

# KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#09 SATER 24C-5HZ (2397'FNL & 299'FEL, SEC.8)  
Field: WELD COUNTY (KERR MCGEE) Well: SATER 24C-5HZ  
Facility: SEC.08-T2N-R67W Wellbore: SATER 24C-5HZ PWB

Plot reference wellpath is SATER 24C-5HZ (PERMIT REV-1) PWP

True vertical depths are referenced to Rig on SLOT#09 SATER 24C-5HZ (2397'FNL & 299'FEL, SEC.8) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to Rig on SLOT#09 SATER 24C-5HZ (2397'FNL & 299'FEL, SEC.8) (RKB)	North Reference: True north
Rig on SLOT#09 SATER 24C-5HZ (2397'FNL & 299'FEL, SEC.8) (RKB) to Mean Sea Level: 4963 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#09 SATER 24C-5HZ (2397'FNL & 299'FEL, SEC.8)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: wlljef02 on 6/27/2013

## Location Information

Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.08-T2N-R67W			3163883.162	1299302.910	40°09'12.578"N	104°54'49.320"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#09 SATER 24C-5HZ (2397FNL & 299FEL, SEC.8)	40.58	2254.99	3166137.738	1299308.396	40°09'12.978"N	104°54'20.279"W
Rig on SLOT#09 SATER 24C-5HZ (2397FNL & 299FEL, SEC.8) (RKB) to Mud line (At Slot: SLOT#09 SATER 24C-5HZ (2397FNL & 299FEL, SEC.8))					4963ft	
Mean Sea Level to Mud line (At Slot: SLOT#09 SATER 24C-5HZ (2397FNL & 299FEL, SEC.8))					0ft	
Rig on SLOT#09 SATER 24C-5HZ (2397FNL & 299FEL, SEC.8) (RKB) to Mean Sea Level					4963ft	

## Survey Program

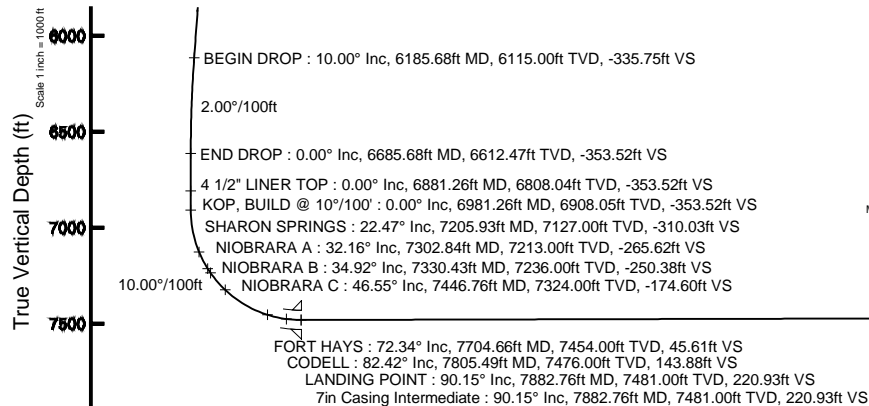
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	7882.76	NaviTrak	NaviTrak (Standard)		SATER 24C-5HZ PWB
7882.76	12870.80	OnTrak	OnTrak (Standard)		SATER 24C-5HZ PWB

## 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	246.350	17.00	0.00	0.00	0.00	0.00
BEGIN NUDGE	1200.00	0.000	246.350	1200.00	0.00	0.00	0.00	0.00
END NUDGE	1700.00	10.000	246.350	1697.47	-17.46	-39.87	2.00	-17.77
BEGIN DROP	6185.68	10.000	246.350	6115.00	-329.93	-753.38	0.00	-335.75
END DROP	6685.68	0.000	0.444	6612.47	-347.38	-793.25	2.00	-353.52
KOP, BUILD @ 10°/100'	6981.26	0.000	0.444	6908.05	-347.38	-793.25	0.00	-353.52
LANDING POINT	7882.76	90.149	0.444	7481.00	227.05	-788.79	10.00	220.93
TOTAL DEPTH	12870.80	90.149	0.444	7468.00	5214.92	-750.10	0.00	5208.95

