

KERR-MCGEE OIL & GAS ONSHORE LP_1

Location: Compass Import Slot: SLOTH7 CARTER 14C-33HZ (825FNL & 1500FWL, SEC.33)
Field: WELD COUNTY (UTM Zone 13)/NAD83/TRUE NORTH Well: CARTER 14C-33HZ
Facility: SEC.33-T2N-R66W Wellbore: CARTER 14C-33HZ PWB

Plot reference wellpath is CARTER 14C-33HZ (PERMIT REV-3) PWB

True vertical depths are referenced to PERMIT (17KB) (RKB) Grid System: NAD83 / UTM Zone 13 North, US feet
Measured depths are referenced to PERMIT (17KB) (RKB) North Reference: True north
PERMIT (17KB) (RKB) to Mean Sea Level: 4976 feet Scale: Grid distance
Mean Sea Level to Mud line (At Slot: SLOTH7 CARTER 14C-33HZ (825FNL & 1500FWL, SEC.33)): 0 feet Depths are in feet
Coordinates are in feet referenced to Slot Created by: precalin on 12/18/2014

Location Information

Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.33-T2N-R66W			1702750.847	14562570.870	40°05'53.524"N	104°46'37.556"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#07 CARTER 14C-33HZ (825FNL & 1500FWL, SEC.33)	502.66	-2563.57	1700186.029	14563067.101	40°05'58.492"N	104°47'10.558"W
PERMIT (17KB) (RKB) to Mud line (At Slot: SLOT#07 CARTER 14C-33HZ (825FNL & 1500FWL, SEC.33))			4976ft			
Mean Sea Level to Mud line (At Slot: SLOT#07 CARTER 14C-33HZ (825FNL & 1500FWL, SEC.33))			0ft			
PERMIT (17KB) (RKB) to Mean Sea Level			4976ft			

