

# KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#04 STEWARD 13C-6HZ (442°FSL & 1449°FWL, SEC.07)  
Field: WELD COUNTY (KERR MCGEE) Well: STEWARD 13C-6HZ  
Facility: SEC.07-T1N-R65W Wellbore: STEWARD 13C-6HZ PWB

Plot reference wellpath is STEWARD 13C-6HZ (PERMIT REV-1) PWB

True vertical depths are referenced to PERMIT (17KB) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to PERMIT (17KB) (RKB)	North Reference: True north
PERMIT (17KB) (RKB) to Mean Sea Level: 5021 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#04 STEWARD 13C-6HZ (442°FSL & 1449°FWL, SEC.07)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: rnbala01 on 25/Mar/2014

## Location Information

Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.07-T1N-R65W	3224261.659	1265739.756	40°03'35.230"N	104°41'55.637"W
Slot	Local N (ft)	Local E (ft)	Grid North (US ft)	Latitude
SLOT#04 STEWARD 13C-6HZ (442°FSL & 1449°FWL, SEC.07)	-76.27	-3366.02	3220896.595	1265633.077
PERMIT (17KB) (RKB) to Mud line (At Slot: SLOT#04 STEWARD 13C-6HZ (442°FSL & 1449°FWL, SEC.07))				5021ft
Mean Sea Level to Mud line (At Slot: SLOT#04 STEWARD 13C-6HZ (442°FSL & 1449°FWL, SEC.07))				0ft
PERMIT (17KB) (RKB) to Mean Sea Level				5021ft

## Survey Program

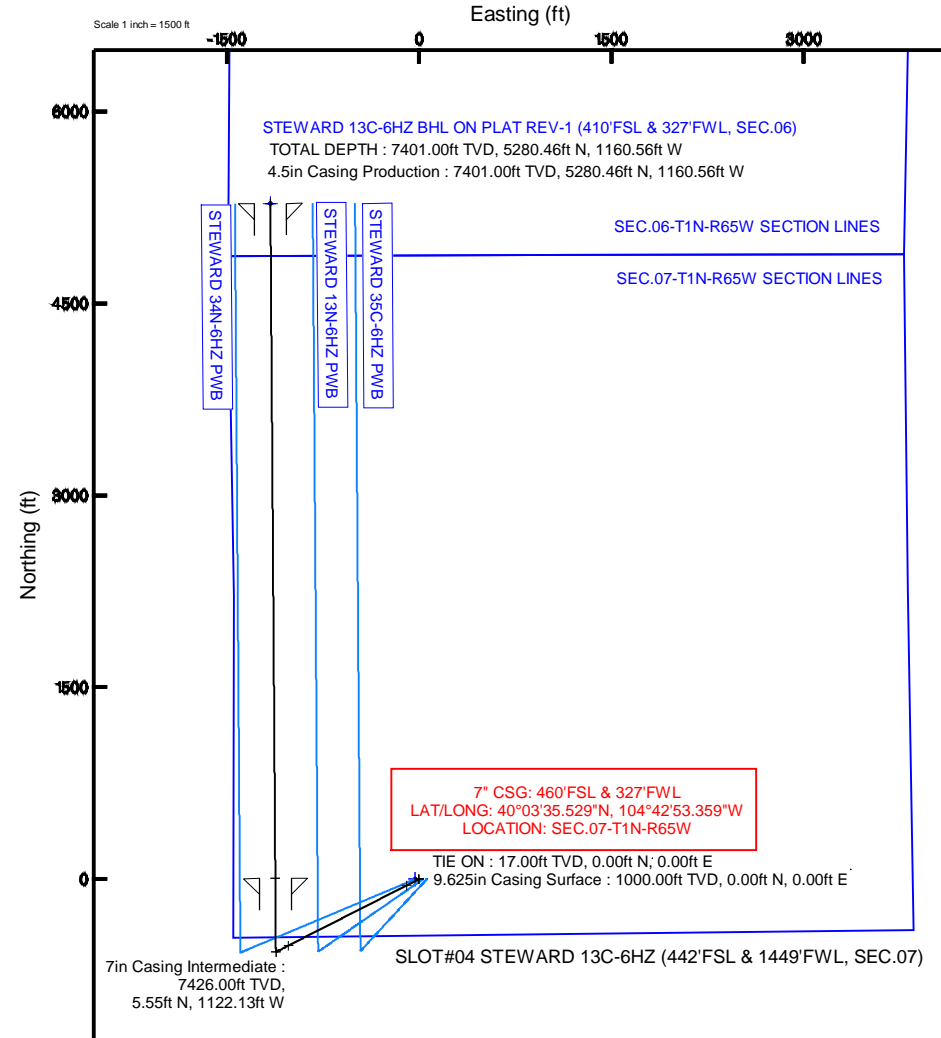
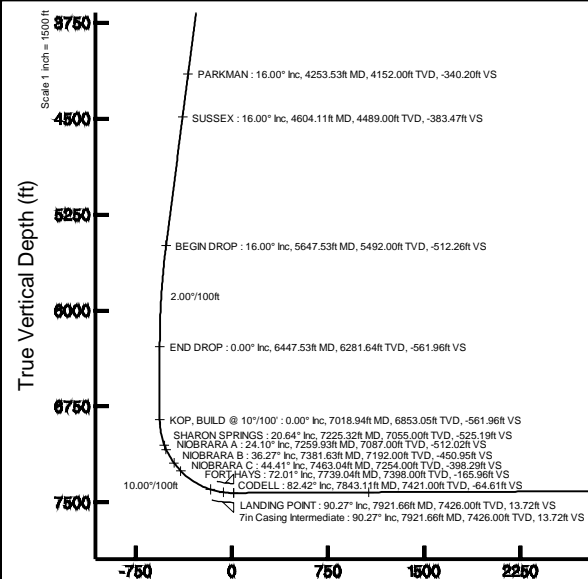
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	13196.77	NavitTrak	NaviTrak (MAGCORR,IFR)		STEWARD 13C-6HZ PWB

## Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.06-T1N-R65W SECTION LINES		0.00	0.00	-29.94	3220896.66	1265632.81	40°03'35.474"N	104°42'39.312"W
SEC.07-T1N-R65W SECTION LINES		0.00	0.00	-29.94	3220896.66	1265632.81	40°03'35.474"N	104°42'39.312"W
STEWARD 13C-6HZ BHL ON PLAT REV-1 (410°FSL & 327°FWL, SEC.06)	13196.77	7401.00	5280.46	-1160.56	3219885.13	1270902.80	40°04'27.656"N	104°42'53.856"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	242.980	17.00	0.00	0.00	0.00	0.00
BEGIN NUDGE	1100.00	0.000	242.980	1100.00	0.00	0.00	0.00	0.00
END NUDGE	1900.00	16.000	242.980	1889.64	-50.42	-98.86	2.00	-49.70
BEGIN DROP	5647.53	16.000	242.980	5492.00	-519.69	-1019.07	0.00	-512.26
END DROP	6447.53	0.000	359.583	6281.64	-570.11	-1117.94	2.00	-561.96
KOP, BUILD @ 10°/100'	7018.94	0.000	359.583	6853.05	-570.11	-1117.94	0.00	-561.96
LANDING POINT	7921.66	90.272	359.583	7426.00	5.55	-1122.13	10.00	13.72
TOTAL DEPTH	13196.77	90.272	359.583	7401.00	5280.46	-1160.56	0.00	5288.77



STEWARD 13C-6HZ BHL ON PLAT REV-1 (410°FSL & 327°FWL, SEC.06)

4.5in Casing Production: 90.27° inc, 13196.77ft MD, 7401.00ft TVD, 5288.77ft VS  
TOTAL DEPTH: 90.27° inc, 13196.77ft MD, 7401.00ft TVD, 5288.77ft VS

Vertical Section (ft)

Azimuth 359.58° with reference 0.00 N, 0.00 E

Scale 1 inch = 1500 ft

## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#04 STEWARD 13C-6HZ (442'FSL & 1449'FWL, SEC.07)
Area	COLORADO	Well	STEWARD 13C-6HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	STEWARD 13C-6HZ PWB
Facility	SEC.07-T1N-R65W		

## 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	0.999962	Report Generated	25/Mar/2014 at 14:17
Convergence at slot	n/a	Database/Source file	WellArchitectDB/STEWARD_13C-6HZ_PWB.xml

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-76.27	-3366.02	3220896.60	1265633.08	40°03'35.474"N	104°42'38.927"W
Facility Reference Pt			3224261.66	1265739.76	40°03'36.230"N	104°41'55.637"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	5021.00ft
Horizontal Reference Pt	Slot	PERMIT (17'KB) (RKB) to Mean Sea Level	5021.00ft
Vertical Reference Pt	PERMIT (17'KB) (RKB)	PERMIT (17'KB) (RKB) to Mud Line at Slot (SLOT#04 STEWARD 13C-6HZ (442'FSL & 1449'FWL, SEC.07))	5021.00ft
MD Reference Pt	PERMIT (17'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	359.58°

## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#04 STEWARD 13C-6HZ (442'FSL & 1449'FWL, SEC.07)
Area	COLORADO	Well	STEWARD 13C-6HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	STEWARD 13C-6HZ PWB
Facility	SEC.07-T1N-R65W		

## WELLPATH DATA (150 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	242.980	0.00	0.00	0.00	0.00	40°03'35.474"N	104°42'38.927"W	0.00	
17.00	0.000	242.980	17.00	0.00	0.00	0.00	40°03'35.474"N	104°42'38.927"W	0.00	TIE ON
117.00†	0.000	242.980	117.00	0.00	0.00	0.00	40°03'35.474"N	104°42'38.927"W	0.00	
217.00†	0.000	242.980	217.00	0.00	0.00	0.00	40°03'35.474"N	104°42'38.927"W	0.00	
317.00†	0.000	242.980	317.00	0.00	0.00	0.00	40°03'35.474"N	104°42'38.927"W	0.00	
417.00†	0.000	242.980	417.00	0.00	0.00	0.00	40°03'35.474"N	104°42'38.927"W	0.00	
517.00†	0.000	242.980	517.00	0.00	0.00	0.00	40°03'35.474"N	104°42'38.927"W	0.00	
617.00†	0.000	242.980	617.00	0.00	0.00	0.00	40°03'35.474"N	104°42'38.927"W	0.00	
717.00†	0.000	242.980	717.00	0.00	0.00	0.00	40°03'35.474"N	104°42'38.927"W	0.00	
817.00†	0.000	242.980	817.00	0.00	0.00	0.00	40°03'35.474"N	104°42'38.927"W	0.00	
917.00†	0.000	242.980	917.00	0.00	0.00	0.00	40°03'35.474"N	104°42'38.927"W	0.00	
1017.00†	0.000	242.980	1017.00	0.00	0.00	0.00	40°03'35.474"N	104°42'38.927"W	0.00	
1100.00	0.000	242.980	1100.00	0.00	0.00	0.00	40°03'35.474"N	104°42'38.927"W	0.00	BEGIN NUDGE
1117.00†	0.340	242.980	1117.00	-0.02	-0.02	-0.04	40°03'35.474"N	104°42'38.928"W	2.00	
1217.00†	2.340	242.980	1216.97	-1.07	-1.09	-2.13	40°03'35.463"N	104°42'38.954"W	2.00	
1317.00†	4.340	242.980	1316.79	-3.68	-3.73	-7.32	40°03'35.437"N	104°42'39.021"W	2.00	
1417.00†	6.340	242.980	1416.35	-7.85	-7.96	-15.61	40°03'35.395"N	104°42'39.128"W	2.00	
1517.00†	8.340	242.980	1515.53	-13.57	-13.76	-26.99	40°03'35.338"N	104°42'39.274"W	2.00	
1541.75†	8.835	242.980	1540.00	-15.22	-15.44	-30.28	40°03'35.321"N	104°42'39.316"W	2.00	FOX HILLS MARKER
1617.00†	10.340	242.980	1614.20	-20.83	-21.14	-41.45	40°03'35.265"N	104°42'39.460"W	2.00	
1717.00†	12.340	242.980	1712.24	-29.64	-30.07	-58.96	40°03'35.177"N	104°42'39.685"W	2.00	
1817.00†	14.340	242.980	1809.54	-39.97	-40.55	-79.52	40°03'35.073"N	104°42'39.950"W	2.00	
1900.00	16.000	242.980	1889.64	-49.70	-50.42	-98.86	40°03'34.976"N	104°42'40.198"W	2.00	END NUDGE
1917.00†	16.000	242.980	1905.98	-51.79	-52.55	-103.04	40°03'34.955"N	104°42'40.252"W	0.00	
2017.00†	16.000	242.980	2002.11	-64.14	-65.07	-127.59	40°03'34.831"N	104°42'40.568"W	0.00	
2117.00†	16.000	242.980	2098.24	-76.48	-77.59	-152.15	40°03'34.707"N	104°42'40.884"W	0.00	
2217.00†	16.000	242.980	2194.36	-88.82	-90.11	-176.70	40°03'34.583"N	104°42'41.200"W	0.00	
2317.00†	16.000	242.980	2290.49	-101.17	-102.63	-201.26	40°03'34.460"N	104°42'41.515"W	0.00	
2417.00†	16.000	242.980	2386.62	-113.51	-115.16	-225.81	40°03'34.336"N	104°42'41.831"W	0.00	
2517.00†	16.000	242.980	2482.74	-125.85	-127.68	-250.37	40°03'34.212"N	104°42'42.147"W	0.00	
2617.00†	16.000	242.980	2578.87	-138.20	-140.20	-274.92	40°03'34.088"N	104°42'42.463"W	0.00	
2717.00†	16.000	242.980	2674.99	-150.54	-152.72	-299.48	40°03'33.965"N	104°42'42.779"W	0.00	
2817.00†	16.000	242.980	2771.12	-162.88	-165.25	-324.03	40°03'33.841"N	104°42'43.094"W	0.00	
2917.00†	16.000	242.980	2867.25	-175.23	-177.77	-348.59	40°03'33.717"N	104°42'43.410"W	0.00	
3017.00†	16.000	242.980	2963.37	-187.57	-190.29	-373.14	40°03'33.593"N	104°42'43.726"W	0.00	
3117.00†	16.000	242.980	3059.50	-199.91	-202.81	-397.70	40°03'33.470"N	104°42'44.042"W	0.00	
3217.00†	16.000	242.980	3155.62	-212.26	-215.34	-422.25	40°03'33.346"N	104°42'44.358"W	0.00	
3317.00†	16.000	242.980	3251.75	-224.60	-227.86	-446.81	40°03'33.222"N	104°42'44.673"W	0.00	
3417.00†	16.000	242.980	3347.88	-236.94	-240.38	-471.36	40°03'33.098"N	104°42'44.989"W	0.00	
3517.00†	16.000	242.980	3444.00	-249.29	-252.90	-495.92	40°03'32.975"N	104°42'45.305"W	0.00	
3617.00†	16.000	242.980	3540.13	-261.63	-265.42	-520.47	40°03'32.851"N	104°42'45.621"W	0.00	
3717.00†	16.000	242.980	3636.26	-273.97	-277.95	-545.03	40°03'32.727"N	104°42'45.936"W	0.00	
3817.00†	16.000	242.980	3732.38	-286.32	-290.47	-569.58	40°03'32.603"N	104°42'46.252"W	0.00	
3917.00†	16.000	242.980	3828.51	-298.66	-302.99	-594.14	40°03'32.480"N	104°42'46.568"W	0.00	
4017.00†	16.000	242.980	3924.63	-311.00	-315.51	-618.70	40°03'32.356"N	104°42'46.884"W	0.00	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#04 STEWARD 13C-6HZ (442'FSL & 1449'FWL, SEC.07)
Area	COLORADO	Well	STEWARD 13C-6HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	STEWARD 13C-6HZ PWB
Facility	SEC.07-T1N-R65W		

