

# KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#13 COLFER 14C-34HZ (231'FNL & 2443'FWL, SEC.34)  
 Field: WELD COUNTY (KERR MCGEE) Well: COLFER 14C-34HZ  
 Facility: SEC.34-T2N-R65W Wellbore: COLFER 14C-34HZ PWB

Plot reference wellpath is COLFER 14C-34HZ (PERMIT) PWP

True vertical depths are referenced to Rig on SLOT#13 COLFER 14C-34HZ (231'FNL & 2443'FWL, SEC.34) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to Rig on SLOT#13 COLFER 14C-34HZ (231'FNL & 2443'FWL, SEC.34) (RKB)	North Reference: True north
Rig on SLOT#13 COLFER 14C-34HZ (231'FNL & 2443'FWL, SEC.34) to Mean Sea Level: 4961 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#13 COLFER 14C-34HZ (231'FNL & 2443'FWL, SEC.34)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: wjllg02 on 5/24/2012

## Location Information

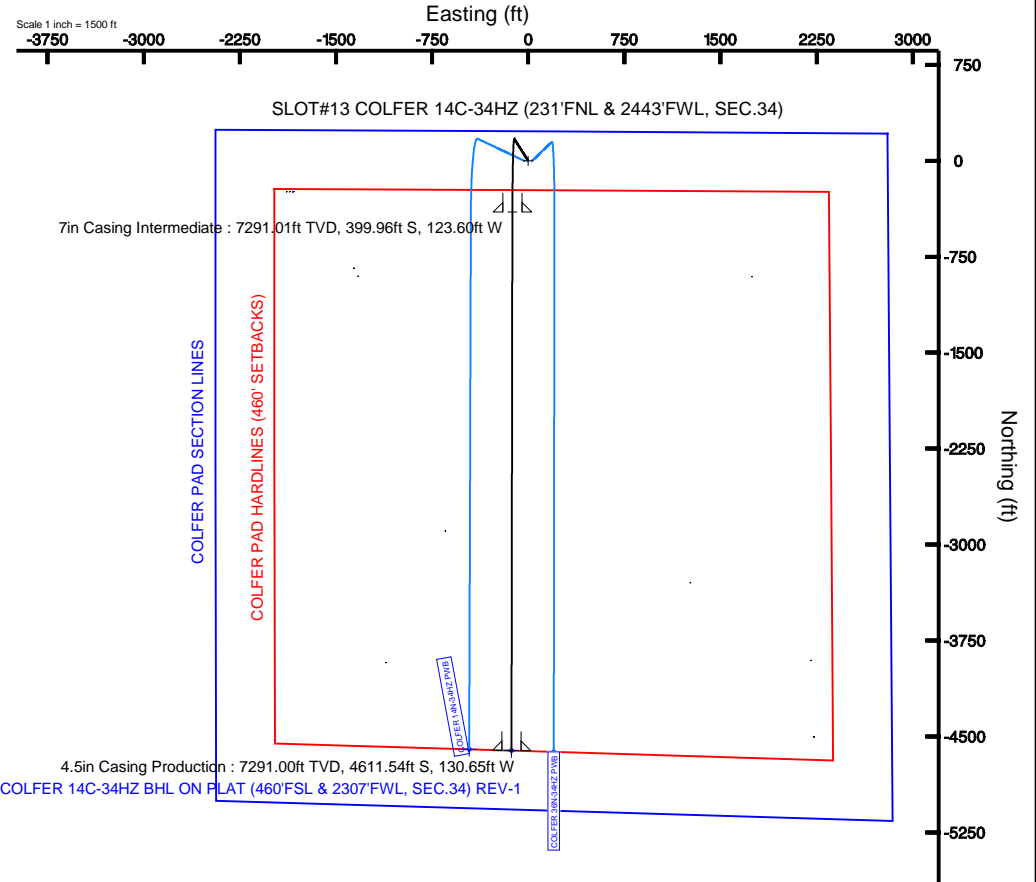
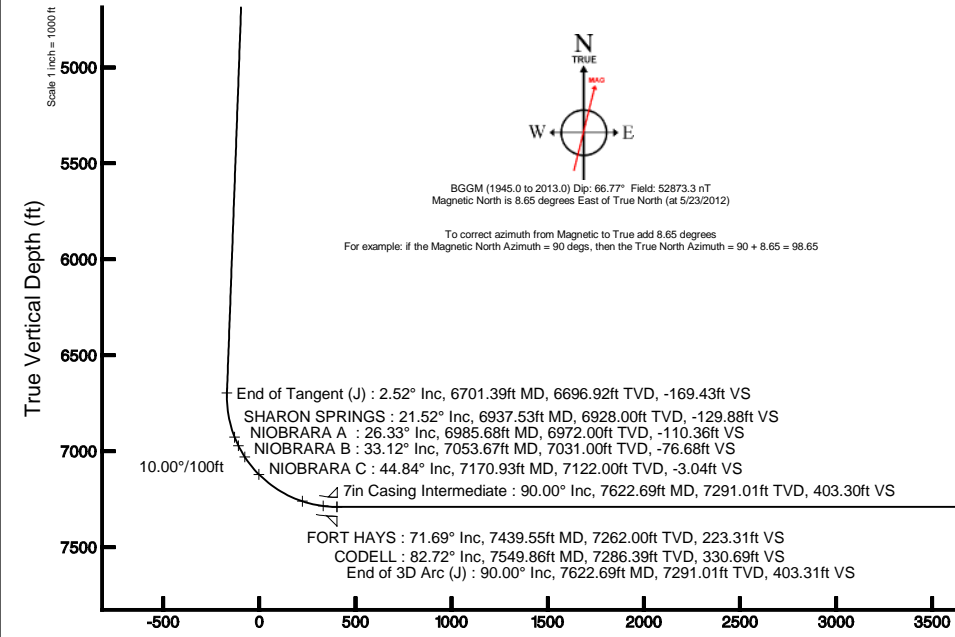
Facility Name	Grid East (US Ft)	Grid North (US Ft)	Latitude	Longitude		
SEC.34-T2N-R65W	3235789.929	1280758.144	40°06'03.588"N	104°39'25.538"W		
Slot	Local N (ft)	Local E (ft)	Grid East (US Ft)	Grid North (US Ft)	Latitude	Longitude
SLOT#13 COLFER 14C-34HZ (231'FNL & 2443'FWL, SEC.34)	239.89	1838.56	3237925.952	1281015.493	40°06'03.588"N	104°39'25.538"W
Rig on SLOT#13 COLFER 14C-34HZ (231'FNL & 2443'FWL, SEC.34) (RKB) to Mud line (At Slot: SLOT#13 COLFER 14C-34HZ (231'FNL & 2443'FWL, SEC.34))						4961ft
Mean Sea Level to Mud line (At Slot: SLOT#13 COLFER 14C-34HZ (231'FNL & 2443'FWL, SEC.34))						0ft
Rig on SLOT#13 COLFER 14C-34HZ (231'FNL & 2443'FWL, SEC.34) (RKB) to Mean Sea Level						4961ft

## Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	17.00	0.000	327.800	17.00	0.00	0.00	0.00	0.00
End of Tangent	2000.00	0.000	327.800	2000.00	0.00	0.00	0.00	0.00
End of Build (J)	2126.00	2.520	327.800	2125.96	2.34	-1.48	2.00	-2.30
End of Tangent (J)	6701.39	2.520	327.800	6696.92	172.57	-108.68	0.00	-169.43
End of 3D Arc (J)	7622.69	90.000	180.096	7291.01	-399.97	-123.60	10.00	403.31
End of Tangent (J)	11834.28	90.000	180.096	7291.00	-4611.54	-130.65	0.00	4613.39

## Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US Ft)	Grid North (US Ft)	Latitude	Longitude
COLFER PAD SECTION LINES		23.00	-239.66	-1838.50	3235789.91	1280758.25	40°06'03.588"N	104°39'25.538"W
COLFER PAD HARDLINES (460' SETBACKS)		7051.00	-239.66	-1838.50	3235789.91	1280758.25	40°06'03.588"N	104°39'25.538"W
COLFER 14C-34HZ BHL ON PLAT (460'FSL & 2307'FWL, SEC.34) REV-1	11834.28	7291.00	-4611.54	-130.65	3237339.49	1278403.10	40°05'20.388"N	104°39'03.560"W



