APPENDIX 1: RESULTS FOR ALL SAMPLES (FIRI)

Column Labelling and Data Entry

In the following tables:

- M/E is coded for measured (M) or estimated (E) $\delta^{13}C$
- "Limit" is used when a sample is non-finite and the coded entries are:
 - •B: indistinguishable from background;
 - •M: modern;
 - •>: greater than age.
- + σ_L and σ_U are used if the error is asymmetrical
- pMClim: limit for pMC

Table A	1.1 Full resu	alts for Samp	ole A								
Lab	δ ¹³ C	$\sigma \delta^{13} C$	M/E	Age	Limit	σ_{L}	$\sigma_{\rm U}$	в	pMC	pMClim	pMCσ
1	-23.5		Μ	48,180				2480	0.25		0.08
1	-23.7		Μ	50,380				3300	0.19		0.08
0	-23		Μ	51,640				2100	0.16		0.04
n	-24.2		Μ	41,490				2300	0.57		
4	-22.98	0.45	Μ		В					В	
5	-25	7	Щ	40,000	Λ				0.45		0.18
9	-22.975	0.004	Μ	44,006		420	440				
7	-22.7		Μ	43,760	\wedge						
8	-20.9		Μ	45,970				790			
6	-24.5		Μ	45,000	\wedge		l				
10				34,800				500			
11	-30.7	0.1	Μ	39,250				1800	0.76		0.19
12	-22.8		Μ	40,000	\wedge						
13	-24.65		Μ		В					В	
15	-23.33	0.75	Μ	51,530		1260	1490		0.16		0.03
15	-25.5	0.69	Μ	33,790		2190	3020		1.49		0.47
16				35,086				480	1.27		0.07
17	-25		Щ	55,200	\wedge				0.104		0.059
18	-24.85	0.21	Μ	37,000	\wedge				0		0.5
19	-25.2		Μ	44,024				2127			
20	-22.1		Μ	55,000				2800	0.11		0.04
21			Щ	49,580				2300			
22	-25.56	0.15		47,600		3700	7070		0.27		0.16
23	-23.02	0.2	Μ	40,545				1966	0.64		0.16
24	-23.68			46,000	\wedge						
25	-21.6		Μ	45,200			I	1400	0.36		0.06
26				39,400				1400			
27	-26.2		Μ	45,000	\wedge				0.36		
28				38,400		1400	1700				

APPENDIX 1: RESULTS FOR ALL SAMPLES

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LaD	J0	00,00	M/E	Age	TIMIT	Π	oU	ь	piMC	pinicium	pinica
29	-21.4		Μ	43,900				2000	0.42		0.1
30	-24.17		Μ	36,780		410	430		1.027		0.053
31	-24.3		Μ	35,100		540	580		1.27		
32	-23.5		Μ	42,810	\wedge				0.5	V	
33	-23.5		Μ	44,480				1280	0.39		0.06
34	-23.4		Μ	43,390				180	0.45		0.01
35	-25		Μ	44,400				1600	0.39		0.07
36	-25.6		Μ	50,000		2800	4000		0.2		0.1
37	-21.9	0.2	Μ	51,971		2418	3475		0.2		0.1
38	-23.8		Μ	47,490				890	0.271		0.03
39	-23.87	0.01	Μ	32,990				820	1.65		0.17
40	-23.6	0.6	Μ	49,922	٨				0.12		0.04
41	-24.2		Μ	48,305				1592	0.24		0.04
42	-24.5		Щ	39,556				189	0.73		
43	-24.234	0.004	Μ	40,000	٨				0.56		0.66
44	-24.1		Μ	42,440		3880	0677		0.51		0.31
45				61,000							
46	-22.1		Μ	49,000	٨				0.21	V	
47	-21.9	0.1	Μ	50,860	٨				0.08		0.04
48	-24.84		М	44,000	\wedge				0.4	V	
49				48,500				1200	0.24		0.04
49				51,000				1700	0.17		0.04
49				49,700				1300	0.2		0.03
50	-23.4		Μ	52,400				2300	0.15		0.04
50	-23.4		Μ	51,800				2100	0.16		0.04
51	-23.5	0.1	Μ	45,500				1000	0.35		0.04
51	-23.9	0.1	Μ	50,300				1500	0.19		0.03
52	-23.2	0.3	Μ	47,250	\wedge				0.28		0.03

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Table A	1.1 Full resul	ts for Sample	a A (Com	tinued)							
Lab	δ ¹³ C	$\sigma \delta^{13} C$	M/E	Age	Limit	$\sigma_{\rm L}$	$\sigma_{\rm U}$	Q	pMC	pMClim	pMCσ
LL	-23.98		Μ	38,430	^				0.24		
LL	-23.98		Μ	39,760	\wedge				-0.043		
78									10.62		3.097
79	-23.59		Μ						0.35		0.06
81	-25	б	Щ	14,090				160	17.31		0.34
82	-24.08		Μ	46,610.96				2090.35	0.3		0.07
83	-24.1		Μ	52,240				1698	0.15		0.03
84	-22.4		Μ	49,200				1800	0.22		0.04
84	-24.8		Μ	50,200				2000	0.19		0.04
85	-24.2		Щ	47,948				1907	0.26		0.05
86	-24.4		Μ	41,988		1148	1340		0.537		0.083
87	-22.9		Μ	41,700				1200	0.55		0.08
88	-23.3		Μ	49,000	\wedge				0.22	V	
89	-23.85		Μ	44,300				3300	0.4		0.16
90	-25.18		Μ		В						
90	-24.79		Μ		В						
91	-24.4	1	М	45,818				1374	0.333		0.057

Table A	A1.2 Full result:	s for Sample	В								
Lab	δ ¹³ C	$\sigma \delta^{13} C$	M/E	Age	Limit	$\sigma_{\rm L}$	$\sigma_{\rm U}$	Q	pMC	pMClim	pMCσ
1	-25.4		Μ	47,000	^				0.2	V	
1	-23.2		Μ	47,000	\wedge				0.2	V	
ы	-22.3		Μ	50,980				1930	0.18		0.04
ω	-24.03		Μ	35,310				1400	1.23		
4	-24.08	0.48	Μ		В					В	
5	-25	2	Щ	39,200				1700	0.76		0.16
9	-23.142	0.012	Μ	47,610		510	540				
٢	-22.4		Μ	44,650	\wedge						
8	-21.4		Μ	46,660				770			
6	-25.7		Μ	45,000	\wedge						
10				37,000				600			
11	-31	0.1	Μ	41,500				1800	0.57		0.12
11	-31	0.1	Μ	42,000	\wedge				0.06		0.16
12	-22.4		Μ	40,000	\wedge						
13	-24.09		Μ		В					В	
15	-23.69	0.86	Μ	51,090		1230	1460		0.17		0.03
15	-26.82	0.72	Μ	37,320		1210	1420		0.96		0.16
16				33,521				960	1.54		0.19
17	-25		Щ	54,200	\wedge				0.118		0.055
18	-24.4	0.17	Μ	37,000	\wedge				-0.3		0.60
19	-25.2		Щ	45,800	\wedge						
20	-22.3		Μ	54,500				2600	0.11		0.04
21			Щ	32,640				1180			
22	-24.9	0.15		41,000		1870	2450		0.61		0.16
23	-23.39	0.2	Μ	38,663				1609	0.81		0.16
24	-23.58			45,000	\wedge						
25	-21.9		Μ	43,600				1300	0.44		0.07
26				44,900				1600			

Table A	.1.2 Full result	s for Sample	B (Conti	inued)							
Lab	δ ¹³ C	$\sigma \delta^{13} C$	M/E	Age	Limit	σ_{L}	σU	ь	pMC	pMClim	pМСσ
27	-24.5		Μ	45,200				3400	0.36		0.15
28				38,800		1200	1400				
29	-21.5		М	43,600				2200	0.44		0.12
30	-23.83		М	34,420		310	320		1.378		0.054
31	-24.6		М	38,000		770	850		0.88		
32	-23.97		М	45,480	\wedge				0.35	V	
33	-24		М	56,840	\wedge				0.04	V	
34	-24		М	48,800	\wedge				0.09		0.07
35	-24		М	44,300				1300	0.39		0.05
36	-25.6		Μ	45,000		1600	2000		0.4		0.1
37	-21.5	0.2	Μ	48,829		1745	2232		0.22		0.05
38	-23.6		Μ	47,780				970	0.261		0.032
39	-23.92	0.01	М	36,030				1130	1.13		0.16
40	-23.6	0.6	Μ	49,478	\wedge				0.13		0.04
41	-24.5		Μ		В				0.08		0.06
42	-24.5		Щ	41,764				184	0.55		
43	-23.464	0.003	Μ	37,782				1314	0.91		0.15
44	-25.2		Σ	32, 340		810	900		1.74		0.19
46	-21.9		Σ	49,000	\wedge				0.22	V	
47	-21.8	0.1	Σ	49,760	\wedge				0.16		0.05
48	-25.89		Σ	44,000	\wedge				0.4	V	
49				55,900				2900	0.09		0.03
49				50,800				2600	0.18		0.06
49				50,900				1500	0.18		0.03
50	-24		Σ	56,000				3600	0.09		0.04
50	-24		Σ	55,200				3300	0.1		0.04
51	-23.4	0.1	Σ	45,800				1200	0.33		0.05
51	-23.2	0.1	Σ	45,000				950	0.37		0.04
51	-22.7	0.1	М	47,900				1300	0.26		0.04

