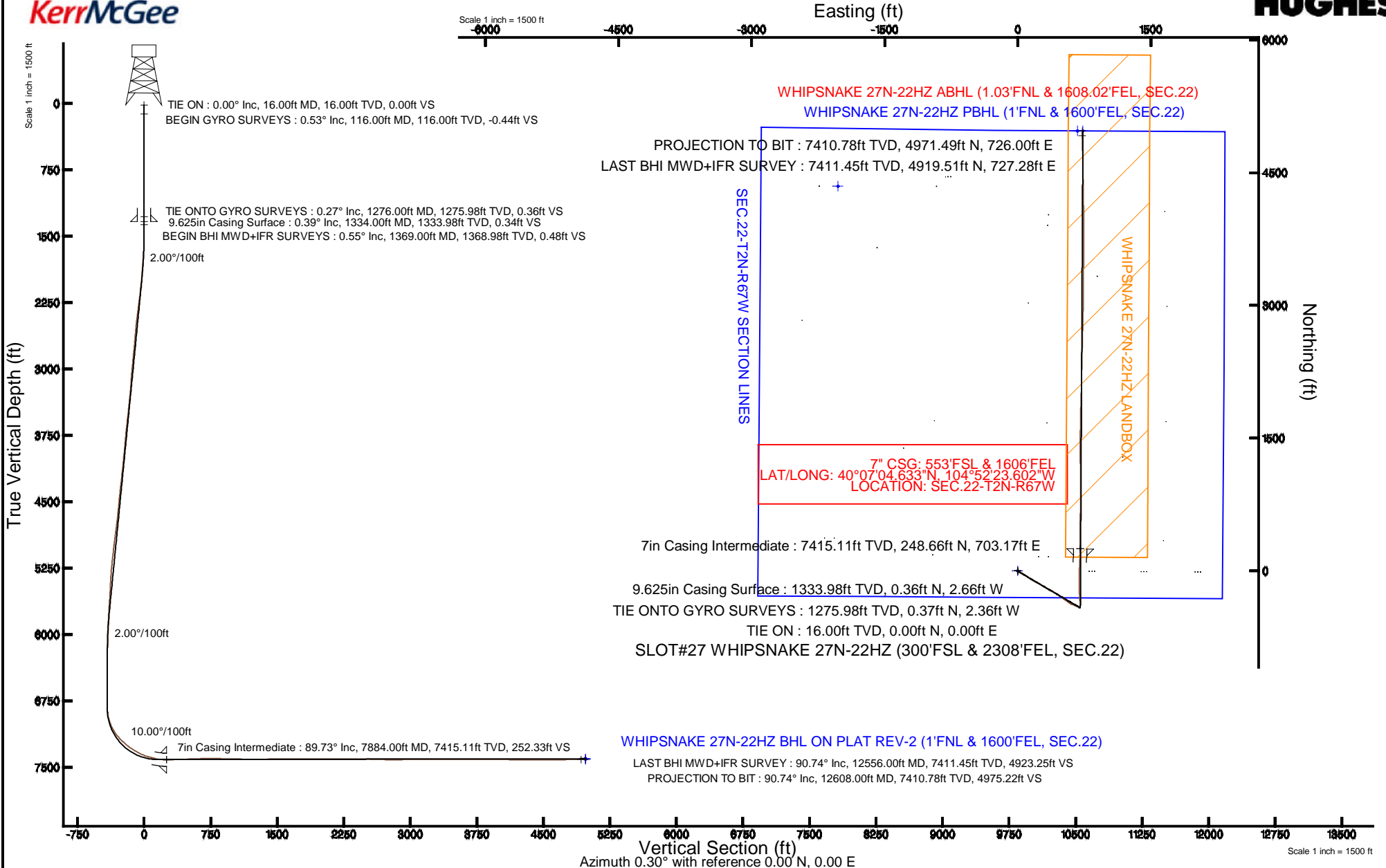


KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#27 WHIPSNAKE 27N-22HZ (300'FSL & 2308'FEL, SEC.22)
 Field: WELD COUNTY (KERR MCGEE) Well: WHIPSNAKE 27N-22HZ
 Facility: SEC.22-T2N-R67W Wellbore: WHIPSNAKE 27N-22HZ PWB

