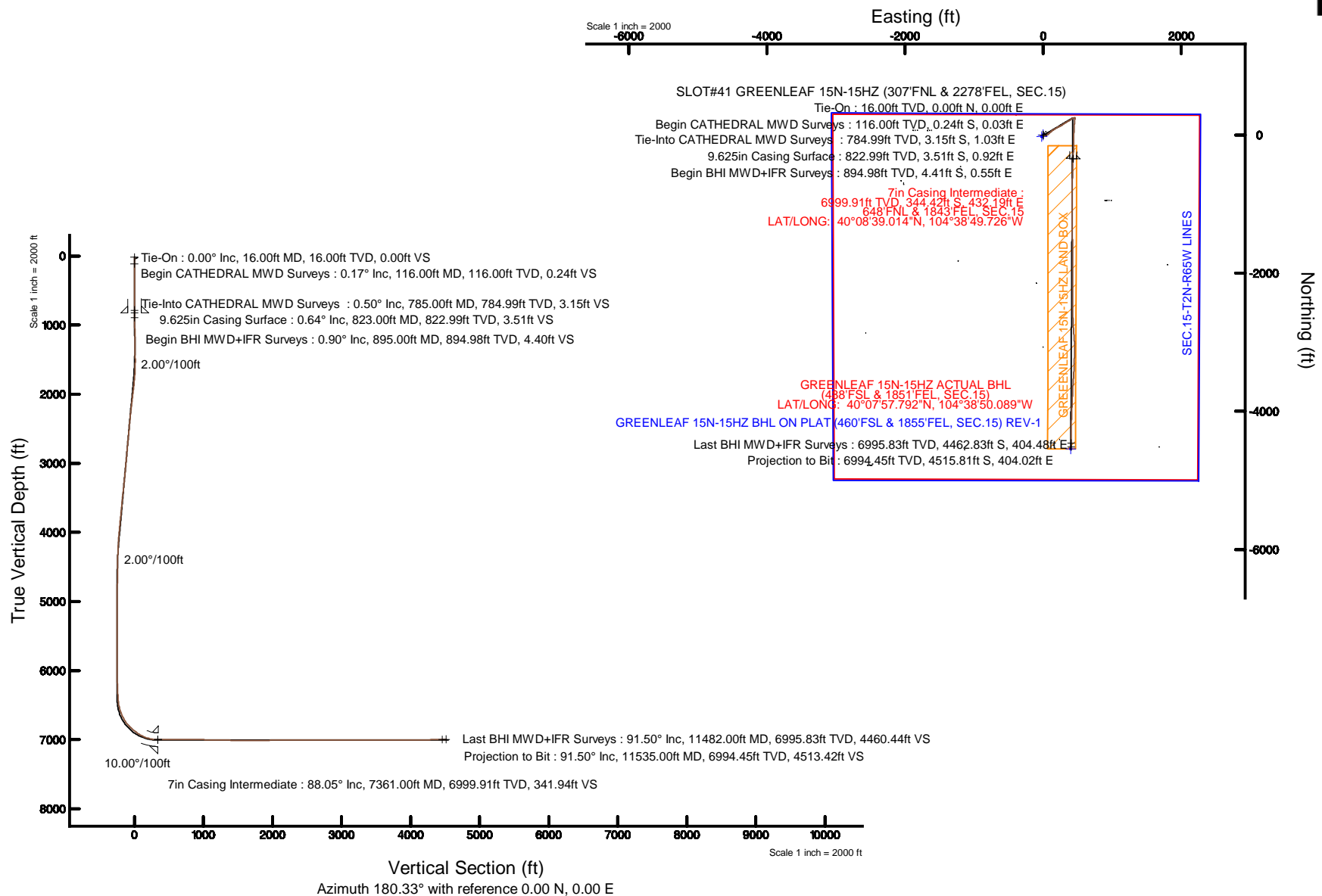


**Anadarko**  
Petroleum Corporation



**BAKER  
HUGHES**



# Actual Wellpath Report

GREENLEAF 15N-15HZ AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#41 GREENLEAF 15N-15HZ (307'FNL & 2278'FEL, SEC.15)
Area	COLORADO	Well	GREENLEAF 15N-15HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	GREENLEAF 15N-15HZ AWB <11535>
Facility	SEC.15-T2N-R65W		

## REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 4.1.1
North Reference	True	User	Precain
Scale	0.999959	Report Generated	3/3/2015 at 3:14:44 PM
Convergence at slot	0.55° East	Database/Source file	WellArchitectDB/GREENLEAF_15N-15HZ_AWB__11535_.xml

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	945.77	-889.57	3237985.86	1296851.65	40°08'42.418"N	104°38'55.291"W
Facility Reference Pt			3238884.46	1295914.54	40°08'33.072"N	104°38'43.836"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	4884.00ft
Horizontal Reference Pt	Slot	XTREME 23 (16'KB) (RKB) to Mean Sea Level	4884.00ft
Vertical Reference Pt	XTREME 23 (16'KB) (RKB)	XTREME 23 (16'KB) (RKB) to Mud Line at Slot (SLOT#41 GREENLEAF 15N-15HZ (307'FNL & 2278'FEL, SEC.15) )	4884.00ft
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	180.33°

# Actual Wellpath Report

GREENLEAF 15N-15HZ AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#41 GREENLEAF 15N-15HZ (307'FNL & 2278'FEL, SEC.15)
Area	COLORADO	Well	GREENLEAF 15N-15HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	GREENLEAF 15N-15HZ AWB <11535>
Facility	SEC.15-T2N-R65W		