Table A	1.2 Full res	ults for Sar	nple B (C	Continued)							
Lab	δ ¹³ C	$\sigma \delta^{13} C$	M/E	Age	Limit	$\sigma_{\rm L}$	$\sigma_{\rm U}$	b	pMC	pMClim	pMCσ
52	-23.3	0.3	М	45,010	^				0.37		0.07
53			Щ	24,290				5360	4.86		4.61
54	-24.1	0.5	Μ	41,013		1128	1313		0.606		0.091
55	-24		М	50,600		2050	2750		0.2		0.1
56	-23.9	0.2	Μ		В						
57	-25		Щ	45,000	^				0.37	V	
58	-22.86		М	50,600	\wedge				0.048		0.067
59	-21.8		М	41,000	\wedge				0.4		0.2
60	-23.2		М	47,800	\wedge				0.06		0.1
61	-25		М	44,000	\wedge						
63	-25		Щ	43,540	I			3970	0.44		0.28
64	-23.9		Μ	45,800				1200			
65	-24.85		Μ	45,000		3800	7300		0.37		0.22
99	-24.1		М	49,500	\wedge						
67	-25		Щ	24,800	٨						
68	-23.5		М						0.38		0.23
69	-25.2	0.2	М	32,500	В			1000			
70										В	
71				45,830				1100	0.333		
72	-21.7		М	49,815				679			
73	-24.37		М	53,140	I	1620	2030		0.134		0.03
74	-23.5		М	50,000	٨				0.1		0.05
74	-21.4		М	50,000	\wedge				0.12		0.05
75				49,000	٨						
76	-23.7		М	41,200	\wedge				0.54	V	
LL	-24.44		Σ	38,600	٨				0.237		
77	-24.44		Μ	39,830	\wedge			I	-0.004		
78			I						8.41		2.876106

le A	.1.2 Full rea	sults for Sa	umple B ((Continued)							
	$\delta^{13}C$	$\sigma \delta^{13} C$	M/E	Age	Limit	$\sigma_{\rm L}$	$\sigma_{\rm U}$	Q	pMC	pMClim	pMCσ
	-23.69		Μ						0.33		0.06
	-25	С	Щ	49,900		3490	6310		0.2		0.11
	-24.38		Μ	54,473.53				4296.82	0.11		0.05
	-24.7		Μ	53,393				1951	0.13		0.03
	-24.1		Σ	52,300				2700	0.15		0.04
	-25.3		Μ	51,000				2300	0.17		0.04
	-24.5		Щ	44,051				1062	0.42		0.05
	-24.3		Σ	42,231		870	976		0.521		0.06
	-23.5		Σ		В						
	-24		М	49,000	\wedge				0.22	V	
	-24.35		Σ	42,600				2700	0.5		0.17
	-25.37		Σ		В						
					В						
	-24.9	1	М	56,366				3126	0.09		0.036

Table A1.3	Full results for	Sample C							
Lab	δ ¹³ C	$\sigma \delta^{13} C$	M/E	Age	$\boldsymbol{\sigma}_{\mathrm{T}}$	σ_{U}	b	pMC	pMCσ
1	0.9		Μ	18,260			62	10.30	0.10
1	0.9		M	18,281			73	10.27	0.09
7	0.9		M	18,200			50	10.38	0.05
ŝ	1.107		M	18,180			350	10.40	
4	1.17	0.02	M	18,300			150	10.25	
5	0	2	Е	16,790			130	12.37	0.20
5	0	2	Е	17,070			240	11.95	0.36
6	1.2	0.01	M	17,983			50		
7	1		Μ	18,110			110		
8	1.4		Μ	18,170			50		
6	1.1		Μ	17,900			100		
10				15,470			210		
11	-2.4	0.1	M	18,200			120	10.38	0.16
11	-2.4	0.1	M	18,150			190	10.44	0.28
12	1.2		Μ	18,610			360	9.86	0.44
13	3.864		Μ	18,500			130	10.02	0.16
14	1.5		Μ	18,590	590	640		9.90	0.80
15	-0.37	0.67	M	18,420			100	10.1	0.12
16				15,940			448	13.75	0.77
17	0		E	18,440			210	10.07	0.497
18	0		E	17,804			261	10.89	0.35
19	0		Е	16,778			379		
20	0.4		Μ	18,090			90	10.52	0.12
21			Е	18,160			280		
22	1.07	0.15		18,300			190	10.22	0.24
23	1.17	0.2	М	18,359			154	10.17	0.20
24	1.38			18,160			100		
25	1.2		Μ	18,090			110	10.52	0.14
26				17,900			700		

Table A1.3	Full results for	or Sample C ((Continued)						
Lab	δ ¹³ C	$\sigma \delta^{13} C$	M/E	Age	$\sigma_{\rm L}$	$\sigma_{\rm U}$	Q	pMC	pMCσ
27	1.3		М	18,230			85	10.34	0.11
28				17,720	320	340			
29	1.6		М	18,470			130	10.03	0.16
30	1.12		М	17,820			210	10.882	0.282
31	0.8		М	18,270			110		
32	0.83		М	18,640			240	9.71	0.3
33	0.8		М	17,890			160	10.79	0.21
34	0.8		Μ	18,070			50	10.55	0.06
36	0.8		М	18,200			90	10.4	0.1
37	1.1	0.2	М	18,168			100	10.41	0.12
37	1.1	0.2	Μ	18,264			94	10.29	0.12
38	1.1		М	18,106			43	10.5	0.06
39	0.65	0.01	М	18,090			130	10.52	0.18
41	1.1		М	18,241			75	10.32	0.1
43	1.17	0.05	М	18,124			134	10.47	0.17
44	-0.3		М	15,230			220	15.02	0.42
46	1.1		М	18,260			140	10.3	0.18
47	0.9	0.1	М	18,395			65	10.13	0.08
48	-0.72		М	18,030			160	10.6	0.2
49				18,280			100	10.27	0.12
49				18,150			120	10.44	0.16
49				18, 140			110	10.45	0.15
49				18,310			160	10.23	0.21
50	1.5		Μ	18,180			50	10.4	0.05
50	1.5		Μ	18, 180			50	10.41	0.06
51	1.1	0.1	Μ	18,100			110	10.53	0.15
51	1	0.1	Μ	17,850			100	10.81	0.14
51	1.1	0.1	Μ	17,900			75	10.8	0.1
51	1.2	0.1	Μ	18,150			06	10.43	0.11

Table A1.3	Full results for	r Sample C	(Continued)						
Lab	δ ¹³ C	$\sigma \delta^{13} C$	M/E	Age	\mathfrak{o}_{Γ}	σU	b	pMC	pMCσ
51	1.1	0.1	М	18,050			120	10.56	0.16
52	1.6	0.3	Μ	18,100			85	10.5	0.1
53			Ц	16,700			960	12.51	1.41
54	1.15	0.5	М	17,774	116	117		10.941	0.15
55	1.1		М	18,400			100	10.1	0.1
58	1.36		М	18,420			120	10.094	0.146
59	1.4		Μ	18,400			300	10.1	0.4
60	0.69		Μ	18,230			80	10.34	0.1
62	1.47	0.05	М	17,730			130	11.0	0.175
64	1		Μ	18,120			70		
65	1.13		М	18,138			71	10.46	0.09
99	1.3		Μ	17,860			145		
68	1.3		М	18,120			150	10.48	0.19
69	1	0.2	Μ	17,950			650		
70								20.8	1.56
70								24.8	1.86
71				16,160			340	13.38	
72	-22.6		Μ	18, 140			100		
73	1		М	18,270			70	10.28	0.09
74	3.1		Μ	17,930			09	10.73	0.08
76	6.0-		М	17,950			100	10.71	0.13
77	1.9		Μ	17,900			85	10.746	
62	2.522		Μ	18,205			55		
80	1.44	0.06	М	14,600			650	16.2	1.3
81	-S-	5	Е	17,860			190	10.83	0.25
82	1.06		М	18,373.98			105.64	10.15	0.13
83	1		Μ	18,249			63	10.31	0.08

