

KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#14 COLFER 36N-34HZ (231°FNL & 2473°FWL, SEC.34)
Field: WELD COUNTY (KERR MCGEE) Well: COLFER 36N-34HZ
Facility: SEC.34-T2N-R65W Wellbore: COLFER 36N-34HZ PWB

Plot reference wellpath is COLFER 36N-34HZ (PERMIT) PWP

True vertical depths are referenced to Rig on SLOT#14 COLFER 36N-34HZ (231°FNL & 2473°FWL, SEC.34) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to Rig on SLOT#14 COLFER 36N-34HZ (231°FNL & 2473°FWL, SEC.34) (RKB)	North Reference: True north
Rig on SLOT#14 COLFER 36N-34HZ (231°FNL & 2473°FWL, SEC.34) (RKB) to Mean Sea Level: 4981 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#14 COLFER 36N-34HZ (231°FNL & 2473°FWL, SEC.34)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: wiljeff02 on 5/24/2012

Location Information

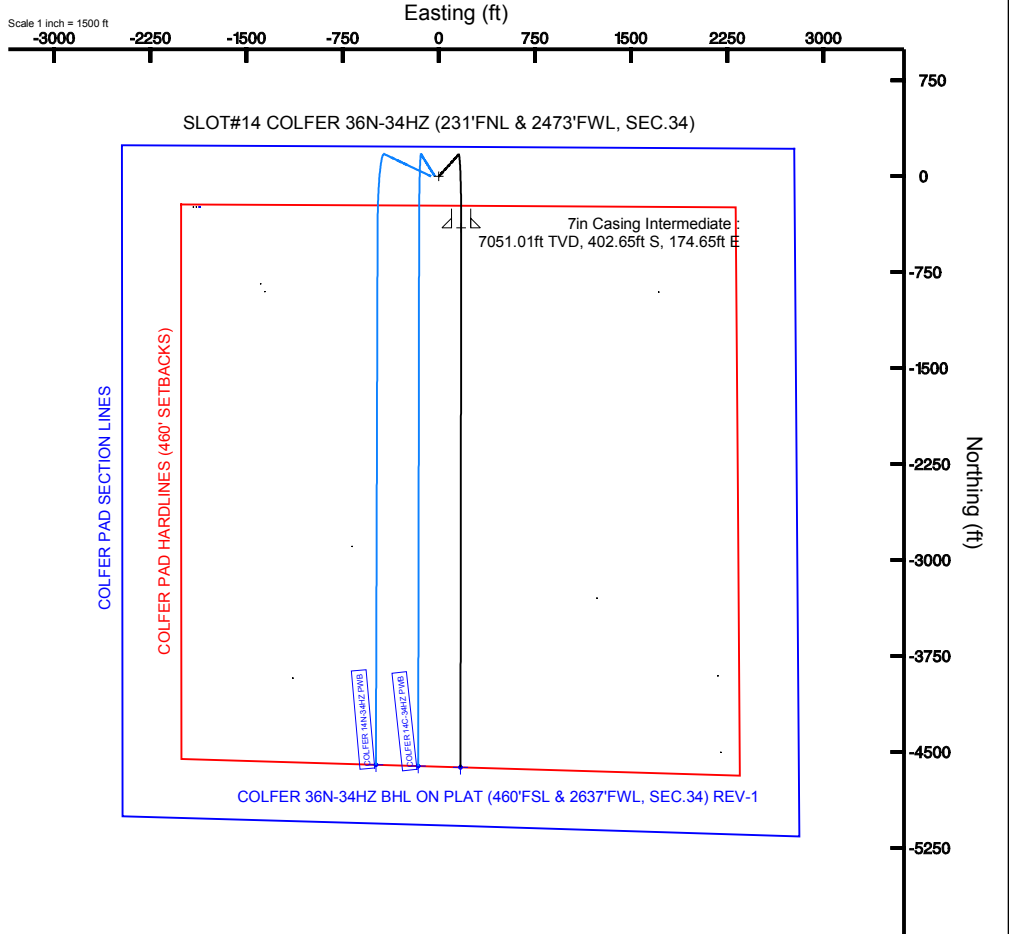
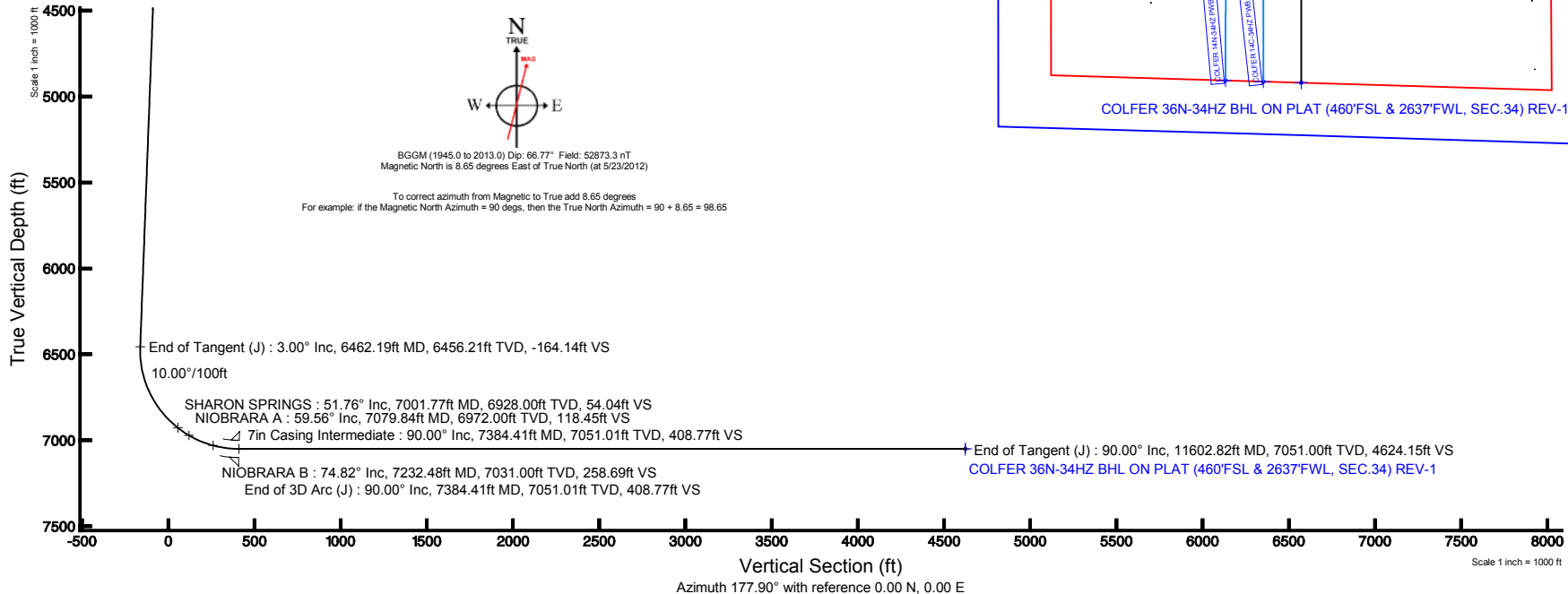
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.34-T2N-R65W	3235789.829	1280758.144	40°08'03.588"N	104°39'25.538"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)
SLOT#14 COLFER 36N-34HZ (231°FNL & 2473°FWL, SEC.34)	239.90	1868.79	3237698.178	1281015.783
Rig on SLOT#14 COLFER 36N-34HZ (231°FNL & 2473°FWL, SEC.34) (RKB) to Mud line (At Slot: SLOT#14 COLFER 36N-34HZ (231°FNL & 2473°FWL, SEC.34))	4981 ft			
Mean Sea Level to Mud line (At Slot: SLOT#14 COLFER 36N-34HZ (231°FNL & 2473°FWL, SEC.34))	0 ft			
Rig on SLOT#14 COLFER 36N-34HZ (231°FNL & 2473°FWL, SEC.34) (RKB) to Mean Sea Level	4981 ft			

