

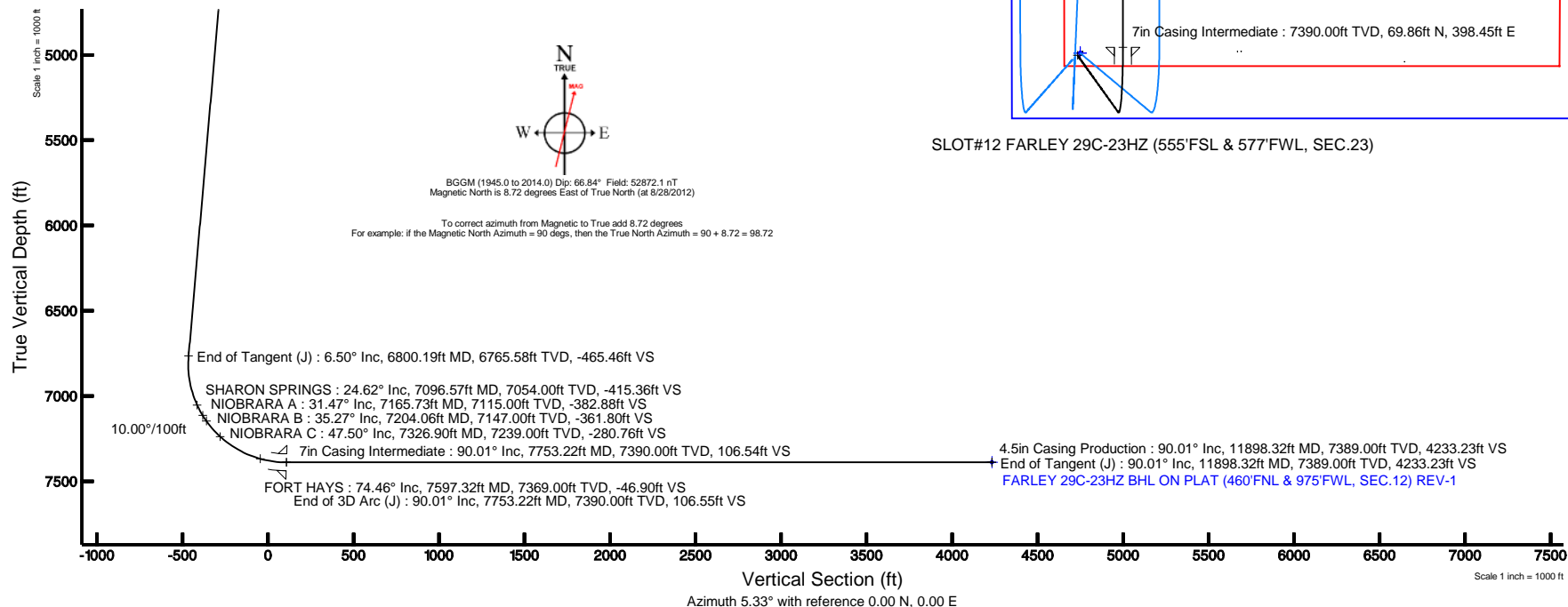
Location:	COLORADO	Slot:	SLOT#12 FARLEY 29C-23HZ (555'FSL & 577'FWL, SEC.23)
Field:	WELD COUNTY (KERR MCGEE)	Well:	FARLEY 29C-23HZ
Facility:	SEC.23-T3N-R66W	Wellbore:	FARLEY 29C-23HZ PWB

Plot reference wellpath is FARLEY 29C-23HZ (PERMIT) PWP	
True vertical depths are referenced to Rig on SLOT#12 FARLEY 29C-23HZ (555FSL & 577FWL, SEC.23) (RKB)	Grid System: NAD83 / Lambert Colorado SP. Northern Zone (501), US feet
Measured depths are referenced to Rig on SLOT#12 FARLEY 29C-23HZ (555FSL & 577FWL, SEC.23) (RKB)	North Reference: True north
Rig on SLOT#12 FARLEY 29C-23HZ (555FSL & 577FWL, SEC.23) (RKB) to Mean Sea Level: 4956 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#12 FARLEY 29C-23HZ (555FSL & 577FWL, SEC.23)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: wsljpe02 on 8/28/2012

