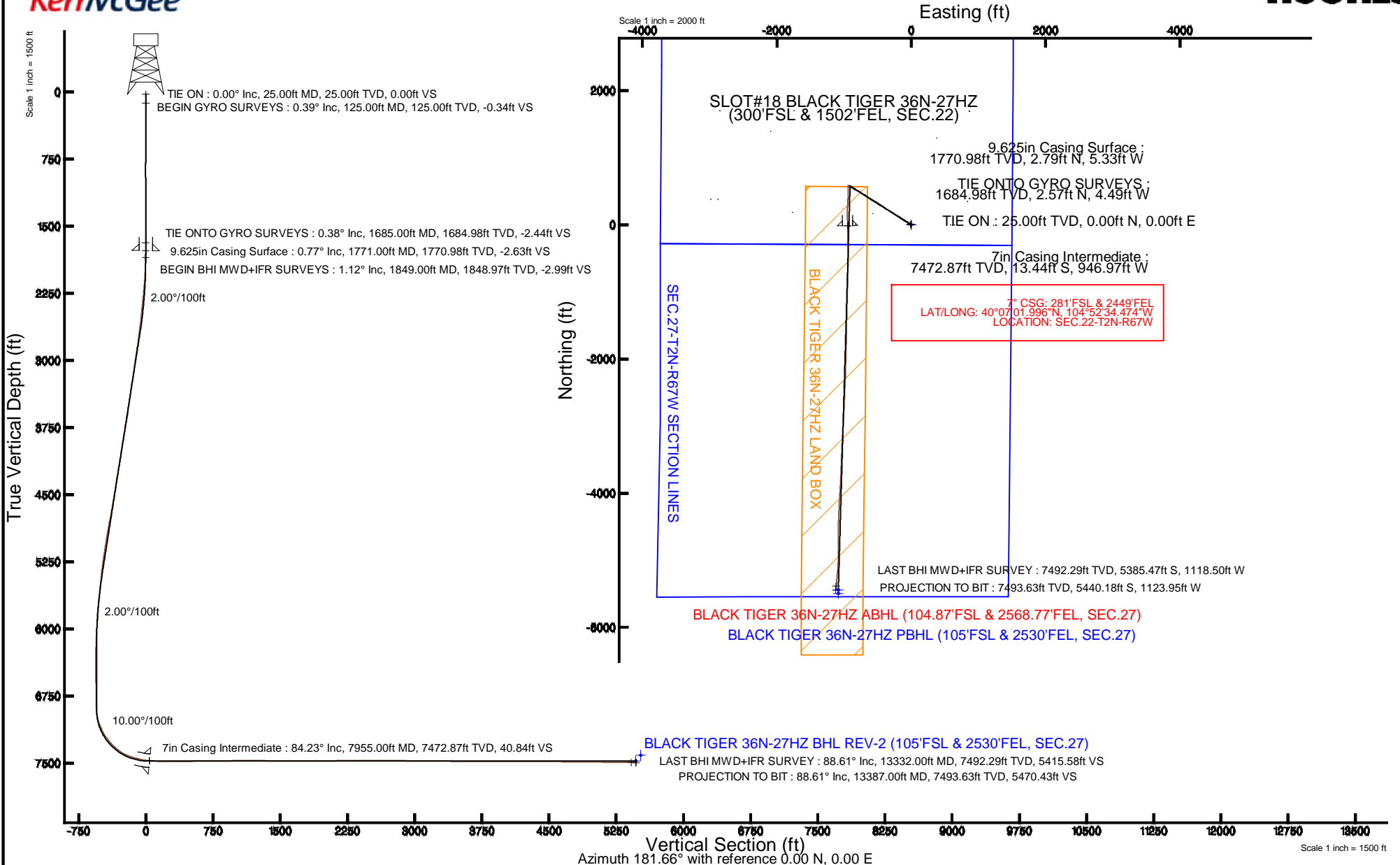


KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#18 BLACK TIGER 36N-27HZ (300'FSL & 1502'FEL, SEC.22)
 Field: WELD COUNTY (KERR MCGEE) Well: BLACK TIGER 36N-27HZ
 Facility: SEC.22-T2N-R67W Wellbore: BLACK TIGER 36N-27HZ PWB

