Apatite fission track data derived from cuttings of the following Alaskan arctic White Hills oil and gas wells:

ARCO Alaska Inc. Kavik No. 1 (75' - 9,540'), and

BP Exploration (Alaska) Inc. Kemik Unit No. 1 (710' - 10,000').

Received 6 May 1994 Total of 14 pages in report

Alaska Geologic Materials Center Data Report No. 225

GEOTRACK # 312 Alaska

Sample Number	Sample Type	Sample Depth (ft)	Stratigraphic Subdivision
Kemik-1			
GC312- 1	All samples are cuttings	710-1500	Late Cretacious
- 2		2420-2800	Early Cretacious
- 3		3590-4000	Jurassic
- 4		4440 4720	Early Cretacious
- 5		8550-8830	Triassic
- 6		9000-~~[illegible]~~,000 9,000-10,000 JR	Triassic
Kavik-1	All samples are cuttings		
- 7		75-560	Late Cretacious
- 8		1900-2400	Late Cretacious
- 9		3080-3460	Early Cretacious
-10		4260-4760	Triassic
-11		4700-5100	Triassic
-12		5560-6010	Mississipian
-13		7200-7700	Mississipian
-14		8960-9540	Mississipian

Table B.2: Length distribution summary data - samples from White Hills, Alaska (Geotrack Report #312)

	Sample number	Mean track length (µm)	Standard deviation (µm)	Number of tracks (N)	Number of Tracks in Length Intervals (µm) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
cuttings	**Kemik-1**																							
710-1500'	GC312-1	13.11 ± 0.82	2.17	7	-	-	-	-	-	-	-	-	-	1	1	-	1	-	3	1	-	-	-	-
2420-2800'	GC312-2	10.90	-	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
3590-4000'	GC312-3	12.08 ± 0.38	1.62	18	-	-	-	-	-	-	-	-	1	1	2	4	5	2	3	-	-	-	-	-
4440-4720'	GC312-4	9.81 ± 2.12	3.00	2	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-
8550-8830'	GC312-5	No apatite	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9000'-10,000'	GC312-6	No confined	tracks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cuttings	**Kavik-1**																							
75-560'	GC312-7	10.51 ± 0.84	3.13	14	-	1	-	-	-	-	-	1	1	1	3	3	2	1	1	-	-	-	-	-
1900-2400'	GC312-8	11.16 ± 0.68	3.09	21	-	-	-	1	1	-	1	-	1	-	1	7	4	2	3	-	-	-	-	-
3080-3460'	GC312-9	12.23 ± 0.43	2.17	25	-	-	-	-	-	1	-	-	1	1	2	6	4	4	6	-	-	-	-	-
4260-4760'	GC312-10	11.86 ± 0.26	0.91	12	-	-	-	-	-	-	-	-	-	1	-	6	3	2	-	-	-	-	-	-
4700-5100'	GC312-11	10.06 ± 0.88	3.30	14	-	-	1	-	1	-	-	1	-	1	5	2	2	-	1	-	-	-	-	-
5560-6010'	GC312-12	No apatite	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7200-7700'	GC312-13	7.63 ± 1.43	3.20	5	-	-	-	1	-	1	-	-	1	-	2	-	-	-	-	-	-	-	-	-
8960-9540'	GC312-14	6.89 ± 1.19	3.15	7	-	-	-	1	2	1	-	-	1	-	2	-	-	-	-	-	-	-	-	-

Track length measurements by P. O'Sullivan.