Facility Name				Grid East (US Ft)	Grid North (US Ft)	Latitude	Longitude
SEC 23-T3N-R66W				3213104.907	1321212.380	40°12'45.396"N	104°44'12.394"W
Stn	Local N (ft)	Local E (ft)		Grid East (US Ft)	Grid North (US Ft)	Latitude	Longitude
SLOT#12 FARLEY 29C-23#2 (555' SL, & 577' FWL, SEC 23)	-2777.85	-4127.87		3209001.281	1318398.840	40°12'17.942"N	104°45'16.188"W
Rig on SLOT#12 FARLEY 29C-23#2 (555' SL, & 577' FWL, SEC 23) (R00) to Mud line (N Stn: SLOT#12 FARLEY 29C-23#2 (555' SL, & 577' FWL, SEC 23))						4566ft	
Mean Sea Level to Mud line (N Stn: SLOT#12 FARLEY 29C-23#2 (555' SL, & 577' FWL, SEC 23))						0ft	
Rig on SLOT#12 FARLEY 29C-23#2 (555' SL, & 577' FWL, SEC 23) (R00) to Mean Sea Level						4566ft	

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	17.00	0.000	144.450	17.00	0.00	0.00	0.00	0.00
End of Tangent	1200.00	0.000	144.450	1200.00	0.00	0.00	0.00	0.00
End of Build (J)	1525.00	6.500	144.450	1524.30	-14.98	10.71	2.00	-13.92
End of Tangent (J)	6800.19	6.500	144.450	6765.58	-500.84	357.91	0.00	-465.46
End of 3D Arc (J)	7753.22	90.014	359.924	7390.00	69.87	398.45	10.00	106.55
End of Tangent (J)	11898.32	90.014	359.924	7389.00	4214.96	392.93	0.00	4233.23

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
FARLEY 13-23 PAD SECTION LINES		0.00	19.73	22.66	3209023.77	1318419.76	40°12'18.13"N	104°45'05.893"W
FARLEY 29C-22H BHL ON PLAT (460FWL & 975FWL SEC 12) REV-1	11898.32	7389.00	4214.96	392.93	3209358.61	1322617.77	40°12'59.594"N	104°45'01.120"W
FARLEY 13-23 PAD HARDLINES (460' SETBACKS)		7400.00	19.73	22.66	3209103.77	1318419.76	40°12'18.13"N	104°45'05.893"W





Planned Wellpath Report

FARLEY 29C-23HZ (PERMIT) PWP

Page 1 of 6



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#12 FARLEY 29C-23HZ (555'FSL & 577'FWL, SEC.23)
Area	COLORADO	Well	FARLEY 29C-23HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	FARLEY 29C-23HZ PWB
Facility	SEC.23-T3N-R66W		

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	0.999957	Report Generated	8/28/2012 at 22:07:26
Convergence at slot	0.48° East	Database/Source file	WellArchitectDB/FARLEY_29C-23HZ_PWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-2777.85	-4127.87	3209001.28	1318399.84	40°12'17.942"N	104°45'06.185"W
Facility Reference Pt			3213104.91	1321212.98	40°12'45.396"N	104°44'12.984"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#12 FARLEY 29C-23HZ (555'FSL & 577'FWL, SEC.23) (RKB) to Facility Vertical Datum
Horizontal Reference Pt	Slot	Rig on SLOT#12 FARLEY 29C-23HZ (555'FSL & 577'FWL, SEC.23) (RKB) to Mean Sea Level
Vertical Reference Pt	Rig on SLOT#12 FARLEY 29C-23HZ (555'FSL & 577'FWL, SEC.23) (RKB)	Rig on SLOT#12 FARLEY 29C-23HZ (555'FSL & 577'FWL, SEC.23) (RKB) to Mud Line at Slot (SLOT#12 FARLEY 29C-23H
MD Reference Pt	Rig on SLOT#12 FARLEY 29C-23HZ (555'FSL & 577'FWL, SEC.23) (RKB)	Section Origin
Field Vertical Reference	Mean Sea Level	Section Azimuth



