

KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#05 SPURLING 13C-34HZ (377' FNL & 1058' FWL, SEC.34)
Field: WELD COUNTY (KERR MCGEE) Well: SPURLING 13C-34HZ
Facility: SEC.34-T2N-R67W Wellbore: SPURLING 13C-34HZ PWB

Plot reference wellpath is SPURLING 13C-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#05 SPURLING 13C-34HZ (377' FNL & 1058' 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)	Latitude	Longitude	
SLOT#05 SPURLING 13C-34HZ (377' FNL & 1058' FWL, SEC.34)	-0.40	-120.14	3172698.630	1280238.751	40°06'03.589"N	104°52'57.497"W	
PERMIT (17 KB) (RKB) to Mud line (At Slot: SLOT#05 SPURLING 13C-34HZ (377' FNL & 1058' FWL, SEC.34))						5030ft	
Mean Sea Level to Mud line (At Slot: SLOT#05 SPURLING 13C-34HZ (377' FNL & 1058' FWL, SEC.34))						0ft	
PERMIT (17 KB) (RKB) to Mean Sea Level						5030ft	

Survey Program

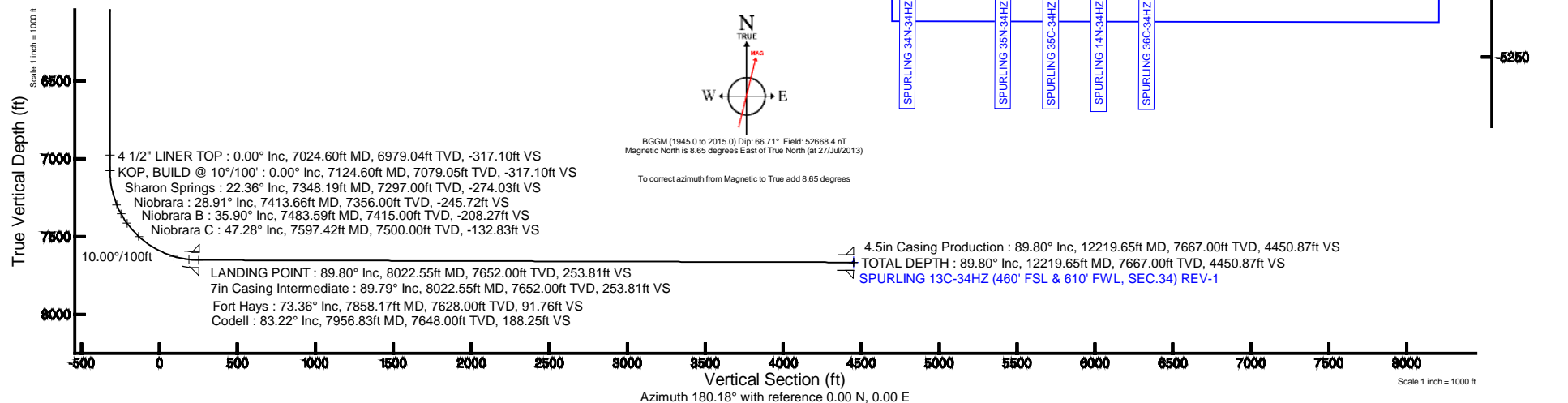
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	8022.55	NaviTrak	NaviTrak (Standard)		SPURLING 13C-34HZ PWB
8022.55	12219.65	OnTrak	OnTrak (Standard)		SPURLING 13C-34HZ PWB

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	0.41	120.06	3172818.68	1280239.99	40°06'03.593"N	104°52'55.952"W
SEC.34-T2N-R67W SECTION LINES		5030.00	0.41	120.06	3172818.68	1280239.99	40°06'03.593"N	104°52'55.952"W
SPURLING 13C-34HZ (460' FSL & 610' FWL, SEC.34) REV-1	12219.65	7667.00	-4449.45	-463.05	3172266.58	1275786.37	40°05'19.619"N	104°53'03.455"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	305.400	17.00	0.00	0.00	0.00	0.00
BEGIN NUDGE	1100.00	0.000	305.400	1100.00	0.00	0.00	0.00	0.00
END NUDGE	1600.00	10.000	305.400	1597.47	25.21	-35.48	2.00	-25.10
BEGIN DROP	4265.02	10.000	305.400	4222.00	293.29	-412.70	0.00	-292.00
END DROP	4765.02	0.000	180.179	4719.47	318.50	-448.17	2.00	-317.10
KOP, BUILD @ 10°/100'	7124.60	0.000	180.179	7079.05	318.50	-448.17	0.00	-317.10
LANDING POINT	8022.55	89.795	180.179	7652.00	-252.41	-449.96	10.00	253.81
TOTAL DEPTH	12219.65	89.795	180.179	7667.00	-4449.45	-463.05	0.00	4450.87