## Targets

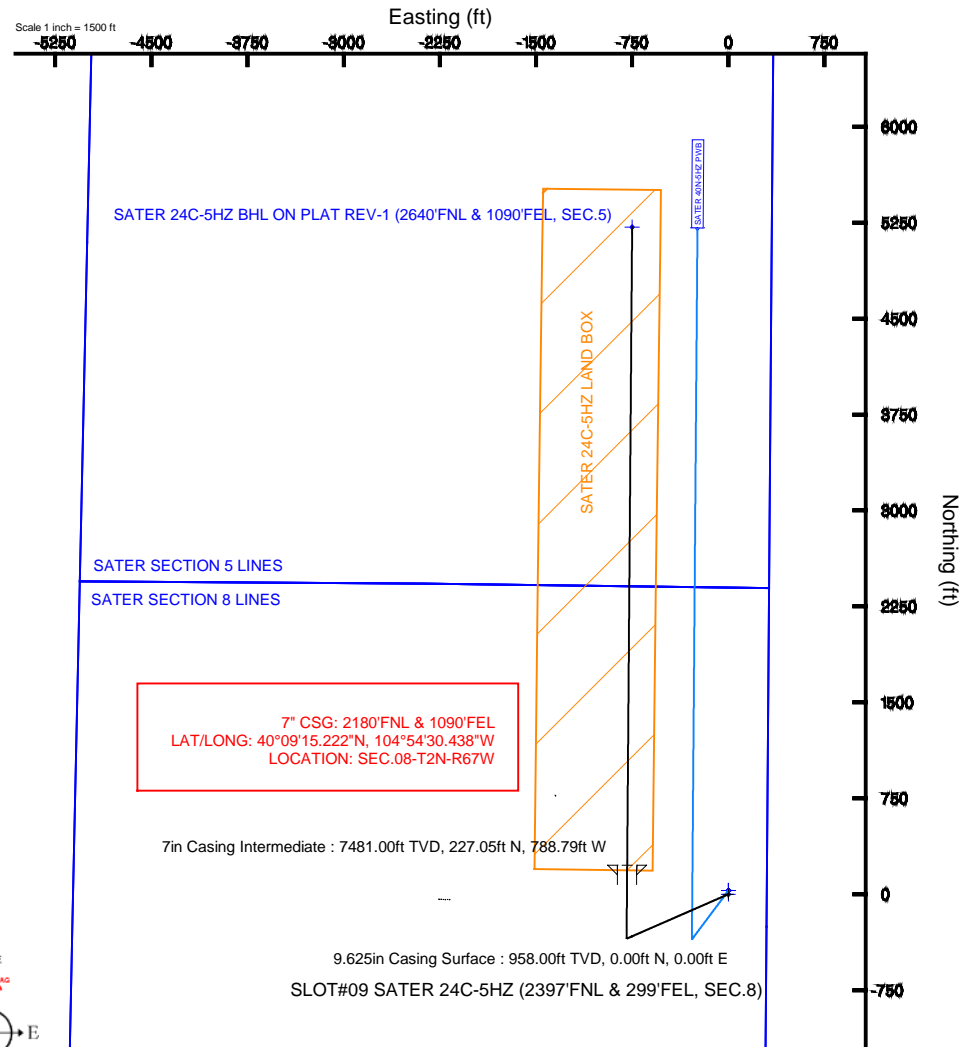
Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SATER SECTION 5 LINES		0.00	29.85	2.25	3166139.79	1299388.26	40°09'13.273"N	104°54'20.250"W
SATER SECTION 8 LINES		0.00	29.85	2.25	3166139.79	1299388.26	40°09'13.273"N	104°54'20.250"W
SATER 24C-5HZ BHL ON PLAT REV-1 (2640'FNL & 1090'FEL, SEC.5)	12870.80	7468.00	5214.92	-750.10	3166352.74	1306567.94	40°10'12.512"N	104°54'29.941"W
SATER 24C-5HZ LAND BOX		7500.00	0.00	0.00	3166137.74	1299358.40	40°09'12.978"N	104°54'20.279"W



Vertical Section (ft)

Scale 1 inch = 1000 ft

Azimuth 0.44° with reference 0.00 N, 0.00 E



BGGM (1945.0 to 2015.0) Dip: 66.75° Field: 52705.5 nT  
Magnetic North is 8.67 degrees East of True North (at 6/26/2013)

To correct azimuth from Magnetic to True add 8.67 degrees



# Planned Wellpath Report

SATER 24C-5HZ (PERMIT REV-1) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#09 SATER 24C-5HZ (2397'FNL & 299'FEL, SEC.8)
Area	COLORADO	Well	SATER 24C-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	SATER 24C-5HZ PWB
Facility	SEC.08-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	Wilsjef02
Scale	0.999958	Report Generated	6/27/2013 at 11:06:18
Convergence at slot	n/a	Database/Source file	WellArchitectDB/SATER_24C-5HZ_PWB.xml

