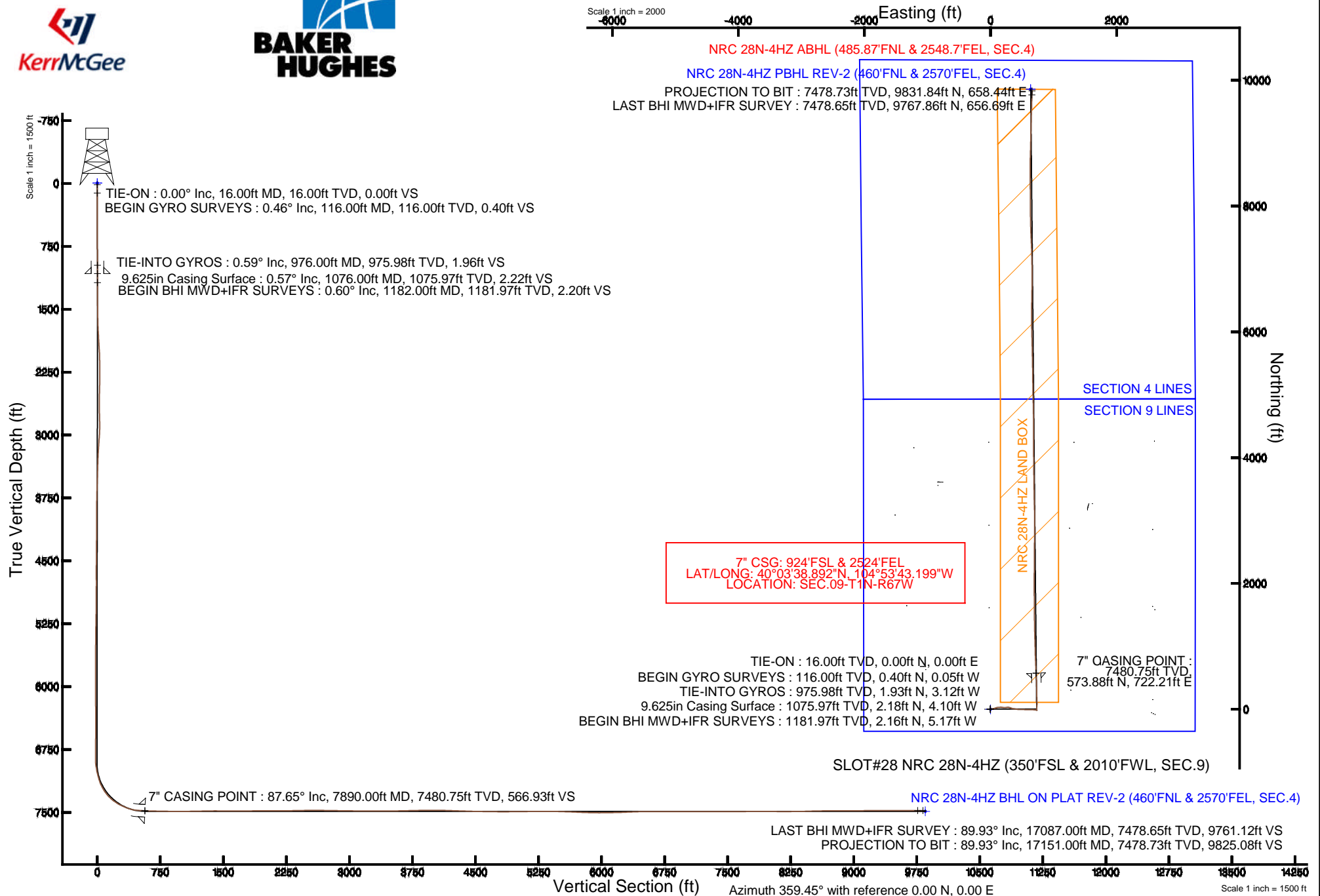


KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#28 NRC 28N-4HZ (350'FSL & 2010'FWL, SEC.9)
Field: WELD COUNTY (KERR MCGEE) Well: NRC 28N-4HZ
Facility: SEC.09-T1N-R67W Wellbore: NRC 28N-4HZ PWB

Plot reference wellpath is NRC 28N-4HZ (REV-B.0) PWP

True vertical depths are referenced to XTREME 24 (16' RKB) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to XTREME 24 (16' RKB) (RKB)	North Reference: True north
XTREME 24 (16' RKB) (RKB) to Mean Sea Level: 5067 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#28 NRC 28N-4HZ (350'FSL & 2010'FWL, SEC.9) : 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot.	Created by: wilsjef02 on 4/28/2014