Planned Wellpath Report

SPURLING 13C-34HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 SPURLING 13C-34HZ (377' FNL & 1058' FWL, SEC.34)
Area	COLORADO	Well	SPURLING 13C-34HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	SPURLING 13C-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 09:37
Convergence at slot	n/a	Database/Source file	WA_ANADARKO/SPURLING_13C-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	-0.40	-120.14	3172698.63	1280238.75	40°06'03.589"N	104°52'57.497"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#05 SPURLING 13C-34HZ (377' FNL & 1058' 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°



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Field	WELD COUNTY (KERR MCGEE)	Wellbore	SPURLING 13C-34HZ PWB
Facility	SEC.34-T2N-R67W		

WELLPATH DATA (141 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	305.400	0.00	0.00	0.00	0.00	40°06'03.589"N	104°52'57.497"W	0.00	
17.00	0.000	305.400	17.00	0.00	0.00	0.00	40°06'03.589"N	104°52'57.497"W	0.00	TIE-ON
117.00†	0.000	305.400	117.00	0.00	0.00	0.00	40°06'03.589"N	104°52'57.497"W	0.00	
217.00†	0.000	305.400	217.00	0.00	0.00	0.00	40°06'03.589"N	104°52'57.497"W	0.00	
317.00†	0.000	305.400	317.00	0.00	0.00	0.00	40°06'03.589"N	104°52'57.497"W	0.00	
417.00†	0.000	305.400	417.00	0.00	0.00	0.00	40°06'03.589"N	104°52'57.497"W	0.00	
517.00†	0.000	305.400	517.00	0.00	0.00	0.00	40°06'03.589"N	104°52'57.497"W	0.00	
590.00†	0.000	305.400	590.00	0.00	0.00	0.00	40°06'03.589"N	104°52'57.497"W	0.00	Fox Hills Base
617.00†	0.000	305.400	617.00	0.00	0.00	0.00	40°06'03.589"N	104°52'57.497"W	0.00	
717.00†	0.000	305.400	717.00	0.00	0.00	0.00	40°06'03.589"N	104°52'57.497"W	0.00	
817.00†	0.000	305.400	817.00	0.00	0.00	0.00	40°06'03.589"N	104°52'57.497"W	0.00	
917.00†	0.000	305.400	917.00	0.00	0.00	0.00	40°06'03.589"N	104°52'57.497"W	0.00	
1017.00†	0.000	305.400	1017.00	0.00	0.00	0.00	40°06'03.589"N	104°52'57.497"W	0.00	
1100.00	0.000	305.400	1100.00	0.00	0.00	0.00	40°06'03.589"N	104°52'57.497"W	0.00	BEGIN NUDGE
1117.00†	0.340	305.400	1117.00	-0.03	0.03	-0.04	40°06'03.589"N	104°52'57.498"W	2.00	
1217.00†	2.340	305.400	1216.97	-1.38	1.38	-1.95	40°06'03.603"N	104°52'57.522"W	2.00	
1317.00†	4.340	305.400	1316.79	-4.74	4.76	-6.70	40°06'03.636"N	104°52'57.583"W	2.00	
1417.00†	6.340	305.400	1416.35	-10.10	10.15	-14.28	40°06'03.689"N	104°52'57.681"W	2.00	
1517.00†	8.340	305.400	1515.53	-17.47	17.55	-24.69	40°06'03.762"N	104°52'57.815"W	2.00	
1600.00	10.000	305.400	1597.47	-25.10	25.21	-35.48	40°06'03.838"N	104°52'57.954"W	2.00	END NUDGE