Survey Program

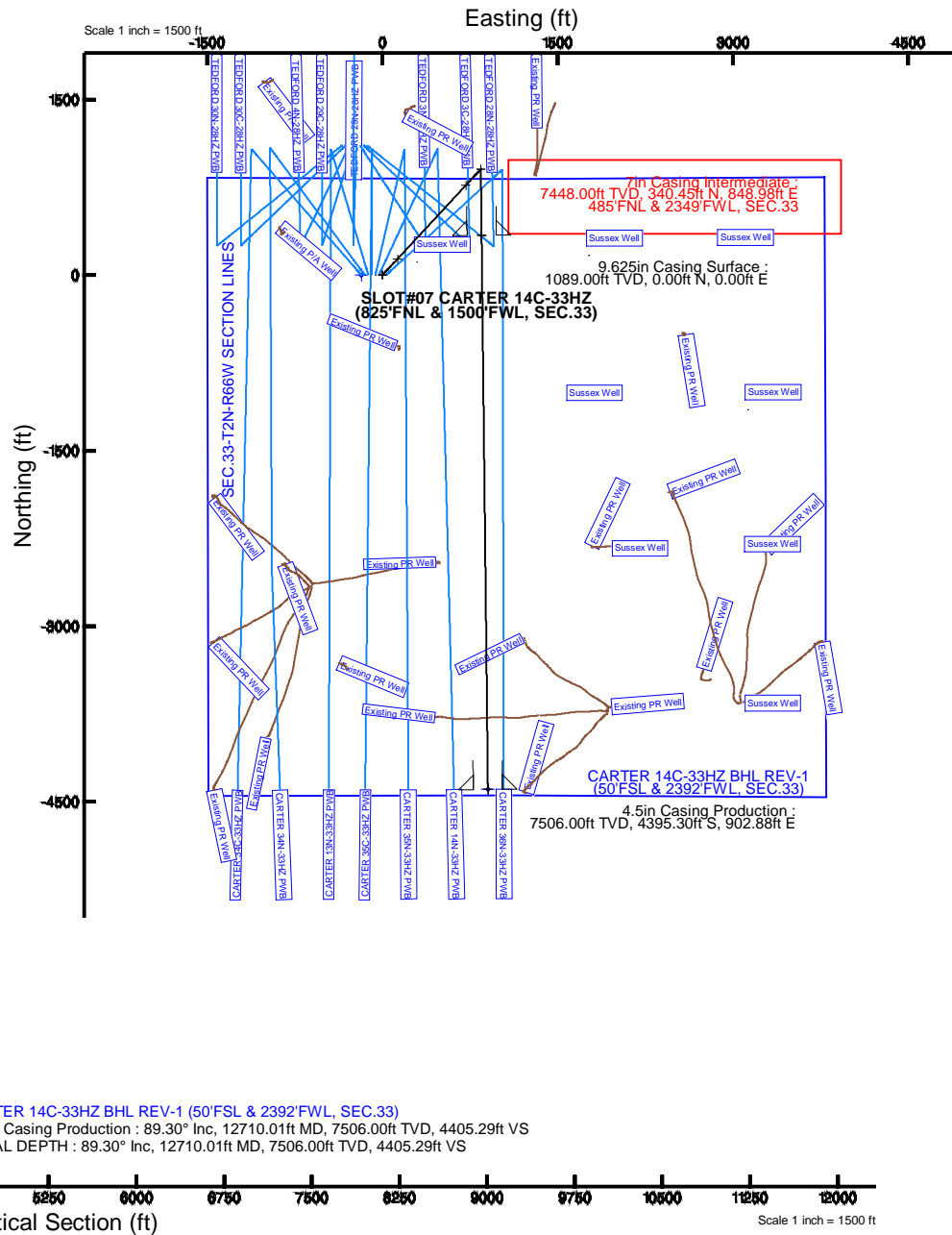
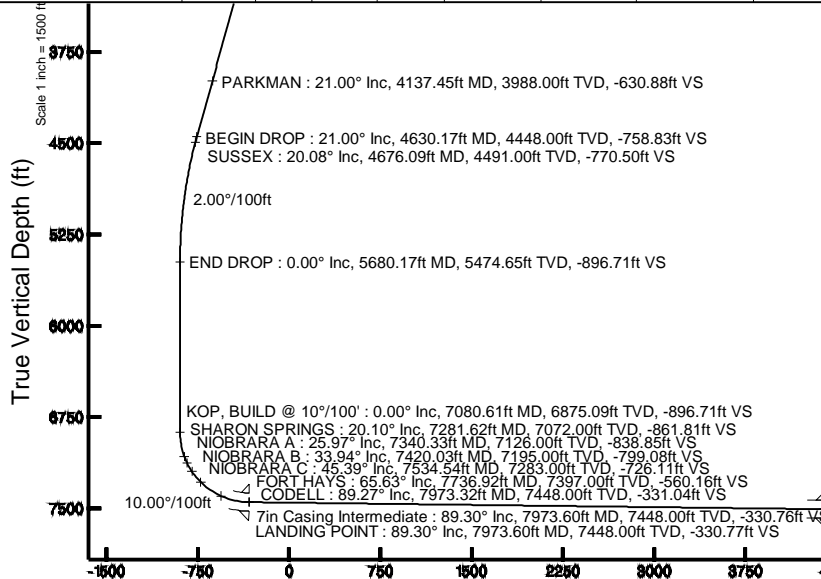
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	12710.01	ISOWSA MWD, Rev. 2, axial magnetic correction	ISOWSA MWD, Rev. 2, axial magnetic correction (Standard) (MagVAR IFR Wattenberg)		CARTER 14C-33HZ PWB

Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.33-T2N-R66W SECTION LINES		0.00	0.71	-179.75	1700006.28	14563067.38	40°05'58.499"N	104°47'12.872"W
CARTER 14C-33HZ BHL REV-1 (50FSL & 2392FWL, SEC.33)	12710.01	7506.00	-4395.30	902.88	1701099.47	14568673.99	40°05'15.040"N	104°46'58.937"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	42.910	17.00	0.00	0.00	0.00	0.00
BEGIN NUDGE	1189.00	0.000	42.910	1189.00	0.00	0.00	0.00	0.00
END NUDGE	2239.00	21.000	42.910	2215.65	139.36	129.55	2.00	-137.88
BEGIN DROP	4630.17	21.000	42.910	4448.00	766.99	712.98	0.00	-758.83
END DROP	5680.17	0.000	179.348	5474.65	906.36	842.53	2.00	-896.71
KOP, BUILD @ 10°/100'	7080.61	0.000	179.348	6875.09	906.36	842.53	0.00	-896.71
LANDING POINT	7973.60	89.298	179.348	7448.00	340.45	848.98	10.00	-330.77
TOTAL DEPTH	12710.01	89.298	179.348	7506.00	-4395.30	902.88	0.00	4405.29



Azimuth 179.35° with reference 0.00 N, 0.00 E

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP_1	Slot	SLOT#07 CARTER 14C-33HZ (825'FNL & 1500'FWL, SEC.33)
Area	Compass Import	Well	CARTER 14C-33HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TRUE NORTH)	Wellbore	CARTER 14C-33HZ PWB
Facility	SEC.33-T2N-R66W		