Actual Wellpath Report

NRC 28N-4HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#28 NRC 28N-4HZ (350'FSL & 2010'FWL, SEC.9)
Area	COLORADO	Well	NRC 28N-4HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 28N-4HZ AWB
Facility	SEC.09-T1N-R67W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 4.0.0
North Reference	True	User	Wilsjef02
Scale	0.999962	Report Generated	4/28/2014 at 4:05:37 PM
Convergence at slot	n/a	Database/Source file	WellArchitectDB/NRC_28N-4HZ_AWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-3266.93	-1559.71	3168529.03	1264994.27	40°03'33.221"N	104°53'52.487"W
Facility Reference Pt			3170066.25	1268271.69	40°04'05.506"N	104°53'32.428"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 24 (16' RKB) (RKB) to Facility Vertical Datum	5067.00ft
Horizontal Reference Pt	Slot	XTREME 24 (16' RKB) (RKB) to Mean Sea Level	5067.00ft
Vertical Reference Pt	XTREME 24 (16' RKB) (RKB)	XTREME 24 (16' RKB) (RKB) to Mud Line at Slot (SLOT#28 NRC 28N-4HZ (350'FSL & 2010'FWL, SEC.9))	5067.00ft
MD Reference Pt	XTREME 24 (16' RKB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	3.83°

Actual Wellpath Report

NRC 28N-4HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#28 NRC 28N-4HZ (350'FSL & 2010'FWL, SEC.9)
Area	COLORADO	Well	NRC 28N-4HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 28N-4HZ AWB
Facility	SEC.09-T1N-R67W		

