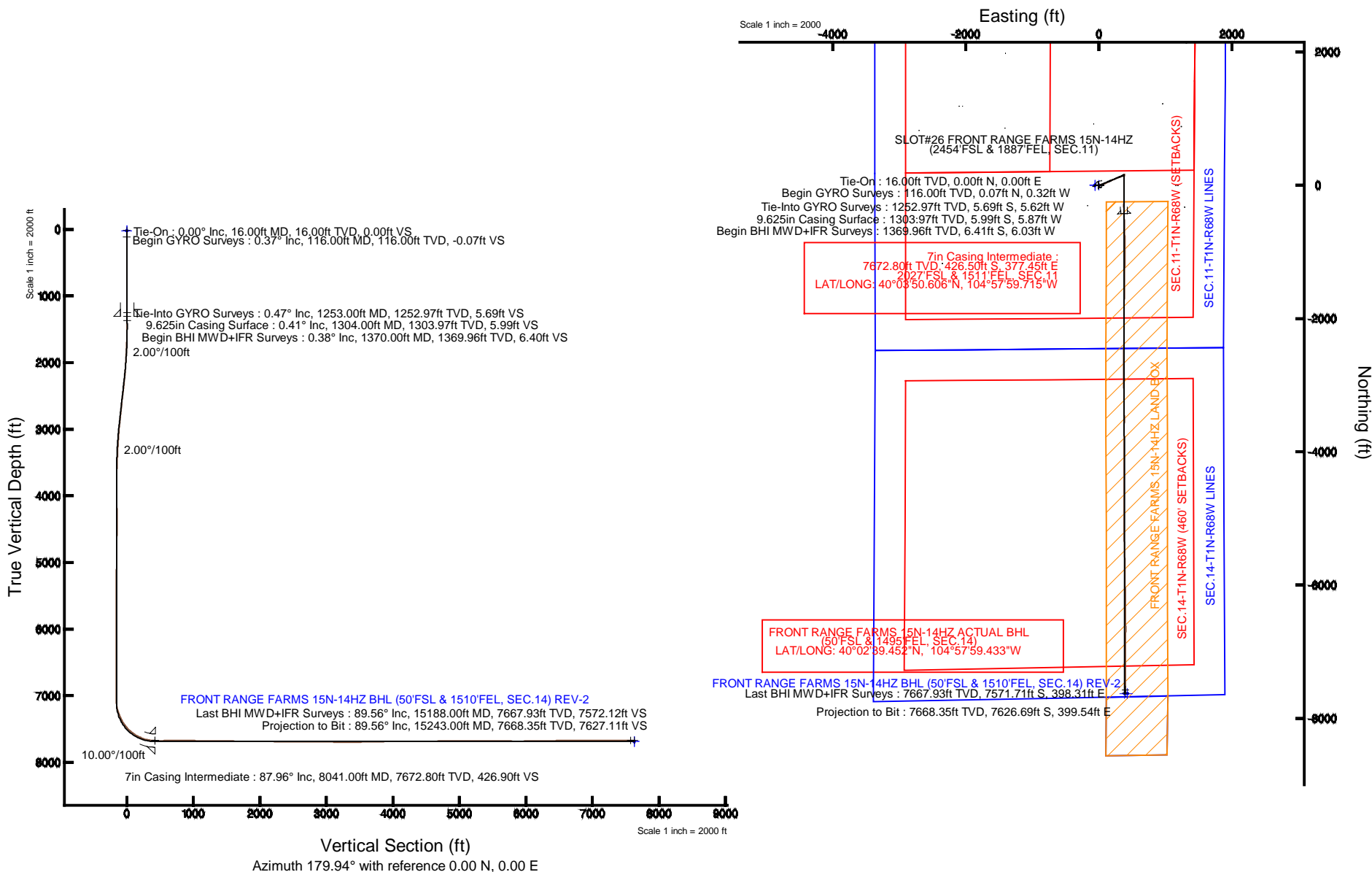


KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#26 FRONT RANGE FARMS 15N-14HZ (2454'FSL & 1887'FEL, SEC.11)
 Field: WELD COUNTY (KERR MCGEE) Well: FRONT RANGE FARMS 15N-14HZ
 Facility: SEC.11-T1N-R68W Wellbore: FRONT RANGE FARMS 15N-14HZ PWB

