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ICP-AES analytical results for Precambrian basement rocks in or near Missouri

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ABSTRACT

The Precambrian basement rocks of the Midcontinent are mostly buried under thick layers of sedimentary rocks. These predominantly igneous basement rocks have been largely unexplored and may contain vast mineral resources. Samples of core from 45 drill holes were analyzed by induction coupled plasma-atomic emission spectrometry for major, minor, and trace elements. The results provide metallogenic comparison of subsurface Precambrian rock types in and near Missouri.

INTRODUCTION

Ninety-six samples of Precambrian basement rocks from 45 drill hole cores in Missouri, Arkansas, and Kansas were collected as part of the USGS Midcontinent Strategic and Critical Minerals study. The samples were analyzed by a sequential digestion scheme using induction coupled plasma-atomic emission spectrometry (ICP-AES) to characterize some of the major, minor, and trace element content of these subsurface samples. Objectives of the study were (1) to provide analyses of basement Precambrian rocks, (2) to investigate the mineral resource potential of the Precambrian basement and (3) to determine if basement rocks were a source for the large quantity of metals in the mineral districts of the region. The samples are representative of the rocks that constitute the Early to Middle Proterozoic Precambrian Basement terranes of the region. Four major geologic terranes are identified in the region (Sims, 1985 and Sims and others, 1988). From oldest to youngest, these are: (1) the southeast to northwest trending belt of Early Proterozoic metamorphic and granitoid rocks of the Central Plains orogen in central and northwest Missouri, (2) Middle Proterozoic St. Francois granite-rhyolite terrane in east-central and southeast Missouri, (3) Middle Proterozoic Spavinaw granite-rhyolite terrane in southwest Missouri and the Tri-State area, and (4) granite and associated rocks of uncertain age in northern Missouri (fig. 1). The analytical results for these samples are given in this report.

PREPARATION AND ANALYSIS OF SAMPLES

All samples were obtained from the sample libraries of the Missouri and Kansas State Geological Surveys. The drill hole localities are shown in figure 2 and the detailed description of the drill hole sites are given in table 1.

The samples were initially crushed to approximately 1 cm chips with a jaw crusher. The rock chips were split with a manual splitter to obtain approximately 80 g of sample. The 80 g portion was pulverized to minus-100-mesh (<0.150 mm) using a vertical pulverizer equipped with ceramic plates.

Decomposition of the samples was achieved by the following sequential digestion procedure:

1. Weigh 1 gram of sample into a 150 ml Pyrex beaker.
2. Add 20 ml of 2.4 N HCl, cover beaker and digest sample for 1.5 hours at 150 °C.
3. Filter through qualitative filter paper into a second 150 ml Pyrex beaker.
4. Wash twice with 2.4 N HCl and twice with distilled H_2O.

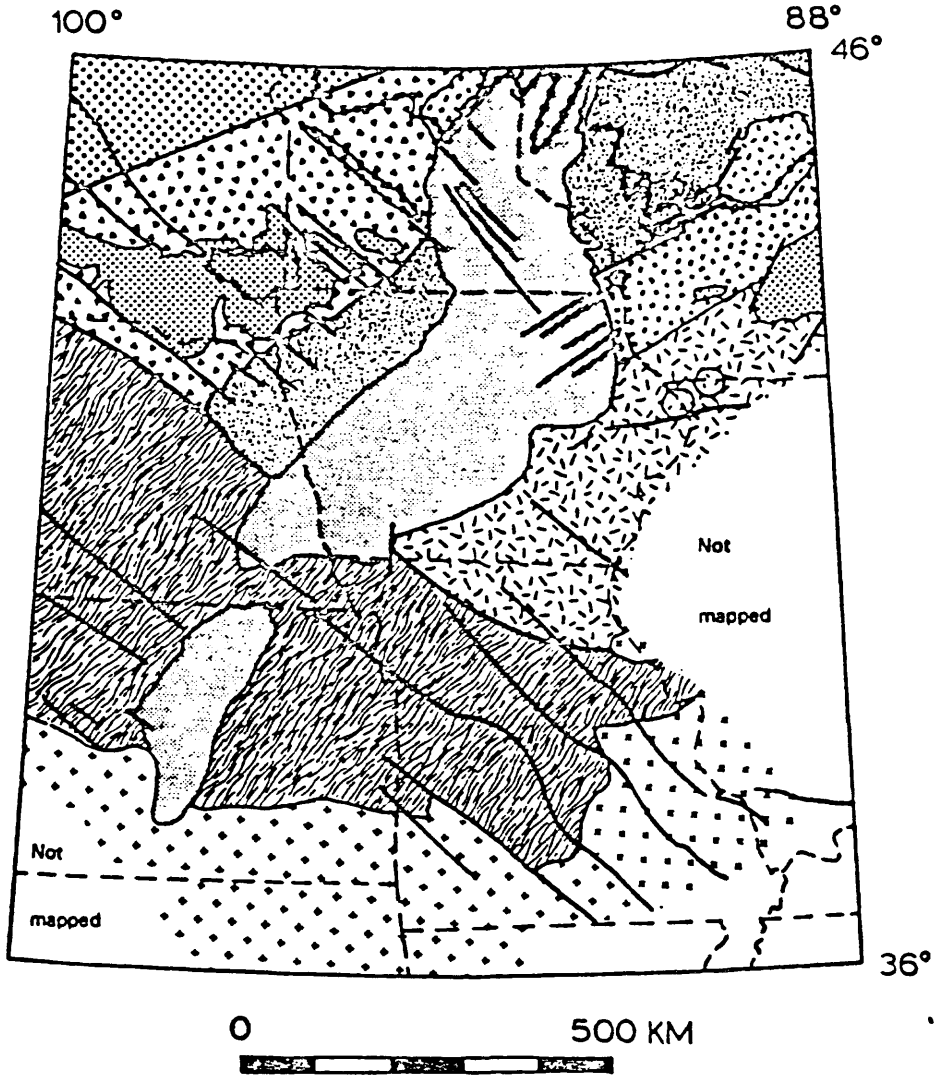

Figure 1: Precambrian basement terranes (from Sims, 1985).

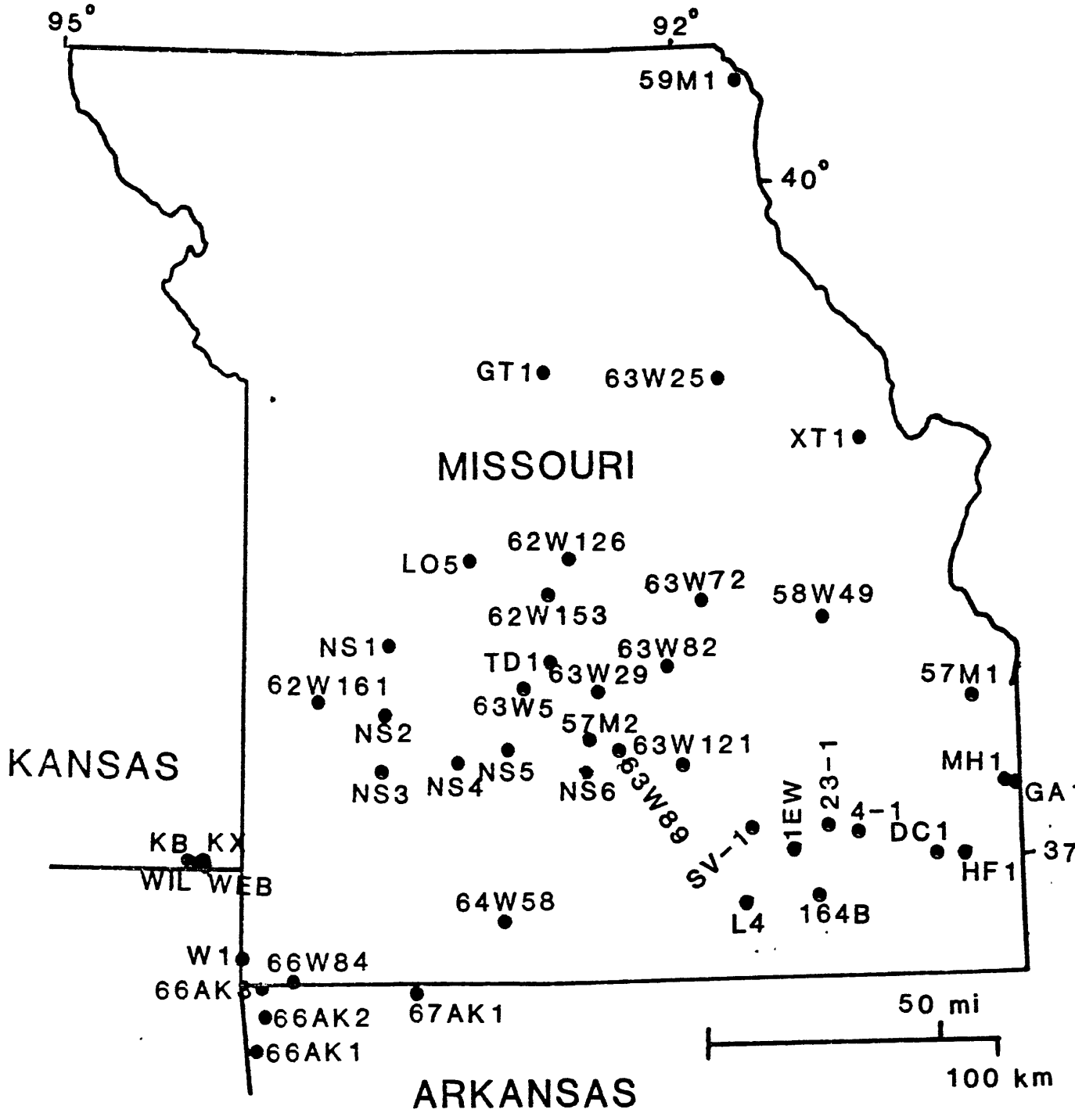

Figure 2. Map showing drill hole location.

5. Reduce to dryness and redissolve the HCl residue in 10 ml of 2.4 N HCl.
6. Transfer filtrate to 13 x 100 mm test tube, add 10 µl of Photo Flo 200 solution*, cap, shake, and save for analysis.
7. Using a wash bottle, wash residue from filter paper into the original beaker and reduce to dryness.
8. Add 5 ml of concentrated HNO_3 and 15 ml of concentrated HCl, cover and digest for 1 hour at 150 °C.
9. Remove cover and wash with distilled H_2O, reduce to dryness.
10. Redissolve aqua regia residue in 10 ml of 2.4 N HCl, gently heat while covered, filter, transfer filtrate to 13 x 100 mm test tube, add 10 µl of Photo Flo 200 solution, cap, shake, and save for analysis.
11. Wash residue twice with 2.4 N HCl and twice with distilled H_2O.
12. Discard wash solution and using a wash bottle, transfer washed residue into a 50 ml teflon beaker.
13. Add 5 ml of concentrated HNO_3 and 15 ml of concentrated (48%) HF.
14. Heat at 150 °C until all acid is boiled off and fumes have subsided.
15. Add 15 ml of 2.4 N HCl and 5 ml of saturated boric acid solution (50 g/l).
16. Heat gently for 10-15 minutes or long enough to evaporate 2-3 ml of solution. Cool and transfer HF/HNO3 filtrate to a graduate cylinder, wash beaker with 2.4 N HCl and add to cylinder to make 20 ml total volume. Transfer to 13 x 100 mm test tube, add 10 µl Photo Flo 200 solution, cap, shake, and save for analysis

* Photo Flo 200 solution is a wetting agent produced by the Eastman Kodak Company.

All reagents used were certified reagent grade chemicals. Dissolving samples in hydrofluoric acid, evaporating to fumes and redissolving the residue in hydrochloric acid can result in the formation of sparingly soluble fluoride complexes, particularly for Na and Al. The addition of boric acid to the solutions competes for the fluorine inhibiting the formation of insoluble fluorides. High salt content samples can cause a problem in the uptake mechanism of the ICP-AES instrumentation. Photo-Flo 200 solution is added to the samples to prevent the buildup of salt deposits within the system and allows the free flow of the aerosol (Mosier and Motooka, 1983).

The partial dissolution procedures described above are useful for the following reasons. First, many metals occur in various weathering products such as clays, secondary oxides, hydromorphic compounds, etc. that are more easily leached and are more mobil than metals bound in sulfide or silicate phases. These metals are released by the HCl digestion. Second, sulfide minerals are not readily dissolved by dilute HCl but are easily dissolved by aqua regia. Therefore, metals present in ore phases are enhanced relative to that retained in the residual silicate phase. Third, partial dissolution methods allow a lower effective limit of determination for trace elements because mineralogical sites containing lithological metals are not dissolved. Thus, because the total dissolved solids are lower, a lower dilution factor is possible which allows for a lower detection limit. And fourth, because the partial dissolution procedures are sequential, the results may be summed to obtain the total value.