GC312-1 APATITE

IRRADIATION G184
SLIDE NUMBER 1
COUNTED BY: POS

No.	Ns	Ni	Na	RATIO	U (ppm)	RHOs	RHOi	F.T. AGE (Ma)
1	4	29	70	0.138	6.8	9.080E+04	6.583E+05	30.8 ± 16.4
2	18	103	100	0.175	16.9	2.860E+05	1.637E+06	39.0 ± 10.0
3	0	2	30	0.000	1.1	0.000E+00	1.059E+05	0.0 ± 0.0
4	1	1	42	1.000	0.4	3.783E+04	3.783E+04	219.8 ± 310.9
5	3	20	40	0.150	8.2	1.192E+05	7.945E+05	33.5 ± 20.7
6	0	9	42	0.000	3.5	0.000E+00	3.405E+05	0.0 ± 0.0
7	3	9	30	0.333	4.9	1.589E+05	4.767E+05	74.1 ± 49.4
8	2	10	56	0.200	2.9	5.675E+04	2.838E+05	44.6 ± 34.5
9	2	14	63	0.143	3.6	5.045E+04	3.531E+05	31.9 ± 24.1
10	9	36	100	0.250	5.9	1.430E+05	5.721E+05	55.7 ± 20.8
11	0	2	70	0.000	0.5	0.000E+00	4.540E+04	0.0 ± 0.0
12	1	13	100	0.077	2.1	1.589E+04	2.066E+05	17.2 ± 17.8
13	9	20	80	0.450	4.1	1.788E+05	3.973E+05	99.9 ± 40.2
14	0	3	36	0.000	1.4	0.000E+00	1.324E+05	0.0 ± 0.0
15	8	62	30	0.129	33.9	4.238E+05	3.284E+06	28.8 ± 10.8
16	0	4	100	0.000	0.7	0.000E+00	6.356E+04	0.0 ± 0.0
17	0	1	60	0.000	0.3	0.000E+00	2.648E+04	0.0 ± 0.0
18	2	4	80	0.500	0.8	3.973E+04	7.945E+04	110.9 ± 96.0
19	0	1	20	0.000	0.8	0.000E+00	7.945E+04	0.0 ± 0.0
20	0	6	100	0.000	1.0	0.000E+00	9.534E+04	0.0 ± 0.0
	62	349			4.6	7.888E+04	4.440E+05	

Area of basic unit = 6.293E-07 cm-2

Chi Squared = 17.798 with 19 degrees of freedom
P(chi squared) = 53.6 %
Correlation Coefficient = 0.926
Variance of SQR(Ns) = 1.65
Variance of SQR(Ni) = 5.89
Age Dispersion = 4.256 % (did not converge)

Ns/Ni = 0.178 ± 0.024
Mean Ratio = 0.177 ± 0.055

Ages calculated using a zeta of 352.7 ± 5 for SRM612 glass
Rho D = 1.268E+06cm-2; ND = 1995

POOLED AGE = 39.6 ± 5.6 Ma
CENTRAL AGE = 39.6 ± 5.6 Ma

GC312-3 APATITE

IRRADIATION G184
SLIDE NUMBER 3
COUNTED BY: POS

No.	Ns	Ni	Na	RATIO	U (ppm)	RHOs	RHOi	F.T. AGE (Ma)
1	2	10	30	0.200	5.5	1.059E+05	5.297E+05	44.6 ± 34.5
2	0	16	16	0.000	16.4	0.000E+00	1.589E+06	0.0 ± 0.0
3	0	24	32	0.000	12.3	0.000E+00	1.192E+06	0.0 ± 0.0
4	23	52	28	0.442	30.5	1.305E+06	2.951E+06	98.2 ± 24.7
5	1	8	35	0.125	3.8	4.540E+04	3.632E+05	27.9 ± 29.6
6	5	43	28	0.116	25.2	2.838E+05	2.440E+06	26.0 ± 12.3
7	0	74	20	0.000	60.7	0.000E+00	5.880E+06	0.0 ± 0.0
8	30	155	35	0.194	72.7	1.362E+06	7.037E+06	43.1 ± 8.7
	61	382			28.0	4.327E+05	2.710E+06	

