

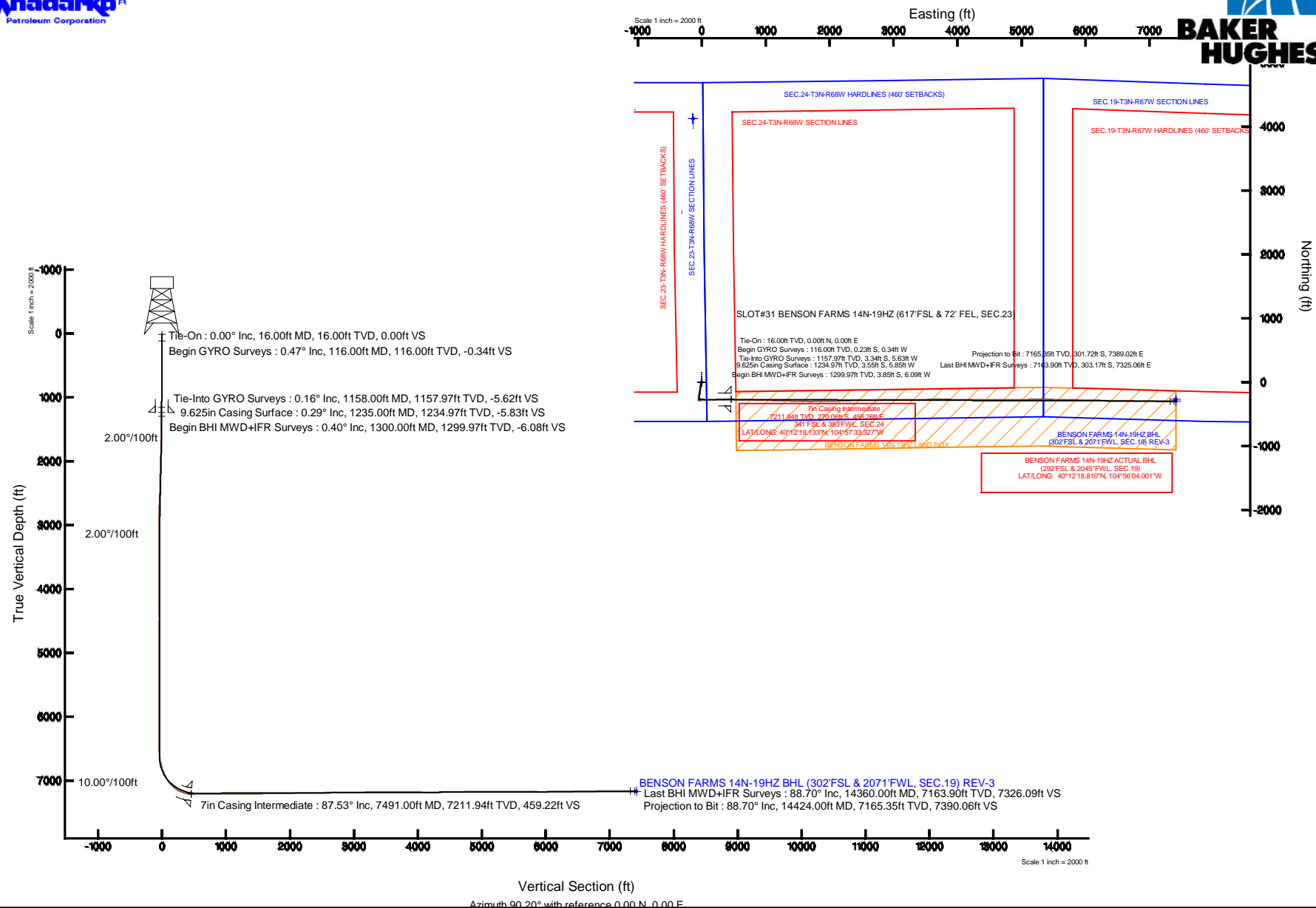
# KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#31 BENSON FARMS 14N-19HZ (617'FSL & 72' FEL, SEC.23)  
 Field: WELD COUNTY (KERR MCGEE) Well: BENSON FARMS 14N-19HZ  
 Facility: SEC.23-T3N-R68W Wellbore: BENSON FARMS 14N-19HZ PWB



