DEPARTMENT OF ENERGY, MINES AND RESOURCES
Geological Survey of Canada

LITHOPHILE ELEMENT CONTENT OF SOME CANADIAN GRANITOID ROCKS

This document was produced
by scanning the original publication.

Ce document a été produit par
numérisation de la publication originale.

by
R. Mulligan

OPEN FILE 666

OTTAWA, Canada
January 1980

CONTENTS

LITHOPHILE ELEMENT CONTENT OF SOME CANADIAN GRANITOID ROCKS

INTRODUCTION

This report makes available the results of analyses of various Canadian granitoid rocks for the following elements: K, Li, Rb, Cs, Sn, Be, Mo, W, F, and Cl. Within this group, rubidium and caesium form large cations and rubidium, in particular, can substitute to a large extent for potassium in feldspars and micas. Lithium, tin, beryllium, molybdenum, and tungsten form small ions which, mainly because of their ionic radii and charges, cannot substitute to any appreciable extent in the principal rock-forming minerals and are concentrated in late differentiates and residual fluids. Caesium, because of its very large ionic radius, is also thought to be largely concentrated in late differentiates.

Because deposits of lithium, tin, beryllium, molybdenum, and tungsten, although everywhere associated with granitoid rocks, appear to be larger and/or more numerous in some geological regions than in others, the abundances of elements reported on have been averaged for the three regions and provinces considered: Appalachian Region, Cordilleran Region, and the Superior Province of the Canadian Shield. These averages are presented here-in, together with some other statistical data, and an attempt made to interpret their interrelationships and the relationships with the frequency of deposits of some of the metals.

The analytical data presented here were compiled by R. Mulligan, with the assistance of Susan Boyce. Programming, data processing, and statistical calculations were done by R.G. Garrett, and his contribution is gratefully acknowledged. The interpretations in this report are the responsibility of R. Mulligan.

Samples

With few exceptions, the samples analyzed were collected by R. Mulligan in the course of field work on lithium, beryllium, caesium, and tungsten occurrences over a period of some years. The samples are composites of small chips collected along traverses commonly several kilometres long, and they therefore represent averages over considerable distances. Sample locations and numbers are shown on the accompanying map. The residues of pulps are stored at the Geological Survey, Ottawa.

Rock Types

The samples from the Appalachian and Cordilleran regions represent rocks ranging from granite to granodiorite. Of the Cordilleran samples, probably a majority have approximately equal amounts of plagioclase and potassic feldspar, with biotite usually the dominant ferromagnesian mineral ("quartz-monzonite"). Of the Appalachian samples, probably a majority are granites, and a considerable number contain visible muscovite as well as biotite. In Superior Province typical samples represent more or less gneissic mesocratic granitoid rock cut by reddish leucocratic granitic dykes and pegmatites. The average composition is probably granodiorite but some may represent quartz-diorite, and some are certainly granite.

ANALYTICAL WORK

The analyses were done by Geological Survey analytical laboratories as follows:

Element	Method	Units	Limits of Detection	
			Level	Standard Deviation
K_2O	Atomic absorption spectroscopy	%	<3	±.2
Li	" " "	ppm	<50	±3
			>50	±10% of value
Rb	" " "	ppm	<100	±2
	" " "		>100	±10% of value
Cs	" " "	ppm	<10	±.9
			>10	±10% of value
Sn	Optical emission spectrography	ppm		.4-.5*
Be	" " "	ppm		2,5**
Mo	Zinc dithiol colorimetric	ppm		0.5-1
W	" " "	ppm		2-4
F	Selective ion electrode after Na_2Co_3 fusion	%		.005
Cl	Colorimetric	%		.03

*By G.S.C. Optical Emission Spectrography method QN8 (.4) and QN13 (.5). The method employed varied according to the tin content and mineralogy of samples but for most "normal" granitic rock samples reported here the QN8 (.4 ppm) method was used.

**Lower limit of detection was 5 ppm for samples analyzed in the early part of this project. Revised analytical techniques used on later samples had a lower limit of detection of 2 ppm. (see text - "Limitations of Significance of Data; 2.-Analyses")

DATA PRESENTATION

The basic sample and analytical data are contained in Computer Printout 008297U, labelled "All Data" (Appendix I). Table 1 illustrates the data format and coding used in Appendix I. In Appendix II ("Combined Data"-Printout 00829P8), analytical values for certain groups of samples in Appendix I were averaged to yield composite values which were substituted for the groups, for reasons explained in the following section. The groups of samples so combined are indicated by brackets at the right in Appendix I, together with the access numbers alotted to the composites in Appendix II. In Appendix II, these composite sets are indicated in the Access Numbers by asterisks followed by the number of samples averaged. Moreover, some single samples in Appendix I (indicated by single-line brackets) were omitted from Appendix II. Appendix II also contains calculated K/Rb ratios.

Appendices III and IV, which summarize the main statistical calculations, are presented for the benefit of readers interested in evaluating them.

Sample locations and numbers are shown on the map accompanying this report (Fig. 1).

LIMITATIONS ON SIGNIFICANCE OF ANALYTICAL DATA

1. Bias

A large proportion of the samples from the Cordillera and, to a lesser extent, from the Appalachian region were taken in areas or belts known to contain or thought to be favourable for occurrences of beryllium, tin, or tungsten. However, no samples were of obviously mineralized material, and some sheared and altered zones were excluded from sampling.

In the Cordillera the great majority of samples are from the miogeosynclinal belt that contains all known beryllium occurrences and most of the tin occurrences. The belt also contains many tungsten occurrences and the three largest tungsten deposits. As deposits of such small ion-forming elements (including lithium) are commonly interpreted as being derived from associated granitic rocks, the sample population may be biased in the sense that the values reported here may be higher than the true averages for the Cordilleran and Appalachian regions.

The samples from Superior Province, the main Archean province of the Canadian Shield, were collected mainly along roads from Abitibi County, Quebec through to southeastern Manitoba. They should be reasonably representative of the province, although sampling density was somewhat higher in the vicinity of some tin-bearing massive sulphide deposits and areas containing lithium and/or beryllium-bearing pegmatites.

The possibility of sample bias was reduced somewhat in all regions by combining values for closely spaced and higher-than-average samples into a single composite value, which was substituted for the individual analyses (group so combined). In addition, a few exceptionally high values from samples collected near known mineral occurrences were omitted. These changes are indicated in the All Data printout, and result in the "Combined Data" printout No. 00829PB (Appendix II).

2. Analyses

The accuracy and statistical reliability of results for Be and W are considered inferior to that for other elements because large proportions of the samples were at or below the limits of detection. In the case of Be, reported limits of detection varied from 5 ppm to 2 ppm in batches submitted at different times, because of changes in the analytical technique, values reported as <5 ppm are recorded as 1 ppm, <2 ppm. as 0.5, and Not Found as 0.2 ppm. For W, values reported as <2 ppm are recorded as 1 ppm.

The number of samples analyzed for key elements in the three regional groups are shown in parentheses in Table 2. For elements for which the number of samples is not shown, that of Cs is the same as of Rb, Be same as Sn, Mo same as W, and Cl same as F.

Of the total of 264 samples listed in Appendix I, all were analyzed for Sn and Be, 253 for Mo and W, and 251 for Li. Fewer (202) were analyzed for Rb and Cs and only 122 for K_2O. The number of analyses for K_2O in some regional groups is considered too small to yield significant statistical results,

RESULTS AND INTERPRETATION

Table 2 summarizes the average abundances of elements in the samples from the three regions and provinces considered here. Although no formal statistical interpretations are attempted, some general comments with reference to Table 2 may be made.

1. Potassium, Rb, and Cs show the highest average values (arithmetic and geometric) in the Appalachian Region and the lowest in Superior Province.
2. Average K/ average Rb is lowest in the Appalachian Region and highest in Superior Provinces.
3. Li and Sn show consistently higher averages in the Appalachian Region and lowest in Superior Province, suggesting an overall correlation between them.
4. The results for lithium parallel those from a previous study (Mulligan, 1973) which was based on a comparison of the writer's data then available for the Appalachian and Cordilleran regions with published data for Precambrian areas. As lithium occurrences are numerous in Superior Province, scarce in the Appalachian Region, and virtually absent from the Cordillera, it was concluded in the earlier study that no relationship exists between the average lithium content of granitoid rocks in these regions and the presence or absence of lithium deposits. It was further noted that although muscovitic granites in lithium-bearing pegmatite districts in Superior Province are appreciably higher in lithium than the average for the province, muscovitic granites in the Appalachian and Cordilleran regions which are not associated with lithium deposits are also commonly high in lithium. These conclusions appear to be confirmed by the present study.
5. The results for Be and Mo are inconsistent. For both elements the arithmetic averages are substantially higher in the Cordillera than in the other regions but the geometric average for Be is highest in the Appalachian Region and lowest in the Cordillera. Mo is highest in the Appalachian Region only in the Combined Data geometric mean. A correlation between Be and Mo was anticipated because beryllium minerals occur in some molybdenum deposits but there appears to be no evidence of such a correlation in the data. The disagreement between means is usually due to a few high values that cause the arithmetic mean to rise dramatically but which do not so easily affect the geometric mean.

6. W is consistently highest in the Cordillera and lowest in Superior Province. It may be more than a coincidence that the distribution parallels the respective sizes and numbers of tungsten deposits in the three regions. Except in the case of the Combined Data geometric average, the distribution of W parallels that of Mo, which is commonly associated with W in deposits.

   From the writer's observations it appears that in general, W is higher in granites associated with most but not all tungsten deposits, than its average abundance in all granitic rocks. It should be noted, however, that W concentrations are erratic, with large variations commonly occurring between samples. Its concentration may actually be higher locally in granites not associated with tungsten deposits than in those near them.

   The arithmetic averages shown in Table 2 for W in the Cordillera are probably too high, as Garrett's data (R.G. Garrett, 1971a, b, and unpublished) for the main Eastern Yukon-Northwest Territories tungsten belt yielded an arithmetic average of 2.9 ppm and a geometric average of 1.16 ppm Furthermore, this was based on a much more intensive and systematic survey than the present work.

   A correlation between W and Sn was anticipated because they are generally associated in greisen-type deposits, but this is not apparent in their relative distribution amongst regions as indicated by the present data. In general, it appears from the writer's observations that Sn and Li are usually relatively high in granites associated with wolframite greison deposits. This applies also to some scheelite-skarn deposits, but not all; in fact Be appears to be more consistently anomalous than either Sn or Li near the large scheelite-skarn deposits. Furthermore, Li, Sn, and commonly Be are anomalous in many muscovitic granites not associated with any known mineral deposits. W does not follow this pattern.
7. Fluorine, like W, is consistently highest in the Cordilleran rocks. Correlation of F with Sn was expected because fluorine minerals, although common in wolframite-cassiterite greisen veins, are uncommon in scheelite skarn and vein deposits. In fact, it appears from Appendix III that the only significant correlation between Sn and F is in the Appalachian Region.

8. The Total Lithophile Index (see Tables 1 and 2) is consistently highest in the Appalachian Region and lowest in Superior Province. The higher concentrations of Li and Sn in the Appalachian granites evidently affect the T.L.I. more than does that of W. Similarly, in the Cordilleran rocks, relatively high Li and Sn values (as compared to those for Superior rocks) in most cases apparently affect the T.L.I. more than the high Be and Mo values. As F is highest in the Cordilleran Region, it would appear to be unrelated to the T.L.I., but the data in Appendix III indicate that there is a significant correlation between T.L.I. and F in the Appalachian Region. T.L.I. averages in the three regions are in inverse relationship to average K/average Rb ratios. The decreasing K/Rb ratios from Superior Province through the Cordillera to the Appalachian region may indicate a corresponding increase in degree of differentation in the granitoid rocks (but see note 9 below).
9. As only 22 and 28 values of K/Rb (calculated from K_2O values) are available from the Cordilleran and Appalachian "Combined Data" (Appendix II), respectively, the probability of being able to determine valid correlations between K/Rb and the various elements is considered low for these regions. From the Superior Combined Data, 49 values are available, and this number is thought to be sufficient to yield valid comparisons with the elements. In Figure 2, K/Rb is plotted against Sn and Li, and in Figure 3 against T.L.I. From these, there appears to be a significant relationship between K/Rb and Li, and a possible weak relationship between K/Rb and T.L.I. There appears to be no recognizable pattern between the K/Rb and Sn data.

In the Appalachian region most of the low K/Rb ratios appear to correspond with muscovite-bearing granites. This relationship is not so apparent for Superior Province, though several pegmatites containing Li and/or Be minerals have relatively low K/Rb ratios.

CONCLUDING REMARKS

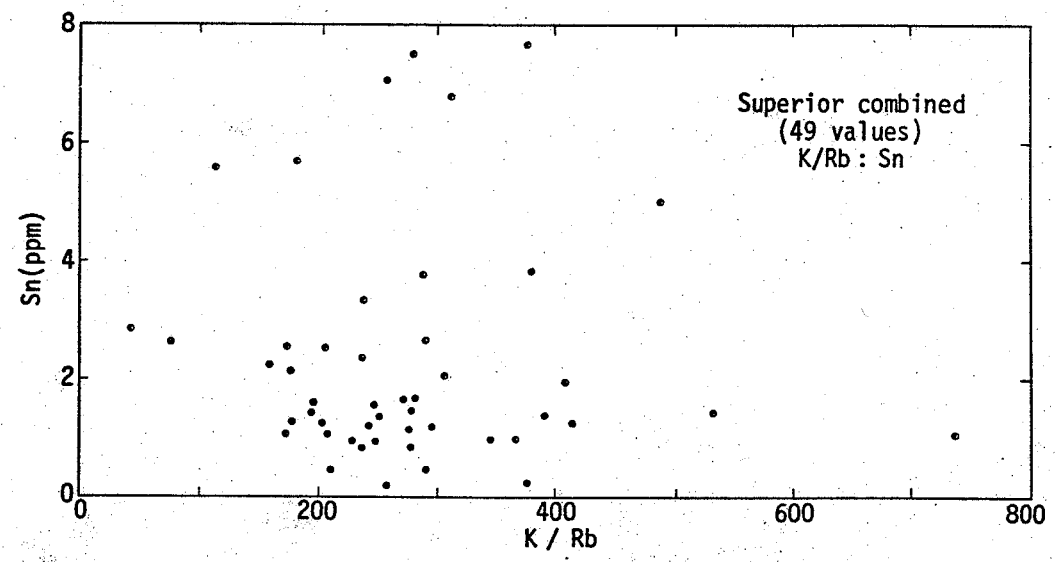
A considerable amount of data bearing on the relationship of tin deposits to the tin content of associated granitic bodies has been published. Although much of the data suggests that granites associated with tin deposits are anomalously rich in tin, there is some suggestion that this is not a necessary condition for the presence of tin deposits. A parallel relationship for tungsten is even less clearly defined.

