

# KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#02 SPURLING 14N-34HZ (377' FNL & 1148' FWL, SEC. 34)  
Field: WELD COUNTY (KERR MCGEE) Well: SPURLING 14N-34HZ  
Facility: SEC.34-T2N-R67W Wellbore: SPURLING 14N-34HZ PWB

Plot reference wellpath is SPURLING 14N-34HZ (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: 5030 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#02 SPURLING 14N-34HZ (377' FNL & 1148' FWL, SEC. 34)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: robale01 on 01/Aug/2013

## Location Information

Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.34-T2N-R67W	3172818.756	1280239.992	40°06'03.593"N	104°52'55.951"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)
SLOT#02 SPURLING 14N-34HZ (377' FNL & 1148' FWL, SEC. 34)	0.00	-30.07	3172788.685	1280239.783
PERMIT (17' KB) (RKB) to Mud line (At Slot: SLOT#02 SPURLING 14N-34HZ (377' FNL & 1148' FWL, SEC. 34))				5030ft
Mean Sea Level to Mud line (At Slot: SLOT#02 SPURLING 14N-34HZ (377' FNL & 1148' FWL, SEC. 34))				0ft
PERMIT (17' KB) (RKB) to Mean Sea Level				5030ft

## Survey Program

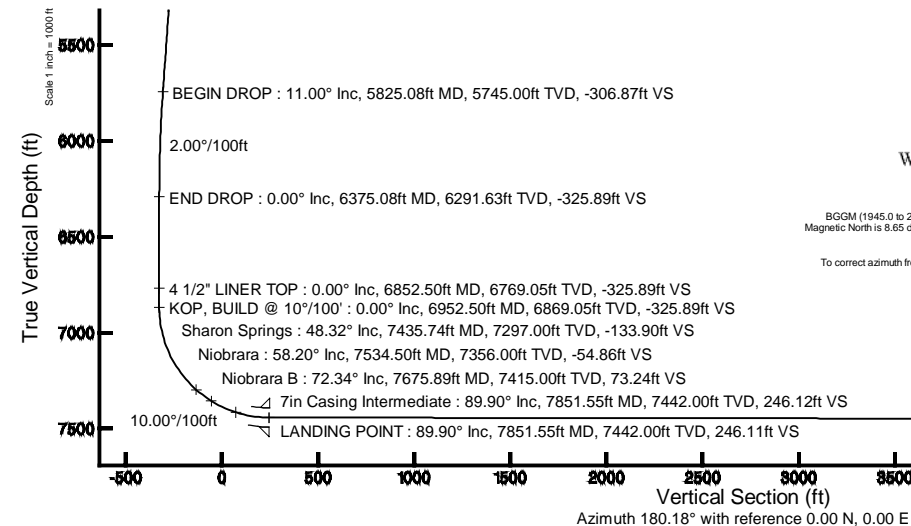
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	12054.09	NavTrak	NavTrak (Standard)		SPURLING 14N-34HZ PWB

## Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.34-T2N-R47W HARD LINES (460' SETBACKS)		5030.00	0.00	30.00	3172818.68	1280239.99	40°06'03.593"N	104°52'55.952"W
SEC.34-T2N-R67W SECTION LINES		5030.00	0.00	30.00	3172818.68	1280239.99	40°06'03.593"N	104°52'55.952"W
SPURLING 14N-34HZ (460' FSL & 1990' FWL, SEC.34)	12054.09	7449.00	-4451.30	826.84	3173646.48	1275794.53	40°05'19.604"N	104°52'45.700"W

