

Location:	COLORADO	Slot:	SLOT#11 REYNOLDS CATTLE 31C-23HZ (620'FNL & 155'FEL, SEC.23)
Field:	WELD COUNTY (KERR MCGEE)	Well:	REYNOLDS CATTLE 31C-23HZ
Facility:	SEC.23-T3N-R68W	Wellbore:	REYNOLDS CATTLE 31C-23HZ PWB

Plot reference wellpath is REYNOLDS CATTLE 31C-23HZ (REV-B.0) PWP

True vertical depths are referenced to XTREME 20 (16KB) (RKB)

Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet

Measured depths are referenced to XTREME 20 (16KB) (RKB)

North Reference: True north

XTREME 20 (16KB) (RKB) to Mean Sea Level: 4947 feet

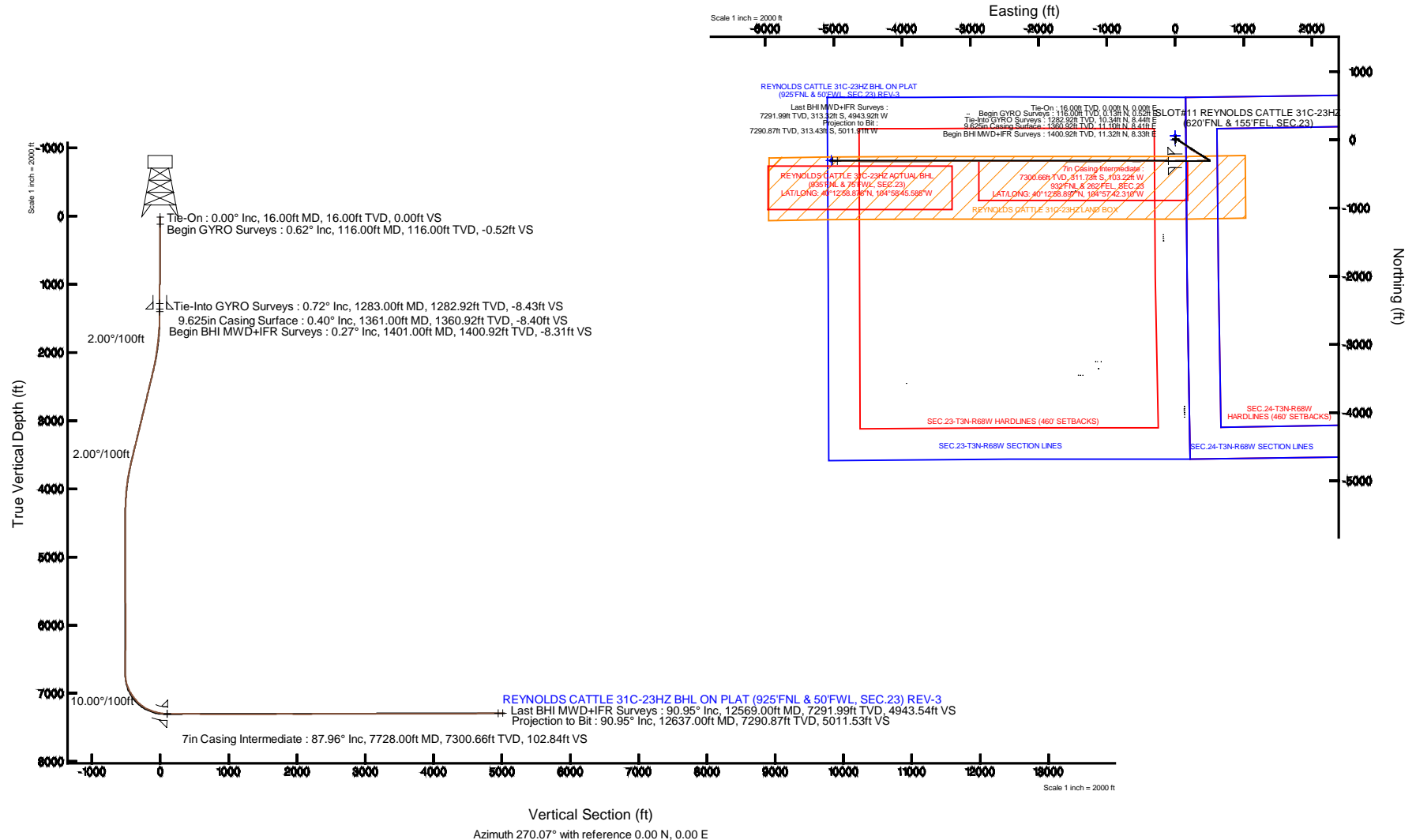
Scale: True distance

Mean Sea Level to Mud line (At Slot: SLOT#11 REYNOLDS CATTLE 31C-23HZ (620FNL & 155FEL, SEC.23)): 0 feet

Depths are in feet

Coordinates are in feet referenced to Slot

Created by: precain on 28/Aug/2014



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#11 REYNOLDS CATTLE 31C-23HZ (620'FNL & 155'FEL, SEC.23)
Area	COLORADO	Well	REYNOLDS CATTLE 31C-23HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	REYNOLDS CATTLE 31C-23HZ AWB
Facility	SEC.23-T3N-R68W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 4.0.0
