

KERR-MCGEE OIL & GAS ONSHORE LP_1

Location: Compass Import Slot: SLOT#08 CARTER 36N-33HZ (825FNL & 1530FWL, SEC.33)
 Field: WELD COUNTY (UTM Zone 13)NAD83/TRUE NORTH Well: CARTER 36N-33HZ
 Facility: SEC.33-T2N-R66W Wellbore: CARTER 36N-33HZ PWB

Plot reference wellpath is CARTER 36N-33HZ (PERMIT REV-2) 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#08 CARTER 36N-33HZ (825FNL & 1530FWL, SEC.33)): 0 feet Depths are in feet
 Coordinates are in feet referenced to Slot Created by: preccain 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#08 CARTER 36N-33HZ (825FNL & 1530FWL, SEC.33)	502.65	-2533.59	1700216.013	14563067.173	40°05'58.492"N	104°47'10.172"W
PERMIT (17KB) (RKB) to Mud line (At Slot: SLOT#08 CARTER 36N-33HZ (825FNL & 1530FWL, SEC.33))			4976ft			
Mean Sea Level to Mud line (At Slot: SLOT#08 CARTER 36N-33HZ (825FNL & 1530FWL, SEC.33))			0ft			
PERMIT (17KB) (RKB) to Mean Sea Level			4976ft			

Survey Program

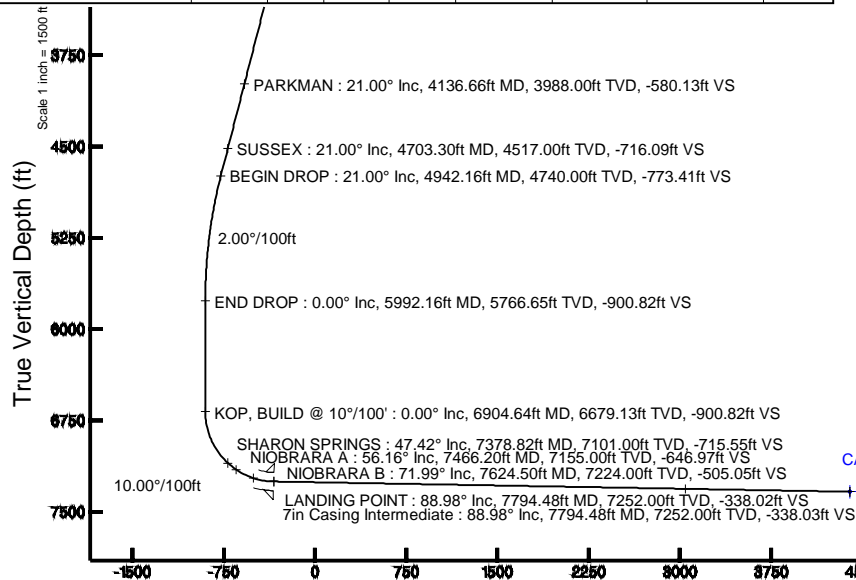
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	12530.37	ISOWSA MWD, Rev. 2, axial magnetic correction	ISOWSA MWD, Rev. 2, axial magnetic correction (Standard) (MagVWR IFR Wattenberg)		CARTER 36N-33HZ PWB

