

KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#09 SICKLER 27N-34HZ (363°FSL & 1497°FEL, SEC.34)
Field: WELD COUNTY (KERR MCGEE) Well: SICKLER 27N-34HZ
Facility: SEC.34-T2N-R67W Wellbore: SICKLER 27N-34HZ PWB

Plot reference wellpath is SICKLER 27N-34HZ (PERMIT REV-3) PWP

True vertical depths are referenced to PERMIT (17KB) (KB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to PERMIT (17KB) (KB)	North Reference: True north
PERMIT (17KB) (KB) to Mean Sea Level: 4966 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#09 SICKLER 27N-34HZ (363°FSL & 1497°FEL, SEC.34): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: precain on 19/Mar/2014

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°52'55.952"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)
SLOT#09 SICKLER 27N-34HZ (363°FSL & 1497°FEL, SEC.34)	-4550.59	2570.44	3175420.734	1275707.606
PERMIT (17KB) (KB) to Mud line (At Slot: SLOT#09 SICKLER 27N-34HZ (363°FSL & 1497°FEL, SEC.34))				4966ft
Mean Sea Level to Mud line (At Slot: SLOT#09 SICKLER 27N-34HZ (363°FSL & 1497°FEL, SEC.34))				0ft
PERMIT (17KB) (KB) to Mean Sea Level				4966ft

Survey Program

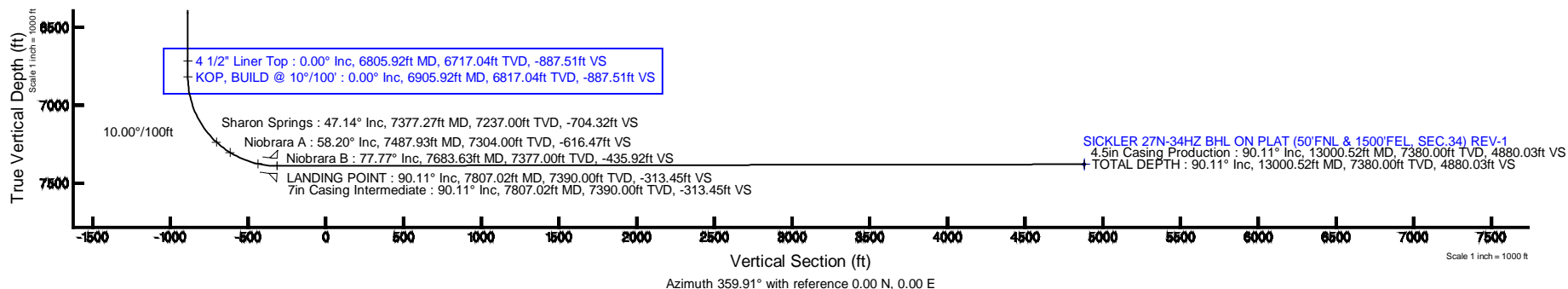
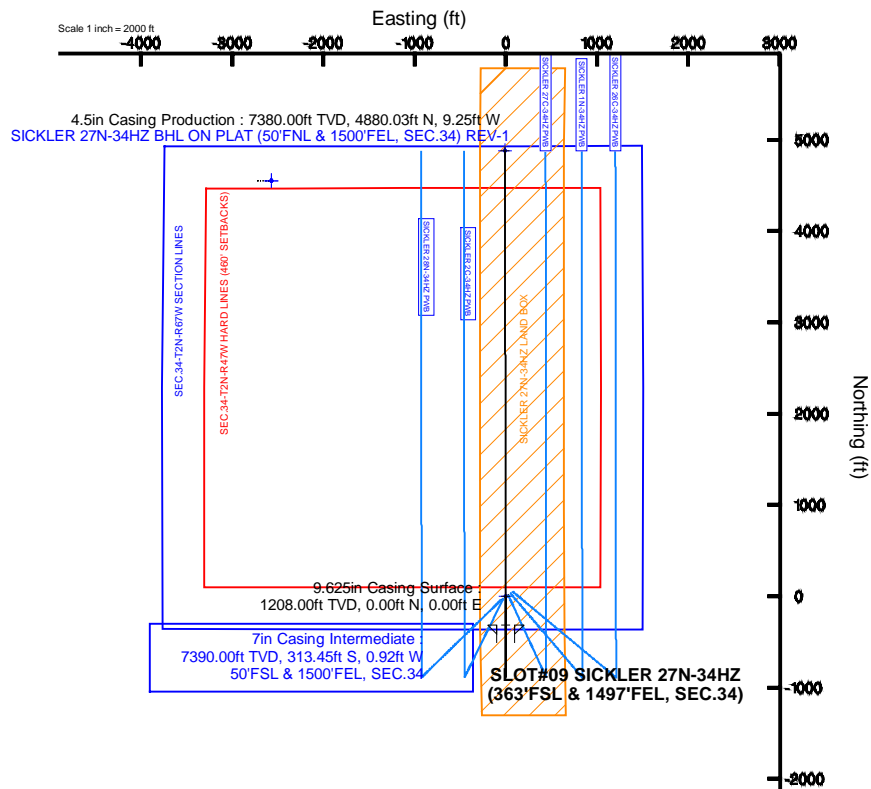
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	13000.52	NaviTrak	NaviTrak (MAGCORR, IFR)		SICKLER 27N-34HZ PWB