Planned Wellpath Report

FARLEY 29C-23HZ (PERMIT) PWP

Page 2 of 6



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#12 FARLEY 29C-23HZ (555'FSL & 577'FWL, SEC.23)
Area	COLORADO	Well	FARLEY 29C-23HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	FARLEY 29C-23HZ PWB
Facility	SEC.23-T3N-R66W		

WELLPATH DATA (133 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	144.450	0.00	0.00	0.00	0.00	40°12'17.942"N	104°45'06.185"W	0.00	
17.00	0.000	144.450	17.00	0.00	0.00	0.00	40°12'17.942"N	104°45'06.185"W	0.00	Tie On
117.00†	0.000	144.450	117.00	0.00	0.00	0.00	40°12'17.942"N	104°45'06.185"W	0.00	
217.00†	0.000	144.450	217.00	0.00	0.00	0.00	40°12'17.942"N	104°45'06.185"W	0.00	
317.00†	0.000	144.450	317.00	0.00	0.00	0.00	40°12'17.942"N	104°45'06.185"W	0.00	
417.00†	0.000	144.450	417.00	0.00	0.00	0.00	40°12'17.942"N	104°45'06.185"W	0.00	
517.00†	0.000	144.450	517.00	0.00	0.00	0.00	40°12'17.942"N	104°45'06.185"W	0.00	
617.00†	0.000	144.450	617.00	0.00	0.00	0.00	40°12'17.942"N	104°45'06.185"W	0.00	
717.00†	0.000	144.450	717.00	0.00	0.00	0.00	40°12'17.942"N	104°45'06.185"W	0.00	
771.00†	0.000	144.450	771.00	0.00	0.00	0.00	40°12'17.942"N	104°45'06.185"W	0.00	FOX HILLS
817.00†	0.000	144.450	817.00	0.00	0.00	0.00	40°12'17.942"N	104°45'06.185"W	0.00	
917.00†	0.000	144.450	917.00	0.00	0.00	0.00	40°12'17.942"N	104°45'06.185"W	0.00	
1017.00†	0.000	144.450	1017.00	0.00	0.00	0.00	40°12'17.942"N	104°45'06.185"W	0.00	
1117.00†	0.000	144.450	1117.00	0.00	0.00	0.00	40°12'17.942"N	104°45'06.185"W	0.00	
1200.00	0.000	144.450	1200.00	0.00	0.00	0.00	40°12'17.942"N	104°45'06.185"W	0.00	End of Tangent
1217.00†	0.340	144.450	1217.00	-0.04	-0.04	0.03	40°12'17.942"N	104°45'06.185"W	2.00	
1317.00†	2.340	144.450	1316.97	-1.81	-1.94	1.39	40°12'17.923"N	104°45'06.167"W	2.00	
1417.00†	4.340	144.450	1416.79	-6.21	-6.68	4.78	40°12'17.876"N	104°45'06.123"W	2.00	
1517.00†	6.340	144.450	1516.35	-13.25	-14.26	10.19	40°12'17.801"N	104°45'06.054"W	2.00	
1525.00	6.500	144.450	1524.30	-13.92	-14.98	10.71	40°12'17.794"N	104°45'06.047"W	2.00	End of Build (I)
1617.00†	6.500	144.450	1615.71	-21.80	-23.46	16.76	40°12'17.710"N	104°45'05.969"W	0.00	
