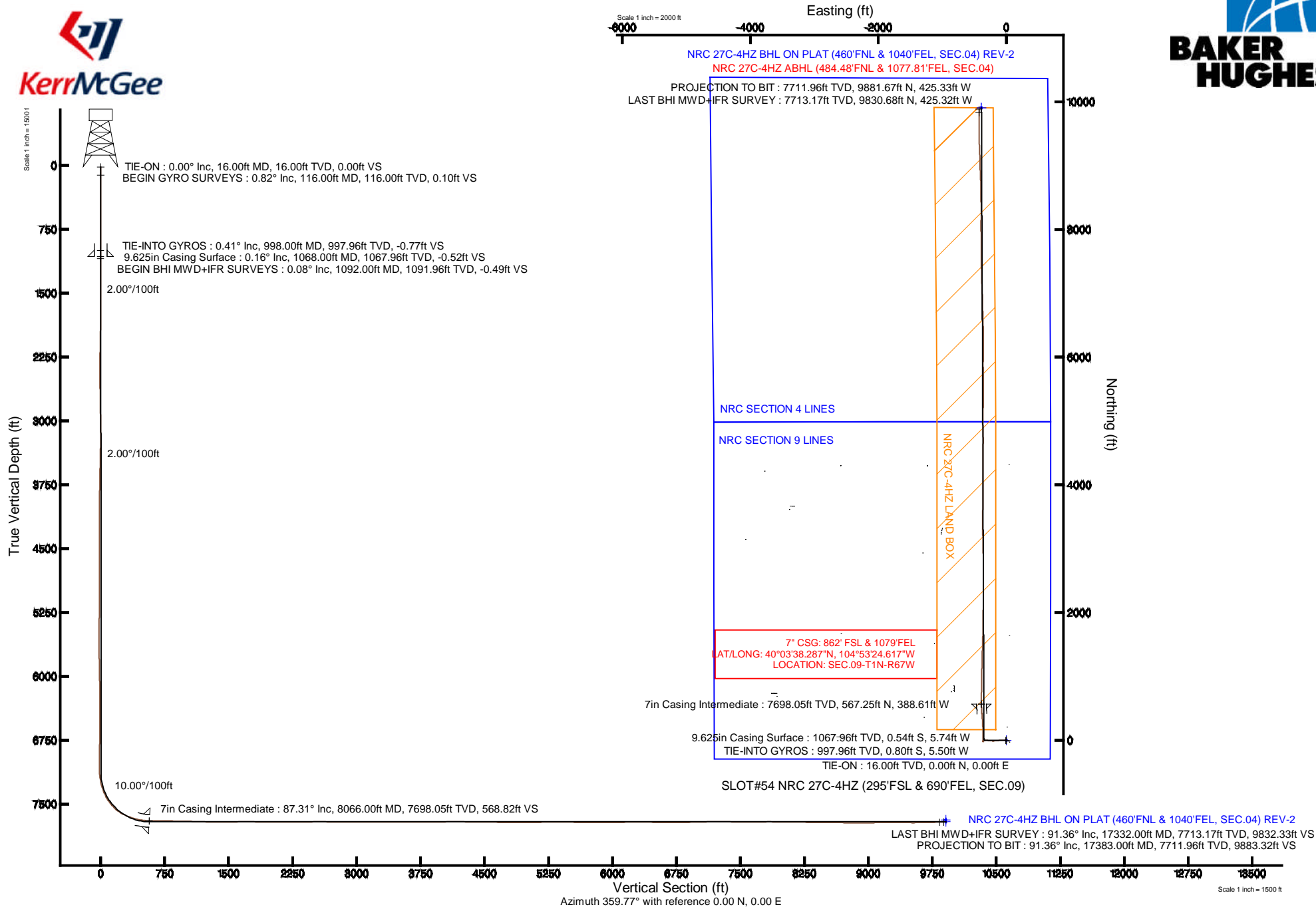


# KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#54 NRC 27C-4HZ (295'FSL & 690'FEL, SEC.09)  
 Field: WELD COUNTY (KERR MCGEE) Well: NRC 27C-4HZ  
 Facility: SEC.09-T1N-R67W Wellbore: NRC 27C-4HZ PWB

