

KERR-MCGEE OIL & GAS ONSHORE LP

Location: Compass Import Slot: SLOT#01 CARTER 34C-33HZ (825'FNL & 1320'FWL, SEC.33)
Field: WELD COUNTY (UTM (ZONE 13)/NAD83/TRUE NORTH) Well: CARTER 34C-33HZ
Facility: SEC.33-T2N-R66W Wellbore: CARTER 34C-33HZ PWB

Plot reference wellpath is CARTER 34C-33HZ (PERMIT REV-1) PWP

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: SLOT#01 CARTER 34C-33HZ (825'FNL & 1320'FWL, SEC.33)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: robale01 on 12/15/2014

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)
SLOT#01 CARTER 34C-33HZ (825'FNL & 1320'FWL, SEC.33)	503.38	-2743.32	1700006.278	14563067.378
PERMIT (17KB) (RKB) to Mud line (At Slot: SLOT#01 CARTER 34C-33HZ (825'FNL & 1320'FWL, SEC.33))				4976ft
Mean Sea Level to Mud line (At Slot: SLOT#01 CARTER 34C-33HZ (825'FNL & 1320'FWL, SEC.33))				0ft
PERMIT (17KB) (RKB) to Mean Sea Level				4976ft

Survey Program

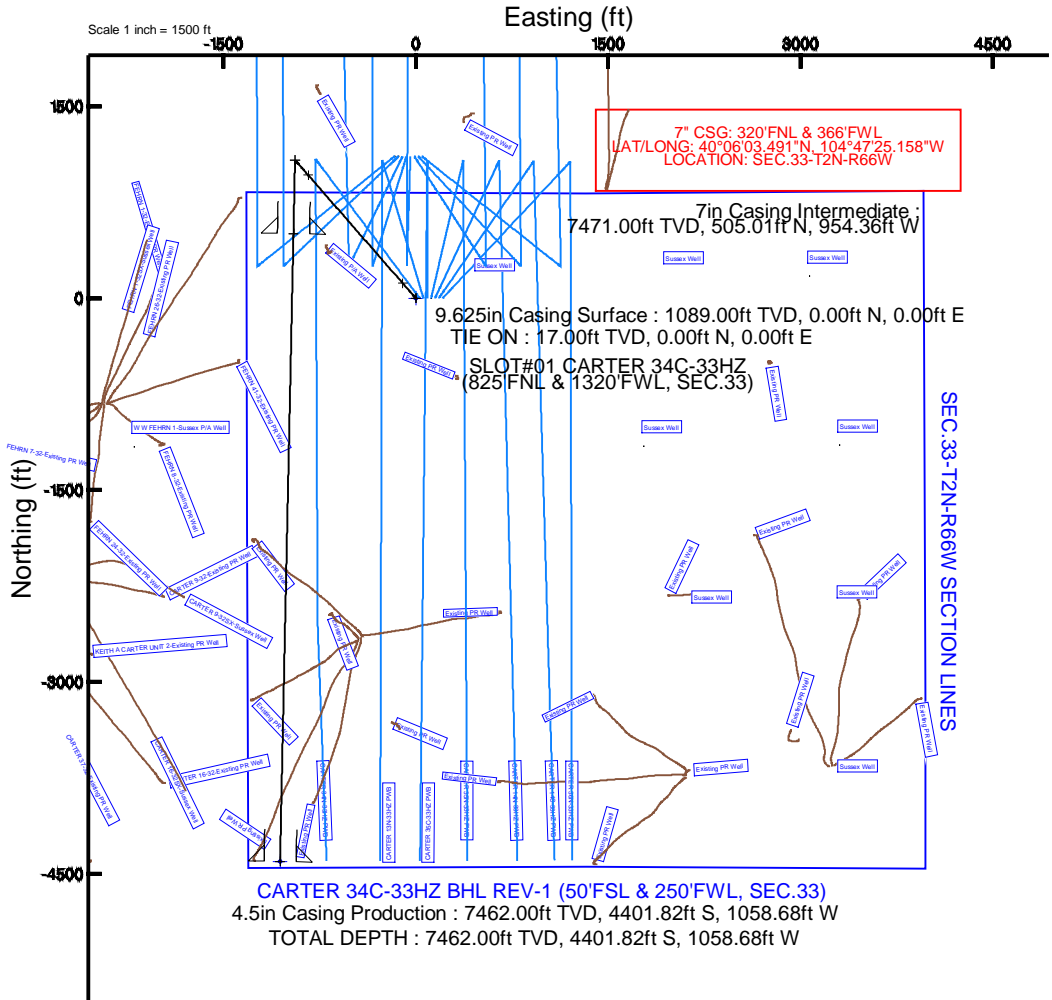
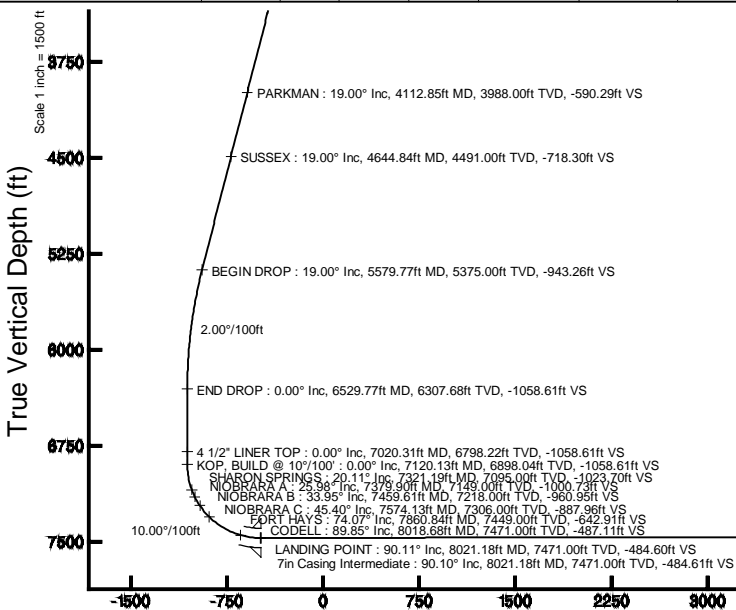
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	12929.13	ISCWSA MWD, Rev 2, axial magnetic correction	ISCWSA MWD, Rev 2, axial magnetic correction (Standard) (Mag/VAR IFR Wattenberg)		CARTER 34C-33HZ PWB