4.5in Casing Production : 90.00° Inc, 11834.28ft MD, 7291.00ft TVD, 4613.39ft VS

End of Tangent (J) : 90.00° Inc, 11834.28ft MD, 7291.00ft TVD, 4613.39ft VS

COLFER 14C-34HZ BHL ON PLAT (460'FSL & 2307'FWL, SEC.34) REV-1

Azimuth 181.62° with reference 0.00 N, 0.00 E

Scale 1 inch = 1000 ft



**Planned Wellpath Report**  
COLFER 14C-34HZ (PERMIT) PWP  
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**REFERENCE WELLPATH IDENTIFICATION**

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#13 COLFER 14C-34HZ (231'FNL & 2443'FWL, SEC.34)
Area	COLORADO	Well	COLFER 14C-34HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	COLFER 14C-34HZ PWB
Facility	SEC.34-T2N-R65W		

**REPORT SETUP INFORMATION**

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 3.0.2
North Reference	True	User	Wilsje02
Scale	0.99996	Report Generated	5/24/2012 at 08:23:10
Convergence at slot	0.55° East	Database/Source file	WellArchitectDB/COLFER_14C-34HZ_PWB.xml

**WELLPATH LOCATION**

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	239.89	1838.56	3237625.95	1281015.49	40°06'05.958"N	104°39'01.879"W
Facility Reference Pt			3235789.83	1280758.14	40°06'03.588"N	104°39'25.539"W
Field Reference Pt			3197771.84	1268891.29	40°04'09.600"N	104°47'36.000"W

**WELLPATH DATUM**

Calculation method	Minimum curvature	Rig on SLOT#13 COLFER 14C-34HZ (231'FNL & 2443'FWL, SEC.34) (RKB) to Facility Vertical Datum
Horizontal Reference Pt	Slot	Rig on SLOT#13 COLFER 14C-34HZ (231'FNL & 2443'FWL, SEC.34) (RKB) to Mean Sea Level
Vertical Reference Pt	Rig on SLOT#13 COLFER 14C-34HZ (231'FNL & 2443'FWL, SEC.34) (RKB)	Rig on SLOT#13 COLFER 14C-34HZ (231'FNL & 2443'FWL, SEC.34) (RKB) to Mud Line at Slot (SLOT#13 COLFER 14C-34HZ) (RKB)
MD Reference Pt	Rig on SLOT#13 COLFER 14C-34HZ (231'FNL & 2443'FWL, SEC.34) (RKB)	Section Origin
Field Vertical Reference	Mean Sea Level	Section Azimuth



# Planned Wellpath Report

## COLFER 14C-34HZ (PERMIT) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#13 COLFER 14C-34HZ (231'FNL & 2443'FWL, SEC.34)
Area	COLORADO	Well	COLFER 14C-34HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	COLFER 14C-34HZ PWB
Facility	SEC.34-T2N-R65W		

