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Apatite Fission Track Thermochronology of Tasmania

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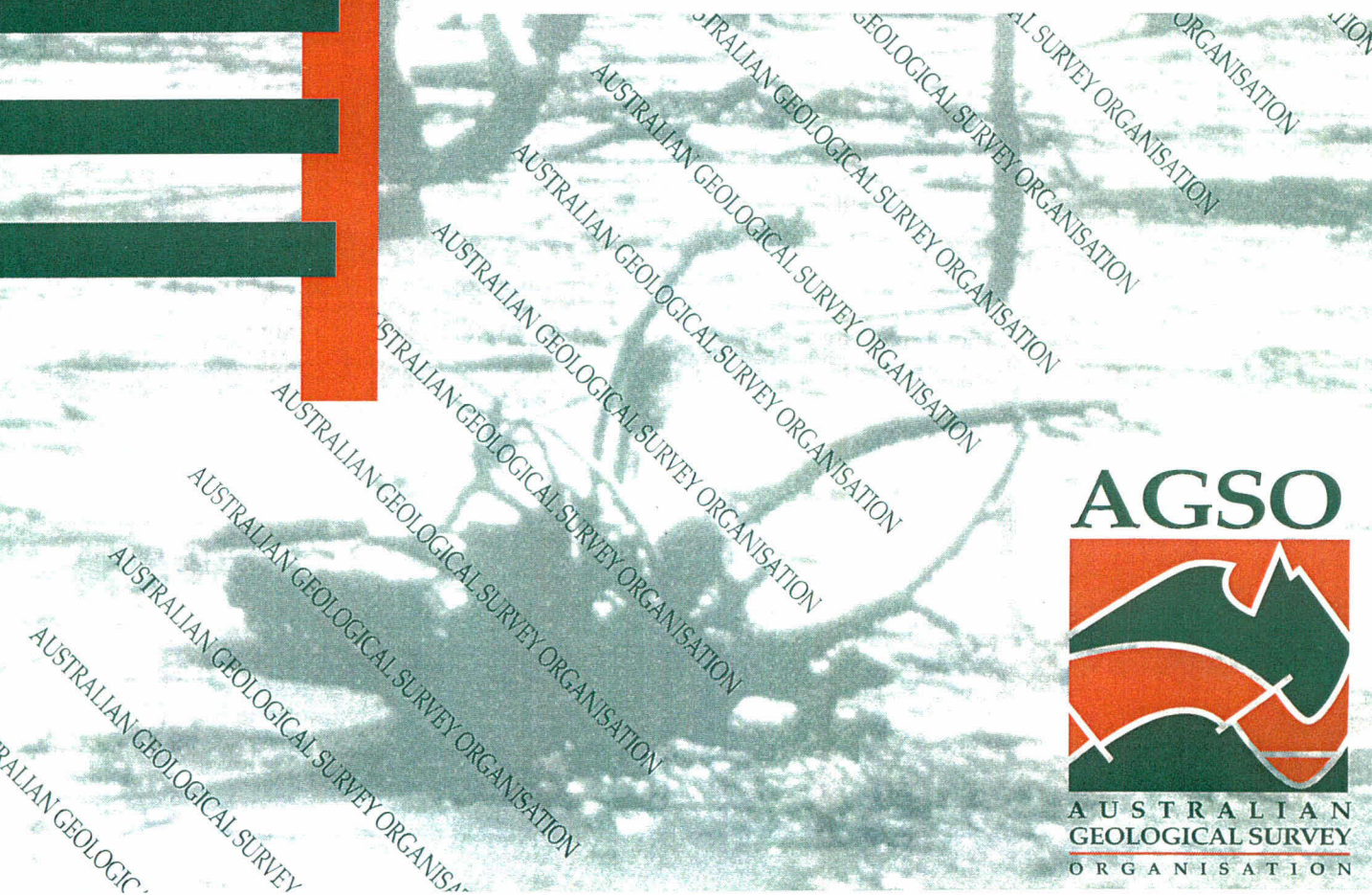
Paul B. O'Sullivan and Barry P. Kohn

Record 1997/35



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TASMANIA
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APATITE FISSION TRACK THERMOCHRONOLOGY OF TASMANIA

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ABSTRACT

Apatite fission track (AFT) analyses from a wide range of outcrop and drillhole samples throughout Tasmania have been generated to further constrain models for the extensional tectonics and denudation history of southeastern Australia. Tasmania is an ideal site to study the complexities of tectonics in this region as it has rifted margins on all sides. These include: 1) the Early Cretaceous failed rift between Antarctica, which at that time also included Tasmania, and the mainland; 2) the middle Cretaceous to Paleocene rift between Antarctica and Australia along the west coast; and 3) the middle Cretaceous to Paleocene rift between New Zealand and Australia. Furthermore, the distance between the rifts and Tasmania is minimal due to a very narrow continental shelf, hence any rift-related thermotectonic effects should also be evident onshore.

Most of the AFT ages were <120 Ma, which is significantly younger than the Jurassic and older depositional, intrusive, or metamorphic ages for the samples studied. Interpretation of data suggests that most of the sampled rocks cooled rapidly from temperatures $>\sim 95^{\circ}\text{C}$ to temperatures $<\sim 70^{\circ}\text{C}$ close to the time indicated by their apatite ages, and that these rocks have subsequently continued to cool to present-day temperatures.

The results suggest that at least two regional cooling episodes, during the middle Cretaceous and the Late Paleocene to Early Eocene, are recorded in Tasmania. Middle Cretaceous cooling was recorded throughout inland Tasmania, while Early Tertiary cooling was primarily confined to the eastern and western coastlines. Both cooling episodes were probably directly related to continental extension; middle Cretaceous cooling occurred in response to km-scale denudation during initial extension, while Early Tertiary cooling occurred in response to a combination of denudation and change in heat flow following breakup. There is also evidence that a third, more-localised episode of rapid cooling affected the northern coastal regions of Tasmania during the Late Tertiary. This occurred either in response to Miocene tectonism in the Bass Basin region or following exposure to elevated palaeotemperatures generated by local high heat flow, similar to that suggested for northwestern Tasmania today.

INTRODUCTION

This report presents the results and preliminary interpretation of 88 AFT analyses of samples collected from Tasmania (Fig. 1). The work was carried out for the Tasmania NGMA Project ("TASGO") as non-proprietary collaborative research by the Australian Geodynamics Cooperative Research Centre based at La Trobe University for the Australian Geological Survey Organisation and Mineral Resources Tasmania. Most of the AFT samples were collected by Paul O'Sullivan, Barry Kohn and Andrew Gleadow of La Trobe University. Others were provided from collections held by Mineral Resources Tasmania staff and one sample was provided by Mike Hall of Monash University. Samples were processed either under contract by Geotrack International Pty. Ltd., Melbourne, or in the laboratories of the School of Earth Sciences, La Trobe University. All samples were analyzed in the fission track laboratory at La Trobe University. The data reported herein forms part of a larger AFT data set totalling ~250 analyses which has been generated throughout Tasmania.

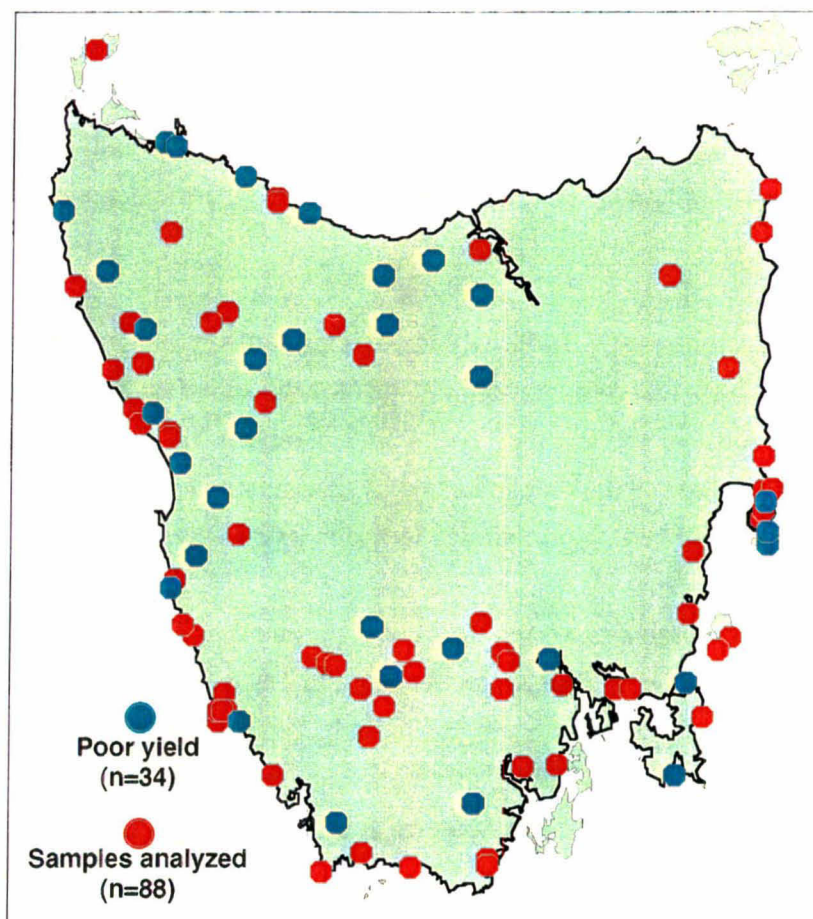


Figure 1. Location map showing samples collected and processed from Tasmania under the auspices of the Tasmania NGMA Project ("TASGO"). A total of 88 of 122 original samples were analyzed with 34 samples discontinued after processing due to poor apatite yields. Wells with more than one sample at depth are represented by the uppermost sample.

APATITE FISSION TRACK THERMOCHRONOLOGY

The spontaneous nuclear fission of ^{238}U over geological time in uranium-bearing minerals such as apatite and zircon causes the accumulation of linear zones of radiation damage known as fission tracks. When formed in apatite, the tracks have a fairly constant mean length of $\sim 16\ \mu\text{m}$ (Gleadow et al., 1986). The tracks can be made visible by a chemical etching procedure on a polished surface of the mineral so that they can be observed and measured by optical microscopy. The number of tracks that have accumulated in a mineral can be related to the uranium content and time over which they have been quantitatively retained, i.e. a measure of geological age. Fission tracks possess a fundamental property which forms the basis of their use in thermochronology. When exposed to elevated temperatures the radiation damage making up the tracks is progressively repaired or annealed, over a temperature interval which is characteristic for each particular mineral. In the case of apatite, this temperature interval occurs below $\sim 110^\circ\text{C}$ for geological heating times of the order of 10^6 years or more. Some annealing in apatite occurs even down to ambient surface temperatures, but below $\sim 60^\circ\text{C}$ this is relatively insignificant. Hence, the temperature interval between $\sim 60^\circ$ and $\sim 110^\circ\text{C}$ is often referred to as the apatite fission track (AFT) annealing zone. In this zone, increasing temperatures cause progressive annealing which results in shorter tracks, reduced track density, and a reduction in the AFT age (Gleadow et al., 1986; Green et al., 1989). It follows that at temperatures $> \sim 110^\circ\text{C}$ total annealing results in the reduction of the fission track age to zero. Because new tracks continuously form throughout geologic time, the AFT age and the distribution of track lengths in an apatite sample reflects the integrated thermal history of the host rock (Gleadow et al., 1986; Green et al., 1989).

In this study, our data have been interpreted using the understanding of AFT system response described by Green et al. (1989). This understanding is based on an empirical kinetic description of laboratory annealing data in Durango apatite (Green et al., 1986; Laslett et al., 1987). Thermal-history interpretations are based on a quantitative treatment of annealing achieved by forward computer modelling (Green et al., 1989) of track shortening and age evolution through likely thermal histories for an average apatite composition ($\text{Cl}/(\text{Cl} + \text{F}) \sim 0.1$). The model by Laslett et al. (1987) for annealing of fission tracks in apatite gives predictions that are consistent with geologic constraints on annealing behavior, as explained by Green et al. (1989). More recently, Gallagher (1995) has automated this procedure to give a forward modelling approach which combines a Monte-Carlo simulation of numerous possible thermal histories with statistical testing of the outcome against the observed fission track measurements. A genetic algorithm is also used to provide rapid convergence to an acceptable fit.

METHODOLOGY

Samples were crushed and ground, and apatites concentrated by conventional heavy liquid and magnetic techniques. The separates were mounted in epoxy resin on glass slides, ground and polished to an optical finish to expose internal surfaces of the grains, then etched in 5M HNO₃ for 20 seconds at room temperature to reveal the fossil fission tracks. Irradiations were carried out in a well thermalized neutron flux in the X-7 position of the HIFAR reactor at Lucas Heights, NSW. Fission tracks in each mount were counted in transmitted light using a dry objective at a magnification of 1600x. Where possible, 25 grains were counted on each mount. For further description of fission track counting methodology see Green (1986).

AFT ages were calculated using the zeta calibration method and standard fission track age equation (Hurford and Green, 1982). Errors were calculated using the techniques of Green (1981). In samples with a significant spread in single grain ages, the "conventional analysis", (as defined by Green, 1981), based purely on Poissonian variation, is not valid. In such cases, the "central age" (Galbraith and Laslett, 1993), which is essentially a weighted-mean age, is reported. The observed age spread is determined statistically using the Chi square test (Galbraith, 1981) which indicates the probability that all grains counted belong to a single population of ages. A probability of <5% is evidence of an asymmetric spread of single grain ages. Such a spread in individual grain ages can result either from inheritance of detrital grains from mixed detrital source areas, or from differential annealing in apatite grains of different compositions (Green et al., 1989).

Lengths of confined tracks were measured using the procedure outlined by Green (1986). Only fully-etched and horizontal "confined tracks" were measured (Laslett et al. 1982) in grains with polished surfaces parallel to prismatic crystal faces. Measurements were made under similar conditions to those employed for age determinations. Suitable track lengths were measured using a projection tube and a digitizing tablet calibrated using a stage micrometer (with μm divisions). As many tracks as possible, up to ~100, were measured from each sample.

RESULTS AND INTERPRETATION

Over 120 samples were originally processed for apatite fission track analysis, however, only 88 samples yielded apatite in dateable quantities. Typical yields for the 88 samples were good to excellent (>20 dateable grains), and for most samples at least 20 grains were counted and at least 50 confined tracks were measured. Figure 1 shows the location of all samples examined in this study. Analytical data are compiled in Appendix 1.

The location and analytical information for the 88 samples which were analyzed are summarised in Table 1. The sample location information for 34 samples which did not yield adequate amounts of apatite are summarised in Table 2. As seen in Table 1 and Figure 2, most AFT ages are $< \sim 120$ Ma, which is significantly younger than the depositional, intrusive, or metamorphic ages of the rocks (Jurassic and older). Furthermore, most of the mean track lengths are relatively long ($> 13 \mu\text{m}$) and the standard deviations are relatively short ($< 1.5 \mu\text{m}$) suggesting that cooling from palaeotemperatures $> \sim 95^\circ\text{C}$ occurred rapidly and that samples have remained at cooler temperatures for long periods of time.

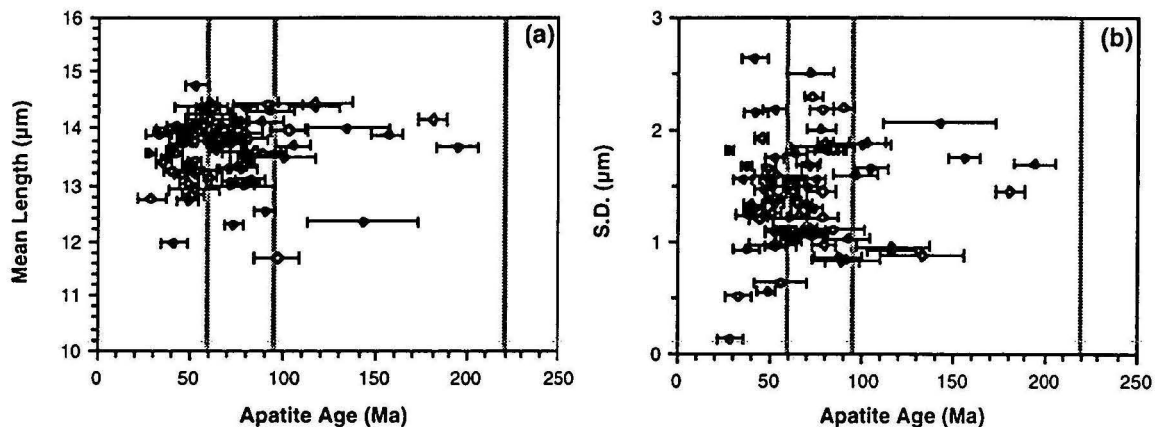


Figure 2. Apatite fission track data from samples collected. Relationships are shown between: (a) mean track length and fission track age ($\pm 1\sigma$); and (b) track length standard deviation and fission track age ($\pm 1\sigma$). The significance of the shaded lines is discussed in the text.

AFT ages for each sample are plotted relative to mean track length and standard deviation in Figure 2. Although the overall plots seem a bit 'clouded', a more detailed examination of the data from individual samples indicates that those with apatite ages of ~ 85 – 95 Ma and between ~ 55 – 65 Ma tend to have the longest mean lengths ($> 14 \mu\text{m}$) and the narrowest length distributions (standard deviations $< 1.2 \mu\text{m}$), whereas the intermediate apatite ages (between ~ 70 – 80 Ma, and $> \sim 100$ Ma) tend to have shorter mean lengths and broader length distributions.

Applying the Laslett et al. (1987) model for track annealing and the Gallagher (1995) approach to the data suggests that: 1) all samples cooled rapidly from temperatures $> \sim 95^\circ\text{C}$ (most of these from temperatures $> \sim 110^\circ\text{C}$), to temperatures $< \sim 70^\circ\text{C}$ at the time suggested by the AFT age; and 2) these rocks have subsequently continued to cool to present-day temperatures. Figure 3 shows the proposed thermal histories for different regions of Tasmania. The best fit model suggests most samples from the inland regions of Tasmania experienced a major rapid cooling episode during the middle Cretaceous (~ 110 – 90 Ma) from temperatures $> 110^\circ\text{C}$; or from $> 95^\circ\text{C}$ (for older samples with AFT ages > 120 Ma), to temperatures $< 60^\circ\text{C}$. Thereafter they have

Table 1. Sample details and results:

Sample Number	Long°E	Lat°S	Unit Sampled	Elevation or Depth (m)	Central Age (Ma)	Error ($\pm 1\sigma$)	Mean Length (μm)	S.D. (μm)
King Island (SK55-1, 1:250,000)								
TH-5	144.839	40.449	Three Hummock Is. granite	0	70.7	6.4	13.30	1.71
Burnie (SK55-3, 1:250,000)								
96POS105	145.253	40.817	Dundas Group	-490-494	81.8	8.1	13.09	1.81
96POS108	145.668	41.623	Dundas Group	-588-598	48.8	4.9	12.70	0.55
96POS109	145.668	41.623	Dundas Group	-360	51.7	5.9	12.83	1.50
96POS118	146.223	41.606	Emu Plains granite	490	63.5	4.1	13.63	1.02
96POS124	144.932	41.661	Conicle Point Granite	0	75.1	4.3	13.34	1.57
96POS125	145.086	41.637	Undiff. Precambrian	35	71.3	5.5	13.27	1.49
96POS128	144.733	41.342	Sandy Cape granite	0	73.6	5.3	12.28	2.30
96POS132	145.773	41.012	Parmeener Super Group	15	61.6	3.6	13.85	1.02
W-6	145.531	41.439	?Unknown sst/breccia	-144-150	142.2	30.3	12.34	2.06
MNA-2	146.079	41.491	Caroline Creek Beds	-215-223	78.6	6.2	13.37	2.18
SR-14/1	145.026	41.478	Precambrian schist	-111-114	133.6	23.3	14.02	0.87
SR-14/2	145.026	41.478	Precambrian schist	-231-232	116.9	20.3	14.49	0.95
SR-14/3	145.026	41.478	Precambrian schist	-465-470	116.5	13.7	14.40	0.91
TJ3400	145.225	41.136	Precambrian dolerite	270	71.7	8.1	13.73	1.10
ARD-2	145.436	41.479	?Unknown sandstone	-10-15	92.8	12.6	14.33	1.03
MHT-7	145.783	41.025	Parmeener Super Group	0	38.6	6.9	14.02	1.24
Launceston (SK55-4, 1:250,000)								
BF 3-II/1	146.821	41.201	Gordon Limestone?	-273-277	77.5	7.8	13.28	2.00
BF 3-II/2	146.821	41.201	Gordon Limestone?	-417-421	90.3	5.8	12.51	2.19
BF 3-II/4	146.821	41.201	Caroline Creek Beds	-923-928	54.1	12.9	13.23	1.60
BF 3-II/5	146.822	41.201	Caroline Creek Beds	-1069-1074	41.5	7.4	11.93	2.63
MBT254	148.269	41.140	The Gardens granodiorite	0	77.0	3.8	14.13	1.08
MBT233	148.316	40.973	Eddystone Pt. adamellite	0	61.8	2.7	13.83	1.51
ALB-3	147.791	41.301	Mathinna Beds sst	-123-129	27.6	2.7	13.55	1.82
FT-68	148.106	41.655	Parmeener Super Group	-163-165	194.0	11.3	13.65	1.70
Queenstown (SK55-5, 1:250,000)								
96POS62	145.979	42.745	Undiff. Precambrian	380	44.7	6.2	13.73	1.20
96POS66	146.442	42.723	June Group	640	60.3	14.0	14.17	1.10
96POS87	145.365	42.659	Dundas Group	0	84.3	2.7	13.07	1.83
96POS89	145.226	41.894	Mt Agnew granite	830	71.5	3.9	13.05	1.69
96POS90	145.729	41.785	High Tor granite	525	32.9	7.6	13.89	0.51
96POS91	145.589	42.279	Mt Darwin granite	730	89.1	9.1	13.54	0.82
96POS98	145.140	41.827	Mt Agnew granite	-420	49.0	5.0	13.02	1.56
96POS102	145.623	41.884	Dundas Group	-242-255	96.7	12.2	11.70	1.61
96POS123	145.040	41.810	Mt Agnew granite	35	52.0	6.0	13.79	2.17
MH-406	145.265	42.447	Lamprophyre - Sorell P.	60	99.9	16.6	13.49	1.87
H1	145.233	41.914	Heemskirk granite	195	49.2	3.6	13.37	1.66
R2809	145.312	42.625	Lamprophyre - Pt Hibbs	0	73.5	6.7	14.15	1.06
H7	145.078	41.861	Granville Harbour granite	10	66.6	5.1	14.05	1.25

Table 1. Sample details and results (continued):

Sample Number	Long°E	Lat°S	Unit Sampled	Elevation or Depth (m)	Central Age (Ma)	Error ($\pm 1\sigma$)	Mean Length (μm)	S.D. (μm)
Oatlands (SK55-6, 1:250,000)								
96POS57	146.952	42.727	Parmeener Super Group	120	180.6	8.2	14.17	1.45
96POS69	147.911	42.584	Parmeener Super Group	0	62.7	5.7	13.81	1.11
96POS70	147.930	42.349	Parmeener Super Group	20	81.1	10.1	13.84	1.82
96POS71	148.288	41.984	Isaacs Point granite	0	52.1	4.5	14.09	1.35
96POS73	148.333	42.107	Cape Tourville granite	0	69.7	2.9	13.80	1.33
96POS76	148.270	42.220	Freycinet granite	0	46.7	4.3	13.98	1.48
96POS93	148.123	42.674	Maria Island granite	30	52.4	3.3	13.43	1.40
96POS94	148.062	42.720	Maria Island granite	0	37.3	2.8	13.48	1.68
96POS112	148.294	42.150	Freycinet granite	215	35.3	4.2	13.41	1.57
CBG-1	148.288	42.113	Freycinet granite	-9-10	52.2	13.2	12.90	0.97
CBG-2	148.288	42.113	Freycinet granite	-192-193	37.3	7.2	13.95	0.94
CBG-3	148.288	42.113	Freycinet granite	-407-408	42.5	3.5	13.57	1.29
CBG-4	148.288	42.113	Freycinet granite	-605-607	40.8	4.7	13.60	1.29
CBG-5	148.288	42.113	Freycinet granite	-803-805	45.2	3.7	13.18	1.93
CBG-6	148.288	42.113	Freycinet granite	-1006-1007	52.5	4.8	13.21	1.76
LC-4	148.290	42.194	Freycinet granodiorite	0	62.8	3.3	13.81	1.46
MD-346	146.843	42.613	Parmeener Super Group	-3-6	74.3	4.9	13.84	1.29
Port Davey (SK55-7, 1:250,000)								
96POS59	146.276	43.042	Undiff. Precambrian	420	84.6	16.9	13.60	1.10
96POS60	146.345	42.928	Undiff. Precambrian	360	64.5	2.7	13.66	1.35
96POS63	146.052	42.768	Undiff. Precambrian	360	52.6	6.2	14.77	0.95
96POS64	146.223	42.863	Dundas Group	365	61.6	3.1	13.80	1.50
96POS80	146.486	43.541	Undiff. Precambrian	1	72.1	7.7	14.02	1.08
96POS81	146.240	43.489	Cox Bight granite	60	42.8	6.2	14.07	2.16
96POS82	146.034	43.559	South West Cape granite	125	56.6	4.8	14.07	1.10
96POS84	146.775	43.190	Undiff. Precambrian	0	57.6	4.6	14.35	1.11
96POS86	145.496	42.990	Elliot Bay granite	0	60.4	3.9	14.47	1.09
69	146.094	42.779	Precambrian amphibolite	600	78.6	17.5	12.99	1.85
V-733	145.497	42.945	Elliot Bay granite	5	40.2	5.0	13.23	1.33
V-738	145.535	42.948	Elliot Bay granite	5	46.3	4.2	13.73	1.24
V-795	145.537	42.949	Elliot Bay granite	5	29.1	7.0	12.74	0.14
V-744	145.520	42.946	Elliot Bay granite	5	56.4	4.3	14.11	1.11
EB-1	145.523	42.882	Wart Hill pyroclastics	-33-39	55.5	13.9	14.39	0.63
EB-2	145.523	42.882	Wart Hill pyroclastics	-297-301	51.5	4.2	14.00	1.27
Hobart (SK55-8, 1:250,000)								
96POS67	146.989	42.760	Parmeener Super Group	40	72.3	4.3	13.78	1.12
96POS77	147.529	42.869	Parmeener Super Group	296	79.5	5.9	14.38	0.98
96POS78	147.613	42.869	Parmeener Super Group	0	78.7	9.1	13.92	1.22
96POS96	147.983	42.969	Deep Glen Bay granite	0	64.6	3.5	13.83	1.56
96POS107	146.884	43.530	Parmeener Super Group	-25	156.0	8.5	13.88	1.76
GO-1	147.256	42.846	Parmeener Super Group	-238-241	64.0	5.8	13.94	1.80
GO-2	147.256	42.846	Jurassic dolerite	-405-409	71.4	13.0	12.97	2.51
GO-3	147.256	42.846	Parmeener Super Group	-534-540	91.3	18.8	14.43	0.85
CY-3	147.062	43.157	Parmeener Super Group	-178-185	79.8	4.3	13.48	1.90
ML-2	146.949	42.864	Parmeener Super Group	-22-32	102.8	9.8	13.96	1.90
DG-3	147.985	42.972	Deep Glen Bay granite	0	78.3	7.8	13.58	1.45
GR-1	147.191	42.754	Parmeener Super Group	-2-4	61.2	4.9	14.36	1.04
WBH-1	147.237	43.149	Parmeener Super Group	-113-120	52.4	4.2	13.89	1.09
WBH-2	147.237	43.149	Jurassic dolerite	-416-423	60.1	11.1	14.29	1.23
WBH-3	147.237	43.149	Cretaceous syenite	-975-985	61.0	3.4	13.12	1.52
STX-1	146.506	42.805	Undiff. Precambrian sst	-20-27	87.5	12.8	14.11	0.86
CA109	146.883	43.510	Parmeener Super Group	-265-267	104.6	9.1	13.70	1.66

Ages for samples calculated using $\zeta=379.2$ for dosimeter glass CN5. All analyses by P. O'Sullivan. Analytical data sheets for each sample in Appendix 1 are in same order as presented in table.

2011/8/25 > 115 Ma

Table 2. Details of samples processed but not analyzed.

Sample Number	Long°E	Lat°S	Unit Sampled	Elevation or Depth (m)
Burnie (SK55-3, 1:250,000)				
96POS101	145.180	41.117	Housetop granite	-160
96POS104	145.253	40.817	June Group	-786-790
96POS106	145.253	40.817	June Group	-55
96POS110	145.668	41.623	Dundas Group	-54
96POS116	146.329	41.301	June Group	170
96POS117	146.347	41.480	Mt. Read Volcanics	440
96POS120	145.867	41.544	June Group	920
96POS126	145.101	41.507	Undiff. Precambrian	285
96POS127	144.899	41.285	Undiff. Precambrian	240
96POS129	144.674	41.060	Undiff. Precambrian	35
96POS131	145.616	40.929	Undiff. Precambrian	0
96POS133	145.941	41.069	Undiff. Precambrian	35
Launceston (SK55-4, 1:250,000)				
96POS113	146.830	41.682	Parmeener Super Group	245
96POS114	146.826	41.374	June Group	170
96POS115	146.574	41.244	Parmeener Super Group	10
Queenstown (SK55-5, 1:250,000)				
96POS88	145.372	42.361	Dundas Group	0
96POS92	146.287	42.633	June Group	1020
96POS99	145.140	41.827	Mt Agnew granite	-330
96POS100	145.140	41.827	Mt Agnew granite	-200
96POS103	145.623	41.884	Dundas Group	-27-32
96POS121	146.486	42.139	Spero Bay Group	290
96POS122	145.288	42.014	Parmeener Super Group	140
MH-118	145.244	42.484	Lamprophyre - Sorell P.	0
Oatlands (SK55-6, 1:250,000)				
96POS58	146.704	42.713	Parmeener Super Group	225
96POS74	148.316	42.322	Freycinet granite	0
96POS75	148.310	42.268	Freycinet granite	0
96POS111	148.299	42.155	Freycinet granite	420
Port Davey (SK55-7, 1:250,000)				
96POS61	146.378	42.816	June Group	565
96POS83	146.112	43.371	Undiff. Precambrian	225
96POS85	145.598	42.987	Elliot Bay granite	0
Hobart (SK55-8, 1:250,000)				
96POS79	146.805	43.300	Parmeener Super Group	1005
96POS95	147.892	42.844	Parmeener Super Group	0
96POS97	147.837	43.196	Parmeener Super Group	5
GR-2	147.191	42.754	Parmeener Super Group	558-561

remained at palaeotemperatures <50-60°C. The AFT data also suggest that many samples collected near the eastern and western coastlines of Tasmania experienced a major rapid cooling episode from temperatures >110°C to <50°C during the Early Tertiary (~60-40 Ma). It is probable that other regions of Tasmania, located inland from present-day coastal areas, also experienced accelerated cooling during this time. However, due to the low temperatures involved, this proposal is difficult to constrain (Fig. 3). Furthermore, a few samples from the far northeast and eastern coasts suggest that localized cooling from elevated palaeotemperatures occurred more recently during the Miocene (Fig. 3).

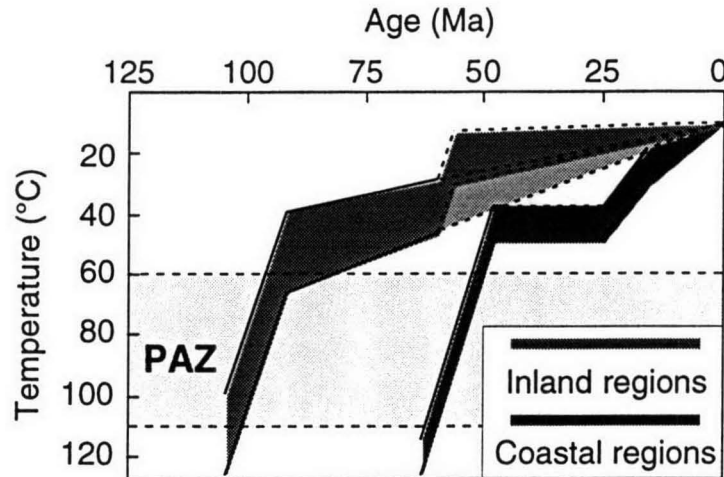


Figure 3. Schematic proposed time-temperature histories for the different regions of Tasmania inferred from apatite fission track data presented in this report. Solid lines along cooling paths represent times when thermal history is constrained by the data; dashed lines represent times when thermal history is less constrained. Details discussed in the text. PAZ refers to the apatite partial annealing zone, the temperature zone ($\sim 60^{\circ}\text{C}$ - 110°C) in which fission tracks in apatite undergo accelerated annealing for heating times $>10^6$ years.

Following the methodology presented by Gleadow et al. (1996) for modelling regional fission track data sets, the palaeotemperature images presented in Figure 4 were generated. These diagrams were created by combining the results of AFT time-temperature modelling with other digital data sets. In these preliminary representations, we assume that present-day heat flow (geothermal gradients) and mean annual surface temperature have remained constant across Tasmania. Though changes in these have the potential to significantly alter the outcomes presented, the images are nonetheless illustrative of the relative thermal histories experienced by rocks in the region.

The results suggest that by ~ 100 million years ago, most rocks presently at the surface were still exposed to palaeotemperatures $>95^{\circ}\text{C}$. Hence these rocks were still deeply buried at depths of at least 2.5-4 km during the Early Cretaceous (assuming geothermal gradients of ~ 20 - $30^{\circ}\text{C}/\text{km}$), prior to the proposed rapid cooling event during the middle Cretaceous. By ~ 70 Ma, much of inland Tasmania had cooled to palaeotemperatures $<70^{\circ}\text{C}$, probably in response to km-scale denudation. By ~ 50 Ma, the second proposed rapid cooling event, in response to further denudation, resulted in most of the rocks throughout Tasmania being exposed to palaeotemperatures $<60^{\circ}\text{C}$, except along the far eastern and western coastal regions which were probably influenced by higher heat flow associated with rifting. Finally, by ~ 30 Ma, most of the rocks presently at the surface had cooled to palaeotemperatures $<45^{\circ}\text{C}$ and have not been further heated since that time.

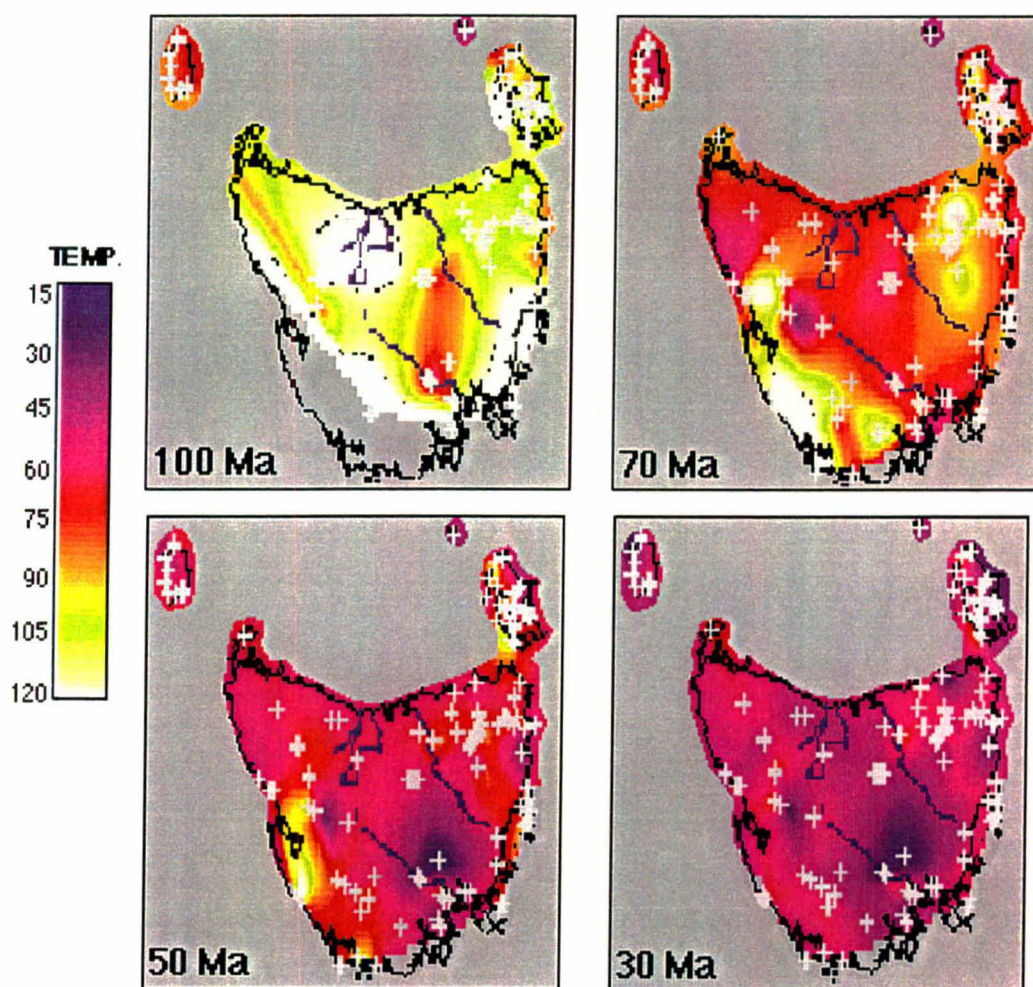


Figure 4. Palaeotemperature images for rocks now at the surface in Tasmania for four time slices - [100 Ma, 70 Ma, 50 Ma and 30 Ma]. The trends indicated by the coloured regions are discussed in the text - samples are shown by white crosses. Results shown are based on the total apatite fission track data set for Tasmania (~250 samples) discussed by O'Sullivan et al. (1997) - see Introduction.

DISCUSSION

The interpretation of the AFT results discussed above indicates that Tasmanian rocks experienced at least two regional cooling episodes; during the middle Cretaceous and the Late Paleocene to Early Eocene. It is suggested that in both cases cooling was probably directly related to continental extension along both the eastern and western margins. There is also evidence for a third, more-localised episode of rapid cooling during the Late Tertiary, possibly in response to Miocene tectonism in the Bass Basin region or following exposure to elevated palaeotemperatures generated by local high heat flow, similar to that suggested for northwestern Tasmania today.

Middle Cretaceous cooling

The first episode of rapid cooling recorded occurred during the middle Cretaceous at some time between ~90-110 Ma. Evidence from the fission track data for this event is found throughout much of the eastern Tasmania highlands (O'Sullivan et al., 1997), as well as throughout the Eastern Highlands of eastern Australia (Fig. 5). This cooling was most likely in response to km-scale denudation following the onset of continental extension in the Tasman Sea at ~96 Ma, possibly as a result of underplating inward of the rift, as has been proposed for parts of the southeastern highlands of Australia (Lister et al., 1986, 1991; Lister and Etheridge, 1989; O'Sullivan et al., 1995a, 1995b, 1996, 1997).

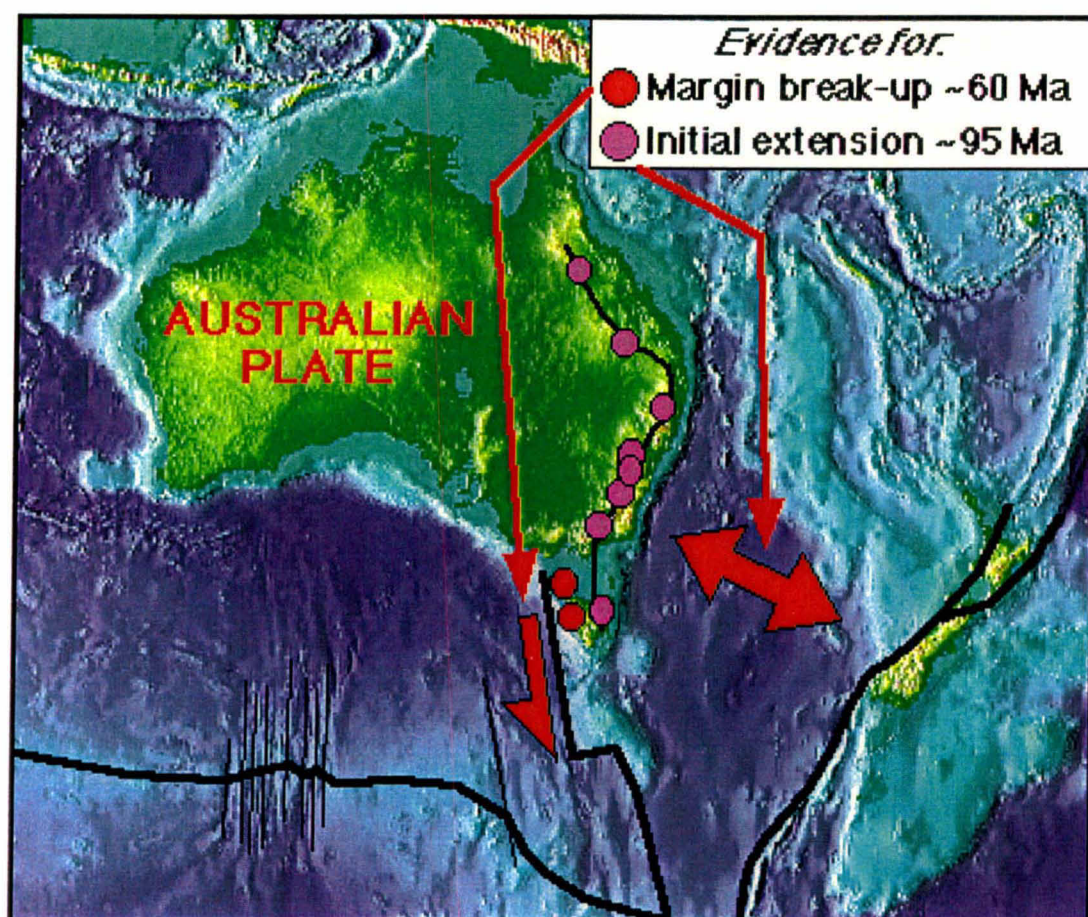


Figure 5. Proposed tectonic explanation for middle Cretaceous and Paleocene cooling, in response to km-scale denudation, recorded by the AFT data generated for this study. These times correlate well with those suggested by data from throughout eastern Australia. Details discussed in the text.

Furthermore, throughout eastern Tasmania, Permo-Triassic sediments presently exposed beneath (and intruded by) Jurassic dolerites, yield apatite ages which indicate rapid cooling from elevated palaeotemperatures 95°C during the middle Cretaceous. Since cooling from elevated palaeotemperatures occurred long after the emplacement of the Jurassic rocks, either: 1) following shallow-level intrusion, the dolerites were deeply buried by a Upper Jurassic to middle Cretaceous sedimentary succession ($>2.5\text{--}4\text{ km}$) which may have covered most of Tasmania prior to middle Cretaceous rifting, or 2) the dolerites were intruded at much deeper levels ($>2.5\text{ km}$) than previously proposed and the entire km-scale section of overburden has subsequently been removed since the middle Cretaceous. Based on the thick accumulations of Upper Cretaceous to middle Tertiary deposits located offshore western Tasmania; including: 1) 5100 m in the Sandy Cape Basin, 2) 6500 m in the Strahan Sub-basin, and 1) 3000 m in the Port Davey Sub-basin (e.g., Moore et al., 1992), we suggest the first option is more likely.