REPORT SETUP INFORMATION

Projection System	NAD83 / UTM Zone 13 North, US feet	Software System	WellArchitect® 4.0.0
North Reference	True	User	Precain
Scale	0.999604	Report Generated	12/18/2014 at 9:59:44 AM
Convergence at slot	n/a	Database/Source file	WellArchitect Review/CARTER_14C-33HZ_PWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	502.66	-2563.57	1700186.03	14563067.10	40°05'58.492"N	104°47'10.558"W
Facility Reference Pt			1702750.85	14562570.87	40°05'53.524"N	104°46'37.556"W
Field Reference Pt			1700626.56	14568707.73	40°06'54.245"N	104°47'04.711"W

WELLPATH DATUM

Calculation method	Minimum curvature	PERMIT (17'KB) (RKB) to 2N-66W-33 Offsets vertical datum	4976.00ft
Horizontal Reference Pt	Slot	PERMIT (17'KB) (RKB) to Mean Sea Level	4976.00ft
Vertical Reference Pt	PERMIT (17'KB) (RKB)	PERMIT (17'KB) (RKB) to Mud Line at Slot (SLOT#07 CARTER 14C-33HZ (825'FNL & 1500'FWL, SEC.33))	4976.00ft
MD Reference Pt	PERMIT (17'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	179.35°

Planned Wellpath Report

CARTER 14C-33HZ (PERMIT REV-3) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP_1	Slot	SLOT#07 CARTER 14C-33HZ (825'FNL & 1500'FWL, SEC.33)
Area	Compass Import	Well	CARTER 14C-33HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TRUE NORTH)	Wellbore	CARTER 14C-33HZ PWB
Facility	SEC.33-T2N-R66W		