Plot reference wellpath is FRONT RANGE FARMS 15N-14HZ (REV-B.0) PWP

True vertical depths are referenced to XTREME 20 (16KB) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to XTREME 20 (16KB) (RKB)	North Reference: True north
XTREME 20 (16KB) (RKB) to Mean Sea Level: 5066 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#26 FRONT RANGE FARMS 15N-14HZ (2454'FSL & 1887'FEL, SEC.11)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: preccain on 1/15/2015



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#26 FRONT RANGE FARMS 15N-14HZ (2454'FSL & 1887'FEL, SEC.11)
Area	COLORADO	Well	FRONT RANGE FARMS 15N-14HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	FRONT RANGE FARMS 15N-14HZ AWB <116-14385>
Facility	SEC.11-T1N-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	0.999962	Report Generated	1/15/2015 at 4:11:49 PM
Convergence at slot	n/a	Database/Source file	WellArchitectDB/FRONT_RANGE_FARMS_15N-14HZ_AWB_116-14385_.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-2333.45	2579.25	3148916.15	1267054.55	40°03'54.821"N	104°58'04.570"W
Facility Reference Pt			3146323.29	1269372.66	40°04'17.882"N	104°58'37.744"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 20 (16'KB) (RKB) to Facility Vertical Datum	5066.00ft
Horizontal Reference Pt	Slot	XTREME 20 (16'KB) (RKB) to Mean Sea Level	5066.00ft
Vertical Reference Pt	XTREME 20 (16'KB) (RKB)	XTREME 20 (16'KB) (RKB) to Mud Line at Slot (SLOT#26 FRONT RANGE FARMS 15N-14HZ (2454'FSL & 1887'FEL, SEC.11))	5066.00ft
MD Reference Pt	XTREME 20 (16'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	179.94°

Actual Wellpath Report

FRONT RANGE FARMS 15N-14HZ AWP

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#26 FRONT RANGE FARMS 15N-14HZ (2454'FSL & 1887'FEL, SEC.11)
Area	COLORADO	Well	FRONT RANGE FARMS 15N-14HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	FRONT RANGE FARMS 15N-14HZ AWB <116-14385>
Facility	SEC.11-T1N-R68W		