Targets

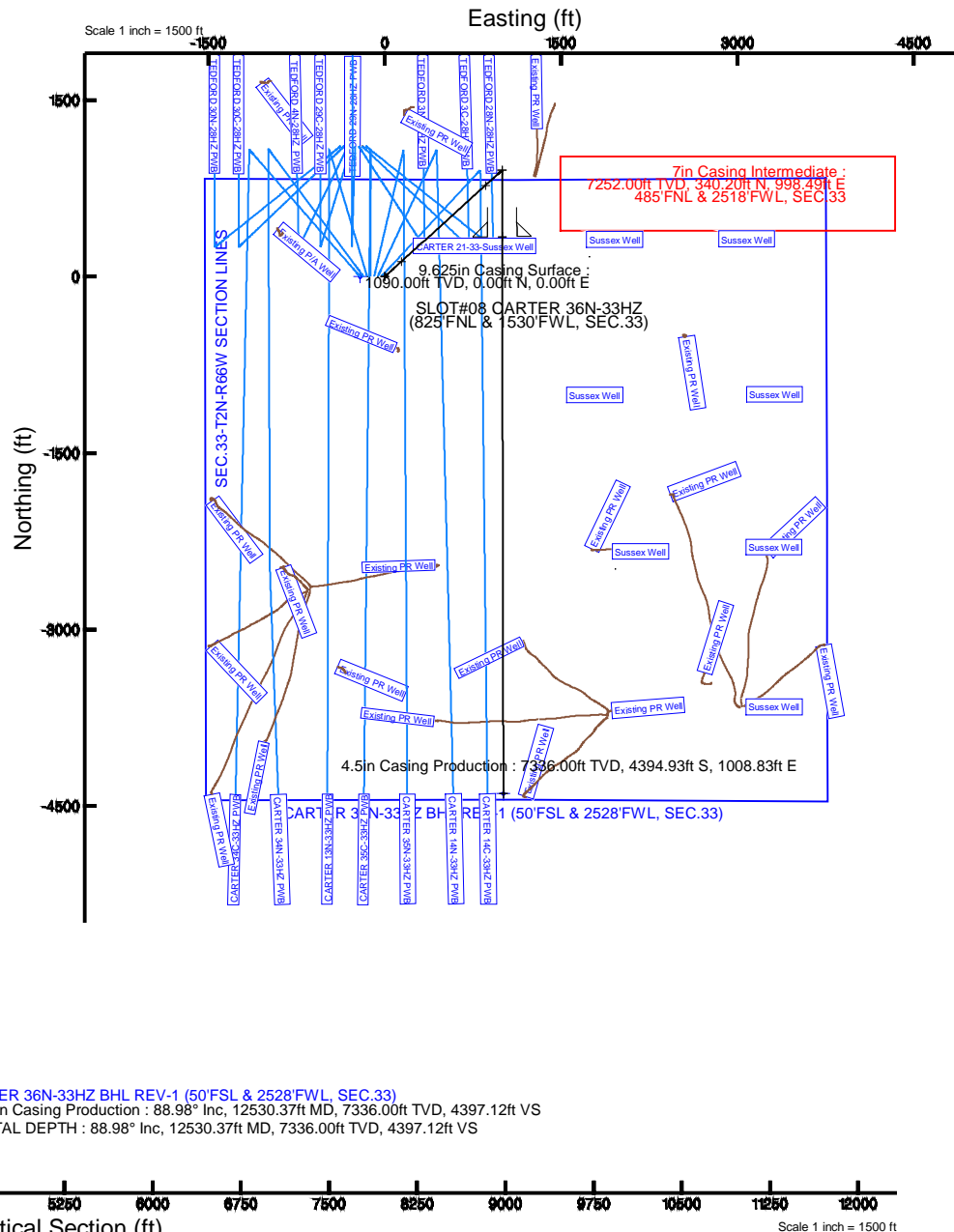
Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.33-T2N-R66W SECTION LINES		0.00	0.71	-209.73	1700006.28	14563067.38	40°05'58.499"N	104°47'12.872"W
CARTER 36N-33HZ BHL REV-1 (50FSL & 2528FWL, SEC.33)		12530.37	7336.00	-4394.93	1008.83	1701235.40	40°05'15.043"N	104°46'57.187"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	47.840	17.00	0.00	0.00	0.00	0.00
BEGIN NUDGE	1200.00	0.000	47.840	1200.00	0.00	0.00	0.00	0.00
END NUDGE	2250.00	21.000	47.840	2226.65	127.72	141.05	2.00	-127.41
BEGIN DROP	4942.16	21.000	47.840	4740.00	775.28	856.22	0.00	-773.41
END DROP	5992.16	0.000	179.875	5766.65	903.00	997.27	2.00	-900.82
KOP, BUILD @ 10°/100'	6904.64	0.000	179.875	6679.13	903.00	997.27	0.00	-900.82
LANDING POINT	7794.48	88.984	179.875	7252.00	340.20	998.49	10.00	-338.02
TOTAL DEPTH	12530.37	88.984	179.875	7336.00	-4394.93	1008.83	0.00	4397.12