This interpretation has potential ramifications concerning prospective hydrocarbon exploration onshore Tasmania. Previous maturation studies of the Tasmania Basin commonly found that vitrinite reflectance (%Ro) values from the Permian and Triassic Parmeener Super Group ranged between 0.6–1.2 %Ro ($\sim 95^{\circ}\text{--}150^{\circ}\text{C}$ for heating times $>10^6$ years; e.g., Burnham and Sweeney, 1989) throughout the basin, or $>2.0\text{ %Ro}$ from samples collected close to large dolerite sills (e.g., Bacon et al., 1996). These elevated values, along with independent organic geochemical evidence (Boreham, 1996), suggest that the Parmeener Super Group has been exposed to palaeotemperatures 95°C following burial. Furthermore, since there was previously little evidence to suggest that a $>2.5\text{ km}$ thick stratigraphic succession, necessary to explain the elevated palaeotemperatures due to burial, was ever deposited on top of the Jurassic dolerites, it has been assumed that the elevated %Ro values were primarily due to high heat flow associated with intrusive Jurassic dolerites (e.g., Burrett, 1992; Bacon et al., 1996). However, the AFT results indicate that the Parmeener Super Group rocks did not cool from elevated palaeotemperatures ($>95^{\circ}\text{C}$) until the middle Cretaceous at the earliest, more than 50 m.y. after the shallow-level dolerite intrusions. Therefore, we propose that: 1) a Jurassic to middle Cretaceous sedimentary succession ($>2.5\text{ km}$) covered much of Tasmania prior to middle Cretaceous rifting, 2) the elevated maximum palaeotemperatures recorded in the Parmeener Super Group rocks occurred primarily in response to burial by the Jurassic to middle Cretaceous sedimentary succession, and 3) the AFT results indicate that cooling from these maximum palaeotemperatures did not occur until the middle Cretaceous.

Early Tertiary cooling

The second episode of rapid cooling occurred during the middle Paleocene to Early Eocene between $\sim 50\text{--}60\text{ Ma}$ (Fig. 5). Fission track evidence for this event is restricted to areas right along the eastern and western coasts, and throughout Flinders Island (O'Sullivan et al., 1997).

During the Early Cenozoic, rifting between Antarctica and Australia along the western coast of Tasmania resulted in increased heat flow (see Etheridge et al., 1987). Hence, the apatite fission track data probably record the subsequent relaxation of geotherms as rifting progressed beyond the region, possibly in combination with some denudation. However, at this time it is not clear what is responsible for the cooling ages along the eastern coast of Tasmania and this will be addressed in future studies.

Late Tertiary cooling

A third episode of localised cooling is recorded by many samples from the Flinders Island region as well as a few from northwest Tasmania. These samples characteristically contain a high proportion of very young single-grain ages $< \sim 15$ Ma suggesting that the rocks have recently experienced ~ 30 – 40°C cooling. Since the evidence for this event seems to be limited to the far north of the state, we propose that either: 1) northern Tasmania experienced isolated fault reactivation related to Miocene tectonics previously recognized along the southern margin of the Australian continent (Hill et al., 1995), or 2) the reduced ages are due to elevated palaeotemperatures generated by local high heat flow during the Late Tertiary (Miocene), similar to that suggested for northwestern Tasmania today (Fig. 6).

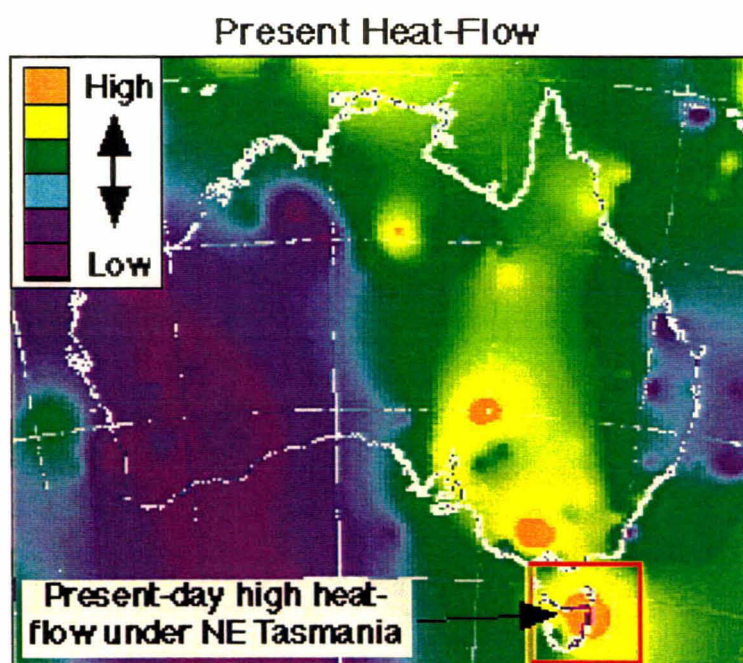


Figure 6. Present-day heat flow map of Australia. Derived by smooth interpolation by Cox (1995) from measurements compiled by Cull (1991)

CONCLUSIONS

Apatite fission track results indicate that Tasmania experienced at least two episodes of rapid km-scale denudation, during the middle Cretaceous and during the Paleocene to early Eocene. Middle Cretaceous denudation resulted in the formation of the Tasmanian Highlands and was possibly the result of rock uplift associated with underplating inward of the Tasman Sea rift during continental extension at ~95 Ma. Paleocene denudation probably occurred due to rock uplift in response to margin breakup between the Antarctic and Australian plates. Finally, localised young ages on Flinders Island and along the northern coastline are either the result of recently localised high heat flow presently recognized under northeastern Tasmania, or a response to Miocene, localised tectonics within Bass Strait.

ACKNOWLEDGMENTS

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APPENDIX I

APATITE FISSION TRACK DATA RESULTS FROM TASMANIAN SAMPLES

This section contains a listing of analytical data. The data for each sample is presented in two parts: 1) Age Report - showing a listing of the individual grain ages, the resulting age and information used in determining the age; and 2) Summary Plot - showing the data presented in graphical form including single-grain age distributions, confined track length distributions, and radial plots. A guide to reading the information listed in the Age Reports and Summary Plots is as follows:

Age Report

CBG-1

IRRADIATION

COUNTED BY: SLIDE NUMBER

No

Ns

Ni

Na

Ratio

U(ppm)

RHOs

RHOi

F.T.AGE (Ma)

Chi Squared

P(chi squared)

Pooled Age

Central Age

-Sample number

-In-house number for grouping samples from the same irradiation package

-Operator who analyzed the sample, and date of analysis

-Number of individual mount from irradiation package

-Number of each grain counted

-Number of spontaneous tracks counted

-Number of induced tracks counted

-Number of area units counted in grain

-Ratio of (NS/NI) for each grain

-Uranium concentration of each grain (ppm)

-Density of spontaneous tracks (per cm²)-Density of induced tracks (per cm²)

-Individual fission track grain ages

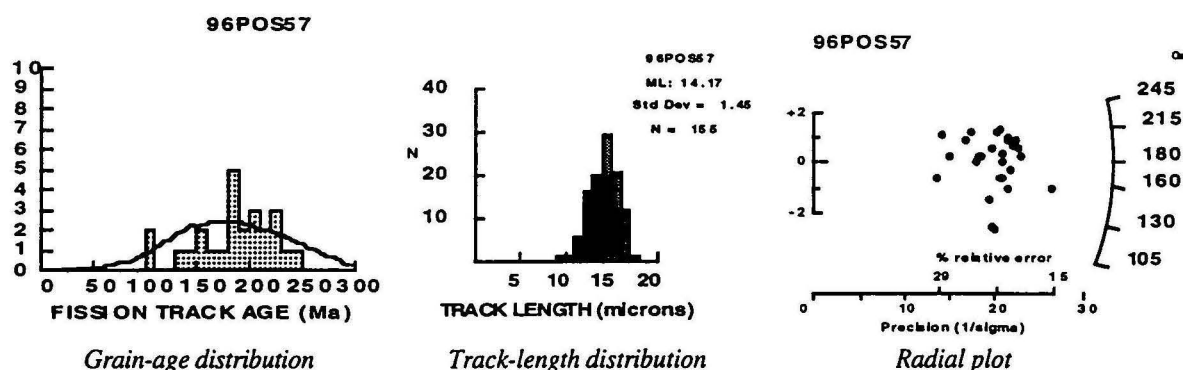
-Statistical test for determining multiple grain populations

-probability of less than 5% indicates multiple grain populations

-Age calculated using Ns/Ni (single population) populations; fail Chi-Squared test)

-Weighted Mean Age calculated using Ns/Ni

Summary Plot



The Summary Plot for each sample includes three individual plots. The first two (single-grain age distributions and confined track length distributions) show the relative number of grains with particular ages and the relative number of measured tracks of a certain length. The right hand plot (radial plot; Galbraith, 1988), shows apatite fission track ages for grains from an individual sample. Each age has unit standard error ($\pm 2\sigma$) on the y-axis, its actual precision is indicated on the x-axis, and its age is read by extrapolating a line from the 0-point through the plotted point to the logarithmic age scale on the right perimeter.

APATITE FISSION TRACK DATA RESULTS FROM 88 TASMANIAN SAMPLES

TH-5 [Adamellite, behind jetty, Chimney Cove, Three Hummock Island - collected by J.L. Everard]

Irradiation LU427-06 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	4	17	12	0.235	17.2	4.272E+05	1.816E+06	58.7 ± 32.6
2	38	133	24	0.286	67.2	2.029E+06	7.102E+06	71.2 ± 13.1
3	0	1	16	0.000	0.8	0.000E+00	8.010E+04	0.0 ± 0.0
4	0	4	16	0.000	3.0	0.000E+00	3.204E+05	0.0 ± 0.0
5	27	55	8	0.491	83.4	4.325E+06	8.811E+06	121.8 ± 28.7
6	17	44	10	0.386	53.4	2.179E+06	5.639E+06	96.0 ± 27.5
7	2	6	20	0.333	3.6	1.282E+05	3.845E+05	83.0 ± 67.7
8	0	5	30	0.000	2.0	0.000E+00	2.136E+05	0.0 ± 0.0
9	1	7	20	0.143	4.2	6.408E+04	4.485E+05	35.7 ± 38.1
10	4	12	24	0.333	6.1	2.136E+05	6.408E+05	83.0 ± 47.9
11	4	22	18	0.182	14.8	2.848E+05	1.566E+06	45.4 ± 24.7
12	5	30	36	0.167	10.1	1.780E+05	1.068E+06	41.6 ± 20.1
13	1	4	9	0.250	5.4	1.424E+05	5.696E+05	62.3 ± 69.7
14	20	126	20	0.159	76.4	1.282E+06	8.074E+06	39.6 ± 9.6
15	33	95	20	0.347	57.6	2.115E+06	6.087E+06	86.4 ± 17.5
16	0	2	16	0.000	1.5	0.000E+00	1.602E+05	0.0 ± 0.0
17	19	35	18	0.543	23.6	1.353E+06	2.492E+06	134.6 ± 38.4
18	0	12	18	0.000	8.1	0.000E+00	8.544E+05	0.0 ± 0.0
19	1	8	30	0.125	3.2	4.272E+04	3.417E+05	31.2 ± 33.1
20	0	5	30	0.000	2.0	0.000E+00	2.136E+05	0.0 ± 0.0
21	26	69	15	0.377	55.8	2.221E+06	5.895E+06	93.7 ± 21.6
22	3	13	15	0.231	10.5	2.563E+05	1.111E+06	57.5 ± 36.9
23	2	7	48	0.286	1.8	5.340E+04	1.869E+05	71.2 ± 57.1
24	1	4	24	0.250	2.0	5.340E+04	2.136E+05	62.3 ± 69.7
25	29	82	24	0.354	41.4	1.549E+06	4.379E+06	88.0 ± 19.1
26	26	94	15	0.277	76.0	2.221E+06	8.031E+06	68.9 ± 15.3
27	39	163	40	0.239	49.4	1.250E+06	5.222E+06	59.6 ± 10.7
302 1055				22.2	6.719E+05	2.347E+06		

Area of basic unit = 7.803E-07 cm²

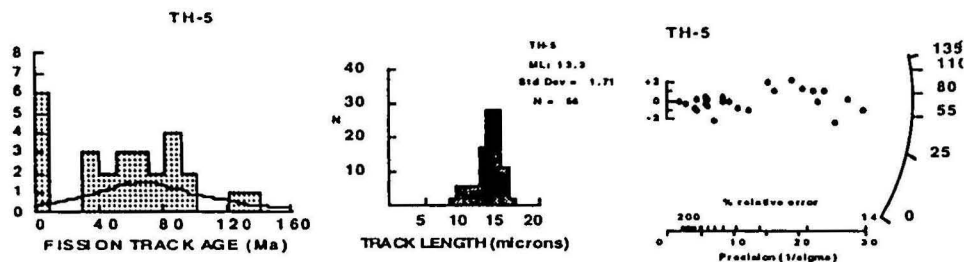
P(chi squared) = 13.5 %

Pooled Age = 71.3 ± 4.8 Ma

Central Age = 70.7 ± 6.4 Ma

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.321E+06cm⁻²; ND = 5155



96POS105 [sample from Forest BH-1 well, Dundas Group, 55 m depth]

Irradiation LU468-10

Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	1	3	9	0.333	3.9	1.424E+05	4.272E+05	85.4 ± 98.6
2	3	11	24	0.273	5.4	1.602E+05	5.874E+05	69.9 ± 45.6
3	4	15	36	0.267	4.9	1.424E+05	5.340E+05	68.4 ± 38.5
4	3	19	40	0.158	5.6	9.612E+04	6.087E+05	40.6 ± 25.2
5	3	8	24	0.375	3.9	1.602E+05	4.272E+05	96.0 ± 65.0
6	3	18	32	0.167	6.6	1.201E+05	7.209E+05	42.8 ± 26.7
7	9	17	49	0.529	4.1	2.354E+05	4.446E+05	135.1 ± 55.7
8	2	12	25	0.167	5.7	1.025E+05	6.151E+05	42.8 ± 32.7
9	15	38	80	0.395	5.6	2.403E+05	6.087E+05	101.0 ± 30.8
10	5	19	50	0.263	4.5	1.282E+05	4.870E+05	67.5 ± 33.9
11	6	20	24	0.300	9.8	3.204E+05	1.068E+06	76.9 ± 35.8
12	5	11	25	0.455	5.2	2.563E+05	5.639E+05	116.2 ± 62.7
13	9	14	64	0.643	2.6	1.802E+05	2.803E+05	163.7 ± 70.0
14	3	10	30	0.300	3.9	1.282E+05	2.803E+05	76.9 ± 50.6
15	9	29	90	0.310	3.8	1.282E+05	4.129E+05	79.5 ± 30.4
16	5	9	32	0.556	3.3	2.002E+05	3.604E+05	141.7 ± 79.1
17	6	24	48	0.250	5.9	1.602E+05	6.408E+05	64.1 ± 29.3
18	3	17	48	0.176	4.2	8.010E+04	4.539E+05	45.3 ± 28.4
19	2	7	18	0.286	4.6	1.424E+05	4.984E+05	73.3 ± 58.7
20	4	15	24	0.267	7.4	2.136E+05	8.010E+05	68.4 ± 38.5
21	8	22	64	0.364	4.0	1.602E+05	4.405E+05	93.1 ± 38.5
22	3	11	30	0.273	4.3	1.282E+05	4.699E+05	69.9 ± 45.6
23	5	15	49	0.333	3.6	1.308E+05	3.923E+05	85.4 ± 44.1
24	11	29	64	0.379	5.3	2.203E+05	5.807E+05	97.1 ± 34.4
25	11	39	70	0.282	6.6	2.014E+05	7.140E+05	72.3 ± 24.7
138 432				4.8	1.686E+05	5.278E+05		

Area of basic unit = 7.803E-07 cm²

CHI SQUARED = 5.870947 WITH 24 DEGREES OF FREEDOM

P(chi squared) = 98.3 %

CORRELATION COEFFICIENT = 0.836

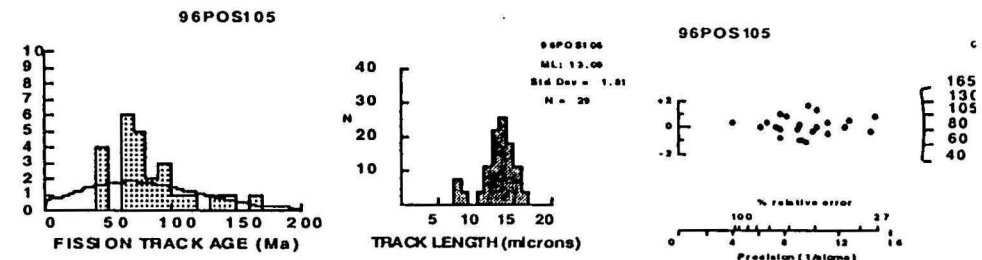
Pooled Age = 81.8 ± 8.1 Ma

Central Age = 81.8 ± 8.1 Ma

% Variation = 0.01%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.360E+06cm⁻²; ND = 5200



96POS108 [sample from Mt. Charter-I well, Dundas Group, 588-598 m depth]

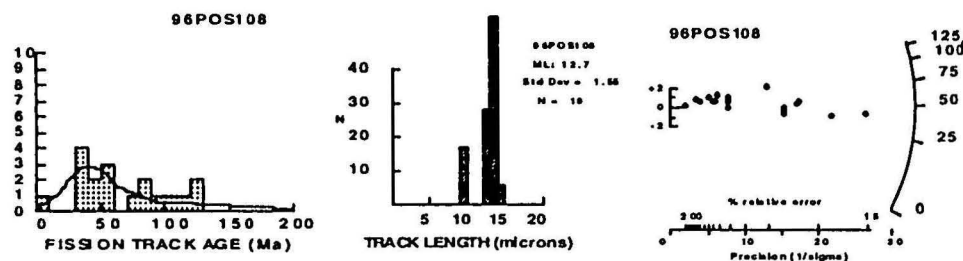
Irradiation LU469-02 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	1	2	36	0.500	0.7	3.560E+04	7.120E+04	128.2 ± 157.0
2	15	105	36	0.143	34.2	5.340E+05	3.738E+06	36.9 ± 10.2
3	0	1	40	0.000	0.3	0.000E+00	3.204E+04	0.0 ± 0.0
4	2	7	60	0.286	1.4	4.272E+04	1.495E+05	73.6 ± 59.0
5	7	53	100	0.132	6.2	8.971E+04	6.792E+05	34.1 ± 13.7
6	9	50	50	0.180	11.7	2.307E+05	1.282E+06	46.4 ± 16.8
7	12	61	60	0.197	11.9	2.563E+05	1.303E+06	50.7 ± 16.0
8	2	14	80	0.143	2.1	3.204E+04	2.243E+05	36.9 ± 27.9
9	8	52	100	0.154	6.1	1.025E+05	6.664E+05	39.7 ± 15.1
10	1	2	24	0.500	1.0	5.340E+04	1.068E+05	128.2 ± 157.0
11	12	31	30	0.387	12.1	5.126E+05	1.324E+06	99.5 ± 33.9
12	2	5	54	0.400	1.1	4.747E+04	1.187E+05	102.8 ± 86.0
13	3	7	40	0.429	2.1	9.612E+04	2.243E+05	110.1 ± 76.0
14	3	13	100	0.231	1.5	3.845E+04	1.666E+05	59.5 ± 38.1
15	24	153	100	0.157	17.9	3.076E+05	1.961E+06	40.5 ± 8.9
16	4	12	36	0.333	3.9	1.424E+05	4.272E+05	85.8 ± 49.5
17	14	64	40	0.219	18.8	4.485E+05	2.050E+06	56.4 ± 16.7
18	1	3	64	0.333	0.5	2.002E+04	6.007E+04	85.8 ± 99.0
120		635			7.1	1.465E+05	7.750E+05	

Area of basic unit = 7.803E-07 cm²
 CHI SQUARED = 6.702298 WITH 17 DEGREES OF FREEDOM
 P(chi squared) = 70.9 %
 CORRELATION COEFFICIENT = 0.954

Pooled Age = 48.8 ± 4.9 Ma
 Central Age = 48.8 ± 4.9 Ma
 % Variation = 1.25%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm
 RHO D = 1.366E+06cm⁻²; ND = 5744



96POS109 [sample from Mt. Charter-I well, Dundas Group, 360 m depth]

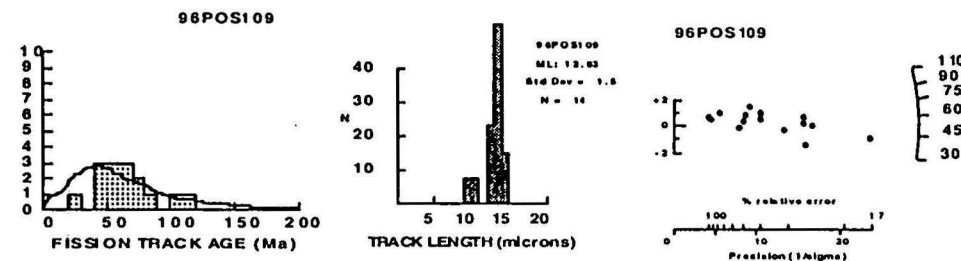
Irradiation LU469-03 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	2	5	24	0.400	2.4	1.068E+05	2.670E+05	104.7 ± 87.6
2	5	21	30	0.238	8.1	2.136E+05	8.971E+05	62.5 ± 31.1
3	6	14	60	0.429	2.7	1.282E+05	2.990E+05	112.1 ± 54.7
4	6	37	20	0.162	21.3	3.845E+05	2.371E+06	42.7 ± 18.8
5	6	54	49	0.111	12.7	1.569E+05	1.412E+06	29.3 ± 12.6
6	4	14	12	0.286	13.4	4.272E+05	1.495E+06	75.0 ± 42.5
7	1	4	100	0.250	0.5	1.282E+04	5.126E+04	65.6 ± 73.4
8	2	13	18	0.154	8.3	1.424E+05	9.256E+05	40.5 ± 30.7
9	11	47	42	0.234	12.9	3.356E+05	1.434E+06	61.5 ± 20.6
10	6	20	32	0.300	7.2	2.403E+05	8.010E+05	78.7 ± 36.6
11	1	3	16	0.333	2.2	8.010E+04	2.403E+05	87.4 ± 100.9
12	10	49	21	0.204	26.9	6.103E+05	2.990E+06	53.6 ± 18.6
13	18	117	42	0.154	32.1	5.492E+05	3.570E+06	40.5 ± 10.3
14	3	14	12	0.214	13.4	3.204E+05	1.495E+06	56.3 ± 35.8
15	11	56	40	0.196	16.1	3.524E+05	1.794E+06	51.6 ± 17.0
92		468			10.4	2.276E+05	1.158E+06	

Area of basic unit = 7.803E-07 cm²
 CHI SQUARED = 4.233796 WITH 14 DEGREES OF FREEDOM
 P(chi squared) = 86.4 %
 CORRELATION COEFFICIENT = 0.939

Pooled Age = 51.7 ± 5.9 Ma
 Central Age = 51.7 ± 5.9 Ma
 % Variation = 0.17%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm
 RHO D = 1.392E+06cm⁻²; ND = 5744



96POS118 [sample from Emu Plains Granite, collected on Highway C171, ~2.4 km south of junction with C138]

Irradiation LU469-05 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	10	83	100	0.120	9.2	1.282E+05	1.064E+06	32.9 ± 11.0
2	17	62	100	0.274	6.9	2.179E+05	7.946E+05	74.7 ± 20.5
3	14	86	100	0.163	9.5	1.794E+05	1.102E+06	44.5 ± 12.8
4	6	18	80	0.333	2.5	9.612E+04	2.884E+05	90.7 ± 42.8
5	14	73	100	0.192	8.1	1.794E+05	9.355E+05	52.4 ± 15.3
6	12	41	100	0.293	4.5	1.538E+05	5.254E+05	79.7 ± 26.2
7	15	52	100	0.288	5.8	1.922E+05	6.664E+05	78.6 ± 23.1
8	9	33	100	0.273	3.7	1.153E+05	4.229E+05	74.3 ± 28.0
9	11	41	100	0.268	4.5	1.410E+05	5.254E+05	73.1 ± 24.9
10	22	81	100	0.272	9.0	2.819E+05	1.038E+06	74.0 ± 17.8
11	20	83	100	0.241	9.2	2.563E+05	1.064E+06	65.7 ± 16.4
12	9	41	100	0.220	4.5	1.153E+05	5.254E+05	59.9 ± 22.1
13	13	79	100	0.165	8.8	1.666E+05	1.012E+06	45.0 ± 13.5
14	19	69	100	0.275	7.6	2.435E+05	8.843E+05	75.1 ± 19.5
15	22	81	100	0.272	9.0	2.819E+05	1.038E+06	74.0 ± 17.8
16	17	88	100	0.193	9.7	2.179E+05	1.128E+06	52.7 ± 14.0
17	17	63	100	0.270	7.0	2.179E+05	8.074E+05	73.6 ± 20.1
18	15	47	100	0.319	5.2	1.922E+05	6.023E+05	86.9 ± 25.8
19	13	78	100	0.167	8.6	1.666E+05	9.996E+05	45.5 ± 13.7
20	26	95	100	0.274	10.5	3.332E+05	1.217E+06	74.6 ± 16.6
301		1294			7.2	1.948E+05	8.375E+05	

Area of basic unit = 7.803E-07 cm²

CHI SQUARED = 7.356346 WITH 19 DEGREES OF FREEDOM

P(chi squared) = 74.1 %

CORRELATION COEFFICIENT = 0.697

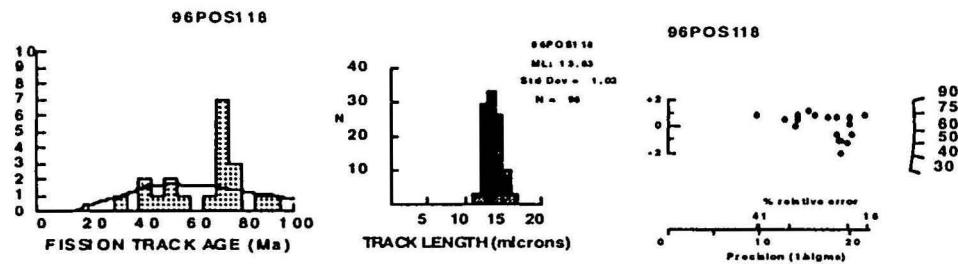
Pooled Age = 63.5 ± 4.2 Ma

Central Age = 63.5 ± 4.1 Ma

% Variation = 0.95%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.446E+06cm⁻²; ND = 5744



96POS124 [sample from Conicle Point Granite, collected near dock at mouth of Pieman River]

Irradiation LU469-07 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	4	16	100	0.250	1.7	5.126E+04	2.050E+05	70.7 ± 39.5
2	41	141	24	0.291	62.8	2.189E+06	7.529E+06	82.1 ± 14.6
3	0	2	100	0.000	0.2	0.000E+00	2.563E+04	0.0 ± 0.0
4	1	7	100	0.143	0.7	1.282E+04	8.971E+04	40.5 ± 43.3
5	19	50	16	0.380	33.4	1.522E+06	4.005E+06	107.1 ± 28.9
6	22	124	24	0.177	55.2	1.175E+06	6.621E+06	50.2 ± 11.6
7	18	94	40	0.191	25.1	5.767E+05	3.012E+06	54.2 ± 14.0
8	56	153	25	0.366	65.4	2.871E+06	7.843E+06	103.2 ± 16.2
9	19	57	25	0.333	24.4	9.740E+05	2.922E+06	94.0 ± 25.0
10	45	161	40	0.280	43.0	1.442E+06	5.158E+06	79.0 ± 13.4
11	11	59	12	0.186	52.5	1.175E+06	6.301E+06	52.8 ± 17.4
12	2	10	100	0.200	1.1	2.563E+04	1.282E+05	56.6 ± 43.8
13	74	265	64	0.279	44.2	1.482E+06	5.306E+06	78.9 ± 10.4
14	17	49	24	0.347	21.8	9.078E+05	2.617E+06	97.9 ± 27.6
15	17	123	24	0.138	54.8	9.078E+05	6.568E+06	39.2 ± 10.2
16	23	89	24	0.258	39.6	1.228E+06	4.752E+06	73.0 ± 17.1
17	2	4	60	0.500	0.7	4.272E+04	8.544E+04	140.6 ± 121.7
18	23	87	18	0.264	51.7	1.638E+06	6.194E+06	74.7 ± 17.6
19	12	29	100	0.414	3.1	1.538E+05	3.717E+05	116.5 ± 40.0
20	23	105	24	0.219	46.8	1.228E+06	5.607E+06	62.0 ± 14.3
21	15	58	20	0.259	31.0	9.612E+05	3.717E+06	73.1 ± 21.2
22	7	34	36	0.206	10.1	2.492E+05	1.210E+06	58.2 ± 24.2
23	26	100	24	0.260	44.5	1.388E+06	5.340E+06	73.5 ± 16.2
24	2	5	80	0.400	0.7	3.204E+04	8.010E+04	112.7 ± 94.3
25	19	80	20	0.238	42.7	1.217E+06	5.126E+06	67.1 ± 17.2
26	58	175	30	0.331	62.3	2.478E+06	7.476E+06	93.5 ± 14.2
556		2077			19.2	6.175E+05	2.307E+06	

Area of basic unit = 7.803E-07 cm²

CHI SQUARED = 13.74181 WITH 25 DEGREES OF FREEDOM

P(chi squared) = 33.2 %

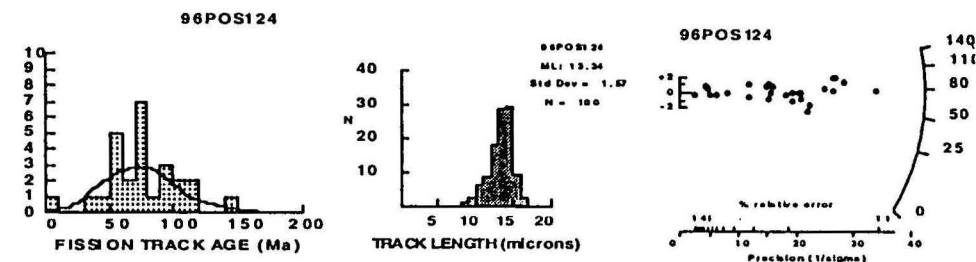
CORRELATION COEFFICIENT = 0.947

Pooled Age = 75.6 ± 3.8 Ma

Central Age = 75.1 ± 4.3 Ma

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.499E+06cm⁻²; ND = 5744



96POS125 [sample from sandstone unit within Undiff. Precambrian, collected on Corinna-Smithton Road, 1.3 km north of junction with Corinna-Savage River Road]

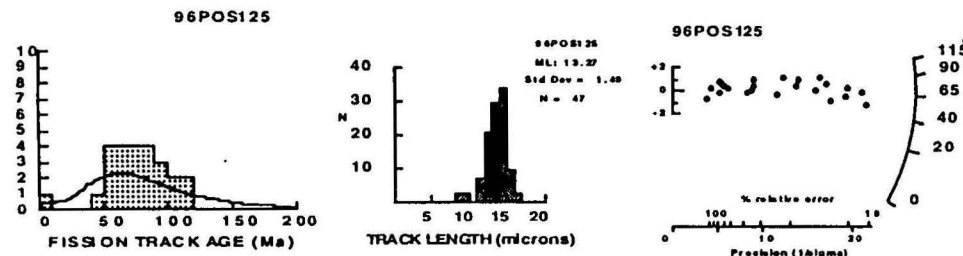
Irradiation LU469-08 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	2	7	9	0.286	8.2	2.848E+05	9.968E+05	82.1 ± 65.9
2	4	17	16	0.235	11.2	3.204E+05	1.362E+06	67.7 ± 37.6
3	2	6	64	0.333	1.0	4.005E+04	1.201E+05	95.7 ± 78.2
4	2	8	20	0.250	4.2	1.282E+05	5.126E+05	71.9 ± 56.9
5	0	4	30	0.000	1.4	0.000E+00	1.709E+05	0.0 ± 0.0
6	6	16	21	0.375	8.0	3.662E+05	9.764E+05	107.6 ± 51.5
7	1	6	24	0.167	2.6	5.340E+04	3.204E+05	48.0 ± 51.9
8	13	39	6	0.333	68.2	2.777E+06	8.330E+06	95.7 ± 30.7
9	2	5	35	0.400	1.5	7.323E+04	1.831E+05	114.7 ± 96.0
10	19	107	12	0.178	93.6	2.029E+06	1.143E+07	51.2 ± 12.8
11	11	40	24	0.275	17.5	5.874E+05	2.136E+06	79.1 ± 27.0
12	17	61	36	0.279	17.8	6.052E+05	2.172E+06	80.1 ± 22.0
13	11	30	35	0.367	9.0	4.028E+05	1.098E+06	105.2 ± 37.1
14	13	55	25	0.236	23.1	6.664E+05	2.819E+06	68.0 ± 21.0
15	5	17	12	0.294	14.9	5.340E+05	1.816E+06	84.5 ± 43.0
16	17	81	24	0.210	35.4	9.078E+05	4.325E+06	60.4 ± 16.2
17	21	81	12	0.259	70.9	2.243E+06	8.651E+06	74.6 ± 18.3
18	3	15	15	0.200	10.5	2.563E+05	1.282E+06	57.6 ± 36.4
19	23	97	36	0.237	28.3	8.188E+05	3.453E+06	68.2 ± 15.9
20	18	54	12	0.333	47.2	1.922E+06	5.767E+06	95.7 ± 26.1
21	1	4	16	0.250	2.6	8.010E+04	3.204E+05	71.9 ± 80.4
22	13	70	28	0.186	26.2	5.950E+05	3.204E+06	53.5 ± 16.2
23	2	7	24	0.286	3.1	1.068E+05	3.738E+05	82.1 ± 65.9
24	2	5	25	0.400	2.1	1.025E+05	2.563E+05	114.7 ± 96.0
25	6	31	12	0.194	27.1	6.408E+05	3.311E+06	55.8 ± 24.9
214				863	15.8	4.786E+05	1.930E+06	

Area of basic unit = 7.803E-07 cm²
 CHI SQUARED = 5.045414 WITH 24 DEGREES OF FREEDOM
 P(chi squared) = 99.4 %
 CORRELATION COEFFICIENT = 0.951

Pooled Age = 71.3 ± 5.6 Ma
 Central Age = 71.3 ± 5.5 Ma

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm
 RHO D = 1.526E+06cm⁻²; ND = 5744



96POS128 [sample from Sandy Cape Granite, collected from tip of Sandy Cape]

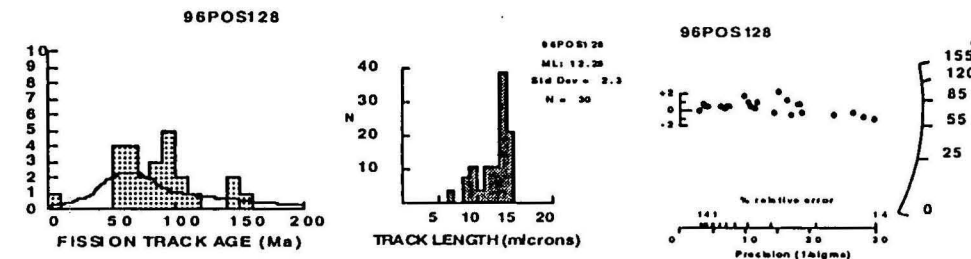
Irradiation LU469-09 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	16	46	80	0.348	5.9	2.563E+05	7.369E+05	101.6 ± 29.5
2	3	10	30	0.300	3.4	1.282E+05	4.272E+05	87.7 ± 57.8
3	1	3	60	0.333	0.5	2.136E+04	6.408E+04	97.4 ± 112.5
4	7	19	49	0.368	4.0	1.831E+05	4.969E+05	107.6 ± 47.6
5	8	15	80	0.533	1.9	1.282E+05	2.403E+05	155.2 ± 68.0
6	0	2	100	0.000	0.2	0.000E+00	2.563E+04	0.0 ± 0.0
7	1	3	36	0.333	0.9	3.560E+04	1.068E+05	97.4 ± 112.5
8	1	2	80	0.500	0.3	1.602E+04	3.204E+04	145.6 ± 178.3
9	7	18	36	0.389	5.2	2.492E+05	6.408E+05	113.5 ± 50.6
10	31	152	36	0.204	43.6	1.104E+06	5.411E+06	59.8 ± 11.8
11	22	107	100	0.206	11.0	2.819E+05	1.371E+06	60.3 ± 14.1
12	18	35	50	0.514	7.2	4.614E+05	8.971E+05	149.7 ± 43.5
13	1	3	60	0.333	0.5	2.136E+04	6.408E+04	97.4 ± 112.5
14	30	131	42	0.229	32.2	9.154E+05	3.997E+06	67.1 ± 13.6
15	17	59	80	0.288	7.6	2.723E+05	9.451E+05	84.3 ± 23.2
16	8	40	42	0.200	9.8	2.441E+05	1.221E+06	58.6 ± 22.7
17	6	22	49	0.273	4.6	1.569E+05	5.754E+05	79.8 ± 36.8
18	8	24	80	0.333	3.1	1.282E+05	3.845E+05	97.4 ± 39.8
19	11	57	30	0.193	19.6	4.699E+05	2.435E+06	56.6 ± 18.7
20	3	9	80	0.333	1.2	4.806E+04	1.442E+05	97.4 ± 65.0
21	2	9	42	0.222	2.2	6.103E+04	2.746E+05	65.1 ± 50.9
22	35	171	100	0.205	17.6	4.485E+05	2.191E+06	60.0 ± 11.2
23	2	7	100	0.286	0.7	2.563E+04	8.971E+04	83.6 ± 67.0
24	6	25	36	0.240	7.2	2.136E+05	8.900E+05	70.3 ± 32.0
25	15	66	63	0.227	10.8	3.051E+05	1.343E+06	66.6 ± 19.1
259				1035	6.9	2.154E+05	8.607E+05	

Area of basic unit = 7.803E-07 cm²
 CHI SQUARED = 9.504747 WITH 24 DEGREES OF FREEDOM
 P(chi squared) = 75.1 %
 CORRELATION COEFFICIENT = 0.965

Pooled Age = 73.3 ± 5.2 Ma
 Central Age = 73.6 ± 5.3 Ma
 % Variation = 4.39%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm
 RHO D = 1.553E+06cm⁻²; ND = 5744



96POS132 [sample from Parmeener Super Group, collected on Highway A2, ~2 km east of Wynyard]

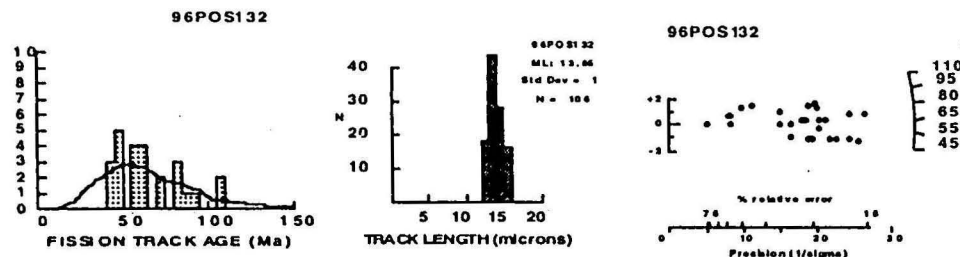
Irradiation LU469-10 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	9	63	24	0.143	26.6	4.806E+05	3.364E+06	42.6 ± 15.2
2	15	69	28	0.217	25.0	6.865E+05	3.158E+06	64.8 ± 18.5
3	17	109	30	0.156	36.9	7.262E+05	4.656E+06	46.5 ± 12.2
4	7	19	20	0.368	9.6	4.485E+05	1.217E+06	109.4 ± 48.4
5	21	97	49	0.216	20.1	5.492E+05	2.537E+06	64.5 ± 15.6
6	23	82	25	0.280	33.3	1.179E+06	4.204E+06	83.4 ± 19.7
7	12	60	25	0.200	24.3	6.151E+05	3.076E+06	59.6 ± 18.9
8	1	6	20	0.167	3.0	6.408E+04	3.845E+05	49.7 ± 53.7
9	24	79	40	0.304	20.0	7.689E+05	2.531E+06	90.3 ± 21.1
10	3	16	36	0.188	4.5	1.068E+05	5.696E+05	55.9 ± 35.2
11	18	118	36	0.153	33.3	6.408E+05	4.201E+06	45.5 ± 11.5
12	36	149	16	0.242	94.5	2.884E+06	1.193E+07	71.9 ± 13.4
13	13	87	24	0.149	36.8	6.942E+05	4.646E+06	44.6 ± 13.3
14	12	83	27	0.145	31.2	5.696E+05	3.940E+06	43.1 ± 13.3
15	4	14	24	0.286	5.9	2.136E+05	7.476E+05	85.0 ± 48.2
16	21	135	30	0.156	45.7	8.971E+05	5.767E+06	46.4 ± 10.9
17	13	46	25	0.283	18.7	6.664E+05	2.358E+06	84.1 ± 26.4
18	19	88	36	0.216	24.8	6.764E+05	3.133E+06	64.3 ± 16.3
19	21	72	35	0.292	20.9	7.689E+05	2.636E+06	86.7 ± 21.6
20	17	91	24	0.187	38.5	9.078E+05	4.859E+06	55.7 ± 14.7
21	10	51	28	0.196	18.5	4.577E+05	2.334E+06	58.4 ± 20.2
22	23	149	42	0.154	36.0	7.018E+05	4.546E+06	46.0 ± 10.3
23	30	125	28	0.240	45.3	1.373E+06	5.721E+06	71.5 ± 14.6
24	9	25	25	0.360	10.1	4.614E+05	1.282E+06	106.9 ± 41.6
25	16	74	28	0.216	26.8	7.323E+05	3.387E+06	64.4 ± 17.8
394				1907	26.7	6.965E+05	3.371E+06	

Area of basic unit = 7.803E-07 cm²
 CHI SQUARED = 11.32776 WITH 24 DEGREES OF FREEDOM
 P(chi squared) = 54.0 %

Pooled Age = 61.6 ± 3.5 Ma
 Central Age = 61.6 ± 3.6 Ma

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm
 RHO D = 1.579E+06cm⁻²; ND = 5744



W-6 [Waratah-6 drillhole, depth: 144-150 m]