WELLPATH DATA (150 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4117.00†	16.000	242.980	4020.76	-323.35	-328.04	-643.25	40°03'32.232"N	104°42'47.200"W	0.00	
4217.00†	16.000	242.980	4116.89	-335.69	-340.56	-667.81	40°03'32.108"N	104°42'47.515"W	0.00	
4253.53†	16.000	242.980	4152.00	-340.20	-345.13	-676.78	40°03'32.063"N	104°42'47.631"W	0.00	PARKMAN
4317.00†	16.000	242.980	4213.01	-348.03	-353.08	-692.36	40°03'31.985"N	104°42'47.831"W	0.00	
4417.00†	16.000	242.980	4309.14	-360.37	-365.60	-716.92	40°03'31.861"N	104°42'48.147"W	0.00	
4517.00†	16.000	242.980	4405.26	-372.72	-378.12	-741.47	40°03'31.737"N	104°42'48.463"W	0.00	
4604.11†	16.000	242.980	4489.00	-383.47	-389.03	-762.86	40°03'31.629"N	104°42'48.738"W	0.00	SUSSEX
4617.00†	16.000	242.980	4501.39	-385.06	-390.65	-766.03	40°03'31.613"N	104°42'48.779"W	0.00	
4717.00†	16.000	242.980	4597.52	-397.40	-403.17	-790.58	40°03'31.490"N	104°42'49.094"W	0.00	
4817.00†	16.000	242.980	4693.64	-409.75	-415.69	-815.14	40°03'31.366"N	104°42'49.410"W	0.00	
4917.00†	16.000	242.980	4789.77	-422.09	-428.21	-839.69	40°03'31.242"N	104°42'49.726"W	0.00	
5017.00†	16.000	242.980	4885.90	-434.43	-440.74	-864.25	40°03'31.118"N	104°42'50.042"W	0.00	
5117.00†	16.000	242.980	4982.02	-446.78	-453.26	-888.80	40°03'30.995"N	104°42'50.358"W	0.00	
5217.00†	16.000	242.980	5078.15	-459.12	-465.78	-913.36	40°03'30.871"N	104°42'50.673"W	0.00	
5317.00†	16.000	242.980	5174.27	-471.46	-478.30	-937.91	40°03'30.747"N	104°42'50.989"W	0.00	
5417.00†	16.000	242.980	5270.40	-483.81	-490.82	-962.47	40°03'30.623"N	104°42'51.305"W	0.00	
5517.00†	16.000	242.980	5366.53	-496.15	-503.35	-987.02	40°03'30.500"N	104°42'51.621"W	0.00	
5617.00†	16.000	242.980	5462.65	-508.49	-515.87	-1011.58	40°03'30.376"N	104°42'51.936"W	0.00	
5647.53	16.000	242.980	5492.00	-512.26	-519.69	-1019.07	40°03'30.338"N	104°42'52.033"W	0.00	BEGIN DROP
5717.00†	14.611	242.980	5559.00	-520.47	-528.02	-1035.41	40°03'30.256"N	104°42'52.243"W	2.00	
5817.00†	12.611	242.980	5656.19	-531.01	-538.71	-1056.37	40°03'30.150"N	104°42'52.513"W	2.00	
5917.00†	10.611	242.980	5754.14	-540.02	-547.86	-1074.30	40°03'30.060"N	104°42'52.743"W	2.00	
6017.00†	8.611	242.980	5852.73	-547.50	-555.44	-1089.17	40°03'29.985"N	104°42'52.934"W	2.00	
6117.00†	6.611	242.980	5951.85	-553.43	-561.46	-1100.97	40°03'29.925"N	104°42'53.086"W	2.00	
