

Scottish Universities Environmental Research Centre

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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code

SUERC-16828 (GU-16013)

Submitter

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference

Upper Forth Crossing-Meadowend Farm

Context Reference

2092

Sample Reference

Sample Ref 2001

Material

Cereal grain: Hordeum vulgare (Hulled Barley)

δ¹³C relative to VPDB

-24.7 %

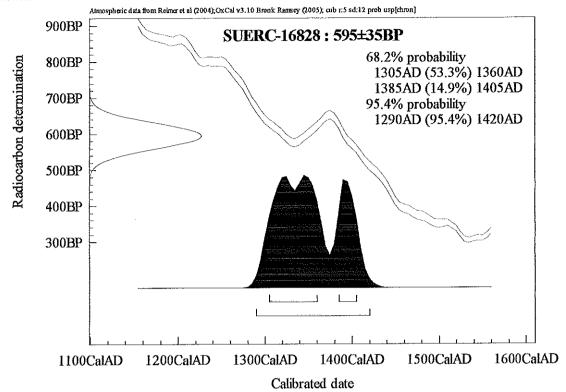
Radiocarbon Age BP

 595 ± 35

- The above ¹⁴C age is quoted in conventional years BP (before 1950 AD). The error, which is N.B. 1. expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.
 - The calibrated age ranges are determined from the University of Oxford Radiocarbon 2. Accelerator Unit calibration program (OxCal3).
 - Samples with a SUERC coding are measured at the Scottish Universities Environmental 3. 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.

Conventional age and calibration age ranges calculated by :- Nams Date :- 18 2-08

Checked and signed off by :- Landan Book Date :- 18 -2 -08





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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code

SUERC-16829 (GU-16014)

Submitter

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference Context Reference Upper Forth Crossing-Meadowend Farm

2126

Sample Reference

Sample Ref 2004

Material

Charcoal: Populus (Poplar)

δ¹³C relative to VPDB

-24.8 %

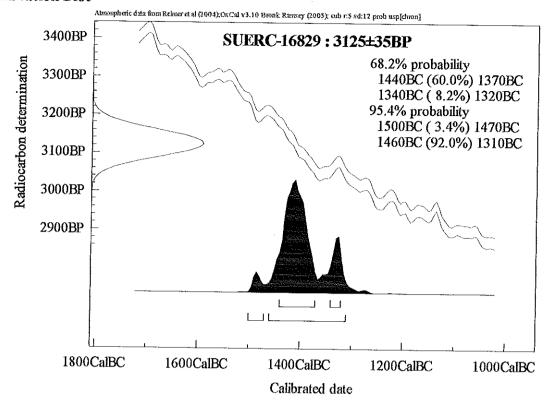
Radiocarbon Age BP

 3125 ± 35

- The above ¹⁴C age is quoted in conventional years BP (before 1950 AD). The error, which is 1. N.B. expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.
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Conventional age and calibration age ranges calculated by :- P Nams Date :- 18-2-08

Checked and signed off by :- Volume Cook Date :- 18 2 08





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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code

SUERC-16830 (GU-16015)

Submitter

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference **Context Reference** Upper Forth Crossing-Meadowend Farm

2074

Sample Reference

Sample Ref 2010

Material

Charcoal: Corylus avellena (Hazel)

δ¹³C relative to VPDB

-26.0 %

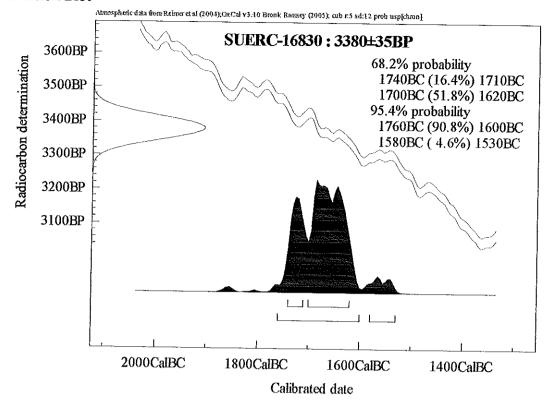
Radiocarbon Age BP

 3380 ± 35

- The above ¹⁴C age is quoted in conventional years BP (before 1950 AD). The error, which is 1. N.B. expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.
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Conventional age and calibration age ranges calculated by :- P. Naysmb Date :- 18-2-0%

Checked and signed off by :- Date :- 18.2.08





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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code

SUERC-16834 (GU-16016)

Submitter

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference **Context Reference** Upper Forth Crossing-Meadowend Farm

2166

Sample Reference

Sample Ref 2016

Material

Charcoal: Alnus (Alder)

δ¹³C relative to VPDB

-24.7 %

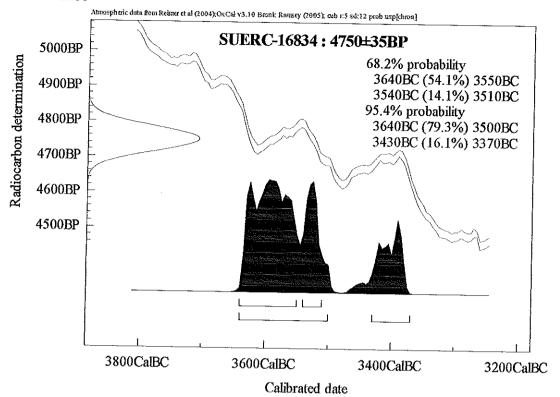
Radiocarbon Age BP

 4750 ± 35

- The above ¹⁴C age is quoted in conventional years BP (before 1950 AD). The error, which is 1. N.B. expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.
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Checked and signed off by:-

Date: - 18 - 2 - 08





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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code

SUERC-16835 (GU-16017)

Submitter

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference **Context Reference** Upper Forth Crossing-Meadowend Farm

2140

Sample Reference

Sample Ref 2021

Material

Cereal grain: Hordeum vulgare var nudum (naked barley)

δ13C relative to VPDB

-24.4 %

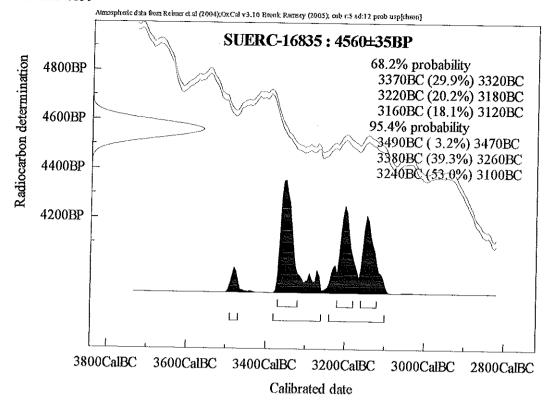
Radiocarbon Age BP

 4560 ± 35

- The above ¹⁴C age is quoted in conventional years BP (before 1950 AD). The error, which is N.B. 1. expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.
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Conventional age and calibration age ranges calculated by :- P. Naysmb Date :- 18-2-08

Checked and signed off by :-





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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code

SUERC-16836 (GU-16018)

Submitter

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference

Upper Forth Crossing-Meadowend Farm

Context Reference

2101

Sample Reference

Sample Ref 2024

Material

Charcoal: Alnus (Alder)

δ¹³C relative to VPDB

-27.0 %

Radiocarbon Age BP

 595 ± 35

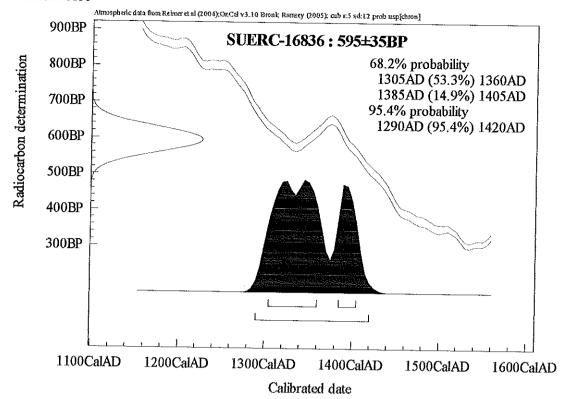
- The above ¹⁴C age is quoted in conventional years BP (before 1950 AD). The error, which is N.B. 1. expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.
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Conventional age and calibration age ranges calculated by :- P. Naysmits

Date :- 18-2-08

Checked and signed off by :- Yorkm Gook

Date :- 18 - 2 - 08





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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code