1717.00†	6.500	144.450	1715.07	-30.36	-32.67	23.34	40°12'17.619"N	104°45'05.884"W	0.00	
1817.00†	6.500	144.450	1814.43	-38.92	-41.88	29.93	40°12'17.528"N	104°45'05.799"W	0.00	
1917.00†	6.500	144.450	1913.78	-47.48	-51.09	36.51	40°12'17.437"N	104°45'05.714"W	0.00	
2017.00†	6.500	144.450	2013.14	-56.04	-60.30	43.09	40°12'17.346"N	104°45'05.630"W	0.00	
2117.00†	6.500	144.450	2112.50	-64.60	-69.51	49.67	40°12'17.255"N	104°45'05.545"W	0.00	
2217.00†	6.500	144.450	2211.86	-73.16	-78.72	56.25	40°12'17.164"N	104°45'05.460"W	0.00	
2317.00†	6.500	144.450	2311.21	-81.72	-87.93	62.83	40°12'17.073"N	104°45'05.375"W	0.00	
2417.00†	6.500	144.450	2410.57	-90.28	-97.14	69.42	40°12'16.982"N	104°45'05.290"W	0.00	
2517.00†	6.500	144.450	2509.93	-98.84	-106.35	76.00	40°12'16.891"N	104°45'05.206"W	0.00	
2617.00†	6.500	144.450	2609.28	-107.40	-115.56	82.58	40°12'16.800"N	104°45'05.121"W	0.00	
2717.00†	6.500	144.450	2708.64	-115.96	-124.77	89.16	40°12'16.709"N	104°45'05.036"W	0.00	
2817.00†	6.500	144.450	2808.00	-124.51	-133.98	95.74	40°12'16.618"N	104°45'04.951"W	0.00	
2917.00†	6.500	144.450	2907.36	-133.07	-143.19	102.33	40°12'16.527"N	104°45'04.866"W	0.00	
3017.00†	6.500	144.450	3006.71	-141.63	-152.40	108.91	40°12'16.436"N	104°45'04.781"W	0.00	
3117.00†	6.500	144.450	3106.07	-150.19	-161.61	115.49	40°12'16.345"N	104°45'04.697"W	0.00	
3217.00†	6.500	144.450	3205.43	-158.75	-170.82	122.07	40°12'16.254"N	104°45'04.612"W	0.00	
3317.00†	6.500	144.450	3304.78	-167.31	-180.03	128.65	40°12'16.163"N	104°45'04.527"W	0.00	
3417.00†	6.500	144.450	3404.14	-175.87	-189.24	135.23	40°12'16.072"N	104°45'04.442"W	0.00	
3517.00†	6.500	144.450	3503.50	-184.43	-198.45	141.82	40°12'15.981"N	104°45'04.357"W	0.00	
3617.00†	6.500	144.450	3602.86	-192.99	-207.66	148.40	40°12'15.890"N	104°45'04.272"W	0.00	
3717.00†	6.500	144.450	3702.21	-201.55	-216.87	154.98	40°12'15.799"N	104°45'04.188"W	0.00	
3817.00†	6.500	144.450	3801.57	-210.11	-226.08	161.56	40°12'15.708"N	104°45'04.103"W	0.00	
3917.00†	6.500	144.450	3900.93	-218.67	-235.29	168.14	40°12'15.617"N	104°45'04.018"W	0.00	
3947.27†	6.500	144.450	3931.00	-221.26	-238.08	170.14	40°12'15.589"N	104°45'03.992"W	0.00	PARKMAN