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	42.270	17.00	0.00	0.00	0.00	0.00
End of Tangent	2000.00	0.000	42.270	2000.00	0.00	0.00	0.00	0.00
End of Build (J)	2150.00	3.000	42.270	2149.93	2.91	2.64	2.00	-2.81
End of Tangent (J)	6462.19	3.000	42.270	6456.21	169.91	154.44	0.00	-164.14
End of 3D Arc (J)	7384.41	90.000	180.073	7051.01	-402.65	174.65	10.00	408.77
End of Tangent (J)	11602.82	90.000	180.073	7051.00	-4621.06	169.25	0.00	4624.15

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	-239.65	-1868.73	3235789.91	1280758.25	40°08'03.588"N	104°39'25.538"W
COLFER 36N-34HZ BHL ON PLAT (460°FSL & 2637°FWL, SEC.34) REV-1	11602.82	7051.00	-4621.06	169.25	3237698.68	1276386.75	40°05'20.292"N	104°38'59.312"W
COLFER PAD HARDLINES (460° SETBACKS)		7051.00	-239.65	-1868.73	3235789.91	1280758.25	40°08'03.588"N	104°39'25.538"W



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#14 COLFER 36N-34HZ (231'FNL & 2473'FWL, SEC.34)
Area	COLORADO	Well	COLFER 36N-34HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	COLFER 36N-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 08:44:13
Convergence at slot	0.55° East	Database/Source file	WellArchitectDB/COLFER_36N-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	239.90	1868.79	3237656.18	1281015.78	40°06'05.958"N	104°39'01.490"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#14 COLFER 36N-34HZ (231'FNL & 2473'FWL, SEC.34) (RKB) to Facility Vertical Datum
Horizontal Reference Pt	Slot	Rig on SLOT#14 COLFER 36N-34HZ (231'FNL & 2473'FWL, SEC.34) (RKB) to Mean Sea Level
Vertical Reference Pt	Rig on SLOT#14 COLFER 36N-34HZ (231'FNL & 2473'FWL, SEC.34) (RKB)	Rig on SLOT#14 COLFER 36N-34HZ (231'FNL & 2473'FWL, SEC.34) (RKB) to Mud Line at Slot (SLOT#14 COLFER 36N-34HZ (231'FNL & 2473'FWL, SEC.34) (RKB) to Mean Sea Level)
MD Reference Pt	Rig on SLOT#14 COLFER 36N-34HZ (231'FNL & 2473'FWL, SEC.34) (RKB)	Section Origin
Field Vertical Reference	Mean Sea Level	Section Azimuth



Planned Wellpath Report

COLFER 36N-34HZ (PERMIT) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#14 COLFER 36N-34HZ (231'FNL & 2473'FWL, SEC.34)
Area	COLORADO	Well	COLFER 36N-34HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	COLFER 36N-34HZ PWB
Facility	SEC.34-T2N-R65W		