SUERC-16837 (GU-16019)

Submitter

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference Context Reference Upper Forth Crossing-Meadowend Farm

2112

Sample Reference

Sample Ref 2039

Material

Cereal grain: Avena (oat)

δ¹³C relative to VPDB

-26.3 %

Radiocarbon Age BP

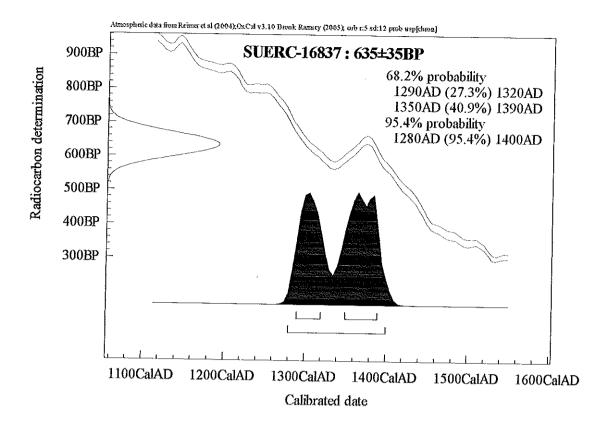
 635 ± 35

- The above ¹⁴C age is quoted in conventional years BP (before 1950 AD). The error, which is 1. N.B. expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.
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Conventional age and calibration age ranges calculated by :- O. Nous

Date: - 18-2-08

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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code

SUERC-16838 (GU-16020)

Submitter

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference Context Reference Upper Forth Crossing-Meadowend Farm

2216

Sample Reference

Sample Ref 2042

Material

Cereal grain: Avena (oat)

δ¹³C relative to VPDB

-25.3 %

Radiocarbon Age BP

 540 ± 35

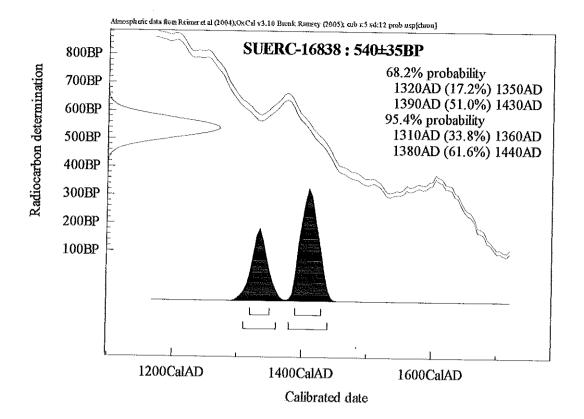
- N.B. 1. The above ¹⁴C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.
 - The calibrated age ranges are determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal3).
 - 3. 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.

Conventional age and calibration age ranges calculated by :- O. Naupmo

Date: - 18-2-08

Checked and signed off by :-

Date :- 18-2 -08



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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code

SUERC-16839 (GU-16021)

Submitter

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference Context Reference Upper Forth Crossing-Meadowend Farm

2319

Sample Reference

Sample Ref 2044

Material

Cereal grain: Avena (oat)

δ¹³C relative to VPDB

-25.7 %

Radiocarbon Age BP

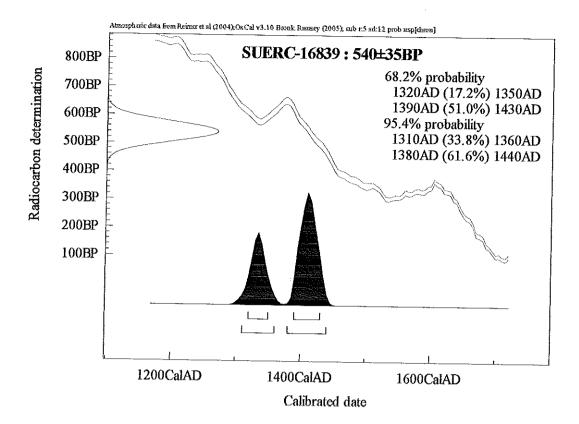
 540 ± 35

- The above ¹⁴C age is quoted in conventional years BP (before 1950 AD). The error, which is 1. N.B. expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.
 - The calibrated age ranges are determined from the University of Oxford Radiocarbon 2. Accelerator Unit calibration program (OxCal3).
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Conventional age and calibration age ranges calculated by :- O. Naushin Date :- 18 -2-08

Checked and signed off by:- York Goet

Date: 18 . Z . 08





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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code

SUERC-16840 (GU-16022)

Submitter

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference

Upper Forth Crossing-Meadowend Farm

Context Reference

2319

Sample Reference

Sample Ref 2044

Material

Cereal grain: Hordeum vulgare var nudum (naked barley)

δ¹³C relative to VPDB

-24.5 %

Radiocarbon Age BP

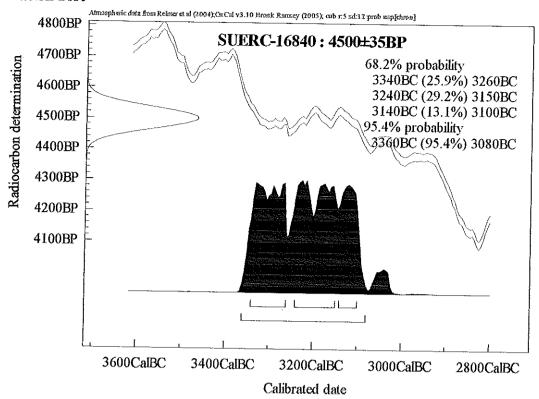
 4500 ± 35

- The above ¹⁴C age is quoted in conventional years BP (before 1950 AD). The error, which is N.B. 1. expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.
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Conventional age and calibration age ranges calculated by :- P. Nayswa Date :- 18-2-08

Checked and signed off by:- York Code

Date: - 18 - 2 - 68





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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code

SUERC-16844 (GU-16023)

Submitter

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference Context Reference Upper Forth Crossing-Meadowend Farm

2300

Sample Reference

Sample Ref 2045

Material

Cereal grain: Hordeum vulgare var nudum (naked barley)

δ13C relative to VPDB

-24.9 ‰

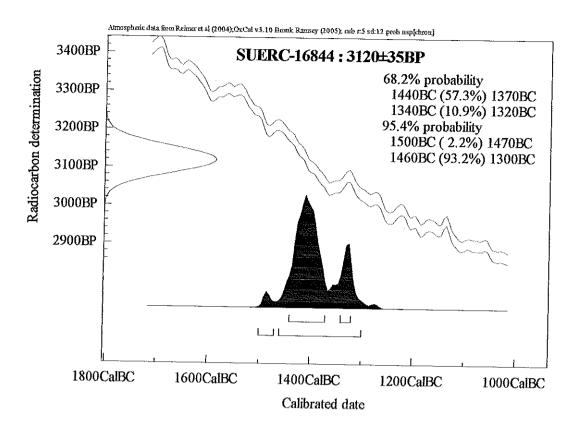
Radiocarbon Age BP

 3120 ± 35

- The above ¹⁴C age is quoted in conventional years BP (before 1950 AD). The error, which is 1. N.B. expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.
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Conventional age and calibration age ranges calculated by :- P. Nayswar Date :- 18-2.08

Checked and signed off by :-





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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code

SUERC-16845 (GU-16024)

Submitter

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference **Context Reference** Upper Forth Crossing-Meadowend Farm

2369

Sample Reference

Sample Ref 2048

Material

Cereal grain: Hordeum vulgare var nudum (naked barley)

δ¹³C relative to VPDB

-24.3 %

Radiocarbon Age BP

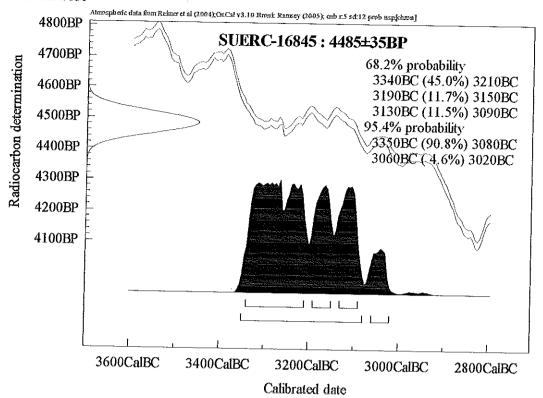
 4485 ± 35

- The above ¹⁴C age is quoted in conventional years BP (before 1950 AD). The error, which is 1. N.B. expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.
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Conventional age and calibration age ranges calculated by:
Checked and signed off by:
Checked and signed off by:-