North Reference	True	User	Precain
Scale	0.999957	Report Generated	28/Aug/2014 at 20:44
Convergence at slot	n/a	Database/Source file	WellArchitectDB/REYNOLDS_CATTLE_31C-23HZ_AWB.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-376.46	3020.89	3150413.92	1322430.82	40°13'01.978"N	104°57'40.979"W
Facility Reference Pt			3147390.98	1322789.28	40°13'05.700"N	104°58'19.920"W
Field Reference Pt			3197771.84	1268891.29	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM			
Calculation method	Minimum curvature	XTREME 20 (16'KB) (RKB) to Facility Vertical Datum	4947.00ft
Horizontal Reference Pt	Slot	XTREME 20 (16'KB) (RKB) to Mean Sea Level	4947.00ft
Vertical Reference Pt	XTREME 20 (16'KB) (RKB)	XTREME 20 (16'KB) (RKB) to Mud Line at Slot (SLOT#11 REYNOLDS CATTLE 31C-23HZ (620'FNL & 155'FEL, SEC.23))	4947.00ft
MD Reference Pt	XTREME 20 (16'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	270.07°

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Area	COLORADO	Well	REYNOLDS CATTLE 31C-23HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	REYNOLDS CATTLE 31C-23HZ AWP
Facility	SEC.23-T3N-R68W		