Plot reference wellpath is BENSON FARMS 14N-19HZ (REV-C.0) PWB

True vertical depths are referenced to XTREME 23 (16KB) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to XTREME 23 (16KB) (RKB)	North Reference: True north
XTREME 23 (16KB) (RKB) to Mean Sea Level: 4976 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#31 BENSON FARMS 14N-19HZ (617'FSL & 72' FEL, SEC.23)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: preccain on 24/Sep/2014



# Actual Wellpath Report

BENSON FARMS 14N-19HZ AWP

Page 1 of 7

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#31 BENSON FARMS 14N-19HZ (617'FSL & 72' FEL, SEC.23)
Area	COLORADO	Well	BENSON FARMS 14N-19HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BENSON FARMS 14N-19HZ 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	24/Sep/2014 at 07:21
Convergence at slot	n/a	Database/Source file	WellArchitectDB/BENSON_FARMS_14N-19HZ_AWB.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-4442.04	3156.86	3150574.08	1318366.31	40°12'21.802"N	104°57'39.233"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 23 (16'KB) (RKB) to Facility Vertical Datum	4976.00ft
Horizontal Reference Pt	Slot	XTREME 23 (16'KB) (RKB) to Mean Sea Level	4976.00ft
Vertical Reference Pt	XTREME 23 (16'KB) (RKB)	XTREME 23 (16'KB) (RKB) to Mud Line at Slot (SLOT#31 BENSON FARMS 14N-19HZ (617'FSL & 72' FEL, SEC.23))	4976.00ft
MD Reference Pt	XTREME 23 (16'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	90.20°

# Actual Wellpath Report

BENSON FARMS 14N-19HZ AWP

Page 2 of 7

REFERENCE WELLPATH IDENTIFICATION				
Operator	KERR-MCGEE OIL & GAS ONSHORE LP		Slot	SLOT#31 BENSON FARMS 14N-19HZ (617'FSL & 72' FEL, SEC.23)
Area	COLORADO		Well	BENSON FARMS 14N-19HZ
Field	WELD COUNTY (KERR MCGEE)		Wellbore	BENSON FARMS 14N-19HZ AWB
Facility	SEC.23-T3N-R68W			