Azimuth 179.88° with reference 0.00 N, 0.00 E



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP_1	Slot	SLOT#08 CARTER 36N-33HZ (825'FNL & 1530'FWL, SEC.33)
Area	Compass Import	Well	CARTER 36N-33HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TRUE NORTH)	Wellbore	CARTER 36N-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 10:44:12 AM
Convergence at slot	n/a	Database/Source file	WellArchitect Review/CARTER_36N-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	502.65	-2533.59	1700216.01	14563067.17	40°05'58.492"N	104°47'10.172"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#08 CARTER 36N-33HZ (825'FNL & 1530'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	179.88°

Planned Wellpath Report

CARTER 36N-33HZ (PERMIT REV-2) PWP

Page 2 of 6

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP_1	Slot	SLOT#08 CARTER 36N-33HZ (825'FNL & 1530'FWL, SEC.33)
Area	Compass Import	Well	CARTER 36N-33HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TRUE NORTH)	Wellbore	CARTER 36N-33HZ PWB
Facility	SEC.33-T2N-R66W		

WELLPATH DATA (141 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	47.840	0.00	0.00	0.00	0.00	40°05'58.492"N	104°47'10.172"W	0.00	
17.00	0.000	47.840	17.00	0.00	0.00	0.00	40°05'58.492"N	104°47'10.172"W	0.00	TIE ON
117.00†	0.000	47.840	117.00	0.00	0.00	0.00	40°05'58.492"N	104°47'10.172"W	0.00	
217.00†	0.000	47.840	217.00	0.00	0.00	0.00	40°05'58.492"N	104°47'10.172"W	0.00	
317.00†	0.000	47.840	317.00	0.00	0.00	0.00	40°05'58.492"N	104°47'10.172"W	0.00	
417.00†	0.000	47.840	417.00	0.00	0.00	0.00	40°05'58.492"N	104°47'10.172"W	0.00	
517.00†	0.000	47.840	517.00	0.00	0.00	0.00	40°05'58.492"N	104°47'10.172"W	0.00	
617.00†	0.000	47.840	617.00	0.00	0.00	0.00	40°05'58.492"N	104°47'10.172"W	0.00	
717.00†	0.000	47.840	717.00	0.00	0.00	0.00	40°05'58.492"N	104°47'10.172"W	0.00	
817.00†	0.000	47.840	817.00	0.00	0.00	0.00	40°05'58.492"N	104°47'10.172"W	0.00	
917.00†	0.000	47.840	917.00	0.00	0.00	0.00	40°05'58.492"N	104°47'10.172"W	0.00	
1017.00†	0.000	47.840	1017.00	0.00	0.00	0.00	40°05'58.492"N	104°47'10.172"W	0.00	
1040.00†	0.000	47.840	1040.00	0.00	0.00	0.00	40°05'58.492"N	104°47'10.172"W	0.00	FOX HILLS BASE
1117.00†	0.000	47.840	1117.00	0.00	0.00	0.00	40°05'58.492"N	104°47'10.172"W	0.00	
1200.00	0.000	47.840	1200.00	0.00	0.00	0.00	40°05'58.492"N	104°47'10.172"W	0.00	BEGIN NUDGE
1217.00†	0.340	47.840	1217.00	-0.03	0.03	0.04	40°05'58.492"N	104°47'10.172"W	2.00	
1317.00†	2.340	47.840	1316.97	-1.60	1.60	1.77	40°05'58.508"N	104°47'10.149"W	2.00	