Plot reference wellpath is **BLACK TIGER 36N-27HZ (REV-A.0) PWP**

True vertical depths are referenced to H&P 307 (25KB) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to H&P 307 (25KB) (RKB)	North Reference: True north
H&P 307 (25KB) (RKB) to Mean Sea Level: 5005 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#18 BLACK TIGER 36N-27HZ (300'FSL & 1502'FEL, SEC.22)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: robiale01 on 08/Aug/2014



Actual Wellpath Report

BLACK TIGER 36N-27HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#18 BLACK TIGER 36N-27HZ (300'FSL & 1502'FEL, SEC.22)
Area	COLORADO	Well	BLACK TIGER 36N-27HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BLACK TIGER 36N-27HZ AWP
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	08/Aug/2014 at 16:13
Convergence at slot	n/a	Database/Source file	WellArchitectDB/BLACK_TIGER_36N-27HZ_AWP.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-4460.03	1591.41	3175392.82	1286181.37	40°07'02.129"N	104°52'22.285"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	H&P 307 (25'KB) (RKB) to Facility Vertical Datum	5005.00ft
Horizontal Reference Pt	Slot	H&P 307 (25'KB) (RKB) to Mean Sea Level	5005.00ft
Vertical Reference Pt	H&P 307 (25'KB) (RKB)	H&P 307 (25'KB) (RKB) to Mud Line at Slot (SLOT#18 BLACK TIGER 36N-27HZ (300'FSL & 1502'FEL, SEC.22))	5005.00ft
MD Reference Pt	H&P 307 (25'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	191.67°

Actual Wellpath Report

BLACK TIGER 36N-27HZ AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#18 BLACK TIGER 36N-27HZ (300'FSL & 1502'FEL, SEC.22)
Area	COLORADO	Well	BLACK TIGER 36N-27HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BLACK TIGER 36N-27HZ AWP
Facility	SEC.22-T2N-R67W		