Plot reference wellpath is NRC 27C-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: 5062 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#54 NRC 27C-4HZ (295'FSL & 690'FEL, SEC.09)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: robale01 on 23/Jul/2014



# Actual Wellpath Report

NRC 27C-4HZ AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#54 NRC 27C-4HZ (295'FSL & 690'FEL, SEC.09)
Area	COLORADO	Well	NRC 27C-4HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 27C-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	Robiale01
Scale	0.999962	Report Generated	23/Jul/2014 at 09:25
Convergence at slot	n/a	Database/Source file	WellArchitectDB/NRC_27C-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	-3321.61	995.98	3171084.93	1264957.12	40°03'32.681"N	104°53'19.619"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	5062.00ft
Horizontal Reference Pt	Slot	XTREME 24 (16' RKB) (RKB) to Mean Sea Level	5062.00ft
Vertical Reference Pt	XTREME 24 (16' RKB) (RKB)	XTREME 24 (16' RKB) (RKB) to Mud Line at Slot (SLOT#54 NRC 27C-4HZ (295'FSL & 690'FEL, SEC.09))	5062.00ft
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	357.54°

# Actual Wellpath Report

NRC 27C-4HZ AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#54 NRC 27C-4HZ (295'FSL & 690'FEL, SEC.09)
Area	COLORADO	Well	NRC 27C-4HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 27C-4HZ AWP
Facility	SEC.09-T1N-R67W		