WELLPATH DATA (128 stations) † = interpolated/extrapolated station

MD [R]	Inclination [°]	Azimuth [°]	TVD [R]	Vert Sect [R]	North [R]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00†	0.000	42.270	0.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.490"W	0.00	
17.00	0.000	42.270	17.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.490"W	0.00	Tie On
117.00†	0.000	42.270	117.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.490"W	0.00	
217.00†	0.000	42.270	217.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.490"W	0.00	
317.00†	0.000	42.270	317.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.490"W	0.00	
417.00†	0.000	42.270	417.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.490"W	0.00	
517.00†	0.000	42.270	517.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.490"W	0.00	
617.00†	0.000	42.270	617.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.490"W	0.00	
717.00†	0.000	42.270	717.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.490"W	0.00	
817.00†	0.000	42.270	817.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.490"W	0.00	
917.00†	0.000	42.270	917.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.490"W	0.00	
1017.00†	0.000	42.270	1017.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.490"W	0.00	
1100.00†	0.000	42.270	1100.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.490"W	0.00	FOX HILLS
1117.00†	0.000	42.270	1117.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.490"W	0.00	
1217.00†	0.000	42.270	1217.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.490"W	0.00	
1317.00†	0.000	42.270	1317.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.490"W	0.00	
1417.00†	0.000	42.270	1417.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.490"W	0.00	
1517.00†	0.000	42.270	1517.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.490"W	0.00	
1617.00†	0.000	42.270	1617.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.490"W	0.00	
1717.00†	0.000	42.270	1717.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.490"W	0.00	
1817.00†	0.000	42.270	1817.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.490"W	0.00	
1917.00†	0.000	42.270	1917.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.490"W	0.00	
2000.00	0.000	42.270	2000.00	0.00	0.00	0.00	40°06'05.958"N	104°39'01.490"W	0.00	End of Tangent
2017.00†	0.340	42.270	2017.00	-0.04	0.04	0.03	40°06'05.958"N	104°39'01.490"W	2.00	
2117.00†	2.340	42.270	2116.97	-1.71	1.77	1.61	40°06'05.975"N	104°39'01.469"W	2.00	
2150.00	3.000	42.270	2149.93	-2.81	2.91	2.64	40°06'05.987"N	104°39'01.456"W	2.00	End of Build (J)
2217.00†	3.000	42.270	2216.84	-5.31	5.50	5.00	40°06'06.012"N	104°39'01.426"W	0.00	
2317.00†	3.000	42.270	2316.70	-9.05	9.37	8.52	40°06'06.051"N	104°39'01.380"W	0.00	
2417.00†	3.000	42.270	2416.57	-12.80	13.25	12.04	40°06'06.089"N	104°39'01.335"W	0.00	
2517.00†	3.000	42.270	2516.43	-16.54	17.12	15.56	40°06'06.127"N	104°39'01.290"W	0.00	
2617.00†	3.000	42.270	2616.29	-20.28	20.99	19.08	40°06'06.165"N	104°39'01.244"W	0.00	
2717.00†	3.000	42.270	2716.15	-24.02	24.86	22.60	40°06'06.204"N	104°39'01.199"W	0.00	
2817.00†	3.000	42.270	2816.02	-27.76	28.74	26.12	40°06'06.242"N	104°39'01.154"W	0.00	
2917.00†	3.000	42.270	2915.88	-31.50	32.61	29.64	40°06'06.280"N	104°39'01.109"W	0.00	
2922.13†	3.000	42.270	2921.00	-31.69	32.81	29.82	40°06'06.282"N	104°39'01.106"W	0.00	PARKMAN
3017.00†	3.000	42.270	3015.74	-35.24	36.48	33.16	40°06'06.319"N	104°39'01.063"W	0.00	
3117.00†	3.000	42.270	3115.61	-38.99	40.35	36.68	40°06'06.357"N	104°39'01.018"W	0.00	
3217.00†	3.000	42.270	3215.47	-42.73	44.23	40.20	40°06'06.395"N	104°39'00.973"W	0.00	
3317.00†	3.000	42.270	3315.33	-46.47	48.10	43.72	40°06'06.433"N	104°39'00.927"W	0.00	
3417.00†	3.000	42.270	3415.20	-50.21	51.97	47.24	40°06'06.472"N	104°39'00.882"W	0.00	
3517.00†	3.000	42.270	3515.06	-53.95	55.85	50.76	40°06'06.510"N	104°39'00.837"W	0.00	
3617.00†	3.000	42.270	3614.92	-57.69	59.72	54.28	40°06'06.548"N	104°39'00.791"W	0.00	
3717.00†	3.000	42.270	3714.78	-61.43	63.59	57.80	40°06'06.586"N	104°39'00.746"W	0.00	
3817.00†	3.000	42.270	3814.65	-65.17	67.46	61.32	40°06'06.625"N	104°39'00.701"W	0.00	
3917.00†	3.000	42.270	3914.51	-68.92	71.34	64.84	40°06'06.663"N	104°39'00.656"W	0.00	