WELLPATH DATA (141 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	356.260	0.00	0.00	0.00	0.00	40°07'02.129"N	104°52'22.285"W	0.00	
25.00	0.000	356.260	25.00	0.00	0.00	0.00	40°07'02.129"N	104°52'22.285"W	0.00	TIE ON
125.00	0.390	356.260	125.00	-0.33	0.34	-0.02	40°07'02.132"N	104°52'22.285"W	0.39	BEGIN GYRO SURVEYS
225.00	0.440	330.710	225.00	-0.95	1.01	-0.23	40°07'02.139"N	104°52'22.288"W	0.19	
325.00	0.430	306.810	324.99	-1.40	1.57	-0.72	40°07'02.145"N	104°52'22.294"W	0.18	
425.00	0.370	297.320	424.99	-1.64	1.95	-1.31	40°07'02.148"N	104°52'22.302"W	0.09	
525.00	0.320	289.110	524.99	-1.77	2.19	-1.86	40°07'02.151"N	104°52'22.309"W	0.07	
625.00	0.330	308.890	624.99	-1.93	2.46	-2.35	40°07'02.153"N	104°52'22.315"W	0.11	
725.00	0.210	307.490	724.99	-2.14	2.75	-2.72	40°07'02.156"N	104°52'22.320"W	0.12	
825.00	0.090	320.610	824.99	-2.27	2.92	-2.91	40°07'02.158"N	104°52'22.322"W	0.12	
925.00	0.190	245.950	924.99	-2.23	2.92	-3.11	40°07'02.158"N	104°52'22.325"W	0.19	
1025.00	0.200	233.980	1024.99	-2.00	2.75	-3.41	40°07'02.156"N	104°52'22.329"W	0.04	
1125.00	0.210	213.480	1124.99	-1.70	2.49	-3.65	40°07'02.154"N	104°52'22.332"W	0.07	
1225.00	0.110	261.970	1224.98	-1.50	2.32	-3.84	40°07'02.152"N	104°52'22.334"W	0.16	
1325.00	0.190	155.970	1324.98	-1.33	2.16	-3.87	40°07'02.150"N	104°52'22.335"W	0.24	
1425.00	0.020	261.910	1424.98	-1.19	2.01	-3.82	40°07'02.149"N	104°52'22.334"W	0.20	
1525.00	0.150	336.430	1524.98	-1.29	2.12	-3.89	40°07'02.150"N	104°52'22.335"W	0.15	
1625.00	0.330	309.340	1624.98	-1.53	2.43	-4.17	40°07'02.153"N	104°52'22.339"W	0.21	
1685.00	0.380	280.440	1684.98	-1.61	2.57	-4.49	40°07'02.154"N	104°52'22.343"W	0.31	TIE ONTO GYRO SURVEYS
1849.00	1.120	288.540	1848.97	-1.79	3.18	-6.55	40°07'02.160"N	104°52'22.369"W	0.45	BEGIN BHI MWD+IFR SURVEYS
1941.00	3.210	312.200	1940.90	-3.20	5.20	-9.31	40°07'02.180"N	104°52'22.405"W	2.42	
2034.00	4.810	314.160	2033.67	-6.62	9.66	-14.04	40°07'02.224"N	104°52'22.466"W	1.73	
2127.00	6.930	311.910	2126.17	-11.54	16.13	-21.01	40°07'02.288"N	104°52'22.555"W	2.29	
2218.00	8.340	307.450	2216.37	-17.18	23.81	-30.34	40°07'02.364"N	104°52'22.675"W	1.68	
2311.00	10.340	304.460	2308.13	-23.34	32.63	-42.57	40°07'02.451"N	104°52'22.833"W	2.21	