1417.00†	4.340	47.840	1416.79	-5.50	5.51	6.09	40°05'58.547"N	104°47'10.094"W	2.00	
1517.00†	6.340	47.840	1516.35	-11.73	11.76	12.99	40°05'58.608"N	104°47'10.005"W	2.00	
1617.00†	8.340	47.840	1615.53	-20.29	20.33	22.46	40°05'58.693"N	104°47'09.883"W	2.00	
1717.00†	10.340	47.840	1714.20	-31.15	31.23	34.49	40°05'58.801"N	104°47'09.728"W	2.00	
1817.00†	12.340	47.840	1812.24	-44.32	44.42	49.06	40°05'58.931"N	104°47'09.540"W	2.00	
1917.00†	14.340	47.840	1909.54	-59.77	59.91	66.16	40°05'59.084"N	104°47'09.320"W	2.00	
2017.00†	16.340	47.840	2005.97	-77.48	77.67	85.77	40°05'59.260"N	104°47'09.068"W	2.00	
2117.00†	18.340	47.840	2101.42	-97.43	97.67	107.87	40°05'59.458"N	104°47'08.783"W	2.00	
2217.00†	20.340	47.840	2195.77	-119.61	119.90	132.41	40°05'59.677"N	104°47'08.467"W	2.00	
2250.00	21.000	47.840	2226.65	-127.41	127.72	141.05	40°05'59.755"N	104°47'08.356"W	2.00	END NUDGE
2317.00†	21.000	47.840	2289.20	-143.48	143.83	158.85	40°05'59.914"N	104°47'08.127"W	0.00	
2417.00†	21.000	47.840	2382.56	-167.48	167.89	185.41	40°06'00.152"N	104°47'07.785"W	0.00	
2517.00†	21.000	47.840	2475.91	-191.48	191.94	211.98	40°06'00.390"N	104°47'07.443"W	0.00	
2617.00†	21.000	47.840	2569.27	-215.47	215.99	238.54	40°06'00.627"N	104°47'07.101"W	0.00	
2717.00†	21.000	47.840	2662.63	-239.47	240.05	265.11	40°06'00.865"N	104°47'06.759"W	0.00	
2817.00†	21.000	47.840	2755.99	-263.46	264.10	291.67	40°06'01.103"N	104°47'06.417"W	0.00	
2917.00†	21.000	47.840	2849.35	-287.46	288.15	318.24	40°06'01.341"N	104°47'06.075"W	0.00	
3017.00†	21.000	47.840	2942.70	-311.45	312.21	344.80	40°06'01.578"N	104°47'05.733"W	0.00	
3117.00†	21.000	47.840	3036.06	-335.45	336.26	371.37	40°06'01.816"N	104°47'05.391"W	0.00	
3217.00†	21.000	47.840	3129.42	-359.45	360.32	397.93	40°06'02.054"N	104°47'05.049"W	0.00	
3317.00†	21.000	47.840	3222.78	-383.44	384.37	424.50	40°06'02.292"N	104°47'04.707"W	0.00	
3417.00†	21.000	47.840	3316.14	-407.44	408.42	451.06	40°06'02.530"N	104°47'04.365"W	0.00	
3517.00†	21.000	47.840	3409.49	-431.43	432.48	477.62	40°06'02.767"N	104°47'04.023"W	0.00	
3617.00†	21.000	47.840	3502.85	-455.43	456.53	504.19	40°06'03.005"N	104°47'03.681"W	0.00	
3717.00†	21.000	47.840	3596.21	-479.43	480.58	530.75	40°06'03.243"N	104°47'03.339"W	0.00	
3817.00†	21.000	47.840	3689.57	-503.42	504.64	557.32	40°06'03.481"N	104°47'02.997"W	0.00	
3917.00†	21.000	47.840	3782.93	-527.42	528.69	583.88	40°06'03.719"N	104°47'02.655"W	0.00	
4017.00†	21.000	47.840	3876.29	-551.41	552.75	610.45	40°06'03.956"N	104°47'02.313"W	0.00	

