

This document contains data on 55 reported assays known or purported to have come from Hinds Cave materials. TBH editorial assistant Jeff Taff compiled the assays and calibrated the dates using CALIB v4.4, selecting the INTCAL98 calibration curve. I (Black) made some educated assignments of Analysis Units, marked as “?” I also call into question some reported assignments, marked as “??”

Tx-2739 is the only date that has been formally rejected as valid. The erroneous date of 12,060 BC (calibrated midpoint; reported date: 11550 +/- 190 B.P.) was on a sample of charcoal and prickly pear pad from one of the prickly pear pad floors. The other 11 assays from the same analysis unit (AU 7) range from 5660 to 7540 B.C. (calibrated midpoints).

Tx-2458 and Tx-2459 were reported by Lord 1984 (Table 3) as having been run on charcoal. Glenna Dean, who collected the samples, pointed out that these assays were run on coprolites, not charcoal. The original Tx assays were calculated using the standard “assumed” $\delta^{13}\text{C}$ value for wood charcoal (-25). However, the three known values we have from coprolites (i.e., Beta dates reported by Dean 2004) average -14.3, a much higher value. In this compilation, we used this average to correct the original assays (Tx-2458 and Tx-2459), resulting in a significant change. Whereas the originally reported B.P. assays were 5590 +/- 70 and 5710 +/- 80, the newly corrected values are almost 200 years older. This is significant, because it brings them much closer to the Beta dates (i.e., now the original assays strongly overlap at 2 sigma with two of the three new assays, leaving only Beta 179750 as a slight outlier – a few hundred years older).

The assumed $\delta^{13}\text{C}$ values for all samples are shown in italics.

Ua-15511, Ua-15512, and Ua-15386, the three assays reported by Poinar et al. 2001, are from coprolite samples said to be from Block B, Lens 13. These assays yielded age estimates over 4,000 radiocarbon years later than the coprolites definitely from Block B Lens 13A and Lens 13 dated by Dean 2004 and Williams-Dean 1978. In my opinion, this discrepancy can best be explained as a sample misidentification problem—the three coprolites dated by Poinar et al. 2001 must have come from some other Hinds Cave provenience.

References

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Hinds Cave Radiocarbon Compilation