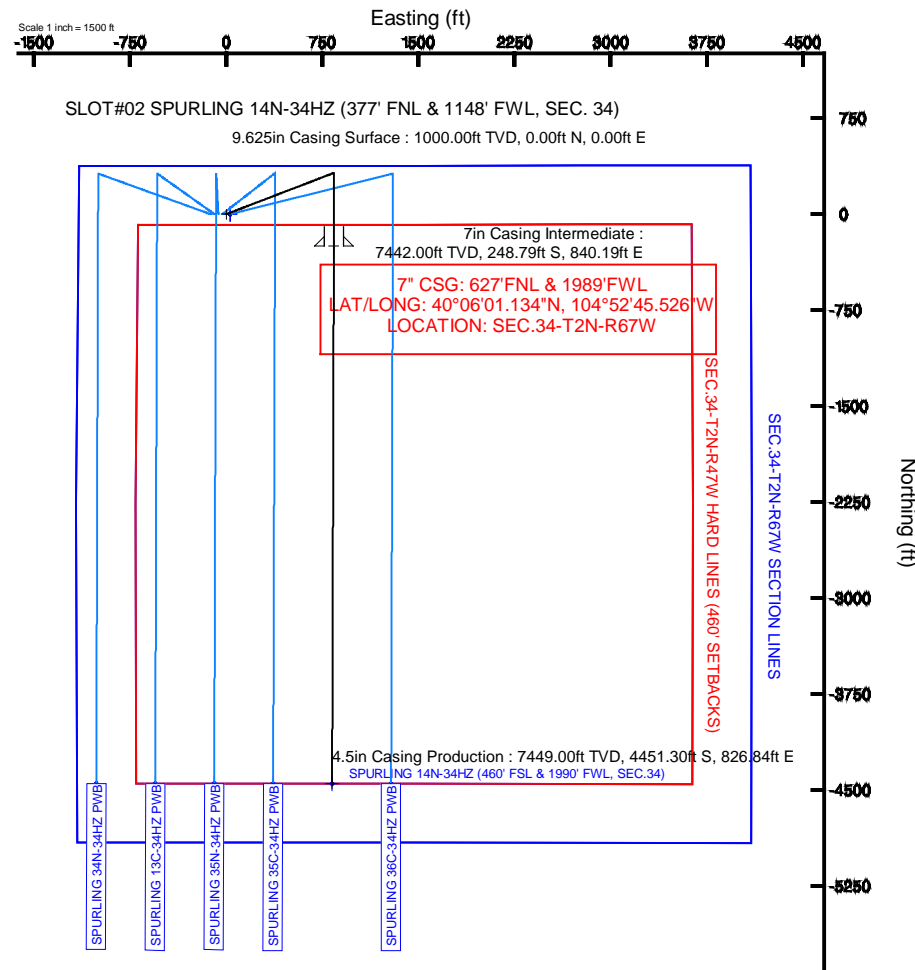
## Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
TIE-ON	17.00	0.000	69.000	17.00	0.00	0.00	0.00	0.00
BEGIN NUDGE	1100.00	0.000	69.000	1100.00	0.00	0.00	0.00	0.00
END NUDGE	1650.00	11.000	69.000	1646.63	18.86	49.14	2.00	-19.02
BEGIN DROP	5825.08	11.000	69.000	5745.00	304.35	792.87	0.00	-306.87
END DROP	6375.08	0.000	180.182	6291.63	323.22	842.01	2.00	-325.89
KOP, BUILD @ 10°/100'	6952.50	0.000	180.182	6869.05	323.22	842.01	0.00	-325.89
LANDING POINT	7851.55	89.905	180.182	7442.00	-248.79	840.19	10.00	246.11
TOTAL DEPTH	12054.09	89.905	180.182	7449.00	-4451.30	826.84	0.00	4448.65



BGGM (1945.0 to 2015.0) Dip: 66.71° Field: 52668.5 nT  
Magnetic North is 8.65 degrees East of True North (at 27/Jul/2013)

To correct azimuth from Magnetic to True add 8.65 degrees



4.5in Casing Production : 89.90° Inc, 12054.09ft MD, 7449.00ft TVD, 4448.65ft VS  
TOTAL DEPTH : 89.90° Inc, 12054.09ft MD, 7449.00ft TVD, 4448.65ft VS  
SPURLING 14N-34HZ (460' FSL & 1990' FWL, SEC.34)