Plot reference wellpath is WHIPSNAKE 27N-22HZ (REV-A.1) PWP

True vertical depths are referenced to XTREME 6 (16'KB) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to XTREME 6 (16'KB) (RKB)	North Reference: True north
XTREME 6 (16'KB) (RKB) to Mean Sea Level: 5003 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#27 WHIPSNAKE 27N-22HZ (300'FSL & 2308'FEL, SEC.22)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: robiale01 on 9/11/2014



Scale 1 inch = 1500 ft

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#27 WHIPSNAKE 27N-22HZ (300'FSL & 2308'FEL, SEC.22)
Area	COLORADO	Well	WHIPSNAKE 27N-22HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	WHIPSNAKE 27N-22HZ AWB
Facility	SEC.22-T2N-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	0.99996	Report Generated	9/11/2014 at 11:02:29 AM
Convergence at slot	n/a	Database/Source file	WellArchitectDB/WHIPSNAKE_27N-22HZ_AWB.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-4455.31	785.92	3174587.36	1286180.45	40°07'02.176"N	104°52'32.653"W
Facility Reference Pt			3173770.27	1290629.95	40°07'46.204"N	104°52'42.769"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 6 (16'KB) (RKB) to Facility Vertical Datum	5003.00ft
Horizontal Reference Pt	Slot	XTREME 6 (16'KB) (RKB) to Mean Sea Level	5003.00ft
Vertical Reference Pt	XTREME 6 (16'KB) (RKB)	XTREME 6 (16'KB) (RKB) to Mud Line at Slot (SLOT#27 WHIPSNAKE 27N-22HZ (300'FSL & 2308'FEL, SEC.22))	5003.00ft
MD Reference Pt	XTREME 6 (16'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	8.31°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#27 WHIPSNAKE 27N-22HZ (300'FSL & 2308'FEL, SEC.22)
Area	COLORADO	Well	WHIPSNAKE 27N-22HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	WHIPSNAKE 27N-22HZ AWB
Facility	SEC.22-T2N-R67W		

