>
7431.00	12473.00	Custom APC_ISCWSA REV 2 MWD+IFR1+SC (approximation)	BHI MWD+IFR SURVEYS 6 1/8" HOLE <7525-12473>	CREAM STATE 28N-21HZ AWB <12525>
12473.00	12525.00	Blind Drilling (std)	Projection to bit	CREAM STATE 28N-21HZ AWB <12525>

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#35 CREAM STATE 28N-21HZ (422'FNL & 1465' FEL, SEC.28)
Area	COLORADO	Well	CREAM STATE 28N-21HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CREAM STATE 28N-21HZ AWB <12525>
Facility	SEC.28-T3N-R65W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
20.00	0.000	180.900	20.00	Tie-On
99.00	0.900	180.900	99.00	Begin CATHEDRAL MWD Surveys
1183.00	11.400	266.200	1177.03	Tie-Into CATHEDRAL MWD Surveys
1279.00	12.330	267.100	1270.98	Begin BHI MWD+IFR Surveys
7471.00	86.345	358.382	7052.25	7" Casing Point
12473.00	90.210	357.190	7045.26	Last BHI MWD+IFR Surveys
12525.00	90.210	357.190	7045.07	Projection to Bit