## WELLPATH DATA (97 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	184.400	0.00	0.00	0.00	0.00	40°08'42.418"N	104°38'55.291"W	0.00	
16.00	0.000	184.400	16.00	0.00	0.00	0.00	40°08'42.418"N	104°38'55.291"W	0.00	Tie-On
61.00	0.200	184.400	61.00	0.08	-0.08	-0.01	40°08'42.417"N	104°38'55.291"W	0.44	
116.00†	0.167	151.250	116.00	0.24	-0.24	0.03	40°08'42.416"N	104°38'55.291"W	0.20	Begin CATHEDRAL MWD Surveys
171.00	0.200	118.100	171.00	0.36	-0.36	0.15	40°08'42.414"N	104°38'55.289"W	0.20	
249.00	0.200	141.200	249.00	0.53	-0.53	0.35	40°08'42.413"N	104°38'55.286"W	0.10	
329.00	0.100	140.100	329.00	0.69	-0.69	0.49	40°08'42.411"N	104°38'55.285"W	0.13	
409.00	0.200	181.500	409.00	0.88	-0.89	0.53	40°08'42.409"N	104°38'55.284"W	0.18	
489.00	0.200	10.000	489.00	0.88	-0.89	0.55	40°08'42.409"N	104°38'55.284"W	0.50	
569.00	0.600	162.400	569.00	1.15	-1.15	0.70	40°08'42.407"N	104°38'55.282"W	0.98	
649.00	0.600	158.000	648.99	1.93	-1.94	0.98	40°08'42.399"N	104°38'55.278"W	0.06	
729.00	0.500	184.500	728.99	2.67	-2.67	1.11	40°08'42.392"N	104°38'55.277"W	0.34	
785.00	0.500	194.700	784.99	3.15	-3.15	1.03	40°08'42.387"N	104°38'55.278"W	0.16	Tie-Into CATHEDRAL MWD Surveys
895.00	0.900	204.200	894.98	4.40	-4.41	0.55	40°08'42.374"N	104°38'55.284"W	0.38	Begin BHI MWD+IFR Surveys
1176.00	0.900	213.000	1175.94	8.28	-8.27	-1.55	40°08'42.336"N	104°38'55.311"W	0.05	
1270.00	2.200	130.000	1269.92	10.05	-10.05	-0.57	40°08'42.319"N	104°38'55.298"W	2.42	
1364.00	3.200	107.800	1363.81	11.99	-12.01	3.31	40°08'42.299"N	104°38'55.248"W	1.52	
1457.00	5.200	96.500	1456.56	13.22	-13.28	9.97	40°08'42.287"N	104°38'55.163"W	2.32	
1552.00	6.900	86.900	1551.03	13.35	-13.46	19.94	40°08'42.285"N	104°38'55.034"W	2.08	
1644.00	8.200	75.100	1642.24	11.29	-11.47	31.80	40°08'42.305"N	104°38'54.881"W	2.19	
1736.00	9.400	61.900	1733.16	5.99	-6.25	44.77	40°08'42.356"N	104°38'54.714"W	2.54	
1827.00	10.000	54.200	1822.86	-2.21	1.87	57.74	40°08'42.437"N	104°38'54.548"W	1.57	
1918.00	9.800	52.900	1912.51	-11.57	11.17	70.32	40°08'42.528"N	104°38'54.385"W	0.33	
2104.00	10.300	49.200	2095.66	-32.13	31.58	95.54	40°08'42.730"N	104°38'54.061"W	0.44	
2288.00	9.900	47.300	2276.80	-53.74	53.06	119.61	40°08'42.942"N	104°38'53.751"W	0.28	
2474.00	10.500	63.200	2459.90	-72.38	71.55	146.50	40°08'43.125"N	104°38'53.405"W	1.54	
2656.00	8.900	53.400	2639.30	-88.41	87.42	172.61	40°08'43.282"N	104°38'53.068"W	1.26	
2841.00	11.000	62.000	2821.52	-105.38	104.24	199.68	40°08'43.448"N	104°38'52.720"W	1.39	
3025.00	10.800	62.100	3002.20	-121.87	120.55	230.42	40°08'43.609"N	104°38'52.324"W	0.11	
3208.00	11.100	62.300	3181.87	-138.25	136.76	261.17	40°08'43.769"N	104°38'51.928"W	0.17	
3387.00	10.800	54.900	3357.62	-156.07	154.41	290.15	40°08'43.944"N	104°38'51.555"W	0.80	
3471.00	11.500	57.600	3440.03	-165.16	163.43	303.66	40°08'44.033"N	104°38'51.381"W	1.04	
3557.00	9.500	57.600	3524.59	-173.63	171.82	316.89	40°08'44.116"N	104°38'51.210"W	2.33	
3730.00	11.500	60.800	3694.69	-189.85	187.89	344.00	40°08'44.275"N	104°38'50.861"W	1.20	
3902.00	10.100	56.700	3863.64	-206.66	204.53	371.57	40°08'44.439"N	104°38'50.506"W	0.93	
3988.00	8.600	54.700	3948.49	-214.58	212.39	383.12	40°08'44.517"N	104°38'50.358"W	1.78	
4073.00	8.500	55.300	4032.55	-221.89	219.64	393.47	40°08'44.588"N	104°38'50.224"W	0.16	
4160.00	7.000	57.100	4118.75	-228.48	226.18	403.21	40°08'44.653"N	104°38'50.099"W	1.75	
4245.00	5.700	53.500	4203.23	-233.85	231.50	410.95	40°08'44.706"N	104°38'49.999"W	1.60	
4330.00	4.000	60.900	4287.92	-237.84	235.46	416.94	40°08'44.745"N	104°38'49.922"W	2.13	
4415.00	3.700	64.700	4372.73	-240.48	238.07	422.01	40°08'44.771"N	104°38'49.857"W	0.46	
4500.00	3.600	70.700	4457.56	-242.57	240.12	427.01	40°08'44.791"N	104°38'49.792"W	0.46	
4585.00	3.800	68.600	4542.38	-244.50	242.03	432.15	40°08'44.810"N	104°38'49.726"W	0.28	
4671.00	3.200	91.200	4628.22	-245.52	243.02	437.20	40°08'44.820"N	104°38'49.661"W	1.73	
4756.00	0.600	31.400	4713.17	-245.87	243.35	439.81	40°08'44.823"N	104°38'49.628"W	3.46	