WELLPATH DATA (115 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	161.220	0.00	0.00	0.00	0.00	40°07'02.176"N	104°52'32.653"W	0.00	
16.00	0.000	161.220	16.00	0.00	0.00	0.00	40°07'02.176"N	104°52'32.653"W	0.00	TIE ON
116.00	0.530	161.220	116.00	-0.41	-0.44	0.15	40°07'02.172"N	104°52'32.651"W	0.53	BEGIN GYRO SURVEYS
216.00	0.290	141.930	216.00	-1.00	-1.08	0.45	40°07'02.165"N	104°52'32.647"W	0.27	
316.00	0.210	178.520	316.00	-1.35	-1.46	0.61	40°07'02.162"N	104°52'32.645"W	0.17	
416.00	0.070	205.520	415.99	-1.59	-1.70	0.59	40°07'02.159"N	104°52'32.645"W	0.15	
516.00	0.040	172.290	515.99	-1.68	-1.79	0.57	40°07'02.158"N	104°52'32.646"W	0.04	
616.00	0.140	345.510	615.99	-1.61	-1.70	0.55	40°07'02.159"N	104°52'32.646"W	0.18	
716.00	0.230	347.090	715.99	-1.31	-1.39	0.47	40°07'02.162"N	104°52'32.647"W	0.09	
816.00	0.380	337.090	815.99	-0.83	-0.89	0.30	40°07'02.167"N	104°52'32.649"W	0.16	
916.00	0.570	313.780	915.99	-0.26	-0.24	-0.19	40°07'02.174"N	104°52'32.655"W	0.27	
1016.00	0.470	298.990	1015.99	0.17	0.31	-0.91	40°07'02.179"N	104°52'32.665"W	0.17	
1116.00	0.320	276.190	1115.98	0.31	0.53	-1.55	40°07'02.181"N	104°52'32.673"W	0.21	
1216.00	0.310	254.870	1215.98	0.19	0.49	-2.09	40°07'02.181"N	104°52'32.680"W	0.12	
1276.00	0.270	234.800	1275.98	0.03	0.37	-2.36	40°07'02.180"N	104°52'32.683"W	0.18	TIE ONTO GYRO SURVEYS
1369.00	0.550	303.590	1368.98	0.07	0.49	-2.91	40°07'02.181"N	104°52'32.690"W	0.56	BEGIN BHI MWD+IFR SURVEYS
1430.00	0.860	84.350	1429.98	0.30	0.70	-2.70	40°07'02.183"N	104°52'32.688"W	2.18	
1521.00	2.800	105.060	1520.93	0.20	0.19	0.13	40°07'02.178"N	104°52'32.651"W	2.22	
1611.00	3.900	126.710	1610.77	-1.51	-2.21	4.71	40°07'02.154"N	104°52'32.592"W	1.84	
1702.00	6.090	125.900	1701.42	-5.22	-6.89	11.10	40°07'02.108"N	104°52'32.510"W	2.41	
1794.00	7.740	124.090	1792.75	-10.17	-13.23	20.18	40°07'02.045"N	104°52'32.393"W	1.81	
1886.00	8.780	116.430	1883.80	-15.05	-19.83	31.60	40°07'01.980"N	104°52'32.246"W	1.64	
1977.00	11.680	118.980	1973.34	-20.47	-27.38	45.88	40°07'01.905"N	104°52'32.062"W	3.22	
2159.00	12.600	122.340	2151.27	-35.05	-46.93	78.77	40°07'01.712"N	104°52'31.639"W	0.64	
2341.00	13.200	125.720	2328.68	-52.70	-69.68	112.41	40°07'01.487"N	104°52'31.206"W	0.53	
2522.00	10.590	121.350	2505.78	-68.73	-90.40	143.40	40°07'01.283"N	104°52'30.807"W	1.52	
2704.00	9.380	121.390	2685.02	-81.09	-106.83	170.35	40°07'01.120"N	104°52'30.460"W	0.66	
2874.00	11.250	119.890	2852.27	-92.62	-122.31	196.55	40°07'00.967"N	104°52'30.123"W	1.11	
3044.00	10.530	117.700	3019.21	-103.88	-137.79	224.68	40°07'00.814"N	104°52'29.761"W	0.49	
3215.00	9.330	117.590	3187.64	-113.65	-151.48	250.80	40°07'00.679"N	104°52'29.425"W	0.70	
3386.00	11.170	121.860	3355.91	-124.84	-166.64	277.16	40°07'00.529"N	104°52'29.086"W	1.16	
3556.00	11.520	123.210	3522.59	-138.57	-184.63	305.35	40°07'00.351"N	104°52'28.723"W	0.26	
3727.00	11.960	120.420	3690.01	-152.43	-202.95	334.91	40°07'00.170"N	104°52'28.342"W	0.42	
3896.00	10.600	117.430	3855.74	-164.11	-218.98	363.81	40°07'00.012"N	104°52'27.970"W	0.88	
4067.00	11.400	115.950	4023.60	-174.39	-233.62	392.97	40°06'59.867"N	104°52'27.595"W	0.50	
4237.00	12.330	124.340	4189.98	-187.45	-251.22	423.06	40°06'59.693"N	104°52'27.208"W	1.15	
4408.00	11.480	122.410	4357.30	-202.41	-270.64	452.51	40°06'59.502"N	104°52'26.829"W	0.55	
4578.00	9.870	122.140	4524.35	-215.20	-287.46	479.13	40°06'59.335"N	104°52'26.486"W	0.95	
4749.00	10.470	127.060	4692.67	-228.60	-304.62	503.94	40°06'59.166"N	104°52'26.167"W	0.62	
4919.00	13.280	124.870	4859.01	-244.76	-325.09	532.29	40°06'58.963"N	104°52'25.802"W	1.67	
5089.00	11.790	124.970	5024.96	-261.29	-346.21	562.54	40°06'58.755"N	104°52'25.412"W	0.88	
5260.00	10.480	124.780	5192.73	-276.06	-365.10	589.63	40°06'58.568"N	104°52'25.064"W	0.77	
5429.00	9.530	111.260	5359.19	-286.05	-378.94	615.30	40°06'58.431"N	104°52'24.733"W	1.49	
5514.00	8.970	109.650	5443.08	-288.93	-383.72	628.10	40°06'58.384"N	104°52'24.568"W	0.73	
5599.00	8.260	107.730	5527.12	-291.23	-387.81	640.15	40°06'58.344"N	104°52'24.413"W	0.90	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#27 WHIPSAKE 27N-22HZ (300'FSL & 2308'FEL, SEC.22)
Area	COLORADO	Well	WHIPSAKE 27N-22HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	WHIPSAKE 27N-22HZ AWB
Facility	SEC.22-T2N-R67W		

