

Supplement of Solid Earth, 11, 2463–2485, 2020
<https://doi.org/10.5194/se-11-2463-2020-supplement>
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Supplement of

Birth and closure of the Kallipetra Basin: Late Cretaceous reworking of the Jurassic Pelagonian–Axios/Vardar contact (northern Greece)

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Supplementary data

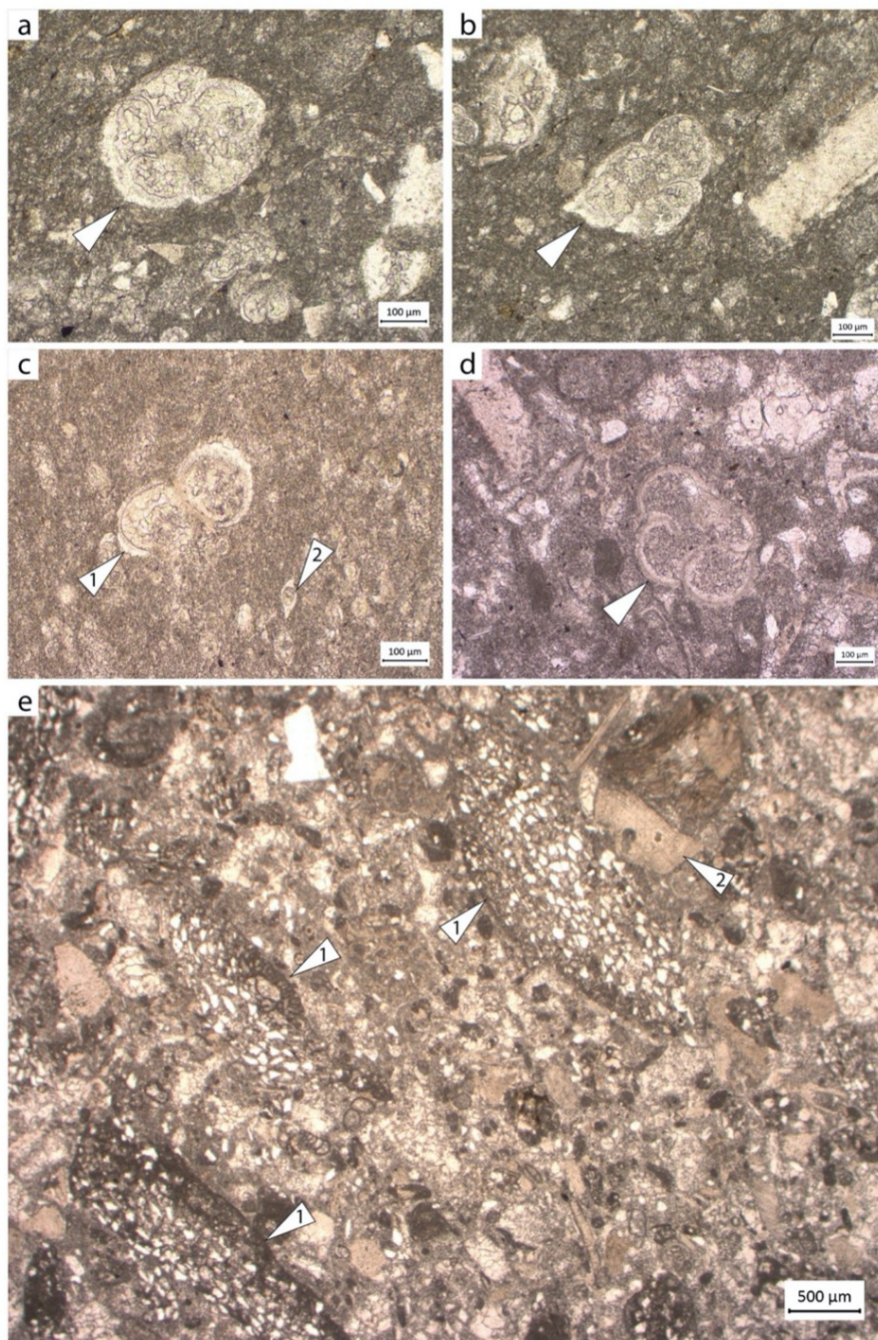
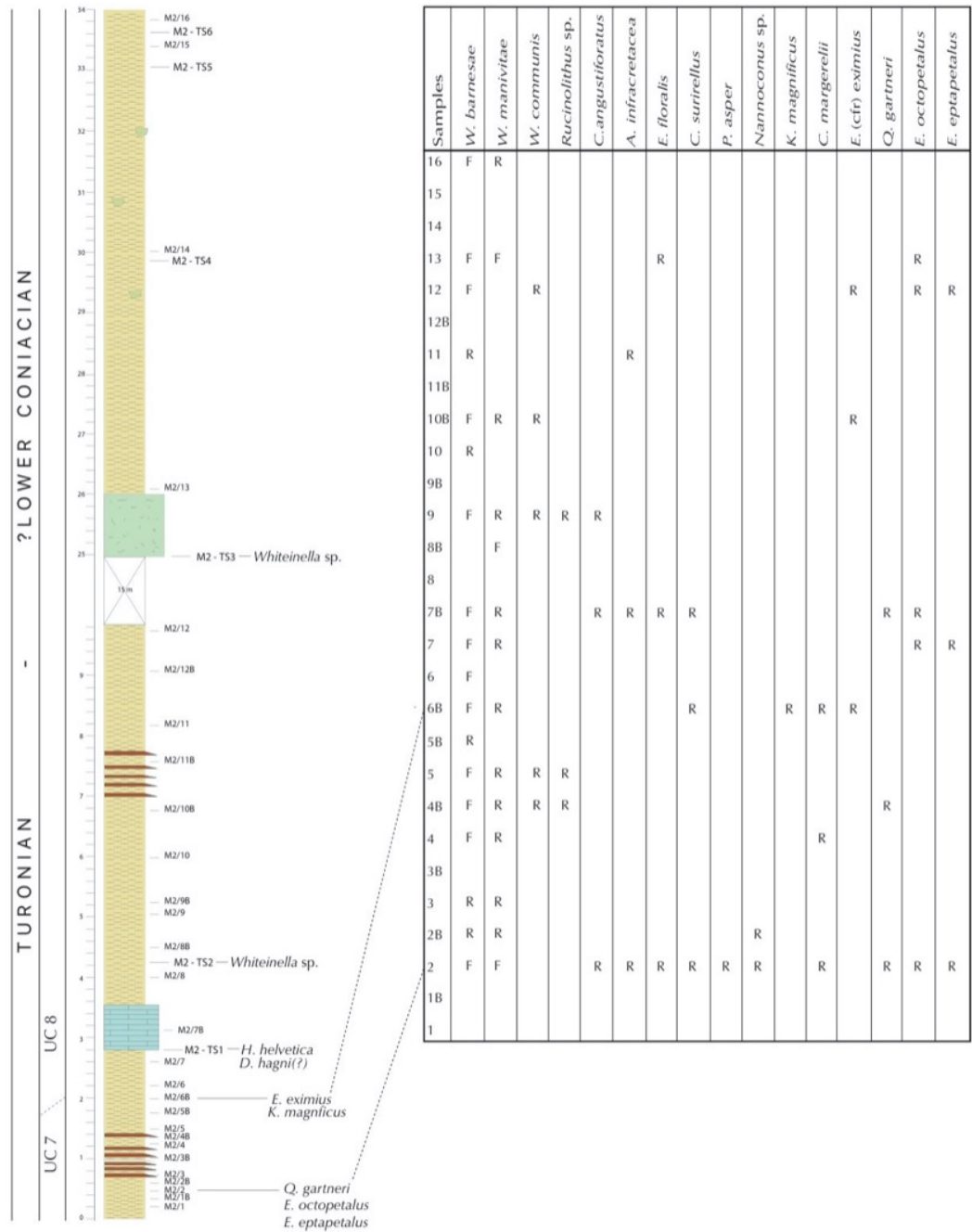