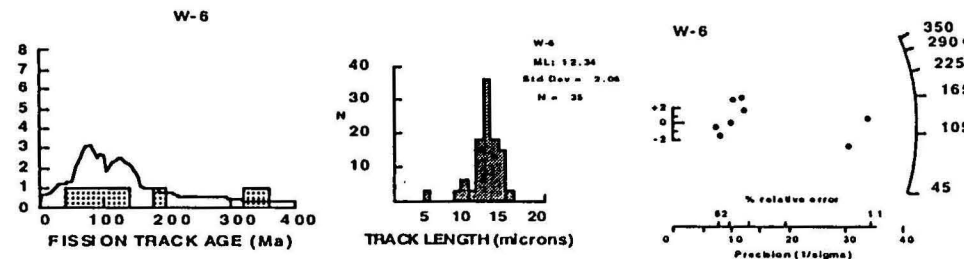
Irradiation LU426-06 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	18	12	36	1.500	4.2	6.408E+05	4.272E+05	350.4 ± 130.7
2	108	204	36	0.529	71.7	3.845E+06	7.262E+06	125.8 ± 15.1
3	9	18	60	0.500	3.8	1.922E+05	3.845E+05	118.9 ± 48.6
4	22	16	18	1.375	11.2	1.566E+06	1.139E+06	321.9 ± 105.9
5	18	22	18	0.818	15.5	1.282E+06	1.566E+06	193.5 ± 61.6
6	62	191	32	0.325	75.5	2.483E+06	7.649E+06	77.4 ± 11.4
7	4	11	16	0.364	8.7	3.204E+05	8.811E+05	86.7 ± 50.6
8	3	16	64	0.188	3.2	6.007E+04	3.204E+05	44.8 ± 28.2
244				490	22.1	1.117E+06	2.243E+06	

Area of basic unit = 7.803E-07 cm²
 CHI SQUARED = 17.222 WITH 7 DEGREES OF FREEDOM
 P(chi squared) = 0.0 %
 CORRELATION COEFFICIENT = 0.937

Pooled Age = 118.4 ± 9.5 Ma
Central Age = 142.2 ± 30.3 Ma
 % Variation = 50.41%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm
 RHO D = 1.266E+06cm⁻²; ND = 4938



MNA-2 [Moina-2 drillhole, depth: 215-223 m]

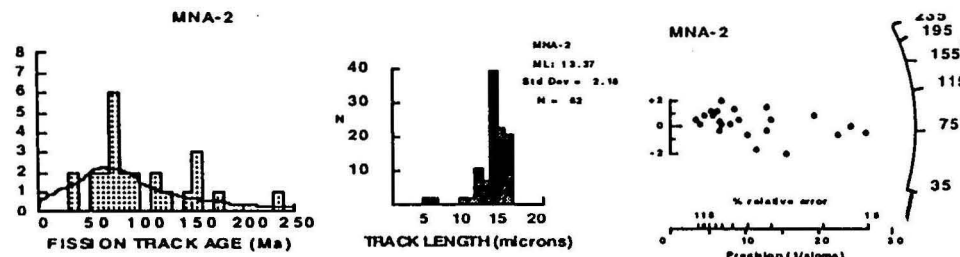
Irradiation LU426-07 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	27	95	36	0.284	33.4	9.612E+05	3.382E+06	67.9 ± 14.8
2	8	50	36	0.160	17.6	2.848E+05	1.780E+06	38.3 ± 14.6
3	3	8	25	0.375	4.0	1.538E+05	4.101E+05	89.4 ± 60.5
4	1	2	50	0.500	0.5	2.563E+04	5.126E+04	118.9 ± 145.7
5	4	6	15	0.667	5.1	3.417E+05	5.126E+05	158.1 ± 102.1
6	6	15	15	0.400	12.7	5.126E+05	1.282E+06	95.3 ± 46.1
7	14	27	15	0.519	22.8	1.196E+06	2.307E+06	123.3 ± 40.6
8	7	11	20	0.636	7.0	4.485E+05	7.049E+05	151.0 ± 73.0
9	25	64	36	0.391	22.5	8.900E+05	2.278E+06	93.1 ± 22.0
10	3	5	24	0.600	2.6	1.602E+05	2.670E+05	142.4 ± 104.0
11	35	106	64	0.330	21.0	7.009E+05	2.123E+06	78.8 ± 15.4
12	3	4	18	0.750	2.8	2.136E+05	2.848E+05	177.6 ± 135.6
13	12	32	20	0.375	20.2	7.689E+05	2.050E+06	89.4 ± 30.3
14	9	32	24	0.281	16.9	4.806E+05	1.709E+06	67.2 ± 25.4
15	39	129	30	0.302	54.4	1.666E+06	5.511E+06	72.2 ± 13.2
16	4	29	24	0.138	15.3	2.136E+05	1.549E+06	33.0 ± 17.6
17	1	2	40	0.500	0.6	3.204E+04	6.408E+04	118.9 ± 145.7
18	2	9	28	0.222	4.1	9.154E+04	4.119E+05	53.1 ± 41.5
19	1	3	12	0.333	3.2	1.068E+05	3.204E+05	79.5 ± 91.8
20	3	9	12	0.333	9.5	3.204E+05	9.612E+05	79.5 ± 53.0
21	4	12	50	0.333	3.0	1.025E+05	3.076E+05	79.5 ± 45.9
22	6	6	16	1.000	4.7	4.806E+05	4.806E+05	235.7 ± 136.1
23	5	21	64	0.238	4.2	1.001E+05	4.205E+05	56.9 ± 28.3
24	1	3	12	0.333	3.2	1.068E+05	3.204E+05	79.5 ± 91.8
25	2	3	28	0.667	1.4	9.154E+04	1.373E+05	158.1 ± 144.3
225 683					12.1	4.039E+05	1.226E+06	

Area of basic unit = 7.803E-07 cm²
 CHI SQUARED = 10.48682 WITH 24 DEGREES OF FREEDOM
 P(chi squared) = 64.0 %
 CORRELATION COEFFICIENT = 0.966

Pooled Age = 78.6 ± 6.2 Ma
 Central Age = 78.6 ± 6.2 Ma
 % Variation = 1.04%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm
 RHO D = 1.266E+06cm⁻²; ND = 4938



SR-14/1 [Savage River-14 drillhole, depth: 111-114 m]

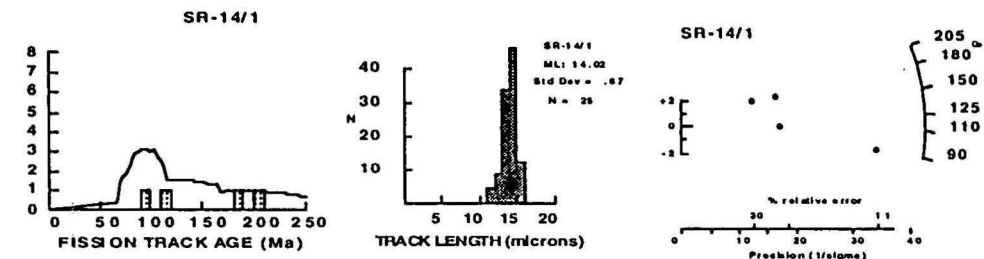
Irradiation LU427-08 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	34	45	12	0.756	45.5	3.631E+06	4.806E+06	186.5 ± 42.5
2	20	24	9	0.833	32.3	2.848E+06	3.417E+06	205.4 ± 62.3
3	91	247	80	0.368	37.4	1.458E+06	3.957E+06	91.6 ± 11.3
4	27	59	25	0.458	28.6	1.384E+06	3.024E+06	113.6 ± 26.5
172 375					36.1	1.749E+06	3.814E+06	

Area of basic unit = 7.803E-07 cm²
 CHI SQUARED = 6.068769 WITH 3 DEGREES OF FREEDOM
 P(chi squared) = 0.7 %
 CORRELATION COEFFICIENT = 0.989

Pooled Age = 113.9 ± 10.6 Ma
Central Age = 133.6 ± 23.3 Ma
 % Variation = 27.15%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm
 RHO D = 1.321E+06cm⁻²; ND = 5155



SR-14/2 [Savage River-14 drillhole, depth: 231-232 m]

Irradiation LU427-09 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	1	4	30	0.250	1.6	4.272E+04	1.709E+05	62.3 ± 69.7
2	1	3	50	0.333	0.7	2.563E+04	7.689E+04	83.0 ± 95.8
3	0	1	6	0.000	2.0	0.000E+00	2.136E+05	0.0 ± 0.0
4	13	15	20	0.867	9.1	8.330E+05	9.612E+05	213.5 ± 81.0
5	2	7	20	0.286	4.2	1.282E+05	4.485E+05	71.2 ± 57.1
6	3	5	30	0.600	2.0	1.282E+05	2.136E+05	148.6 ± 108.5
7	5	11	15	0.455	8.9	4.272E+05	9.398E+05	112.9 ± 60.9
8	0	2	15	0.000	1.6	0.000E+00	1.709E+05	0.0 ± 0.0
9	2	5	18	0.400	3.4	1.424E+05	3.560E+05	99.4 ± 83.2
10	5	12	16	0.417	9.1	4.005E+05	9.612E+05	103.5 ± 55.1
11	6	13	15	0.462	10.5	5.126E+05	1.111E+06	114.6 ± 56.6
12	4	6	18	0.667	4.0	2.848E+05	4.272E+05	164.8 ± 106.4
13	2	7	9	0.286	9.4	2.848E+05	9.968E+05	71.2 ± 57.1
14	5	13	24	0.385	6.6	2.670E+05	6.942E+05	95.6 ± 50.3
49 104					4.4	2.196E+05	4.660E+05	

Area of basic unit = 7.803E-07 cm-2
 CHI SQUARED = 2.974209 WITH 13 DEGREES OF FREEDOM
 P(chi squared) = 94.8 %
 CORRELATION COEFFICIENT = 0.868

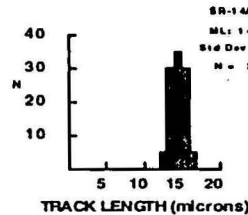
Pooled Age = 116.9 ± 20.3 Ma

Central Age = 116.9 ± 20.3Ma

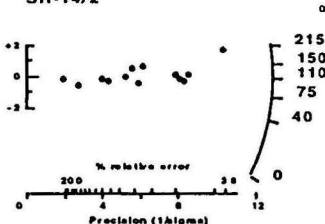
% Variation = 0.13%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm
 RHO D = 1.321E+06cm-2; ND = 5155

SR-14/2



SR-14/2



SR-14/3 [Savage River-14 drillhole, depth: 465-470 m]

Irradiation LU427-10 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	6	14	8	0.429	21.2	9.612E+05	2.243E+06	106.5 ± 52.0
2	2	3	18	0.667	2.0	1.424E+05	2.136E+05	164.8 ± 150.5
3	6	10	12	0.600	10.1	6.408E+05	1.068E+06	148.6 ± 76.7
4	2	5	25	0.400	2.4	1.025E+05	2.563E+05	99.4 ± 83.2
5	12	14	24	0.857	7.1	6.408E+05	7.476E+05	211.2 ± 83.1
6	1	4	21	0.250	2.3	6.103E+04	2.441E+05	62.3 ± 69.7
7	8	13	16	0.615	9.9	6.408E+05	1.041E+06	152.3 ± 68.5
8	7	24	20	0.292	14.6	4.485E+05	1.538E+06	72.6 ± 31.2
9	6	9	20	0.667	5.5	3.845E+05	5.767E+05	164.8 ± 86.9
10	2	5	24	0.400	2.5	1.068E+05	2.670E+05	99.4 ± 83.2
11	7	15	25	0.467	7.3	3.588E+05	7.689E+05	115.8 ± 53.1
12	7	11	9	0.636	14.8	9.968E+05	1.566E+06	157.4 ± 76.2
13	6	8	12	0.750	8.1	6.408E+05	8.544E+05	185.2 ± 100.0
14	3	5	49	0.600	1.2	7.846E+04	1.308E+05	148.6 ± 108.5
15	3	6	8	0.500	9.1	4.806E+05	9.612E+05	124.0 ± 87.7
16	7	18	12	0.389	18.2	7.476E+05	1.922E+06	96.7 ± 43.1
17	4	14	9	0.286	18.9	5.696E+05	1.994E+06	71.2 ± 40.4
18	3	10	15	0.300	8.1	2.563E+05	8.544E+05	74.7 ± 49.2
19	1	5	16	0.200	3.8	8.010E+04	4.005E+05	49.9 ± 54.7
20	3	7	18	0.429	4.7	2.136E+05	4.984E+05	106.5 ± 73.5
21	1	3	4	0.333	9.1	3.204E+05	9.612E+05	83.0 ± 95.8
22	4	10	54	0.400	2.2	9.493E+04	2.373E+05	99.4 ± 58.8
23	1	2	15	0.500	1.6	8.544E+04	1.709E+05	124.0 ± 151.9
24	2	5	16	0.400	3.8	1.602E+05	4.005E+05	99.4 ± 83.2
25	3	8	12	0.375	8.1	3.204E+05	8.544E+05	93.2 ± 63.1
107 228					6.0	2.968E+05	6.325E+05	

Area of basic unit = 7.803E-07 cm-2
 CHI SQUARED = 4.492152 WITH 24 DEGREES OF FREEDOM
 P(chi squared) = 99.8 %
 CORRELATION COEFFICIENT = 0.763

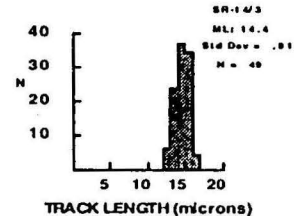
Pooled Age = 116.5 ± 13.8 Ma

Central Age = 116.5 ± 13.7Ma

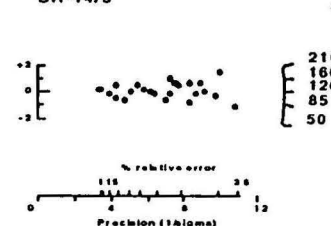
% Variation = 0.02%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm
 RHO D = 1.321E+06cm-2; ND = 5155

SR-14/3



SR-14/3



TJ-3400 [Neo-Proterozoic dolerite dyke, Tayaten Rd, NW Tasmania - collected by J.L. Everard]

Irradiation LU428-13 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	5	13	60	0.385	2.2	1.068E+05	2.777E+05	99.8 ± 52.5
2	28	137	28	0.204	50.5	1.282E+06	6.270E+06	53.2 ± 11.1
3	19	67	60	0.284	11.5	4.058E+05	1.431E+06	73.7 ± 19.2
4	17	46	50	0.370	9.5	4.357E+05	1.179E+06	95.9 ± 27.3
5	1	12	15	0.083	8.3	8.544E+04	1.025E+06	21.8 ± 22.6
6	15	46	25	0.326	19.0	7.689E+05	2.358E+06	84.7 ± 25.2
7	20	61	18	0.328	35.0	1.424E+06	4.343E+06	85.2 ± 22.0
	105	382			15.4	5.256E+05	1.912E+06	

Area of basic unit = 7.803E-07 cm²

CHI SQUARED = 2.928383 WITH 6 DEGREES OF FREEDOM

P(chi squared) = 43.9 %

CORRELATION COEFFICIENT = 0.920

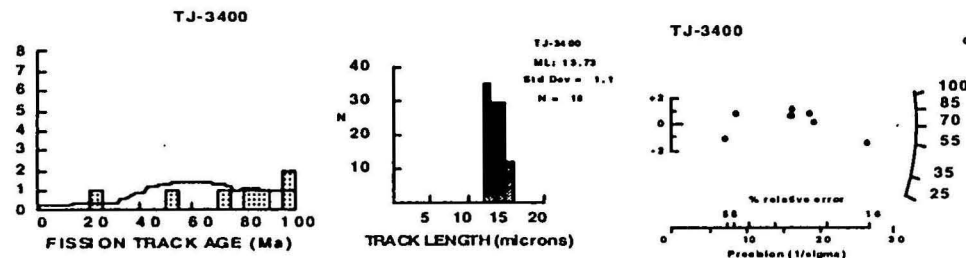
Pooled Age = 71.5 ± 8.0 Ma

Central Age = 71.7 ± 8.1Ma

% Variation = 4.85%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 11.1 ppm

RHO D = 1.379E+06cm⁻²; ND = 5379



ARD-2 [Arthur River Dam-2 drillhole, depth: 10-15 m]

Irradiation LU428-12 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	4	8	25	0.500	3.7	2.050E+05	4.101E+05	129.4 ± 79.3
2	24	53	80	0.453	7.7	3.845E+05	8.490E+05	117.3 ± 28.9
3	4	15	20	0.267	8.7	2.563E+05	9.612E+05	69.3 ± 39.0
4	74	179	60	0.413	34.7	1.581E+06	3.823E+06	107.2 ± 14.9
5	14	67	24	0.209	32.4	7.476E+05	3.578E+06	54.4 ± 16.0
6	1	6	16	0.167	4.4	8.010E+04	4.806E+05	43.4 ± 46.9
	121	328			16.9	6.892E+05	1.868E+06	

Area of basic unit = 7.803E-07 cm²

CHI SQUARED = 3.187019 WITH 5 DEGREES OF FREEDOM

P(chi squared) = 27.2 %

CORRELATION COEFFICIENT = 0.978

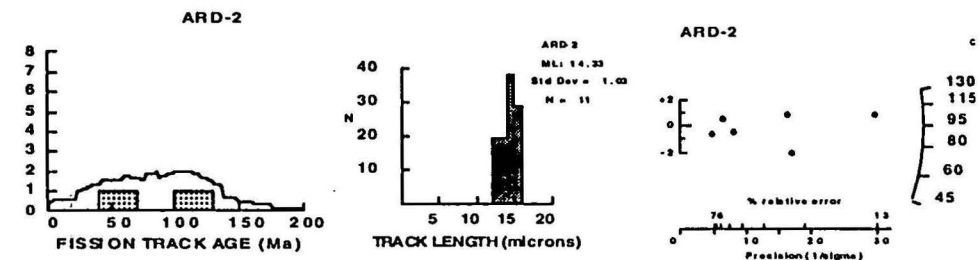
Pooled Age = 95.7 ± 10.3 Ma

Central Age = 92.8 ± 12.6Ma

% Variation = 14.30%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.379E+06cm⁻²; ND = 5379



MHT-7 [Granite boulders from base of Permian Tillite - MacKenzie Beach, just east of Doctors Rocks, Wynyard - collected by M. Hall]

Irradiation LU464-01 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	0	2	48	0.000	0.5	0.000E+00	5.340E+04	0.0 ± 0.0
2	1	1	60	1.000	0.2	2.136E+04	2.136E+04	233.3 ± 330.0
3	5	21	80	0.238	3.4	8.010E+04	3.364E+05	56.3 ± 28.0
4	0	7	30	0.000	3.0	0.000E+00	2.990E+05	0.0 ± 0.0
5	1	8	16	0.125	6.4	8.010E+04	6.408E+05	29.6 ± 31.4
6	1	1	40	1.000	0.3	3.204E+04	3.204E+04	233.3 ± 330.0
7	1	4	60	0.250	0.9	2.136E+04	8.544E+04	59.1 ± 66.1
8	2	32	80	0.062	5.1	3.204E+04	5.126E+05	14.8 ± 10.8
9	2	4	18	0.500	2.8	1.424E+05	2.848E+05	117.7 ± 102.0
10	0	3	36	0.000	1.1	0.000E+00	1.068E+05	0.0 ± 0.0
11	0	1	48	0.000	0.3	0.000E+00	2.670E+04	0.0 ± 0.0
12	2	6	49	0.333	1.6	5.231E+04	1.569E+05	78.7 ± 64.3
13	3	40	50	0.075	10.2	7.689E+04	1.025E+06	17.8 ± 10.7
14	3	21	80	0.143	3.4	4.806E+04	3.364E+05	33.8 ± 20.9
15	2	10	100	0.200	1.3	2.563E+04	1.282E+05	47.3 ± 36.7
16	3	9	40	0.333	2.9	9.612E+04	2.884E+05	78.7 ± 52.5
17	16	44	12	0.364	46.9	1.709E+06	4.699E+06	85.8 ± 25.1
18	0	4	100	0.000	0.5	0.000E+00	5.126E+04	0.0 ± 0.0
19	2	6	100	0.333	0.8	2.563E+04	7.689E+04	78.7 ± 64.3
20	1	9	36	0.111	3.2	3.560E+04	3.204E+05	26.3 ± 27.8
21	4	35	42	0.114	10.7	1.221E+05	1.068E+06	27.1 ± 14.3
22	6	79	40	0.076	25.2	1.922E+05	2.531E+06	18.0 ± 7.6
23	1	10	100	0.100	1.3	1.282E+04	1.282E+05	23.7 ± 24.9
24	0	4	48	0.000	1.1	0.000E+00	1.068E+05	0.0 ± 0.0
25	2	9	45	0.222	2.6	5.696E+04	2.563E+05	52.6 ± 41.1
58				370	3.5	5.474E+04	3.492E+05	

Area of basic unit = 7.803E-07 cm²

CHI SQUARED = 15.0255 WITH 24 DEGREES OF FREEDOM

P(chi squared) = 18.3 %

Pooled Age = 37.1 ± 5.3 Ma

Central Age = 38.6 ± 6.9 Ma

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.253E+06cm⁻²; ND = 4887

BF 3-II/1 [Beaconsfield 3-II drillhole, depth: 273-277 m]

Irradiation LU428-02 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	15	51	20	0.294	29.6	9.612E+05	3.268E+06	76.4 ± 22.5
2	2	11	24	0.182	5.3	1.068E+05	5.874E+05	47.4 ± 36.4
3	14	24	32	0.583	8.7	5.607E+05	9.612E+05	150.7 ± 50.7
4	0	5	16	0.000	3.6	0.000E+00	4.005E+05	0.0 ± 0.0
5	2	4	49	0.500	0.9	5.231E+04	1.046E+05	129.4 ± 112.1
6	7	24	48	0.292	5.8	1.869E+05	6.408E+05	75.8 ± 32.6
7	17	35	12	0.486	33.9	1.816E+06	3.738E+06	125.8 ± 37.2
8	7	16	24	0.438	7.7	3.738E+05	8.544E+05	113.4 ± 51.4
9	14	70	18	0.200	45.2	9.968E+05	4.984E+06	52.1 ± 15.3
10	5	23	36	0.217	7.4	1.780E+05	8.188E+05	56.6 ± 27.9
11	6	70	40	0.086	20.3	1.922E+05	2.243E+06	22.4 ± 9.5
12	22	145	49	0.152	34.4	5.754E+05	3.792E+06	39.5 ± 9.1
13	20	59	16	0.339	42.8	1.602E+06	4.726E+06	88.0 ± 22.8
14	5	9	16	0.556	6.5	4.005E+05	7.209E+05	143.6 ± 80.2
15	0	6	30	0.000	2.3	0.000E+00	2.563E+05	0.0 ± 0.0
16	83	273	25	0.304	126.9	4.255E+06	1.399E+07	79.0 ± 10.0
17	7	16	16	0.438	11.6	5.607E+05	1.282E+06	113.4 ± 51.4
18	48	99	24	0.485	47.9	2.563E+06	5.286E+06	125.5 ± 22.2
19	13	30	16	0.433	21.8	1.041E+06	2.403E+06	112.3 ± 37.3
20	25	90	28	0.278	37.3	1.144E+06	4.119E+06	72.2 ± 16.4
21	15	40	24	0.375	19.4	8.010E+05	2.136E+06	97.3 ± 29.5
22	3	36	21	0.083	19.9	1.831E+05	2.197E+06	21.8 ± 13.1
23	25	56	20	0.446	32.5	1.602E+06	3.588E+06	115.7 ± 27.9
24	9	29	25	0.310	13.5	4.614E+05	1.487E+06	80.6 ± 30.8
25	4	23	24	0.174	11.1	2.136E+05	1.228E+06	45.3 ± 24.6
368				1244	22.1	7.222E+05	2.441E+06	

Area of basic unit = 7.803E-07 cm²

CHI SQUARED = 27.04512 WITH 24 DEGREES OF FREEDOM

P(chi squared) = 0.0 %

CORRELATION COEFFICIENT = 0.908

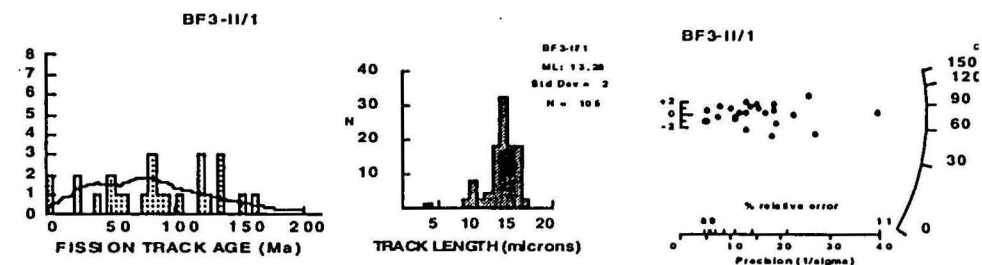
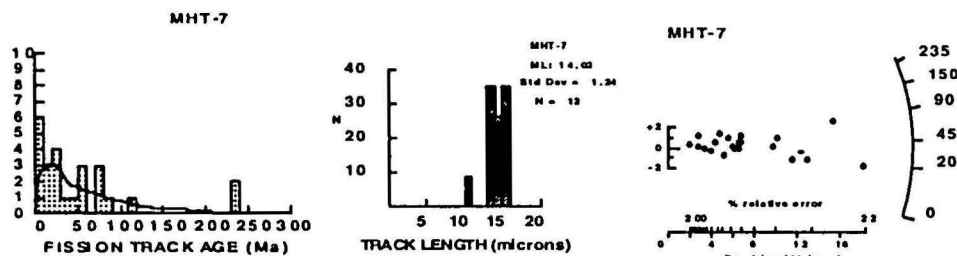
Pooled Age = 76.9 ± 4.7 Ma

Central Age = 77.5 ± 7.8 Ma

% Variation = 33.71%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.379E+06cm⁻²; ND = 5379



BF 3-II/2 [Beaconsfield 3-II drillhole, depth: 417-421 m]

Irradiation LU428-03 Counted by: P. O'Sullivan

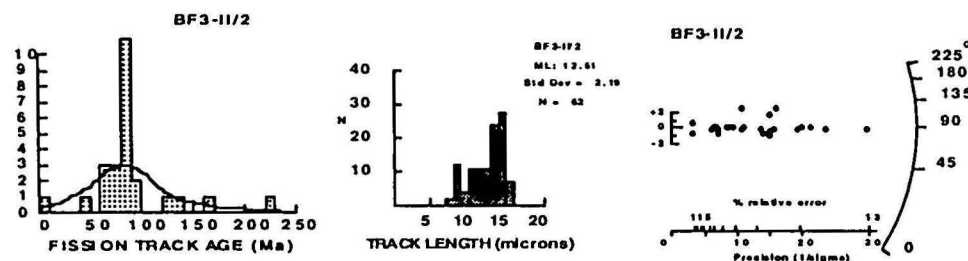
No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	16	49	25	0.327	22.8	8.202E+05	2.512E+06	84.8 ± 24.5
2	11	42	12	0.262	40.7	1.175E+06	4.485E+06	68.1 ± 23.1
3	14	16	15	0.875	12.4	1.196E+06	1.367E+06	224.8 ± 82.3
4	27	41	16	0.659	29.8	2.163E+06	3.284E+06	169.9 ± 42.2
5	3	9	16	0.333	6.5	2.403E+05	7.209E+05	86.6 ± 57.7
6	36	111	28	0.324	46.1	1.648E+06	5.080E+06	84.2 ± 16.2
7	3	9	9	0.333	11.6	4.272E+05	1.282E+06	86.6 ± 57.7
8	2	12	16	0.167	8.7	1.602E+05	9.612E+05	43.4 ± 33.2
9	59	177	28	0.333	73.4	2.700E+06	8.101E+06	86.6 ± 13.1
10	5	16	12	0.312	15.5	5.340E+05	1.709E+06	81.2 ± 41.6
11	1	2	15	0.500	1.5	8.544E+04	1.709E+05	129.4 ± 158.5
12	2	8	9	0.250	10.3	2.848E+05	1.139E+06	65.0 ± 51.4
13	12	38	12	0.316	36.8	1.282E+06	4.058E+06	82.0 ± 27.2
14	0	3	20	0.000	1.7	0.000E+00	1.922E+05	0.0 ± 0.0
15	6	18	16	0.333	13.1	4.806E+05	1.442E+06	86.6 ± 40.8
16	14	47	15	0.298	36.4	1.196E+06	4.016E+06	77.4 ± 23.6
17	31	89	30	0.348	34.5	1.324E+06	3.802E+06	90.4 ± 18.9
18	7	23	9	0.304	29.7	9.968E+05	3.275E+06	79.1 ± 34.2
19	21	40	28	0.525	16.6	9.612E+05	1.831E+06	135.8 ± 36.7
20	12	48	12	0.250	46.5	1.282E+06	5.126E+06	65.0 ± 21.0
21	5	14	16	0.357	10.2	4.005E+05	1.121E+06	92.7 ± 48.3
22	3	11	21	0.273	6.1	1.831E+05	6.713E+05	70.9 ± 46.2
23	27	79	36	0.342	25.5	9.612E+05	2.812E+06	88.7 ± 19.8
24	24	76	21	0.316	42.0	1.465E+06	4.638E+06	82.0 ± 19.3
25	8	25	8	0.320	36.3	1.282E+06	4.005E+06	83.1 ± 33.8
349				1003	26.2	1.005E+06	2.889E+06	

Area of basic unit = 7.803E-07 cm²
 CHI SQUARED = 10.60419 WITH 24 DEGREES OF FREEDOM
 P(chi squared) = 62.6 %
 CORRELATION COEFFICIENT = 0.962

Pooled Age = 90.3 ± 5.8 Ma

Central Age = 90.3 ± 5.8 Ma

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm
 RHO D = 1.379E+06cm⁻²; ND = 5379



BF 3-II/4 [Beaconsfield 3-II drillhole, depth: 923-928 m]

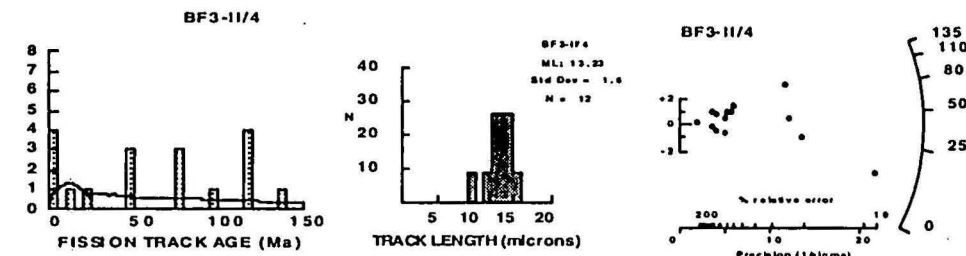
Irradiation LU426-04 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	0	3	30	0.000	1.3	0.000E+00	1.282E+05	0.0 ± 0.0
2	5	109	64	0.046	21.6	1.001E+05	2.183E+06	11.0 ± 5.0
3	0	4	35	0.000	1.4	0.000E+00	1.465E+05	0.0 ± 0.0
4	1	5	18	0.200	3.5	7.120E+04	3.560E+05	47.8 ± 52.4
5	1	2	16	0.500	1.6	8.010E+04	1.602E+05	118.9 ± 145.7
6	1	2	80	0.500	0.3	1.602E+04	3.204E+04	118.9 ± 145.7
7	6	30	12	0.200	31.6	6.408E+05	3.204E+06	47.8 ± 21.4
8	0	6	9	0.000	8.4	0.000E+00	8.544E+05	0.0 ± 0.0
9	1	3	20	0.333	1.9	6.408E+04	1.922E+05	79.5 ± 91.8
10	1	5	25	0.200	2.5	5.126E+04	2.563E+05	47.8 ± 52.4
11	4	40	16	0.100	31.6	3.204E+05	3.204E+06	24.0 ± 12.6
12	2	5	16	0.400	4.0	1.602E+05	4.005E+05	95.3 ± 79.8
13	1	3	12	0.333	3.2	1.068E+05	3.204E+05	79.5 ± 91.8
14	3	6	25	0.500	3.0	1.538E+05	3.076E+05	118.9 ± 84.1
15	12	21	24	0.571	11.1	6.408E+05	1.121E+06	135.7 ± 49.2
16	0	1	16	0.000	0.8	0.000E+00	8.010E+04	0.0 ± 0.0
17	3	6	9	0.500	8.4	4.272E+05	8.544E+05	118.9 ± 84.1
18	2	6	60	0.333	1.3	4.272E+04	1.282E+05	79.5 ± 64.9
43				257	6.7	1.132E+05	6.763E+05	

Area of basic unit = 7.803E-07 cm²
 CHI SQUARED = 17.73233 WITH 17 DEGREES OF FREEDOM
 P(chi squared) = 0.5 %
 CORRELATION COEFFICIENT = 0.459

Pooled Age = 40.0 ± 6.6 Ma
Central Age = 54.1 ± 12.9 Ma
 % Variation = 56.83%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm
 RHO D = 1.266E+06cm⁻²; ND = 4938



BF 3-II/5 [Beaconsfield 3-II drillhole, depth: 1069-1074 m]

Irradiation LU426-05 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	2	14	12	0.143	14.8	2.136E+05	1.495E+06	34.2 ± 25.9
2	1	5	36	0.200	1.8	3.560E+04	1.780E+05	47.8 ± 52.4
3	1	11	18	0.091	7.7	7.120E+04	7.832E+05	21.8 ± 22.8
4	1	6	25	0.167	3.0	5.126E+04	3.076E+05	39.9 ± 43.1
5	0	9	40	0.000	2.8	0.000E+00	2.884E+05	0.0 ± 0.0
6	0	10	40	0.000	3.2	0.000E+00	3.204E+05	0.0 ± 0.0
7	0	5	12	0.000	5.3	0.000E+00	5.340E+05	0.0 ± 0.0
8	0	11	24	0.000	5.8	0.000E+00	5.874E+05	0.0 ± 0.0
9	2	19	12	0.105	20.0	2.136E+05	2.029E+06	25.2 ± 18.8
10	5	39	25	0.128	19.7	2.563E+05	1.999E+06	30.7 ± 14.6
11	5	42	25	0.119	21.3	2.563E+05	2.153E+06	28.5 ± 13.5
12	1	5	16	0.200	4.0	8.010E+04	4.005E+05	47.8 ± 52.4
13	2	12	36	0.167	4.2	7.120E+04	4.272E+05	39.9 ± 30.5
14	6	66	28	0.091	29.8	2.746E+05	3.021E+06	21.8 ± 9.3
15	4	14	42	0.286	4.2	1.221E+05	4.272E+05	68.2 ± 38.7
16	1	6	12	0.167	6.3	1.068E+05	6.408E+05	39.9 ± 43.1
17	117	273	60	0.429	57.6	2.499E+06	5.831E+06	102.1 ± 11.4
18	0	5	40	0.000	1.6	0.000E+00	1.602E+05	0.0 ± 0.0
19	1	4	28	0.250	1.8	4.577E+04	1.831E+05	59.7 ± 66.8
20	1	5	12	0.200	5.3	1.068E+05	5.340E+05	47.8 ± 52.4
21	6	19	16	0.316	15.0	4.806E+05	1.522E+06	75.4 ± 35.3
22	0	3	36	0.000	1.1	0.000E+00	1.068E+05	0.0 ± 0.0
23	2	4	36	0.500	1.4	7.120E+04	1.424E+05	118.9 ± 103.0
24	13	52	16	0.250	41.1	1.041E+06	4.165E+06	59.7 ± 18.5
25	2	7	30	0.286	3.0	8.544E+04	2.990E+05	68.2 ± 54.7
173		646			12.1	3.275E+05	1.223E+06	

Area of basic unit = 7.803E-07 cm²

CHI SQUARED = 23.98358 WITH 24 DEGREES OF FREEDOM

P(chi squared) = 0.3 %

CORRELATION COEFFICIENT = 0.976

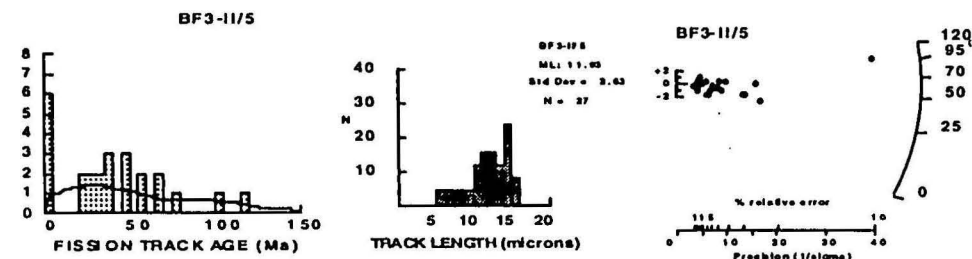
Pooled Age = 64.0 ± 5.6 Ma

Central Age = 41.5 ± 7.4 Ma

% Variation = 51.12%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.266E+06cm⁻²; ND = 4938



MBT-254 [Xenolith in Devonian granodiorite in coastal rocks of The Gardens area - collected by M.P. McClenaghan]

Irradiation LU429-01 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	84	225	40	0.373	66.1	2.691E+06	7.209E+06	95.8 ± 12.3
2	48	101	12	0.475	98.9	5.126E+06	1.079E+07	121.7 ± 21.4
3	60	219	50	0.274	51.5	1.538E+06	5.613E+06	70.4 ± 10.3
4	95	313	50	0.304	73.6	2.435E+06	8.023E+06	78.0 ± 9.2
5	70	285	50	0.246	67.0	1.794E+06	7.305E+06	63.2 ± 8.5
6	35	180	60	0.194	35.3	7.476E+05	3.845E+06	50.1 ± 9.3
7	84	267	60	0.315	52.3	1.794E+06	5.703E+06	80.8 ± 10.2
8	38	94	40	0.404	27.6	1.217E+06	3.012E+06	103.6 ± 20.0
9	83	269	60	0.309	52.7	1.773E+06	5.746E+06	79.2 ± 10.0
10	29	109	30	0.266	42.7	1.239E+06	4.656E+06	68.4 ± 14.3
11	20	46	40	0.435	13.5	6.408E+05	1.474E+06	111.4 ± 29.9
12	85	221	28	0.385	92.8	3.890E+06	1.012E+07	98.6 ± 12.7
13	24	64	10	0.375	75.2	3.076E+06	8.202E+06	96.2 ± 23.1
14	37	151	30	0.245	59.2	1.581E+06	6.451E+06	63.0 ± 11.6
15	61	281	32	0.217	103.2	2.443E+06	1.125E+07	55.9 ± 7.9
16	59	199	35	0.296	66.8	2.160E+06	7.287E+06	76.2 ± 11.4
17	36	152	70	0.237	25.5	6.591E+05	2.783E+06	60.9 ± 11.3
18	35	98	25	0.357	46.1	1.794E+06	5.024E+06	91.6 ± 18.1
19	24	145	48	0.166	35.5	6.408E+05	3.871E+06	42.6 ± 9.4
20	78	259	60	0.301	50.7	1.666E+06	5.532E+06	77.4 ± 10.1
21	49	157	48	0.312	38.4	1.308E+06	4.192E+06	80.2 ± 13.2
22	85	271	60	0.314	53.1	1.816E+06	5.788E+06	80.6 ± 10.1
23	57	121	50	0.471	28.4	1.461E+06	3.101E+06	120.6 ± 19.5
24	105	466	70	0.225	78.2	1.922E+06	8.532E+06	58.0 ± 6.3
25	61	216	40	0.282	63.5	1.954E+06	6.920E+06	72.6 ± 10.6
1442		4909			52.5	1.683E+06	5.730E+06	

Area of basic unit = 7.803E-07 cm²

CHI SQUARED = 29.92479 WITH 24 DEGREES OF FREEDOM

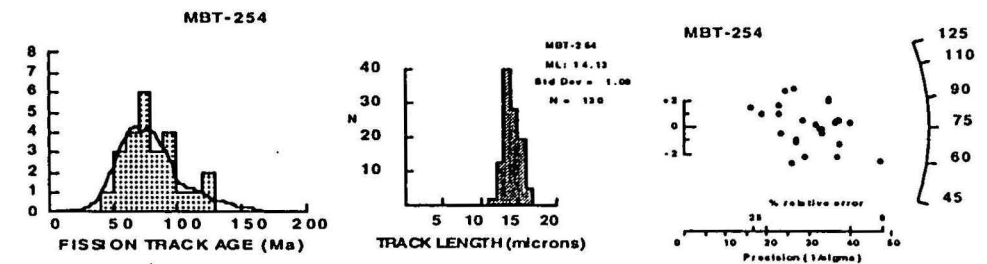
P(chi squared) = 0.0 %

Pooled Age = 75.5 ± 2.6 Ma

Central Age = 77.0 ± 3.8 Ma

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.363E+06cm⁻²; ND = 5316



MBT-233 [Biotite adamellite from coastal outcrop short distance north of Eddystone Point - collected by M.P. McClenaghan]

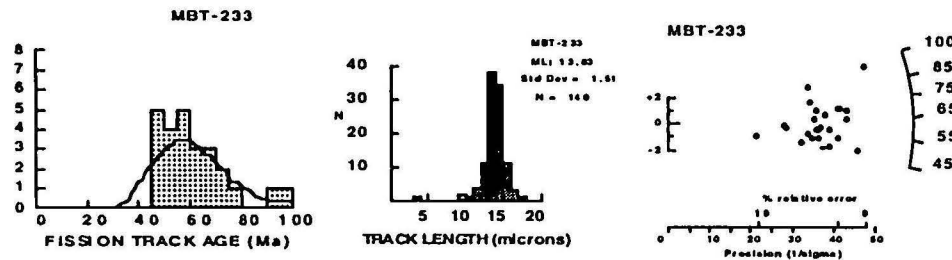
Irradiation LU429-02 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	148	393	100	0.377	46.2	1.897E+06	5.037E+06	96.6 ± 9.4
2	18	94	80	0.191	13.8	2.884E+05	1.506E+06	49.3 ± 12.7
3	60	241	100	0.249	28.3	7.689E+05	3.089E+06	64.0 ± 9.3
4	95	354	100	0.268	41.6	1.217E+06	4.537E+06	69.0 ± 8.0
5	40	214	80	0.187	31.4	6.408E+05	3.428E+06	48.1 ± 8.3
6	48	227	60	0.211	44.5	1.025E+06	4.849E+06	54.4 ± 8.7
7	52	283	60	0.184	55.4	1.111E+06	6.045E+06	47.3 ± 7.2
8	56	252	60	0.222	49.4	1.196E+06	5.383E+06	57.2 ± 8.5
9	70	333	100	0.210	39.1	8.971E+05	4.268E+06	54.1 ± 7.2
10	72	201	80	0.358	29.5	1.153E+06	3.220E+06	91.9 ± 12.7
11	59	261	80	0.226	38.3	9.451E+05	4.181E+06	58.2 ± 8.4
12	49	239	60	0.205	46.8	1.047E+06	5.105E+06	52.8 ± 8.3
13	68	301	100	0.226	35.4	8.715E+05	3.857E+06	58.1 ± 7.9
14	65	215	100	0.302	25.3	8.330E+05	2.755E+06	77.7 ± 11.1
15	60	237	48	0.253	58.0	1.602E+06	6.328E+06	65.1 ± 9.5
16	59	310	100	0.190	36.4	7.561E+05	3.973E+06	49.0 ± 7.0
17	36	153	80	0.235	22.5	5.767E+05	2.451E+06	60.5 ± 11.3
18	89	323	100	0.276	38.0	1.141E+06	4.139E+06	70.8 ± 8.6
19	61	267	80	0.228	39.2	9.772E+05	4.277E+06	58.8 ± 8.4
20	36	159	60	0.226	31.1	7.689E+05	3.396E+06	58.2 ± 10.8
21	66	241	70	0.274	40.5	1.208E+06	4.412E+06	70.4 ± 9.8
22	91	361	100	0.252	42.4	1.166E+06	4.626E+06	64.8 ± 7.7
23	71	271	80	0.262	39.8	1.137E+06	4.341E+06	67.4 ± 9.0
24	53	261	60	0.203	51.1	1.132E+06	5.575E+06	52.3 ± 7.9
25	80	420	100	0.190	49.4	1.025E+06	5.383E+06	49.0 ± 6.0
1602				6611	38.1	1.007E+06	4.157E+06	