Lab No.	Area-Unit	Lens/Level	Analysis Unit	Context	AMS	δ13C (‰)	Reported Assay B.P.	Calibrated Age (2σ) p=1.00	Calibrated Mid-point (B.C./A.D.)	Calibrated Mid-point (B.P.)	Material	Reference
CAMS 96373	Alcove?	upper deposits	1?	Wooden stick	Y	-24.91	905 ± 35	A.D. 1040 – 1210	A.D. 1125	825	Ash (wood)	Steelman et al. 2004
CAMS 85492	Alcove?	upper deposits	1?	Wooden stick	Y	-24.91	920 ± 35	A.D. 1030 - 1210	A.D. 1120	830	Ash (wood)	Steelman et al. 2004
CAMS 88193	Alcove?	upper deposits	1?	Wooden stick	Y	-24.91	940 ± 40	A.D. 1020 - 1210	A.D. 1115	835	Ash (wood)	Steelman et al. 2004
CAMS 91407	Alcove?	upper deposits	1?	Wooden stick	Y	-24.91	940 ± 35	A.D. 1020 - 1190	A.D. 1105	845	Ash (wood)	Steelman et al. 2004
CAMS 89606	Alcove?	upper deposits	1?	Wooden stick	Y	-24.91	955 ± 30	A.D. 1020 - 1160	A.D. 1090	860	Ash (wood)	Steelman et al. 2004
CAMS 93683	Alcove?	upper deposits	1?	Wooden stick	Y	-24.91	970 ± 35	A.D. 1000 – 1160	A.D. 1080	870	Ash (wood)	Steelman et al. 2004
Tx-5897	Alcove?	upper deposits	1?	Wooden stick	N	-25	1310 ± 97	A.D. 540 – 960	A.D. 750	1200	Wood	Steelman et al. 2004
Tx-2733	F-3	1 (Lev 3)	1?	BRM	N	-25	1820 ± 70	A.D. 30 – 380	A.D. 205	1745	Charcoal	Valastro et al. 1979, Lord 1984
CAMS 85491	Alcove?	upper deposits	2?	Bundle burial	Y	-23.91	2095 ± 50	350 B.C. – A.D. 20	165 B.C.	2115	Mat	Steelman et al. 2004
CAMS 91410	Alcove?	upper deposits	2?	Bundle burial	Y	-14.65	2095 ± 40	340 B.C. – A.D. 1	170 B.C.	2120	Grass	Steelman et al. 2004
CAMS 88194	Alcove?	upper deposits	2?	Bundle burial	Y	-14.65	2125 ± 40	350 B.C. – A.D. 1	175 B.C.	2125	Grass	Steelman et al. 2004
CAMS 95671	Alcove?	upper deposits	2?	Bundle burial	Y	-25	2120 ± 40	350 B.C. – A.D. 1	175 B.C.	2125	Sotol	Steelman et al. 2004
CAMS 96371	Alcove?	upper deposits	2?	Bundle burial	Y	-14.65	2115 ± 35	350 – 40 B.C.	195 B.C.	2145	Grass	Steelman et al. 2004
CAMS 96374	Alcove?	upper deposits	2?	Bundle burial	Y	-16.3	2120 ± 35	350 – 40 B.C.	195 B.C.	2145	Twine	Steelman et al. 2004
CAMS 94532	Alcove?	upper deposits	2?	Bundle burial	Y	-25	2135 ± 40	350 – 50 B.C.	200 B.C.	2150	Sotol	Steelman et al. 2004
CAMS 95670	Alcove?	upper deposits	2?	Bundle burial	Y	-25	2125 ± 35	350 – 50 B.C.	200 B.C.	2150	Bone/skin	Steelman et al. 2004
CAMS 96372	Alcove?	upper deposits	2?	Bundle burial	Y	-23.91	2140 ± 40	360 – 50 B.C.	205 B.C.	2155	Mat	Steelman et al. 2004
CAMS 92188	Alcove?	upper deposits	2?	Bundle burial	Y	-23.91	2155 ± 40	360 – 60 B.C.	210 B.C.	2160	Mat	Steelman et al. 2004
CAMS 93679	Alcove?	upper deposits	2?	Bundle burial	Y	-16.3	2155 ± 45	360 – 60 B.C.	210 B.C.	2160	Twine	Steelman et al. 2004
Ua-15512	Block B	13??	2?	Latrine	Y	Unknown	2165 ± 60	380 – 50 B.C.	215 B.C.	2165	Coprolite	Poinar et al. 2001
CAMS 93678	Alcove?	upper deposits	2?	Bundle burial	Y	-16.3	2170 ± 45	380 – 60 B.C.	220 B.C.	2170	Twine	Steelman et al. 2004
CAMS 86525	Alcove?	upper deposits	2?	Bundle burial	Y	-14.65	2210 ± 45	390 – 170 B.C.	280 B.C.	2230	Grass	Steelman et al. 2004
Tx-2746	Block B	3	2		N	-25	2280 ± 60	500 – 170 B.C.	335 B.C.	2285	Charcoal	Valastro et al. 1979, Lord 1984
Ua-15386	Block B	13??	2?	Latrine	Y	Unknown	2280 ± 90	760 – 60 B.C.	410 B.C.	2360	Coprolite	Poinar et al. 2001
Ua-15511	Block B	13??	2?	Latrine	Y	Unknown	2370 ± 60	760 – 230 B.C.	495 B.C.	2445	Coprolite	Poinar et al. 2001