Planned Wellpath Report

FARLEY 29C-23HZ (PERMIT) PWP

Page 3 of 6



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#12 FARLEY 29C-23HZ (555'FSL & 577'FWL, SEC.23)
Area	COLORADO	Well	FARLEY 29C-23HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	FARLEY 29C-23HZ PWB
Facility	SEC.23-T3N-R66W		

WELLPATH DATA (133 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4017.00†	6.500	144.450	4000.28	-227.23	-244.50	174.72	40°12'15.526"N	104°45'03.933"W	0.00	
4117.00†	6.500	144.450	4099.64	-235.79	-253.71	181.31	40°12'15.435"N	104°45'03.848"W	0.00	
4217.00†	6.500	144.450	4199.00	-244.35	-262.92	187.89	40°12'15.344"N	104°45'03.763"W	0.00	
4317.00†	6.500	144.450	4298.36	-252.91	-272.13	194.47	40°12'15.253"N	104°45'03.679"W	0.00	
4417.00†	6.500	144.450	4397.71	-261.47	-281.34	201.05	40°12'15.162"N	104°45'03.594"W	0.00	
4469.63†	6.500	144.450	4450.00	-265.97	-286.19	204.52	40°12'15.114"N	104°45'03.549"W	0.00	SUSSEX
4517.00†	6.500	144.450	4497.07	-270.03	-290.56	207.63	40°12'15.071"N	104°45'03.509"W	0.00	
4617.00†	6.500	144.450	4596.43	-278.59	-299.77	214.22	40°12'14.980"N	104°45'03.424"W	0.00	
4717.00†	6.500	144.450	4695.78	-287.15	-308.98	220.80	40°12'14.889"N	104°45'03.339"W	0.00	
4817.00†	6.500	144.450	4795.14	-295.71	-318.19	227.38	40°12'14.798"N	104°45'03.255"W	0.00	
4917.00†	6.500	144.450	4894.50	-304.27	-327.40	233.96	40°12'14.707"N	104°45'03.170"W	0.00	
5017.00†	6.500	144.450	4993.86	-312.83	-336.61	240.54	40°12'14.616"N	104°45'03.085"W	0.00	
5117.00†	6.500	144.450	5093.21	-321.39	-345.82	247.12	40°12'14.525"N	104°45'03.000"W	0.00	
5217.00†	6.500	144.450	5192.57	-329.95	-355.03	253.71	40°12'14.434"N	104°45'02.915"W	0.00	
5317.00†	6.500	144.450	5291.93	-338.51	-364.24	260.29	40°12'14.343"N	104°45'02.830"W	0.00	
5417.00†	6.500	144.450	5391.28	-347.07	-373.45	266.87	40°12'14.252"N	104°45'02.746"W	0.00	
5517.00†	6.500	144.450	5490.64	-355.62	-382.66	273.45	40°12'14.161"N	104°45'02.661"W	0.00	
5617.00†	6.500	144.450	5590.00	-364.18	-391.87	280.03	40°12'14.070"N	104°45'02.576"W	0.00	
5717.00†	6.500	144.450	5689.36	-372.74	-401.08	286.62	40°12'13.979"N	104°45'02.491"W	0.00	
5817.00†	6.500	144.450	5788.71	-381.30	-410.29	293.20	40°12'13.888"N	104°45'02.406"W	0.00	
5917.00†	6.500	144.450	5888.07	-389.86	-419.50	299.78	40°12'13.796"N	104°45'02.321"W	0.00	