WELLPATH DATA (134 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	327.800	0.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.879"W	0.00	
17.00	0.000	327.800	17.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.879"W	0.00	Tie On
117.00†	0.000	327.800	117.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.879"W	0.00	
217.00†	0.000	327.800	217.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.879"W	0.00	
317.00†	0.000	327.800	317.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.879"W	0.00	
417.00†	0.000	327.800	417.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.879"W	0.00	
517.00†	0.000	327.800	517.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.879"W	0.00	
617.00†	0.000	327.800	617.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.879"W	0.00	
717.00†	0.000	327.800	717.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.879"W	0.00	
817.00†	0.000	327.800	817.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.879"W	0.00	
917.00†	0.000	327.800	917.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.879"W	0.00	
1017.00†	0.000	327.800	1017.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.879"W	0.00	
1100.00†	0.000	327.800	1100.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.879"W	0.00	FOX HILLS
1117.00†	0.000	327.800	1117.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.879"W	0.00	
1217.00†	0.000	327.800	1217.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.879"W	0.00	
1317.00†	0.000	327.800	1317.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.879"W	0.00	
1417.00†	0.000	327.800	1417.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.879"W	0.00	
1517.00†	0.000	327.800	1517.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.879"W	0.00	
1617.00†	0.000	327.800	1617.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.879"W	0.00	
1717.00†	0.000	327.800	1717.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.879"W	0.00	
1817.00†	0.000	327.800	1817.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.879"W	0.00	
1917.00†	0.000	327.800	1917.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.879"W	0.00	
2000.00	0.000	327.800	2000.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.879"W	0.00	End of Tangent
2017.00†	0.340	327.800	2017.00	-0.04	0.04	-0.03	40°06'05.958"N	104°39'01.879"W	2.00	
2117.00†	2.340	327.800	2116.97	-1.98	2.02	-1.27	40°06'05.978"N	104°39'01.895"W	2.00	
2126.00	2.520	327.800	2125.96	-2.30	2.34	-1.48	40°06'05.981"N	104°39'01.898"W	2.00	End of Build (J)
2217.00†	2.520	327.800	2216.87	-5.63	5.73	-3.61	40°06'06.015"N	104°39'01.925"W	0.00	
2317.00†	2.520	327.800	2316.77	-9.28	9.45	-5.95	40°06'06.051"N	104°39'01.956"W	0.00	
2417.00†	2.520	327.800	2416.68	-12.93	13.17	-8.29	40°06'06.088"N	104°39'01.986"W	0.00	
2517.00†	2.520	327.800	2516.58	-16.58	16.89	-10.64	40°06'06.125"N	104°39'02.016"W	0.00	
2617.00†	2.520	327.800	2616.48	-20.24	20.61	-12.98	40°06'06.162"N	104°39'02.046"W	0.00	
2717.00†	2.520	327.800	2716.39	-23.89	24.33	-15.32	40°06'06.198"N	104°39'02.076"W	0.00	
2817.00†	2.520	327.800	2816.29	-27.54	28.05	-17.67	40°06'06.235"N	104°39'02.106"W	0.00	
2917.00†	2.520	327.800	2916.19	-31.19	31.77	-20.01	40°06'06.272"N	104°39'02.136"W	0.00	
2921.81†	2.520	327.800	2921.00	-31.37	31.95	-20.12	40°06'06.274"N	104°39'02.138"W	0.00	PARKMAN
3017.00†	2.520	327.800	3016.10	-34.85	35.49	-22.35	40°06'06.309"N	104°39'02.167"W	0.00	
3117.00†	2.520	327.800	3116.00	-38.50	39.21	-24.70	40°06'06.346"N	104°39'02.197"W	0.00	
3217.00†	2.520	327.800	3215.90	-42.15	42.94	-27.04	40°06'06.382"N	104°39'02.227"W	0.00	
3317.00†	2.520	327.800	3315.81	-45.81	46.66	-29.38	40°06'06.419"N	104°39'02.257"W	0.00	
3417.00†	2.520	327.800	3415.71	-49.46	50.38	-31.72	40°06'06.456"N	104°39'02.287"W	0.00	
3517.00†	2.520	327.800	3515.61	-53.11	54.10	-34.07	40°06'06.493"N	104°39'02.317"W	0.00	
3617.00†	2.520	327.800	3615.52	-56.76	57.82	-36.41	40°06'06.529"N	104°39'02.348"W	0.00	
3717.00†	2.520	327.800	3715.42	-60.42	61.54	-38.75	40°06'06.566"N	104°39'02.378"W	0.00	
3817.00†	2.520	327.800	3815.32	-64.07	65.26	-41.10	40°06'06.603"N	104°39'02.408"W	0.00	
3917.00†	2.520	327.800	3915.23	-67.72	68.98	-43.44	40°06'06.640"N	104°39'02.438"W	0.00	



# Planned Wellpath Report

COLFER 14C-34HZ (PERMIT) PWP  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#13 COLFER 14C-34HZ (231'FNL & 2443'FWL, SEC.34)
Area	COLORADO	Well	COLFER 14C-34HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	COLFER 14C-34HZ PWB
Facility	SEC.34-T2N-R65W		