## WELLPATH DATA (138 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	235.580	0.00	0.00	0.00	0.00	40°12'21.802"N	104°57'39.233"W	0.00	
16.00	0.000	235.580	16.00	0.00	0.00	0.00	40°12'21.802"N	104°57'39.233"W	0.00	Tie-On
116.00	0.470	235.580	116.00	-0.34	-0.23	-0.34	40°12'21.800"N	104°57'39.237"W	0.47	Begin GYRO Surveys
216.00	0.110	103.080	216.00	-0.58	-0.49	-0.58	40°12'21.797"N	104°57'39.241"W	0.55	
316.00	0.510	232.010	316.00	-0.84	-0.78	-0.84	40°12'21.794"N	104°57'39.244"W	0.59	
416.00	0.120	351.140	416.00	-1.20	-0.95	-1.21	40°12'21.793"N	104°57'39.249"W	0.58	
516.00	0.510	211.290	515.99	-1.45	-1.23	-1.45	40°12'21.790"N	104°57'39.252"W	0.61	
616.00	0.260	288.810	615.99	-1.90	-1.54	-1.90	40°12'21.787"N	104°57'39.257"W	0.52	
716.00	0.400	189.650	715.99	-2.17	-1.81	-2.17	40°12'21.784"N	104°57'39.261"W	0.51	
816.00	0.730	248.460	815.99	-2.82	-2.38	-2.82	40°12'21.778"N	104°57'39.269"W	0.62	
916.00	0.430	288.230	915.98	-3.76	-2.50	-3.77	40°12'21.777"N	104°57'39.282"W	0.49	
1016.00	0.700	223.930	1015.98	-4.54	-2.82	-4.55	40°12'21.774"N	104°57'39.292"W	0.64	
1116.00	0.490	266.040	1115.97	-5.39	-3.29	-5.40	40°12'21.769"N	104°57'39.303"W	0.47	
1158.00	0.160	233.880	1157.97	-5.62	-3.34	-5.63	40°12'21.769"N	104°57'39.306"W	0.87	Tie-Into GYRO Surveys
1300.00	0.400	217.600	1299.97	-6.08	-3.85	-6.09	40°12'21.764"N	104°57'39.312"W	0.18	Begin BHI MWD+IFR Surveys
1394.00	2.000	209.500	1393.95	-7.08	-5.54	-7.10	40°12'21.747"N	104°57'39.325"W	1.71	
1488.00	3.300	200.300	1487.84	-8.81	-9.50	-8.85	40°12'21.708"N	104°57'39.347"W	1.45	
1583.00	2.100	203.800	1582.74	-10.45	-13.66	-10.50	40°12'21.667"N	104°57'39.368"W	1.27	
1673.00	4.400	196.200	1672.59	-12.06	-18.48	-12.13	40°12'21.619"N	104°57'39.389"W	2.59	
1764.00	6.200	199.800	1763.19	-14.67	-26.46	-14.77	40°12'21.541"N	104°57'39.423"W	2.01	
1856.00	8.000	191.200	1854.49	-17.56	-37.42	-17.69	40°12'21.432"N	104°57'39.461"W	2.27	
1948.00	9.800	192.100	1945.38	-20.39	-51.35	-20.58	40°12'21.295"N	104°57'39.498"W	1.96	
2041.00	10.200	191.000	2036.96	-23.57	-67.18	-23.81	40°12'21.138"N	104°57'39.540"W	0.48	
2132.00	11.200	184.900	2126.38	-25.80	-83.89	-26.10	40°12'20.973"N	104°57'39.569"W	1.66	
2224.00	10.300	185.500	2216.77	-27.29	-100.98	-27.65	40°12'20.804"N	104°57'39.589"W	0.99	
2317.00	11.000	186.200	2308.17	-28.98	-118.08	-29.41	40°12'20.635"N	104°57'39.612"W	0.77	
2410.00	11.300	187.700	2399.41	-31.10	-135.93	-31.59	40°12'20.459"N	104°57'39.640"W	0.45	
2502.00	12.800	190.600	2489.38	-34.11	-154.88	-34.67	40°12'20.271"N	104°57'39.680"W	1.76	
2594.00	12.400	190.200	2579.17	-37.67	-174.62	-38.29	40°12'20.076"N	104°57'39.727"W	0.45	
2687.00	11.000	190.500	2670.23	-40.99	-193.17	-41.68	40°12'19.893"N	104°57'39.770"W	1.51	
2778.00	10.200	192.700	2759.68	-44.28	-209.57	-45.03	40°12'19.731"N	104°57'39.813"W	0.99	
2869.00	8.800	189.100	2849.43	-47.10	-224.30	-47.90	40°12'19.585"N	104°57'39.850"W	1.67	
2962.00	8.400	181.900	2941.38	-48.40	-238.12	-49.25	40°12'19.449"N	104°57'39.868"W	1.23	
3055.00	6.600	173.800	3033.59	-48.01	-250.22	-48.90	40°12'19.329"N	104°57'39.863"W	2.24	
3148.00	5.000	158.500	3126.11	-45.91	-259.30	-46.84	40°12'19.240"N	104°57'39.837"W	2.38	
3239.00	2.900	163.000	3216.89	-43.76	-265.20	-44.71	40°12'19.181"N	104°57'39.809"W	2.33	
3332.00	2.900	178.500	3309.78	-43.00	-269.80	-43.96	40°12'19.136"N	104°57'39.800"W	0.84	
3417.00	3.200	201.800	3394.66	-43.81	-274.15	-44.79	40°12'19.093"N	104°57'39.810"W	1.49	
3502.00	1.200	216.300	3479.59	-45.21	-277.07	-46.20	40°12'19.064"N	104°57'39.828"W	2.42	
3587.00	0.900	304.600	3564.58	-46.28	-277.41	-47.27	40°12'19.061"N	104°57'39.842"W	1.74	
3673.00	0.900	302.000	3650.57	-47.41	-276.67	-48.40	40°12'19.068"N	104°57'39.857"W	0.05	
3758.00	0.400	119.000	3735.57	-47.72	-276.46	-48.71	40°12'19.070"N	104°57'39.861"W	1.53	
4099.00	1.000	159.500	4076.54	-45.62	-279.82	-46.63	40°12'19.037"N	104°57'39.834"W	0.22	
4184.00	1.000	86.300	4161.53	-44.62	-280.47	-45.63	40°12'19.030"N	104°57'39.821"W	1.40	
4524.00	0.100	265.100	4501.52	-41.96	-280.30	-42.96	40°12'19.032"N	104°57'39.787"W	0.32	

