

APPENDIX B

RADIOCARBON DATING RESULTS

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Three samples collected from the Chemical Building Seismic Trenches (two samples from Trench South 2a and one from Trench South 2b) were submitted to Beta Analytic, Inc, in Miami, FL, for radiocarbon pretreatment and analyses. One sample from Trench South 2a was determined to be unsuitable for dating during the pretreatment process. Therefore, a second sample was collected and submitted. The significance of the results is discussed in the text of the report. The attached pages are the Beta Analytic report sheets.

FROM: Darden Hood, Director (mailto:<mailto:dhood@radiocarbon.com>)
(This is a copy of the letter being mailed. Invoices/receipts follow only by mail.)

September 6, 2006

Mr. Jeffrey R. Keaton
Mactec
200 Citadel Drive
Los Angeles, CA 90040
USA

RE: Radiocarbon Dating Result For Sample BW-3-TS2B

Dear Mr. Keaton:

Enclosed is the radiocarbon dating result for one sample recently sent to us. It provided plenty of carbon for an accurate measurement and the analysis proceeded normally. The report sheet contains the method used, material type, and applied pretreatments and, where applicable, the two-sigma calendar calibration range.

This report has been both mailed and sent electronically. All results (excluding some inappropriate material types) which are less than about 20,000 years BP and more than about ~250 BP include a calendar calibration page (also digitally available in Windows metafile (.wmf) format upon request). Calibration is calculated using the newest (1998) calibration database with references quoted on the bottom of the page. Multiple probability ranges may appear in some cases, due to short-term variations in the atmospheric ¹⁴C contents at certain time periods. Examining the calibration graph will help you understand this phenomenon. Don't hesitate to contact us if you have questions about calibration.

We analyzed this sample on a sole priority basis. No students or intern researchers who would necessarily be distracted with other obligations and priorities were used in the analysis. We analyzed it with the combined attention of our entire professional staff.

Information pages are also enclosed with the mailed copy of this report. If you have any specific questions about the analysis, please do not hesitate to contact us. Someone is always available to answer your questions.

Thank you for prepaying the analysis. As always, if you have any questions or would like to discuss the results, don't hesitate to contact me.

Sincerely,

A handwritten signature in black ink that reads "Darden Hood". The signature is written in a cursive, flowing style.

Mr. Jeffrey R. Keaton

Report Date: 9/6/2006

Mactec

Material Received: 8/28/2006

Sample Data	Measured Radiocarbon Age	$^{13}\text{C}/^{12}\text{C}$ Ratio	Conventional Radiocarbon Age(*)
Beta - 220275 SAMPLE : BW-3-TS2B ANALYSIS : AMS-PRIORITY delivery MATERIAL/PRETREATMENT : (charred material): acid/alkali/acid COMMENT: A Measured Radiocarbon Age is not reported for infinite dates since corrections may imply a greater level of confidence than is appropriate.	NA	-25.5 o/oo	> 37500 BP

FROM: Darden Hood, Director (mailto:<mailto:dhood@radiocarbon.com>)
(This is a copy of the letter being mailed. Invoices/receipts follow only by mail.)

September 11, 2006

Mr. Jeffrey R. Keaton
Mactec
200 Citadel Drive
Los Angeles, CA 90040
USA

RE: Radiocarbon Dating Result For Sample BW-5-TS2A

Dear Mr. Keaton:

Enclosed is the radiocarbon dating result for one sample recently sent to us. It provided plenty of carbon for an accurate measurement and the analysis proceeded normally. As usual, the method of analysis is listed on the report sheet and calibration data is provided where applicable.

As always, no students or intern researchers who would necessarily be distracted with other obligations and priorities were used in the analysis. It was analyzed with the combined attention of our entire professional staff.

If you have specific questions about the analyses, please contact us. We are always available to answer your questions.

Thank you for prepaying the analysis. As always, if you have any questions or would like to discuss the results, don't hesitate to contact me.

Sincerely,

A handwritten signature in black ink that reads "Darden Hood". The signature is written in a cursive, flowing style.

Mr. Jeffrey R. Keaton

Report Date: 9/11/2006

Mactec

Material Received: 8/31/2006

Sample Data	Measured Radiocarbon Age	$^{13}\text{C}/^{12}\text{C}$ Ratio	Conventional Radiocarbon Age(*)
Beta - 220382 SAMPLE : BW-5-TS2A ANALYSIS : AMS-PRIORITY delivery MATERIAL/PRETREATMENT : (plant material): acid/alkali/acid 2 SIGMA CALIBRATION : Cal AD 1680 to 1740 (Cal BP 270 to 210) AND Cal AD 1810 to 1930 (Cal BP 140 to 20) Cal AD 1950 to beyond 1960 (Cal BP 0 to 0)	80 +/- 40 BP	-25.9 o/oo	70 +/- 40 BP

CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-25.9:lab. mult=1)

Laboratory number: **Beta-220382**

Conventional radiocarbon age: **70±40 BP**

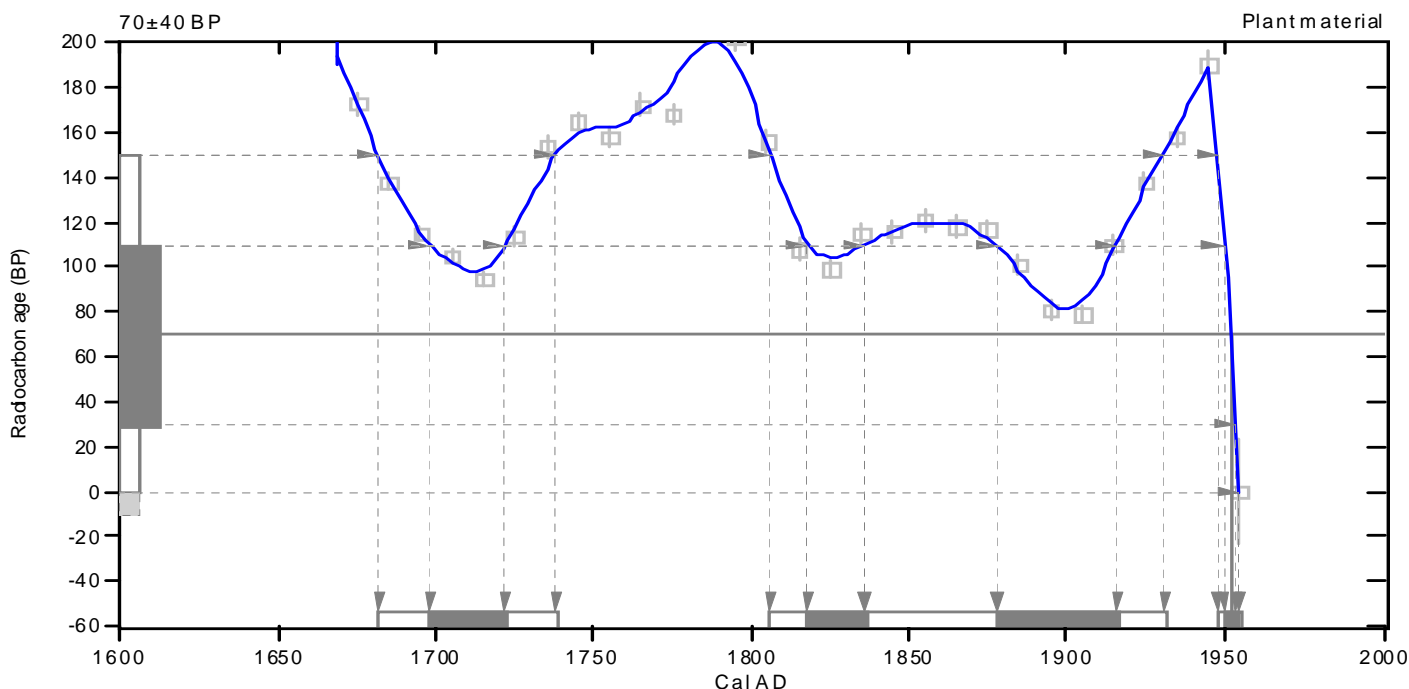
**2 Sigma calibrated results²: Cal AD 1680 to 1740 (Cal BP 270 to 210) and
(95% probability) Cal AD 1810 to 1930 (Cal BP 140 to 20) and
Cal AD 1950 to beyond 1960 (Cal BP 0 to 0)**

² 2 Sigma range being quoted is the maximum antiquity based on the minus 2 Sigma range

Intercept data

Intercept of radiocarbon age
with calibration curve: Cal AD 1950 (Cal BP 0)

1 Sigma calibrated results: Cal AD 1700 to 1720 (Cal BP 250 to 230) and
(68% probability) Cal AD 1820 to 1840 (Cal BP 130 to 110) and
Cal AD 1880 to 1920 (Cal BP 70 to 30) and
Cal AD 1950 to 1950 (Cal BP 0 to 0)



References:

Database used

INTCAL98

Calibration Database

Editorial Comment

Stuiver, M., van der Plicht, H., 1998, *Radiocarbon* 40(3), p xii-xiii

INTCAL98 Radiocarbon Age Calibration

Stuiver, M., et al., 1998, *Radiocarbon* 40(3), p1041-1083

Mathematics

A Simplified Approach to Calibrating C14 Dates

Talma, A. S., Vogel, J. C., 1993, *Radiocarbon* 35(2), p317-322

Beta Analytic Radiocarbon Dating Laboratory

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