1617.00†	10.000	305.400	1614.21	-26.80	26.92	-37.88	40°06'03.855"N	104°52'57.984"W	0.00	
1717.00†	10.000	305.400	1712.69	-36.82	36.98	-52.04	40°06'03.954"N	104°52'58.167"W	0.00	
1817.00†	10.000	305.400	1811.17	-46.83	47.04	-66.19	40°06'04.054"N	104°52'58.349"W	0.00	
1917.00†	10.000	305.400	1909.65	-56.85	57.10	-80.35	40°06'04.153"N	104°52'58.531"W	0.00	
2017.00†	10.000	305.400	2008.13	-66.86	67.16	-94.50	40°06'04.253"N	104°52'58.713"W	0.00	
2117.00†	10.000	305.400	2106.61	-76.88	77.22	-108.66	40°06'04.352"N	104°52'58.895"W	0.00	
2217.00†	10.000	305.400	2205.09	-86.89	87.28	-122.81	40°06'04.451"N	104°52'59.077"W	0.00	
2317.00†	10.000	305.400	2303.57	-96.91	97.34	-136.96	40°06'04.551"N	104°52'59.260"W	0.00	
2417.00†	10.000	305.400	2402.05	-106.92	107.39	-151.12	40°06'04.650"N	104°52'59.442"W	0.00	
2517.00†	10.000	305.400	2500.53	-116.94	117.45	-165.27	40°06'04.750"N	104°52'59.624"W	0.00	
2617.00†	10.000	305.400	2599.01	-126.95	127.51	-179.43	40°06'04.849"N	104°52'59.806"W	0.00	
2717.00†	10.000	305.400	2697.50	-136.97	137.57	-193.58	40°06'04.949"N	104°52'59.988"W	0.00	
2817.00†	10.000	305.400	2795.98	-146.98	147.63	-207.74	40°06'05.048"N	104°53'00.170"W	0.00	
2917.00†	10.000	305.400	2894.46	-157.00	157.69	-221.89	40°06'05.147"N	104°53'00.352"W	0.00	
3017.00†	10.000	305.400	2992.94	-167.01	167.75	-236.05	40°06'05.247"N	104°53'00.535"W	0.00	
3117.00†	10.000	305.400	3091.42	-177.03	177.81	-250.20	40°06'05.346"N	104°53'00.717"W	0.00	
3217.00†	10.000	305.400	3189.90	-187.04	187.87	-264.36	40°06'05.446"N	104°53'00.899"W	0.00	
3317.00†	10.000	305.400	3288.38	-197.06	197.93	-278.51	40°06'05.545"N	104°53'01.081"W	0.00	
3417.00†	10.000	305.400	3386.86	-207.07	207.99	-292.66	40°06'05.644"N	104°53'01.263"W	0.00	
3517.00†	10.000	305.400	3485.34	-217.09	218.04	-306.82	40°06'05.744"N	104°53'01.445"W	0.00	
3617.00†	10.000	305.400	3583.82	-227.10	228.10	-320.97	40°06'05.843"N	104°53'01.628"W	0.00	
3717.00†	10.000	305.400	3682.30	-237.12	238.16	-335.13	40°06'05.943"N	104°53'01.810"W	0.00	
3817.00†	10.000	305.400	3780.78	-247.13	248.22	-349.28	40°06'06.042"N	104°53'01.992"W	0.00	
3917.00†	10.000	305.400	3879.26	-257.14	258.28	-363.44	40°06'06.141"N	104°53'02.174"W	0.00	
4017.00†	10.000	305.400	3977.75	-267.16	268.34	-377.59	40°06'06.241"N	104°53'02.356"W	0.00	



Planned Wellpath Report

SPURLING 13C-34HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 SPURLING 13C-34HZ (377' FNL & 1058' FWL, SEC.34)
Area	COLORADO	Well	SPURLING 13C-34HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	SPURLING 13C-34HZ PWB
Facility	SEC.34-T2N-R67W		