Figure S1: (a) Sample M2-TS1 *Helvetoglobotruncana helvetica*; (b) Sample M2-TS1 *Dicarinella* sp.; (c) Sample M2-TS2, 1 = *Whiteinella*, 2= radiolarian; (d) Sample M2-TS3 *Whiteinella*; (e) M2-TS3, 1 = Orbitolinid, 2 = Echinoderm.

Asomata M2 Section



5

Figure S2: Biostratigraphic section M2 showing sample depths, observed foraminifera, and observed nannoplankton. Section taken from N40° 28' 53" E022° 13' 46".

Supplementary Data
Table S3

Plane	Latitude	Longitude	Dip Angle	Dip Azimuth
Fault	40.465041	22.242527	86	13
Fault	40.465196	22.242587	21	66
Fault	40.420692	22.193283	55	82
Fault	40.425450	22.190061	34	354
Fault	40.425248	22.180059	34	21
Fault	40.481256	22.227301	82	50
Fault	40.483579	22.230109	15	90
Fault	40.483597	22.230115	18	23
Fault	40.461326	22.258370	38	179
Fault	40.461368	22.258403	27	184
Fault	40.475379	22.247594	39	28
Fault	40.474400	22.246642	24	24
Fault	40.474049	22.246296	26	42
Fault	40.472414	22.244458	20	178
Fault	40.411390	22.196036	81	288
Fault	40.412645	22.195346	26	148
Fault	40.467859	22.242980	56	162
Fault	40.467867	22.242925	28	18
Fault	40.467675	22.242466	13	68
Fault	40.437418	22.175634	43	131
Fault	40.436383	22.178010	68	359
Fault	40.437819	22.246576	40	103
Fault	40.415774	22.228657	77	18
Fault	40.415790	22.228687	4	334
Fault	40.468674	22.211876	89	308
Fault	40.468853	22.211844	75	283
Fault	40.469669	22.210826	42	33
Fault	40.472480	22.212549	78	239
Fault	40.473195	22.213055	46	210
Fault	40.473217	22.213029	56	26
Fault	40.480384	22.216631	64	327
Fault	40.479099	22.213695	87	61
Fault	40.478039	22.212978	69	235
Fault	40.478011	22.212996	56	212
Fault	40.478052	22.212999	69	237
Fault	40.479093	22.213693	85	60
Fault	40.408432	22.196112	42	256
Foliation	40.464575	22.263631	19	172
Foliation	40.456710	22.250205	40	328
Foliation	40.456529	22.250096	27	314
Foliation	40.442747	22.245089	34	200
Foliation	40.426324	22.189264	21	306
Foliation	40.461935	22.240930	37	61
Foliation	40.461861	22.240914	38	2
Foliation	40.462222	22.241018	40	339
Foliation	40.462324	22.241086	27	22
Foliation	40.458361	22.253522	48	165

Supplementary Data
Table S3

Foliation	40.457803	22.253438	14	130
Foliation	40.457029	22.253030	48	335
Foliation	40.456957	22.252924	76	158
Foliation	40.456852	22.253028	82	340
Foliation	40.392756	22.210951	29	251
Foliation	40.479316	22.254012	34	299
Foliation	40.479117	22.248737	35	139
Foliation	40.478465	22.248536	45	182
Foliation	40.475361	22.247586	37	356
Foliation	40.474411	22.246738	23	66
Foliation	40.474361	22.246677	27	26
Foliation	40.474358	22.246734	22	66
Foliation	40.474098	22.246299	31	30
Foliation	40.472750	22.244759	18	146
Foliation	40.472467	22.244709	27	186
Foliation	40.472338	22.244813	27	147
Foliation	40.472367	22.244790	19	196
Foliation	40.472330	22.244652	28	224
Foliation	40.472031	22.244589	21	321
Foliation	40.471425	22.243880	74	14
Foliation	40.471280	22.243020	33	47
Foliation	40.414277	22.195455	44	94
Foliation	40.413048	22.194560	25	287
Foliation	40.413571	22.196419	10	49
Foliation	40.467676	22.242974	23	178
Foliation	40.467697	22.243009	16	106
Foliation	40.465721	22.230135	48	293
Foliation	40.465634	22.230131	20	347
Foliation	40.464670	22.226987	82	249
Foliation	40.464796	22.228344	48	33
Foliation	40.464756	22.227833	56	304
Foliation	40.450244	22.247460	88	88
Foliation	40.437446	22.247761	12	105
Foliation	40.437483	22.247827	79	130
Foliation	40.437457	22.247776	63	107
Foliation	40.437831	22.246569	24	58
Foliation	40.437822	22.246689	11	159
Foliation	40.437705	22.246749	22	10
Foliation	40.432618	22.239742	34	35
Foliation	40.432386	22.240025	24	236
Foliation	40.426805	22.240821	10	73
Foliation	40.426298	22.241195	17	354
Foliation	40.443008	22.259099	22	335
Foliation	40.443247	22.259197	28	49
Foliation	40.445916	22.260071	14	32
Foliation	40.445718	22.260113	34	140
Foliation	40.445748	22.260061	23	26
Foliation	40.445747	22.260064	20	20