WELLPATH DATA (167 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	281.958	0.00	0.00	0.00	0.00	40°03'54.821"N	104°58'04.570"W	0.00	
16.00	0.000	281.958	16.00	0.00	0.00	0.00	40°03'54.821"N	104°58'04.570"W	0.00	Tie-On
116.00	0.373	281.958	116.00	-0.07	0.07	-0.32	40°03'54.822"N	104°58'04.574"W	0.37	Begin GYRO Surveys
216.00	0.559	248.429	216.00	0.04	-0.04	-1.09	40°03'54.821"N	104°58'04.584"W	0.32	
316.00	0.451	236.043	315.99	0.44	-0.44	-1.87	40°03'54.817"N	104°58'04.594"W	0.15	
416.00	0.507	212.045	415.99	1.04	-1.04	-2.43	40°03'54.811"N	104°58'04.601"W	0.21	
516.00	0.510	184.311	515.99	1.85	-1.86	-2.70	40°03'54.803"N	104°58'04.605"W	0.24	
616.00	0.430	216.717	615.98	2.60	-2.60	-2.96	40°03'54.795"N	104°58'04.608"W	0.27	
716.00	0.430	215.029	715.98	3.21	-3.21	-3.40	40°03'54.789"N	104°58'04.614"W	0.01	
816.00	0.474	220.084	815.98	3.83	-3.83	-3.88	40°03'54.783"N	104°58'04.620"W	0.06	
916.00	0.423	216.909	915.97	4.44	-4.45	-4.37	40°03'54.777"N	104°58'04.626"W	0.06	
1016.00	0.301	205.075	1015.97	4.97	-4.98	-4.70	40°03'54.772"N	104°58'04.630"W	0.14	
1116.00	0.241	243.881	1115.97	5.30	-5.31	-5.00	40°03'54.769"N	104°58'04.634"W	0.19	
1216.00	0.312	240.291	1215.97	5.53	-5.54	-5.43	40°03'54.766"N	104°58'04.640"W	0.07	
1253.00	0.469	225.600	1252.97	5.69	-5.69	-5.62	40°03'54.765"N	104°58'04.642"W	0.50	Tie-Into GYRO Surveys
1370.00	0.380	189.550	1369.96	6.40	-6.41	-6.03	40°03'54.758"N	104°58'04.648"W	0.24	Begin BHI MWD+IFR Surveys
1464.00	2.200	74.460	1463.94	6.23	-6.23	-4.34	40°03'54.759"N	104°58'04.626"W	2.54	
1558.00	4.340	66.850	1557.78	4.35	-4.35	0.67	40°03'54.778"N	104°58'04.561"W	2.32	
1651.00	5.880	67.930	1650.41	1.19	-1.18	8.32	40°03'54.809"N	104°58'04.463"W	1.66	
1745.00	7.120	72.640	1743.81	-2.35	2.37	18.34	40°03'54.844"N	104°58'04.334"W	1.43	
1840.00	8.260	69.370	1837.95	-6.50	6.53	30.35	40°03'54.886"N	104°58'04.180"W	1.28	
1934.00	9.710	72.410	1930.80	-11.26	11.31	44.22	40°03'54.933"N	104°58'04.001"W	1.62	
2028.00	10.600	73.840	2023.32	-16.04	16.11	60.09	40°03'54.980"N	104°58'03.797"W	0.98	
2120.00	14.000	69.850	2113.20	-22.22	22.30	78.67	40°03'55.041"N	104°58'03.558"W	3.81	
2215.00	13.080	68.340	2205.56	-30.12	30.22	99.44	40°03'55.120"N	104°58'03.291"W	1.04	
2309.00	13.660	63.360	2297.01	-39.00	39.13	119.25	40°03'55.208"N	104°58'03.036"W	1.37	
2403.00	15.680	64.050	2387.94	-49.52	49.66	140.60	40°03'55.312"N	104°58'02.762"W	2.16	
2496.00	15.910	61.980	2477.43	-60.98	61.15	163.15	40°03'55.425"N	104°58'02.472"W	0.65	
2588.00	14.030	68.610	2566.31	-70.95	71.14	184.67	40°03'55.524"N	104°58'02.195"W	2.76	
2683.00	14.320	65.930	2658.42	-79.92	80.14	206.12	40°03'55.613"N	104°58'01.919"W	0.76	
2777.00	15.370	66.770	2749.28	-89.55	89.79	228.18	40°03'55.708"N	104°58'01.635"W	1.14	
2872.00	16.820	69.610	2840.56	-99.28	99.55	252.64	40°03'55.805"N	104°58'01.321"W	1.74	
2959.00	15.360	68.710	2924.15	-107.83	108.12	275.17	40°03'55.889"N	104°58'01.031"W	1.70	
3044.00	12.670	68.270	3006.61	-115.35	115.66	294.32	40°03'55.964"N	104°58'00.784"W	3.17	
3130.00	11.030	67.300	3090.78	-122.00	122.32	310.68	40°03'56.030"N	104°58'00.574"W	1.92	
3214.00	9.400	66.280	3173.44	-127.84	128.18	324.37	40°03'56.088"N	104°58'00.398"W	1.95	
3302.00	8.270	66.960	3260.40	-133.20	133.55	336.77	40°03'56.141"N	104°58'00.238"W	1.29	
3387.00	7.200	68.430	3344.62	-137.54	137.90	347.35	40°03'56.184"N	104°58'00.102"W	1.28	
3472.00	6.170	67.100	3429.04	-141.26	141.64	356.52	40°03'56.221"N	104°57'59.985"W	1.23	
3557.00	4.930	63.060	3513.64	-144.69	145.07	363.98	40°03'56.255"N	104°57'59.889"W	1.53	
3642.00	4.100	59.950	3598.38	-147.86	148.25	369.87	40°03'56.286"N	104°57'59.813"W	1.02	
3728.00	1.780	64.800	3684.26	-149.96	150.36	373.74	40°03'56.307"N	104°57'59.763"W	2.71	
3813.00	0.860	86.650	3769.24	-150.56	150.95	375.57	40°03'56.313"N	104°57'59.739"W	1.21	
3898.00	0.580	91.660	3854.23	-150.59	150.98	376.63	40°03'56.313"N	104°57'59.726"W	0.34	
4153.00	0.770	166.360	4109.22	-148.88	149.28	378.33	40°03'56.296"N	104°57'59.704"W	0.33	

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#26 FRONT RANGE FARMS 15N-14HZ (2454'FSL & 1887'FEL, SEC.11)
Area	COLORADO	Well	FRONT RANGE FARMS 15N-14HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	FRONT RANGE FARMS 15N-14HZ AWB <116-14385>
Facility	SEC.11-T1N-R68W		

