

KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#10 BARCLAY 3N-14HZ (577FSL & 2253FEL, SEC.14)
 Field: WELD COUNTY (KERR MCGEE) Well: BARCLAY 3N-14HZ
 Facility: SEC.14-T2N-R67W Wellbore: BARCLAY 3N-14HZ PWB

Plot reference wellpath is BARCLAY 3N-14HZ (PERMIT REV-1) PWP

True vertical depths are referenced to PERMIT (17 KB) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to PERMIT (17 KB) (RKB)	North Reference: True north
PERMIT (17 KB) (RKB) to Mean Sea Level: 4949 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#10 BARCLAY 3N-14HZ (577FSL & 2253FEL, SEC.14)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: rbbale01 on 10/Oct/2013

Location Information

Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.14-T2N-R67W	3179914.426	1291732.032	40°07'56.662"N	104°51'23.565"W
Slot	Local N (ft)	Local E (ft)	Grid North (US ft)	Longitude
SLOT#10 BARCLAY 3N-14HZ (577FSL & 2253FEL, SEC.14)	0.30	-29.98	3179884.444	1291732.118
PERMIT (17 KB) (RKB) to Mud line (At Slot: SLOT#10 BARCLAY 3N-14HZ (577FSL & 2253FEL, SEC.14))				4949ft
Mean Sea Level to Mud line (At Slot: SLOT#10 BARCLAY 3N-14HZ (577FSL & 2253FEL, SEC.14))				0ft
PERMIT (17 KB) (RKB) to Mean Sea Level				4949ft

Survey Program

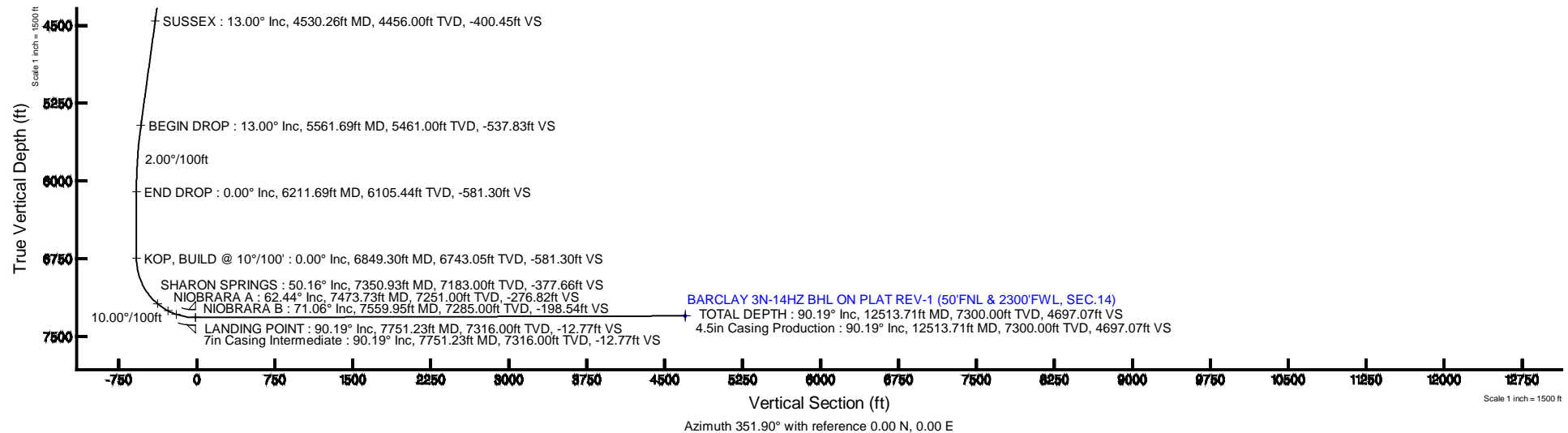
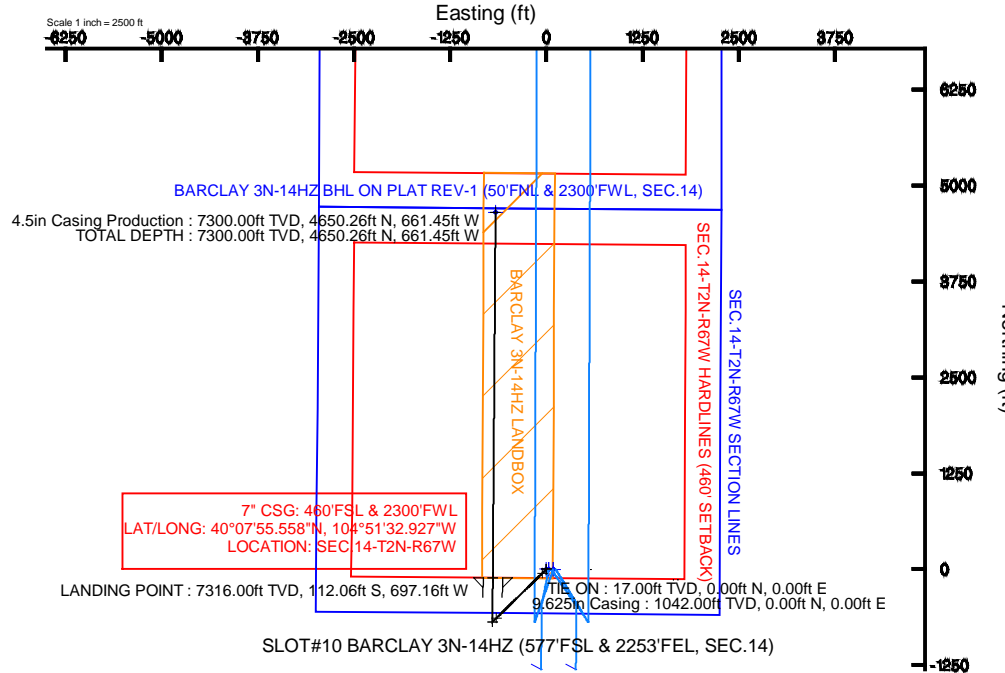
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	7751.23	NaviTrak	NaviTrak (Standard)		BARCLAY 3N-14HZ PWB
7751.23	12513.71	OnTrak	OnTrak (Standard)		BARCLAY 3N-14HZ PWB

Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.11-T2N-R67W SECTION LINES		0.00	-0.71	90.02	3179974.47	1291732.06	40°07'56.658"N	104°51'22.792"W
SEC.14-T2N-R67W SECTION LINES		0.00	-0.30	29.98	3179914.43	1291732.03	40°07'56.662"N	104°51'23.565"W
BARCLAY 3N-14HZ BHL ON PLAT REV-1 (50FNL & 2300FWL, SEC.14)	12513.71	7300.00	4650.26	-661.45	3179189.31	1296377.26	40°08'42.619"N	104°51'32.468"W
BARCLAY 3N-14HZ LANDBOX		7300.00	0.00	0.00	3179884.44	1291732.12	40°07'56.660"N	104°51'23.951"W
SEC.11-T2N-R67W HARDLINES (460' SETBACK)		7353.00	-0.71	90.02	3179974.47	1291732.06	40°07'56.658"N	104°51'22.792"W
SEC.14-T2N-R67W HARDLINES (460' SETBACK)		7353.00	-0.30	29.98	3179914.43	1291732.03	40°07'56.662"N	104°51'23.565"W

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	225.600	17.00	0.00	0.00	0.00	0.00
BEGIN NUDGE	1200.00	0.000	225.600	1200.00	0.00	0.00	0.00	0.00
END NUDGE	1850.00	13.000	225.600	1844.44	-51.37	-52.46	2.00	-43.47
BEGIN DROP	5561.69	13.000	225.600	5461.00	-635.56	-649.01	0.00	-537.83
END DROP	6211.69	0.000	0.430	6105.44	-686.93	-701.47	2.00	-581.30
KOP, BUILD @ 10°/100'	6849.30	0.000	0.430	6743.05	-686.93	-701.47	0.00	-581.30
LANDING POINT	7751.23	90.193	0.430	7316.00	-112.06	-697.16	10.00	-12.77
TOTAL DEPTH	12513.71	90.193	0.430	7300.00	4650.26	-661.45	0.00	4697.07



Azimuth 351.90° with reference 0.00 N, 0.00 E



Planned Wellpath Report

BARCLAY 3N-14HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#10 BARCLAY 3N-14HZ (577'FSL & 2253'FEL, SEC.14)
Area	COLORADO	Well	BARCLAY 3N-14HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BARCLAY 3N-14HZ PWB
Facility	SEC.14-T2N-R67W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 4.0.0
North Reference	True	User	Robiale01
Scale	0.999959	Report Generated	15/Oct/2013 at 16:07
Convergence at slot	n/a	Database/Source file	WellArchitectDB/BARCLAY_3N-14HZ_PWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.30	-29.98	3179884.44	1291732.12	40°07'56.665"N	104°51'23.951"W
Facility Reference Pt			3179914.43	1291732.03	40°07'56.662"N	104°51'23.565"W
Field Reference Pt			3197771.84	1268891.29	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM

Calculation method	Minimum curvature	PERMIT (17' KB) (RKB) to Facility Vertical Datum	4949.00ft
Horizontal Reference Pt	Slot	PERMIT (17' KB) (RKB) to Mean Sea Level	4949.00ft
Vertical Reference Pt	PERMIT (17' KB) (RKB)	PERMIT (17' KB) (RKB) to Mud Line at Slot (SLOT#10 BARCLAY 3N-14HZ (577'FSL & 2253'FEL, SEC.14))	4949.00ft
MD Reference Pt	PERMIT (17' KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	351.90°



Planned Wellpath Report

BARCLAY 3N-14HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#10 BARCLAY 3N-14HZ (577'FSL & 2253'FEL, SEC.14)
Area	COLORADO	Well	BARCLAY 3N-14HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BARCLAY 3N-14HZ PWB
Facility	SEC.14-T2N-R67W		

WELLPATH DATA (139 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	225.600	0.00	0.00	0.00	0.00	40°07'56.665"N	104°51'23.951"W	0.00	
17.00	0.000	225.600	17.00	0.00	0.00	0.00	40°07'56.665"N	104°51'23.951"W	0.00	TIE ON
117.00†	0.000	225.600	117.00	0.00	0.00	0.00	40°07'56.665"N	104°51'23.951"W	0.00	
217.00†	0.000	225.600	217.00	0.00	0.00	0.00	40°07'56.665"N	104°51'23.951"W	0.00	
317.00†	0.000	225.600	317.00	0.00	0.00	0.00	40°07'56.665"N	104°51'23.951"W	0.00	
417.00†	0.000	225.600	417.00	0.00	0.00	0.00	40°07'56.665"N	104°51'23.951"W	0.00	
517.00†	0.000	225.600	517.00	0.00	0.00	0.00	40°07'56.665"N	104°51'23.951"W	0.00	
617.00†	0.000	225.600	617.00	0.00	0.00	0.00	40°07'56.665"N	104°51'23.951"W	0.00	
717.00†	0.000	225.600	717.00	0.00	0.00	0.00	40°07'56.665"N	104°51'23.951"W	0.00	
817.00†	0.000	225.600	817.00	0.00	0.00	0.00	40°07'56.665"N	104°51'23.951"W	0.00	
917.00†	0.000	225.600	917.00	0.00	0.00	0.00	40°07'56.665"N	104°51'23.951"W	0.00	
991.00†	0.000	225.600	991.00	0.00	0.00	0.00	40°07'56.665"N	104°51'23.951"W	0.00	FOX HILLS BASE
1017.00†	0.000	225.600	1017.00	0.00	0.00	0.00	40°07'56.665"N	104°51'23.951"W	0.00	
1117.00†	0.000	225.600	1117.00	0.00	0.00	0.00	40°07'56.665"N	104°51'23.951"W	0.00	
1200.00	0.000	225.600	1200.00	0.00	0.00	0.00	40°07'56.665"N	104°51'23.951"W	0.00	BEGIN NUDGE
1217.00†	0.340	225.600	1217.00	-0.03	-0.04	-0.04	40°07'56.665"N	104°51'23.951"W	2.00	
1317.00†	2.340	225.600	1316.97	-1.41	-1.67	-1.71	40°07'56.648"N	104°51'23.973"W	2.00	
1417.00†	4.340	225.600	1416.79	-4.86	-5.75	-5.87	40°07'56.608"N	104°51'24.027"W	2.00	
1517.00†	6.340	225.600	1516.35	-10.37	-12.26	-12.52	40°07'56.544"N	104°51'24.112"W	2.00	
1617.00†	8.340	225.600	1615.53	-17.94	-21.20	-21.65	40°07'56.456"N	104°51'24.230"W	2.00	
1717.00†	10.340	225.600	1714.20	-27.55	-32.55	-33.24	40°07'56.343"N	104°51'24.379"W	2.00	