WELLPATH DATA (144 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	42.910	0.00	0.00	0.00	0.00	40°05'58.492"N	104°47'10.558"W	0.00	
17.00	0.000	42.910	17.00	0.00	0.00	0.00	40°05'58.492"N	104°47'10.558"W	0.00	TIE ON
117.00†	0.000	42.910	117.00	0.00	0.00	0.00	40°05'58.492"N	104°47'10.558"W	0.00	
217.00†	0.000	42.910	217.00	0.00	0.00	0.00	40°05'58.492"N	104°47'10.558"W	0.00	
317.00†	0.000	42.910	317.00	0.00	0.00	0.00	40°05'58.492"N	104°47'10.558"W	0.00	
417.00†	0.000	42.910	417.00	0.00	0.00	0.00	40°05'58.492"N	104°47'10.558"W	0.00	
517.00†	0.000	42.910	517.00	0.00	0.00	0.00	40°05'58.492"N	104°47'10.558"W	0.00	
617.00†	0.000	42.910	617.00	0.00	0.00	0.00	40°05'58.492"N	104°47'10.558"W	0.00	
717.00†	0.000	42.910	717.00	0.00	0.00	0.00	40°05'58.492"N	104°47'10.558"W	0.00	
817.00†	0.000	42.910	817.00	0.00	0.00	0.00	40°05'58.492"N	104°47'10.558"W	0.00	
917.00†	0.000	42.910	917.00	0.00	0.00	0.00	40°05'58.492"N	104°47'10.558"W	0.00	
1017.00†	0.000	42.910	1017.00	0.00	0.00	0.00	40°05'58.492"N	104°47'10.558"W	0.00	
1039.00†	0.000	42.910	1039.00	0.00	0.00	0.00	40°05'58.492"N	104°47'10.558"W	0.00	FOX HILLS BASE
1117.00†	0.000	42.910	1117.00	0.00	0.00	0.00	40°05'58.492"N	104°47'10.558"W	0.00	
1189.00	0.000	42.910	1189.00	0.00	0.00	0.00	40°05'58.492"N	104°47'10.558"W	0.00	BEGIN NUDGE
1217.00†	0.560	42.910	1217.00	-0.10	0.10	0.09	40°05'58.493"N	104°47'10.557"W	2.00	
1317.00†	2.560	42.910	1316.96	-2.07	2.09	1.95	40°05'58.513"N	104°47'10.533"W	2.00	
1417.00†	4.560	42.910	1416.76	-6.57	6.64	6.17	40°05'58.558"N	104°47'10.479"W	2.00	
1517.00†	6.560	42.910	1516.28	-13.59	13.74	12.77	40°05'58.628"N	104°47'10.394"W	2.00	
1617.00†	8.560	42.910	1615.41	-23.12	23.37	21.73	40°05'58.723"N	104°47'10.278"W	2.00	
1717.00†	10.560	42.910	1714.02	-35.16	35.54	33.03	40°05'58.843"N	104°47'10.133"W	2.00	
1817.00†	12.560	42.910	1811.98	-49.68	50.21	46.68	40°05'58.988"N	104°47'09.957"W	2.00	
1917.00†	14.560	42.910	1909.19	-66.67	67.39	62.64	40°05'59.158"N	104°47'09.752"W	2.00	
2017.00†	16.560	42.910	2005.52	-86.11	87.03	80.90	40°05'59.352"N	104°47'09.516"W	2.00	
2117.00†	18.560	42.910	2100.86	-107.97	109.13	101.44	40°05'59.571"N	104°47'09.252"W	2.00	
2217.00†	20.560	42.910	2195.08	-132.23	133.65	124.24	40°05'59.813"N	104°47'08.959"W	2.00	
2239.00	21.000	42.910	2215.65	-137.88	139.36	129.55	40°05'59.870"N	104°47'08.890"W	2.00	END NUDGE
2317.00†	21.000	42.910	2288.47	-158.14	159.84	148.58	40°06'00.072"N	104°47'08.645"W	0.00	
2417.00†	21.000	42.910	2381.83	-184.10	186.09	172.98	40°06'00.332"N	104°47'08.331"W	0.00	
2517.00†	21.000	42.910	2475.18	-210.07	212.33	197.38	40°06'00.591"N	104°47'08.017"W	0.00	
2617.00†	21.000	42.910	2568.54	-236.04	238.58	221.78	40°06'00.851"N	104°47'07.703"W	0.00	
2717.00†	21.000	42.910	2661.90	-262.01	264.83	246.18	40°06'01.110"N	104°47'07.389"W	0.00	
2817.00†	21.000	42.910	2755.26	-287.98	291.08	270.58	40°06'01.370"N	104°47'07.075"W	0.00	
2917.00†	21.000	42.910	2848.62	-313.95	317.32	294.98	40°06'01.629"N	104°47'06.761"W	0.00	
3017.00†	21.000	42.910	2941.97	-339.92	343.57	319.38	40°06'01.889"N	104°47'06.446"W	0.00	
3117.00†	21.000	42.910	3035.33	-365.88	369.82	343.78	40°06'02.148"N	104°47'06.132"W	0.00	
3217.00†	21.000	42.910	3128.69	-391.85	396.07	368.18	40°06'02.408"N	104°47'05.818"W	0.00	
3317.00†	21.000	42.910	3222.05	-417.82	422.31	392.58	40°06'02.667"N	104°47'05.504"W	0.00	
3417.00†	21.000	42.910	3315.41	-443.79	448.56	416.98	40°06'02.926"N	104°47'05.190"W	0.00	
3517.00†	21.000	42.910	3408.76	-469.76	474.81	441.38	40°06'03.186"N	104°47'04.876"W	0.00	
3617.00†	21.000	42.910	3502.12	-495.73	501.06	465.77	40°06'03.445"N	104°47'04.562"W	0.00	
3717.00†	21.000	42.910	3595.48	-521.69	527.31	490.17	40°06'03.705"N	104°47'04.248"W	0.00	
3817.00†	21.000	42.910	3688.84	-547.66	553.55	514.57	40°06'03.964"N	104°47'03.934"W	0.00	
3917.00†	21.000	42.910	3782.20	-573.63	579.80	538.97	40°06'04.224"N	104°47'03.619"W	0.00	
4017.00†	21.000	42.910	3875.55	-599.60	606.05	563.37	40°06'04.483"N	104°47'03.305"W	0.00	

Planned Wellpath Report

CARTER 14C-33HZ (PERMIT REV-3) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP_1	Slot	SLOT#07 CARTER 14C-33HZ (825'FNL & 1500'FWL, SEC.33)
Area	Compass Import	Well	CARTER 14C-33HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TRUE NORTH)	Wellbore	CARTER 14C-33HZ PWB
Facility	SEC.33-T2N-R66W		

