APPENDIX E
RADIOCARBON AND TEPHRA LABORATORY RESULTS

Table E-1. Summary of samples sent to Beta Analytic for laboratory testing.

Field Sample ID	Sample Type	Laboratory	Analysis	Beta ID	Test Pit
JC-TP-4	Organic	Beta Analytic	AMS[1]	382779	4
J-TP-5	Organic	Beta Analytic	AMS	382395	5
J-TP-8	Organic	Beta Analytic	AMS	382392	8
J-TP-16	Organic	Beta Analytic	AMS	382391	16
J-TP-18	Organic	Beta Analytic	AMS	382390	WP 1
JC-WP-CD-1 Unit 4	Organic	Beta Analytic	AMS	382389	WP 1
JC-WP-CD-1 Unit 8	Organic	Beta Analytic	AMS	382388	WP 1
JC-WP-CD-1 Unit 11	Organic	Beta Analytic	AMS	382778	WP 1
J-TP-21 1.6mbgs Paleosol	Organic	Beta Analytic	AMS	382384	21
J-TP-21 1.6mbgs Charcoal	Organic	Beta Analytic	AMS	382386	21
J-TP-21 2.2mbgs	Organic	Beta Analytic	AMS	382394	21
J-TP-21 2.4mbgs Tephra	Organic	Beta Analytic	AMS	382393	21
J-TP-21 2.4mbgs Charcoal	Organic	Beta Analytic	AMS	381986	21

[1] Accelerator Mass Spectrometer

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REPORT OF RADIOCARBON DATING ANALYSES

Mr. Casey Dowling

Report Date: 7/25/2014

BGC Engineering, Inc.

Material Received: 7/7/2014

Sample Data	Measured Radiocarbon Age	13C/12C Ratio	Conventional Radiocarbon Age(*)
Beta - 384634	1190 +/- 30 BP	-19.6 o/oo	1280 +/- 30 BP
SAMPLE : J-TP-16			
ANALYSIS : AMS-Standard delivery			
MATERIAL/PRETREATMENT : (bone collagen): collagen extraction: with alkali			
2 SIGMA CALIBRATION : Cal AD 665 to 775 (Cal BP 1285 to 1175)			
Beta - 384635	70 +/- 30 BP	-23.2 o/oo	100 +/- 30 BP
SAMPLE : J-TP-5			
ANALYSIS : AMS-Standard delivery			
MATERIAL/PRETREATMENT : (charred material): acid/alkali/acid			
2 SIGMA CALIBRATION : Cal AD 1680 to 1735 (Cal BP 270 to 215) and Cal AD 1755 to 1760 (Cal BP 195 to 190) and Cal AD 1800 to 1935 (Cal BP 150 to 15) and Post AD 1950 (Post BP 0)			
Beta - 384636	230 +/- 30 BP	-26.1 o/oo	210 +/- 30 BP
SAMPLE : J-TP-18			
ANALYSIS : AMS-Standard delivery			
MATERIAL/PRETREATMENT : (wood): acid/alkali/acid			
2 SIGMA CALIBRATION : Cal AD 1645 to 1685 (Cal BP 305 to 265) and Cal AD 1735 to 1805 (Cal BP 215 to 145) and Cal AD 1930 to Post 1950 (Cal BP 20 to Post 0)			
Beta - 384637	2420 +/- 30 BP	-23.6 o/oo	2440 +/- 30 BP
SAMPLE : J-TP-8			
ANALYSIS : AMS-Standard delivery			
MATERIAL/PRETREATMENT : (charred material): acid/alkali/acid			
2 SIGMA CALIBRATION : Cal BC 755 to 680 (Cal BP 2705 to 2630) and Cal BC 670 to 610 (Cal BP 2620 to 2560) and Cal BC 595 to 405 (Cal BP 2545 to 2355)			

Dates are reported as RCYBP (radiocarbon years before present, "present" = AD 1950). By international convention, the modern reference standard was 95% the 14C activity of the National Institute of Standards and Technology (NIST) Oxalic Acid (SRM 4990C) and calculated using the Libby 14C half-life (5568 years). Quoted errors represent 1 relative standard deviation statistics (68% probability) counting errors based on the combined measurements of the sample, background, and modern reference standards. Measured 13C/12C ratios (delta 13C) were calculated relative to the PDB-1 standard.

The Conventional Radiocarbon Age represents the Measured Radiocarbon Age corrected for isotopic fractionation, calculated using the delta 13C. On rare occasion where the Conventional Radiocarbon Age was calculated using an assumed delta 13C, the ratio and the Conventional Radiocarbon Age will be followed by "*". The Conventional Radiocarbon Age is not calendar calibrated. When available, the Calendar Calibrated result is calculated from the Conventional Radiocarbon Age and is listed as the "Two Sigma Calibrated Result" for each sample.

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REPORT OF RADIOCARBON DATING ANALYSES

Mr. Casey Dowling

Report Date: 7/25/2014

Sample Data	Measured Radiocarbon Age	13C/12C Ratio	Conventional Radiocarbon Age(*)
Beta - 384638	260 +/- 30 BP	-24.1 o/oo	270 +/- 30 BP

SAMPLE : JC-TP-4
ANALYSIS : AMS-Standard delivery
MATERIAL/PRETREATMENT : (wood): acid/alkali/acid
2 SIGMA CALIBRATION : Cal AD 1520 to 1575 (Cal BP 430 to 375) and Cal AD 1630 to 1665 (Cal BP 320 to 285) and Cal AD 1785 to 1795 (Cal BP 165 to 155)

Dates are reported as RCYBP (radiocarbon years before present, "present" = AD 1950). By international convention, the modern reference standard was 95% the 14C activity of the National Institute of Standards and Technology (NIST) Oxalic Acid (SRM 4990C) and calculated using the Libby 14C half-life (5568 years). Quoted errors represent 1 relative standard deviation statistics (68% probability) counting errors based on the combined measurements of the sample, background, and modern reference standards. Measured 13C/12C ratios (delta 13C) were calculated relative to the PDB-1 standard.

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REPORT OF RADIOCARBON DATING ANALYSES

Mr. Casey Dowling

Report Date: 7/1/2014

BGC Engineering, Inc.

Material Received: 6/16/2014

Sample Data	Measured Radiocarbon Age	13C/12C Ratio	Conventional Radiocarbon Age(*)
Beta - 383171	2520 +/- 30 BP	-25.5 o/oo	2510 +/- 30 BP
SAMPLE : JC-WP-CD-1 Unit 8			
ANALYSIS : AMS-Standard delivery			
MATERIAL/PRETREATMENT : (organic sediment): acid washes			
2 SIGMA CALIBRATION : Cal BC 790 to 540 (Cal BP 2740 to 2490)			
Beta - 383172	2990 +/- 30 BP	-24.8 o/oo	2990 +/- 30 BP
SAMPLE : JC-WP-CD-1 Unit 11			
ANALYSIS : AMS-Standard delivery			
MATERIAL/PRETREATMENT : (organic sediment): acid washes			
2 SIGMA CALIBRATION : Cal BC 1365 to 1360 (Cal BP 3315 to 3310) and Cal BC 1290 to 1120 (Cal BP 3240 to 3070)			
Beta - 383173	1260 +/- 30 BP	-26.5 o/oo	1240 +/- 30 BP
SAMPLE : JC-WP-CD-1 Unit 4			
ANALYSIS : AMS-Standard delivery			
MATERIAL/PRETREATMENT : (charred material): acid/alkali/acid			
2 SIGMA CALIBRATION : Cal AD 680 to 880 (Cal BP 1270 to 1070)			

Dates are reported as RCYBP (radiocarbon years before present, "present" = AD 1950). By international convention, the modern reference standard was 95% the 14C activity of the National Institute of Standards and Technology (NIST) Oxalic Acid (SRM 4990C) and calculated using the Libby 14C half-life (5568 years). Quoted errors represent 1 relative standard deviation statistics (68% probability) counting errors based on the combined measurements of the sample, background, and modern reference standards. Measured 13C/12C ratios (delta 13C) were calculated relative to the PDB-1 standard.