WELLPATH DATA (141 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4117.00†	10.000	305.400	4076.23	-277.17	278.40	-391.75	40°06'06.340"N	104°53'02.538"W	0.00	
4217.00†	10.000	305.400	4174.71	-287.19	288.46	-405.90	40°06'06.440"N	104°53'02.720"W	0.00	
4265.02	10.000	305.400	4222.00	-292.00	293.29	-412.70	40°06'06.487"N	104°53'02.808"W	0.00	BEGIN DROP
4317.00†	8.960	305.400	4273.27	-296.94	298.25	-419.68	40°06'06.536"N	104°53'02.898"W	2.00	
4417.00†	6.960	305.400	4372.30	-304.92	306.27	-430.96	40°06'06.616"N	104°53'03.043"W	2.00	
4517.00†	4.960	305.400	4471.75	-310.91	312.29	-439.43	40°06'06.675"N	104°53'03.152"W	2.00	
4617.00†	2.960	305.400	4571.51	-314.89	316.29	-445.06	40°06'06.715"N	104°53'03.224"W	2.00	
4717.00†	0.960	305.400	4671.45	-316.87	318.27	-447.85	40°06'06.734"N	104°53'03.260"W	2.00	
4731.56†	0.669	305.400	4686.00	-316.99	318.39	-448.02	40°06'06.735"N	104°53'03.262"W	2.00	Sussex
4765.02	0.000	180.179	4719.47	-317.10	318.50	-448.17	40°06'06.736"N	104°53'03.264"W	2.00	END DROP
4817.00†	0.000	180.179	4771.44	-317.10	318.50	-448.17	40°06'06.736"N	104°53'03.264"W	0.00	
4917.00†	0.000	180.179	4871.44	-317.10	318.50	-448.17	40°06'06.736"N	104°53'03.264"W	0.00	
5017.00†	0.000	180.179	4971.44	-317.10	318.50	-448.17	40°06'06.736"N	104°53'03.264"W	0.00	
5117.00†	0.000	180.179	5071.44	-317.10	318.50	-448.17	40°06'06.736"N	104°53'03.264"W	0.00	
5169.56†	0.000	180.179	5124.00	-317.10	318.50	-448.17	40°06'06.736"N	104°53'03.264"W	0.00	Shannon
5217.00†	0.000	180.179	5171.44	-317.10	318.50	-448.17	40°06'06.736"N	104°53'03.264"W	0.00	
5317.00†	0.000	180.179	5271.44	-317.10	318.50	-448.17	40°06'06.736"N	104°53'03.264"W	0.00	
5417.00†	0.000	180.179	5371.44	-317.10	318.50	-448.17	40°06'06.736"N	104°53'03.264"W	0.00	
5517.00†	0.000	180.179	5471.44	-317.10	318.50	-448.17	40°06'06.736"N	104°53'03.264"W	0.00	
5617.00†	0.000	180.179	5571.44	-317.10	318.50	-448.17	40°06'06.736"N	104°53'03.264"W	0.00	
5717.00†	0.000	180.179	5671.44	-317.10	318.50	-448.17	40°06'06.736"N	104°53'03.264"W	0.00	
5817.00†	0.000	180.179	5771.44	-317.10	318.50	-448.17	40°06'06.736"N	104°53'03.264"W	0.00	
5917.00†	0.000	180.179	5871.44	-317.10	318.50	-448.17	40°06'06.736"N	104°53'03.264"W	0.00	
6017.00†	0.000	180.179	5971.44	-317.10	318.50	-448.17	40°06'06.736"N	104°53'03.264"W	0.00	
6117.00†	0.000	180.179	6071.44	-317.10	318.50	-448.17	40°06'06.736"N	104°53'03.264"W	0.00	
6217.00†	0.000	180.179	6171.44	-317.10	318.50	-448.17	40°06'06.736"N	104°53'03.264"W	0.00	
6317.00†	0.000	180.179	6271.44	-317.10	318.50	-448.17	40°06'06.736"N	104°53'03.264"W	0.00	
6417.00†	0.000	180.179	6371.44	-317.10	318.50	-448.17	40°06'06.736"N	104°53'03.264"W	0.00	
6517.00†	0.000	180.179	6471.44	-317.10	318.50	-448.17	40°06'06.736"N	104°53'03.264"W	0.00	
6617.00†	0.000	180.179	6571.44	-317.10	318.50	-448.17	40°06'06.736"N	104°53'03.264"W	0.00	
6717.00†	0.000	180.179	6671.44	-317.10	318.50	-448.17	40°06'06.736"N	104°53'03.264"W	0.00	
6817.00†	0.000	180.179	6771.44	-317.10	318.50	-448.17	40°06'06.736"N	104°53'03.264"W	0.00	
6917.00†	0.000	180.179	6871.44	-317.10	318.50	-448.17	40°06'06.736"N	104°53'03.264"W	0.00	
7017.00†	0.000	180.179	6971.44	-317.10	318.50	-448.17	40°06'06.736"N	104°53'03.264"W	0.00	
7024.60†	0.000	180.179	6979.04	-317.10	318.50	-448.17	40°06'06.736"N	104°53'03.264"W	0.00	4 1/2" LINER TOP
7117.00†	0.000	180.179	7071.44	-317.10	318.50	-448.17	40°06'06.736"N	104°53'03.264"W	0.00	
7124.60	0.000	180.179	7079.05	-317.10	318.50	-448.17	40°06'06.736"N	104°53'03.264"W	0.00	KOP, BUILD @ 10°/100'
7217.00†	9.240	180.179	7171.04	-309.67	311.07	-448.20	40°06'06.663"N	104°53'03.265"W	10.00	
7317.00†	19.240	180.179	7267.85	-285.10	286.50	-448.27	40°06'06.420"N	104°53'03.266"W	10.00	
7348.19†	22.359	180.179	7297.00	-274.03	275.43	-448.31	40°06'06.311"N	104°53'03.266"W	10.00	Sharon Springs
7413.66†	28.906	180.179	7356.00	-245.72	247.12	-448.40	40°06'06.031"N	104°53'03.267"W	10.00	Niobrara
7417.00†	29.240	180.179	7358.92	-244.10	245.50	-448.40	40°06'06.015"N	104°53'03.267"W	10.00	
7483.59†	35.899	180.179	7415.00	-208.27	209.67	-448.51	40°06'05.661"N	104°53'03.269"W	10.00	Niobrara B
7517.00†	39.240	180.179	7441.48	-187.90	189.30	-448.58	40°06'05.460"N	104°53'03.270"W	10.00	
7597.42†	47.282	180.179	7500.00	-132.83	134.23	-448.75	40°06'04.915"N	104°53'03.272"W	10.00	Niobrara C