2403.00	12.150	301.320	2398.36	-29.80	42.34	-57.65	40°07'02.547"N	104°52'23.027"W	2.08	
2495.00	12.760	298.380	2488.20	-35.97	52.20	-74.86	40°07'02.645"N	104°52'23.249"W	0.96	
2586.00	13.590	301.760	2576.80	-42.53	62.60	-92.80	40°07'02.748"N	104°52'23.479"W	1.24	
2678.00	13.890	301.080	2666.17	-49.91	73.99	-111.44	40°07'02.860"N	104°52'23.719"W	0.37	
2770.00	14.690	302.080	2755.32	-57.65	85.89	-130.79	40°07'02.978"N	104°52'23.968"W	0.91	
2862.00	16.440	301.410	2843.94	-66.12	98.87	-151.78	40°07'03.106"N	104°52'24.239"W	1.91	
2954.00	17.040	302.560	2932.04	-75.32	112.91	-174.25	40°07'03.245"N	104°52'24.528"W	0.74	
3137.00	14.560	301.910	3108.12	-92.84	139.50	-216.39	40°07'03.508"N	104°52'25.070"W	1.36	
3229.00	15.940	306.140	3196.88	-102.07	153.07	-236.41	40°07'03.642"N	104°52'25.328"W	1.93	
3320.00	17.410	301.680	3284.05	-111.90	167.59	-258.08	40°07'03.785"N	104°52'25.607"W	2.14	
3415.00	16.080	298.810	3375.02	-120.64	181.39	-281.71	40°07'03.922"N	104°52'25.911"W	1.65	
3509.00	16.810	300.730	3465.18	-128.92	194.61	-304.80	40°07'04.052"N	104°52'26.208"W	0.97	
3604.00	17.160	299.200	3556.03	-137.62	208.47	-328.84	40°07'04.189"N	104°52'26.518"W	0.60	
3698.00	17.200	302.240	3645.84	-146.68	222.65	-352.70	40°07'04.329"N	104°52'26.825"W	0.96	
3792.00	16.680	305.930	3735.77	-157.11	237.98	-375.38	40°07'04.481"N	104°52'27.117"W	1.27	
3887.00	16.770	304.760	3826.75	-168.08	253.79	-397.68	40°07'04.637"N	104°52'27.404"W	0.37	
3981.00	18.310	304.200	3916.37	-179.06	269.83	-421.04	40°07'04.795"N	104°52'27.704"W	1.65	
4075.00	15.780	303.010	4006.24	-189.37	285.09	-443.97	40°07'04.946"N	104°52'28.000"W	2.72	
4170.00	17.380	303.160	4097.29	-199.26	299.89	-466.68	40°07'05.093"N	104°52'28.292"W	1.68	
4264.00	18.230	303.140	4186.78	-209.79	315.61	-490.75	40°07'05.248"N	104°52'28.602"W	0.90	

Actual Wellpath Report

BLACK TIGER 36N-27HZ AWP

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REFERENCE WELLPATH IDENTIFICATION				
Operator	KERR-MCGEE OIL & GAS ONSHORE LP		Slot	SLOT#18 BLACK TIGER 36N-27HZ (300'FSL & 1502'FEL, SEC.22)
Area	COLORADO		Well	BLACK TIGER 36N-27HZ
Field	WELD COUNTY (KERR MCGEE)		Wellbore	BLACK TIGER 36N-27HZ AWP
Facility	SEC.22-T2N-R67W			