# Actual Wellpath Report

GREENLEAF 15N-15HZ AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#41 GREENLEAF 15N-15HZ (307'FNL & 2278'FEL, SEC.15)
Area	COLORADO	Well	GREENLEAF 15N-15HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	GREENLEAF 15N-15HZ AWB <11535>
Facility	SEC.15-T2N-R65W		

## WELLPATH DATA (97 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5186.00	2.100	69.800	5143.05	-250.56	248.00	448.37	40°08'44.869"N	104°38'49.517"W	0.39	
5610.00	0.100	153.600	5566.95	-252.95	250.35	455.83	40°08'44.892"N	104°38'49.421"W	0.49	
6038.00	0.800	135.100	5994.94	-250.52	247.90	458.10	40°08'44.868"N	104°38'49.392"W	0.16	
6425.00	3.300	185.300	6381.68	-237.51	234.89	458.98	40°08'44.739"N	104°38'49.381"W	0.74	
6470.00	4.500	190.200	6426.57	-234.48	231.86	458.55	40°08'44.709"N	104°38'49.386"W	2.77	
6555.00	12.200	186.000	6510.61	-222.24	219.63	457.02	40°08'44.588"N	104°38'49.406"W	9.08	
6642.00	19.400	186.000	6594.27	-198.69	196.09	454.54	40°08'44.356"N	104°38'49.438"W	8.28	
6729.00	26.300	182.900	6674.39	-165.01	162.43	452.06	40°08'44.023"N	104°38'49.470"W	8.05	
6815.00	35.700	183.700	6748.03	-120.83	118.26	449.47	40°08'43.587"N	104°38'49.503"W	10.94	
6902.00	45.800	183.100	6813.85	-64.19	61.64	446.13	40°08'43.027"N	104°38'49.546"W	11.62	
6988.00	51.800	182.200	6870.47	0.43	-2.97	443.17	40°08'42.389"N	104°38'49.584"W	7.02	
7074.00	57.400	180.600	6920.27	70.49	-73.02	441.49	40°08'41.696"N	104°38'49.606"W	6.69	
7161.00	66.600	180.600	6961.07	147.22	-149.75	440.69	40°08'40.938"N	104°38'49.616"W	10.57	
7248.00	77.900	182.800	6987.56	229.91	-232.43	438.18	40°08'40.121"N	104°38'49.649"W	13.21	
7324.00	86.200	183.300	6998.06	305.03	-307.52	434.18	40°08'39.379"N	104°38'49.700"W	10.94	
7361.00†	88.050	182.875	6999.91	341.94	-344.42	432.19	40°08'39.014"N	104°38'49.726"W	5.13	7" Casing Point
7420.00	91.000	182.200	7000.40	400.89	-403.35	429.57	40°08'38.432"N	104°38'49.759"W	5.13	
7505.00	90.900	181.400	6998.99	485.85	-488.30	426.90	40°08'37.593"N	104°38'49.794"W	0.95	
7592.00	90.100	181.400	6998.24	572.83	-575.27	424.78	40°08'36.733"N	104°38'49.821"W	0.92	
7678.00	90.000	181.000	6998.16	658.82	-661.25	422.98	40°08'35.883"N	104°38'49.844"W	0.48	
7763.00	90.300	181.600	6997.94	743.81	-746.23	421.05	40°08'35.044"N	104°38'49.869"W	0.79	