Date:-18-2-08

Date: - 18 - 2 \ 08





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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code

SUERC-16846 (GU-16025)

Submitter

25

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference **Context Reference** Upper Forth Crossing-Meadowend Farm

2437

Sample Reference

Sample Ref 2050

Material

Charcoal: Alnus (Alder)

δ¹³C relative to VPDB

-25.8 %

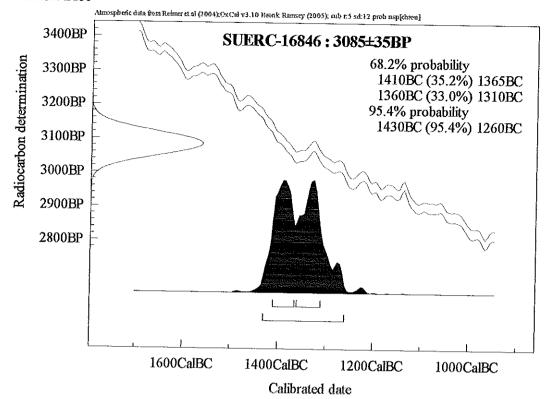
Radiocarbon Age BP

 3085 ± 35

- The above ¹⁴C age is quoted in conventional years BP (before 1950 AD). The error, which is 1. N.B. expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.
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Conventional age and calibration age ranges calculated by :- D. Nour Date :- LY -2-08

Checked and signed off by :-





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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code

SUERC-16847 (GU-16026)

Submitter

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference **Context Reference** Upper Forth Crossing-Meadowend Farm

2034

Sample Reference

Sample Ref 2054

Material

Charcoal: Corylus avellena (Hazel)

δ¹³C relative to VPDB

-25.2 %

Radiocarbon Age BP

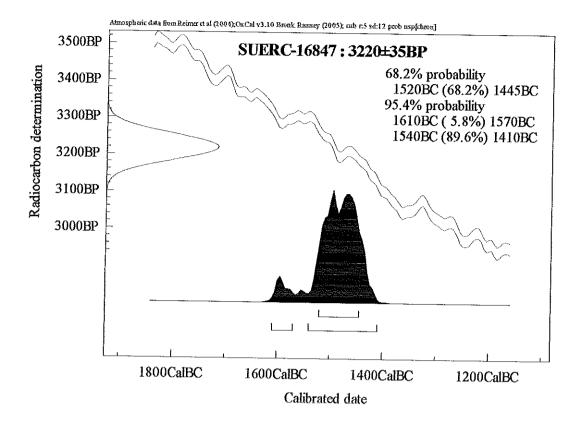
 3220 ± 35

- The above ¹⁴C age is quoted in conventional years BP (before 1950 AD). The error, which is N.B. 1. expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.
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Conventional age and calibration age ranges calculated by :- P. Naymon Date :- 18-2-08

Date :- 18-2-08

Checked and signed off by :-





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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code

SUERC-16848 (GU-16027)

Submitter

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference

Upper Forth Crossing-Meadowend Farm

Context Reference

2542

Sample Reference

Sample Ref 2070

Material

Cereal grain: Hordeum vulgare var nudum (naked barley)

δ13C relative to VPDB

-24.4 %

Radiocarbon Age BP

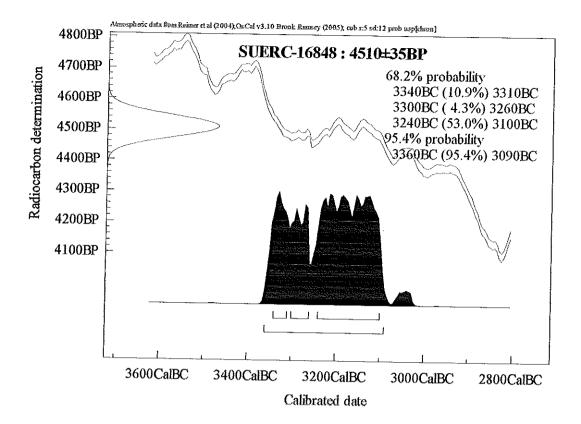
 4510 ± 35

- The above ¹⁴C age is quoted in conventional years BP (before 1950 AD). The error, which is N.B. 1. expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.
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Conventional age and calibration age ranges calculated by :- P. Nambo Date :- 18-2-08

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Date :- 18 . > 18





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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code

SUERC-16849 (GU-16028)

Submitter

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference Context Reference Upper Forth Crossing-Meadowend Farm

2378

Sample Reference

Sample Ref 2082

Material

Charcoal: Alnus (Alder)

δ¹³C relative to VPDB

-27.4 ‰

Radiocarbon Age BP

 2265 ± 35

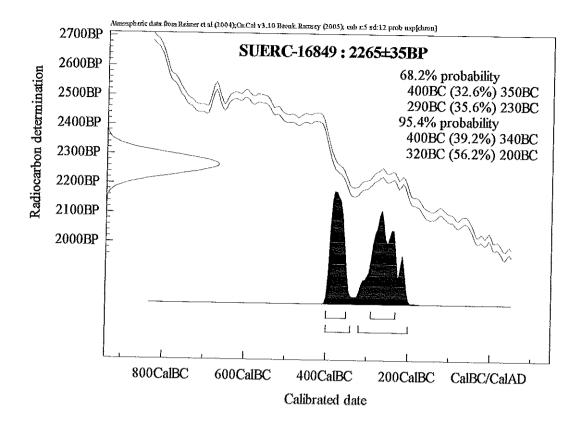
- N.B. 1. The above ¹⁴C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.
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Conventional age and calibration age ranges calculated by :- O. Namarum

Date: 18-2-08

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Date: 18-2.08





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Submitter

Sarah-Jane Haston

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13 Jane Street Edinburgh

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Site Reference **Context Reference**

Ä

Upper Forth Crossing-Meadowend Farm

2213

Sample Reference

Sample Ref 2091

Material

Cereal grain: Hordeum vulgare (Hulled Barley)

δ¹³C relative to VPDB

-24.7 %

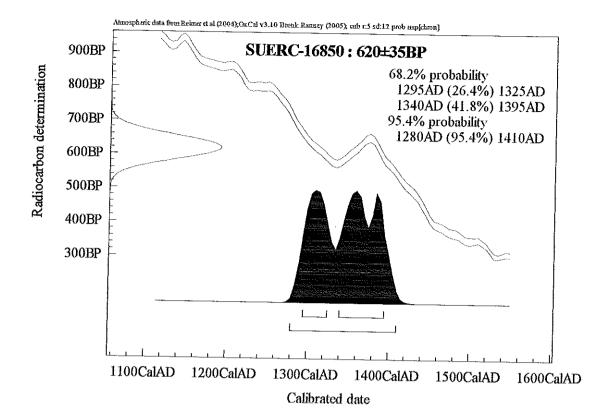
Radiocarbon Age BP

 620 ± 35

Yordan Gook

- The above ¹⁴C age is quoted in conventional years BP (before 1950 AD). The error, which is 1. N.B. expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.
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Conventional age and calibration age ranges calculated by:- P. NaySmio Date: 18-2-08





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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code

SUERC-16854 (GU-16030)

Submitter

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference **Context Reference** Upper Forth Crossing-Meadowend Farm

3739

Sample Reference

Sample Ref 2233

Material

Charcoal: Alnus (Alder)

δ¹³C relative to VPDB

-26.0 ‰

Radiocarbon Age BP

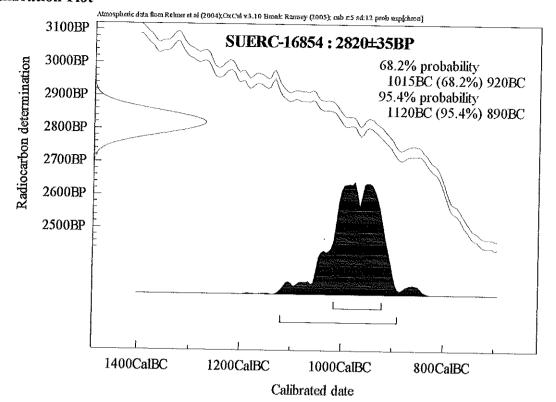
 2820 ± 35

- The above ¹⁴C age is quoted in conventional years BP (before 1950 AD). The error, which is 1. N.B. expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.
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Conventional age and calibration age ranges calculated by :- P. Naus M. Date :- 18-2-08