Supplementary Data
Table S3

Foliation	40.444831	22.260781	57	128
Foliation	40.444827	22.260805	24	147
Foliation	40.418742	22.244351	43	311
Foliation	40.418929	22.244168	71	330
Foliation	40.418927	22.244170	33	342
Foliation	40.418901	22.244174	53	320
Foliation	40.418906	22.244209	54	296
Foliation	40.419057	22.241613	81	333
Foliation	40.419082	22.241636	55	51
Foliation	40.416714	22.232965	21	302
Foliation	40.416734	22.232971	36	306
Foliation	40.417413	22.234782	18	23
Foliation	40.417588	22.235286	71	128
Foliation	40.418183	22.237368	66	85
Foliation	40.480196	22.220905	67	318
Foliation	40.480114	22.220658	79	169
Foliation	40.479814	22.219476	43	301
Cleavage	40.444433	22.261622	53	351
Cleavage	40.416311	22.246411	61	150
Cleavage	40.416742	22.227183	89	303
Cleavage	40.416739	22.227180	84	300
Cleavage	40.416729	22.227169	79	308
Shear Plane	40.480925	22.225507	41	65
Shear Plane	40.480947	22.225552	36	76
Shear Plane	40.464659	22.227007	51	81
Shear Plane	40.464804	22.228344	54	242
Shear Plane	40.441827	22.244630	22	331
Shear Plane	40.437819	22.246697	24	53
Shear Plane	40.432411	22.239894	24	324
Shear Plane	40.433135	22.242140	47	349
Shear Plane	40.433135	22.242167	28	11
Shear Plane	40.433075	22.242114	32	298
Shear Plane	40.443814	22.262142	41	244
Shear Plane	40.480644	22.219537	75	317
Shear Plane	40.480649	22.219570	54	222
Shear Plane	40.480661	22.219575	40	183
Shear Plane	40.479771	22.219035	58	186
Shear Plane	40.478975	22.213497	65	61
Shear Plane	40.479007	22.213430	73	182
Shear Plane	40.478914	22.213468	26	61
Shear Plane	40.478954	22.213444	57	20
Shear Plane	40.478424	22.213339	18	36
Shear Plane	40.478389	22.213321	21	11
Shear Plane	40.478949	22.213473	55	47
Shear Plane	40.478934	22.213488	42	349
Shear Plane	40.478883	22.213510	26	324
Shear Plane	40.476073	22.216853	26	305
Shear Plane	40.476155	22.217035	39	274

Supplementary Data
Table S3

Shear Plane	40.476186	22.216982	79	339
Shear Plane	40.476186	22.216982	55	154
Shear Plane	40.477391	22.216691	31	283
Shear Plane	40.477391	22.216691	23	2
Shear Plane	40.477391	22.216691	83	311
Shear Plane	40.411102	22.197115	18	188

Line	Latitude	Longitude	Plunge Dip	Plunge Azimuth
Fold Axis	40.437943	22.175514	22	305
Fold Axis	40.437928	22.174911	31	128
Fold Axis	40.437316	22.175734	18	222
Fold Axis	40.429903	22.189150	6	298
Fold Axis	40.429779	22.188602	7	114
Fold Axis	40.429789	22.188658	4	289
Fold Axis	40.423700	22.240841	6	39
Fold Axis	40.415913	22.246595	10	41
Fold Axis	40.416250	22.246465	26	9
Fold Axis	40.417263	22.245961	16	31
Fold Axis	40.416645	22.227238	3	136
Fold Axis	40.415989	22.228490	9	44
Fold Axis	40.415985	22.228492	0	209
Fold Axis	40.416256	22.229741	9	140
Fold Axis	40.416461	22.232528	2	285
Fold Axis	40.416740	22.233087	15	313
Fold Axis	40.416821	22.233334	62	307
Fold Axis	40.416919	22.233359	7	139
Fold Axis	40.416903	22.233385	7	138
Stretching Lineation	40.455869	22.249521	0	39
Stretching Lineation	40.456822	22.250093	10	30
Stretching Lineation	40.456822	22.250093	6	29
Stretching Lineation	40.456820	22.250113	13	31
Stretching Lineation	40.456828	22.250099	13	26
Stretching Lineation	40.456846	22.250120	11	14
Stretching Lineation	40.456856	22.250132	16	19
Stretching Lineation	40.456855	22.250135	6	29
Stretching Lineation	40.456849	22.250157	9	27
Stretching Lineation	40.455801	22.222052	28	202
Stretching Lineation	40.455860	22.222059	9	6
Stretching Lineation	40.479272	22.253991	17	239
Stretching Lineation	40.437309	22.175778	5	222
Stretching Lineation	40.430029	22.187984	3	215
Stretching Lineation	40.456903	22.250139	15	28
Stretching Lineation	40.456903	22.250139	7	23
Stretching Lineation	40.456905	22.250154	11	19
Stretching Lineation	40.437490	22.247828	11	214
Stretching Lineation	40.437739	22.246829	4	175
Stretching Lineation	40.432548	22.239776	66	226
Stretching Lineation	40.432457	22.240026	18	208

Supplementary Data
Table S3

Stretching Lineation	40.432416	22.239913	13	203
Stretching Lineation	40.432413	22.240091	17	210
Stretching Lineation	40.426812	22.240810	15	62
Stretching Lineation	40.426311	22.241185	16	40
Stretching Lineation	40.425613	22.240841	5	231
Stretching Lineation	40.424980	22.240654	14	223
Stretching Lineation	40.423812	22.240936	16	55
Stretching Lineation	40.442936	22.259149	17	8
Stretching Lineation	40.443815	22.262139	18	317
Stretching Lineation	40.444561	22.261392	6	141
Stretching Lineation	40.444599	22.261095	6	137
Stretching Lineation	40.444718	22.260831	51	95
Stretching Lineation	40.444783	22.260877	7	177
Stretching Lineation	40.444191	22.260001	20	50
Stretching Lineation	40.444191	22.259968	45	255
Stretching Lineation	40.417294	22.245934	16	190
Stretching Lineation	40.417307	22.245926	0	42
Stretching Lineation	40.418734	22.244298	6	236
Stretching Lineation	40.418921	22.244171	10	50
Stretching Lineation	40.418888	22.244170	4	228
Stretching Lineation	40.418750	22.242218	18	238
Stretching Lineation	40.418537	22.240503	12	243
Stretching Lineation	40.416091	22.226759	23	63
Stretching Lineation	40.415383	22.229338	0	40
Stretching Lineation	40.416375	22.229689	3	30
Stretching Lineation	40.416437	22.232554	2	201
Stretching Lineation	40.417054	22.233558	33	225
Stretching Lineation	40.417076	22.233573	9	31
Stretching Lineation	40.418184	22.237363	12	27
Stretching Lineation	40.471549	22.211449	8	77
Stretching Lineation	40.473233	22.210659	0	40
Stretching Lineation	40.477391	22.216691	27	61
Mineral Lineation	40.425521	22.186178	18	175
Mineral Lineation	40.393502	22.209526	12	352
Mineral Lineation	40.467740	22.243037	33	241
Mineral Lineation	40.437967	22.175508	21	246
Mineral Lineation	40.422718	22.240286	2	30
Slickenside	40.420695	22.193305	51	69
Slickenside	40.425449	22.190030	34	354
Slickenside	40.461977	22.247124	57	331
Slickenside	40.412195	22.196075	70	258
Slickenside	40.441853	22.244594	25	313
Slickenside	40.444718	22.260850	61	157
Slickenside	40.480622	22.219532	6	235
Slickenside	40.480649	22.219570	5	304
Slickenside	40.479698	22.219041	50	234
Slickenside	40.479703	22.218986	31	255
Slickenside	40.479804	22.219360	35	251