Area of basic unit = 6.293E-07 cm-2

Chi Squared = 37.764 with 7 degrees of freedom
P(chi squared) = 0.0 %
Correlation Coefficient = 0.777
Variance of SQR(Ns) = 4.74
Variance of SQR(Ni) = 10.44
Age Dispersion = 96.566 %

Ns/Ni = 0.160 ± 0.022
Mean Ratio = 0.135 ± 0.053

Ages calculated using a zeta of 352.7 ± 5 for SRM612 glass
Rho D = 1.268E+06cm-2; ND = 1995

POOLED AGE = 35.6 ± 5.0 Ma
CENTRAL AGE = 27.9 ± 11.1 Ma

GC312-2 APATITE

IRRADIATION G184
SLIDE NUMBER 2
COUNTED BY: POS

No.	Ns	Ni	Na	RATIO	U (ppm)	RHOs	RHOi	F.T. AGE (Ma)
1	1	8	25	0.125	5.3	6.356E+04	5.085E+05	27.9 ± 29.6
2	16	173	70	0.092	40.6	3.632E+05	3.927E+06	20.6 ± 5.4
3	7	43	42	0.163	16.8	2.648E+05	1.627E+06	36.3 ± 14.8
	24	224			26.8	2.784E+05	2.598E+06	

Area of basic unit = 6.293E-07 cm-2

Chi Squared = 1.407 with 2 degrees of freedom
P(chi squared) = 49.5 %
Correlation Coefficient = 0.979
Variance of SQR(Ns) = 2.26
Variance of SQR(Ni) = 27.33
Age Dispersion = 0.013 % (did not converge)

Ns/Ni = 0.107 ± 0.023
Mean Ratio = 0.127 ± 0.020

Ages calculated using a zeta of 352.7 ± 5 for SRM612 glass
Rho D = 1.268E+06cm-2; ND = 1995

POOLED AGE = 23.9 ± 5.2 Ma
CENTRAL AGE = 23.9 ± 5.2 Ma

GC312-4 APATITE

IRRADIATION G184
SLIDE NUMBER 4
COUNTED BY: POS

No.	Ns	Ni	Na	RATIO	U (ppm)	RHOs	RHOi	F.T. AGE (Ma)
1	2	37	32	0.054	19.0	9.932E+04	1.837E+06	12.1 ± 8.8
2	0	4	20	0.000	3.3	0.000E+00	3.178E+05	0.0 ± 0.0
3	0	9	20	0.000	7.4	0.000E+00	7.151E+05	0.0 ± 0.0
4	2	14	18	0.143	12.8	1.766E+05	1.236E+06	31.9 ± 24.1
5	5	41	54	0.122	12.5	1.471E+05	1.207E+06	27.2 ± 12.9
6	1	38	35	0.026	17.8	4.540E+04	1.725E+06	5.9 ± 6.0
7	0	5	9	0.000	9.1	0.000E+00	8.828E+05	0.0 ± 0.0
8	0	12	20	0.000	9.8	0.000E+00	9.534E+05	0.0 ± 0.0
	10	160			12.6	7.640E+04	1.222E+06	

Area of basic unit = 6.293E-07 cm-2

Chi Squared = 6.023 with 7 degrees of freedom
P(chi squared) = 53.7 %
Correlation Coefficient = 0.746
Variance of SQR(Ns) = 0.77
Variance of SQR(Ni) = 3.30
Age Dispersion = 14.386 % (did not converge)

Ns/Ni = 0.062 ± 0.020
Mean Ratio = 0.043 ± 0.021

Ages calculated using a zeta of 352.7 ± 5 for SRM612 glass
Rho D = 1.268E+06cm-2; ND = 1995