WELLPATH DATA (144 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4117.00†	21.000	42.910	3968.91	-625.57	632.30	587.77	40°06'04.743"N	104°47'02.991"W	0.00	
4137.45†	21.000	42.910	3988.00	-630.88	637.66	592.76	40°06'04.796"N	104°47'02.927"W	0.00	PARKMAN
4217.00†	21.000	42.910	4062.27	-651.54	658.54	612.17	40°06'05.002"N	104°47'02.677"W	0.00	
4317.00†	21.000	42.910	4155.63	-677.50	684.79	636.57	40°06'05.262"N	104°47'02.363"W	0.00	
4417.00†	21.000	42.910	4248.99	-703.47	711.04	660.97	40°06'05.521"N	104°47'02.049"W	0.00	
4517.00†	21.000	42.910	4342.34	-729.44	737.29	685.37	40°06'05.781"N	104°47'01.735"W	0.00	
4617.00†	21.000	42.910	4435.70	-755.41	763.54	709.77	40°06'06.040"N	104°47'01.421"W	0.00	
4630.17	21.000	42.910	4448.00	-758.83	766.99	712.98	40°06'06.074"N	104°47'01.379"W	0.00	BEGIN DROP
4676.09†	20.082	42.910	4491.00	-770.50	778.79	723.95	40°06'06.191"N	104°47'01.238"W	2.00	SUSSEX
4717.00†	19.263	42.910	4529.52	-780.48	788.88	733.33	40°06'06.291"N	104°47'01.117"W	2.00	
4817.00†	17.263	42.910	4624.48	-803.19	811.83	754.66	40°06'06.518"N	104°47'00.843"W	2.00	
4917.00†	15.263	42.910	4720.47	-823.48	832.34	773.73	40°06'06.720"N	104°47'00.597"W	2.00	
5017.00†	13.263	42.910	4817.38	-841.34	850.39	790.51	40°06'06.899"N	104°47'00.381"W	2.00	
5117.00†	11.263	42.910	4915.10	-856.73	865.94	804.97	40°06'07.053"N	104°47'00.195"W	2.00	
5217.00†	9.263	42.910	5013.49	-869.64	878.99	817.10	40°06'07.182"N	104°47'00.039"W	2.00	
5317.00†	7.263	42.910	5112.45	-880.05	889.52	826.88	40°06'07.286"N	104°46'59.913"W	2.00	
5417.00†	5.263	42.910	5211.85	-887.96	897.51	834.31	40°06'07.365"N	104°46'59.817"W	2.00	
5517.00†	3.263	42.910	5311.56	-893.34	902.95	839.37	40°06'07.419"N	104°46'59.752"W	2.00	
5617.00†	1.263	42.910	5411.48	-896.21	905.85	842.06	40°06'07.447"N	104°46'59.717"W	2.00	
5680.17	0.000	179.348	5474.65	-896.71	906.36	842.53	40°06'07.452"N	104°46'59.711"W	2.00	END DROP
5717.00†	0.000	179.348	5511.48	-896.71	906.36	842.53	40°06'07.452"N	104°46'59.711"W	0.00	
5817.00†	0.000	179.348	5611.48	-896.71	906.36	842.53	40°06'07.452"N	104°46'59.711"W	0.00	
5917.00†	0.000	179.348	5711.48	-896.71	906.36	842.53	40°06'07.452"N	104°46'59.711"W	0.00	
6017.00†	0.000	179.348	5811.48	-896.71	906.36	842.53	40°06'07.452"N	104°46'59.711"W	0.00	
6117.00†	0.000	179.348	5911.48	-896.71	906.36	842.53	40°06'07.452"N	104°46'59.711"W	0.00	
6217.00†	0.000	179.348	6011.48	-896.71	906.36	842.53	40°06'07.452"N	104°46'59.711"W	0.00	
6317.00†	0.000	179.348	6111.48	-896.71	906.36	842.53	40°06'07.452"N	104°46'59.711"W	0.00	
6417.00†	0.000	179.348	6211.48	-896.71	906.36	842.53	40°06'07.452"N	104°46'59.711"W	0.00	
6517.00†	0.000	179.348	6311.48	-896.71	906.36	842.53	40°06'07.452"N	104°46'59.711"W	0.00	
6617.00†	0.000	179.348	6411.48	-896.71	906.36	842.53	40°06'07.452"N	104°46'59.711"W	0.00	
6717.00†	0.000	179.348	6511.48	-896.71	906.36	842.53	40°06'07.452"N	104°46'59.711"W	0.00	
6817.00†	0.000	179.348	6611.48	-896.71	906.36	842.53	40°06'07.452"N	104°46'59.711"W	0.00	
6917.00†	0.000	179.348	6711.48	-896.71	906.36	842.53	40°06'07.452"N	104°46'59.711"W	0.00	
7017.00†	0.000	179.348	6811.48	-896.71	906.36	842.53	40°06'07.452"N	104°46'59.711"W	0.00	
7080.61	0.000	179.348	6875.09	-896.71	906.36	842.53	40°06'07.452"N	104°46'59.711"W	0.00	KOP, BUILD @ 10°/100'
7117.00†	3.639	179.348	6911.45	-895.56	905.20	842.55	40°06'07.441"N	104°46'59.711"W	10.00	
7217.00†	13.639	179.348	7010.19	-880.55	890.20	842.72	40°06'07.292"N	104°46'59.709"W	10.00	
7281.62†	20.101	179.348	7072.00	-861.81	871.46	842.93	40°06'07.107"N	104°46'59.706"W	10.00	SHARON SPRINGS
7317.00†	23.639	179.348	7104.83	-848.63	858.28	843.08	40°06'06.977"N	104°46'59.704"W	10.00	
7340.33†	25.971	179.348	7126.00	-838.85	848.50	843.19	40°06'06.880"N	104°46'59.703"W	10.00	NIOBRARA A
7417.00†	33.639	179.348	7192.48	-800.77	810.42	843.63	40°06'06.504"N	104°46'59.697"W	10.00	
7420.03†	33.942	179.348	7195.00	-799.08	808.73	843.64	40°06'06.487"N	104°46'59.697"W	10.00	NIOBRARA B
7517.00†	43.639	179.348	7270.49	-738.41	748.06	844.34	40°06'05.887"N	104°46'59.688"W	10.00	
7534.54†	45.393	179.348	7283.00	-726.11	735.76	844.48	40°06'05.766"N	104°46'59.686"W	10.00	NIOBRARA C
7617.00†	53.639	179.348	7336.49	-663.44	673.11	845.19	40°06'05.146"N	104°46'59.677"W	10.00	