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WELLPATH DATA (141 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7617.00†	49.240	180.179	7513.03	-118.22	119.63	-448.80	40°06'04.771"N	104°53'03.272"W	10.00	
7717.00†	59.240	180.179	7571.40	-37.18	38.58	-449.05	40°06'03.970"N	104°53'03.276"W	10.00	
7817.00†	69.240	180.179	7614.80	52.77	-51.37	-449.33	40°06'03.081"N	104°53'03.279"W	10.00	
7858.17†	73.357	180.179	7628.00	91.76	-90.35	-449.45	40°06'02.696"N	104°53'03.281"W	10.00	Fort Hays
7917.00†	79.240	180.179	7641.93	148.89	-147.48	-449.63	40°06'02.132"N	104°53'03.283"W	10.00	
7956.83†	83.223	180.179	7648.00	188.25	-186.84	-449.75	40°06'01.743"N	104°53'03.285"W	10.00	Codell
8017.00†	89.240	180.179	7651.95	248.26	-246.85	-449.94	40°06'01.150"N	104°53'03.287"W	10.00	
8022.55	89.795	180.179	7652.00	253.81	-252.41	-449.96	40°06'01.095"N	104°53'03.287"W	10.00	LANDING POINT
8117.00†	89.795	180.179	7652.34	348.26	-346.85	-450.25	40°06'00.161"N	104°53'03.291"W	0.00	
8217.00†	89.795	180.179	7652.69	448.25	-446.85	-450.56	40°05'59.173"N	104°53'03.295"W	0.00	
8317.00†	89.795	180.179	7653.05	548.25	-546.85	-450.88	40°05'58.185"N	104°53'03.299"W	0.00	
8417.00†	89.795	180.179	7653.41	648.25	-646.85	-451.19	40°05'57.197"N	104°53'03.303"W	0.00	
8517.00†	89.795	180.179	7653.77	748.25	-746.85	-451.50	40°05'56.209"N	104°53'03.307"W	0.00	
8617.00†	89.795	180.179	7654.12	848.25	-846.84	-451.81	40°05'55.220"N	104°53'03.311"W	0.00	
8717.00†	89.795	180.179	7654.48	948.25	-946.84	-452.12	40°05'54.232"N	104°53'03.315"W	0.00	
8817.00†	89.795	180.179	7654.84	1048.25	-1046.84	-452.44	40°05'53.244"N	104°53'03.319"W	0.00	
8917.00†	89.795	180.179	7655.20	1148.25	-1146.84	-452.75	40°05'52.256"N	104°53'03.323"W	0.00	
9017.00†	89.795	180.179	7655.55	1248.25	-1246.84	-453.06	40°05'51.267"N	104°53'03.327"W	0.00	
9117.00†	89.795	180.179	7655.91	1348.25	-1346.84	-453.37	40°05'50.279"N	104°53'03.331"W	0.00	
9217.00†	89.795	180.179	7656.27	1448.25	-1446.84	-453.68	40°05'49.291"N	104°53'03.335"W	0.00	
9317.00†	89.795	180.179	7656.63	1548.25	-1546.84	-454.00	40°05'48.303"N	104°53'03.339"W	0.00	
9417.00†	89.795	180.179	7656.98	1648.25	-1646.84	-454.31	40°05'47.315"N	104°53'03.343"W	0.00	