Tx-5987	Alcove?	upper deposits	2?	Bundle burial	N	-25	2710 ± 50	970 – 800 B.C.	885 B.C.	2835	Sotol	Steelman et al. 2004
Tx-2748	Block B	7A	3		N	-25	3680 ± 80	2300 – 1780 B.C.	2040 B.C.	3990	Charcoal	Valastro et al. 1979, Lord 1984
Tx-2741	A-Ae	4	3	Fiber lens	N	-25	3780 ± 70	2460 – 1980 B.C.	2220 B.C.	4170	Charcoal	Valastro et al. 1979, Lord 1984
Tx-2740	A-Ae	5	3	Fiber lens	N	-25	3840 ± 70	2470 – 2040 B.C.	2255 B.C.	4205	Charcoal	Valastro et al. 1979, Lord 1984
Tx-2749	Block B	11	5		N	-25	4410 ± 70	3340 – 2900 B.C.	3120 B.C.	5070	Charcoal	Valastro et al. 1979, Lord 1984
Tx-2742	Aw	9B	5	Fiber lens	N	-25	4510 ± 70	3490 – 2930 B.C.	3210 B.C.	5160	Charcoal	Valastro et al. 1979, Lord 1984
Tx-2750	Block B	3B	5	Latrine	N	-25	4610 ± 70	3630 – 3100 B.C.	3365 B.C.	5315	Charcoal	Valastro et al. 1979, Lord 1984
Tx-2747	Block B	11	5		N	-25	4760 ± 70	3660 – 3370 B.C.	3515 B.C.	5465	Charcoal	Valastro et al. 1979, Lord 1984
Tx-2743	A-Aw	7	5	Fiber lens	N	-25	4990 ± 70	3940 – 3660 B.C.	3800 B.C.	5750	Charcoal	Valastro et al. 1979, Lord 1984
Tx-2458	Block B	13A	5d	Latrine	N	-14.3	5765 ± 70	4780 – 4460 B.C.	4620 B.C.	6570	Coprolite	Williams-Dean 1978
Tx-2459	Block B	13A	5d	Latrine	N	-14.3	5885 ± 80	4940 – 4550 B.C.	4745 B.C.	6695	Coprolite	Williams-Dean 1978
Beta 179749	Block B	13	5	Latrine	Y	-12.5	5940 ± 80	5040 – 4600 B.C.	4820 B.C.	6770	Coprolite	Dean 2004
Beta 180321	Block B	13	5	Latrine	Y	-17.2	5920 ± 110	5190 – 4500 B.C.	4845 B.C.	6795	Coprolite	Dean 2004
Tx-2735	A-C, Northwall	5C	6	BRM	N	-25	6160 ± 80	5300 – 4850 B.C.	5075 B.C.	7025	Charcoal	Valastro et al. 1979, Lord 1984
Tx-2732	A-C-2	8	6	BRM	N	-25	6230 ± 90	5460 – 4860 B.C.	5160 B.C.	7110	Charcoal	Valastro et al. 1979, Lord 1984
Beta 179750	Block B	13	5	Latrine	Y	-13.1	6270 ± 90	5470 – 4960 B.C.	5215 B.C.	7165	Coprolite	Dean 2004
Tx-2744	A-A	5C	6	BRM	N	-25	6540 ± 70	5620 – 5370 B.C.	5495 B.C.	7445	Charcoal	Valastro et al. 1979, Lord 1984
Tx-2316	C	Lev 10	7		N	-25	6750 ± 100	5840 – 5480 B.C.	5660 B.C.	7610	Charcoal	Lord 1984
Tx-2751	Block B-South	10B	7	Latrine	N	-25	6950 ± 90	5990 – 5660 B.C.	5825 B.C.	7775	Charcoal	Valastro et al. 1979, Lord 1984
Tx-2315	B-E	Lev 4	7		N	-25	7220 ± 60	6220 – 5930 B.C.	6075 B.C.	8025	Charcoal	Lord 1984
Tx-2738	C South-3	5	7		N	-25	7470 ± 120	6530 – 6030 B.C.	6280 B.C.	8230	Charcoal	Valastro et al. 1979, Lord 1984
Tx-2736	C	Lev 11	7		N	-25	7490 ± 100	6500 – 6090 B.C.	6295 B.C.	8245	Charcoal	Valastro et al. 1979, Lord 1984
Tx-2865	A-C, Northwall		7	Prickly pear floor	N	-25	7530 ± 120	6640 – 6090 B.C.	6365 B.C.	8315	Charred Wood	Valastro et al. 1979, Lord 1984
Tx-2867	A-C, Northwall		7		N	-25	7950 ± 110	7280 – 6510 B.C.	6895 B.C.	8845	Charcoal	Valastro et al. 1979, Lord 1984
Tx-2737	D-1	Lev 7	7	Latrine	N	-25	8180 ± 110	7520 – 6830 B.C.	7175 B.C.	9125	Charcoal	Valastro et al. 1979, Lord 1984
Tx-2314	D-2	Lev 7	7		N	-25	8280 ± 80	7520 – 7080 B.C.	7300 B.C.	9150	Charcoal	Lord 1984
Tx-2745	A-A	5K	6-7		N	-25	8250 ± 80	7520 – 7080 B.C.	7300 B.C.	9250	Charcoal	Valastro et al. 1979, Lord 1984
Tx-2734	G-1c	Lev 4	7		N	-25	8490 ± 130	7940 – 7140 B.C.	7540 B.C.	9490	Charcoal	Valastro et al. 1979, Lord 1984
Tx-2866	A-C, Northwall		8		N	-25	9120 ± 90	8610 – 7970 B.C.	8290 B.C.	10240	Charcoal	Valastro et al. 1979, Lord 1984
Tx-2739	A-C, Northwall		7	Prickly pear floor	N	-25	11550 ± 190	13050 – 11070 B.C.	12060 B.C.	14010	Prickly pear w/ charcoal	Valastro et al. 1979