## WELLPATH DATA (143 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	277.960	0.00	0.00	0.00	0.00	40°03'32.681"N	104°53'19.619"W	0.00	
16.00	0.000	277.960	16.00	0.00	0.00	0.00	40°03'32.681"N	104°53'19.619"W	0.00	TIE-ON
116.00	0.820	277.960	116.00	0.13	0.10	-0.71	40°03'32.682"N	104°53'19.628"W	0.82	BEGIN GYRO SURVEYS
216.00	0.540	244.320	215.99	0.07	-0.01	-1.84	40°03'32.681"N	104°53'19.643"W	0.48	
316.00	0.470	241.550	315.99	-0.29	-0.41	-2.63	40°03'32.677"N	104°53'19.653"W	0.07	
416.00	0.590	247.390	415.98	-0.65	-0.80	-3.46	40°03'32.673"N	104°53'19.664"W	0.13	
516.00	0.690	291.530	515.98	-0.58	-0.78	-4.50	40°03'32.673"N	104°53'19.677"W	0.49	
616.00	0.550	1.680	615.97	0.14	-0.08	-5.04	40°03'32.680"N	104°53'19.684"W	0.72	
716.00	0.280	130.150	715.97	0.46	0.25	-4.84	40°03'32.683"N	104°53'19.681"W	0.76	
816.00	0.250	175.280	815.97	0.07	-0.13	-4.64	40°03'32.680"N	104°53'19.679"W	0.21	
916.00	0.600	225.530	915.97	-0.50	-0.71	-4.99	40°03'32.674"N	104°53'19.683"W	0.48	
998.00	0.410	317.490	997.96	-0.56	-0.80	-5.50	40°03'32.673"N	104°53'19.690"W	0.90	TIE-INTO GYROS
1092.00	0.080	303.250	1091.96	-0.26	-0.51	-5.78	40°03'32.676"N	104°53'19.693"W	0.35	BEGIN BHI MWD+IFR SURVEYS
1186.00	1.260	281.310	1185.96	0.02	-0.27	-6.85	40°03'32.678"N	104°53'19.707"W	1.26	
1278.00	3.210	269.370	1277.88	0.34	-0.10	-10.42	40°03'32.680"N	104°53'19.753"W	2.17	
1372.00	5.230	276.760	1371.62	1.12	0.37	-17.30	40°03'32.685"N	104°53'19.842"W	2.22	
1466.00	6.530	273.170	1465.13	2.33	1.17	-26.90	40°03'32.693"N	104°53'19.965"W	1.44	
1560.00	8.810	269.120	1558.28	3.05	1.36	-39.43	40°03'32.694"N	104°53'20.126"W	2.49	
1655.00	10.710	267.940	1651.90	3.31	0.93	-55.53	40°03'32.690"N	104°53'20.333"W	2.01	
1752.00	11.360	267.860	1747.11	3.43	0.25	-74.08	40°03'32.683"N	104°53'20.572"W	0.67	
1938.00	11.190	263.050	1929.52	2.12	-2.62	-110.31	40°03'32.655"N	104°53'21.038"W	0.51	
2125.00	10.800	264.310	2113.09	-0.28	-6.55	-145.75	40°03'32.616"N	104°53'21.493"W	0.24	
2311.00	10.330	266.490	2295.93	-1.57	-9.30	-179.74	40°03'32.589"N	104°53'21.931"W	0.33	
2497.00	9.940	271.560	2479.04	-0.74	-9.89	-212.43	40°03'32.583"N	104°53'22.351"W	0.52	
2683.00	10.100	276.360	2662.20	2.89	-7.64	-244.69	40°03'32.605"N	104°53'22.766"W	0.46	
2868.00	9.330	275.360	2844.55	7.42	-4.45	-275.74	40°03'32.637"N	104°53'23.165"W	0.43	
2960.00	9.400	275.620	2935.32	9.49	-3.01	-290.64	40°03'32.651"N	104°53'23.357"W	0.09	
3052.00	8.860	274.190	3026.16	11.37	-1.76	-305.19	40°03'32.664"N	104°53'23.544"W	0.64	
3144.00	8.050	274.070	3117.16	12.92	-0.78	-318.68	40°03'32.673"N	104°53'23.717"W	0.88	
3236.00	6.380	263.090	3208.43	13.26	-0.94	-330.18	40°03'32.672"N	104°53'23.865"W	2.35	
3328.00	5.620	248.900	3299.93	11.42	-3.18	-339.46	40°03'32.650"N	104°53'23.985"W	1.81	
3419.00	4.440	247.310	3390.58	8.78	-6.14	-346.86	40°03'32.620"N	104°53'24.080"W	1.31	
3511.00	3.310	263.090	3482.37	7.34	-7.84	-352.79	40°03'32.604"N	104°53'24.156"W	1.68	
3603.00	1.930	246.480	3574.27	6.58	-8.77	-356.84	40°03'32.594"N	104°53'24.208"W	1.70	
3695.00	1.070	197.180	3666.24	5.21	-10.21	-358.52	40°03'32.580"N	104°53'24.230"W	1.60	
3787.00	1.730	210.320	3758.21	3.24	-12.23	-359.47	40°03'32.560"N	104°53'24.242"W	0.79	
3971.00	0.490	258.880	3942.18	0.78	-14.78	-361.65	40°03'32.535"N	104°53'24.270"W	0.79	
4247.00	0.560	244.330	4218.17	0.08	-15.59	-364.02	40°03'32.527"N	104°53'24.301"W	0.05	
4516.00	0.940	270.200	4487.14	-0.34	-16.15	-367.41	40°03'32.521"N	104°53'24.344"W	0.19	
4601.00	1.120	93.340	4572.14	-0.39	-16.20	-367.28	40°03'32.521"N	104°53'24.342"W	2.42	
4856.00	0.700	346.570	4827.12	0.89	-14.83	-365.15	40°03'32.534"N	104°53'24.315"W	0.58	
4941.00	0.630	98.100	4912.12	1.31	-14.39	-364.81	40°03'32.539"N	104°53'24.311"W	1.29	
5112.00	1.330	126.760	5083.09	-0.12	-15.71	-362.29	40°03'32.526"N	104°53'24.278"W	0.49	
5368.00	0.670	165.450	5339.05	-3.46	-18.94	-359.53	40°03'32.494"N	104°53'24.243"W	0.36	
5623.00	0.360	279.850	5594.05	-4.75	-20.24	-359.95	40°03'32.481"N	104°53'24.248"W	0.35	