EXPLANATION OF DATA

The elements analyzed and their lower limits of determination, given in micrograms per gram, are listed in table 2. For the analytical procedure described above, the dilution factor is 10 for the 2.4 N HCl and aqua regia digestions and 20 for the HF/HNO_3 digestion. Therefore the lower limits of determination for the HF/HNO_3 digestion are double the values listed in table 2. Table 3 lists the analyses for the samples. The data are arranged so that column 1 contains the assigned drill hole site identification which correspond to the numbers shown on the site location map (fig. 2). Column 2 gives the depth or depth interval of the drill hole core from which the sample was collected. The chemical digestion is shown in column 3 and, because these are sequential digestions, the values are added together to give the total element content in the sample. The remaining columns have element headings and show the analytical values in microgram per gram for each of the digestions and the total sample value for the elements. A zero value indicates the element was not detected. The precision of ICP-AES analytical data allows the use of only two significant figures. Tables 3, 4, and 5 contain excess non-significant figures in the raw data and statistical summary results.

Some drill holes penetrated Precambrian rock for an appreciable depth, in which cases, there are several analyses for the drill hole. Other drill holes penetrated the basement rock for only a short distance and there is only one analysis. The approximate upper 10 feet of Precambrian rock in all the drill holes showed considerable weathering. Therefore, if the drill hole penetrated the Precambrian for only a short distance, the analysis is of weathered rock. However, wherever possible, separate analyses were made for weathered and fresh rock.

The samples are arranged in table 3 by the following rock types taken from Sims (1985):

1. Epizonal micrographic granite and porphyry-Spavinaw terrane.
2. Mesozonal granite.
3. Magnetite bearing granite.
4. Rhyolite-Spavinaw terrane.
5. Rhyolite and minor trachyte, basalt flows and tuff-St. Francois terrane.
6. Epizonal granite and granite porphyry-St. Francois terrane.
7. Gabbro.
8. Metagabbro.
9. Metamorphic rocks, undivided.

RESULTS

So that the they may be more easily compared, the total values are given in table 4 by rock type. Statistical summaries of the results by rock type are also given in table 4. Two rock types, magnetite bearing granite and Spavinaw terrane Rhyolite, are represented by only one sample each so no statistical values are given. The statistical values for elements that have 0 values may be misleading because the 0's are averaged in. Remember a 0 means the element was not detected and the real value may be just below the detection limit, in which case, the average value would be higher.

When a comparison can be made between weathered and fresh rock, the values are usually, but not always, less in weathered rock. This suggests that metals may have been leached from the Precambrian basement rocks by the

passage of fluids. Thus, the Precambrian basement may have contributed metals to the migrating metal-bearing paleofluids that formed the mineral districts in the region.

Table 5 shows a comparison of the average values by rock type. The averages for Ag, As, Mo, Sn, Nb, Cd, W, and Pb are misleadingly low due to the 0's. As would be expected, the mafic rocks, rock types 7 and 8, are generally higher in element content.

REFERENCES

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Sims, P.K., Kisvarsanyi, E.B., and Morey, G.B., 1988, The Precambrian basement of northern midcontinent, U.S.A.--A major frontier for mineral exploration, in Kisvarsanyi,G. and Grant, S.K., eds., North American Conference on Tectonic Control of Ore Deposits and the Vertical and Horizontal Extent of Ore Systems Proceedings Volume, published by University of Missouri-Rolla, p. 236-245.

TABLE 1.--List of drill holes from which samples have been analyzed in the present study

Drill hole number	County and State	Location Sec., T., R.
63W82	Pulaski, Mo.	31, 37 N., 10 W.
NS5	Dallas, Mo.	5, 32 N., 19 W.
63W89	Laclede, Mo.	33, 33 N., 13 W.
NS1	St. Clair, Mo	12, 37 N., 26 W.
63W29	Laclede, Mo.	9, 35 N., 14 W.
LO5	Benton, Mo.	35, 42 N., 21 W.
63W72	Maries, Mo.	30, 40 N., 8 W.
63W5	Dallas, Mo.	5, 35 N., 18 W.
66W84	McDonald, Mo.	28, 21 N., 31 W.
64W58	Taney, Mo	15, 24 N., 20 W.
67AK1	Carroll, Ak.	30, 21 N., 25 W.
63W121	Texas, MO.	25, 32 N., 10 W.
62W161	Vernon, Mo.	6, 34 N., 29 W.
62W153	Morgan Mo.	27, 40 N., 17 W.
MH1	Bollinger Mo.	30, 31 N., 10 E.
4-1	Reynolds, Mo.	4, 28 N., 1 E.
66AK2	Benton, Ak.	25, 19 N., 33 W.
NS3	Dade, Mo.	15, 31 N., 26 W.
NS4	Polk, Mo.	28, 32 N., 22 W.
GT1	Howard, Mo.	22, 51 N., 17 W.
NS2	Cedar, Mo.	22, 34 N., 26 W.
NS6	Wright, Mo.	9, 31 N., 15 W.
63W25	Audrian, Mo.	6, 50 N., 7 W.
57M2	Laclede, Mo.	23, 33 N., 15 W.
L4	Oregon, Mo.	7, 25 N., 6 W.
62W126	Morgan, Mo.	24, 42 N., 16 W.
57M1	St. Genevieve, Mo.	15, 35 N., 7 E.
58W49	Crawford, Mo.	15, 39 N., 2 W.
23-1	Reynolds, Mo.	23, 29 N., 2 W.
SV-1	Shannon, Mo.	26, 29 N., 6 W.
1EW	Shannon, Mo.	25, 28 N., 4 W.
66AK1	Benton, Ak.	17 N., 33 W.
66AK3	Benton, Ak.	23, 21 N., 33 W.
GA1	Bollinger, Mo.	28, 31 N., 9 E.
DC1	Wayne, Mo.	9, 27 N., 5 E.
WEB	Cherokee, Ka.	12, 35 S., 23 E.
WIL	Cherokee, Ka.	14, 35 S., 23 E.
KX	Cherokee, Ka.	12, 35 S., 23 E.
KB	Cherokee, Ka.	11, 35 S., 23 E.
W1	McDonald, Mo.	21, 22 N., 34 W.
TD1	Camden, Mo.	28, 37 N., 17 W.
HF1	Wayne, Mo.	6, 27 N., 7 E.
164B	Carter, Mo.	31, 26 N., 2 W.
59M1	Clark, Mo.	5, 65 N., 6 W.
XT1	St. Charles, Mo.	34, 48 N., 1 E.

TABLE 2.--Limit of determination of elements (μg/g)

Element	D. L.*	Element	D. L.
Al	1.5	Pb	2.5
Fe	5.0	Zn	0.1
Ca	0.5	Ni	0.5
Mg	2.3	Co	0.4
K	3.0	Cr	0.4
Na	1.0	Ba	0.03
Ti	0.1	Sr	0.01
Mn	4.0	V	0.15
Li	0.04	Zr	0.3
P	5.0	Ag	0.3
Ce	1.5	As	1.5
La	0.3	Mo	0.35
Y	0.1	Sn	1.5
Be	0.01	Nb	2.0
Cu	0.1	Cd	0.2
		W	3.0

*Detection Limit for HCl and A.R. digestions, detection limit for HF/HNO_3 digestion is 2X the value.

Table 3. ICP-AES analyses of Precambrain basement rocks (micrograms/gram)

Sample	Depth	Digest.	Al	Fe	Ca	Mg	K	Na	Ti	Mn	Li	P	Ce	La	Y	Be	Cu	Pb
Epizonal micrographic granite porphyry and granite-Spavinaw terrane																		
66AK2	1952-	HCl	13000	27000	12000	14000	1400	740	410	440	15.00	780	97.0	45.0	31.0	1.00	11.0	3.3
	1974	A. R.	420	260	250	47	200	230	73	0	0.07	0	0.0	0.5	0.8	0.05	3.0	0.0
		HF/HNO3	41000	3000	1800	400	28000	16000	4700	9	1.30	15	0.0	1.6	5.8	1.40	1.0	0.0
		Total	54420	30260	14050	14447	29600	16970	5183	449	16.37	795	97.0	47.1	37.6	2.45	15.0	3.3
66AK3	1896-	HCl	4100	2200	330	590	2700	390	8	8	1.40	100	140.0	66.0	17.0	0.94	1.3	4.9
	1926	A. R.	1000	430	32	67	770	180	4	0	0.82	10	8.0	4.6	1.9	0.15	0.9	0.0
		HF/HNO3	43000	2800	97	1200	44000	1200	1700	0	3.20	37	4.3	3.6	13.0	1.80	1.6	0.0
		Total	48100	5430	459	1857	47470	1770	1712	8	5.42	147	152.3	74.2	31.9	2.89	3.8	4.9
67AK1	2072-	HCL	5000	14000	10000	5400	510	310	370	450	12.00	410	130.0	59.0	35.0	0.64	2.7	13.0
	2093	A. R.	380	370	170	39	98	660	64	0	0.24	0	0.0	0.6	1.2	0.04	1.0	2.7
		HF/HNO3	41000	2700	1700	280	29000	17000	2500	40	0.87	14	2.6	3.2	4.4	2.00	1.3	8.4
		Total	46380	17070	11870	5719	29608	17970	2934	490	13.11	424	132.6	62.8	40.6	2.68	5.0	24.1
66WB4	1457+	HCl	6500	15000	5900	4400	1600	610	1600	290	12.00	640	79.0	36.0	24.0	0.55	5.3	7.1
		A. R.	1600	3400	1300	130	550	100	610	60	0.31	28	3.6	3.0	3.2	0.11	4.7	0.0
		HF/HNO3	52000	2900	4700	900	26000	18000	1400	69	1.70	13	2.2	2.2	4.6	1.90	1.4	0.0
		Total	60100	21300	11900	5430	28150	18710	3610	419	14.01	681	84.8	41.2	31.8	2.56	11.4	7.1
WEB	1644-	HCl	3100	3700	790	920	1300	680	27	200	2.90	55	74.0	36.0	9.7	0.36	1.2	4.1
	1666	A. R.	480	710	24	40	320	95	4	0	0.05	0	0.0	0.0	0.9	0.07	0.9	4.7
		HF/HNO3	50000	1600	1200	160	28000	17000	940	22	0.00	18	0.0	0.0	14.0	2.00	0.7	0.0
		Total	53580	6010	2014	1120	29620	17775	971	222	2.95	73	74.0	36.0	24.6	2.43	2.7	8.8
WIL	1798-	HCl	24000	51000	4500	28000	5000	1900	220	340	45.00	620	73.0	36.0	5.1	2.00	8.4	0.0
	1831	A. R.	8900	2200	18	1300	4500	73	60	0	1.40	23	0.0	0.0	0.7	0.42	1.2	0.0
		HF/HNO3	51000	5100	190	2000	43000	940	6100	20	0.55	37	0.0	0.0	26.0	0.83	4.7	0.0
		Total	83900	58300	4708	31300	52500	2913	6380	360	46.95	680	73.0	36.0	31.8	3.25	14.3	0.0
WIL	1831-	HCl	35000	44000	14000	36000	1500	710	570	500	79.00	430	49.0	24.0	8.7	1.30	7.8	0.0
	1876	A. R.	3900	3200	4400	290	620	90	550	33	1.10	110	0.0	1.1	2.0	0.17	0.6	0.0
		HF/HNO3	34000	46800	7100	320	11000	16000	3800	70	0.31	73	0.0	0.0	16.0	0.77	12.0	0.0
		Total	72900	94000	25500	36610	13120	16800	4920	603	80.41	613	49.0	25.1	26.7	2.24	20.4	0.0
KX	1951	HCl	6800	3800	510	720	3700	960	14	10	0.88	90	57.0	24.0	4.4	1.00	2.2	3.4
		A. R.	2100	49000	22	160	1300	110	4	50	0.26	0	0.0	0.0	0.6	0.12	4.5	0.0
		HF/HNO3	16000	3500	170	2700	21000	1200	6400	10	3.00	24	0.0	0.8	11.0	1.60	1.4	0.0
		Total	24900	56300	702	3580	26000	2270	6418	70	4.14	114	57.0	24.8	16.0	2.72	8.1	3.4

Table 3. Cont.