7850.00	89.500	180.900	6998.09	830.79	-833.21	419.15	40°08'34.184"N	104°38'49.894"W	1.22	
7937.00	89.000	180.300	6999.23	917.78	-920.19	418.24	40°08'33.325"N	104°38'49.906"W	0.90	
8022.00	88.600	180.000	7001.01	1002.77	-1005.17	418.02	40°08'32.485"N	104°38'49.908"W	0.59	
8108.00	89.500	179.400	7002.43	1088.75	-1091.16	418.47	40°08'31.635"N	104°38'49.903"W	1.26	
8195.00	88.800	179.200	7003.72	1175.72	-1178.14	419.53	40°08'30.775"N	104°38'49.889"W	0.84	
8280.00	88.600	179.000	7005.65	1260.68	-1263.11	420.87	40°08'29.936"N	104°38'49.872"W	0.33	
8367.00	88.900	179.800	7007.55	1347.65	-1350.09	421.78	40°08'29.076"N	104°38'49.860"W	0.98	
8540.00	89.200	178.800	7010.42	1520.59	-1523.05	423.89	40°08'27.367"N	104°38'49.833"W	0.60	
8712.00	90.600	180.000	7010.72	1692.56	-1695.03	425.69	40°08'25.668"N	104°38'49.810"W	1.07	
8881.00	90.500	179.900	7009.10	1861.55	-1864.02	425.84	40°08'23.998"N	104°38'49.808"W	0.08	
9054.00	90.700	179.700	7007.29	2034.54	-2037.01	426.44	40°08'22.288"N	104°38'49.800"W	0.16	
9228.00	89.800	180.400	7006.53	2208.53	-2211.01	426.29	40°08'20.569"N	104°38'49.802"W	0.66	
9402.00	89.800	180.100	7007.13	2382.53	-2385.00	425.53	40°08'18.849"N	104°38'49.812"W	0.17	
9572.00	89.900	178.800	7007.58	2552.50	-2554.99	427.16	40°08'17.169"N	104°38'49.791"W	0.77	
9745.00	90.000	176.600	7007.73	2725.31	-2727.84	434.11	40°08'15.461"N	104°38'49.702"W	1.27	
9917.00	90.400	175.700	7007.13	2896.85	-2899.45	445.65	40°08'13.765"N	104°38'49.553"W	0.57	
10003.00	90.100	176.400	7006.75	2982.61	-2985.24	451.58	40°08'12.918"N	104°38'49.477"W	0.89	
10177.00	90.500	182.000	7005.84	3156.50	-3159.15	454.01	40°08'11.199"N	104°38'49.446"W	3.23	
10349.00	89.500	181.700	7005.84	3328.44	-3331.06	448.45	40°08'09.500"N	104°38'49.517"W	0.61	
10434.00	90.000	183.200	7006.21	3413.38	-3415.98	444.82	40°08'08.661"N	104°38'49.564"W	1.86	
10523.00	89.900	183.900	7006.29	3502.24	-3504.81	439.31	40°08'07.783"N	104°38'49.635"W	0.79	
10609.00	89.800	184.600	7006.52	3588.04	-3590.57	432.94	40°08'06.936"N	104°38'49.717"W	0.82	
10693.00	90.000	183.400	7006.66	3671.86	-3674.37	427.08	40°08'06.108"N	104°38'49.792"W	1.45	
10778.00	90.000	180.800	7006.66	3756.81	-3759.30	423.96	40°08'05.268"N	104°38'49.832"W	3.06	