It is desirable that more work be done on the lithophile-element content of granitic rocks, both by additional sampling and analysis, and by statistical analysis. Further statistical analysis of the present data, especially on the relationships between the K/Rb ratios and the various elements, might be of value.

REFERENCES

Garrett, R.G.
1971a: Molybdenum and tungsten in some acid plutonic rocks of southeast Yukon Territory; Geological Survey of Canada, Open File 51.
1971b: Molybdenum, tungsten, and uranium in acid plutonic rocks as a guide to regional exploration; Southeast Yukon; Can. Min. Jour., V. 92, p. 37-40.

Mulligan, R.
1973: Lithium distribution in Canadian granitoid rocks; Canadian Journal of Earth Sciences, V. 10, p. 316-323.



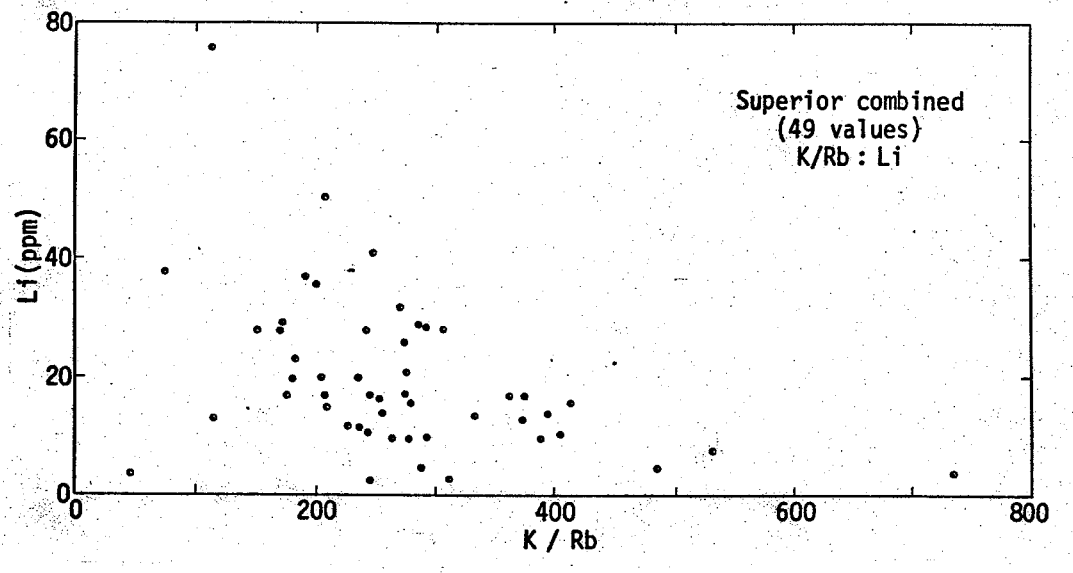


FIGURE 2

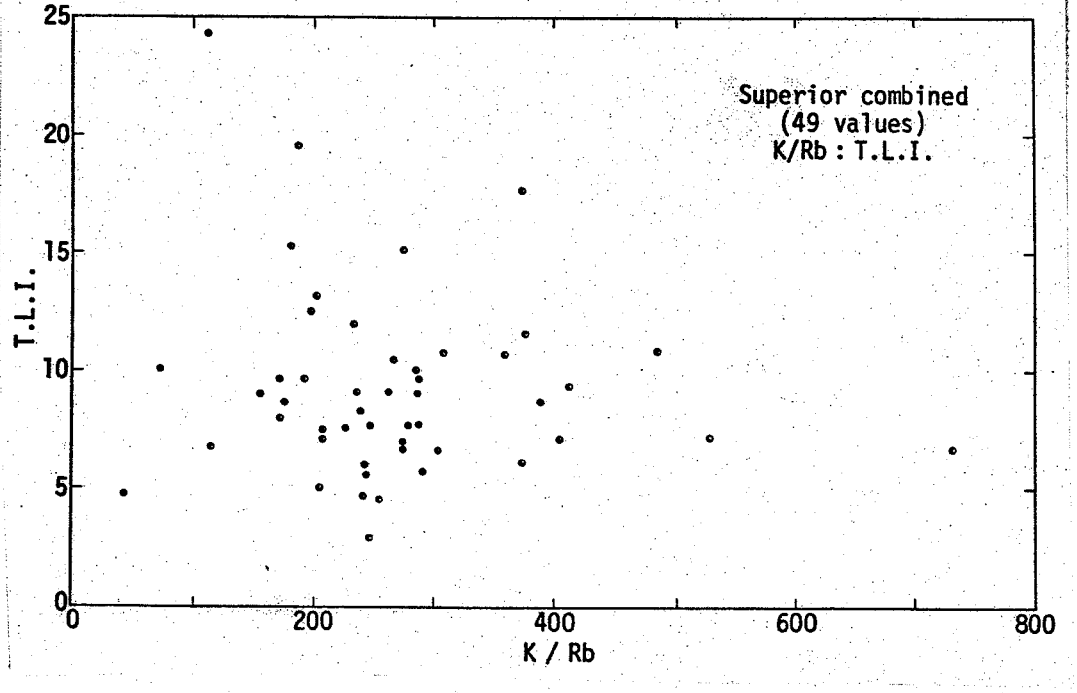


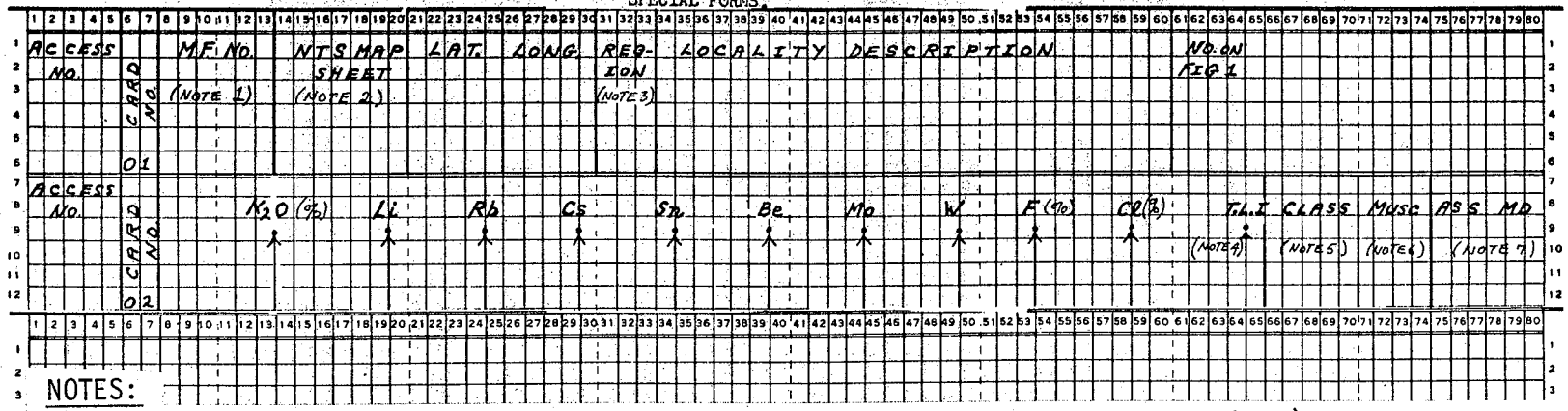
FIGURE 3

TABLE 1. Arrangement of data in computer printouts (Appendices I and II)

DATA INPUT FORM

NOTE: THIS IS A GENERAL PURPOSE DATA INPUT FORM. IT IS NOT A SUBSTITUTE FOR SPECIAL FORMS.

MTS-183-AP/66



NOTES:

1. MF number is the Geol. Surv. Can. Field No. (letters allotted to R. Mulligan)
2. NTS is National Topographic System map designation
3. Region - compiled and treated for Appalachian Region, Superior Province (Shield), and Cordilleran Region
4. T.L.I. ("Total Lithophile Index") is Li/10+SN+Be+Mo+W. It was designed by the author to smooth out erratic variations in concentration of elements separately, for comparison with F, K/Rb, etc.
5. Class: G - granitoid, P - pegmatoid, R - rhyolite or aplite, T - tourmaline, F - fluorite
6. MUSC: X is 'muscovite present' (visible in hand specimen)
7. ASS MD: indicates associated lithophile metal occurrences L-Li, B-Be, S-Sn, M-Mo, W-W, C-Cs

Also note: a) all values in ppm except K_2O, F and Cl which are in per cent.
b) vertical lines through element concentration values indicate position of decimal point.

Special Notes regarding Appendices I and II:

1. In Appendix I, brackets at right indicate grouping of samples to yield the composite averages used in Appendix II. Numbers beside brackets indicate access numbers given to these composites in Appendix II. In Appendix II these composites are identified in Access No., Card 2 by an asterisk followed by a digit which denotes the number of samples so combined. Samples bracketed but without accompanying numbers in Appendix I were omitted from Appendix II (see "Presentation of Data").
2. In Appendix II, calculated K/Rb ratios are listed to the right of the other data.

TABLE 2. Summary of average element contents in the Appalachian Region (APP), Cordilleran Region (Cor) and Superior Province (Sup)

	K_2O %	Rb ppm	Av K* (calc) / Av Rb	Li ppm	Cs ppm	Sn ppm	Be ppm	Mo ppm	W ppm	F%	T.L.I.
	All Data Arithmetic										
App	4.1(39)	267(43)	127	81(70)	10	13(82)	3.7	2.5	2.9(79)	.06(44)	27.9
Sup	3.1(57)	153(63)	168	22(63)	5	3(63)	2.8	2.2	1.7(61)	.04(59)	11.6
Cor	3.5(24)	187(96)	155	35(118)	6.4	5.5(119)	6.0	3.1	5.6(113)	.08(77)	24.0
	All Data Geometric										
App	3.9	200	162	54	7.1	7.8	1.94	.97	2.1	.04	23.6
Sup	2.7	109	206	16	2.3	2.1	1.92	.75	1.2	.03	9.2
Cor	2.9	132	182	26	4.4	3.0	1.58	.99	2.32	.05	15.8
	Combined (grouped) Data - Arithmetic										
App	4.09(28)	209(28)	159	62(42)	8.4	7.3(43)	3.1	1.5	2.7(42)	.04(30)	20.5
Sup	3.0(49)	141(54)	177	23(54)	4.2	2.8(54)	2.7	0.8	1.3(54)	.04(50)	9.5
Cor	3.5(22)	167(78)	174	35(99)	5.8	5.2(100)	5.9	1.8	3.3(96)	.08(71)	20.1
	Combined (grouped) Data - Geometric										
App	3.9	181	179	41	6.0	4.9	2.0	1.1	1.9	.03	18.4
Supp	2.7	102	220	17	2.1	1.8	1.8	0.65	1.2	.03	8.5
Cor	2.8	118	197	25	4.1	2.7	1.4	0.76	2.0	.05	13.8
	World Average (Turekian, K.K., 1972: Chemistry of the earth, Holt-Rhinehart, Phys. Sci. & Technol Ser.)										
High Ca granites				24	2.	1.5	2.	1.0	1.3	.052	
Lo Ca granites				40	4.	3.	3.	1.3	2.2	.085	

Notes: a) numbers in parentheses indicate number of samples analyzed for various elements (in "All Data), or of composite groups plus residual individual analyses (in "Combined Data"). (see under "Data Presentation).

b) for each element, the highest mean amongst the three regions is underlined.

* Calculated from average K_2O (Column 1) and average Rb (column 2) with K_2O converted to K using factor .83016.

