

**Channel Tunnel Rail Link
London and Continental Railways
Oxford Wessex Archaeology Joint Venture**

**The radiocarbon dates from East of Station Road,
Smeeth, Kent**

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1 EAST OF STATION ROAD PALAEOCHANNEL

A sequence of deposits containing significant environmental evidence was found within a palaeochannel at East of Station Road. Although late Iron Age pottery was found in the upper part of the sequence, the lower deposits were undated, and a radiocarbon determination was obtained to provide an indication of the period over which the deposits had formed. A sample of oak sapwood from a *Quercus* (oak) branch, preserved as a result of having become embedded in the deposits at the base of the channel (presumably following the collapse of a tree into the channel) was selected. The sapwood is thought to be roughly contemporary with the date of deposition of the branch, and provides a *terminus post quem* for the environmental samples above this context.

The radiocarbon result is presented in Table 1 and Figure 1 and has been calibrated with the atmospheric data presented by Stuiver *et al.* (1998) using OxCal ver 3.9 (Bronk Ramsey 1995; 2001). It is expressed at the 95% confidence level with the end points rounded outwards to 10 years following the form recommended by Mook (1986).

Late Iron Age pottery was recovered from the upper part of the sequence, the pollen spectra from which suggest an environment typical of later prehistory. The radiocarbon determination (7968±60 BP, NZA-12234) is considerably earlier, indicating that the channel was already in existence in the Mesolithic: 7060-6680 cal BC. The sequence of deposits in the channel thus appear to have formed over a period of around 7000 years.

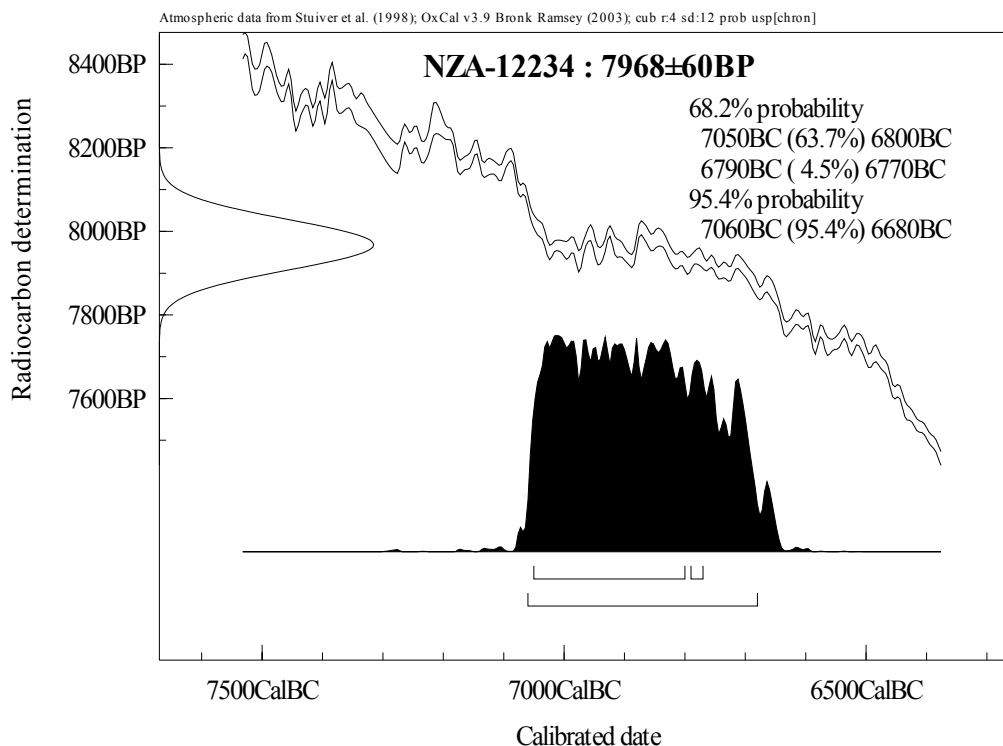


Figure 1. Radiocarbon distribution from oak branch in palaeochannel at East of Station Road

Feature	context	context details	material	result no.	δC^{13}	result BP	cal
Paaleochannel	1730	base of channel	sapwood Quercus branch	NZA-12234	-26.1	7968±60	7060-6680

Table 1. Radiocarbon data from East of Station Road

2 REFERENCES

Bronk Ramsey C., 1995. Radiocarbon Calibration and Analysis of Stratigraphy: The OxCal Program. *Radiocarbon* 37(2) 425-430

Bronk Ramsey C., 2001. Development of the Radiocarbon Program OxCal, *Radiocarbon* 43 (2A) 355-363

Mook, W.G. 1986. Business meeting: recommendations/resolutions adopted by the twelfth International Radiocarbon Conference. *Radiocarbon* 28, 799.

Stuiver M., Reimer P.J., Bard, E., Beck, J.W., Burr, G.S., Hughen, K.A., Kromer, B., McCormac, G., van der Plicht, J. and Spurk, M., 1998. INTCAL98 Radiocarbon Age Calibration, 24000-0 cal BP *Radiocarbon* 40(3) 1041-1083