Planned Wellpath Report

CARTER 14C-33HZ (PERMIT REV-3) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP_1	Slot	SLOT#07 CARTER 14C-33HZ (825'FNL & 1500'FWL, SEC.33)
Area	Compass Import	Well	CARTER 14C-33HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TRUE NORTH)	Wellbore	CARTER 14C-33HZ PWB
Facility	SEC.33-T2N-R66W		

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MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7717.00†	63.639	179.348	7388.47	-578.16	587.83	846.16	40°06'04.303"N	104°46'59.665"W	10.00	
7736.92†	65.631	179.348	7397.00	-560.16	569.83	846.36	40°06'04.125"N	104°46'59.662"W	10.00	FORT HAYS
7817.00†	73.639	179.348	7424.84	-485.15	494.82	847.22	40°06'03.384"N	104°46'59.651"W	10.00	
7917.00†	83.639	179.348	7444.52	-387.23	396.91	848.33	40°06'02.416"N	104°46'59.637"W	10.00	
7973.32†	89.271	179.348	7448.00	-331.04	340.73	848.97	40°06'01.860"N	104°46'59.629"W	10.00	CODELL
7973.60	89.298	179.348	7448.00	-330.77	340.45	848.98	40°06'01.858"N	104°46'59.629"W	10.00	LANDING POINT
8017.00†	89.298	179.348	7448.53	-287.37	297.05	849.47	40°06'01.429"N	104°46'59.622"W	0.00	
8117.00†	89.298	179.348	7449.76	-187.38	197.07	850.61	40°06'00.440"N	104°46'59.608"W	0.00	
8217.00†	89.298	179.348	7450.98	-87.38	97.08	851.75	40°05'59.452"N	104°46'59.593"W	0.00	
8317.00†	89.298	179.348	7452.21	12.61	-2.90	852.88	40°05'58.463"N	104°46'59.578"W	0.00	
8417.00†	89.298	179.348	7453.43	112.60	-102.89	854.02	40°05'57.475"N	104°46'59.564"W	0.00	
8517.00†	89.298	179.348	7454.66	212.59	-202.88	855.16	40°05'56.486"N	104°46'59.549"W	0.00	
8617.00†	89.298	179.348	7455.88	312.59	-302.86	856.30	40°05'55.498"N	104°46'59.535"W	0.00	
8717.00†	89.298	179.348	7457.11	412.58	-402.85	857.44	40°05'54.509"N	104°46'59.520"W	0.00	
8817.00†	89.298	179.348	7458.33	512.57	-502.83	858.58	40°05'53.521"N	104°46'59.505"W	0.00	
8917.00†	89.298	179.348	7459.56	612.56	-602.82	859.71	40°05'52.532"N	104°46'59.491"W	0.00	
9017.00†	89.298	179.348	7460.78	712.56	-702.81	860.85	40°05'51.544"N	104°46'59.476"W	0.00	
9117.00†	89.298	179.348	7462.00	812.55	-802.79	861.99	40°05'50.555"N	104°46'59.462"W	0.00	
9217.00†	89.298	179.348	7463.23	912.54	-902.78	863.13	40°05'49.567"N	104°46'59.447"W	0.00	
9317.00†	89.298	179.348	7464.45	1012.53	-1002.76	864.27	40°05'48.578"N	104°46'59.432"W	0.00	
9417.00†	89.298	179.348	7465.68	1112.53	-1102.75	865.40	40°05'47.590"N	104°46'59.418"W	0.00	
9517.00†	89.298	179.348	7466.90	1212.52	-1202.74	866.54	40°05'46.602"N	104°46'59.403"W	0.00	