WELLPATH DATA (133 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	75.940	0.00	0.00	0.00	0.00	40°13'01.978"N	104°57'40.979"W	0.00	
16.00	0.000	75.940	16.00	0.00	0.00	0.00	40°13'01.978"N	104°57'40.979"W	0.00	Tie-On
116.00	0.620	75.940	116.00	-0.52	0.13	0.52	40°13'01.979"N	104°57'40.972"W	0.62	Begin GYRO Surveys
216.00	0.770	67.210	215.99	-1.67	0.52	1.67	40°13'01.983"N	104°57'40.957"W	0.18	
316.00	0.590	51.850	315.98	-2.69	1.10	2.69	40°13'01.989"N	104°57'40.944"W	0.25	
416.00	0.770	41.970	415.98	-3.55	1.92	3.55	40°13'01.997"N	104°57'40.933"W	0.21	
516.00	0.720	32.130	515.97	-4.33	2.95	4.33	40°13'02.007"N	104°57'40.923"W	0.14	
616.00	0.670	21.970	615.96	-4.88	4.03	4.88	40°13'02.018"N	104°57'40.916"W	0.13	
716.00	0.700	33.810	715.95	-5.44	5.07	5.44	40°13'02.028"N	104°57'40.909"W	0.14	
816.00	0.670	39.700	815.95	-6.15	6.03	6.16	40°13'02.038"N	104°57'40.900"W	0.08	
916.00	0.540	30.650	915.94	-6.76	6.89	6.77	40°13'02.046"N	104°57'40.892"W	0.16	
1016.00	0.580	38.400	1015.94	-7.32	7.69	7.32	40°13'02.054"N	104°57'40.885"W	0.09	
1116.00	0.610	29.310	1115.93	-7.89	8.55	7.90	40°13'02.062"N	104°57'40.877"W	0.10	
1216.00	0.650	16.190	1215.92	-8.31	9.56	8.32	40°13'02.072"N	104°57'40.872"W	0.15	
1283.00	0.720	2.760	1282.92	-8.43	10.34	8.44	40°13'02.080"N	104°57'40.870"W	0.26	Tie-Into GYRO Surveys
1401.00	0.270	326.520	1400.92	-8.31	11.32	8.33	40°13'02.090"N	104°57'40.872"W	0.45	Begin BHI MWD+IFR Surveys
1495.00	1.100	98.940	1494.91	-9.08	11.36	9.10	40°13'02.090"N	104°57'40.862"W	1.38	
1590.00	2.940	109.820	1589.85	-12.28	10.39	12.29	40°13'02.081"N	104°57'40.821"W	1.97	
1681.00	4.570	108.170	1680.65	-17.92	8.47	17.93	40°13'02.062"N	104°57'40.748"W	1.79	
1773.00	6.220	117.190	1772.24	-25.84	5.05	25.85	40°13'02.028"N	104°57'40.646"W	2.01	
1865.00	7.680	117.310	1863.56	-35.74	-0.05	35.74	40°13'01.978"N	104°57'40.518"W	1.59	
1956.00	9.050	121.920	1953.59	-47.23	-6.62	47.22	40°13'01.913"N	104°57'40.370"W	1.68	
2048.00	10.660	125.950	2044.23	-60.27	-15.44	60.25	40°13'01.825"N	104°57'40.202"W	1.90	
2140.00	12.980	126.720	2134.28	-75.46	-26.62	75.42	40°13'01.715"N	104°57'40.007"W	2.53	
2231.00	14.780	124.920	2222.62	-93.18	-39.37	93.13	40°13'01.589"N	104°57'39.778"W	2.03	
2323.00	16.100	126.080	2311.29	-113.13	-53.60	113.07	40°13'01.448"N	104°57'39.522"W	1.47	
2506.00	16.880	124.610	2486.77	-155.54	-83.64	155.44	40°13'01.151"N	104°57'38.975"W	0.48	
2598.00	16.180	126.080	2574.96	-176.91	-98.77	176.80	40°13'01.002"N	104°57'38.700"W	0.89	
2690.00	15.170	126.220	2663.54	-197.00	-113.44	196.87	40°13'00.857"N	104°57'38.441"W	1.10	
2782.00	16.650	125.300	2752.01	-217.49	-128.17	217.34	40°13'00.711"N	104°57'38.177"W	1.63	
2874.00	15.690	125.380	2840.37	-238.41	-142.99	238.24	40°13'00.565"N	104°57'37.908"W	1.04	
2965.00	16.420	120.480	2927.83	-259.54	-156.63	259.35	40°13'00.430"N	104°57'37.636"W	1.69	
3057.00	14.790	119.980	3016.43	-280.94	-169.10	280.73	40°13'00.307"N	104°57'37.360"W	1.78	
3149.00	16.170	120.760	3105.09	-302.13	-181.52	301.91	40°13'00.184"N	104°57'37.087"W	1.52	
3241.00	15.780	120.860	3193.54	-323.89	-194.49	323.66	40°13'00.056"N	104°57'36.807"W	0.42	
3333.00	16.810	121.220	3281.84	-346.03	-207.80	345.78	40°12'59.925"N	104°57'36.522"W	1.12	
3418.00	15.030	120.610	3363.58	-366.04	-219.78	365.77	40°12'59.806"N	104°57'36.264"W	2.10	
3503.00	15.350	122.260	3445.61	-385.05	-231.40	384.77	40°12'59.691"N	104°57'36.019"W	0.63	
3588.00	15.980	119.650	3527.46	-404.75	-243.19	404.46	40°12'59.575"N	104°57'35.765"W	1.11	
3673.00	14.610	117.260	3609.44	-424.46	-253.89	424.16	40°12'59.469"N	104°57'35.511"W	1.77	
3758.00	14.060	117.410	3691.80	-443.17	-263.56	442.85	40°12'59.374"N	104°57'35.270"W	0.65	
3844.00	12.490	118.780	3775.50	-460.60	-272.84	460.28	40°12'59.282"N	104°57'35.046"W	1.86	
3929.00	10.910	122.180	3858.73	-475.48	-281.55	475.14	40°12'59.196"N	104°57'34.854"W	2.03	
4014.00	8.090	119.890	3942.55	-487.48	-288.82	487.14	40°12'59.124"N	104°57'34.700"W	3.35	
4099.00	5.050	122.130	4026.99	-495.85	-293.79	495.49	40°12'59.075"N	104°57'34.592"W	3.59	