WELLPATH DATA (139 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	353.100	0.00	0.00	0.00	0.00	40°03'33.221"N	104°53'52.487"W	0.00	
16.00	0.000	353.100	16.00	0.00	0.00	0.00	40°03'33.221"N	104°53'52.487"W	0.00	TIE-ON
116.00	0.460	353.100	116.00	0.39	0.40	-0.05	40°03'33.225"N	104°53'52.488"W	0.46	BEGIN GYRO SURVEYS
216.00	0.580	204.580	216.00	0.32	0.34	-0.31	40°03'33.224"N	104°53'52.491"W	1.00	
316.00	0.660	322.770	315.99	0.28	0.34	-0.87	40°03'33.224"N	104°53'52.498"W	1.06	
416.00	0.410	113.260	415.99	0.59	0.65	-0.89	40°03'33.227"N	104°53'52.498"W	1.04	
516.00	0.850	275.040	515.99	0.49	0.58	-1.30	40°03'33.227"N	104°53'52.504"W	1.25	
616.00	0.410	37.720	615.99	0.80	0.92	-1.82	40°03'33.230"N	104°53'52.510"W	1.13	
716.00	0.390	269.080	715.98	1.07	1.20	-1.94	40°03'33.233"N	104°53'52.512"W	0.72	
816.00	0.570	0.210	815.98	1.54	1.69	-2.28	40°03'33.238"N	104°53'52.516"W	0.70	
916.00	0.480	236.430	915.98	1.78	1.96	-2.62	40°03'33.240"N	104°53'52.521"W	0.93	
976.00	0.590	291.600	975.98	1.72	1.93	-3.12	40°03'33.240"N	104°53'52.527"W	0.84	TIE-INTO GYROS
1182.00	0.600	260.950	1181.97	1.80	2.16	-5.17	40°03'33.242"N	104°53'52.554"W	0.15	BEGIN BHI MWD+IFR SURVEYS
1276.00	2.030	104.760	1275.95	1.38	1.65	-4.05	40°03'33.237"N	104°53'52.539"W	2.76	
1371.00	4.660	81.500	1370.79	1.88	1.80	1.40	40°03'33.239"N	104°53'52.469"W	3.06	
1465.00	6.810	72.910	1464.31	4.69	4.00	10.50	40°03'33.261"N	104°53'52.352"W	2.46	
1559.00	8.210	86.090	1557.51	7.59	6.09	22.53	40°03'33.281"N	104°53'52.197"W	2.35	
1653.00	10.440	81.680	1650.26	10.28	7.78	37.65	40°03'33.298"N	104°53'52.003"W	2.49	
1748.00	9.540	73.920	1743.83	14.78	11.21	53.73	40°03'33.332"N	104°53'51.796"W	1.70	
1844.00	11.340	72.300	1838.23	20.95	16.28	70.37	40°03'33.382"N	104°53'51.582"W	1.90	
1937.00	10.160	67.650	1929.60	27.92	22.18	86.67	40°03'33.440"N	104°53'51.372"W	1.57	
2030.00	11.360	77.030	2020.97	34.19	27.36	103.18	40°03'33.491"N	104°53'51.160"W	2.28	
2123.00	11.730	86.030	2112.10	38.12	30.07	121.54	40°03'33.518"N	104°53'50.924"W	1.98	
2216.00	11.190	85.430	2203.24	40.72	31.44	139.97	40°03'33.532"N	104°53'50.687"W	0.59	
2310.00	12.740	88.380	2295.20	43.04	32.46	159.42	40°03'33.542"N	104°53'50.437"W	1.77	
2402.00	11.650	98.460	2385.13	43.26	31.38	178.75	40°03'33.531"N	104°53'50.188"W	2.60	
2495.00	11.130	96.910	2476.30	42.02	28.92	196.95	40°03'33.507"N	104°53'49.954"W	0.65	
2588.00	10.590	95.440	2567.63	41.29	27.03	214.37	40°03'33.488"N	104°53'49.730"W	0.65	
2681.00	10.890	85.570	2659.01	42.32	26.90	231.64	40°03'33.487"N	104°53'49.508"W	2.00	
2775.00	10.990	81.580	2751.30	45.49	28.90	249.35	40°03'33.507"N	104°53'49.280"W	0.81	
2867.00	10.290	79.730	2841.72	49.36	31.65	266.11	40°03'33.534"N	104°53'49.065"W	0.85	
2959.00	10.910	98.820	2932.18	50.60	31.78	282.81	40°03'33.535"N	104°53'48.850"W	3.86	
3050.00	11.770	109.390	3021.41	47.36	27.37	300.07	40°03'33.491"N	104°53'48.628"W	2.47	
3142.00	11.180	108.660	3111.57	42.56	21.40	317.38	40°03'33.433"N	104°53'48.405"W	0.66	
3234.00	10.220	109.410	3201.97	38.09	15.84	333.52	40°03'33.377"N	104°53'48.198"W	1.05	
3326.00	10.880	99.100	3292.43	35.10	11.75	349.80	40°03'33.337"N	104°53'47.988"W	2.17	
3510.00	9.940	99.720	3473.39	31.88	6.32	382.60	40°03'33.283"N	104°53'47.567"W	0.51	
3694.00	10.180	99.590	3654.57	28.62	0.93	414.28	40°03'33.230"N	104°53'47.159"W	0.13	
3878.00	9.700	92.030	3835.81	27.47	-2.32	445.81	40°03'33.198"N	104°53'46.754"W	0.76	
3969.00	9.220	88.110	3925.57	28.44	-2.35	460.76	40°03'33.198"N	104°53'46.561"W	0.88	
4061.00	9.930	89.230	4016.29	29.81	-2.00	476.06	40°03'33.201"N	104°53'46.365"W	0.80	
4153.00	9.800	90.390	4106.93	30.92	-1.95	491.82	40°03'33.202"N	104°53'46.162"W	0.26	
4245.00	10.510	95.450	4197.49	31.15	-2.80	508.00	40°03'33.193"N	104°53'45.954"W	1.24	
4337.00	10.950	92.120	4287.88	31.17	-3.92	525.08	40°03'33.182"N	104°53'45.734"W	0.83	
4429.00	9.830	92.390	4378.37	31.63	-4.57	541.66	40°03'33.176"N	104°53'45.521"W	1.22	

Actual Wellpath Report

NRC 28N-4HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#28 NRC 28N-4HZ (350'FSL & 2010'FWL, SEC.9)
Area	COLORADO	Well	NRC 28N-4HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 28N-4HZ AWB
Facility	SEC.09-T1N-R67W		