9517.00†	89.795	180.179	7657.34	1748.25	-1746.83	-454.62	40°05'46.326"N	104°53'03.347"W	0.00	
9617.00†	89.795	180.179	7657.70	1848.25	-1846.83	-454.93	40°05'45.338"N	104°53'03.351"W	0.00	
9717.00†	89.795	180.179	7658.06	1948.25	-1946.83	-455.24	40°05'44.350"N	104°53'03.355"W	0.00	
9817.00†	89.795	180.179	7658.41	2048.24	-2046.83	-455.56	40°05'43.362"N	104°53'03.359"W	0.00	
9917.00†	89.795	180.179	7658.77	2148.24	-2146.83	-455.87	40°05'42.374"N	104°53'03.363"W	0.00	
10017.00†	89.795	180.179	7659.13	2248.24	-2246.83	-456.18	40°05'41.385"N	104°53'03.367"W	0.00	
10117.00†	89.795	180.179	7659.49	2348.24	-2346.83	-456.49	40°05'40.397"N	104°53'03.371"W	0.00	
10217.00†	89.795	180.179	7659.84	2448.24	-2446.83	-456.80	40°05'39.409"N	104°53'03.375"W	0.00	
10317.00†	89.795	180.179	7660.20	2548.24	-2546.83	-457.12	40°05'38.421"N	104°53'03.379"W	0.00	
10417.00†	89.795	180.179	7660.56	2648.24	-2646.82	-457.43	40°05'37.433"N	104°53'03.383"W	0.00	
10517.00†	89.795	180.179	7660.91	2748.24	-2746.82	-457.74	40°05'36.444"N	104°53'03.387"W	0.00	
10617.00†	89.795	180.179	7661.27	2848.24	-2846.82	-458.05	40°05'35.456"N	104°53'03.391"W	0.00	
10717.00†	89.795	180.179	7661.63	2948.24	-2946.82	-458.37	40°05'34.468"N	104°53'03.395"W	0.00	
10817.00†	89.795	180.179	7661.99	3048.24	-3046.82	-458.68	40°05'33.480"N	104°53'03.399"W	0.00	
10917.00†	89.795	180.179	7662.34	3148.24	-3146.82	-458.99	40°05'32.492"N	104°53'03.403"W	0.00	
11017.00†	89.795	180.179	7662.70	3248.24	-3246.82	-459.30	40°05'31.503"N	104°53'03.407"W	0.00	
11117.00†	89.795	180.179	7663.06	3348.24	-3346.82	-459.61	40°05'30.515"N	104°53'03.411"W	0.00	
11217.00†	89.795	180.179	7663.42	3448.24	-3446.82	-459.93	40°05'29.527"N	104°53'03.415"W	0.00	
11317.00†	89.795	180.179	7663.77	3548.23	-3546.81	-460.24	40°05'28.539"N	104°53'03.419"W	0.00	
11417.00†	89.795	180.179	7664.13	3648.23	-3646.81	-460.55	40°05'27.551"N	104°53'03.423"W	0.00	
11517.00†	89.795	180.179	7664.49	3748.23	-3746.81	-460.86	40°05'26.562"N	104°53'03.427"W	0.00	
11617.00†	89.795	180.179	7664.85	3848.23	-3846.81	-461.17	40°05'25.574"N	104°53'03.431"W	0.00	
11717.00†	89.795	180.179	7665.20	3948.23	-3946.81	-461.49	40°05'24.586"N	104°53'03.435"W	0.00	