WELLPATH DATA (141 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4358.00	19.600	301.420	4275.71	-220.50	331.87	-516.51	40°07'05.408"N	104°52'28.933"W	1.57	
4452.00	18.020	299.250	4364.68	-230.21	347.19	-542.66	40°07'05.560"N	104°52'29.270"W	1.84	
4547.00	17.850	299.440	4455.07	-239.09	361.53	-568.16	40°07'05.702"N	104°52'29.598"W	0.19	
4641.00	19.390	302.750	4544.15	-249.10	377.05	-593.83	40°07'05.855"N	104°52'29.929"W	1.99	
4735.00	17.920	301.880	4633.21	-259.71	393.13	-619.23	40°07'06.014"N	104°52'30.256"W	1.59	
4829.00	19.570	303.930	4722.22	-270.67	409.56	-644.58	40°07'06.176"N	104°52'30.582"W	1.89	
4923.00	19.310	303.830	4810.86	-282.49	427.00	-670.55	40°07'06.349"N	104°52'30.916"W	0.28	
5017.00	17.780	304.070	4899.97	-293.82	443.69	-695.35	40°07'06.514"N	104°52'31.235"W	1.63	
5112.00	18.970	301.470	4990.13	-304.58	459.88	-720.54	40°07'06.673"N	104°52'31.560"W	1.52	
5206.00	17.640	300.740	5079.37	-314.41	475.13	-745.81	40°07'06.824"N	104°52'31.885"W	1.44	
5301.00	17.130	300.510	5170.03	-323.63	489.60	-770.24	40°07'06.967"N	104°52'32.199"W	0.54	
5395.00	15.690	299.490	5260.20	-331.99	502.88	-793.23	40°07'07.098"N	104°52'32.495"W	1.56	
5489.00	14.040	297.230	5351.05	-338.93	514.36	-814.43	40°07'07.212"N	104°52'32.768"W	1.86	
5583.00	12.020	296.660	5442.63	-344.52	523.97	-833.32	40°07'07.307"N	104°52'33.011"W	2.15	
5678.00	11.850	300.340	5535.58	-350.20	533.33	-850.58	40°07'07.399"N	104°52'33.234"W	0.82	
5772.00	11.920	304.820	5627.56	-357.11	543.75	-866.88	40°07'07.502"N	104°52'33.443"W	0.98	
5867.00	10.170	302.020	5720.80	-363.88	553.80	-882.04	40°07'07.602"N	104°52'33.639"W	1.93	
5961.00	8.950	299.510	5813.49	-369.01	561.80	-895.44	40°07'07.681"N	104°52'33.811"W	1.37	
6055.00	7.870	296.420	5906.48	-372.89	568.27	-907.57	40°07'07.745"N	104°52'33.967"W	1.25	
6149.00	6.590	303.980	5999.73	-376.57	574.15	-917.81	40°07'07.803"N	104°52'34.099"W	1.69	
6244.00	5.270	305.020	6094.22	-380.37	579.70	-925.90	40°07'07.857"N	104°52'34.203"W	1.39	
6338.00	3.440	307.950	6187.95	-383.33	583.91	-931.66	40°07'07.899"N	104°52'34.277"W	1.96	
6432.00	1.280	315.590	6281.86	-385.16	586.39	-934.62	40°07'07.924"N	104°52'34.315"W	2.32	
6527.00	0.870	210.730	6376.85	-385.08	586.53	-935.73	40°07'07.925"N	104°52'34.330"W	1.81	
6621.00	0.520	206.120	6470.85	-383.99	585.53	-936.28	40°07'07.915"N	104°52'34.337"W	0.38	
6715.00	0.800	228.480	6564.84	-383.05	584.72	-936.96	40°07'07.907"N	104°52'34.346"W	0.40	
6810.00	0.700	223.880	6659.83	-382.03	583.86	-937.86	40°07'07.899"N	104°52'34.357"W	0.12	
6904.00	0.400	247.890	6753.83	-381.36	583.32	-938.56	40°07'07.893"N	104°52'34.366"W	0.40	
6998.00	0.910	191.390	6847.82	-380.43	582.47	-939.02	40°07'07.885"N	104°52'34.372"W	0.81	
7046.00	4.810	179.860	6895.75	-378.08	580.08	-939.09	40°07'07.861"N	104°52'34.373"W	8.17	
7093.00	8.010	179.620	6942.45	-372.95	574.83	-939.06	40°07'07.809"N	104°52'34.373"W	6.81	
7140.00	11.430	178.580	6988.77	-365.20	566.90	-938.92	40°07'07.731"N	104°52'34.371"W	7.29	
7187.00	16.090	178.670	7034.41	-354.32	555.73	-938.66	40°07'07.621"N	104°52'34.367"W	9.91	
7234.00	20.400	178.600	7079.04	-339.98	541.02	-938.30	40°07'07.475"N	104°52'34.363"W	9.17	
7281.00	25.570	178.740	7122.29	-322.11	522.68	-937.88	40°07'07.294"N	104°52'34.357"W	11.00	
7328.00	30.240	179.140	7163.81	-300.66	500.69	-937.48	40°07'07.077"N	104°52'34.352"W	9.94	
7375.00	34.870	179.850	7203.42	-275.94	475.41	-937.27	40°07'06.827"N	104°52'34.349"W	9.88	
7422.00	38.620	180.600	7241.07	-248.39	447.30	-937.39	40°07'06.549"N	104°52'34.351"W	8.04	
7469.00	41.560	184.740	7277.03	-218.50	417.08	-938.83	40°07'06.250"N	104°52'34.369"W	8.44	
7516.00	45.460	185.370	7311.11	-186.37	384.86	-941.68	40°07'05.932"N	104°52'34.406"W	8.35	
7564.00	50.460	184.400	7343.25	-150.98	349.35	-944.71	40°07'05.581"N	104°52'34.445"W	10.52	
7611.00	56.260	183.120	7371.28	-113.65	311.73	-947.16	40°07'05.209"N	104°52'34.477"W	12.53	
7658.00	62.040	181.180	7395.38	-73.88	271.43	-948.66	40°07'04.811"N	104°52'34.496"W	12.80	
7705.00	67.180	180.100	7415.52	-32.22	228.99	-949.12	40°07'04.392"N	104°52'34.502"W	11.13	
7752.00	71.840	180.720	7431.97	10.95	184.97	-949.44	40°07'03.957"N	104°52'34.506"W	9.99	