Checked and signed off by:-

Date :- 18 . 2 . 08





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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code

SUERC-16855 (GU-16031)

Submitter

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference **Context Reference** Upper Forth Crossing-Meadowend Farm

3247

Sample Reference

Sample Ref 2246

Material

Charcoal: Alnus (Alder)

δ¹³C relative to VPDB

-27.3 %

Radiocarbon Age BP

 3225 ± 35

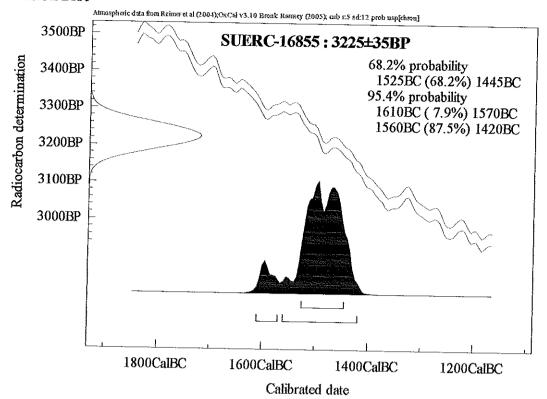
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Conventional age and calibration age ranges calculated by :- P . Nams

Date :- 18 - 2-08

Checked and signed off by:- Landin Court

Date:-18.2.08





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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code

SUERC-16856 (GU-16032)

Submitter

1.5

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference Context Reference Upper Forth Crossing-Meadowend Farm

5701

Sample Reference

Sample Ref 2254

Material

Charcoal: Corylus avellena (Hazel)

δ¹³C relative to VPDB

-25.8 %

Radiocarbon Age BP

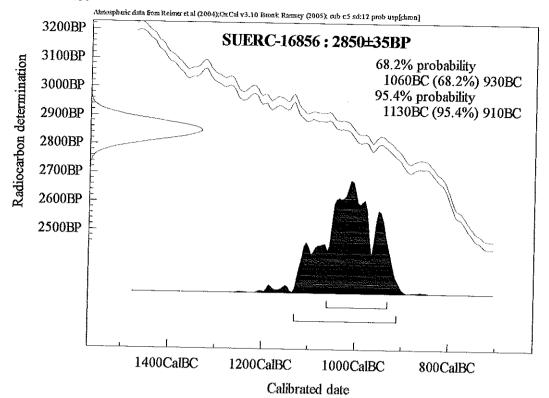
 2850 ± 35

- The above ¹⁴C age is quoted in conventional years BP (before 1950 AD). The error, which is 1. expressed at the one sigma level of confidence, includes components from the counting N.B. statistics on the sample, modern reference standard and blank and the random machine error.
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Conventional age and calibration age ranges calculated by:- Date:- 18-2-08

Checked and signed off by:-

Date: 18.2.08





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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code

SUERC-16857 (GU-16033)

Submitter

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference Context Reference Upper Forth Crossing-Meadowend Farm

3635

Sample Reference

Sample Ref 2261

Material

Charcoal: Corylus avellena (Hazel)

δ13C relative to VPDB

-25.9 %

Radiocarbon Age BP

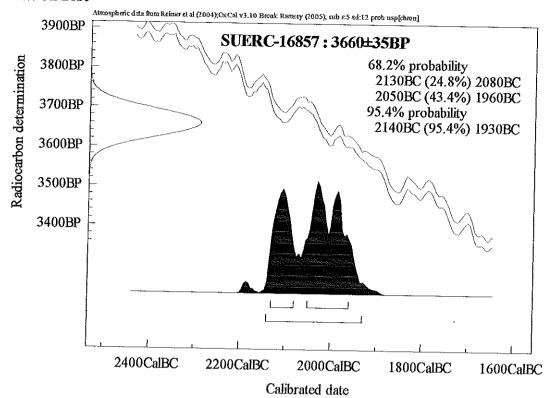
 3660 ± 35

- The above ¹⁴C age is quoted in conventional years BP (before 1950 AD). The error, which is N.B. 1. expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.
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Conventional age and calibration age ranges calculated by :- \bigcirc . \bigcirc . \bigcirc Date :- \bigcirc \bigcirc Date :- \bigcirc

Checked and signed off by:- London Cook

Date :- 18 . 2 . 08





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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code

SUERC-16858 (GU-16034)

Submitter

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference Context Reference Upper Forth Crossing-Meadowend Farm

3700

Sample Reference

Sample Ref 2262

Material

Charcoal: Alnus (Alder)

δ¹³C relative to VPDB

-25.6 ‰

Radiocarbon Age BP

 2955 ± 35

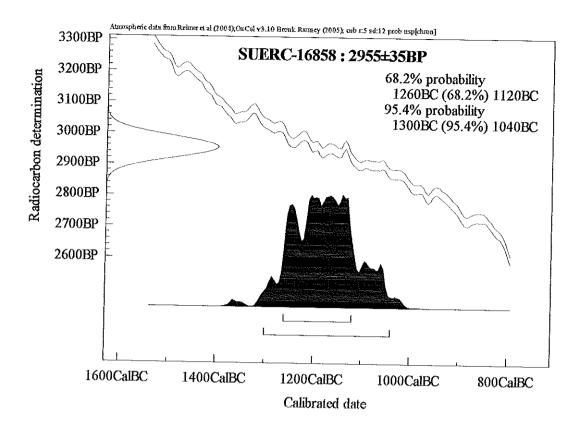
- N.B. 1. The above ¹⁴C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.
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Conventional age and calibration age ranges calculated by :- P. Waysmus

Date :- 18-2-08

Checked and signed off by:- Gooden Cook

Date :- 18 · 2 · 08





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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code

SUERC-16859 (GU-16035)

Submitter

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference Context Reference Upper Forth Crossing-Meadowend Farm

3682

Sample Reference

Sample Ref 2298

Material

Charcoal: Alnus (Alder)

δ¹³C relative to VPDB

-24.8 %

Radiocarbon Age BP

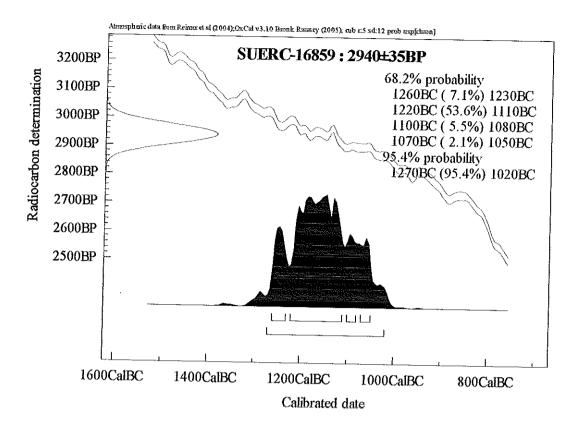
 2940 ± 35

Good Rook

- The above ¹⁴C age is quoted in conventional years BP (before 1950 AD). The error, which is N.B. 1. expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.
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Conventional age and calibration age ranges calculated by:- P. Naysmit Date:- 18-2-08

Checked and signed off by:-





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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code

SUERC-16860 (GU-16036)

Submitter

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference

Upper Forth Crossing-Meadowend Farm

Context Reference

3357

Sample Reference

Sample Ref 2312

Material

Charcoal: Corylus avellena (Hazel)

δ¹³C relative to VPDB

-24.5 %

Radiocarbon Age BP

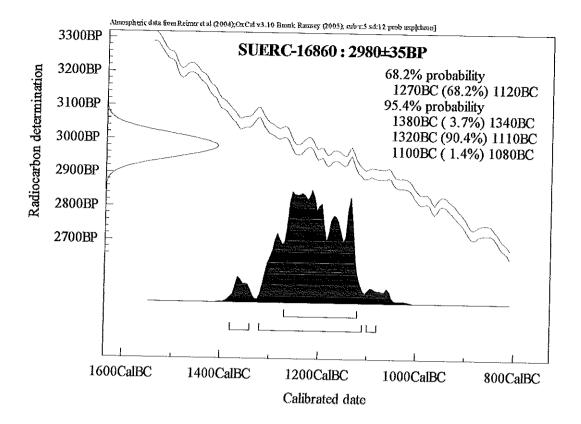
 2980 ± 35

N.B.