6017.00†	6.500	144.450	5987.43	-398.42	-428.71	306.36	40°12'13.705"N	104°45'02.237"W	0.00	
6117.00†	6.500	144.450	6086.79	-406.98	-437.92	312.94	40°12'13.614"N	104°45'02.152"W	0.00	
6217.00†	6.500	144.450	6186.14	-415.54	-447.13	319.52	40°12'13.523"N	104°45'02.067"W	0.00	
6317.00†	6.500	144.450	6285.50	-424.10	-456.34	326.11	40°12'13.432"N	104°45'01.982"W	0.00	
6417.00†	6.500	144.450	6384.86	-432.66	-465.55	332.69	40°12'13.341"N	104°45'01.897"W	0.00	
6517.00†	6.500	144.450	6484.21	-441.22	-474.76	339.27	40°12'13.250"N	104°45'01.812"W	0.00	
6617.00†	6.500	144.450	6583.57	-449.78	-483.97	345.85	40°12'13.159"N	104°45'01.728"W	0.00	
6717.00†	6.500	144.450	6682.93	-458.34	-493.18	352.43	40°12'13.068"N	104°45'01.643"W	0.00	
6800.19	6.500	144.450	6765.58	-465.46	-500.84	357.91	40°12'12.993"N	104°45'01.572"W	0.00	End of Tangent (J)
6817.00†	5.226	133.632	6782.31	-466.66	-502.15	359.02	40°12'12.980"N	104°45'01.558"W	10.00	
6917.00†	7.423	30.423	6881.93	-463.62	-499.71	365.60	40°12'13.004"N	104°45'01.473"W	10.00	
7017.00†	16.811	12.567	6979.62	-443.37	-479.98	372.03	40°12'13.199"N	104°45'01.390"W	10.00	
7096.57†	24.623	8.219	7054.00	-415.36	-452.30	376.92	40°12'13.472"N	104°45'01.327"W	10.00	SHARON SPRINGS
7117.00†	26.642	7.498	7072.41	-406.53	-443.54	378.12	40°12'13.559"N	104°45'01.312"W	10.00	
7165.73†	31.469	6.126	7115.00	-382.88	-420.05	380.91	40°12'13.791"N	104°45'01.276"W	10.00	NIORARA A
7204.06†	35.274	5.288	7147.00	-361.80	-399.08	382.99	40°12'13.998"N	104°45'01.249"W	10.00	NIORARA B
7217.00†	36.560	5.040	7157.48	-354.21	-391.51	383.68	40°12'14.073"N	104°45'01.240"W	10.00	
7317.00†	46.510	3.521	7232.25	-288.00	-325.47	388.53	40°12'14.726"N	104°45'01.178"W	10.00	
7326.90†	47.497	3.399	7239.00	-280.76	-318.24	388.97	40°12'14.797"N	104°45'01.172"W	10.00	NIORARA C
7417.00†	56.474	2.435	7294.43	-209.92	-247.42	392.54	40°12'15.497"N	104°45'01.126"W	10.00	
7517.00†	66.446	1.576	7342.15	-122.33	-159.74	395.58	40°12'16.363"N	104°45'01.087"W	10.00	
7597.32†	74.458	0.978	7369.00	-46.90	-84.13	397.26	40°12'17.111"N	104°45'01.065"W	10.00	FORT HAYS
7617.00†	76.422	0.840	7373.95	-27.90	-65.08	397.56	40°12'17.299"N	104°45'01.061"W	10.00	
7717.00†	86.399	0.163	7388.87	70.50	33.67	398.42	40°12'18.275"N	104°45'01.050"W	10.00	