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	180.000	17.00	0.00	0.00	0.00	0.00
BEGIN NUDGE	1320.00	0.000	180.000	1320.00	0.00	0.00	0.00	0.00
END NUDGE	1920.00	12.000	180.000	1915.62	-62.60	0.00	2.00	-62.60
BEGIN DROP	5586.50	12.000	180.000	5502.00	-824.91	0.00	0.00	-824.91
END DROP	6186.50	0.000	359.908	6097.62	-887.51	0.00	2.00	-887.51
KOP, BUILD @ 10°/100'	6905.92	0.000	359.908	6817.04	-887.51	0.00	0.00	-887.51
LANDING POINT	7807.02	90.110	359.908	7390.00	-313.45	-0.92	10.00	-313.45
TOTAL DEPTH	13000.52	90.110	359.908	7380.00	4880.03	-9.25	0.00	4880.03

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 (400' SETBACKS)		4966.00	4550.86	-2570.05	3172818.68	1280239.99	40°06'03.593"N	104°52'55.952"W
SEC.34-T2N-R67W SECTION LINES		4966.00	4550.86	-2570.05	3172818.68	1280239.99	40°06'03.593"N	104°52'55.952"W
SICKLER 27N-34HZ BHL ON PLAT (50°FNL & 1500°FEL, SEC.34) REV-1	13000.52	7380.00	4880.03	-9.25	3175376.98	1280587.24	40°06'06.847"N	104°52'22.998"W
SICKLER 27N-34HZ LAND BOX		7380.00	0.00	0.00	3175420.73	1275707.61	40°06'18.622"N	104°52'22.879"W



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#09 SICKLER 27N-34HZ (363'FSL & 1497'FEL, SEC.34)
Area	COLORADO	Well	SICKLER 27N-34HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	SICKLER 27N-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	Precain
Scale	0.999961	Report Generated	19/Mar/2014 at 09:31
Convergence at slot	n/a	Database/Source file	WellArchitectDB/SICKLER_27N-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	-4550.59	2570.44	3175420.73	1275707.61	40°05'18.622"N	104°52'22.879"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) (KB) to Facility Vertical Datum	4966.00ft
Horizontal Reference Pt	Slot	PERMIT (17'KB) (KB) to Mean Sea Level	4966.00ft
Vertical Reference Pt	PERMIT (17'KB) (KB)	PERMIT (17'KB) (KB) to Mud Line at Slot (SLOT#09 SICKLER 27N-34HZ (363'FSL & 1497'FEL, SEC.34))	4966.00ft
MD Reference Pt	PERMIT (17'KB) (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	359.91°

Planned Wellpath Report

SICKLER 27N-34HZ (PERMIT REV-3) PWP

Page 2 of 7

REFERENCE WELLPATH IDENTIFICATION				
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Area	COLORADO	Well	SICKLER 27N-34HZ	
Field	WELD COUNTY (KERR MCGEE)	Wellbore	SICKLER 27N-34HZ PWB	
Facility	SEC.34-T2N-R67W			