1817.00†	12.340	225.600	1812.24	-39.19	-46.31	-47.29	40°07'56.207"N	104°51'24.560"W	2.00	
1850.00	13.000	225.600	1844.44	-43.47	-51.37	-52.46	40°07'56.157"N	104°51'24.626"W	2.00	END NUDGE
1917.00†	13.000	225.600	1909.72	-52.40	-61.92	-63.23	40°07'56.053"N	104°51'24.765"W	0.00	
2017.00†	13.000	225.600	2007.16	-65.72	-77.66	-79.30	40°07'55.898"N	104°51'24.972"W	0.00	
2117.00†	13.000	225.600	2104.59	-79.03	-93.40	-95.37	40°07'55.742"N	104°51'25.179"W	0.00	
2217.00†	13.000	225.600	2202.03	-92.35	-109.13	-111.44	40°07'55.587"N	104°51'25.386"W	0.00	
2317.00†	13.000	225.600	2299.47	-105.67	-124.87	-127.52	40°07'55.431"N	104°51'25.593"W	0.00	
2417.00†	13.000	225.600	2396.91	-118.99	-140.61	-143.59	40°07'55.275"N	104°51'25.800"W	0.00	
2517.00†	13.000	225.600	2494.34	-132.31	-156.35	-159.66	40°07'55.120"N	104°51'26.007"W	0.00	
2617.00†	13.000	225.600	2591.78	-145.63	-172.09	-175.73	40°07'54.964"N	104°51'26.213"W	0.00	
2717.00†	13.000	225.600	2689.22	-158.95	-187.83	-191.81	40°07'54.809"N	104°51'26.420"W	0.00	
2817.00†	13.000	225.600	2786.65	-172.27	-203.57	-207.88	40°07'54.653"N	104°51'26.627"W	0.00	
2917.00†	13.000	225.600	2884.09	-185.59	-219.31	-223.95	40°07'54.498"N	104°51'26.834"W	0.00	
3017.00†	13.000	225.600	2981.53	-198.90	-235.05	-240.02	40°07'54.342"N	104°51'27.041"W	0.00	
3117.00†	13.000	225.600	3078.96	-212.22	-250.79	-256.09	40°07'54.187"N	104°51'27.248"W	0.00	
3217.00†	13.000	225.600	3176.40	-225.54	-266.52	-272.17	40°07'54.031"N	104°51'27.455"W	0.00	
3317.00†	13.000	225.600	3273.84	-238.86	-282.26	-288.24	40°07'53.876"N	104°51'27.662"W	0.00	
3417.00†	13.000	225.600	3371.28	-252.18	-298.00	-304.31	40°07'53.720"N	104°51'27.869"W	0.00	
3517.00†	13.000	225.600	3468.71	-265.50	-313.74	-320.38	40°07'53.565"N	104°51'28.076"W	0.00	
3617.00†	13.000	225.600	3566.15	-278.82	-329.48	-336.45	40°07'53.409"N	104°51'28.283"W	0.00	
3717.00†	13.000	225.600	3663.59	-292.14	-345.22	-352.53	40°07'53.253"N	104°51'28.490"W	0.00	
3817.00†	13.000	225.600	3761.02	-305.46	-360.96	-368.60	40°07'53.098"N	104°51'28.696"W	0.00	
3917.00†	13.000	225.600	3858.46	-318.77	-376.70	-384.67	40°07'52.942"N	104°51'28.903"W	0.00	
4017.00†	13.000	225.600	3955.90	-332.09	-392.44	-400.74	40°07'52.787"N	104°51'29.110"W	0.00	



Planned Wellpath Report

BARCLAY 3N-14HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#10 BARCLAY 3N-14HZ (577'FSL & 2253'FEL, SEC.14)
Area	COLORADO	Well	BARCLAY 3N-14HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BARCLAY 3N-14HZ PWB
Facility	SEC.14-T2N-R67W		