Planned Wellpath Report

FARLEY 29C-23HZ (PERMIT) PWP

Page 4 of 6



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#12 FARLEY 29C-23HZ (555'FSL & 577'FWL, SEC.23)
Area	COLORADO	Well	FARLEY 29C-23HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	FARLEY 29C-23HZ PWB
Facility	SEC.23-T3N-R66W		

WELLPATH DATA (133 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7753.22	90.014	359.924	7390.00	106.55	69.87	398.45	40°12'18.632"N	104°45'01.050"W	10.00	End of 3D Arc (J)
7817.00†	90.014	359.924	7389.98	170.04	133.64	398.36	40°12'19.263"N	104°45'01.051"W	0.00	
7917.00†	90.014	359.924	7389.96	269.60	233.64	398.23	40°12'20.251"N	104°45'01.052"W	0.00	
8017.00†	90.014	359.924	7389.94	369.15	333.64	398.09	40°12'21.239"N	104°45'01.054"W	0.00	
8117.00†	90.014	359.924	7389.91	468.71	433.64	397.96	40°12'22.227"N	104°45'01.056"W	0.00	
8217.00†	90.014	359.924	7389.89	568.26	533.64	397.83	40°12'23.215"N	104°45'01.058"W	0.00	
8317.00†	90.014	359.924	7389.86	667.82	633.64	397.69	40°12'24.204"N	104°45'01.059"W	0.00	
8417.00†	90.014	359.924	7389.84	767.38	733.64	397.56	40°12'25.192"N	104°45'01.061"W	0.00	
8517.00†	90.014	359.924	7389.81	866.93	833.64	397.43	40°12'26.180"N	104°45'01.063"W	0.00	
8617.00†	90.014	359.924	7389.79	966.49	933.64	397.30	40°12'27.168"N	104°45'01.064"W	0.00	
8717.00†	90.014	359.924	7389.77	1066.04	1033.64	397.16	40°12'28.156"N	104°45'01.066"W	0.00	
8817.00†	90.014	359.924	7389.74	1165.60	1133.64	397.03	40°12'29.145"N	104°45'01.068"W	0.00	
8917.00†	90.014	359.924	7389.72	1265.15	1233.64	396.90	40°12'30.133"N	104°45'01.069"W	0.00	
9017.00†	90.014	359.924	7389.69	1364.71	1333.64	396.76	40°12'31.121"N	104°45'01.071"W	0.00	
9117.00†	90.014	359.924	7389.67	1464.27	1433.64	396.63	40°12'32.109"N	104°45'01.073"W	0.00	
9217.00†	90.014	359.924	7389.65	1563.82	1533.64	396.50	40°12'33.097"N	104°45'01.075"W	0.00	
9317.00†	90.014	359.924	7389.62	1663.38	1633.64	396.36	40°12'34.086"N	104°45'01.076"W	0.00	
9417.00†	90.014	359.924	7389.60	1762.93	1733.64	396.23	40°12'35.074"N	104°45'01.078"W	0.00	
9517.00†	90.014	359.924	7389.57	1862.49	1833.64	396.10	40°12'36.062"N	104°45'01.080"W	0.00	
9617.00†	90.014	359.924	7389.55	1962.05	1933.64	395.96	40°12'37.050"N	104°45'01.081"W	0.00	
9717.00†	90.014	359.924	7389.53	2061.60	2033.64	395.83	40°12'38.038"N	104°45'01.083"W	0.00	
9817.00†	90.014	359.924	7389.50	2161.16	2133.64	395.70	40°12'39.027"N	104°45'01.085"W	0.00	
9917.00†	90.014	359.924	7389.48	2260.71	2233.64	395.56	40°12'40.015"N	104°45'01.086"W	0.00	
10017.00†	90.014	359.924	7389.45	2360.27	2333.64	395.43	40°12'41.003"N	104°45'01.088"W	0.00	
10117.00†	90.014	359.924	7389.43	2459.82	2433.64	395.30	40°12'41.991"N	104°45'01.090"W	0.00	
10217.00†	90.014	359.924	7389.41	2559.38	2533.64	395.16	40°12'42.979"N	104°45'01.091"W	0.00	
10317.00†	90.014	359.924	7389.38	2658.94	2633.64	395.03	40°12'43.968"N	104°45'01.093"W	0.00	
10417.00†	90.014	359.924	7389.36	2758.49	2733.64	394.90	40°12'44.956"N	104°45'01.095"W	0.00	
10517.00†	90.014	359.924	7389.33	2858.05	2833.64	394.77	40°12'45.944"N	104°45'01.097"W	0.00	
10617.00†	90.014	359.924	7389.31	2957.60	2933.64	394.63	40°12'46.932"N	104°45'01.098"W	0.00	
10717.00†	90.014	359.924	7389.28	3057.16	3033.64	394.50	40°12'47.920"N	104°45'01.100"W	0.00	
10817.00†	90.014	359.924	7389.26	3156.72	3133.64	394.37	40°12'48.908"N	104°45'01.102"W	0.00	
10917.00†	90.014	359.924	7389.24	3256.27	3233.64	394.23	40°12'49.897"N	104°45'01.103"W	0.00	
11017.00†	90.014	359.924	7389.21	3355.83	3333.64	394.10	40°12'50.885"N	104°45'01.105"W	0.00	
11117.00†	90.014	359.924	7389.19	3455.38	3433.64	393.97	40°12'51.873"N	104°45'01.107"W	0.00	
11217.00†	90.014	359.924	7389.16	3554.94	3533.64	393.83	40°12'52.861"N	104°45'01.108"W	0.00	
11317.00†	90.014	359.924	7389.14	3654.49	3633.64	393.70	40°12'53.849"N	104°45'01.110"W	0.00	
11417.00†	90.014	359.924	7389.12	3754.05	3733.64	393.57	40°12'54.838"N	104°45'01.112"W	0.00	
11517.00†	90.014	359.924	7389.09	3853.61	3833.64	393.43	40°12'55.826"N	104°45'01.114"W	0.00	
11617.00†	90.014	359.924	7389.07	3953.16	3933.64	393.30	40°12'56.814"N	104°45'01.115"W	0.00	
11717.00†	90.014	359.924	7389.04	4052.72	4033.64	393.17	40°12'57.802"N	104°45'01.117"W	0.00	
11817.00†	90.014	359.924	7389.02	4152.27	4133.64	393.03	40°12'58.790"N	104°45'01.119"W	0.00	
11898.32	90.014	359.924	7389.00†	4233.23	4214.96	392.93	40°12'59.594"N	104°45'01.120"W	0.00	End of Tangent (J)