WELLPATH DATA (145 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	180.000	0.00	0.00	0.00	0.00	40°05'18.622"N	104°52'22.879"W	0.00	
17.00	0.000	180.000	17.00	0.00	0.00	0.00	40°05'18.622"N	104°52'22.879"W	0.00	TIE-ON
117.00†	0.000	180.000	117.00	0.00	0.00	0.00	40°05'18.622"N	104°52'22.879"W	0.00	
217.00†	0.000	180.000	217.00	0.00	0.00	0.00	40°05'18.622"N	104°52'22.879"W	0.00	
317.00†	0.000	180.000	317.00	0.00	0.00	0.00	40°05'18.622"N	104°52'22.879"W	0.00	
417.00†	0.000	180.000	417.00	0.00	0.00	0.00	40°05'18.622"N	104°52'22.879"W	0.00	
517.00†	0.000	180.000	517.00	0.00	0.00	0.00	40°05'18.622"N	104°52'22.879"W	0.00	
617.00†	0.000	180.000	617.00	0.00	0.00	0.00	40°05'18.622"N	104°52'22.879"W	0.00	
717.00†	0.000	180.000	717.00	0.00	0.00	0.00	40°05'18.622"N	104°52'22.879"W	0.00	
817.00†	0.000	180.000	817.00	0.00	0.00	0.00	40°05'18.622"N	104°52'22.879"W	0.00	
917.00†	0.000	180.000	917.00	0.00	0.00	0.00	40°05'18.622"N	104°52'22.879"W	0.00	
1017.00†	0.000	180.000	1017.00	0.00	0.00	0.00	40°05'18.622"N	104°52'22.879"W	0.00	
1117.00†	0.000	180.000	1117.00	0.00	0.00	0.00	40°05'18.622"N	104°52'22.879"W	0.00	
1158.00†	0.000	180.000	1158.00	0.00	0.00	0.00	40°05'18.622"N	104°52'22.879"W	0.00	Fox Hills Marker
1217.00†	0.000	180.000	1217.00	0.00	0.00	0.00	40°05'18.622"N	104°52'22.879"W	0.00	
1317.00†	0.000	180.000	1317.00	0.00	0.00	0.00	40°05'18.622"N	104°52'22.879"W	0.00	
1320.00	0.000	180.000	1320.00	0.00	0.00	0.00	40°05'18.622"N	104°52'22.879"W	0.00	BEGIN NUDGE
1417.00†	1.940	180.000	1416.98	-1.64	-1.64	0.00	40°05'18.606"N	104°52'22.879"W	2.00	
1517.00†	3.940	180.000	1516.84	-6.77	-6.77	0.00	40°05'18.555"N	104°52'22.879"W	2.00	
1617.00†	5.940	180.000	1616.47	-15.38	-15.38	0.00	40°05'18.470"N	104°52'22.879"W	2.00	
1717.00†	7.940	180.000	1715.73	-27.46	-27.46	0.00	40°05'18.351"N	104°52'22.879"W	2.00	
1817.00†	9.940	180.000	1814.51	-43.00	-43.00	0.00	40°05'18.197"N	104°52'22.879"W	2.00	
1917.00†	11.940	180.000	1912.69	-61.98	-61.98	0.00	40°05'18.009"N	104°52'22.879"W	2.00	
1920.00	12.000	180.000	1915.62	-62.60	-62.60	0.00	40°05'18.003"N	104°52'22.879"W	2.00	END NUDGE
2017.00†	12.000	180.000	2010.50	-82.77	-82.77	0.00	40°05'17.804"N	104°52'22.879"W	0.00	
2117.00†	12.000	180.000	2108.32	-103.56	-103.56	0.00	40°05'17.599"N	104°52'22.879"W	0.00	
2217.00†	12.000	180.000	2206.13	-124.35	-124.35	0.00	40°05'17.393"N	104°52'22.879"W	0.00	
2317.00†	12.000	180.000	2303.95	-145.14	-145.14	0.00	40°05'17.188"N	104°52'22.879"W	0.00	
2417.00†	12.000	180.000	2401.76	-165.93	-165.93	0.00	40°05'16.982"N	104°52'22.879"W	0.00	
2517.00†	12.000	180.000	2499.58	-186.73	-186.73	0.00	40°05'16.777"N	104°52'22.879"W	0.00	
2617.00†	12.000	180.000	2597.39	-207.52	-207.52	0.00	40°05'16.571"N	104°52'22.879"W	0.00	
2717.00†	12.000	180.000	2695.21	-228.31	-228.31	0.00	40°05'16.366"N	104°52'22.879"W	0.00	
2817.00†	12.000	180.000	2793.02	-249.10	-249.10	0.00	40°05'16.160"N	104°52'22.879"W	0.00	
2917.00†	12.000	180.000	2890.84	-269.89	-269.89	0.00	40°05'15.955"N	104°52'22.879"W	0.00	
3017.00†	12.000	180.000	2988.65	-290.68	-290.68	0.00	40°05'15.749"N	104°52'22.879"W	0.00	
3117.00†	12.000	180.000	3086.47	-311.47	-311.47	0.00	40°05'15.544"N	104°52'22.879"W	0.00	
3217.00†	12.000	180.000	3184.28	-332.26	-332.26	0.00	40°05'15.339"N	104°52'22.879"W	0.00	
3317.00†	12.000	180.000	3282.10	-353.05	-353.06	0.00	40°05'15.133"N	104°52'22.879"W	0.00	
3417.00†	12.000	180.000	3379.91	-373.85	-373.85	0.00	40°05'14.928"N	104°52'22.879"W	0.00	
3517.00†	12.000	180.000	3477.72	-394.64	-394.64	0.00	40°05'14.722"N	104°52'22.879"W	0.00	
3617.00†	12.000	180.000	3575.54	-415.43	-415.43	0.00	40°05'14.517"N	104°52'22.879"W	0.00	
3717.00†	12.000	180.000	3673.35	-436.22	-436.22	0.00	40°05'14.311"N	104°52'22.879"W	0.00	
3817.00†	12.000	180.000	3771.17	-457.01	-457.01	0.00	40°05'14.106"N	104°52'22.879"W	0.00	
3917.00†	12.000	180.000	3868.98	-477.80	-477.80	0.00	40°05'13.900"N	104°52'22.879"W	0.00	
3958.93†	12.000	180.000	3910.00	-486.52	-486.52	0.00	40°05'13.814"N	104°52'22.879"W	0.00	Parkman