	συ σ pMC pMCσ	— 100 10.44 0.13	- 100 10.22 0.13	100 10.48 0.13	48 10.94 0.07	100 10.48 0.13	- 80 10.9	- 122 10.35 0.16	— 139 10.43 0.18	140 10.45 0.19	8
	\mathbf{o}_{T}										
	Age	18,150	18,320	18,120	18,205	18,123	17,750	18,224	18,160	18, 140	18 257
(Continued)	M/E	Е	Ц	Ц	Ц	М	М	М	М	М	Σ
ts for Sample C (Continued)	$\sigma \delta^{13} C$									I	-
Full results fc	δ ¹³ C	0	0	0	1.1	1.3	-3.4	1.1	0.9	1.19	۲ ۲
Table A1.3	Lab	84	84	84	85	86	87	88	88	89	91

	lCσ			8	3	9		9	4						3		5		1	5	4	41	Э					4	7	
	Mq	0.4	0.4	0.1	0.2	0.1		0.4	0.4						0.3	1.1	0.4	0.1	0.3	0.2	0.4	0.4	0.5		0.3	0.3		0.5	0.3	
	pMC	56.8	56.57	57.07	57.21	56.94	57	58.43	59.01						58.04	57.05	55.89	57.06	57.13	56.74	55.34	56.849	56.68		56.4	55.9		55.81	56.54	
	ь	56	56	30	40	30	50	70	60	30	60	20	50	50	45	110		10	40	30	63	40	74	43	40	50	40	80	53	26
	σU																70													
	o																60													
	Age	4543	4576	4510	4490	4520	4520	4320	4240	4497	4360	4500	4580	4170	4370	4510	4680	4510	4500	4550	4753	4540	4511	4520	4605	4670	3790	4680	4581	4523
	M/E	Μ	Μ	Μ	Μ	Μ	Μ	Щ	Щ	Μ	Μ	Μ	Μ		Μ	Μ	Μ	Μ	Μ	Μ		Щ	Μ	Μ	Μ	Μ	Щ		Μ	
for Sample D	$\sigma \delta^{13} C$						0.47	2	2	0.024					0.1			0.63	0.82	1.36			0.19					0.15	0.2	
1.4 Full results	δ ¹³ C	-24.2	-24.2	-22.8	-22.8	-22.8	-23.81	-25	-25	-24.328	-23.3	-23.5	-25.3		-31.4	-23.6	-26.37	-25.19	-23.43	-26.55		-25	-25.2	-26.2	-23.7	-23.9		-26.48	-24.64	-24.8
Table A	Lab	1	1	0	7	0	4	5	5	9	7	8	6	10	11	12	13	15	15	15	16	17	18	19	20	20	21	22	23	24

Table A1.	4 Full results f	or Sample D (0	Continued)						
Lab	δ ¹³ C	$\sigma \delta^{13} C$	M/E	Age	\mathfrak{o}_{Γ}	σ_{U}	d	pMC	pMCσ
25	-23.3		Μ	4590			50	56.47	0.35
25			М	4586			28	56.5	0.2
26				3400			70		
27	-25.2		М	4550			25	56.76	0.18
28				4560			60		
29	-22.9		М	4660			50	56	0.32
30	-25.01		М	4420			200	57.646	1.456
31	-25.2		М	4490			50		
31	-25.4		Я	4430			55		
32	-25.54		М	4600			80	56.48	0.52
33	-25.54		М	4400			40	57.97	0.28
34	-25.5		М	4430			30	57.64	0.21
35	-25		М	4500			30	57.11	0.22
36	-23.4		М	4517			34	57	0.2
36	-23.4		М	4517			30	57	0.2
36	-26.1		М	4535			27	56.9	0.2
37	-23.4	0.2	М	4553			45	56.73	0.31
37	-23.6	0.2	М	4549			42	56.76	0.29
38	-25		М	4464			26	57.37	0.19
38	-22.8		М	4496			18	57.14	0.13
39	-25.09	0.02	М	4710			35	55.63	0.26
40	-24.8	0.6	Я	4482			34	57.24	0.24
41	-25.5		М	4509			21	57.05	0.15
41	-25.1		М	4521			18	56.96	0.13
42	-24.5		Е	4325			78	58.4	
43	-24.988	0.002	Μ	4626			42	56.22	0.29
44	-23.1		M	4470			60	57.34	0.4
46	-22.8		Μ	4534			73	56.87	0.52
47			М	4675			50	55.87	0.35

Table A1.₄	4 Full results fo	or Sample D (C	ontinued)						
Lab	δ ¹³ C	$\sigma \delta^{13} C$	M/E	Age	$\sigma_{\rm L}$	σU	р	pMC	pMCσ
48	-25.5		Μ	4620			80	56.3	0.6
49				4520			50	56.95	0.38
49				4500			50	57.13	0.34
50	-24.1		М	4510			30	57.02	0.2
50	-24.1		М	4540			30	56.84	0.2
51	-24	0.1	М	4500			65	57.08	0.46
51	-23.5	0.1	М	4590			40	56.44	0.28
51	-24.4	0.1	М	4550			40	56.73	0.3
52	-24.3	0.3	М	4590			35	56.51	0.25
53			Е	2990			240	68.88	1.99
54	-25.8	0.5	М	4505			36	57.074	0.255
55	-23.9		М	4540			40	56.9	0.3
56	-26.8	0.2	М	4753			30	55.3	0.2
57	-25		Е	4273			58	58.75	0.4
58	-24.33		М	4600			40	56.402	0.3
59	-23.4		М	4580			90	56.5	0.7
60	-24.26		Μ	4600			30	56.43	0.2
61	-25.6		М	4570			35		
63	-25		Е	4540			09	56.83	0.36
64	-24.9		Μ	4590			70		
65	-25.98		М	4467			24		
99	-26		М	4495			65		
67	-25		Е	4775			91		
68	-23.9		М	4700			70	55.72	0.47
69	-25.2	0.2	М	5060			200		
70								55.3	4.1475
70								57.1	4.2825
71				4340			70	58.23	
72	-22.8		М	4567			45		

δ ¹³ C -22.8	σδ ¹³ C —	M/E M	Age 4655	d ^r	σ _U	σ 65	pMC —	pMCσ —
-25.2		Μ	4510			20	57.04	0.12
-25.5		Μ	4485			40	57.22	0.27
-21.6		Μ	4470			40	57.33	0.22
			4450			35		
-25		Σ	4490			30	57.18	0.21
-24.89		Σ	4480			30	57.221	
-24.89		М	4500			40	57.096	
							54.87	3.539823
-22.91		М	4535			40		
-25	ς	Ы	4590			70	56.49	0.52
-25.12		Σ	4541.69			52.2	56.81	0.37
-24.8		Σ	4476			25	57.28	0.18
-23.9		Σ	4530			40	56.89	0.24
-25.1		Щ	4446			12	57.48	0.09
-23.2		Μ	4468			33	57.34	0.23
-25.9		Μ	4400			60	57.44	
-24.7		Σ	4465			35	57.37	0.25
-24.6		Μ	4518			49	56.98	0.35
-24.7		M	4521			38	56.96	0.27
-25.69		Σ	4500			50	57.08	0.37
-25.92		Σ	4450			100	57.46	0.69
-26.03		M	4370			90	58.05	0.66
-25.1		Μ	4462			26		

Table A	1.5 Full results	for Sample E							
Lab	δ ¹³ C	$\sigma \delta^{13} C$	M/E	Age	α ^Γ	$\sigma_{\rm U}$	Q	pMC	pМСσ
1	-28.9		М	11,660			99	23.42	0.19
-	-28.9		Μ	11,709			64	23.28	0.18
7	-28.7		Μ	11,850			40	22.87	0.09
ς	-29.3		Μ	11,670			152	23.3	
4	-27.59	0.55	Μ	11,980			130	22.5	
4	-28.05	0.56	Μ	12,000			110	22.4	
5	-25	2	Щ	11,450			100	24.05	0.31
5	-25	2	Щ	11,760			130	23.14	0.4
9	-29.502	0.012	Μ	11,741			45		
7	-27.7		Μ	11,600			70		
8	-28.9		Μ	11,770			70		
6	-29.5		Μ	11,800			100		
10				11,300			160		
11	-32.9	0.1	Μ	11,530			170	23.8	0.5
11	-32.9	0.1	Μ	11,460			120	24.01	0.45
12	-23.2		Μ	11,660			220	23.41	0.62
13	-29.4		Σ	12,150			80	22.06	0.23
15	-29.58	1.8	Μ	11,840			100	22.9	0.28
16				11,305			135	24.48	0.4
17	-27		Щ	12,550			160	20.963	0.585
18	-29.02	0.16	Μ	12,314			153	21.45	0.41
19	-27		Щ	11,534			106		
20	-28.2		Μ	11,900			70	22.73	0.2
21			Щ	11,750			130		
23	-28.68	0.2	Μ	12,004			93	22.44	0.26
24									
25	-29.1		Μ	11,730			60	23.22	0.17
25	-29.1		Μ	11,920			130	22.68	0.36
26				7700			190		