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	0.00	0.00	1700006.28	14563067.38	40°05'58.499"N	104°47'12.872"W
CARTER 34C-33HZ BHL REV-1 (50'FSL & 250'FWL, SEC.33)	12929.13	7462.00	-4401.82	-1058.68	1698958.15	14558663.04	40°05'14.982"N	104°47'26.498"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	318.870	17.00	0.00	0.00	0.00	0.00
BEGIN NUDGE	1189.00	0.000	318.870	1189.00	0.00	0.00	0.00	0.00
END NUDGE	2139.00	0.000	318.870	2121.68	117.56	-102.66	2.00	-115.35
BEGIN DROP	5579.77	19.000	318.870	5375.00	961.32	-839.50	0.00	-943.26
END DROP	6529.77	0.000	181.218	6307.68	1078.88	-942.16	2.00	-1058.61
KOP, BUILD @ 10°/100'	7120.13	0.000	181.218	6898.04	1078.88	-942.16	0.00	-1058.61
LANDING POINT	8021.18	90.105	181.218	7471.00	505.00	-954.36	10.00	-484.60
TOTAL DEPTH	12929.13	90.105	181.218	7462.00	-4401.82	-1058.68	0.00	4423.33



CARTER 34C-33HZ BHL REV-1 (50'FSL & 250'FWL, SEC.33)

4.5in Casing Production : 90.11° Inc, 12929.13ft MD, 7462.00ft TVD, 4423.33ft VS
TOTAL DEPTH : 90.11° Inc, 12929.13ft MD, 7462.00ft TVD, 4423.33ft VS

Vertical Section (ft)
Azimuth 181.22° with reference 0.00 N, 0.00 E

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 CARTER 34C-33HZ (825'FNL & 1320'FWL, SEC.33)
Area	Compass Import	Well	CARTER 34C-33HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TRUE NORTH)	Wellbore	CARTER 34C-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	Robiale01
Scale	0.999604	Report Generated	12/12/2014 at 2:14:21 PM
Convergence at slot	n/a	Database/Source file	WellArchitectDB/CARTER_34C-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	503.38	-2743.32	1700006.28	14563067.38	40°05'58.499"N	104°47'12.872"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#01 CARTER 34C-33HZ (825'FNL & 1320'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	181.22°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 CARTER 34C-33HZ (825'FNL & 1320'FWL, SEC.33)
Area	Compass Import	Well	CARTER 34C-33HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TRUE NORTH)	Wellbore	CARTER 34C-33HZ PWB
Facility	SEC.33-T2N-R66W		