Planned Wellpath Report

FARLEY 29C-23HZ (PERMIT) PWP

Page 5 of 6

**REFERENCE WELLPATH IDENTIFICATION**

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#12 FARLEY 29C-23HZ (555'FSL & 577'FWL, SEC.23)
Area	COLORADO	Well	FARLEY 29C-23HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	FARLEY 29C-23HZ PWB
Facility	SEC.23-T3N-R66W		

HOLE & CASING SECTIONS - Ref Wellbore: FARLEY 29C-23HZ PWB Ref Wellpath: FARLEY 29C-23HZ (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]
13.5in Open Hole	17.00	937.00	920.00	17.00	937.00	0.00	0.00	0.00	0.00
9.625in Casing Surface	17.00	937.00	920.00	17.00	937.00	0.00	0.00	0.00	0.00
8.75in Open Hole	937.00	7753.22	6816.22	937.00	7390.00	0.00	0.00	69.86	398.45
7in Casing Intermediate	17.00	7753.22	7736.22	17.00	7390.00	0.00	0.00	69.86	398.45
6.125in Open Hole	7753.22	11898.32	4145.10	7390.00	7389.00	69.86	398.45	4214.96	392.93
4.5in Casing Production	17.00	11898.32	11881.32	17.00	7389.00	0.00	0.00	4214.96	392.93

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
FARLEY 13-23 PAD SECTION LINES		0.00	19.73	22.66	3209023.77	1318419.76	40°12'18.137"N	104°45'05.893"W	polygon
1) FARLEY 29C-23HZ BHL ON PLAT (460'FNL & 975'FWL, SEC.12) REV-1	11898.32	7389.00	4214.96	392.93	3209358.61	1322617.77	40°12'59.594"N	104°45'01.120"W	point
FARLEY 13-23 PAD HARDLINES (460' SETBACKS)		7400.00	19.73	22.66	3209023.77	1318419.76	40°12'18.137"N	104°45'05.893"W	polygon

SURVEY PROGRAM - Ref Wellbore: FARLEY 29C-23HZ PWB Ref Wellpath: FARLEY 29C-23HZ (PERMIT) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	7753.22	NaviTrak (Standard)		FARLEY 29C-23HZ PWB
7753.22	11898.36	OnTrak (Standard)		FARLEY 29C-23HZ PWB



Planned Wellpath Report
FARLEY 29C-23HZ (PERMIT) PWP
Page 6 of 6



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#12 FARLEY 29C-23HZ (555'FSL & 577'FWL, SEC.23)
Area	COLORADO	Well	FARLEY 29C-23HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	FARLEY 29C-23HZ PWB
Facility	SEC.23-T3N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
771.00	0.000	144.450	771.00	FOX HILLS
3947.27	6.500	144.450	3931.00	PARKMAN
4469.63	6.500	144.450	4450.00	SUSSEX
7096.57	24.623	8.219	7054.00	SHARON SPRINGS
7165.73	31.469	6.126	7115.00	NIOBRARA A
7204.06	35.274	5.288	7147.00	NIOBRARA B
7326.90	47.497	3.399	7239.00	NIOBRARA C
7597.32	74.458	0.978	7369.00	FORT HAYS