# Planned Wellpath Report

SPURLING 14N-34HZ (PERMIT REV-1) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 SPURLING 14N-34HZ (377' FNL & 1148' FWL, SEC. 34)
Area	COLORADO	Well	SPURLING 14N-34HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	SPURLING 14N-34HZ PWB
Facility	SEC.34-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	0.99996	Report Generated	01/Aug/2013 at 09:32
Convergence at slot	n/a	Database/Source file	WA_ANADARKO/_SPURLING_14N-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	0.00	-30.07	3172788.69	1280239.78	40°06'03.593"N	104°52'56.338"W
Facility Reference Pt			3172818.76	1280239.99	40°06'03.593"N	104°52'55.951"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	5030.00ft
Horizontal Reference Pt	Slot	PERMIT (17' KB) (RKB) to Mean Sea Level	5030.00ft
Vertical Reference Pt	PERMIT (17' KB) (RKB)	PERMIT (17' KB) (RKB) to Mud Line at Slot (SLOT#02 SPURLING 14N-34HZ (377' FNL & 1148' FWL, SEC. 34))	5030.00ft
MD Reference Pt	PERMIT (17' KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	180.18°



# Planned Wellpath Report

## SPURLING 14N-34HZ (PERMIT REV-1) PWP

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### REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 SPURLING 14N-34HZ (377' FNL & 1148' FWL, SEC. 34)
Area	COLORADO	Well	SPURLING 14N-34HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	SPURLING 14N-34HZ PWB
Facility	SEC.34-T2N-R67W		