POOLED AGE = 14.0 ± 4.6 Ma
CENTRAL AGE = 13.9 ± 4.6 Ma

GC312-6 APATITE

IRRADIATION G184
SLIDE NUMBER 6
COUNTED BY: POS

No.	Ns	Ni	Na	RATIO	U (ppm)	RHOs	RHOi	F.T. AGE (Ma)
1	0	3	63	0.000	0.8	0.000E+00	7.567E+04	0.0 ± 0.0
2	0	9	100	0.000	1.5	0.000E+00	1.430E+05	0.0 ± 0.0
3	0	25	25	0.000	16.4	0.000E+00	1.589E+06	0.0 ± 0.0
4	0	6	30	0.000	3.3	0.000E+00	3.178E+05	0.0 ± 0.0
5	0	9	20	0.000	7.4	0.000E+00	7.151E+05	0.0 ± 0.0
6	0	10	64	0.000	2.6	0.000E+00	2.483E+05	0.0 ± 0.0
7	0	28	36	0.000	12.8	0.000E+00	1.236E+06	0.0 ± 0.0
8	1	22	25	0.045	14.4	6.356E+04	1.398E+06	10.2 ± 10.4
9	0	4	15	0.000	4.4	0.000E+00	4.238E+05	0.0 ± 0.0
10	0	1	27	0.000	0.6	0.000E+00	5.885E+04	0.0 ± 0.0
11	0	14	28	0.000	8.2	0.000E+00	7.945E+05	0.0 ± 0.0
	1	131			5.0	3.670E+03	4.808E+05	

Area of basic unit = 6.293E-07 cm-2

Chi Squared = 4.775 with 10 degrees of freedom
P(chi squared) = 90.6 %
Correlation Coefficient = 0.362
Variance of SQR(Ns) = 0.09
Variance of SQR(Ni) = 1.92
Age Dispersion = 10.896 % (did not converge)

Ns/Ni = 0.008 ± 0.008
Mean Ratio = 0.004 ± 0.004

Ages calculated using a zeta of 352.7 ± 5 for SRM612 glass
Rho D = 1.268E+06cm-2; ND = 1995

POOLED AGE = 1.7 ± 1.7 Ma
CENTRAL AGE = 1.7 ± 1.7 Ma

GC312-7 APATITE

IRRADIATION G184
SLIDE NUMBER 7
COUNTED BY: POS

No.	Ns	Ni	Na	RATIO	U (ppm)	RHOs	RHOi	F.T. AGE (Ma)
1	0	18	100	0.000	3.0	0.000E+00	2.860E+05	0.0 ± 0.0
2	6	18	50	0.333	5.9	1.907E+05	5.721E+05	74.1 ± 35.0
3	1	1	49	1.000	0.3	3.243E+04	3.243E+04	219.8 ± 310.9
4	0	3	36	0.000	1.4	0.000E+00	1.324E+05	0.0 ± 0.0
5	4	20	40	0.200	8.2	1.589E+05	7.945E+05	44.6 ± 24.4
6	3	12	64	0.250	3.1	7.449E+04	2.980E+05	55.7 ± 36.0
7	0	3	32	0.000	1.5	0.000E+00	1.490E+05	0.0 ± 0.0
8	7	37	30	0.189	20.2	3.708E+05	1.960E+06	42.2 ± 17.4
9	6	18	60	0.333	4.9	1.589E+05	4.767E+05	74.1 ± 35.0
10	0	5	48	0.000	1.7	0.000E+00	1.655E+05	0.0 ± 0.0
11	2	11	36	0.182	5.0	8.828E+04	4.855E+05	40.5 ± 31.2
12	0	4	25	0.000	2.6	0.000E+00	2.542E+05	0.0 ± 0.0
13	0	8	36	0.000	3.6	0.000E+00	3.531E+05	0.0 ± 0.0
14	2	7	28	0.286	4.1	1.135E+05	3.973E+05	63.6 ± 51.0
15	4	16	40	0.250	6.6	1.589E+05	6.356E+05	55.7 ± 31.2
16	0	10	49	0.000	3.4	0.000E+00	3.243E+05	0.0 ± 0.0
17	0	7	36	0.000	3.2	0.000E+00	3.090E+05	0.0 ± 0.0
18	38	115	25	0.330	75.5	2.415E+06	7.310E+06	73.5 ± 13.9
19	2	5	35	0.400	2.3	9.080E+04	2.270E+05	88.8 ± 74.4
20	2	36	49	0.056	12.1	6.486E+04	1.167E+06	12.4 ± 9.0
	77	354			6.7	1.410E+05	6.481E+05	