WELLPATH DATA (148 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	318.870	0.00	0.00	0.00	0.00	40°05'58.499"N	104°47'12.872"W	0.00	
17.00	0.000	318.870	17.00	0.00	0.00	0.00	40°05'58.499"N	104°47'12.872"W	0.00	TIE ON
117.00†	0.000	318.870	117.00	0.00	0.00	0.00	40°05'58.499"N	104°47'12.872"W	0.00	
217.00†	0.000	318.870	217.00	0.00	0.00	0.00	40°05'58.499"N	104°47'12.872"W	0.00	
317.00†	0.000	318.870	317.00	0.00	0.00	0.00	40°05'58.499"N	104°47'12.872"W	0.00	
417.00†	0.000	318.870	417.00	0.00	0.00	0.00	40°05'58.499"N	104°47'12.872"W	0.00	
517.00†	0.000	318.870	517.00	0.00	0.00	0.00	40°05'58.499"N	104°47'12.872"W	0.00	
617.00†	0.000	318.870	617.00	0.00	0.00	0.00	40°05'58.499"N	104°47'12.872"W	0.00	
717.00†	0.000	318.870	717.00	0.00	0.00	0.00	40°05'58.499"N	104°47'12.872"W	0.00	
817.00†	0.000	318.870	817.00	0.00	0.00	0.00	40°05'58.499"N	104°47'12.872"W	0.00	
917.00†	0.000	318.870	917.00	0.00	0.00	0.00	40°05'58.499"N	104°47'12.872"W	0.00	
1017.00†	0.000	318.870	1017.00	0.00	0.00	0.00	40°05'58.499"N	104°47'12.872"W	0.00	
1039.00†	0.000	318.870	1039.00	0.00	0.00	0.00	40°05'58.499"N	104°47'12.872"W	0.00	FOX HILLS BASE
1117.00†	0.000	318.870	1117.00	0.00	0.00	0.00	40°05'58.499"N	104°47'12.872"W	0.00	
1189.00	0.000	318.870	1189.00	0.00	0.00	0.00	40°05'58.499"N	104°47'12.872"W	0.00	BEGIN NUDGE
1217.00†	0.560	318.870	1217.00	-0.10	0.10	-0.09	40°05'58.500"N	104°47'12.873"W	2.00	
1317.00†	2.560	318.870	1316.96	-2.11	2.15	-1.88	40°05'58.520"N	104°47'12.896"W	2.00	
1417.00†	4.560	318.870	1416.76	-6.70	6.83	-5.96	40°05'58.567"N	104°47'12.949"W	2.00	
1517.00†	6.560	318.870	1516.28	-13.86	14.13	-12.34	40°05'58.639"N	104°47'13.031"W	2.00	
1617.00†	8.560	318.870	1615.41	-23.59	24.04	-20.99	40°05'58.737"N	104°47'13.142"W	2.00	
1717.00†	10.560	318.870	1714.02	-35.86	36.55	-31.91	40°05'58.860"N	104°47'13.283"W	2.00	
1817.00†	12.560	318.870	1811.98	-50.67	51.64	-45.10	40°05'59.010"N	104°47'13.453"W	2.00	
1917.00†	14.560	318.870	1909.19	-68.00	69.30	-60.52	40°05'59.184"N	104°47'13.651"W	2.00	
2017.00†	16.560	318.870	2005.52	-87.82	89.50	-78.16	40°05'59.384"N	104°47'13.878"W	2.00	
2117.00†	18.560	318.870	2100.86	-110.12	112.23	-98.00	40°05'59.608"N	104°47'14.134"W	2.00	
2139.00	19.000	318.870	2121.68	-115.35	117.56	-102.66	40°05'59.661"N	104°47'14.194"W	2.00	END NUDGE
2217.00†	19.000	318.870	2195.43	-134.12	136.69	-119.37	40°05'59.850"N	104°47'14.409"W	0.00	
2317.00†	19.000	318.870	2289.99	-158.18	161.21	-140.78	40°06'00.093"N	104°47'14.684"W	0.00	
2417.00†	19.000	318.870	2384.54	-182.24	185.73	-162.20	40°06'00.335"N	104°47'14.960"W	0.00	
2517.00†	19.000	318.870	2479.09	-206.31	210.26	-183.61	40°06'00.578"N	104°47'15.236"W	0.00	
2617.00†	19.000	318.870	2573.64	-230.37	234.78	-205.03	40°06'00.820"N	104°47'15.511"W	0.00	
2717.00†	19.000	318.870	2668.19	-254.43	259.30	-226.44	40°06'01.062"N	104°47'15.787"W	0.00	
2817.00†	19.000	318.870	2762.75	-278.49	283.82	-247.86	40°06'01.305"N	104°47'16.063"W	0.00	
2917.00†	19.000	318.870	2857.30	-302.55	308.35	-269.27	40°06'01.547"N	104°47'16.338"W	0.00	
3017.00†	19.000	318.870	2951.85	-326.61	332.87	-290.69	40°06'01.790"N	104°47'16.614"W	0.00	
3117.00†	19.000	318.870	3046.40	-350.68	357.39	-312.10	40°06'02.032"N	104°47'16.890"W	0.00	
3217.00†	19.000	318.870	3140.95	-374.74	381.91	-333.52	40°06'02.275"N	104°47'17.166"W	0.00	
3317.00†	19.000	318.870	3235.50	-398.80	406.43	-354.93	40°06'02.517"N	104°47'17.441"W	0.00	
3417.00†	19.000	318.870	3330.06	-422.86	430.96	-376.35	40°06'02.759"N	104°47'17.717"W	0.00	
3517.00†	19.000	318.870	3424.61	-446.92	455.48	-397.76	40°06'03.002"N	104°47'17.993"W	0.00	
3617.00†	19.000	318.870	3519.16	-470.98	480.00	-419.18	40°06'03.244"N	104°47'18.268"W	0.00	
3717.00†	19.000	318.870	3613.71	-495.05	504.52	-440.59	40°06'03.487"N	104°47'18.544"W	0.00	
3817.00†	19.000	318.870	3708.26	-519.11	529.05	-462.01	40°06'03.729"N	104°47'18.820"W	0.00	
3917.00†	19.000	318.870	3802.82	-543.17	553.57	-483.42	40°06'03.972"N	104°47'19.095"W	0.00	
4017.00†	19.000	318.870	3897.37	-567.23	578.09	-504.83	40°06'04.214"N	104°47'19.371"W	0.00	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 CARTER 34C-33HZ (825'FNL & 1320'FWL, SEC.33)
Area	Compass Import	Well	CARTER 34C-33HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TRUE NORTH)	Wellbore	CARTER 34C-33HZ PWB
Facility	SEC.33-T2N-R66W		