9617.00†	89.298	179.348	7468.13	1312.51	-1302.72	867.68	40°05'45.613"N	104°46'59.389"W	0.00	
9717.00†	89.298	179.348	7469.35	1412.50	-1402.71	868.82	40°05'44.625"N	104°46'59.374"W	0.00	
9817.00†	89.298	179.348	7470.58	1512.50	-1502.69	869.96	40°05'43.636"N	104°46'59.359"W	0.00	
9917.00†	89.298	179.348	7471.80	1612.49	-1602.68	871.10	40°05'42.648"N	104°46'59.345"W	0.00	
10017.00†	89.298	179.348	7473.02	1712.48	-1702.67	872.23	40°05'41.659"N	104°46'59.330"W	0.00	
10117.00†	89.298	179.348	7474.25	1812.47	-1802.65	873.37	40°05'40.671"N	104°46'59.316"W	0.00	
10217.00†	89.298	179.348	7475.47	1912.47	-1902.64	874.51	40°05'39.682"N	104°46'59.301"W	0.00	
10317.00†	89.298	179.348	7476.70	2012.46	-2002.62	875.65	40°05'38.694"N	104°46'59.286"W	0.00	
10417.00†	89.298	179.348	7477.92	2112.45	-2102.61	876.79	40°05'37.705"N	104°46'59.272"W	0.00	
10517.00†	89.298	179.348	7479.15	2212.44	-2202.60	877.92	40°05'36.717"N	104°46'59.257"W	0.00	
10617.00†	89.298	179.348	7480.37	2312.44	-2302.58	879.06	40°05'35.728"N	104°46'59.242"W	0.00	
10717.00†	89.298	179.348	7481.60	2412.43	-2402.57	880.20	40°05'34.740"N	104°46'59.228"W	0.00	
10817.00†	89.298	179.348	7482.82	2512.42	-2502.55	881.34	40°05'33.751"N	104°46'59.213"W	0.00	
10917.00†	89.298	179.348	7484.04	2612.41	-2602.54	882.48	40°05'32.763"N	104°46'59.199"W	0.00	
11017.00†	89.298	179.348	7485.27	2712.41	-2702.53	883.62	40°05'31.774"N	104°46'59.184"W	0.00	
11117.00†	89.298	179.348	7486.49	2812.40	-2802.51	884.75	40°05'30.786"N	104°46'59.169"W	0.00	
11217.00†	89.298	179.348	7487.72	2912.39	-2902.50	885.89	40°05'29.798"N	104°46'59.155"W	0.00	
11317.00†	89.298	179.348	7488.94	3012.38	-3002.49	887.03	40°05'28.809"N	104°46'59.140"W	0.00	
11417.00†	89.298	179.348	7490.17	3112.38	-3102.47	888.17	40°05'27.821"N	104°46'59.126"W	0.00	
11517.00†	89.298	179.348	7491.39	3212.37	-3202.46	889.31	40°05'26.832"N	104°46'59.111"W	0.00	
11617.00†	89.298	179.348	7492.62	3312.36	-3302.44	890.44	40°05'25.844"N	104°46'59.096"W	0.00	
11717.00†	89.298	179.348	7493.84	3412.35	-3402.43	891.58	40°05'24.855"N	104°46'59.082"W	0.00	
11817.00†	89.298	179.348	7495.07	3512.35	-3502.42	892.72	40°05'23.867"N	104°46'59.067"W	0.00	

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP_1	Slot	SLOT#07 CARTER 14C-33HZ (825'FNL & 1500'FWL, SEC.33)
Area	Compass Import	Well	CARTER 14C-33HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TRUE NORTH)	Wellbore	CARTER 14C-33HZ PWB
Facility	SEC.33-T2N-R66W		