- The above ¹⁴C 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 1. statistics on the sample, modern reference standard and blank and the random machine error.
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Conventional age and calibration age ranges calculated by :- P. Nayswws Date :- 18-2-08

Checked and signed off by :-





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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code

SUERC-16864 (GU-16037)

Submitter

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference Context Reference Upper Forth Crossing-Meadowend Farm

5685

Sample Reference

Sample Ref 2321

Material

Charcoal: Alnus (Alder)

δ¹³C relative to VPDB

-26.5 %

Radiocarbon Age BP

 2925 ± 35

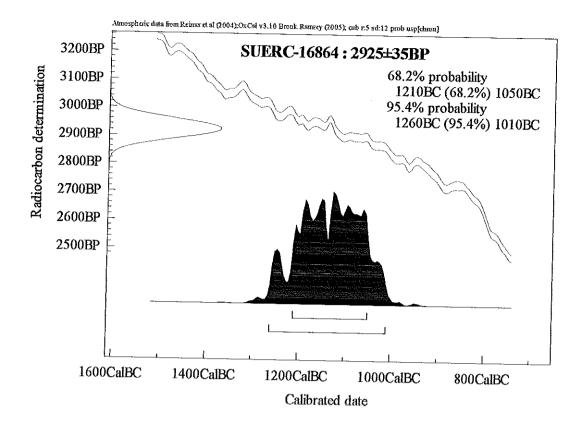
Karden Coerk

- The above ¹⁴C 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 1. N.B. statistics on the sample, modern reference standard and blank and the random machine error.
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Conventional age and calibration age ranges calculated by :- D. Nams Date :- 18-2-08

Checked and signed off by:-

Date :- 18 -2 08





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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code

SUERC-16865 (GU-16038)

Submitter

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference

Upper Forth Crossing-Meadowend Farm

Context Reference

5687

Sample Reference

Sample Ref 2322

Material

Cereal grain: Hordeum vulgare var nudum (naked barley)

δ13C relative to VPDB

-24.1 %

Radiocarbon Age BP

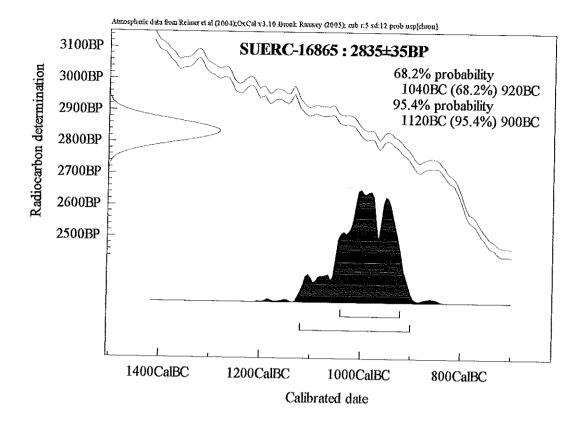
 2835 ± 35

- The above ¹⁴C age is quoted in conventional years BP (before 1950 AD). The error, which is 1. N.B. expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.
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Conventional age and calibration age ranges calculated by :- P. Namson Date :- 18-2-08

Checked and signed off by:-

Date :- 18 -2 .08





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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code

SUERC-16866 (GU-16039)

Submitter

Sarah-Jane Haston

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13 Jane Street Edinburgh EH6 5HE

Site Reference

Upper Forth Crossing-Meadowend Farm

Context Reference

3449

Sample Reference

Sample Ref 2323

Material

Charcoal: Alnus (Alder)

δ13C relative to VPDB

-24.8 %

Radiocarbon Age BP

 2925 ± 35

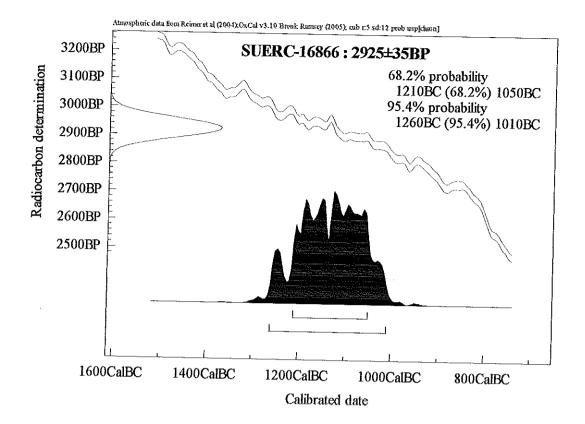
N.B.

- The above ¹⁴C age is quoted in conventional years BP (before 1950 AD). The error, which is 1. expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.
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Conventional age and calibration age ranges calculated by :- P. Naysmb Date :- 18-2-08

Checked and signed off by:- Lordan Civer

Date :- 18 - 2 .08





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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code

SUERC-16867 (GU-16040)

Submitter

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference **Context Reference** Upper Forth Crossing-Meadowend Farm

3456

Sample Reference

Sample Ref 2327

Material

Charcoal: Corylus avellena (Hazel)

δ13C relative to VPDB

-27.3 %

Radiocarbon Age BP

 2940 ± 35

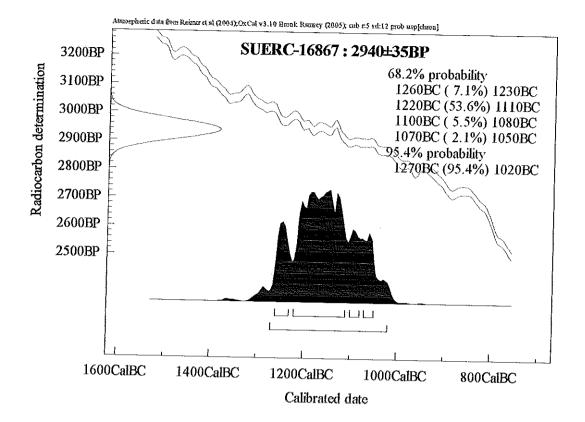
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Conventional age and calibration age ranges calculated by:- Date:- 18-2-08

Checked and signed off by:- Qualum Guerk

Date:- 18.7.48

Date :- 18 . 2 . 08





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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code

SUERC-16868 (GU-16041)

Submitter

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference

Upper Forth Crossing-Meadowend Farm

3468

Context Reference Sample Reference

Sample Ref 2333

Material

Charcoal: Alnus (Alder)

δ¹³C relative to VPDB

-27.0 %

Radiocarbon Age BP

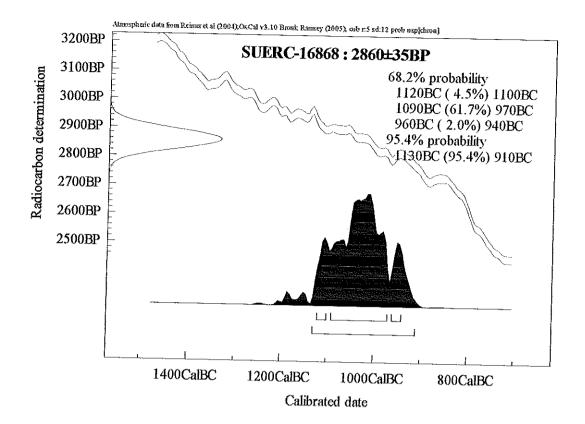
 2860 ± 35

- The above ¹⁴C age is quoted in conventional years BP (before 1950 AD). The error, which is 1. expressed at the one sigma level of confidence, includes components from the counting N.B. statistics on the sample, modern reference standard and blank and the random machine error.
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 - 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 3. scientific literature. Any questions directed to the Radiocarbon Laboratory should also quote the GU coding given in parentheses after the SUERC code.