Planned Wellpath Report

CARTER 36N-33HZ (PERMIT REV-2) PWP

Page 3 of 6

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP_1	Slot	SLOT#08 CARTER 36N-33HZ (825'FNL & 1530'FWL, SEC.33)
Area	Compass Import	Well	CARTER 36N-33HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TRUE NORTH)	Wellbore	CARTER 36N-33HZ PWB
Facility	SEC.33-T2N-R66W		

WELLPATH DATA (141 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	47.840	3969.64	-575.41	576.80	637.01	40°06'04.194"N	104°47'01.971"W	0.00	
4136.66†	21.000	47.840	3988.00	-580.13	581.53	642.24	40°06'04.241"N	104°47'01.904"W	0.00	PARKMAN
4217.00†	21.000	47.840	4063.00	-599.40	600.85	663.58	40°06'04.432"N	104°47'01.629"W	0.00	
4317.00†	21.000	47.840	4156.36	-623.40	624.91	690.14	40°06'04.670"N	104°47'01.287"W	0.00	
4417.00†	21.000	47.840	4249.72	-647.40	648.96	716.71	40°06'04.908"N	104°47'00.945"W	0.00	
4517.00†	21.000	47.840	4343.08	-671.39	673.01	743.27	40°06'05.145"N	104°47'00.603"W	0.00	
4617.00†	21.000	47.840	4436.43	-695.39	697.07	769.84	40°06'05.383"N	104°47'00.261"W	0.00	
4703.30†	21.000	47.840	4517.00	-716.09	717.83	792.76	40°06'05.588"N	104°46'59.966"W	0.00	SUSSEX
4717.00†	21.000	47.840	4529.79	-719.38	721.12	796.40	40°06'05.621"N	104°46'59.919"W	0.00	
4817.00†	21.000	47.840	4623.15	-743.38	745.18	822.97	40°06'05.859"N	104°46'59.577"W	0.00	
4917.00†	21.000	47.840	4716.51	-767.37	769.23	849.53	40°06'06.097"N	104°46'59.235"W	0.00	
4942.16	21.000	47.840	4740.00	-773.41	775.28	856.22	40°06'06.156"N	104°46'59.149"W	0.00	BEGIN DROP
5017.00†	19.503	47.840	4810.21	-790.76	792.67	875.42	40°06'06.328"N	104°46'58.902"W	2.00	
5117.00†	17.503	47.840	4905.03	-812.01	813.97	898.94	40°06'06.539"N	104°46'58.599"W	2.00	
5217.00†	15.503	47.840	5000.91	-831.03	833.03	920.00	40°06'06.727"N	104°46'58.328"W	2.00	
5317.00†	13.503	47.840	5097.72	-847.79	849.84	938.56	40°06'06.893"N	104°46'58.089"W	2.00	
5417.00†	11.503	47.840	5195.34	-862.29	864.37	954.61	40°06'07.037"N	104°46'57.882"W	2.00	
5517.00†	9.503	47.840	5293.66	-874.49	876.61	968.12	40°06'07.158"N	104°46'57.708"W	2.00	
5617.00†	7.503	47.840	5392.56	-884.39	886.53	979.08	40°06'07.256"N	104°46'57.567"W	2.00	
5717.00†	5.503	47.840	5491.91	-891.98	894.13	987.48	40°06'07.331"N	104°46'57.459"W	2.00	
5817.00†	3.503	47.840	5591.59	-897.24	899.40	993.30	40°06'07.383"N	104°46'57.384"W	2.00	
5917.00†	1.503	47.840	5691.49	-900.16	902.34	996.53	40°06'07.412"N	104°46'57.343"W	2.00	
5992.16	0.000	179.875	5766.65	-900.82	903.00	997.27	40°06'07.419"N	104°46'57.333"W	2.00	END DROP
6017.00†	0.000	179.875	5791.48	-900.82	903.00	997.27	40°06'07.419"N	104°46'57.333"W	0.00	
6117.00†	0.000	179.875	5891.48	-900.82	903.00	997.27	40°06'07.419"N	104°46'57.333"W	0.00	
6217.00†	0.000	179.875	5991.48	-900.82	903.00	997.27	40°06'07.419"N	104°46'57.333"W	0.00	
6317.00†	0.000	179.875	6091.48	-900.82	903.00	997.27	40°06'07.419"N	104°46'57.333"W	0.00	
6417.00†	0.000	179.875	6191.48	-900.82	903.00	997.27	40°06'07.419"N	104°46'57.333"W	0.00	
6517.00†	0.000	179.875	6291.48	-900.82	903.00	997.27	40°06'07.419"N	104°46'57.333"W	0.00	
6617.00†	0.000	179.875	6391.48	-900.82	903.00	997.27	40°06'07.419"N	104°46'57.333"W	0.00	
6717.00†	0.000	179.875	6491.48	-900.82	903.00	997.27	40°06'07.419"N	104°46'57.333"W	0.00	
6817.00†	0.000	179.875	6591.48	-900.82	903.00	997.27	40°06'07.419"N	104°46'57.333"W	0.00	
6904.64	0.000	179.875	6679.13	-900.82	903.00	997.27	40°06'07.419"N	104°46'57.333"W	0.00	KOP, BUILD @ 10°/100'
6917.00†	1.236	179.875	6691.48	-900.69	902.86	997.27	40°06'07.418"N	104°46'57.333"W	10.00	
7017.00†	11.236	179.875	6790.77	-889.84	892.02	997.29	40°06'07.310"N	104°46'57.333"W	10.00	
7117.00†	21.236	179.875	6886.66	-861.92	864.09	997.35	40°06'07.034"N	104°46'57.332"W	10.00	
7217.00†	31.236	179.875	6976.24	-817.76	819.94	997.45	40°06'06.598"N	104°46'57.331"W	10.00	
7317.00†	41.236	179.875	7056.80	-758.73	760.91	997.58	40°06'06.014"N	104°46'57.329"W	10.00	
7378.82†	47.418	179.875	7101.00	-715.55	717.73	997.67	40°06'05.587"N	104°46'57.328"W	10.00	SHARON SPRINGS
7417.00†	51.236	179.875	7125.88	-686.60	688.78	997.73	40°06'05.301"N	104°46'57.327"W	10.00	
7466.20†	56.156	179.875	7155.00	-646.97	649.14	997.82	40°06'04.909"N	104°46'57.326"W	10.00	NIOBRARA A
7517.00†	61.236	179.875	7181.39	-603.57	605.75	997.91	40°06'04.480"N	104°46'57.325"W	10.00	
7617.00†	71.236	179.875	7221.63	-512.17	514.35	998.11	40°06'03.577"N	104°46'57.323"W	10.00	
7624.50†	71.986	179.875	7224.00	-505.05	507.23	998.13	40°06'03.506"N	104°46'57.322"W	10.00	NIOBRARA B
7717.00†	81.236	179.875	7245.40	-415.16	417.34	998.33	40°06'02.618"N	104°46'57.320"W	10.00	