WELLPATH DATA (144 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11917.00†	89.298	179.348	7496.29	3612.34	-3602.40	893.86	40°05'22.878"N	104°46'59.053"W	0.00	
12017.00†	89.298	179.348	7497.51	3712.33	-3702.39	895.00	40°05'21.890"N	104°46'59.038"W	0.00	
12117.00†	89.298	179.348	7498.74	3812.32	-3802.37	896.14	40°05'20.901"N	104°46'59.023"W	0.00	
12217.00†	89.298	179.348	7499.96	3912.32	-3902.36	897.27	40°05'19.913"N	104°46'59.009"W	0.00	
12317.00†	89.298	179.348	7501.19	4012.31	-4002.35	898.41	40°05'18.924"N	104°46'58.994"W	0.00	
12417.00†	89.298	179.348	7502.41	4112.30	-4102.33	899.55	40°05'17.936"N	104°46'58.980"W	0.00	
12517.00†	89.298	179.348	7503.64	4212.29	-4202.32	900.69	40°05'16.947"N	104°46'58.965"W	0.00	
12617.00†	89.298	179.348	7504.86	4312.29	-4302.30	901.83	40°05'15.959"N	104°46'58.950"W	0.00	
12710.01	89.298	179.348	7506.00 ¹	4405.29	-4395.30	902.88	40°05'15.040"N	104°46'58.937"W	0.00	TOTAL DEPTH

HOLE & CASING SECTIONS - Ref Wellbore: CARTER 14C-33HZ PWB Ref Wellpath: CARTER 14C-33HZ (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	1089.00	1072.00	17.00	1089.00	0.00	0.00	0.00	0.00
9.625in Casing Surface	17.00	1089.00	1072.00	17.00	1089.00	0.00	0.00	0.00	0.00
8.75in Open Hole	1089.00	7973.60	6884.60	1089.00	7448.00	0.00	0.00	340.45	848.98
7in Casing Intermediate	17.00	7973.60	7956.60	17.00	7448.00	0.00	0.00	340.45	848.98
6.125in Open Hole	7973.60	12710.01	4736.41	7448.00	7506.00	340.45	848.98	-4395.30	902.88
4.5in Casing Production	17.00	12710.01	12693.01	17.00	7506.00	0.00	0.00	-4395.30	902.88

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.33-T2N-R66W SECTION LINES		0.00	0.71	-179.75	1700006.28	14563067.38	40°05'58.499"N	104°47'12.872"W	polygon
1) CARTER 14C-33HZ BHL REV-1 (50'FSL & 2392'FWL, SEC.33)	12710.01	7506.00	-4395.30	902.88	1701099.47	14558673.99	40°05'15.040"N	104°46'58.937"W	point

SURVEY PROGRAM - Ref Wellbore: CARTER 14C-33HZ PWB Ref Wellpath: CARTER 14C-33HZ (PERMIT REV-3) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	12710.01	ISCWSA MWD, Rev. 2, axial magnetic correction (Standard) (MagVAR IFR Wattenberg)		CARTER 14C-33HZ PWB

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP_1	Slot	SLOT#07 CARTER 14C-33HZ (825'FNL & 1500'FWL, SEC.33)
Area	Compass Import	Well	CARTER 14C-33HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TRUE NORTH)	Wellbore	CARTER 14C-33HZ PWB
Facility	SEC.33-T2N-R66W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1039.00	0.000	42.910	1039.00	FOX HILLS BASE
4137.45	21.000	42.910	3988.00	PARKMAN
4676.09	20.082	42.910	4491.00	SUSSEX
7281.62	20.101	179.348	7072.00	SHARON SPRINGS
7340.33	25.971	179.348	7126.00	NIOBRARA A
7420.03	33.942	179.348	7195.00	NIOBRARA B
7534.54	45.393	179.348	7283.00	NIOBRARA C
7736.92	65.631	179.348	7397.00	FORT HAYS
7973.32	89.271	179.348	7448.00	CODELL

DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	42.910	17.00	TIE ON
1189.00	0.000	42.910	1189.00	BEGIN NUDGE
2239.00	21.000	42.910	2215.65	END NUDGE
4630.17	21.000	42.910	4448.00	BEGIN DROP
5680.17	0.000	179.348	5474.65	END DROP
7080.61	0.000	179.348	6875.09	KOP, BUILD @ 10°/100'
7973.60	89.298	179.348	7448.00	LANDING POINT
12710.01	89.298	179.348	7506.00	TOTAL DEPTH