# Actual Wellpath Report

NRC 27C-4HZ AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#54 NRC 27C-4HZ (295'FSL & 690'FEL, SEC.09)
Area	COLORADO	Well	NRC 27C-4HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 27C-4HZ AWP
Facility	SEC.09-T1N-R67W		

## WELLPATH DATA (143 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5879.00	1.250	32.550	5850.03	-2.29	-17.75	-359.24	40°03'32.506"N	104°53'24.239"W	0.56	
6135.00	1.490	324.250	6105.97	2.78	-12.70	-359.68	40°03'32.555"N	104°53'24.245"W	0.61	
6219.00	0.380	332.530	6189.96	3.95	-11.56	-360.45	40°03'32.567"N	104°53'24.255"W	1.33	
6474.00	0.080	213.580	6444.95	4.57	-10.96	-360.94	40°03'32.573"N	104°53'24.261"W	0.17	
6729.00	0.600	168.300	6699.95	3.11	-12.42	-360.76	40°03'32.558"N	104°53'24.259"W	0.21	
6984.00	1.090	185.050	6954.92	-0.62	-16.14	-360.71	40°03'32.521"N	104°53'24.258"W	0.21	
7068.00	1.060	195.360	7038.91	-2.15	-17.69	-360.98	40°03'32.506"N	104°53'24.261"W	0.23	
7153.00	2.940	340.580	7123.88	-0.81	-16.39	-361.92	40°03'32.519"N	104°53'24.274"W	4.54	
7238.00	10.180	358.780	7208.27	8.80	-6.81	-362.80	40°03'32.614"N	104°53'24.285"W	8.76	
7323.00	15.440	0.870	7291.12	27.62	12.03	-362.79	40°03'32.800"N	104°53'24.285"W	6.21	
7409.00	23.280	1.180	7372.20	56.05	40.51	-362.27	40°03'33.081"N	104°53'24.278"W	9.12	
7494.00	31.760	359.250	7447.51	95.25	79.74	-362.21	40°03'33.469"N	104°53'24.277"W	10.03	
7579.00	41.020	357.690	7515.87	145.61	130.09	-363.63	40°03'33.967"N	104°53'24.296"W	10.95	
7664.00	51.380	357.350	7574.62	206.88	191.30	-366.30	40°03'34.571"N	104°53'24.330"W	12.19	
7749.00	63.710	356.650	7620.14	278.46	262.79	-370.08	40°03'35.278"N	104°53'24.378"W	14.52	
7834.00	70.260	356.250	7653.36	356.64	340.83	-374.92	40°03'36.049"N	104°53'24.441"W	7.72	
7919.00	77.210	355.660	7677.15	438.15	422.17	-380.68	40°03'36.853"N	104°53'24.515"W	8.20	
8004.00	82.090	356.540	7692.42	521.72	505.57	-386.36	40°03'37.677"N	104°53'24.588"W	5.83	
8024.00	83.950	357.550	7694.85	541.57	525.39	-387.39	40°03'37.873"N	104°53'24.601"W	10.56	
8066.00†	87.309	359.109	7698.05	583.43	567.25	-388.61	40°03'38.287"N	104°53'24.617"W	8.81	7" CASING POINT
8098.00	89.870	0.290	7698.84	615.40	599.23	-388.77	40°03'38.603"N	104°53'24.619"W	8.81	
8183.00	90.430	0.770	7698.61	700.28	684.23	-387.99	40°03'39.443"N	104°53'24.609"W	0.87	