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	40.58	2254.99	3166137.74	1299358.40	40°09'12.978"N	104°54'20.279"W
Facility Reference Pt			3163883.16	1299302.91	40°09'12.578"N	104°54'49.320"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#09 SATER 24C-5HZ (2397'FNL & 299'FEL, SEC.8) (RKB) to Facility Vertical Datum	4963.00ft
Horizontal Reference Pt	Slot	Rig on SLOT#09 SATER 24C-5HZ (2397'FNL & 299'FEL, SEC.8) (RKB) to Mean Sea Level	4963.00ft
Vertical Reference Pt	Rig on SLOT#09 SATER 24C-5HZ (2397'FNL & 299'FEL, SEC.8) (RKB)	Rig on SLOT#09 SATER 24C-5HZ (2397'FNL & 299'FEL, SEC.8) (RKB) to Mud Line at Slot (SLOT#09 SATER 24C-5HZ (2397'FNL & 299'FEL, SEC.8))	4963.00ft
MD Reference Pt	Rig on SLOT#09 SATER 24C-5HZ (2397'FNL & 299'FEL, SEC.8) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	0.44°



# Planned Wellpath Report

## SATER 24C-5HZ (PERMIT REV-1) PWP

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### REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#09 SATER 24C-5HZ (2397'FNL & 299'FEL, SEC.8)
Area	COLORADO	Well	SATER 24C-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	SATER 24C-5HZ PWB
Facility	SEC.08-T2N-R67W		