Actual Wellpath Report

BLACK TIGER 36N-27HZ AWP

Page 4 of 6

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#18 BLACK TIGER 36N-27HZ (300'FSL & 1502'FEL, SEC.22)
Area	COLORADO	Well	BLACK TIGER 36N-27HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BLACK TIGER 36N-27HZ AWP
Facility	SEC.22-T2N-R67W		

WELLPATH DATA (141 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7799.00	75.410	180.020	7445.22	55.16	139.89	-949.73	40°07'03.511"N	104°52'34.510"W	7.73	
7847.00	77.920	178.910	7456.29	100.81	93.19	-949.29	40°07'03.050"N	104°52'34.504"W	5.69	
7894.00	80.540	178.790	7465.07	145.82	47.03	-948.36	40°07'02.594"N	104°52'34.492"W	5.58	
7924.00	82.900	178.630	7469.39	174.75	17.35	-947.70	40°07'02.300"N	104°52'34.483"W	7.88	
7955.00†	84.230	178.670	7472.87	204.76	-13.44	-946.97	40°07'01.996"N	104°52'34.474"W	4.29	7" CASING POINT
8065.00	88.950	178.810	7479.41	311.75	-123.19	-944.56	40°07'00.911"N	104°52'34.443"W	4.29	
8159.00	89.380	179.010	7480.78	403.42	-217.16	-942.77	40°06'59.983"N	104°52'34.420"W	0.50	
8253.00	90.460	180.020	7480.91	495.31	-311.16	-941.97	40°06'59.054"N	104°52'34.410"W	1.57	
8442.00	91.320	179.470	7477.97	680.20	-500.13	-941.13	40°06'57.186"N	104°52'34.399"W	0.54	
8536.00	91.260	180.780	7475.86	772.27	-594.10	-941.34	40°06'56.258"N	104°52'34.401"W	1.39	
8630.00	90.240	181.320	7474.63	864.65	-688.08	-943.06	40°06'55.329"N	104°52'34.423"W	1.23	
8725.00	90.120	181.430	7474.33	958.12	-783.05	-945.34	40°06'54.391"N	104°52'34.453"W	0.17	
8819.00	90.550	181.440	7473.78	1050.62	-877.02	-947.69	40°06'53.462"N	104°52'34.483"W	0.46	
8913.00	91.100	181.090	7472.42	1143.07	-970.99	-949.77	40°06'52.533"N	104°52'34.510"W	0.69	
9008.00	90.030	181.710	7471.49	1236.54	-1065.95	-952.09	40°06'51.595"N	104°52'34.539"W	1.30	
9102.00	89.690	182.160	7471.72	1329.18	-1159.90	-955.26	40°06'50.667"N	104°52'34.580"W	0.60	
9197.00	89.380	181.550	7472.49	1422.79	-1254.84	-958.34	40°06'49.728"N	104°52'34.620"W	0.72	
9385.00	89.590	181.210	7474.18	1607.76	-1442.78	-962.86	40°06'47.871"N	104°52'34.678"W	0.21	
9574.00	89.600	180.230	7475.51	1793.31	-1631.76	-965.24	40°06'46.004"N	104°52'34.708"W	0.52	
9668.00	89.960	181.670	7475.87	1885.66	-1725.74	-966.80	40°06'45.075"N	104°52'34.728"W	1.58	
9857.00	90.800	181.350	7474.62	2071.69	-1914.67	-971.78	40°06'43.208"N	104°52'34.792"W	0.48	
9952.00	90.210	181.600	7473.78	2165.18	-2009.63	-974.22	40°06'42.269"N	104°52'34.824"W	0.67	
10140.00	91.070	181.040	7471.68	2350.11	-2197.57	-978.55	40°06'40.412"N	104°52'34.880"W	0.55	
10234.00	90.490	182.630	7470.40	2442.71	-2291.51	-981.56	40°06'39.484"N	104°52'34.918"W	1.80	
10329.00	89.530	182.810	7470.39	2536.56	-2386.40	-986.07	40°06'38.546"N	104°52'34.976"W	1.03	
10517.00	89.750	182.040	7471.57	2722.11	-2574.23	-994.03	40°06'36.690"N	104°52'35.078"W	0.43	
10612.00	90.700	182.380	7471.20	2815.81	-2669.16	-997.69	40°06'35.752"N	104°52'35.126"W	1.06	
10706.00	88.790	183.270	7471.61	2908.69	-2763.04	-1002.32	40°06'34.824"N	104°52'35.185"W	2.24	
10801.00	89.500	183.170	7473.03	3002.64	-2857.87	-1007.66	40°06'33.887"N	104°52'35.254"W	0.75	
10895.00	90.120	182.970	7473.34	3095.59	-2951.74	-1012.69	40°06'32.959"N	104°52'35.318"W	0.69	
10990.00	89.070	182.900	7474.02	3189.48	-3046.61	-1017.56	40°06'32.022"N	104°52'35.381"W	1.11	
11178.00	89.780	183.100	7475.90	3375.32	-3234.34	-1027.39	40°06'30.167"N	104°52'35.508"W	0.39	
11272.00	88.700	182.290	7477.15	3468.16	-3328.23	-1031.81	40°06'29.239"N	104°52'35.564"W	1.44	
11461.00	89.260	182.200	7480.51	3654.57	-3517.05	-1039.22	40°06'27.373"N	104°52'35.660"W	0.30	
11555.00	90.490	182.080	7480.72	3747.27	-3610.98	-1042.73	40°06'26.445"N	104°52'35.705"W	1.31	
11650.00	89.750	182.600	7480.52	3841.01	-3705.90	-1046.61	40°06'25.507"N	104°52'35.755"W	0.95	
11838.00	90.770	182.910	7479.67	4026.74	-3893.68	-1055.64	40°06'23.651"N	104°52'35.871"W	0.57	
11933.00	89.260	183.830	7479.64	4120.74	-3988.51	-1061.23	40°06'22.714"N	104°52'35.943"W	1.86	
12028.00	89.380	183.720	7480.77	4214.83	-4083.30	-1067.48	40°06'21.777"N	104°52'36.023"W	0.17	
12122.00	89.230	182.170	7481.91	4307.73	-4177.17	-1072.31	40°06'20.849"N	104°52'36.085"W	1.66	
12217.00	89.720	182.380	7482.78	4401.45	-4272.09	-1076.08	40°06'19.911"N	104°52'36.134"W	0.56	
12312.00	91.010	182.610	7482.17	4495.23	-4366.99	-1080.21	40°06'18.974"N	104°52'36.187"W	1.38	
12407.00	89.200	181.340	7482.00	4588.87	-4461.93	-1083.49	40°06'18.035"N	104°52'36.229"W	2.33	
12501.00	89.750	179.810	7482.86	4681.10	-4555.92	-1084.43	40°06'17.107"N	104°52'36.241"W	1.73	
12596.00	89.230	179.550	7483.71	4774.03	-4650.91	-1083.90	40°06'16.168"N	104°52'36.234"W	0.61	