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REPORT OF RADIOCARBON DATING ANALYSES

Mr. Casey Dowling

Report Date: 6/24/2014

Sample Data	Measured Radiocarbon Age	13C/12C Ratio	Conventional Radiocarbon Age(*)
Beta - 382782	2120 +/- 30 BP	-16.5 o/oo	2260 +/- 30 BP
SAMPLE : HC-TP-8-3 1.1 mbgs			
ANALYSIS : AMS-Standard delivery			
MATERIAL/PRETREATMENT : (bone collagen): collagen extraction: with alkali			
2 SIGMA CALIBRATION : Cal BC 395 to 350 (Cal BP 2345 to 2300) and Cal BC 305 to 210 (Cal BP 2255 to 2160)			
Beta - 382783	80 +/- 30 BP	-20.7 o/oo	150 +/- 30 BP
SAMPLE : HC-TP-8-4 3.0 mbgs			
ANALYSIS : AMS-Standard delivery			
MATERIAL/PRETREATMENT : (bone collagen): collagen extraction: with alkali			
2 SIGMA CALIBRATION : Cal AD 1665 to 1785 (Cal BP 285 to 165) and Cal AD 1795 to 1890 (Cal BP 155 to 60) and Cal AD 1905 to Post 1950 (Cal BP 45 to Post 0)			
Beta - 382784	1240 +/- 30 BP	-25.3 o/oo	1240 +/- 30 BP
SAMPLE : J-TP-21 1.6mbgs Charcoal			
ANALYSIS : AMS-Standard delivery			
MATERIAL/PRETREATMENT : (charred material): acid/alkali/acid			
2 SIGMA CALIBRATION : Cal AD 680 to 880 (Cal BP 1270 to 1070)			
Beta - 382785	1590 +/- 30 BP	-25.1 o/oo	1590 +/- 30 BP
SAMPLE : J-TP-21 1.6mbgs Paleosol			
ANALYSIS : AMS-Standard delivery			
MATERIAL/PRETREATMENT : (organic sediment): acid washes			
2 SIGMA CALIBRATION : Cal AD 400 to 545 (Cal BP 1550 to 1405)			

Dates are reported as RCYBP (radiocarbon years before present, "present" = AD 1950). By international convention, the modern reference standard was 95% the 14C activity of the National Institute of Standards and Technology (NIST) Oxalic Acid (SRM 4990C) and calculated using the Libby 14C half-life (5568 years). Quoted errors represent 1 relative standard deviation statistics (68% probability) counting errors based on the combined measurements of the sample, background, and modern reference standards. Measured 13C/12C ratios (delta 13C) were calculated relative to the PDB-1 standard.

The Conventional Radiocarbon Age represents the Measured Radiocarbon Age corrected for isotopic fractionation, calculated using the delta 13C. On rare occasion where the Conventional Radiocarbon Age was calculated using an assumed delta 13C, the ratio and the Conventional Radiocarbon Age will be followed by "*". The Conventional Radiocarbon Age is not calendar calibrated. When available, the Calendar Calibrated result is calculated from the Conventional Radiocarbon Age and is listed as the "Two Sigma Calibrated Result" for each sample.

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REPORT OF RADIOCARBON DATING ANALYSES

Mr. Casey Dowling

Report Date: 6/24/2014

Sample Data	Measured Radiocarbon Age	13C/12C Ratio	Conventional Radiocarbon Age(*)
Beta - 382786	1740 +/- 30 BP	-23.6 o/oo	1760 +/- 30 BP
SAMPLE : J-TP-21 2.2mbgs			
ANALYSIS : AMS-Standard delivery			
MATERIAL/PRETREATMENT : (charred material): acid/alkali/acid			
2 SIGMA CALIBRATION : Cal AD 220 to 345 (Cal BP 1730 to 1605) and Cal AD 370 to 375 (Cal BP 1580 to 1575)			
Beta - 382787	1600 +/- 30 BP	-22.9 o/oo	1630 +/- 30 BP
SAMPLE : J-TP-21 2.4mbgs Charcoal			
ANALYSIS : AMS-Standard delivery			
MATERIAL/PRETREATMENT : (charred material): acid/alkali/acid			
2 SIGMA CALIBRATION : Cal AD 380 to 435 (Cal BP 1570 to 1515) and Cal AD 460 to 465 (Cal BP 1490 to 1485) and Cal AD 490 to 535 (Cal BP 1460 to 1415)			
Beta - 382788	6670 +/- 30 BP	-25.0 o/oo	6670 +/- 30 BP
SAMPLE : J-TP-21 2.4mbgs Tephra			
ANALYSIS : AMS-Standard delivery			
MATERIAL/PRETREATMENT : (organic sediment): acid washes			
2 SIGMA CALIBRATION : Cal BC 5635 to 5545 (Cal BP 7585 to 7495)			

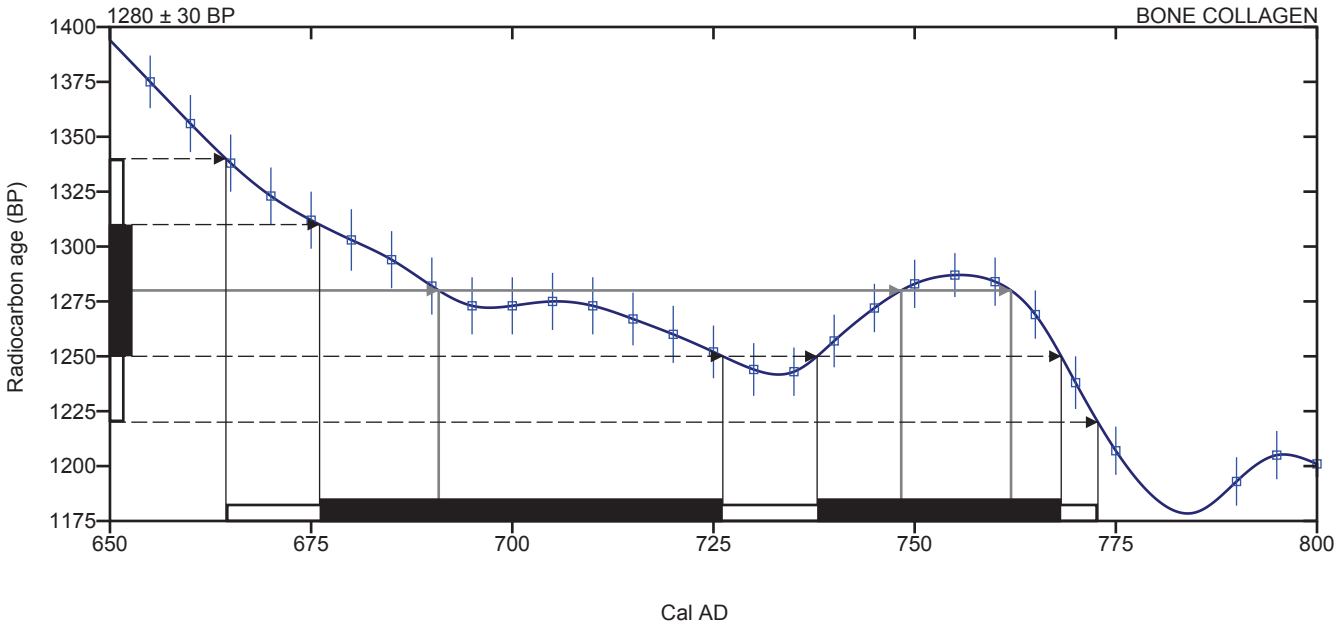
Dates are reported as RCYBP (radiocarbon years before present, "present" = AD 1950). By international convention, the modern reference standard was 95% the 14C activity of the National Institute of Standards and Technology (NIST) Oxalic Acid (SRM 4990C) and calculated using the Libby 14C half-life (5568 years). Quoted errors represent 1 relative standard deviation statistics (68% probability) counting errors based on the combined measurements of the sample, background, and modern reference standards. Measured 13C/12C ratios (delta 13C) were calculated relative to the PDB-1 standard.