WELLPATH DATA (134 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4017.00†	2.520	327.800	4015.13	-71.37	72.70	-45.78	40°06'06.676"N	104°39'02.468"W	0.00	
4117.00†	2.520	327.800	4115.03	-75.03	76.42	-48.12	40°06'06.713"N	104°39'02.498"W	0.00	
4217.00†	2.520	327.800	4214.94	-78.68	80.14	-50.47	40°06'06.750"N	104°39'02.528"W	0.00	
4317.00†	2.520	327.800	4314.84	-82.33	83.86	-52.81	40°06'06.787"N	104°39'02.559"W	0.00	
4417.00†	2.520	327.800	4414.74	-85.99	87.58	-55.15	40°06'06.823"N	104°39'02.589"W	0.00	
4419.26†	2.520	327.800	4417.00	-86.07	87.67	-55.21	40°06'06.824"N	104°39'02.589"W	0.00	SUSSEX
4517.00†	2.520	327.800	4514.65	-89.64	91.30	-57.50	40°06'06.860"N	104°39'02.619"W	0.00	
4617.00†	2.520	327.800	4614.55	-93.29	95.02	-59.84	40°06'06.897"N	104°39'02.649"W	0.00	
4717.00†	2.520	327.800	4714.45	-96.94	98.74	-62.18	40°06'06.934"N	104°39'02.679"W	0.00	
4817.00†	2.520	327.800	4814.36	-100.60	102.46	-64.53	40°06'06.971"N	104°39'02.709"W	0.00	
4917.00†	2.520	327.800	4914.26	-104.25	106.18	-66.87	40°06'07.007"N	104°39'02.740"W	0.00	
5017.00†	2.520	327.800	5014.17	-107.90	109.91	-69.21	40°06'07.044"N	104°39'02.770"W	0.00	
5117.00†	2.520	327.800	5114.07	-111.55	113.63	-71.55	40°06'07.081"N	104°39'02.800"W	0.00	
5217.00†	2.520	327.800	5213.97	-115.21	117.35	-73.90	40°06'07.118"N	104°39'02.830"W	0.00	
5317.00†	2.520	327.800	5313.87	-118.86	121.07	-76.24	40°06'07.154"N	104°39'02.860"W	0.00	
5417.00†	2.520	327.800	5413.78	-122.51	124.79	-78.58	40°06'07.191"N	104°39'02.890"W	0.00	
5517.00†	2.520	327.800	5513.68	-126.16	128.51	-80.93	40°06'07.228"N	104°39'02.920"W	0.00	
5617.00†	2.520	327.800	5613.58	-129.82	132.23	-83.27	40°06'07.265"N	104°39'02.951"W	0.00	
5717.00†	2.520	327.800	5713.49	-133.47	135.95	-85.61	40°06'07.301"N	104°39'02.981"W	0.00	
5817.00†	2.520	327.800	5813.39	-137.12	139.67	-87.95	40°06'07.338"N	104°39'02.981"W	0.00	
5917.00†	2.520	327.800	5913.29	-140.78	143.39	-90.30	40°06'07.375"N	104°39'03.041"W	0.00	
6017.00†	2.520	327.800	6013.20	-144.43	147.11	-92.64	40°06'07.412"N	104°39'03.071"W	0.00	
6117.00†	2.520	327.800	6113.10	-148.08	150.83	-94.98	40°06'07.449"N	104°39'03.101"W	0.00	
6217.00†	2.520	327.800	6213.00	-151.73	154.55	-97.33	40°06'07.485"N	104°39'03.131"W	0.00	
6317.00†	2.520	327.800	6312.91	-155.39	158.27	-99.67	40°06'07.522"N	104°39'03.162"W	0.00	
6417.00†	2.520	327.800	6412.81	-159.04	161.99	-102.01	40°06'07.559"N	104°39'03.192"W	0.00	
6517.00†	2.520	327.800	6512.71	-162.69	165.71	-104.36	40°06'07.596"N	104°39'03.222"W	0.00	
6617.00†	2.520	327.800	6612.62	-166.34	169.43	-106.70	40°06'07.632"N	104°39'03.252"W	0.00	
6701.39	2.520	327.800	6696.92	-169.43	172.57	-108.68	40°06'07.663"N	104°39'03.278"W	0.00	End of Tangent (J)
6717.00†	1.462	292.997	6712.53	-169.78	172.94	-109.04	40°06'07.667"N	104°39'03.282"W	10.00	
6817.00†	9.526	188.151	6812.07	-162.01	165.23	-111.40	40°06'07.591"N	104°39'03.313"W	10.00	
6917.00†	19.476	183.908	6908.77	-137.07	140.34	-113.71	40°06'07.345"N	104°39'03.342"W	10.00	
6937.53†	21.525	183.514	6928.00	-129.88	133.17	-114.18	40°06'07.274"N	104°39'03.348"W	10.00	SHARON SPRINGS
6985.68†	26.332	182.819	6972.00	-110.36	113.67	-115.24	40°06'07.081"N	104°39'03.362"W	10.00	NIOBRARA A
7017.00†	29.459	182.482	6999.67	-95.72	99.04	-115.92	40°06'06.937"N	104°39'03.371"W	10.00	
7053.67†	33.122	182.161	7031.00	-76.68	80.02	-116.69	40°06'06.749"N	104°39'03.381"W	10.00	NIOBRARA B
7117.00†	39.450	181.733	7082.03	-39.22	42.57	-117.95	40°06'06.379"N	104°39'03.397"W	10.00	
7170.93†	44.840	181.451	7122.00	-3.04	6.41	-118.95	40°06'06.021"N	104°39'03.410"W	10.00	NIOBRARA C
7217.00†	49.445	181.249	7153.33	30.72	-27.34	-119.74	40°06'05.688"N	104°39'03.420"W	10.00	
7317.00†	59.440	180.891	7211.40	111.97	-108.58	-121.24	40°06'04.885"N	104°39'03.439"W	10.00	
7417.00†	69.437	180.601	7254.50	202.05	-198.67	-122.41	40°06'03.995"N	104°39'03.454"W	10.00	
7439.55†	71.691	180.542	7262.00	223.31	-219.93	-122.62	40°06'03.785"N	104°39'03.457"W	10.00	FORT HAYS
7517.00†	79.434	180.347	7281.30	298.24	-294.87	-123.20	40°06'03.044"N	104°39'03.464"W	10.00	
7549.86†	82.719	180.268	7286.39	330.69	-327.33	-123.37	40°06'02.723"N	104°39'03.467"W	10.00	CODELL
7617.00†	89.431	180.109	7290.98	397.62	-394.27	-123.59	40°06'02.062"N	104°39'03.469"W	10.00	