APPENDIX I

Element values, all data

Access No.	MF No.	NTS	Lat.	Long.	Regn.	Ident-Location	No. on map	Card 1	Card 2	
		K_2O Li	Rb	Cs	Sn	Be Mo W F Cl	T.L.I.			
APPALACHIAN REGION										
0000101	V57	001M16	4754	5415	APP	BURIN-SWIFT CURRENT	1			
0000102		31 18	97	3		9 71 4 1 02 02	148	G		
0000201	V581	001M16	4758	5429	APP	BUREN RD	2			
0000202		55 25	191	5		19 05 3 1 03 01	89	G		
0000301	V582	001M15	4747	5431	APP	BUREN RD	3			
0000302		56 24	149	40	27	05 3 1 03 01	96	G		
0000401	V59	001M10	4731	5451	APP	BAY L D'ARGENT RD	4			
0000402		44 00	235	20	20	51 3 2 01 02	121	G		
0000501	Y211	1L14	4655	5523	APP	ST LAWRENCE NFLD	5			
0000502		44	316	83	74	100 10 40 02 02	268	GF	X F	
0000601		1L14	4655	5523	APP	ST LAWRENCE NFLD				
0000602		38	375	83	64	130 05 4 02 02	277	GF	X F	
0000701	Y22	1L14	4655	5523	APP	ST LAWRENCE NFLD	5			
0000702					100	120 20		GF	X F	
0000801	V601	01L14	4656	5522	APP	ST LAWRENCE	5			
0000802		390 21	2	6	130	80 13 1 47 06	254	GF	X F	
0000901	V602	01L14	4655	5523	APP	ST LAWRENCE	5			
0000902		47 11	150	50	87	70 35 4 04 04	243	GF	X	00005
0001001	V61	01L14	4654	5525	APP	ST LAWRENCE COMP HEADS	5			
0001002		15 124	448	30	38	20 35 4	257	GF	X F	
0001101	V622	001M04	4656	5528	APP	APL W OF ST LAWR	6			
0001102		41 0	332	130	61	13 20 10 03 03	104	R	X	
0001201	V623	01L14	4656	5529	APP	LITTLE LAWN	7			
0001202		46 12	438	40	64	66 40 80 02 03	262	G	X	
0001301	V632	1M04	4706	5535	APP	GRAND BEACH	8			
0001302		30 6	165	30	46	35 35 3 01 02	152	R		
0001401	V633	001M04	4707	5534	APP	RHY GRAND BEACH	8			
0001402		39 4	191	70	34	47 30 1 01 02	125	R		
0001501	Y19	001M11	4742	5512	APP	RENCONTRE NFLD	9			
0001502					680	64 700 40 09 02		G	X M	
0001601	V641	001M16	4850	5421	APP	GANDER L	10			
0001602		46 68	954	190	50	10 20 2 03 02	168	G	X	
0001701	V642	001M15	4851	5422	APP	GANDER L	10			
0001702		45 315	447	360	62	87 20 1 10 01	494	G	X	00016
0001801	V643	001M10	4852	5433	APP	GANDER L	10			
0001802		48 222	410	310	58	73 20 10 07 01	383	G	X	
0001901	V65	012H07	4922	5652	APP	SANDY LAKE	11			
0001902		45 37	106	20	1	41 20 10 03 02	109	G		
0002001	457	11E8W	4516	6220	APP	167 MI W OF MELROSE NS	12			
0002002		34			110	1 02 1	166	G	X	
0002101	V56	011D15	4454	6242	APP	MOOSELAND TUNGIER	13			
0002102		55 169	248	170	47	2 2 2 03 01	258	G	X	
0002501	V525	011D12	4436	6634	APP	PURCELLIS COVE	16			
0002502		57 121	222	200	110	87 20 20 10 03	358	G	X	
0002601	V523	011D12	4437	6334	APP	PURCELLIS COVE	16			
0002602		430 150	284	21	65	63 20 20 05 02	318	G	X	00025
0002701	V521	011D12	4437	6335	APP	PURCELLIS COVE	16			
0002702		60 117	407	180	62	77 20 10 05 02	286	G	X	
0002801133		21A16W	4448	6421	APP	W OF LEMINSTER	17			
0002802		153			190	02 02 1	219	G	X S	
00029011372		21A10E	4443	6433	APP	36 MI W OF NEW ROSS	18			
0002902		96			64	05 05 2	190		S	
00030011381		21A9W	4442	6426	APP	1 1/4-4 1/4 M SE OF N ROSS	19			
0003002		185			210	2 02 1	409	G	X S	
0003201134		21A16W	4447	6427	APP	TURNER TIN PROSP	20			
0003202		163	417	191	25	15 05 40 11 02	608	G	X S	
00033011361		21A16W	4445	6428	APP	HWY 12 14MI N OF NEW ROSS	21			00028
0003302		220			27	2 02 4	534	G	X S	
0003401122		21A16W	4447	6426	APP	RD TO WALLABACK LAKE	22			
0003402		128			40	11 05 8 06 01	723		S	
00035011212		21A16W	4449	6425	APP	WALLABACK LAKE NS	22			
0003502					69	02			S	
00036011211		21A16W	4449	6425	APP	WALLABACK LAKE NS	22			

Access No.	MF No.	NTS	Lat.	Long.	Regn.	Ident-Location	No. on map	Card 1 / Card 2	
		K_2O Li Rb Cs Sn Be Mo W F Cl					T.L.I.		
APPALACHIAN REGION (cont'd)									
0003602		100 56 2 10 4					712	G	X S
00037011191		21A9E	4440	6412	APP	WINDSOR RD S OF CARD L	23		
0003702		90 05 1						G	
0003801131		21A16E	4445	6414	APP	WINDSOR RD 6MI S VAUGHAN	24		
0003802		150 38 1 02 8					622	G	X S
00039011192		21A16E	4447	6414	APP	WINDSOR RD CARD LAKE N	25		
0003902		150 38 1 02 8					622	G	X
0004001130		21A10E	4437	6431	APP	WALDEN- NEVERTELL L	26		
0004002		109 12 5 02 2					301	G	X
0004101124		21A16W	4450	6427	APP	W OF WALLABACK LAKE	27		
0004102		101 39 2 02 1					154	G	S
00042011371		21A9W	4444	6429	APP	0-3 MI W OF NEW ROSS	28		
0004202		250 27 5 02 4					567	G	X
00043011362		21A16W	4447	6429	APP	HWY 12 3-6 MI N OF NEW ROSS			
0004302		96 64 5 05 2					190	G	S
00044017751		21A14	4452	6502	APP	S NECTAUX	29		
0004402	419 87	160 89 37 38 20 20 03 02					202	G	
00045017752		21A14			APP	S NECTAUX	30		
0004502	373 81	171 99 39 37 10 1 03 02					177	G	
00046017753		21A14	4450	6503	APP	S NECTAUX	30		
0004602	396 75	194 90 28 43 20 8 03 02					246	G	
00047017754		21A14	482	6504	APP	S NECTAUX	31		
0004702	388 88	178 11 49 42 20 40 03 02					239	G	
00048017755		21A14	4447	6504	APP	S NECTAUX	31		
0004802	382 81	165 99 43 32 05 20 03 02					181	G	
00049017756		21A14	4447	6504	APP	S NECTAUX	31		
0004902	553 86	270 12 44 25 10 80 03 02					245	G	
00050017757		21A14	4454	6432	APP	N NEW ROSS	32		
0005002	389 175	482 21 180 56 20 12 16 03					551	GP	X
00051017758		21A14	4454	6432	APP	N NEW ROSS	32		
0005102	428 146	475 20 130 49 05 40 16 03					370	GP	X
0005201454		21G14E	4559	6713	APP	POKIOK 0-2 MI E OF FALLS	33		
0005202		54 57 1 02 1					133	G	
00053017721		21G3	4512	6723	APP	POTTERS L S	34		
0005302		198 260 20 79 59 10 20 03 00					366	G	X
00054017722		21G3	4512	6722	APP	POTTER L S	34		
0005402		65 195 126 48 51 2 2					204	G	
00056017723		21G3	4512	6722	APP	POTTERS L N	34		
0005602	185 64	75 62 32 0 20 20						G	
00057017724		21G3	4512	6722	APP	POTTERS L N	34		
0005702	245 90	107 80 75 32 20 10					227	G	
00058011161		21G2W	4512	6650	APP	N OF ST GEORGE NB	35		
0005802		64 250 02 05 1 07 01					331	G R	
00059011162		21G7W	4520	6655	APP	N OF ST GEORGE NB	35		
0005902		40 55 50 05 1					160	G	
00060011150		21G8W	4528	6626	APP	W OF WELSFORD	36		
0006002		70 30 1 05 2					405	G	
0006101774		21G4	4435	6605	APP	HAMSTEAD	37		
0006102	352 31	157 54 15 39 2 2 06 04					125		
0006201 452		21G8W	4525	6620	APP	EAGLE ROCK NB	38		
0006202		45 12 7 10 4					177	G	
0006301 660		21G7W	4523	6653	APP	S OF BEACH HILL	39		
0006302		15 02 -5 1						G	
0006401 661		21G7W	4524	6654	APP	BEACH HILL	40		
0006402		98 02						G	
0006501 102		21G74	4522	6654	APP	MAGAGUDAVIC R S POMEROY	41		
0006502		49 28 1 02 1 04 02					99	G	
0006601 651		21G6E	4522	6702	APP	SORREL RIDGE	42		
0006602		91 1 02 1							
0006701 652		21G6E	4516	6713	APP	TOWER HILL S W	43		
0006702		20 52 02 1 05 01						X M	
0006801 653		21G6E	4519	6712	APP	TOWER HILL N	44		
0006802		61 5 02 1							
00069017731		21G7	4526	6649	APP	MT PLEASANT D D	45		
0006902	455 113	959 15 23 59 3 1					442	G	SWM
0007201 114		21J2W	4604	6658	APP	N W ZEALAND STATION	46		

00028

00050

00053

00053 +00063

Access No.	MF No.	NTS	Lat.	Long.	Regn.	Ident-Location	No. on map	Card 1 / Card 2
		K_2O	Li	Rb	Cs	Sn	Be	Mo	W	F	Cl	T.L.I.		
APPALACHIAN REGION (cont'd)														
0007202			63			20	1	05	1	04	02	288		X
0007301	59-17	21J2W	4604	6658	APP	KESWICK						46		
0007302			50			20	1	22	30			510	G	X MB
00074011131		21J7	4627	6700	APP	NW OF NAPADOGEN NB						47		
0007402			36			56	02	05	20			119	G	
00075011133		21J11	4631	6705	APP	10 MI NW OF NAPADOGEN NB						48		
0007502			12			12	1	02	2			164	GP	
00076011042		21J10W	4634	6650	APP	BURNT HILL BR ABOVE MINE						49		
0007602			40			24	1	05	4			335	G	M WMBS
00077011061		21J10E	4637	6637	APP	E OF ROCKY BRK						49		
0007702			45			6	12	02	12			347	G	X WMBS
0007801	107	21J10E	4637	6637	APP	E OF ROCKY BRK						49		
0007802			64			10	1	02	1			186	GA	
0007901	139	21J10W	4636	6652	APP	MCLEAN BRK BURNT HILL AREA						49		
0007902			34			64	1	10	4			158	G	
0008101	109	21J10E	4637	6637	APP	E OF CLEARWARK BRK						50		
0008102			48			10	1	02	1	03	02	170	G	
0008201	V671	001L14	4647	6631	APP	RENOUS-PLASTER ROCK						51		
0008202		47 2	150	2		17	2	2	1	02	02	51	G	
0008301	V672	001M04	4647	6631	APP	RENOUS PLASTER ROCK						51		
0008302		43 5	148	2		17	28	2	1	03	02	80	G	
0008401	V673	001M04	4648	6334	APP	RENOUS PLASTER ROCK						51		
0008402		45 52	251	18		55	38	2	1	04	02	175	G	
00085012773		21P12	4742	6552	APP	NICHOLAS DENNYS						53		
0008502		208 13	56	14		39	25	20	12	03	02	217	G	
00086012771		21P12	4741	6553	APP	NICHOLAS DENNYS						53		
0008602		268 23	84	29		17	28	05	2			93	G	
00087012772		21P12	4742	6553	APP	NICHOLAS DENNYS						53		
0008702		280 12	90	19		45	30	20	16			267	G	
00088012761		21P12	4744	6548	APP	NIGADOO GR PORPH						54		
0008802		605 13	232	65	64	32	40	2		03	01	745	G	S
00089012781		21P13	4748	6549	APP	KEYMET PORPH						55		
0008902		318 29	214	50		70	2	2	8			219	G	
0009201	458	21P5	4730	6546	APP	BATHURST PABINEAU CR						57		
0009202			46			14	7	05	4	03	01	301		MBS
SUPERIOR PROVINCE														
00100011005		32D14	4847	7913	SUP	L MACAMIC						79		
0010002		174 16	35	05		13	41	05	1	07	02	85	G	
00101011014		32D06	4821	7901	SUP	LAC DUFAULT						76		
0010102		160 12	57	13		24	06	2	4	02	03	102	G	
0010201	U08	32D13	4858	7938	SUP	W DEMOISELLE						77		
0010202		153 17	35	13		11	28	10	1	05	01	76	G	
0010301	U09	42H01	4905	8004	SUP	N LAC ABITIBI						78		
0010302		500 37	217	60		15	29	05	1	02	02	96	G	
00104012011		42A11	4841	8122	SUP	KIDD CR						87		
0010402		233 12	93	11		79	5	05	1	03	00	111	R	S
00105012012		42A11	4841	8122	SUP	KIDD CR						87		
0010502		300 8	74	09		63	5	05	1	03	00	91	R	S
00106012041		42A12	4832	8134	SUP	CDN JAMIESON						88		
0010602		640 5	109	08		50	23	04	23	02	00	107	R	
00107012051		42A12	4832	8134	SUP	CDN JAMIESON						88		
0010702		198 48	53	04		68	25	04	23	01	03	107	G	X
0010801	U12	42A11	4843	8119	SUP	PROSSER TP						89		
0010802		239 4	27	03		11	26	05	2	03	01	66	GF	X
00109012071		42A5	4819	8114	SUP	STAR L RD						90		
0010902		147 21	44	13		9	23	05	10	03	02	68	G	
00110012072		42A5	4819	8144	SUP	STAR L RD						90		
0011002		174 17	42	10		16	21	20	1	03	02	84	G	
00111011071		42B1	4805	8209	SUP	HORWOOD STATION						91		
0011102		19 10	54	10		12	2	05	1	03	02	57	GF	X
00112011015		42B1	4807	8216	SUP	N HARWOOD L						92		
0011202		362 10	77	14		14	42	10	10	07	02	86	G	
0011301	Z08	42B1	4813	8219	SUP	SCORCH CR						93		
0011302		222 30	75	16		10	05	1	2	03	00	30	G	
0011401	Z091	42B2	4809	8236	SUP	W FOLYET						94		
0011402		258 11	88	12		9	24	05	1	04	01	59	G	
0011501	Z092	42B2	4809	8236	SUP	S FOLYET						94		