### WELLPATH DATA (136 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	69.000	0.00	0.00	0.00	0.00	40°06'03.593"N	104°52'56.338"W	0.00	
17.00	0.000	69.000	17.00	0.00	0.00	0.00	40°06'03.593"N	104°52'56.338"W	0.00	TIE-ON
117.00†	0.000	69.000	117.00	0.00	0.00	0.00	40°06'03.593"N	104°52'56.338"W	0.00	
217.00†	0.000	69.000	217.00	0.00	0.00	0.00	40°06'03.593"N	104°52'56.338"W	0.00	
317.00†	0.000	69.000	317.00	0.00	0.00	0.00	40°06'03.593"N	104°52'56.338"W	0.00	
417.00†	0.000	69.000	417.00	0.00	0.00	0.00	40°06'03.593"N	104°52'56.338"W	0.00	
517.00†	0.000	69.000	517.00	0.00	0.00	0.00	40°06'03.593"N	104°52'56.338"W	0.00	
590.00†	0.000	69.000	590.00	0.00	0.00	0.00	40°06'03.593"N	104°52'56.338"W	0.00	Fox Hills Base
617.00†	0.000	69.000	617.00	0.00	0.00	0.00	40°06'03.593"N	104°52'56.338"W	0.00	
717.00†	0.000	69.000	717.00	0.00	0.00	0.00	40°06'03.593"N	104°52'56.338"W	0.00	
817.00†	0.000	69.000	817.00	0.00	0.00	0.00	40°06'03.593"N	104°52'56.338"W	0.00	
917.00†	0.000	69.000	917.00	0.00	0.00	0.00	40°06'03.593"N	104°52'56.338"W	0.00	
1017.00†	0.000	69.000	1017.00	0.00	0.00	0.00	40°06'03.593"N	104°52'56.338"W	0.00	
1100.00	0.000	69.000	1100.00	0.00	0.00	0.00	40°06'03.593"N	104°52'56.338"W	0.00	BEGIN NUDGE
1117.00†	0.340	69.000	1117.00	-0.02	0.02	0.05	40°06'03.593"N	104°52'56.337"W	2.00	
1217.00†	2.340	69.000	1216.97	-0.86	0.86	2.23	40°06'03.601"N	104°52'56.309"W	2.00	
1317.00†	4.340	69.000	1316.79	-2.97	2.94	7.67	40°06'03.622"N	104°52'56.239"W	2.00	
1417.00†	6.340	69.000	1416.35	-6.33	6.28	16.36	40°06'03.655"N	104°52'56.128"W	2.00	
1517.00†	8.340	69.000	1515.53	-10.95	10.86	28.28	40°06'03.700"N	104°52'55.974"W	2.00	
1617.00†	10.340	69.000	1614.20	-16.81	16.67	43.43	40°06'03.758"N	104°52'55.779"W	2.00	
1650.00	11.000	69.000	1646.63	-19.02	18.86	49.14	40°06'03.779"N	104°52'55.706"W	2.00	END NUDGE
1717.00†	11.000	69.000	1712.40	-23.64	23.44	61.07	40°06'03.825"N	104°52'55.552"W	0.00	
1817.00†	11.000	69.000	1810.56	-30.53	30.28	78.89	40°06'03.892"N	104°52'55.323"W	0.00	
1917.00†	11.000	69.000	1908.72	-37.43	37.12	96.70	40°06'03.960"N	104°52'55.094"W	0.00	
2017.00†	11.000	69.000	2006.88	-44.32	43.96	114.51	40°06'04.027"N	104°52'54.864"W	0.00	
2117.00†	11.000	69.000	2105.05	-51.22	50.80	132.33	40°06'04.095"N	104°52'54.635"W	0.00	
2217.00†	11.000	69.000	2203.21	-58.11	57.63	150.14	40°06'04.163"N	104°52'54.406"W	0.00	
2317.00†	11.000	69.000	2301.37	-65.00	64.47	167.95	40°06'04.230"N	104°52'54.177"W	0.00	
2417.00†	11.000	69.000	2399.54	-71.90	71.31	185.77	40°06'04.298"N	104°52'53.947"W	0.00	
2517.00†	11.000	69.000	2497.70	-78.79	78.15	203.58	40°06'04.365"N	104°52'53.718"W	0.00	
2617.00†	11.000	69.000	2595.86	-85.69	84.99	221.40	40°06'04.433"N	104°52'53.489"W	0.00	
2717.00†	11.000	69.000	2694.02	-92.58	91.82	239.21	40°06'04.500"N	104°52'53.260"W	0.00	
2817.00†	11.000	69.000	2792.19	-99.48	98.66	257.02	40°06'04.568"N	104°52'53.030"W	0.00	
2917.00†	11.000	69.000	2890.35	-106.37	105.50	274.84	40°06'04.636"N	104°52'52.801"W	0.00	
3017.00†	11.000	69.000	2988.51	-113.27	112.34	292.65	40°06'04.703"N	104°52'52.572"W	0.00	
3117.00†	11.000	69.000	3086.67	-120.16	119.18	310.46	40°06'04.771"N	104°52'52.343"W	0.00	
3217.00†	11.000	69.000	3184.84	-127.06	126.01	328.28	40°06'04.838"N	104°52'52.114"W	0.00	
3317.00†	11.000	69.000	3283.00	-133.95	132.85	346.09	40°06'04.906"N	104°52'51.884"W	0.00	
3417.00†	11.000	69.000	3381.16	-140.84	139.69	363.90	40°06'04.973"N	104°52'51.655"W	0.00	
3517.00†	11.000	69.000	3479.33	-147.74	146.53	381.72	40°06'05.041"N	104°52'51.426"W	0.00	
3617.00†	11.000	69.000	3577.49	-154.63	153.37	399.53	40°06'05.109"N	104°52'51.197"W	0.00	
3717.00†	11.000	69.000	3675.65	-161.53	160.20	417.34	40°06'05.176"N	104°52'50.967"W	0.00	
3817.00†	11.000	69.000	3773.81	-168.42	167.04	435.16	40°06'05.244"N	104°52'50.738"W	0.00	
3917.00†	11.000	69.000	3871.98	-175.32	173.88	452.97	40°06'05.311"N	104°52'50.509"W	0.00	
4017.00†	11.000	69.000	3970.14	-182.21	180.72	470.79	40°06'05.379"N	104°52'50.280"W	0.00	



# Planned Wellpath Report

## SPURLING 14N-34HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 SPURLING 14N-34HZ (377' FNL & 1148' FWL, SEC. 34)
Area	COLORADO	Well	SPURLING 14N-34HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	SPURLING 14N-34HZ PWB
Facility	SEC.34-T2N-R67W		