Area of basic unit = 6.293E-07 cm-2

Chi Squared = 25.833 with 19 degrees of freedom
P(chi squared) = 13.5 %
Correlation Coefficient = 0.953
Variance of SQR(Ns) = 2.26
Variance of SQR(Ni) = 4.61
Age Dispersion = 43.316 %

Ns/Ni = 0.218 ± 0.027
Mean Ratio = 0.190 ± 0.053

Ages calculated using a zeta of 352.7 ± 5 for SRM612 glass
Rho D = 1.268E+06cm-2; ND = 1995

POOLED AGE = 48.5 ± 6.2 Ma
CENTRAL AGE = 40.7 ± 7.7 Ma

GC312-8 APATITE

IRRADIATION G184
SLIDE NUMBER 8
COUNTED BY: POS

No.	Ns	Ni	Na	RATIO	U (ppm)	RHOs	RHOi	F.T. AGE (Ma)
1	5	28	30	0.179	15.3	2.648E+05	1.483E+06	39.8 ± 19.4
2	0	4	28	0.000	2.3	0.000E+00	2.270E+05	0.0 ± 0.0
3	4	28	40	0.143	11.5	1.589E+05	1.112E+06	31.9 ± 17.1
4	1	4	49	0.250	1.3	3.243E+04	1.297E+05	55.7 ± 62.3
5	0	1	25	0.000	0.7	0.000E+00	6.356E+04	0.0 ± 0.0
6	1	10	80	0.100	2.1	1.986E+04	1.986E+05	22.3 ± 23.4
7	1	1	64	1.000	0.3	2.483E+04	2.483E+04	219.8 ± 310.9
8	2	10	30	0.200	5.5	1.059E+05	5.297E+05	44.6 ± 34.5
9	24	227	36	0.106	103.5	1.059E+06	1.002E+07	23.6 ± 5.1
10	1	12	40	0.083	4.9	3.973E+04	4.767E+05	18.6 ± 19.4
11	4	35	50	0.114	11.5	1.271E+05	1.112E+06	25.5 ± 13.5
12	0	16	80	0.000	3.3	0.000E+00	3.178E+05	0.0 ± 0.0
13	1	11	25	0.091	7.2	6.356E+04	6.992E+05	20.3 ± 21.2
14	1	6	42	0.167	2.3	3.783E+04	2.270E+05	37.2 ± 40.2
15	8	28	42	0.286	10.9	3.027E+05	1.059E+06	63.6 ± 25.5
16	1	35	32	0.029	18.0	4.966E+04	1.738E+06	6.4 ± 6.5
17	0	7	12	0.000	9.6	0.000E+00	9.270E+05	0.0 ± 0.0
18	7	46	80	0.152	9.4	1.390E+05	9.137E+05	33.9 ± 13.8
19	3	7	18	0.429	6.4	2.648E+05	6.180E+05	95.1 ± 65.7
20	1	94	100	0.011	15.4	1.589E+04	1.494E+06	2.4 ± 2.4
	65	610			11.1	1.144E+05	1.073E+06	

Area of basic unit = 6.293E-07 cm-2

Chi Squared = 31.846 with 19 degrees of freedom
P(chi squared) = 3.3 %
Correlation Coefficient = 0.880
Variance of SQR(Ns) = 1.39
Variance of SQR(Ni) = 10.74
Age Dispersion = 45.200 %

Ns/Ni = 0.107 ± 0.014
Mean Ratio = 0.167 ± 0.050

Ages calculated using a zeta of 352.7 ± 5 for SRM612 glass
Rho D = 1.268E+06cm-2; ND = 1995