REFERENCE WELLPATH IDENTIFICATION				
Operator	KERR-MCGEE OIL & GAS ONSHORE LP		Slot	SLOT#09 SICKLER 27N-34HZ (363'FSL & 1497'FEL, SEC.34)
Area	COLORADO		Well	SICKLER 27N-34HZ
Field	WELD COUNTY (KERR MCGEE)		Wellbore	SICKLER 27N-34HZ PWB
Facility	SEC.34-T2N-R67W			

WELLPATH DATA (145 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4017.00†	12.000	180.000	3966.80	-498.59	-498.59	0.00	40°05'13.695"N	104°52'22.879"W	0.00	
4117.00†	12.000	180.000	4064.61	-519.38	-519.38	0.00	40°05'13.489"N	104°52'22.879"W	0.00	
4217.00†	12.000	180.000	4162.43	-540.17	-540.18	0.00	40°05'13.284"N	104°52'22.879"W	0.00	
4317.00†	12.000	180.000	4260.24	-560.97	-560.97	0.00	40°05'13.078"N	104°52'22.879"W	0.00	
4417.00†	12.000	180.000	4358.06	-581.76	-581.76	0.00	40°05'12.873"N	104°52'22.879"W	0.00	
4517.00†	12.000	180.000	4455.87	-602.55	-602.55	0.00	40°05'12.668"N	104°52'22.879"W	0.00	
4530.42†	12.000	180.000	4469.00	-605.34	-605.34	0.00	40°05'12.640"N	104°52'22.879"W	0.00	Sussex
4617.00†	12.000	180.000	4553.69	-623.34	-623.34	0.00	40°05'12.462"N	104°52'22.879"W	0.00	
4717.00†	12.000	180.000	4651.50	-644.13	-644.13	0.00	40°05'12.257"N	104°52'22.879"W	0.00	
4817.00†	12.000	180.000	4749.32	-664.92	-664.92	0.00	40°05'12.051"N	104°52'22.879"W	0.00	
4917.00†	12.000	180.000	4847.13	-685.71	-685.71	0.00	40°05'11.846"N	104°52'22.879"W	0.00	
5017.00†	12.000	180.000	4944.95	-706.50	-706.51	0.00	40°05'11.640"N	104°52'22.879"W	0.00	
5117.00†	12.000	180.000	5042.76	-727.30	-727.30	0.00	40°05'11.435"N	104°52'22.879"W	0.00	
5217.00†	12.000	180.000	5140.58	-748.09	-748.09	0.00	40°05'11.229"N	104°52'22.879"W	0.00	
5317.00†	12.000	180.000	5238.39	-768.88	-768.88	0.00	40°05'11.024"N	104°52'22.879"W	0.00	
5417.00†	12.000	180.000	5336.21	-789.67	-789.67	0.00	40°05'10.818"N	104°52'22.879"W	0.00	
5517.00†	12.000	180.000	5434.02	-810.46	-810.46	0.00	40°05'10.613"N	104°52'22.879"W	0.00	
5586.50	12.000	180.000	5502.00	-824.91	-824.91	0.00	40°05'10.470"N	104°52'22.879"W	0.00	BEGIN DROP
5617.00†	11.390	180.000	5531.87	-831.09	-831.09	0.00	40°05'10.409"N	104°52'22.879"W	2.00	
5717.00†	9.390	180.000	5630.22	-849.13	-849.13	0.00	40°05'10.231"N	104°52'22.879"W	2.00	
5817.00†	7.390	180.000	5729.15	-863.72	-863.72	0.00	40°05'10.087"N	104°52'22.879"W	2.00	