WELLPATH DATA (148 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4112.85†	19.000	318.870	3988.00	-590.29	601.60	-525.36	40°06'04.446"N	104°47'19.635"W	0.00	PARKMAN
4117.00†	19.000	318.870	3991.92	-591.29	602.61	-526.25	40°06'04.456"N	104°47'19.647"W	0.00	
4217.00†	19.000	318.870	4086.47	-615.35	627.14	-547.66	40°06'04.699"N	104°47'19.923"W	0.00	
4317.00†	19.000	318.870	4181.02	-639.42	651.66	-569.08	40°06'04.941"N	104°47'20.198"W	0.00	
4417.00†	19.000	318.870	4275.58	-663.48	676.18	-590.49	40°06'05.184"N	104°47'20.474"W	0.00	
4517.00†	19.000	318.870	4370.13	-687.54	700.70	-611.91	40°06'05.426"N	104°47'20.750"W	0.00	
4617.00†	19.000	318.870	4464.68	-711.60	725.23	-633.32	40°06'05.669"N	104°47'21.025"W	0.00	
4644.84†	19.000	318.870	4491.00	-718.30	732.05	-639.29	40°06'05.736"N	104°47'21.102"W	0.00	SUSSEX
4717.00†	19.000	318.870	4559.23	-735.66	749.75	-654.74	40°06'05.911"N	104°47'21.301"W	0.00	
4817.00†	19.000	318.870	4653.78	-759.72	774.27	-676.15	40°06'06.153"N	104°47'21.577"W	0.00	
4917.00†	19.000	318.870	4748.33	-783.79	798.79	-697.57	40°06'06.396"N	104°47'21.852"W	0.00	
5017.00†	19.000	318.870	4842.89	-807.85	823.32	-718.98	40°06'06.638"N	104°47'22.128"W	0.00	
5117.00†	19.000	318.870	4937.44	-831.91	847.84	-740.40	40°06'06.881"N	104°47'22.404"W	0.00	
5217.00†	19.000	318.870	5031.99	-855.97	872.36	-761.81	40°06'07.123"N	104°47'22.680"W	0.00	
5317.00†	19.000	318.870	5126.54	-880.03	896.88	-783.23	40°06'07.366"N	104°47'22.955"W	0.00	
5417.00†	19.000	318.870	5221.09	-904.09	921.41	-804.64	40°06'07.608"N	104°47'23.231"W	0.00	
5517.00†	19.000	318.870	5315.65	-928.16	945.93	-826.06	40°06'07.850"N	104°47'23.507"W	0.00	
5579.77	19.000	318.870	5375.00	-943.26	961.32	-839.50	40°06'08.003"N	104°47'23.680"W	0.00	BEGIN DROP
5617.00†	18.255	318.870	5410.28	-952.05	970.28	-847.32	40°06'08.091"N	104°47'23.780"W	2.00	
5717.00†	16.255	318.870	5505.77	-973.97	992.62	-866.83	40°06'08.312"N	104°47'24.032"W	2.00	
5817.00†	14.255	318.870	5602.24	-993.42	1012.44	-884.14	40°06'08.508"N	104°47'24.254"W	2.00	
5917.00†	12.255	318.870	5699.57	-1010.36	1029.71	-899.22	40°06'08.679"N	104°47'24.449"W	2.00	
6017.00†	10.255	318.870	5797.64	-1024.79	1044.41	-912.06	40°06'08.824"N	104°47'24.614"W	2.00	
6117.00†	8.255	318.870	5896.34	-1036.67	1056.52	-922.64	40°06'08.944"N	104°47'24.750"W	2.00	
6217.00†	6.255	318.870	5995.53	-1046.01	1066.03	-930.94	40°06'09.038"N	104°47'24.857"W	2.00	
6317.00†	4.255	318.870	6095.11	-1052.77	1072.93	-936.97	40°06'09.106"N	104°47'24.935"W	2.00	
6417.00†	2.255	318.870	6194.94	-1056.97	1077.21	-940.70	40°06'09.148"N	104°47'24.983"W	2.00	
6517.00†	0.255	318.870	6294.91	-1058.59	1078.86	-942.15	40°06'09.165"N	104°47'25.001"W	2.00	
6529.77	0.000	181.218	6307.68	-1058.61	1078.88	-942.16	40°06'09.165"N	104°47'25.001"W	2.00	END DROP
6617.00†	0.000	181.218	6394.91	-1058.61	1078.88	-942.16	40°06'09.165"N	104°47'25.001"W	0.00	
6717.00†	0.000	181.218	6494.91	-1058.61	1078.88	-942.16	40°06'09.165"N	104°47'25.001"W	0.00	
6817.00†	0.000	181.218	6594.91	-1058.61	1078.88	-942.16	40°06'09.165"N	104°47'25.001"W	0.00	
6917.00†	0.000	181.218	6694.91	-1058.61	1078.88	-942.16	40°06'09.165"N	104°47'25.001"W	0.00	
7017.00†	0.000	181.218	6794.91	-1058.61	1078.88	-942.16	40°06'09.165"N	104°47'25.001"W	0.00	
7020.31†	0.000	181.218	6798.22	-1058.61	1078.88	-942.16	40°06'09.165"N	104°47'25.001"W	0.00	4 1/2" LINER TOP
7117.00†	0.000	181.218	6894.91	-1058.61	1078.88	-942.16	40°06'09.165"N	104°47'25.001"W	0.00	
7120.13	0.000	181.218	6898.04	-1058.61	1078.88	-942.16	40°06'09.165"N	104°47'25.001"W	0.00	KOP, BUILD @ 10°/100'
7217.00†	9.687	181.218	6994.45	-1050.44	1070.72	-942.34	40°06'09.084"N	104°47'25.004"W	10.00	
7317.00†	19.687	181.218	7091.06	-1025.12	1045.40	-942.88	40°06'08.834"N	104°47'25.011"W	10.00	
7321.19†	20.106	181.218	7095.00	-1023.70	1043.97	-942.91	40°06'08.820"N	104°47'25.011"W	10.00	SHARON SPRINGS
7379.90†	25.976	181.218	7149.00	-1000.73	1021.01	-943.39	40°06'08.593"N	104°47'25.017"W	10.00	NIOBRARA A
7417.00†	29.687	181.218	7181.80	-983.41	1003.70	-943.76	40°06'08.421"N	104°47'25.022"W	10.00	
7459.61†	33.947	181.218	7218.00	-960.95	981.25	-944.24	40°06'08.199"N	104°47'25.028"W	10.00	NIOBRARA B
7517.00†	39.687	181.218	7263.93	-926.57	946.87	-944.97	40°06'07.860"N	104°47'25.037"W	10.00	
7574.13†	45.399	181.218	7306.00	-887.96	908.27	-945.79	40°06'07.478"N	104°47'25.048"W	10.00	NIOBRARA C