POOLED AGE = 23.8 ± 3.2 Ma
CENTRAL AGE = 26.1 ± 5.0 Ma

GC312-9 APATITE

IRRADIATION G184
SLIDE NUMBER 9
COUNTED BY: POS

No.	Ns	Ni	Na	RATIO	U (ppm)	RHOs	RHOi	F.T. AGE (Ma)
1	0	45	80	0.000	9.2	0.000E+00	8.938E+05	0.0 ± 0.0
2	14	228	90	0.061	41.6	2.472E+05	4.026E+06	13.7 ± 3.8
3	14	221	27	0.063	134.4	8.240E+05	1.301E+07	14.2 ± 3.9
4	18	243	18	0.074	221.6	1.589E+06	2.145E+07	16.5 ± 4.1
5	13	97	40	0.134	39.8	5.164E+05	3.853E+06	29.9 ± 8.9
6	0	21	64	0.000	5.4	0.000E+00	5.214E+05	0.0 ± 0.0
7	6	69	12	0.087	94.4	7.945E+05	9.137E+06	19.4 ± 8.3
8	0	7	36	0.000	3.2	0.000E+00	3.090E+05	0.0 ± 0.0
9	9	180	60	0.050	49.2	2.384E+05	4.767E+06	11.2 ± 3.8
10	8	39	30	0.205	21.3	4.238E+05	2.066E+06	45.7 ± 17.8
11	0	66	50	0.000	21.7	0.000E+00	2.098E+06	0.0 ± 0.0
12	2	14	25	0.143	9.2	1.271E+05	8.899E+05	31.9 ± 24.1
13	7	44	42	0.159	17.2	2.648E+05	1.665E+06	35.5 ± 14.5
14	5	65	60	0.077	17.8	1.324E+05	1.721E+06	17.2 ± 8.0
15	0	5	16	0.000	5.1	0.000E+00	4.966E+05	0.0 ± 0.0
16	7	91	50	0.077	29.9	2.225E+05	2.892E+06	17.2 ± 6.8
	103	1435			33.7	2.338E+05	3.258E+06	

Area of basic unit = 6.293E-07 cm-2

Chi Squared = 29.799 with 15 degrees of freedom
P(chi squared) = 1.3 %
Correlation Coefficient = 0.866
Variance of SQR(Ns) = 2.45
Variance of SQR(Ni) = 19.00
Age Dispersion = 38.059 % (did not converge)

Ns/Ni = 0.072 ± 0.007
Mean Ratio = 0.071 ± 0.016

Ages calculated using a zeta of 352.7 ± 5 for SRM612 glass
Rho D = 1.268E+06cm-2; ND = 1995

POOLED AGE = 16.0 ± 1.7 Ma
CENTRAL AGE = 16.5 ± 2.6 Ma

GC312-10 APATITE

IRRADIATION G184
SLIDE NUMBER 10
COUNTED BY: POS

No.	Ns	Ni	Na	RATIO	U (ppm)	RHOs	RHOi	F.T. AGE (Ma)
1	2	56	16	0.036	57.5	1.986E+05	5.562E+06	8.0 ± 5.7
2	85	264	70	0.322	61.9	1.930E+06	5.993E+06	71.6 ± 9.1
3	1	3	16	0.333	3.1	9.932E+04	2.980E+05	74.1 ± 85.6
4	1	57	35	0.018	26.7	4.540E+04	2.588E+06	3.9 ± 4.0
5	3	11	48	0.273	3.8	9.932E+04	3.642E+05	60.7 ± 39.6
6	9	47	48	0.191	16.1	2.980E+05	1.556E+06	42.7 ± 15.6
7	5	75	9	0.067	136.8	8.828E+05	1.324E+07	14.9 ± 6.9
8	3	32	24	0.094	21.9	1.986E+05	2.119E+06	20.9 ± 12.6
9	4	32	28	0.125	18.8	2.270E+05	1.816E+06	27.9 ± 14.8
10	1	42	21	0.024	32.8	7.567E+04	3.178E+06	5.3 ± 5.4
	114	619			32.3	5.751E+05	3.123E+06	

