



## Scottish Universities Environmental Research Centre

Director: Professor A B MacKenzie Director of Research: Professor R M Ellam

Rankine Avenue, Scottish Enterprise Technology Park,  
East Kilbride, Glasgow G75 0QF, Scotland, UK

Tel: +44 (0)1355 223332 Fax: +44 (0)1355 229898 www.glasgow.ac.uk/suerc

### RADIOCARBON DATING CERTIFICATE

03 July 2012

**Laboratory Code** SUERC-40358 (GU26783)

**Submitter** Charlotte Coles  
Room G10, Exeter City Council  
Civic Centre, Paris Street  
Exeter  
Devon EX1 1RQ

**Site Reference** Exeter Cathedral Close  
**Context Reference** CB40  
**Sample Reference** CB40

**Material** Charcoal : oak

**$\delta^{13}\text{C}$  relative to VPDB** -25.9 ‰

**Radiocarbon Age BP** 1150  $\pm$  35

**N.B.** The above  $^{14}\text{C}$  age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standards, background standards and the random machine error.

The calibrated age ranges are determined using the University of Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.1 (Bronk Ramsey 2009). Terrestrial samples are calibrated using the IntCal09 curve while marine samples are calibrated using the Marine09 curve.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Facility and should be quoted as such in any reports within the scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code. The contact details for the laboratory are email [g.cook@suerc.gla.ac.uk](mailto:g.cook@suerc.gla.ac.uk) or Telephone 01355 270136 direct line.

Conventional age and calibration age ranges calculated by :-

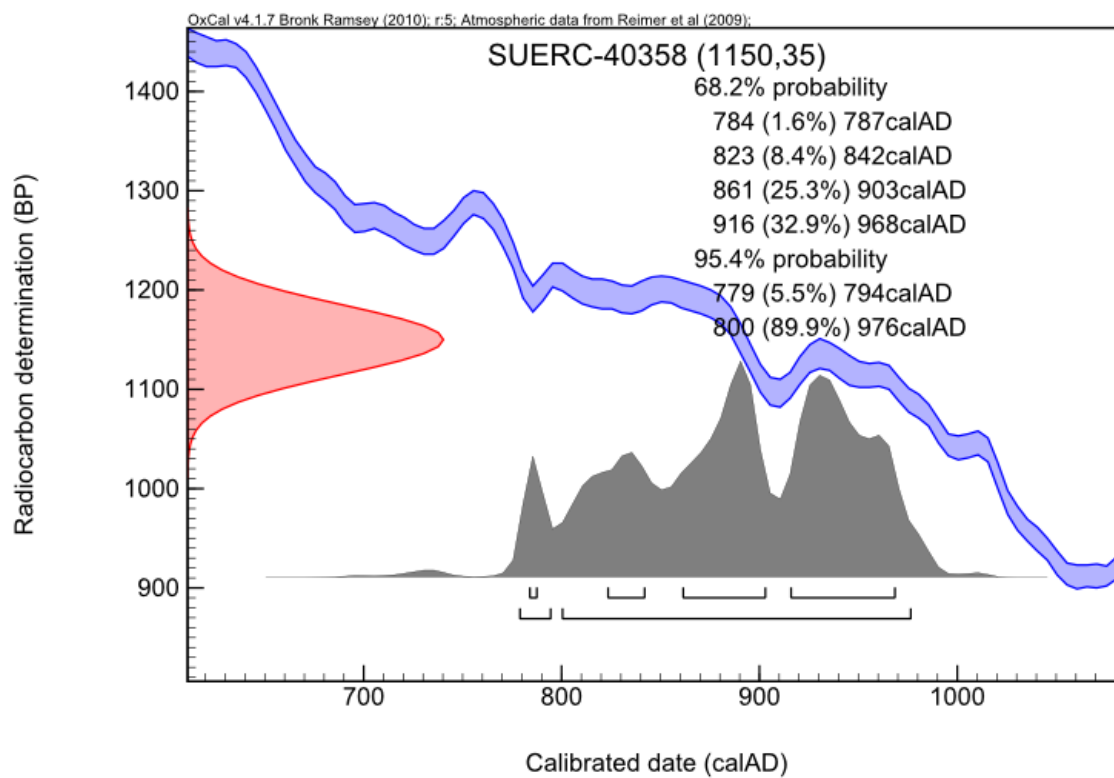
Date :-

Checked and signed off by :-

Date :-



## Calibration Plot





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### RADIOCARBON DATING CERTIFICATE