Planned Wellpath Report

COLFER 36N-34HZ (PERMIT) PWP
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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#14 COLFER 36N-34HZ (231'FNL & 2473'FWL, SEC.34)
Area	COLORADO	Well	COLFER 36N-34HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	COLFER 36N-34HZ PWB
Facility	SEC.34-T2N-R6SW		

WELLPATH DATA (128 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4017.00†	3.000	42.270	4014.37	-72.66	75.21	68.36	40°06'06.701"N	104°39'00.610"W	0.00	
4117.00†	3.000	42.270	4114.24	-76.40	79.08	71.88	40°06'06.740"N	104°39'00.565"W	0.00	
4217.00†	3.000	42.270	4214.10	-80.14	82.96	75.40	40°06'06.778"N	104°39'00.520"W	0.00	
4317.00†	3.000	42.270	4313.96	-83.88	86.83	78.92	40°06'06.816"N	104°39'00.474"W	0.00	
4417.00†	3.000	42.270	4413.82	-87.62	90.70	82.44	40°06'06.854"N	104°39'00.429"W	0.00	
4420.18†	3.000	42.270	4417.00	-87.74	90.82	82.56	40°06'06.856"N	104°39'00.428"W	0.00	SUSSEX
4517.00†	3.000	42.270	4513.69	-91.36	94.57	85.97	40°06'06.893"N	104°39'00.384"W	0.00	
4617.00†	3.000	42.270	4613.55	-95.11	98.45	89.49	40°06'06.931"N	104°39'00.338"W	0.00	
4717.00†	3.000	42.270	4713.41	-98.85	102.32	93.01	40°06'06.969"N	104°39'00.293"W	0.00	
4817.00†	3.000	42.270	4813.28	-102.59	106.19	96.53	40°06'07.007"N	104°39'00.248"W	0.00	
4917.00†	3.000	42.270	4913.14	-106.33	110.06	100.05	40°06'07.046"N	104°39'00.203"W	0.00	
5017.00†	3.000	42.270	5013.00	-110.07	113.94	103.57	40°06'07.084"N	104°39'00.157"W	0.00	
5117.00†	3.000	42.270	5112.87	-113.81	117.81	107.09	40°06'07.122"N	104°39'00.112"W	0.00	
5217.00†	3.000	42.270	5212.73	-117.55	121.68	110.61	40°06'07.160"N	104°39'00.067"W	0.00	
5317.00†	3.000	42.270	5312.59	-121.29	125.56	114.13	40°06'07.199"N	104°39'00.021"W	0.00	
5417.00†	3.000	42.270	5412.45	-125.04	129.43	117.65	40°06'07.237"N	104°38'59.976"W	0.00	
5517.00†	3.000	42.270	5512.32	-128.78	133.30	121.17	40°06'07.275"N	104°38'59.931"W	0.00	
5617.00†	3.000	42.270	5612.18	-132.52	137.17	124.69	40°06'07.314"N	104°38'59.885"W	0.00	
5717.00†	3.000	42.270	5712.04	-136.26	141.05	128.21	40°06'07.352"N	104°38'59.840"W	0.00	
5817.00†	3.000	42.270	5811.91	-140.00	144.92	131.73	40°06'07.390"N	104°38'59.795"W	0.00	
5917.00†	3.000	42.270	5911.77	-143.74	148.79	135.25	40°06'07.428"N	104°38'59.750"W	0.00	