# Actual Wellpath Report

BENSON FARMS 14N-19HZ AWP

Page 3 of 7

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#31 BENSON FARMS 14N-19HZ (617'FSL & 72' FEL, SEC.23)
Area	COLORADO	Well	BENSON FARMS 14N-19HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BENSON FARMS 14N-19HZ AWB
Facility	SEC.23-T3N-R68W		

## WELLPATH DATA (138 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4865.00	1.100	238.500	4842.50	-45.04	-282.04	-46.05	40°12'19.015"N	104°57'39.826"W	0.30	
4950.00	0.600	345.600	4927.49	-45.84	-282.03	-46.85	40°12'19.015"N	104°57'39.837"W	1.65	
5291.00	0.400	313.300	5268.48	-47.16	-279.49	-48.16	40°12'19.040"N	104°57'39.854"W	0.10	
5376.00	0.900	26.500	5353.47	-47.09	-278.69	-48.08	40°12'19.048"N	104°57'39.853"W	1.03	
5717.00	0.600	177.900	5694.46	-45.83	-278.07	-46.82	40°12'19.054"N	104°57'39.836"W	0.43	
6144.00	1.200	181.500	6121.41	-45.84	-284.78	-46.86	40°12'18.988"N	104°57'39.837"W	0.14	
6525.00	0.900	125.900	6502.35	-43.50	-290.52	-44.54	40°12'18.931"N	104°57'39.807"W	0.27	
6655.00	5.700	89.000	6632.10	-36.21	-291.01	-37.25	40°12'18.926"N	104°57'39.713"W	3.85	
6740.00	12.000	83.300	6716.05	-23.20	-289.90	-24.24	40°12'18.937"N	104°57'39.545"W	7.47	
6825.00	18.300	84.200	6798.06	-1.14	-287.52	-2.17	40°12'18.961"N	104°57'39.261"W	7.42	
6910.00	23.100	82.700	6877.55	28.68	-284.05	27.67	40°12'18.995"N	104°57'38.876"W	5.68	
6996.00	27.600	88.900	6955.26	65.35	-281.52	64.34	40°12'19.020"N	104°57'38.404"W	6.07	
7081.00	35.700	87.900	7027.56	109.89	-280.23	108.89	40°12'19.033"N	104°57'37.830"W	9.55	
7166.00	46.400	85.400	7091.57	165.51	-276.85	164.52	40°12'19.066"N	104°57'37.113"W	12.73	
7251.00	57.500	87.000	7143.88	232.17	-272.49	231.20	40°12'19.109"N	104°57'36.253"W	13.14	
7336.00	69.000	88.800	7182.08	307.89	-269.77	306.92	40°12'19.136"N	104°57'35.277"W	13.66	
7421.00	79.900	90.100	7204.83	389.64	-269.01	388.68	40°12'19.144"N	104°57'34.224"W	12.91	
7454.00	84.400	90.500	7209.33	422.33	-269.18	421.36	40°12'19.142"N	104°57'33.802"W	13.69	
7491.00†	87.530	92.211	7211.94	459.22	-270.06	458.26	40°12'19.133"N	104°57'33.327"W	9.63	7" Casing Point
7519.00	89.900	93.500	7212.57	487.18	-271.45	486.21	40°12'19.119"N	104°57'32.967"W	9.63	
7611.00	90.300	91.000	7212.41	579.11	-275.06	578.13	40°12'19.084"N	104°57'31.782"W	2.75	
7703.00	90.200	91.400	7212.00	671.10	-276.99	670.11	40°12'19.065"N	104°57'30.596"W	0.45	