	ĺ																											
pМСσ	0.08		0.24	0.609	0.636			0.42	0.32	0.01	0.3		0.2	0.4	0.1	0.19	0.17	0.15	0.21	0.19	0.13	0.09	0.11	0.26	1.1	0.29	0.28	0.14
pMC	23.11		22.8	23.394	23.561			21.84	22.63	23.16	22.8		23	23.5	23	22.99	22.95	22.93	22.44	23.11	23.1	22.85	23.24	21.23	23.4	23.12	23.44	22.97
Q	30		90	210	220	80	190	150	110	40	100	1000	60	140	48	69	58	53	70	66	28	31	38	98	380	100	96	50
$\sigma_{\rm U}$		140																										
$\sigma_{\rm L}$		130																										
Age	11,770	13,560	11,880	11,670	11,610	11,760	11,660	12,270	11,940	11,750	11,870	13,000	11,820	11,640	11,816	11,809	11,823	11,830	11,930	11,769	11,772	11,859	11,722	12,450	11,670	11,760	11,653	11.815
M/E	Μ		М	М	М	М	М	М	М	М	М	М	М	М	М	М	М	М	М	М	М	М	М	М	М	М	М	Х
$\sigma \delta^{13} C$																0.2			0.01	0.6	0.5	0.6		0.003				0.1
δ ¹³ C	-28.8		-28.8	-29.27	-29.3	-29.6	-29.5	-29.87	-29.87	-29.9	-27	-27	-30.7	-31.1	-29.9	-29.6	-28.9	-29	-29.2	-29.8	-29	-30.5	-29.5	-29.056	-29.2	-29.1	-29	-29.6
Lab	27	28	29	30	30	31	31	32	33	34	35	35	36	36	36	37	38	38	39	40	40	40	41	43	44	46	46	47

Table A	1.5 Full results	for Sample H	E (Continue	(pa						I
Lab	Jc16	D ^{c1} QD	M/E	Age	dL	σ _U	b	pMC	pMCa	I
48	-29.5		Μ	11,790			120	23	0.4	
49				11,800			40	23.03	0.1	
49				11,910			70	22.7	0.21	
49				12,020			270	22.39	0.77	
49				11,840			120	22.89	0.34	
49				11,940			100	22.61	0.28	
49				11,820			100	22.96	0.28	
49				11,730			110	23.23	0.31	
49				11,720			80	23.25	0.23	
49				11,780			80	23.06	0.23	
49				11,800			80	23.01	0.24	
49				11,920			80	22.69	0.23	
50	-28.4		Μ	11,790			40	23.05	0.1	
50	-28.4		Μ	11,800			40	23.02	0.1	
50	-28.4		Μ	11,810			40	23	0.1	
50	-28.4		Μ	11,830			50	22.92	0.13	
50	-28.4		Μ	11,850			50	22.89	0.14	
50	-28.4		Μ	11,790			50	23.05	0.12	
50	-28.4		Μ	11,780			60	23.08	0.16	
50	-28.4		Μ	11,770			70	23.09	0.17	
50	-28.4		Μ	11,950			110	22.59	0.29	
50	-28.4		Μ	11,760			100	23.14	0.27	
50	-28.4		Μ	11,870			170	22.82	0.46	
50	-28.4		Μ	12,100			350	22.17	0.95	
52	-28.7	0.3	Μ	11,840			70	22.9	0.2	
53			Щ	15,150			820	15.17	1.47	
54	-29.5	0.5	Μ	11,693	230	237		23.327	0.678	
55	-29.6		Μ	11,750			60	23.1	0.2	
55	-29.2		Μ	12,100	290	300		22.2	0.8	

Table A	1.5 Full results	for Sample E	(Continued)	(
Lab	δ ¹³ C	$\sigma \delta^{13} C$	M/E	Age	$\sigma_{\rm L}$	$\sigma_{\rm U}$	Q	pMC	pMCσ
57	-25		Е	11,550			110	23.75	0.31
58	-30.11		Μ	11,680			70	23.37	0.2
58	-30.36		Μ	11,880			110	22.8	0.3
59	-29.4		Μ	11,650			130	23.5	0.4
09	-29.8		Μ	11,830			50	22.94	0.12
61	-28.3		Μ	11,885			55		
62	-29.08	0.05	Μ	11,720			100	23.245	0.281
64	-29.5		М	11,510		I	230		
64	-29.5		М	11,700			70		
65	-29.53		М	11,760			48	23.13	0.14
99	-29.3		М	11,525			80		
67	-25		Щ	12,151		I	158		
67	-25		Щ	11,721			230		
68	-27		Щ	12,120			130	22.14	0.22
70								24.3	1.8225
70						I		24.8	1.86
70								18.6	1.395
71				11,700			110	23.31	
72	-23		М	11,595			65		
73	-29.28		М	11,850			40	22.88	0.13
74	-27.7		М	11,800			50	23.03	0.13
74	-34.3		М	11,860			60	22.85	0.17
74	-12.3		М	11,650			80	23.45	0.24
74	-28.6		М	12,050			330	22.3	0.96
75				11,570			80		
76	-28.79		М	11,480		I	55	23.96	0.16
77	-30.2		М	11,800		I	55	22.962	
LL	-30.2		М	11,900			70	22.832	
77	-31.33		М	11,300			105	24.415	

Table A1	.5 Full results	for Sample E	(Continued)							
Lab	δ ¹³ C	$\sigma \delta^{13} C$	M/E	Age	$\boldsymbol{\sigma}_{\mathrm{T}}$	$\sigma_{\rm U}$	Q	pMC	pMCσ	
78								24.78	3.318	
62			Μ	11,785			45			
81	-25	3	Щ	11,870			110	22.82	0.31	
82	-28.59		Μ	11,792.04			125.61	23.04	0.36	
82	-28.73		Μ	11,777.74			68.17	23.08	0.2	
83	-29.1		Μ	11,773			39	23.09	0.11	
83	-30.4		Μ	12,098			134	22.18	0.37	
83	-30.5		Μ	11,652			125	23.45	0.36	
84	-29.1		Μ	11,740			09	23.2	0.16	
84	-29.1		Μ	11,910			80	22.71	0.21	
84	-29.1		Μ	11,970			70	22.55	0.18	
84	-29.1		Μ	11,680			50	23.37	0.12	
84	-29.1		Μ	11,520			90	23.84	0.24	
84	-29.1		Μ	11,430			50	24.11	0.14	
84	-29.1		Μ	11,460	l		100	24.01	0.28	
85	-29.5		Щ	11,673			26	23.38	0.08	
85	-29.5		Щ	11,539			82	23.56	0.27	
86	-29.9		Μ	11,629			64	23.51	0.19	
86	-29.8		Μ	11,619			114	23.54	0.34	
87	-29.5		Σ	11,590			09	23.48		
88	-29		Μ	11,920			72	22.68	0.2	
88	-28.9		Μ	11,872			71	22.81	0.2	
88	-29		Μ	11,731			106	23.22	0.31	
89	-29.42		Μ	10,780			90	26.13	0.3	
89	-29.42		Μ	11,870			550	22.8	1.6	
91	-28.1	1	Μ	11,797			39			
92	-29		Μ	11,180	l		120	24.88	0.37	
92	-29		Μ	10,370			470	27.48	1.6	

Table A1.	6 Full results for	r Sample F							
Lab	δ ¹³ C	$\sigma \delta^{13} C$	M/E	Age	$\sigma_{\!\Gamma}$	σU	ь	pMC	pМСσ
1	-23.1		М	4588			52	56.48	0.37
1	-23.7		М	4534			48	56.87	0.34
0	-21.7		М	4540			30	56.84	0.18
ξ	-24.92		М	4600			128	56.4	
4	-24.01	0.48	М	4530			80	56.9	
5	-25	2	Щ	4190			50	59.36	0.4
5	-25	2	Щ	4400			90	57.83	0.7
9	-24.068	0.014	М	4504			30		
L	-23.8		М	4450			50		
8	-22.9		М	4470			20		
6	-26.2		М	4500			50		
10				4100			50		
11	-32.2	0.1	М	4360			45	58.11	0.33
11	-32.2	0.1	М	4280			80	58.7	0.0
12	-24		М	4440			140	57.52	1.01
13	-25.48		М	4560			60	56.74	0.42
15	-24.94	0.42	М	4470			20	57.34	0.13
15	-27.04	0.01	М	4420			190	57.71	1.38
16				4637			95	56.14	0.69
17	-25		Щ	4490			40	57.162	0.464
17	-25		Щ	4490			30	57.176	0.436
18	-25.05	0.21	М	4494			63	56.8	0.44
19	-26.2		Щ	4513			52		
20	-22.9		М	4570			40	56.6	0.3
21			Е	4440			40		
22	-27.15	0.15		4370			90	58.02	0.63
23	-24.2	0.2	М	4740			62	55.43	0.43
24	-25.05			4459			30		
25	-23.8		М	4540			50	56.83	0.35