Area of basic unit = 7.803E-07 cm²
 CHI SQUARED = 27.06284 WITH 24 DEGREES OF FREEDOM
 P(chi squared) = 0.0 %
 CORRELATION COEFFICIENT = 0.802

Pooled Age = 62.3 ± 2.0 Ma
 Central Age = 61.8 ± 2.7 Ma

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm
 RHO D = 1.363E+06cm⁻²; ND = 5316



ALB-3 [Alberton-3 drillhole, depth: 123-129 m]

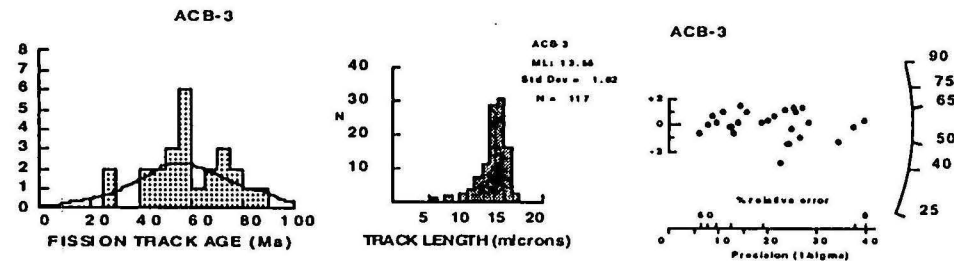
Irradiation LU428-04 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	8	25	48	0.320	6.0	2.136E+05	6.675E+05	83.1 ± 33.8
2	51	280	36	0.182	90.4	1.816E+06	9.968E+06	47.4 ± 7.3
3	5	22	40	0.227	6.4	1.602E+05	7.049E+05	59.1 ± 29.3
4	29	143	24	0.203	69.2	1.549E+06	7.636E+06	52.8 ± 10.8
5	5	17	48	0.294	4.1	1.335E+05	4.539E+05	76.4 ± 38.9
6	34	123	36	0.276	39.7	1.210E+06	4.379E+06	71.9 ± 14.0
7	7	43	49	0.163	10.2	1.831E+05	1.125E+06	42.4 ± 17.3
8	44	159	56	0.277	33.0	1.007E+06	3.639E+06	72.0 ± 12.3
9	26	104	36	0.250	33.6	9.256E+05	3.702E+06	65.0 ± 14.3
10	18	80	48	0.225	19.4	4.806E+05	2.136E+06	58.6 ± 15.3
11	30	167	80	0.180	24.2	4.806E+05	2.675E+06	46.8 ± 9.3
12	42	185	25	0.227	86.0	2.153E+06	9.484E+06	59.1 ± 10.1
13	14	131	60	0.107	25.4	2.990E+05	2.798E+06	27.9 ± 7.9
14	1	10	100	0.100	1.2	1.282E+04	1.282E+05	26.1 ± 27.4
15	15	45	16	0.333	32.7	1.201E+06	3.604E+06	86.6 ± 25.8
16	39	150	12	0.260	145.2	4.165E+06	1.602E+07	67.6 ± 12.2
17	3	15	24	0.200	7.3	1.602E+05	8.010E+05	52.1 ± 32.9
18	83	363	60	0.229	70.3	1.773E+06	7.753E+06	59.5 ± 7.3
19	7	36	60	0.194	7.0	1.495E+05	7.689E+05	50.6 ± 20.9
20	23	143	50	0.161	33.2	5.895E+05	3.665E+06	41.9 ± 9.4
21	39	140	48	0.279	33.9	1.041E+06	3.738E+06	72.4 ± 13.2
22	10	45	56	0.222	9.3	2.288E+05	1.030E+06	57.8 ± 20.2
23	71	329	60	0.216	63.7	1.517E+06	7.027E+06	56.2 ± 7.4
24	22	92	35	0.239	30.5	8.056E+05	3.369E+06	62.2 ± 14.8
25	16	55	28	0.291	22.8	7.323E+05	2.517E+06	75.6 ± 21.5
642				2902	29.7	7.249E+05	3.277E+06	

Area of basic unit = 7.803E-07 cm²
 CHI SQUARED = 11.65454 WITH 24 DEGREES OF FREEDOM
 P(chi squared) = 50.2 %
 CORRELATION COEFFICIENT = 0.964

Pooled Age = 57.6 ± 2.7 Ma
 Central Age = 57.6 ± 2.7 Ma
 % Variation = 4.42%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm
 RHO D = 1.379E+06cm⁻²; ND = 5379



FT-68 [Fingal Tier-68 drillhole, depth: 163-165 m]

Irradiation LU428-05 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	20	38	30	0.526	14.7	8.544E+05	1.623E+06	136.2 ± 37.7
2	12	14	16	0.857	10.2	9.612E+05	1.121E+06	220.3 ± 86.7
3	10	17	30	0.588	6.6	4.272E+05	7.262E+05	152.0 ± 60.6
4	15	15	49	1.000	3.6	3.923E+05	3.923E+05	256.3 ± 93.7
5	7	16	16	0.438	11.6	5.607E+05	1.282E+06	113.4 ± 51.4
6	49	59	48	0.830	14.3	1.308E+06	1.575E+06	213.6 ± 41.4
7	30	35	24	0.857	16.9	1.602E+06	1.869E+06	220.3 ± 54.9
8	27	40	24	0.675	19.4	1.442E+06	2.136E+06	174.1 ± 43.5
9	4	4	40	1.000	1.2	1.282E+05	1.282E+05	256.3 ± 181.3
10	15	14	20	1.071	8.1	9.612E+05	8.971E+05	274.2 ± 102.0
11	19	25	30	0.760	9.7	8.117E+05	1.068E+06	195.7 ± 59.6
12	25	35	40	0.714	10.2	8.010E+05	1.121E+06	184.1 ± 48.3
13	19	22	20	0.864	12.8	1.217E+06	1.410E+06	221.9 ± 69.6
14	5	10	49	0.500	2.4	1.308E+05	2.615E+05	129.4 ± 70.9
15	26	38	40	0.684	11.0	8.330E+05	1.217E+06	176.5 ± 45.0
16	16	14	24	1.143	6.8	8.544E+05	7.476E+05	292.1 ± 107.0
17	34	40	36	0.850	12.9	1.210E+06	1.424E+06	218.5 ± 51.1
18	36	41	72	0.878	6.6	6.408E+05	7.298E+05	225.6 ± 51.6
19	26	53	36	0.491	17.1	9.256E+05	1.887E+06	127.0 ± 30.5
20	19	20	30	0.950	7.7	8.117E+05	8.544E+05	243.7 ± 78.2
21	12	11	15	1.091	8.5	1.025E+06	9.398E+05	279.1 ± 116.6
22	66	91	24	0.725	44.0	3.524E+06	4.859E+06	186.9 ± 30.4
23	11	13	21	0.846	7.2	6.713E+05	7.933E+05	217.5 ± 89.2
24	12	16	24	0.750	7.7	6.408E+05	8.544E+05	193.2 ± 73.8
25	34	48	60	0.708	9.3	7.262E+05	1.025E+06	182.6 ± 41.0
549	729				10.4	8.601E+05	1.142E+06	

Area of basic unit = 7.803E-07 cm-2

CHI SQUARED = 6.919068 WITH 24 DEGREES OF FREEDOM

P(chi squared) = 95.0 %

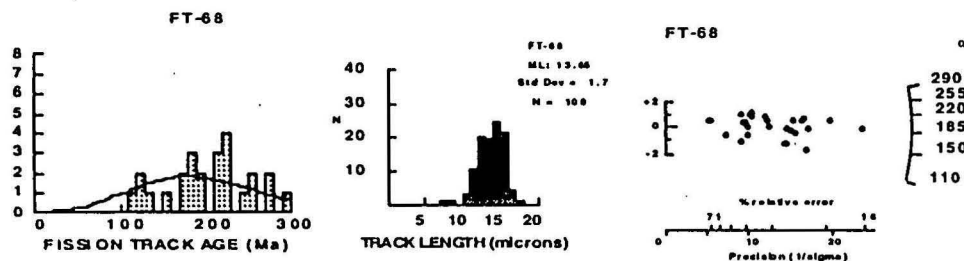
CORRELATION COEFFICIENT = 0.950

Pooled Age = 194.0 ± 11.4 Ma

Central Age = 194.0 ± 11.3Ma

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.379E+06cm-2; ND = 5379



96POS62 [sample from quartzite unit within Undiff. Precambrian, collected on Gordon River Road]

Irradiation LU464-05 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	5	36	21	0.139	21.9	3.051E+05	2.197E+06	32.9 ± 15.7
2	3	11	28	0.273	5.0	1.373E+05	5.035E+05	64.5 ± 42.0
3	0	5	36	0.000	1.8	0.000E+00	1.780E+05	0.0 ± 0.0
4	0	5	12	0.000	5.3	0.000E+00	5.340E+05	0.0 ± 0.0
5	0	6	12	0.000	6.4	0.000E+00	6.408E+05	0.0 ± 0.0
6	2	14	24	0.143	7.5	1.068E+05	7.476E+05	33.8 ± 25.6
7	6	23	30	0.261	9.8	2.563E+05	9.825E+05	61.7 ± 28.3
8	1	4	42	0.250	1.2	3.051E+04	1.221E+05	59.1 ± 66.1
9	2	8	24	0.250	4.3	1.068E+05	4.272E+05	59.1 ± 46.7
10	11	56	24	0.196	29.8	5.874E+05	2.990E+06	46.5 ± 15.4
11	1	3	18	0.333	2.1	7.120E+04	2.136E+05	78.7 ± 90.9
12	0	7	36	0.000	2.5	0.000E+00	2.492E+05	0.0 ± 0.0
13	1	4	24	0.250	2.1	5.340E+04	2.136E+05	59.1 ± 66.1
14	1	3	40	0.333	1.0	3.204E+04	9.612E+04	78.7 ± 90.9
15	3	21	20	0.143	13.4	1.922E+05	1.346E+06	33.8 ± 20.9
16	4	20	18	0.200	14.2	2.848E+05	1.424E+06	47.3 ± 25.9
17	4	15	9	0.267	21.3	5.696E+05	2.136E+06	63.0 ± 35.5
18	0	4	9	0.000	5.7	0.000E+00	5.696E+05	0.0 ± 0.0
19	3	16	64	0.188	3.2	6.007E+04	3.204E+05	44.4 ± 27.9
20	0	3	40	0.000	1.0	0.000E+00	9.612E+04	0.0 ± 0.0
21	1	6	20	0.167	3.8	6.408E+04	3.845E+05	39.5 ± 42.6
22	2	6	12	0.333	6.4	2.136E+05	6.408E+05	78.7 ± 64.3
23	7	29	36	0.241	10.3	2.492E+05	1.032E+06	57.1 ± 24.1
24	0	4	64	0.000	0.8	0.000E+00	8.010E+04	0.0 ± 0.0
25	6	25	36	0.240	8.9	2.136E+05	8.900E+05	56.8 ± 25.8
63	334				6.1	1.155E+05	6.124E+05	

Area of basic unit = 7.803E-07 cm-2

CHI SQUARED = 5.150254 WITH 24 DEGREES OF FREEDOM

P(chi squared) = 99.3 %

CORRELATION COEFFICIENT = 0.942

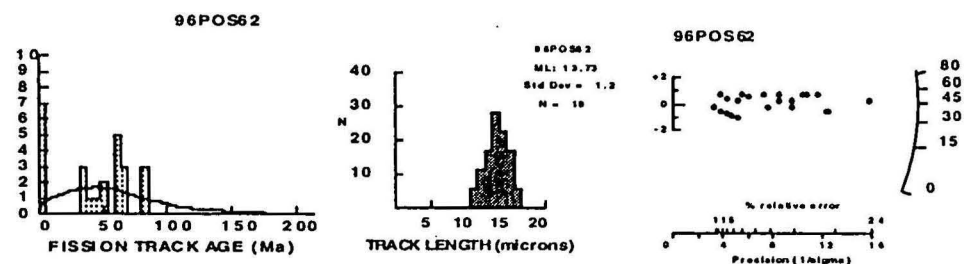
Pooled Age = 44.7 ± 6.2 Ma

Central Age = 44.7 ± 6.2Ma

% Variation = 0.00%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.253E+06cm-2; ND = 4887



96POS66 [sample from conglomerate unit, Junee Group, collected on Gordon River Road]

Irradiation LU464-09 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	2	11	16	0.182	8.8	1.602E+05	8.811E+05	43.0 ± 33.1
2	10	27	25	0.370	13.8	5.126E+05	1.384E+06	87.4 ± 32.4
3	3	9	36	0.333	3.2	1.068E+05	3.204E+05	78.7 ± 52.5
4	3	7	12	0.429	7.5	3.204E+05	7.476E+05	101.0 ± 69.7
5	4	9	16	0.444	7.2	3.204E+05	7.209E+05	104.7 ± 63.0
6	18	61	40	0.295	19.5	5.767E+05	1.954E+06	69.7 ± 18.7
7	10	114	100	0.088	14.6	1.282E+05	1.461E+06	20.8 ± 6.9
	50	238			12.4	2.615E+05	1.245E+06	

Area of basic unit = 7.803E-07 cm²

CHI SQUARED = 7.382455 WITH 6 DEGREES OF FREEDOM

P(chi squared) = 2.2 %

CORRELATION COEFFICIENT = 0.649

Pooled Age = 49.7 ± 7.8 Ma

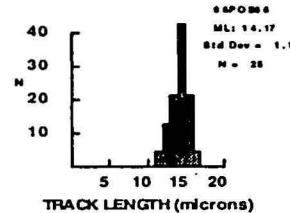
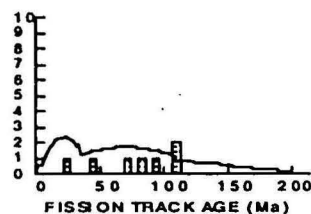
Central Age = 60.3 ± 14.0 Ma

% Variation = 38.91%

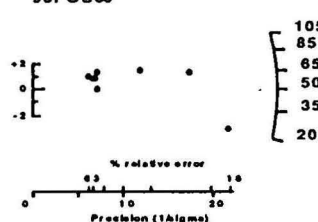
Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.253E+06cm⁻²; ND = 4887

96POS66



96POS66



96POS87 [sample from sandstone unit within Dundas Group, collected south of Spero Bay]

Irradiation LU468-01 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	74	217	60	0.341	39.6	1.581E+06	4.635E+06	83.4 ± 11.3
2	36	97	30	0.371	35.4	1.538E+06	4.144E+06	90.8 ± 17.8
3	14	39	100	0.359	4.3	1.794E+05	4.998E+05	87.8 ± 27.4
4	66	205	60	0.322	37.4	1.410E+06	4.379E+06	78.8 ± 11.2
5	23	98	48	0.235	22.4	6.141E+05	2.617E+06	57.5 ± 13.4
6	17	41	100	0.415	4.5	2.179E+05	5.254E+05	101.3 ± 29.3
7	90	241	80	0.373	33.0	1.442E+06	3.861E+06	91.3 ± 11.4
8	240	637	60	0.377	116.3	5.126E+06	1.361E+07	92.1 ± 7.1
9	72	171	64	0.421	29.3	1.442E+06	3.424E+06	102.9 ± 14.5
10	39	141	80	0.277	19.3	6.248E+05	2.259E+06	67.8 ± 12.3
11	307	969	100	0.317	106.1	3.934E+06	1.242E+07	77.6 ± 5.2
12	77	193	80	0.399	26.4	1.234E+06	3.092E+06	97.5 ± 13.2
13	41	109	80	0.376	14.9	6.568E+05	1.746E+06	92.0 ± 16.9
14	110	327	36	0.336	99.5	3.916E+06	1.164E+07	82.3 ± 9.2
15	83	244	56	0.340	47.7	1.899E+06	5.584E+06	83.2 ± 10.7
16	37	100	40	0.370	27.4	1.185E+06	3.204E+06	90.5 ± 17.5
17	127	401	60	0.317	73.2	2.713E+06	8.565E+06	77.5 ± 8.0
18	107	289	80	0.370	39.6	1.714E+06	4.630E+06	90.5 ± 10.3
19	30	75	100	0.400	8.2	3.845E+05	9.612E+05	97.8 ± 21.2
20	30	109	60	0.275	19.9	6.408E+05	2.328E+06	67.4 ± 13.9
	1620	4703			37.5	1.511E+06	4.387E+06	

Area of basic unit = 7.803E-07 cm²

CHI SQUARED = 7.473818 WITH 19 DEGREES OF FREEDOM

P(chi squared) = 72.6 %

CORRELATION COEFFICIENT = 0.991

Pooled Age = 84.3 ± 2.8 Ma

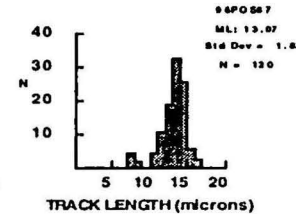
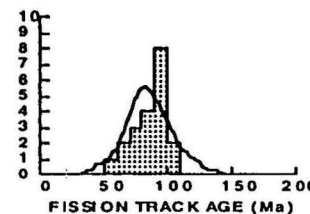
Central Age = 84.3 ± 2.7 Ma

% Variation = 1.03%

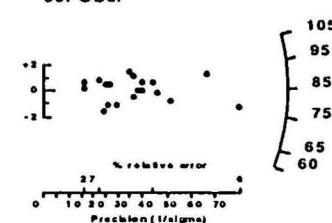
Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.299E+06cm⁻²; ND = 5200

96POS87



96POS87



96POS89 [Mt. Agnew Granite, collected near summit]

Irradiation LU468-02 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	53	171	40	0.310	46.6	1.698E+06	5.479E+06	76.3 ± 12.1
2	48	184	80	0.261	25.1	7.689E+05	2.948E+06	64.3 ± 10.5
3	7	24	40	0.292	6.5	2.243E+05	7.689E+05	71.8 ± 30.9
4	6	18	30	0.333	6.5	2.563E+05	7.689E+05	82.0 ± 38.7
5	3	10	40	0.300	2.7	9.612E+04	3.204E+05	73.9 ± 48.6
6	16	51	40	0.314	13.9	5.126E+05	1.634E+06	77.2 ± 22.2
7	17	65	30	0.262	23.6	7.262E+05	2.777E+06	64.4 ± 17.6
8	79	255	60	0.310	46.3	1.687E+06	5.447E+06	76.3 ± 9.9
9	25	79	30	0.316	28.7	1.068E+06	3.375E+06	77.9 ± 17.9
10	46	170	50	0.271	37.0	1.179E+06	4.357E+06	66.7 ± 11.1
11	2	6	50	0.333	1.3	5.126E+04	1.538E+05	82.0 ± 67.0
12	12	45	40	0.267	12.3	3.845E+05	1.442E+06	65.7 ± 21.4
13	15	52	60	0.288	9.4	3.204E+05	1.111E+06	71.0 ± 20.8
14	9	33	30	0.273	12.0	3.845E+05	1.410E+06	67.2 ± 25.3
15	8	27	60	0.296	4.9	1.709E+05	5.767E+05	73.0 ± 29.4
16	65	225	80	0.289	30.6	1.041E+06	3.604E+06	71.1 ± 10.1
17	26	89	100	0.292	9.7	3.332E+05	1.141E+06	71.9 ± 16.1
18	12	39	40	0.308	10.6	3.845E+05	1.250E+06	75.7 ± 25.0
19	19	71	30	0.268	25.8	8.117E+05	3.033E+06	65.9 ± 17.1
20	7	23	60	0.304	4.2	1.495E+05	4.913E+05	74.9 ± 32.4
475				1637	18.0	6.149E+05	2.119E+06	

Area of basic unit = 7.803E-07 cm²

CHI SQUARED = .8829619 WITH 19 DEGREES OF FREEDOM

P(chi squared) = 100.0 %

CORRELATION COEFFICIENT = 0.995

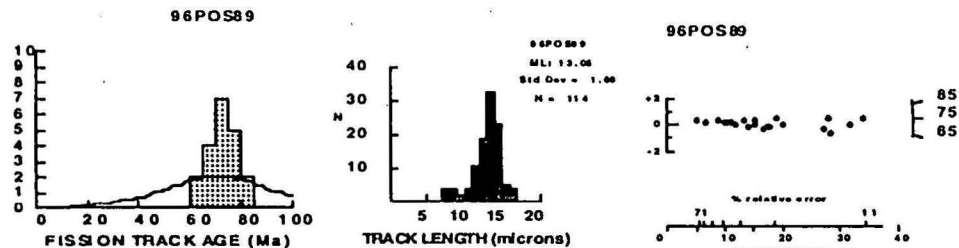
Pooled Age = 71.5 ± 3.9 Ma

Central Age = 71.5 ± 3.9 Ma

% Variation = 0.00%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.306E+06cm⁻²; ND = 5200



96POS90 [sample from High Tor Granite, collected near summit of High Tor]

Irradiation LU468-03 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	1	10	40	0.100	3.0	3.204E+04	3.204E+05	24.8 ± 26.1
2	1	5	70	0.200	0.9	1.831E+04	9.154E+04	49.6 ± 54.3
3	0	8	100	0.000	1.0	0.000E+00	1.025E+05	0.0 ± 0.0
4	0	7	100	0.000	0.9	0.000E+00	8.971E+04	0.0 ± 0.0
5	1	6	100	0.167	0.7	1.282E+04	7.689E+04	41.4 ± 44.7
6	0	2	50	0.000	0.5	0.000E+00	5.126E+04	0.0 ± 0.0
7	2	9	100	0.222	1.1	2.563E+04	1.153E+05	55.1 ± 43.1
8	1	7	48	0.143	1.8	2.670E+04	1.869E+05	35.5 ± 37.9
9	0	5	24	0.000	2.5	0.000E+00	2.670E+05	0.0 ± 0.0
10	2	2	50	1.000	0.5	5.126E+04	5.126E+04	244.3 ± 244.3
11	0	12	100	0.000	1.5	0.000E+00	1.538E+05	0.0 ± 0.0
12	2	5	100	0.400	0.6	2.563E+04	6.408E+04	98.8 ± 82.7
13	1	2	100	0.500	0.2	1.282E+04	2.563E+04	123.3 ± 151.0
14	0	9	100	0.000	1.1	0.000E+00	1.153E+05	0.0 ± 0.0
15	0	6	50	0.000	1.5	0.000E+00	1.538E+05	0.0 ± 0.0
16	2	4	100	0.500	0.5	2.563E+04	5.126E+04	123.3 ± 106.8
17	2	11	100	0.182	1.3	2.563E+04	1.410E+05	45.1 ± 34.7
18	0	1	60	0.000	0.2	0.000E+00	2.136E+04	0.0 ± 0.0
19	0	15	100	0.000	1.8	0.000E+00	1.922E+05	0.0 ± 0.0
20	0	1	80	0.000	0.2	0.000E+00	1.602E+04	0.0 ± 0.0
21	3	13	100	0.231	1.6	3.845E+04	1.666E+05	57.2 ± 36.6
22	3	16	20	0.188	9.8	1.922E+05	1.025E+06	46.5 ± 29.3
23	0	5	100	0.000	0.6	0.000E+00	6.408E+04	0.0 ± 0.0
24	0	3	40	0.000	0.9	0.000E+00	9.612E+04	0.0 ± 0.0
25	1	2	48	0.500	0.5	2.670E+04	5.340E+04	123.3 ± 151.0
22				166	1.1	1.500E+04	1.132E+05	

Area of basic unit = 7.803E-07 cm²

CHI SQUARED = 12.4035 WITH 24 DEGREES OF FREEDOM

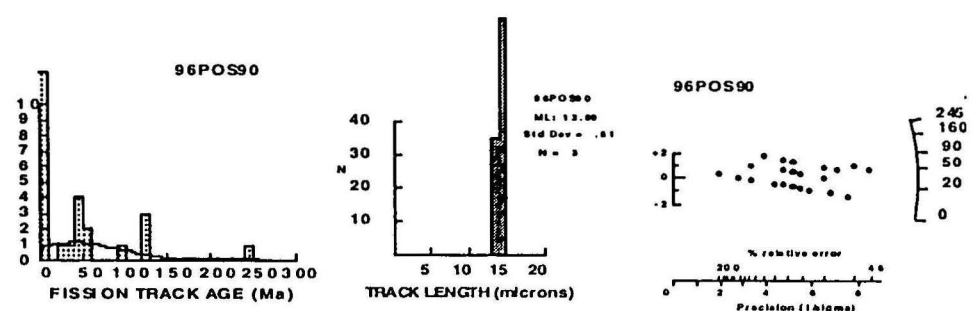
P(chi squared) = 41.6 %

Pooled Age = 32.9 ± 7.5 Ma

Central Age = 32.9 ± 7.6 Ma

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.313E+06cm⁻²; ND = 5200



96POS91 [sample from Mt. Darwin Granite, collected on plateau south of Mt. Darwin]

Irradiation LU468-04 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	1	3	60	0.333	0.6	2.136E+04	6.408E+04	82.8 ± 95.6
2	0	3	36	0.000	1.0	0.000E+00	1.068E+05	0.0 ± 0.0
3	0	6	100	0.000	0.7	0.000E+00	7.689E+04	0.0 ± 0.0
4	0	3	40	0.000	0.9	0.000E+00	9.612E+04	0.0 ± 0.0
5	1	5	24	0.200	2.5	5.340E+04	2.670E+05	49.8 ± 54.6
6	0	5	16	0.000	3.8	0.000E+00	4.005E+05	0.0 ± 0.0
7	6	28	100	0.214	3.4	7.689E+04	3.588E+05	53.4 ± 24.0
8	11	19	4	0.579	57.7	3.524E+06	6.087E+06	143.2 ± 54.3
9	1	10	25	0.100	4.9	5.126E+04	5.126E+05	25.0 ± 26.2
10	23	35	16	0.657	26.6	1.842E+06	2.803E+06	162.3 ± 43.6
11	2	7	12	0.286	7.1	2.136E+05	7.476E+05	71.1 ± 57.0
12	1	3	80	0.333	0.5	1.602E+04	4.806E+04	82.8 ± 95.6
13	1	2	18	0.500	1.3	7.120E+04	1.424E+05	123.8 ± 151.7
14	24	64	18	0.375	43.2	1.709E+06	4.557E+06	93.1 ± 22.3
15	2	10	32	0.200	3.8	8.010E+04	4.005E+05	49.8 ± 38.6
16	15	46	18	0.326	31.0	1.068E+06	3.275E+06	81.0 ± 24.1
17	1	4	40	0.250	1.2	3.204E+04	1.282E+05	62.2 ± 69.6
18	17	42	21	0.405	24.3	1.037E+06	2.563E+06	100.4 ± 28.9
19	3	10	18	0.300	6.7	2.136E+05	7.120E+05	74.6 ± 49.1
20	1	6	100	0.167	0.7	1.282E+04	7.689E+04	41.5 ± 44.9
21	11	31	24	0.355	15.7	5.874E+05	1.655E+06	88.1 ± 31.0
22	2	5	14	0.400	4.3	1.831E+05	4.577E+05	99.3 ± 83.1
23	1	5	40	0.200	1.5	3.204E+04	1.602E+05	49.8 ± 54.6
24	13	29	60	0.448	5.9	2.777E+05	6.194E+05	111.1 ± 37.1
25	2	5	36	0.400	1.7	7.120E+04	1.780E+05	99.3 ± 83.1
139				386	4.9	1.871E+05	5.196E+05	

Area of basic unit = 7.803E-07 cm²

CHI SQUARED = 9.40436 WITH 24 DEGREES OF FREEDOM

P(chi squared) = 76.2 %

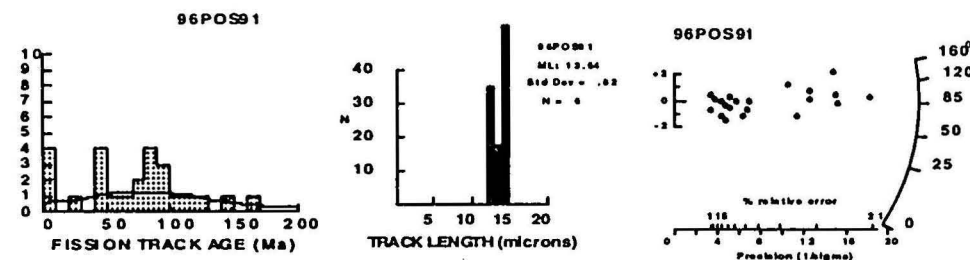
Pooled Age = 89.4 ± 9.0 Ma

Central Age = 89.1 ± 9.1 Ma

% Variation = 6.37%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.319E+06cm⁻²; ND = 5200



96POS98 [Mt. Agnew Granite, SD 21 St. Dozier well, 420 m depth]

Irradiation LULU468-08 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	1	5	25	0.200	2.1	5.126E+04	2.563E+05	50.9 ± 55.7
2	3	15	36	0.200	4.4	1.068E+05	5.340E+05	50.9 ± 32.2
3	3	14	20	0.214	7.4	1.922E+05	8.971E+05	54.5 ± 34.7
4	0	2	50	0.000	0.4	0.000E+00	5.126E+04	0.0 ± 0.0
5	1	6	42	0.167	1.5	3.051E+04	1.831E+05	42.4 ± 45.8
6	102	399	48	0.256	87.8	2.723E+06	1.065E+07	65.0 ± 7.3
7	1	8	80	0.125	1.1	1.602E+04	1.282E+05	31.8 ± 33.8
8	1	4	100	0.250	0.4	1.282E+04	5.126E+04	63.5 ± 71.0
9	19	90	24	0.211	39.6	1.015E+06	4.806E+06	53.7 ± 13.6
10	1	4	60	0.250	0.7	2.136E+04	8.544E+04	63.5 ± 71.0
11	1	5	100	0.200	0.5	1.282E+04	6.408E+04	50.9 ± 55.7
12	5	17	30	0.294	6.0	2.136E+05	7.262E+05	74.7 ± 38.0
13	4	22	50	0.182	4.6	1.025E+05	5.639E+05	46.3 ± 25.2
14	4	18	49	0.222	3.9	1.046E+05	4.708E+05	56.5 ± 31.2
15	6	29	36	0.207	8.5	2.136E+05	1.032E+06	52.6 ± 23.6
16	11	46	50	0.239	9.7	2.819E+05	1.179E+06	60.8 ± 20.4
17	2	17	20	0.118	9.0	1.282E+05	1.089E+06	30.0 ± 22.4
18	3	18	18	0.167	10.6	2.136E+05	1.282E+06	42.4 ± 26.5
19	3	13	50	0.231	2.7	7.689E+04	3.332E+05	58.7 ± 37.6
20	3	11	42	0.273	2.8	9.154E+04	3.356E+05	69.3 ± 45.1
21	2	16	18	0.125	9.4	1.424E+05	1.139E+06	31.8 ± 23.9
176				759	8.5	2.379E+05	1.026E+06	

Area of basic unit = 7.803E-07 cm²

CHI SQUARED = 2.168716 WITH 20 DEGREES OF FREEDOM

P(chi squared) = 100.0 %

CORRELATION COEFFICIENT = 0.999

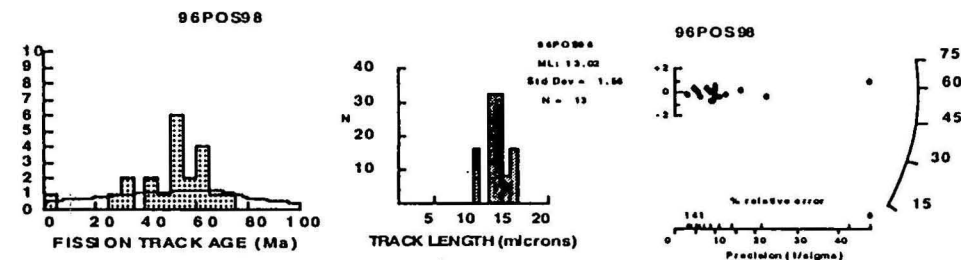
Pooled Age = 59.0 ± 5.0 Ma

Central Age = 59.0 ± 5.0 Ma

% Variation = 0.01%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.347E+06cm⁻²; ND = 5200



96POS102 [Dundas Group, LS7 Lake Selina well, 786-790 m]

Irradiation LU468-09 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	1	1	25	1.000	0.5	5.126E+04	5.126E+04	251.7 ± 356.0
2	13	53	25	0.245	25.1	6.664E+05	2.717E+06	62.7 ± 19.4
3	1	5	24	0.200	2.5	5.340E+04	2.670E+05	51.1 ± 56.0
4	4	10	100	0.400	1.2	5.126E+04	1.282E+05	101.9 ± 60.3
5	31	97	60	0.320	19.1	6.621E+05	2.072E+06	81.5 ± 16.9
6	251	459	100	0.547	54.3	3.217E+06	5.882E+06	138.9 ± 11.1
7	21	66	24	0.318	32.5	1.121E+06	3.524E+06	81.2 ± 20.4
8	65	121	36	0.537	39.8	2.314E+06	4.307E+06	136.5 ± 21.1
9	3	8	21	0.375	4.5	1.831E+05	4.882E+05	95.6 ± 64.7
10	2	11	100	0.182	1.3	2.563E+04	1.410E+05	46.5 ± 35.8
11	3	4	42	0.750	1.1	9.154E+04	1.221E+05	189.7 ± 144.9
12	16	65	35	0.246	22.0	5.859E+05	2.380E+06	62.9 ± 17.6
	411	900			18.0	8.897E+05	1.948E+06	

Area of basic unit = 7.803E-07 cm²

CHI SQUARED = 11.89229 WITH 11 DEGREES OF FREEDOM

P(chi squared) = 1.4 %

CORRELATION COEFFICIENT = 0.992

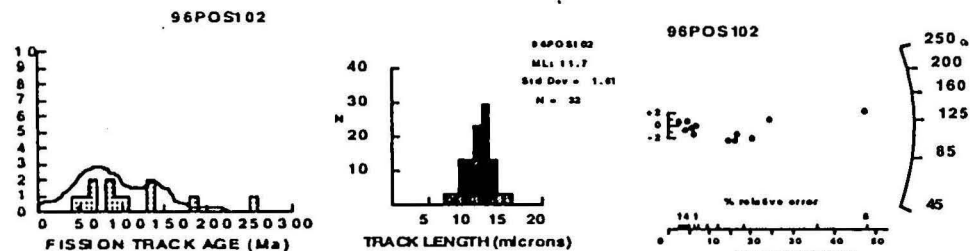
Pooled Age = 116.2 ± 7.2 Ma

Central Age = 96.7 ± 12.2 Ma

% Variation = 26.54%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.354E+06cm⁻²; ND = 5200



96POS123 [Mt. Agnew Granite, collected on Highway C249 ~0.2 km south of Granville Harbor]

Irradiation LU469-06 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	1	5	64	0.200	0.8	2.002E+04	1.001E+05	55.6 ± 60.9
2	12	98	100	0.122	10.7	1.538E+05	1.256E+06	34.1 ± 10.4
3	2	22	100	0.091	2.4	2.563E+04	2.819E+05	25.3 ± 18.7
4	4	36	100	0.111	3.9	5.126E+04	4.614E+05	31.0 ± 16.3
5	2	8	36	0.250	2.4	7.120E+04	2.848E+05	69.4 ± 54.9
6	2	10	100	0.200	1.1	2.563E+04	1.282E+05	55.6 ± 43.1
7	22	124	56	0.177	24.1	5.035E+05	2.838E+06	49.4 ± 11.4
8	1	3	60	0.333	0.5	2.136E+04	6.408E+04	92.4 ± 106.7
9	2	8	100	0.250	0.9	2.563E+04	1.025E+05	69.4 ± 54.9
10	3	5	60	0.600	0.9	6.408E+04	1.068E+05	165.4 ± 120.8
11	9	35	100	0.257	3.8	1.153E+05	4.485E+05	71.4 ± 26.7
12	2	11	60	0.182	2.0	4.272E+04	2.350E+05	50.6 ± 38.9
13	1	5	36	0.200	1.5	3.560E+04	1.780E+05	55.6 ± 60.9
14	1	2	50	0.500	0.4	2.563E+04	5.126E+04	138.1 ± 169.2
15	2	8	60	0.250	1.4	4.272E+04	1.709E+05	69.4 ± 54.9
16	6	11	80	0.545	1.5	9.612E+04	1.762E+05	150.6 ± 76.4
17	2	10	100	0.200	1.1	2.563E+04	1.282E+05	55.6 ± 43.1
18	3	14	100	0.214	1.5	3.845E+04	1.794E+05	59.6 ± 37.9
19	2	9	100	0.222	1.0	2.563E+04	1.153E+05	61.8 ± 48.3
20	1	8	64	0.125	1.4	2.002E+04	1.602E+05	34.8 ± 36.9
21	2	6	49	0.333	1.3	5.231E+04	1.569E+05	92.4 ± 75.5
22	1	5	100	0.200	0.5	1.282E+04	6.408E+04	55.6 ± 60.9
23	2	9	100	0.222	1.0	2.563E+04	1.153E+05	61.8 ± 48.3
24	1	6	100	0.167	0.7	1.282E+04	7.689E+04	46.4 ± 50.1
25	3	7	100	0.429	0.8	3.845E+04	8.971E+04	118.6 ± 81.9
26	3	27	100	0.111	2.9	3.845E+04	3.460E+05	31.0 ± 18.8
	92	492			2.6	5.682E+04	3.039E+05	

Area of basic unit = 7.803E-07 cm²

CHI SQUARED = 8.475075 WITH 25 DEGREES OF FREEDOM

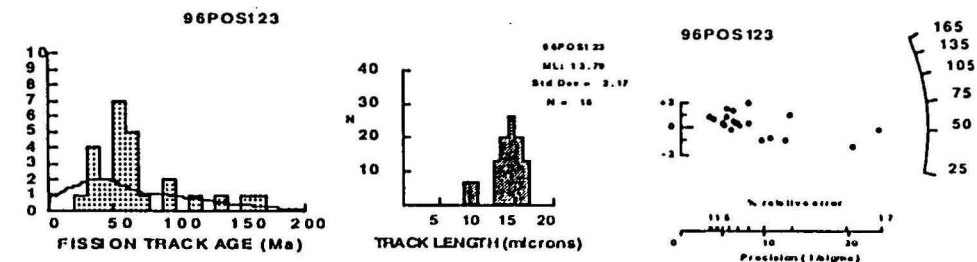
P(chi squared) = 88.4 %

Pooled Age = 52.0 ± 6.0 Ma

Central Age = 52.0 ± 6.0 Ma

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.473E+06cm⁻²; ND = 5744



MH-406 [Lamprophyre dyke in creek in the Sorell Peninsula - collected by M.P. McClenaghan]

Irradiation LU426-10 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	2	5	6	0.400	10.5	4.272E+05	1.068E+06	95.3 ± 79.8
2	7	20	12	0.350	21.1	7.476E+05	2.136E+06	83.5 ± 36.7
3	9	18	4	0.500	56.9	2.884E+06	5.767E+06	118.9 ± 48.6
4	12	26	12	0.462	27.4	1.282E+06	2.777E+06	109.8 ± 38.4
5	0	3	8	0.000	4.7	0.000E+00	4.806E+05	0.0 ± 0.0
6	1	3	12	0.333	3.2	1.068E+05	3.204E+05	79.5 ± 91.8
7	6	10	9	0.600	14.1	8.544E+05	1.424E+06	142.4 ± 73.6
8	2	5	12	0.400	5.3	2.136E+05	5.340E+05	95.3 ± 79.8
9	1	6	16	0.167	4.7	8.010E+04	4.806E+05	39.9 ± 43.1
10	2	7	16	0.286	5.5	1.602E+05	5.607E+05	68.2 ± 54.7
11	1	2	6	0.500	4.2	2.136E+05	4.272E+05	118.9 ± 145.7
12	4	9	12	0.444	9.5	4.272E+05	9.612E+05	105.8 ± 63.6
13	2	5	6	0.400	10.5	4.272E+05	1.068E+06	95.3 ± 79.8
14	3	5	15	0.600	4.2	2.563E+05	4.272E+05	142.4 ± 104.0
52	124			10.7	4.564E+05	1.088E+06		

Area of basic unit = 7.803E-07 cm²

CHI SQUARED = 1.756673 WITH 13 DEGREES OF FREEDOM

P(chi squared) = 99.5 %

CORRELATION COEFFICIENT = 0.959

Pooled Age = 99.9 ± 16.6 Ma

Central Age = 99.9 ± 16.6 Ma

% Variation = 0.00%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.266E+06cm⁻²; ND = 4938

H1 [Biotite adamellite from the Heemskirk granite near the Trial Harbour road - collected by M.P. McClenaghan]

Irradiation LU426-11 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	8	34	20	0.235	21.5	5.126E+05	2.179E+06	56.2 ± 22.1
2	17	55	16	0.309	43.5	1.362E+06	4.405E+06	73.8 ± 20.5
3	18	86	30	0.209	36.3	7.689E+05	3.674E+06	50.0 ± 13.0
4	10	88	50	0.114	22.3	2.563E+05	2.256E+06	27.2 ± 9.1
5	3	30	30	0.100	12.7	1.282E+05	1.282E+06	24.0 ± 14.5
6	9	49	20	0.184	31.0	5.767E+05	3.140E+06	43.9 ± 16.0
7	7	33	9	0.212	46.4	9.968E+05	4.699E+06	50.7 ± 21.1
8	11	90	40	0.122	28.5	3.524E+05	2.884E+06	29.3 ± 9.4
9	5	47	15	0.106	39.6	4.272E+05	4.016E+06	25.5 ± 12.0
10	16	58	20	0.276	36.7	1.025E+06	3.717E+06	65.9 ± 18.6
11	3	10	12	0.300	10.5	3.204E+05	1.068E+06	71.6 ± 47.2
12	8	43	20	0.186	27.2	5.126E+05	2.755E+06	44.5 ± 17.2
13	12	31	16	0.387	24.5	9.612E+05	2.483E+06	92.3 ± 31.4
14	10	34	18	0.294	23.9	7.120E+05	2.421E+06	70.2 ± 25.3
15	15	89	28	0.169	40.2	6.865E+05	4.074E+06	40.3 ± 11.3
16	9	43	32	0.209	17.0	3.604E+05	1.722E+06	50.0 ± 18.4
17	15	55	36	0.273	19.3	5.340E+05	1.958E+06	65.1 ± 19.0
18	8	45	30	0.178	19.0	3.417E+05	1.922E+06	42.5 ± 16.3
19	8	33	14	0.242	29.8	7.323E+05	3.021E+06	57.9 ± 22.8
20	11	52	40	0.212	16.4	3.524E+05	1.666E+06	50.6 ± 16.8
21	15	65	20	0.231	41.1	9.612E+05	4.165E+06	55.2 ± 15.8
22	6	20	15	0.300	16.9	5.126E+05	1.709E+06	71.6 ± 33.4
23	5	18	21	0.278	10.8	3.051E+05	1.098E+06	66.3 ± 33.6
24	5	23	24	0.217	12.1	2.670E+05	1.228E+06	52.0 ± 25.7
25	8	46	50	0.174	11.6	2.050E+05	1.179E+06	41.6 ± 16.0
242	1177			23.8	4.954E+05	2.410E+06		