6217.00†	4.611	242.980	6051.36	-557.81	-565.90	-1109.68	40°03'29.881"N	104°42'53.198"W	2.00	
6317.00†	2.611	242.980	6151.16	-560.63	-568.76	-1115.29	40°03'29.853"N	104°42'53.270"W	2.00	
6417.00†	0.611	242.980	6251.11	-561.88	-570.04	-1117.79	40°03'29.841"N	104°42'53.302"W	2.00	
6447.53	0.000	359.583	6281.64	-561.96	-570.11	-1117.94	40°03'29.840"N	104°42'53.304"W	2.00	END DROP
6517.00†	0.000	359.583	6351.11	-561.96	-570.11	-1117.94	40°03'29.840"N	104°42'53.304"W	0.00	
6617.00†	0.000	359.583	6451.11	-561.96	-570.11	-1117.94	40°03'29.840"N	104°42'53.304"W	0.00	
6717.00†	0.000	359.583	6551.11	-561.96	-570.11	-1117.94	40°03'29.840"N	104°42'53.304"W	0.00	
6817.00†	0.000	359.583	6651.11	-561.96	-570.11	-1117.94	40°03'29.840"N	104°42'53.304"W	0.00	
6917.00†	0.000	359.583	6751.11	-561.96	-570.11	-1117.94	40°03'29.840"N	104°42'53.304"W	0.00	
7017.00†	0.000	359.583	6851.11	-561.96	-570.11	-1117.94	40°03'29.840"N	104°42'53.304"W	0.00	
7018.94	0.000	359.583	6853.05	-561.96	-570.11	-1117.94	40°03'29.840"N	104°42'53.304"W	0.00	KOP, BUILD @ 10°/100'
7117.00†	9.806	359.583	6950.63	-553.59	-561.74	-1118.00	40°03'29.923"N	104°42'53.305"W	10.00	
7217.00†	19.806	359.583	7047.19	-528.06	-536.22	-1118.18	40°03'30.175"N	104°42'53.308"W	10.00	
7225.32†	20.638	359.583	7055.00	-525.19	-533.34	-1118.20	40°03'30.203"N	104°42'53.308"W	10.00	SHARON SPRINGS
7259.93†	24.099	359.583	7087.00	-512.02	-520.17	-1118.30	40°03'30.333"N	104°42'53.309"W	10.00	NIOBRARA A
7317.00†	29.806	359.583	7137.85	-486.16	-494.32	-1118.49	40°03'30.589"N	104°42'53.311"W	10.00	
7381.63†	36.269	359.583	7192.00	-450.95	-459.10	-1118.75	40°03'30.937"N	104°42'53.315"W	10.00	NIOBRARA B
7417.00†	39.806	359.583	7219.85	-429.16	-437.31	-1118.90	40°03'31.152"N	104°42'53.317"W	10.00	
7463.04†	44.410	359.583	7254.00	-398.29	-406.45	-1119.13	40°03'31.457"N	104°42'53.320"W	10.00	NIOBRARA C
7517.00†	49.806	359.583	7290.71	-358.77	-366.93	-1119.42	40°03'31.848"N	104°42'53.323"W	10.00	
7617.00†	59.806	359.583	7348.28	-277.16	-285.32	-1120.01	40°03'32.654"N	104°42'53.331"W	10.00	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#04 STEWARD 13C-6HZ (442'FSL & 1449'FWL, SEC.07)
Area	COLORADO	Well	STEWARD 13C-6HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	STEWARD 13C-6HZ PWB
Facility	SEC.07-T1N-R65W		