5917.00†	5.390	180.000	5828.52	-874.84	-874.85	0.00	40°05'09.977"N	104°52'22.879"W	2.00	
6017.00†	3.390	180.000	5928.22	-882.50	-882.50	0.00	40°05'09.901"N	104°52'22.879"W	2.00	
6117.00†	1.390	180.000	6028.13	-886.67	-886.67	0.00	40°05'09.860"N	104°52'22.879"W	2.00	
6186.50	0.000	359.908	6097.62	-887.51	-887.51	0.00	40°05'09.851"N	104°52'22.879"W	2.00	END DROP
6217.00†	0.000	359.908	6128.12	-887.51	-887.51	0.00	40°05'09.851"N	104°52'22.879"W	0.00	
6317.00†	0.000	359.908	6228.12	-887.51	-887.51	0.00	40°05'09.851"N	104°52'22.879"W	0.00	
6417.00†	0.000	359.908	6328.12	-887.51	-887.51	0.00	40°05'09.851"N	104°52'22.879"W	0.00	
6517.00†	0.000	359.908	6428.12	-887.51	-887.51	0.00	40°05'09.851"N	104°52'22.879"W	0.00	
6617.00†	0.000	359.908	6528.12	-887.51	-887.51	0.00	40°05'09.851"N	104°52'22.879"W	0.00	
6717.00†	0.000	359.908	6628.12	-887.51	-887.51	0.00	40°05'09.851"N	104°52'22.879"W	0.00	
6805.92†	0.000	359.908	6717.04	-887.51	-887.51	0.00	40°05'09.851"N	104°52'22.879"W	0.00	4 1/2" Liner Top
6817.00†	0.000	359.908	6728.12	-887.51	-887.51	0.00	40°05'09.851"N	104°52'22.879"W	0.00	
6905.92	0.000	359.908	6817.04	-887.51	-887.51	0.00	40°05'09.851"N	104°52'22.879"W	0.00	KOP, BUILD @ 10°/100'
6917.00†	1.108	359.908	6828.12	-887.40	-887.41	0.00	40°05'09.853"N	104°52'22.879"W	10.00	
7017.00†	11.108	359.908	6927.43	-876.78	-876.78	-0.02	40°05'09.958"N	104°52'22.879"W	10.00	
7117.00†	21.108	359.908	7023.38	-849.07	-849.07	-0.06	40°05'10.231"N	104°52'22.880"W	10.00	
7217.00†	31.108	359.908	7113.06	-805.12	-805.12	-0.13	40°05'10.666"N	104°52'22.881"W	10.00	
7317.00†	41.108	359.908	7193.75	-746.26	-746.26	-0.23	40°05'11.247"N	104°52'22.882"W	10.00	
7377.27†	47.135	359.908	7237.00	-704.32	-704.32	-0.29	40°05'11.662"N	104°52'22.883"W	10.00	Sharon Springs
7417.00†	51.108	359.908	7262.99	-674.29	-674.29	-0.34	40°05'11.959"N	104°52'22.883"W	10.00	
7487.93†	58.201	359.908	7304.00	-616.47	-616.47	-0.43	40°05'12.530"N	104°52'22.885"W	10.00	Niobrara A
7517.00†	61.108	359.908	7318.69	-591.38	-591.38	-0.47	40°05'12.778"N	104°52'22.885"W	10.00	
7617.00†	71.108	359.908	7359.14	-500.07	-500.07	-0.62	40°05'13.680"N	104°52'22.887"W	10.00	
7683.63†	77.771	359.908	7377.00	-435.92	-435.92	-0.72	40°05'14.314"N	104°52'22.888"W	10.00	Niobrara B