Area of basic unit = 7.803E-07 cm²

CHI SQUARED = 10.56917 WITH 24 DEGREES OF FREEDOM

P(chi squared) = 63.1 %

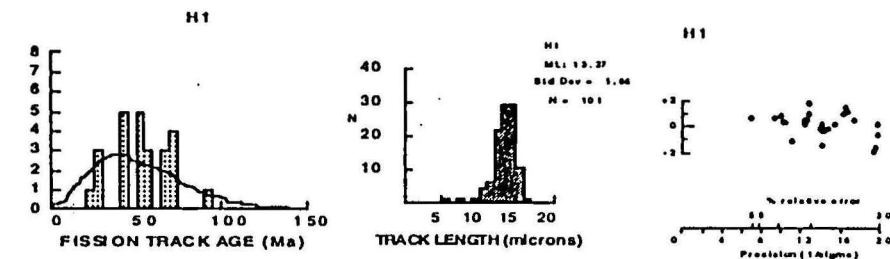
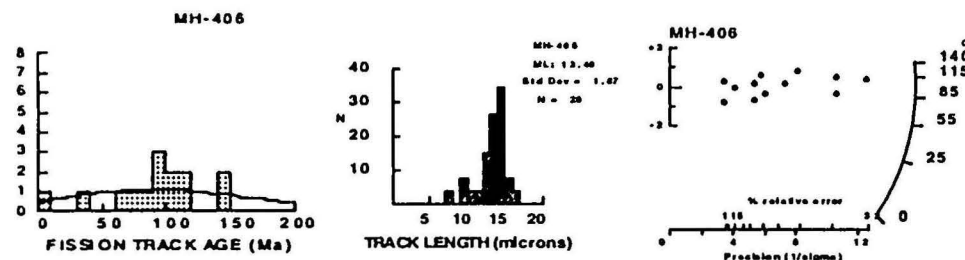
CORRELATION COEFFICIENT = 0.706

Pooled Age = 49.2 ± 3.6 Ma

Central Age = 49.2 ± 3.6 Ma

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.266E+06cm⁻²; ND = 4938



R2809 [Lamprophyre dyke in coastal outcrop in Pt. Hibbs area - collected by M.P. McClenaghan]

Irradiation LU428-14 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	23	84	30	0.274	32.5	9.825E+05	3.588E+06	71.2 ± 16.8
2	2	10	42	0.200	2.8	6.103E+04	3.051E+05	52.1 ± 40.3
3	26	72	60	0.361	13.9	5.553E+05	1.538E+06	93.7 ± 21.5
4	6	32	24	0.188	15.5	3.204E+05	1.709E+06	48.8 ± 21.7
5	8	23	30	0.348	8.9	3.417E+05	9.825E+05	90.3 ± 37.1
6	10	59	40	0.169	17.1	3.204E+05	1.890E+06	44.2 ± 15.1
7	17	51	30	0.333	19.7	7.262E+05	2.179E+06	86.6 ± 24.3
8	6	19	15	0.316	14.7	5.126E+05	1.623E+06	82.0 ± 38.4
9	15	56	35	0.268	18.6	5.492E+05	2.050E+06	69.7 ± 20.3
10	19	67	36	0.284	21.6	6.764E+05	2.385E+06	73.7 ± 19.2
11	25	82	42	0.305	22.7	7.628E+05	2.502E+06	79.2 ± 18.1
157 555					16.8	5.240E+05	1.852E+06	

Area of basic unit = 7.803E-07 cm-2

CHI SQUARED = 2.66113 WITH 10 DEGREES OF FREEDOM

P(chi squared) = 86.9 %

CORRELATION COEFFICIENT = 0.928

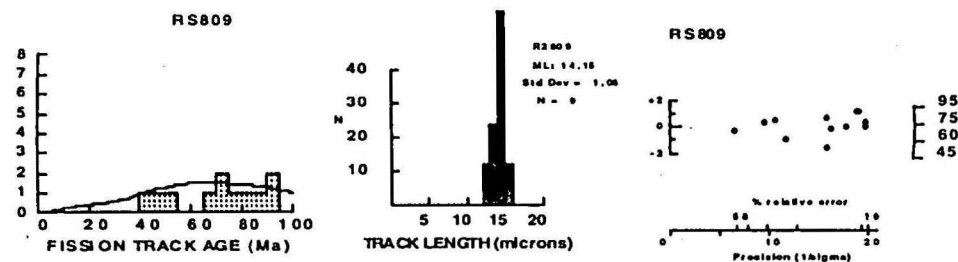
Pooled Age = 73.5 ± 6.7 Ma

Central Age = 73.5 ± 6.7 Ma

% Variation = 0.01%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.379E+06cm-2; ND = 5379



H7 [Biotite granite from small creek near coast ~5 km south of Granville Harbour - collected by M.P. McClenaghan]

Irradiation LU428-15 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	16	74	12	0.216	71.6	1.709E+06	7.903E+06	56.3 ± 15.5
2	17	87	40	0.195	25.3	5.447E+05	2.787E+06	50.9 ± 13.5
3	3	5	48	0.600	1.2	8.010E+04	1.335E+05	155.0 ± 113.2
4	10	23	25	0.435	10.7	5.126E+05	1.179E+06	112.7 ± 42.7
5	8	77	30	0.104	29.8	3.417E+05	3.289E+06	27.1 ± 10.1
6	31	100	12	0.310	96.8	3.311E+06	1.068E+07	80.5 ± 16.6
7	10	37	18	0.270	23.9	7.120E+05	2.634E+06	70.3 ± 25.1
8	2	10	48	0.200	2.4	5.340E+04	2.670E+05	52.1 ± 40.3
9	7	18	24	0.389	8.7	3.738E+05	9.612E+05	100.9 ± 45.0
10	3	10	15	0.300	7.7	2.563E+05	8.544E+05	78.0 ± 51.3
11	6	19	56	0.316	3.9	1.373E+05	4.348E+05	82.0 ± 38.4
12	11	30	25	0.367	13.9	5.639E+05	1.538E+06	95.2 ± 33.6
13	5	14	36	0.357	4.5	1.780E+05	4.984E+05	92.7 ± 48.3
14	19	60	49	0.317	14.2	4.969E+05	1.569E+06	82.3 ± 21.7
15	23	89	32	0.258	32.3	9.211E+05	3.564E+06	67.2 ± 15.8
16	6	19	27	0.316	8.2	2.848E+05	9.018E+05	82.0 ± 38.4
17	14	40	70	0.350	6.6	2.563E+05	7.323E+05	90.9 ± 28.3
18	10	48	24	0.208	23.2	5.340E+05	2.563E+06	54.2 ± 18.9
19	7	20	30	0.350	7.7	2.990E+05	8.544E+05	90.9 ± 39.9
20	2	5	14	0.400	4.1	1.831E+05	4.577E+05	103.7 ± 86.8
21	9	43	27	0.209	18.5	4.272E+05	2.041E+06	54.5 ± 20.0
22	6	31	32	0.194	11.3	2.403E+05	1.242E+06	50.4 ± 22.5
23	8	56	30	0.143	21.7	3.417E+05	2.392E+06	37.2 ± 14.1
24	3	15	60	0.200	2.9	6.408E+04	3.204E+05	52.1 ± 32.9
25	6	19	27	0.316	8.2	2.848E+05	9.018E+05	82.0 ± 38.4
242 949					13.6	3.824E+05	1.500E+06	

Area of basic unit = 7.803E-07 cm-2

CHI SQUARED = 10.68258 WITH 24 DEGREES OF FREEDOM

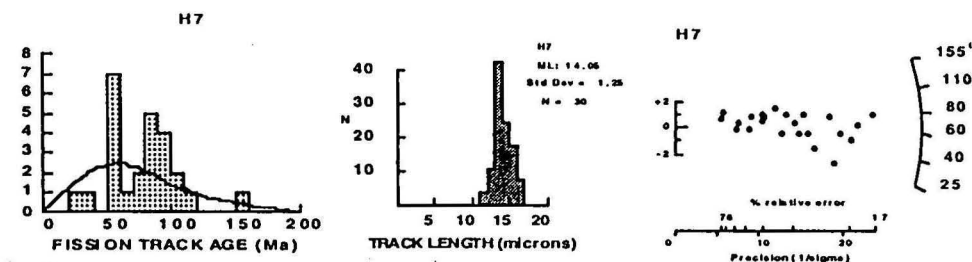
P(chi squared) = 61.7 %

Pooled Age = 66.3 ± 4.9 Ma

Central Age = 66.6 ± 5.1 Ma

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.379E+06cm-2; ND = 5379



96POS57 [sample from Parmeener Super Group, collected along Lyell Highway north of New Norfolk]

Irradiation LU464-02 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	34	36	100	0.944	4.6	4.357E+05	4.614E+05	220.6 ± 52.9
2	57	72	100	0.792	9.2	7.305E+05	9.227E+05	185.4 ± 33.0
3	29	66	100	0.439	8.4	3.717E+05	8.458E+05	103.6 ± 23.1
4	37	37	100	1.000	4.7	4.742E+05	4.742E+05	233.3 ± 54.4
5	18	28	100	0.643	3.6	2.307E+05	3.588E+05	150.9 ± 45.7
6	58	65	80	0.892	10.4	9.291E+05	1.041E+06	208.6 ± 37.8
7	50	52	100	0.962	6.6	6.408E+05	6.664E+05	224.5 ± 44.6
8	35	45	100	0.778	5.8	4.485E+05	5.767E+05	182.2 ± 41.2
9	51	52	100	0.981	6.6	6.536E+05	6.664E+05	228.9 ± 45.3
10	33	59	100	0.559	7.5	4.229E+05	7.561E+05	131.5 ± 28.7
11	25	31	100	0.806	4.0	3.204E+05	3.973E+05	188.8 ± 50.8
12	54	60	100	0.900	7.7	6.920E+05	7.689E+05	210.3 ± 39.6
13	49	67	100	0.731	8.6	6.280E+05	8.586E+05	171.4 ± 32.3
14	55	59	100	0.932	7.5	7.049E+05	7.561E+05	217.7 ± 41.0
15	44	70	100	0.629	8.9	5.639E+05	8.971E+05	147.6 ± 28.5
16	25	24	100	1.042	3.1	3.204E+05	3.076E+05	242.8 ± 69.5
17	30	68	100	0.441	8.7	3.845E+05	8.715E+05	104.0 ± 22.8
18	45	52	100	0.865	6.6	5.767E+05	6.664E+05	202.4 ± 41.3
19	48	59	100	0.814	7.5	6.151E+05	7.561E+05	190.4 ± 37.1
20	55	63	100	0.873	8.1	7.049E+05	8.074E+05	204.1 ± 37.8
21	43	63	100	0.683	8.1	5.511E+05	8.074E+05	160.1 ± 31.8
22	47	61	100	0.770	7.8	6.023E+05	7.818E+05	180.5 ± 35.2
23	68	104	100	0.654	13.3	8.715E+05	1.333E+06	153.5 ± 24.1
24	57	68	100	0.838	8.7	7.305E+05	8.715E+05	196.1 ± 35.4
25	37	46	100	0.804	5.9	4.742E+05	5.895E+05	188.3 ± 41.7
1084		1407			7.3	5.602E+05	7.271E+05	

Area of basic unit = 7.803E-07 cm²

CHI SQUARED = 13.91959 WITH 24 DEGREES OF FREEDOM

P(chi squared) = 26.7 %

Pooled Age = 180.5 ± 7.9 Ma

Central Age = 180.6 ± 8.2Ma

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.253E+06cm⁻²; ND = 4887

96POS69 [sample from Parmeener Super Group, collected at south end of Spring Beach]

Irradiation LU464-11 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	5	17	36	0.294	6.0	1.780E+05	6.052E+05	69.5 ± 35.4
2	4	20	9	0.200	28.4	5.696E+05	2.848E+06	47.3 ± 25.9
3	2	9	8	0.222	14.4	3.204E+05	1.442E+06	52.6 ± 41.1
4	6	22	32	0.273	8.8	2.403E+05	8.811E+05	64.5 ± 29.7
5	2	14	36	0.143	5.0	7.120E+04	4.984E+05	33.8 ± 25.6
6	147	297	60	0.495	63.3	3.140E+06	6.344E+06	116.5 ± 11.9
7	48	233	56	0.206	53.2	1.098E+06	5.332E+06	48.8 ± 7.8
8	9	24	50	0.375	6.1	2.307E+05	6.151E+05	88.5 ± 34.6
9	7	17	40	0.412	5.4	2.243E+05	5.447E+05	97.1 ± 43.6
10	4	11	16	0.364	8.8	3.204E+05	8.811E+05	85.8 ± 50.1
11	10	68	40	0.147	21.7	3.204E+05	2.179E+06	34.8 ± 11.8
12	10	54	48	0.185	14.4	2.670E+05	1.442E+06	43.8 ± 15.1
13	4	21	32	0.190	8.4	1.602E+05	8.410E+05	45.1 ± 24.6
14	8	20	20	0.400	12.8	5.126E+05	1.282E+06	94.3 ± 39.5
15	10	73	60	0.137	15.6	2.136E+05	1.559E+06	32.5 ± 11.0
16	35	125	48	0.280	33.3	9.345E+05	3.337E+06	66.2 ± 12.7
17	3	12	25	0.250	6.1	1.538E+05	6.151E+05	59.1 ± 38.2
18	9	26	16	0.346	20.8	7.209E+05	2.083E+06	81.7 ± 31.6
19	36	163	48	0.221	43.4	9.612E+05	4.352E+06	52.3 ± 9.7
20	3	8	20	0.375	5.1	1.922E+05	5.126E+05	88.5 ± 59.9
21	20	56	15	0.357	47.7	1.709E+06	4.784E+06	84.3 ± 22.0
22	8	20	18	0.400	14.2	5.696E+05	1.424E+06	94.3 ± 39.5
23	5	34	16	0.147	27.2	4.005E+05	2.723E+06	34.8 ± 16.7
24	13	54	90	0.241	7.7	1.851E+05	7.689E+05	56.9 ± 17.6
25	45	191	64	0.236	38.2	9.011E+05	3.825E+06	55.7 ± 9.3
453		1589			22.5	6.429E+05	2.255E+06	

Area of basic unit = 7.803E-07 cm²

CHI SQUARED = 28.40939 WITH 24 DEGREES OF FREEDOM

P(chi squared) = 0.0 %

Pooled Age = 67.4 ± 3.8 Ma

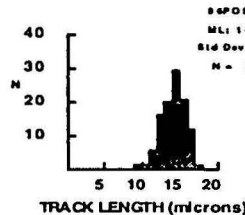
Central Age = 62.7 ± 5.7Ma

% Variation = 27.93%

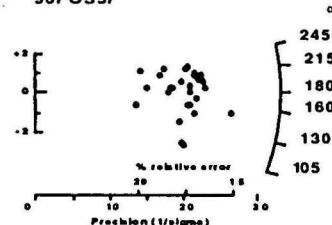
Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.253E+06cm⁻²; ND = 4887

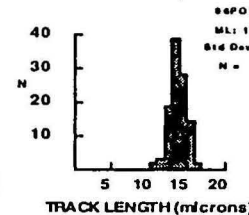
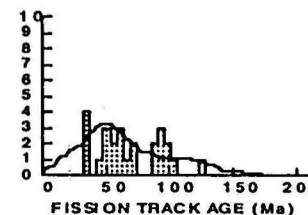
96POS57



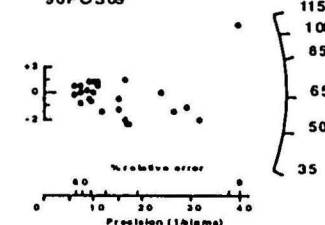
96POS57



96POS69



96POS69



96POS70 [sample from Parmeener Super Group]

Irradiation LU464-12 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	3	10	18	0.300	7.1	2.136E+05	7.120E+05	70.9 ± 46.7
2	11	35	20	0.314	22.4	7.049E+05	2.243E+06	74.2 ± 25.7
3	20	46	40	0.435	14.7	6.408E+05	1.474E+06	102.5 ± 27.5
4	3	18	18	0.167	12.8	2.136E+05	1.282E+06	39.5 ± 24.6
5	10	12	30	0.833	5.1	4.272E+05	5.126E+05	195.0 ± 83.6
6	37	186	25	0.199	95.1	1.897E+06	9.535E+06	47.1 ± 8.5
7	41	130	21	0.315	79.1	2.502E+06	7.933E+06	74.5 ± 13.4
8	15	35	56	0.429	8.0	3.433E+05	8.010E+05	101.0 ± 31.2
9	12	14	24	0.857	7.5	6.408E+05	7.476E+05	200.5 ± 78.9
10	25	85	24	0.294	45.3	1.335E+06	4.539E+06	69.5 ± 15.9
11	10	33	18	0.303	23.4	7.120E+05	2.350E+06	71.6 ± 25.9
187				604	26.3	8.151E+05	2.633E+06	

Area of basic unit = 7.803E-07 cm²

CHI SQUARED = 11.53351 WITH 10 DEGREES OF FREEDOM

P(chi squared) = 1.0%

CORRELATION COEFFICIENT = 0.922

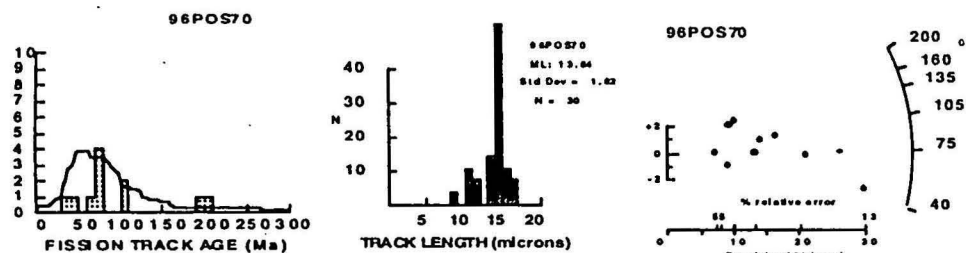
Pooled Age = 73.1 ± 6.2 Ma

Central Age = 81.1 ± 10.1 Ma

% Variation = 26.37%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.253E+06cm⁻²; ND = 4887



96POS71 [Isaacs Point Granite, collected north of Friendly Beach, at Isaacs Point]

Irradiation LU465-01 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	11	25	40	0.440	7.8	3.524E+05	8.010E+05	106.5 ± 38.6
2	10	34	36	0.294	11.8	3.560E+05	1.210E+06	71.4 ± 25.7
3	3	17	50	0.176	4.2	7.689E+04	4.357E+05	42.9 ± 26.9
4	6	30	50	0.200	7.5	1.538E+05	7.689E+05	48.6 ± 21.8
5	2	14	50	0.143	3.5	5.126E+04	3.588E+05	34.8 ± 26.3
6	17	93	50	0.183	23.2	4.357E+05	2.384E+06	44.5 ± 11.7
7	12	37	100	0.324	4.6	1.538E+05	4.742E+05	78.7 ± 26.2
8	4	13	40	0.308	4.0	1.282E+05	4.165E+05	74.6 ± 42.7
9	2	12	50	0.167	3.0	5.126E+04	3.076E+05	40.5 ± 31.0
10	2	18	35	0.111	6.4	7.323E+04	6.591E+05	27.1 ± 20.2
11	4	28	60	0.143	5.8	8.544E+04	5.981E+05	34.8 ± 18.6
12	4	39	48	0.103	10.1	1.068E+05	1.041E+06	25.0 ± 13.1
13	3	20	21	0.150	11.9	1.831E+05	1.221E+06	36.5 ± 22.6
14	6	13	50	0.462	3.2	1.538E+05	3.332E+05	111.6 ± 55.1
15	3	19	70	0.158	3.4	5.492E+04	3.479E+05	38.4 ± 23.9
16	8	65	60	0.123	13.5	1.709E+05	1.388E+06	30.0 ± 11.2
17	15	67	70	0.224	11.9	2.746E+05	1.227E+06	54.4 ± 15.6
18	37	131	60	0.282	27.2	7.903E+05	2.798E+06	68.6 ± 12.8
19	4	15	50	0.267	3.7	1.025E+05	3.845E+05	64.7 ± 36.4
20	7	23	80	0.304	3.6	1.121E+05	3.684E+05	73.8 ± 31.9
21	3	24	70	0.125	4.3	5.492E+04	4.394E+05	30.4 ± 18.6
22	2	12	25	0.167	6.0	1.025E+05	6.151E+05	40.5 ± 31.0
23	1	5	32	0.200	1.9	4.005E+04	2.002E+05	48.6 ± 53.3
24	13	62	40	0.210	19.3	4.165E+05	1.986E+06	51.0 ± 15.6
25	3	29	50	0.103	7.2	7.689E+04	7.433E+05	25.2 ± 15.3
182				845	8.2	1.812E+05	8.414E+05	

Area of basic unit = 7.803E-07 cm²

CHI SQUARED = 10.99375 WITH 24 DEGREES OF FREEDOM

P(chi squared) = 58.0%

CORRELATION COEFFICIENT = 0.914

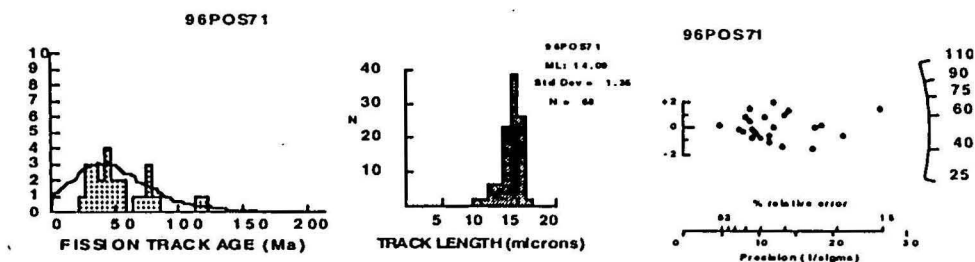
Pooled Age = 52.3 ± 4.4 Ma

Central Age = 52.1 ± 4.5 Ma

% Variation = 9.58%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.287E+06cm⁻²; ND = 5020



96POS73 [Cape Tourville Granite, collected at south end of Bluestone Bay]

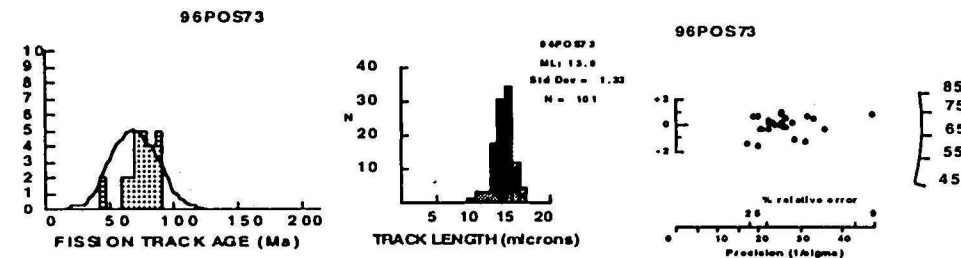
Irradiation LU465-02 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	22	66	16	0.333	51.3	1.762E+06	5.286E+06	80.8 ± 19.9
2	20	59	12	0.339	61.2	2.136E+06	6.301E+06	82.2 ± 21.3
3	39	134	45	0.291	37.1	1.111E+06	3.816E+06	70.6 ± 12.9
4	26	84	50	0.310	20.9	6.664E+05	2.153E+06	75.1 ± 16.9
5	10	56	24	0.179	29.0	5.340E+05	2.990E+06	43.4 ± 14.9
6	30	106	32	0.283	41.2	1.201E+06	4.245E+06	68.7 ± 14.2
7	33	145	20	0.228	90.2	2.115E+06	9.291E+06	55.3 ± 10.7
8	22	85	16	0.259	66.1	1.762E+06	6.808E+06	62.8 ± 15.1
9	32	109	36	0.294	37.7	1.139E+06	3.880E+06	71.2 ± 14.4
10	32	115	24	0.278	59.6	1.709E+06	6.141E+06	67.5 ± 13.5
11	20	59	18	0.339	40.8	1.424E+06	4.201E+06	82.2 ± 21.3
12	58	187	40	0.310	58.2	1.858E+06	5.991E+06	75.2 ± 11.4
13	60	220	40	0.273	68.5	1.922E+06	7.049E+06	66.2 ± 9.7
14	35	106	42	0.330	31.4	1.068E+06	3.234E+06	80.1 ± 15.7
15	37	109	35	0.339	38.8	1.355E+06	3.991E+06	82.3 ± 15.7
16	40	176	30	0.227	73.0	1.709E+06	7.518E+06	55.2 ± 9.7
17	53	169	60	0.314	35.1	1.132E+06	3.610E+06	76.1 ± 12.0
18	19	73	20	0.260	45.4	1.217E+06	4.678E+06	63.2 ± 16.3
19	27	92	16	0.293	71.6	2.163E+06	7.369E+06	71.2 ± 15.6
20	33	119	40	0.277	37.0	1.057E+06	3.813E+06	67.3 ± 13.3
21	28	99	40	0.283	30.8	8.971E+05	3.172E+06	68.6 ± 14.7
22	117	377	72	0.310	65.2	2.083E+06	6.710E+06	75.3 ± 8.1
23	13	73	25	0.178	36.3	6.664E+05	3.742E+06	43.3 ± 13.1
24	37	120	36	0.308	41.5	1.317E+06	4.272E+06	74.8 ± 14.1
25	25	86	24	0.291	44.6	1.335E+06	4.592E+06	70.5 ± 16.1
868				3024	46.3	1.368E+06	4.767E+06	

Area of basic unit = 7.803E-07 cm²
 CHI SQUARED = 6.089471 WITH 24 DEGREES OF FREEDOM
 P(chi squared) = 97.8 %
 CORRELATION COEFFICIENT = 0.977

Pooled Age = 69.7 ± 2.9 Ma
 Central Age = 69.7 ± 2.9Ma
 % Variation = 0.00%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm
 RHO D = 1.287E+06cm⁻²; ND = 5020



96POS76 [Freycinet Granite, collected along western coast of Freycinet Pen.]

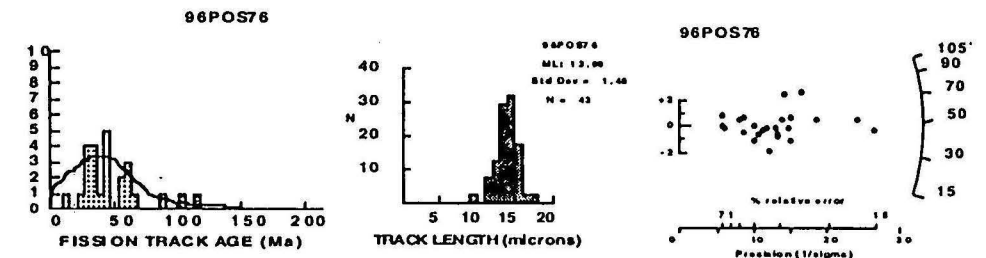
Irradiation LU465-03 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	6	51	30	0.118	21.2	2.563E+05	2.179E+06	28.6 ± 12.4
2	11	46	60	0.239	9.5	2.350E+05	9.825E+05	58.1 ± 19.5
3	25	118	60	0.212	24.5	5.340E+05	2.520E+06	51.5 ± 11.4
4	3	25	56	0.120	5.6	6.865E+04	5.721E+05	29.2 ± 17.9
5	8	45	36	0.178	15.6	2.848E+05	1.602E+06	43.2 ± 16.6
6	26	146	48	0.178	37.9	6.942E+05	3.898E+06	43.3 ± 9.2
7	6	36	40	0.167	11.2	1.922E+05	1.153E+06	40.5 ± 17.9
8	4	22	36	0.182	7.6	1.424E+05	7.832E+05	44.2 ± 24.0
9	5	29	36	0.172	10.0	1.780E+05	1.032E+06	41.9 ± 20.3
10	2	35	60	0.057	7.3	4.272E+04	7.476E+05	13.9 ± 10.1
11	2	6	20	0.333	3.7	1.282E+05	3.845E+05	80.8 ± 66.0
12	2	24	50	0.083	6.0	5.126E+04	6.151E+05	20.3 ± 14.9
13	1	7	28	0.143	3.1	4.577E+04	3.204E+05	34.8 ± 37.2
14	2	17	28	0.118	7.6	9.154E+04	7.781E+05	28.6 ± 21.4
15	4	15	30	0.267	6.2	1.709E+05	6.408E+05	64.7 ± 36.4
16	15	70	36	0.214	24.2	5.340E+05	2.492E+06	52.1 ± 14.8
17	5	38	60	0.132	7.9	1.068E+05	8.117E+05	32.0 ± 15.2
18	4	27	50	0.148	6.7	1.025E+05	6.920E+05	36.0 ± 19.3
19	1	8	50	0.125	2.0	2.563E+04	2.050E+05	30.4 ± 32.3
20	9	39	20	0.231	24.3	5.767E+05	2.499E+06	56.1 ± 20.8
21	5	39	50	0.128	9.7	1.282E+05	9.996E+05	31.2 ± 14.8
22	3	13	15	0.231	10.8	2.563E+05	1.111E+06	56.1 ± 35.9
23	15	34	36	0.441	11.8	5.340E+05	1.210E+06	106.8 ± 33.1
24	2	17	50	0.118	4.2	5.126E+04	4.357E+05	28.6 ± 21.4
25	19	47	40	0.404	14.6	6.087E+05	1.506E+06	97.9 ± 26.7
185				954	11.6	2.313E+05	1.193E+06	

Area of basic unit = 7.803E-07 cm²
 CHI SQUARED = 13.33883 WITH 24 DEGREES OF FREEDOM
 P(chi squared) = 32.0 %
 CORRELATION COEFFICIENT = 0.891

Pooled Age = 47.1 ± 3.9 Ma
 Central Age = 46.7 ± 4.3Ma
 % Variation = 18.01%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm
 RHO D = 1.287E+06cm⁻²; ND = 5020



96POS93 [Maria Island Granite, collected at top of flats at Cape des Tombeaux]

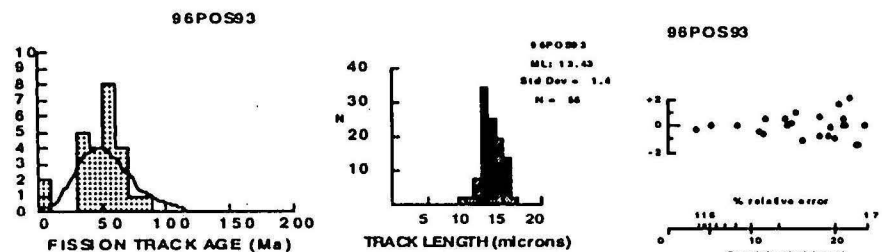
Irradiation LU468-05 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	20	96	40	0.208	29.0	6.408E+05	3.076E+06	52.2 ± 12.8
2	4	29	25	0.138	14.0	2.050E+05	1.487E+06	34.6 ± 18.5
3	13	81	16	0.160	61.2	1.041E+06	6.488E+06	40.2 ± 12.0
4	25	82	40	0.305	24.8	8.010E+05	2.627E+06	76.2 ± 17.4
5	14	88	30	0.159	35.4	5.981E+05	3.759E+06	39.9 ± 11.5
6	17	115	24	0.148	57.9	9.078E+05	6.141E+06	37.1 ± 9.6
7	9	43	49	0.209	10.6	2.354E+05	1.125E+06	52.4 ± 19.2
8	20	96	30	0.208	38.7	8.544E+05	4.101E+06	52.2 ± 12.8
9	13	47	52	0.277	10.9	3.204E+05	1.158E+06	69.2 ± 21.7
10	25	119	30	0.210	47.9	1.068E+06	5.084E+06	52.6 ± 11.6
11	1	6	64	0.167	1.1	2.002E+04	1.201E+05	41.8 ± 45.1
12	7	28	24	0.250	14.1	3.738E+05	1.495E+06	62.5 ± 26.4
13	10	40	32	0.250	15.1	4.005E+05	1.602E+06	62.5 ± 22.1
14	0	3	16	0.000	2.3	0.000E+00	2.403E+05	0.0 ± 0.0
15	12	74	40	0.162	22.3	3.845E+05	2.371E+06	40.6 ± 12.7
16	4	26	20	0.154	15.7	2.563E+05	1.666E+06	38.6 ± 20.7
17	20	95	60	0.211	19.1	4.272E+05	2.029E+06	52.7 ± 13.0
18	30	91	20	0.330	55.0	1.922E+06	5.831E+06	82.4 ± 17.4
19	3	15	24	0.200	7.6	1.602E+05	8.010E+05	50.1 ± 31.7
20	21	92	24	0.228	46.3	1.121E+06	4.913E+06	57.1 ± 13.8
21	0	3	80	0.000	0.5	0.000E+00	4.806E+04	0.0 ± 0.0
22	16	82	30	0.195	33.0	6.835E+05	3.503E+06	48.9 ± 13.4
23	8	59	40	0.136	17.8	2.563E+05	1.890E+06	34.0 ± 12.8
24	10	46	20	0.217	27.8	6.408E+05	2.948E+06	54.4 ± 19.0
25	17	69	30	0.246	27.8	7.262E+05	2.948E+06	61.6 ± 16.7
319		1525			21.4	4.754E+05	2.273E+06	

Area of basic unit = 7.803E-07 cm²
 CHI SQUARED = 8.54237 WITH 24 DEGREES OF FREEDOM
 P(chi squared) = 84.5 %
 CORRELATION COEFFICIENT = 0.896

Pooled Age = 52.4 ± 3.3 Ma
 Central Age = 52.4 ± 3.3 Ma
 % Variation = 1.69%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm
 RHO D = 1.326E+06cm⁻²; ND = 5200



96POS94 [Maria Island Granite, collected at northeast corner of Haunted Bay]

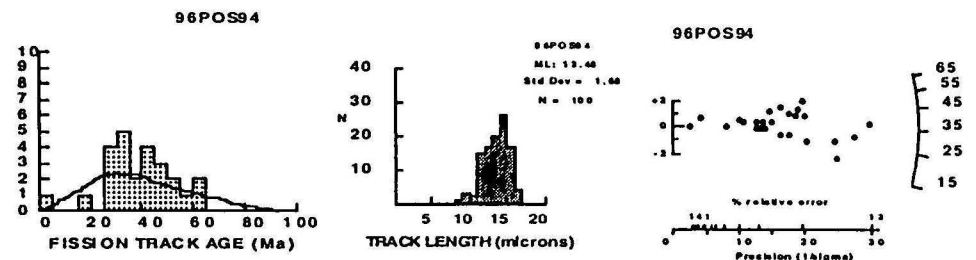
Irradiation LU468-06 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	2	15	49	0.133	3.7	5.231E+04	3.923E+05	33.6 ± 25.3
2	7	63	60	0.111	12.6	1.495E+05	1.346E+06	28.0 ± 11.2
3	21	174	100	0.121	20.9	2.691E+05	2.230E+06	30.4 ± 7.0
4	8	50	60	0.160	10.0	1.709E+05	1.068E+06	40.3 ± 15.4
5	5	41	50	0.122	9.9	1.282E+05	1.051E+06	30.7 ± 14.6
6	1	4	30	0.250	1.6	4.272E+04	1.709E+05	62.9 ± 70.3
7	4	23	80	0.174	3.5	6.408E+04	3.684E+05	43.8 ± 23.7
8	0	2	100	0.000	0.2	0.000E+00	2.563E+04	0.0 ± 0.0
9	11	149	100	0.074	17.9	1.410E+05	1.910E+06	18.6 ± 5.8
10	16	88	50	0.182	21.2	4.101E+05	2.256E+06	45.8 ± 12.5
11	13	58	60	0.224	11.6	2.777E+05	1.239E+06	56.4 ± 17.3
12	13	67	42	0.194	19.2	3.967E+05	2.044E+06	48.9 ± 14.8
13	20	82	100	0.244	9.9	2.563E+05	1.051E+06	61.4 ± 15.3
14	16	77	48	0.208	19.3	4.272E+05	2.056E+06	52.3 ± 14.4
15	5	38	49	0.132	9.3	1.308E+05	9.939E+05	33.2 ± 15.8
16	6	37	80	0.162	5.6	9.612E+04	5.927E+05	40.9 ± 18.0
17	14	76	56	0.184	16.3	3.204E+05	1.739E+06	46.4 ± 13.5
18	30	203	100	0.148	24.4	3.845E+05	2.602E+06	37.2 ± 7.3
19	10	99	80	0.101	14.9	1.602E+05	1.586E+06	25.5 ± 8.5
20	15	140	60	0.107	28.0	3.204E+05	2.990E+06	27.0 ± 7.4
21	8	72	60	0.111	14.4	1.709E+05	1.538E+06	28.0 ± 10.5
22	7	43	24	0.163	21.5	3.738E+05	2.296E+06	41.0 ± 16.7
23	6	45	60	0.133	9.0	1.282E+05	9.612E+05	33.6 ± 14.6
24	4	26	40	0.154	7.8	1.282E+05	8.330E+05	38.8 ± 20.8
25	10	47	56	0.213	10.1	2.288E+05	1.076E+06	53.6 ± 18.7
252		1719			13.0	2.026E+05	1.382E+06	

Area of basic unit = 7.803E-07 cm²
 CHI SQUARED = 10.77817 WITH 24 DEGREES OF FREEDOM
 P(chi squared) = 60.6 %
 CORRELATION COEFFICIENT = 0.864

Pooled Age = 36.9 ± 2.6 Ma
 Central Age = 37.3 ± 2.8 Ma
 % Variation = 11.87%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm
 RHO D = 1.333E+06cm⁻²; ND = 5200



96POS112 [Freycinet Granite, collected at 215 m elevation along Mt. Amos trail]

Irradiation LU469-04 Counted by: P. O'Sullivan

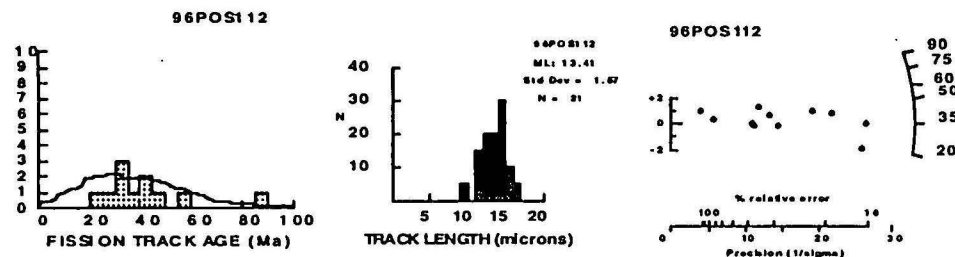
No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	3	26	21	0.115	14.0	1.831E+05	1.587E+06	31.0 ± 18.9
2	6	27	16	0.222	19.0	4.806E+05	2.163E+06	59.5 ± 26.9
3	13	74	30	0.176	27.8	5.553E+05	3.161E+06	47.1 ± 14.2
4	15	95	45	0.158	23.8	4.272E+05	2.706E+06	42.3 ± 11.8
5	11	147	16	0.075	103.7	8.811E+05	1.177E+07	20.1 ± 6.3
6	6	36	24	0.167	16.9	3.204E+05	1.922E+06	44.7 ± 19.7
7	1	3	28	0.333	1.2	4.577E+04	1.373E+05	89.1 ± 102.8
8	5	44	25	0.114	19.9	2.563E+05	2.256E+06	30.5 ± 14.4
9	1	7	56	0.143	1.4	2.288E+04	1.602E+05	38.3 ± 41.0
10	3	27	21	0.111	14.5	1.831E+05	1.648E+06	29.8 ± 18.2
11	19	146	20	0.130	82.4	1.217E+06	9.355E+06	34.9 ± 8.5
	83	632			23.6	3.522E+05	2.682E+06	

Area of basic unit = 7.803E-07 cm²
 CHI SQUARED = 3.656232 WITH 10 DEGREES OF FREEDOM
 P(chi squared) = 69.6 %
 CORRELATION COEFFICIENT = 0.890

Pooled Age = 35.2 ± 4.1 Ma

Central Age = 35.3 ± 4.2 Ma
 % Variation = 5.98%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm
 RHO D = 1.419E+06cm⁻²; ND = 5744



CBG-1 [Coles Bay Granite-I drillhole, depth: 9-10 m]

Irradiation LU426-01 Counted by: P. O'Sullivan

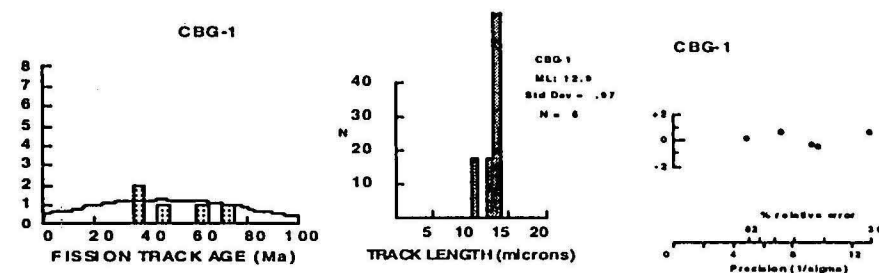
No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	1	5	4	0.200	15.8	3.204E+05	1.602E+06	47.8 ± 52.4
2	3	10	16	0.300	7.9	2.403E+05	8.010E+05	71.6 ± 47.2
3	3	20	18	0.150	14.1	2.136E+05	1.424E+06	35.9 ± 22.2
4	9	34	40	0.265	10.8	2.884E+05	1.089E+06	63.2 ± 23.7
5	3	18	36	0.167	6.3	1.068E+05	6.408E+05	39.9 ± 24.9
	19	87			9.7	2.136E+05	9.780E+05	

Area of basic unit = 7.803E-07 cm²
 CHI SQUARED = .5332875 WITH 4 DEGREES OF FREEDOM
 P(chi squared) = 90.0 %
 CORRELATION COEFFICIENT = 0.925

Pooled Age = 52.2 ± 13.2 Ma

Central Age = 52.2 ± 13.2Ma
 % Variation = 0.00%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm
 RHO D = 1.266E+06cm⁻²; ND = 4938



CBG-2 [Coles Bay Granite-1 drillhole, depth: 192-193 m]

Irradiation LU426-02 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	4	12	12	0.333	12.7	4.272E+05	1.282E+06	79.5 ± 45.9
2	2	14	9	0.143	19.7	2.848E+05	1.994E+06	34.2 ± 25.9
3	3	28	25	0.107	14.2	1.538E+05	1.435E+06	25.7 ± 15.6
4	7	81	64	0.086	16.0	1.402E+05	1.622E+06	20.7 ± 8.2
5	2	13	12	0.154	13.7	2.136E+05	1.388E+06	36.8 ± 28.0
6	5	30	16	0.167	23.7	4.005E+05	2.403E+06	39.9 ± 19.3
7	9	33	30	0.273	13.9	3.845E+05	1.410E+06	65.1 ± 24.5
8	3	19	18	0.158	13.4	2.136E+05	1.353E+06	37.8 ± 23.5
	35	230			15.6	2.412E+05	1.585E+06	