WELLPATH DATA (139 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4102.29†	13.000	225.600	4039.00	-343.45	-405.86	-414.45	40°07'52.654"N	104°51'29.287"W	0.00	PARKMAN
4117.00†	13.000	225.600	4053.33	-345.41	-408.18	-416.82	40°07'52.631"N	104°51'29.317"W	0.00	
4217.00†	13.000	225.600	4150.77	-358.73	-423.91	-432.89	40°07'52.476"N	104°51'29.524"W	0.00	
4317.00†	13.000	225.600	4248.21	-372.05	-439.65	-448.96	40°07'52.320"N	104°51'29.731"W	0.00	
4417.00†	13.000	225.600	4345.65	-385.37	-455.39	-465.03	40°07'52.165"N	104°51'29.938"W	0.00	
4517.00†	13.000	225.600	4443.08	-398.69	-471.13	-481.10	40°07'52.009"N	104°51'30.145"W	0.00	
4530.26†	13.000	225.600	4456.00	-400.45	-473.22	-483.23	40°07'51.989"N	104°51'30.172"W	0.00	SUSSEX
4617.00†	13.000	225.600	4540.52	-412.01	-486.87	-497.18	40°07'51.854"N	104°51'30.352"W	0.00	
4717.00†	13.000	225.600	4637.96	-425.32	-502.61	-513.25	40°07'51.698"N	104°51'30.559"W	0.00	
4817.00†	13.000	225.600	4735.39	-438.64	-518.35	-529.32	40°07'51.543"N	104°51'30.766"W	0.00	
4917.00†	13.000	225.600	4832.83	-451.96	-534.09	-545.39	40°07'51.387"N	104°51'30.973"W	0.00	
5017.00†	13.000	225.600	4930.27	-465.28	-549.83	-561.46	40°07'51.231"N	104°51'31.179"W	0.00	
5117.00†	13.000	225.600	5027.70	-478.60	-565.57	-577.54	40°07'51.076"N	104°51'31.386"W	0.00	
5217.00†	13.000	225.600	5125.14	-491.92	-581.30	-593.61	40°07'50.920"N	104°51'31.593"W	0.00	
5317.00†	13.000	225.600	5222.58	-505.24	-597.04	-609.68	40°07'50.765"N	104°51'31.800"W	0.00	
5417.00†	13.000	225.600	5320.02	-518.56	-612.78	-625.75	40°07'50.609"N	104°51'32.007"W	0.00	
5517.00†	13.000	225.600	5417.45	-531.88	-628.52	-641.83	40°07'50.454"N	104°51'32.214"W	0.00	
5561.69	13.000	225.600	5461.00	-537.83	-635.56	-649.01	40°07'50.384"N	104°51'32.306"W	0.00	BEGIN DROP
5617.00†	11.894	225.600	5515.01	-544.89	-643.90	-657.52	40°07'50.302"N	104°51'32.416"W	2.00	
5717.00†	9.894	225.600	5613.20	-556.08	-657.12	-671.03	40°07'50.171"N	104°51'32.590"W	2.00	
5817.00†	7.894	225.600	5711.99	-565.23	-667.93	-682.07	40°07'50.064"N	104°51'32.732"W	2.00	
5917.00†	5.894	225.600	5811.26	-572.34	-676.33	-690.65	40°07'49.981"N	104°51'32.843"W	2.00	
6017.00†	3.894	225.600	5910.89	-577.39	-682.30	-696.74	40°07'49.922"N	104°51'32.921"W	2.00	