Supplementary Data

Table S3

Slickenside	40.479099	22.213695	72	139
Slickenside	40.478917	22.213488	72	143

Table S3: Table of structural measurements taken in mapped area.

215

220

225

230

235

240

245

age :age (Ma)
 cIL :lower 0.95 confidential interval (Ma)
 cIU :upper 0.95 confidential interval (Ma)
 sE :standard error (Ma)

	age	cIL	cIU	sE
Pooled	157	148	167.66	5
Central	156	138	176.74	10

Probability of χ^2 (%) : 0
 Age dispersion (%) : 23.88
 Pooled spontaneous tracks : 5628
 Pooled induced tracks : 1353
 Pooled counter squares : 46034
 Mean U concentration +/- 1 σ (ppm) : 222 +/- 13

SINGLE GRAIN DATA in ORIGINAL ORDER:

n :grain number
 mN :mount number
 gNM :grain number per mount
 nS :spontaneous tracks (tr)
 rhoS :density of spontaneous tracks (tr/cm⁻²)
 nl :induced tracks
 rhoI :density of induced tracks (tr/cm⁻²)
 nSq :number of counter squares
 uG :uranium concentration (ppm)
 uGSE :standard error of uranium concentration
 ageG :grain age (Ma)
 cILG :lower 0.95 confidential interval (Ma)
 cIUG :upper 0.95 confidential interval (Ma)
 sEG :relative standard error (1 σ , Ma)

... in ORIGINAL ORDER:

n	mN	gNM	nS	rhoS	nl	rhoI	nSq	uG	uGSE	ageG	cILG	cIUG	sEG
1	1	1	39	1.14E+07	10	2.92E+06	343	219	135	146.5	73.08	328.53	49.86
2	1	2	77	1.13E+07	21	3.09E+06	679	233	100	138.7	85.5	236.34	33.51
3	1	3	85	1.56E+07	21	3.85E+06	546	289	125	152.9	94.9	259.17	36.57
4	1	4	41	1.41E+07	17	5.84E+06	291	440	210	91.58	51.32	171.89	25.81
5	1	5	49	1.57E+07	20	6.41E+06	312	482	213	93.09	54.72	165.28	24.22
6	1	6	60	1.11E+07	13	2.40E+06	541	181	98	173.4	95.6	343.31	51.39
7	1	7	77	1.33E+07	13	2.24E+06	581	168	92	221.6	124.4	432.39	64.32
8	1	8	41	9.88E+06	16	3.86E+06	415	290	143	97.2	53.87	185.51	27.95
9	1	9	57	7.33E+06	17	2.19E+06	778	164	79	126.8	73.49	232.33	34.23
10	1	10	85	1.91E+07	16	3.59E+06	446	270	133	199.5	117.7	363.26	52.98
11	2	1	44	1.21E+07	9	2.47E+06	364	186	121	182.3	89.73	423.04	63.7
12	2	2	55	1.75E+07	9	2.86E+06	315	215	140	227	113.9	518.52	77.86
13	2	3	25	7.72E+06	5	1.54E+06	324	116	99	184.4	71.73	611.93	83.26
14	2	4	123	1.24E+07	41	4.14E+06	990	312	97	113.8	79.7	166.15	20.35
15	2	5	66	1.12E+07	17	2.90E+06	587	218	104	146.3	85.78	265.47	38.84
16	2	6	40	1.28E+07	8	2.56E+06	313	193	132	186.1	87.97	458.05	68.43
17	2	7	69	1.57E+07	30	6.80E+06	441	513	186	87.4	56.44	138.96	18.88
18	2	8	58	9.34E+06	13	2.09E+06	621	158	86	167.4	92.02	332.04	49.76
19	2	9	61	1.12E+07	15	2.76E+06	543	208	106	153	87	289.18	42.9