Planned Wellpath Report

CARTER 36N-33HZ (PERMIT REV-2) PWP

Page 4 of 6

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP_1	Slot	SLOT#08 CARTER 36N-33HZ (825'FNL & 1530'FWL, SEC.33)
Area	Compass Import	Well	CARTER 36N-33HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TRUE NORTH)	Wellbore	CARTER 36N-33HZ PWB
Facility	SEC.33-T2N-R66W		

WELLPATH DATA (141 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7794.48	88.984	179.875	7252.00	-338.02	340.20	998.49	40°06'01.855"N	104°46'57.318"W	10.00	LANDING POINT
7817.00†	88.984	179.875	7252.40	-315.51	317.69	998.54	40°06'01.632"N	104°46'57.317"W	0.00	
7917.00†	88.984	179.875	7254.17	-215.52	217.70	998.76	40°06'00.644"N	104°46'57.314"W	0.00	
8017.00†	88.984	179.875	7255.94	-115.54	117.72	998.98	40°05'59.656"N	104°46'57.312"W	0.00	
8117.00†	88.984	179.875	7257.72	-15.56	17.74	999.20	40°05'58.667"N	104°46'57.309"W	0.00	
8217.00†	88.984	179.875	7259.49	84.43	-82.25	999.42	40°05'57.679"N	104°46'57.306"W	0.00	
8317.00†	88.984	179.875	7261.26	184.41	-182.23	999.63	40°05'56.690"N	104°46'57.303"W	0.00	
8417.00†	88.984	179.875	7263.04	284.40	-282.22	999.85	40°05'55.702"N	104°46'57.301"W	0.00	
8517.00†	88.984	179.875	7264.81	384.38	-382.20	1000.07	40°05'54.713"N	104°46'57.298"W	0.00	
8617.00†	88.984	179.875	7266.59	484.37	-482.18	1000.29	40°05'53.725"N	104°46'57.295"W	0.00	
8717.00†	88.984	179.875	7268.36	584.35	-582.17	1000.51	40°05'52.736"N	104°46'57.292"W	0.00	
8817.00†	88.984	179.875	7270.13	684.33	-682.15	1000.72	40°05'51.748"N	104°46'57.290"W	0.00	
8917.00†	88.984	179.875	7271.91	784.32	-782.14	1000.94	40°05'50.760"N	104°46'57.287"W	0.00	
9017.00†	88.984	179.875	7273.68	884.30	-882.12	1001.16	40°05'49.771"N	104°46'57.284"W	0.00	
9117.00†	88.984	179.875	7275.45	984.29	-982.10	1001.38	40°05'48.783"N	104°46'57.281"W	0.00	
9217.00†	88.984	179.875	7277.23	1084.27	-1082.09	1001.60	40°05'47.794"N	104°46'57.279"W	0.00	
9317.00†	88.984	179.875	7279.00	1184.26	-1182.07	1001.82	40°05'46.806"N	104°46'57.276"W	0.00	
9417.00†	88.984	179.875	7280.78	1284.24	-1282.06	1002.03	40°05'45.817"N	104°46'57.273"W	0.00	
9517.00†	88.984	179.875	7282.55	1384.22	-1382.04	1002.25	40°05'44.829"N	104°46'57.270"W	0.00	
9617.00†	88.984	179.875	7284.32	1484.21	-1482.02	1002.47	40°05'43.840"N	104°46'57.268"W	0.00	
9717.00†	88.984	179.875	7286.10	1584.19	-1582.01	1002.69	40°05'42.852"N	104°46'57.265"W	0.00	