WELLPATH DATA (167 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4409.00	0.870	187.340	4365.19	-145.28	145.68	378.49	40°03'56.261"N	104°57'59.702"W	0.12	
4494.00	1.260	312.140	4450.18	-145.27	145.66	377.71	40°03'56.260"N	104°57'59.712"W	2.23	
4664.00	1.160	343.020	4620.15	-148.17	148.56	375.82	40°03'56.289"N	104°57'59.736"W	0.38	
4919.00	1.100	333.130	4875.10	-152.83	153.22	373.96	40°03'56.335"N	104°57'59.760"W	0.08	
5089.00	0.580	290.670	5045.08	-154.59	154.98	372.42	40°03'56.352"N	104°57'59.780"W	0.46	
5259.00	1.470	282.790	5215.05	-155.38	155.76	369.49	40°03'56.360"N	104°57'59.818"W	0.53	
5344.00	0.590	349.790	5300.04	-156.05	156.43	368.35	40°03'56.367"N	104°57'59.832"W	1.59	
5429.00	1.290	66.820	5385.03	-156.86	157.24	369.15	40°03'56.375"N	104°57'59.822"W	1.52	
5599.00	0.860	82.720	5555.00	-157.77	158.16	372.17	40°03'56.384"N	104°57'59.783"W	0.31	
5854.00	0.640	97.350	5809.98	-157.82	158.22	375.48	40°03'56.385"N	104°57'59.741"W	0.11	
6110.00	0.540	40.760	6065.97	-158.55	158.95	377.69	40°03'56.392"N	104°57'59.712"W	0.22	
6365.00	1.130	92.540	6320.94	-159.35	159.75	380.99	40°03'56.400"N	104°57'59.670"W	0.35	
6450.00	0.370	321.090	6405.94	-159.52	159.92	381.65	40°03'56.401"N	104°57'59.661"W	1.65	
6705.00	0.490	29.730	6660.93	-161.11	161.51	381.67	40°03'56.417"N	104°57'59.661"W	0.19	
6960.00	0.660	145.950	6915.92	-160.84	161.24	383.04	40°03'56.414"N	104°57'59.643"W	0.38	
7045.00	0.660	179.140	7000.92	-159.94	160.35	383.32	40°03'56.406"N	104°57'59.640"W	0.44	
7130.00	3.250	191.500	7085.86	-157.09	157.49	382.85	40°03'56.377"N	104°57'59.646"W	3.07	
7173.00	7.180	184.510	7128.67	-153.22	153.62	382.39	40°03'56.339"N	104°57'59.652"W	9.24	
7215.00	11.470	184.880	7170.11	-146.44	146.84	381.83	40°03'56.272"N	104°57'59.659"W	10.22	
7258.00	15.680	186.980	7211.90	-136.41	136.81	380.76	40°03'56.173"N	104°57'59.673"W	9.86	
7301.00	18.750	185.690	7252.97	-123.76	124.16	379.37	40°03'56.048"N	104°57'59.691"W	7.19	
7344.00	22.410	183.290	7293.22	-108.70	109.09	378.21	40°03'55.899"N	104°57'59.705"W	8.73	
7386.00	26.720	182.640	7331.41	-91.27	91.66	377.32	40°03'55.727"N	104°57'59.717"W	10.28	
7429.00	28.360	181.930	7369.53	-71.40	71.80	376.53	40°03'55.530"N	104°57'59.727"W	3.89	
7470.00	32.220	179.500	7404.93	-50.73	51.13	376.30	40°03'55.326"N	104°57'59.730"W	9.88	
7513.00	36.410	181.570	7440.44	-26.50	26.89	376.05	40°03'55.087"N	104°57'59.733"W	10.11	
7555.00	40.100	180.200	7473.42	-0.51	0.90	375.66	40°03'54.830"N	104°57'59.738"W	9.01	
7598.00	44.540	181.370	7505.20	28.43	-28.04	375.25	40°03'54.544"N	104°57'59.744"W	10.49	
7640.00	49.480	179.570	7533.83	59.14	-58.75	375.01	40°03'54.240"N	104°57'59.747"W	12.17	
7683.00	54.620	179.670	7560.27	93.04	-92.65	375.24	40°03'53.905"N	104°57'59.744"W	11.95	
7726.00	58.080	179.200	7584.09	128.83	-128.43	375.59	40°03'53.552"N	104°57'59.739"W	8.10	
7769.00	62.540	179.850	7605.39	166.17	-165.78	375.90	40°03'53.183"N	104°57'59.735"W	10.45	
7812.00	66.280	180.770	7623.96	204.94	-204.55	375.68	40°03'52.800"N	104°57'59.738"W	8.91	
7855.00	70.310	181.530	7639.86	244.88	-244.49	374.88	40°03'52.405"N	104°57'59.748"W	9.51	
7898.00	73.690	181.200	7653.14	285.75	-285.36	373.91	40°03'52.001"N	104°57'59.761"W	7.89	
7941.00	79.210	179.100	7663.21	327.54	-327.15	373.81	40°03'51.588"N	104°57'59.762"W	13.69	
8004.00	86.540	177.330	7671.02	389.98	-389.59	375.76	40°03'50.971"N	104°57'59.737"W	11.96	
8041.00†	87.958	177.426	7672.80	426.90	-426.50	377.45	40°03'50.606"N	104°57'59.715"W	3.84	7" Casing Point
8112.00	90.680	177.610	7673.64	497.82	-497.42	380.52	40°03'49.905"N	104°57'59.676"W	3.84	
8204.00	90.670	178.050	7672.56	589.75	-589.35	384.01	40°03'48.997"N	104°57'59.631"W	0.48	
8295.00	91.080	178.580	7671.17	680.71	-680.30	386.68	40°03'48.098"N	104°57'59.597"W	0.74	
8387.00	90.430	179.340	7669.96	772.68	-772.28	388.35	40°03'47.189"N	104°57'59.575"W	1.09	
8478.00	89.720	178.910	7669.84	863.67	-863.27	389.74	40°03'46.290"N	104°57'59.557"W	0.91	
8570.00	88.730	180.700	7671.08	955.66	-955.25	390.06	40°03'45.381"N	104°57'59.553"W	2.22	
8661.00	87.990	180.180	7673.69	1046.62	-1046.21	389.36	40°03'44.482"N	104°57'59.562"W	0.99	