WELLPATH DATA (136 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4117.00†	11.000	69.000	4068.30	-189.11	187.56	488.60	40°06'05.446"N	104°52'50.050"W	0.00	
4217.00†	11.000	69.000	4166.46	-196.00	194.39	506.41	40°06'05.514"N	104°52'49.821"W	0.00	
4317.00†	11.000	69.000	4264.63	-202.90	201.23	524.23	40°06'05.582"N	104°52'49.592"W	0.00	
4417.00†	11.000	69.000	4362.79	-209.79	208.07	542.04	40°06'05.649"N	104°52'49.363"W	0.00	
4517.00†	11.000	69.000	4460.95	-216.68	214.91	559.85	40°06'05.717"N	104°52'49.133"W	0.00	
4617.00†	11.000	69.000	4559.12	-223.58	221.75	577.67	40°06'05.784"N	104°52'48.904"W	0.00	
4717.00†	11.000	69.000	4657.28	-230.47	228.58	595.48	40°06'05.852"N	104°52'48.675"W	0.00	
4746.26†	11.000	69.000	4686.00	-232.49	230.58	600.69	40°06'05.872"N	104°52'48.608"W	0.00	Sussex
4817.00†	11.000	69.000	4755.44	-237.37	235.42	613.29	40°06'05.919"N	104°52'48.446"W	0.00	
4917.00†	11.000	69.000	4853.60	-244.26	242.26	631.11	40°06'05.987"N	104°52'48.216"W	0.00	
5017.00†	11.000	69.000	4951.77	-251.16	249.10	648.92	40°06'06.055"N	104°52'47.987"W	0.00	
5117.00†	11.000	69.000	5049.93	-258.05	255.94	666.73	40°06'06.122"N	104°52'47.758"W	0.00	
5192.46†	11.000	69.000	5124.00	-263.25	261.10	680.18	40°06'06.173"N	104°52'47.585"W	0.00	Shannon
5217.00†	11.000	69.000	5148.09	-264.95	262.77	684.55	40°06'06.190"N	104°52'47.529"W	0.00	
5317.00†	11.000	69.000	5246.25	-271.84	269.61	702.36	40°06'06.257"N	104°52'47.299"W	0.00	
5417.00†	11.000	69.000	5344.42	-278.74	276.45	720.17	40°06'06.325"N	104°52'47.070"W	0.00	
5517.00†	11.000	69.000	5442.58	-285.63	283.29	737.99	40°06'06.392"N	104°52'46.841"W	0.00	
5617.00†	11.000	69.000	5540.74	-292.52	290.13	755.80	40°06'06.460"N	104°52'46.612"W	0.00	
5717.00†	11.000	69.000	5638.91	-299.42	296.96	773.62	40°06'06.528"N	104°52'46.383"W	0.00	
5817.00†	11.000	69.000	5737.07	-306.31	303.80	791.43	40°06'06.595"N	104°52'46.153"W	0.00	
5825.08	11.000	69.000	5745.00	-306.87	304.35	792.87	40°06'06.601"N	104°52'46.135"W	0.00	BEGIN DROP
5917.00†	9.162	69.000	5835.50	-312.68	310.12	807.89	40°06'06.658"N	104°52'45.941"W	2.00	
6017.00†	7.162	69.000	5934.48	-317.81	315.21	821.14	40°06'06.708"N	104°52'45.771"W	2.00	
6117.00†	5.162	69.000	6033.90	-321.69	319.05	831.16	40°06'06.746"N	104°52'45.642"W	2.00	
6217.00†	3.162	69.000	6133.63	-324.31	321.65	837.94	40°06'06.771"N	104°52'45.555"W	2.00	
6317.00†	1.162	69.000	6233.55	-325.68	323.01	841.46	40°06'06.785"N	104°52'45.509"W	2.00	
6375.08	0.000	180.182	6291.63	-325.89	323.22	842.01	40°06'06.787"N	104°52'45.502"W	2.00	END DROP
6417.00†	0.000	180.182	6333.55	-325.89	323.22	842.01	40°06'06.787"N	104°52'45.502"W	0.00	
6517.00†	0.000	180.182	6433.55	-325.89	323.22	842.01	40°06'06.787"N	104°52'45.502"W	0.00	
6617.00†	0.000	180.182	6533.55	-325.89	323.22	842.01	40°06'06.787"N	104°52'45.502"W	0.00	
6717.00†	0.000	180.182	6633.55	-325.89	323.22	842.01	40°06'06.787"N	104°52'45.502"W	0.00	
6817.00†	0.000	180.182	6733.55	-325.89	323.22	842.01	40°06'06.787"N	104°52'45.502"W	0.00	
6852.50†	0.000	180.182	6769.05	-325.89	323.22	842.01	40°06'06.787"N	104°52'45.502"W	0.00	4 1/2" LINER TOP
6917.00†	0.000	180.182	6833.55	-325.89	323.22	842.01	40°06'06.787"N	104°52'45.502"W	0.00	
6952.50	0.000	180.182	6869.05	-325.89	323.22	842.01	40°06'06.787"N	104°52'45.502"W	0.00	KOP, BUILD @ 10°/100'
7017.00†	6.450	180.182	6933.41	-322.26	319.59	842.00	40°06'06.751"N	104°52'45.503"W	10.00	
7117.00†	16.450	180.182	7031.30	-302.44	299.76	841.93	40°06'06.555"N	104°52'45.503"W	10.00	
7217.00†	26.450	180.182	7124.25	-265.91	263.24	841.82	40°06'06.194"N	104°52'45.505"W	10.00	
7317.00†	36.450	180.182	7209.45	-213.80	211.13	841.65	40°06'05.679"N	104°52'45.507"W	10.00	
7417.00†	46.450	180.182	7284.31	-147.69	145.02	841.44	40°06'05.026"N	104°52'45.510"W	10.00	
7435.74†	48.324	180.182	7297.00	-133.90	131.23	841.40	40°06'04.890"N	104°52'45.510"W	10.00	Sharon Springs
7517.00†	56.450	180.182	7346.55	-69.59	66.91	841.19	40°06'04.254"N	104°52'45.513"W	10.00	
7534.50†	58.200	180.182	7356.00	-54.86	52.18	841.15	40°06'04.109"N	104°52'45.514"W	10.00	Niobrara
7617.00†	66.450	180.182	7394.28	18.14	-20.81	840.91	40°06'03.387"N	104°52'45.517"W	10.00	
7675.89†	72.339	180.182	7415.00	73.24	-75.91	840.74	40°06'02.843"N	104°52'45.519"W	10.00	Niobrara B