Sample	Depth	Digest.	Zn	Ni	Co	Cr	Ba	Sr	V	Zr	Ag	As	Mo	Sn	Nb	Cd	W
Epizonal micrographic granite porphyry and granite-Spavinaw terrane																	
66AK2	1952-	HCl	63.0	20.0	7.3	53.0	43.00	42.00	36.00	0.3	0.0	0.00	0.00	0.00	0.0	0.0	0.0
	1974	A. R.	4.4	0.0	0.0	0.8	3.20	2.70	0.68	29.0	0.0	0.00	1.10	0.00	0.0	0.0	0.0
		HF/HNO3	4.6	0.0	0.0	7.8	830.00	74.00	11.00	210.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	72.0	20.0	7.3	61.6	876.20	118.70	47.68	239.3	0.0	0.00	1.10	0.00	0.0	0.0	0.0
66AK3	1896-	HCl	17.0	0.0	0.0	0.7	16.00	8.90	1.40	3.3	0.0	0.00	0.42	0.00	0.0	0.0	0.0
	1926	A. R.	27.0	0.0	0.0	0.4	1.00	0.46	0.00	9.5	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	9.2	0.0	0.0	8.2	120.00	8.20	6.30	210.0	0.0	0.00	0.00	5.30	16.0	0.0	0.0
		Total	53.2	0.0	0.0	9.3	137.00	17.56	7.70	222.8	0.0	0.00	0.42	5.30	16.0	0.0	0.0
67AK1	2072	HCL	66.0	6.2	3.3	16.0	14.00	14.00	18.00	3.3	0.0	1.60	0.00	2.10	0.0	0.0	0.0
	2093	A. R.	3.2	0.0	0.0	0.5	2.80	1.20	0.34	38.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	9.0	0.0	0.0	2.1	600.00	51.00	7.20	140.0	0.0	0.00	0.00	0.00	15.0	0.0	0.0
		Total	78.2	6.2	3.3	18.6	616.80	66.20	25.54	181.3	0.0	1.60	0.00	2.10	15.0	0.0	0.0
66WB4	1457+	HCl	43.0	8.1	5.6	8.8	47.00	34.00	41.00	7.2	0.0	1.80	0.00	0.00	0.0	0.0	0.0
		A. R.	4.5	2.5	1.3	2.2	2.50	11.00	7.10	6.9	0.0	0.00	1.20	0.00	0.0	0.0	0.0
		HF/HNO3	3.5	0.0	0.0	4.0	660.00	120.00	17.00	150.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	51.0	10.6	6.9	15.0	709.50	165.00	65.10	164.1	0.0	1.80	1.20	0.00	0.0	0.0	0.0
WEB	1644-	HCl	35.0	1.0	0.0	2.0	13.00	5.40	2.00	3.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
	1666	A. R.	11.0	0.0	0.0	1.7	0.64	0.24	0.00	1.4	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	3.6	0.0	0.0	2.3	88.00	32.00	1.30	120.0	0.0	0.00	0.00	0.00	14.0	0.0	0.0
		Total	49.6	1.0	0.0	6.0	101.64	37.64	3.30	124.4	0.0	0.00	0.00	0.00	14.0	0.0	0.0
WIL	1798-	HCl	82.0	100.0	17.0	210.0	5.20	25.00	56.00	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
	1831	A. R.	7.6	1.8	0.8	25.0	0.47	0.18	6.80	1.1	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	3.0	1.7	0.0	49.0	120.00	4.00	12.00	300.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	92.6	103.5	17.8	284.0	125.67	29.18	74.80	301.1	0.0	0.00	0.00	0.00	0.0	0.0	0.0
WIL	1831-	HCl	61.0	93.0	22.0	230.0	8.10	94.00	76.00	0.7	0.0	0.00	0.00	0.00	0.0	0.0	0.0
	1876	A. R.	5.0	0.5	0.0	24.0	1.50	40.00	15.00	4.8	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	17.0	0.0	0.0	95.0	250.00	70.00	28.00	230.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	83.0	93.5	22.0	349.0	259.60	204.00	119.00	235.5	0.0	0.00	0.00	0.00	0.0	0.0	0.0
KX	1951	HCl	25.0	2.3	3.4	3.1	24.00	15.00	4.10	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		A. R.	32.0	3.2	0.7	0.6	4.00	0.62	0.70	4.9	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	4.7	1.4	0.0	14.0	240.00	9.80	30.00	170.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	61.7	6.9	4.1	17.7	268.00	25.42	34.80	174.9	0.0	0.00	0.00	0.00	0.0	0.0	0.0

Table 3. Cont.

Sample	Depth	Digest.	Al	Fe	Ca	Mg	K	Na	Ti	Mn	Li	P	Ce	La	Y	Be	Cu	Pb
		Epizonal micrographic granite porphyry and granite-Spavinaw terrane																
KX	1961	HCl	27000	12000	18000	4800	12000	1300	550	150	7.30	5400	76.0	37.0	19.0	1.80	1.5	0.0
		A. R.	3500	920	75	250	1900	40	67	0	0.16	40	0.0	0.5	0.2	0.15	1.0	0.0
		HF/HNO3	44000	4100	160	2600	20000	1300	5200	20	3.20	28	0.0	0.0	9.5	1.50	1.4	0.0
		Total	74500	17020	18235	7650	33900	2640	5817	170	10.66	5468	76.0	37.5	28.7	3.45	3.9	0.0
KX	2025	HCl	27000	31000	1500	13000	6300	680	360	460	36.00	230	73.0	32.0	9.6	2.40	3.6	0.0
		A. R.	1900	2000	26	180	940	270	64	0	0.35	9	0.0	0.3	0.8	0.21	1.6	0.0
		HF/HNO3	29000	1800	2800	920	16000	6100	2400	0	2.20	79	0.0	2.0	11.0	1.80	1.0	0.0
		Total	57900	34800	4326	14100	23240	7050	2824	460	38.55	318	73.0	34.3	21.4	4.41	6.2	0.0
KB	1707	HC/	5200	3100	2700	700	3400	1000	16	33	1.10	1000	110.0	42.0	13.0	0.55	4.6	17.0
		A. R.	1000	15000	23	100	750	360	3	32	0.24	18	0.0	0.0	0.2	0.06	10.0	12.0
		HF/HNO3	50000	4100	160	3000	42000	1500	6300	71	4.20	16	0.0	0.9	13.0	1.20	1.0	0.0
		Total	56200	22200	2883	3800	46150	2860	6319	136	5.54	1034	110.0	42.9	26.2	1.81	15.6	29.0
KB	1723	HCl	6100	1800	2200	810	4000	890	30	23	1.40	610	210.0	76.0	9.3	0.65	1.7	4.5
		A. R.	890	13000	38	95	650	120	11	23	0.41	22	0.0	0.0	0.1	0.05	4.8	3.1
		HF/HNO3	53000	4600	180	2400	38000	1500	3300	43	5.70	23	2.3	1.5	22.0	9.60	1.3	0.0
		Total	59990	19400	2418	3305	42650	2510	3341	89	7.51	655	212.3	77.5	31.4	10.30	7.8	7.6
KB	1821	HCl	27000	39000	19000	22000	780	440	920	510	41.00	530	44.0	21.0	10.0	1.30	1.8	0.0
		A. R.	2100	5700	3300	130	160	79	280	48	0.13	20	0.0	1.0	1.3	0.13	0.4	0.0
		HF/HNO3	41000	13000	1200	310	25000	12000	3700	130	0.89	140	0.0	2.4	7.6	0.80	1.1	0.0
		Total	70100	57700	23500	22440	25940	12519	4900	688	42.02	690	44.0	24.4	18.9	2.23	3.3	0.0
WI	1505-1516	HCl	10000	21000	12000	4800	1300	640	1800	600	13.00	910	110.0	51.0	36.0	1.30	6.9	13.0
		A. R.	880	530	700	880	290	120	170	0	0.12	16	0.0	1.0	2.0	0.14	2.1	0.0
		HF/HNO3	25000	2500	1100	25000	28000	11000	2500	0	0.26	27	0.0	2.0	5.2	1.40	0.9	5.1
		Total	35880	24030	13800	30680	29590	11760	4470	600	13.38	953	110.0	54.0	43.2	2.84	9.9	18.1
		Mesozonal granite																
NS3	1538	HCL	8500	6200	1900	3600	3300	280	13	180	4.90	600	24.0	10.0	21.0	1.30	2.0	0.0
		A. R.	560	210	19	48	550	33	2	0	0.00	0	0.0	0.0	2.1	0.13	3.1	0.0
		HF/HNO3	59000	3300	510	1600	41000	7000	1700	7	1.70	120	0.0	0.0	15.0	2.30	0.8	0.0
		Total	68060	9710	2429	5248	44850	7313	1715	187	6.60	720	24.0	10.0	38.1	3.73	5.9	0.0

Table 3. Cont.

Sample	Depth	Digest.	Zn	Ni	Co	Cr	Ba	Sr	V	Zr	Ag	As	Mo	Sn	Nb	Cd	W
Epizonal micrographic granite porphyry and granite-Spavinaw terrane																	
KX	1961	HCl	34.0	7.4	4.1	26.0	77.00	27.00	26.00	1.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		A. R.	6.4	0.7	0.0	1.3	13.00	0.76	0.91	2.3	0.0	2.20	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	3.8	0.0	0.0	17.0	190.00	8.60	18.00	240.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	44.2	8.1	4.1	44.3	280.00	36.36	44.91	243.3	0.0	2.20	0.00	0.00	0.0	0.0	0.0
KX	2025	HCl	36.0	4.1	4.2	11.0	78.00	9.60	17.00	2.9	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		A. R.	5.9	1.4	3.0	0.6	14.00	0.81	0.38	22.0	0.0	4.70	1.40	0.00	0.0	0.0	0.0
		HF/HNO3	2.1	0.0	0.0	7.5	360.00	61.00	11.00	210.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	44.0	5.5	7.2	19.1	452.00	71.41	28.38	234.9	0.0	4.70	1.40	0.00	0.0	0.0	0.0
KB	1707	HC/	5.8	7.5	6.7	2.0	18.00	15.00	3.70	0.6	0.0	0.00	1.10	0.00	0.0	0.0	0.0
		A. R.	15.0	5.5	1.8	0.8	2.20	0.27	0.89	24.0	0.0	1.70	0.76	0.00	0.0	0.0	0.0
		HF/HNO3	9.4	1.0	0.0	18.0	900.00	43.00	40.00	210.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	30.2	14.0	8.5	20.8	920.20	58.27	44.59	234.6	0.0	1.70	1.86	0.00	0.0	0.0	0.0
KB	1723	HCl	9.6	2.1	2.3	1.6	17.00	16.00	3.20	0.7	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		A. R.	54.0	2.6	0.0	0.7	1.30	0.58	0.66	6.0	0.0	2.20	0.41	0.00	0.0	0.0	0.0
		HF/HNO3	7.8	0.0	0.0	7.7	410.00	31.00	23.00	280.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	71.4	4.7	2.3	10.0	428.30	47.58	26.86	286.7	0.0	2.20	0.41	0.00	0.0	0.0	0.0
KB	1821	HCl	76.0	3.3	19.0	4.9	7.90	190.00	73.00	2.8	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		A. R.	3.8	0.0	0.0	1.0	0.46	41.00	12.00	2.5	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	2.9	0.0	0.0	2.9	370.00	130.00	56.00	170.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	82.7	3.3	19.0	8.8	378.36	361.00	141.00	175.3	0.0	0.00	0.00	0.00	0.0	0.0	0.0
WI	1505-1516	HCl	86.0	3.4	3.9	8.5	160.00	71.00	28.00	7.8	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		A. R.	5.4	0.7	0.0	1.4	3.00	7.80	0.96	14.0	0.0	0.00	0.38	0.00	0.0	0.0	0.0
		HF/HNO3	3.1	0.0	0.0	3.1	890.00	52.00	4.10	170.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	94.5	4.1	3.9	13.0	1053.00	130.80	33.06	191.8	0.0	0.00	0.38	0.00	0.0	0.0	0.0
Mesozonal granite																	
NS3	1538	HCL	40.0	7.8	3.0	3.9	6.40	12.00	6.30	0.4	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		A. R.	1.8	0.0	0.0	0.5	0.16	0.08	0.00	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	6.0	0.0	0.0	3.0	270.00	33.00	7.60	84.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	47.8	7.8	3.0	7.4	276.56	45.08	13.90	84.4	0.0	0.00	0.00	0.00	0.0	0.0	0.0

Table 3. Cont.