03 July 2012

<b>Laboratory Code</b>	SUERC-40359 (GU26784)
<b>Submitter</b>	Charlotte Coles Room G10, Exeter City Council Civic Centre, Paris Street Exeter Devon EX1 1RQ
<b>Site Reference</b>	Exeter Cathedral Close
<b>Context Reference</b>	OB448
<b>Sample Reference</b>	OB448
<b>Material</b>	Bone : human
<b><math>\delta^{13}\text{C}</math> relative to VPDB</b>	-18.8 ‰
<b><math>\delta^{15}\text{N}</math> relative to air</b>	13.6 ‰
<b>C/N ratio (Molar)</b>	3.2
<b>Radiocarbon Age BP</b>	$630 \pm 35$

**N.B.** The above  $^{14}\text{C}$  age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standards, background standards and the random machine error.

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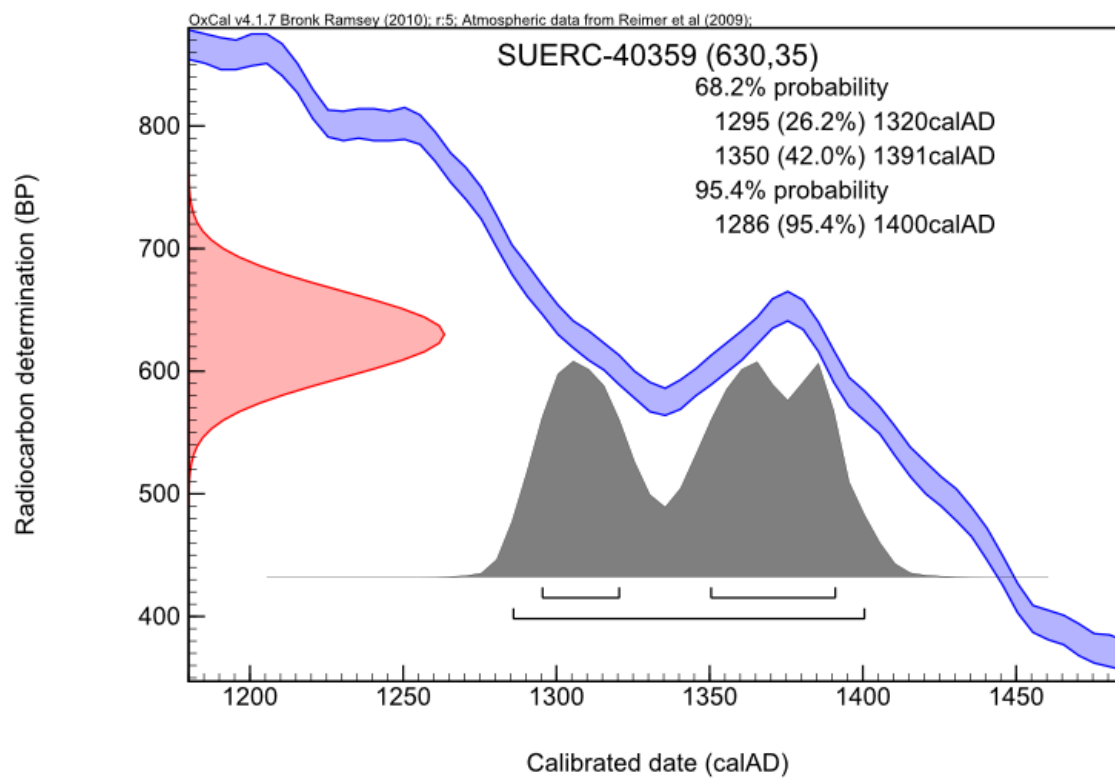
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### RADIOCARBON DATING CERTIFICATE

03 July 2012

<b>Laboratory Code</b>	SUERC-40360 (GU26785)
<b>Submitter</b>	Charlotte Coles Room G10, Exeter City Council Civic Centre, Paris Street Exeter Devon EX1 1RQ
<b>Site Reference</b>	Exeter Cathedral Close
<b>Context Reference</b>	CB67
<b>Sample Reference</b>	CB67
<b>Material</b>	Bone : human
<b><math>\delta^{13}\text{C}</math> relative to VPDB</b>	-19.5 ‰
<b><math>\delta^{15}\text{N}</math> relative to air</b>	11.1 ‰
<b>C/N ratio (Molar)</b>	3.2
<b>Radiocarbon Age BP</b>	1165 $\pm$ 35

**N.B.** The above  $^{14}\text{C}$  age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standards, background standards and the random machine error.