(no numbe

00076

(no numbe

00104

Access No.	MF No.	NTS	Lat.	Long.	Regn.	Ident-Location	No. on map	Card 1	Card 2

	K_2O	Li	Rb	Cs	Sn	Be	Mo	W	F	Cl	T.L.I.			
SUPERIOR PROVINCE (cont'd)														
0011502	212	17	73	16	09	05	05	1	04	01	46	G		
0011601 Z10	41014		4754	8310	SUP	NE CHAPLEAU					81			
0011602	188	14	68	15	10	32	10	1	02	04	76	G		
0011701 U19	41013		4744	8334	SUP	W CHAPLEAU					83			
0011702	553	11	113	09	2	2	1	1			71	G		
0011801 Z11	41N16		4758	8418	SUP	E WAWA					80			
0011802	223	20	91	30	11	05	05	1	02	03	51	G		
0011901 Z 913	41K16		4653	8428	SUP	BATACHEWAN BAY					86			
0011902	260	10	78	32	15	23	02	2	04	00	70	G		
0012001 U20	42C16		4822	8505	SUP	E WHITE RIVER					95			
0012002	230	8	36	04	13	31	10	10	03	01	72	G		
00121017121	42F4		4909	8547	SUP	GECO					96			
0012102	489	1	203	13	41	42	30	10	02	03	124	P	X	S
0012201 Z13	42F4		4909	8547	SUP	GECO					96			
0012202	444	15	203	26	14	49	05	1	03	01	93	PT		S
00123017144	42F4		4909	8547	SUP	GECO					96			
0012302	370	16	217	20	80	46	10	20	03	01	172	P		S
0012401 Z16	42F4		4909	8550	SUP	WILLROY					97			
0012404	382	36	166	11	79	5	05	2	04	02	190	P	X	S
00125017154	42F4		4909	8547	SUP	GECO					96			
0012502	464	31	134	60	38	10	1	1	13	02	99	G		S
00126017895	42F4		4910	8551	SUP	NAMA CR					98			
0012602	34	30	148	50	68	38	1	2	04	03	148	P	X	S
00128017911	42C11		4842	8548	SUP	E MANITOWADGE RD					A			
0012802	26	2	50	0	29	02	05	1	08	00	48	G		
0012901 Z17	42C13		4850	8522	SUP	S MANITOWADGE					B			
0012902	217	17	48	15	03	26	05	1	03	02	61	G		
0013201 Z20	42D14		4848	8708	SUP	W TERR BAY					E			
0013202	260	26	79	13	12	28	05	2	04	02	91	G		
0013301 Z21	42D14		4849	8720	SUP	W SCHRIEBER					F			
0013302	373	36	154	58	13	38	20	2	05	02	127	G		
0013401 Z22	42D13		4852	8736	SUP	W ROSSPORT					G			
0013402	490	17	232	23	13	35	05	1	03	02	80	G		
0013501 Z23	52H01		4902	8802	SUP	KAMA BAY					H			
0013502	563	28	155	17	21	02	05	1	06	02	66	G		
00136017881	52H01		4903	8814	SUP	N NIPIGON					99			
0013602	5	5	144	5	27	2	15	1	05	01	77	G	X	
0013901 Z884	42E5		4950	8751	SUP	BARBARA					102			
0013902	49	76	365	17	56	92	1	1	02	04	244	PG	X	LB
0014001 Z24	52A10		4844	8836	SUP	NIPIGON- T BAY					103			
0014002	632	15	216	39	26	27	05	1	02	02	83	G		
0014101 Z25	52A12		4842	8953	SUP	S RAITH					104			
0014102	392	32	152	35	15	30	05	1	04	03	92	G		
0014401 Z26	52G2		4905	9042	SUP	W UPSALA					107			
0014402	205	28	59	11	5	20	05	4	02	02	98	G	X	
0014501 Z27	52G6		4920	9128	SUP	E IGNACE					108			
0014502	531	13	376	60	12	31	02	1	02	01	68	G		
0014601 Z28	52G09		4934	9214	SUP	REVELL R					109			
0014602	258	41	86	14	14	05	02	1	04	02	72	G	X	
0014901 Z291	52F15		4950	9245	SUP	ZEALAND G					113			
0014902	336	23	148	98	11	32	20	1	03	01	195	P	X	LB
0015001 Z292	52F15		4949	9248	SUP	ZEALAND G					113			
0015002	447	28	217	88	26	28	05	1			97	G		LB
0015301 Z865	52F15		4949	9243	SUP	ZEALAND TP					114			
0015302		145	489	505	23	27	15	2	03	02	450	P	X	B
0015601 Z30	52F14		4959	9321	SUP	RED L RD					116			
0015602	253	16	75	2	17	25	05	1	03	02	73	G		
0015701 Z441	52F13		4952	9346	SUP	MED L					117			
0015702	349	38	385	17	27	20	05	1	03	02	100	P	X	B
0016301 443	52F13		4953	9345	SUP	GORDON L					117			
0016302	368	29	175	27	22	21	05	1			87	G		
0016401 Z45	52E9		4944	9416	SUP	E KENORA					I			
0016402	212	28	72	60	11	02	05	2	04	01	66	G		
0016501 Z46	52E10		4943	9450	SUP	W KENORA					J			
0016502	302	51	120	32	5	05	05	1	04	01	76	G		
0016601 Z841	52E13		4950	9359	SUP	E HAWK					K			

00121

00121

Access No.	MF No.	NTS	Lat.	Long.	Regn.	Ident-Location	No. on map	Card 1 / Card 2
		K_2O	Li	Rb	Cs	Sn	Be	Mo	W	F	Cl	T.L.I.	
SUPERIOR PROVINCE (cont'd)													
0016602			16	120	102	09	24	05	1	02	01	64 G	
0016701	Z842	52E13	4951	9357	SUP	E OF E HAWK						L	
0016702			36	95	36	07	05	02	1			60 GP	X
0016801	Z472	52E14	4946	9510	SUP	W HAWK CADDY						118	
0016802		510	28	270	86	25	22	05	1	02	01	90 G	
0016901	Z473	52E12	4938	9540	SUP	E WINNIPEG						119	
0016902		363	17	144	16	16	26	05	1	03	01	74 G	
0017001	U243	52K03	5001	9328	SUP	N QUIBELL						120	
0017002		375	15	130	13	36	25	80	26	04	01	1136 G	MW
0017101	U241	52K3	5001	9328	SUP	N QUIBELL							(no numbe
0017102		342	12	88	02	36	32			04	01		
0017201	U242	52K3	5001	9328	SUP	N QUIBELL							
0017202		065	9	22	04	47	-2	54		04	01		
0017301	Z31	52K3	5010	9315	SUP	CLIFF LAKE						122	
0017302		212	20	75	13	34	23	05	1	03	01	92 GP	
0017401	Z43	52K15	5059	9259	SUP	S BAY RD						123	
0017402		193	14	63	17	02	16	05	10	03	02	47 G	
0017601	Z326	52N09	5109	9241	SUP	SOUTH BAY						125	
0017602		158	13	35	9	77	36	30	2	05	02	176 R	S
0017701	Z329	52N02	5107	9241	SUP	SOUTH BAY II						125	
0017702		165	15	36	07	39	33	20	1	05	01	117 R	S
0017801	Z327	52N2	5104	9241	SUP	SOUTH BAY						125	
0017802		116	17	35	6	75	3	10	2	04	01	152 G	S
0017901	Z833	52L5	5027	9547	SUP	S BIRD R						126	
0017902			57	331	18	29	30	05	1	01	03	131 G	X BLCS
0018001	Z831	52L11	5038	9528	SUP	CAT LAKE RD						129	
0018002			15	33	12	30	23	10	1	03	01	88 G	
0018101	Z832	52L11	5035	9527	SUP	CAT L RD						128	
0018102			28	100	16	19	02	1	1	03	01	69 G	
CORDILLERAN REGION													
0018601	U011	82K09	5033	1163	4	COR	MC DONALD CR HORSE THIEF					173	
0018602		60	36	417	59	09	64	05	2	06	02	134 G	
0018701	7102	82K15E	5047	1163	4	COR	BUGABOO CREEK					174	
0018702			3	22	15	6	02	10	10	03	02	31 G	
0018801	5021	82F7E	4918	1164	0	COR	KUSKANOOK					175	
0018802			40	113	118	17	02	02	1	06	01	71 G	
0018901	6024	82F7E	4926	1164	4	COR	AKOKLI CR					176	
0018902			32	145	69	28	02	02	1			74 G	W
0019001	U082	82F10	4938	1164	7	COR	CRAWFORD BAY					177	
0019002		67	34	239	43	02	10	05	2	11	01	71 G	
001950159-1-4		82F16N	4958	1161	2	COR	SKOOKUCHUCK					180	
0019502			11	108	144	20	15	16	2			541 P	X B
0019601	2402	82F9E	4934	1161	0	COR	HELLROARING CR					181	
0019602			13			22	190		2	2	02	00 2155 P	X B
0019801	5022	82F7W	4923	1164	8	COR	SANCA					182	
0019802			45	151	109	18	1	20	1	06	01	103 G	
0019901	4021	82F3E	4905	1170	3	COR	CRESTON SALMO					183	
0019902			33			20	1	2	1			75 P	X
0020201	833	82F6W	4922	1171	7	COR	BARRET CR (PORTORIO)					185	
0020202			9	63	17	2	02	02	8			113 G	X M
0020301	315	82F6	4930	1171	8	COR	(MT) NELSON						
0020302			50			05	67	02	1			134 G	
0020401	403	82F6W	4929	1172	0	COR	NELSON W QUARRY					187	
0020402			41			15	1	10	1	04	01	86 G	
0020501	Y07	82F3	4912	1172	1	COR	NEW GORDON "MO" (ERIC)					188	
0020502			31	127	29	49	40	470	7			660 G	M (no numbe
0020601	506	82F4W	4910	1175	2	COR	CORYELL N OF ROSSLAND					189	
0020602			13	164	36	18	02	60	10	07	02	103 G	
0020701	Y02	82K12	5038	1175	6	COR	ARROWHEAD SHELTER BAY					190	
0020702			36	136	25	21	26	02	1			95 G	X
0020801	Y03	82F3	4906	1171	1	COR	EMERALD SALMO					191	
0020802			21	186	46	19	47	2	1			99	W
0020901	Y04	82F3	4906	1171	1	COR	EMERALD TOWNSITE					191	00208
0020902			18	226	46	15	88	2	10			133 G	W
0021001	Y05	82F3E	4906	1171	1	COR	EMERALD DODGER					191	
0021002			16	224	46	17	10	2	4			175 G	W
0021101	Y06	82F3	4912	1171	1	COR	LOST CREEK					192	

Access No.	MF No.	NTS	Lat.	Long.	Regn.	Ident-Location	No. on map	Card 1
		K_2O	Li	Rb	Cs	Sn	Be	Mo	W	F	Cl	T.L.I.	Card 2
CORDILLERAN REGION (cont'd)													
0021102			39	149	46	22	66	2	1			139 G	
0021201	822	92H3E	491012102	COR	CANAM CU							193	
0021202			35	54	49	83	02	02	2	02	07	142 GT	M
0021301	404	82E1E	490011813	COR	KETTLE FALLS W OF BRIDGE							194	
0021302			25			19	7	02	1			126 P	X
0021401	59-71	82L16	505311815	COR	MT BEGBIE								
0021402			13	154	203	4	02	7	4	02	01	165 PT	X
0021601	Y01	82N4	510711753	COR	ALBERT CANYON							196	
0021602			33	263	11	41	37	02	1	03	02	592	X B
0021701	4503	82M11E	513611902	COR	BISCHOFF L							197	
0021702			24			10	02	2	1			48 GP	B
0021901	225	82L11W	504211920	COR	SALMON ARM FLY HILL							198	
0021902			31			15	1	02	1			68 PG	X
0022001	0041	83D13	525311932	COR	MICA MT							199	
0022002			26			15	17	3	20	02	01	576 P	X B?
0022301	4511	82D13	525311932	COR	MICA MT							199	
0022302			36			53	15	2	4	03	01	281 P	X B?
0022401	V146	93N09	553912426	COR	LOST CR MANSON							200	
0022402		11	5	42	12	09	02	3	4	09	02	86 R	W
0022501	V725	93N11	553812452	COR	GERMANSEN BATH							202	
0022502		320	27	74	2	15	02	23	10	07	02	77 G	
0022601	U124	93N11	554012443	COR	OLSEN CR (GERMANSEN)							202	
0022602		510	22	84	34	08	20	05	1	08	01	65 G	
0022701	U60	94E03	571512701	COR	MT DRYSBOROUGH-FINDLAY R							203	
0022702		390	10	107	08	20	05	05	15	03	02	46 G	
0022801	20	93L14	545812725	COR	N OF SMITHERS							204	
0022802		61	14	143	39	02	20	15	4	06	01	91 R	
0022901	2168	93M4E	551012733	COR	HAZELTON ROCHER DEBOULE E							205	
0022902			15			10	1	30	1			75 G	W
0023001	219	93M4E	551012738	COR	HAZELTON ROCHER DE BOULE W							206	
0023002			24			10	10	10	28	04	03	334 G	W
0023101	2221	92K34	541312530	COR	TOPLEY CR							207	
0023102			15	68	45	1	1	200		03	01	G	
0023201	818	93K3E	540012501	COR	ENDAKO COMP							208	
0023202			31	166	26	7	02	200				G	M
0023301	U481	94D09	563612609	COR	JOHANNSEN							209	
0023302		21	19	1	5	05	0	5	2	04	03		
0023401	V113	93D07	522212634	COR	BELLA COOLA							210	
0023402		45	18	51	7	7	10	05	2	06	01	60 G	
0023501	V112	93D07	522212640	COR	BELLA COOLA							211	
0023502		24	1	26	2	5	02	5	2	07	01	42 G	
0023601	U506	93L15	545612648	COR	CRONIN							212	
0023602		27	1	54	55	7	02	1	4	04	01	60 R	
0023701	U501	93L15	545912641	COR	CHAPMAN L							213	
0023702		32	5	1	5	4	02	1	2	03	01	41 R	
0023801	U44	103016	555613000	COR	HYDER							214	
0023802		44	22	40	25	5	02	1	1	04	01	49 G	
0024001	9233	104P5	592112931	COR	DELLA MINES							215	
0024002			43	368	126	31	8	17	16	11	00	763 G	MS
0024101	517	104P4	591012947	COR	BASS CR							216	
0024102			44	243	43	52	2	2	1	11	02	146 G	
0024201	717	104P4	591212947	COR	W OF VINER L MC DAME							216	
0024202			44	309	63	07	3	2	1	07	02	111 G	
0024301	718	104P4	591212947	COR	W OF VINES L MCDAME							216	
0024302			36	21	22	7	5	4	2	11	01	171 G	
0024401	51113	104P4	591412951	COR	MARBLE MTN MCDAME							217	
0024402			79	362	58	43	58	36	9			630	MB
0024501	9223	104P4	591212951	COR	CASSIAR MOLY							217	
0024502			48	275	43	28	5	9	22			436 G	M
0024701	5123	104P5	500012951	COR	CONTACT GP MC DAME							217	
0024702						44	-3	05	1	07	02	G	MS
0024801	5137	104P5	592412951	COR	LONGHURST LAMB CR							217	
0024802			48	344	66	53	45	3	16	07	01	336 G	M
0024901	735	104P12	593612959	COR	BLUE R							218	
0024902			20	69	24	17	3	5	2	03	00	92 G	
0025101	753	105B1	600313022	COR	S OF MI 701 WOLF LAKE							219	