6017.00†	3.000	42.270	6011.63	-147.48	152.67	138.77	40°06'07.467"N	104°38'59.704"W	0.00	
6117.00†	3.000	42.270	6111.49	-151.23	156.54	142.29	40°06'07.505"N	104°38'59.659"W	0.00	
6217.00†	3.000	42.270	6211.36	-154.97	160.41	145.81	40°06'07.543"N	104°38'59.614"W	0.00	
6317.00†	3.000	42.270	6311.22	-158.71	164.28	149.33	40°06'07.581"N	104°38'59.568"W	0.00	
6417.00†	3.000	42.270	6411.08	-162.45	168.16	152.85	40°06'07.620"N	104°38'59.523"W	0.00	
6462.19	3.000	42.270	6456.21	-164.14	169.91	154.44	40°06'07.637"N	104°38'59.503"W	0.00	End of Tangent (J)
6517.00†	3.832	148.367	6510.96	-163.57	169.41	156.37	40°06'07.632"N	104°38'59.478"W	10.00	
6617.00†	13.409	171.582	6609.74	-149.10	155.06	159.83	40°06'07.490"N	104°38'59.433"W	10.00	
6717.00†	23.342	175.394	6704.53	-117.71	123.76	163.12	40°06'07.181"N	104°38'59.391"W	10.00	
6817.00†	33.313	177.003	6792.44	-70.34	76.47	166.16	40°06'06.714"N	104°38'59.352"W	10.00	
6917.00†	43.297	177.932	6870.82	-8.43	14.62	168.84	40°06'06.103"N	104°38'59.317"W	10.00	
7001.77†	51.764	178.484	6928.00	54.04	-47.82	170.77	40°06'05.485"N	104°38'59.292"W	10.00	SHARON SPRINGS
7017.00†	53.286	178.569	6937.27	66.12	-59.90	171.08	40°06'05.366"N	104°38'59.288"W	10.00	
7079.84†	59.564	178.888	6972.00	118.45	-112.22	172.24	40°06'04.849"N	104°38'59.274"W	10.00	NIOBRARA A
7117.00†	63.277	179.058	6989.77	151.07	-144.84	172.82	40°06'04.527"N	104°38'59.266"W	10.00	
7217.00†	73.270	179.467	7026.75	243.82	-237.61	174.00	40°06'03.610"N	104°38'59.251"W	10.00	
7232.48†	74.817	179.526	7031.00	258.69	-252.49	174.13	40°06'03.463"N	104°38'59.249"W	10.00	NIOBRARA B
7317.00†	83.263	179.835	7047.06	341.56	-335.39	174.59	40°06'02.644"N	104°38'59.243"W	10.00	
7384.41	90.000	180.073	7051.01	408.77	-402.65	174.65	40°06'01.979"N	104°38'59.243"W	10.00	End of 3D Arc (J)
7417.00†	90.000	180.073	7051.01	441.34	-435.24	174.60	40°06'01.657"N	104°38'59.243"W	0.00	
7517.00†	90.000	180.073	7051.01	541.27	-535.24	174.48	40°06'00.669"N	104°38'59.245"W	0.00	
7617.00†	90.000	180.073	7051.01	641.19	-635.24	174.35	40°05'59.680"N	104°38'59.246"W	0.00	
7717.00†	90.000	180.073	7051.01	741.12	-735.24	174.22	40°05'58.692"N	104°38'59.248"W	0.00	
7817.00†	90.000	180.073	7051.01	841.05	-835.24	174.09	40°05'57.704"N	104°38'59.250"W	0.00	