WELLPATH DATA (150 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7717.00†	69.806	359.583	7390.79	-186.78	-194.95	-1120.67	40°03'33.547"N	104°42'53.340"W	10.00	
7739.04†	72.010	359.583	7398.00	-165.96	-174.12	-1120.82	40°03'33.753"N	104°42'53.342"W	10.00	FORT HAYS
7817.00†	79.806	359.583	7416.97	-90.40	-98.57	-1121.37	40°03'34.500"N	104°42'53.349"W	10.00	
7843.11†	82.417	359.583	7421.00	-64.61	-72.77	-1121.56	40°03'34.755"N	104°42'53.351"W	10.00	CODELL
7917.00†	89.806	359.583	7426.01	9.06	0.89	-1122.10	40°03'35.483"N	104°42'53.358"W	10.00	
7921.66	90.272	359.583	7426.00	13.72	5.55	-1122.13	40°03'35.529"N	104°42'53.359"W	10.00	LANDING POINT
8017.00†	90.272	359.583	7425.55	109.06	100.89	-1122.83	40°03'36.471"N	104°42'53.368"W	0.00	
8117.00†	90.272	359.583	7425.08	209.06	200.89	-1123.55	40°03'37.459"N	104°42'53.377"W	0.00	
8217.00†	90.272	359.583	7424.60	309.06	300.88	-1124.28	40°03'38.447"N	104°42'53.386"W	0.00	
8317.00†	90.272	359.583	7424.13	409.06	400.88	-1125.01	40°03'39.435"N	104°42'53.396"W	0.00	
8417.00†	90.272	359.583	7423.66	509.05	500.87	-1125.74	40°03'40.424"N	104°42'53.405"W	0.00	
8517.00†	90.272	359.583	7423.18	609.05	600.87	-1126.47	40°03'41.412"N	104°42'53.415"W	0.00	
8617.00†	90.272	359.583	7422.71	709.05	700.87	-1127.20	40°03'42.400"N	104°42'53.424"W	0.00	
8717.00†	90.272	359.583	7422.23	809.05	800.86	-1127.93	40°03'43.388"N	104°42'53.434"W	0.00	
8817.00†	90.272	359.583	7421.76	909.05	900.86	-1128.65	40°03'44.376"N	104°42'53.443"W	0.00	
8917.00†	90.272	359.583	7421.29	1009.05	1000.86	-1129.38	40°03'45.364"N	104°42'53.452"W	0.00	
8977.39†	90.272	359.583	7421.00	1069.44	1061.24	-1129.82	40°03'45.961"N	104°42'53.458"W	0.00	CODELL
9017.00†	90.272	359.583	7420.81	1109.05	1100.85	-1130.11	40°03'46.353"N	104°42'53.462"W	0.00	
9117.00†	90.272	359.583	7420.34	1209.05	1200.85	-1130.84	40°03'47.341"N	104°42'53.471"W	0.00	
9217.00†	90.272	359.583	7419.86	1309.05	1300.84	-1131.57	40°03'48.329"N	104°42'53.481"W	0.00	
9317.00†	90.272	359.583	7419.39	1409.04	1400.84	-1132.30	40°03'49.317"N	104°42'53.490"W	0.00	
9417.00†	90.272	359.583	7418.92	1509.04	1500.84	-1133.02	40°03'50.305"N	104°42'53.500"W	0.00	
9517.00†	90.272	359.583	7418.44	1609.04	1600.83	-1133.75	40°03'51.294"N	104°42'53.509"W	0.00	
9617.00†	90.272	359.583	7417.97	1709.04	1700.83	-1134.48	40°03'52.282"N	104°42'53.518"W	0.00	
9717.00†	90.272	359.583	7417.49	1809.04	1800.83	-1135.21	40°03'53.270"N	104°42'53.528"W	0.00	
9817.00†	90.272	359.583	7417.02	1909.04	1900.82	-1135.94	40°03'54.258"N	104°42'53.537"W	0.00	
9917.00†	90.272	359.583	7416.55	2009.04	2000.82	-1136.67	40°03'55.246"N	104°42'53.547"W	0.00	
10017.00†	90.272	359.583	7416.07	2109.04	2100.81	-1137.40	40°03'56.234"N	104°42'53.556"W	0.00	
10117.00†	90.272	359.583	7415.60	2209.04	2200.81	-1138.12	40°03'57.223"N	104°42'53.566"W	0.00	
10217.00†	90.272	359.583	7415.12	2309.03	2300.81	-1138.85	40°03'58.211"N	104°42'53.575"W	0.00	
10317.00†	90.272	359.583	7414.65	2409.03	2400.80	-1139.58	40°03'59.199"N	104°42'53.584"W	0.00	
10417.00†	90.272	359.583	7414.18	2509.03	2500.80	-1140.31	40°04'00.187"N	104°42'53.594"W	0.00	
10517.00†	90.272	359.583	7413.70	2609.03	2600.80	-1141.04	40°04'01.175"N	104°42'53.603"W	0.00	
10617.00†	90.272	359.583	7413.23	2709.03	2700.79	-1141.77	40°04'02.164"N	104°42'53.613"W	0.00	
10717.00†	90.272	359.583	7412.75	2809.03	2800.79	-1142.50	40°04'03.152"N	104°42'53.622"W	0.00	
10817.00†	90.272	359.583	7412.28	2909.03	2900.78	-1143.22	40°04'04.140"N	104°42'53.632"W	0.00	
10917.00†	90.272	359.583	7411.81	3009.03	3000.78	-1143.95	40°04'05.128"N	104°42'53.641"W	0.00	
11017.00†	90.272	359.583	7411.33	3109.03	3100.78	-1144.68	40°04'06.116"N	104°42'53.650"W	0.00	
11117.00†	90.272	359.583	7410.86	3209.02	3200.77	-1145.41	40°04'07.104"N	104°42'53.660"W	0.00	
11217.00†	90.272	359.583	7410.38	3309.02	3300.77	-1146.14	40°04'08.093"N	104°42'53.669"W	0.00	
11317.00†	90.272	359.583	7409.91	3409.02	3400.77	-1146.87	40°04'09.081"N	104°42'53.679"W	0.00	
11417.00†	90.272	359.583	7409.44	3509.02	3500.76	-1147.59	40°04'10.069"N	104°42'53.688"W	0.00	
11517.00†	90.272	359.583	7408.96	3609.02	3600.76	-1148.32	40°04'11.057"N	104°42'53.698"W	0.00	
11617.00†	90.272	359.583	7408.49	3709.02	3700.75	-1149.05	40°04'12.045"N	104°42'53.707"W	0.00	
11717.00†	90.272	359.583	7408.01	3809.02	3800.75	-1149.78	40°04'13.034"N	104°42'53.716"W	0.00	