Area of basic unit = 7.803E-07 cm-2

CHI SQUARED = 3.459405 WITH 7 DEGREES OF FREEDOM

P(chi squared) = 43.7 %

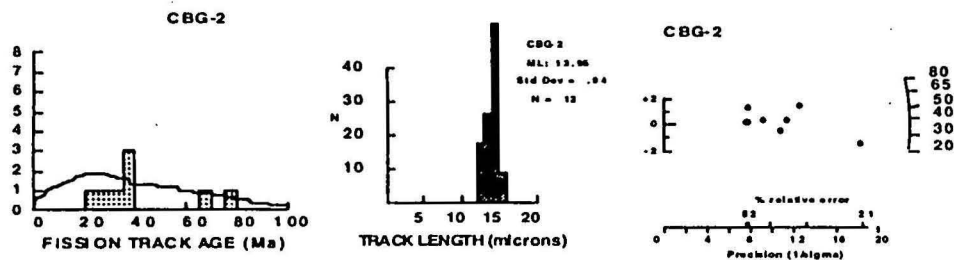
CORRELATION COEFFICIENT = 0.632

Pooled Age = 36.4 ± 6.6 Ma

Central Age = 37.3 ± 7.2Ma

% Variation = 17.41%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm
RHO D = 1.266E+06cm-2; ND = 4938



CBG-3 [Coles Bay Granite-1 drillhole, depth: 407-408 m]

Irradiation LU427-01 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	0	3	9	0.000	4.0	0.000E+00	4.272E+05	0.0 ± 0.0
2	1	10	16	0.100	7.6	8.010E+04	8.010E+05	25.0 ± 26.2
3	11	93	30	0.118	37.6	4.699E+05	3.973E+06	29.6 ± 9.4
4	8	21	40	0.381	6.4	2.563E+05	6.728E+05	94.7 ± 39.4
5	7	52	16	0.135	39.4	5.607E+05	4.165E+06	33.6 ± 13.5
6	15	98	40	0.153	29.7	4.806E+05	3.140E+06	38.2 ± 10.6
7	23	91	32	0.253	34.5	9.211E+05	3.644E+06	63.0 ± 14.7
8	4	13	12	0.308	13.1	4.272E+05	1.388E+06	76.6 ± 43.8
9	3	22	12	0.136	22.2	3.204E+05	2.350E+06	34.1 ± 21.0
10	4	31	24	0.129	15.7	2.136E+05	1.655E+06	32.2 ± 17.1
11	2	3	6	0.667	6.1	4.272E+05	6.408E+05	164.8 ± 150.5
12	3	7	9	0.429	9.4	4.272E+05	9.968E+05	106.5 ± 73.5
13	4	18	12	0.222	18.2	4.272E+05	1.922E+06	55.4 ± 30.6
14	4	16	6	0.250	32.3	8.544E+05	3.417E+06	62.3 ± 34.8
15	7	52	24	0.135	26.3	3.738E+05	2.777E+06	33.6 ± 13.5
16	3	32	18	0.094	21.6	2.136E+05	2.278E+06	23.4 ± 14.2
17	5	62	25	0.081	30.1	2.563E+05	3.178E+06	20.2 ± 9.4
18	3	30	14	0.100	26.0	2.746E+05	2.746E+06	25.0 ± 15.1
19	9	51	25	0.176	24.7	4.614E+05	2.614E+06	44.0 ± 15.9
20	5	32	30	0.156	12.9	2.136E+05	1.367E+06	39.0 ± 18.8
21	3	43	24	0.070	21.7	1.602E+05	2.296E+06	17.4 ± 10.4
22	23	125	60	0.184	25.3	4.913E+05	2.670E+06	45.9 ± 10.4
23	5	23	16	0.217	17.4	4.005E+05	1.842E+06	54.2 ± 26.8
24	18	90	60	0.200	18.2	3.845E+05	1.922E+06	49.9 ± 12.9
25	11	45	30	0.244	18.2	4.699E+05	1.922E+06	60.9 ± 20.5
	181	1063			21.8	3.932E+05	2.309E+06	

Area of basic unit = 7.803E-07 cm-2

CHI SQUARED = 12.69376 WITH 24 DEGREES OF FREEDOM

P(chi squared) = 38.5 %

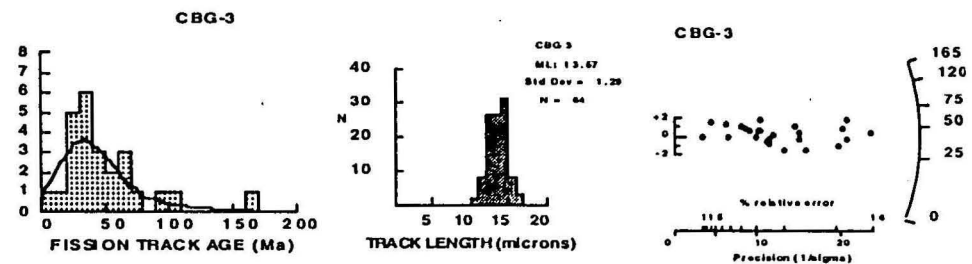
CORRELATION COEFFICIENT = 0.888

Pooled Age = 42.5 ± 3.5 Ma

Central Age = 42.5 ± 3.5Ma

% Variation = 6.44%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm
RHO D = 1.321E+06cm-2; ND = 5155



CBG-4 [Coles Bay Granite-1 drillhole, depth: 605-607 m]

Irradiation LU427-02 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	2	7	6	0.286	14.1	4.272E+05	1.495E+06	71.2 ± 57.1
2	2	20	42	0.100	5.8	6.103E+04	6.103E+05	25.0 ± 18.5
3	23	193	80	0.119	29.3	3.684E+05	3.092E+06	29.8 ± 6.6
4	12	42	40	0.286	12.7	3.845E+05	1.346E+06	71.2 ± 23.3
5	6	62	24	0.097	31.3	3.204E+05	3.311E+06	24.2 ± 10.4
6	2	12	35	0.167	4.2	7.323E+04	4.394E+05	41.6 ± 31.8
7	2	5	9	0.400	6.7	2.848E+05	7.120E+05	99.4 ± 83.2
8	6	15	26	0.400	7.0	2.957E+05	7.394E+05	99.4 ± 48.0
9	12	77	80	0.156	11.7	1.922E+05	1.234E+06	38.9 ± 12.1
10	2	9	24	0.222	4.5	1.068E+05	4.806E+05	55.4 ± 43.3
11	10	121	40	0.083	36.7	3.204E+05	3.877E+06	20.7 ± 6.8
12	16	70	50	0.229	17.0	4.101E+05	1.794E+06	57.0 ± 15.8
13	8	48	60	0.167	9.7	1.709E+05	1.025E+06	41.6 ± 15.9
14	17	113	32	0.150	42.8	6.808E+05	4.526E+06	37.6 ± 9.8
15	4	17	6	0.235	34.4	8.544E+05	3.631E+06	58.7 ± 32.6
16	3	13	24	0.231	6.6	1.602E+05	6.942E+05	57.5 ± 36.9
17	2	9	10	0.222	10.9	2.563E+05	1.153E+06	55.4 ± 43.3
129		833			17.2	2.812E+05	1.816E+06	

Area of basic unit = 7.803E-07 cm²

CHI SQUARED = 9.991037 WITH 16 DEGREES OF FREEDOM

P(chi squared) = 22.1 %

CORRELATION COEFFICIENT = 0.898

Pooled Age = 38.7 ± 3.7 Ma

Central Age = 40.8 ± 4.7Ma

% Variation = 20.37%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.321E+06cm⁻²; ND = 5155

CBG-5 [Coles Bay Granite-1 drillhole, depth: 803-805 m]

Irradiation LU427-03 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	11	107	50	0.103	26.0	2.819E+05	2.743E+06	25.7 ± 8.1
2	0	3	20	0.000	1.8	0.000E+00	1.922E+05	0.0 ± 0.0
3	2	36	32	0.056	13.6	8.010E+04	1.442E+06	13.9 ± 10.1
4	3	27	15	0.111	21.8	2.563E+05	2.307E+06	27.8 ± 16.9
5	5	39	36	0.128	13.1	1.780E+05	1.388E+06	32.0 ± 15.2
6	15	69	30	0.217	27.9	6.408E+05	2.948E+06	54.2 ± 15.5
7	2	9	10	0.222	10.9	2.563E+05	1.153E+06	55.4 ± 43.3
8	8	39	40	0.205	11.8	2.563E+05	1.250E+06	51.2 ± 19.9
9	8	65	40	0.123	19.7	2.563E+05	2.083E+06	30.8 ± 11.5
10	28	120	28	0.233	52.0	1.282E+06	5.492E+06	58.2 ± 12.2
11	45	211	50	0.213	51.2	1.153E+06	5.408E+06	53.2 ± 8.8
12	13	65	40	0.200	19.7	4.165E+05	2.083E+06	49.9 ± 15.2
13	0	6	12	0.000	6.1	0.000E+00	6.408E+05	0.0 ± 0.0
14	8	43	60	0.186	8.7	1.709E+05	9.184E+05	46.4 ± 17.9
15	0	6	25	0.000	2.9	0.000E+00	3.076E+05	0.0 ± 0.0
16	6	36	30	0.167	14.6	2.563E+05	1.538E+06	41.6 ± 18.4
17	3	13	18	0.231	8.8	2.136E+05	9.256E+05	57.5 ± 36.9
18	6	18	36	0.333	6.1	2.136E+05	6.408E+05	83.0 ± 39.1
19	9	27	20	0.333	16.4	5.767E+05	1.730E+06	83.0 ± 32.0
20	2	19	12	0.105	19.2	2.136E+05	2.029E+06	26.3 ± 19.6
21	2	3	6	0.667	6.1	4.272E+05	6.408E+05	164.8 ± 150.5
22	1	7	15	0.143	5.7	8.544E+04	5.981E+05	35.7 ± 38.1
23	6	35	18	0.171	23.6	4.272E+05	2.492E+06	42.8 ± 18.9
24	9	48	50	0.188	11.6	2.307E+05	1.230E+06	46.8 ± 17.0
25	3	21	28	0.143	9.1	1.373E+05	9.612E+05	35.7 ± 22.0
195		1072			18.0	3.466E+05	1.905E+06	

Area of basic unit = 7.803E-07 cm²

CHI SQUARED = 10.96569 WITH 24 DEGREES OF FREEDOM

P(chi squared) = 58.3 %

CORRELATION COEFFICIENT = 0.953

Pooled Age = 45.4 ± 3.6 Ma

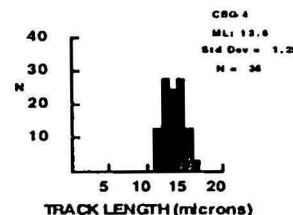
Central Age = 45.2 ± 3.7Ma

% Variation = 6.99%

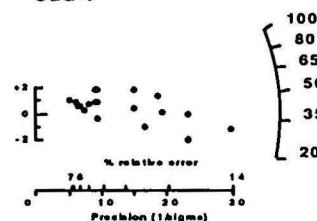
Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.321E+06cm⁻²; ND = 5155

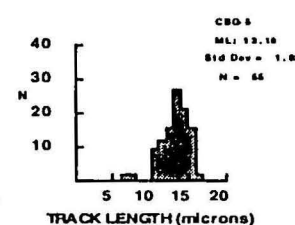
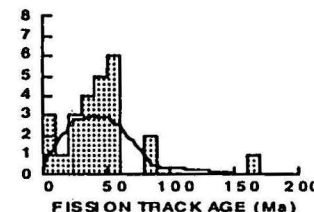
CBG-4



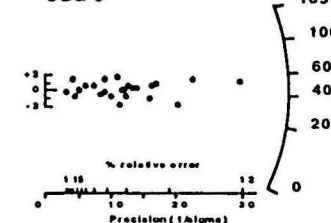
CBG-4



CBG-5



CBG-5



CBG-6 [Coles Bay Granite-1 drillhole, depth: 1006-1007 m]

Irradiation LU427-04 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	FT.AGE(Ma)
1.	11	39	36	0.282	13.1	3.916E+05	1.388E+06	70.3 ± 24.0
2	2	19	18	0.105	12.8	1.424E+05	1.353E+06	26.3 ± 19.6
3	3	21	15	0.143	17.0	2.563E+05	1.794E+06	35.7 ± 22.0
4	4	15	12	0.267	15.2	4.272E+05	1.602E+06	66.4 ± 37.4
5	4	22	12	0.182	22.2	4.272E+05	2.350E+06	45.4 ± 24.7
6	3	23	9	0.130	31.0	4.272E+05	3.275E+06	32.6 ± 20.0
7	5	26	18	0.192	17.5	3.560E+05	1.851E+06	48.0 ± 23.4
8	3	30	16	0.100	22.7	2.403E+05	2.403E+06	25.0 ± 15.1
9	10	47	24	0.213	23.7	5.340E+05	2.510E+06	53.1 ± 18.5
10	5	13	12	0.385	13.1	5.340E+05	1.388E+06	95.6 ± 50.3
11	17	45	16	0.378	34.1	1.362E+06	3.604E+06	93.9 ± 26.8
12	13	41	20	0.317	24.9	8.330E+05	2.627E+06	78.9 ± 25.2
13	2	19	20	0.105	11.5	1.282E+05	1.217E+06	26.3 ± 19.6
14	13	80	36	0.162	26.9	4.628E+05	2.848E+06	40.6 ± 12.1
15	3	11	9	0.273	14.8	4.272E+05	1.566E+06	67.9 ± 44.3
16	5	45	27	0.111	20.2	2.373E+05	2.136E+06	27.8 ± 13.1
17	6	19	18	0.316	12.8	4.272E+05	1.353E+06	78.6 ± 36.8
18	16	42	48	0.381	10.6	4.272E+05	1.121E+06	94.7 ± 27.9
19	5	25	20	0.200	15.2	3.204E+05	1.602E+06	49.9 ± 24.5
20	6	14	20	0.429	8.5	3.845E+05	8.971E+05	106.5 ± 52.0
21	8	29	48	0.276	7.3	2.136E+05	7.743E+05	68.7 ± 27.5
22	3	17	14	0.176	14.7	2.746E+05	1.556E+06	44.0 ± 27.6
23	8	47	25	0.170	22.8	4.101E+05	2.409E+06	42.5 ± 16.3
24	18	59	54	0.305	13.2	4.272E+05	1.400E+06	76.0 ± 20.5
25	7	35	24	0.200	17.7	3.738E+05	1.869E+06	49.9 ± 20.7
26	5	41	36	0.122	13.8	1.780E+05	1.460E+06	30.5 ± 14.4
27	4	21	16	0.190	15.9	3.204E+05	1.682E+06	47.5 ± 25.9
28	5	43	48	0.116	10.9	1.335E+05	1.148E+06	29.1 ± 13.7
29	12	126	40	0.095	38.2	3.845E+05	4.037E+06	23.8 ± 7.2
30	8	24	30	0.333	9.7	3.417E+05	1.025E+06	83.0 ± 33.9
214 1038					17.0	3.701E+05	1.795E+06	

Area of basic unit = 7.803E-07 cm-2

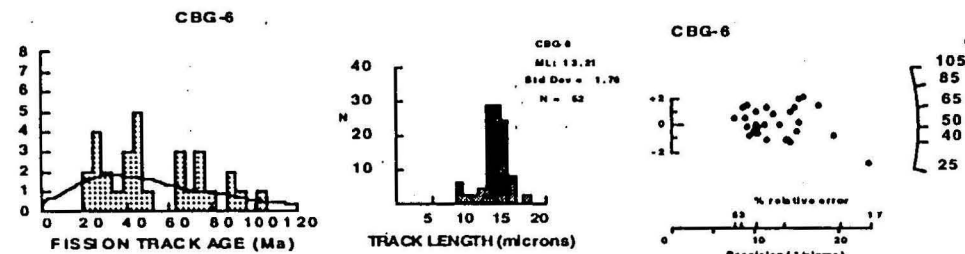
P(chi squared) = 13.2 %

Pooled Age = 51.4 ± 3.9 Ma

Central Age = 52.5 ± 4.8Ma

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.321E+06cm-2; ND = 5155


LC-4 [Granodiorite, Lagunta Creek, Freycinet Peninsula - collected by J.L. Everard]

Irradiation LU427-05 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	FT.AGE(Ma)
1	13	111	100	0.117	13.5	1.666E+05	1.423E+06	29.3 ± 8.6
2	31	159	100	0.195	19.3	3.973E+05	2.038E+06	48.6 ± 9.6
3	70	273	50	0.256	66.2	1.794E+06	6.997E+06	63.9 ± 8.6
4	37	257	100	0.144	31.2	4.742E+05	3.294E+06	36.0 ± 6.3
5	25	147	60	0.170	29.7	5.340E+05	3.140E+06	42.5 ± 9.2
6	123	381	100	0.323	46.2	1.576E+06	4.883E+06	80.4 ± 8.4
7	152	424	80	0.358	64.3	2.435E+06	6.792E+06	89.2 ± 8.5
8	43	133	70	0.323	23.0	7.872E+05	2.435E+06	80.5 ± 14.2
9	49	165	60	0.297	33.3	1.047E+06	3.524E+06	74.0 ± 12.1
10	17	66	100	0.258	8.0	2.179E+05	8.458E+05	64.2 ± 17.5
11	36	155	80	0.232	23.5	5.767E+05	2.483E+06	57.9 ± 10.8
12	128	413	100	0.310	50.1	1.640E+06	5.293E+06	77.2 ± 7.9
13	42	153	60	0.274	30.9	8.971E+05	3.268E+06	68.4 ± 12.0
14	48	278	100	0.173	33.7	6.151E+05	3.563E+06	43.1 ± 6.8
15	35	158	80	0.222	24.0	5.607E+05	2.531E+06	55.2 ± 10.4
16	181	552	100	0.328	66.9	2.320E+06	7.074E+06	81.6 ± 7.1
17	57	251	80	0.227	38.0	9.131E+05	4.021E+06	56.6 ± 8.4
18	49	269	100	0.182	32.6	6.280E+05	3.447E+06	45.5 ± 7.1
19	35	127	30	0.276	51.3	1.495E+06	5.425E+06	68.7 ± 13.2
20	103	418	100	0.246	50.7	1.320E+06	5.357E+06	61.4 ± 6.8
21	33	151	100	0.219	18.3	4.229E+05	1.935E+06	54.5 ± 10.5
22	82	259	50	0.317	62.8	2.102E+06	6.638E+06	78.8 ± 10.1
23	66	233	80	0.283	35.3	1.057E+06	3.733E+06	70.6 ± 9.9
24	91	325	100	0.280	39.4	1.166E+06	4.165E+06	69.8 ± 8.3
25	63	262	80	0.240	39.7	1.009E+06	4.197E+06	59.9 ± 8.5
1609 6120					36.0	1.001E+06	3.807E+06	

Area of basic unit = 7.803E-07 cm-2

CHI SQUARED = 36.24403 WITH 24 DEGREES OF FREEDOM

P(chi squared) = 0.0 %

CORRELATION COEFFICIENT = 0.942

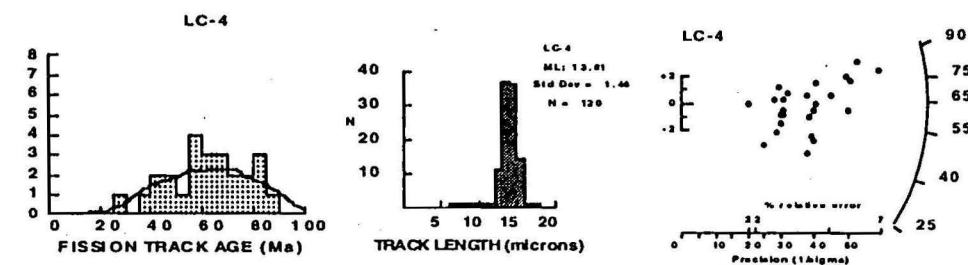
Pooled Age = 65.5 ± 2.1 Ma

Central Age = 62.8 ± 3.3 Ma

% Variation = 19.82%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.321E+06cm-2; ND = 5155



MD-346 [Meadowbanks Damsite HEC-346 drillhole, depth: 3-6 m]

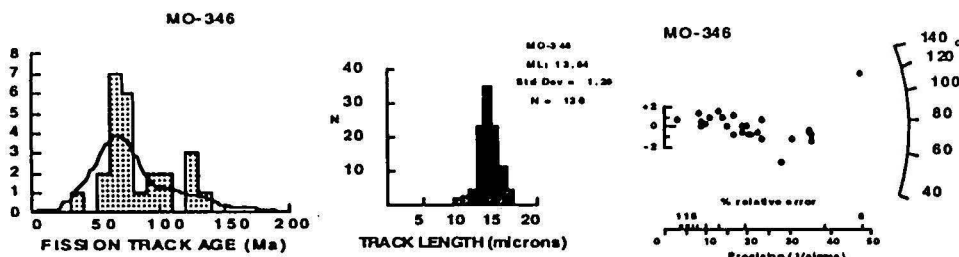
Irradiation LU428-11 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	14	48	60	0.292	8.3	2.990E+05	1.025E+06	75.8 ± 23.1
2	22	74	60	0.297	12.7	4.699E+05	1.581E+06	77.3 ± 18.8
3	198	419	80	0.473	54.0	3.172E+06	6.712E+06	122.4 ± 10.7
4	6	17	48	0.353	3.7	1.602E+05	4.539E+05	91.6 ± 43.5
5	22	93	24	0.237	40.0	1.175E+06	4.966E+06	61.6 ± 14.6
6	1	2	48	0.500	0.4	2.670E+04	5.340E+04	129.4 ± 158.5
7	5	18	32	0.278	5.8	2.002E+05	7.209E+05	72.2 ± 36.5
8	7	13	48	0.538	2.8	1.869E+05	3.471E+05	139.3 ± 65.3
9	71	265	36	0.268	75.9	2.528E+06	9.434E+06	69.7 ± 9.4
10	66	277	90	0.238	31.7	9.398E+05	3.944E+06	62.0 ± 8.5
11	9	23	25	0.391	9.5	4.614E+05	1.179E+06	101.5 ± 39.9
12	19	77	50	0.247	15.9	4.870E+05	1.974E+06	64.2 ± 16.5
13	21	54	64	0.389	8.7	4.205E+05	1.081E+06	100.9 ± 26.0
14	50	208	32	0.240	67.1	2.002E+06	8.330E+06	62.5 ± 9.9
15	27	121	60	0.223	20.8	5.767E+05	2.584E+06	58.1 ± 12.4
16	37	112	36	0.330	32.1	1.317E+06	3.987E+06	85.8 ± 16.3
17	15	32	48	0.469	6.9	4.005E+05	8.544E+05	121.4 ± 38.0
18	14	64	35	0.219	18.9	5.126E+05	2.343E+06	56.9 ± 16.8
19	27	185	60	0.146	31.8	5.767E+05	3.951E+06	38.0 ± 7.9
20	15	41	36	0.366	11.7	5.340E+05	1.460E+06	95.0 ± 28.7
21	6	20	42	0.300	4.9	1.831E+05	6.103E+05	78.0 ± 36.3
22	23	81	60	0.284	13.9	4.913E+05	1.730E+06	73.8 ± 17.5
23	70	270	80	0.259	34.8	1.121E+06	4.325E+06	67.4 ± 9.1
24	28	110	40	0.255	28.4	8.971E+05	3.524E+06	66.2 ± 14.1
25	71	259	48	0.274	55.7	1.896E+06	6.915E+06	71.3 ± 9.6
844				2883	23.9	8.709E+05	2.975E+06	

Area of basic unit = 7.803E-07 cm²
 CHI SQUARED = 30.06345 WITH 24 DEGREES OF FREEDOM
 P(chi squared) = 0.0 %

Pooled Age = 76.1 ± 3.2 Ma
Central Age = 74.3 ± 4.9 Ma
 % Variation = 21.02%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm
 RHO D = 1.379E+06cm⁻²; ND = 5379



96POS59 [sample from quartzite unit within Undiff. Precambrian, collected on Red Knoll Road]

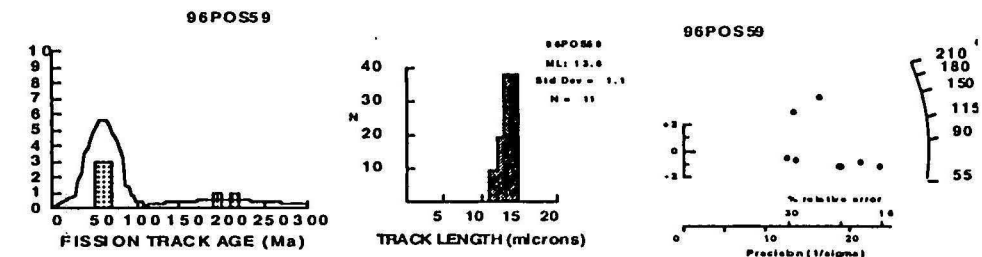
Irradiation LU464-03 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	19	79	12	0.240	84.2	2.029E+06	8.437E+06	56.9 ± 14.6
2	10	41	25	0.244	21.0	5.126E+05	2.102E+06	57.7 ± 20.4
3	22	27	40	0.815	8.6	7.049E+05	8.651E+05	190.7 ± 54.9
4	36	40	9	0.900	56.8	5.126E+06	5.696E+06	210.3 ± 48.4
5	33	125	12	0.264	133.2	3.524E+06	1.335E+07	62.4 ± 12.3
6	9	35	21	0.257	21.3	5.492E+05	2.136E+06	60.8 ± 22.7
7	27	100	16	0.270	79.9	2.163E+06	8.010E+06	63.8 ± 13.9
8	20	82	15	0.244	69.9	1.709E+06	7.006E+06	57.7 ± 14.4
176				529	45.1	1.504E+06	4.520E+06	

Area of basic unit = 7.803E-07 cm²
 CHI SQUARED = 18.77001 WITH 7 DEGREES OF FREEDOM
 P(chi squared) = 0.0 %
 CORRELATION COEFFICIENT = 0.447

Pooled Age = 78.6 ± 7.0 Ma
Central Age = 84.6 ± 16.9 Ma
 % Variation = 50.26%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm
 RHO D = 1.253E+06cm⁻²; ND = 4887



96POS60 [sample from quartzite unit within Undiff. Precambrian, collected on Red Knoll Road]

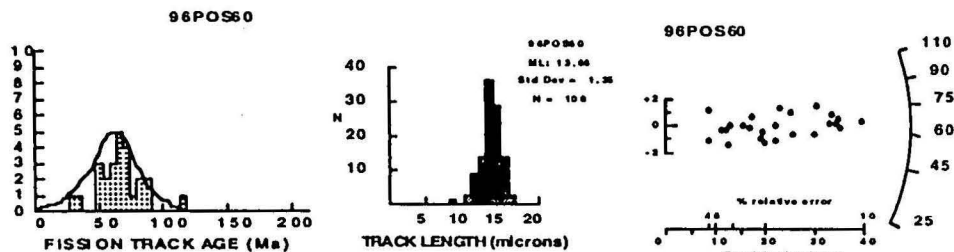
Irradiation LU464-04 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	5	36	36	0.139	12.8	1.780E+05	1.282E+06	32.9 ± 15.7
2	21	103	60	0.204	21.9	4.485E+05	2.200E+06	48.3 ± 11.6
3	60	217	40	0.276	69.4	1.922E+06	6.952E+06	65.4 ± 9.6
4	9	34	32	0.265	13.6	3.604E+05	1.362E+06	62.6 ± 23.5
5	60	175	50	0.343	44.7	1.538E+06	4.485E+06	80.9 ± 12.2
6	19	59	16	0.322	47.1	1.522E+06	4.726E+06	76.1 ± 20.1
7	16	83	18	0.193	59.0	1.139E+06	5.909E+06	45.6 ± 12.5
8	19	78	25	0.244	39.9	9.740E+05	3.998E+06	57.6 ± 14.8
9	69	239	30	0.289	101.9	2.948E+06	1.021E+07	68.2 ± 9.4
10	64	232	32	0.276	92.7	2.563E+06	9.291E+06	65.2 ± 9.3
11	6	13	21	0.462	7.9	3.662E+05	7.933E+05	108.7 ± 53.7
12	66	219	60	0.301	46.7	1.410E+06	4.678E+06	71.2 ± 10.1
13	13	49	16	0.265	39.2	1.041E+06	3.925E+06	62.7 ± 19.6
14	32	136	16	0.235	108.7	2.563E+06	1.089E+07	55.7 ± 11.0
15	2	17	36	0.118	6.0	7.120E+04	6.052E+05	27.9 ± 20.9
16	88	311	50	0.283	79.5	2.256E+06	7.971E+06	66.9 ± 8.1
17	39	120	36	0.325	42.6	1.388E+06	4.272E+06	76.8 ± 14.2
18	26	96	25	0.271	49.1	1.333E+06	4.921E+06	64.0 ± 14.2
19	7	31	15	0.226	26.4	5.981E+05	2.649E+06	53.4 ± 22.4
20	65	247	30	0.263	105.3	2.777E+06	1.055E+07	62.2 ± 8.7
21	35	101	40	0.347	32.3	1.121E+06	3.236E+06	81.8 ± 16.1
22	6	26	30	0.231	11.1	2.563E+05	1.111E+06	54.6 ± 24.7
23	45	185	36	0.243	65.7	1.602E+06	6.586E+06	57.5 ± 9.6
24	15	58	21	0.259	35.3	9.154E+05	3.540E+06	61.1 ± 17.7
25	16	78	16	0.205	62.3	1.282E+06	6.248E+06	48.5 ± 13.3
803				2943	47.8	1.308E+06	4.792E+06	

Area of basic unit = 7.803E-07 cm-2
 CHI SQUARED = 8.205029 WITH 24 DEGREES OF FREEDOM
 P(chi squared) = 87.3 %
 CORRELATION COEFFICIENT = 0.984

Pooled Age = 64.5 ± 2.8 Ma
 Central Age = 64.5 ± 2.7Ma
 % Variation = 0.02%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm
 RHO D = 1.253E+06cm-2; ND = 4887



96POS63 [sample from quartzite unit within Undiff. Precambrian, collected on Gordon River Road]

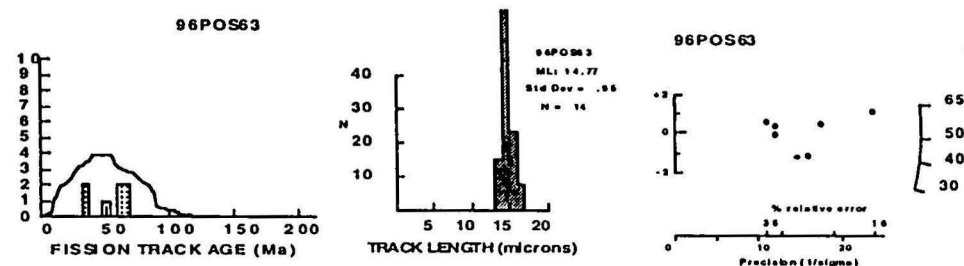
Irradiation LU464-06 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	7	26	24	0.269	13.8	3.738E+05	1.388E+06	63.6 ± 27.1
2	7	34	35	0.206	12.4	2.563E+05	1.245E+06	48.7 ± 20.2
3	8	33	36	0.242	11.7	2.848E+05	1.175E+06	57.3 ± 22.6
4	34	124	50	0.274	31.7	8.715E+05	3.178E+06	64.8 ± 12.6
5	7	52	24	0.135	27.7	3.738E+05	2.777E+06	31.9 ± 12.9
6	9	62	18	0.145	44.0	6.408E+05	4.414E+06	34.4 ± 12.3
7	17	69	20	0.246	44.1	1.089E+06	4.421E+06	58.3 ± 15.8
89				400	24.7	5.510E+05	2.476E+06	

Area of basic unit = 7.803E-07 cm-2
 CHI SQUARED = 2.3202 WITH 6 DEGREES OF FREEDOM
 P(chi squared) = 59.1 %
 CORRELATION COEFFICIENT = 0.945

Pooled Age = 52.6 ± 6.2 Ma
 Central Age = 52.6 ± 6.2Ma
 % Variation = 1.36%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm
 RHO D = 1.253E+06cm-2; ND = 4887



96POS64 [sample from quartzite unit within Dundas Group, collected on Gordon River Road]

Irradiation LU464-08 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	10	30	12	0.333	32.0	1.068E+06	3.204E+06	78.7 ± 28.8
2	6	17	9	0.353	24.1	8.544E+05	2.421E+06	83.3 ± 39.6
3	37	108	48	0.343	28.8	9.879E+05	2.884E+06	80.9 ± 15.5
4	50	193	16	0.259	154.2	4.005E+06	1.546E+07	61.3 ± 9.8
5	31	111	20	0.279	71.0	1.986E+06	7.113E+06	66.0 ± 13.5
6	9	37	28	0.243	16.9	4.119E+05	1.693E+06	57.5 ± 21.4
7	12	38	30	0.316	16.2	5.126E+05	1.623E+06	74.6 ± 24.7
8	11	74	24	0.149	39.4	5.874E+05	3.951E+06	35.2 ± 11.4
9	7	37	30	0.189	15.8	2.990E+05	1.581E+06	44.8 ± 18.5
10	5	15	12	0.333	16.0	5.340E+05	1.602E+06	78.7 ± 40.7
11	17	76	20	0.224	48.6	1.089E+06	4.870E+06	52.9 ± 14.2
12	13	54	30	0.241	23.0	5.553E+05	2.307E+06	56.9 ± 17.6
13	18	76	28	0.237	34.7	8.239E+05	3.479E+06	56.0 ± 14.7
14	34	99	28	0.343	45.2	1.556E+06	4.531E+06	81.1 ± 16.2
15	52	153	48	0.340	40.8	1.388E+06	4.085E+06	80.2 ± 12.9
16	12	35	25	0.343	17.9	6.151E+05	1.794E+06	80.9 ± 27.1
17	19	78	60	0.244	16.6	4.058E+05	1.666E+06	57.6 ± 14.8
18	18	59	28	0.305	26.9	8.239E+05	2.700E+06	72.1 ± 19.4
19	33	174	42	0.190	53.0	1.007E+06	5.309E+06	44.9 ± 8.6
20	13	87	36	0.149	30.9	4.628E+05	3.097E+06	35.4 ± 10.5
21	55	198	56	0.278	45.2	1.259E+06	4.531E+06	65.7 ± 10.1
22	9	26	30	0.346	11.1	3.845E+05	1.111E+06	81.7 ± 31.6
23	5	15	9	0.333	21.3	7.120E+05	2.136E+06	78.7 ± 40.7
24	40	190	36	0.211	67.5	1.424E+06	6.764E+06	49.8 ± 8.7
25	59	229	48	0.258	61.0	1.575E+06	6.114E+06	60.9 ± 8.9
575		2209			37.5	9.786E+05	3.760E+06	

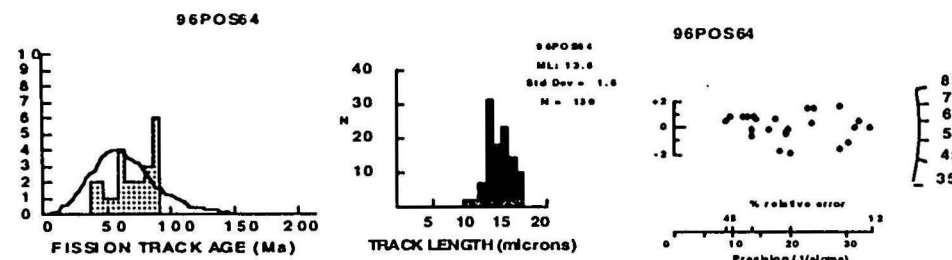
Area of basic unit = 7.803E-07 cm²

CHI SQUARED = 11.28357 WITH 24 DEGREES OF FREEDOM
P(chi squared) = 54.5 %

Pooled Age = 61.5 ± 3.1 Ma

Central Age = 61.6 ± 3.1 Ma
% Variation = 5.82 %

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm
RHO D = 1.253E+06cm⁻²; ND = 4887



96POS80 [quartzite unit within Undiff. Precambrian, collected east of Havelock Bluff]

Irradiation LU465-06 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	2	7	9	0.286	9.7	2.848E+05	9.968E+05	69.3 ± 55.6
2	17	57	20	0.298	35.5	1.089E+06	3.652E+06	72.4 ± 20.0
3	3	15	16	0.200	11.7	2.403E+05	1.201E+06	48.6 ± 30.8
4	5	12	12	0.417	12.4	5.340E+05	1.282E+06	100.9 ± 53.7
5	7	26	14	0.269	23.1	6.408E+05	2.380E+06	65.4 ± 27.9
6	3	7	9	0.429	9.7	4.272E+05	9.968E+05	103.7 ± 71.6
7	20	68	15	0.294	56.4	1.709E+06	5.810E+06	71.4 ± 18.2
8	13	38	12	0.342	39.4	1.388E+06	4.058E+06	82.9 ± 26.7
9	18	63	16	0.286	49.0	1.442E+06	5.046E+06	69.3 ± 18.6
10	3	8	25	0.375	4.0	1.538E+05	4.101E+05	90.9 ± 61.5
11	16	54	20	0.296	33.6	1.025E+06	3.460E+06	71.9 ± 20.5
12	5	19	56	0.263	4.2	1.144E+05	4.348E+05	63.9 ± 32.1
13	5	20	15	0.250	16.6	4.272E+05	1.709E+06	60.7 ± 30.4
117		394			20.5	6.274E+05	2.113E+06	

Area of basic unit = 7.803E-07 cm²

CHI SQUARED = .8293025 WITH 12 DEGREES OF FREEDOM

P(chi squared) = 100.0 %

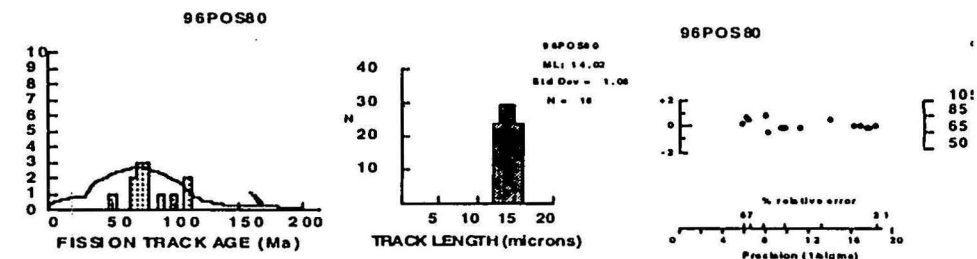
CORRELATION COEFFICIENT = 0.990

Pooled Age = 72.1 ± 7.7 Ma

Central Age = 72.1 ± 7.7 Ma

% Variation = 0.00 %

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm
RHO D = 1.287E+06cm⁻²; ND = 5020



96POS81 [sample from Cox Bight Granite, collected on Point Eric]

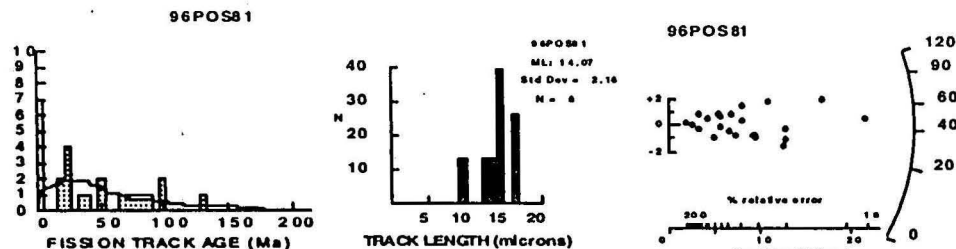
Irradiation LU465-07 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	4	40	24	0.100	20.7	2.136E+05	2.136E+06	24.4 ± 12.8
2	1	11	10	0.091	13.7	1.282E+05	1.410E+06	22.1 ± 23.1
3	3	15	20	0.200	9.3	1.922E+05	9.612E+05	48.6 ± 30.8
4	6	39	18	0.154	27.0	4.272E+05	2.777E+06	37.4 ± 16.4
5	2	6	16	0.333	4.7	1.602E+05	4.806E+05	80.8 ± 66.0
6	21	106	21	0.198	62.8	1.282E+06	6.469E+06	48.2 ± 11.5
7	0	2	15	0.000	1.7	0.000E+00	1.709E+05	0.0 ± 0.0
8	3	40	14	0.075	35.6	2.746E+05	3.662E+06	18.3 ± 10.9
9	2	7	9	0.286	9.7	2.848E+05	9.968E+05	69.3 ± 55.6
10	0	7	16	0.000	5.4	0.000E+00	5.607E+05	0.0 ± 0.0
11	9	24	16	0.375	18.7	7.209E+05	1.922E+06	90.9 ± 35.5
12	5	13	20	0.385	8.1	3.204E+05	8.330E+05	93.2 ± 49.1
13	0	1	24	0.000	0.5	0.000E+00	5.340E+04	0.0 ± 0.0
14	1	14	48	0.071	3.6	2.670E+04	3.738E+05	17.4 ± 18.0
15	0	7	36	0.000	2.4	0.000E+00	2.492E+05	0.0 ± 0.0
16	1	4	12	0.250	4.1	1.068E+05	4.272E+05	60.7 ± 67.9
17	2	23	15	0.087	19.1	1.709E+05	1.965E+06	21.2 ± 15.6
18	1	8	9	0.125	11.1	1.424E+05	1.139E+06	30.4 ± 32.3
19	0	3	20	0.000	1.9	0.000E+00	1.922E+05	0.0 ± 0.0
20	18	58	30	0.310	24.1	7.689E+05	2.478E+06	75.3 ± 20.3
21	0	1	16	0.000	0.8	0.000E+00	8.010E+04	0.0 ± 0.0
22	2	22	16	0.091	17.1	1.602E+05	1.762E+06	22.1 ± 16.4
23	0	3	12	0.000	3.1	0.000E+00	3.204E+05	0.0 ± 0.0
24	1	2	36	0.500	0.7	3.560E+04	7.120E+04	120.9 ± 148.0
25	3	10	12	0.300	10.4	3.204E+05	1.068E+06	72.8 ± 47.9
85				466	12.0	2.246E+05	1.231E+06	

Area of basic unit = 7.803E-07 cm²
 CHI SQUARED = 11.87007 WITH 24 DEGREES OF FREEDOM
 P(chi squared) = 47.7 %
 CORRELATION COEFFICIENT = 0.899

Pooled Age = 44.4 ± 5.3 Ma
 Central Age = 42.8 ± 6.2 Ma
 % Variation = 27.89%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm
 RHO D = 1.287E+06cm⁻²; ND = 5020



96POS82 [sample from S.W. Cape Granite, collected in saddle at northern end of S.W. Cape]