Planned Wellpath Report

COLFER 36N-34HZ (PERMIT) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#14 COLFER 36N-34HZ (231'FNL & 2473'FWL, SEC.34)
Area	COLORADO	Well	COLFER 36N-34HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	COLFER 36N-34HZ PWB
Facility	SEC.34-T2N-R6SW		

WELLPATH DATA (128 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7917.00†	90.000	180.073	7051.01	940.98	-935.24	173.96	40°05'56.716"N	104°38'59.251"W	0.00	
8017.00†	90.000	180.073	7051.01	1040.91	-1035.24	173.84	40°05'55.728"N	104°38'59.253"W	0.00	
8117.00†	90.000	180.073	7051.01	1140.84	-1135.24	173.71	40°05'54.739"N	104°38'59.255"W	0.00	
8217.00†	90.000	180.073	7051.01	1240.76	-1235.24	173.58	40°05'53.751"N	104°38'59.256"W	0.00	
8317.00†	90.000	180.073	7051.01	1340.69	-1335.24	173.45	40°05'52.763"N	104°38'59.258"W	0.00	
8417.00†	90.000	180.073	7051.01	1440.62	-1435.24	173.32	40°05'51.775"N	104°38'59.260"W	0.00	
8517.00†	90.000	180.073	7051.01	1540.55	-1535.24	173.20	40°05'50.787"N	104°38'59.261"W	0.00	
8617.00†	90.000	180.073	7051.01	1640.48	-1635.24	173.07	40°05'49.798"N	104°38'59.263"W	0.00	
8717.00†	90.000	180.073	7051.01	1740.41	-1735.24	172.94	40°05'48.810"N	104°38'59.265"W	0.00	
8817.00†	90.000	180.073	7051.01	1840.33	-1835.24	172.81	40°05'47.822"N	104°38'59.266"W	0.00	
8917.00†	90.000	180.073	7051.01	1940.26	-1935.24	172.68	40°05'46.834"N	104°38'59.268"W	0.00	
9017.00†	90.000	180.073	7051.01	2040.19	-2035.24	172.56	40°05'45.845"N	104°38'59.270"W	0.00	
9117.00†	90.000	180.073	7051.01	2140.12	-2135.24	172.43	40°05'44.857"N	104°38'59.271"W	0.00	
9217.00†	90.000	180.073	7051.01	2240.05	-2235.24	172.30	40°05'43.869"N	104°38'59.273"W	0.00	
9317.00†	90.000	180.073	7051.01	2339.97	-2335.24	172.17	40°05'42.881"N	104°38'59.275"W	0.00	
9417.00†	90.000	180.073	7051.01	2439.90	-2435.24	172.04	40°05'41.893"N	104°38'59.276"W	0.00	
9517.00†	90.000	180.073	7051.01	2539.83	-2535.24	171.92	40°05'40.904"N	104°38'59.278"W	0.00	
9617.00†	90.000	180.073	7051.01	2639.76	-2635.24	171.79	40°05'39.916"N	104°38'59.280"W	0.00	
9717.00†	90.000	180.073	7051.01	2739.69	-2735.24	171.66	40°05'38.928"N	104°38'59.281"W	0.00	
9817.00†	90.000	180.073	7051.01	2839.62	-2835.24	171.53	40°05'37.940"N	104°38'59.283"W	0.00	
9917.00†	90.000	180.073	7051.01	2939.54	-2935.24	171.40	40°05'36.952"N	104°38'59.284"W	0.00	
10017.00†	90.000	180.073	7051.01	3039.47	-3035.24	171.28	40°05'35.963"N	104°38'59.286"W	0.00	
10117.00†	90.000	180.073	7051.00	3139.40	-3135.24	171.15	40°05'34.975"N	104°38'59.288"W	0.00	
10217.00†	90.000	180.073	7051.00	3239.33	-3235.24	171.02	40°05'33.987"N	104°38'59.289"W	0.00	
10317.00†	90.000	180.073	7051.00	3339.26	-3335.24	170.89	40°05'32.999"N	104°38'59.291"W	0.00	
10417.00†	90.000	180.073	7051.00	3439.19	-3435.24	170.77	40°05'32.010"N	104°38'59.293"W	0.00	
10517.00†	90.000	180.073	7051.00	3539.11	-3535.24	170.64	40°05'31.022"N	104°38'59.294"W	0.00	
10617.00†	90.000	180.073	7051.00	3639.04	-3635.24	170.51	40°05'30.034"N	104°38'59.296"W	0.00	
10717.00†	90.000	180.073	7051.00	3738.97	-3735.24	170.38	40°05'29.046"N	104°38'59.298"W	0.00	
10817.00†	90.000	180.073	7051.00	3838.90	-3835.24	170.25	40°05'28.058"N	104°38'59.299"W	0.00	
10917.00†	90.000	180.073	7051.00	3938.83	-3935.24	170.13	40°05'27.069"N	104°38'59.301"W	0.00	
11017.00†	90.000	180.073	7051.00	4038.75	-4035.24	170.00	40°05'26.081"N	104°38'59.303"W	0.00	
11117.00†	90.000	180.073	7051.00	4138.68	-4135.24	169.87	40°05'25.093"N	104°38'59.304"W	0.00	
11217.00†	90.000	180.073	7051.00	4238.61	-4235.24	169.74	40°05'24.105"N	104°38'59.306"W	0.00	
11317.00†	90.000	180.073	7051.00	4338.54	-4335.24	169.61	40°05'23.117"N	104°38'59.308"W	0.00	
11417.00†	90.000	180.073	7051.00	4438.47	-4435.24	169.49	40°05'22.128"N	104°38'59.309"W	0.00	
11517.00†	90.000	180.073	7051.00	4538.40	-4535.24	169.36	40°05'21.140"N	104°38'59.311"W	0.00	
11602.82	90.000	180.073	7051.00†	4624.15	-4621.06	169.25	40°05'20.292"N	104°38'59.312"W	0.00	End of Tangent (J)