27	2	17	41	8.93E+06	13	2.83E+06	459	214	116	118.9	63.24	241.67	36.69
28	2	18	62	1.87E+07	22	6.65E+06	331	501	212	106.7	65.19	182.25	26.02
29	2	19	73	1.07E+07	29	4.26E+06	681	321	118	95.56	61.71	152.36	20.7
30	3	1	105	1.79E+07	27	4.60E+06	587	348	133	146.6	96.02	232.41	31.18
31	3	2	88	1.46E+07	20	3.31E+06	605	250	110	165.3	101.9	282.98	40.13
32	3	3	47	1.00E+07	12	2.55E+06	470	193	109	146.8	77.83	303.45	45.89
33	3	4	67	1.54E+07	30	6.91E+06	434	522	189	84.7	54.56	134.94	18.38
34	3	5	60	1.21E+07	31	6.25E+06	496	472	169	73.5	47.08	117.3	16.06
35	3	6	96	2.51E+07	23	6.01E+06	383	454	187	157	99.74	258.92	35.83
36	3	7	45	7.56E+06	13	2.19E+06	595	165	90	130.1	69.86	262.5	39.7
37	3	8	90	1.20E+07	36	4.81E+06	748	364	121	94.77	64.01	143.57	18.5
38	3	9	195	1.49E+07	55	4.20E+06	1310	317	85	134.1	99.34	184.11	20.36
39	3	10	57	1.07E+07	22	4.13E+06	533	312	132	98.01	59.4	168.3	24.17
40	3	11	67	1.99E+07	22	6.53E+06	337	493	208	115	70.69	195.4	27.76
41	3	12	54	1.64E+07	14	4.24E+06	330	321	168	144.8	80.37	281.79	42.18
42	3	13	66	2.88E+07	18	7.86E+06	229	594	276	138	81.81	246.64	35.88
43	3	14	50	1.51E+07	16	4.82E+06	332	364	179	117.8	66.64	221.37	32.99
44	3	15	24	4.38E+06	4	7.30E+05	548	55	52	218.6	78.43	852.31	106.57
45	3	16	66	1.15E+07	11	1.92E+06	573	145	86	223	119.3	465.42	69.89
46	3	17	112	1.24E+07	19	2.11E+06	900	160	72	220.3	136.5	377.78	53.48
47	3	18	120	2.04E+07	12	2.04E+06	588	154	87	367.6	207.8	720.28	107.28
48	3	19	64	1.72E+07	9	2.41E+06	373	182	118	262.7	133.4	594.36	89.17
49	3	20	94	1.04E+07	31	3.42E+06	907	258	92	114.7	76.14	177.96	23.47
50	3	21	78	1.23E+07	17	2.67E+06	636	202	97	172.1	102.2	309.38	44.96
51	3	22	89	1.65E+07	16	2.97E+06	538	225	111	207.8	123	377.57	54.98
52	3	23	63	1.62E+07	13	3.35E+06	388	253	138	181.2	100.3	357.61	53.45
53	3	24	94	1.63E+07	23	3.99E+06	577	301	124	153.8	97.56	253.87	35.17
54	3	25	38	9.25E+06	10	2.43E+06	411	184	114	142.2	70.73	319.52	48.53
55	3	26	43	7.71E+06	6	1.08E+06	558	81	64	262.8	115.2	744.45	106.69
56	3	27	53	5.71E+06	14	1.51E+06	928	114	60	142.2	78.77	276.99	41.49
57	4	1	47	1.40E+07	18	5.37E+06	335	407	189	98.45	56.59	180.06	26.7
58	4	2	19	4.99E+06	8	2.10E+06	381	159	109	89.08	37.81	235.34	35.72
59	4	3	49	1.45E+07	10	2.97E+06	337	225	139	182.2	92.98	401.89	60.66
60	4	4	114	1.31E+07	13	1.50E+06	869	113	62	323.1	185.5	618.13	91.46
61	4	5	208	1.75E+07	29	2.45E+06	1186	185	68	267.1	182.5	406.5	52.21
62	4	6	47	1.23E+07	12	3.13E+06	383	237	134	146.5	77.67	302.8	45.79
63	4	7	74	2.03E+07	17	4.67E+06	364	354	169	163	96.43	293.96	42.8
64	4	8	83	8.07E+06	17	1.65E+06	1028	125	60	182.5	108.8	327.11	47.43
65	4	9	110	1.70E+07	13	2.01E+06	648	152	83	312.1	178.9	598.03	88.51
66	4	10	78	2.22E+07	21	5.97E+06	352	452	195	139.6	86.13	237.66	33.67
67	4	11	54	1.26E+07	13	3.02E+06	430	229	125	155.3	84.89	309.58	46.5
68	4	12	106	6.18E+06	17	9.91E+05	1716	75	36	232.1	140.4	411.03	59.15
69	4	13	161	1.60E+07	33	3.27E+06	1009	248	86	183.1	126.2	274.23	34.58
70	4	14	37	7.05E+06	4	7.62E+05	525	58	54	332.5	125.7	1238.42	157.36
71	4	15	40	1.55E+07	3	1.16E+06	258	88	94	468.3	160.2	2166.27	243.06
72	4	16	79	9.08E+06	19	2.18E+06	870	165	75	155.9	94.61	271.99	39
73	4	17	88	1.08E+07	16	1.96E+06	817	148	73	205.1	121.3	372.82	54.31
74	4	18	72	1.30E+07	14	2.54E+06	552	192	101	191.8	108.9	366.8	54.38
75	4	19	41	5.13E+06	9	1.13E+06	799	85	55	169.4	82.77	395.07	59.56
76	4	20	87	7.71E+06	21	1.86E+06	1128	141	61	155.5	96.63	263.16	37.08
77	4	21	98	1.80E+07	12	2.21E+06	544	167	95	301.2	168.5	596.27	88.84
78	4	22	64	1.05E+07	12	1.96E+06	612	148	84	198.5	108	402.16	60.29
79	4	23	49	1.33E+07	10	2.72E+06	368	206	127	182.2	92.98	401.89	60.66