### WELLPATH DATA (147 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	246.350	0.00	0.00	0.00	0.00	40°09'12.978"N	104°54'20.279"W	0.00	
17.00	0.000	246.350	17.00	0.00	0.00	0.00	40°09'12.978"N	104°54'20.279"W	0.00	TIE-ON
117.00†	0.000	246.350	117.00	0.00	0.00	0.00	40°09'12.978"N	104°54'20.279"W	0.00	
217.00†	0.000	246.350	217.00	0.00	0.00	0.00	40°09'12.978"N	104°54'20.279"W	0.00	
317.00†	0.000	246.350	317.00	0.00	0.00	0.00	40°09'12.978"N	104°54'20.279"W	0.00	
417.00†	0.000	246.350	417.00	0.00	0.00	0.00	40°09'12.978"N	104°54'20.279"W	0.00	
517.00†	0.000	246.350	517.00	0.00	0.00	0.00	40°09'12.978"N	104°54'20.279"W	0.00	
617.00†	0.000	246.350	617.00	0.00	0.00	0.00	40°09'12.978"N	104°54'20.279"W	0.00	
717.00†	0.000	246.350	717.00	0.00	0.00	0.00	40°09'12.978"N	104°54'20.279"W	0.00	
817.00†	0.000	246.350	817.00	0.00	0.00	0.00	40°09'12.978"N	104°54'20.279"W	0.00	
908.00†	0.000	246.350	908.00	0.00	0.00	0.00	40°09'12.978"N	104°54'20.279"W	0.00	FOX HILLS BASE
917.00†	0.000	246.350	917.00	0.00	0.00	0.00	40°09'12.978"N	104°54'20.279"W	0.00	
1017.00†	0.000	246.350	1017.00	0.00	0.00	0.00	40°09'12.978"N	104°54'20.279"W	0.00	
1117.00†	0.000	246.350	1117.00	0.00	0.00	0.00	40°09'12.978"N	104°54'20.279"W	0.00	
1200.00	0.000	246.350	1200.00	0.00	0.00	0.00	40°09'12.978"N	104°54'20.279"W	0.00	BEGIN NUDGE
1217.00†	0.340	246.350	1217.00	-0.02	-0.02	-0.05	40°09'12.978"N	104°54'20.280"W	2.00	
1317.00†	2.340	246.350	1316.97	-0.98	-0.96	-2.19	40°09'12.969"N	104°54'20.307"W	2.00	
1417.00†	4.340	246.350	1416.79	-3.35	-3.30	-7.52	40°09'12.945"N	104°54'20.376"W	2.00	
1517.00†	6.340	246.350	1516.35	-7.15	-7.03	-16.05	40°09'12.909"N	104°54'20.486"W	2.00	
1617.00†	8.340	246.350	1615.53	-12.37	-12.15	-27.75	40°09'12.858"N	104°54'20.636"W	2.00	
1700.00	10.000	246.350	1697.47	-17.77	-17.46	-39.87	40°09'12.805"N	104°54'20.792"W	2.00	END NUDGE
1717.00†	10.000	246.350	1714.21	-18.97	-18.64	-42.57	40°09'12.794"N	104°54'20.827"W	0.00	
1817.00†	10.000	246.350	1812.69	-26.06	-25.61	-58.48	40°09'12.725"N	104°54'21.032"W	0.00	
1917.00†	10.000	246.350	1911.17	-33.15	-32.57	-74.38	40°09'12.656"N	104°54'21.237"W	0.00	
2017.00†	10.000	246.350	2009.65	-40.24	-39.54	-90.29	40°09'12.587"N	104°54'21.442"W	0.00	
2117.00†	10.000	246.350	2108.13	-47.33	-46.51	-106.20	40°09'12.518"N	104°54'21.647"W	0.00	
2217.00†	10.000	246.350	2206.61	-54.42	-53.47	-122.10	40°09'12.450"N	104°54'21.852"W	0.00	
2317.00†	10.000	246.350	2305.09	-61.51	-60.44	-138.01	40°09'12.381"N	104°54'22.056"W	0.00	
2417.00†	10.000	246.350	2403.57	-68.60	-67.40	-153.92	40°09'12.312"N	104°54'22.261"W	0.00	
2517.00†	10.000	246.350	2502.05	-75.68	-74.37	-169.82	40°09'12.243"N	104°54'22.466"W	0.00	
2617.00†	10.000	246.350	2600.53	-82.77	-81.34	-185.73	40°09'12.174"N	104°54'22.671"W	0.00	
2717.00†	10.000	246.350	2699.01	-89.86	-88.30	-201.64	40°09'12.105"N	104°54'22.876"W	0.00	
2817.00†	10.000	246.350	2797.50	-96.95	-95.27	-217.54	40°09'12.037"N	104°54'23.081"W	0.00	
2917.00†	10.000	246.350	2895.98	-104.04	-102.23	-233.45	40°09'11.968"N	104°54'23.285"W	0.00	
3017.00†	10.000	246.350	2994.46	-111.13	-109.20	-249.35	40°09'11.899"N	104°54'23.490"W	0.00	
3117.00†	10.000	246.350	3092.94	-118.22	-116.17	-265.26	40°09'11.830"N	104°54'23.695"W	0.00	
3217.00†	10.000	246.350	3191.42	-125.31	-123.13	-281.17	40°09'11.761"N	104°54'23.900"W	0.00	
3317.00†	10.000	246.350	3289.90	-132.40	-130.10	-297.07	40°09'11.692"N	104°54'24.105"W	0.00	
3417.00†	10.000	246.350	3388.38	-139.48	-137.06	-312.98	40°09'11.624"N	104°54'24.310"W	0.00	
3517.00†	10.000	246.350	3486.86	-146.57	-144.03	-328.89	40°09'11.555"N	104°54'24.515"W	0.00	
3617.00†	10.000	246.350	3585.34	-153.66	-150.99	-344.79	40°09'11.486"N	104°54'24.719"W	0.00	
3717.00†	10.000	246.350	3683.82	-160.75	-157.96	-360.70	40°09'11.417"N	104°54'24.924"W	0.00	
3817.00†	10.000	246.350	3782.30	-167.84	-164.93	-376.61	40°09'11.348"N	104°54'25.129"W	0.00	
3917.00†	10.000	246.350	3880.78	-174.93	-171.89	-392.51	40°09'11.279"N	104°54'25.334"W	0.00	
3922.30†	10.000	246.350	3886.00	-175.30	-172.26	-393.35	40°09'11.276"N	104°54'25.345"W	0.00	PARKMAN



# Planned Wellpath Report

## SATER 24C-5HZ (PERMIT REV-1) PWP

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### REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#09 SATER 24C-5HZ (2397'FNL & 299'FEL, SEC.8)
Area	COLORADO	Well	SATER 24C-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	SATER 24C-5HZ PWB
Facility	SEC.08-T2N-R67W		