# Planned Wellpath Report

## SPURLING 14N-34HZ (PERMIT REV-1) PWP

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### REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 SPURLING 14N-34HZ (377' FNL & 1148' FWL, SEC. 34)
Area	COLORADO	Well	SPURLING 14N-34HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	SPURLING 14N-34HZ PWB
Facility	SEC.34-T2N-R67W		

### WELLPATH DATA (136 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7717.00†	76.450	180.182	7426.06	112.83	-115.50	840.61	40°06'02.451"N	104°52'45.521"W	10.00	
7817.00†	86.450	180.182	7440.91	211.59	-214.26	840.30	40°06'01.475"N	104°52'45.525"W	10.00	
7851.55	89.905	180.182	7442.00	246.11	-248.79	840.19	40°06'01.134"N	104°52'45.526"W	10.00	LANDING POINT
7917.00†	89.905	180.182	7442.11	311.57	-314.24	839.98	40°06'00.488"N	104°52'45.529"W	0.00	
8017.00†	89.905	180.182	7442.28	411.57	-414.24	839.66	40°05'59.499"N	104°52'45.533"W	0.00	
8117.00†	89.905	180.182	7442.45	511.57	-514.24	839.35	40°05'58.511"N	104°52'45.537"W	0.00	
8217.00†	89.905	180.182	7442.61	611.57	-614.24	839.03	40°05'57.523"N	104°52'45.541"W	0.00	
8317.00†	89.905	180.182	7442.78	711.57	-714.24	838.71	40°05'56.535"N	104°52'45.545"W	0.00	
8417.00†	89.905	180.182	7442.95	811.57	-814.23	838.39	40°05'55.546"N	104°52'45.549"W	0.00	
8517.00†	89.905	180.182	7443.11	911.57	-914.23	838.08	40°05'54.558"N	104°52'45.554"W	0.00	
8617.00†	89.905	180.182	7443.28	1011.57	-1014.23	837.76	40°05'53.570"N	104°52'45.558"W	0.00	
8717.00†	89.905	180.182	7443.45	1111.57	-1114.23	837.44	40°05'52.582"N	104°52'45.562"W	0.00	
8817.00†	89.905	180.182	7443.61	1211.57	-1214.23	837.12	40°05'51.594"N	104°52'45.566"W	0.00	
8917.00†	89.905	180.182	7443.78	1311.57	-1314.23	836.81	40°05'50.605"N	104°52'45.570"W	0.00	
9017.00†	89.905	180.182	7443.94	1411.57	-1414.23	836.49	40°05'49.617"N	104°52'45.574"W	0.00	
9117.00†	89.905	180.182	7444.11	1511.57	-1514.23	836.17	40°05'48.629"N	104°52'45.578"W	0.00	
9217.00†	89.905	180.182	7444.28	1611.57	-1614.23	835.85	40°05'47.641"N	104°52'45.582"W	0.00	
9317.00†	89.905	180.182	7444.44	1711.57	-1714.23	835.54	40°05'46.653"N	104°52'45.587"W	0.00	
9417.00†	89.905	180.182	7444.61	1811.57	-1814.23	835.22	40°05'45.664"N	104°52'45.591"W	0.00	
9517.00†	89.905	180.182	7444.78	1911.57	-1914.23	834.90	40°05'44.676"N	104°52'45.595"W	0.00	