7795.00	90.200	91.200	7211.68	763.08	-279.08	762.09	40°12'19.044"N	104°57'29.411"W	0.22	
7888.00	89.800	90.900	7211.68	856.07	-280.78	855.07	40°12'19.027"N	104°57'28.213"W	0.54	
7981.00	90.100	91.000	7211.76	949.06	-282.32	948.06	40°12'19.012"N	104°57'27.014"W	0.34	
8073.00	90.900	92.500	7210.96	1041.02	-285.13	1040.01	40°12'18.984"N	104°57'25.829"W	1.85	
8166.00	90.800	92.000	7209.58	1133.95	-288.78	1132.93	40°12'18.948"N	104°57'24.631"W	0.55	
8257.00	89.800	91.500	7209.11	1224.92	-291.56	1223.88	40°12'18.920"N	104°57'23.459"W	1.23	
8348.00	89.400	91.000	7209.74	1315.90	-293.55	1314.86	40°12'18.901"N	104°57'22.287"W	0.70	
8438.00	90.600	91.200	7209.74	1405.89	-295.28	1404.84	40°12'18.884"N	104°57'21.127"W	1.35	
8531.00	91.200	92.300	7208.28	1498.84	-298.12	1497.78	40°12'18.856"N	104°57'19.929"W	1.35	
8623.00	91.200	91.400	7206.35	1590.78	-301.08	1589.71	40°12'18.826"N	104°57'18.744"W	0.98	
8715.00	90.900	90.000	7204.67	1682.76	-302.21	1681.69	40°12'18.815"N	104°57'17.559"W	1.56	
8800.00	91.200	89.900	7203.11	1767.74	-302.13	1766.67	40°12'18.816"N	104°57'16.464"W	0.37	
8886.00	90.500	89.200	7201.83	1853.73	-301.46	1852.66	40°12'18.822"N	104°57'15.355"W	1.15	
8970.00	90.400	88.800	7201.17	1937.71	-299.99	1936.65	40°12'18.837"N	104°57'14.273"W	0.49	
9056.00	90.900	88.300	7200.20	2023.66	-297.82	2022.61	40°12'18.858"N	104°57'13.165"W	0.82	
9141.00	91.200	88.200	7198.64	2108.60	-295.22	2107.56	40°12'18.884"N	104°57'12.070"W	0.37	
9226.00	90.900	87.400	7197.08	2193.51	-291.96	2192.48	40°12'18.916"N	104°57'10.976"W	1.01	
9312.00	90.800	88.200	7195.81	2279.43	-288.66	2278.41	40°12'18.948"N	104°57'09.868"W	0.94	
9397.00	91.200	89.100	7194.32	2364.38	-286.66	2363.37	40°12'18.968"N	104°57'08.773"W	1.16	
9482.00	90.500	88.700	7193.06	2449.35	-285.02	2448.34	40°12'18.984"N	104°57'07.678"W	0.95	
9567.00	91.300	89.100	7191.73	2534.31	-283.39	2533.32	40°12'19.000"N	104°57'06.583"W	1.05	
9652.00	91.200	89.400	7189.87	2619.28	-282.28	2618.29	40°12'19.011"N	104°57'05.488"W	0.37	
9823.00	89.600	88.800	7188.68	2790.24	-279.59	2789.26	40°12'19.038"N	104°57'03.284"W	1.00	

# Actual Wellpath Report

BENSON FARMS 14N-19HZ AWP

Page 4 of 7

REFERENCE WELLPATH IDENTIFICATION				
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#31 BENSON FARMS 14N-19HZ (617'FSL & 72' FEL, SEC.23)	
Area	COLORADO	Well	BENSON FARMS 14N-19HZ	
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BENSON FARMS 14N-19HZ AWB	
Facility	SEC.23-T3N-R68W			