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#26 FRONT RANGE FARMS 15N-14HZ (2454'FSL & 1887'FEL, SEC.11)
Area	COLORADO	Well	FRONT RANGE FARMS 15N-14HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	FRONT RANGE FARMS 15N-14HZ AWB <116-14385>
Facility	SEC.11-T1N-R68W		

WELLPATH DATA (167 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8752.00	88.920	180.220	7676.14	1137.58	-1137.18	389.04	40°03'43.583"N	104°57'59.566"W	1.02	
8844.00	90.150	180.920	7676.89	1229.57	-1229.17	388.12	40°03'42.674"N	104°57'59.578"W	1.54	
8936.00	90.030	181.230	7676.74	1321.55	-1321.15	386.40	40°03'41.765"N	104°57'59.600"W	0.36	
9027.00	89.440	180.760	7677.16	1412.54	-1412.13	384.82	40°03'40.866"N	104°57'59.621"W	0.83	
9112.00	88.800	180.450	7678.47	1497.52	-1497.12	383.92	40°03'40.026"N	104°57'59.632"W	0.84	
9197.00	89.410	180.930	7679.80	1582.50	-1582.10	382.90	40°03'39.186"N	104°57'59.646"W	0.91	
9282.00	88.920	180.690	7681.03	1667.48	-1667.08	381.70	40°03'38.346"N	104°57'59.661"W	0.64	
9368.00	88.300	180.870	7683.12	1753.45	-1753.05	380.53	40°03'37.497"N	104°57'59.676"W	0.75	
9453.00	89.350	180.680	7684.86	1838.42	-1838.02	379.38	40°03'36.657"N	104°57'59.691"W	1.26	
9538.00	90.610	180.730	7684.89	1923.41	-1923.02	378.33	40°03'35.817"N	104°57'59.704"W	1.48	
9623.00	90.060	180.710	7684.40	2008.40	-2008.01	377.26	40°03'34.977"N	104°57'59.718"W	0.65	
9708.00	89.380	180.540	7684.81	2093.39	-2093.00	376.33	40°03'34.137"N	104°57'59.730"W	0.82	
9793.00	88.520	179.980	7686.37	2178.38	-2177.98	375.95	40°03'33.298"N	104°57'59.735"W	1.21	
9878.00	89.720	180.100	7687.67	2263.37	-2262.97	375.89	40°03'32.458"N	104°57'59.736"W	1.42	
9963.00	89.960	180.570	7687.91	2348.36	-2347.97	375.39	40°03'31.618"N	104°57'59.742"W	0.62	
10048.00	90.490	182.520	7687.58	2433.32	-2432.93	373.10	40°03'30.778"N	104°57'59.772"W	2.38	
10133.00	89.630	180.120	7687.49	2518.29	-2517.91	371.14	40°03'29.938"N	104°57'59.797"W	3.00	
10218.00	88.920	180.370	7688.56	2603.28	-2602.90	370.78	40°03'29.099"N	104°57'59.802"W	0.89	
10304.00	90.460	180.100	7689.03	2689.28	-2688.89	370.43	40°03'28.249"N	104°57'59.806"W	1.82	
10389.00	90.210	179.720	7688.53	2774.28	-2773.89	370.56	40°03'27.409"N	104°57'59.804"W	0.54	
10474.00	90.610	180.510	7687.92	2859.27	-2858.89	370.39	40°03'26.569"N	104°57'59.807"W	1.04	
10559.00	88.240	177.990	7688.78	2944.25	-2943.86	371.50	40°03'25.729"N	104°57'59.792"W	4.07	