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Area	COLORADO	Well	SICKLER 27N-34HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	SICKLER 27N-34HZ PWB
Facility	SEC.34-T2N-R67W		

WELLPATH DATA (145 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7717.00†	81.108	359.908	7383.12	-403.12	-403.12	-0.78	40°05'14.638"N	104°52'22.889"W	10.00	
7807.02	90.110	359.908	7390.00	-313.45	-313.45	-0.92	40°05'15.524"N	104°52'22.891"W	10.00	LANDING POINT
7817.00†	90.110	359.908	7389.98	-303.47	-303.47	-0.94	40°05'15.623"N	104°52'22.891"W	0.00	
7917.00†	90.110	359.908	7389.79	-203.47	-203.47	-1.10	40°05'16.611"N	104°52'22.893"W	0.00	
8017.00†	90.110	359.908	7389.60	-103.47	-103.48	-1.26	40°05'17.599"N	104°52'22.895"W	0.00	
8117.00†	90.110	359.908	7389.40	-3.47	-3.48	-1.42	40°05'18.588"N	104°52'22.897"W	0.00	
8217.00†	90.110	359.908	7389.21	96.53	96.52	-1.58	40°05'19.576"N	104°52'22.899"W	0.00	
8317.00†	90.110	359.908	7389.02	196.53	196.52	-1.74	40°05'20.564"N	104°52'22.901"W	0.00	
8417.00†	90.110	359.908	7388.83	296.53	296.52	-1.90	40°05'21.552"N	104°52'22.903"W	0.00	
8517.00†	90.110	359.908	7388.63	396.53	396.52	-2.06	40°05'22.541"N	104°52'22.905"W	0.00	
8617.00†	90.110	359.908	7388.44	496.53	496.52	-2.22	40°05'23.529"N	104°52'22.908"W	0.00	
8717.00†	90.110	359.908	7388.25	596.53	596.52	-2.38	40°05'24.517"N	104°52'22.910"W	0.00	
8817.00†	90.110	359.908	7388.06	696.53	696.52	-2.54	40°05'25.505"N	104°52'22.912"W	0.00	
8917.00†	90.110	359.908	7387.86	796.53	796.52	-2.70	40°05'26.493"N	104°52'22.914"W	0.00	
9017.00†	90.110	359.908	7387.67	896.53	896.52	-2.86	40°05'27.482"N	104°52'22.916"W	0.00	
9117.00†	90.110	359.908	7387.48	996.52	996.52	-3.02	40°05'28.470"N	104°52'22.918"W	0.00	
9217.00†	90.110	359.908	7387.28	1096.52	1096.52	-3.18	40°05'29.458"N	104°52'22.920"W	0.00	
9317.00†	90.110	359.908	7387.09	1196.52	1196.52	-3.34	40°05'30.446"N	104°52'22.922"W	0.00	
9417.00†	90.110	359.908	7386.90	1296.52	1296.52	-3.50	40°05'31.434"N	104°52'22.924"W	0.00	
9517.00†	90.110	359.908	7386.71	1396.52	1396.52	-3.66	40°05'32.423"N	104°52'22.926"W	0.00	
9617.00†	90.110	359.908	7386.51	1496.52	1496.52	-3.82	40°05'33.411"N	104°52'22.928"W	0.00	
9717.00†	90.110	359.908	7386.32	1596.52	1596.52	-3.98	40°05'34.399"N	104°52'22.930"W	0.00	
9817.00†	90.110	359.908	7386.13	1696.52	1696.52	-4.14	40°05'35.387"N	104°52'22.932"W	0.00	