Planned Wellpath Report

COLFER 36N-34HZ (PERMIT) PWP

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**REFERENCE WELLPATH IDENTIFICATION**

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#14 COLFER 36N-34HZ (231'FNL & 2473'FWL, SEC.34)
Area	COLORADO	Well	COLFER 36N-34HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	COLFER 36N-34HZ PWB
Facility	SEC.34-T2N-R65W		

HOLE & CASING SECTIONS - Ref Wellbore: COLFER 36N-34HZ PWB Ref Wellpath: COLFER 36N-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	7384.41	6084.41	1300.00	7051.01	0.00	0.00	-402.65	174.65
7in Casing Intermediate	17.00	7384.41	7367.41	17.00	7051.01	0.00	0.00	-402.65	174.65
6.125in Open Hole	7384.41	11602.82	4218.41	7051.01	7051.00	-402.65	174.65	-4621.06	169.25
4.5in Open Hole	17.00	11602.82	11585.82	17.00	7051.00	0.00	0.00	-4621.06	169.25

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	-239.65	-1868.73	3235789.91	1280758.25	40°06'03.589"N	104°39'25.538"W	polygon
1) COLFER 36N-34HZ BHL ON PLAT (460'FSL & 2637'FWL, SEC.34) REV-1	11602.82	7051.00	-4621.06	169.25	3237869.68	1276396.75	40°05'20.292"N	104°38'59.312"W	point
COLFER PAD HARDLINES (460' SETBACKS)		7051.00	-239.65	-1868.73	3235789.91	1280758.25	40°06'03.589"N	104°39'25.538"W	polygon

SURVEY PROGRAM - Ref Wellbore: COLFER 36N-34HZ PWB Ref Wellpath: COLFER 36N-34HZ (PERMIT) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	11602.82	NaviTrak (Standard)		COLFER 36N-34HZ PWB



Planned Wellpath Report
COLFER 36N-34HZ (PERMIT) PWP
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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#14 COLFER 36N-34HZ (231'FNL & 2473'FWL, SEC.34)
Area	COLORADO	Well	COLFER 36N-34HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	COLFER 36N-34HZ PWB
Facility	SEC.34-T2N-R65W		

WELLPATH COMMENTS					
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment	
1100.00	0.000	42.270	1100.00	FOX HILLS	
2922.13	3.000	42.270	2921.00	PARKMAN	
4420.18	3.000	42.270	4417.00	SUSSEX	
7001.77	51.764	178.484	6928.00	SHARON SPRINGS	
7079.84	59.564	178.888	6972.00	NIOBRARA A	
7232.48	74.817	179.526	7031.00	NIOBRARA B	