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 CARTER 34C-33HZ (825'FNL & 1320'FWL, SEC.33)
Area	Compass Import	Well	CARTER 34C-33HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TRUE NORTH)	Wellbore	CARTER 34C-33HZ PWB
Facility	SEC.33-T2N-R66W		

WELLPATH DATA (148 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7617.00†	49.687	181.218	7334.93	-856.34	876.66	-946.46	40°06'07.165"N	104°47'25.057"W	10.00	
7717.00†	59.687	181.218	7392.67	-774.84	795.18	-948.20	40°06'06.360"N	104°47'25.079"W	10.00	
7817.00†	69.687	181.218	7435.37	-684.56	704.91	-950.11	40°06'05.468"N	104°47'25.104"W	10.00	
7860.84†	74.070	181.218	7449.00	-642.91	663.27	-951.00	40°06'05.056"N	104°47'25.115"W	10.00	FORT HAYS
7917.00†	79.687	181.218	7461.74	-588.23	608.61	-952.16	40°06'04.516"N	104°47'25.130"W	10.00	
8017.00†	89.687	181.218	7470.99	-488.79	509.19	-954.28	40°06'03.533"N	104°47'25.157"W	10.00	
8018.68†	89.855	181.218	7471.00	-487.11	507.51	-954.31	40°06'03.516"N	104°47'25.158"W	10.00	CODELL
8021.18	90.105	181.218	7471.00	-484.60	505.00	-954.36	40°06'03.491"N	104°47'25.158"W	10.00	LANDING POINT
8117.00†	90.105	181.218	7470.83	-388.79	409.21	-956.40	40°06'02.544"N	104°47'25.184"W	0.00	
8217.00†	90.105	181.218	7470.64	-288.79	309.23	-958.53	40°06'01.556"N	104°47'25.212"W	0.00	
8317.00†	90.105	181.218	7470.46	-188.79	209.26	-960.65	40°06'00.568"N	104°47'25.239"W	0.00	
8417.00†	90.105	181.218	7470.27	-88.79	109.28	-962.78	40°05'59.579"N	104°47'25.266"W	0.00	
8517.00†	90.105	181.218	7470.09	11.21	9.30	-964.90	40°05'58.591"N	104°47'25.294"W	0.00	
8617.00†	90.105	181.218	7469.91	111.21	-90.68	-967.03	40°05'57.602"N	104°47'25.321"W	0.00	
8717.00†	90.105	181.218	7469.72	211.21	-190.65	-969.15	40°05'56.614"N	104°47'25.348"W	0.00	
8817.00†	90.105	181.218	7469.54	311.21	-290.63	-971.28	40°05'55.626"N	104°47'25.376"W	0.00	
8917.00†	90.105	181.218	7469.36	411.21	-390.61	-973.40	40°05'54.637"N	104°47'25.403"W	0.00	
9017.00†	90.105	181.218	7469.17	511.21	-490.58	-975.53	40°05'53.649"N	104°47'25.430"W	0.00	
9117.00†	90.105	181.218	7468.99	611.21	-590.56	-977.65	40°05'52.660"N	104°47'25.457"W	0.00	
9217.00†	90.105	181.218	7468.81	711.21	-690.54	-979.78	40°05'51.672"N	104°47'25.485"W	0.00	
9317.00†	90.105	181.218	7468.62	811.21	-790.52	-981.91	40°05'50.684"N	104°47'25.512"W	0.00	
9417.00†	90.105	181.218	7468.44	911.21	-890.49	-984.03	40°05'49.695"N	104°47'25.539"W	0.00	