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#11 REYNOLDS CATTLE 31C-23HZ (620'FNL & 155'FEL, SEC.23)
Area	COLORADO	Well	REYNOLDS CATTLE 31C-23HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	REYNOLDS CATTLE 31C-23HZ AWP
Facility	SEC.23-T3N-R68W		

WELLPATH DATA (133 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4184.00	4.220	119.410	4111.71	-501.74	-297.32	501.39	40°12'59.040"N	104°57'34.516"W	1.01	
4270.00	3.800	122.690	4197.50	-506.90	-300.41	506.54	40°12'59.009"N	104°57'34.449"W	0.56	
4355.00	2.690	130.310	4282.36	-510.80	-303.22	510.43	40°12'58.982"N	104°57'34.399"W	1.40	
4440.00	1.170	143.570	4367.31	-512.84	-305.21	512.47	40°12'58.962"N	104°57'34.373"W	1.85	
4525.00	0.060	233.950	4452.30	-513.32	-305.93	512.95	40°12'58.955"N	104°57'34.367"W	1.38	
4610.00	0.730	315.110	4537.30	-512.90	-305.58	512.53	40°12'58.958"N	104°57'34.372"W	0.85	
4695.00	0.990	301.550	4622.29	-511.89	-304.81	511.52	40°12'58.966"N	104°57'34.385"W	0.39	
4780.00	0.550	319.780	4707.28	-511.00	-304.11	510.63	40°12'58.973"N	104°57'34.397"W	0.59	
4865.00	0.440	344.100	4792.28	-510.64	-303.49	510.28	40°12'58.979"N	104°57'34.401"W	0.28	
5036.00	0.440	38.550	4963.28	-510.87	-302.34	510.51	40°12'58.990"N	104°57'34.398"W	0.24	
5206.00	0.240	354.050	5133.27	-511.24	-301.48	510.88	40°12'58.999"N	104°57'34.394"W	0.19	
5462.00	0.150	144.040	5389.27	-511.38	-301.22	511.02	40°12'59.001"N	104°57'34.392"W	0.15	
5717.00	0.460	271.900	5644.27	-510.56	-301.45	510.19	40°12'58.999"N	104°57'34.402"W	0.22	
5973.00	0.430	196.170	5900.27	-509.26	-302.34	508.90	40°12'58.990"N	104°57'34.419"W	0.21	
6143.00	0.230	179.560	6070.26	-509.09	-303.29	508.72	40°12'58.981"N	104°57'34.421"W	0.13	
6398.00	0.490	128.370	6325.26	-509.95	-304.48	509.58	40°12'58.969"N	104°57'34.410"W	0.15	
6568.00	0.410	94.940	6495.25	-511.13	-304.99	510.76	40°12'58.964"N	104°57'34.395"W	0.16	
6738.00	0.240	78.010	6665.25	-512.08	-304.97	511.71	40°12'58.964"N	104°57'34.383"W	0.11	
6824.00	2.770	273.800	6751.22	-510.18	-304.79	509.81	40°12'58.966"N	104°57'34.407"W	3.49	
6867.00	9.050	274.230	6793.97	-505.77	-304.47	505.40	40°12'58.969"N	104°57'34.464"W	14.60	
6909.00	13.280	268.960	6835.17	-497.65	-304.32	497.28	40°12'58.971"N	104°57'34.569"W	10.35	