4	1	4	41	1.41E+07	17	5.84E+06	291	440	210	91.58	51.32	171.89	25.81
5	1	5	49	1.57E+07	20	6.41E+06	312	482	213	93.09	54.72	165.28	24.22
37	3	8	90	1.20E+07	36	4.81E+06	748	364	121	94.77	64.01	143.57	18.5
29	2	19	73	1.07E+07	29	4.26E+06	681	321	118	95.56	61.71	152.36	20.7
8	1	8	41	9.88E+06	16	3.86E+06	415	290	143	97.2	53.87	185.51	27.95
39	3	10	57	1.07E+07	22	4.13E+06	533	312	132	98.01	59.4	168.3	24.17
57	4	1	47	1.40E+07	18	5.37E+06	335	407	189	98.45	56.59	180.06	26.7
20	2	10	42	1.01E+07	15	3.61E+06	415	273	139	105.8	58.09	205.37	31
22	2	12	31	5.45E+06	11	1.93E+06	569	146	86	106.2	52.67	234.25	35.95
28	2	18	62	1.87E+07	22	6.65E+06	331	501	212	106.7	65.19	182.25	26.02
14	2	4	123	1.24E+07	41	4.14E+06	990	312	97	113.8	79.7	166.15	20.35
49	3	20	94	1.04E+07	31	3.42E+06	907	258	92	114.7	76.14	177.96	23.47
40	3	11	67	1.99E+07	22	6.53E+06	337	493	208	115	70.69	195.4	27.76
43	3	14	50	1.51E+07	16	4.82E+06	332	364	179	117.8	66.64	221.37	32.99
27	2	17	41	8.93E+06	13	2.83E+06	459	214	116	118.9	63.24	241.67	36.69
9	1	9	57	7.33E+06	17	2.19E+06	778	164	79	126.8	73.49	232.33	34.23
24	2	14	41	7.11E+06	12	2.08E+06	577	157	89	128.6	67.23	268.48	40.8
36	3	7	45	7.56E+06	13	2.19E+06	595	165	90	130.1	69.86	262.5	39.7
38	3	9	195	1.49E+07	55	4.20E+06	1310	317	85	134.1	99.34	184.11	20.36
42	3	13	66	2.88E+07	18	7.86E+06	229	594	276	138	81.81	246.64	35.88
2	1	2	77	1.13E+07	21	3.09E+06	679	233	100	138.7	85.5	236.34	33.51
66	4	10	78	2.22E+07	21	5.97E+06	352	452	195	139.6	86.13	237.66	33.67
56	3	27	53	5.71E+06	14	1.51E+06	928	114	60	142.2	78.77	276.99	41.49
54	3	25	38	9.25E+06	10	2.43E+06	411	184	114	142.2	70.73	319.52	48.53
41	3	12	54	1.64E+07	14	4.24E+06	330	321	168	144.8	80.37	281.79	42.18
15	2	5	66	1.12E+07	17	2.90E+06	587	218	104	146.3	85.78	265.47	38.84
62	4	6	47	1.23E+07	12	3.13E+06	383	237	134	146.5	77.67	302.8	45.79
1	1	1	39	1.14E+07	10	2.92E+06	343	219	135	146.5	73.08	328.53	49.86
30	3	1	105	1.79E+07	27	4.60E+06	587	348	133	146.6	96.02	232.41	31.18
32	3	3	47	1.00E+07	12	2.55E+06	470	193	109	146.8	77.83	303.45	45.89
3	1	3	85	1.56E+07	21	3.85E+06	546	289	125	152.9	94.9	259.17	36.57
19	2	9	61	1.12E+07	15	2.76E+06	543	208	106	153	87	289.18	42.9
53	3	24	94	1.63E+07	23	3.99E+06	577	301	124	153.8	97.56	253.87	35.17
67	4	11	54	1.26E+07	13	3.02E+06	430	229	125	155.3	84.89	309.58	46.5
76	4	20	87	7.71E+06	21	1.86E+06	1128	141	61	155.5	96.63	263.16	37.08
72	4	16	79	9.08E+06	19	2.18E+06	870	165	75	155.9	94.61	271.99	39
35	3	6	96	2.51E+07	23	6.01E+06	383	454	187	157	99.74	258.92	35.83
21	2	11	189	2.02E+07	44	4.69E+06	938	354	106	162.3	117	230.37	26.96
63	4	7	74	2.03E+07	17	4.67E+06	364	354	169	163	96.43	293.96	42.8
31	3	2	88	1.46E+07	20	3.31E+06	605	250	110	165.3	101.9	282.98	40.13
18	2	8	58	9.34E+06	13	2.09E+06	621	158	86	167.4	92.02	332.04	49.76
75	4	19	41	5.13E+06	9	1.13E+06	799	85	55	169.4	82.77	395.07	59.56
50	3	21	78	1.23E+07	17	2.67E+06	636	202	97	172.1	102.2	309.38	44.96
6	1	6	60	1.11E+07	13	2.40E+06	541	181	98	173.4	95.6	343.31	51.39
52	3	23	63	1.62E+07	13	3.35E+06	388	253	138	181.2	100.3	357.61	53.45
59	4	3	49	1.45E+07	10	2.97E+06	337	225	139	182.2	92.98	401.89	60.66
79	4	23	49	1.33E+07	10	2.72E+06	368	206	127	182.2	92.98	401.89	60.66
11	2	1	44	1.21E+07	9	2.47E+06	364	186	121	182.3	89.73	423.04	63.7
64	4	8	83	8.07E+06	17	1.65E+06	1028	125	60	182.5	108.8	327.11	47.43
23	2	13	49	9.65E+06	10	1.97E+06	508	148	92	183	93.38	403.59	60.92
69	4	13	161	1.60E+07	33	3.27E+06	1009	248	86	183.1	126.2	274.23	34.58
13	2	3	25	7.72E+06	5	1.54E+06	324	116	99	184.4	71.73	611.93	83.26
16	2	6	40	1.28E+07	8	2.56E+06	313	193	132	186.1	87.97	458.05	68.43

7	1	7	77	1.33E+07	13	2.24E+06	581	168	92	221.6	124.4	432.39	64.32
25	2	15	54	7.51E+06	9	1.25E+06	719	94	61	222.9	111.7	509.9	76.58
45	3	16	66	1.15E+07	11	1.92E+06	573	145	86	223	119.3	465.42	69.89
12	2	2	55	1.75E+07	9	2.86E+06	315	215	140	227	113.9	518.52	77.86
68	4	12	106	6.18E+06	17	9.91E+05	1716	75	36	232.1	140.4	411.03	59.15
48	3	19	64	1.72E+07	9	2.41E+06	373	182	118	262.7	133.4	594.36	89.17
55	3	26	43	7.71E+06	6	1.08E+06	558	81	64	262.8	115.2	744.45	106.69
61	4	5	208	1.75E+07	29	2.45E+06	1186	185	68	267.1	182.5	406.5	52.21
77	4	21	98	1.80E+07	12	2.21E+06	544	167	95	301.2	168.5	596.27	88.84
65	4	9	110	1.70E+07	13	2.01E+06	648	152	83	312.1	178.9	598.03	88.51
60	4	4	114	1.31E+07	13	1.50E+06	869	113	62	323.1	185.5	618.13	91.46
70	4	14	37	7.05E+06	4	7.62E+05	525	58	54	332.5	125.7	1238.42	157.36
47	3	18	120	2.04E+07	12	2.04E+06	588	154	87	367.6	207.8	720.28	107.28
71	4	15	40	1.55E+07	3	1.16E+06	258	88	94	468.3	160.2	2166.27	243.06

PARAMETERS:

nM: Number of mounts

rhoD: Effective track density (tr/cm²)

nD: Count for fluence monitor (tr)

uGlass: Uranium concentration of glass standard (ppm)

zeta: zeta factor (a cm²/tr)

zetaSE: standard error of zeta factor (a cm²/tr)

sSC: size of square counter (cm²)

nM	rhoD	nD	uGlass	zeta	zetaSE	sSC
1	5.29E+05	6594	39.8	145.39	7.04	1.0E-08
2	5.28E+05	6579	39.8	145.39	7.04	1.0E-08
3	5.27E+05	6565	39.8	145.39	7.04	1.0E-08
4	5.26E+05	6551	39.8	145.39	7.04	1.0E-08

Sample ID

v1504 a-c, ETH404, #7-8, GF 43013

SAMPLE POOLED and CENTRAL AGES

age :age (Ma)

clL :lower 0.95 confidential interval (Ma)

clU :upper 0.95 confidential interval (Ma)

sE :standard error (Ma)

	age	clL	clU	sE
Pooled	177	165	189.65	6
Central	177	153	204.12	13

Probability of χ^2 (%) :

0

Age dispersion (%) :

34.45

Pooled spontaneous tracks:

5101

Pooled induced tracks:

1083

Pooled counter squares:

38078

Mean U concentration +/- 1 σ (ppm): 216 +/- 14

SIN GR DAT/in ORIGINAL ORDER:

n grain number

nSg :number of counter squares
 uG :uranium concentration (ppm)
 uGSE :standard error of uranium concentration
 ageG :grain age (Ma)
 cILG :lower 0.95 confidential interval (Ma)
 cIUG :upper 0.95 confidential interval (Ma)
 sEG :relative standard error (1 σ , Ma)