# Planned Wellpath Report

COLFER 14C-34HZ (PERMIT) PWP  
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**REFERENCE WELLPATH IDENTIFICATION**

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#13 COLFER 14C-34HZ (231'FNL & 2443'FWL, SEC.34)
Area	COLORADO	Well	COLFER 14C-34HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	COLFER 14C-34HZ PWB
Facility	SEC.34-T2N-R65W		

**WELLPATH DATA (134 stations)** † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TYD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7622.69	90.000	180.096	7291.01	403.31	-399.97	-123.60	40°06'02.005"N	104°39'03.470"W	10.00	End of 3D Arc (J)
7717.00†	90.000	180.096	7291.01	497.58	-494.27	-123.76	40°06'01.074"N	104°39'03.472"W	0.00	
7817.00†	90.000	180.096	7291.01	597.55	-594.27	-123.93	40°06'00.085"N	104°39'03.474"W	0.00	
7917.00†	90.000	180.096	7291.01	697.51	-694.27	-124.10	40°05'59.097"N	104°39'03.476"W	0.00	
8017.00†	90.000	180.096	7291.01	797.47	-794.27	-124.26	40°05'58.109"N	104°39'03.478"W	0.00	
8117.00†	90.000	180.096	7291.01	897.44	-894.27	-124.43	40°05'57.121"N	104°39'03.480"W	0.00	
8217.00†	90.000	180.096	7291.01	997.40	-994.27	-124.60	40°05'56.132"N	104°39'03.482"W	0.00	
8317.00†	90.000	180.096	7291.01	1097.37	-1094.27	-124.77	40°05'55.144"N	104°39'03.485"W	0.00	
8417.00†	90.000	180.096	7291.01	1197.33	-1194.27	-124.93	40°05'54.156"N	104°39'03.487"W	0.00	
8517.00†	90.000	180.096	7291.01	1297.30	-1294.27	-125.10	40°05'53.168"N	104°39'03.489"W	0.00	
8617.00†	90.000	180.096	7291.01	1397.26	-1394.27	-125.27	40°05'52.180"N	104°39'03.491"W	0.00	
8717.00†	90.000	180.096	7291.01	1497.23	-1494.27	-125.43	40°05'51.191"N	104°39'03.493"W	0.00	
8817.00†	90.000	180.096	7291.01	1597.19	-1594.27	-125.60	40°05'50.203"N	104°39'03.495"W	0.00	
8917.00†	90.000	180.096	7291.01	1697.15	-1694.27	-125.77	40°05'49.215"N	104°39'03.497"W	0.00	
9017.00†	90.000	180.096	7291.01	1797.12	-1794.27	-125.94	40°05'48.227"N	104°39'03.500"W	0.00	
9117.00†	90.000	180.096	7291.01	1897.08	-1894.27	-126.10	40°05'47.239"N	104°39'03.502"W	0.00	
9217.00†	90.000	180.096	7291.01	1997.05	-1994.27	-126.27	40°05'46.250"N	104°39'03.504"W	0.00	
9317.00†	90.000	180.096	7291.01	2097.01	-2094.27	-126.44	40°05'45.262"N	104°39'03.506"W	0.00	
9417.00†	90.000	180.096	7291.01	2196.98	-2194.27	-126.61	40°05'44.274"N	104°39'03.508"W	0.00	
9517.00†	90.000	180.096	7291.01	2296.94	-2294.27	-126.77	40°05'43.286"N	104°39'03.510"W	0.00	
9617.00†	90.000	180.096	7291.01	2396.91	-2394.27	-126.94	40°05'42.297"N	104°39'03.512"W	0.00	
9717.00†	90.000	180.096	7291.01	2496.87	-2494.27	-127.11	40°05'41.309"N	104°39'03.515"W	0.00	
9817.00†	90.000	180.096	7291.01	2596.83	-2594.27	-127.28	40°05'40.321"N	104°39'03.517"W	0.00	
9917.00†	90.000	180.096	7291.01	2696.80	-2694.27	-127.44	40°05'39.333"N	104°39'03.519"W	0.00	
10017.00†	90.000	180.096	7291.01	2796.76	-2794.27	-127.61	40°05'38.345"N	104°39'03.521"W	0.00	
10117.00†	90.000	180.096	7291.01	2896.73	-2894.27	-127.78	40°05'37.356"N	104°39'03.523"W	0.00	
10217.00†	90.000	180.096	7291.00	2996.69	-2994.27	-127.94	40°05'36.368"N	104°39'03.525"W	0.00	
10317.00†	90.000	180.096	7291.00	3096.66	-3094.27	-128.11	40°05'35.380"N	104°39'03.527"W	0.00	
10417.00†	90.000	180.096	7291.00	3196.62	-3194.27	-128.28	40°05'34.392"N	104°39'03.530"W	0.00	
10517.00†	90.000	180.096	7291.00	3296.59	-3294.27	-128.45	40°05'33.404"N	104°39'03.532"W	0.00	
10617.00†	90.000	180.096	7291.00	3396.55	-3394.27	-128.61	40°05'32.415"N	104°39'03.534"W	0.00	
10717.00†	90.000	180.096	7291.00	3496.52	-3494.27	-128.78	40°05'31.427"N	104°39'03.536"W	0.00	
10817.00†	90.000	180.096	7291.00	3596.48	-3594.27	-128.95	40°05'30.439"N	104°39'03.538"W	0.00	
10917.00†	90.000	180.096	7291.00	3696.44	-3694.27	-129.12	40°05'29.451"N	104°39'03.540"W	0.00	
11017.00†	90.000	180.096	7291.00	3796.41	-3794.27	-129.28	40°05'28.462"N	104°39'03.542"W	0.00	
11117.00†	90.000	180.096	7291.00	3896.37	-3894.27	-129.45	40°05'27.474"N	104°39'03.545"W	0.00	
11217.00†	90.000	180.096	7291.00	3996.34	-3994.27	-129.62	40°05'26.486"N	104°39'03.547"W	0.00	
11317.00†	90.000	180.096	7291.00	4096.30	-4094.27	-129.79	40°05'25.498"N	104°39'03.549"W	0.00	
11417.00†	90.000	180.096	7291.00	4196.27	-4194.27	-129.95	40°05'24.510"N	104°39'03.551"W	0.00	
11517.00†	90.000	180.096	7291.00	4296.23	-4294.27	-130.12	40°05'23.521"N	104°39'03.553"W	0.00	
11617.00†	90.000	180.096	7291.00	4396.20	-4394.27	-130.29	40°05'22.533"N	104°39'03.555"W	0.00	
11717.00†	90.000	180.096	7291.00	4496.16	-4494.27	-130.45	40°05'21.545"N	104°39'03.557"W	0.00	
11817.00†	90.000	180.096	7291.00	4596.12	-4594.27	-130.62	40°05'20.557"N	104°39'03.560"W	0.00	
11834.28	90.000	180.096	7291.00†	4613.39	-4611.54	-130.65	40°05'20.386"N	104°39'03.560"W	0.00	End of Tangent (J)