Sample	Depth	Digest.	Al	Fe	Ca	Mg	K	Na	Ti	Mn	Li	P	Ce	La	Y	Be	Cu	Pb
		Mesozonal granite																
NS3	1560	HCl	6100	8400	2400	5400	1000	510	25	430	8.90	610	29.0	13.0	15.0	0.57	7.5	0.0
		A. R.	670	250	25	110	410	100	18	4	0.24	7	1.5	0.0	6.5	0.23	4.7	0.0
		HF/HNO3	38000	1400	1000	340	37000	18000	1900	0	1.80	120	0.0	0.0	4.1	3.00	0.8	7.5
		Total	44770	10050	3425	5850	38410	18610	1943	434	10.94	737	30.5	13.0	25.6	3.80	13.0	7.5
NS3	1594	HCl	4800	3100	8500	1700	2200	750	48	140	6.40	470	58.0	27.0	28.0	7.70	2.1	3.2
		A. R.	86	87	24	0	110	41	1	0	0.00	0	0.0	0.0	0.5	0.35	1.0	0.0
		HF/HNO3	54000	2400	1100	720	34000	17000	1100	19	7.00	130	0.0	0.0	2.9	62.00	1.0	0.0
		Total	58886	5587	9624	2420	36310	17791	1149	159	13.40	600	58.0	27.0	31.4	70.05	4.1	3.2
NS4	1913	HCl	9900	16000	2000	2700	5800	160	430	190	5.50	700	170.0	69.0	37.0	2.30	1.1	0.0
		A. R.	470	140	20	31	480	36	13	0	0.00	0	0.0	0.0	3.5	0.08	0.5	0.0
		HF/HNO3	47000	2900	190	1300	39000	2000	2200	0	1.20	24	0.0	1.5	17.0	1.40	0.9	6.2
		Total	57370	19040	2210	4031	45280	2196	2643	190	6.70	724	170.0	70.5	57.5	3.78	2.5	6.2
NS4	1935	HCl	32000	31000	3200	16000	6700	230	210	620	53.00	950	60.0	26.0	60.0	3.10	0.9	0.0
		A. R.	820	350	25	100	690	36	27	0	0.00	10	0.0	0.0	1.0	0.15	1.5	0.0
		HF/HNO3	59000	2600	210	2700	41000	2500	5700	29	3.40	14	0.0	0.5	13.0	2.40	0.5	0.0
		Total	91820	33950	3435	18800	48390	2766	5937	649	56.40	974	60.0	26.5	74.0	5.65	2.9	0.0
NS4	?	HCl	11000	31000	3300	4600	4900	300	690	460	38.00	660	200.0	93.0	59.0	1.20	1.7	2.8
		A. R.	180	140	24	16	180	34	11	0	0.00	0	0.0	0.0	0.9	0.07	0.7	0.0
		HF/HNO3	63000	4100	5500	380	18000	19000	2400	10	0.83	20	7.4	5.8	4.2	3.10	0.8	0.0
		Total	74180	35240	8824	4996	23080	19334	3101	470	38.83	680	207.4	98.8	64.1	4.37	3.2	2.8
64W58	1870-1880	HCl	9300	16000	5400	4100	7000	220	610	260	4.50	600	110.0	47.0	17.0	0.91	6.4	0.0
		A. R.	4500	1600	22	450	2500	64	130	0	0.27	75	0.0	0.4	7.0	0.35	7.0	0.0
		HF/HNO3	48000	2500	1200	1400	39000	3700	3000	0	0.91	14	0.0	0.6	10.0	1.10	0.5	0.0
		Total	61800	20100	6622	5950	48500	3984	3740	260	5.68	689	110.0	48.0	34.0	2.36	13.9	0.0
62W161	1840	HCl	10000	25000	3400	3400	7500	770	1400	260	7.50	1200	100.0	50.0	45.0	3.00	2.8	0.0
		A. R.	4200	700	34	240	2300	100	80	8	0.00	11	0.0	0.0	8.0	0.21	2.2	0.0
		HF/HNO3	30000	3600	110	600	46000	1500	2400	0	0.73	38	0.0	0.6	3.6	0.75	2.0	17.0
		Total	44200	29300	3544	4240	55800	2370	3880	268	8.23	1249	100.0	50.6	56.6	3.96	7.0	17.0
		Magnetite bearing granite																
GT1	2234-2236	HCl	6400	890	570	2300	4100	580	400	160	17.00	170	63.0	26.0	11.0	0.39	1.1	0.0
		A. R.	620	210	18	23	300	190	20	0	0.07	0	0.0	0.5	1.8	0.03	2.3	0.0
		HF/HNO3	40000	1900	120	270	40000	1600	960	0	3.60	110	45.0	28.0	11.0	0.55	0.9	13.0
		Total	47020	3000	708	2593	44400	2370	1380	160	20.67	280	108.0	54.5	23.8	0.97	4.3	13.0

Table 3. Cont.

Sample	Depth	Digest.	Zn	Ni	Co	Cr	Ba	Sr	V	Zr	Ag	As	Mo	Sn	Nb	Cd	W
		Mesozonal granite															
NS3	1560	HCl	75.0	4.7	1.9	3.3	10.00	4.10	5.00	0.5	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		A. R.	6.4	1.0	0.0	1.5	1.30	0.16	0.68	3.7	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	5.8	0.0	0.0	3.6	300.00	37.00	4.40	100.0	0.0	0.00	0.00	0.00	16.0	0.0	3.5
		Total	87.2	5.7	1.9	8.4	311.30	41.26	10.08	104.2	0.0	0.00	0.00	0.00	16.0	0.0	3.5
NS3	1594	HCl	19.0	2.2	2.4	3.5	13.00	4.70	3.90	8.7	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		A. R.	1.6	0.0	0.0	0.4	0.56	0.07	0.00	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	3.9	0.0	0.0	2.2	110.00	40.00	5.90	73.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	24.5	2.2	2.4	6.1	123.56	44.77	9.80	81.7	0.0	0.00	0.00	0.00	0.0	0.0	0.0
NS4	1913	HCl	40.0	4.0	4.0	2.9	40.00	15.00	14.00	3.2	0.0	0.00	0.00	2.60	0.0	0.0	0.0
		A. R.	1.8	0.0	0.0	0.5	0.32	0.08	0.00	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	2.9	0.0	0.0	1.6	580.00	29.00	8.00	110.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	44.7	4.0	4.0	5.0	620.32	44.08	22.00	113.2	0.0	0.00	0.00	2.60	0.0	0.0	0.0
NS4	1935	HCl	120.0	3.9	8.2	4.2	15.00	18.00	33.00	0.6	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		A. R.	3.4	0.0	0.7	0.5	0.51	0.12	0.20	6.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	8.1	0.0	0.0	2.0	770.00	32.00	8.70	210.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	131.5	3.9	8.9	6.7	785.51	50.12	41.90	216.6	0.0	0.00	0.00	0.00	0.0	0.0	0.0
NS4	?	HCl	58.0	2.6	4.6	3.9	42.00	7.60	26.00	3.3	0.0	0.00	0.00	2.80	0.0	0.0	0.0
		A. R.	1.9	0.0	0.5	0.5	0.72	0.11	0.00	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	1.4	0.0	0.0	2.3	480.00	100.00	2.30	140.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	61.3	2.6	5.1	6.7	522.72	107.71	28.30	143.3	0.0	0.00	0.00	2.80	0.0	0.0	0.0
64W58	1870-1880	HCl	65.0	5.5	4.9	5.6	69.00	20.00	26.00	1.2	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		A. R.	6.3	1.4	2.7	2.7	1.50	0.27	7.70	2.1	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	7.0	0.0	0.0	4.1	650.00	44.00	18.00	210.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	78.3	6.9	7.6	12.4	720.50	64.27	51.70	213.3	0.0	0.00	0.00	0.00	0.0	0.0	0.0
62W161	1840	HCl	160.0	6.8	4.2	4.3	86.00	21.00	17.00	8.2	0.0	0.00	0.00	5.00	0.0	0.0	0.0
		A. R.	13.0	0.0	0.0	2.7	0.83	1.20	0.30	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	2.7	0.0	0.0	6.2	550.00	29.00	1.00	130.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	175.7	6.8	4.2	13.2	636.83	51.20	18.30	138.2	0.0	0.00	0.00	5.00	0.0	0.0	0.0
		Magnetite bearing granite															
GT1	2234-2236	HCl	35.0	2.3	2.1	4.1	41.00	17.00	12.00	11.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		A. R.	9.1	0.0	2.9	0.0	1.20	0.50	0.00	18.0	0.0	0.00	1.10	0.00	0.0	0.0	0.0
		HF/HNO3	3.5	0.0	0.0	1.8	630.00	79.00	3.40	160.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	47.6	2.3	5.0	5.9	672.20	96.50	15.40	189.0	0.0	0.00	1.10	0.00	0.0	0.0	0.0

Table 3. Cont.

Sample	Depth	Digest.	Al	Fe	Ca	Mg	K	Na	Ti	Mn	Li	P	Ce	La	Y	Be	Cu	Pb
			Rhyolite-Spavinaw terrane															
66AK1	1999-	HCl	10000	24000	3400	4100	3800	950	180	180	6.70	1100	63.0	27.0	14.0	1.00	0.8	0.0
	2019	A. R.	1500	330	20	70	330	300	14	0	0.00	6	0.0	0.0	0.2	0.08	1.0	0.0
		HF/HNO3	40000	5300	76	1200	5300	1500	6200	0	0.64	28	0.0	0.9	18.0	0.96	0.9	0.0
		Total	51500	29630	3496	5370	9430	2750	6394	180	7.34	1134	63.0	27.9	32.2	2.04	2.7	0.0
			Rhyolite and minor trachyte, basalt flows and tuff-St. Francois terrane															
58W49	923-	HCl	780	7700	1100	580	250	17	40	14	1.00	60	8.4	3.9	0.8	0.48	2.4	0.0
	939	A. R.	750	11000	27	62	850	230	45	17	0.18	14	0.0	0.0	1.8	0.13	1.3	0.0
		HF/HNO3	28000	6200	140	830	40000	1400	11000	0	0.97	55	3.4	2.5	20.0	0.66	0.4	0.0
		Total	29530	24900	1267	1472	41100	1647	11085	31	2.15	129	11.8	6.4	22.6	1.27	4.1	0.0
58W49	939-	HCl	9700	38000	29000	20000	2200	520	120	290	16.00	630	73.0	33.0	15.0	0.11	8.5	0.0
	968	A. R.	630	4100	46	110	500	220	31	0	0.37	9	0.0	0.0	2.0	0.07	11.0	0.0
		HF/HNO3	35000	4600	1000	390	28000	9800	8000	7	4.40	48	3.7	3.9	13.0	1.00	1.2	0.0
		Total	45330	46700	30046	20500	30700	10540	8151	297	20.77	687	76.7	36.9	30.0	1.18	20.7	0.0
58W49	968-	HCl	10000	49000	1900	9700	1700	510	220	180	13.00	410	54.0	29.0	7.1	0.56	28.0	0.0
	969	A. R.	520	850	39	82	390	260	42	0	0.39	6	0.0	0.0	1.1	0.05	8.0	0.0
		HF/HNO3	37000	12000	2900	590	24000	11000	9700	67	3.40	360	21.0	11.0	20.0	1.50	8.7	0.0
		Total	47520	61850	4839	10372	26090	11770	9962	247	16.79	776	75.0	40.0	28.2	2.11	44.7	0.0
23-1	1679-	HCl	5800	27000	2400	1900	4000	360	94	150	2.00	670	87.0	39.0	16.0	1.00	1.0	3.9
	1712	A. R.	930	4200	22	42	770	500	20	0	0.21	8	0.0	1.5	0.0	0.07	0.8	0.0
		HF/HNO3	29000	6500	87	1100	40000	990	4600	9	0.51	28	0.0	0.8	22.0	0.46	0.8	0.0
		Total	35730	37700	2509	3042	44770	1850	4714	159	2.72	706	87.0	41.3	38.0	1.53	2.5	3.9
SV1	2121-	HCl	970	1700	77	66	320	32	12	7	0.82	15	2.3	1.0	1.9	0.19	0.1	0.3
	2130	A. R.	2000	1200	19	45	750	210	22	0	1.30	6	0.0	0.0	5.1	0.14	0.8	0.0
		HF/HNO3	70000	3900	67	780	17000	630	3600	0	38.00	160	32.0	20.0	30.0	1.10	0.9	9.8
		Total	72970	6800	163	891	18070	872	3634	7	40.12	181	34.3	21.0	37.0	1.43	1.7	10.1
			Epizonal granite and granite porphyry-St. Francois terrane															
MH1	2524	HCl	5600	11000	5800	4200	1900	320	47	280	5.70	390	51.0	26.0	14.0	0.41	15.0	2.5
	2533	A. R.	3300	1200	69	320	1400	93	22	0	0.55	47	0.0	0.0	2.7	0.15	4.5	0.0
		HF/HNO3	25000	1900	690	520	37000	7400	1400	0	1.20	9	0.0	0.0	2.7	0.86	0.9	0.0
		Total	33900	14100	6559	5040	40300	7813	1469	280	7.45	446	51.0	26.0	19.4	1.42	20.4	2.5

Table 3. Cont.