The Conventional Radiocarbon Age represents the Measured Radiocarbon Age corrected for isotopic fractionation, calculated using the delta 13C. On rare occasion where the Conventional Radiocarbon Age was calculated using an assumed delta 13C, the ratio and the Conventional Radiocarbon Age will be followed by "*". The Conventional Radiocarbon Age is not calendar calibrated. When available, the Calendar Calibrated result is calculated from the Conventional Radiocarbon Age and is listed as the "Two Sigma Calibrated Result" for each sample.

CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12 = -19.6 o/oo : lab. mult = 1)

Laboratory number	**Beta-384634**
Conventional radiocarbon age	**1280 ± 30 BP**
2 Sigma calibrated result 95% probability	**Cal AD 665 to 775 (Cal BP 1285 to 1175)**
Intercept of radiocarbon age with calibration curve	Cal AD 690 (Cal BP 1260) Cal AD 750 (Cal BP 1200) Cal AD 760 (Cal BP 1190)
1 Sigma calibrated results 68% probability	Cal AD 675 to 725 (Cal BP 1275 to 1225) Cal AD 740 to 770 (Cal BP 1210 to 1180)



Database used

INTCAL13

References

Mathematics used for calibration scenario

A Simplified Approach to Calibrating C14 Dates, Talma, A. S., Vogel, J. C., 1993, Radiocarbon 35(2):317-322

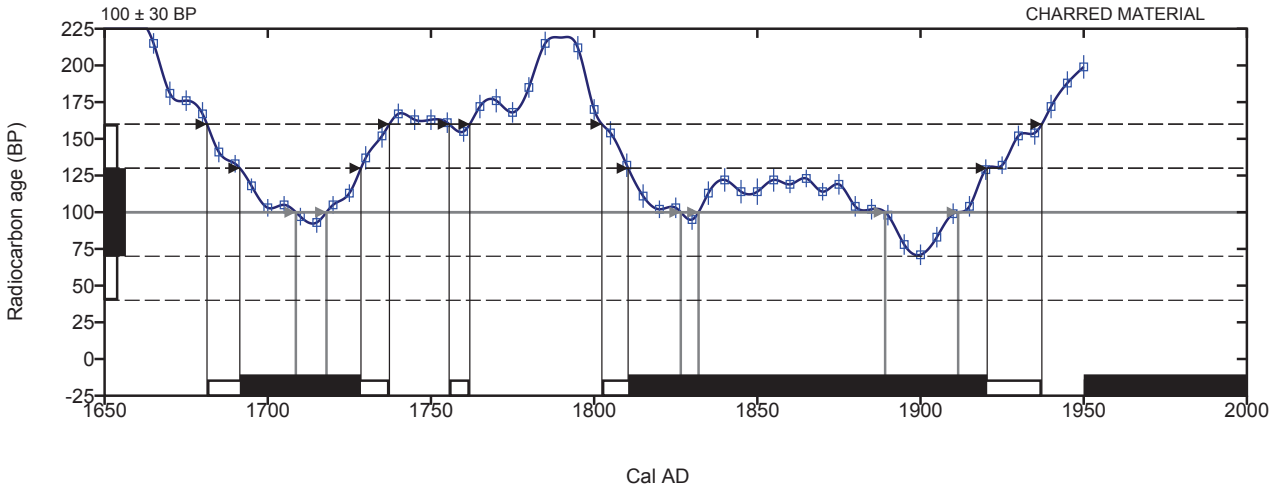
References to INTCAL13 database

Reimer PJ et al. IntCal13 and Marine13 radiocarbon age calibration curves 0– 50,000 years cal BP. Radiocarbon 55(4):1869– 1887.

CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12 = -23.2 o/oo : lab. mult = 1)

Laboratory number	**Beta-384635**
Conventional radiocarbon age	**100 ± 30 BP**
2 Sigma calibrated result 95% probability	**Cal AD 1680 to 1735 (Cal BP 270 to 215)** **Cal AD 1755 to 1760 (Cal BP 195 to 190)** **Cal AD 1800 to 1935 (Cal BP 150 to 15)** **Post AD 1950 (Post BP 0)**
Intercept of radiocarbon age with calibration curve	Cal AD 1710 (Cal BP 240) Cal AD 1720 (Cal BP 230) Cal AD 1825 (Cal BP 125) Cal AD 1830 (Cal BP 120) Cal AD 1890 (Cal BP 60) Cal AD 1910 (Cal BP 40) Post AD 1950 (Post BP 0)
1 Sigma calibrated results 68% probability	Cal AD 1690 to 1730 (Cal BP 260 to 220) Cal AD 1810 to 1920 (Cal BP 140 to 30) Post AD 1950 (Post BP 0)



Database used

INTCAL13

References

Mathematics used for calibration scenario

A Simplified Approach to Calibrating C14 Dates, Talma, A. S., Vogel, J. C., 1993, Radiocarbon 35(2):317-322

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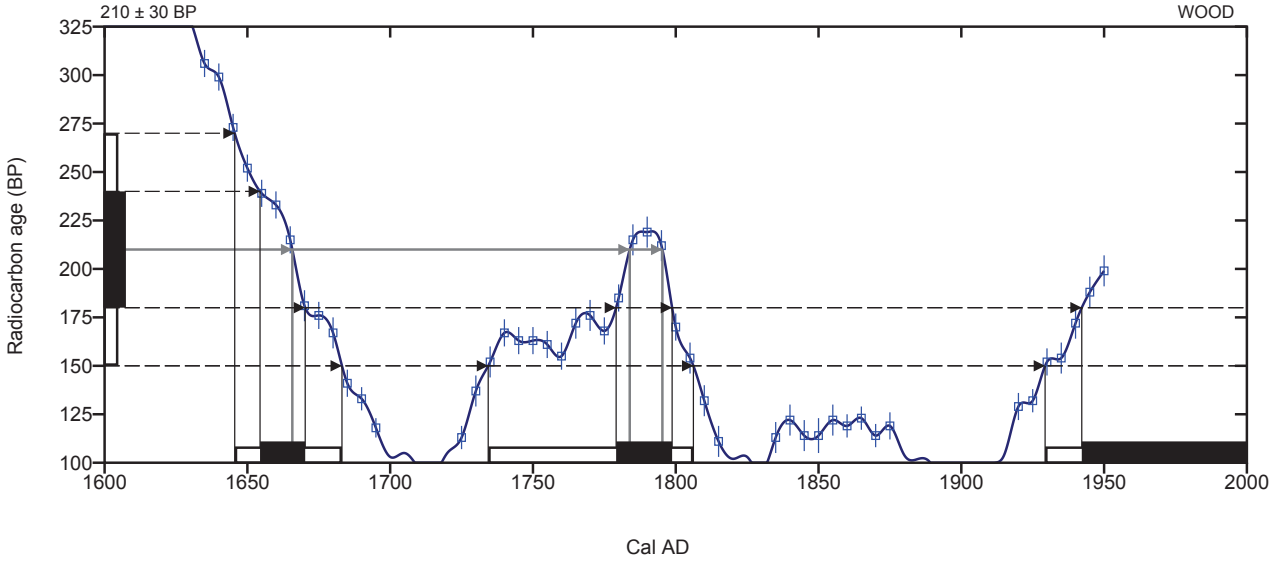
Reimer PJ et al. IntCal13 and Marine13 radiocarbon age calibration curves 0– 50,000 years cal BP. Radiocarbon 55(4):1869– 1887.

CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12 = -26.1 o/oo : lab. mult = 1)

Laboratory number	**Beta-384636**
Conventional radiocarbon age	**210 ± 30 BP**
2 Sigma calibrated result	**Cal AD 1645 to 1685 (Cal BP 305 to 265)**
95% probability	**Cal AD 1735 to 1805 (Cal BP 215 to 145)**
	Cal AD 1930 to Post 1950 (Cal BP 20 to Post 0)
Intercept of radiocarbon age with calibration curve	Cal AD 1665 (Cal BP 285)
	Cal AD 1785 (Cal BP 165)
	Cal AD 1795 (Cal BP 155)
1 Sigma calibrated results	Cal AD 1655 to 1670 (Cal BP 295 to 280)
68% probability	Cal AD 1780 to 1800 (Cal BP 170 to 150)
	Cal AD 1940 to Post 1950 (Cal BP 10 to Post 0)



Database used

INTCAL13

References

Mathematics used for calibration scenario

A Simplified Approach to Calibrating C14 Dates, Talma, A. S., Vogel, J. C., 1993, Radiocarbon 35(2):317-322

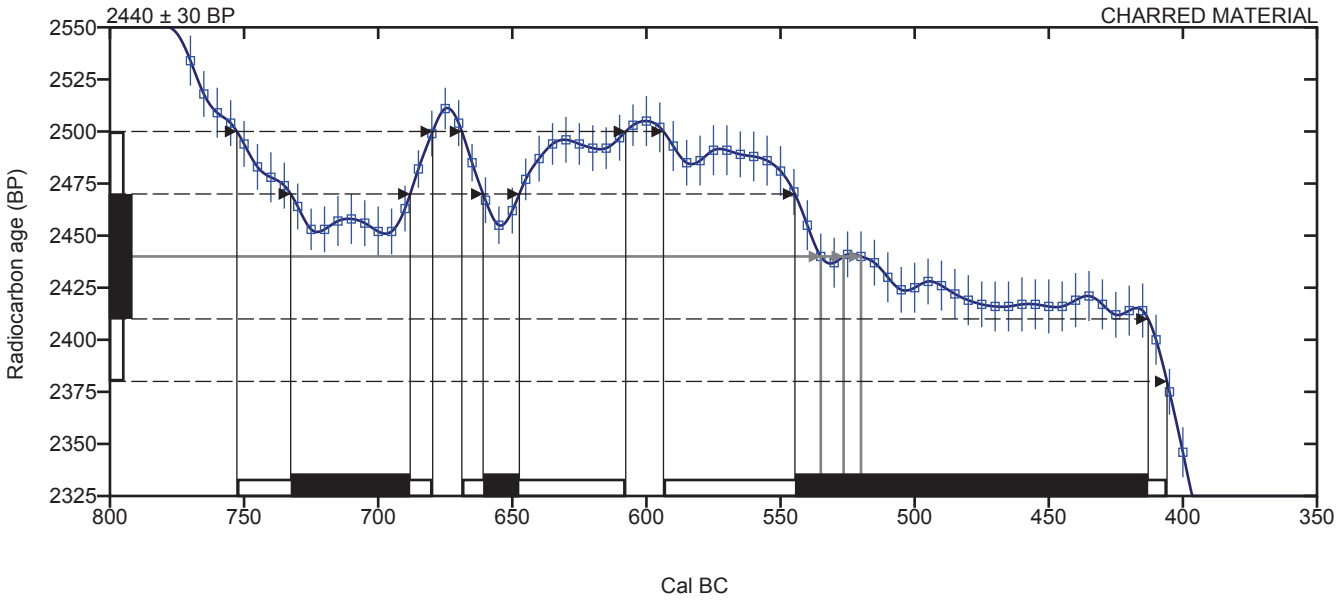
References to INTCAL13 database

Reimer PJ et al. IntCal13 and Marine13 radiocarbon age calibration curves 0– 50,000 years cal BP. Radiocarbon 55(4):1869– 1887.

CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12 = -23.6 o/oo : lab. mult = 1)

Laboratory number	**Beta-384637**
Conventional radiocarbon age	**2440 ± 30 BP**
2 Sigma calibrated result 95% probability	**Cal BC 755 to 680 (Cal BP 2705 to 2630)** **Cal BC 670 to 610 (Cal BP 2620 to 2560)** **Cal BC 595 to 405 (Cal BP 2545 to 2355)**
Intercept of radiocarbon age with calibration curve	Cal BC 535 (Cal BP 2485) Cal BC 525 (Cal BP 2475) Cal BC 520 (Cal BP 2470)
1 Sigma calibrated results 68% probability	Cal BC 735 to 690 (Cal BP 2685 to 2640) Cal BC 660 to 645 (Cal BP 2610 to 2595) Cal BC 545 to 415 (Cal BP 2495 to 2365)



Database used

INTCAL13

References

Mathematics used for calibration scenario

A Simplified Approach to Calibrating C14 Dates, Talma, A. S., Vogel, J. C., 1993, Radiocarbon 35(2):317-322

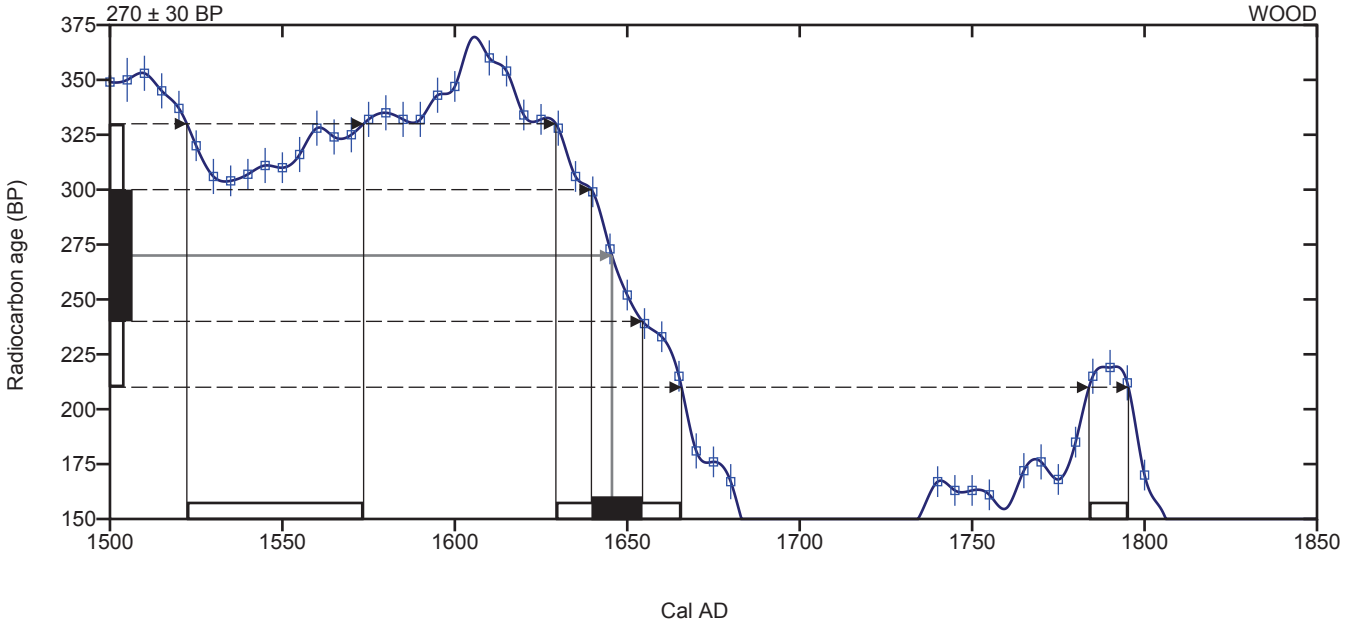
References to INTCAL13 database

Reimer PJ et al. IntCal13 and Marine13 radiocarbon age calibration curves 0– 50,000 years cal BP. Radiocarbon 55(4):1869– 1887.

CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12 = -24.1 o/oo : lab. mult = 1)

Laboratory number	**Beta-384638**
Conventional radiocarbon age	**270 ± 30 BP**
2 Sigma calibrated result 95% probability	**Cal AD 1520 to 1575 (Cal BP 430 to 375)** **Cal AD 1630 to 1665 (Cal BP 320 to 285)** **Cal AD 1785 to 1795 (Cal BP 165 to 155)**
Intercept of radiocarbon age with calibration curve	Cal AD 1645 (Cal BP 305)
1 Sigma calibrated results 68% probability	Cal AD 1640 to 1655 (Cal BP 310 to 295)



Database used

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References

Mathematics used for calibration scenario

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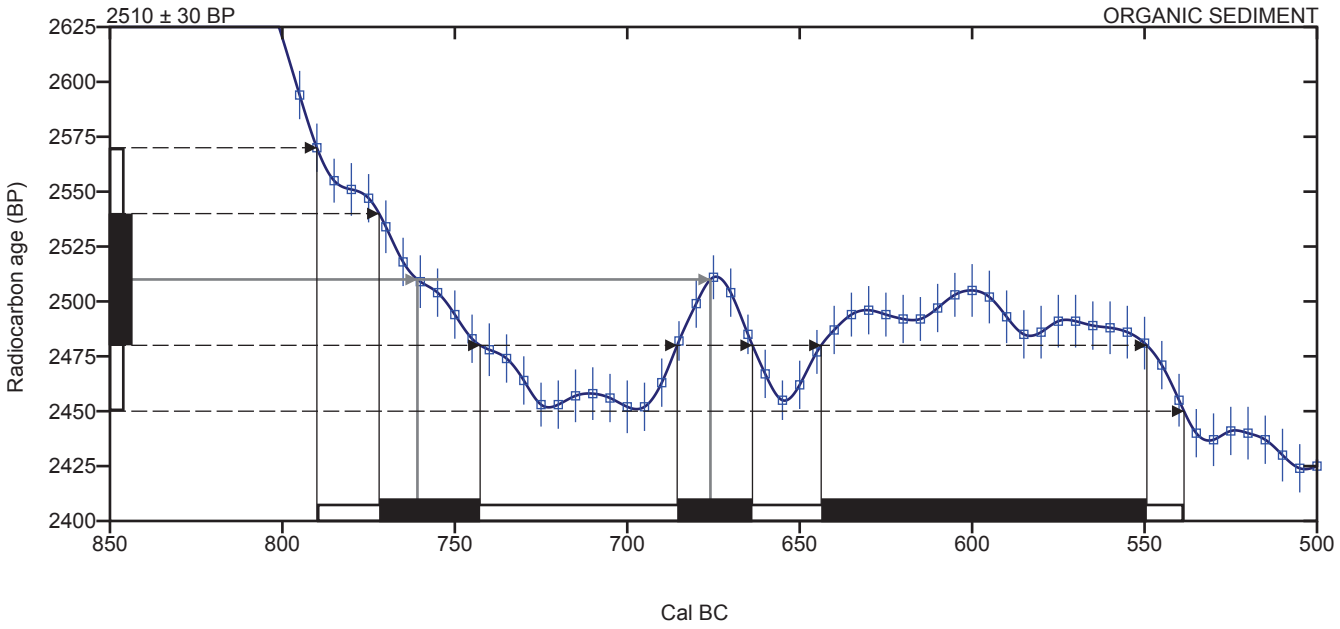
CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12 = -25.5 o/oo : lab. mult = 1)

Laboratory number	**Beta-383171**
Conventional radiocarbon age	**2510 ± 30 BP**
2 Sigma calibrated result 95% probability	**Cal BC 790 to 540 (Cal BP 2740 to 2490)**
Intercept of radiocarbon age with calibration curve	Cal BC 760 (Cal BP 2710) Cal BC 675 (Cal BP 2625)
1 Sigma calibrated results 68% probability	Cal BC 770 to 745 (Cal BP 2720 to 2695) Cal BC 685 to 665 (Cal BP 2635 to 2615) Cal BC 645 to 550 (Cal BP 2595 to 2500)



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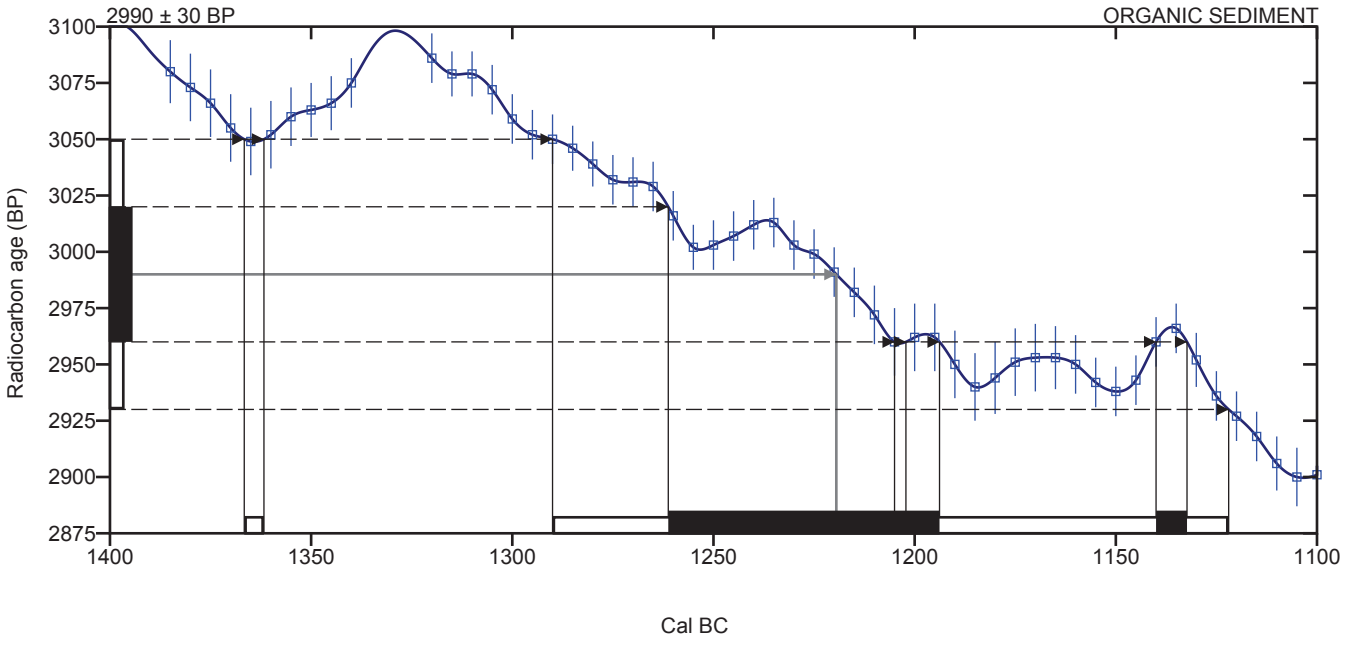
CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12 = -24.8 o/oo : lab. mult = 1)

Laboratory number	**Beta-383172**
Conventional radiocarbon age	**2990 ± 30 BP**
2 Sigma calibrated result **95% probability**	**Cal BC 1365 to 1360 (Cal BP 3315 to 3310)** **Cal BC 1290 to 1120 (Cal BP 3240 to 3070)**
Intercept of radiocarbon age with calibration curve	Cal BC 1220 (Cal BP 3170)
1 Sigma calibrated results 68% probability	Cal BC 1260 to 1195 (Cal BP 3210 to 3145) Cal BC 1140 to 1130 (Cal BP 3090 to 3080)