6117.00†	1.894	225.600	6010.76	-580.38	-685.83	-700.35	40°07'49.887"N	104°51'32.967"W	2.00	
6211.69	0.000	0.430	6105.44	-581.30	-686.93	-701.47	40°07'49.877"N	104°51'32.982"W	2.00	END DROP
6217.00†	0.000	0.430	6110.74	-581.30	-686.93	-701.47	40°07'49.877"N	104°51'32.982"W	0.00	
6317.00†	0.000	0.430	6210.74	-581.30	-686.93	-701.47	40°07'49.877"N	104°51'32.982"W	0.00	
6417.00†	0.000	0.430	6310.74	-581.30	-686.93	-701.47	40°07'49.877"N	104°51'32.982"W	0.00	
6517.00†	0.000	0.430	6410.74	-581.30	-686.93	-701.47	40°07'49.877"N	104°51'32.982"W	0.00	
6617.00†	0.000	0.430	6510.74	-581.30	-686.93	-701.47	40°07'49.877"N	104°51'32.982"W	0.00	
6717.00†	0.000	0.430	6610.74	-581.30	-686.93	-701.47	40°07'49.877"N	104°51'32.982"W	0.00	
6817.00†	0.000	0.430	6710.74	-581.30	-686.93	-701.47	40°07'49.877"N	104°51'32.982"W	0.00	
6849.30	0.000	0.430	6743.05	-581.30	-686.93	-701.47	40°07'49.877"N	104°51'32.982"W	0.00	KOP, BUILD @ 10°/100'
6917.00†	6.770	0.430	6810.59	-577.35	-682.93	-701.44	40°07'49.916"N	104°51'32.981"W	10.00	
7017.00†	16.770	0.430	6908.36	-557.20	-662.56	-701.29	40°07'50.117"N	104°51'32.979"W	10.00	
7117.00†	26.770	0.430	7001.11	-520.57	-625.52	-701.01	40°07'50.483"N	104°51'32.976"W	10.00	
7217.00†	36.770	0.430	7086.02	-468.57	-572.94	-700.61	40°07'51.003"N	104°51'32.971"W	10.00	
7317.00†	46.770	0.430	7160.51	-402.78	-506.41	-700.11	40°07'51.660"N	104°51'32.964"W	10.00	
7350.93†	50.162	0.430	7183.00	-377.66	-481.02	-699.92	40°07'51.911"N	104°51'32.962"W	10.00	SHARON SPRINGS
7417.00†	56.770	0.430	7222.31	-325.19	-427.96	-699.53	40°07'52.436"N	104°51'32.957"W	10.00	
7473.73†	62.442	0.430	7251.00	-276.82	-379.05	-699.16	40°07'52.919"N	104°51'32.952"W	10.00	NIOBRARA A
7517.00†	66.770	0.430	7269.55	-238.17	-339.97	-698.87	40°07'53.305"N	104°51'32.948"W	10.00	
7559.95†	71.065	0.430	7285.00	-198.54	-299.91	-698.57	40°07'53.701"N	104°51'32.945"W	10.00	NIOBRARA B
7617.00†	76.770	0.430	7300.80	-144.36	-245.11	-698.15	40°07'54.243"N	104°51'32.939"W	10.00	
7717.00†	86.770	0.430	7315.09	-46.60	-146.27	-697.41	40°07'55.219"N	104°51'32.930"W	10.00	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#10 BARCLAY 3N-14HZ (577'FSL & 2253'FEL, SEC.14)
Area	COLORADO	Well	BARCLAY 3N-14HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BARCLAY 3N-14HZ PWB
Facility	SEC.14-T2N-R67W		