6952.00	18.570	272.040	6876.50	-485.86	-304.16	485.49	40°12'58.972"N	104°57'34.721"W	12.45	
6994.00	21.550	271.070	6915.95	-471.46	-303.78	471.09	40°12'58.976"N	104°57'34.906"W	7.14	
7037.00	26.260	271.480	6955.25	-454.04	-303.39	453.68	40°12'58.980"N	104°57'35.131"W	10.96	
7079.00	29.790	269.760	6992.32	-434.31	-303.19	433.95	40°12'58.982"N	104°57'35.385"W	8.62	
7122.00	34.590	269.880	7028.70	-411.41	-303.26	411.05	40°12'58.981"N	104°57'35.680"W	11.16	
7164.00	35.620	266.470	7063.06	-387.28	-304.04	386.92	40°12'58.973"N	104°57'35.991"W	5.27	
7207.00	41.410	266.710	7096.69	-360.57	-305.63	360.20	40°12'58.958"N	104°57'36.336"W	13.47	
7249.00	45.390	266.020	7127.20	-331.77	-307.46	331.40	40°12'58.940"N	104°57'36.707"W	9.54	
7292.00	50.620	267.030	7155.96	-299.89	-309.39	299.52	40°12'58.921"N	104°57'37.118"W	12.29	
7334.00	53.810	269.450	7181.70	-266.72	-310.39	266.35	40°12'58.911"N	104°57'37.546"W	8.85	
7377.00	58.130	271.420	7205.76	-231.10	-310.10	230.72	40°12'58.914"N	104°57'38.005"W	10.74	
7420.00	62.350	271.370	7227.10	-193.79	-309.20	193.41	40°12'58.923"N	104°57'38.486"W	9.81	
7463.00	67.540	271.820	7245.30	-154.86	-308.11	154.49	40°12'58.933"N	104°57'38.988"W	12.11	
7505.00	71.850	269.990	7259.87	-115.49	-307.50	115.12	40°12'58.939"N	104°57'39.495"W	11.05	
7548.00	75.260	271.700	7272.04	-74.26	-306.88	73.89	40°12'58.945"N	104°57'40.027"W	8.80	
7590.00	75.960	268.950	7282.48	-33.58	-306.65	33.21	40°12'58.948"N	104°57'40.551"W	6.56	
7633.00	80.250	266.990	7291.34	8.46	-308.15	-8.83	40°12'58.933"N	104°57'41.093"W	10.93	
7674.00	84.100	267.070	7296.93	49.01	-310.25	-49.38	40°12'58.912"N	104°57'41.616"W	9.39	
7728.00†	87.961	269.771	7300.66	102.84	-311.73	-103.22	40°12'58.897"N	104°57'42.310"W	8.72	7" Casing Point
7734.00	88.390	270.070	7300.86	108.84	-311.74	-109.22	40°12'58.897"N	104°57'42.387"W	8.72	
7819.00	89.130	269.620	7302.69	193.82	-311.97	-194.20	40°12'58.895"N	104°57'43.482"W	1.02	
7904.00	89.530	269.350	7303.69	278.81	-312.74	-279.19	40°12'58.888"N	104°57'44.578"W	0.57	
7990.00	89.870	269.300	7304.14	364.80	-313.75	-365.18	40°12'58.878"N	104°57'45.686"W	0.40	
8075.00	90.240	269.380	7304.06	449.79	-314.73	-450.17	40°12'58.868"N	104°57'46.782"W	0.45	