10644.00	88.110	178.970	7691.48	3029.18	-3028.79	373.76	40°03'24.890"N	104°57'59.763"W	1.16	
10729.00	88.180	178.690	7694.24	3114.12	-3113.73	375.49	40°03'24.050"N	104°57'59.741"W	0.34	
10814.00	88.760	179.510	7696.51	3199.08	-3198.68	376.82	40°03'23.211"N	104°57'59.724"W	1.18	
10899.00	89.410	179.040	7697.86	3284.06	-3283.67	377.90	40°03'22.371"N	104°57'59.710"W	0.94	
10984.00	91.100	178.830	7697.48	3369.04	-3368.65	379.48	40°03'21.531"N	104°57'59.690"W	2.00	
11069.00	91.570	179.180	7695.50	3454.01	-3453.61	380.96	40°03'20.692"N	104°57'59.671"W	0.69	
11154.00	90.580	180.320	7693.91	3538.99	-3538.59	381.33	40°03'19.852"N	104°57'59.666"W	1.78	
11239.00	91.200	180.940	7692.59	3623.97	-3623.58	380.39	40°03'19.012"N	104°57'59.678"W	1.03	
11324.00	91.260	180.980	7690.76	3708.94	-3708.55	378.97	40°03'18.172"N	104°57'59.696"W	0.08	
11409.00	91.440	180.500	7688.76	3793.91	-3793.51	377.87	40°03'17.333"N	104°57'59.711"W	0.60	
11494.00	91.380	181.110	7686.67	3878.87	-3878.48	376.68	40°03'16.493"N	104°57'59.726"W	0.72	
11579.00	90.700	180.320	7685.13	3963.85	-3963.46	375.62	40°03'15.653"N	104°57'59.740"W	1.23	
11664.00	89.690	180.440	7684.84	4048.85	-4048.45	375.05	40°03'14.813"N	104°57'59.747"W	1.20	
11749.00	89.560	180.340	7685.40	4133.84	-4133.45	374.47	40°03'13.973"N	104°57'59.754"W	0.19	
11834.00	90.460	179.960	7685.38	4218.84	-4218.45	374.25	40°03'13.133"N	104°57'59.757"W	1.15	
11919.00	89.500	179.690	7685.41	4303.84	-4303.45	374.51	40°03'12.293"N	104°57'59.754"W	1.17	
12005.00	90.120	179.980	7685.70	4389.84	-4389.45	374.76	40°03'11.444"N	104°57'59.751"W	0.80	
12090.00	91.130	178.550	7684.77	4474.82	-4474.43	375.85	40°03'10.604"N	104°57'59.737"W	2.06	
12175.00	91.260	179.320	7683.00	4559.79	-4559.40	377.43	40°03'09.764"N	104°57'59.716"W	0.92	
12260.00	91.600	179.010	7680.87	4644.76	-4644.36	378.67	40°03'08.924"N	104°57'59.701"W	0.54	
12345.00	90.490	180.460	7679.32	4729.74	-4729.34	379.06	40°03'08.085"N	104°57'59.696"W	2.15	
12430.00	90.430	180.080	7678.64	4814.73	-4814.34	378.66	40°03'07.245"N	104°57'59.701"W	0.45	
12515.00	91.350	181.430	7677.32	4899.71	-4899.32	377.54	40°03'06.405"N	104°57'59.715"W	1.92	

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#26 FRONT RANGE FARMS 15N-14HZ (2454'FSL & 1887'FEL, SEC.11)
Area	COLORADO	Well	FRONT RANGE FARMS 15N-14HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	FRONT RANGE FARMS 15N-14HZ AWB <116-14385>
Facility	SEC.11-T1N-R68W		