... in ORIGINAL ORDER:

n	mN	gNM	nS	rhoS	nl	rhoI	nSq	uG	uGSE	ageG	cILG	cIUG	sEG
1	1	1	67	1.38E+07	19	3.93E+06	484	299	135	132	79.11	232.36	33.58
2	1	2	86	2.58E+07	15	4.49E+06	334	342	174	212.6	123.9	394.35	57.84
3	1	3	32	8.84E+06	9	2.49E+06	362	189	123	132.2	62.78	314.47	47.67
4	1	4	139	6.17E+06	48	2.13E+06	2252	162	47	109	78.3	154.55	18.12
5	1	5	70	1.56E+07	19	4.23E+06	449	322	146	137.8	82.88	242	34.9
6	1	6	35	1.01E+07	4	1.15E+06	347	88	83	313.7	117.9	1175.57	148.95
7	1	7	79	3.50E+07	15	6.64E+06	226	505	257	195.6	113.4	364.41	53.58
8	1	8	51	1.04E+07	11	2.24E+06	492	170	100	172	90.12	364.88	55.08
9	1	9	123	2.81E+07	29	6.62E+06	438	504	186	158.7	106	246.27	32.32
10	1	10	107	1.63E+07	35	5.33E+06	657	405	136	114.9	78.23	173.32	22.14
11	1	11	71	1.35E+07	18	3.41E+06	528	259	121	147.4	87.85	262.23	38.02
12	1	12	58	1.17E+07	15	3.02E+06	497	230	117	144.3	81.74	273.68	40.68
13	1	13	91	1.50E+07	34	5.60E+06	607	426	145	100.7	67.59	153.99	20.02
14	1	14	55	1.35E+07	20	4.89E+06	409	372	164	103.3	61.39	181.77	26.43
15	1	15	67	1.29E+07	12	2.30E+06	521	175	99	206.7	112.9	417.76	62.56
16	1	16	75	1.82E+07	20	4.85E+06	412	369	163	140.3	85.58	242.21	34.6
17	1	17	61	1.64E+07	21	5.65E+06	372	429	185	109	65.98	188.37	27.07
18	1	18	66	1.85E+07	10	2.81E+06	356	214	132	243	127	525.87	79.01
19	2	1	34	6.98E+06	9	1.85E+06	487	140	91	140.6	67.28	332.81	50.38
20	2	2	61	6.89E+06	19	2.15E+06	885	163	74	120.6	71.71	213.49	31.01
21	2	3	99	9.71E+06	12	1.18E+06	1020	89	51	303.6	169.9	600.64	89.48
22	2	4	149	1.62E+07	29	3.15E+06	920	239	88	192.1	129.6	295.82	38.46
23	2	5	133	1.11E+07	36	3.01E+06	1197	228	76	138.9	96.06	206.41	25.83
24	2	6	52	9.37E+06	19	3.42E+06	555	260	118	103	60.36	184.31	27.03
25	2	7	87	1.96E+07	13	2.93E+06	444	222	121	247.6	140.1	480.14	71.25
26	2	8	72	2.27E+07	18	5.68E+06	317	431	201	149.7	89.35	266.23	38.58
27	2	9	80	1.47E+07	17	3.12E+06	545	237	113	175.7	104.5	315.4	45.79
28	2	10	68	1.62E+07	14	3.34E+06	419	254	133	180.9	102.3	347.14	51.54
29	2	11	24	7.04E+06	12	3.52E+06	341	267	151	75.3	36.56	165.25	25.74
30	2	12	34	3.89E+06	10	1.14E+06	875	87	54	126.9	62.3	287.74	43.84
31	2	13	82	2.22E+07	13	3.52E+06	369	267	146	233.7	131.7	454.5	67.51
32	2	14	49	8.24E+06	19	3.19E+06	595	242	110	97.08	56.57	174.54	25.69
33	2	15	89	1.21E+07	17	2.31E+06	735	176	84	195.1	116.8	348.37	50.39
34	2	16	118	9.81E+06	21	1.75E+06	1203	132	57	209.4	132.5	349.45	48.63
35	2	17	64	1.41E+07	14	3.08E+06	455	233	123	170.4	95.95	328.2	48.83
36	2	18	103	2.23E+07	8	1.74E+06	461	132	90	464.7	235.6	1073.15	161.25
37	2	19	84	2.28E+07	5	1.36E+06	369	103	88	593.4	258.5	1760.38	249.77
38	2	20	101	1.94E+07	8	1.53E+06	522	116	80	456	230.9	1054.42	158.36
39	2	21	68	2.13E+07	16	5.00E+06	320	379	187	158.8	92.28	292.71	43.01
40	2	22	36	7.42E+06	8	1.65E+06	485	125	86	166.7	77.92	413.83	61.9
41	2	23	97	1.73E+07	19	3.39E+06	561	257	117	190.5	117.1	328.77	46.76
42	2	24	64	1.52E+07	16	3.80E+06	421	288	142	149.6	86.52	276.72	40.76
43	2	25	76	1.55E+07	16	3.25E+06	492	247	122	177.2	103.8	324.56	47.49
44	2	26	86	2.82E+07	8	2.62E+06	305	199	137	390.4	195.9	912.19	136.52

52	2	34	191	1.67E+07	14	1.23E+06	1142	93	49	495	295.5	903.49	132.73
53	2	35	120	7.83E+06	29	1.89E+06	1532	144	53	155.2	103.6	241.12	31.69
54	2	36	93	1.80E+07	13	2.52E+06	517	191	104	264.3	150.1	510.78	75.72
55	2	37	31	5.85E+06	10	1.89E+06	530	143	88	115.9	56.21	264.82	40.47
56	2	38	97	1.42E+07	26	3.81E+06	682	289	113	140.1	90.79	224.69	30.47
57	2	39	130	2.17E+07	9	1.51E+06	598	114	74	520	275.3	1127.19	170.45
58	2	40	93	1.33E+07	16	2.28E+06	701	173	85	216.1	128.2	391.7	56.97
59	2	41	42	1.12E+07	4	1.06E+06	376	81	76	375.2	143.6	1378.86	176.33
60	2	42	97	1.70E+07	35	6.14E+06	570	466	157	104.5	70.69	158.41	20.39
61	2	43	243	1.16E+07	72	3.43E+06	2100	260	61	126.8	97.31	165.11	17.27