## WELLPATH DATA (138 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
9908.00	89.700	88.800	7189.20	2875.21	-277.81	2874.24	40°12'19.055"N	104°57'02.189"W	0.12	
9994.00	91.300	90.200	7188.45	2961.20	-277.06	2960.23	40°12'19.062"N	104°57'01.081"W	2.47	
10079.00	91.800	90.400	7186.15	3046.17	-277.51	3045.19	40°12'19.058"N	104°56'59.986"W	0.63	
10163.00	90.200	89.300	7184.68	3130.15	-277.29	3129.18	40°12'19.060"N	104°56'58.903"W	2.31	
10249.00	91.000	89.500	7183.78	3216.13	-276.39	3215.17	40°12'19.069"N	104°56'57.795"W	0.96	
10335.00	90.800	89.200	7182.43	3302.11	-275.41	3301.15	40°12'19.078"N	104°56'56.687"W	0.42	
10420.00	91.000	89.700	7181.10	3387.10	-274.60	3386.13	40°12'19.086"N	104°56'55.591"W	0.63	
10505.00	90.100	89.100	7180.28	3472.08	-273.71	3471.13	40°12'19.095"N	104°56'54.496"W	1.27	
10590.00	89.800	88.400	7180.35	3557.05	-271.85	3556.10	40°12'19.113"N	104°56'53.401"W	0.90	
10676.00	89.300	89.300	7181.03	3643.03	-270.13	3642.08	40°12'19.130"N	104°56'52.293"W	1.20	
10761.00	90.200	90.900	7181.40	3728.02	-270.27	3727.08	40°12'19.128"N	104°56'51.197"W	2.16	
10846.00	90.100	90.800	7181.18	3813.02	-271.54	3812.07	40°12'19.116"N	104°56'50.102"W	0.17	
10931.00	89.300	90.600	7181.62	3898.01	-272.57	3897.06	40°12'19.105"N	104°56'49.006"W	0.97	
11103.00	88.300	90.500	7185.23	4069.97	-274.22	4069.01	40°12'19.089"N	104°56'46.790"W	0.58	
11186.00	88.600	90.700	7187.47	4152.94	-275.09	4151.98	40°12'19.080"N	104°56'45.721"W	0.43	
11272.00	91.100	90.200	7187.70	4238.93	-275.77	4237.97	40°12'19.073"N	104°56'44.613"W	2.96	
11356.00	91.800	90.200	7185.57	4322.90	-276.06	4321.94	40°12'19.070"N	104°56'43.530"W	0.83	
11441.00	90.800	89.300	7183.64	4407.87	-275.69	4406.92	40°12'19.074"N	104°56'42.435"W	1.58	
11526.00	91.100	90.500	7182.23	4492.86	-275.54	4491.90	40°12'19.075"N	104°56'41.340"W	1.46	
11612.00	91.000	90.200	7180.66	4578.84	-276.07	4577.89	40°12'19.070"N	104°56'40.232"W	0.37	
11697.00	91.500	90.000	7178.80	4663.82	-276.22	4662.86	40°12'19.068"N	104°56'39.137"W	0.63	
11867.00	90.700	89.200	7175.54	4833.78	-275.03	4832.83	40°12'19.080"N	104°56'36.946"W	0.67	
11953.00	90.500	89.700	7174.64	4919.77	-274.20	4918.82	40°12'19.087"N	104°56'35.838"W	0.63	
12038.00	89.700	89.400	7174.49	5004.76	-273.54	5003.81	40°12'19.094"N	104°56'34.742"W	1.01	
12123.00	89.700	89.600	7174.94	5089.75	-272.79	5088.81	40°12'19.101"N	104°56'33.647"W	0.24	
12208.00	90.800	88.900	7174.56	5174.74	-271.68	5173.80	40°12'19.112"N	104°56'32.551"W	1.53	
12293.00	89.900	90.100	7174.04	5259.73	-270.94	5258.79	40°12'19.119"N	104°56'31.456"W	1.76	
12378.00	88.700	90.200	7175.08	5344.72	-271.16	5343.78	40°12'19.117"N	104°56'30.361"W	1.42	
12464.00	90.200	90.500	7175.91	5430.71	-271.69	5429.78	40°12'19.111"N	104°56'29.252"W	1.78	
12634.00	90.900	91.500	7174.28	5600.69	-274.65	5599.74	40°12'19.082"N	104°56'27.062"W	0.72	
12805.00	88.900	90.800	7174.58	5771.65	-278.09	5770.69	40°12'19.047"N	104°56'24.858"W	1.24	
12890.00	88.200	91.000	7176.73	5856.62	-279.42	5855.66	40°12'19.034"N	104°56'23.763"W	0.86	
12975.00	88.200	90.900	7179.40	5941.57	-280.83	5940.60	40°12'19.020"N	104°56'22.669"W	0.12	
13061.00	89.100	92.300	7181.42	6027.52	-283.23	6026.54	40°12'18.996"N	104°56'21.561"W	1.93	
13146.00	88.800	90.600	7182.98	6112.48	-285.38	6111.50	40°12'18.974"N	104°56'20.466"W	2.03	
13231.00	91.300	91.300	7182.91	6197.47	-286.79	6196.48	40°12'18.960"N	104°56'19.371"W	3.05	
13316.00	90.800	90.500	7181.35	6282.44	-288.13	6281.45	40°12'18.947"N	104°56'18.276"W	1.11	
13402.00	91.900	91.500	7179.32	6368.41	-289.63	6367.41	40°12'18.932"N	104°56'17.168"W	1.73	
13487.00	91.600	90.200	7176.73	6453.36	-290.89	6452.36	40°12'18.919"N	104°56'16.073"W	1.57	
13572.00	91.200	90.900	7174.65	6538.33	-291.70	6537.33	40°12'18.911"N	104°56'14.978"W	0.95	
13658.00	90.600	90.200	7173.30	6624.32	-292.53	6623.32	40°12'18.903"N	104°56'13.870"W	1.07	
13743.00	91.400	91.300	7171.82	6709.30	-293.64	6708.29	40°12'18.891"N	104°56'12.774"W	1.60	
13828.00	91.600	91.200	7169.59	6794.26	-295.49	6793.25	40°12'18.873"N	104°56'11.680"W	0.26	
13913.00	90.600	90.500	7167.96	6879.24	-296.75	6878.22	40°12'18.860"N	104°56'10.584"W	1.44	
13999.00	91.600	91.700	7166.31	6965.21	-298.40	6964.18	40°12'18.844"N	104°56'09.476"W	1.82	