Sample	Depth	Digest.	Zn	Ni	Co	Cr	Ba	Sr	V	Zr	Ag	As	Mo	Sn	Nb	Cd	W
			Rhyolite-Spavinaw terrane														
66AK1	1999-	HCl	62.0	18.0	5.5	75.0	15.00	16.00	30.00	0.9	0.0	0.00	0.00	1.50	0.0	0.0	0.0
	2019	A. R.	12.0	0.0	0.0	3.5	1.90	0.20	0.48	25.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	3.1	1.8	0.0	52.0	500.00	11.00	16.00	330.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	77.1	19.8	5.5	130.5	516.90	27.20	46.48	355.9	0.0	0.00	0.00	1.50	0.0	0.0	0.0
			Rhyolite and minor trachyte, basalt flows and tuff-St. Francois terrane														
58W49	923-	HCl	4.7	0.7	1.1	0.5	1.70	1.50	6.40	0.0	0.0	0.30	0.00	0.00	0.0	0.0	0.0
	939	A. R.	9.8	1.1	1.6	3.8	2.00	0.40	11.00	6.3	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	3.6	0.0	0.0	2.2	440.00	17.00	14.00	280.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	18.1	1.8	2.7	6.5	443.70	18.90	31.40	286.3	0.0	0.30	0.00	0.00	0.0	0.0	0.0
58W49	939-	HCl	28.0	5.2	8.7	6.0	21.00	17.00	41.00	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
	968	A. R.	4.3	0.0	6.0	1.8	2.50	0.34	4.90	23.0	0.0	0.00	2.10	0.00	0.0	0.0	0.0
		HF/HNO3	4.2	0.0	0.0	2.7	500.00	39.00	38.00	250.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	36.5	5.2	14.7	10.5	523.50	56.34	83.90	273.0	0.0	0.00	2.10	0.00	0.0	0.0	0.0
58W49	968-	HCl	40.0	6.2	10.0	9.7	23.00	8.40	52.00	0.4	0.0	0.00	0.00	3.30	0.0	0.0	0.0
	969	A. R.	5.8	0.0	6.1	0.4	2.50	0.43	2.20	28.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	11.0	0.0	0.0	1.1	490.00	71.00	46.00	280.0	0.0	0.00	0.81	0.00	0.0	0.0	0.0
		Total	56.8	6.2	16.1	11.2	515.50	79.83	100.20	308.4	0.0	0.00	0.81	3.30	0.0	0.0	0.0
23-1	1679-	HCl	48.0	5.5	2.4	6.0	21.00	14.00	13.00	0.7	0.0	1.90	0.00	0.00	0.0	0.0	0.0
	1712	A. R.	10.0	1.0	0.0	2.8	2.80	0.24	3.30	15.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	4.6	0.0	0.0	5.8	550.00	8.90	15.00	240.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	62.6	6.5	2.4	14.6	573.80	23.14	31.30	255.7	0.0	1.90	0.00	0.00	0.0	0.0	0.0
SV1	2121-	HCl	3.2	0.2	0.1	1.0	4.90	1.40	2.00	0.4	0.0	0.00	0.00	0.32	4.1	0.0	0.0
	2130	A. R.	9.9	0.0	0.0	0.9	1.90	0.36	0.98	35.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	5.0	2.2	0.0	9.5	100.00	33.00	18.00	330.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	18.1	2.4	0.1	11.4	106.80	34.76	20.98	365.4	0.0	0.00	0.00	0.32	4.1	0.0	0.0
			Epizonal granite and granite porphyry-St. Francois terrane														
MH1	2524	HCl	51.0	1.3	2.4	1.5	14.00	14.00	14.00	0.6	0.0	0.00	0.00	0.00	0.0	0.0	0.0
	2533	A. R.	17.0	4.4	0.0	1.5	1.90	0.65	4.00	1.6	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	3.6	0.0	0.0	2.7	400.00	36.00	8.40	94.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	71.6	5.7	2.4	5.7	415.90	50.65	26.40	96.2	0.0	0.00	0.00	0.00	0.0	0.0	0.0

Table 3. Cont.

Sample	Depth	Digest.	Al	Fe	Ca	Mg	K	Na	Ti	Mn	Li	P	Ce	La	Y	Be	Cu	Pb
			Epizonal granite and granite porphyry-St. Francois terrane															
4-1	1400-	HCl	2300	11000	3900	810	780	750	190	170	1.90	63	90.0	42.0	48.0	1.20	2.3	7.4
	1410	A. R.	280	450	47	0	70	580	26	0	0.13	0	0.0	0.0	1.9	0.02	4.0	0.0
		HF/HNO3	33000	820	660	18	20000	17000	740	0	0.00	12	0.0	0.0	6.9	1.40	1.1	0.0
		Total	35580	12270	4607	828	20850	18330	956	170	2.03	75	90.0	42.0	56.8	2.62	7.4	7.4
1EW	1696-	HCl	2100	11000	1100	170	2000	180	130	42	0.76	370	18.0	9.4	15.0	0.32	1.1	3.6
	1706	A. R.	460	11000	27	6	390	550	170	31	0.26	14	0.0	0.5	3.9	0.05	0.8	2.9
		HF/HNO3	38000	9300	110	330	42000	1500	2500	39	3.40	110	30.0	17.0	20.0	0.51	0.9	11.0
		Total	40560	31300	1237	506	44390	2230	2800	112	4.42	494	48.0	26.9	38.9	0.88	2.8	17.5
GA1	2203-	HCl	2000	5000	21000	8800	1500	360	45	770	0.28	70	9.0	6.4	6.0	0.52	0.9	4.8
	2217	A. R.	310	2900	61	35	310	50	3	14	0.00	0	0.0	0.5	1.2	0.08	0.6	4.5
		HF/HNO3	41000	8300	400	610	34000	10000	1200	82	3.50	55	21.0	11.0	19.0	1.30	2.5	0.0
		Total	43310	16200	21461	9445	35810	10410	1248	866	3.78	125	30.0	17.9	26.2	1.90	4.1	9.3
DC1	2010-	HCl	9200	15000	2700	4600	4400	380	250	120	16.00	930	72.0	31.0	24.0	2.00	4.6	3.2
	2014	A. R.	3900	1300	33	420	2100	190	69	0	1.00	15	0.0	0.3	4.6	0.38	0.8	0.0
		HF/HNO3	62000	4100	87	1700	40000	1700	6000	23	3.90	21	0.0	0.0	20.0	1.30	1.5	0.0
		Total	75100	20400	2820	6720	46500	2270	6319	143	20.90	966	72.0	31.3	48.6	3.68	6.9	3.2
DC1	2014-	HCl	26000	94000	2100	18000	17000	730	870	390	84.00	51	5.6	4.0	5.7	5.80	0.7	0.0
	2016	A. R.	3800	2100	21	440	2700	38	60	0	0.91	30	0.0	0.0	2.4	0.63	0.4	0.0
		HF/HNO3	79000	13000	53	5800	30000	2200	9500	70	11.00	42	0.0	0.0	14.0	3.10	1.4	0.0
		Total	108800	109100	2174	24240	49700	2968	10430	460	95.91	123	5.6	4.0	22.1	9.53	2.5	0.0
DC1	2016-	HCl	20000	45000	2100	6600	9000	1200	660	270	26.00	700	140.0	56.0	27.0	2.50	2.5	0.0
	2044	A. R.	650	2400	15	68	530	38	24	0	0.13	12	0.0	0.0	3.8	0.09	0.7	0.0
		HF/HNO3	52000	4900	190	880	29000	4200	4300	36	4.00	25	0.0	0.8	12.0	0.91	1.4	0.0
		Total	72650	52300	2305	7548	38530	5438	4984	306	30.13	737	140.0	56.8	42.8	3.50	4.6	0.0
HF1	2064-	HCl	11000	30000	17000	2700	6400	550	310	420	11.00	260	41.0	14.0	20.0	0.80	4.7	2.6
	2080	A. R.	3800	1600	300	150	2900	110	180	0	0.64	78	10.0	0.7	0.0	0.16	2.1	0.0
		HF/HNO3	47000	4500	890	660	28000	7900	3200	0	3.80	18	0.0	4.2	15.0	1.10	0.6	0.0
			61800	36100	18190	3510	37300	8560	3690	420	15.44	356	51.0	18.9	35.0	2.06	7.4	2.6
164B	2359	HCl	4000	17000	340	1200	1900	170	110	89	23.30	59	36.0	12.0	13.0	0.48	0.8	2.8
		A. R.	340	810	15	7	400	270	11	0	0.05	0	0.0	0.0	3.3	0.03	0.6	0.0
		HF/HNO3	44000	3100	170	320	47000	1100	1400	16	0.57	95	41.0	19.0	21.0	0.49	1.1	4.0
		Total	48340	20910	525	1527	49300	1540	1521	105	23.92	154	77.0	31.0	37.3	1.00	2.5	6.8

Table 3. Cont.

Sample	Depth	Digest.	Zn	Ni	Co	Cr	Ba	Sr	V	Zr	Ag	As	Mo	Sn	Nb	Cd	W
			Epizonal granite and granite porphyry-St. Francois terrane														
4-1	1400-	HCl	29.0	0.0	0.0	0.8	27.00	6.40	0.80	32.0	0.0	0.00	0.43	0.00	0.0	0.0	0.0
	1410	A. R.	8.6	0.0	0.0	0.4	2.30	0.23	0.00	56.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	1.7	0.0	0.0	0.9	430.00	19.00	0.00	190.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	39.3	0.0	0.0	2.1	459.30	25.63	0.80	278.0	0.0	0.00	0.43	0.00	0.0	0.0	0.0
1EW	1696-	HCl	14.0	0.7	0.4	2.3	34.00	13.00	6.70	1.0	0.0	2.90	0.00	0.00	0.0	0.0	0.0
	1706	A. R.	17.0	0.7	0.0	2.9	5.20	1.20	7.50	31.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	15.0	1.0	0.0	4.7	660.00	67.00	12.00	240.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	46.0	2.4	0.4	9.9	699.20	81.20	26.20	272.0	0.0	2.90	0.00	0.00	0.0	0.0	0.0
GA1	2203-	HCl	16.0	2.2	1.6	2.1	14.00	9.70	2.00	0.0	0.0	4.80	0.00	0.00	0.0	0.0	0.0
	2217	A. R.	6.5	0.0	0.0	1.0	1.10	0.30	0.73	1.1	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	22.0	2.1	0.0	4.0	270.00	49.00	6.10	190.0	0.0	3.20	0.00	0.00	0.0	0.0	0.0
		Total	44.5	4.3	1.6	7.1	285.10	59.00	8.83	191.1	0.0	8.00	0.00	0.00	0.0	0.0	0.0
DC1	2010-	HCl	43.0	13.0	7.6	17.0	110.00	20.00	18.00	4.4	0.0	1.70	0.00	0.00	0.0	0.0	0.0
	2014	A. R.	3.1	0.6	0.5	6.1	1.40	0.30	2.40	10.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	7.8	2.0	0.0	18.0	57.00	5.10	7.60	270.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	53.9	15.6	8.1	41.1	168.40	25.40	28.00	284.4	0.0	1.70	0.00	0.00	0.0	0.0	0.0
DC1	2014-	HCl	100.0	40.0	19.0	23.0	230.00	36.00	61.00	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
	2016	A. R.	3.1	0.6	0.0	2.0	2.20	0.36	2.20	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	21.0	6.4	0.0	8.7	57.00	6.00	12.00	50.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	124.1	47.0	19.0	33.7	289.20	42.36	75.20	50.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
DC1	2016-	HCl	78.0	10.0	8.5	12.0	43.00	15.00	34.00	57.0	0.0	2.10	0.00	0.00	0.0	0.0	0.0
	2044	A. R.	2.2	0.0	0.0	1.8	0.70	0.11	2.90	1.2	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	6.3	1.3	0.0	4.1	510.00	12.00	6.10	220.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	86.5	11.3	8.5	17.9	553.70	27.11	43.00	278.2	0.0	2.10	0.00	0.00	0.0	0.0	0.0
HF1	2064-	HCl	53.0	4.1	3.4	6.7	57.00	12.00	17.00	0.0	0.0	2.40	0.00	0.00	0.0	0.0	0.0
	2080	A. R.	7.8	0.0	0.6	2.6	5.50	2.10	2.70	9.7	0.0	0.00	0.43	0.00	0.0	0.0	0.0
		HF/HNO3	3.5	0.0	0.0	1.4	630.00	31.00	8.90	170.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
			64.3	4.1	4.0	10.7	692.50	45.10	28.60	179.7	0.0	2.40	0.43	0.00	0.0	0.0	0.0
164B	2359	HCl	48.0	3.7	1.6	1.7	33.00	6.90	5.40	4.6	0.0	0.00	0.37	0.00	0.0	0.0	0.0
		A. R.	4.1	0.0	0.0	0.4	2.00	0.28	0.00	33.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	6.1	0.0	0.8	1.8	560.00	62.00	1.40	170.0	0.0	0.51	0.00	0.00	0.0	0.0	0.0
		Total	58.2	3.7	2.4	3.9	595.00	69.18	6.80	207.6	0.0	0.51	0.37	0.00	0.0	0.0	0.0

Table 3. Cont.