8268.00	89.690	0.520	7698.52	785.15	769.22	-387.03	40°03'40.283"N	104°53'24.591"W	0.92	
8353.00	89.260	1.080	7699.30	870.01	854.21	-385.84	40°03'41.122"N	104°53'24.581"W	0.83	
8438.00	88.830	1.200	7700.72	954.83	939.18	-384.15	40°03'41.962"N	104°53'24.560"W	0.53	
8523.00	88.150	1.190	7702.96	1039.63	1024.13	-382.38	40°03'42.802"N	104°53'24.537"W	0.80	
8608.00	88.180	0.890	7705.68	1124.43	1109.07	-380.84	40°03'43.641"N	104°53'24.517"W	0.35	
8778.00	88.650	1.180	7710.38	1294.04	1278.98	-377.77	40°03'45.320"N	104°53'24.478"W	0.32	
8863.00	89.690	1.760	7711.62	1378.83	1363.94	-375.59	40°03'46.160"N	104°53'24.450"W	1.40	
8948.00	90.930	1.820	7711.16	1463.60	1448.90	-372.93	40°03'46.999"N	104°53'24.415"W	1.46	
9033.00	90.760	1.720	7709.90	1548.35	1533.85	-370.31	40°03'47.839"N	104°53'24.382"W	0.23	
9119.00	90.430	1.890	7709.01	1634.11	1619.80	-367.60	40°03'48.688"N	104°53'24.347"W	0.43	
9289.00	89.500	1.040	7709.11	1803.71	1789.74	-363.25	40°03'50.368"N	104°53'24.291"W	0.74	
9374.00	90.030	0.690	7709.46	1888.56	1874.73	-361.97	40°03'51.207"N	104°53'24.275"W	0.75	
9544.00	89.160	0.210	7710.66	2058.34	2044.72	-360.64	40°03'52.887"N	104°53'24.257"W	0.58	
9629.00	89.840	359.980	7711.40	2143.25	2129.72	-360.50	40°03'53.727"N	104°53'24.256"W	0.84	
9714.00	90.240	359.890	7711.35	2228.17	2214.72	-360.59	40°03'54.567"N	104°53'24.257"W	0.48	
9901.00	90.640	0.570	7709.91	2414.96	2401.71	-359.84	40°03'56.415"N	104°53'24.247"W	0.42	
10087.00	89.930	359.650	7708.98	2600.77	2587.70	-359.48	40°03'58.253"N	104°53'24.243"W	0.62	
10273.00	89.410	0.090	7710.06	2786.61	2773.70	-359.91	40°04'00.091"N	104°53'24.248"W	0.37	
10366.00	88.670	359.500	7711.61	2879.52	2866.68	-360.24	40°04'01.010"N	104°53'24.252"W	1.02	
10460.00	90.220	359.640	7712.52	2973.45	2960.67	-360.94	40°04'01.939"N	104°53'24.262"W	1.66	
10646.00	89.880	357.550	7712.36	3159.41	3146.61	-365.50	40°04'03.776"N	104°53'24.320"W	1.14	
10830.00	90.190	0.460	7712.25	3343.33	3330.56	-368.70	40°04'05.594"N	104°53'24.361"W	1.59	
11014.00	89.480	0.050	7712.78	3527.12	3514.55	-367.88	40°04'07.413"N	104°53'24.351"W	0.45	

# Actual Wellpath Report

NRC 27C-4HZ AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#54 NRC 27C-4HZ (295'FSL & 690'FEL, SEC.09)
Area	COLORADO	Well	NRC 27C-4HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 27C-4HZ AWP
Facility	SEC.09-T1N-R67W		