9817.00†	88.984	179.875	7287.87	1684.18	-1681.99	1002.91	40°05'41.864"N	104°46'57.262"W	0.00	
9917.00†	88.984	179.875	7289.64	1784.16	-1781.98	1003.12	40°05'40.875"N	104°46'57.259"W	0.00	
10017.00†	88.984	179.875	7291.42	1884.15	-1881.96	1003.34	40°05'39.887"N	104°46'57.256"W	0.00	
10117.00†	88.984	179.875	7293.19	1984.13	-1981.94	1003.56	40°05'38.898"N	104°46'57.254"W	0.00	
10217.00†	88.984	179.875	7294.97	2084.11	-2081.93	1003.78	40°05'37.910"N	104°46'57.251"W	0.00	
10317.00†	88.984	179.875	7296.74	2184.10	-2181.91	1004.00	40°05'36.921"N	104°46'57.248"W	0.00	
10417.00†	88.984	179.875	7298.51	2284.08	-2281.90	1004.22	40°05'35.933"N	104°46'57.245"W	0.00	
10517.00†	88.984	179.875	7300.29	2384.07	-2381.88	1004.43	40°05'34.944"N	104°46'57.243"W	0.00	
10617.00†	88.984	179.875	7302.06	2484.05	-2481.86	1004.65	40°05'33.956"N	104°46'57.240"W	0.00	
10717.00†	88.984	179.875	7303.83	2584.04	-2581.85	1004.87	40°05'32.967"N	104°46'57.237"W	0.00	
10817.00†	88.984	179.875	7305.61	2684.02	-2681.83	1005.09	40°05'31.979"N	104°46'57.234"W	0.00	
10917.00†	88.984	179.875	7307.38	2784.00	-2781.82	1005.31	40°05'30.991"N	104°46'57.232"W	0.00	
11017.00†	88.984	179.875	7309.16	2883.99	-2881.80	1005.52	40°05'30.002"N	104°46'57.229"W	0.00	
11117.00†	88.984	179.875	7310.93	2983.97	-2981.79	1005.74	40°05'29.014"N	104°46'57.226"W	0.00	
11177.32†	88.984	179.875	7312.00	3044.28	-3042.10	1005.87	40°05'28.417"N	104°46'57.225"W	0.00	NIOBRARA C
11217.00†	88.984	179.875	7312.70	3083.96	-3081.77	1005.96	40°05'28.025"N	104°46'57.223"W	0.00	
11317.00†	88.984	179.875	7314.48	3183.94	-3181.75	1006.18	40°05'27.037"N	104°46'57.221"W	0.00	
11417.00†	88.984	179.875	7316.25	3283.92	-3281.74	1006.40	40°05'26.048"N	104°46'57.218"W	0.00	
11517.00†	88.984	179.875	7318.03	3383.91	-3381.72	1006.62	40°05'25.060"N	104°46'57.215"W	0.00	
11617.00†	88.984	179.875	7319.80	3483.89	-3481.71	1006.83	40°05'24.071"N	104°46'57.212"W	0.00	
11717.00†	88.984	179.875	7321.57	3583.88	-3581.69	1007.05	40°05'23.083"N	104°46'57.210"W	0.00	
11817.00†	88.984	179.875	7323.35	3683.86	-3681.67	1007.27	40°05'22.095"N	104°46'57.207"W	0.00	
11917.00†	88.984	179.875	7325.12	3783.85	-3781.66	1007.49	40°05'21.106"N	104°46'57.204"W	0.00	
12017.00†	88.984	179.875	7326.89	3883.83	-3881.64	1007.71	40°05'20.118"N	104°46'57.201"W	0.00	