Table A1.	6 Full results for	Sample F (Coi	ntinued)						
Lab	δ ¹³ C	$\sigma \delta^{13} C$	M/E	Age	$\sigma_{\rm L}$	$\sigma_{\rm U}$	Q	pMC	pMCσ
26				4200			06		
27	-25		М	4505			25	57.08	0.17
28				4460			60		
29	-23.1		М	4570			50	56.6	0.32
30	-24.6		М	4500			200	57.101	1.444
31	-25.2		М	4550			09		
32	-25		М	4710			80	55.64	0.52
33	-25		М	4370			50	58.04	0.37
34	-25		М	4460			40	57.42	0.22
35	-24		М	4710			40	55.64	0.08
36	-26		М	4493			30	57.2	0.2
37	-23.6	0.2	М	4527			47	56.92	0.33
38	-24.7		М	4463			45	57.38	0.32
39	-25.46	0.01	М	4755			35	55.26	0.24
40	-24.8	0.5	М	4465			37	57.36	0.26
41	-25.3		М	4454			16	57.44	0.11
41	-24.9		М	4527			16	56.92	0.11
42	-24.5		Щ	4315			99	58.4	
43	-25.145	0.005	М	4865			67	54.58	0.46
44	-26.1		М	4250			80	58.93	0.61
46	-23.6		М	4502			49	57.09	0.35
47	-23.3	0.1	М	4550			50	56.77	0.34
48	-25		М	4590			80	56.4	0.6
49				4540			50	56.82	0.37
49				4510			50	57.02	0.37
49				4590			130	56.46	0.93
50	-25		E	4540			40	56.85	0.25
50	-25		Е	4510			40	57.07	0.23
51	-24	0.1	М	4610			40	56.33	0.27

Table A1.	.6 Full results f	or Sample F (0	Continued)						
Lab	δ ¹³ C	$\sigma \delta^{13} C$	M/E	Age	$\sigma_{\rm L}$	$\sigma_{\rm U}$	Q	pMC	pMCσ
51	-24.2	0.1	М	4550			40	56.73	0.27
51	-23.8	0.1	М	4510			35	57.01	0.26
51	-23.9	0.1	М	4700			60	55.73	0.41
51	-24	0.1	М	4600			45	56.42	0.3
52	-24.2	0.3	М	4550			65	56.76	0.45
53			Щ	5870			290	48.15	1.72
54	-25.8	0.5	М	4459			45	57.401	0.324
55	-26		М	4530			40	56.9	0.3
56	-25.2	0.2	М	4638			41	56.1	0.9
57	-25		Щ	4425			58	57.65	0.4
58	-23.25		М	4470			50	57.31	0.31
59	-24.1		М	4670			90	55.9	0.6
60	-24.97		М	4470			40	57.31	0.22
61	-25.4		М	4540			40		
63	-25		Е	4770			60	55.24	0.36
64	-24.9		Μ	4570			70		
65	-26.62		Μ	4484			26	57.22	0.19
99	-25.5		Μ	4460			65		
67	-25		Е	4519			97		
68	-25.4		Μ	4670			50	55.9	0.32
69	-24.9	0.2	M	5270			250		
70								53.5	4.0125
70								60.2	4.515
71				4280			90	58.71	
72	-23		M	4370			40		
73	-25.25		Μ	4490			20	57.19	0.15
74	-24.9		Μ	4525			40	56.93	0.21
74	-25		Μ	4550			40	56.76	0.2
75				4490			35		

Table A1.	.6 Full results	for Sample F	(Continued)	(
Lab	δ ¹³ C	$\sigma \delta^{13} C$	M/E	Age	σ_{Γ}	σ_{U}	b	pMC	pMCσ
76	-25.41		Μ	4480			30	57.24	0.23
LL	-25.33		М	4400			30	57.847	
LL	-25.33		М	4460			45	57.405	
78			I					52.65	3.539823
62	-24.51		М	4550			40		
81	-25	С	Щ	4510			70	57.02	0.52
82	-24.88		М	4590.68			47.84	56.47	0.34
83	-24.8		М	4483			25	57.23	0.18
84	-23.5		М	4500			50	57.08	0.3
84	-24.5		М	4560			50	56.69	0.31
85	-24.9		Э	4469			16	57.34	0.12
86	-25.5		М	4571			35	56.61	0.25
87	-23.7		М	4480			50	56.92	
88	-25.3		М	4485			40	57.22	0.27
88	-25		М	4509			49	57.04	0.35
89	-25.33		М	4490			50	57.2	0.37
90	-26.48		М	4320			90	58.45	0.66
90	-26.24		М	4170			90	59.54	0.67
91	-24.1	1	М	4477			26		I

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Table A1	.7 Full results fo	or Sample G								
Lab	8 ¹³ C	$\sigma \delta^{13} C$	M/E	Age	Limit	$\sigma_{\rm L}$	σ_{U}	ð	pMC	pMCσ
1	-28.4		Μ	-872				57	111.45	0.78
1	-28.5		М	-909				64	111.97	0.89
7	-28.9		М		М				109.92	0.39
ŝ	-29.33		М	-709				124	109.23	
4	-29.04	0.58	Μ		М				111	
5	-25	2	Щ		М				113.53	0.68
9	-29.106	0.004	М						110.87	0.35
7	-29.3		Μ						110.4	0.6
8	-29.4		Μ						110.8	0.3
6	-30.5		Σ						111.9	0.4
10					М				110	I
11	-33.1	0.1	Μ		М				107	0.5
12	-29.6		М		М				110.27	1.45
13	-29.93		М		М				107.71	0.83
15	-28.79	1.25	Μ	-800				50	110.53	0.75
16									105.01	0.49
17	-29.1		Щ						109.58	0.24
18	-29.04	0.59	Μ		Σ				109.76	0.83
19	-29.2		М						110.5	0.4
20	-28.5		Μ						109.18	0.43
21			Е						111.03	0.44
23	-28.94	0.2	Σ		М				108.04	0.51
24	-28.97			-869				27	111.42	0.34
25	-29.3		Μ		Μ				111	0.5
26									121	
27	-29.8		Μ		Μ				110.26	0.18
28					M					
29	-28.9		Μ		Σ				109.6	0.5
30	-28.98		Μ		Μ				112.835	2.861

Table A1.7	7 Full results fc	or Sample G (C	ontinued)								
Lab	δ ¹³ C	$\sigma \delta^{13} C$	M/E	Age	Limit	\mathbf{a}_{L}	σU	d	pMC	pМСσ	
31	-29.4		Μ	-795					110.4	0.6	
32	-29.3		М		М				112.55	0.71	
33	-29.3		М		Я				112.75	0.59	
34	-29.3		М		М				111.39	0.48	
35	-26		М		М				110	1	
36	-29.9		М	-804				31	110.5	0.4	
37	-29.2	0.2	М		Я				110.75	0.42	
37	-29.2	0.2	М		Я				110.17	0.48	
38	-28.7		М	-820				33	110.75	0.46	
39	-28.83	0.01	М		Я				106.45	0.45	
40	-29.3	0.6	М		Я				110.84	0.25	
41	-29.6		Μ	-850				17	111.16	0.23	
42	-24.5		Ц	-858	М			59	111.3	0.5	
43	-28.653	0.005	Μ		X				107	0.59	
44	-28.9		M	-770				50	110	0.68	
46	-29.2		М		М				110.93	0.52	
47	-28.9	0.1	М		М				109.04	0.53	
48	-29.3		М		М				110.4	0.8	
49				-745				40	109.75	0.57	
49				-700				60	109.04	0.83	
49				-745				45	109.71	0.62	
50	-28.3		М		М				109.83	0.4	
50	-28.3		М		Μ				110.13	0.4	
51	-29.8	0.1	М		М				110.92	0.4	
51	-29.3	0.1	М		Μ				110.14	0.4	
51	-28.9	0.1	M		X				111.07	0.42	
52	-28.7	0.3	Μ		X				109.61	0.76	
53			Щ	480				180	94.17	2.11	
54	-29.5	0.5	М		М				110.33	0.568	