# Planned Wellpath Report

## STEWARD 13C-6HZ (PERMIT REV-1) PWP

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### REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#04 STEWARD 13C-6HZ (442'FSL & 1449'FWL, SEC.07)
Area	COLORADO	Well	STEWARD 13C-6HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	STEWARD 13C-6HZ PWB
Facility	SEC.07-T1N-R65W		

### WELLPATH DATA (150 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11817.00†	90.272	359.583	7407.54	3909.02	3900.75	-1150.51	40°04'14.022"N	104°42'53.726"W	0.00	
11917.00†	90.272	359.583	7407.07	4009.02	4000.74	-1151.24	40°04'15.010"N	104°42'53.735"W	0.00	
12017.00†	90.272	359.583	7406.59	4109.01	4100.74	-1151.97	40°04'15.998"N	104°42'53.745"W	0.00	
12117.00†	90.272	359.583	7406.12	4209.01	4200.73	-1152.69	40°04'16.986"N	104°42'53.754"W	0.00	
12217.00†	90.272	359.583	7405.64	4309.01	4300.73	-1153.42	40°04'17.974"N	104°42'53.764"W	0.00	
12317.00†	90.272	359.583	7405.17	4409.01	4400.73	-1154.15	40°04'18.963"N	104°42'53.773"W	0.00	
12417.00†	90.272	359.583	7404.70	4509.01	4500.72	-1154.88	40°04'19.951"N	104°42'53.782"W	0.00	
12517.00†	90.272	359.583	7404.22	4609.01	4600.72	-1155.61	40°04'20.939"N	104°42'53.792"W	0.00	
12617.00†	90.272	359.583	7403.75	4709.01	4700.72	-1156.34	40°04'21.927"N	104°42'53.801"W	0.00	
12717.00†	90.272	359.583	7403.27	4809.01	4800.71	-1157.07	40°04'22.915"N	104°42'53.811"W	0.00	
12817.00†	90.272	359.583	7402.80	4909.01	4900.71	-1157.79	40°04'23.904"N	104°42'53.820"W	0.00	
12917.00†	90.272	359.583	7402.33	5009.00	5000.70	-1158.52	40°04'24.892"N	104°42'53.830"W	0.00	
13017.00†	90.272	359.583	7401.85	5109.00	5100.70	-1159.25	40°04'25.880"N	104°42'53.839"W	0.00	
13117.00†	90.272	359.583	7401.38	5209.00	5200.70	-1159.98	40°04'26.868"N	104°42'53.848"W	0.00	
13196.77	90.272	359.583	7401.00 <sup>1</sup>	5288.77	5280.46	-1160.56	40°04'27.656"N	104°42'53.856"W	0.00	TOTAL DEPTH