**Planned Wellpath Report**  
COLFER 14C-34HZ (PERMIT) PWP  
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**REFERENCE WELLPATH IDENTIFICATION**

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#13 COLFER 14C-34HZ (231'FNL & 2443'FWL, SEC.34)
Area	COLORADO	Well	COLFER 14C-34HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	COLFER 14C-34HZ PWB
Facility	SEC.34-T2N-R65W		

**HOLE & CASING SECTIONS - Ref Wellbore: COLFER 14C-34HZ PWB Ref Wellpath: COLFER 14C-34HZ (PERMIT) PWP**

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]
12.25in Open Hole	17.00	1300.00	1283.00	17.00	1300.00	0.00	0.00	0.00	0.00
9.625in Casing Surface	17.00	1300.00	1283.00	17.00	1300.00	0.00	0.00	0.00	0.00
8.75in Open Hole	1300.00	7622.69	6322.69	1300.00	7291.01	0.00	0.00	-399.96	-123.60
7in Casing Intermediate	17.00	7622.69	7605.69	17.00	7291.01	0.00	0.00	-399.96	-123.60
6.125in Open Hole	7622.69	11834.28	4211.59	7291.01	7291.00	-399.96	-123.60	-4611.54	-130.65
4.5in Casing Production	17.00	11834.28	11817.28	17.00	7291.00	0.00	0.00	-4611.54	-130.65

**TARGETS**

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
COLFER PAD SECTION LINES		23.00	-239.66	-1838.50	3235789.91	1280758.25	40°06'03.589"N	104°39'25.538"W	polygon
COLFER PAD HARDLINES (460' SETBACKS)		7051.00	-239.66	-1838.50	3235789.91	1280758.25	40°06'03.589"N	104°39'25.538"W	polygon
1) COLFER 14C-34HZ BHL ON PLAT (460'FSL & 2307'FWL, SEC.34) REV-1	11834.28	7291.00	-4611.54	-130.65	3237539.49	1276403.10	40°05'20.386"N	104°39'03.560"W	point

**SURVEY PROGRAM - Ref Wellbore: COLFER 14C-34HZ PWB Ref Wellpath: COLFER 14C-34HZ (PERMIT) PWP**

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	11834.28	NaviTrak (Standard)		COLFER 14C-34HZ PWB



**Planned Wellpath Report**  
 COLFER 14C-34HZ (PERMIT) PWP  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#13 COLFER 14C-34HZ (231'FNL & 2443'FWL, SEC.34)
Area	COLORADO	Well	COLFER 14C-34HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	COLFER 14C-34HZ PWB
Facility	SEC.34-T2N-R65W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1100.00	0.000	327.800	1100.00	FOX HILLS
2921.81	2.520	327.800	2921.00	PARKMAN
4419.26	2.520	327.800	4417.00	SUSSEX
6937.53	21.525	183.514	6928.00	SHARON SPRINGS
6985.68	26.332	182.819	6972.00	NIOBRARA A
7053.67	33.122	182.161	7031.00	NIOBRARA B
7170.93	44.840	181.451	7122.00	NIOBRARA C
7439.55	71.691	180.542	7262.00	FORT HAYS
7549.86	82.719	180.268	7286.39	CODELL