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Table A1	.7 Full result	olding 101 S									
Lab	δ ¹³ C	$\sigma \delta^{13} C$	M/E	Age	Limit	$\boldsymbol{\sigma}_{\Gamma}$	σU	Ь	pMC	pМСа	
55	-29.7		М		М				111.3	0.4	l
56	-28.9	0.2	Μ		Μ				109.1	1.2	
57	-25		Щ	-772				41	110.08	0.51	
58	-29.65		М		Μ				110.32	0.33	
59	-29.2		Μ	-880				70	111.6	1	
60	-28.81		Μ		Μ				110.59	0.37	
61	-29.8		Μ						110	0.5	
62	-29.68	0.05	М	-800				40	110.497	0.528	
64	-29.3		Μ						111.27	0.49	
65	-29.77		М	-823				21	110.79	0.29	
99	-29.5		Μ						111.2	0.8	
67	-25		Щ						111.271		
68	-29		Μ		Μ				108.32	0.51	
69	-25.9	0.2	М						102	0.8	
70									104	7.8	
70									103.1	7.7325	
72	-28.6		Μ						110.7	0.4	
72	-28.6		Μ						110.8	0.5	
73	-30.27		Μ		М				111.08	0.22	
74	-31.1		Μ		М				110.91	0.31	
75									111.1	0.6	
76	-28.61		Μ		Μ				113.7	0.34	
77	-29.49		М		М				111.698		
77	-29.49		М		М				112.6		
78									103.98	4.424779	
79	-28.65		М		М				110.32	0.55	
81	-25	ω	Щ		Μ				104.78	0.7	
82	-28.87		М	-810.01				30.15	110.68	0.41	
83	-29.2		М	-838				20	111	0.28	

Table A1.	7 Full results	for Sample G	(Continued)							
Lab	δ ¹³ C	$\sigma \delta^{13} C$	M/E	Age	Limit	$\sigma_{\rm L}$	σU	Q	pMC	pMCσ
84	-28.2		Μ		М				109.25	0.49
84	-28.2		Σ		М				109.39	0.44
84	-28.2		Σ		М				110.29	0.46
85	-29.6		Щ		М				111.05	0.12
86	-29.6		Σ	-838				29	111	0.39
87	-28.2		М	-785				50	109.6	
88	-28.7		Σ	-805				21	110.54	0.29
88	-28.7		Δ	-776				26	110.15	0.36
89	-29.05		Σ	-835				40	110.94	0.58
90	-31.04		Σ	-1070				70	114.3	1.05
90	-30.02		Σ	-1080				70	114.35	1.05
91	-28.5	1	Σ	-828				24	110.86	0.33
92	-28.85		Μ		Μ				111.55	1.04

	pMCσ	0.44	0.43	0.36		0.56	0.59						0.38	1.2	1.2	0.52	0.27	0.27	0.54	0.566	0.62		0.34		0.83	0.51		0.47		0.2
	pMC	75.39	75.09	75.57	73.9	76.4	77.79						76.23	76.9	74.8	72.67	76.26	76.39	74.2	75.777	74.15		74.93		76.44	73.98		75.95		75.42
	d	47	46	40	09	09	09	25	50	20	40	09	40	70	130	60	30	30	57	20	67	35	37	50	90	55	35	50	30	20
	σU																													
	$\sigma_{\rm L}$																													
	Age	2269	2301	2250	2430	2160	2020	2232	2200	2180	2310	1900	2180	2110	2340	2560	2180	2160	2397	2230	2353	2316	2318	2040	2160	2421	2208	2210	1530	2265
	M/E	М	М	Μ	М	Щ	Щ	М	Μ	М	Μ		Μ	М	М	М	М	М		Щ	М	М	М	Щ		М		М		М
for Sample H	$\sigma \delta^{13} C$				0.47	2	2	0.006					0.1	0.1			0.79	0.07			0.15				0.15	0.02				
.8 Full results 1	δ ¹³ C	-23.9	-24.5	-25.1	-23.8	-25	-25	-24.124	-24	-23.1	-21.1		-31.1	-31.1	-24.7	-25.19	-25.65	-28.08		-25	-25.86	-25.8	-23.9		-27.09	-24.36	-25.12	-24.5		-25.5
Table A1	Lab	1	1	0	4	5	5	9	L	8	6	10	11	11	12	13	15	15	16	17	18	19	20	21	22	23	24	25	26	27

$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Lab	δ ¹³ C	$\sigma \delta^{13} C$	M/E	Age	$\sigma_{\rm L}$	σU	b	pMC	pMCσ
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	28				2170	70	80			
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	29	-23		Μ	2150			70	76.51	0.58
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	30	-24.84		Μ	2110			200	76.888	1.951
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	32	-24.8		Μ	2270			09	75.41	0.57
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	33	-24.8		Μ	2210			40	75.92	0.39
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	34	-24.8		Μ	2240			30	75.67	0.28
66 -265 $-$ M 2209 $ 32$ 76 0.3 0.39 0.39 0.39 0.39 0.32 0.39 0.39 0.39 0.32 0.39 0.39 0.39 0.39 0.39 0.39 0.39 0.39 0.39 0.39 0.39 0.39 0.39	35	-26		Μ	2250			40	75.57	0.38
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	36	-26.5		Μ	2209			32	76	0.3
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	37	-23.7	0.2	Μ	2263			42	75.44	0.39
88 -24.8 M 2174 23 76.29 0.23 10 -25.3 0.02 M 2505 35 73.18 0.32 11 -25.5 M 2311 63 75 0.59 12 -24.5 M 2311 63 75 0.59 12 -25.23 0.002 M 2356 19 75.56 0.18 12 -24.5 M 2356 66 79.5 13 -24.2 0.1 M 2360 66 79.5 14 -24.2 0.1 M 2310 66 75.56 0.18 15 - 101 M 2210 67 75.72 0.39 16 -25.8 0.1 M 22210 40	37	-23.6	0.2	Μ	2248			42	75.58	0.39
99 -25.33 0.02 M 2505 - 35 73.18 0.35 10 -25.5 - M 2311 - 63 75 0.5 11 -25.5 - M 2311 - 66 75.56 0.18 12 -24.5 - M 2311 - 66 75.56 0.18 12 -24.2 - M 2356 - - 66 75.56 0.18 13 -24.2 - M 2356 - - 66 75.56 0.18 14 -24.2 - M 2100 - - 66 75.56 0.18 14 -24.2 - M 2100 - - 66 75.56 0.69 17 -24.3 0.1 M 2234 - - 70 77.02 0.69 17 -24.3 0.1 M 2230 - - 70 75.69 0.69 19 -	38	-24.8		Μ	2174			23	76.29	0.22
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	39	-25.33	0.02	Μ	2505			35	73.18	0.32
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	0†	-25.4	0.5	Μ	2311			63	75	0.59
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Ħ	-25.5		Μ	2252			19	75.56	0.18
13 -25.23 0.002 M 2356 38 74.58 0.35 14 -24.2 - M 2100 70 77.02 0.62 15 - - M 2100 - - 38 74.58 0.62 16 -23.6 - M 2180 - 42 75.72 0.39 17 -24.3 0.1 M 2234 - 40 73.69 0.69 17 -24.3 0.1 M 2234 - 40 75.72 0.39 18 -25.8 - - 2450 - - 40 75.69 0.69 19 - - - 2210 - - 40 75.51 0.69 19 - - - 2300 - - 70 75.15 0.69 10 - - - 2260 - - 70 75.45 0.74 10 - -<	5	-24.5		Щ	1839			99	79.5	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	13	-25.23	0.002	Μ	2356			38	74.58	0.35
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	4	-24.2		Μ	2100			70	77.02	0.62
	t5				2180			30		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	9	-23.6		Μ	2234			42	75.72	0.39
18 -25.8 M 2220 60 75.8 0.6 19 2210 45 75.93 0.45 19 2210 45 75.93 0.45 19 2300 45 75.93 0.48 19 2300 70 75.15 0.69 10 2260 50 75.45 0.27 50 -24.5 M 2270 30 75.45 0.27 51 -25.5 0.1 M 2210 45 75.97 0.24 51 -25.2 0.1 M 2220 45 75.97 0.24 51 -25.2 0.1 M 2220 45 75.97	17	-24.3	0.1	Μ	2450			40	73.69	0.39
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	t8	-25.8		Μ	2220			09	75.8	0.6
19 2300 70 75.15 0.69 19 2260 70 75.15 0.69 60 24.5 M 2260 50 75.51 0.48 60 24.5 M 2260 50 75.45 0.27 50 -24.5 M 2270 30 75.45 0.27 61 -25.5 0.1 M 2210 45 75.97 0.44 51 -24.9 0.1 M 2220 45 75.97 0.44 61 -25.2 0.1 M 2220 30 75.81 0.31 61 -25.2 0.1 M 2240 35 75.66 0.31	6†				2210			45	75.93	0.45
19 2260 50 75.51 0.48 50 -24.5 M 2260 50 75.45 0.27 50 -24.5 M 2260 50 75.45 0.27 50 -24.5 M 2270 30 75.45 0.27 51 -25.5 0.1 M 2210 45 75.97 0.44 51 -25.2 0.1 M 2220 30 75.81 0.31 51 -25.2 0.1 M 2240 35 75.66 0.31	6†				2300			70	75.15	0.69
50 -24.5 M 2260 30 75.45 0.27 50 -24.5 M 2270 30 75.45 0.27 51 -25.5 0.1 M 2210 45 75.97 0.24 51 -24.9 0.1 M 2220 45 75.97 0.44 51 -25.2 0.1 M 2220 30 75.81 0.31 51 -25.2 0.1 M 22240 35 75.66 0.31	6†				2260			50	75.51	0.48
50 -24.5 - M 2270 - - 30 75.42 0.27 51 -25.5 0.1 M 2210 - 45 75.97 0.44 51 -24.9 0.1 M 2220 - 45 75.97 0.44 51 -24.9 0.1 M 2220 - 30 75.81 0.31 51 -25.2 0.1 M 2240 - 35 75.66 0.31	50	-24.5		Μ	2260			30	75.45	0.27
51 -25.5 0.1 M 2210 45 75.97 0.44 51 -24.9 0.1 M 2220 30 75.81 0.31 51 -25.2 0.1 M 2220 35 75.66 0.31	20	-24.5		Μ	2270			30	75.42	0.27
i1 -24.9 0.1 M 2220 - 30 75.81 0.31 i1 -25.2 0.1 M 2240 35 75.66 0.31	51	-25.5	0.1	Μ	2210			45	75.97	0.44
51 –25.2 0.1 M 2240 – – 35 75.66 0.31	51	-24.9	0.1	Μ	2220			30	75.81	0.31
	51	-25.2	0.1	Μ	2240			35	75.66	0.31