WELLPATH DATA (143 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11198.00	90.590	1.090	7712.67	3710.86	3698.54	-366.05	40°04'09.231"N	104°53'24.327"W	0.83	
11382.00	90.460	0.130	7710.98	3894.58	3882.52	-364.09	40°04'11.049"N	104°53'24.302"W	0.53	
11566.00	90.800	0.950	7708.96	4078.32	4066.50	-362.36	40°04'12.867"N	104°53'24.280"W	0.48	
11749.00	89.140	359.710	7709.05	4261.09	4249.48	-361.30	40°04'14.675"N	104°53'24.266"W	1.13	
11933.00	89.600	359.860	7711.08	4444.94	4433.47	-361.99	40°04'16.493"N	104°53'24.275"W	0.26	
12117.00	88.760	0.740	7713.71	4628.70	4617.45	-361.03	40°04'18.312"N	104°53'24.263"W	0.66	
12209.00	88.830	359.900	7715.64	4720.57	4709.42	-360.52	40°04'19.221"N	104°53'24.256"W	0.92	
12301.00	89.630	359.150	7716.88	4812.51	4801.41	-361.28	40°04'20.130"N	104°53'24.266"W	1.19	
12485.00	89.880	0.130	7717.67	4996.38	4985.40	-362.44	40°04'21.948"N	104°53'24.281"W	0.55	
12566.00	91.420	0.400	7716.75	5077.28	5066.39	-362.06	40°04'22.748"N	104°53'24.276"W	1.93	
12736.00	91.800	0.820	7711.97	5246.97	5236.32	-360.25	40°04'24.427"N	104°53'24.253"W	0.33	
12821.00	91.270	0.780	7709.70	5331.80	5321.28	-359.07	40°04'25.267"N	104°53'24.238"W	0.63	
12906.00	88.390	359.660	7709.95	5416.69	5406.27	-358.74	40°04'26.107"N	104°53'24.234"W	3.64	
12991.00	88.020	0.320	7712.61	5501.57	5491.22	-358.75	40°04'26.946"N	104°53'24.234"W	0.89	
13076.00	88.640	359.120	7715.09	5586.47	5576.19	-359.17	40°04'27.786"N	104°53'24.239"W	1.59	
13161.00	90.000	359.970	7716.10	5671.41	5661.17	-359.84	40°04'28.626"N	104°53'24.248"W	1.89	
13331.00	89.900	359.540	7716.24	5841.28	5831.17	-360.57	40°04'30.306"N	104°53'24.257"W	0.26	
13416.00	90.150	0.240	7716.21	5926.21	5916.17	-360.73	40°04'31.146"N	104°53'24.259"W	0.87	
13586.00	90.670	0.400	7714.99	6096.01	6086.16	-359.79	40°04'32.826"N	104°53'24.247"W	0.32	
13756.00	91.020	0.920	7712.48	6265.73	6256.13	-357.83	40°04'34.505"N	104°53'24.222"W	0.37	
13842.00	89.410	358.940	7712.16	6351.65	6342.13	-357.93	40°04'35.355"N	104°53'24.223"W	2.97	
14012.00	88.420	358.700	7715.38	6521.58	6512.06	-361.43	40°04'37.034"N	104°53'24.269"W	0.60	
14097.00	89.590	358.260	7716.86	6606.55	6597.01	-363.69	40°04'37.874"N	104°53'24.298"W	1.47	
14182.00	90.150	358.370	7717.05	6691.54	6681.97	-366.19	40°04'38.714"N	104°53'24.330"W	0.67	
14267.00	89.880	359.150	7717.03	6776.52	6766.95	-368.03	40°04'39.553"N	104°53'24.353"W	0.97	
14352.00	91.850	358.220	7715.74	6861.49	6851.92	-369.98	40°04'40.393"N	104°53'24.378"W	2.56	
14437.00	91.660	358.230	7713.14	6946.44	6936.84	-372.61	40°04'41.232"N	104°53'24.412"W	0.22	
14608.00	91.110	357.600	7709.01	7117.39	7107.67	-378.83	40°04'42.920"N	104°53'24.492"W	0.49	
14778.00	89.500	358.390	7708.10	7287.37	7277.56	-384.77	40°04'44.599"N	104°53'24.569"W	1.05	
14948.00	89.140	358.910	7710.12	7457.33	7447.50	-388.78	40°04'46.279"N	104°53'24.620"W	0.37	
15034.00	89.660	358.880	7711.02	7543.30	7533.48	-390.44	40°04'47.128"N	104°53'24.642"W	0.61	
15119.00	90.490	359.390	7710.91	7628.26	7618.47	-391.72	40°04'47.968"N	104°53'24.658"W	1.15	
15289.00	90.620	0.000	7709.26	7798.13	7788.46	-392.63	40°04'49.648"N	104°53'24.670"W	0.37	
15459.00	88.400	359.160	7710.72	7968.01	7958.43	-393.87	40°04'51.328"N	104°53'24.686"W	1.40	
15544.00	88.850	0.150	7712.76	8052.92	8043.41	-394.38	40°04'52.168"N	104°53'24.693"W	1.28	
15630.00	89.960	0.320	7713.65	8138.82	8129.40	-394.03	40°04'53.017"N	104°53'24.688"W	1.31	
15715.00	89.690	0.390	7713.91	8223.72	8214.40	-393.50	40°04'53.857"N	104°53'24.681"W	0.33	
15885.00	89.500	359.520	7715.11	8393.56	8384.39	-393.64	40°04'55.537"N	104°53'24.683"W	0.52	
16055.00	89.560	359.960	7716.50	8563.43	8554.38	-394.41	40°04'57.217"N	104°53'24.693"W	0.26	
16225.00	88.360	357.200	7719.59	8733.35	8724.28	-398.62	40°04'58.896"N	104°53'24.747"W	1.77	
16310.00	90.120	357.830	7720.72	8818.34	8809.19	-402.30	40°04'59.735"N	104°53'24.795"W	2.20	
16395.00	89.960	357.420	7720.66	8903.34	8894.12	-405.83	40°05'00.574"N	104°53'24.840"W	0.52	
16481.00	90.120	358.370	7720.60	8989.34	8980.06	-408.99	40°05'01.424"N	104°53'24.881"W	1.12	
16566.00	91.480	358.660	7719.41	9074.32	9065.02	-411.19	40°05'02.263"N	104°53'24.909"W	1.64	
16736.00	90.120	357.510	7717.04	9244.29	9234.90	-416.87	40°05'03.942"N	104°53'24.982"W	1.05	