9917.00†	90.110	359.908	7385.94	1796.52	1796.52	-4.30	40°05'36.375"N	104°52'22.934"W	0.00	
10017.00†	90.110	359.908	7385.74	1896.52	1896.52	-4.46	40°05'37.364"N	104°52'22.936"W	0.00	
10117.00†	90.110	359.908	7385.55	1996.52	1996.52	-4.62	40°05'38.352"N	104°52'22.938"W	0.00	
10217.00†	90.110	359.908	7385.36	2096.52	2096.52	-4.78	40°05'39.340"N	104°52'22.941"W	0.00	
10317.00†	90.110	359.908	7385.17	2196.52	2196.52	-4.94	40°05'40.328"N	104°52'22.943"W	0.00	
10417.00†	90.110	359.908	7384.97	2296.52	2296.52	-5.11	40°05'41.317"N	104°52'22.945"W	0.00	
10517.00†	90.110	359.908	7384.78	2396.52	2396.52	-5.27	40°05'42.305"N	104°52'22.947"W	0.00	
10617.00†	90.110	359.908	7384.59	2496.52	2496.52	-5.43	40°05'43.293"N	104°52'22.949"W	0.00	
10717.00†	90.110	359.908	7384.40	2596.52	2596.52	-5.59	40°05'44.281"N	104°52'22.951"W	0.00	
10817.00†	90.110	359.908	7384.20	2696.52	2696.52	-5.75	40°05'45.269"N	104°52'22.953"W	0.00	
10917.00†	90.110	359.908	7384.01	2796.52	2796.52	-5.91	40°05'46.258"N	104°52'22.955"W	0.00	
11017.00†	90.110	359.908	7383.82	2896.52	2896.52	-6.07	40°05'47.246"N	104°52'22.957"W	0.00	
11117.00†	90.110	359.908	7383.63	2996.52	2996.52	-6.23	40°05'48.234"N	104°52'22.959"W	0.00	
11217.00†	90.110	359.908	7383.43	3096.52	3096.51	-6.39	40°05'49.222"N	104°52'22.961"W	0.00	
11317.00†	90.110	359.908	7383.24	3196.52	3196.51	-6.55	40°05'50.210"N	104°52'22.963"W	0.00	
11417.00†	90.110	359.908	7383.05	3296.52	3296.51	-6.71	40°05'51.199"N	104°52'22.965"W	0.00	
11517.00†	90.110	359.908	7382.86	3396.52	3396.51	-6.87	40°05'52.187"N	104°52'22.967"W	0.00	
11617.00†	90.110	359.908	7382.66	3496.52	3496.51	-7.03	40°05'53.175"N	104°52'22.969"W	0.00	
11717.00†	90.110	359.908	7382.47	3596.52	3596.51	-7.19	40°05'54.163"N	104°52'22.972"W	0.00	
11817.00†	90.110	359.908	7382.28	3696.52	3696.51	-7.35	40°05'55.152"N	104°52'22.974"W	0.00	
11917.00†	90.110	359.908	7382.09	3796.52	3796.51	-7.51	40°05'56.140"N	104°52'22.976"W	0.00	
12017.00†	90.110	359.908	7381.89	3896.52	3896.51	-7.67	40°05'57.128"N	104°52'22.978"W	0.00	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#09 SICKLER 27N-34HZ (363'FSL & 1497'FEL, SEC.34)
Area	COLORADO	Well	SICKLER 27N-34HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	SICKLER 27N-34HZ PWB
Facility	SEC.34-T2N-R67W		