Actual Wellpath Report

BLACK TIGER 36N-27HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#18 BLACK TIGER 36N-27HZ (300'FSL & 1502'FEL, SEC.22)
Area	COLORADO	Well	BLACK TIGER 36N-27HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BLACK TIGER 36N-27HZ AWP
Facility	SEC.22-T2N-R67W		

WELLPATH DATA (141 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12782.00	89.260	180.460	7486.16	4956.16	-4836.90	-1083.92	40°06'14.330"N	104°52'36.234"W	0.49	
12971.00	89.690	182.300	7487.89	5142.11	-5025.82	-1088.47	40°06'12.463"N	104°52'36.293"W	1.00	
13160.00	89.750	185.840	7488.81	5329.41	-5214.31	-1101.88	40°06'10.600"N	104°52'36.465"W	1.87	
13254.00	88.450	185.320	7490.29	5422.87	-5307.86	-1111.02	40°06'09.676"N	104°52'36.583"W	1.49	
13332.00	88.610	185.690	7492.29	5500.39	-5385.47	-1118.50	40°06'08.909"N	104°52'36.679"W	0.52	LAST BHI MWD+IFR SURVEY
13387.00	88.610	185.690	7493.63	5555.07	-5440.18	-1123.95	40°06'08.368"N	104°52'36.749"W	0.00	PROJECTION TO BIT

HOLE & CASING SECTIONS - Ref Wellbore: BLACK TIGER 36N-27HZ AWP Ref Wellpath: BLACK TIGER 36N-27HZ 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	25.00	1781.00	1756.00	25.00	1780.98	0.00	0.00	2.83	-5.46
9.625in Casing Surface	25.00	1771.00	1746.00	25.00	1770.98	0.00	0.00	2.79	-5.33
8.75in Open Hole	1781.00	7975.00	6194.00	1780.98	7474.73	2.83	-5.46	-33.35	-946.51
7in Casing Intermediate	25.00	7955.00	7930.00	25.00	7472.87	0.00	0.00	-13.44	-946.97
6.125in Open Hole	7975.00	13387.00	5412.00	7474.73	7493.63	-33.35	-946.51	-5440.18	-1123.95

WELLPATH COMPOSITION - Ref Wellbore: BLACK TIGER 36N-27HZ AWP Ref Wellpath: BLACK TIGER 36N-27HZ AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
25.00	1685.00	Generic gyro - continuous (Standard)	MS GYRO SURVEYS <125-1685>	BLACK TIGER 36N-27HZ AWP
1685.00	7924.00	NaviTrak (MAGCORR,IFR)	BHI NAVITRAK MWD+IFR SURVEYS 8 3/4" <1849-7924>	BLACK TIGER 36N-27HZ AWP
7924.00	13332.00	NaviTrak (MAGCORR,IFR)	BHI NAVITRAK MWD+IFR 6 1/8" <8065-13332>	BLACK TIGER 36N-27HZ AWP
13332.00	13387.00	Blind Drilling (std)	Projection to bit	BLACK TIGER 36N-27HZ AWP

Actual Wellpath Report

BLACK TIGER 36N-27HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#18 BLACK TIGER 36N-27HZ (300'FSL & 1502'FEL, SEC.22)
Area	COLORADO	Well	BLACK TIGER 36N-27HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BLACK TIGER 36N-27HZ AWB
Facility	SEC.22-T2N-R67W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
25.00	0.000	356.260	25.00	TIE ON
125.00	0.390	356.260	125.00	BEGIN GYRO SURVEYS
1685.00	0.380	280.440	1684.98	TIE ONTO GYRO SURVEYS
1849.00	1.120	288.540	1848.97	BEGIN BHI MWD+IFR SURVEYS
7955.00	84.230	178.670	7472.87	7" CASING POINT
13332.00	88.610	185.690	7492.29	LAST BHI MWD+IFR SURVEY
13387.00	88.610	185.690	7493.63	PROJECTION TO BIT