WELLPATH DATA (167 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12600.00	91.200	180.420	7675.43	4984.68	-4984.29	376.17	40°03'05.565"N	104°57'59.733"W	1.20	
12685.00	90.890	179.790	7673.88	5069.66	-5069.27	376.01	40°03'04.725"N	104°57'59.735"W	0.83	
12770.00	90.150	179.410	7673.11	5154.66	-5154.26	376.61	40°03'03.885"N	104°57'59.727"W	0.98	
12855.00	89.280	178.640	7673.53	5239.64	-5239.25	378.05	40°03'03.046"N	104°57'59.709"W	1.37	
12940.00	89.750	178.310	7674.25	5324.61	-5324.22	380.31	40°03'02.206"N	104°57'59.680"W	0.68	
13025.00	89.810	178.190	7674.58	5409.57	-5409.18	382.91	40°03'01.366"N	104°57'59.646"W	0.16	
13110.00	89.960	178.560	7674.75	5494.54	-5494.14	385.32	40°03'00.527"N	104°57'59.615"W	0.47	
13195.00	89.230	178.330	7675.35	5579.51	-5579.11	387.63	40°02'59.687"N	104°57'59.586"W	0.90	
13281.00	88.400	177.920	7677.13	5665.45	-5665.04	390.44	40°02'58.838"N	104°57'59.549"W	1.08	
13366.00	88.610	179.510	7679.34	5750.40	-5749.99	392.34	40°02'57.998"N	104°57'59.525"W	1.89	
13451.00	89.410	179.430	7680.81	5835.38	-5834.97	393.13	40°02'57.158"N	104°57'59.515"W	0.95	
13536.00	90.550	179.220	7680.84	5920.37	-5919.96	394.13	40°02'56.319"N	104°57'59.502"W	1.36	
13621.00	91.750	179.730	7679.14	6005.35	-6004.94	394.91	40°02'55.479"N	104°57'59.492"W	1.53	
13705.00	90.980	179.020	7677.14	6089.32	-6088.91	395.83	40°02'54.649"N	104°57'59.480"W	1.25	
13789.00	90.730	178.780	7675.88	6173.30	-6172.89	397.44	40°02'53.819"N	104°57'59.459"W	0.41	
13873.00	90.830	179.900	7674.74	6257.29	-6256.87	398.41	40°02'52.989"N	104°57'59.447"W	1.34	
13960.00	90.550	180.140	7673.69	6344.28	-6343.87	398.38	40°02'52.129"N	104°57'59.447"W	0.42	
14045.00	90.210	179.180	7673.13	6429.28	-6428.86	398.88	40°02'51.290"N	104°57'59.441"W	1.20	
14130.00	91.170	178.640	7672.10	6514.25	-6513.84	400.50	40°02'50.450"N	104°57'59.420"W	1.30	
14215.00	91.170	179.260	7670.37	6599.22	-6598.81	402.06	40°02'49.610"N	104°57'59.400"W	0.73	
14301.00	90.360	180.400	7669.22	6685.21	-6684.80	402.31	40°02'48.760"N	104°57'59.397"W	1.63	
14385.00	89.290	180.540	7669.48	6769.21	-6768.79	401.62	40°02'47.930"N	104°57'59.406"W	1.28	
14470.00	90.210	181.180	7669.85	6854.19	-6853.78	400.35	40°02'47.090"N	104°57'59.422"W	1.32	
14555.00	89.160	180.920	7670.31	6939.18	-6938.76	398.79	40°02'46.251"N	104°57'59.442"W	1.27	
14640.00	90.520	180.770	7670.55	7024.16	-7023.75	397.53	40°02'45.411"N	104°57'59.458"W	1.61	
14725.00	90.800	180.050	7669.57	7109.15	-7108.74	396.93	40°02'44.571"N	104°57'59.466"W	0.91	
14811.00	90.210	180.120	7668.81	7195.15	-7194.74	396.80	40°02'43.721"N	104°57'59.468"W	0.69	
14896.00	89.160	180.320	7669.28	7280.15	-7279.74	396.47	40°02'42.881"N	104°57'59.472"W	1.26	
14981.00	90.490	179.920	7669.54	7365.14	-7364.73	396.29	40°02'42.041"N	104°57'59.474"W	1.63	
15066.00	90.950	179.670	7668.47	7450.14	-7449.73	396.60	40°02'41.201"N	104°57'59.471"W	0.62	
15188.00	89.560	178.720	7667.93	7572.12	-7571.71	398.31	40°02'39.996"N	104°57'59.449"W	1.38	Last BHI MWD+IFR Surveys
15243.00	89.560	178.720	7668.35	7627.11	-7626.69	399.54	40°02'39.452"N	104°57'59.433"W	0.00	Projection to Bit