# Actual Wellpath Report

NRC 27C-4HZ AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#54 NRC 27C-4HZ (295'FSL & 690'FEL, SEC.09)
Area	COLORADO	Well	NRC 27C-4HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 27C-4HZ AWB
Facility	SEC.09-T1N-R67W		

## WELLPATH DATA (143 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
16821.00	90.430	358.090	7716.63	9329.28	9319.84	-420.13	40°05'04.782"N	104°53'25.024"W	0.77	
16906.00	88.540	358.300	7717.39	9414.27	9404.79	-422.81	40°05'05.621"N	104°53'25.059"W	2.24	
16991.00	89.290	359.300	7719.00	9499.23	9489.75	-424.59	40°05'06.461"N	104°53'25.082"W	1.47	
17076.00	90.990	0.030	7718.80	9584.17	9574.75	-425.09	40°05'07.301"N	104°53'25.088"W	2.18	
17161.00	91.210	359.740	7717.16	9669.08	9659.73	-425.26	40°05'08.140"N	104°53'25.090"W	0.43	
17247.00	91.390	0.100	7715.21	9754.99	9745.71	-425.38	40°05'08.990"N	104°53'25.092"W	0.47	
17332.00	91.360	359.980	7713.17	9839.88	9830.68	-425.32	40°05'09.830"N	104°53'25.091"W	0.15	LAST BHI MWD+IFR SURVEY
17383.00	91.360	359.980	7711.96	9890.82	9881.67	-425.33	40°05'10.334"N	104°53'25.091"W	0.00	PROJECTION TO BIT