Area of basic unit = 6.293E-07 cm-2

Chi Squared = 48.996 with 9 degrees of freedom
P(chi squared) = 0.0 %
Correlation Coefficient = 0.960
Variance of SQR(Ns) = 6.09
Variance of SQR(Ni) = 14.89
Age Dispersion = 73.538 %

Ns/Ni = 0.184 ± 0.019
Mean Ratio = 0.148 ± 0.039

Ages calculated using a zeta of 352.7 ± 5 for SRM612 glass
Rho D = 1.268E+06cm-2; ND = 1995

POOLED AGE = 41.1 ± 4.3 Ma
CENTRAL AGE = 27.3 ± 7.8 Ma

GC312-11 APATITE

IRRADIATION G184
SLIDE NUMBER 11
COUNTED BY: POS

No.	Ns	Ni	Na	RATIO	U (ppm)	RHOs	RHOi	F.T. AGE (Ma)
1	0	225	100	0.000	36.9	0.000E+00	3.575E+06	0.0 ± 0.0
2	3	12	16	0.250	12.3	2.980E+05	1.192E+06	55.7 ± 36.0
3	28	28	80	1.000	5.7	5.562E+05	5.562E+05	219.8 ± 59.0
4	0	9	40	0.000	3.7	0.000E+00	3.575E+05	0.0 ± 0.0
5	7	42	100	0.167	6.9	1.112E+05	6.674E+05	37.2 ± 15.2
6	0	74	64	0.000	19.0	0.000E+00	1.837E+06	0.0 ± 0.0
7	0	174	70	0.000	40.8	0.000E+00	3.950E+06	0.0 ± 0.0
8	0	17	16	0.000	17.4	0.000E+00	1.688E+06	0.0 ± 0.0
9	2	18	36	0.111	8.2	8.828E+04	7.945E+05	24.8 ± 18.5
10	3	16	49	0.188	5.4	9.729E+04	5.189E+05	41.8 ± 26.3
11	11	149	70	0.074	34.9	2.497E+05	3.382E+06	16.5 ± 5.2
	54	764			19.6	1.339E+05	1.894E+06	

Area of basic unit = 6.293E-07 cm-2

Chi Squared = 218.389 with 10 degrees of freedom
P(chi squared) = 0.0 %
Correlation Coefficient = -0.141
Variance of SQR(Ns) = 3.03
Variance of SQR(Ni) = 18.80
Age Dispersion = %146.401 %

Ns/Ni = 0.071 ± 0.010
Mean Ratio = 0.163 ± 0.088

Ages calculated using a zeta of 352.7 ± 5 for SRM612 glass
Rho D = 1.268E+06cm-2; ND = 1995

POOLED AGE = 15.8 ± 2.3 Ma
CENTRAL AGE = 26.7 ± 12.6 Ma

GC312-13 APATITE

IRRADIATION G184
SLIDE NUMBER 12
COUNTED BY: POS

No.	Ns	Ni	Na	RATIO	U (ppm)	RHOs	RHOi	F.T. AGE (Ma)
1	0	15	60	0.000	4.1	0.000E+00	3.973E+05	0.0 ± 0.0
2	0	14	25	0.000	9.2	0.000E+00	8.899E+05	0.0 ± 0.0
3	0	47	25	0.000	30.9	0.000E+00	2.987E+06	0.0 ± 0.0
4	0	153	50	0.000	50.2	0.000E+00	4.863E+06	0.0 ± 0.0
5	0	11	40	0.000	4.5	0.000E+00	4.370E+05	0.0 ± 0.0
6	0	12	16	0.000	12.3	0.000E+00	1.192E+06	0.0 ± 0.0
7	14	59	40	0.237	24.2	5.562E+05	2.344E+06	52.8 ± 15.8
8	3	161	100	0.019	26.4	4.767E+04	2.558E+06	4.2 ± 2.4
9	4	57	90	0.070	10.4	7.063E+04	1.006E+06	15.7 ± 8.1
	21	529			19.5	7.482E+04	1.885E+06	