9517.00†	90.105	181.218	7468.26	1011.21	-990.47	-986.16	40°05'48.707"N	104°47'25.567"W	0.00	
9617.00†	90.105	181.218	7468.07	1111.21	-1090.45	-988.28	40°05'47.719"N	104°47'25.594"W	0.00	
9717.00†	90.105	181.218	7467.89	1211.21	-1190.43	-990.41	40°05'46.730"N	104°47'25.621"W	0.00	
9817.00†	90.105	181.218	7467.71	1311.21	-1290.40	-992.53	40°05'45.742"N	104°47'25.649"W	0.00	
9917.00†	90.105	181.218	7467.52	1411.21	-1390.38	-994.66	40°05'44.753"N	104°47'25.676"W	0.00	
10017.00†	90.105	181.218	7467.34	1511.21	-1490.36	-996.78	40°05'43.765"N	104°47'25.703"W	0.00	
10117.00†	90.105	181.218	7467.16	1611.21	-1590.33	-998.91	40°05'42.777"N	104°47'25.731"W	0.00	
10217.00†	90.105	181.218	7466.97	1711.21	-1690.31	-1001.03	40°05'41.788"N	104°47'25.758"W	0.00	
10317.00†	90.105	181.218	7466.79	1811.21	-1790.29	-1003.16	40°05'40.800"N	104°47'25.785"W	0.00	
10417.00†	90.105	181.218	7466.61	1911.21	-1890.27	-1005.28	40°05'39.811"N	104°47'25.812"W	0.00	
10517.00†	90.105	181.218	7466.42	2011.21	-1990.24	-1007.41	40°05'38.823"N	104°47'25.840"W	0.00	
10617.00†	90.105	181.218	7466.24	2111.21	-2090.22	-1009.54	40°05'37.835"N	104°47'25.867"W	0.00	
10717.00†	90.105	181.218	7466.06	2211.21	-2190.20	-1011.66	40°05'36.846"N	104°47'25.894"W	0.00	
10817.00†	90.105	181.218	7465.87	2311.21	-2290.18	-1013.79	40°05'35.858"N	104°47'25.922"W	0.00	
10917.00†	90.105	181.218	7465.69	2411.21	-2390.15	-1015.91	40°05'34.870"N	104°47'25.949"W	0.00	
11017.00†	90.105	181.218	7465.51	2511.21	-2490.13	-1018.04	40°05'33.881"N	104°47'25.976"W	0.00	
11117.00†	90.105	181.218	7465.32	2611.21	-2590.11	-1020.16	40°05'32.893"N	104°47'26.004"W	0.00	
11217.00†	90.105	181.218	7465.14	2711.21	-2690.08	-1022.29	40°05'31.904"N	104°47'26.031"W	0.00	
11317.00†	90.105	181.218	7464.96	2811.21	-2790.06	-1024.41	40°05'30.916"N	104°47'26.058"W	0.00	
11417.00†	90.105	181.218	7464.77	2911.21	-2890.04	-1026.54	40°05'29.928"N	104°47'26.086"W	0.00	
11517.00†	90.105	181.218	7464.59	3011.21	-2990.02	-1028.66	40°05'28.939"N	104°47'26.113"W	0.00	
11617.00†	90.105	181.218	7464.41	3111.21	-3089.99	-1030.79	40°05'27.951"N	104°47'26.140"W	0.00	
11717.00†	90.105	181.218	7464.22	3211.21	-3189.97	-1032.91	40°05'26.963"N	104°47'26.167"W	0.00	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 CARTER 34C-33HZ (825'FNL & 1320'FWL, SEC.33)
Area	Compass Import	Well	CARTER 34C-33HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TRUE NORTH)	Wellbore	CARTER 34C-33HZ PWB
Facility	SEC.33-T2N-R66W		