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP_1	Slot	SLOT#08 CARTER 36N-33HZ (825'FNL & 1530'FWL, SEC.33)
Area	Compass Import	Well	CARTER 36N-33HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TRUE NORTH)	Wellbore	CARTER 36N-33HZ PWB
Facility	SEC.33-T2N-R66W		

WELLPATH DATA (141 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12117.00†	88.984	179.875	7328.67	3983.81	-3981.63	1007.92	40°05'19.129"N	104°46'57.199"W	0.00	
12217.00†	88.984	179.875	7330.44	4083.80	-4081.61	1008.14	40°05'18.141"N	104°46'57.196"W	0.00	
12317.00†	88.984	179.875	7332.22	4183.78	-4181.59	1008.36	40°05'17.152"N	104°46'57.193"W	0.00	
12417.00†	88.984	179.875	7333.99	4283.77	-4281.58	1008.58	40°05'16.164"N	104°46'57.190"W	0.00	
12517.00†	88.984	179.875	7335.76	4383.75	-4381.56	1008.80	40°05'15.175"N	104°46'57.188"W	0.00	
12530.37	88.984	179.875	7336.00 ¹	4397.12	-4394.93	1008.83	40°05'15.043"N	104°46'57.187"W	0.00	TOTAL DEPTH

HOLE & CASING SECTIONS - Ref Wellbore: CARTER 36N-33HZ PWB Ref Wellpath: CARTER 36N-33HZ (PERMIT REV-2) 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	1090.00	1073.00	17.00	1090.00	0.00	0.00	0.00	0.00
9.625in Casing Surface	17.00	1090.00	1073.00	17.00	1090.00	0.00	0.00	0.00	0.00
8.75in Open Hole	1090.00	7794.48	6704.48	1090.00	7252.00	0.00	0.00	340.20	998.49
7in Casing Intermediate	17.00	7794.48	7777.48	17.00	7252.00	0.00	0.00	340.20	998.49
6.125in Open Hole	7794.48	12530.37	4735.89	7252.00	7336.00	340.20	998.49	-4394.93	1008.83
4.5in Casing Production	17.00	12530.37	12513.37	17.00	7336.00	0.00	0.00	-4394.93	1008.83

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	-209.73	1700006.28	14563067.38	40°05'58.499"N	104°47'12.872"W	polygon
1) CARTER 36N-33HZ BHL REV-1 (50'FSL & 2528'FWL, SEC.33)	12530.37	7336.00	-4394.93	1008.83	1701235.40	14558674.69	40°05'15.043"N	104°46'57.187"W	point

SURVEY PROGRAM - Ref Wellbore: CARTER 36N-33HZ PWB Ref Wellpath: CARTER 36N-33HZ (PERMIT REV-2) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	12530.37	ISCWSA MWD, Rev. 2, axial magnetic correction (Standard) (MagVAR IFR Wattenberg)		CARTER 36N-33HZ PWB

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP_1	Slot	SLOT#08 CARTER 36N-33HZ (825'FNL & 1530'FWL, SEC.33)
Area	Compass Import	Well	CARTER 36N-33HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TRUE NORTH)	Wellbore	CARTER 36N-33HZ PWB
Facility	SEC.33-T2N-R66W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1040.00	0.000	47.840	1040.00	FOX HILLS BASE
4136.66	21.000	47.840	3988.00	PARKMAN
4703.30	21.000	47.840	4517.00	SUSSEX
7378.82	47.418	179.875	7101.00	SHARON SPRINGS
7466.20	56.156	179.875	7155.00	NIOBRARA A
7624.50	71.986	179.875	7224.00	NIOBRARA B
11177.32	88.984	179.875	7312.00	NIOBRARA C

DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	47.840	17.00	TIE ON
1200.00	0.000	47.840	1200.00	BEGIN NUDGE
2250.00	21.000	47.840	2226.65	END NUDGE
4942.16	21.000	47.840	4740.00	BEGIN DROP
5992.16	0.000	179.875	5766.65	END DROP
6904.64	0.000	179.875	6679.13	KOP, BUILD @ 10°/100'
7794.48	88.984	179.875	7252.00	LANDING POINT
12530.37	88.984	179.875	7336.00	TOTAL DEPTH