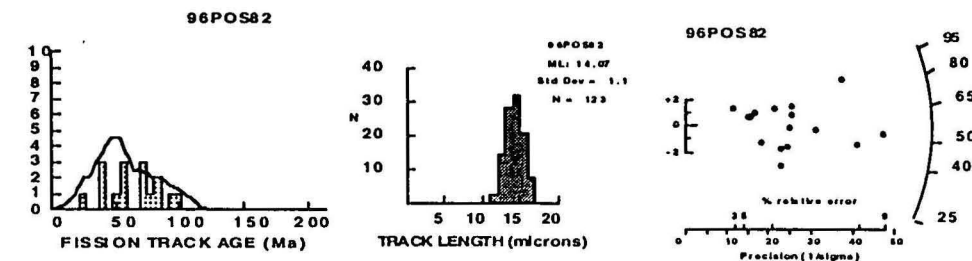
Irradiation LU465-09 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	89	243	60	0.366	50.4	1.901E+06	5.190E+06	88.8 ± 11.1
2	27	121	40	0.223	37.7	8.651E+05	3.877E+06	54.2 ± 11.6
3	13	46	63	0.283	9.1	2.644E+05	9.357E+05	68.6 ± 21.6
4	11	111	60	0.099	23.0	2.350E+05	2.371E+06	24.1 ± 7.6
5	25	79	40	0.316	24.6	8.010E+05	2.531E+06	76.8 ± 17.7
6	33	122	30	0.270	50.6	1.410E+06	5.212E+06	65.7 ± 12.9
7	19	122	30	0.156	50.6	8.117E+05	5.212E+06	37.9 ± 9.4
8	15	48	40	0.312	14.9	4.806E+05	1.538E+06	75.8 ± 22.5
9	10	67	50	0.149	16.7	2.563E+05	1.717E+06	36.3 ± 12.3
10	12	43	60	0.279	8.9	2.563E+05	9.184E+05	67.7 ± 22.1
11	93	435	70	0.214	77.4	1.703E+06	7.964E+06	52.0 ± 6.0
12	41	188	36	0.218	65.0	1.460E+06	6.693E+06	53.0 ± 9.2
13	63	331	60	0.190	68.7	1.346E+06	7.070E+06	46.3 ± 6.4
14	9	23	60	0.391	4.8	1.922E+05	4.913E+05	94.8 ± 37.3
15	16	110	50	0.145	27.4	4.101E+05	2.819E+06	35.4 ± 9.5
16	36	119	40	0.303	37.0	1.153E+06	3.813E+06	73.4 ± 14.0
512				2208	34.8	8.316E+05	3.586E+06	

Area of basic unit = 7.803E-07 cm²
 CHI SQUARED = 19.85255 WITH 15 DEGREES OF FREEDOM
 P(chi squared) = 0.1 %
 CORRELATION COEFFICIENT = 0.910

Pooled Age = 56.3 ± 2.9 Ma
Central Age = 56.6 ± 4.8 Ma
 % Variation = 24.47%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm
 RHO D = 1.287E+06cm⁻²; ND = 5020



96POS84 [sample from pelitic schist within Undiff. Precambrian, collected north end of Wreck Bay]

Irradiation LU465-10 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	2	8	16	0.250	6.2	1.602E+05	6.408E+05	60.7 ± 48.0
2	3	19	21	0.158	11.3	1.831E+05	1.160E+06	38.4 ± 23.9
3	7	34	9	0.206	47.0	9.968E+05	4.841E+06	50.0 ± 20.8
4	9	58	49	0.155	14.7	2.354E+05	1.517E+06	37.8 ± 13.5
5	8	29	20	0.276	18.0	5.126E+05	1.858E+06	67.0 ± 26.8
6	6	19	42	0.316	5.6	1.831E+05	5.798E+05	76.6 ± 35.9
7	11	50	18	0.220	34.6	7.832E+05	3.560E+06	53.5 ± 17.8
8	8	29	42	0.276	8.6	2.441E+05	8.849E+05	67.0 ± 26.8
9	12	47	20	0.255	29.2	7.689E+05	3.012E+06	62.0 ± 20.1
10	3	16	54	0.188	3.7	7.120E+04	3.797E+05	45.6 ± 28.7
11	12	49	25	0.245	24.4	6.151E+05	2.512E+06	59.5 ± 19.2
12	10	49	81	0.204	7.5	1.582E+05	7.753E+05	49.6 ± 17.2
13	4	13	30	0.308	5.4	1.709E+05	5.553E+05	74.6 ± 42.7
14	4	17	56	0.235	3.8	9.154E+04	3.890E+05	57.2 ± 31.8
15	7	45	30	0.156	18.7	2.990E+05	1.922E+06	37.8 ± 15.4
16	5	20	32	0.250	7.8	2.002E+05	8.010E+05	60.7 ± 30.4
17	20	77	30	0.260	31.9	8.544E+05	3.289E+06	63.1 ± 15.9
18	2	7	20	0.286	4.4	1.282E+05	4.485E+05	69.3 ± 55.6
19	16	72	36	0.222	24.9	5.696E+05	2.563E+06	54.0 ± 15.0
20	2	6	15	0.333	5.0	1.709E+05	5.126E+05	80.8 ± 66.0
21	8	29	36	0.276	10.0	2.848E+05	1.032E+06	67.0 ± 26.8
22	17	56	14	0.304	49.8	1.556E+06	5.126E+06	73.7 ± 20.4
23	5	18	9	0.278	24.9	7.120E+05	2.563E+06	67.4 ± 34.1
24	16	61	24	0.262	31.6	8.544E+05	3.257E+06	63.7 ± 17.9
25	3	15	28	0.200	6.7	1.373E+05	6.865E+05	48.6 ± 30.8
200				843	13.9	3.386E+05	1.427E+06	

Area of basic unit = 7.803E-07 cm²

CHI SQUARED = 3.026613 WITH 24 DEGREES OF FREEDOM

P(chi squared) = 100.0 %

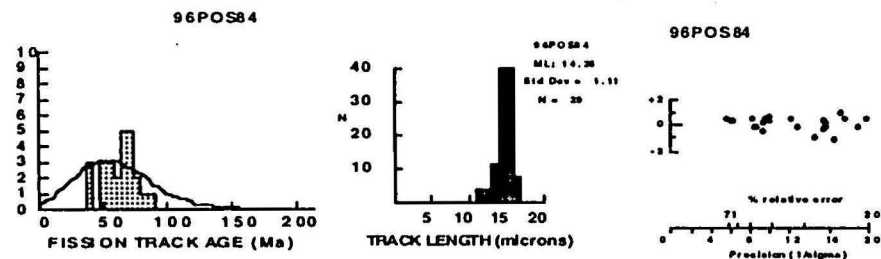
Pooled Age = 57.6 ± 4.6 Ma

Central Age = 57.6 ± 4.6 Ma

% Variation = 0.00%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.287E+06cm⁻²; ND = 5020



96POS86 [sample from Elliot Bay Granite, collected at southern tip of Low Rocky Point]

Irradiation LU465-11 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	14	53	36	0.264	18.3	4.984E+05	1.887E+06	64.1 ± 19.3
2	9	33	20	0.273	20.5	5.767E+05	2.115E+06	66.2 ± 24.9
3	41	149	25	0.275	74.2	2.102E+06	7.638E+06	66.8 ± 11.8
4	1	4	64	0.250	0.8	2.002E+04	8.010E+04	60.7 ± 67.9
5	9	44	30	0.205	18.3	3.845E+05	1.880E+06	49.7 ± 18.2
6	10	32	16	0.312	24.9	8.010E+05	2.563E+06	75.8 ± 27.5
7	10	65	36	0.154	22.5	3.560E+05	2.314E+06	37.4 ± 12.7
8	6	27	15	0.222	22.4	5.126E+05	2.307E+06	54.0 ± 24.4
9	1	5	20	0.200	3.1	6.408E+04	3.204E+05	48.6 ± 53.3
10	11	36	36	0.306	12.4	3.916E+05	1.282E+06	74.1 ± 25.6
11	13	48	30	0.271	19.9	5.553E+05	2.050E+06	65.8 ± 20.6
12	10	39	16	0.256	30.3	8.010E+05	3.124E+06	62.3 ± 22.1
13	3	15	56	0.200	3.3	6.865E+04	3.433E+05	48.6 ± 30.8
14	33	125	16	0.264	97.2	2.643E+06	1.001E+07	64.1 ± 12.6
15	17	54	42	0.315	16.0	5.187E+05	1.648E+06	76.4 ± 21.3
16	14	63	20	0.222	39.2	8.971E+05	4.037E+06	54.0 ± 16.0
17	9	29	25	0.310	14.4	4.614E+05	1.487E+06	75.3 ± 28.8
18	20	129	18	0.155	89.2	1.424E+06	9.184E+06	37.7 ± 9.1
19	40	145	36	0.276	50.1	1.424E+06	5.162E+06	67.0 ± 12.0
20	5	24	16	0.208	18.7	4.005E+05	1.922E+06	50.6 ± 24.9
21	11	40	20	0.275	24.9	7.049E+05	2.563E+06	66.8 ± 22.8
22	7	27	30	0.259	11.2	2.990E+05	1.153E+06	63.0 ± 26.7
23	10	41	18	0.244	28.4	7.120E+05	2.919E+06	59.2 ± 20.9
24	8	30	42	0.267	8.9	2.441E+05	9.154E+05	64.7 ± 25.8
25	9	33	42	0.273	9.8	2.746E+05	1.007E+06	66.2 ± 24.9
321				1290	22.1	5.674E+05	2.280E+06	

Area of basic unit = 7.803E-07 cm²

CHI SQUARED = 4.85355 WITH 24 DEGREES OF FREEDOM

P(chi squared) = 99.6 %

CORRELATION COEFFICIENT = 0.951

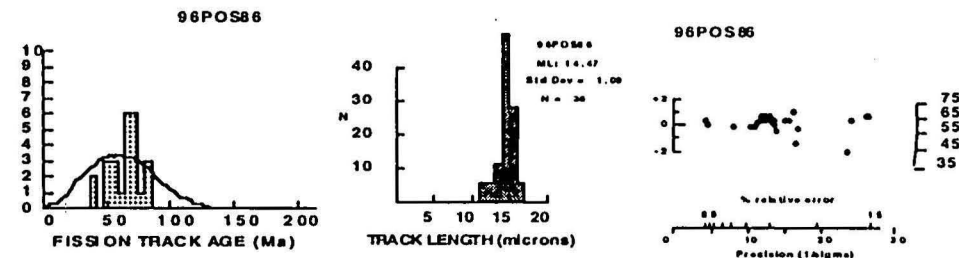
Pooled Age = 60.4 ± 3.9 Ma

Central Age = 60.4 ± 3.9 Ma

% Variation = 0.10%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.287E+06cm⁻²; ND = 5020



69 [Precambrian amphibolite body in the Strathgordon area - collected by M.P. McClenaghan]

Irradiation LU426-12 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	1	4	16	0.250	3.2	8.010E+04	3.204E+05	59.7 ± 66.8
2	1	5	15	0.200	4.2	8.544E+04	4.272E+05	47.8 ± 52.4
3	3	12	21	0.250	7.2	1.831E+05	7.323E+05	59.7 ± 38.6
4	2	10	25	0.200	5.1	1.025E+05	5.126E+05	47.8 ± 37.1
5	4	5	12	0.800	5.3	4.272E+05	5.340E+05	189.2 ± 127.0
6	3	6	9	0.500	8.4	4.272E+05	8.544E+05	118.9 ± 84.1
7	3	8	12	0.375	8.4	3.204E+05	8.544E+05	89.4 ± 60.5
8	2	4	12	0.500	4.2	2.136E+05	4.272E+05	118.9 ± 103.0
9	0	2	28	0.000	0.9	0.000E+00	9.154E+04	0.0 ± 0.0
10	0	3	9	0.000	4.2	0.000E+00	4.272E+05	0.0 ± 0.0
11	0	2	4	0.000	6.3	0.000E+00	6.408E+05	0.0 ± 0.0
12	3	5	30	0.600	2.1	1.282E+05	2.136E+05	142.4 ± 104.0
13	1	6	16	0.167	4.7	8.010E+04	4.806E+05	39.9 ± 43.1
14	2	3	24	0.667	1.6	1.068E+05	1.602E+05	158.1 ± 144.3
15	2	7	6	0.286	14.8	4.272E+05	1.495E+06	68.2 ± 54.7
27				82	4.3	1.448E+05	4.397E+05	

Area of basic unit = 7.803E-07 cm²

CHI SQUARED = 3.721142 WITH 14 DEGREES OF FREEDOM

P(chi squared) = 91.6 %

CORRELATION COEFFICIENT = 0.563

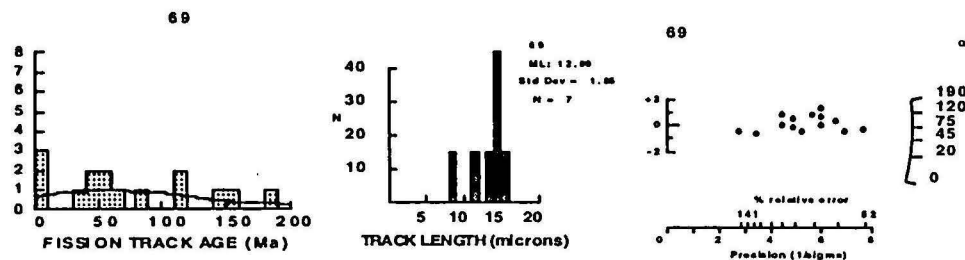
Pooled Age = 78.6 ± 17.5 Ma

Central Age = 78.6 ± 17.5 Ma

% Variation = 0.01%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.266E+06cm⁻²; ND = 4938



V-733 [Elliot Bay granite, western Elliot Bay - collected by J. Pemberton]

Irradiation LU426-13 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	1	3	9	0.333	4.2	1.424E+05	4.272E+05	79.5 ± 91.8
2	7	56	48	0.125	14.8	1.869E+05	1.495E+06	29.9 ± 12.0
3	11	66	60	0.167	13.9	2.350E+05	1.410E+06	39.9 ± 13.0
4	8	30	60	0.267	6.3	1.709E+05	6.408E+05	63.7 ± 25.4
5	2	14	20	0.143	8.9	1.282E+05	8.971E+05	34.2 ± 25.9
6	2	13	16	0.154	10.3	1.602E+05	1.041E+06	36.8 ± 28.0
7	6	19	36	0.316	6.7	2.136E+05	6.764E+05	75.4 ± 35.3
8	5	130	100	0.038	16.4	6.408E+04	1.666E+06	9.2 ± 4.2
9	10	58	64	0.172	11.5	2.002E+05	1.161E+06	41.3 ± 14.1
10	4	13	12	0.308	13.7	4.272E+05	1.388E+06	73.4 ± 42.0
11	8	48	64	0.167	9.5	1.602E+05	9.612E+05	39.9 ± 15.2
12	3	10	30	0.300	4.2	1.282E+05	4.272E+05	71.6 ± 47.2
13	6	63	20	0.095	39.9	3.845E+05	4.037E+06	22.8 ± 9.8
14	4	15	24	0.267	7.9	2.136E+05	8.010E+05	63.7 ± 35.9
15	2	19	56	0.105	4.3	4.577E+04	4.348E+05	25.2 ± 18.8
16	6	22	54	0.273	5.2	1.424E+05	5.221E+05	65.1 ± 30.0
17	2	16	9	0.125	22.5	2.848E+05	2.278E+06	29.9 ± 22.5
18	4	12	64	0.333	2.4	8.010E+04	2.403E+05	79.5 ± 45.9
19	7	52	25	0.135	26.3	3.588E+05	2.666E+06	32.2 ± 13.0
20	5	26	21	0.192	15.7	3.051E+05	1.587E+06	46.0 ± 22.5
21	2	6	16	0.333	4.7	1.602E+05	4.806E+05	79.5 ± 64.9
22	2	7	18	0.286	4.9	1.424E+05	4.984E+05	68.2 ± 54.7
107				698	10.7	1.660E+05	1.083E+06	

Area of basic unit = 7.803E-07 cm²

CHI SQUARED = 13.42062 WITH 21 DEGREES OF FREEDOM

P(chi squared) = 17.6 %

CORRELATION COEFFICIENT = 0.588

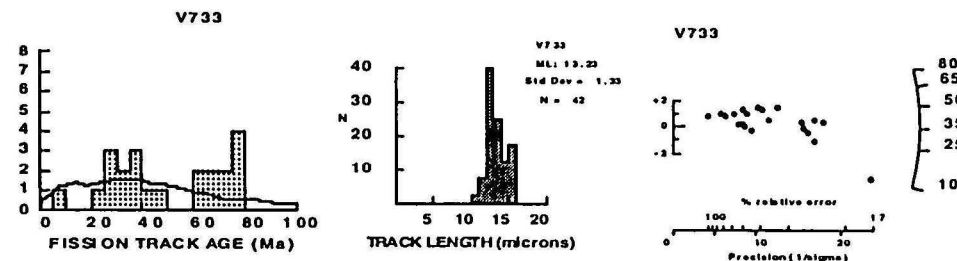
Pooled Age = 36.7 ± 3.9 Ma

Central Age = 40.2 ± 5.0 Ma

% Variation = 28.29%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.266E+06cm⁻²; ND = 4938



V-738 [Elliot Bay granite, western Elliot Bay - collected by J. Pemberton]

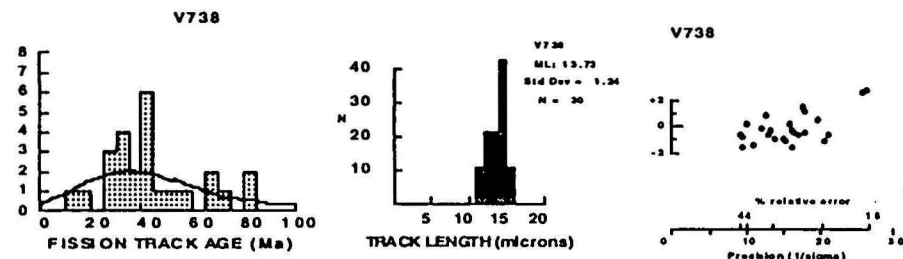
Irradiation LU429-03 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	5	31	20	0.161	18.2	3.204E+05	1.986E+06	41.5 ± 20.0
2	1	21	16	0.048	15.4	8.010E+04	1.682E+06	12.3 ± 12.6
3	6	38	24	0.158	18.6	3.204E+05	2.029E+06	40.7 ± 17.9
4	39	123	15	0.317	96.4	3.332E+06	1.051E+07	81.4 ± 15.0
5	2	20	24	0.100	9.8	1.068E+05	1.068E+06	25.8 ± 19.1
6	12	91	40	0.132	26.7	3.845E+05	2.916E+06	34.0 ± 10.5
7	2	19	18	0.105	12.4	1.424E+05	1.353E+06	27.1 ± 20.2
8	6	51	32	0.118	18.7	2.403E+05	2.042E+06	30.3 ± 13.1
9	16	61	20	0.262	35.8	1.025E+06	3.909E+06	67.4 ± 19.0
10	4	21	30	0.190	8.2	1.709E+05	8.971E+05	49.0 ± 26.8
11	9	57	24	0.158	27.9	4.806E+05	3.044E+06	40.7 ± 14.6
12	8	31	16	0.258	22.8	6.408E+05	2.483E+06	66.3 ± 26.3
13	9	55	25	0.164	25.9	4.614E+05	2.819E+06	42.1 ± 15.2
14	17	79	40	0.215	23.2	5.447E+05	2.531E+06	55.4 ± 14.8
15	10	51	21	0.196	28.5	6.103E+05	3.112E+06	50.5 ± 17.5
16	6	49	15	0.122	38.4	5.126E+05	4.186E+06	31.6 ± 13.7
17	17	59	36	0.288	19.3	6.052E+05	2.100E+06	74.0 ± 20.4
18	5	42	42	0.119	11.8	1.526E+05	1.282E+06	30.7 ± 14.5
19	6	59	18	0.102	38.5	4.272E+05	4.201E+06	26.2 ± 11.2
20	41	129	40	0.318	37.9	1.314E+06	4.133E+06	81.6 ± 14.7
21	9	61	24	0.148	29.9	4.806E+05	3.257E+06	38.0 ± 13.6
22	5	36	48	0.139	8.8	1.335E+05	9.612E+05	35.8 ± 17.1
23	2	28	14	0.071	23.5	1.831E+05	2.563E+06	18.4 ± 13.5
24	11	68	16	0.162	50.0	8.811E+05	5.447E+06	41.7 ± 13.6
25	15	95	20	0.158	55.8	9.612E+05	6.087E+06	40.7 ± 11.3
263		1375			25.3	5.283E+05	2.762E+06	

Area of basic unit = 7.803E-07 cm²
 CHI SQUARED = 17.72515 WITH 24 DEGREES OF FREEDOM
 P(chi squared) = 6.2 %
 CORRELATION COEFFICIENT = 0.902

Pooled Age = 49.2 ± 3.4 Ma
 Central Age = 46.3 ± 4.2Ma
 % Variation = 26.18%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm
 RHO D = 1.363E+06cm⁻²; ND = 5316



V-795 [Elliot Bay granite, western Elliot Bay area - collected by J. Pemberton]

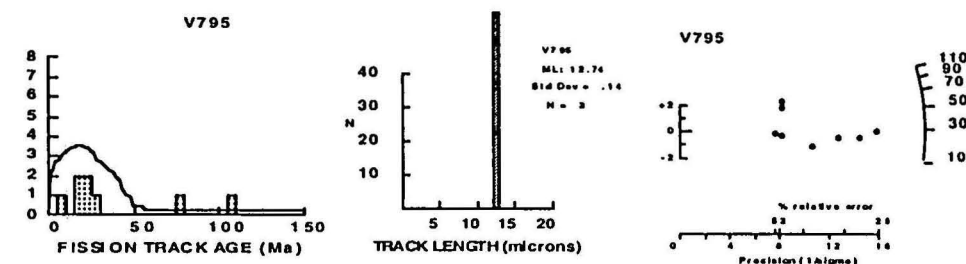
Irradiation LU429-04 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	1	14	16	0.071	10.3	8.010E+04	1.121E+06	18.4 ± 19.1
2	3	38	24	0.079	18.6	1.602E+05	2.029E+06	20.4 ± 12.2
3	1	28	20	0.036	16.5	6.408E+04	1.794E+06	9.2 ± 9.4
4	5	12	20	0.417	7.1	3.204E+05	7.689E+05	106.8 ± 56.9
5	1	16	12	0.062	15.7	1.068E+05	1.709E+06	16.1 ± 16.6
6	4	49	20	0.082	28.8	2.563E+05	3.140E+06	21.1 ± 11.0
7	6	59	9	0.102	77.0	8.544E+05	8.401E+06	26.2 ± 11.2
8	4	13	18	0.308	8.5	2.848E+05	9.256E+05	79.0 ± 45.2
25		229			19.4	2.305E+05	2.111E+06	

Area of basic unit = 7.803E-07 cm²
 CHI SQUARED = 6.684606 WITH 7 DEGREES OF FREEDOM
 P(chi squared) = 6.4 %
 CORRELATION COEFFICIENT = 0.474

Pooled Age = 28.2 ± 5.9 Ma
 Central Age = 29.1 ± 7.0Ma
 % Variation = 30.55%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm
 RHO D = 1.363E+06cm⁻²; ND = 5316



V-744 [Elliot Bay granite, western Elliot Bay area - collected by J. Pemberton]

Irradiation LU429-05 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	18	105	30	0.171	41.1	7.689E+05	4.485E+06	44.1 ± 11.3
2	62	219	36	0.283	71.5	2.207E+06	7.796E+06	72.7 ± 10.5
3	5	29	28	0.172	12.2	2.288E+05	1.327E+06	44.4 ± 21.5
4	34	121	25	0.281	56.9	1.743E+06	6.203E+06	72.2 ± 14.1
5	23	58	20	0.397	34.1	1.474E+06	3.717E+06	101.7 ± 25.1
6	20	135	15	0.148	105.8	1.709E+06	1.153E+07	38.2 ± 9.2
7	30	221	60	0.136	43.3	6.408E+05	4.720E+06	35.0 ± 6.8
8	31	126	20	0.246	74.0	1.986E+06	8.074E+06	63.3 ± 12.7
9	27	95	21	0.284	53.2	1.648E+06	5.798E+06	73.0 ± 16.0
10	25	95	12	0.263	93.0	2.670E+06	1.015E+07	67.6 ± 15.2
11	57	201	60	0.284	39.4	1.217E+06	4.293E+06	72.9 ± 11.0
12	17	125	20	0.136	73.5	1.089E+06	8.010E+06	35.0 ± 9.1
13	29	168	42	0.173	47.0	8.849E+05	5.126E+06	44.5 ± 9.0
14	12	69	50	0.174	16.2	3.076E+05	1.769E+06	44.8 ± 14.0
15	25	167	24	0.150	81.8	1.335E+06	8.918E+06	38.6 ± 8.3
16	13	33	40	0.394	9.7	4.165E+05	1.057E+06	101.0 ± 33.1
17	7	25	30	0.280	9.8	2.990E+05	1.068E+06	72.0 ± 30.8
18	15	53	36	0.283	17.3	5.340E+05	1.887E+06	72.7 ± 21.3
19	9	53	35	0.170	17.8	3.295E+05	1.941E+06	43.7 ± 15.8
20	17	99	18	0.172	64.6	1.210E+06	7.049E+06	44.2 ± 11.6
476				2197	41.5	9.807E+05	4.527E+06	

Area of basic unit = 7.803E-07 cm²

CHI SQUARED = 20.45063 WITH 19 DEGREES OF FREEDOM

P(chi squared) = 0.2 %

CORRELATION COEFFICIENT = 0.813

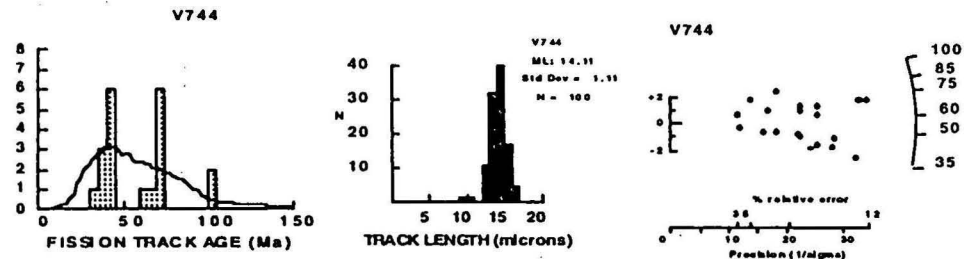
Pooled Age = 55.7 ± 3.0 Ma

Central Age = 56.4 ± 4.3 Ma

% Variation = 22.96%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.363E+06cm⁻²; ND = 5316



EB-1 [-11 km north of Elliot Bay - Voyager-19/3 drillhole, depth: 33-39 m]

Irradiation LU427-11 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	4	11	25	0.364	5.3	2.050E+05	5.639E+05	90.4 ± 52.8
2	1	2	24	0.500	1.0	5.340E+04	1.068E+05	124.0 ± 151.9
3	7	46	16	0.152	34.9	5.607E+05	3.684E+06	38.0 ± 15.4
4	8	21	35	0.381	7.3	2.929E+05	7.689E+05	94.7 ± 39.4
5	0	6	16	0.000	4.5	0.000E+00	4.806E+05	0.0 ± 0.0
6	1	9	16	0.111	6.8	8.010E+04	7.209E+05	27.8 ± 29.3
21				95	8.7	2.039E+05	9.223E+05	

Area of basic unit = 7.803E-07 cm²

CHI SQUARED = 2.798109 WITH 5 DEGREES OF FREEDOM

P(chi squared) = 34.8 %

CORRELATION COEFFICIENT = 0.779

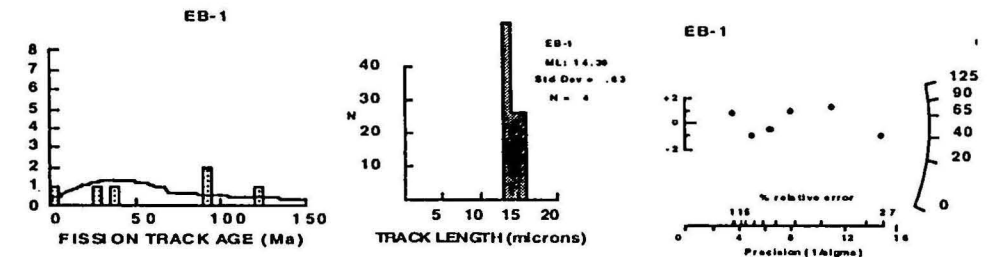
Pooled Age = 55.1 ± 13.3 Ma

Central Age = 55.5 ± 13.9 Ma

% Variation = 12.74%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.321E+06cm⁻²; ND = 5155



EB-2 [-11 km north of Elliot Bay - Voyager-19/3 drillhole, depth 297-301 m]

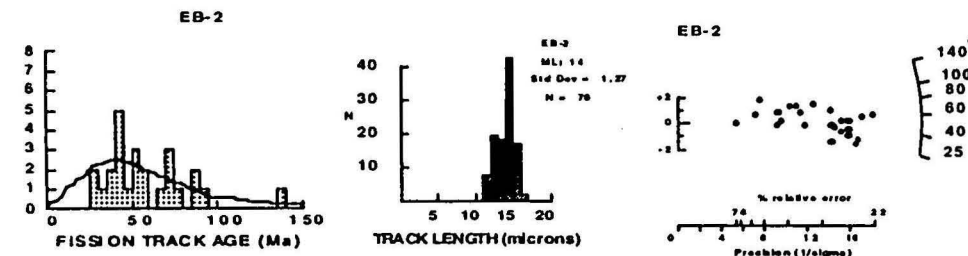
Irradiation LU427-12 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	E.T.AGE(Ma)
1	5	17	28	0.294	7.4	2.288E+05	7.781E+05	73.2 ± 37.3
2	8	45	54	0.178	10.1	1.899E+05	1.068E+06	44.4 ± 17.0
3	5	16	16	0.312	12.1	1.282E+05	1.282E+06	77.8 ± 39.9
4	8	55	64	0.145	10.4	1.602E+05	1.101E+06	36.3 ± 13.8
5	4	19	30	0.211	7.7	1.709E+05	8.117E+05	52.5 ± 28.9
6	1	6	12	0.167	6.1	1.068E+05	6.408E+05	41.6 ± 44.9
7	7	20	20	0.350	12.1	4.485E+05	1.282E+06	87.1 ± 38.3
8	5	9	32	0.556	3.4	2.002E+05	3.604E+05	137.7 ± 76.8
9	3	10	16	0.300	7.6	2.403E+05	8.010E+05	74.7 ± 49.2
10	11	52	64	0.212	9.9	2.203E+05	1.041E+06	52.8 ± 17.5
11	7	25	42	0.280	7.2	2.136E+05	7.628E+05	69.8 ± 29.8
12	8	22	80	0.364	3.3	1.282E+05	3.524E+05	90.4 ± 37.4
13	8	43	42	0.186	12.4	2.441E+05	1.312E+06	46.4 ± 17.9
14	7	62	25	0.113	30.1	3.588E+05	3.178E+06	28.2 ± 11.3
15	8	62	60	0.129	12.5	1.709E+05	1.324E+06	32.2 ± 12.1
16	5	46	56	0.109	10.0	1.144E+05	1.053E+06	27.2 ± 12.8
17	11	39	48	0.282	9.9	2.937E+05	1.041E+06	70.3 ± 24.0
18	3	18	10	0.167	21.8	3.845E+05	2.307E+06	41.6 ± 26.0
19	5	29	49	0.172	7.2	1.308E+05	7.585E+05	43.0 ± 20.9
20	9	54	42	0.167	15.6	2.746E+05	1.648E+06	41.6 ± 15.0
21	10	47	18	0.213	31.7	7.120E+05	3.346E+06	53.1 ± 18.5
22	10	29	56	0.345	6.3	2.288E+05	6.637E+05	85.8 ± 31.5
23	14	59	28	0.237	25.6	6.408E+05	2.700E+06	59.2 ± 17.6
24	16	67	54	0.239	15.0	3.797E+05	1.590E+06	59.5 ± 16.6
25	8	50	32	0.160	18.9	3.204E+05	2.002E+06	39.9 ± 15.2
186				901	11.2	2.437E+05	1.181E+06	

Area of basic unit = 7.803E-07 cm-2
 CHI SQUARED = 10.11782 WITH 24 DEGREES OF FREEDOM
 P(chi squared) = 68.3 %
 CORRELATION COEFFICIENT = 0.739

Pooled Age = 51.5 ± 4.2 Ma
 Central Age = 51.5 ± 4.2Ma
 % Variation = 1.17%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm
 RHO D = 1.321E+06cm-2; ND = 5155



96POS67 [Parmeener Super Group, collected 12 km of Busky Park on Salmon Ponds Road]

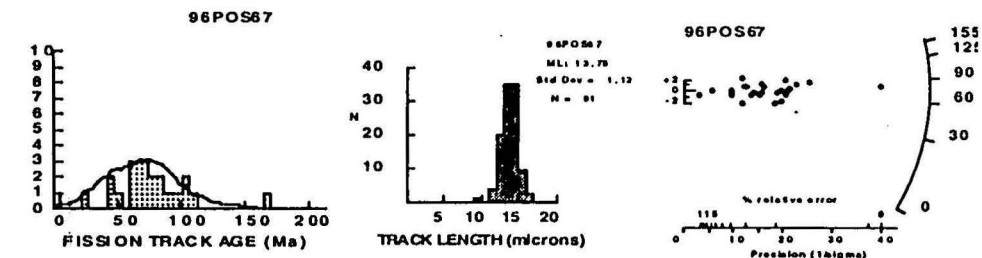
Irradiation LU464-10 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	E.T.AGE(Ma)
1	16	24	32	0.667	9.6	6.408E+05	9.612E+05	156.5 ± 50.6
2	33	103	40	0.320	32.9	1.057E+06	3.300E+06	75.7 ± 15.2
3	2	7	64	0.286	1.4	4.005E+04	1.402E+05	67.5 ± 54.1
4	13	55	50	0.236	14.1	3.332E+05	1.410E+06	55.9 ± 17.3
5	51	133	30	0.383	56.7	2.179E+06	5.682E+06	90.5 ± 15.0
6	4	38	40	0.105	12.1	1.282E+05	1.217E+06	25.0 ± 13.1
7	40	107	30	0.374	45.6	1.709E+06	4.571E+06	88.2 ± 16.4
8	20	56	40	0.357	17.9	6.408E+05	1.794E+06	84.3 ± 22.0
9	26	86	64	0.302	17.2	5.206E+05	1.722E+06	71.4 ± 16.0
10	18	94	64	0.191	18.8	3.604E+05	1.882E+06	45.3 ± 11.7
11	31	99	48	0.313	26.4	8.277E+05	2.643E+06	74.0 ± 15.3
12	0	3	28	0.000	1.4	0.000E+00	1.373E+05	0.0 ± 0.0
13	38	86	48	0.442	22.9	1.015E+06	2.296E+06	104.1 ± 20.4
14	21	51	45	0.412	14.5	5.981E+05	1.452E+06	97.1 ± 25.2
15	4	22	80	0.182	3.5	6.408E+04	3.524E+05	43.0 ± 23.4
16	13	32	40	0.406	10.2	4.165E+05	1.025E+06	95.8 ± 31.5
17	15	55	16	0.273	43.9	1.201E+06	4.405E+06	64.5 ± 18.8
18	6	21	40	0.286	6.7	1.922E+05	6.728E+05	67.5 ± 31.3
19	10	42	40	0.238	13.4	3.204E+05	1.346E+06	56.3 ± 19.8
20	24	98	80	0.245	15.7	3.845E+05	1.570E+06	57.9 ± 13.2
21	22	81	49	0.272	21.1	5.754E+05	2.118E+06	64.2 ± 15.5
22	116	345	50	0.336	88.2	2.973E+06	8.843E+06	79.4 ± 8.6
23	13	48	48	0.271	12.8	3.471E+05	1.282E+06	64.0 ± 20.0
24	14	82	60	0.171	17.5	2.990E+05	1.751E+06	40.4 ± 11.7
25	12	43	64	0.279	8.6	2.403E+05	8.610E+05	66.0 ± 21.6
562				1811	19.5	6.052E+05	1.950E+06	

Area of basic unit = 7.803E-07 cm-2
 CHI SQUARED = 16.25098 WITH 24 DEGREES OF FREEDOM
 P(chi squared) = 11.5 %

Pooled Age = 73.3 ± 3.7 Ma
 Central Age = 72.3 ± 4.3Ma
 % Variation = 12.17%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm
 RHO D = 1.253E+06cm-2; ND = 4887



96POS77 [Parmeener Super Group, collected at "Black Charlie's Opening"]

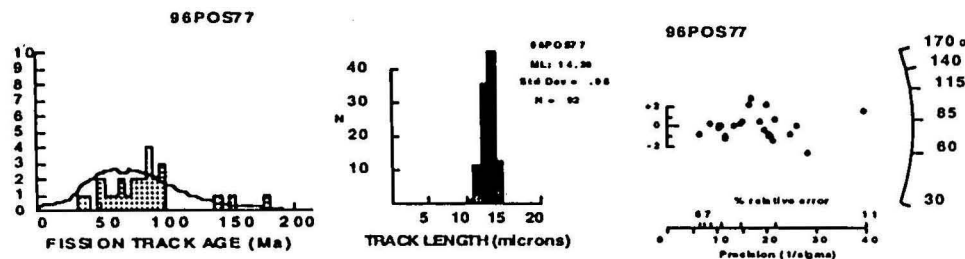
Irradiation LU465-04 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	12	35	20	0.343	21.8	7.689E+05	2.243E+06	83.1 ± 27.8
2	6	18	25	0.333	9.0	3.076E+05	9.227E+05	80.8 ± 38.1
3	1	8	18	0.125	5.5	7.120E+04	5.696E+05	30.4 ± 32.3
4	28	146	60	0.192	30.3	5.981E+05	3.118E+06	46.6 ± 9.6
5	10	30	9	0.333	41.5	1.424E+06	4.272E+06	80.8 ± 29.5
6	18	74	32	0.243	28.8	7.209E+05	2.964E+06	59.1 ± 15.6
7	18	81	40	0.222	25.2	5.767E+05	2.595E+06	54.0 ± 14.1
8	4	25	32	0.160	9.7	1.602E+05	1.001E+06	38.9 ± 21.0
9	14	37	32	0.378	14.4	5.607E+05	1.482E+06	91.7 ± 28.8
10	6	20	25	0.300	10.0	3.076E+05	1.025E+06	72.8 ± 33.9
11	19	71	36	0.268	24.5	6.764E+05	2.528E+06	65.0 ± 16.8
12	96	245	30	0.392	101.7	4.101E+06	1.047E+07	94.9 ± 11.5
13	37	113	16	0.327	87.9	2.964E+06	9.051E+06	79.4 ± 15.1
14	28	75	64	0.373	14.6	5.607E+05	1.502E+06	90.5 ± 20.1
15	5	19	49	0.263	4.8	1.308E+05	4.969E+05	63.9 ± 32.1
16	30	55	15	0.545	45.6	2.563E+06	4.699E+06	131.7 ± 30.0
17	4	12	16	0.333	9.3	3.204E+05	9.612E+05	80.8 ± 46.7
18	6	19	36	0.316	6.6	2.136E+05	6.764E+05	76.6 ± 35.9
19	19	65	60	0.292	13.5	4.058E+05	1.388E+06	70.9 ± 18.5
20	26	37	36	0.703	12.8	9.256E+05	1.317E+06	169.2 ± 43.4
21	13	36	60	0.361	7.5	2.777E+05	7.689E+05	87.5 ± 28.4
22	22	37	30	0.595	15.4	9.398E+05	1.581E+06	143.5 ± 38.7
23	20	57	36	0.351	19.7	7.120E+05	2.029E+06	85.1 ± 22.1
24	5	26	50	0.192	6.5	1.282E+05	6.664E+05	46.8 ± 22.8
25	28	103	42	0.272	30.5	8.544E+05	3.143E+06	66.0 ± 14.1
475		1444			20.7	7.005E+05	2.130E+06	

Area of basic unit = 7.803E-07 cm²
 CHI SQUARED = 19.30736 WITH 24 DEGREES OF FREEDOM
 P(chi squared) = 3.0 %
 CORRELATION COEFFICIENT = 0.921

Pooled Age = 79.8 ± 4.4 Ma
 Central Age = 79.5 ± 5.9 Ma
 % Variation = 21.60%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm
 RHO D = 1.287E+06cm⁻²; ND = 5020



96POS78 [Parmeener Super Group, collected near beach south of Dodges Ferry]

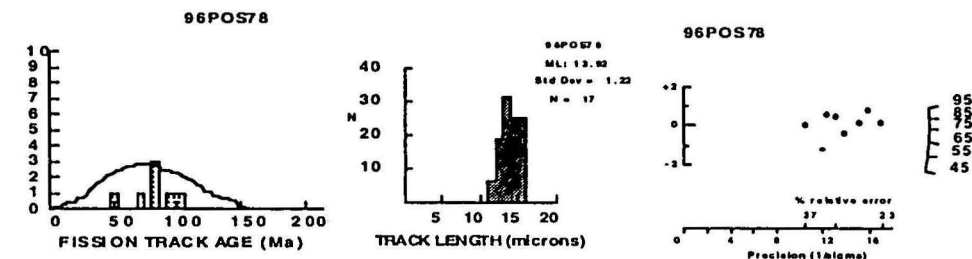
Irradiation LU465-05 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	19	48	15	0.396	39.8	1.623E+06	4.101E+06	95.9 ± 26.0
2	11	40	16	0.275	31.1	8.811E+05	3.204E+06	66.8 ± 22.8
3	19	58	64	0.328	11.3	3.805E+05	1.161E+06	79.4 ± 21.0
4	6	32	6	0.188	66.4	1.282E+06	6.835E+06	45.6 ± 20.3
5	12	33	9	0.364	45.6	1.709E+06	4.699E+06	88.1 ± 29.7
6	11	29	15	0.379	24.1	9.398E+05	2.478E+06	91.9 ± 32.6
7	15	46	16	0.326	35.8	1.201E+06	3.684E+06	79.1 ± 23.5
8	7	22	10	0.318	27.4	8.971E+05	2.819E+06	77.2 ± 33.5
100		308			25.4	8.487E+05	2.614E+06	

Area of basic unit = 7.803E-07 cm²
 CHI SQUARED = 1.323239 WITH 7 DEGREES OF FREEDOM
 P(chi squared) = 91.6 %
 CORRELATION COEFFICIENT = 0.882

Pooled Age = 78.7 ± 9.2 Ma
 Central Age = 78.7 ± 9.1 Ma
 % Variation = 0.00%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm
 RHO D = 1.287E+06cm⁻²; ND = 5020



96POS96 [Deep Glen Bay Granite, collected at small platform ~1-2 km south of Deep Glen Bay]