Table A1	1.8 Full result	ts for Sample]	H <i>(Continue</i>	ed)					
Lab	δ ¹³ C	$\sigma \delta^{13} C$	M/E	Age	$\sigma_{\rm L}$	σ_{U}	ь	pMC	pМСσ
51	-25	0.1	Μ	2210			35	75.95	0.34
52	-24.3	0.3	Μ	2230			80	75.76	0.75
53			Щ	2180			220	76.24	2.03
54	-25.3	0.5	Μ	2156			48	76.464	0.456
55	-25.5		Μ	2160			30	76.4	0.3
56	-24.7	0.2	Μ	2624			27	72.1	0.2
57	-25		Щ	2093			49	77.07	0.44
58	-25.01		Μ	2260			40	75.49	0.4
59	-24.1		Μ	2980			80	69	0.7
60	-24.2		Μ	2230			30	75.78	0.26
61	-25.8		Μ	2200	l		40		
64	-24.9		Μ	2290			70		
65	-25.82		Μ	2221			28	75.84	0.27
99	-24.8		Μ	2180			50		
67	-25		Щ	2583			79		
68	-24.7		Μ	2420			45	73.95	0.41
69	-27	0.2	Μ	2510			180		
70								71.7	5.3775
70					l			<i>77.9</i>	5.8425
71				2170			40	76.3	
72	-23.7		Μ	2295			35		
73	-25.1		Μ	2190			20	76.12	0.15
74	-25.8		Μ	2240			40	75.66	0.25
74	-24.4		Μ	2230	l		40	75.74	0.25
75				2280			35		
76	-24.92		Μ	2250	l		30	75.59	0.2
LL	-24.83		Μ	2200			25	76.086	
LL	-24.83		Μ	2180			40	76.187	
78								79.65	3.982301

Table A1.	8 Full results	s for Sample H	[(Continued)	(
Lab	δ ¹³ C	$\sigma \delta^{13} C$	M/E	Age	$\sigma_{\rm L}$	$\sigma_{\rm U}$	ь	pMC	pMCa
6L	-24.75		Μ	2250			25		
81	-25	ω	Ц	2690			70	71.52	0.66
82	-24.82		М	2301.72			37.2	75.09	0.35
83	-25.1		М	2240			23	75.66	0.21
84	-23.9		М	2160			40	76.39	0.36
84	-22.3		М	2230			50	75.75	0.41
85	-25.5		Ц	2175			11	76.2	0.11
86	-25.5		М	2142			36	76.59	0.34
87	-24		М	2140			50	76.11	
88	-25.1		М	2135			30	76.64	0.27
88	-25.1		М	2139			39	76.62	0.37
89	-25.21		М	2300			45	75.1	0.44
90	-25.47		М	2220			80	75.89	0.79
90	-25.56		М	1970	I		80	78.23	0.81
91	-24.6	1	Μ	2247			24		

Table A1.9	Full results fo	or Sample I							
Lab	δ ¹³ C	$\sigma \delta^{13} C$	M/E	Age	σ ^Γ	σU	ь	pMC	pMCσ
1	-23.5		Μ	4650			09	56.06	0.42
1	-23.7		М	4574			58	56.59	0.41
7	-23.2		М	4560			30	56.67	0.18
ŝ	-23.47		М	4640			128	56.12	
4	-22.05	0.57	М	4560			60	56.7	
5	-25	2	Щ	4140			60	59.7	0.45
9	-24.043	0.01	М	4401			40		
7	-23.9		М	4380			50		
8	-23.5		М	4500			20		
6	-25		М	4560			60		
10				4410			280		
11	-21.7	0.1	М	4870			100	54.54	0.68
11	-21.7	0.1	М	5100			140	53.03	1.1
12	-24.1		М	4580			160	56.54	1.13
13	-23.9		М	4660			60	56	0.43
15	-22.81	0.66	М	4520			30	56.99	0.24
17	-25		Э	4570			50	56.636	0.464
18	-25		Щ	4323			80	58.02	0.58
19	-20		Е	4558			73		
20	-22.3		M	4580			40	56.56	0.29
21			Э	4250			150		
23	-24.36	0.2	М					55.16	0.36
24	-23.55			4396			37		
25	-23.6		M	4560			50	56.69	0.35
26				4800			100		
27	-25.1		М	4500			25	57.12	0.17
28				3780			120		
29	-23.2		М	4530			50	56.91	0.33
30	-23.73		Μ	4650			200	56.068	1.422

Table A1.	9 Full results for	Sample I (Conti	(pənu						
Lab	8 ¹³ C	$\sigma \delta^{13} C$	M/E	Age	$\sigma_{\rm L}$	$\sigma_{\rm U}$	Q	pMC	pMCσ
31	-23.9		М	4530			55		
32	-23.73		М	4400			80	57.77	0.58
33	-23.7		М	4490			80	57.15	0.59
34	-23.7		М	4410			30	57.78	0.21
35	-24		Μ	4710			40	55.64	0.08
36	-24		Μ	4459			34	57.4	0.2
37	-23.8	0.2	М	4438			51	57.55	0.36
38	-23.5		М	4468			40	57.34	0.28
39	-23.74	0.02	М	4760			60	55.31	0.38
40	-23.4	0.5	М	4461			21	57.39	0.15
41	-23.9		М	4468			30	57.34	0.21
42	-24.5		Е	3819			86	62.2	
43	-23.432	0.007	М	4762			41	55.28	0.28
44	-25.5		Μ	4290			60	58.63	0.41
45				4380			240		
46	-23.6		М	4556			47	56.72	0.34
47	-24.2	0.1	Μ	4470			45	57.31	0.3
48	-24.2		М	4430			70	57.6	0.5
49				4420			50	57.67	0.39
49				4420			60	57.71	0.43
49				4560			60	56.69	0.39
50	-23		Μ	4410			30	57.72	0.21
50	-23		Μ	4490			40	57.18	0.26
51	-23.8	0.1	Μ	4460			40	57.41	0.3
51	-23.5	0.1	М	4480			45	57.28	0.33
51	-23.5	0.1	Μ	4400			60	57.8	0.42
51	-23.6	0.1	Μ	4450			40	57.48	0.28
52	-23.1	0.3	Μ	4550			70	56.77	0.49
53			Щ	5650			290	49.53	1.73