WELLPATH DATA (139 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4521.00	11.340	91.770	4468.81	32.15	-5.18	558.55	40°03'33.170"N	104°53'45.304"W	1.65	
4691.00	9.310	89.580	4636.04	33.78	-5.60	589.01	40°03'33.166"N	104°53'44.912"W	1.22	
4776.00	9.370	88.260	4719.92	34.96	-5.33	602.80	40°03'33.168"N	104°53'44.735"W	0.26	
4861.00	10.870	90.290	4803.59	36.12	-5.17	617.73	40°03'33.170"N	104°53'44.542"W	1.81	
4947.00	11.950	91.560	4887.89	36.98	-5.45	634.74	40°03'33.167"N	104°53'44.324"W	1.29	
5032.00	11.150	90.590	4971.17	37.79	-5.77	651.76	40°03'33.164"N	104°53'44.105"W	0.97	
5117.00	9.450	92.160	5054.80	38.46	-6.12	666.95	40°03'33.160"N	104°53'43.910"W	2.03	
5202.00	8.550	96.450	5138.75	38.37	-7.09	680.20	40°03'33.151"N	104°53'43.739"W	1.32	
5287.00	7.010	97.680	5222.97	37.74	-8.50	691.62	40°03'33.137"N	104°53'43.592"W	1.82	
5373.00	6.840	97.020	5308.34	37.10	-9.82	701.91	40°03'33.124"N	104°53'43.460"W	0.22	
5458.00	6.070	94.400	5392.80	36.77	-10.79	711.41	40°03'33.114"N	104°53'43.338"W	0.97	
5543.00	5.360	95.780	5477.38	36.59	-11.53	719.84	40°03'33.107"N	104°53'43.229"W	0.85	
5628.00	3.510	98.080	5562.12	36.27	-12.30	726.37	40°03'33.099"N	104°53'43.145"W	2.19	
5713.00	1.880	81.000	5647.02	36.38	-12.44	730.32	40°03'33.098"N	104°53'43.095"W	2.12	
5799.00	2.040	76.320	5732.97	37.16	-11.86	733.20	40°03'33.104"N	104°53'43.057"W	0.26	
5884.00	0.340	108.320	5817.95	37.55	-11.58	734.91	40°03'33.106"N	104°53'43.035"W	2.07	
5969.00	0.280	132.430	5902.95	37.36	-11.80	735.30	40°03'33.104"N	104°53'43.030"W	0.17	
6310.00	0.360	324.610	6243.95	37.67	-11.49	735.30	40°03'33.107"N	104°53'43.031"W	0.19	
6651.00	0.350	222.720	6584.95	37.69	-11.38	733.97	40°03'33.108"N	104°53'43.048"W	0.16	
6868.00	0.800	201.630	6801.93	35.73	-13.28	732.96	40°03'33.090"N	104°53'43.061"W	0.23	
6906.00	0.770	205.700	6839.93	35.24	-13.76	732.76	40°03'33.085"N	104°53'43.063"W	0.17	
6949.00	1.790	347.160	6882.92	35.61	-13.36	732.48	40°03'33.089"N	104°53'43.067"W	5.67	
6992.00	7.100	350.650	6925.78	38.85	-10.08	731.90	40°03'33.121"N	104°53'43.074"W	12.36	
7077.00	10.560	359.080	7009.76	51.73	2.89	730.92	40°03'33.249"N	104°53'43.087"W	4.34	
7119.00	15.790	2.170	7050.64	61.28	12.46	731.08	40°03'33.344"N	104°53'43.085"W	12.56	
7162.00	15.440	8.660	7092.06	72.83	23.96	732.16	40°03'33.458"N	104°53'43.071"W	4.14	
7247.00	24.080	6.480	7171.98	101.49	52.43	735.83	40°03'33.739"N	104°53'43.024"W	10.20	
7333.00	32.990	359.330	7247.48	142.45	93.37	737.54	40°03'34.144"N	104°53'43.002"W	11.08	
7418.00	44.190	357.060	7313.82	195.10	146.27	735.74	40°03'34.666"N	104°53'43.025"W	13.28	
7503.00	54.970	358.750	7368.85	259.38	210.84	733.46	40°03'35.304"N	104°53'43.054"W	12.77	
7588.00	62.290	359.300	7413.07	331.65	283.36	732.24	40°03'36.021"N	104°53'43.070"W	8.63	
7673.00	68.800	358.240	7448.24	408.68	360.67	730.56	40°03'36.785"N	104°53'43.091"W	7.74	
7759.00	80.720	358.130	7470.80	491.10	443.45	727.93	40°03'37.603"N	104°53'43.125"W	13.86	
7801.00	85.810	357.770	7475.73	532.58	485.12	726.44	40°03'38.015"N	104°53'43.144"W	12.15	
7842.00	86.730	357.110	7478.39	573.24	525.99	724.61	40°03'38.419"N	104°53'43.168"W	2.76	
7890.00†	87.653	357.147	7480.75	620.85	573.88	722.21	40°03'38.892"N	104°53'43.199"W	1.92	7" CASING POINT
7932.00	88.460	357.180	7482.17	662.54	615.80	720.13	40°03'39.306"N	104°53'43.225"W	1.92	
8018.00	88.790	357.800	7484.23	747.99	701.69	716.37	40°03'40.155"N	104°53'43.274"W	0.82	
8102.00	88.890	357.550	7485.93	831.49	785.61	712.96	40°03'40.984"N	104°53'43.317"W	0.32	
8187.00	89.250	358.780	7487.31	916.06	870.55	710.24	40°03'41.824"N	104°53'43.352"W	1.51	
8358.00	90.460	358.160	7487.75	1086.31	1041.48	705.67	40°03'43.513"N	104°53'43.411"W	0.80	
8443.00	91.020	358.570	7486.65	1170.91	1126.44	703.25	40°03'44.353"N	104°53'43.442"W	0.82	
8613.00	91.230	358.440	7483.31	1340.15	1296.35	698.81	40°03'46.032"N	104°53'43.499"W	0.15	
8699.00	90.490	359.650	7482.02	1425.84	1382.33	697.38	40°03'46.881"N	104°53'43.518"W	1.65	
8784.00	88.850	359.830	7482.51	1510.62	1467.32	697.00	40°03'47.721"N	104°53'43.523"W	1.94	