WELLPATH DATA (148 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11817.00†	90.105	181.218	7464.04	3311.21	-3289.95	-1035.04	40°05'25.974"N	104°47'26.195"W	0.00	
11917.00†	90.105	181.218	7463.86	3411.21	-3389.92	-1037.17	40°05'24.986"N	104°47'26.222"W	0.00	
12017.00†	90.105	181.218	7463.67	3511.21	-3489.90	-1039.29	40°05'23.997"N	104°47'26.249"W	0.00	
12117.00†	90.105	181.218	7463.49	3611.21	-3589.88	-1041.42	40°05'23.009"N	104°47'26.277"W	0.00	
12217.00†	90.105	181.218	7463.31	3711.20	-3689.86	-1043.54	40°05'22.021"N	104°47'26.304"W	0.00	
12317.00†	90.105	181.218	7463.12	3811.20	-3789.83	-1045.67	40°05'21.032"N	104°47'26.331"W	0.00	
12417.00†	90.105	181.218	7462.94	3911.20	-3889.81	-1047.79	40°05'20.044"N	104°47'26.359"W	0.00	
12517.00†	90.105	181.218	7462.76	4011.20	-3989.79	-1049.92	40°05'19.055"N	104°47'26.386"W	0.00	
12617.00†	90.105	181.218	7462.57	4111.20	-4089.77	-1052.04	40°05'18.067"N	104°47'26.413"W	0.00	
12717.00†	90.105	181.218	7462.39	4211.20	-4189.74	-1054.17	40°05'17.079"N	104°47'26.440"W	0.00	
12817.00†	90.105	181.218	7462.21	4311.20	-4289.72	-1056.29	40°05'16.090"N	104°47'26.468"W	0.00	
12917.00†	90.105	181.218	7462.02	4411.20	-4389.70	-1058.42	40°05'15.102"N	104°47'26.495"W	0.00	
12929.13	90.105	181.218	7462.00 ¹	4423.33	-4401.82	-1058.68	40°05'14.982"N	104°47'26.498"W	0.00	TOTAL DEPTH