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Area	COLORADO	Well	REYNOLDS CATTLE 31C-23HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	REYNOLDS CATTLE 31C-23HZ AWP
Facility	SEC.23-T3N-R68W		

WELLPATH DATA (133 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8160.00	89.780	269.510	7304.04	534.79	-315.55	-535.17	40°12'58.860"N	104°57'47.878"W	0.56	
8245.00	89.440	270.770	7304.62	619.78	-315.34	-620.16	40°12'58.862"N	104°57'48.973"W	1.54	
8330.00	89.660	270.480	7305.29	704.78	-314.42	-705.16	40°12'58.871"N	104°57'50.069"W	0.43	
8415.00	89.810	270.470	7305.68	789.77	-313.71	-790.15	40°12'58.878"N	104°57'51.164"W	0.18	
8500.00	89.810	269.770	7305.96	874.77	-313.53	-875.15	40°12'58.880"N	104°57'52.260"W	0.82	
8585.00	89.960	269.480	7306.13	959.77	-314.09	-960.15	40°12'58.874"N	104°57'53.356"W	0.38	
8670.00	90.120	269.500	7306.08	1044.77	-314.85	-1045.15	40°12'58.866"N	104°57'54.451"W	0.19	
8755.00	90.000	269.000	7305.99	1129.76	-315.96	-1130.14	40°12'58.855"N	104°57'55.547"W	0.60	
8840.00	90.090	270.010	7305.92	1214.75	-316.69	-1215.13	40°12'58.848"N	104°57'56.643"W	1.19	
8926.00	90.120	270.310	7305.76	1300.75	-316.45	-1301.13	40°12'58.850"N	104°57'57.751"W	0.35	
9011.00	90.120	269.950	7305.58	1385.75	-316.26	-1386.13	40°12'58.852"N	104°57'58.847"W	0.42	
9096.00	90.120	269.860	7305.41	1470.75	-316.40	-1471.13	40°12'58.851"N	104°57'59.943"W	0.11	
9181.00	90.300	270.780	7305.09	1555.75	-315.93	-1556.13	40°12'58.856"N	104°58'01.038"W	1.10	
9266.00	90.360	270.980	7304.60	1640.74	-314.62	-1641.12	40°12'58.868"N	104°58'02.134"W	0.25	
9351.00	90.210	270.550	7304.18	1725.73	-313.49	-1726.11	40°12'58.880"N	104°58'03.229"W	0.54	
9436.00	89.960	270.420	7304.06	1810.73	-312.77	-1811.11	40°12'58.887"N	104°58'04.325"W	0.33	
9521.00	89.840	270.530	7304.20	1895.73	-312.06	-1896.10	40°12'58.893"N	104°58'05.421"W	0.19	
9607.00	89.630	270.220	7304.60	1981.72	-311.50	-1982.10	40°12'58.899"N	104°58'06.529"W	0.44	
9692.00	89.690	270.380	7305.11	2066.72	-311.06	-2067.10	40°12'58.903"N	104°58'07.625"W	0.20	
9777.00	90.520	270.540	7304.95	2151.72	-310.37	-2152.09	40°12'58.910"N	104°58'08.720"W	0.99	