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#26 FRONT RANGE FARMS 15N-14HZ (2454'FSL & 1887'FEL, SEC.11)
Area	COLORADO	Well	FRONT RANGE FARMS 15N-14HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	FRONT RANGE FARMS 15N-14HZ AWB <116-14385>
Facility	SEC.11-T1N-R68W		

HOLE & CASING SECTIONS -

Ref Wellbore: FRONT RANGE FARMS 15N-14HZ AWB <116-14385> Ref Wellpath: FRONT RANGE FARMS 15N-14HZ 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	1314.00	1298.00	16.00	1313.97	0.00	0.00	-6.05	-5.90
9.625in Casing Surface	16.00	1304.00	1288.00	16.00	1303.97	0.00	0.00	-5.99	-5.80
8.75in Open Hole	1314.00	8051.00	6737.00	1313.97	7673.12	-6.05	-5.90	-436.49	377.90
7in Casing Intermediate	16.00	8041.00	8025.00	16.00	7672.80	0.00	0.00	-426.50	377.40
6.125in Open Hole	8051.00	15243.00	7192.00	7673.12	7668.35	-436.49	377.90	-7626.69	399.50

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.11-T1N-R68W (460' SETBACKS)		5.00	-0.71	-59.87	3148856.29	1267053.48	40°03'54.814"N	104°58'05.340"W	polygon
SEC.14-T1N-R68W (460' SETBACKS)		5.00	-0.71	-59.87	3148856.29	1267053.48	40°03'54.814"N	104°58'05.340"W	polygon
SEC.11-T1N-R68W LINES		21.00	-0.71	-59.87	3148856.29	1267053.48	40°03'54.814"N	104°58'05.340"W	polygon
SEC.14-T1N-R68W LINES		21.00	-0.71	-59.87	3148856.29	1267053.48	40°03'54.814"N	104°58'05.340"W	polygon
FRONT RANGE FARMS 15N-14HZ BHL (50'FSL & 1510'FEL, SEC.14) REV-2		7686.00	-7627.53	385.08	3149346.97	1259429.77	40°02'39.444"N	104°57'59.619"W	point
FRONT RANGE FARMS 15N-14HZ BHL ON PLAT (50'FSL & 1465'FEL, SEC.14) REV-1		7686.00	-7627.53	430.08	3149391.97	1259430.04	40°02'39.444"N	104°57'59.040"W	point
FRONT RANGE FARMS 15N-14HZ INTERNAL HARDLINE		7686.00	0.00	0.00	3148916.15	1267054.55	40°03'54.821"N	104°58'04.570"W	polygon
FRONT RANGE FARMS 15N-14HZ LAND BOX		7686.00	0.00	0.00	3148916.15	1267054.55	40°03'54.821"N	104°58'04.570"W	polygon

WELLPATH COMPOSITION -

Ref Wellbore: FRONT RANGE FARMS 15N-14HZ AWB <116-14385> Ref Wellpath: FRONT RANGE FARMS 15N-14HZ AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
16.00	1253.00	Generic gyro - continuous (Standard)	VES GYRO SURVEYS <116-1253>	FRONT RANGE FARMS 15N-14HZ AWB <116-14385>
1253.00	8004.00	NaviTrak (MAGCORR,IFR)	BHI MWD+IFR SURVEYS 8 3/4" HOLE<1370-8004>	FRONT RANGE FARMS 15N-14HZ AWB <116-14385>
8004.00	15188.00	NaviTrak (MAGCORR,IFR)	BHI MWD+IFR SURVEYS 6 1/8" HOLE <8112-14385>	FRONT RANGE FARMS 15N-14HZ AWB <116-14385>
15188.00	15243.00	Blind Drilling (std)	Projection to bit	FRONT RANGE FARMS 15N-14HZ AWB <116-14385>

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#26 FRONT RANGE FARMS 15N-14HZ (2454'FSL & 1887'FEL, SEC.11
Area	COLORADO	Well	FRONT RANGE FARMS 15N-14HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	FRONT RANGE FARMS 15N-14HZ AWB <116-14385>
Facility	SEC.11-T1N-R68W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
16.00	0.000	281.958	16.00	Tie-On
116.00	0.373	281.958	116.00	Begin GYRO Surveys
1253.00	0.469	225.600	1252.97	Tie-Into GYRO Surveys
1370.00	0.380	189.550	1369.96	Begin BHI MWD+IFR Surveys
8041.00	87.958	177.426	7672.80	7" Casing Point
15188.00	89.560	178.720	7667.93	Last BHI MWD+IFR Surveys
15243.00	89.560	178.720	7668.35	Projection to Bit