## HOLE & CASING SECTIONS - Ref Wellbore: NRC 27C-4HZ AWB Ref Wellpath: NRC 27C-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	1078.00	1062.00	16.00	1077.96	0.00	0.00	-0.53	-5.76
9.625in Casing Surface	16.00	1068.00	1052.00	16.00	1067.96	0.00	0.00	-0.54	-5.74
8.75in Open Hole	1078.00	8075.00	6997.00	1077.96	7698.41	-0.53	-5.76	576.24	-388.72
7in Casing Intermediate	16.00	8066.00	8050.00	16.00	7698.05	0.00	0.00	567.25	-388.61
6.125in Open Hole	8075.00	17383.00	9308.00	7698.41	7711.96	576.24	-388.72	9881.67	-425.33



# Actual Wellpath Report

NRC 27C-4HZ AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#54 NRC 27C-4HZ (295'FSL & 690'FEL, SEC.09)
Area	COLORADO	Well	NRC 27C-4HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 27C-4HZ AWB
Facility	SEC.09-T1N-R67W		

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		-9.00	54.78	-2645.49	3168439.23	1264993.66	40°03'33.221"N	104°53'53.642"W	polygon
NRC SECTION 9 LINES		-9.00	54.78	-2645.49	3168439.23	1264993.66	40°03'33.221"N	104°53'53.642"W	polygon
NRC 27C-4HZ BHL ON PLAT (460'FNL & 1040'FEL, SEC.04) REV-1		7685.00	9906.15	-387.52	3170629.15	1274859.97	40°05'10.576"N	104°53'24.605"W	point
NRC 27C-4HZ LAND BOX		7700.00	0.00	0.00	3171084.93	1264957.12	40°03'32.681"N	104°53'19.619"W	polygon
NRC 27C-4HZ BHL ON PLAT (460'FNL & 1040'FEL, SEC.04) REV-2		7709.00	9906.15	-387.52	3170629.16	1274859.97	40°05'10.576"N	104°53'24.605"W	point

WELLPATH COMPOSITION - Ref Wellbore: NRC 27C-4HZ AWB					Ref Wellpath: NRC 27C-4HZ AWP	
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment		Wellbore	
16.00	998.00	Generic gyro - continuous (Standard)	MS ENERGY GYRODATA SURVEYS <116-998>		NRC 27C-4HZ AWB	
998.00	8024.00	NaviTrak (MAGCORR,IFR)	BHI MWD+IFR SURVEYS 8 3/4" HOLE <1092-8024>		NRC 27C-4HZ AWB	
8024.00	17332.00	NaviTrak (MAGCORR,IFR)	BHI NAVITRAK MWD+IFR 6 1/8" <8098-17332>		NRC 27C-4HZ AWB	
17332.00	17383.00	Blind Drilling (std)	Projection to bit		NRC 27C-4HZ AWB	

# Actual Wellpath Report

NRC 27C-4HZ AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#54 NRC 27C-4HZ (295'FSL & 690'FEL, SEC.09)
Area	COLORADO	Well	NRC 27C-4HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 27C-4HZ AWB
Facility	SEC.09-T1N-R67W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
16.00	0.000	277.960	16.00	TIE-ON
116.00	0.820	277.960	116.00	BEGIN GYRO SURVEYS
998.00	0.410	317.490	997.96	TIE-INTO GYROS
1092.00	0.080	303.250	1091.96	BEGIN BHI MWD+IFR SURVEYS
8066.00	87.309	359.109	7698.05	7" CASING POINT
17332.00	91.360	359.980	7713.17	LAST BHI MWD+IFR SURVEY
17383.00	91.360	359.980	7711.96	PROJECTION TO BIT