### WELLPATH DATA (147 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4017.00†	10.000	246.350	3979.26	-182.02	-178.86	-408.42	40°09'11.210"N	104°54'25.539"W	0.00	
4117.00†	10.000	246.350	4077.75	-189.11	-185.82	-424.32	40°09'11.142"N	104°54'25.744"W	0.00	
4217.00†	10.000	246.350	4176.23	-196.20	-192.79	-440.23	40°09'11.073"N	104°54'25.948"W	0.00	
4317.00†	10.000	246.350	4274.71	-203.28	-199.76	-456.14	40°09'11.004"N	104°54'26.153"W	0.00	
4375.18†	10.000	246.350	4332.00	-207.41	-203.81	-465.39	40°09'10.964"N	104°54'26.273"W	0.00	SUSSEX
4417.00†	10.000	246.350	4373.19	-210.37	-206.72	-472.04	40°09'10.935"N	104°54'26.358"W	0.00	
4517.00†	10.000	246.350	4471.67	-217.46	-213.69	-487.95	40°09'10.866"N	104°54'26.563"W	0.00	
4617.00†	10.000	246.350	4570.15	-224.55	-220.65	-503.86	40°09'10.797"N	104°54'26.768"W	0.00	
4717.00†	10.000	246.350	4668.63	-231.64	-227.62	-519.76	40°09'10.729"N	104°54'26.973"W	0.00	
4817.00†	10.000	246.350	4767.11	-238.73	-234.59	-535.67	40°09'10.660"N	104°54'27.178"W	0.00	
4917.00†	10.000	246.350	4865.59	-245.82	-241.55	-551.58	40°09'10.591"N	104°54'27.382"W	0.00	
5017.00†	10.000	246.350	4964.07	-252.91	-248.52	-567.48	40°09'10.522"N	104°54'27.587"W	0.00	
5117.00†	10.000	246.350	5062.55	-260.00	-255.48	-583.39	40°09'10.453"N	104°54'27.792"W	0.00	
5217.00†	10.000	246.350	5161.03	-267.08	-262.45	-599.30	40°09'10.384"N	104°54'27.997"W	0.00	
5317.00†	10.000	246.350	5259.52	-274.17	-269.41	-615.20	40°09'10.316"N	104°54'28.202"W	0.00	
5417.00†	10.000	246.350	5358.00	-281.26	-276.38	-631.11	40°09'10.247"N	104°54'28.407"W	0.00	
5517.00†	10.000	246.350	5456.48	-288.35	-283.35	-647.01	40°09'10.178"N	104°54'28.612"W	0.00	
5617.00†	10.000	246.350	5554.96	-295.44	-290.31	-662.92	40°09'10.109"N	104°54'28.816"W	0.00	
5717.00†	10.000	246.350	5653.44	-302.53	-297.28	-678.83	40°09'10.040"N	104°54'29.021"W	0.00	
5817.00†	10.000	246.350	5751.92	-309.62	-304.24	-694.73	40°09'09.971"N	104°54'29.226"W	0.00	
5917.00†	10.000	246.350	5850.40	-316.71	-311.21	-710.64	40°09'09.903"N	104°54'29.431"W	0.00	
6017.00†	10.000	246.350	5948.88	-323.80	-318.18	-726.55	40°09'09.834"N	104°54'29.636"W	0.00	
6117.00†	10.000	246.350	6047.36	-330.89	-325.14	-742.45	40°09'09.765"N	104°54'29.841"W	0.00	
6185.68	10.000	246.350	6115.00	-335.75	-329.93	-753.38	40°09'09.718"N	104°54'29.981"W	0.00	BEGIN DROP
6217.00†	9.374	246.350	6145.87	-337.91	-332.04	-758.20	40°09'09.697"N	104°54'30.043"W	2.00	
6317.00†	7.374	246.350	6244.80	-343.85	-337.88	-771.54	40°09'09.639"N	104°54'30.215"W	2.00	
6417.00†	5.374	246.350	6344.18	-348.38	-342.33	-781.71	40°09'09.595"N	104°54'30.346"W	2.00	
6517.00†	3.374	246.350	6443.88	-351.49	-345.39	-788.70	40°09'09.565"N	104°54'30.436"W	2.00	
6617.00†	1.374	246.350	6543.79	-353.19	-347.05	-792.49	40°09'09.548"N	104°54'30.485"W	2.00	
6685.68	0.000	0.444	6612.47	-353.52	-347.38	-793.25	40°09'09.545"N	104°54'30.495"W	2.00	END DROP
6717.00†	0.000	0.444	6643.78	-353.52	-347.38	-793.25	40°09'09.545"N	104°54'30.495"W	0.00	
6817.00†	0.000	0.444	6743.78	-353.52	-347.38	-793.25	40°09'09.545"N	104°54'30.495"W	0.00	
6881.26†	0.000	0.444	6808.04	-353.52	-347.38	-793.25	40°09'09.545"N	104°54'30.495"W	0.00	4 1/2" LINER TOP
6917.00†	0.000	0.444	6843.78	-353.52	-347.38	-793.25	40°09'09.545"N	104°54'30.495"W	0.00	
6981.26	0.000	0.444	6908.05	-353.52	-347.38	-793.25	40°09'09.545"N	104°54'30.495"W	0.00	KOP, BUILD @ 10°/100'
7017.00†	3.574	0.444	6943.76	-352.41	-346.27	-793.24	40°09'09.556"N	104°54'30.495"W	10.00	
7117.00†	13.574	0.444	7042.52	-337.52	-331.38	-793.12	40°09'09.703"N	104°54'30.493"W	10.00	
7205.93†	22.467	0.444	7127.00	-310.03	-303.90	-792.91	40°09'09.975"N	104°54'30.490"W	10.00	SHARON SPRINGS
7217.00†	23.574	0.444	7137.19	-305.71	-299.57	-792.87	40°09'10.017"N	104°54'30.490"W	10.00	
7302.84†	32.157	0.444	7213.00	-265.62	-259.49	-792.56	40°09'10.414"N	104°54'30.486"W	10.00	NIOBRARA A
7317.00†	33.574	0.444	7224.90	-257.94	-251.80	-792.50	40°09'10.490"N	104°54'30.485"W	10.00	
7330.43†	34.917	0.444	7236.00	-250.38	-244.25	-792.44	40°09'10.564"N	104°54'30.484"W	10.00	NIOBRARA B
7417.00†	43.574	0.444	7302.98	-195.66	-189.53	-792.02	40°09'11.105"N	104°54'30.479"W	10.00	
7446.76†	46.550	0.444	7324.00	-174.60	-168.47	-791.86	40°09'11.313"N	104°54'30.477"W	10.00	NIOBRARA C
7517.00†	53.574	0.444	7369.06	-120.78	-114.65	-791.44	40°09'11.845"N	104°54'30.472"W	10.00	