WELLPATH DATA (115 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5684.00	8.760	116.610	5611.19	-294.27	-392.56	651.76	40°06'58.297"N	104°52'24.264"W	1.65	
5769.00	8.110	115.150	5695.27	-298.04	-398.01	662.97	40°06'58.243"N	104°52'24.120"W	0.81	
5854.00	7.480	113.320	5779.48	-301.21	-402.75	673.48	40°06'58.196"N	104°52'23.984"W	0.80	
5939.00	5.950	124.340	5863.90	-304.57	-407.43	682.20	40°06'58.150"N	104°52'23.872"W	2.35	
6024.00	5.330	123.470	5948.49	-308.18	-412.09	689.13	40°06'58.104"N	104°52'23.783"W	0.74	
6110.00	3.810	113.410	6034.21	-310.63	-415.43	695.08	40°06'58.071"N	104°52'23.706"W	1.99	
6195.00	2.570	112.810	6119.08	-311.84	-417.29	699.43	40°06'58.052"N	104°52'23.650"W	1.46	
6280.00	1.110	141.130	6204.04	-312.88	-418.67	701.70	40°06'58.039"N	104°52'23.621"W	1.97	
6448.00	0.560	115.120	6372.02	-314.22	-420.28	703.47	40°06'58.023"N	104°52'23.598"W	0.39	
6703.00	0.350	230.690	6627.01	-315.16	-421.30	704.00	40°06'58.013"N	104°52'23.592"W	0.31	
6789.00	0.410	263.630	6713.01	-315.43	-421.51	703.49	40°06'58.011"N	104°52'23.598"W	0.26	
6874.00	0.200	142.890	6798.01	-315.61	-421.66	703.27	40°06'58.009"N	104°52'23.601"W	0.64	
6916.00	2.440	4.560	6840.00	-314.77	-420.82	703.39	40°06'58.017"N	104°52'23.599"W	6.17	
6959.00	7.880	356.990	6882.81	-310.96	-416.97	703.31	40°06'58.055"N	104°52'23.600"W	12.72	
7001.00	10.850	357.490	6924.24	-304.25	-410.14	702.98	40°06'58.123"N	104°52'23.605"W	7.07	
7044.00	16.700	359.620	6965.99	-294.16	-399.91	702.76	40°06'58.224"N	104°52'23.607"W	13.65	
7086.00	22.500	358.460	7005.54	-280.27	-385.83	702.51	40°06'58.363"N	104°52'23.611"W	13.84	
7129.00	26.050	358.640	7044.73	-262.85	-368.16	702.06	40°06'58.538"N	104°52'23.616"W	8.26	
7171.00	29.420	356.070	7081.90	-243.67	-348.64	701.14	40°06'58.731"N	104°52'23.628"W	8.51	
7214.00	35.170	355.550	7118.24	-221.25	-325.74	699.45	40°06'58.957"N	104°52'23.650"W	13.39	
7256.00	40.230	356.730	7151.46	-196.15	-300.12	697.74	40°06'59.210"N	104°52'23.672"W	12.17	
7297.00	43.880	356.670	7181.89	-169.25	-272.71	696.16	40°06'59.481"N	104°52'23.692"W	8.90	
7340.00	47.590	357.230	7211.90	-139.07	-241.97	694.52	40°06'59.785"N	104°52'23.713"W	8.68	
7383.00	49.240	358.530	7240.44	-107.44	-209.83	693.34	40°07'00.102"N	104°52'23.729"W	4.45	
7425.00	52.480	0.060	7266.95	-75.27	-177.26	692.95	40°07'00.424"N	104°52'23.734"W	8.22	
7468.00	57.090	1.250	7291.74	-40.46	-142.14	693.36	40°07'00.771"N	104°52'23.728"W	10.96	
7511.00	59.730	1.510	7314.26	-4.10	-105.53	694.24	40°07'01.133"N	104°52'23.717"W	6.16	
7553.00	61.200	0.630	7334.97	32.15	-68.99	694.92	40°07'01.494"N	104°52'23.708"W	3.95	
7595.00	64.750	359.860	7354.05	69.18	-31.59	695.08	40°07'01.864"N	104°52'23.706"W	8.61	
7637.00	69.020	0.440	7370.53	107.41	7.03	695.18	40°07'02.245"N	104°52'23.705"W	10.25	
7678.00	74.460	3.100	7383.38	146.08	45.93	696.40	40°07'02.630"N	104°52'23.689"W	14.63	
7720.00	76.460	3.260	7393.92	186.57	86.52	698.65	40°07'03.031"N	104°52'23.660"W	4.78	
7763.00	78.760	2.570	7403.15	228.38	128.46	700.79	40°07'03.445"N	104°52'23.633"W	5.57	
7806.00	82.810	0.860	7410.03	270.53	170.88	702.05	40°07'03.865"N	104°52'23.616"W	10.20	
7884.00†	89.725	0.788	7415.11	347.65	248.66	703.17	40°07'04.633"N	104°52'23.602"W	8.87	7" CASING POINT
7903.00	91.410	0.770	7414.92	366.49	267.65	703.43	40°07'04.821"N	104°52'23.599"W	8.87	
7988.00	91.660	0.600	7412.64	450.71	352.62	704.45	40°07'05.660"N	104°52'23.585"W	0.36	
8073.00	91.750	0.270	7410.11	534.87	437.58	705.09	40°07'06.500"N	104°52'23.577"W	0.40	
8159.00	92.030	359.890	7407.27	619.94	523.53	705.21	40°07'07.349"N	104°52'23.576"W	0.55	
8244.00	92.120	0.510	7404.20	704.03	608.47	705.51	40°07'08.189"N	104°52'23.572"W	0.74	
8329.00	91.260	0.790	7401.69	788.24	693.43	706.47	40°07'09.028"N	104°52'23.559"W	1.06	
8414.00	88.980	0.940	7401.51	872.51	778.41	707.76	40°07'09.868"N	104°52'23.543"W	2.69	
8499.00	88.760	359.930	7403.19	956.70	863.39	708.40	40°07'10.708"N	104°52'23.534"W	1.22	
8584.00	88.730	359.660	7405.05	1040.74	948.37	708.10	40°07'11.548"N	104°52'23.538"W	0.32	
8670.00	88.820	359.860	7406.89	1125.76	1034.35	707.74	40°07'12.397"N	104°52'23.543"W	0.25	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#27 WHIPSNAKE 27N-22HZ (300'FSL & 2308'FEL, SEC.22)
Area	COLORADO	Well	WHIPSNAKE 27N-22HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	WHIPSNAKE 27N-22HZ AWB
Facility	SEC.22-T2N-R67W		