Database used

INTCAL13

References

Mathematics used for calibration scenario

A Simplified Approach to Calibrating C14 Dates, Talma, A. S., Vogel, J. C., 1993, Radiocarbon 35(2):317-322

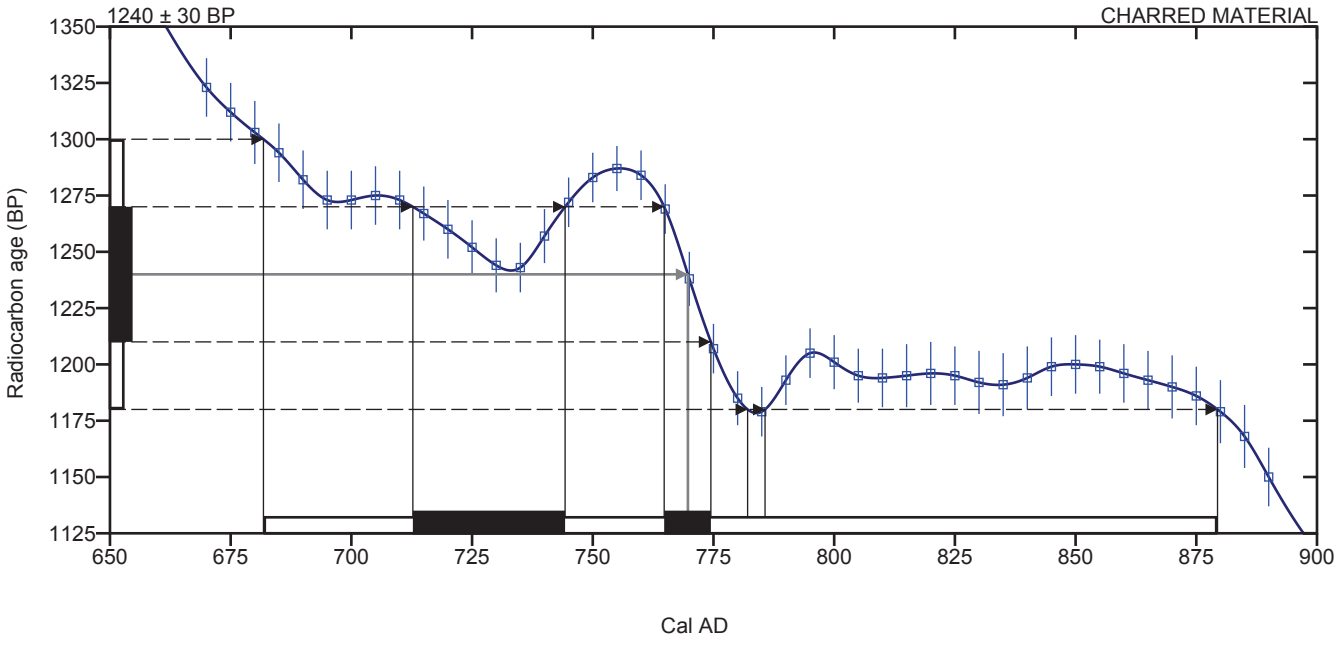
References to INTCAL13 database

Reimer PJ et al. IntCal13 and Marine13 radiocarbon age calibration curves 0– 50,000 years cal BP. Radiocarbon 55(4):1869– 1887.

CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12 = -26.5 o/oo : lab. mult = 1)

Laboratory number	**Beta-383173**
Conventional radiocarbon age	**1240 ± 30 BP**
2 Sigma calibrated result 95% probability	**Cal AD 680 to 880 (Cal BP 1270 to 1070)**
Intercept of radiocarbon age with calibration curve	Cal AD 770 (Cal BP 1180)
1 Sigma calibrated results 68% probability	Cal AD 715 to 745 (Cal BP 1235 to 1205) Cal AD 765 to 775 (Cal BP 1185 to 1175)



Database used

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References

Mathematics used for calibration scenario

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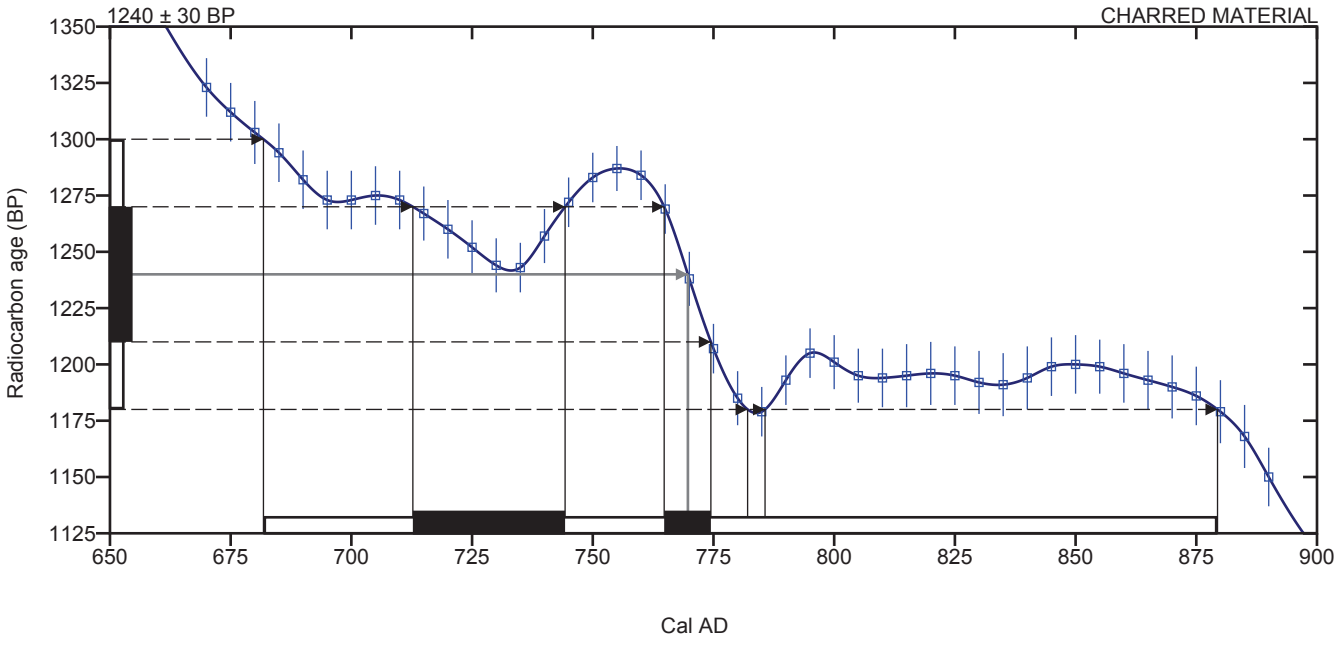
References to INTCAL13 database

Reimer PJ et al. IntCal13 and Marine13 radiocarbon age calibration curves 0– 50,000 years cal BP. Radiocarbon 55(4):1869– 1887.

CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12 = -25.3 o/oo : lab. mult = 1)

Laboratory number	**Beta-382784**
Conventional radiocarbon age	**1240 ± 30 BP**
2 Sigma calibrated result 95% probability	**Cal AD 680 to 880 (Cal BP 1270 to 1070)**
Intercept of radiocarbon age with calibration curve	Cal AD 770 (Cal BP 1180)
1 Sigma calibrated results 68% probability	Cal AD 715 to 745 (Cal BP 1235 to 1205) Cal AD 765 to 775 (Cal BP 1185 to 1175)



Database used

INTCAL13

References

Mathematics used for calibration scenario

A Simplified Approach to Calibrating C14 Dates, Talma, A. S., Vogel, J. C., 1993, Radiocarbon 35(2):317-322

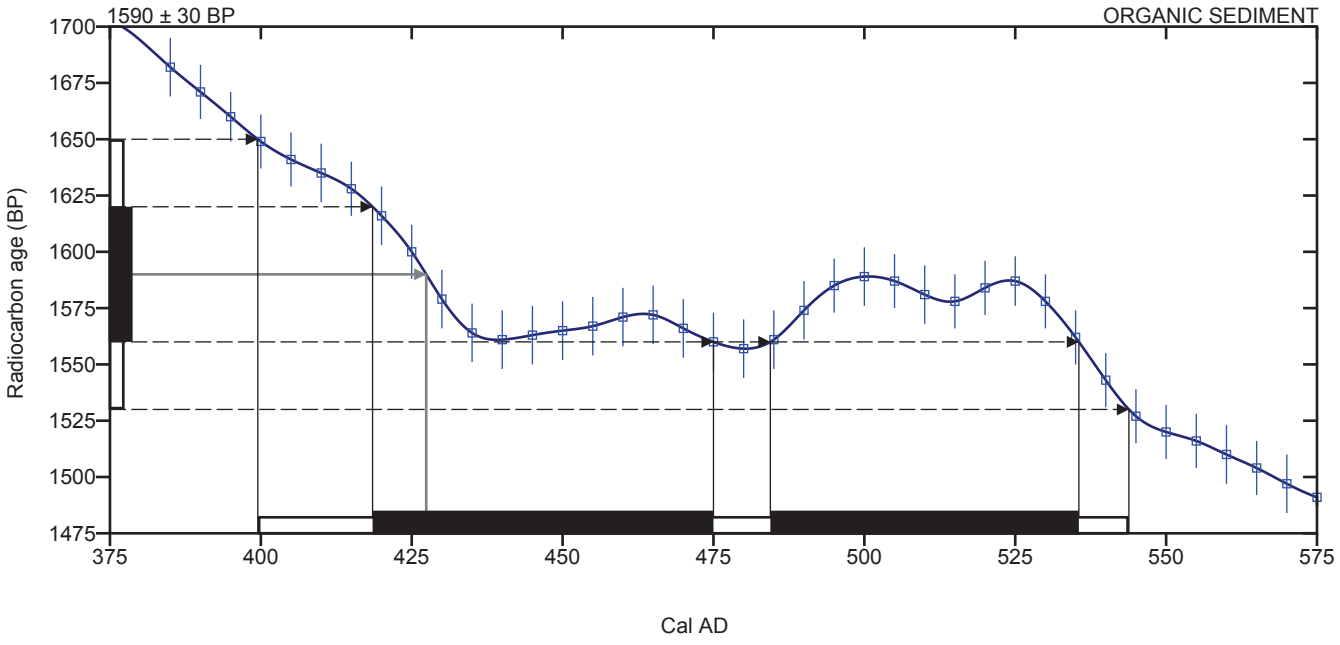
References to INTCAL13 database

Reimer PJ et al. IntCal13 and Marine13 radiocarbon age calibration curves 0– 50,000 years cal BP. Radiocarbon 55(4):1869– 1887.

CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12 = -25.1 o/oo : lab. mult = 1)

Laboratory number	**Beta-382785**
Conventional radiocarbon age	**1590 ± 30 BP**
2 Sigma calibrated result 95% probability	**Cal AD 400 to 545 (Cal BP 1550 to 1405)**
Intercept of radiocarbon age with calibration curve	Cal AD 425 (Cal BP 1525)
1 Sigma calibrated results 68% probability	Cal AD 420 to 475 (Cal BP 1530 to 1475) Cal AD 485 to 535 (Cal BP 1465 to 1415)



Database used

INTCAL13

References

Mathematics used for calibration scenario

A Simplified Approach to Calibrating C14 Dates, Talma, A. S., Vogel, J. C., 1993, Radiocarbon 35(2):317-322

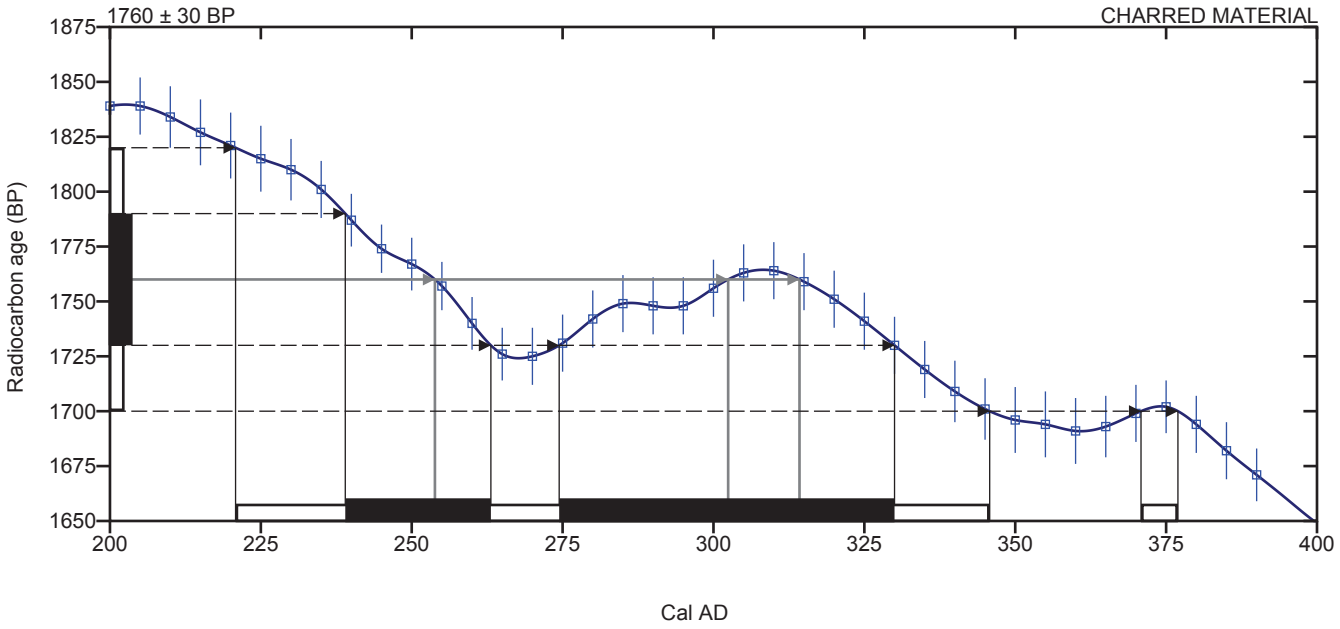
References to INTCAL13 database

Reimer PJ et al. IntCal13 and Marine13 radiocarbon age calibration curves 0– 50,000 years cal BP. Radiocarbon 55(4):1869– 1887.

CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12 = -23.6 o/oo : lab. mult = 1)

Laboratory number	**Beta-382786**
Conventional radiocarbon age	**1760 ± 30 BP**
2 Sigma calibrated result **95% probability**	**Cal AD 220 to 345 (Cal BP 1730 to 1605)** **Cal AD 370 to 375 (Cal BP 1580 to 1575)**
Intercept of radiocarbon age with calibration curve	Cal AD 255 (Cal BP 1695) Cal AD 300 (Cal BP 1650) Cal AD 315 (Cal BP 1635)
1 Sigma calibrated results 68% probability	Cal AD 240 to 265 (Cal BP 1710 to 1685) Cal AD 275 to 330 (Cal BP 1675 to 1620)



Database used

INTCAL13

References

Mathematics used for calibration scenario

A Simplified Approach to Calibrating C14 Dates, Talma, A. S., Vogel, J. C., 1993, Radiocarbon 35(2):317-322

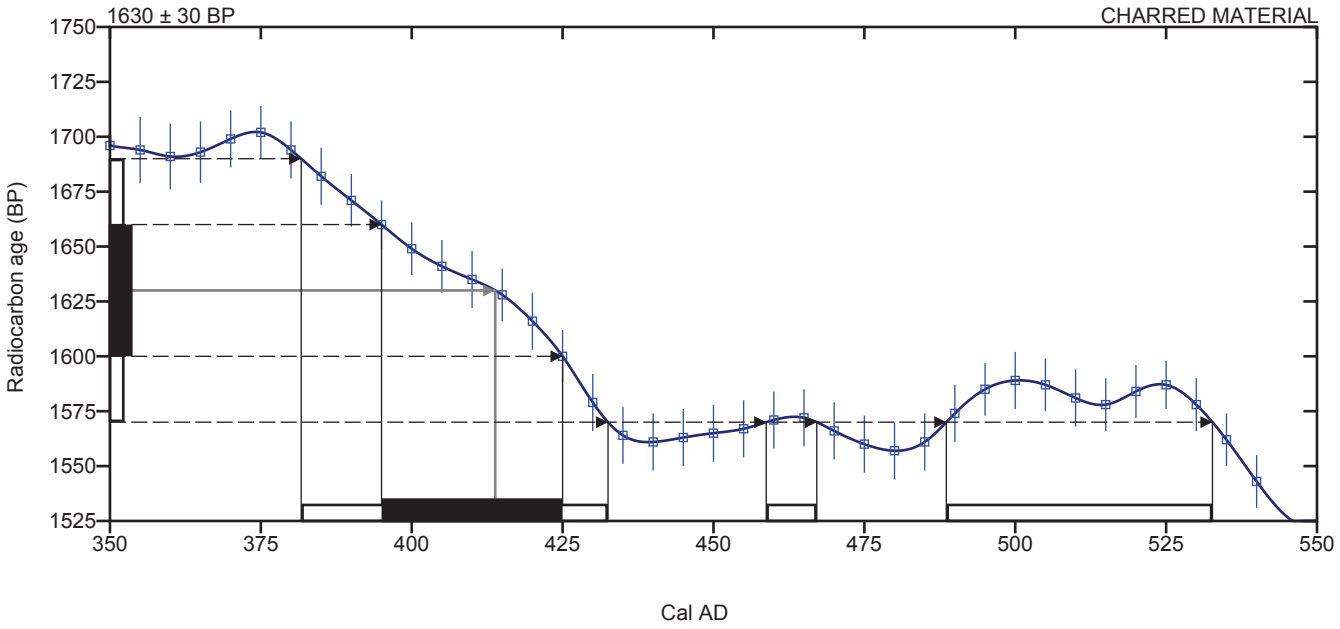
References to INTCAL13 database

Reimer PJ et al. IntCal13 and Marine13 radiocarbon age calibration curves 0– 50,000 years cal BP. Radiocarbon 55(4):1869– 1887.

CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12 = -22.9 o/oo : lab. mult = 1)

Laboratory number	**Beta-382787**
Conventional radiocarbon age	**1630 ± 30 BP**
2 Sigma calibrated result 95% probability	**Cal AD 380 to 435 (Cal BP 1570 to 1515)** **Cal AD 460 to 465 (Cal BP 1490 to 1485)** **Cal AD 490 to 535 (Cal BP 1460 to 1415)**
Intercept of radiocarbon age with calibration curve	Cal AD 415 (Cal BP 1535)
1 Sigma calibrated results 68% probability	Cal AD 395 to 425 (Cal BP 1555 to 1525)



Database used

INTCAL13

References

Mathematics used for calibration scenario

A Simplified Approach to Calibrating C14 Dates, Talma, A. S., Vogel, J. C., 1993, Radiocarbon 35(2):317-322

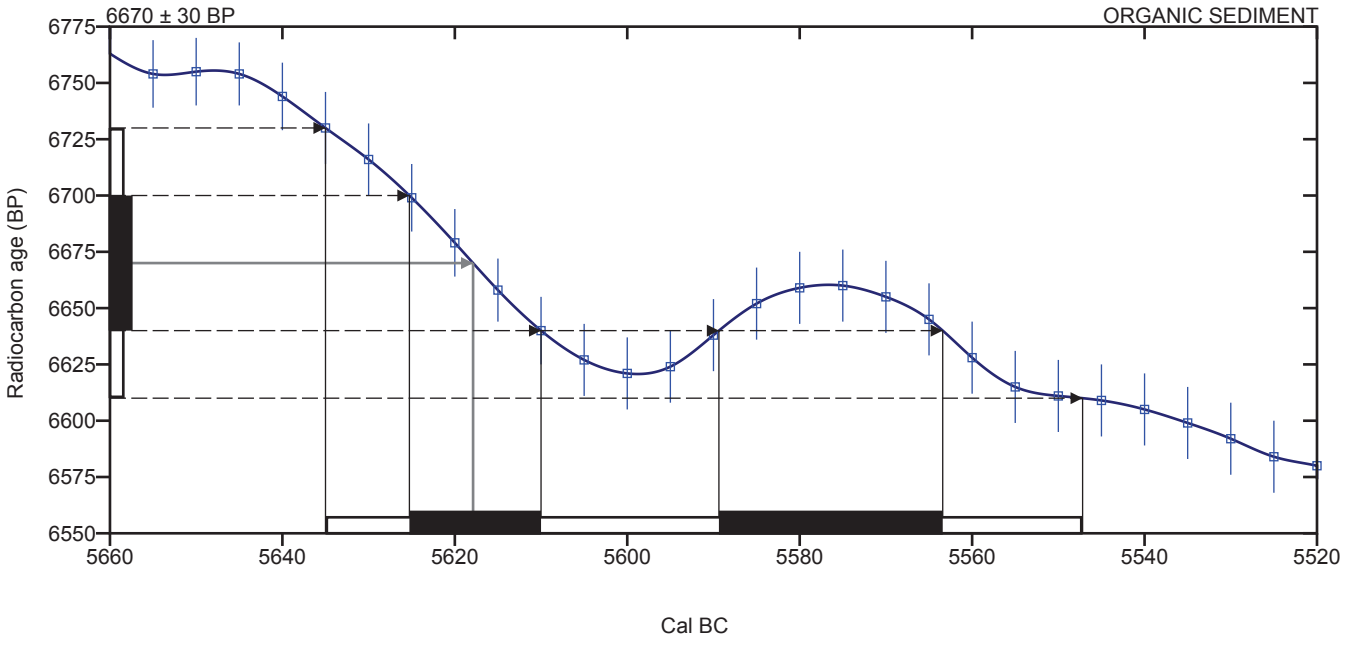
References to INTCAL13 database

Reimer PJ et al. IntCal13 and Marine13 radiocarbon age calibration curves 0– 50,000 years cal BP. Radiocarbon 55(4):1869– 1887.

CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12 = -25 o/oo : lab. mult = 1)

Laboratory number	**Beta-382788**
Conventional radiocarbon age	**6670 ± 30 BP**
2 Sigma calibrated result 95% probability	**Cal BC 5635 to 5545 (Cal BP 7585 to 7495)**
Intercept of radiocarbon age with calibration curve	Cal BC 5620 (Cal BP 7570)
1 Sigma calibrated results 68% probability	Cal BC 5625 to 5610 (Cal BP 7575 to 7560) Cal BC 5590 to 5565 (Cal BP 7540 to 7515)



Database used

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References

Mathematics used for calibration scenario

A Simplified Approach to Calibrating C14 Dates, Talma, A. S., Vogel, J. C., 1993, Radiocarbon 35(2):317-322

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