00229

(no number)

(no number)

(no number)

" "

" "

Access No.	MF No.	NTS	Lat.	Long.	Regn.	Ident-Location	No. on map	Card 1 / Card 2
		K_2O	Li	Rb	Cs	Sn	Be	Mo	W	F	Cl	T.L.I.	
CORDILLERAN REGION (cont'd)													
0025102		46	178	60	13	3	5	1	04	00	104	G	
0025201	715	10408	592	213025	COR	E OF PARELLEL CR JENNING	220		
0025202		24	89	24	10	5						G	
0025301	711	10401	591	313026	COR	TUYA JENNINGS	221		
0025302		32	137	35	07	05						G	
0025701	5392	105B1	600	113028	COR	FREER CR DALE	228		
0025702		54	128	48	36	4	02	1	04	01	142	G	
0025801	5292	104016	595	513029	COR	RANCHERIA MINE	229		
0025802		57	169	61	38	5	05	1			115	G	
0025901	307	105B1W	600	313029	COR	S OF MI 706	230		
0025902		153			45	10	02	1			220	P	X
0026201	213	10582	600	513045	COR	ALCAN HWY CASSIAR	233		
0026202		50			6	05	05	1	04	00	130	G	
0026301	530	104016	595	513026	COR	TOOTSEE R FORD	246		
0026302		74	150	80	31	5	2	1	05	01	122	G	
0026401	612	10409	593	913028	COR	BLUE LITE	247		
0026402		51	582	92	11	94	70	30	10	00	355	P	X BWS
0026501	544	10409	593	913028	COR	BLUE LITE	247		
0026502		49	199	4	170	3	2	1			279	G	X SWB
0026601	766	10409	593	713025	COR	AREA E OF BLUE LITE	248		
0026602		64	256	83	2	17	12	4			414	G	X
0026701	766R	10409	593	713025	COR	E OF BLUE LITE	248		
0026702		104	380	45	9	6	5	1	22	01	314	GF	X
0026801	625	10408	591	613029	COR	SE ASH MT	249		
0026802		64	320	56	60	94	05	20			1089	G	S
0026901	5333	10407	592	013021	COR	ASH MTN N CIRQUE	232		
0026902		15	410	33	3	34	1	1			99	G	X
0027001	3052	10407	592	013031	COR	ASH MT N OF PASS	232		
0027002		23			10	2	05	2	02	01	78	G	
0027101	3062	10407	593	013031	COR	ASH MT TOURM GR PEG	232		
0027102		21			43	77	1	2			171	PT	X S
00272013045		10407	591	713045	COR	ASH MTN(E PART OF PASS)	250		
0027202		43			5	86	02	2			201	G	S
0027301	2143	105B3E	600	413108	COR	TOPAZ MTN SEAGULL BATH	251		
0027302		67			8	5	10	4	10	01	202	GPT	X
0027401	6161	10586	591	213119	COR	GLUNDEBERRY ZR LOC B	252		
0027402		40	155	40	75	3	02	2	02	01	167	GR	
00275016171		10586	591	213119	COR	GLUNDEBERRY ZR LOC B	252		
0027502		16	145	21	10	3	2	2			186	GR	
0027601	608	10586	602	313120	COR	ICE LAKES BE	254		
0027602		31	355	124	10	77	02	2	05	01	230	P	X B
0027701	767	1040B14	594	713120	COR	SIMPSON PEAK N RIDGE	254		
0027702		11	57	13	4	5	10	1	03	01	40	G	
0027801	768	1040B14	594	713130	COR	SIMPSON PEAK	254		
0027802		22	113	34	05	1	02	1			49	G	
0027901	769	10406	592	713115	COR	KLINKIT BATHOLITH	255		
0027902		26	79	22	8	10	02	4	05	01	158	G	
00280010016		104013	595	913136	COR	LOGJAM ABOVE SADDLE	256		
0028002		42	748	205	90	34	9	36			922	GF	X BW
0028101	613	10405	592	913145	COR	CHARLIECOTE	257		
0028102		22	72	22	5	5	2	20	03	01	99	G	
0028201	6141	10405	592	513146	COR	SE OF CHAROTIECOTE	258		
0028202		21	227	72	14	1	2	1	03	01	183	G	X
0028301	61410	10405	592	513146	COR	SE OF CHARLOTIECOTE	258		
0028302		15	285	79	10	1	2	1	03	01	155	G	X
0028401	6152	10405	592	213142	COR	SNOOK CREEK GRANITE	259		
0028402		18	161	70	36	2	02	2	03	01	78	G	
0028501	618	104016	591	613119	COR	RIDGE E OF UPPER TAHOOTS CR	260		
0028502		11	158	53	15	1	52	2	03	03	243	G	
0028601	619	10403	591	413114	COR	NAZCHA CR(PASS) ZRLOC A	261		
0028602		26	196	19	11	1	15	16	05	01	321	G	
0028701	620	10403	591	313110	COR	NAZCHALS (DOWN CREEK)	262		
0028702		18	231	37	85	32	21	1			166	G	
0028801	6211	104013	591	213109	COR	HD OF NAZCHA CR MISE	263		
0028802		12	208	28	15	57	2	1			249	G	
002890121045		104N11W	594	113325	COR	ATLIN BOULDER CR	241		

00265

00274

(no number

00286

Access No.	MF No.	NTS	Lat.	Long.	Regn.	Ident-Location	K_2O	Li	Rb	Cs	Sn	Be	Mo	W	F	Cl	No. on map T.L.I.		Card 1 / Card 2	
CORDILLERAN REGION (cont'd)																				
0028902								22			7		5	05	2		03	01	122	G	WS	
0029001	Z692	104N11	594	313324	COR	ADANAC RUBY CT UG													242			
0029002								24	436	96	66	12	11	48		12	01	800	G	MW	(no number)
0029101	Z693	104N11	594	313324	COR	ADANAC													242			
0029102								18	325	47	40	90	200			12	01		G	MW	" "
0029201	4471	104N12E	594	413331	COR	ATLIN RUPPNER													243			
0029202								7	124	31	9		5	2	1				114	G		
0029301	4461	104N12E	593	713329	COR	MT MONROE ATLIN													244			
0029302								24	107	25	10	02	02	8					118	G		
0029401	U342	105D02	600	513442	COR	S CARCOSS													234			
0029402							55	1	278	72	65		2	2	8		06	01	168	G		00294
0029501	U343	105D02	600	613442	COR	S CARCOSS													234			
0029502							45	21	175	45	19	1	8	2		04	02	150	G		
0029601	211	105C11E	603	313310	COR	CANAL RD													236			
0029602								31			4		2	20	12	03	01	213			
002970156-673		105F3	610	713306	COR	QUIET L													238			
0029702							49	60	335	236	95		4	90	80	03	02	122	PT	X	
0029801	U395	105F10	613	613249	COR	GROUND HOG CR													239			
0029802							22	52	95	41	28	22	20	120		04	01	1322	G		(no number)
0029901	801	105F10	613	013248	COR	SHEEP CR CANOL													240			
0029902								45	251	69	2		5	80	10				160	G	M	
0030001	U385	105K06	613	613318	COR	FARO MUSC G													154			
0030002							40	75	210	90	80	45	5	2		06	01	225	G	X	
0030101	802	105L01	621	013400	COR	RAILWAY SURVEY CR													155			
0030102								54	193	81	30	10	5	10					109	G		
0030201	Z48	105A15	604	712849	COR	FRANCES-HYLAND													277			
0030202								53	167	58	35	4	05	1		04	00	143	G		
0030301	Z53	105H15	615	712815	COR	CANTUNG SOUTH													153			
0030302								76	199	10	97	78	10	12		06	00	381	G	W	
0030401	Z54	105H16	615	812815	COR	CANTUNG NORTH													153			
0030402								60	180	10	66	60	10	2					216	G	W	
0030501	V22	105J04	620	913150	COR	ORCHI L																
0030502							53	16	318	5	51	3	15	10		03	01	122	G		
0030601	Z621	105008	631	713009	COR	AMAX N RIDGE													156			
0030602								80	314	20	79	71	10	4		03	01	280	G	WM	
0030701	9081	105011	633	513115	COR	EMERALD L W FORK													158			
0030702								57	353	171	30	70	3	42		16	05	607	G	W	00307
0030801	9091	105011	633	413111	COR	EMERALD L E FORK													157			
0030802								102	412	413	34	50	30	8					296	G	W	
0030901	9056	105N06	631	513315	COR	MT ARMSTRONG													162			
0030902								44	126	43	45	05	2	1		03	01	106	X		
0031001	4212	105M15	635	213445	COR	ROOP L BATH													163			
0031002								39			50	10	05	1		09	03	114	G		
0031101	2074	106D04	640	213550	COR	DUBLIN GULCH													278			
0031102								37			1	02	5	4		06	02	94	G	WS	
0031201	4331	106D04	634	813615	COR	HIGHET CR													168			
0031202								56			40	5	2	16					308	G	W	
0031301	9111	115P07	632	713657	COR	NE STEWART CROSS													169			
0031302								57	147	54	57	30	02	10		04	02	156	G		
0031401	2043	116B03	640	213906	COR	HUNTER GERMAINE RIDGE													172			
0031402								55	448	83	70	02	2	2	220		01	167	R	S	
0031501	63X2	11509	634	313820	COR	MT BARNHAM													264			
0031502								36	217	61	120		5							PT		
0031601	Z715	115J10	624	413850	COR	CANADIAN CR KLOTASSIN													269			
0031602								14	110	24	15	5	1	1		03	01	54	G	MW	
0031701	Z7178	115J7	622	613856	COR	NISLING S CANADIAN CR													271			
0031702								15	185	19	30	37	20	140		07	01	242	G		
0031801	Z719	115J7	622	613854	COR	NISLING S CANADIAN CR													271			
0031802								28	153	49	14	30	2	12					212	R		
0031901	U331	115F16	615	614020	COR	ALCAN MI 1160													273			
0031902							120	24	53	38	19	1	5	1		05	04	68	G		
0032001	U321	115B16	605	813802	COR	SE KLUANE MI 1040													267			
0032002							38	167	117	85	57	5	08	20		03	01	257	G		
0032101	U323	115B15	605	913836	COR	SLIM R													268			
0032102							030	6	7	1	05	05	2	1		03	01	46	G		
0032201	U313	114P09	593	713627	COR	HAINES MI 56													275			
0032202							39	32	110	13	15	05	05	10		02	01	67	G		
0032301	V344	114P10	593	613631	COR	HAINCE RD													275			
0032302							23	10	40	2	12	05	10	2		03	01	57	G		
LAST	LAST	LAST																				