# Planned Wellpath Report

## SATER 24C-5HZ (PERMIT REV-1) PWP

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### REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#09 SATER 24C-5HZ (2397'FNL & 299'FEL, SEC.8)
Area	COLORADO	Well	SATER 24C-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	SATER 24C-5HZ PWB
Facility	SEC.08-T2N-R67W		

### WELLPATH DATA (147 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7617.00†	63.574	0.444	7421.13	-35.56	-29.43	-790.78	40°09'12.687"N	104°54'30.463"W	10.00	
7704.66†	72.339	0.444	7454.00	45.61	51.74	-790.15	40°09'13.489"N	104°54'30.455"W	10.00	FORT HAYS
7717.00†	73.574	0.444	7457.62	57.42	63.54	-790.06	40°09'13.606"N	104°54'30.454"W	10.00	
7805.49†	82.423	0.444	7476.00	143.88	150.01	-789.39	40°09'14.460"N	104°54'30.445"W	10.00	CODELL
7817.00†	83.574	0.444	7477.40	155.31	161.43	-789.30	40°09'14.573"N	104°54'30.444"W	10.00	
7882.76	90.149	0.444	7481.00	220.93	227.05	-788.79	40°09'15.222"N	104°54'30.438"W	10.00	LANDING POINT
7917.00†	90.149	0.444	7480.91	255.17	261.29	-788.52	40°09'15.560"N	104°54'30.434"W	0.00	
8017.00†	90.149	0.444	7480.65	355.17	361.29	-787.75	40°09'16.548"N	104°54'30.424"W	0.00	
8117.00†	90.149	0.444	7480.39	455.17	461.29	-786.97	40°09'17.536"N	104°54'30.414"W	0.00	
8217.00†	90.149	0.444	7480.13	555.17	561.28	-786.20	40°09'18.525"N	104°54'30.404"W	0.00	
8317.00†	90.149	0.444	7479.87	655.17	661.28	-785.42	40°09'19.513"N	104°54'30.394"W	0.00	
8417.00†	90.149	0.444	7479.61	755.17	761.28	-784.65	40°09'20.501"N	104°54'30.384"W	0.00	
8517.00†	90.149	0.444	7479.35	855.17	861.27	-783.87	40°09'21.489"N	104°54'30.374"W	0.00	
8617.00†	90.149	0.444	7479.09	955.17	961.27	-783.09	40°09'22.477"N	104°54'30.364"W	0.00	
8717.00†	90.149	0.444	7478.83	1055.17	1061.27	-782.32	40°09'23.465"N	104°54'30.355"W	0.00	
8817.00†	90.149	0.444	7478.57	1155.17	1161.26	-781.54	40°09'24.454"N	104°54'30.345"W	0.00	
8917.00†	90.149	0.444	7478.31	1255.17	1261.26	-780.77	40°09'25.442"N	104°54'30.335"W	0.00	
9017.00†	90.149	0.444	7478.04	1355.17	1361.26	-779.99	40°09'26.430"N	104°54'30.325"W	0.00	
9117.00†	90.149	0.444	7477.78	1455.17	1461.25	-779.22	40°09'27.418"N	104°54'30.315"W	0.00	
9217.00†	90.149	0.444	7477.52	1555.17	1561.25	-778.44	40°09'28.406"N	104°54'30.305"W	0.00	
9317.00†	90.149	0.444	7477.26	1655.17	1661.25	-777.66	40°09'29.394"N	104°54'30.295"W	0.00	
9417.00†	90.149	0.444	7477.00	1755.17	1761.24	-776.89	40°09'30.383"N	104°54'30.285"W	0.00	