Sample	Depth	Digest.	Al	Fe	Ca	Mg	K	Na	Ti	Mn	Li	P	Ce	La	Y	Be	Cu	Pb
			Gabbro															
63W25	2546-	HCl	9200	35000	1800	4500	4900	1500	220	200	7.00	4600	23.0	19.0	28.0	3.50	6.0	10.0
	2553	A. R.	2000	19000	67	700	2600	58	15	51	0.62	65	0.0	0.6	0.6	0.65	2.9	3.3
		HF/HNO3	70000	39000	64	7900	43000	2100	14000	370	16.00	15	0.0	0.0	1.9	2.40	1.9	0.0
		Total	81200	93000	1931	13100	50500	3658	14235	621	23.62	4680	23.0	19.6	30.5	6.55	10.8	13.3
63W25	2553-	HCl	12000	30000	35000	15000	3400	2100	430	850	13.00	4500	16.0	8.7	21.0	0.73	9.9	3.3
	2600	A. R.	4200	17000	2000	830	1300	700	160	80	1.40	91	0.0	0.9	0.6	0.19	2.5	0.0
		HF/HNO3	52000	35000	26000	16000	13000	11000	7700	680	11.00	49	2.3	1.6	4.3	0.58	2.5	0.0
		Total	68200	82000	63000	31830	17700	13800	8290	1610	25.40	4640	18.3	11.2	25.9	1.50	14.9	3.3
63W25	2600-	HCl	21000	30000	16000	10000	2500	4100	360	190	14.00	330	26.0	14.0	9.4	0.32	12.0	20.0
	2628	A. R.	13000	10000	9900	1000	480	2800	57	97	0.88	130	0.0	0.5	1.4	0.16	2.1	0.0
		HF/HNO3	36000	17000	38000	12000	11000	11000	3300	420	1.80	84	0.0	0.5	6.0	0.91	2.0	0.0
		Total	70000	57000	63900	23000	13980	17900	3717	707	16.68	544	26.0	15.0	16.8	1.39	16.1	20.0
63W25	2628-	HCl	17000	30000	9500	15000	9200	1100	1400	390	25.00	370	57.0	30.0	15.0	0.37	22.0	3.5
	2650	A. R.	4100	6300	5300	2000	760	670	19	120	1.00	230	0.0	1.3	5.5	0.19	4.2	0.0
		HF/HNO3	30000	14000	19000	4000	12000	11000	1300	220	0.77	110	0.0	0.7	4.0	1.50	1.6	6.0
		Total	51100	50300	33800	21000	21960	12770	2719	730	26.77	710	57.0	32.0	24.5	2.06	27.8	9.5
63W25	2650-	HCl	6000	14000	43000	7500	4400	400	500	1100	13.00	290	110.0	59.0	32.0	0.34	21.0	4.5
	2666	A. R.	830	1900	160	140	650	91	2	0	0.27	21	0.0	0.0	1.8	0.08	36.0	0.0
		HF/HNO3	22000	1700	2300	170	35000	5900	850	0	1.30	0	0.0	0.0	2.2	1.10	1.1	8.0
		Total	28830	17600	45460	7810	40050	6391	1352	1100	14.57	311	110.0	59.0	36.0	1.52	58.1	12.5
63W25	2666-	HCl	18000	37000	21000	17000	7800	1600	1200	460	26.00	340	38.0	22.0	12.0	0.32	31.0	19.0
	2683	A. R.	5300	6300	8100	2500	630	1000	20	160	0.84	240	0.0	1.7	4.8	0.15	9.8	0.0
		HF/HNO3	36000	18000	27000	7000	9000	12000	1700	400	0.00	120	0.0	1.9	6.9	0.85	2.0	6.6
		Total	59300	61300	56100	26500	17430	14600	2920	1020	26.84	700	38.0	25.6	23.7	1.32	42.8	25.6
63W25	2683-	HCl	10000	24000	3100	12000	1200	470	200	330	17.00	610	91.0	47.0	20.0	0.99	11.0	7.9
	2692	A. R.	1100	1300	160	320	740	110	2	0	0.78	11	0.0	0.6	3.7	0.15	3.0	0.0
		HF/HNO3	25000	1600	870	170	29000	9800	1500	0	1.20	9	0.0	0.0	2.4	1.00	0.9	7.5
		Total	36100	26900	4130	12490	30940	10380	1702	330	18.98	630	91.0	47.6	26.1	2.14	14.9	14.5
63W25	2692-	HCl	22000	45000	19000	22000	1300	4800	600	310	23.00	470	4.1	3.4	2.8	0.30	32.0	0.0
	2826	A. R.	450	6600	3100	450	210	1100	200	47	0.38	23	0.0	0.0	0.3	0.08	46.0	0.0
		HF/HNO3	25000	28000	45000	25000	4100	12000	5100	810	4.00	99	3.7	1.8	8.2	0.31	1.7	0.0
		Total	47450	79600	67100	47450	5610	17900	5900	1167	27.38	592	7.8	5.2	11.3	0.69	79.7	0.0

Table 3. Cont.

Sample	Depth	Digest.	Zn	Ni	Co	Cr	Ba	Sr	V	Zr	Ag	As	Mo	Sn	Nb	Cd	W
			Gabbro														
63W25	2546-	HCl	19.0	23.0	7.9	34.0	93.00	46.00	40.00	45.0	0.0	2.10	0.00	0.00	0.0	0.0	0.0
	2553	A. R.	6.8	7.1	4.6	25.0	5.60	0.53	58.00	0.9	0.0	0.00	0.00	0.00	0.0	0.3	0.0
		HF/HNO3	19.0	32.0	1.8	51.0	560.00	7.60	110.00	46.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	44.8	62.1	14.3	110.0	658.60	54.13	208.00	91.9	0.0	2.10	0.00	0.00	0.3	0.3	0.0
63W25	2553-	HCl	31.0	43.0	16.0	24.0	310.00	91.00	32.00	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
	2600	A. R.	6.4	8.0	4.4	24.0	300.00	26.00	42.00	0.6	0.0	0.00	0.00	0.00	0.0	0.3	0.0
		HF/HNO3	33.0	26.0	8.3	43.0	520.00	180.00	85.00	42.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	70.4	77.0	28.7	91.0	1130.00	297.00	159.00	42.6	0.0	0.00	0.00	0.00	0.0	0.3	0.0
63W25	2600-	HCl	34.0	40.0	14.0	33.0	55.00	80.00	75.00	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
	2628	A. R.	6.7	4.7	2.7	22.0	18.00	63.00	57.00	1.9	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	23.0	17.0	10.0	25.0	390.00	160.00	34.00	62.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	63.7	61.7	26.7	80.0	463.00	303.00	166.00	63.9	0.0	0.00	0.00	0.00	0.0	0.0	0.0
63W25	2628-	HCl	59.0	22.0	13.0	12.0	170.00	15.00	55.00	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
	2650	A. R.	14.0	3.6	2.9	5.8	6.00	9.70	19.00	6.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	15.0	6.1	3.7	17.0	400.00	110.00	40.00	140.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	88.0	31.7	19.6	34.8	576.00	134.70	114.00	146.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
63W25	2650-	HCl	40.0	6.7	4.9	3.9	62.00	18.00	18.00	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
	2666	A. R.	5.2	1.4	0.6	2.2	8.80	2.40	2.40	7.9	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	1.9	0.0	0.0	2.9	910.00	3.60	3.60	190.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	47.1	8.1	5.5	9.0	980.80	24.00	24.00	197.9	0.0	0.00	0.00	0.00	0.0	0.0	0.0
63W25	2666-	HCl	54.0	22.0	13.0	12.0	180.00	25.00	81.00	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
	2683	A. R.	14.0	8.9	6.8	5.6	8.00	15.00	20.00	5.3	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	23.0	9.8	6.9	26.0	380.00	140.00	47.00	120.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	91.0	40.7	26.7	43.6	568.00	180.00	148.00	125.3	0.0	0.00	0.00	0.00	0.0	0.0	0.0
63W25	2683-	HCl	71.0	23.0	11.0	22.0	16.00	9.80	30.00	1.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
	2692	A. R.	9.9	1.2	0.0	3.4	3.60	1.60	2.10	8.7	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	1.5	0.0	0.0	3.1	710.00	51.00	3.30	150.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	82.4	24.2	11.0	28.5	729.60	62.40	35.40	159.7	0.0	0.00	0.00	0.00	0.0	0.0	0.0
63W25	2692-	HCl	43.0	46.0	15.0	28.0	40.00	56.00	110.00	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
	2826	A. R.	2.8	16.0	13.0	6.8	7.80	25.00	27.00	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	33.0	17.0	12.0	17.0	180.00	200.00	48.00	50.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	78.8	79.0	40.0	51.8	227.80	281.00	185.00	50.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0

Table 3. Cont.

Sample	Depth	Digest.	Al	Fe	Ca	Mg	K	Na	Ti	Mn	Li	P	Ce	La	Y	Be	Cu	Pb
			Gabbro															
57M1	666-	HCl	16000	68000	28000	12000	9000	150	570	680	18.00	790	6.3	4.3	8.8	1.00	5.6	0.0
	696	A. R.	12000	4800	44	1500	4800	110	490	36	8.00	41	0.0	0.0	0.4	0.37	5.4	0.0
		HF/HNO3	23000	5900	110	1000	31000	750	9600	27	31.00	37	0.0	0.0	0.0	7.10	0.9	0.0
		Total	51000	78700	28154	14500	44800	1010	10660	743	57.00	868	6.3	4.3	9.2	8.47	11.9	0.0
57M1	696-	HCl	17000	65000	23000	12000	5400	1800	1300	610	22.00	620	13.0	7.7	8.9	0.37	45.0	0.0
	714	A. R.	4900	3500	2700	740	830	970	630	17	2.00	35	0.0	0.0	1.1	0.07	5.8	0.0
		HF/HNO3	34000	7500	18000	3200	7900	11000	6300	120	2.00	57	0.0	1.6	4.3	0.66	1.0	0.0
		Total	55900	76000	43700	15940	14130	13770	8230	747	26.00	712	13.0	9.3	14.3	1.10	51.8	0.0
59M1	2931-	HCl	21000	93000	26000	15000	12000	1100	990	560	24.00	4800	170.0	69.0	41.0	1.50		0.0
	2945	A. R.	2600	2600	84	740	1900	77	1500	77	1.90	48	0.0	0.0	1.5	0.17	2.3	0.0
		HF/HNO3	36000	13000	2200	770	29000	7900	23000	160	0.00	15	0.0	0.0	3.2	1.30	0.5	0.0
		Total	59600	108600	28284	16510	42900	9077	25490	797	25.90	4863	170.0	69.0	45.7	2.97	2.8	0.0
59M1	2945-	HCl	24000	78000	14000	16000	11000	2400	1900	410	25.00	1300	79.0	33.0	23.0	1.00	16.0	0.0
	3235	A. R.	3600	4100	2200	650	560	790	1400	170	0.58	160	0.0	1.4	1.3	0.11	3.1	0.0
		HF/HNO3	41000	15000	25000	9300	9900	16000	9100	400	0.00	250	0.0	0.0	8.0	1.90	0.0	0.0
		Total	68600	97100	41200	25950	21460	19190	12400	980	25.58	1710	79.0	34.4	32.3	3.01	19.1	0.0
59M1	3235-	HCl	24000	76000	23000	18000	5300	2000	1600	380	18.00	1200	52.0	22.0	15.0	0.46	47.0	0.0
	3315	A. R.	2800	5400	2500	690	320	600	1100	130	0.00	190	0.0	1.6	1.0	0.08	8.2	0.0
		HF/HNO3	46000	17000	26000	8900	7000	18000	14000	610	0.00	910	0.0	0.0	6.2	1.10	1.6	0.0
		Total	72800	98400	51500	27590	12620	20600	16700	1120	18.00	2300	52.0	23.6	22.2	1.64	56.8	0.0
L4	2250-	HCl	43000	15000	9300	11000	7300	1300	1000	350	64.00	2200	4.9	4.0	14.0	3.80	8.1	0.0
	2265	A. R.	19000	4000	810	1200	4500	320	1600	140	0.00	33	0.0	0.0	0.8	0.24	3.2	0.0
		HF/HNO3	23000	15000	520	930	9000	1600	16000	810	19.00	61	0.0	0.0	1.2	0.63	6.9	0.0
		Total	85000	34000	10630	13130	20800	3220	18600	1300	83.00	2294	4.9	4.0	16.0	4.67	18.2	0.0
L4	2265-	HCl	43000	76000	34000	13000	2300	6300	2600	760	21.00	3000	5.6	4.6	11.0	0.54	25.0	0.0
	2286	A. R.	19000	5900	11000	810	970	420	2400	210	0.00	110	0.0	0.3	0.0	0.45	12.0	0.0
		HF/HNO3	17000	29000	14000	4200	3000	5600	17000	750	1.10	120	0.0	0.0	1.0	0.19	1.7	0.0
		Total	79000	110900	59000	18010	6270	12320	22000	1720	22.10	3230	5.6	4.9	12.0	1.18	38.7	0.0
62W126	1726-	HCl	33000	65000	18000	28000	12000	630	910	440	15.00	1400	32.0	16.0	8.2	1.50	39.0	0.0
	1750	A. R.	22000	10000	29	3300	9900	82	580	39	5.00	48	0.0	0.0	0.0	0.52	1.5	0.0
		HF/HNO3	25000	7000	84	2300	26000	780	7100	41	3.80	33	0.0	0.0	0.0	0.45	1.0	0.0
		Total	80000	82000	18113	33600	47900	1492	8590	520	23.80	1481	32.0	16.0	8.2	2.47	41.5	0.0