APPENDIX II

Element values, combined data

Headings Card 2	K_2O(%)	Li	Rb	Cs		Sn	Be	Mo	W	F(%)	Cl(%)	T.L. I.	Class		K/Rb
APPALACHIAN REGION															
0000101 V57		001M16	4754	5415	APPB	URIN-SWIFT CURRENT						1			
0000102	31	18	97	3		9	71	4	1	02	02	148	G		265
0000201 V581		001M16	4758	5429	APPB	UREN RD						2			
0000202	55	25	191	5		19	05	3	1	03	01	899	G		239
0000301 V582		001M15	4747	5431	APP	BUREN RD						3			
0000302	56	24	149	40		27	05	3	1	03	01	964	G		312
0000401 V59		001M10	4731	5451	APPB	AY L D'ARGENT RD									
0000402	44	00	235	20		20	51	3	2	01	02	121	G		155
0000501 Y211		1L14	4655	5523	APP	ST LAWRENCE NFLD						5			
0000502*3	34	36	294	70		78	76	22	37	10	03	249	GF	X F	96
0001301 V632		1M04	4706	5535	APP	GRAND BEACH						8			
0001302	30	6	165	30		46	35	35	3	01	02	152	R		151
0001401 V633		001M04	4707	5534	APP	RHY GRAND BEACH						8			
0001402	39	4	191	70		34	47	30	1	01	02	125	R		169
0001601 V641		001M16	4850	5421	APP	GANDER I						10			
0001602*3	46	202	537	29		57	57	20	13	07	01	349	G	X	72
0001901 V65		012H07	4922	5652	APP	SANDY LAKE						11			
0001902	45	37	106	20		1	41	20	10	03	02	109	G		353
0002001 457		11E8W	4516	6220	APP	167 MT W OF MELROSE NS						12			
0002002		34				110	1	02	1			166	G	X	
0002101 V56		011D15	4454	6242	APP	MOOSELAND TUNGIER						13			
0002102	55	169	248	170		47	2	2	2	03	01	258	G	X	183
0002501 V525		011D12	4436	6634	APP	PURCELLIS COVE						16			
0002502*3	53	129	304	20		79	76	20	20	07	02	324	G	X	145
0002801 117		021A16	4446	6422	APP	NEW ROSS (NEW CARD)					17-28				
0002802*13		155				297	33	05	36	08	02	526	G	X S	
0004101124		21A16W	4450	6427	APP	W OF WALLACE BACK LAKE						27			
0004102		101				39	2	02	1			154	G	S	
00043011362		21A16W	4447	6429	APP	HWY 12 3-6 MI N OF NEW ROSS									
0004302		96				64	5	05	2			190	G	S	
00044017751		21A14	4452	6502	APP	S NECTAUX						29			
0004402	419	87	160	89		37	38	20	20	03	02	202	G		217
00045017752		21A14			APP	S NECTAUX						30			
0004502	373	81	171	99		39	37	10	1	03	02	177	G		181
00046017753		21A14	4450	6503	APP	S NECTAUX						30			
0004602	396	75	194	90		28	43	20	8	03	02	246	G		169
00047017754		21A14	482	6504	APP	S NECTAUX						31			
0004702	388	88	178	11		49	42	20	40	03	02	239	G		181
00048017755		21A14	4447	6504	APP	S NECTAUX						31			
0004802	382	81	165	99		43	32	05	20	03	02	181	G		192
00049017756		21A14	4447	6504	APP	S NECTAUX						31			
0004902	553	86	270	12		44	25	10	80	03	02	245	G		170
00050017757		21A14	4454	6432	APP	N NEW ROSS						32			
0005002*2	41	160	479	20		16	53	15	80	16	03	324	G	X	71
0005201454		21G14E	4559	6713	APP	POKIOK 0-2 MI E OF FALLS						33			
0005202		54				57	1	02	1			133	G		
0005301 Z72		021G67	4521	6700	APP	PLUTONS W MT PLEASANT					34-35				
0005302*6	45	125	472	100		125	40	13	14	04	01	317	G	X SM	80
00058011161		21G2W	4512	6650	APP	N OF ST GEORGE NB						35			
0005802		64				250	02	05	1	07	01	331	G R		
00059011162		21G7W	4520	6655	APP	N OF ST GEORGE NB						35			
0005902		40				55	50	05	1			160	G		
00060011150		21G8W	4528	6626	APP	W OF WELSFORD						36			
0006002		70				30	1	05	2			405	G		
0006101774		21G4	4435	6605	APP	HAMSTEAD						37			
0006102	352	31	157	54		15	39	2	2	06	04	125			186
0006201 452		21G8W	4525	6620	APP	EAGLE ROCK NB						38			
0006202		45				12	7	10	4			177	G		
0006301 Z72		021G67	4521	6700	APP	PLUTONS W MT PLEASANT					34-43				
0006302*3	215	77	91	71		56	13	11	18			170	G	S	197
0006501 102		21G74	4522	6654	APP	MAGAGUDAVIC R S POMEROY						41			
0006502		49				28	1	02	1	04	02	99	G		
0007201 114		21J2W	4604	6658	APP	N W ZEALAND STATION						46			
0007202		63				20	1	05	1	04	02	288		X	
00074011131		21J7	4627	6700	APP	NW OF NAPADOGEN NB						47			

Headings Card 2	K_2O(%)	Li	Rb	Cs	Sn	Be	Mo	W	F(%)	Cl(%)	T.L. I.	Class		K/Rb
APPALACHIAN REGION (cont'd)														
0007402		36			56	02	05	20			119	G		
00075011133		21J11	4631	6705APP	10 MI NW OF NAPADOGEN NB						48			
0007502		12		12	1	02	2				164	GP		
0007601 104		021J10	4636	6645APP	BURNT HILL AREA						49-50			
0007602*5		46		113	52				03	02	259	G	X WMBS	
0008201V671		001L14	4647	6631APP	RENOUS-PLASTER ROCK						51			
0008202	47	2	150	2	17	2	2	1	02	02	51	G		260
0008301V672		001M04	4647	6631APP	RENOUS PLASTER ROCK						51			
0008302	43	5	148	2	17	28	2	1	03	02	80	G		241
0008401V673		001M04	4648	6334APP	RENOUS PLASTER ROCK						51			
0008402	45	52	251	18	55	38	2	1	04	02	175	G		149
00085017773		21P12	4742	6552APP	NICHOLAS DENNYS						53			
0008502	208	13	56	14	39	25	20	12	03	02	217	G		309
00086017771		21P12	4741	6553APP	NICHOLAS DENNYS						53			
0008602	268	23	84	29	17	28	05	2			93	G		264
00087017772		21P12	4742	6553APP	NICHOLAS DENNYS						53			
0008702	280	12	90	19	45	30	20	16			267	G		253
00089017781		21P13	4748	6549APP	KEYMET PORPH						55			
0008902	318	29	214	50	70	2	2	8			219	G		123
0009201 458		21P5	4730	6546APP	BATHURST PABINEAU CR						57			
0009202		46		14	7	05	4		03	01	301		MBS	
SUPERIOR PROVINCE														
00100011105		32D14	4847	7913SUP	L MACAMIC						79			
0010002	174	16	35	05	13	41	05	1	07	02	85	G		414
00101011014		32D06	4821	7901SUP	LAC DUFAULT						76			
0010102	160	12	57	13	24	06	2	4	02	03	102	G		233
0010201 U08		32D13	4858	7938SUP	W DEMOISELLE						77			
0010202	153	17	35	13	11	28	10	1	05	01	76	G		363
0010301 U09		42H01	4905	8004SUP	N LAC ABITIBI						78			
0010302	500	37	217	60	15	29	05	1	02	02	96	G		192
00104017011		42A11	4841	8122SUP	KIDD CR						87			266
0010402*2	266	10	83	10	71	5	5	1	03	00	101	R	S	
00106017044		42A12	4832	8134SUP	CDN JAMIESON						88			
0010602	640	5	109	08	50	23	04	23	02	00	107	R		487
0010701705		42A12	4832	8134SUP	CDN JAMIESON						88			
0010702	198	48	53	04	68	25	04	23	01	03	107	G	X	310
0010801 U12		42A11	4843	8119SUP	PROSSER TP						89			
0010802	239	4	27	03	11	26	05	2	03	01	66	GF	X	735
00109017071		42A5	4819	8114SUP	STAR L RD						90			
0010902	147	21	44	13	9	23	05	10	03	02	68	G		276
00110017072		42A5	4819	8144SUP	STAR L RD						90			
0011002	174	17	42	10	16	21	20	1	03	02	84	G		344
00111011171		42B1	4805	8209SUP	HORWOOD STATION						91			
0011102	19	10	54	10	12	2	05	1	03	02	57	GF	X	292
0011201115		42B1	4807	8216SUP	N HARWOOD L						92			
0011202	362	10	77	14	14	42	10	10	07	02	86	G		390
0011301 Z08		42B1	4813	8219SUP	SCORCH CR						93			
0011302	222	30	75	16	10	05	1	2	03	00	30	G		247
0011401 Z091		42B2	4809	8236SUP	W FOLYET						94			
0011402	258	11	88	12	9	24	05	1	04	01	59	G		243
0011501 Z092		42B2	4809	8236SUP	S FOLYET						94			
0011502	212	17	73	16	09	05	05	1	04	01	46	G		241
0011601 Z10		41O14	4754	8310SUP	NE CHAPLEAU						81			
0011602	188	14	68	15	10	32	10	1	02	04	76	G		229
0011701 U19		41O13	4744	8334SUP	W CHAPLEAU						83			
0011702	553	11	113	09	2	2	1	1			71	G		406
0011801 Z11		41N16	4758	8418SUP	E WAWA						80			
0011802	223	20	91	30	11	05	05	1	02	03	51	G		204
0011901 7 913		41K16	4653	8428SUP	BATACHEWAN BAY						86			
0011902	260	10	78	32	15	23	02	2	04	00	70	G		277
0012001 U20		42C16	4822	8505SUP	E WHITE RIVER						95			
0012002	230	8	36	04	13	31	10	10	03	01	72	G		530
00121017121		42F4	4909	8547SUPGECO-WILLROY AREA PEG							96			
0012102*5	407	20	187	15	57	45	14	15	04	02	151	P	X S	180
00125017154		42F4	4909	8547SUP	GECO						96			
0012502	464	31	134	60	38	10	1	1	13	02	99	G	S	287
00128017911		42C11	4842	8548SUP	E MANITOWADGE RD						A			

Headings Card 2	K_2O(%)	Li	Rb	Cs	Sn	Be	Mo	W	F(%)	Cl(%)	T.L. I.	Class			K/Rb
SUPERIOR PROVINCE (cont'd)															
0012802	26	2	50	0	29	02	05	1	08	00	48	G			43
0012901 717	42C13		4850	8522	SUP	S MANITOWADGE					B				
0012902	217 17		48	15	03	26	05	1	03	02	61	G			375
0013201 Z20	42D14		4848	8708	SUP	W TERR BAY					E				
0013202	260 26		79	13	12	28	05	2	04	02	91	G			273
0013301 721	42D14		4849	8720	SUP	W SCHRIEBER					F				
0013302	373 36		154	58	13	38	20	2	05	02	127	G			200
0013401 722	42D13		4852	8736	SUP	W ROSSPORT					G				
0013402	490 17		232	23	13	35	05	1	03	02	80	G			175
0013501 Z23	52H01		4902	8802	SUP	KAMA BAY					H				
0013502	563 28		155	17	21	02	05	1	06	02	66	G			301
00136017881	52H01		4903	8814	SUP	N NIPIGON					99				
0013602 5	5		144	5	27	2	15	1	05	01	77	G	X		288
0013901 7884	42E5		4950	8751	SUP	BARBARA					102				
0013902	49 76		365	17	56	92	1	1	02	04	244	PG	X	LB	111
0014001 Z24	52A10		4844	8836	SUP	NIPIGON-T BAY					103				
0014002	632 15		216	39	26	27	05	1	02	02	83	G			243
0014101 725	52A12		4842	8953	SUP	S RAITH					104				
0014102	392 32		152	35	15	30	05	1	04	03	92	G			214
0014401 Z26	52G2		4905	9042	SUP	W UPSALA					107				
0014402	205 28		59	11	5	20	05	4	02	02	98	G	X		289
0014501 Z27	52G6		4920	9128	SUP	E IGNACE					108				
0014502	531 13		376	60	12	31	02	1	02	01	68	G			117
0014601 Z28	52G09		4934	9214	SUP	REVELL R					109				
0014602	258 41		86	14	14	05	02	1	04	02	72	G	X		249
0014901 Z291	52F15		4950	9245	SUP	ZEALAND G					113				
0014902	336 23		148	98	11	32	20	1	03	01	195	P	X	LB	188
0015001 Z292	52F15		4949	9248	SUP	ZEALAND G					113				
0015002	447 28		217	88	26	28	05	1			97	G		LB	171
0015301 Z865	52F15		4949	9243	SUP	ZEALAND TP					114				
0015302	145		489	505	23	27	15	2	03	02	450	P	X	B	
0015601 Z30	52F14		4959	9321	SUP	RED L RD					116				
0015602	253 16		75	2	17	25	05	1	03	02	73	G			280
0015701 Z441	52F13		4952	9346	SUP	MED L					117				
0015702	349 38		385	17	27	20	05	1	03	02	100	P	X	B	75
0016301 443	52F13		4953	9345	SUP	GORDON L					117				
0016302	368 29		175	27	22	21	05	1			87	G			174
0016401 Z45	52E9		4944	9416	SUP	E KENORA					I				
0016402	212 28		72	60	11	02	05	2	04	01	66	G			244
0016501 746	52E10		4943	9450	SUP	W KENORA					J				
0016502	302 51		120	32	5	05	05	1	04	01	76	G			209
0016601 Z841	52E13		4950	9359	SUP	E HAWK					K				
0016602	16		120	102	09	24	05	1	02	01	64	G			
0016701 Z842	52E13		4951	9357	SUP	E OF E HAWK					L				
0016702	36		95	36	07	05	02	1			60	GP	X		
0016801 Z472	52E14		4946	9510	SUP	W HAWK CADDY					118				
0016802	510 28		270	86	25	22	05	1	02	01	90	G			157
0016901 Z473	52E12		4938	9540	SUP	E WINNIPEG					119				
0016902	363 17		144	16	16	26	05	1	03	01	74	G			209
0017301 Z31	52K3		5010	9315	SUP	CLIFF LAKE					122				
0017302	212 20		75	13	34	23	05	1	03	01	92	GP			234
0017401 Z43	52K15		5059	9259	SUP	S BAY RD					123				
0017402	193 14		63	17	02	16	05	10	03	02	47	G			255
0017601 Z326	52N09		5109	9241	SUP	SOUTH BAY					125				
0017602	158 13		35	9	77	36	30	2	05	02	176	R		S	375
0017701 Z329	52N02		5107	9241	SUP	SOUTH BAY II					125				
0017702	165 15		36	07	39	33	20	1	05	01	117	R		S	379
0017801 Z327	52N2		5104	9241	SUP	SOUTH BAY					125				
0017802	116 17		35	6	75	3	10	2	04	01	152	G		S	275
0017901 Z833	52L5		5027	9547	SUP	S BIRD R					126				
0017902	57		331	18	29	30	05	1	01	03	131	G	X	BLCS	
0018001 Z831	52L11		5038	9528	SUP	CAT LAKE RD					129				
0018002	15		33	12	30	23	10	1	03	01	88	G			
0018101 7832	52L11		5035	9527	SUP	CAT L RD					128				
0018102	28		100	16	19	02	1	1	03	01	69	G			