9517.00†	90.149	0.444	7476.74	1855.17	1861.24	-776.11	40°09'31.371"N	104°54'30.275"W	0.00	
9617.00†	90.149	0.444	7476.48	1955.17	1961.24	-775.34	40°09'32.359"N	104°54'30.265"W	0.00	
9717.00†	90.149	0.444	7476.22	2055.17	2061.23	-774.56	40°09'33.347"N	104°54'30.255"W	0.00	
9817.00†	90.149	0.444	7475.96	2155.17	2161.23	-773.79	40°09'34.335"N	104°54'30.245"W	0.00	
9917.00†	90.149	0.444	7475.70	2255.17	2261.23	-773.01	40°09'35.323"N	104°54'30.235"W	0.00	
10017.00†	90.149	0.444	7475.44	2355.17	2361.22	-772.23	40°09'36.312"N	104°54'30.225"W	0.00	
10117.00†	90.149	0.444	7475.18	2455.17	2461.22	-771.46	40°09'37.300"N	104°54'30.215"W	0.00	
10217.00†	90.149	0.444	7474.92	2555.17	2561.22	-770.68	40°09'38.288"N	104°54'30.205"W	0.00	
10317.00†	90.149	0.444	7474.66	2655.17	2661.21	-769.91	40°09'39.276"N	104°54'30.195"W	0.00	
10417.00†	90.149	0.444	7474.40	2755.17	2761.21	-769.13	40°09'40.264"N	104°54'30.185"W	0.00	
10517.00†	90.149	0.444	7474.14	2855.17	2861.21	-768.36	40°09'41.252"N	104°54'30.175"W	0.00	
10617.00†	90.149	0.444	7473.87	2955.16	2961.20	-767.58	40°09'42.241"N	104°54'30.165"W	0.00	
10717.00†	90.149	0.444	7473.61	3055.16	3061.20	-766.80	40°09'43.229"N	104°54'30.156"W	0.00	
10817.00†	90.149	0.444	7473.35	3155.16	3161.20	-766.03	40°09'44.217"N	104°54'30.146"W	0.00	
10917.00†	90.149	0.444	7473.09	3255.16	3261.19	-765.25	40°09'45.205"N	104°54'30.136"W	0.00	
11017.00†	90.149	0.444	7472.83	3355.16	3361.19	-764.48	40°09'46.193"N	104°54'30.126"W	0.00	
11117.00†	90.149	0.444	7472.57	3455.16	3461.19	-763.70	40°09'47.181"N	104°54'30.116"W	0.00	
11217.00†	90.149	0.444	7472.31	3555.16	3561.18	-762.93	40°09'48.170"N	104°54'30.106"W	0.00	
11317.00†	90.149	0.444	7472.05	3655.16	3661.18	-762.15	40°09'49.158"N	104°54'30.096"W	0.00	
11417.00†	90.149	0.444	7471.79	3755.16	3761.18	-761.37	40°09'50.146"N	104°54'30.086"W	0.00	
11517.00†	90.149	0.444	7471.53	3855.16	3861.17	-760.60	40°09'51.134"N	104°54'30.076"W	0.00	
11617.00†	90.149	0.444	7471.27	3955.16	3961.17	-759.82	40°09'52.122"N	104°54'30.066"W	0.00	
11717.00†	90.149	0.444	7471.01	4055.16	4061.17	-759.05	40°09'53.111"N	104°54'30.056"W	0.00	





# Planned Wellpath Report

SATER 24C-5HZ (PERMIT REV-1) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#09 SATER 24C-5HZ (2397'FNL & 299'FEL, SEC.8)
Area	COLORADO	Well	SATER 24C-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	SATER 24C-5HZ PWB
Facility	SEC.08-T2N-R67W		