INCREASING AGE

n	mN	gNM	nS	rhoS	nl	rhoI	nSq	uG	uGSE	ageG	clLG	clUG	sEG
29	2	11	24	7.04E+06	12	3.52E+06	341	267	151	75.3	36.56	165.25	25.74
32	2	14	49	8.24E+06	19	3.19E+06	595	242	110	97.08	56.57	174.54	25.69
13	1	13	91	1.50E+07	34	5.60E+06	607	426	145	100.7	67.59	153.99	20.02
24	2	6	52	9.37E+06	19	3.42E+06	555	260	118	103	60.36	184.31	27.03
14	1	14	55	1.35E+07	20	4.89E+06	409	372	164	103.3	61.39	181.77	26.43
60	2	42	97	1.70E+07	35	6.14E+06	570	466	157	104.5	70.69	158.41	20.39
4	1	4	139	6.17E+06	48	2.13E+06	2252	162	47	109	78.3	154.55	18.12
17	1	17	61	1.64E+07	21	5.65E+06	372	429	185	109	65.98	188.37	27.07
51	2	33	73	7.32E+06	25	2.51E+06	997	190	75	109.9	69.43	180.57	25.08
10	1	10	107	1.63E+07	35	5.33E+06	657	405	136	114.9	78.23	173.32	22.14
55	2	37	31	5.85E+06	10	1.89E+06	530	143	88	115.9	56.21	264.82	40.47
20	2	2	61	6.89E+06	19	2.15E+06	885	163	74	120.6	71.71	213.49	31.01
61	2	43	243	1.16E+07	72	3.43E+06	2100	260	61	126.8	97.31	165.11	17.27
30	2	12	34	3.89E+06	10	1.14E+06	875	87	54	126.9	62.3	287.74	43.84
1	1	1	67	1.38E+07	19	3.93E+06	484	299	135	132	79.11	232.36	33.58
3	1	3	32	8.84E+06	9	2.49E+06	362	189	123	132.2	62.78	314.47	47.67
5	1	5	70	1.56E+07	19	4.23E+06	449	322	146	137.8	82.88	242	34.9
23	2	5	133	1.11E+07	36	3.01E+06	1197	228	76	138.9	96.06	206.41	25.83
56	2	38	97	1.42E+07	26	3.81E+06	682	289	113	140.1	90.79	224.69	30.47
16	1	16	75	1.82E+07	20	4.85E+06	412	369	163	140.3	85.58	242.21	34.6
19	2	1	34	6.98E+06	9	1.85E+06	487	140	91	140.6	67.28	332.81	50.38
12	1	12	58	1.17E+07	15	3.02E+06	497	230	117	144.3	81.74	273.68	40.68
11	1	11	71	1.35E+07	18	3.41E+06	528	259	121	147.4	87.85	262.23	38.02
42	2	24	64	1.52E+07	16	3.80E+06	421	288	142	149.6	86.52	276.72	40.76
26	2	8	72	2.27E+07	18	5.68E+06	317	431	201	149.7	89.35	266.23	38.58
53	2	35	120	7.83E+06	29	1.89E+06	1532	144	53	155.2	103.6	241.12	31.69
9	1	9	123	2.81E+07	29	6.62E+06	438	504	186	158.7	106	246.27	32.32
39	2	21	68	2.13E+07	16	5.00E+06	320	379	187	158.8	92.28	292.71	43.01
48	2	30	86	1.65E+07	20	3.85E+06	520	292	129	160.9	99.08	275.78	39.14
40	2	22	36	7.42E+06	8	1.65E+06	485	125	86	166.7	77.92	413.83	61.9
35	2	17	64	1.41E+07	14	3.08E+06	455	233	123	170.4	95.95	328.2	48.83
8	1	8	51	1.04E+07	11	2.24E+06	492	170	100	172	90.12	364.88	55.08
27	2	9	80	1.47E+07	17	3.12E+06	545	237	113	175.7	104.5	315.4	45.79
43	2	25	76	1.55E+07	16	3.25E+06	492	247	122	177.2	103.8	324.56	47.49
28	2	10	68	1.62E+07	14	3.34E+06	419	254	133	180.9	102.3	347.14	51.54
41	2	23	97	1.73E+07	19	3.39E+06	561	257	117	190.5	117.1	328.77	46.76
22	2	4	149	1.62E+07	29	3.15E+06	920	239	88	192.1	129.6	295.82	38.46
50	2	32	94	2.53E+07	18	4.84E+06	372	367	171	194.7	118.2	341.37	48.95
33	2	15	89	1.21E+07	17	2.31E+06	735	176	84	195.1	116.8	348.37	50.39

47	2	29	67	1.44E+07	10	2.15E+06	465	163	101	247.1	129.3	534.31	80.27
25	2	7	87	1.96E+07	13	2.93E+06	444	222	121	247.6	140.1	480.14	71.25
54	2	36	93	1.80E+07	13	2.52E+06	517	191	104	264.3	150.1	510.78	75.72
21	2	3	99	9.71E+06	12	1.18E+06	1020	89	51	303.6	169.9	600.64	89.48
6	1	6	35	1.01E+07	4	1.15E+06	347	88	83	313.7	117.9	1175.57	148.95
59	2	41	42	1.12E+07	4	1.06E+06	376	81	76	375.2	143.6	1378.86	176.33
44	2	26	86	2.82E+07	8	2.62E+06	305	199	137	390.4	195.9	912.19	136.52
38	2	20	101	1.94E+07	8	1.53E+06	522	116	80	456	230.9	1054.42	158.36
36	2	18	103	2.23E+07	8	1.74E+06	461	132	90	464.7	235.6	1073.15	161.25
45	2	27	80	1.28E+07	6	9.63E+05	623	73	57	477.8	219.7	1288.88	187.77
52	2	34	191	1.67E+07	14	1.23E+06	1142	93	49	495	295.5	903.49	132.73
57	2	39	130	2.17E+07	9	1.51E+06	598	114	74	520	275.3	1127.19	170.45
37	2	19	84	2.28E+07	5	1.36E+06	369	103	88	593.4	258.5	1760.38	249.77
49	2	31	94	1.66E+07	5	8.82E+05	567	67	57	660.5	289.8	1936.73	277

PARAMETERS:

nM: Number of mounts

rhoD: Effective track density (tr/cm²)

nD: Count for fluence monitor (tr)

uGlass: Uranium concentration of glass standard (ppm)

zeta: zeta factor (a cm²/tr)

zetaSE: standard error of zeta factor (a cm²/tr)

sSC: size of square counter (cm²)

nM	rhoD	nD	uGlass	zeta	zetaSE	sSC
1	5.23E+05	6523	39.8	145.39	7.04	1.00E-08
2	5.25E+05	6537	39.8	145.39	7.04	1.00E-08

Table S4: Detailed zircon fission-track grain and sample data.

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