Conventional age and calibration age ranges calculated by :- P. Naymb Date :- 18-2-08

Checked and signed off by:- Lordyn Cook

Date: 18-2-08





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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code

SUERC-16869 (GU-16042)

Submitter

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference Context Reference Upper Forth Crossing-Meadowend Farm

3907

Sample Reference

Sample Ref 2400

Material

Charred Nutshell: Corylus avellena (Hazel)

δ13C relative to VPDB

-24.4 %

Radiocarbon Age BP

 3520 ± 35

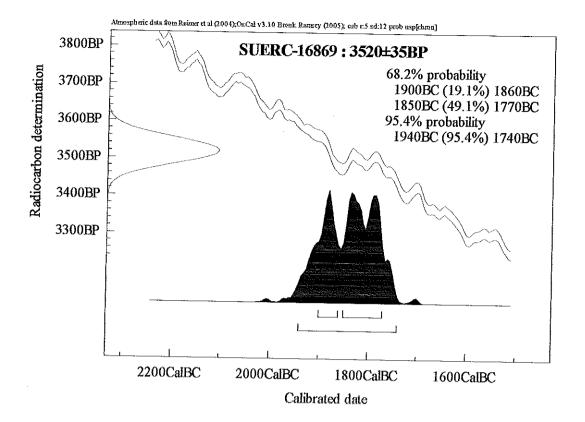
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Conventional age and calibration age ranges calculated by :- P. Naysmb

Date: 18-2-08

Checked and signed off by:- York Cook

Date :- 18.2.08





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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code

SUERC-16870 (GU-16043)

Submitter

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference Context Reference Upper Forth Crossing-Meadowend Farm

3924

Sample Reference

Sample Ref 2403

Material

Charcoal: Corylus avellena (Hazel)

δ¹³C relative to VPDB

-25.3 ‰

Radiocarbon Age BP

 4590 ± 40

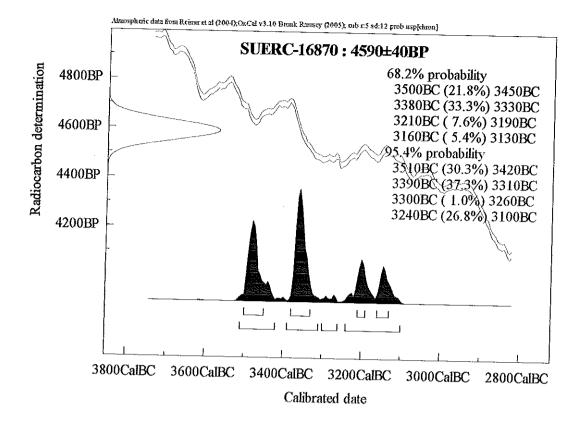
- **N.B.** 1. Ti
 - 1. The above ¹⁴C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.
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 - 3. 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.

Conventional age and calibration age ranges calculated by :- P. Nomber

Date:- しを-2の8

Checked and signed off by:- Kndm book

Date: 18 . 2.08





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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code

SUERC-16874 (GU-16044)

Submitter

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference **Context Reference** Upper Forth Crossing-Meadowend Farm

3944

Sample Ref 2414 Sample Reference

Material

Carbonised Nutshell: Corylus avellena (Hazel)

δ13C relative to VPDB

-24.6 %

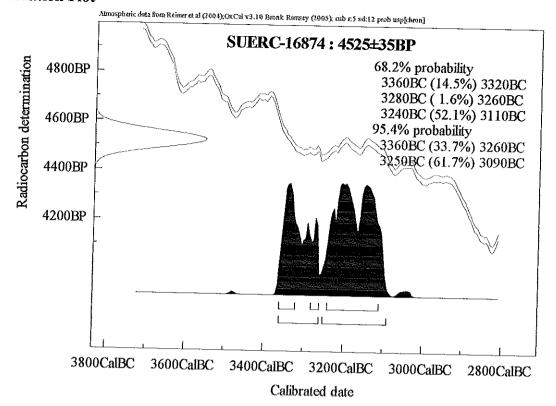
Radiocarbon Age BP

 4525 ± 35

- The above ¹⁴C 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 N.B. 1. statistics on the sample, modern reference standard and blank and the random machine error.
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Conventional age and calibration age ranges calculated by:- P Nous Date: 18-2-08

Checked and signed off by:



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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code

SUERC-16875 (GU-16045)

Submitter

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference **Context Reference** Upper Forth Crossing-Meadowend Farm

3948

Sample Reference

Sample Ref 2416

Material

Charred Nutshell: Corylus avellena (Hazel)

δ13C relative to VPDB

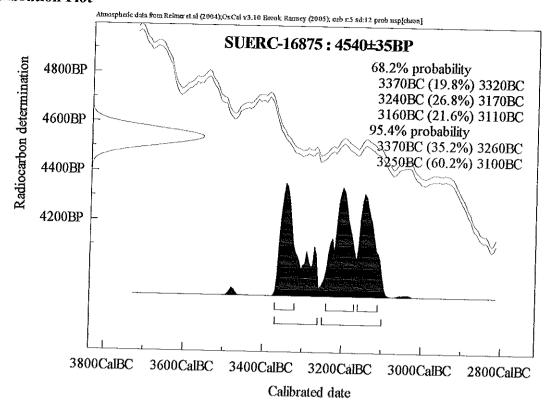
-24.6 %

Radiocarbon Age BP

 4540 ± 35

- 1. N.B.
 - The above ¹⁴C 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 standard and blank and the random machine error.
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Conventional age and calibration age ranges calculated by :- P. Nayswa Date :- 18-2.08 Checked and signed off by:- Lyonhan Cook





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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code

SUERC-16876 (GU-16046)

Submitter

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference **Context Reference** Sample Reference

Upper Forth Crossing-Meadowend Farm

3974

Sample Ref 2418

Material

Charred Nutshell: Corylus avellena (Hazel)

δ13C relative to VPDB

-25.0 %

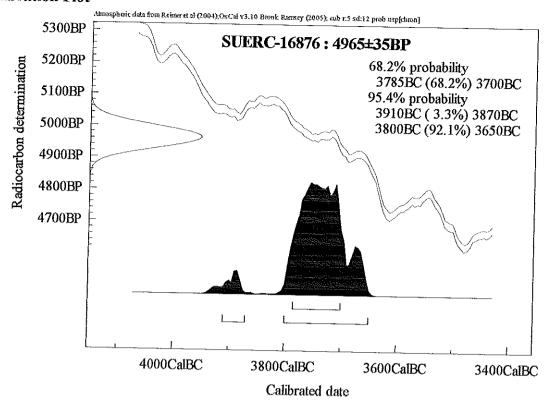
Radiocarbon Age BP

 4965 ± 35

- The above ¹⁴C age is quoted in conventional years BP (before 1950 AD). The error, which is N.B. 1. expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.
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Conventional age and calibration age ranges calculated by:- | Name Date:- 18-2.08

Checked and signed off by :-





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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code 🦠

SUERC-16877 (GU-16047)

Submitter

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference

Upper Forth Crossing-Meadowend Farm

Context Reference

2763

Sample Reference

Sample Ref 2095

Material

Cereal grain: Triticum aestivo-compactum (Club/bread wheat)

δ13C relative to VPDB

-23.3 %

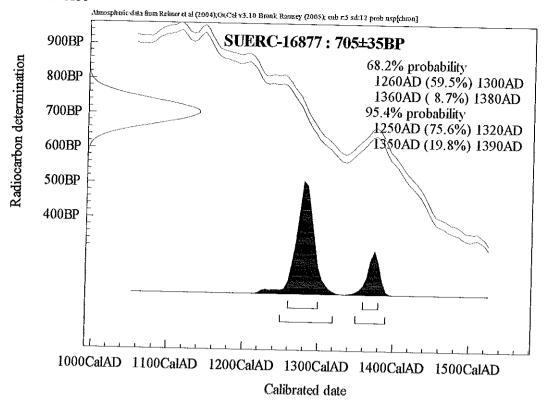
Radiocarbon Age BP

 705 ± 35

- The above ¹⁴C age is quoted in conventional years BP (before 1950 AD). The error, which is N.B. 1. expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.
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Conventional age and calibration age ranges calculated by :- P. Nayswa Date :- 18-2-08 Checked and signed off by:- Gordon Guerk

Date: - 18 - 2 - 08





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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code

SUERC-16878 (GU-16048)

Submitter

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference **Context Reference** Sample Reference

Upper Forth Crossing-Meadowend Farm

2752

Sample Ref 2096

Material

Cereal grain: Avena (oat)

δ13C relative to VPDB

-25.7 %

Radiocarbon Age BP

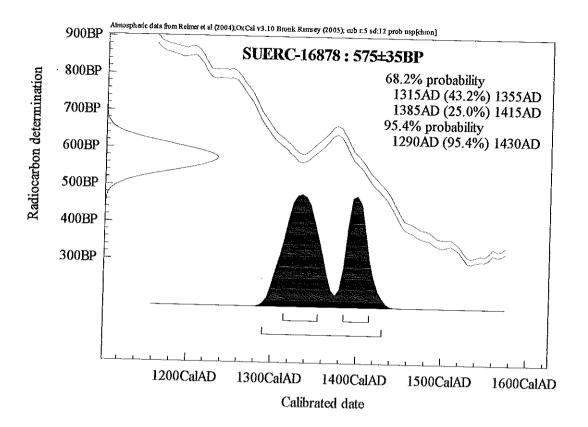
 575 ± 35

- The above ¹⁴C 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 1. N.B. statistics on the sample, modern reference standard and blank and the random machine error.
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Conventional age and calibration age ranges calculated by :- P. Naysmb Date :- 18-2-08