Actual Wellpath Report

NRC 28N-4HZ AWP

Page 4 of 6

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#28 NRC 28N-4HZ (350'FSL & 2010'FWL, SEC.9)
Area	COLORADO	Well	NRC 28N-4HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 28N-4HZ AWB
Facility	SEC.09-T1N-R67W		

WELLPATH DATA (139 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8954.00	89.900	359.500	7484.36	1680.15	1637.31	696.00	40°03'49.401"N	104°53'43.535"W	0.65	
9125.00	91.200	359.070	7482.72	1850.60	1808.28	693.87	40°03'51.091"N	104°53'43.563"W	0.80	
9295.00	90.550	0.120	7480.13	2020.12	1978.25	692.67	40°03'52.770"N	104°53'43.578"W	0.73	
9473.00	89.780	0.570	7479.61	2197.78	2156.25	693.74	40°03'54.529"N	104°53'43.564"W	0.50	
9566.00	89.930	0.710	7479.85	2290.64	2249.24	694.78	40°03'55.448"N	104°53'43.551"W	0.22	
9753.00	91.320	359.960	7477.81	2477.27	2436.22	695.87	40°03'57.296"N	104°53'43.537"W	0.84	
9846.00	90.490	0.360	7476.34	2570.07	2529.21	696.13	40°03'58.215"N	104°53'43.533"W	0.99	
10031.00	89.070	0.930	7477.05	2754.78	2714.19	698.21	40°04'00.043"N	104°53'43.506"W	0.83	
10311.00	89.220	359.500	7481.23	3034.18	2994.15	699.26	40°04'02.810"N	104°53'43.493"W	0.51	
10680.00	90.030	358.660	7483.64	3401.90	3363.09	693.34	40°04'06.456"N	104°53'43.569"W	0.32	
11047.00	91.360	359.400	7479.19	3767.57	3730.00	687.13	40°04'10.082"N	104°53'43.649"W	0.41	
11231.00	90.980	359.480	7475.44	3951.00	3913.95	685.33	40°04'11.899"N	104°53'43.672"W	0.21	
11323.00	89.660	358.890	7474.92	4042.69	4005.94	684.02	40°04'12.808"N	104°53'43.689"W	1.57	
11415.00	89.010	0.130	7475.99	4134.42	4097.92	683.23	40°04'13.717"N	104°53'43.699"W	1.52	
11599.00	87.870	359.880	7481.00	4317.94	4281.85	683.25	40°04'15.535"N	104°53'43.698"W	0.63	
11874.00	88.790	359.590	7489.01	4592.12	4556.73	681.98	40°04'18.251"N	104°53'43.715"W	0.35	
12058.00	89.500	358.990	7491.76	4775.52	4740.69	679.70	40°04'20.069"N	104°53'43.744"W	0.51	
12321.00	90.770	358.430	7491.14	5037.46	5003.62	673.78	40°04'22.668"N	104°53'43.820"W	0.53	
12491.00	90.680	359.480	7488.99	5206.83	5173.57	670.68	40°04'24.347"N	104°53'43.860"W	0.62	
12661.00	89.960	359.070	7488.04	5376.29	5343.56	668.53	40°04'26.027"N	104°53'43.887"W	0.49	
12917.00	87.870	358.950	7492.89	5631.32	5599.46	664.10	40°04'28.556"N	104°53'43.944"W	0.82	
13172.00	87.900	358.560	7502.30	5885.15	5854.22	658.57	40°04'31.074"N	104°53'44.015"W	0.15	
13258.00	89.380	358.060	7504.34	5970.72	5940.16	656.03	40°04'31.923"N	104°53'44.048"W	1.82	