Table A1.9	Full results fc	or Sample I (Co.	ntinued)						
Lab	δ ¹³ C	σδ ¹³ C	M/E	Age	\mathfrak{o}_{Γ}	σ _U	ь	pMC	pМСσ
54	-24.8	0.5	М	4669	84	85	I	55.921	0.587
55	-23.7		М	4510			40	57	0.3
56	-23.4	0.2	М	4541			39	56.8	0.0
57	-25		Е	4466			58	57.36	0.4
58	-24.6		М	4490			40	57.15	0.27
59	-23.7		М	4490			80	57.2	0.6
60	-23.23		М	4520			50	56.97	0.3
61	-24.3		Μ	4435			40		
62	-23.89	0.05	М	4500			50	57.128	0.327
64	-23.6		Μ	4520			70		
65	-24.5		М	4440			29	57.54	0.21
99	-23.9		Μ	4435			65		
67	-25		Щ	4014			139		I
68	-23.9		М	4650			06	56.03	0.59
69	-23.9	0.2	М	4520			250		
70								57.5	4.3125
70								54.9	4.1175
71				4120			130	59.89	
72	-23.2		М	4470			35		
73	-23.94		М	4505			35	57.08	0.23
74	-22.8		Μ	4490			30	57.15	0.2
75				3960			100		
76	-23.54		М	4450			30	57.45	0.21
LL	-24.4		М	4460			45	57.38	
78								60.18	3.761062
79	-24.85		M	4460			40		
81	-25	ю	Е	4580			100	56.55	0.72
82	-23.31		М	4655.23			48.57	56.02	0.34
83	-23.8		Μ	4474			25	57.3	0.18

	pMCσ	0.29	0.27	0.26	0.1	0.27		0.29	0.23	0.42	0.81	0.67		0.62
	pMC	57.2	57.81	57.2	57.56	58.01	57.16	57.13	57.17	56.62	58.1	58.71		59.15
	Q	50	40	40	14	38	50	40	35	60	110	90	27	80
	$\sigma_{\rm U}$													
	$\sigma_{\rm L}$													
	Age	4490	4400	4490	4455	4374	4445	4500	4490	4570	4360	4280	4452	4220
ontinued)	M/E	Μ	М	М	н	М	М	Μ	М	М	М	М	Μ	Μ
for Sample I (Co	$\sigma \delta^{13} C$												1	
9 Full results	δ ¹³ C	-23.1	-23.1	-23.1	-23.9	-24.5	-24.25	-23.3	-23.3	-23.76	-24.96	-24.43	-24.9	-23.73
Table A1.	Lab	84	84	84	85	86	87	88	88	89	90	90	91	92

Table A	1.10 Full result	s for Sample J								
Lab	δ ¹³ C	$\sigma \delta^{13} C$	M/E	Age	Limit	$\mathbf{o}_{\mathrm{\Gamma}}$	$\sigma_{\rm U}$	d	pMC	pMCσ
1	-28		М	L97-				72	110.42	0.98
	-28.2		М	-829				57	110.86	0.78
7	-28.7		М		М				110.65	0.36
4	-28.96	0.57	М		М				111.5	
5	-25	2	Щ		М				113.67	0.68
9	-29.317	0.006	М						111.2	0.35
7	-29.2		М						109.4	0.7
8	-29.5		М						110.9	0.3
6	-30.8		М						111.9	0.4
10					М				113	
11	-34.1	0.1	М		Μ				108.9	0.5
12	-29.6		М		Μ				109.83	1.45
13	-29.66		М		М				106.25	0.82
15	-28.51	1.06	М	-840				40	111.04	0.51
16									109.18	0.5
17	-29.1		Щ						108.91	0.25
18	-29.28	0.19	М		Μ			I	110.45	0.83
19	-29.2		Щ						109.4	0.4
20	-27.6		М						109.28	0.44
21			Щ					I	112.65	2.92
23	-29.68	0.2	Σ		М				108.35	0.93
24	-29.05			-884				28	111.63	0.35
25	-29.2		М		М				110.7	0.5
26									122	
27	-29.7		М		Μ			I	110.17	0.18
28					М					
29	-28.8		М		М				110.7	0.46
30	-28.93		М		Μ				110.078	2.836
32	-29.7		Я		Μ				110.7	0.69

Lab	δ ¹³ C	$\sigma \delta^{13} C$	M/E	Age	Limit	g	σU	ь	pMC	pMCσ
33	-29.7		Μ		Μ				111.04	0.72
34	-29.7		М		Μ				111.38	0.49
35	-26		Μ		М				110	1
36	-30.1		Μ	-796				22	110.4	0.3
37	-29.4	0.2	М		Μ				111.38	0.43
37	-29.4	0.2	М		Μ				110.63	0.48
38	-28.9		М	-803				40	110.51	0.55
39	-29.36	0.02	М		Μ				105.21	0.44
40	-29.1	1.2	М		Μ				110.96	0.24
41	-29.6		М	-835				15	110.96	0.21
4	-24.5		Щ	-837	Μ			61	111	0.5
1 3	-29.236	0.007	Μ		Μ				108.49	0.52
4	-28.4		Μ	-1080				50	114.37	0.69
45									108.4	0.5
46	-29		Μ		М				110.16	0.49
47	-29	0.1	Μ		М				109.83	0.54
48	-29.7		Μ		М				111.4	0.7
49				-770				40	110.04	0.56
49				-770				120	110.01	1.66
49				-775				45	110.13	0.63
50	-28.6		Μ		М				109.99	0.37
50	-28.6		Μ		М				110.92	0.38
51	-29	0.1	Μ		М				111.77	0.46
51	-28.5	0.1	М		М				110.52	0.39
51	-29.5	0.1	М		Μ				112.16	0.57
51	-29.2	0.1	Μ		Μ				110.6	0.46
52	-28.4	0.3	Μ		М				110.06	0.52
53			Щ	230				190	97.14	2.29
54	- رم	5 0	Σ		Ν				110 22	0 571

Table A	1.10 Full resul	lts for Sample	J (Contin	(pən							
Lab	δ ¹³ C	$\sigma \delta^{13} C$	M/E	Age	Limit	$\sigma_{\!\Gamma}$	σU	b	pMC	pMCσ	
55	-29.5		Μ		Μ				111.1	0.5	
56	-28.9	0.2	Μ		Μ				109.2	1.1	
57	-25		Щ	-853				41	111.2	0.51	
58	-29.8		Μ		Μ				110.4	0.4	
59	-29.2		Μ	-820				09	110.7	0.9	
60	-30.56		Μ		Μ				111.5	0.4	
61	-29.4		Μ						109.5	0.5	
62	-29.83	0.05	Μ	-890				30	111.672	0.466	
62	-29.4	0.05	Μ	-830				30	110.873	0.469	
64	-29.3		Μ						111.4	0.53	
65	-29.91		Μ	-842				26	111.05	0.36	
99	-29.3		Μ						110.5	0.8	
67	-25		Щ						112.277		
68	-29.4		Μ		Μ				106.27	0.51	
69	-27.5	0.2	Μ						106.1	1	
70									108.8	8.16	
70									101.3	7.5975	
71					Μ				111.03	0.9	
72	-28.9		Μ						111.5	0.4	
73	-29.74		М		Μ				110.76	0.22	
74	-27		Μ		Μ				110.72	0.31	
75									110.8	0.6	
76	-29.11		Μ		Μ				111.29	0.33	
77	-29.33		Μ		Μ				111.342		
LL	-29.33		Μ		M				111.265		
78									117.26	4.646	
79	-28.18		Μ		Μ				109.62	0.55	
81	-25	ω	Е		Μ				100.33	0.69	
82	-27.38		Μ	-832.66				30.51	110.92	0.42	

	MCσ	.28	.46	.49	.46	.12	.46	I	.3	.37	.58	.04	.03	.29
	Ц	0	0	0	0	0	0	I	0	0	0	-	-	0
	pMC	110.51	110.61	110.16	110.28	111.28	110.31	112.37	110.56	110.18	110.81	112.23	112.37	110.94
	b	21					33	50	22	27	40	70	70	21
	$\sigma_{\rm U}$													I
	σ_{Γ}													
	Limit		М	М	М	М								
(pən	Age	-802					-788	-985	-807	-779	-825	-930	-940	-834
e J (Contin	M/E	Μ	Μ	Μ	Μ	Щ	Μ	Μ	Μ	Μ	Μ	Μ	Μ	Μ
ults for Sample	$\sigma \delta^{13} C$													1
1.10 Full res	δ ¹³ C	-29.1	-28.6	-28.6	-28.6	-29.6	-30.8	-29.22	-28.8	-28.8	-29.16	-30.82	-29.93	-28.6
Table A	Lab	83	84	84	84	85	86	87	88	88	89	90	90	91



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Figure A1.5 Distribution plot of Age ± 2 sigma for humic acid, E, (all laboratories)













Figure A1.10 Distribution plot of pMC ± 2 sigma for barley mash, J, (all laboratories)

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