The calibrated age ranges are determined using the University of Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.1 (Bronk Ramsey 2009). Terrestrial samples are calibrated using the IntCal09 curve while marine samples are calibrated using the Marine09 curve.

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Conventional age and calibration age ranges calculated by :-

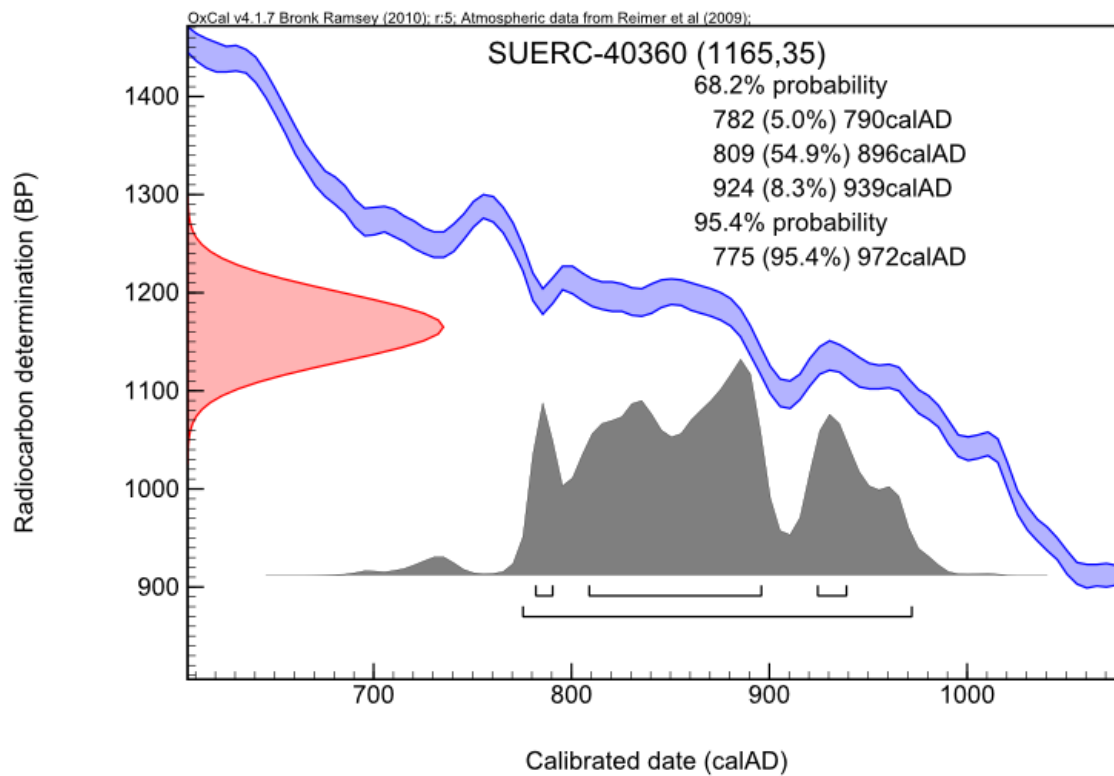
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### RADIOCARBON DATING CERTIFICATE

03 July 2012

<b>Laboratory Code</b>	SUERC-40361 (GU26786)
<b>Submitter</b>	Charlotte Coles Room G10, Exeter City Council Civic Centre, Paris Street Exeter Devon EX1 1RQ
<b>Site Reference</b>	Exeter Cathedral Close
<b>Context Reference</b>	CB40
<b>Sample Reference</b>	CB40
<b>Material</b>	Bone : human
<b><math>\delta^{13}\text{C}</math> relative to VPDB</b>	-19.2 ‰
<b><math>\delta^{15}\text{N}</math> relative to air</b>	11.6 ‰
<b>C/N ratio (Molar)</b>	3.1
<b>Radiocarbon Age BP</b>	$1030 \pm 35$

**N.B.** The above  $^{14}\text{C}$  age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standards, background standards and the random machine error.