WELLPATH DATA (115 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8754.00	89.000	359.170	7408.49	1208.76	1118.33	707.03	40°07'13.227"N	104°52'23.552"W	0.85	
8925.00	90.460	359.510	7409.29	1377.66	1289.31	705.06	40°07'14.917"N	104°52'23.577"W	0.88	
9095.00	91.110	0.140	7406.96	1545.79	1459.30	704.54	40°07'16.597"N	104°52'23.584"W	0.53	
9265.00	89.290	1.190	7406.37	1714.27	1629.27	706.51	40°07'18.277"N	104°52'23.558"W	1.24	
9435.00	90.640	1.150	7406.47	1882.94	1799.24	709.98	40°07'19.956"N	104°52'23.514"W	0.79	
9605.00	90.150	2.110	7405.30	2051.78	1969.16	714.82	40°07'21.635"N	104°52'23.451"W	0.63	
9776.00	89.810	0.680	7405.36	2221.54	2140.10	718.98	40°07'23.325"N	104°52'23.398"W	0.86	
9945.00	90.840	0.970	7404.40	2389.09	2309.08	721.41	40°07'24.995"N	104°52'23.366"W	0.63	
10116.00	87.840	1.470	7406.37	2558.75	2480.01	725.05	40°07'26.684"N	104°52'23.319"W	1.78	
10287.00	88.510	1.520	7411.82	2728.46	2650.87	729.51	40°07'28.372"N	104°52'23.262"W	0.39	
10457.00	90.120	1.250	7413.85	2897.20	2820.80	733.62	40°07'30.051"N	104°52'23.209"W	0.96	
10628.00	91.200	0.810	7411.88	3066.81	2991.76	736.69	40°07'31.741"N	104°52'23.169"W	0.68	
10798.00	90.370	0.440	7409.55	3235.27	3161.73	738.55	40°07'33.420"N	104°52'23.145"W	0.53	
10968.00	89.000	0.450	7410.49	3403.66	3331.72	739.87	40°07'35.100"N	104°52'23.128"W	0.81	
11139.00	89.870	0.830	7412.17	3573.12	3502.70	741.78	40°07'36.790"N	104°52'23.104"W	0.56	
11309.00	90.640	0.110	7411.42	3741.53	3672.69	743.17	40°07'38.470"N	104°52'23.086"W	0.62	
11479.00	89.780	0.040	7410.79	3909.77	3842.68	743.39	40°07'40.150"N	104°52'23.083"W	0.51	
11649.00	89.320	359.280	7412.13	4077.83	4012.67	742.39	40°07'41.830"N	104°52'23.096"W	0.52	
11817.00	89.400	359.220	7414.00	4243.73	4180.65	740.19	40°07'43.490"N	104°52'23.124"W	0.06	
11988.00	90.340	358.820	7414.39	4412.48	4351.62	737.26	40°07'45.179"N	104°52'23.162"W	0.60	
12158.00	89.560	359.050	7414.54	4580.21	4521.59	734.10	40°07'46.859"N	104°52'23.202"W	0.48	
12329.00	90.830	359.350	7413.96	4749.05	4692.57	731.72	40°07'48.548"N	104°52'23.233"W	0.76	
12496.00	90.460	358.610	7412.08	4913.83	4859.53	728.74	40°07'50.198"N	104°52'23.271"W	0.50	
12556.00	90.740	358.590	7411.45	4972.97	4919.51	727.28	40°07'50.791"N	104°52'23.290"W	0.47	LAST BHI MWD+IFR SURVEY
12608.00	90.740	358.590	7410.78	5024.22	4971.49	726.00	40°07'51.305"N	104°52'23.306"W	0.00	PROJECTION TO BIT