Area of basic unit = 6.293E-07 cm-2

Chi Squared = 59.914 with 8 degrees of freedom
P(chi squared) = 0.0 %
Correlation Coefficient = 0.138
Variance of SQR(Ns) = 1.85
Variance of SQR(Ni) = 13.53
Age Dispersion = %172.161 %

Ns/Ni = 0.040 ± 0.009
Mean Ratio = 0.036 ± 0.026

Ages calculated using a zeta of 352.7 ± 5 for SRM612 glass
Rho D = 1.268E+06cm-2; ND = 1995

POOLED AGE = 8.9 ± 2.0 Ma
CENTRAL AGE = 8.3 ± 5.4 Ma

GC312-14 APATITE

IRRADIATION G184
SLIDE NUMBER 13
COUNTED BY: POS

No.	Ns	Ni	Na	RATIO	U (ppm)	RHOs	RHOi	F.T. AGE (Ma)
1	2	22	35	0.091	10.3	9.080E+04	9.988E+05	20.3 ± 15.0
2	12	120	36	0.100	54.7	5.297E+05	5.297E+06	22.3 ± 6.8
3	0	9	20	0.000	7.4	0.000E+00	7.151E+05	0.0 ± 0.0
4	0	19	49	0.000	6.4	0.000E+00	6.162E+05	0.0 ± 0.0
5	15	321	70	0.047	75.3	3.405E+05	7.287E+06	10.4 ± 2.8
6	2	34	16	0.059	34.9	1.986E+05	3.377E+06	13.1 ± 9.6
7	2	29	42	0.069	11.3	7.567E+04	1.097E+06	15.4 ± 11.3
8	0	15	36	0.000	6.8	0.000E+00	6.621E+05	0.0 ± 0.0
9	1	42	70	0.024	9.8	2.270E+04	9.534E+05	5.3 ± 5.4
10	0	25	20	0.000	20.5	0.000E+00	1.986E+06	0.0 ± 0.0
11	3	56	30	0.054	30.6	1.589E+05	2.966E+06	12.0 ± 7.1
12	6	107	30	0.056	58.6	3.178E+05	5.668E+06	12.5 ± 5.3
13	2	29	30	0.069	15.9	1.059E+05	1.536E+06	15.4 ± 11.3
14	0	19	48	0.000	6.5	0.000E+00	6.290E+05	0.0 ± 0.0
15	8	68	60	0.118	18.6	2.119E+05	1.801E+06	26.3 ± 9.8
16	1	70	56	0.014	20.5	2.838E+04	1.986E+06	3.2 ± 3.2
17	0	67	30	0.000	36.7	0.000E+00	3.549E+06	0.0 ± 0.0
	54	1052			25.5	1.266E+05	2.466E+06	

Area of basic unit = 6.293E-07 cm-2

Chi Squared = 21.758 with 16 degrees of freedom
P(chi squared) = 15.1 %
Correlation Coefficient = 0.864
Variance of SQR(Ns) = 1.59
Variance of SQR(Ni) = 12.93
Age Dispersion = 42.501 %

Ns/Ni = 0.051 ± 0.007
Mean Ratio = 0.041 ± 0.010

Ages calculated using a zeta of 352.7 ± 5 for SRM612 glass
Rho D = 1.268E+06cm-2; ND = 1995

POOLED AGE = 11.5 ± 1.6 Ma
CENTRAL AGE = 11.0 ± 2.1 Ma