WELLPATH DATA (139 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7751.23	90.193	0.430	7316.00	-12.77	-112.06	-697.16	40°07'55.558"N	104°51'32.927"W	10.00	LANDING POINT
7817.00†	90.193	0.430	7315.78	52.27	-46.29	-696.66	40°07'56.207"N	104°51'32.920"W	0.00	
7917.00†	90.193	0.430	7315.44	151.17	53.70	-695.91	40°07'57.196"N	104°51'32.911"W	0.00	
8017.00†	90.193	0.430	7315.11	250.06	153.70	-695.16	40°07'58.184"N	104°51'32.901"W	0.00	
8117.00†	90.193	0.430	7314.77	348.96	253.70	-694.41	40°07'59.172"N	104°51'32.891"W	0.00	
8217.00†	90.193	0.430	7314.44	447.85	353.69	-693.66	40°08'00.160"N	104°51'32.882"W	0.00	
8317.00†	90.193	0.430	7314.10	546.75	453.69	-692.91	40°08'01.148"N	104°51'32.872"W	0.00	
8417.00†	90.193	0.430	7313.76	645.64	553.69	-692.16	40°08'02.137"N	104°51'32.862"W	0.00	
8517.00†	90.193	0.430	7313.43	744.54	653.68	-691.41	40°08'03.125"N	104°51'32.853"W	0.00	
8617.00†	90.193	0.430	7313.09	843.43	753.68	-690.67	40°08'04.113"N	104°51'32.843"W	0.00	
8717.00†	90.193	0.430	7312.76	942.33	853.68	-689.92	40°08'05.101"N	104°51'32.834"W	0.00	
8817.00†	90.193	0.430	7312.42	1041.22	953.67	-689.17	40°08'06.089"N	104°51'32.824"W	0.00	
8917.00†	90.193	0.430	7312.08	1140.11	1053.67	-688.42	40°08'07.077"N	104°51'32.814"W	0.00	
9017.00†	90.193	0.430	7311.75	1239.01	1153.67	-687.67	40°08'08.066"N	104°51'32.805"W	0.00	
9117.00†	90.193	0.430	7311.41	1337.90	1253.66	-686.92	40°08'09.054"N	104°51'32.795"W	0.00	
9217.00†	90.193	0.430	7311.08	1436.80	1353.66	-686.17	40°08'10.042"N	104°51'32.786"W	0.00	
9317.00†	90.193	0.430	7310.74	1535.69	1453.66	-685.42	40°08'11.030"N	104°51'32.776"W	0.00	
9417.00†	90.193	0.430	7310.40	1634.59	1553.65	-684.67	40°08'12.018"N	104°51'32.766"W	0.00	
9517.00†	90.193	0.430	7310.07	1733.48	1653.65	-683.92	40°08'13.006"N	104°51'32.757"W	0.00	
9617.00†	90.193	0.430	7309.73	1832.38	1753.65	-683.17	40°08'13.995"N	104°51'32.747"W	0.00	
9717.00†	90.193	0.430	7309.40	1931.27	1853.64	-682.42	40°08'14.983"N	104°51'32.737"W	0.00	
9817.00†	90.193	0.430	7309.06	2030.17	1953.64	-681.67	40°08'15.971"N	104°51'32.728"W	0.00	
9917.00†	90.193	0.430	7308.72	2129.06	2053.64	-680.92	40°08'16.959"N	104°51'32.718"W	0.00	
10017.00†	90.193	0.430	7308.39	2227.95	2153.63	-680.17	40°08'17.947"N	104°51'32.709"W	0.00	
10117.00†	90.193	0.430	7308.05	2326.85	2253.63	-679.42	40°08'18.935"N	104°51'32.699"W	0.00	
10217.00†	90.193	0.430	7307.72	2425.74	2353.63	-678.67	40°08'19.924"N	104°51'32.689"W	0.00	
10317.00†	90.193	0.430	7307.38	2524.64	2453.62	-677.92	40°08'20.912"N	104°51'32.680"W	0.00	
10417.00†	90.193	0.430	7307.04	2623.53	2553.62	-677.17	40°08'21.900"N	104°51'32.670"W	0.00	
10517.00†	90.193	0.430	7306.71	2722.43	2653.62	-676.42	40°08'22.888"N	104°51'32.660"W	0.00	
10617.00†	90.193	0.430	7306.37	2821.32	2753.61	-675.67	40°08'23.876"N	104°51'32.651"W	0.00	
10717.00†	90.193	0.430	7306.04	2920.22	2853.61	-674.92	40°08'24.865"N	104°51'32.641"W	0.00	
10817.00†	90.193	0.430	7305.70	3019.11	2953.61	-674.17	40°08'25.853"N	104°51'32.632"W	0.00	
10917.00†	90.193	0.430	7305.36	3118.01	3053.60	-673.42	40°08'26.841"N	104°51'32.622"W	0.00	
11017.00†	90.193	0.430	7305.03	3216.90	3153.60	-672.67	40°08'27.829"N	104°51'32.612"W	0.00	
11117.00†	90.193	0.430	7304.69	3315.80	3253.60	-671.92	40°08'28.817"N	104°51'32.603"W	0.00	
11217.00†	90.193	0.430	7304.36	3414.69	3353.59	-671.17	40°08'29.805"N	104°51'32.593"W	0.00	
11317.00†	90.193	0.430	7304.02	3513.58	3453.59	-670.42	40°08'30.794"N	104°51'32.584"W	0.00	
11417.00†	90.193	0.430	7303.68	3612.48	3553.59	-669.67	40°08'31.782"N	104°51'32.574"W	0.00	
11517.00†	90.193	0.430	7303.35	3711.37	3653.58	-668.92	40°08'32.770"N	104°51'32.564"W	0.00	
11617.00†	90.193	0.430	7303.01	3810.27	3753.58	-668.17	40°08'33.758"N	104°51'32.555"W	0.00	
11717.00†	90.193	0.430	7302.68	3909.16	3853.58	-667.42	40°08'34.746"N	104°51'32.545"W	0.00	
11817.00†	90.193	0.430	7302.34	4008.06	3953.57	-666.67	40°08'35.734"N	104°51'32.535"W	0.00	
11917.00†	90.193	0.430	7302.00	4106.95	4053.57	-665.92	40°08'36.723"N	104°51'32.526"W	0.00	
12017.00†	90.193	0.430	7301.67	4205.85	4153.57	-665.17	40°08'37.711"N	104°51'32.516"W	0.00	
12117.00†	90.193	0.430	7301.33	4304.74	4253.56	-664.42	40°08'38.699"N	104°51'32.507"W	0.00	