13343.00	90.760	359.520	7504.23	6055.39	6025.14	654.24	40°04'32.763"N	104°53'44.071"W	2.36	
13599.00	92.000	359.020	7498.07	6310.50	6281.04	650.98	40°04'35.291"N	104°53'44.113"W	0.52	
13684.00	92.370	1.360	7494.83	6395.26	6365.97	651.26	40°04'36.131"N	104°53'44.109"W	2.79	
13769.00	91.540	1.750	7491.93	6480.14	6450.89	653.56	40°04'36.970"N	104°53'44.080"W	1.08	
13854.00	90.180	0.830	7490.65	6565.04	6535.85	655.48	40°04'37.810"N	104°53'44.055"W	1.93	
14025.00	90.210	0.650	7490.07	6735.79	6706.84	657.68	40°04'39.499"N	104°53'44.026"W	0.11	
14110.00	89.190	0.510	7490.52	6820.65	6791.83	658.54	40°04'40.339"N	104°53'44.015"W	1.21	
14280.00	89.930	359.560	7491.82	6990.27	6961.82	658.65	40°04'42.019"N	104°53'44.014"W	0.71	
14536.00	90.060	358.310	7491.84	7245.33	7217.77	653.89	40°04'44.548"N	104°53'44.075"W	0.49	
14791.00	90.240	357.540	7491.18	7498.98	7472.60	644.66	40°04'47.067"N	104°53'44.194"W	0.31	
14962.00	90.390	358.090	7490.24	7669.03	7643.47	638.14	40°04'48.755"N	104°53'44.278"W	0.33	
15132.00	90.830	359.240	7488.43	7838.33	7813.42	634.18	40°04'50.435"N	104°53'44.328"W	0.72	
15303.00	89.190	359.630	7488.40	8008.82	7984.40	632.49	40°04'52.124"N	104°53'44.350"W	0.99	
15558.00	90.240	359.620	7489.66	8263.13	8239.39	630.82	40°04'54.644"N	104°53'44.371"W	0.41	
15813.00	91.840	359.660	7485.04	8517.39	8494.33	629.22	40°04'57.164"N	104°53'44.392"W	0.63	
15898.00	91.070	358.970	7482.88	8602.10	8579.30	628.20	40°04'58.003"N	104°53'44.405"W	1.22	
15983.00	90.790	0.920	7481.50	8686.89	8664.28	628.12	40°04'58.843"N	104°53'44.406"W	2.32	
16068.00	90.270	2.010	7480.71	8771.81	8749.25	630.30	40°04'59.683"N	104°53'44.378"W	1.42	
16153.00	89.100	1.440	7481.18	8856.75	8834.21	632.85	40°05'00.522"N	104°53'44.345"W	1.53	
16323.00	90.830	1.150	7481.28	9026.58	9004.16	636.70	40°05'02.202"N	104°53'44.296"W	1.03	
16494.00	90.760	1.290	7478.91	9197.39	9175.10	640.34	40°05'03.891"N	104°53'44.249"W	0.09	
16579.00	90.460	1.520	7478.01	9282.30	9260.07	642.42	40°05'04.731"N	104°53'44.222"W	0.44	

Actual Wellpath Report

NRC 28N-4HZ AWP

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REFERENCE WELLPATH IDENTIFICATION									
Operator	KERR-MCGEE OIL & GAS ONSHORE LP					Slot	SLOT#28 NRC 28N-4HZ (350'FSL & 2010'FWL, SEC.9)		
Area	COLORADO					Well	NRC 28N-4HZ		
Field	WELD COUNTY (KERR MCGEE)					Wellbore	NRC 28N-4HZ AWB		
Facility	SEC.09-T1N-R67W								