Headings Card 2	K_2O(%)	Li	Rb	Cs	Sn	Be	Mo	W	F(%)	Cl(%)	T.L. I.	Class			K/Rb
CORDILLERAN REGION															
00186011011		82K09	503	31163	4COR	MC DONALD CR HORSE THIEF					173				
0018602	60	36	417	59	09	64	05	2	06	02	134	G			119
0018701 7102		82K15E	504	71163	4COR	BUGABOO CREEK					174				
0018702		3	22	15	6	02	10	10	03	02	31	G			
0018801 5021		82F7E	491	81164	0COR	KUSKANOOK					175				
0018802		40	113	118	17	02	02	1	06	01	71	G			
0018901 6024		82F7E	492	61164	4COR	AKOKLI CR					176				
0018902		32	145	69	28	02	02	1			74	G		W	
00190011082		82F10	493	81164	7COR	CRAWFORD BAY					177				
0019002	67	34	239	43	02	10	05	2	11	01	71	G			232
001950159-1-4		82F16N	495	81161	2COR	SKOOKUCHUCK					180				
0019502		11	108	144	20	15	16	2			541	P		X B	
0019601 2402		82F9E	493	41161	0COR	HELLROARING CR					181				
0019602		13			22	190		2 2	02	00	2155	P		X B	
0019801 5022		82F7W	492	31164	8COR	SANCA					182				
0019802		45	151	109	18	1	20	1	06	01	103	G			
0019901 4021		82F3E	490	51170	3COR	CRESTON SALMO					183				
0019902		33			20	1	2	1			75	P		X	
0020201 833		82F6W	492	21171	7COR	BARRET CR (PORTORIO)					185				
0020202		9	63	17	2	02	02	8			113	G		X M	
0020301 315		82F6	493	01171	8COR	(MT)NELSON									
0020302		50			05	67	02	1			134	G			
0020401 403		82F6W	492	91172	0COR	NELSON W QUARRY					187				
0020402		41			15	1	10	1	04	01	86	G			
0020601 506		82F4W	491	01175	2COR	CORYELL N OF ROSSLAND					189				
0020602		13	164	36	18	02	60	10	07	02	103	G			
0020701 Y02		82K12	503	81175	6COR	ARROWHEAD SHELTER BAY					190				
0020702		36	136	25	21	26	02	1			95	G		X	
0020801 Y03		82F3	490	61171	1COR	EMERALD SALMO					191				
0020802*3		18	218	46	17	78	2	2			135	G		W	
0021101 Y06		82F3	491	21171	1COR	LOST CREEK					192				
0021102		39	149	46	22	66	2	1			139	G			
0021201 822		92H3E	491	01210	2COR	CANAM CU					193				
0021202		35	54	49	83	02	02	2	02	07	142	GT		M	
0021301 404		82E1E	490	01181	3COR	KETTLE FALLS W OF BRIDGE					194				
0021302		25			19	7	02	1			126	P		X	
0021401 59-71		82L16	505	31181	5COR	MT REGRIE									
0021402		13	154	203	4	02	7	4	02	01	165	PT		X	
0021601 Y01		82N4	510	71175	3COR	ALBERT CANYON					196				
0021602		33	263	11	41	37	02	1	03	02	592	456		x B	
0021701 4503		82M11E	513	61190	2COR	BISCHOFF L					197				
0021702		24			10	02	2	1			48	GP		B	
0021901 225		82L11W	504	21192	0COR	SALMON ARM FLY HILL					198				
0021902		31			15	1	02	1			68	PG		X	
0022001 0041		83D13	525	31193	2COR	MICA MT					199				
0022002		26			15	17	3	20	02	01	576	P		X B?	
0022301 4511		82D13	525	31193	2COR	MICA MT					199				
0022302		36			53	15	2	4	03	01	281	P		X B?	
0022401 V146		93N09	553	91242	6COR	LOST CR MANSON					200				
0022402	11	5	42	12	09	02	3	4	09	02	86	R		W	217
0022501 V725		93N11	553	81245	2COR	GERMANSEN BATH					202				
0022502	320	27	74	2	15	02	23	10	07	02	77	G			359
0022601 U124		93N11	554	01244	3COR	OLSEN CR (GERMANSEN)					202				
0022602	510	22	84	34	08	20	05	1	08	01	65	G			504
0022701 U60		94E03	571	51270	1COR	MT DRYSDOROUGH-FINDLAY R					203				
0022702	390	10	107	08	20	05	05	15	03	02	46	G			302
0022801 20		93L14	545	81272	5COR	N OF SMITHERS					204				
0022802	61	14	143	39	02	20	15	4	06	01	91	R			35
0022901 2168		93M4E	551	01273	3COR	HAZELTON ROCHER DEBOULE				E	205				
0022902*2		20			1	5	2	14	04	03	240	G		W	
0023101 2221		92K34	541	31253	0COR	TOPLEY CR					207				
0023102		15	68	45	1	1	200		03	01		G			
0023301 U481		94D09	563	61260	9COR	JOHANNSEN					209				
0023302	21	19	1	5	05	0	5	2	04	03					17430
0023401V113		93D07	522	21263	4COR	BELLA COOLA					210				
0023402	45	18	51	7	7	10	05	2	06	01	60	G			7636
0023501V112		93D07	522	21264	0COR	BELLA COOLA					211				

Headings Card 2	K_2O(%)	Li	Rb	Cs	Sn	Be	Mo	W	F(%)	Cl(%)	T.L. I.	Class	K/Rb
CORDILLERAN REGION (cont'd)													
0023502	24	1	26	2	5	02	5	2	07	01	42	G	767
0023601 U506	93L15		545	612648COR	CRONIN						212		
0023602	27	1	54	55	7	02	1	4	04	01	60	R	415
0023701 U501	93L15		545	912641COR	CHAPMAN L						213		
0023702	32	5	1	5	4	02	1	2	03	01	41	R	26560
0023801 U44	103016		555	613000COR	HYDER						214		
0023802	44	22	40	25	5	02	1	1	04	01	49	G	913
0024101 517	104P4		591	012947COR	BASS CR						216		
0024102		44	243	43 52	2	2	2	1	11	02	146	G	
0024201 717	104P4		591	212947COR	W OF VINER L MC DAME						216		
0024202		44	309	63 07	3	2	1		07	02	111	G	
0024301 718	104P4		591	212947COR	W OF VINES L MCDAME						216		
0024302		36	21	22 7	5	4	2		11	01	171	G	
0024501 9223	104P4		591	212951COR	CASSIAR MOLY						217		
0024502		48	275	43 28	5	9	22				436	G	M
0024701 5123	104P5		500	012951COR	CONTACT GP MC DAME						217		
0024702				44	-3	05	1		07	02		G	MS
0024901 735	104P12		593	612959COR	BLUE R						218		
0024902		20	69	24 17	3	5	2		03	00	92	G	
0025101 753	105B1		600	313022COR	S OF MI 701 WOLF LAKE						219		
0025102		46	178	60 13	3	5	1		04	00	104	G	
0025201 715	10408		592	213025COR	E OF PARELLEL CR JENNING						220		
0025202		24	89	24 10	5							G	
0025301 711	10401		591	313026COR	TUYA JENNINGS						221		
0025302		32	137	35 07	05							G	
0025701 5392	105B1		600	113028COR	FREER CR DALE						228		
0025702		54	128	48 36	4	02	1		04	01	142	G	
0025801 5292	104016		595	513029COR	RANCHERIA MINE						229		
0025802		57	169	61 38	5	05	1				115	G	
0025901 307	105B1W		600	313029COR	S OF MI 706						230		
0025902		153			45	10	02	1			220	P	X
0026201 213	105B2		600	513045COR	ALCAN HWY CASSIAR						233		
0026202		50		6	05	05	1		04	00	130	G	
0026301 530	104016		595	513026COR	TOOTSEE R FORD						246		
0026302		74	150	80 31	5	2	1		05	01	122	G	
0026401 612	10409		593	913028COR	BLUE LITE						247		
0026402		51	582	92 11	94	70	30		10	00	355	P	X BWS
0026501 544	10409		593	913028COR	BLUE LITE						247		
0026502#3		72	278	56 93	9	63	2		22	01	338	GF	X
0026801 625	10408		591	613029COR	SE ASH MT						249		
0026802		64	320	56 60	94	05	20				1089	G	S
0026901 5333	10407		592	013021COR	ASH MTN N CIRQUE						232		
0026902		15	410	33 3	34	1	1				99	G	X
0027001 3052	10407		592	013031COR	ASH MT N OF PASS						232		
0027002		23		10	2	05	2		02	01	78	G	
0027101 3062	10407		593	013031COR	ASH MT TOURM GR PEG						232		
0027102		21		43	77	1	2				171	PT	X S
00272013045	10407		591	713045COR	ASH MTN(E PART OF PASS)						250		
0027202		43		5	86	02	2				201	G	S
0027301 2143	105B3E		600	413108COR	TOPAZ MTN SEAGULL BATH						251		
0027302		67		8	5	10	4		10	01	202	GPT	X
0027401 6161	105B6		591	213119COR	GLUNDEBERRY ZR LOC B						252		
0027402#2		28	150	30 87	30	11	20		02	01	176	G	
0027601 608	105B6		602	313120COR	TCE LAKES BE						254		
0027602		31	355	124 10	77	02	2		05	01	230	P	X B
0027701 767	1040R14		594	713120COR	SIMPSON PEAK N RIDGE						254		
0027702		11	57	13	4	5	10	1	03	01	40	G	
0027801 768	1040B14		594	713130COR	SIMPSON PEAK						254		
0027802		22	113	34 05	1	02	1				49	G	
0027901 769	10406		592	713115COR	KLINKIT BATHOLITH						255		
0027902		26	79	22 8	10	02	4		05	01	158	G	
0028101 613	10405		592	913145COR	CHARLIECOTE						257		
0028102		22	72	22 5	5	2	20		03	01	99	G	
0028201 6141	10405		592	513146COR	SE OF CHARLOTIECOTE						258		
0028202		21	227	72 14	1	2	1		03	01	183	G	X
0028301 61410	10405		592	513146COR	SE OF CHARLOTIECOTE						258		

Headings Card 2	K_2O(%)	Li	Rb	Cs	Sn	Be	Mo	W	F(%)	Cl(%)	T.L. I.	Class		K/Rb
CORDILLERAN REGION (cont'd)														
0028302		15	285	79	10	1	2	1	03	01	155	G	X	
0028401 6152		I0405	592	213142COR	SNOOK CREEK GRANITE						259			
0028402		18	161	70	36	2	02	2	03	01	78	G		
0028501 618		104016	591	613119COR	RIDGE E OF UPPER TAHOOTS CR						260			
0028502		11	158	53	15	1	52	2	03	03	243	G		
0028601 619		10403	591	413114COR	NAZCHA CR(PASS) ZRL OC A						261			
0028602*3		19	212	28	115	33	19	90	05	01	266	G		
002890121045		104N11W	594	113325COR	ATLIN BOULDER CR						241			
0028902		22			7	5	05	2	03	01	122	G	WS	
0029201 4471		104N12E	594	413331COR	ATLIN RUPPNER						243			
0029202		7	124	31	9	5	2	1			114	G		
0029301 4461		104N12E	593	713329COR	MT MONROE ATLIN						244			
0029302		24	107	25	10	02	02	8			118	G		
0029401 U342		105D02	600	513442COR	S CARCOSS						234			
0029402*2	50	11	226	59	42	06	5	5	05	02	159	G		183
0029601 211		105C11E	603	313310COR	CANAL RD						236			
0029602		31			4	2	20	12	03	01	213			
002970156-673		105F3	610	713306COR	QUIET L						238			
0029702	49	60	335	236	95	4	90	80	03	02	122	PT	X	121
0029901 801		105F10	613	013248COR	SHEEP CR CANOL						240			
0029902		45	251	69	2	5	80	10			160	G	M	
0030001 U385		105K06	613	613318COR	FARO MUSC G						154			
0030002	40	75	210	90	80	45	5	2	06	01	225	G	X	157
0030101 802		105L01	621	013400COR	RAILWAY SURVEY CR						155			
0030102		54	193	81	30	10	5	10			109	G		
0030201 748		105A15	604	712849COR	FRANCES-HYLAND						277			
0030202		53	167	58	35	4	05	1	04	00	143	G		
0030301 753		105H15	615	712815COR	CANTUNG SOUTH						153			
0030302		76	199	10	97	78	10	12	06	00	381	G	W	
0030401 754		105H16	615	812815COR	CANTUNG NORTH						153			
0030402		60	180	10	66	60	10	2			216	G	W	
0030501 V22		105J04	620	913150COR	ORCHI L									
0030502	53	16	318	5	51	3	15	10	03	01	122	G		138
0030601 7621		105008	631	713009COR	AMAX N RIDGE						156			
0030602		80	314	20	79	71	10	4	03	01	280	G	WM	
0030701 9081		105011	633	513115COR	EMERALD LAKE						158			
0030702*2		80	382	297	32	60	30	25	16	05	452	G	W	
0030901 9056		105N06	631	513315COR	MT ARMSTRONG						162			
0030902		44	126	43	45	05	2	1	03	01	106	X		
0031001 4212		105M15	635	213445COR	ROOP L BATH						163			
0031002		39			50	10	05	1	09	03	114	G		
0031101 2074		106D04	640	213550COR	DUBLIN GULCH						168			
0031102		37			1	02	5	4	06	02	94	G	WS	
0031201 4331		106D04	634	813615COR	HIGHET CR						278			
0031202		56			40	5	2	16			308	G	W	
0031301 9111		115P07	632	713657COR	NE STEWART CROSS						169			
0031302		57	147	54	57	30	02	10	04	02	156	G		
0031401 2043		116B03	640	213906COR	HUNTER GERMAINE RIDGE						172			
0031402		55	448	83	70	02	2	2	220	01	167	R	S	
0031501 63X2		11509	634	313820COR	MT BARNHAM						264			
0031502		36	217	61	120	5						PT		
0031601 7715		115J10	624	413850COR	CANADIAN CR KLOTASSIN						269			
0031602		14	110	24	15	5	1	1	03	01	54	G	MW	
0031701 77178		115J7	622	613856COR	NISLING S CANADIAN CR						271			
0031702		15	185	19	30	37	20	140	07	01	242	G		
0031801 7719		115J7	622	613854COR	NISLING S CANADIAN CR						271			
0031802		28	153	49	14	30	2	12			212	R		
0031901 U331		115F16	615	614020COR	ALCAN MT 1160						273			
0031902	120	24	53	38	19	1	5	1	05	04	68	G		188
0032001 U321		115B16	605	813802COR	SE KLUANE MI 1040						267			
0032002	38	167	117	85	57	5	08	20	03	01	257	G		270
0032101 U323		115B15	605	913836COR	SLIM R						268			
0032102	030	6	7	1	05	05	2	1	03	01	46	G		356
0032201 U313		114P09	593	713627COR	HAINES MI 56						275			
0032202	39	32	110	13	15	05	05	10	02	01	67	G		294
0032301 V344		114P10	593	613631COR	HAINCF RD						275			
0032302	23	10	40	2	12	05	10	2	03	01	57	G		478
LAST LAST		LAST												