9617.00†	89.905	180.182	7444.94	2011.57	-2014.23	834.58	40°05'43.688"N	104°52'45.599"W	0.00	
9717.00†	89.905	180.182	7445.11	2111.57	-2114.23	834.26	40°05'42.700"N	104°52'45.603"W	0.00	
9817.00†	89.905	180.182	7445.28	2211.57	-2214.23	833.95	40°05'41.712"N	104°52'45.607"W	0.00	
9917.00†	89.905	180.182	7445.44	2311.57	-2314.23	833.63	40°05'40.723"N	104°52'45.611"W	0.00	
10017.00†	89.905	180.182	7445.61	2411.57	-2414.22	833.31	40°05'39.735"N	104°52'45.615"W	0.00	
10117.00†	89.905	180.182	7445.78	2511.57	-2514.22	832.99	40°05'38.747"N	104°52'45.620"W	0.00	
10217.00†	89.905	180.182	7445.94	2611.56	-2614.22	832.68	40°05'37.759"N	104°52'45.624"W	0.00	
10317.00†	89.905	180.182	7446.11	2711.56	-2714.22	832.36	40°05'36.770"N	104°52'45.628"W	0.00	
10417.00†	89.905	180.182	7446.27	2811.56	-2814.22	832.04	40°05'35.782"N	104°52'45.632"W	0.00	
10517.00†	89.905	180.182	7446.44	2911.56	-2914.22	831.72	40°05'34.794"N	104°52'45.636"W	0.00	
10617.00†	89.905	180.182	7446.61	3011.56	-3014.22	831.41	40°05'33.806"N	104°52'45.640"W	0.00	
10717.00†	89.905	180.182	7446.77	3111.56	-3114.22	831.09	40°05'32.818"N	104°52'45.644"W	0.00	
10817.00†	89.905	180.182	7446.94	3211.56	-3214.22	830.77	40°05'31.829"N	104°52'45.649"W	0.00	
10917.00†	89.905	180.182	7447.11	3311.56	-3314.22	830.45	40°05'30.841"N	104°52'45.653"W	0.00	
11017.00†	89.905	180.182	7447.27	3411.56	-3414.22	830.14	40°05'29.853"N	104°52'45.657"W	0.00	
11117.00†	89.905	180.182	7447.44	3511.56	-3514.22	829.82	40°05'28.865"N	104°52'45.661"W	0.00	
11217.00†	89.905	180.182	7447.61	3611.56	-3614.22	829.50	40°05'27.877"N	104°52'45.665"W	0.00	
11317.00†	89.905	180.182	7447.77	3711.56	-3714.22	829.18	40°05'26.888"N	104°52'45.669"W	0.00	
11417.00†	89.905	180.182	7447.94	3811.56	-3814.22	828.87	40°05'25.900"N	104°52'45.673"W	0.00	
11517.00†	89.905	180.182	7448.11	3911.56	-3914.21	828.55	40°05'24.912"N	104°52'45.677"W	0.00	
11617.00†	89.905	180.182	7448.27	4011.56	-4014.21	828.23	40°05'23.924"N	104°52'45.682"W	0.00	
11717.00†	89.905	180.182	7448.44	4111.56	-4114.21	827.91	40°05'22.936"N	104°52'45.686"W	0.00	
11817.00†	89.905	180.182	7448.61	4211.56	-4214.21	827.59	40°05'21.947"N	104°52'45.690"W	0.00	
11917.00†	89.905	180.182	7448.77	4311.56	-4314.21	827.28	40°05'20.959"N	104°52'45.694"W	0.00	
12017.00†	89.905	180.182	7448.94	4411.56	-4414.21	826.96	40°05'19.971"N	104°52'45.698"W	0.00	