# Actual Wellpath Report

BENSON FARMS 14N-19HZ AWP

Page 5 of 7

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#31 BENSON FARMS 14N-19HZ (617'FSL & 72' FEL, SEC.23)
Area	COLORADO	Well	BENSON FARMS 14N-19HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BENSON FARMS 14N-19HZ AWB
Facility	SEC.23-T3N-R68W		

WELLPATH DATA (138 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
14169.00	90.700	91.400	7162.90	7135.12	-303.00	7134.09	40°12'18.798"N	104°56'07.287"W	0.56	
14360.00	88.700	88.700	7163.90	7326.09	-303.17	7325.06	40°12'18.795"N	104°56'04.825"W	1.76	Last BHI MWD+IFR Surveys
14424.00	88.700	88.700	7165.35	7390.06	-301.72	7389.02	40°12'18.810"N	104°56'04.001"W	0.00	Projection to Bit

HOLE & CASING SECTIONS - Ref Wellbore: BENSON FARMS 14N-19HZ AWB      Ref Wellpath: BENSON FARMS 14N-19HZ 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	1245.00	1229.00	16.00	1244.97	0.00	0.00	-3.59	-5.88
9.625in Casing Surface	16.00	1235.00	1219.00	16.00	1234.97	0.00	0.00	-3.55	-5.85
8.75in Open Hole	1245.00	7510.00	6265.00	1244.97	7212.49	-3.59	-5.88	-270.94	477.23
7in Casing Intermediate	16.00	7491.00	7475.00	16.00	7211.94	0.00	0.00	-270.06	458.26
6.125in Open Hole	7510.00	14424.00	6914.00	7212.49	7165.35	-270.94	477.23	-301.72	7389.02