Checked and signed off by:- Roden Cook

Date :- 18.2.08





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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code

SUERC-16879 (GU-16049)

Submitter

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference **Context Reference** Sample Reference

Upper Forth Crossing-Meadowend Farm

2674

Sample Ref 2100

Material

Charcoal: Corylus avellena (Hazel)

δ13C relative to VPDB

-26.2 %

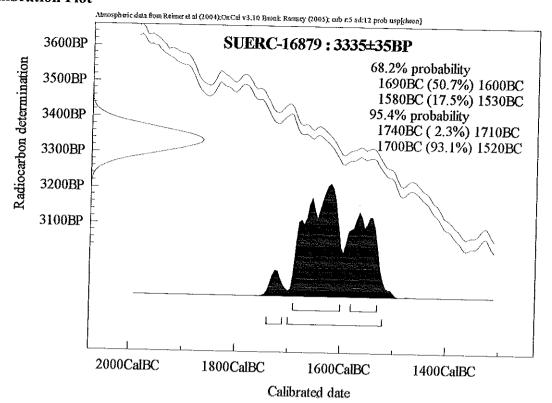
Radiocarbon Age BP

 3335 ± 35

- The above ¹⁴C 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 1. N.B. statistics on the sample, modern reference standard and blank and the random machine error.
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Conventional age and calibration age ranges calculated by :- P. Naysmb Date :- 18-2-08

Checked and signed off by :-





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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code

SUERC-16880 (GU-16050)

Submitter

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference **Context Reference** Upper Forth Crossing-Meadowend Farm

2792

Sample Reference

Sample Ref 2103

Material

Cereal grain: Hordeum vulgare var nudum (naked barley)

δ¹³C relative to VPDB

-25.9 ‰

Radiocarbon Age BP

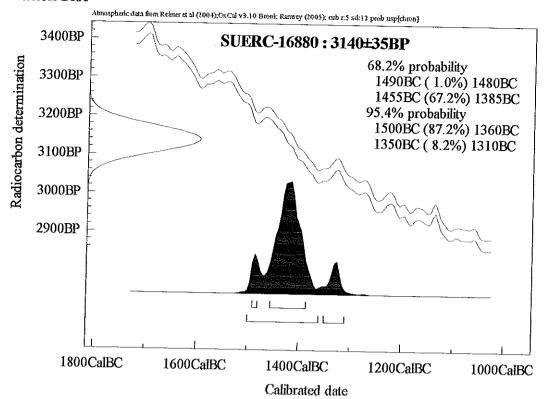
 3140 ± 35

- The above ¹⁴C age is quoted in conventional years BP (before 1950 AD). The error, which is 1. expressed at the one sigma level of confidence, includes components from the counting N.B. statistics on the sample, modern reference standard and blank and the random machine error.
 - The calibrated age ranges are determined from the University of Oxford Radiocarbon 2. Accelerator Unit calibration program (OxCal3).
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Conventional age and calibration age ranges calculated by:- P. Naysmin Date:- 18-2-08

Checked and signed off by:-

Checked and signed off by:- Gooden Gook





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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code

SUERC-16884 (GU-16051)

Submitter

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference **Context Reference** Upper Forth Crossing-Meadowend Farm

2950

Sample Reference

Sample Ref 2116

Material

N.B.

Cereal grain: Hordeum vulgare var nudum (naked barley)

δ¹³C relative to VPDB

-24.0 %

Radiocarbon Age BP

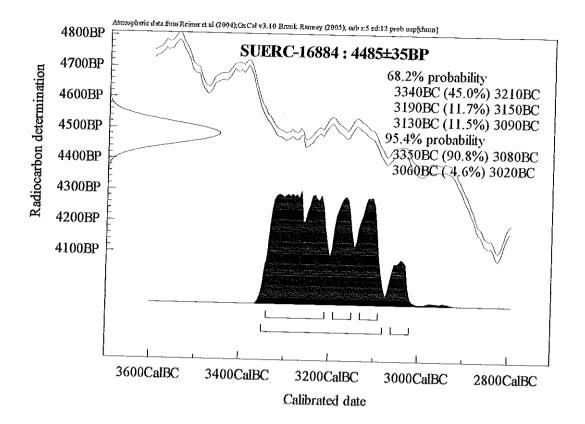
 4485 ± 35

- The above ¹⁴C 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 1. statistics on the sample, modern reference standard and blank and the random machine error.
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Conventional age and calibration age ranges calculated by:- P. Nomshir Date:-18-2-08

Checked and signed off by:- Yordan Gook

Date:- 18 2.08





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RADIOCARBON DATING CERTIFICATE

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Laboratory Code

SUERC-16885 (GU-16052)

Submitter

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference **Context Reference** Upper Forth Crossing-Meadowend Farm

2991

Sample Reference

Sample Ref 2123

Material

Charcoal: Alnus (Alder)

δ13C relative to VPDB

-27.5 %

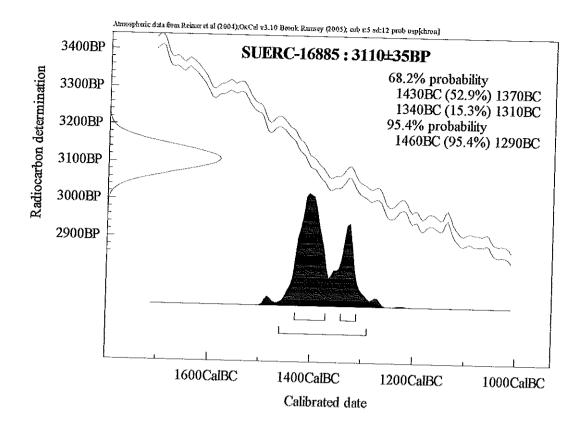
Radiocarbon Age BP

 3110 ± 35

- The above ¹⁴C 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 1. N.B. statistics on the sample, modern reference standard and blank and the random machine error.
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Conventional age and calibration age ranges calculated by :- P. Naysmb Date :- 18-2-08

Checked and signed off by :- London Cook Date :- 18-2-08





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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code

SUERC-16886 (GU-16053)

Submitter

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference **Context Reference** Sample Reference

Upper Forth Crossing-Meadowend Farm

2672

Sample Ref 2135

Material

Charcoal: Alnus (Alder)

δ¹³C relative to VPDB

-26.2 %

Radiocarbon Age BP

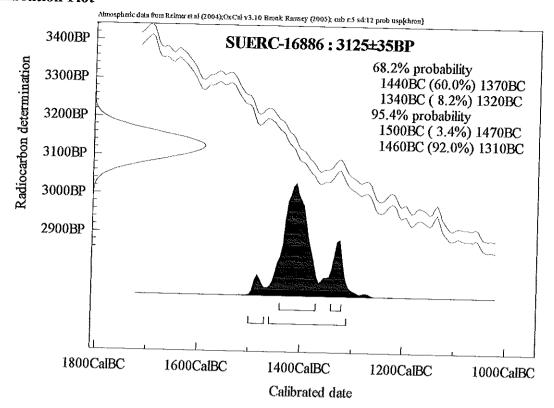
 3125 ± 35

- The above ¹⁴C 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 1. N.B. statistics on the sample, modern reference standard and blank and the random machine error.
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Conventional age and calibration age ranges calculated by:- P. Nouse Date:- 18-2-08

Date:- 18-2-08

Checked and signed off by:- Lower Cook





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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code

SUERC-16887 (GU-16054)

Submitter

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference **Context Reference** Upper Forth Crossing-Meadowend Farm

3043

Sample Reference

Sample Ref 2140

Material

Charcoal: Corylus avellena (Hazel)