WELLPATH DATA (145 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12117.00†	90.110	359.908	7381.70	3996.52	3996.51	-7.83	40°05'58.116"N	104°52'22.980"W	0.00	
12217.00†	90.110	359.908	7381.51	4096.52	4096.51	-7.99	40°05'59.104"N	104°52'22.982"W	0.00	
12317.00†	90.110	359.908	7381.32	4196.52	4196.51	-8.15	40°06'00.093"N	104°52'22.984"W	0.00	
12417.00†	90.110	359.908	7381.12	4296.52	4296.51	-8.31	40°06'01.081"N	104°52'22.986"W	0.00	
12517.00†	90.110	359.908	7380.93	4396.52	4396.51	-8.47	40°06'02.069"N	104°52'22.988"W	0.00	
12617.00†	90.110	359.908	7380.74	4496.52	4496.51	-8.63	40°06'03.057"N	104°52'22.990"W	0.00	
12717.00†	90.110	359.908	7380.55	4596.52	4596.51	-8.79	40°06'04.045"N	104°52'22.992"W	0.00	
12817.00†	90.110	359.908	7380.35	4696.52	4696.51	-8.95	40°06'05.034"N	104°52'22.994"W	0.00	
12917.00†	90.110	359.908	7380.16	4796.52	4796.51	-9.11	40°06'06.022"N	104°52'22.996"W	0.00	
13000.52	90.110	359.908	7380.00 ¹	4880.03	4880.03	-9.25	40°06'06.847"N	104°52'22.998"W	0.00	TOTAL DEPTH

HOLE & CASING SECTIONS - Ref Wellbore: SICKLER 27N-34HZ PWB Ref Wellpath: SICKLER 27N-34HZ (PERMIT REV-3) 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	1208.00	1191.00	17.00	1208.00	0.00	0.00	0.00	0.00
9.625in Casing Surface	17.00	1208.00	1191.00	17.00	1208.00	0.00	0.00	0.00	0.00
8.75in Open Hole	1208.00	7807.02	6599.02	1208.00	7390.00	0.00	0.00	-313.45	-0.92
7in Casing Intermediate	17.00	7807.02	7790.02	17.00	7390.00	0.00	0.00	-313.45	-0.92
6.125in Open Hole	7807.02	13000.52	5193.50	7390.00	7380.00	-313.45	-0.92	4880.03	-9.25
4.5in Casing Production	17.00	13000.52	12983.52	17.00	7380.00	0.00	0.00	4880.03	-9.25

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#09 SICKLER 27N-34HZ (363'FSL & 1497'FEL, SEC.34)
Area	COLORADO	Well	SICKLER 27N-34HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	SICKLER 27N-34HZ PWB
Facility	SEC.34-T2N-R67W		

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)		4966.00	4550.86	-2570.05	3172818.68	1280239.99	40°06'03.593"N	104°52'55.952"W	polygon
SEC.34-T2N-R67W SECTION LINES		4966.00	4550.86	-2570.05	3172818.68	1280239.99	40°06'03.593"N	104°52'55.952"W	polygon
1) SICKLER 27N-34HZ BHL ON PLAT (50'FNL & 1500'FEL, SEC.34) REV-1	13000.52	7380.00	4880.03	-9.25	3175376.98	1280587.24	40°06'06.847"N	104°52'22.998"W	point
SICKLER 27N-34HZ LAND BOX		7380.00	0.00	0.00	3175420.73	1275707.61	40°05'18.622"N	104°52'22.879"W	polygon

SURVEY PROGRAM - Ref Wellbore: SICKLER 27N-34HZ PWB Ref Wellpath: SICKLER 27N-34HZ (PERMIT REV-3) PWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	13000.52	NaviTrak (MAGCORR,IFR)		SICKLER 27N-34HZ PWB

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#09 SICKLER 27N-34HZ (363'FSL & 1497'FEL, SEC.34)
Area	COLORADO	Well	SICKLER 27N-34HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	SICKLER 27N-34HZ PWB
Facility	SEC.34-T2N-R67W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1158.00	0.000	180.000	1158.00	Fox Hills Marker
3958.93	12.000	180.000	3910.00	Parkman
4530.42	12.000	180.000	4469.00	Sussex
6805.92	0.000	359.908	6717.04	4 1/2" Liner Top
7377.27	47.135	359.908	7237.00	Sharon Springs
7487.93	58.201	359.908	7304.00	Niobrara A
7683.63	77.771	359.908	7377.00	Niobrara B

DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	180.000	17.00	TIE-ON
1320.00	0.000	180.000	1320.00	BEGIN NUDGE
1920.00	12.000	180.000	1915.62	END NUDGE
5586.50	12.000	180.000	5502.00	BEGIN DROP
6186.50	0.000	359.908	6097.62	END DROP
6905.92	0.000	359.908	6817.04	KOP, BUILD @ 10°/100'
7807.02	90.110	359.908	7390.00	LANDING POINT
13000.52	90.110	359.908	7380.00	TOTAL DEPTH