# Actual Wellpath Report

BENSON FARMS 14N-19HZ AWP

Page 6 of 7

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#31 BENSON FARMS 14N-19HZ (617'FSL & 72' FEL, SEC.23)
Area	COLORADO	Well	BENSON FARMS 14N-19HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BENSON FARMS 14N-19HZ AWB
Facility	SEC.23-T3N-R68W		

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)		28.00	4125.66	-135.99	3150413.01	1322490.88	40°13'02.572"N	104°57'40.986"W	polygon
SEC.19-T3N-R67W SECTION LINES		28.00	4125.66	-135.99	3150413.01	1322490.88	40°13'02.572"N	104°57'40.986"W	polygon
SEC.23-T3N-R68W HARDLINES (460' SETBACKS)		28.00	4125.66	-135.99	3150413.01	1322490.88	40°13'02.572"N	104°57'40.986"W	polygon
SEC.23-T3N-R68W SECTION LINES		28.00	4125.66	-135.99	3150413.01	1322490.88	40°13'02.572"N	104°57'40.986"W	polygon
SEC.24-T3N-R68W HARDLINES (460' SETBACKS)		28.00	4125.66	-135.99	3150413.01	1322490.88	40°13'02.572"N	104°57'40.986"W	polygon
SEC.24-T3N-R68W SECTION LINES		28.00	4125.66	-135.99	3150413.01	1322490.88	40°13'02.572"N	104°57'40.986"W	polygon
BENSON FARMS 14N-19HZ BHL (302'FSL & 2071'FWL, SEC.19) REV-2		7140.00	-298.60	7414.63	3157990.05	1318112.81	40°12'18.840"N	104°56'03.671"W	point
BENSON FARMS 14N-19HZ BHL ON PLAT (335'FSL & 2071'FWL, SEC.19) REV-1		7140.00	-265.60	7414.63	3157989.86	1318145.81	40°12'19.166"N	104°56'03.671"W	point
BENSON FARMS 14N-19HZ LAND BOX		7140.00	0.00	0.00	3150574.08	1318366.31	40°12'21.802"N	104°57'39.233"W	polygon
BENSON FARMS 14N-19HZ BHL (302'FSL & 2071'FWL, SEC.19) REV-3		7171.00	-298.60	7414.63	3157990.05	1318112.81	40°12'18.840"N	104°56'03.671"W	point

WELLPATH COMPOSITION - Ref Wellbore: BENSON FARMS 14N-19HZ AWB					Ref Wellpath: BENSON FARMS 14N-19HZ AWP	
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment		Wellbore	
16.00	1158.00	Generic gyro - continuous (Standard)	MS ENERGY GYRO SURVEYS <116-1158>		BENSON FARMS 14N-19HZ AWB	
1158.00	7454.00	NaviTrak (IFR)	BHI MWD+IFR SURVEYS 8 3/4" HOLE <1300-7454>		BENSON FARMS 14N-19HZ AWB	
7454.00	14360.00	NaviTrak (IFR)	BHI MWD+IFR SURVEYS 6 1/8" HOLE <7519-14360>		BENSON FARMS 14N-19HZ AWB	
14360.00	14424.00	Blind Drilling (std)	Projection to bit		BENSON FARMS 14N-19HZ AWB	

# Actual Wellpath Report

BENSON FARMS 14N-19HZ AWP

Page 7 of 7

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#31 BENSON FARMS 14N-19HZ (617'FSL & 72' FEL, SEC.23)
Area	COLORADO	Well	BENSON FARMS 14N-19HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BENSON FARMS 14N-19HZ AWB
Facility	SEC.23-T3N-R68W		

WELLPATH COMMENTS					
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment	
16.00	0.000	235.580	16.00	Tie-On	
116.00	0.470	235.580	116.00	Begin GYRO Surveys	
1158.00	0.160	233.880	1157.97	Tie-Into GYRO Surveys	
1300.00	0.400	217.600	1299.97	Begin BHI MWD+IFR Surveys	
7491.00	87.530	92.211	7211.94	7" Casing Point	
14360.00	88.700	88.700	7163.90	Last BHI MWD+IFR Surveys	
14424.00	88.700	88.700	7165.35	Projection to Bit	