9947.00	90.550	270.080	7303.36	2321.71	-309.45	-2322.08	40°12'58.919"N	104°58'10.912"W	0.27	
10117.00	90.550	269.980	7301.73	2491.70	-309.36	-2492.08	40°12'58.920"N	104°58'13.103"W	0.06	
10372.00	91.010	269.250	7298.26	2746.67	-311.08	-2747.04	40°12'58.902"N	104°58'16.390"W	0.34	
10457.00	89.630	270.270	7297.79	2831.66	-311.43	-2832.04	40°12'58.899"N	104°58'17.485"W	2.02	
10628.00	89.630	269.840	7298.89	3002.66	-311.27	-3003.03	40°12'58.900"N	104°58'19.689"W	0.25	
10798.00	89.470	269.560	7300.22	3172.65	-312.16	-3173.03	40°12'58.891"N	104°58'21.881"W	0.19	
10968.00	90.240	269.590	7300.65	3342.64	-313.42	-3343.02	40°12'58.879"N	104°58'24.072"W	0.45	
11138.00	90.150	269.440	7300.08	3512.63	-314.86	-3513.01	40°12'58.864"N	104°58'26.263"W	0.10	
11309.00	90.370	269.190	7299.30	3683.61	-316.90	-3684.00	40°12'58.844"N	104°58'28.467"W	0.19	
11393.00	90.210	270.020	7298.87	3767.61	-317.48	-3767.99	40°12'58.838"N	104°58'29.550"W	1.01	
11564.00	90.030	269.560	7298.52	3938.61	-318.11	-3938.99	40°12'58.831"N	104°58'31.754"W	0.29	
11649.00	90.060	270.290	7298.45	4023.61	-318.22	-4023.99	40°12'58.830"N	104°58'32.850"W	0.86	
11734.00	90.120	270.620	7298.32	4108.60	-317.55	-4108.99	40°12'58.837"N	104°58'33.946"W	0.39	
11819.00	90.370	270.670	7297.95	4193.60	-316.59	-4193.98	40°12'58.846"N	104°58'35.041"W	0.30	
11904.00	90.030	270.210	7297.66	4278.60	-315.94	-4278.98	40°12'58.852"N	104°58'36.137"W	0.67	
11989.00	89.600	269.830	7297.93	4363.60	-315.91	-4363.98	40°12'58.852"N	104°58'37.232"W	0.68	
12074.00	89.840	269.920	7298.35	4448.59	-316.09	-4448.98	40°12'58.850"N	104°58'38.328"W	0.30	
12159.00	90.520	270.380	7298.08	4533.59	-315.87	-4533.98	40°12'58.852"N	104°58'39.424"W	0.97	
12245.00	90.700	270.370	7297.16	4619.59	-315.31	-4619.97	40°12'58.858"N	104°58'40.532"W	0.21	
12330.00	90.830	270.550	7296.03	4704.58	-314.62	-4704.96	40°12'58.864"N	104°58'41.628"W	0.26	
12500.00	91.070	270.260	7293.21	4874.55	-313.42	-4874.93	40°12'58.876"N	104°58'43.819"W	0.22	
12569.00	90.950	269.910	7291.99	4943.54	-313.32	-4943.92	40°12'58.877"N	104°58'44.708"W	0.54	Last BHI MWD+IFR Surveys
12637.00	90.950	269.910	7290.87	5011.53	-313.43	-5011.91	40°12'58.876"N	104°58'45.585"W	0.00	Projection to Bit