APPENDIX III

Correlation coefficients, R, and probabilities that reduction of variability due to a linear regression is significant at the 95% confidence level

COMBINED DATA

X Y	Appalachian		Superior		Cordillera		Total		Trans
K_2O-Rb	.782	Accepted	.198	Rejected	.113	Rejected	.299	Accepted	—/—
"	.573	Accepted	.388	Accepted	-.182	Rejected	.112	Rejected	—/Log
"	.621	Accepted	.549	Accepted	.421	Rejected	.506	Accepted	Log/Log
Li-Sn	.420	Accepted	.089	Rejected	.348	Accepted	.379	Accepted	Log/Log
Be-Mo	.377	Accepted	.264	Rejected	-.005	Rejected	.099	Rejected	Log/Log
Mo-Cl	.081	Rejected	.018	Rejected	.059	Rejected	.067	Rejected	Log/Log
Sn-F	.520	Accepted	-.015	Rejected	-.09	Rejected	.081	Rejected	Log/Log
Sn-W	.173	Rejected	.197	Rejected	.156	Rejected	.219	Accepted	Log/Log
TLI-K_2O	-.173	Rejected	-.075	Rejected	-.037	Rejected	-.101	Rejected	—/—
"	.046	Rejected	.180	Rejected	.215	Rejected	.215	Accepted	—/Log
"	-.055	Rejected	.237	Rejected	.286	Rejected	.286	Accepted	Log/Log
TLI-Sn	.484	Accepted	.754	Accepted	.739	Accepted	.768	Accepted	Log/Log
TLI-F	.749	Accepted	-.098	Rejected	.030	Rejected	.125	Rejected	Log/Log
ALL DATA									
K_2O-Rb	.005	Rejected	.208	Rejected	.038	Rejected	.295	Accepted	—/—
"	.082	Rejected	.426	Accepted	-.155	Rejected	.078	Rejected	—/Log
"	.230	Accepted	.584	Accepted	.431	Accepted	.478	Accepted	Log/Log
Li-Sn	.411	Accepted	.036	Rejected	.302	Accepted	.413	Accepted	Log/Log
Be-Mo	.353	Accepted	.216	Rejected	.108	Rejected	.185	Accepted	Log/Log
Mo-Cl	.129	Rejected	-.103	Rejected	-.001	Rejected	.036	Rejected	Log/Log
Sn-F	.486	Accepted	.013	Rejected	.029	Rejected	.156	Accepted	Log/Log
Sn-W	.235	Accepted	.132	Rejected	.183	Rejected	.226	Accepted	Log/Log
TLI-K_2O	-.001	Rejected	.058	Rejected	-.040	Rejected	-.075	Rejected	—/—
"	.279	Rejected	.149	Rejected	.097	Rejected	.197	Accepted	—/Log
"	.089	Rejected	.246	Rejected	.197	Rejected	.306	Accepted	Log/Log
TLI-Rb	.279	Rejected	.302	Accepted	.557	Accepted	.490	Accepted	Log/Log
TLI-Sn	.812	Accepted	.666	Accepted	.689	Accepted	.754	Accepted	Log/Log
TLI-F	.494	Accepted	-.037	Rejected	.099	Rejected	.201	Accepted	Log/Log

Note: If the reduction of variability is significant at the 95% confidence level, the correlation between the variables can be considered significant.

APPENDIX IVA

Summary of statistical values, all data

Data Subset	N	Range of the Data		Arith Mean	STD Dev	C.V. %	Geom Mean	Log Mean	STD Dev	95% Limits on Mean	
VARIABLE IS K_2O IN PCT & PPM UNITS											
APP	39	1.50	6.05	4.11	1.11	27.06	3.93	.5946	.1377	3.56	4.34
SUP	57	.26	6.40	3.12	1.45	46.34	2.74	.4385	.2468	2.37	3.18
COR	24	.30	6.70	3.49	1.73	49.41	2.88	.4588	.3277	2.09	3.96
VARIABLE IS Li IN PCT & PPM UNITS											
APP	70	2.00	315.00	81.23	66.33	81.66	53.79	1.7307	.4558	42.05	68.80
SUP	63	1.00	145.00	22.27	20.81	93.48	16.45	1.2163	.3580	13.42	20.17
COR	118	1.00	167.00	35.14	26.49	75.39	25.87	1.4127	.4000	21.90	30.55
VARIABLE IS Rb IN PCT & PPM UNITS											
APP	43	2.00	959.00	266.56	198.46	74.45	199.71	2.3004	.4145	150.09	265.72
SUP	63	22.00	880.00	153.38	151.38	98.75	108.85	2.0368	.3525	89.06	133.04
COR	96	1.00	748.00	187.35	131.96	70.44	132.53	2.1223	.4679	106.81	164.44
VARIABLE IS Cs IN PCT & PPM UNITS											
APP	44	1.40	36.00	9.97	8.13	81.50	7.12	.8527	.3754	5.52	9.20
SUP	62	.20	50.50	4.85	7.89	162.77	2.28	.3586	.5189	1.70	3.08
COR	96	.10	41.30	6.38	6.27	98.25	4.44	.6469	.3962	3.69	5.32
VARIABLE IS Sn IN PCT & PPM UNITS											
APP	82	.90	69.00	12.82	14.79	115.32	7.85	.8948	.4294	6.33	9.72
SUP	63	.20	23.00	3.11	3.46	111.42	2.09	.3200	.3844	1.68	2.60
COR	119	.20	95.00	5.53	9.63	174.14	2.99	.4749	.4821	2.44	3.64
VARIABLE IS Be IN PCT & PPM UNITS											
APP	80	.20	15.00	3.67	3.50	95.55	1.94	.2869	.5701	1.45	2.58
SUP	62	.20	27.00	2.84	3.47	122.21	1.92	.2827	.4157	1.51	2.43
COR	117	.20	190.00	5.99	19.89	331.79	1.58	.1994	.6590	1.20	2.08
VARIABLE IS Mo IN PCT & PPM UNITS											
APP	79	.20	70.00	2.50	8.11	324.55	.97	-.0133	.5156	.75	1.26
SUP	62	.20	80.00	2.18	10.08	462.98	.75	-.1254	.3910	.60	.94
COR	116	.20	47.00	3.14	6.65	211.76	.99	-.0056	.6210	.76	1.28

Data Subset	N	Range of the Data		Arith Mean	STD Dev	C.V. %	Geom Mean	Log Mean	STD Dev	95% Limits on Mean	
VARIABLE IS W IN PCT & PPM UNITS											
APP	79	1.00	16.00	2.95	2.93	99.36	2.10	.3224	.3378	1.77	2.49
SUP	61	.20	26.00	1.69	3.24	191.71	1.21	.0812	.2729	1.03	1.42
COR	113	1.00	120.00	5.57	13.44	241.19	2.32	.3650	.4693	1.90	2.83
VARIABLE IS F IN PCT & PPM UNITS											
APP	44	.01	.47	.06	.07	131.70	.04	-1.4109	.3244	.03	.05
SUP	59	.01	.13	.04	.02	51.98	.03	-1.4908	.1939	.03	.04
COR	77	.02	2.20	.08	.25	301.47	.05	-1.3150	.3040	.04	.06
VARIABLE IS TLI IN PCT & PPM UNITS											
APP	72	5.10	74.50	27.91	16.81	60.23	23.59	1.3728	.2554	20.59	27.03
SUP	61	3.00	113.60	11.61	14.58	125.56	9.25	.9663	.2357	8.05	10.63
COR	111	3.10	215.50	24.05	30.06	125.00	15.83	1.1994	.3666	13.53	18.52

APPENDIX IVB

Summary of statistical values, combined data

Data Subset	N	Range of the Data		Arith Mean	STD Vev	C.V. %	Geom Mean	Log Mean	STD Dev	95% Limits on Mean	
VARIABLE IS K_2O IN PCT UNITS											
APP	28	2.08	5.60	4.01	.99	24.66	3.89	.5896	.1162	3.50	4.31
SUP	48	.26	6.40	3.07	1.49	48.57	2.69	.4300	.2354	2.29	3.16
COR	22	.30	6.70	3.48	1.75	50.15	2.84	.4534	.3378	2.01	4.01
VARIABLE IS Li IN PPM UNITS											
APP	42	2.00	202.00	61.62	48.63	78.91	41.37	1.6167	.4567	30.09	56.88
SUP	54	2.00	145.00	23.31	21.94	94.13	17.42	1.2411	.3390	14.15	21.46
COR	99	1.00	167.00	34.57	26.56	76.85	25.43	1.4053	.3963	21.24	30.44
VARIABLE IS Rb IN PPM UNITS											
APP	28	56.00	537.00	208.32	119.71	57.33	181.49	2.2589	.2334	147.35	223.54
SUP	54	27.00	630.00	140.83	126.81	90.04	102.04	2.0122	.3380	83.56	126.61
COR	78	1.00	582.00	167.09	114.70	68.65	117.76	2.0710	.4794	92.15	150.50
VARIABLE IS Cs IN PPM UNITS											
APP	28	1.40	29.00	8.41	6.91	82.15	6.05	.7816	.3707	4.34	8.42
SUP	53	.20	50.50	4.20	7.50	178.54	2.15	.3331	.4672	1.61	2.88
COR	78	.10	29.70	5.82	5.19	89.28	4.10	.6129	.4011	3.34	5.03
VARIABLE IS Sn IN PPM UNITS											
APP	43	.90	30.00	7.26	7.21	99.25	4.94	.6938	.3031	3.79	6.43
SUP	54	.20	23.00	2.79	3.54	127.01	1.84	.2643	.3772	1.46	2.32
COR	100	.20	95.00	5.21	10.02	192.38	2.71	.4335	.4484	2.18	3.38
VARIABLE IS Be IN PPM UNITS											
APP	43	.20	7.60	3.13	2.26	72.14	2.02	.3051	.4929	1.44	2.84
SUP	54	.20	27.00	2.73	3.67	134.46	1.79	.2532	.4212	1.38	2.32
COR	98	.20	190.00	5.87	21.47	365.56	1.36	.1340	.6560	1.01	1.84
VARIABLE IS Mo IN PPM UNITS											
APP	42	.20	4.00	1.49	1.02	68.42	1.08	.0342	.3920	.82	1.42
SUP	54	.20	3.00	.80	.58	72.67	.65	-.1849	.2676	.55	.77
COR	97	.20	20.00	1.77	3.10	175.29	.76	-.1197	.5298	.60	.97

Data Subset	N	Range of the Data		Arith Mean	STD Dev	C.V. %	Geom Mean	Log Mean	STD Dev	95% Limits on Mean	
VARIABLE IS W IN PPM UNITS											
APP	42	1.00	16.00	2.71	2.94	108.34	1.94	.2888	.3223	1.55	2.43
SUP	54	.20	4.00	1.29	.69	53.55	1.17	.0673	.1921	1.04	1.31
COR	96	1.00	25.00	3.27	4.62	141.45	1.99	.2983	.3731	1.67	2.36
VARIABLE IS F IN PCT UNITS											
APP	30	.01	.16	.04	.03	73.29	.03	-1.4630	.2742	.03	.04
SUP	50	.01	.13	.04	.02	55.56	.03	-1.4940	.2065	.03	.04
COR	71	.02	2.20	.08	.26	314.89	.05	-1.3322	.3052	.04	.05
VARIABLE IS TLI IN PPM UNITS											
APP	43	5.10	52.60	20.51	9.78	47.66	18.36	1.2638	.2117	15.87	21.24
SUP	54	3.00	45.00	9.48	6.15	64.87	8.48	.9286	.1863	7.57	9.51
COR	94	3.10	215.50	20.10	27.50	136.82	13.78	1.1393	.3355	11.79	16.11