Table 3. Cont.

Sample	Depth	Digest.	Zn	Ni	Co	Cr	Ba	Sr	V	Zr	Ag	As	Mo	Sn	Nb	Cd	W
			Gabbro														
57M1	666-	HCl	30.0	24.0	9.7	81.0	75.00	18.00	140.00	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
	696	A. R.	12.0	11.0	11.0	19.0	1.10	2.50	10.00	1.4	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	12.0	8.2	1.1	44.0	23.00	5.00	31.00	35.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	54.0	43.2	21.8	144.0	99.10	25.50	181.00	36.4	0.0	0.00	0.00	0.00	0.0	0.0	0.0
57M1	696-	HCl	47.0	30.0	11.0	63.0	120.00	61.00	0.00	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
	714	A. R.	11.0	6.0	14.0	12.0	6.30	32.00	1.70	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	10.0	5.1	0.7	22.0	250.00	180.00	61.00	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	68.0	41.1	25.7	97.0	376.30	273.00	62.70	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
59M1	2931-	HCl	63.0	6.9	11.0	0.0	110.00	53.00	150.00	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
	2945	A. R.	8.6	0.0	0.6	1.5	10.00	0.68	6.30	5.2	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	14.0	0.0	0.0	0.7	1200.00	170.00	35.00	94.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	85.6	6.9	11.6	2.2	1320.00	223.68	191.30	99.2	0.0	0.00	0.00	0.00	0.0	0.0	0.0
59M1	2945-	HCl	92.0	20.0	10.0	36.0	330.00	98.00	150.00	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
	3235	A. R.	12.0	2.9	8.6	3.1	16.00	37.00	7.00	0.3	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	36.0	0.0	1.9	3.1	550.00	420.00	21.00	150.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	140.0	22.9	20.5	42.2	896.00	555.00	178.00	150.3	0.0	0.00	0.00	0.00	0.0	0.0	0.0
59M1	3235-	HCl	86.0	38.0	8.6	160.0	200.00	140.00	170.00	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
	3315	A. R.	7.9	8.9	20.0	4.1	14.00	35.00	8.30	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	32.0	7.2	1.9	21.0	540.00	480.00	38.00	60.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	125.9	54.1	30.5	185.1	754.00	655.00	216.30	60.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
L4	2250-	HCl	74.0	44.0	30.0	51.0	54.00	41.00	250.00	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
	2265	A. R.	15.0	3.3	1.7	4.9	2.20	6.80	9.90	0.6	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	25.0	2.5	0.0	9.3	25.00	10.00	47.00	17.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	114.0	49.8	31.7	65.2	81.20	57.80	306.90	17.6	0.0	0.00	0.00	0.00	0.0	0.0	0.0
L4	2265-	HCl	81.0	17.0	11.0	51.0	43.00	130.00	220.00	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
	2286	A. R.	18.0	11.0	13.0	3.7	4.30	80.00	11.00	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	34.0	5.5	0.0	11.0	78.00	92.00	49.00	13.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	133.0	33.5	24.0	65.7	125.30	302.00	280.00	13.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
62W126	1726-	HCl	67.0	100.0	23.0	170.0	140.00	38.00	80.00	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
	1750	A. R.	6.8	14.0	3.5	46.0	0.96	0.65	16.00	1.2	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	3.6	8.6	0.0	22.0	26.00	3.00	10.00	28.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	77.4	122.6	26.5	238.0	166.96	41.65	106.00	29.2	0.0	0.00	0.00	0.00	0.0	0.0	0.0

Table 3. Cont.

Sample	Depth	Digest.	Al	Fe	Ca	Mg	K	Na	Ti	Mn	Li	P	Ce	La	Y	Be	Cu	Pb
			Gabbro															
62W126	1750-	HCL	18000	54000	20000	11000	3500	3000	2400	310	9.10	2100	45.0	23.0	8.0	0.32	43.0	0.0
	1862	A. R.	5700	4900	4300	1200	310	1200	1500	150	0.00	72	0.0	2.0	1.7	0.09	10.0	0.0
		HF/HNO3	49000	17000	38000	10000	4100	14000	5000	430	0.55	100	0.0	4.1	6.6	0.92	1.9	0.0
		Total	72700	75900	62300	22200	7910	18200	8900	890	9.65	2272	45.0	29.1	16.3	1.33	54.9	0.0
			Metagabbro															
57M2	1806-	HCl	15000	51000	16000	15000	4000	290	300	330	19.00	1600	120.0	53.0	20.0	1.10	3.0	0.0
	1813	A. R.	6100	14000	57	900	3600	83	120	21	2.30	56	0.0	1.4	1.8	0.54	2.3	0.0
		HF/HNO3	30000	5300	430	1600	29000	8100	7500	7	6.00	28	0.0	0.0	1.5	1.10	0.6	0.0
		Total	51100	70300	16487	17500	36600	8473	7920	358	27.30	1684	120.0	54.4	23.3	2.74	5.9	0.0
57M2	1813-	HCl	11000	48000	12000	11000	4500	860	1500	300	20.00	1600	99.0	53.0	22.0	0.44	8.0	0.0
	2015	A. R.	1700	7500	2500	840	580	320	3900	230	0.44	240	15.0	7.6	6.2	0.11	7.0	0.0
		HF/HNO3	34000	13000	25000	5700	9300	13000	7200	560	2.00	80	0.0	2.2	8.5	1.20	0.6	6.4
		Total	46700	68500	39500	17540	14380	14180	12600	1090	22.44	1920	114.0	62.8	36.7	1.75	15.6	6.4
57M2	2015-	HCl	14000	64000	27000	11000	2500	820	1800	410	15.00	2500	93.0	49.0	23.0	0.54	11.0	5.9
	2050	A. R.	2300	7400	4800	1100	580	270	6500	280	0.21	150	36.0	14.0	17.0	0.17	8.2	0.0
		HF/HNO3	40000	13000	20000	2800	13000	17000	5700	580	1.50	70	2.4	3.0	6.7	1.30	0.7	5.0
		Total	56300	84400	52000	14900	16080	18090	14000	1270	16.71	2720	131.4	66.0	46.7	2.01	19.9	10.9
57M2	2050-	HCl	11000	69000	23000	10000	5200	980	1700	410	14.00	2300	100.0	54.0	29.0	0.46	7.8	5.2
	2060	A. R.	1600	7900	4300	1500	400	280	6000	230	0.14	300	48.0	20.0	19.0	0.12	4.0	0.0
		HF/HNO3	35000	17000	22000	4700	11000	13000	8800	640	0.74	110	5.8	5.4	7.5	1.50	0.5	6.1
		Total	47600	93900	49300	16200	16600	14260	16500	1280	14.88	2710	153.8	79.4	55.5	2.08	12.3	11.3
57M2	2060-	HCl	2500	3400	3500	1600	1200	310	350	88	3.00	76	13.0	8.9	6.0	1.00	2.1	3.3
	2061	A. R.	450	260	280	11	390	80	33	0	0.00	0	0.0	0.0	0.0	0.02	1.4	0.0
		HF/HNO3	26000	680	280	15	57000	5700	110	0	8.40	0	0.0	0.0	0.0	0.10	0.5	11.0
		Total	28950	4340	4060	1626	58590	6090	493	88	11.40	76	13.0	8.9	6.0	1.12	4.0	14.3
XT1	3138	HCL	28000	76000	2400	12000	17000	1400	1600	170	10.00	210	56.0	25.0	19.0	2.80	18.0	0.0
		A. R.	3800	1500	34	630	2400	690	310	0	0.81	40	0.0	0.0	3.4	0.22	6.6	0.0
		HF/HNO3	37000	6800	100	2900	33000	950	3800	11	2.10	24	0.0	0.0	5.7	1.10	1.5	0.0
			68800	84300	2534	15530	52400	3040	5710	181	12.91	274	56.0	25.0	28.1	4.12	26.1	0.0
XT1	3177	HCl	21000	52000	9100	20000	12000	1200	3800	480	30.00	450	42.0	20.0	16.0	0.40	23.0	0.0
		A. R.	910	1100	1100	430	210	370	450	27	0.18	7	0.0	0.5	1.2	0.03	2.8	0.0
		HF/HNO3	36000	12000	22000	4600	5000	13000	1900	300	1.40	38	3.0	5.8	4.8	1.10	2.5	0.0
			57910	65100	32200	25030	17210	14570	6150	807	31.58	495	45.0	5.8	22.0	1.53	28.3	0.0

Table 3. Cont.