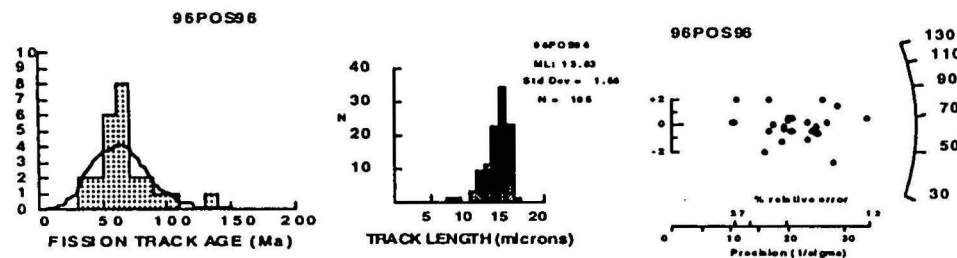
Irradiation LU468-07 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	23	80	60	0.288	15.9	4.913E+05	1.709E+06	72.6 ± 17.2
2	20	90	100	0.222	10.8	2.563E+05	1.153E+06	56.2 ± 13.9
3	38	146	100	0.260	17.5	4.870E+05	1.871E+06	65.8 ± 12.0
4	64	233	48	0.275	58.0	1.709E+06	6.221E+06	69.4 ± 9.9
5	16	63	100	0.254	7.5	2.050E+05	8.074E+05	64.2 ± 18.0
6	25	87	50	0.287	20.8	6.408E+05	2.230E+06	72.6 ± 16.5
7	7	58	100	0.121	6.9	8.971E+04	7.433E+05	30.6 ± 12.2
8	22	51	40	0.431	15.2	7.049E+05	1.634E+06	108.7 ± 27.8
9	6	23	100	0.261	2.7	7.689E+04	2.948E+05	65.9 ± 30.2
10	51	159	100	0.321	19.0	6.536E+05	2.038E+06	81.0 ± 13.1
11	11	21	80	0.524	3.1	1.762E+05	3.364E+05	131.7 ± 49.1
12	45	127	80	0.354	19.0	7.209E+05	2.034E+06	89.4 ± 15.6
13	18	77	80	0.234	11.5	2.884E+05	1.234E+06	59.1 ± 15.5
14	46	128	100	0.359	15.3	5.895E+05	1.640E+06	90.7 ± 15.7
15	29	130	100	0.223	15.5	3.717E+05	1.666E+06	56.4 ± 11.6
16	19	79	60	0.240	15.7	4.058E+05	1.687E+06	60.8 ± 15.6
17	28	123	100	0.228	14.7	3.588E+05	1.576E+06	57.6 ± 12.1
18	14	80	100	0.175	9.6	1.794E+05	1.025E+06	44.3 ± 12.9
19	26	177	100	0.147	21.2	3.332E+05	2.268E+06	37.2 ± 7.8
20	13	60	100	0.217	7.2	1.666E+05	7.689E+05	54.8 ± 16.8
21	22	80	100	0.275	9.6	2.819E+05	1.025E+06	69.5 ± 16.8
22	30	135	80	0.222	20.2	4.806E+05	2.163E+06	56.2 ± 11.4
23	31	129	100	0.240	15.4	3.973E+05	1.653E+06	60.8 ± 12.2
24	29	111	100	0.261	13.3	3.717E+05	1.423E+06	66.0 ± 13.8
25	23	119	60	0.193	23.7	4.913E+05	2.542E+06	48.9 ± 11.2
	656	2566			14.3	3.932E+05	1.538E+06	

Area of basic unit = 7.803E-07 cm²
 CHI SQUARED = 17.3951 WITH 24 DEGREES OF FREEDOM
 P(chi squared) = 7.2 %
 CORRELATION COEFFICIENT = 0.862

Pooled Age = 64.6 ± 3.0 Ma
 Central Age = 64.6 ± 3.5 Ma
 % Variation = 13.10%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm
 RHO D = 1.340E+06cm⁻²; ND = 5200



96POS107 [Parmeener Super Group, Catamaran 109 well, 24-27 m]

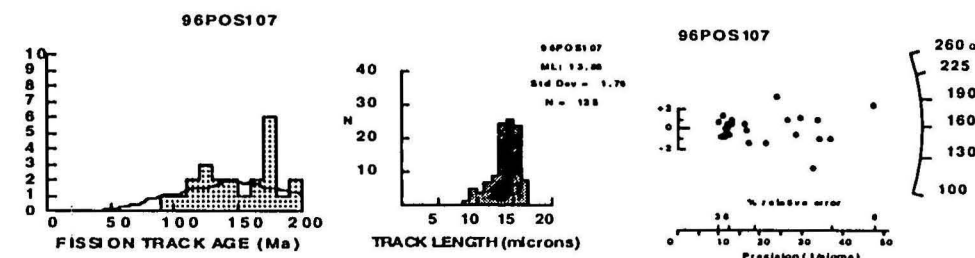
Irradiation LU469-01 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	29	49	100	0.592	5.9	3.717E+05	6.280E+05	148.5 ± 34.9
2	12	27	100	0.444	3.2	1.538E+05	3.460E+05	111.9 ± 38.8
3	20	28	100	0.714	3.3	2.563E+05	3.588E+05	178.8 ± 52.4
4	12	15	100	0.800	1.8	1.538E+05	1.922E+05	200.0 ± 77.5
5	15	29	100	0.517	3.5	1.922E+05	3.717E+05	130.0 ± 41.4
6	122	219	100	0.557	26.2	1.564E+06	2.807E+06	139.9 ± 16.0
7	17	18	60	0.944	3.6	3.631E+05	3.845E+05	235.4 ± 79.7
8	281	376	100	0.747	45.0	3.601E+06	4.819E+06	187.0 ± 15.0
9	22	28	100	0.786	3.3	2.819E+05	3.588E+05	196.4 ± 56.0
10	30	44	100	0.682	5.3	3.845E+05	5.639E+05	170.8 ± 40.5
11	10	23	100	0.435	2.8	1.282E+05	2.948E+05	109.4 ± 41.5
12	87	84	100	1.036	10.0	1.115E+06	1.076E+06	257.7 ± 39.6
13	106	148	100	0.716	17.7	1.358E+06	1.897E+06	179.3 ± 23.0
14	13	26	100	0.500	3.1	1.666E+05	3.332E+05	125.7 ± 42.7
15	87	151	100	0.576	18.1	1.115E+06	1.935E+06	144.6 ± 19.6
16	43	89	100	0.483	10.6	5.511E+05	1.141E+06	121.5 ± 22.6
17	14	23	90	0.609	3.1	1.994E+05	3.275E+05	152.7 ± 51.8
18	17	26	100	0.654	3.1	2.179E+05	3.332E+05	163.9 ± 51.2
19	141	253	100	0.557	30.3	1.807E+06	3.242E+06	140.0 ± 14.9
20	136	198	100	0.687	23.7	1.743E+06	2.537E+06	172.1 ± 19.3
21	27	61	100	0.443	7.3	3.460E+05	7.818E+05	111.4 ± 25.8
22	86	121	100	0.711	14.5	1.102E+06	1.551E+06	178.0 ± 25.2
23	88	227	100	0.388	27.2	1.128E+06	2.909E+06	97.7 ± 12.4
24	17	24	100	0.708	2.9	2.179E+05	3.076E+05	177.4 ± 56.3
25	16	25	100	0.640	3.0	2.050E+05	3.204E+05	160.5 ± 51.4
	1448	2312			11.3	7.574E+05	1.209E+06	

Area of basic unit = 7.803E-07 cm²
 CHI SQUARED = 23.16418 WITH 24 DEGREES OF FREEDOM
 P(chi squared) = 0.4 %
 CORRELATION COEFFICIENT = 0.960

Pooled Age = 157.1 ± 5.8 Ma
 Central Age = 156.0 ± 8.5 Ma
 % Variation = 16.74%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm
 RHO D = 1.339E+06cm⁻²; ND = 5744



GO-1 [Glenorchy - BH1 drillhole - Chapel St, depth: 238-241 m]

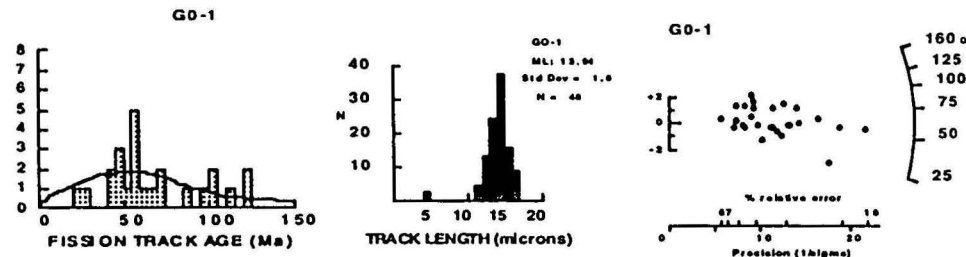
Irradiation LU427-13 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	9	39	60	0.231	7.9	1.922E+05	8.330E+05	57.5 ± 21.3
2	7	17	50	0.412	4.1	1.794E+05	4.357E+05	102.3 ± 46.0
3	2	12	12	0.167	12.1	2.136E+05	1.282E+06	41.6 ± 31.8
4	14	40	28	0.350	17.3	6.408E+05	1.831E+06	87.1 ± 27.1
5	18	80	40	0.225	24.3	5.767E+05	2.563E+06	56.1 ± 14.7
6	10	26	15	0.385	21.0	8.544E+05	2.221E+06	95.6 ± 35.6
7	3	26	12	0.115	26.3	3.204E+05	2.777E+06	28.8 ± 17.6
8	6	13	10	0.462	15.8	7.689E+05	1.666E+06	114.6 ± 56.6
9	2	7	9	0.286	9.4	2.848E+05	9.968E+05	71.2 ± 57.1
10	7	78	48	0.090	19.7	1.869E+05	2.083E+06	22.4 ± 8.9
11	3	12	9	0.250	16.2	4.272E+05	1.709E+06	62.3 ± 40.2
12	13	31	30	0.419	12.5	5.553E+05	1.324E+06	104.2 ± 34.5
13	6	37	30	0.162	15.0	2.563E+05	1.581E+06	40.5 ± 17.8
14	5	10	6	0.500	20.2	1.068E+06	2.136E+06	124.0 ± 68.0
15	8	16	20	0.500	9.7	5.126E+05	1.025E+06	124.0 ± 53.7
16	6	29	16	0.207	22.0	4.806E+05	2.323E+06	51.6 ± 23.2
17	24	106	60	0.226	21.4	5.126E+05	2.264E+06	56.5 ± 12.8
18	5	22	9	0.227	29.6	7.120E+05	3.133E+06	56.7 ± 28.1
19	3	16	25	0.188	7.8	1.538E+05	8.202E+05	46.8 ± 29.4
20	3	15	15	0.200	12.1	2.563E+05	1.282E+06	49.9 ± 31.6
21	5	17	12	0.294	17.2	5.340E+05	1.816E+06	73.2 ± 37.3
22	9	14	16	0.643	10.6	7.209E+05	1.121E+06	159.0 ± 68.0
23	6	33	20	0.182	20.0	3.845E+05	2.115E+06	45.4 ± 20.2
24	16	58	48	0.276	14.7	4.272E+05	1.549E+06	68.7 ± 19.4
25	11	46	42	0.239	13.3	3.356E+05	1.404E+06	59.6 ± 20.0
201		800			15.1	4.012E+05	1.597E+06	

Area of basic unit = 7.803E-07 cm²
 CHI SQUARED = 14.72971 WITH 24 DEGREES OF FREEDOM
 P(chi squared) = 20.3 %
 CORRELATION COEFFICIENT = 0.809

Pooled Age = 62.6 ± 5.0 Ma
 Central Age = 64.0 ± 5.8 Ma
 % Variation = 18.73%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm
 RHO D = 1.321E+06cm⁻²; ND = 5155



GO-2 [Glenorchy - BH1 drillhole - Chapel St, depth: 405-409 m]

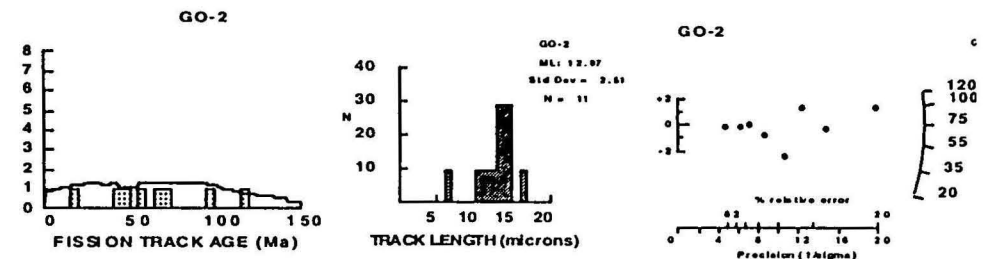
Irradiation LU426-03 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	2	8	4	0.250	25.3	6.408E+05	2.563E+06	59.7 ± 47.2
2	3	16	16	0.188	12.7	2.403E+05	1.282E+06	44.8 ± 28.2
3	1	5	6	0.200	10.5	2.136E+05	1.068E+06	47.8 ± 52.4
4	2	27	12	0.074	28.5	2.136E+05	2.884E+06	17.8 ± 13.0
5	13	26	36	0.500	9.1	4.628E+05	9.256E+05	118.9 ± 40.4
6	12	43	20	0.279	27.2	7.689E+05	2.755E+06	66.6 ± 21.8
7	29	70	60	0.414	14.8	6.194E+05	1.495E+06	98.7 ± 21.9
8	3	10	4	0.300	31.6	9.612E+05	3.204E+06	71.6 ± 47.2
65		205			16.4	5.272E+05	1.663E+06	

Area of basic unit = 7.803E-07 cm²
 CHI SQUARED = 4.565226 WITH 7 DEGREES OF FREEDOM
 P(chi squared) = 24.3 %
 CORRELATION COEFFICIENT = 0.928
 MEAN RATIO = 0.276 ± 0.047

Pooled Age = 75.7 ± 10.8 Ma
 Central Age = 71.4 ± 13.0 Ma
 % Variation = 25.69%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm
 RHO D = 1.266E+06cm⁻²; ND = 4938



GO-3 [Glenorchy - BH1 drillhole - Chapel St, depth: 534-540 m]

Irradiation LU427-15 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	25	44	20	0.568	26.7	1.602E+06	2.819E+06	140.8 ± 35.3
2	1	6	25	0.167	2.9	5.126E+04	3.076E+05	41.6 ± 44.9
3	5	27	18	0.185	18.2	3.560E+05	1.922E+06	46.2 ± 22.5
4	3	15	28	0.200	6.5	1.373E+05	6.865E+05	49.9 ± 31.6
5	6	12	16	0.500	9.1	4.806E+05	9.612E+05	124.0 ± 62.0
6	2	12	9	0.167	16.2	2.848E+05	1.709E+06	41.6 ± 31.8
7	15	27	6	0.556	54.6	3.204E+06	5.767E+06	137.7 ± 44.4
	57	143			14.2	5.988E+05	1.502E+06	

Area of basic unit = 7.803E-07 cm²

CHI SQUARED = 4.612773 WITH 6 DEGREES OF FREEDOM

P(chi squared) = 16.1 %

CORRELATION COEFFICIENT = 0.907

Pooled Age = 99.1 ± 15.6 Ma

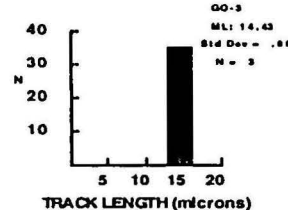
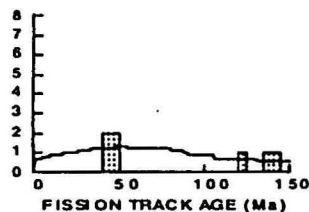
Central Age = 91.3 ± 18.8Ma

% Variation = 30.31%

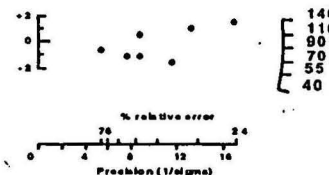
Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.321E+06cm⁻²; ND = 5155

GO-3



GO-3



CY-3 [Cygnets-3 drillhole, depth: 178-185 m]

Irradiation LU426-08 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	56	118	24	0.475	62.2	2.990E+06	6.301E+06	112.9 ± 18.4
2	26	99	30	0.263	41.8	1.111E+06	4.229E+06	62.7 ± 13.9
3	30	112	48	0.268	29.5	8.010E+05	2.990E+06	64.0 ± 13.2
4	41	98	12	0.418	103.3	4.379E+06	1.047E+07	99.6 ± 18.6
5	8	51	28	0.157	23.0	3.662E+05	2.334E+06	37.5 ± 14.3
6	30	83	24	0.361	43.8	1.602E+06	4.432E+06	86.2 ± 18.4
7	2	4	15	0.500	3.4	1.709E+05	3.417E+05	118.9 ± 103.0
8	58	172	40	0.337	54.4	1.858E+06	5.511E+06	80.4 ± 12.3
9	0	6	12	0.000	6.3	0.000E+00	6.408E+05	0.0 ± 0.0
10	9	43	60	0.209	9.1	1.922E+05	9.184E+05	50.0 ± 18.4
11	5	18	18	0.278	12.7	3.560E+05	1.282E+06	66.3 ± 33.6
12	45	95	24	0.474	50.1	2.403E+06	5.073E+06	112.7 ± 20.5
13	18	54	28	0.333	24.4	8.239E+05	2.472E+06	79.5 ± 21.7
14	17	32	9	0.531	45.0	2.421E+06	4.557E+06	126.3 ± 38.0
15	41	156	30	0.263	65.8	1.751E+06	6.664E+06	62.8 ± 11.1
16	13	51	15	0.255	43.0	1.111E+06	4.357E+06	60.9 ± 18.9
17	15	53	32	0.283	21.0	6.007E+05	2.123E+06	67.6 ± 19.8
18	86	247	48	0.348	65.1	2.296E+06	6.595E+06	83.0 ± 10.5
19	35	132	24	0.265	69.6	1.869E+06	7.049E+06	63.3 ± 12.1
20	25	79	80	0.316	12.5	4.005E+05	1.266E+06	75.5 ± 17.4
21	73	201	20	0.363	127.2	4.678E+06	1.288E+07	86.6 ± 11.9
22	46	111	16	0.414	87.8	3.684E+06	8.891E+06	98.7 ± 17.4
	679	2015			40.0	1.366E+06	4.054E+06	

Area of basic unit = 7.803E-07 cm²

CHI SQUARED = 14.69239 WITH 21 DEGREES OF FREEDOM

P(chi squared) = 10.5 %

CORRELATION COEFFICIENT = 0.949

Pooled Age = 80.4 ± 3.8 Ma

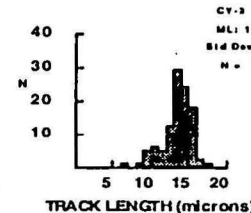
Central Age = 79.8 ± 4.3Ma

% Variation = 11.10%

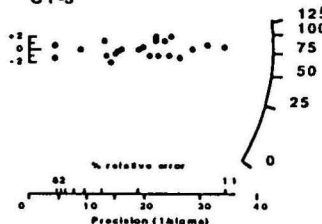
Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.266E+06cm⁻²; ND = 4938

CY-3



CY-3



ML-2 [Mt. Lloyd-2 drillhole, depth: 22-32 m]

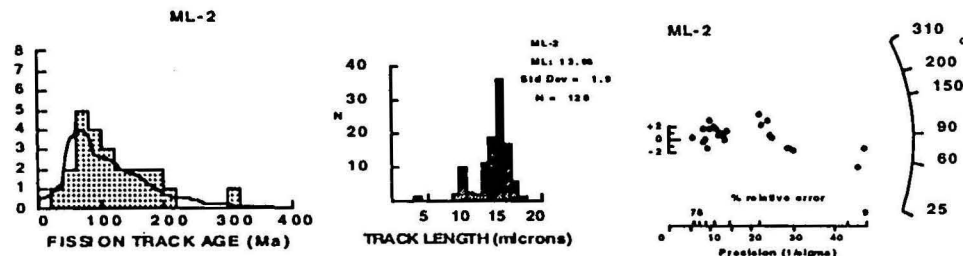
Irradiation LU426-09 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	4	13	60	0.308	2.7	8.544E+04	2.777E+05	73.4 ± 42.0
2	40	158	30	0.253	66.6	1.709E+06	6.750E+06	60.5 ± 10.8
3	39	72	100	0.542	9.1	4.998E+05	9.227E+05	128.7 ± 25.7
4	12	9	54	1.333	2.1	2.848E+05	2.136E+05	312.4 ± 137.8
5	36	102	18	0.353	71.7	2.563E+06	7.262E+06	84.2 ± 16.4
6	10	30	50	0.333	7.6	2.563E+05	7.689E+05	79.5 ± 29.1
7	11	18	80	0.611	2.8	1.762E+05	2.884E+05	145.0 ± 55.6
8	81	381	50	0.213	96.4	2.076E+06	9.765E+06	50.8 ± 6.3
9	7	8	40	0.875	2.5	2.243E+05	2.563E+05	206.7 ± 107.0
10	114	379	100	0.301	48.0	1.461E+06	4.857E+06	71.8 ± 7.8
11	2	17	35	0.118	6.1	7.323E+04	6.225E+05	28.2 ± 21.1
12	11	15	80	0.733	2.4	1.762E+05	2.403E+05	173.7 ± 69.0
13	9	13	80	0.692	2.1	1.442E+05	2.083E+05	164.1 ± 71.2
14	39	143	35	0.273	51.7	1.428E+06	5.236E+06	65.1 ± 11.8
15	11	26	60	0.423	5.5	2.350E+05	5.553E+05	100.8 ± 36.3
16	2	5	80	0.400	0.8	3.204E+04	8.010E+04	95.3 ± 79.8
17	47	78	100	0.603	9.9	6.023E+05	9.996E+05	143.0 ± 26.5
18	7	9	48	0.778	2.4	1.869E+05	2.403E+05	184.0 ± 92.8
19	14	28	40	0.500	8.9	4.485E+05	8.971E+05	118.9 ± 39.0
20	15	28	30	0.536	11.8	6.408E+05	1.196E+06	127.3 ± 40.8
21	46	58	80	0.793	9.2	7.369E+05	9.291E+05	187.6 ± 37.2
22	3	13	50	0.231	3.3	7.689E+04	3.332E+05	55.2 ± 35.3
23	36	95	20	0.379	60.1	2.307E+06	6.087E+06	90.3 ± 17.7
24	9	23	50	0.391	5.8	2.307E+05	5.895E+05	93.2 ± 36.7
25	11	24	28	0.458	10.8	5.035E+05	1.098E+06	109.1 ± 39.8
616		1745			15.8	5.647E+05	1.600E+06	

Area of basic unit = 7.803E-07 cm²
 CHI SQUARED = 43.88525 WITH 24 DEGREES OF FREEDOM
 P(chi squared) = 0.0 %
 CORRELATION COEFFICIENT = 0.935

Pooled Age = 84.2 ± 4.2 Ma
 Central Age = 102.8 ± 9.8 Ma
 % Variation = 34.65%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm
 RHO D = 1.266E+06cm⁻²; ND = 4938



DG-3 [Adamellite, Deep Glen Bay, Forestier Peninsula - collected by J.L. Everard]

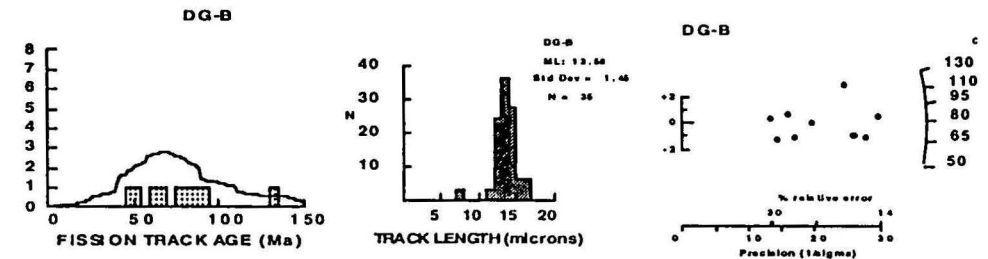
Irradiation LU427-07 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	13	59	15	0.220	47.7	1.111E+06	5.041E+06	55.0 ± 16.9
2	39	149	18	0.262	100.4	2.777E+06	1.061E+07	65.2 ± 11.8
3	51	97	20	0.526	58.8	3.268E+06	6.216E+06	130.4 ± 22.6
4	34	131	28	0.260	56.7	1.556E+06	5.996E+06	64.7 ± 12.5
5	11	32	6	0.344	64.7	2.350E+06	6.835E+06	85.5 ± 29.9
6	55	162	48	0.340	40.9	1.468E+06	4.325E+06	84.5 ± 13.3
7	8	42	48	0.190	10.6	2.136E+05	1.121E+06	47.5 ± 18.4
8	22	71	15	0.310	57.4	1.880E+06	6.066E+06	77.1 ± 18.9
9	17	45	9	0.378	60.6	2.421E+06	6.408E+06	93.9 ± 26.8
250		788			46.2	1.548E+06	4.879E+06	

Area of basic unit = 7.803E-07 cm²
 CHI SQUARED = 7.39915 WITH 8 DEGREES OF FREEDOM
 P(chi squared) = 6.3 %
 CORRELATION COEFFICIENT = 0.867

Pooled Age = 79.0 ± 5.9 Ma
 Central Age = 78.3 ± 7.8 Ma
 % Variation = 18.66%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm
 RHO D = 1.321E+06cm⁻²; ND = 5155



GR-1 [Granton drillhole, depth: 2-4 m]

Irradiation LU427-14 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	16	57	32	0.281	21.6	6.408E+05	2.283E+06	69.9 ± 19.8
2	14	95	48	0.147	24.0	3.738E+05	2.536E+06	36.8 ± 10.6
3	28	106	60	0.264	21.4	5.981E+05	2.264E+06	65.8 ± 14.0
4	1	9	30	0.111	3.6	4.272E+04	3.845E+05	27.8 ± 29.3
5	7	47	49	0.149	11.6	1.831E+05	1.229E+06	37.2 ± 15.1
6	1	10	24	0.100	5.1	5.340E+04	5.340E+05	25.0 ± 26.2
7	1	9	16	0.111	6.8	8.010E+04	7.209E+05	27.8 ± 29.3
8	3	12	60	0.250	2.4	6.408E+04	2.563E+05	62.3 ± 40.2
9	2	5	35	0.400	1.7	7.323E+04	1.831E+05	99.4 ± 83.2
10	1	3	20	0.333	1.8	6.408E+04	1.922E+05	83.0 ± 95.8
11	25	110	36	0.227	37.1	8.900E+05	3.916E+06	56.7 ± 12.6
12	8	14	16	0.571	10.6	6.408E+05	1.121E+06	141.6 ± 62.8
13	1	5	30	0.200	2.0	4.272E+04	2.136E+05	49.9 ± 54.7
14	3	6	18	0.500	4.0	2.136E+05	4.272E+05	124.0 ± 87.7
15	2	8	30	0.250	3.2	8.544E+04	3.417E+05	62.3 ± 49.3
16	4	22	24	0.182	11.1	2.136E+05	1.175E+06	45.4 ± 24.7
17	2	6	20	0.333	3.6	1.282E+05	3.845E+05	83.0 ± 67.7
18	7	15	50	0.467	3.6	1.794E+05	3.845E+05	115.8 ± 53.1
19	2	9	60	0.222	1.8	4.272E+04	1.922E+05	55.4 ± 43.3
20	4	14	30	0.286	5.7	1.709E+05	5.981E+05	71.2 ± 40.4
21	10	20	24	0.500	10.1	5.340E+05	1.068E+06	124.0 ± 48.1
22	43	170	40	0.253	51.5	1.378E+06	5.447E+06	63.0 ± 10.8
23	10	59	24	0.169	29.8	5.340E+05	3.150E+06	42.3 ± 14.5
24	3	8	30	0.375	3.2	1.282E+05	3.417E+05	93.2 ± 63.1
25	9	24	21	0.375	13.9	5.492E+05	1.465E+06	93.2 ± 36.5
207		843			12.4	3.208E+05	1.306E+06	

Area of basic unit = 7.803E-07 cm²

CHI SQUARED = 10.75197 WITH 24 DEGREES OF FREEDOM

P(chi squared) = 60.9 %

CORRELATION COEFFICIENT = 0.958

Pooled Age = 61.2 ± 4.8 Ma

Central Age = 61.2 ± 4.9Ma

% Variation = 2.99%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.321E+06cm⁻²; ND = 5155

WBH-1 [Woodbridge-1 Little Peppermint B drillhole, depth: 113-120 m]

Irradiation LU428-06 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	5	23	30	0.217	8.9	2.136E+05	9.825E+05	56.6 ± 28.0
2	0	4	24	0.000	1.9	0.000E+00	2.136E+05	0.0 ± 0.0
3	12	73	50	0.164	16.9	3.076E+05	1.871E+06	42.9 ± 13.4
4	4	15	18	0.267	9.7	2.848E+05	1.068E+06	69.4 ± 39.1
5	11	62	16	0.177	45.0	8.811E+05	4.966E+06	46.3 ± 15.1
6	1	5	25	0.200	2.3	5.126E+04	2.563E+05	52.1 ± 57.1
7	3	23	60	0.130	4.4	6.408E+04	4.913E+05	34.0 ± 20.9
8	2	27	30	0.074	10.4	8.544E+04	1.153E+06	19.4 ± 14.2
9	5	18	48	0.278	4.4	1.335E+05	4.806E+05	72.3 ± 36.6
10	5	20	30	0.250	7.7	2.136E+05	8.544E+05	65.1 ± 32.6
11	13	72	40	0.181	20.9	4.165E+05	2.307E+06	47.1 ± 14.2
12	7	24	48	0.292	5.8	1.869E+05	6.408E+05	75.9 ± 32.6
13	11	71	64	0.155	12.9	2.203E+05	1.422E+06	40.4 ± 13.1
14	10	74	48	0.135	17.9	2.670E+05	1.976E+06	35.3 ± 11.9
15	53	252	60	0.210	48.8	1.132E+06	5.383E+06	54.8 ± 8.3
16	1	9	54	0.111	1.9	2.373E+04	2.136E+05	29.0 ± 30.6
17	5	32	60	0.156	6.2	1.068E+05	6.835E+05	40.8 ± 19.6
18	16	73	40	0.219	21.2	5.126E+05	2.339E+06	57.1 ± 15.8
19	31	85	40	0.365	24.7	9.932E+05	2.723E+06	94.7 ± 19.9
20	2	16	50	0.125	3.7	5.126E+04	4.101E+05	32.6 ± 24.5
21	48	165	60	0.291	31.9	1.025E+06	3.524E+06	75.7 ± 12.5
22	20	102	48	0.196	24.7	5.340E+05	2.723E+06	51.1 ± 12.5
23	3	26	32	0.115	9.4	1.201E+05	1.041E+06	30.1 ± 18.4
24	5	50	60	0.100	9.7	1.068E+05	1.068E+06	26.1 ± 12.3
25	10	48	48	0.208	11.6	2.670E+05	1.282E+06	54.3 ± 18.9
283		1369			14.7	3.349E+05	1.620E+06	

Area of basic unit = 7.803E-07 cm²

CHI SQUARED = 12.44179 WITH 24 DEGREES OF FREEDOM

P(chi squared) = 41.2 %

CORRELATION COEFFICIENT = 0.950

Pooled Age = 53.9 ± 3.6 Ma

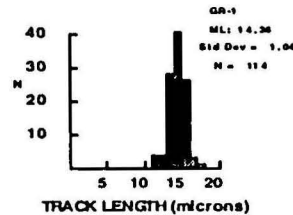
Central Age = 52.4 ± 4.2Ma

% Variation = 16.80%

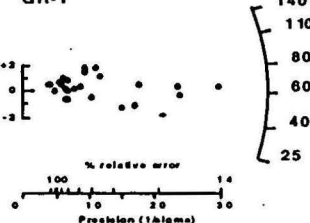
Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.380E+06cm⁻²; ND = 5379

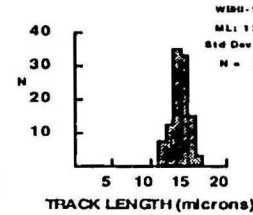
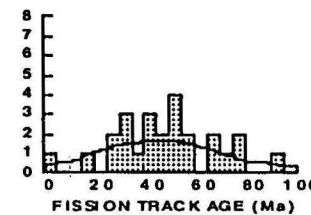
GR-1



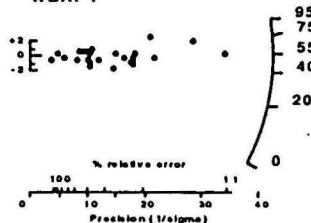
GR-1



WBH-1



WBH-1



WBH-2 [Woodbridge-1 Little Peppermint B drillhole, depth: 416-423 m]

Irradiation LU428-07 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	3	13	8	0.231	18.9	4.806E+05	2.083E+06	60.1 ± 38.5
2	7	37	15	0.189	28.7	5.981E+05	3.161E+06	49.3 ± 20.3
3	4	17	6	0.235	32.9	8.544E+05	3.631E+06	61.2 ± 34.0
4	7	20	15	0.350	15.5	5.981E+05	1.709E+06	90.9 ± 39.9
5	1	13	14	0.077	10.8	9.154E+04	1.190E+06	20.1 ± 20.8
6	3	11	10	0.273	12.8	3.845E+05	1.410E+06	70.9 ± 46.2
7	2	11	16	0.182	8.0	1.602E+05	8.811E+05	47.4 ± 36.4
8	4	11	20	0.364	6.4	2.563E+05	7.049E+05	94.4 ± 55.1
9	2	14	9	0.143	18.1	2.848E+05	1.994E+06	37.2 ± 28.2
10	3	9	9	0.333	11.6	4.272E+05	1.282E+06	86.6 ± 57.7
	36	156			14.9	3.782E+05	1.639E+06	

Area of basic unit = 7.803E-07 cm²

CHI SQUARED = 1.941335 WITH 9 DEGREES OF FREEDOM

P(chi squared) = 91.9 %

CORRELATION COEFFICIENT = 0.752

Pooled Age = 60.1 ± 11.1 Ma

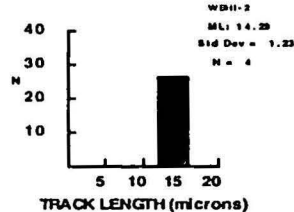
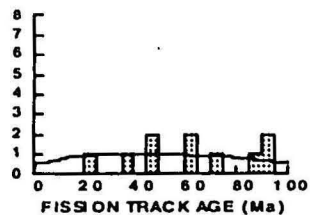
Central Age = 60.1 ± 11.1 Ma

% Variation = 0.00%

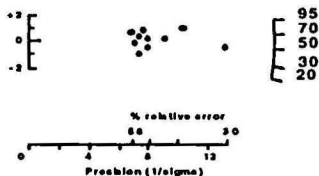
Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.379E+06cm⁻²; ND = 5379

WBH-2



WBH-2



WBH-3 [Woodbridge-1 Little Peppermint B drillhole, depth: 975-980 m]

Irradiation LU428-08 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	6	40	100	0.150	4.6	7.689E+04	5.126E+05	39.1 ± 17.1
2	12	42	100	0.286	4.9	1.538E+05	5.383E+05	74.3 ± 24.3
3	19	55	70	0.345	9.1	3.479E+05	1.007E+06	89.7 ± 23.9
4	7	33	100	0.212	3.8	8.971E+04	4.229E+05	55.2 ± 23.0
5	37	145	100	0.255	16.8	4.742E+05	1.858E+06	66.4 ± 12.3
6	9	45	100	0.200	5.2	1.153E+05	5.767E+05	52.1 ± 19.0
7	8	50	100	0.160	5.8	1.025E+05	6.408E+05	41.7 ± 15.9
8	8	35	100	0.229	4.1	1.025E+05	4.485E+05	59.5 ± 23.3
9	6	43	100	0.140	5.0	7.689E+04	5.511E+05	36.4 ± 15.9
10	7	45	100	0.156	5.2	8.971E+04	5.767E+05	40.5 ± 16.5
11	9	29	60	0.310	5.6	1.922E+05	6.194E+05	80.6 ± 30.8
12	6	36	70	0.167	6.0	1.098E+05	6.591E+05	43.4 ± 19.2
13	13	47	100	0.277	5.5	1.666E+05	6.023E+05	71.9 ± 22.6
14	41	165	60	0.248	31.9	8.757E+05	3.524E+06	64.6 ± 11.3
15	10	57	100	0.175	6.6	1.282E+05	7.305E+05	45.7 ± 15.7
16	20	87	100	0.230	10.1	2.563E+05	1.115E+06	59.8 ± 14.9
17	14	41	100	0.341	4.8	1.794E+05	5.254E+05	88.7 ± 27.5
18	4	23	80	0.174	3.3	6.408E+04	3.684E+05	45.3 ± 24.6
19	141	528	60	0.267	102.2	3.012E+06	1.128E+07	69.4 ± 6.7
20	6	34	80	0.176	4.9	9.612E+04	5.447E+05	46.0 ± 20.4
21	18	85	100	0.212	9.9	2.307E+05	1.089E+06	55.1 ± 14.3
22	14	45	60	0.311	8.7	2.990E+05	9.612E+05	80.8 ± 24.8
23	7	51	100	0.137	5.9	8.971E+04	6.536E+05	35.8 ± 14.4
24	13	79	100	0.165	9.2	1.666E+05	1.012E+06	42.9 ± 12.9
25	12	62	80	0.194	9.0	1.922E+05	9.932E+05	50.4 ± 15.9
	447	1902			10.0	2.580E+05	1.098E+06	

Area of basic unit = 7.803E-07 cm²

CHI SQUARED = 9.24086 WITH 24 DEGREES OF FREEDOM

P(chi squared) = 77.9 %

CORRELATION COEFFICIENT = 0.993

Pooled Age = 61.2 ± 3.4 Ma

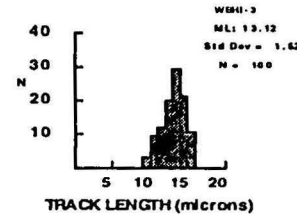
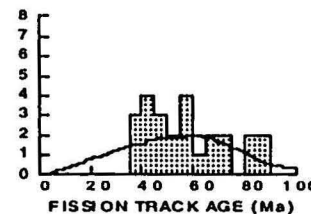
Central Age = 61.0 ± 3.4 Ma

% Variation = 2.60%

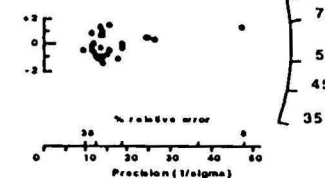
Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.379E+06cm⁻²; ND = 5379

WBH-3



WBH-3



STX-1 [Styx-1 drillhole, depth: 20-27 m]

Irradiation LU428-09 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	22	64	25	0.344	29.7	1.128E+06	3.281E+06	89.3 ± 22.1
2	6	20	12	0.300	19.4	6.408E+05	2.136E+06	78.0 ± 36.3
3	35	103	30	0.340	39.9	1.495E+06	4.400E+06	88.2 ± 17.3
	63	187			32.4	1.205E+06	3.577E+06	

Area of basic unit = 7.803E-07 cm²

CHI SQUARED = 3.536933E-02 WITH 2 DEGREES OF FREEDOM

P(chi squared) = 96.5 %

CORRELATION COEFFICIENT = 1.000

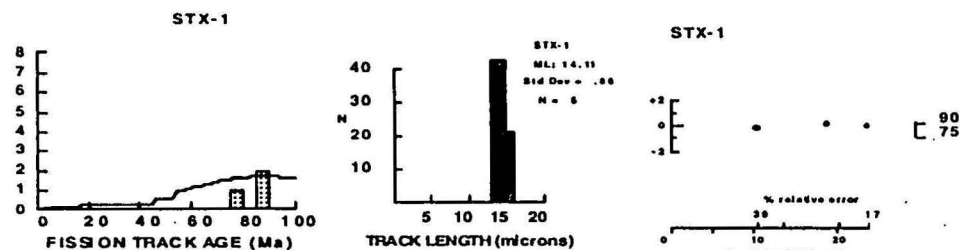
Pooled Age = 87.5 ± 12.8 Ma

Central Age = 87.5 ± 12.8 Ma

% Variation = 0.00%

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.379E+06cm⁻²; ND = 5379



CA109 [Catamaran-109 drillhole, depth: 265-267 m]

Irradiation LU428-10 Counted by: P. O'Sullivan

No.	Ns	Ni	Na	RATIO	U(ppm)	RHOs	RHOi	F.T.AGE(Ma)
1	5	19	64	0.263	3.1	9.065E+04	3.445E+05	68.4 ± 34.4
2	12	39	24	0.308	16.8	5.802E+05	1.886E+06	80.0 ± 26.4
3	3	10	20	0.300	5.2	1.741E+05	5.802E+05	78.0 ± 51.3
4	4	8	25	0.500	3.3	1.857E+05	3.713E+05	129.4 ± 79.3
5	4	9	24	0.444	3.9	1.934E+05	4.351E+05	115.2 ± 69.2
6	16	57	50	0.281	11.8	3.713E+05	1.323E+06	73.0 ± 20.7
7	4	11	60	0.364	1.9	7.736E+04	2.127E+05	94.4 ± 55.1
8	10	41	30	0.244	14.1	3.868E+05	1.586E+06	63.5 ± 22.4
9	8	14	48	0.571	3.0	1.934E+05	3.384E+05	147.7 ± 65.5
10	18	28	42	0.643	6.9	4.973E+05	7.736E+05	165.9 ± 50.2
11	15	50	20	0.300	25.9	8.703E+05	2.901E+06	78.0 ± 23.0
12	14	35	60	0.400	6.0	2.708E+05	6.769E+05	103.7 ± 32.8
13	3	15	36	0.200	4.3	9.670E+04	4.835E+05	52.1 ± 32.9
14	7	16	36	0.438	4.6	2.256E+05	5.157E+05	113.4 ± 51.4
15	12	23	36	0.522	6.6	3.868E+05	7.413E+05	135.0 ± 48.1
16	8	23	60	0.348	4.0	1.547E+05	4.448E+05	90.3 ± 37.1
17	22	34	40	0.647	8.8	6.382E+05	9.863E+05	167.0 ± 45.8
18	1	8	40	0.125	2.1	2.901E+04	2.321E+05	32.6 ± 34.6
19	5	12	40	0.417	3.1	1.450E+05	3.481E+05	108.0 ± 57.5
20	9	27	60	0.333	4.7	1.741E+05	5.222E+05	86.6 ± 33.3
21	3	12	32	0.250	3.9	1.088E+05	4.351E+05	65.0 ± 42.0
22	18	22	32	0.818	7.1	6.527E+05	7.977E+05	210.4 ± 67.0
23	6	19	60	0.316	3.3	1.160E+05	3.674E+05	82.0 ± 38.4
24	3	6	60	0.500	1.0	5.802E+04	1.160E+05	129.4 ± 91.5
25	26	45	30	0.578	15.5	1.006E+06	1.741E+06	149.3 ± 36.9
	236	583			5.9	2.661E+05	6.574E+05	

Area of basic unit = 8.618E-07 cm²

CHI SQUARED = 12.21235 WITH 24 DEGREES OF FREEDOM

P(chi squared) = 43.8 %

CORRELATION COEFFICIENT = 0.775

Pooled Age = 105.0 ± 8.1 Ma

Central Age = 104.6 ± 9.1 Ma

Ages calculated using a zeta of 379.2 ± 3 for CN 5 glass 12.5 ppm

RHO D = 1.379E+06cm⁻²; ND = 5379