δ¹³C relative to VPDB

-26.0 ‰

Radiocarbon Age BP

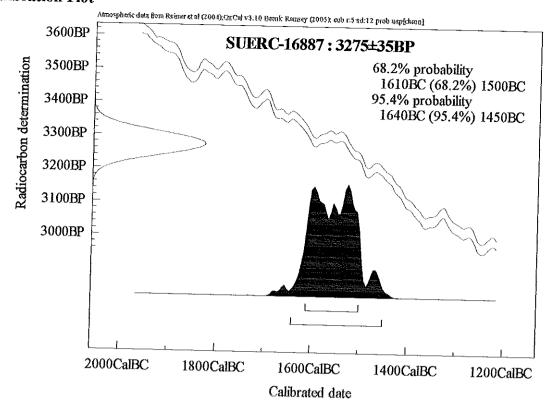
 3275 ± 35

- The above ¹⁴C 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 1. N.B. statistics on the sample, modern reference standard and blank and the random machine error.
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Conventional age and calibration age ranges calculated by :- P. Naysmb Date :- 18-2-08

Checked and signed off by:-

Date :- 18 2.08





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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code

SUERC-16888 (GU-16055)

Submitter

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference **Context Reference** Upper Forth Crossing-Meadowend Farm

2468

Sample Reference

Sample Ref 2166

Material

Cereal grain: Hordeum vulgare var nudum (naked barley)

δ¹³C relative to VPDB

-23.1 %

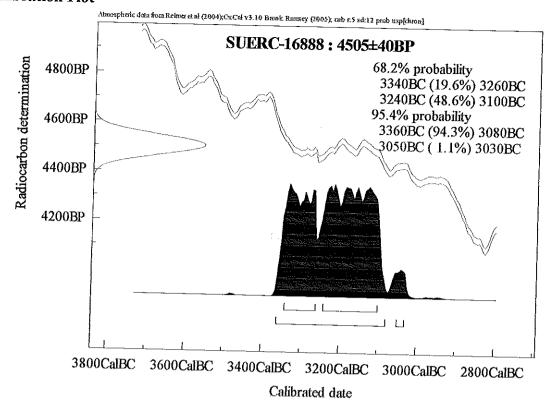
Radiocarbon Age BP

 4505 ± 40

- The above ¹⁴C 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 1. N.B. statistics on the sample, modern reference standard and blank and the random machine error.
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Conventional age and calibration age ranges calculated by:- Date:- 18-2-08

Checked and signed off by :-





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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code

SUERC-16889 (GU-16056)

Submitter

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference Context Reference Sample Reference Upper Forth Crossing-Meadowend Farm

2571

Sample Ref 2171

Material

Charcoal: Alnus (Alder)

δ¹³C relative to VPDB

-26.2 ‰

Radiocarbon Age BP

 3245 ± 35

- N.B.

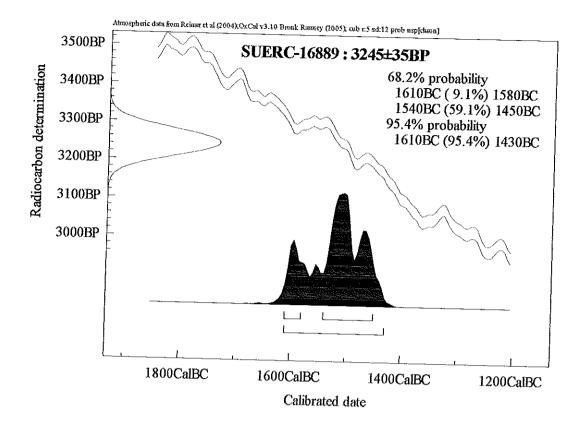
 1. The above ¹⁴C age is quoted in conventional years BP (before 1950 AD). The error, which is expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.
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Conventional age and calibration age ranges calculated by :- P. Maysuk

Date: - 18-2-08

Checked and signed off by:- York 600k

Date :- しと - と - りる





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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code

SUERC-16890 (GU-16057)

Submitter

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference Context Reference Sample Reference

Upper Forth Crossing-Meadowend Farm

2309

Sample Ref 2175

Material

Carbonised Nutshell: Corylus avellena (Hazel)

δ¹³C relative to VPDB

-26.1 %

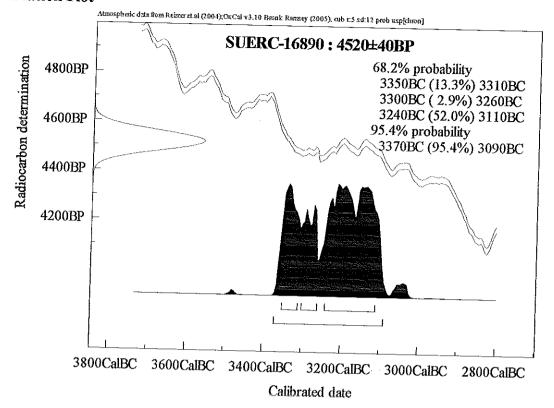
Radiocarbon Age BP

 4520 ± 40

- The above ¹⁴C 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 1. N.B. statistics on the sample, modern reference standard and blank and the random machine error.
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Conventional age and calibration age ranges calculated by :- O. Nays w. Lordon Cook

Checked and signed off by :-





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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code

SUERC-16894 (GU-16058)

Submitter

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference **Context Reference** Upper Forth Crossing-Meadowend Farm

2623

Sample Reference

Sample Ref 2180

Material

Cereal grain: Hordeum vulgare var nudum (naked barley)

δ¹³C relative to VPDB

-24.4 %

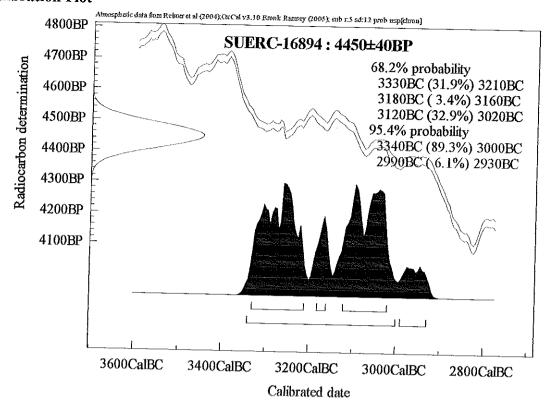
Radiocarbon Age BP

 4450 ± 40

- The above ¹⁴C 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 1. N.B. statistics on the sample, modern reference standard and blank and the random machine error.
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Conventional age and calibration age ranges calculated by :- DaySW Date :- (8-2-08

Checked and signed off by:- John Cook





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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code 🛝

SUERC-16895 (GU-16059)

Submitter

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh

EH6 5HE

Site Reference

Upper Forth Crossing-Meadowend Farm

Context Reference

3294

Sample Reference

Sample Ref 2193

Material

Charcoal: Alnus (Alder)

δ13C relative to VPDB

-26.4 %

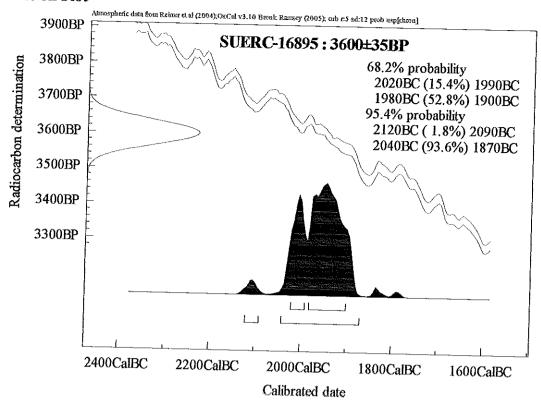
Radiocarbon Age BP

 3600 ± 35

- The above ¹⁴C 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 N.B. 1. statistics on the sample, modern reference standard and blank and the random machine error.
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Conventional age and calibration age ranges calculated by:- | Naysmb Date:- 18-2-08

Checked and signed off by:- Date:- 18-2-08





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RADIOCARBON DATING CERTIFICATE

18 February 2008

Laboratory Code 😘

SUERC-16896 (GU-16060)

Submitter

Sarah-Jane Haston

Headland Archaeology Ltd.

13 Jane Street Edinburgh EH6 5HE

Site Reference Context Reference Upper Forth Crossing-Meadowend Farm

3418

Sample Reference

Sample Ref 2224

Material

Charcoal: Alnus (Alder)

δ¹³C relative to VPDB

-25.5 %

Radiocarbon Age BP

 5025 ± 35

- The above ¹⁴C 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 N.B. 1. statistics on the sample, modern reference standard and blank and the random machine error.
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Conventional age and calibration age ranges calculated by :- ρ . Name Date :- 18 - 2.08

Checked and signed off by:- Gordan Cook

Date :- 18 . 2 . 08