Planned Wellpath Report

SPURLING 13C-34HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 SPURLING 13C-34HZ (377' FNL & 1058' FWL, SEC.34)
Area	COLORADO	Well	SPURLING 13C-34HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	SPURLING 13C-34HZ PWB
Facility	SEC.34-T2N-R67W		

WELLPATH DATA (141 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11817.00†	89.795	180.179	7665.56	4048.23	-4046.81	-461.80	40°05'23.598"N	104°53'03.439"W	0.00	
11917.00†	89.795	180.179	7665.92	4148.23	-4146.81	-462.11	40°05'22.610"N	104°53'03.443"W	0.00	
12017.00†	89.795	180.179	7666.28	4248.23	-4246.81	-462.42	40°05'21.621"N	104°53'03.447"W	0.00	
12117.00†	89.795	180.179	7666.63	4348.23	-4346.81	-462.73	40°05'20.633"N	104°53'03.451"W	0.00	
12217.00†	89.795	180.179	7666.99	4448.23	-4446.80	-463.05	40°05'19.645"N	104°53'03.455"W	0.00	
12219.65	89.795	180.179	7667.00 ¹	4450.87	-4449.45	-463.05	40°05'19.619"N	104°53'03.455"W	0.00	TOTAL DEPTH

HOLE & CASING SECTIONS -									
Ref Wellbore: SPURLING 13C-34HZ PWB				Ref Wellpath: SPURLING 13C-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	640.00	623.00	17.00	640.00	0.00	0.00	0.00	0.00
9.625in Casing Surface	17.00	640.00	623.00	17.00	640.00	0.00	0.00	0.00	0.00
8.75in Open Hole	640.00	8022.55	7382.55	640.00	7652.00	0.00	0.00	-252.40	-449.96
7in Casing Intermediate	17.00	8022.55	8005.55	17.00	7652.00	0.00	0.00	-252.40	-449.96
6.125in Open Hole	8022.55	12219.65	4197.10	7652.00	7667.00	-252.40	-449.96	-4449.45	-463.05
4.5in Casing Production	17.00	12219.65	12202.65	17.00	7667.00	0.00	0.00	-4449.45	-463.05

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	0.41	120.06	3172818.68	1280239.99	40°06'03.593"N	104°52'55.952"W	polygon
SEC.34-T2N-R67W SECTION LINES		5030.00	0.41	120.06	3172818.68	1280239.99	40°06'03.593"N	104°52'55.952"W	polygon
1) SPURLING 13C-34HZ (460' FSL & 610' FWL, SEC.34) REV-1	12219.65	7667.00	-4449.45	-463.05	3172266.58	1275786.37	40°05'19.619"N	104°53'03.455"W	point

SURVEY PROGRAM - Ref Wellbore: SPURLING 13C-34HZ PWB					Ref Wellpath: SPURLING 13C-34HZ (PERMIT REV-1) PWP	
Start MD [ft]	End MD [ft]	Positional Uncertainty Model		Log Name/Comment		Wellbore
17.00	8022.55	NaviTrak (Standard)				SPURLING 13C-34HZ PWB
8022.55	12219.65	OnTrak (Standard)				SPURLING 13C-34HZ PWB



Planned Wellpath Report

SPURLING 13C-34HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 SPURLING 13C-34HZ (377' FNL & 1058' FWL, SEC.34)
Area	COLORADO	Well	SPURLING 13C-34HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	SPURLING 13C-34HZ PWB
Facility	SEC.34-T2N-R67W		

WELLPATH COMMENTS					
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment	
590.00	0.000	305.400	590.00	Fox Hills Base	
4731.56	0.669	305.400	4686.00	Sussex	
5169.56	0.000	180.179	5124.00	Shannon	
7024.60	0.000	180.179	6979.04	4 1/2" LINER TOP	
7348.19	22.359	180.179	7297.00	Sharon Springs	
7413.66	28.906	180.179	7356.00	Niobrara	
7483.59	35.899	180.179	7415.00	Niobrara B	
7597.42	47.282	180.179	7500.00	Niobrara C	
7858.17	73.357	180.179	7628.00	Fort Hays	
7956.83	83.223	180.179	7648.00	Codell	