WELLPATH DATA (139 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
16663.00	89.010	1.490	7478.39	9366.23	9344.04	644.63	40°05'05.561"N	104°53'44.193"W	1.73	
16833.00	90.370	1.730	7479.31	9536.10	9513.97	649.40	40°05'07.240"N	104°53'44.132"W	0.81	
17087.00	89.930	1.560	7478.65	9789.91	9767.86	656.69	40°05'09.749"N	104°53'44.038"W	0.19	LAST BHI MWD+IFR SURVEY
17151.00	89.930	1.560	7478.73	9853.86	9831.84	658.44	40°05'10.381"N	104°53'44.016"W	0.00	PROJECTION TO BIT

HOLE & CASING SECTIONS - Ref Wellbore: NRC 28N-4HZ AWB Ref Wellpath: NRC 28N-4HZ 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	1076.00	1060.00	16.00	1075.97	0.00	0.00	2.18	-4.10
9.625in Casing Surface	16.00	1076.00	1060.00	16.00	1075.97	0.00	0.00	2.18	-4.10
8.75in Open Hole	1076.00	7900.00	6824.00	1075.97	7481.14	2.18	-4.10	583.86	721.71
7in Casing Intermediate	16.00	7890.00	7874.00	16.00	7480.75	0.00	0.00	573.88	722.21
6.125in Open Hole	7890.00	17151.00	9261.00	7480.75	7478.73	573.88	722.21	9831.84	658.44

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
NRC SECTION 4 LINES		-4.00	0.00	-89.81	3168439.23	1264993.66	40°03'33.221"N	104°53'53.642"W	polygon
NRC SECTION 9 LINES		-4.00	0.00	-89.81	3168439.23	1264993.66	40°03'33.221"N	104°53'53.642"W	polygon
NRC 28N-4HZ BHL ON PLAT REV-1 (460'FNL & 2570'FEL, SEC.4)		7476.00	9857.71	637.14	3169099.21	1274855.69	40°05'10.637"N	104°53'44.290"W	point
NRC 28N-4HZ LAND BOX		7476.00	0.00	0.00	3168529.03	1264994.27	40°03'33.221"N	104°53'52.487"W	polygon
NRC 28N-4HZ BHL ON PLAT REV-2 (460'FNL & 2570'FEL, SEC.4)		7487.00	9857.71	637.14	3169099.20	1274855.69	40°05'10.637"N	104°53'44.290"W	point

WELLPATH COMPOSITION - Ref Wellbore: NRC 28N-4HZ AWB Ref Wellpath: NRC 28N-4HZ AWP									
Start MD [ft]	End MD [ft]	Positional Uncertainty Model			Log Name/Comment			Wellbore	
16.00	976.00	Generic gyro - continuous (Standard)			MS ENERGY GYRODATA SURVEYS <116-976>			NRC 28N-4HZ AWB	
976.00	7842.00	NaviTrak (MAGCORR,IFR)			BHI MWD+IFR SURVEYS 8 3/4" HOLE <1182-7842>			NRC 28N-4HZ AWB	
7842.00	17087.00	NaviTrak (MAGCORR,IFR)			BHI MWD+IFR SURVEYS 6 1/8" HOLE <7932-17087>			NRC 28N-4HZ AWB	
17087.00	17151.00	Blind Drilling (std)			Projection to bit			NRC 28N-4HZ AWB	



Actual Wellpath Report

NRC 28N-4HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#28 NRC 28N-4HZ (350'FSL & 2010'FWL, SEC.9)
Area	COLORADO	Well	NRC 28N-4HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 28N-4HZ AWB
Facility	SEC.09-T1N-R67W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
16.00	0.000	353.100	16.00	TIE-ON
116.00	0.460	353.100	116.00	BEGIN GYRO SURVEYS
976.00	0.590	291.600	975.98	TIE-INTO GYROS
1182.00	0.600	260.950	1181.97	BEGIN BHI MWD+IFR SURVEYS
7890.00	87.653	357.147	7480.75	7" CASING POINT
17087.00	89.930	1.560	7478.65	LAST BHI MWD+IFR SURVEY
17151.00	89.930	1.560	7478.73	PROJECTION TO BIT