## WELLPATH DATA (147 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11817.00†	90.149	0.444	7470.75	4155.16	4161.16	-758.27	40°09'54.099"N	104°54'30.046"W	0.00	
11917.00†	90.149	0.444	7470.49	4255.16	4261.16	-757.50	40°09'55.087"N	104°54'30.036"W	0.00	
12017.00†	90.149	0.444	7470.23	4355.16	4361.15	-756.72	40°09'56.075"N	104°54'30.026"W	0.00	
12117.00†	90.149	0.444	7469.96	4455.16	4461.15	-755.95	40°09'57.063"N	104°54'30.016"W	0.00	
12217.00†	90.149	0.444	7469.70	4555.16	4561.15	-755.17	40°09'58.051"N	104°54'30.006"W	0.00	
12317.00†	90.149	0.444	7469.44	4655.16	4661.14	-754.39	40°09'59.040"N	104°54'29.996"W	0.00	
12417.00†	90.149	0.444	7469.18	4755.16	4761.14	-753.62	40°10'00.028"N	104°54'29.986"W	0.00	
12517.00†	90.149	0.444	7468.92	4855.16	4861.14	-752.84	40°10'01.016"N	104°54'29.976"W	0.00	
12617.00†	90.149	0.444	7468.66	4955.16	4961.13	-752.07	40°10'02.004"N	104°54'29.966"W	0.00	
12717.00†	90.149	0.444	7468.40	5055.16	5061.13	-751.29	40°10'02.992"N	104°54'29.957"W	0.00	
12817.00†	90.149	0.444	7468.14	5155.16	5161.13	-750.52	40°10'03.980"N	104°54'29.947"W	0.00	
12870.80	90.149	0.444	7468.00 <sup>1</sup>	5208.95	5214.92	-750.10	40°10'04.512"N	104°54'29.941"W	0.00	TOTAL DEPTH

## HOLE & CASING SECTIONS - Ref Wellbore: SATER 24C-5HZ PWB Ref Wellpath: SATER 24C-5HZ (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	958.00	941.00	17.00	958.00	0.00	0.00	0.00	0.00
9.625in Casing Surface	17.00	958.00	941.00	17.00	958.00	0.00	0.00	0.00	0.00
8.75in Open Hole	958.00	7882.76	6924.76	958.00	7481.00	0.00	0.00	227.05	-788.79
7in Casing Intermediate	17.00	7882.76	7865.76	17.00	7481.00	0.00	0.00	227.05	-788.79
6.125in Open Hole	7882.76	12870.80	4988.04	7481.00	7468.00	227.05	-788.79	5214.92	-750.10
4.5in Casing Production	17.00	12870.80	12853.80	17.00	7468.00	0.00	0.00	5214.92	-750.10



# Planned Wellpath Report

## SATER 24C-5HZ (PERMIT REV-1) PWP

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### REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#09 SATER 24C-5HZ (2397'FNL & 299'FEL, SEC.8)
Area	COLORADO	Well	SATER 24C-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	SATER 24C-5HZ PWB
Facility	SEC.08-T2N-R67W		

### TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SATER SECTION 5 LINES		0.00	29.85	2.25	3166139.79	1299388.26	40°09'13.273"N	104°54'20.250"W	polygon
SATER SECTION 8 LINES		0.00	29.85	2.25	3166139.79	1299388.26	40°09'13.273"N	104°54'20.250"W	polygon
1) SATER 24C-5HZ BHL ON PLAT REV-1 (2640'FNL & 1090'FEL, SEC.5)	12870.80	7468.00	5214.92	-750.10	3165352.74	1304567.94	40°10'04.512"N	104°54'29.941"W	point
SATER 24C-5HZ LAND BOX		7500.00	0.00	0.00	3166137.74	1299358.40	40°09'12.978"N	104°54'20.279"W	polygon

### SURVEY PROGRAM - Ref Wellbore: SATER 24C-5HZ PWB Ref Wellpath: SATER 24C-5HZ (PERMIT REV-1) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	7882.76	NaviTrak (Standard)		SATER 24C-5HZ PWB
7882.76	12870.80	OnTrak (Standard)		SATER 24C-5HZ PWB



# Planned Wellpath Report

SATER 24C-5HZ (PERMIT REV-1) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#09 SATER 24C-5HZ (2397'FNL & 299'FEL, SEC.8)
Area	COLORADO	Well	SATER 24C-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	SATER 24C-5HZ PWB
Facility	SEC.08-T2N-R67W		

## WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
908.00	0.000	246.350	908.00	FOX HILLS BASE
3922.30	10.000	246.350	3886.00	PARKMAN
4375.18	10.000	246.350	4332.00	SUSSEX
6881.26	0.000	0.444	6808.04	4 1/2" LINER TOP
7205.93	22.467	0.444	7127.00	SHARON SPRINGS
7302.84	32.157	0.444	7213.00	NIOBRARA A
7330.43	34.917	0.444	7236.00	NIOBRARA B
7446.76	46.550	0.444	7324.00	NIOBRARA C
7704.66	72.339	0.444	7454.00	FORT HAYS
7805.49	82.423	0.444	7476.00	CODELL