Planned Wellpath Report

BARCLAY 3N-14HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#10 BARCLAY 3N-14HZ (577'FSL & 2253'FEL, SEC.14)
Area	COLORADO	Well	BARCLAY 3N-14HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BARCLAY 3N-14HZ PWB
Facility	SEC.14-T2N-R67W		

WELLPATH DATA (139 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12217.00†	90.193	0.430	7301.00	4403.64	4353.56	-663.67	40°08'39.687"N	104°51'32.497"W	0.00	
12317.00†	90.193	0.430	7300.66	4502.53	4453.56	-662.92	40°08'40.675"N	104°51'32.487"W	0.00	
12417.00†	90.193	0.430	7300.32	4601.42	4553.55	-662.17	40°08'41.664"N	104°51'32.478"W	0.00	
12513.71	90.193	0.430	7300.00 ¹	4697.07	4650.26	-661.45	40°08'42.619"N	104°51'32.468"W	0.00	TOTAL DEPTH

HOLE & CASING SECTIONS - Ref Wellbore: BARCLAY 3N-14HZ PWB Ref Wellpath: BARCLAY 3N-14HZ (PERMIT REV-1) 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]
13.5in Open Hole	17.00	1042.00	1025.00	17.00	1042.00	0.00	0.00	0.00	0.00
9.625in Casing	17.00	1042.00	1025.00	17.00	1042.00	0.00	0.00	0.00	0.00
8.75in Open Hole	1042.00	7751.23	6709.23	1042.00	7316.00	0.00	0.00	-112.06	-697.16
7in Casing Intermediate	17.00	7751.23	7734.23	17.00	7316.00	0.00	0.00	-112.06	-697.16
6.125in Open Hole	7751.23	12513.71	4762.48	7316.00	7300.00	-112.06	-697.16	4650.26	-661.45
4.5in Casing Production	17.00	12513.71	12496.71	17.00	7300.00	0.00	0.00	4650.26	-661.45

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.11-T2N-R67W SECTION LINES		0.00	-0.71	90.02	3179974.47	1291732.06	40°07'56.658"N	104°51'22.792"W	polygon
SEC.14-T2N-R67W SECTION LINES		0.00	-0.30	29.98	3179914.43	1291732.03	40°07'56.662"N	104°51'23.565"W	polygon
1) BARCLAY 3N-14HZ BHL ON PLAT REV-1 (50'FNL & 2300'FWL, SEC.14)	12513.71	7300.00	4650.26	-661.45	3179189.31	1296377.26	40°08'42.619"N	104°51'32.468"W	point
BARCLAY 3N-14HZ LANDBOX		7300.00	0.00	0.00	3179884.44	1291732.12	40°07'56.665"N	104°51'23.951"W	polygon
SEC.11-T2N-R67W HARDLINES (460' SETBACK)		7353.00	-0.71	90.02	3179974.47	1291732.06	40°07'56.658"N	104°51'22.792"W	polygon
SEC.14-T2N-R67W HARDLINES (460' SETBACK)		7353.00	-0.30	29.98	3179914.43	1291732.03	40°07'56.662"N	104°51'23.565"W	polygon

SURVEY PROGRAM - Ref Wellbore: BARCLAY 3N-14HZ PWB Ref Wellpath: BARCLAY 3N-14HZ (PERMIT REV-1) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	7751.23	NaviTrak (Standard)		BARCLAY 3N-14HZ PWB
7751.23	12513.71	OnTrak (Standard)		BARCLAY 3N-14HZ PWB



Planned Wellpath Report

BARCLAY 3N-14HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#10 BARCLAY 3N-14HZ (577'FSL & 2253'FEL, SEC.14)
Area	COLORADO	Well	BARCLAY 3N-14HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BARCLAY 3N-14HZ PWB
Facility	SEC.14-T2N-R67W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
991.00	0.000	225.600	991.00	FOX HILLS BASE
4102.29	13.000	225.600	4039.00	PARKMAN
4530.26	13.000	225.600	4456.00	SUSSEX
7350.93	50.162	0.430	7183.00	SHARON SPRINGS
7473.73	62.442	0.430	7251.00	NIOBRARA A
7559.95	71.065	0.430	7285.00	NIOBRARA B

DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	225.600	17.00	TIE ON
1200.00	0.000	225.600	1200.00	BEGIN NUDGE
1850.00	13.000	225.600	1844.44	END NUDGE
5561.69	13.000	225.600	5461.00	BEGIN DROP
6211.69	0.000	0.430	6105.44	END DROP
6849.30	0.000	0.430	6743.05	KOP, BUILD @ 10°/100'
7751.23	90.193	0.430	7316.00	LANDING POINT
12513.71	90.193	0.430	7300.00	TOTAL DEPTH