HOLE & CASING SECTIONS - Ref Wellbore: CARTER 34C-33HZ PWB Ref Wellpath: CARTER 34C-33HZ (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	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	8021.18	6932.18	1089.00	7471.00	0.00	0.00	505.01	-954.36
7in Casing Intermediate	17.00	8021.18	8004.18	17.00	7471.00	0.00	0.00	505.01	-954.36
6.125in Open Hole	8021.18	12929.13	4907.95	7471.00	7462.00	505.01	-954.36	-4401.82	-1058.68
4.5in Casing Production	17.00	12929.13	12912.13	17.00	7462.00	0.00	0.00	-4401.82	-1058.68

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 CARTER 34C-33HZ (825'FNL & 1320'FWL, SEC.33)
Area	Compass Import	Well	CARTER 34C-33HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TRUE NORTH)	Wellbore	CARTER 34C-33HZ PWB
Facility	SEC.33-T2N-R66W		

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	0.00	0.00	1700006.28	14563067.38	40°05'58.499"N	104°47'12.872"W	polygon
1) CARTER 34C-33HZ BHL REV-1 (50'FSL & 250'FWL, SEC.33)	12929.13	7462.00	-4401.82	-1058.68	1698958.15	14558663.04	40°05'14.982"N	104°47'26.498"W	point

SURVEY PROGRAM - Ref Wellbore: CARTER 34C-33HZ PWB Ref Wellpath: CARTER 34C-33HZ (PERMIT REV-1) PWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	12929.13	ISCWSA MWD, Rev. 2, axial magnetic correction (Standard) (MagVAR IFR Wattenberg)		CARTER 34C-33HZ PWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 CARTER 34C-33HZ (825'FNL & 1320'FWL, SEC.33)
Area	Compass Import	Well	CARTER 34C-33HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TRUE NORTH)	Wellbore	CARTER 34C-33HZ PWB
Facility	SEC.33-T2N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1039.00	0.000	318.870	1039.00	FOX HILLS BASE
4112.85	19.000	318.870	3988.00	PARKMAN
4644.84	19.000	318.870	4491.00	SUSSEX
7020.31	0.000	181.218	6798.22	4 1/2" LINER TOP
7321.19	20.106	181.218	7095.00	SHARON SPRINGS
7379.90	25.976	181.218	7149.00	NIOBRARA A
7459.61	33.947	181.218	7218.00	NIOBRARA B
7574.13	45.399	181.218	7306.00	NIOBRARA C
7860.84	74.070	181.218	7449.00	FORT HAYS
8018.68	89.855	181.218	7471.00	CODELL

DESIGN COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	318.870	17.00	TIE ON
1189.00	0.000	318.870	1189.00	BEGIN NUDGE
2139.00	19.000	318.870	2121.68	END NUDGE
5579.77	19.000	318.870	5375.00	BEGIN DROP
6529.77	0.000	181.218	6307.68	END DROP
7120.13	0.000	181.218	6898.04	KOP, BUILD @ 10°/100'
8021.18	90.105	181.218	7471.00	LANDING POINT
12929.13	90.105	181.218	7462.00	TOTAL DEPTH