# Actual Wellpath Report

GREENLEAF 15N-15HZ AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#41 GREENLEAF 15N-15HZ (307'FNL & 2278'FEL, SEC.15)
Area	COLORADO	Well	GREENLEAF 15N-15HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	GREENLEAF 15N-15HZ AWB <11535>
Facility	SEC.15-T2N-R65W		

## WELLPATH DATA (97 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
10863.00	89.900	182.200	7006.74	3841.79	-3844.27	421.74	40°08'04.429"N	104°38'49.861"W	1.65	
10949.00	90.400	183.300	7006.51	3927.71	-3930.17	417.61	40°08'03.580"N	104°38'49.914"W	1.40	
11036.00	90.600	182.300	7005.75	4014.63	-4017.06	413.36	40°08'02.721"N	104°38'49.969"W	1.17	
11121.00	90.600	181.700	7004.86	4099.59	-4102.00	410.40	40°08'01.882"N	104°38'50.007"W	0.71	
11295.00	91.800	180.800	7001.22	4273.52	-4275.92	406.60	40°08'00.163"N	104°38'50.056"W	0.86	
11482.00	91.500	180.500	6995.83	4460.44	-4462.83	404.48	40°07'58.316"N	104°38'50.083"W	0.23	Last BHI MWD+IFR Surveys
11535.00	91.500	180.500	6994.45	4513.42	-4515.81	404.02	40°07'57.792"N	104°38'50.089"W	0.00	Projection to Bit

## HOLE & CASING SECTIONS - Ref Wellbore: GREENLEAF 15N-15HZ AWB <11535> Ref Wellpath: GREENLEAF 15N-15HZ 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	836.00	820.00	16.00	835.98	0.00	0.00	-3.65	0.87
9.625in Casing Surface	16.00	823.00	807.00	16.00	822.99	0.00	0.00	-3.51	0.92
8.75in Open Hole	836.00	7371.00	6535.00	835.98	7000.21	-3.65	0.87	-354.41	431.69
7in Casing Intermediate	16.00	7361.00	7345.00	16.00	6999.91	0.00	0.00	-344.42	432.19
6.125in Open Hole	7371.00	11535.00	4164.00	7000.21	6994.45	-354.41	431.69	-4515.81	404.02

## TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
GREENLEAF 15N-15HZ LAND BOX	16.00	-0.04	-0.02	3237985.84	1296851.61	40°08'42.418"N	104°38'55.291"W	polygon
SEC.15-T2N-R65W LINES	16.00	-22.99	-19.86	3237966.21	1296828.47	40°08'42.191"N	104°38'55.547"W	polygon
GREENLEAF 15N-15HZ BHL ON PLAT (460'FSL & 1855'FEL, SEC.15) REV-1	7005.00	-4542.40	399.30	3238428.73	1292313.49	40°07'57.530"N	104°38'50.150"W	point

## WELLPATH COMPOSITION - Ref Wellbore: GREENLEAF 15N-15HZ AWB <11535> Ref Wellpath: GREENLEAF 15N-15HZ AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
16.00	785.00	ISCWSA MWD, Rev. 3 (Standard)	CATHEDRAL ENERGY MWD SURVEYS <61-785>	GREENLEAF 15N-15HZ AWB <11535>
785.00	7324.00	NaviTrak (MAGCORR,IFR)	BHI MWD+IFR SURVEYS 8 3/4" HOLE <895-7324>	GREENLEAF 15N-15HZ AWB <11535>
7324.00	11482.00	NaviTrak (MAGCORR,IFR)	BHI MWD+IFR SURVEYS 6 1/8" HOLE <7420-11482>	GREENLEAF 15N-15HZ AWB <11535>
11482.00	11535.00	Blind Drilling (std)	Projection to bit	GREENLEAF 15N-15HZ AWB <11535>

# Actual Wellpath Report

GREENLEAF 15N-15HZ AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#41 GREENLEAF 15N-15HZ (307'FNL & 2278'FEL, SEC.15)
Area	COLORADO	Well	GREENLEAF 15N-15HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	GREENLEAF 15N-15HZ AWB <11535>
Facility	SEC.15-T2N-R65W		

## WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
16.00	0.000	184.400	16.00	Tie-On
116.00	0.167	151.250	116.00	Begin CATHEDRAL MWD Surveys
785.00	0.500	194.700	784.99	Tie-Into CATHEDRAL MWD Surveys
895.00	0.900	204.200	894.98	Begin BHI MWD+IFR Surveys
7361.00	88.050	182.875	6999.91	7" Casing Point
11482.00	91.500	180.500	6995.83	Last BHI MWD+IFR Surveys
11535.00	91.500	180.500	6994.45	Projection to Bit