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#11 REYNOLDS CATTLE 31C-23HZ (620'FNL & 155'FEL, SEC.23)
Area	COLORADO	Well	REYNOLDS CATTLE 31C-23HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	REYNOLDS CATTLE 31C-23HZ AWB
Facility	SEC.23-T3N-R68W		

HOLE & CASING SECTIONS - Ref Wellbore: REYNOLDS CATTLE 31C-23HZ AWB Ref Wellpath: REYNOLDS CATTLE 31C-23HZ 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	1372.00	1356.00	16.00	1371.92	0.00	0.00	11.17	8.39
9.625in Casing Surface	16.00	1361.00	1345.00	16.00	1360.92	0.00	0.00	11.10	8.41
8.75in Open Hole	1372.00	7738.00	6366.00	1371.92	7300.97	11.17	8.39	-311.74	-113.21
7in Casing Intermediate	16.00	7728.00	7712.00	16.00	7300.66	0.00	0.00	-311.73	-103.22
6.125in Open Hole	7728.00	12637.00	4909.00	7300.66	7290.87	-311.73	-103.22	-313.43	-5011.91

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.19-T3N-R67W HARDLINES (460' SETBACKS)		-1.00	60.07	-0.54	3150413.01	1322490.88	40°13'02.572"N	104°57'40.986"W	polygon
SEC.19-T3N-R67W SECTION LINES		-1.00	60.07	-0.54	3150413.01	1322490.88	40°13'02.572"N	104°57'40.986"W	polygon
SEC.23-T3N-R68W HARDLINES (460' SETBACKS)		-1.00	60.07	-0.54	3150413.01	1322490.88	40°13'02.572"N	104°57'40.986"W	polygon
SEC.23-T3N-R68W SECTION LINES		-1.00	60.07	-0.54	3150413.01	1322490.88	40°13'02.572"N	104°57'40.986"W	polygon
SEC.24-T3N-R68W HARDLINES (460' SETBACKS)		-1.00	60.07	-0.54	3150413.01	1322490.88	40°13'02.572"N	104°57'40.986"W	polygon
SEC.24-T3N-R68W SECTION LINES		-1.00	60.07	-0.54	3150413.01	1322490.88	40°13'02.572"N	104°57'40.986"W	polygon
REYNOLDS CATTLE 31C-23HZ BHL ON PLAT (925'FNL & 50'FWL, SEC.23) REV-1		7250.00	-301.90	-5037.59	3145378.49	1322098.35	40°12'58.990"N	104°58'45.916"W	point
REYNOLDS CATTLE 31C-23HZ LAND BOX		7250.00	-0.04	0.02	3150413.94	1322430.78	40°13'01.978"N	104°57'40.979"W	polygon
REYNOLDS CATTLE 31C-23HZ BHL ON PLAT (925'FNL & 50'FWL, SEC.23) REV-2		7287.00	-301.86	-5037.62	3145378.46	1322098.39	40°12'58.990"N	104°58'45.916"W	point
REYNOLDS CATTLE 31C-23HZ BHL ON PLAT (925'FNL & 50'FWL, SEC.23) REV-3		7292.00	-301.86	-5037.62	3145378.46	1322098.39	40°12'58.990"N	104°58'45.916"W	point

WELLPATH COMPOSITION - Ref Wellbore: REYNOLDS CATTLE 31C-23HZ AWB Ref Wellpath: REYNOLDS CATTLE 31C-23HZ AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
16.00	1283.00	Generic gyro - continuous (Standard)	MS ENERGY GYRO SURVEYS <116-1283>	REYNOLDS CATTLE 31C-23HZ AWB
1283.00	7674.00	NaviTrak (IFR)	BHI MWD+IFR SURVEYS 8 3/4" HOLE <1401-7674>	REYNOLDS CATTLE 31C-23HZ AWB
7674.00	12569.00	NaviTrak (IFR)	BHI MWD+IFR SURVEYS 6 1/8" HOLE <7734-12569>	REYNOLDS CATTLE 31C-23HZ AWB
12569.00	12637.00	Blind Drilling (std)	Projection to bit	REYNOLDS CATTLE 31C-23HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#11 REYNOLDS CATTLE 31C-23HZ (620'FNL & 155'FEL, SEC.23)
Area	COLORADO	Well	REYNOLDS CATTLE 31C-23HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	REYNOLDS CATTLE 31C-23HZ AWB
Facility	SEC.23-T3N-R68W		

WELLPATH COMMENTS					
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment	
16.00	0.000	75.940	16.00	Tie-On	
116.00	0.620	75.940	116.00	Begin GYRO Surveys	
1283.00	0.720	2.760	1282.92	Tie-Into GYRO Surveys	
1401.00	0.270	326.520	1400.92	Begin BHI MWD+IFR Surveys	
7728.00	87.961	269.771	7300.66	7" Casing Point	
12569.00	90.950	269.910	7291.99	Last BHI MWD+IFR Surveys	
12637.00	90.950	269.910	7290.87	Projection to Bit	