### HOLE & CASING SECTIONS - Ref Wellbore: STEWARD 13C-6HZ PWB Ref Wellpath: STEWARD 13C-6HZ (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	7921.66	6921.66	1000.00	7426.00	0.00	0.00	5.55	-1122.13
7in Casing Intermediate	17.00	7921.66	7904.66	17.00	7426.00	0.00	0.00	5.55	-1122.13
6.125in Open Hole	7921.66	13196.77	5275.11	7426.00	7401.00	5.55	-1122.13	5280.46	-1160.56
4.5in Casing Production	17.00	13196.77	13179.77	17.00	7401.00	0.00	0.00	5280.46	-1160.56

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#04 STEWARD 13C-6HZ (442'FSL & 1449'FWL, SEC.07)
Area	COLORADO	Well	STEWARD 13C-6HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	STEWARD 13C-6HZ PWB
Facility	SEC.07-T1N-R65W		

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.06-T1N-R65W SECTION LINES		0.00	0.00	-29.94	3220866.66	1265632.81	40°03'35.474"N	104°42'39.312"W	polygon
SEC.07-T1N-R65W SECTION LINES		0.00	0.00	-29.94	3220866.66	1265632.81	40°03'35.474"N	104°42'39.312"W	polygon
1) STEWARD 13C-6HZ BHL ON PLAT REV-1 (410'FSL & 327'FWL, SEC.06)	13196.77	7401.00	5280.46	-1160.56	3219689.13	1270902.80	40°04'27.656"N	104°42'53.856"W	point

SURVEY PROGRAM - Ref Wellbore: STEWARD 13C-6HZ PWB Ref Wellpath: STEWARD 13C-6HZ (PERMIT REV-1) PWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	13196.77	NaviTrak (MAGCORR,IFR)		STEWARD 13C-6HZ PWB

# Planned Wellpath Report

## STEWARD 13C-6HZ (PERMIT REV-1) PWP

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### REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#04 STEWARD 13C-6HZ (442'FSL & 1449'FWL, SEC.07)
Area	COLORADO	Well	STEWARD 13C-6HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	STEWARD 13C-6HZ PWB
Facility	SEC.07-T1N-R65W		

### WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1541.75	8.835	242.980	1540.00	FOX HILLS MARKER
4253.53	16.000	242.980	4152.00	PARKMAN
4604.11	16.000	242.980	4489.00	SUSSEX
7225.32	20.638	359.583	7055.00	SHARON SPRINGS
7259.93	24.099	359.583	7087.00	NIOBRARA A
7381.63	36.269	359.583	7192.00	NIOBRARA B
7463.04	44.410	359.583	7254.00	NIOBRARA C
7739.04	72.010	359.583	7398.00	FORT HAYS
7843.11	82.417	359.583	7421.00	CODELL
8977.39	90.272	359.583	7421.00	CODELL

### DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	242.980	17.00	TIE ON
1100.00	0.000	242.980	1100.00	BEGIN NUDGE
1900.00	16.000	242.980	1889.64	END NUDGE
5647.53	16.000	242.980	5492.00	BEGIN DROP
6447.53	0.000	359.583	6281.64	END DROP
7018.94	0.000	359.583	6853.05	KOP, BUILD @ 10°/100'
7921.66	90.272	359.583	7426.00	LANDING POINT
13196.77	90.272	359.583	7401.00	TOTAL DEPTH