The calibrated age ranges are determined using the University of Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.1 (Bronk Ramsey 2009). Terrestrial samples are calibrated using the IntCal09 curve while marine samples are calibrated using the Marine09 curve.

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Conventional age and calibration age ranges calculated by :-

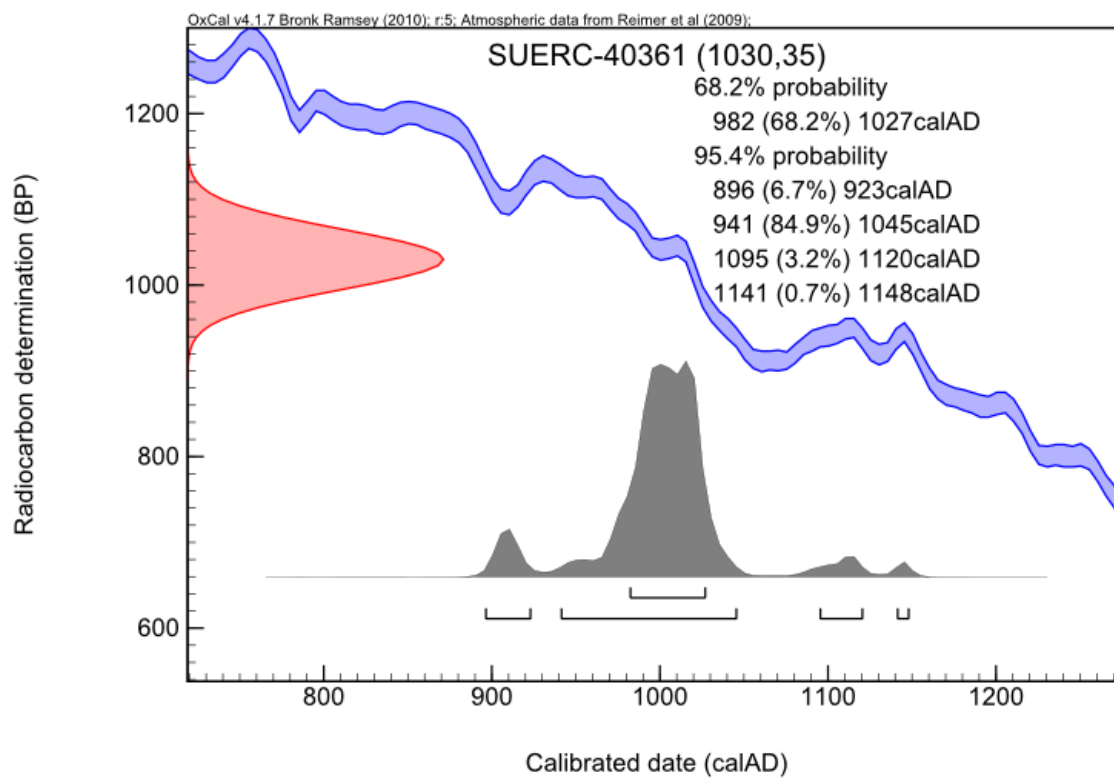
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### RADIOCARBON DATING CERTIFICATE

03 July 2012

<b>Laboratory Code</b>	SUERC-40362 (GU26787)
<b>Submitter</b>	Charlotte Coles Room G10, Exeter City Council Civic Centre, Paris Street Exeter Devon EX1 1RQ
<b>Site Reference</b>	Exeter Cathedral Close
<b>Context Reference</b>	OB264
<b>Sample Reference</b>	OB264
<b>Material</b>	Bone : human
<b><math>\delta^{13}\text{C}</math> relative to VPDB</b>	-20.1 ‰
<b><math>\delta^{15}\text{N}</math> relative to air</b>	11.9 ‰
<b>C/N ratio (Molar)</b>	3.2
<b>Radiocarbon Age BP</b>	1105 $\pm$ 35

**N.B.** The above  $^{14}\text{C}$  age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standards, background standards and the random machine error.

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Conventional age and calibration age ranges calculated by :-

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