HOLE & CASING SECTIONS - Ref Wellbore: WHIPSNAKE 27N-22HZ AWB Ref Wellpath: WHIPSNAKE 27N-22HZ 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	1334.00	1318.00	16.00	1333.98	0.00	0.00	0.36	-2.66
9.625in Casing Surface	16.00	1334.00	1318.00	16.00	1333.98	0.00	0.00	0.36	-2.66
8.75in Open Hole	1334.00	7884.00	6550.00	1333.98	7415.11	0.36	-2.66	248.66	703.17
7in Casing Intermediate	16.00	7884.00	7868.00	16.00	7415.11	0.00	0.00	248.66	703.17
6.125in Open Hole	7884.00	12608.00	4724.00	7415.11	7410.78	248.66	703.17	4971.49	726.00



Actual Wellpath Report

WHIPSNAKE 27N-22HZ AWP

Page 5 of 6



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#27 WHIPSNAKE 27N-22HZ (300'FSL & 2308'FEL, SEC.22)
Area	COLORADO	Well	WHIPSNAKE 27N-22HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	WHIPSNAKE 27N-22HZ AWB
Facility	SEC.22-T2N-R67W		

WELLPATH COMPOSITION - Ref Wellbore: WHIPSNAKE 27N-22HZ AWB Ref Wellpath: WHIPSNAKE 27N-22HZ AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
16.00	1276.00	Generic gyro - continuous (Standard)	MS GYRO SURVEYS <116-1276>	WHIPSNAKE 27N-22HZ AWB
1276.00	7806.00	NaviTrak (MAGCORR,IFR)	BHI NAVITRAK MWD+IFR 8 3/4" <1369-7806>	WHIPSNAKE 27N-22HZ AWB
7806.00	12556.00	NaviTrak (MAGCORR,IFR)	BHI NAVITRAK MWD+IFR 6 1/8" <7903-12556>	WHIPSNAKE 27N-22HZ AWB
12556.00	12608.00	Blind Drilling (std)	Projection to bit	WHIPSNAKE 27N-22HZ AWB



Actual Wellpath Report

WHIPSNAKE 27N-22HZ AWP
Page 6 of 6



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#27 WHIPSNAKE 27N-22HZ (300'FSL & 2308'FEL, SEC.22)
Area	COLORADO	Well	WHIPSNAKE 27N-22HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	WHIPSNAKE 27N-22HZ AWB
Facility	SEC.22-T2N-R67W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
16.00	0.000	161.220	16.00	TIE ON
116.00	0.530	161.220	116.00	BEGIN GYRO SURVEYS
1276.00	0.270	234.800	1275.98	TIE ONTO GYRO SURVEYS
1369.00	0.550	303.590	1368.98	BEGIN BHI MWD+IFR SURVEYS
7884.00	89.725	0.788	7415.11	7" CASING POINT
12556.00	90.740	358.590	7411.45	LAST BHI MWD+IFR SURVEY
12608.00	90.740	358.590	7410.78	PROJECTION TO BIT