# Planned Wellpath Report

## SPURLING 14N-34HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 SPURLING 14N-34HZ (377' FNL & 1148' FWL, SEC. 34)
Area	COLORADO	Well	SPURLING 14N-34HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	SPURLING 14N-34HZ PWB
Facility	SEC.34-T2N-R67W		

WELLPATH DATA (136 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12054.09	89.905	180.182	7449.00 <sup>1</sup>	4448.65	-4451.30	826.84	40°05'19.604"N	104°52'45.700"W	0.00	TOTAL DEPTH

HOLE & CASING SECTIONS -									
Ref Wellbore: SPURLING 14N-34HZ PWB					Ref Wellpath: SPURLING 14N-34HZ (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	1000.00	983.00	17.00	1000.00	0.00	0.00	0.00	0.00
9.625in Casing Surface	17.00	1000.00	983.00	17.00	1000.00	0.00	0.00	0.00	0.00
8.75in Open Hole	1000.00	7851.55	6851.55	1000.00	7442.00	0.00	0.00	-248.79	840.19
7in Casing Intermediate	17.00	7851.55	7834.55	17.00	7442.00	0.00	0.00	-248.79	840.19
6.125in Open Hole	7851.55	12054.09	4202.54	7442.00	7449.00	-248.79	840.19	-4451.30	826.84
4.5in Casing Production	17.00	12054.09	12037.09	17.00	7449.00	0.00	0.00	-4451.30	826.84

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.34-T2N-R47W HARD LINES (460' SETBACKS)		5030.00	0.00	30.00	3172818.68	1280239.99	40°06'03.593"N	104°52'55.952"W	polygon
SEC.34-T2N-R67W SECTION LINES		5030.00	0.00	30.00	3172818.68	1280239.99	40°06'03.593"N	104°52'55.952"W	polygon
1) SPURLING 14N-34HZ (460' FSL & 1990' FWL, SEC.34)	12054.09	7449.00	-4451.30	826.84	3173646.48	1275794.53	40°05'19.604"N	104°52'45.700"W	point

SURVEY PROGRAM - Ref Wellbore: SPURLING 14N-34HZ PWB					Ref Wellpath: SPURLING 14N-34HZ (PERMIT REV-1) PWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model			Log Name/Comment		Wellbore		
17.00	12054.09	NaviTrak (Standard)					SPURLING 14N-34HZ PWB		



# Planned Wellpath Report

SPURLING 14N-34HZ (PERMIT REV-1) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 SPURLING 14N-34HZ (377' FNL & 1148' FWL, SEC. 34)
Area	COLORADO	Well	SPURLING 14N-34HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	SPURLING 14N-34HZ PWB
Facility	SEC.34-T2N-R67W		

## WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
590.00	0.000	69.000	590.00	Fox Hills Base
4746.26	11.000	69.000	4686.00	Sussex
5192.46	11.000	69.000	5124.00	Shannon
6852.50	0.000	180.182	6769.05	4 1/2" LINER TOP
7435.74	48.324	180.182	7297.00	Sharon Springs
7534.50	58.200	180.182	7356.00	Niobrara
7675.89	72.339	180.182	7415.00	Niobrara B