Sample	Depth	Digest.	Zn	Ni	Co	Cr	Ba	Sr	V	Zr	Ag	As	Mo	Sn	Nb	Cd	W
			Gabbro														
62W126	1750-	HCL	48.0	16.0	5.7	10.0	73.00	86.00	130.00	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
	1862	A. R.	13.0	4.6	17.0	1.8	15.00	43.00	11.00	0.5	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	26.0	7.9	4.2	6.8	200.00	430.00	56.00	30.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	87.0	28.5	26.9	18.6	288.00	559.00	197.00	30.5	0.0	0.00	0.00	0.00	0.0	0.0	0.0
			Metagabbro														
57M2	1806-	HCl	49.0	15.0	11.0	11.0	35.00	26.00	70.00	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
	1813	A. R.	7.1	7.2	7.5	7.9	2.40	0.52	47.00	2.2	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	4.0	1.0	0.0	7.9	610.00	97.00	46.00	80.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	60.1	23.2	18.5	26.8	647.40	123.52	163.00	82.2	0.0	0.00	0.00	0.00	0.0	0.0	0.0
57M2	1813-	HCl	58.0	7.8	8.2	8.4	190.00	27.00	130.00	0.0	0.0	0.00	0.00	14.00	0.0	0.0	0.0
	2015	A. R.	9.7	7.3	9.1	2.2	9.50	6.30	17.00	1.9	0.0	0.00	0.48	0.00	0.0	0.0	0.0
		HF/HNO3	16.0	1.4	0.9	6.0	470.00	260.00	29.00	76.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	83.7	16.5	18.2	16.6	669.50	293.30	176.00	77.9	0.0	0.00	0.48	14.00	0.0	0.0	0.0
57M2	2015-	HCl	93.0	1.8	9.9	1.9	71.00	23.00	130.00	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
	2050	A. R.	11.0	1.5	5.1	1.2	6.60	5.20	17.00	5.3	0.0	0.00	0.51	0.00	0.0	0.0	0.0
		HF/HNO3	19.0	0.0	1.0	3.3	750.00	320.00	27.00	52.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	123.0	3.3	16.0	6.4	827.60	348.20	174.00	57.3	0.0	0.00	0.51	0.00	0.0	0.0	0.0
57M2	2050-	HCl	120.0	2.7	7.1	2.7	120.00	21.00	150.00	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
	2060	A. R.	11.0	2.7	15.0	1.3	5.70	2.80	15.00	5.9	0.0	0.00	0.48	0.00	0.0	0.0	0.0
		HF/HNO3	25.0	0.0	0.9	3.4	680.00	150.00	41.00	43.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	156.0	5.4	23.0	7.4	805.70	173.80	206.00	48.9	0.0	0.00	0.48	0.00	0.0	0.0	0.0
57M2	2060-	HCl	29.0	1.0	0.7	0.4	64.00	17.00	4.30	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
	2061	A. R.	6.8	0.0	0.0	1.3	5.90	4.70	0.00	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	0.0	0.0	0.0	2.1	970.00	88.00	0.00	2.2	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	35.8	1.0	0.7	3.8	1039.90	109.70	4.30	2.2	0.0	0.00	0.00	0.00	0.0	0.0	0.0
XT1	3138	HCL	48.0	41.0	20.0	37.0	140.00	34.00	130.00	0.5	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		A. R.	13.0	3.5	1.3	2.2	3.40	0.44	1.50	33.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	3.8	12.0	4.1	8.8	98.00	4.90	7.90	91.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
			64.8	56.5	25.4	48.0	241.40	39.34	139.40	124.5	0.0	0.00	0.00	0.00	0.0	0.0	0.0
XT1	3177	HCl	63.0	27.0	16.0	25.0	220.00	13.00	100.00	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		A. R.	7.3	1.2	0.7	1.0	3.10	2.00	2.90	8.1	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	15.0	4.8	4.2	7.8	140.00	120.00	21.00	110.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
			85.3	33.0	20.9	33.8	363.10	135.00	123.90	118.1	0.0	0.00	0.00	0.00	0.0	0.0	0.0

Table 3. Cont.

Sample	Depth	Digest.	Al	Fe	Ca	Mg	K	Na	Ti	Mn	Li	P	Ce	La	Y	Be	Cu	Pb
			Metamorphic rocks, undivided															
NS1	1498-	HCl	13000	32000	3900	14000	2900	210	210	430	26.00	720	45.0	23.0	3.4	2.50	32.0	0.0
	1534	A. R.	1300	1400	29	230	1500	38	9	0	0.19	7	0.0	0.0	0.3	0.32	3.1	0.0
		HF/HNO3	38000	12000	200	3500	25000	1500	5700	35	2.70	12	0.0	0.0	7.4	2.30	2.1	0.0
		Total	52300	45400	4129	17730	29400	1748	5919	465	28.89	739	45.0	23.0	11.1	5.12	37.2	0.0
NS1	1534-	HCl	14000	19000	4200	17000	4000	640	460	1000	61.00	160	114.0	51.0	14.0	0.69	25.0	12.0
	1569	A. R.	280	6600	44	53	260	85	10	9	0.41	8	0.0	1.5	0.3	0.04	12.0	0.0
		HF/HNO3	54000	1200	6200	300	20000	26000	2000	10	7.10	60	8.0	6.1	2.7	1.70	1.2	5.1
		Total	68280	26800	10444	17353	24260	26725	2470	1019	68.51	228	122.0	58.6	17.0	2.43	38.2	17.1
NS1	1647	HCl	7800	15000	1300	6000	1800	530	370	540	24.00	150	97.0	46.0	10.0	0.86	4.0	3.6
		A. R.	150	450	34	36	140	50	13	0	0.17	7	6.4	4.1	1.1	0.05	0.5	0.0
		HF/HNO3	53000	2300	7100	370	17000	25000	2000	65	8.20	90	6.4	5.5	3.1	3.70	1.7	6.7
		Total	60950	17750	8434	6406	18940	25580	2383	605	32.37	247	109.8	55.6	14.2	4.61	6.2	10.3
NS1	1654	HCL	1400	910	690	410	1000	350	18	45	1.20	130	13.0	7.5	3.1	0.22	1.9	0.0
		A. R.	96	96	20	0	110	48	1	0	0.00	0	0.0	0.0	0.0	0.02	0.4	0.0
		HF/HNO3	62000	2300	480	320	39000	14000	380	12	10.00	110	0.0	0.0	1.2	1.20	0.9	20.0
		Total	63496	3306	1190	730	40110	14398	399	57	11.20	240	13.0	7.5	4.3	1.44	3.3	20.0
NS1	1731-	HCl	4000	1700	19000	11000	530	610	8	720	9.80	160	19.0	10.0	12.0	0.73	3.2	0.0
	1732	A. R.	210	160	32	150	25	47	1	0	0.21	0	0.0	0.0	0.7	0.05	0.4	0.0
		HF/HNO3	66000	730	480	150	26000	34000	520	0	0.62	41	0.0	0.0	4.4	0.59	0.4	0.0
		TOtal	70210	2590	19512	11300	26555	34657	529	720	10.63	201	19.0	10.0	17.1	1.37	4.1	0.0
NS1	1739-	HCl	23000	30000	1400	18000	6400	1100	170	470	53.00	330	34.0	38.0	13.0	5.50	42.0	0.0
	1744	A. R.	1400	2100	21	220	730	41	31	6	0.24	6	0.0	0.0	1.5	0.22	0.9	0.0
		HF/HNO3	54000	4200	540	3200	30000	13000	2600	120	4.20	16	0.0	0.0	9.2	3.00	7.4	0.0
		Total	78400	36300	1961	21420	37130	14141	2801	596	57.44	352	34.0	38.0	23.7	8.72	50.3	0.0
NS2	1603-	HCl	14000	14000	1400	12000	9300	370	720	890	15.00	440	51.0	27.0	5.0	0.78	1.3	0.0
	1612	A. R.	1000	3500	20	130	1000	36	29	12	0.18	11	7.2	5.0	0.5	0.07	0.4	0.0
		HF/HNO3	63000	18000	230	1900	95000	1900	2100	53	7.20	40	16.0	8.8	11.0	1.50	1.4	0.0
		Total	78000	35500	1650	14030	105300	2306	2849	955	22.38	491	74.2	40.8	16.5	2.35	3.1	0.0
NS2	1612-	HCl	26000	26000	1800	28000	16000	340	1100	1300	35.00	440	48.0	25.0	4.7	1.30	1.7	0.0
	1637	A. R.	880	3500	19	450	1000	35	42	30	0.38	7	3.9	3.2	0.3	0.08	0.8	0.0
		HF/HNO3	40000	20000	210	2400	29000	2100	2700	100	14.00	21	16.0	1.9	5.3	0.78	1.2	0.0
		Total	66880	49500	2029	30850	46000	2475	3842	1430	49.38	468	67.9	30.1	10.3	2.16	3.7	0.0

Table 3. Cont.

Sample	Depth	Digest.	Zn	Ni	Co	Cr	Ba	Sr	V	Zr	Ag	As	Mo	Sn	Nb	Cd	W
			Metamorphic rocks, undivided														
NS1	1498-	HCl	86.0	35.0	14.0	100.0	19.00	21.00	40.00	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
	1534	A. R.	3.3	0.0	0.7	4.5	0.36	0.18	2.10	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	7.5	3.0	0.0	92.0	270.00	20.00	40.00	72.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	96.8	38.0	14.7	196.5	289.36	41.18	82.10	72.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
NS1	1534-	HCl	130.0	1.7	0.7	2.5	45.00	7.60	18.00	2.4	0.5	0.00	0.00	2.40	0.0	0.8	0.0
	1569	A. R.	3.0	0.0	3.3	0.0	2.70	0.30	0.00	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	2.7	0.0	0.0	0.9	560.00	130.00	170.00	170.0	0.0	0.00	0.00	4.20	0.0	0.0	0.0
		Total	135.7	1.7	4.0	3.4	607.70	137.90	188.00	172.4	0.5	0.00	0.00	6.60	0.0	0.8	0.0
NS1	1647	HCl	130.0	1.6	2.3	2.2	25.00	4.10	14.00	0.9	0.0	0.00	0.00	1.80	0.0	1.4	0.0
		A. R.	2.8	0.0	0.0	0.4	1.40	0.16	0.42	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	17.0	0.0	0.0	1.1	670.00	130.00	9.20	140.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	149.8	1.6	2.3	3.7	696.40	134.26	23.62	140.9	0.0	0.00	0.00	1.80	1.4	1.4	0.0
NS1	1654	HCL	11.0	0.0	0.0	1.2	27.00	2.60	0.45	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		A. R.	2.0	0.0	0.0	0.4	1.60	0.14	0.00	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	4.4	0.0	0.0	1.3	790.00	65.00	3.60	38.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	17.4	0.0	0.0	2.9	818.60	67.74	4.05	38.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
NS1	1731-	HCl	11.0	1.6	1.3	11.0	7.00	4.20	2.50	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
	1732	A. R.	2.5	0.0	0.0	0.5	0.22	0.06	0.00	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	0.4	0.0	0.0	1.4	420.00	15.00	0.00	49.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		TOtal	13.9	1.6	1.3	12.9	427.22	19.26	2.50	49.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
NS1	1739-	HCl	90.0	20.0	9.2	41.0	37.00	14.00	26.00	1.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
	1744	A. R.	3.2	0.0	0.0	1.5	2.00	0.18	2.20	0.4	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	11.0	0.0	0.0	7.6	850.00	38.00	6.20	120.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	104.2	20.0	9.2	50.1	889.00	52.18	34.40	121.4	0.0	0.00	0.00	0.00	0.0	0.0	0.0
NS2	1603-	HCl	62.0	26.0	12.0	46.0	120.00	11.00	30.00	0.9	0.0	0.00	0.00	0.00	0.0	0.0	0.0
	1612	A. R.	2.4	0.0	0.0	6.1	1.80	0.10	3.80	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	3.5	5.2	0.6	31.0	530.00	11.00	23.00	190.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	67.9	31.2	12.6	83.1	651.80	22.10	56.80	190.9	0.0	0.00	0.00	0.00	0.0	0.0	0.0
NS2	1612-	HCl	69.0	33.0	16.0	73.0	62.00	8.80	38.00	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
	1637	A. R.	3.0	0.7	0.0	7.3	3.30	0.10	3.10	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	4.9	2.0	2.2	97.0	570.00	9.70	59.00	170.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	76.9	35.7	18.2	177.3	635.30	18.60	100.10	170.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0

Table 3. Cont.

Sample	Depth	Digest.	Al	Fe	Ca	Mg	K	Na	Ti	Mn	Li	P	Ce	La	Y	Be	Cu	Pb
		Metamorphic rocks, undivided																
NS2	1650	HCl	14000	20000	2000	14000	8800	450	650	820	16.00	490	46.0	24.0	4.1	0.98	2.1	0.0
		A. R.	900	970	20	310	1100	42	26	16	0.27	6	3.5	2.9	0.3	0.08	0.9	3.6
		HF/HNO3	48000	10000	160	2900	35000	1500	2000	66	5.70	26	3.4	3.0	6.0	0.83	2.3	0.0
		Total	62900	30970	2180	17210	44900	1992	2676	902	21.97	522	52.9	29.9	10.4	1.89	5.3	3.6
NS2	1666	HCl	15000	64000	2600	17000	10000	350	1300	1000	25.00	580	68.0	33.0	7.7	0.58	1.8	0.0
		A. R.	600	2000	20	280	590	38	42	18	0.27	10	7.7	4.7	0.4	0.05	0.8	0.0
		HF/HNO3	45000	15000	2900	1100	19000	12000	5300	73	3.80	51	28.0	15.0	5.5	1.10	1.0	0.0
		Total	60600	81000	5520	18380	29590	12388	6642	1091	29.07	641	103.7	52.7	13.6	1.73	3.6	0.0
NS2	1676	HCl	11000	30000	1800	13000	8200	420	940	830	22.00	490	62.0	32.0	6.0	0.32	1.4	0.0
		A. R.	380	3500	19	210	380	40	55	18	0.22	6	4.5	3.6	0.3	0.04	0.4	0.0
		HF/HNO3	42000	12000	3100	180	30000	13000	2200	30	2.60	35	0.0	0.7	7.0	1.70	1.0	9.7
		Total	53380	45500	4919	13390	38580	13460	3195	878	24.82	531	66.5	36.3	13.3	2.06	2.8	9.7
NS5	1984-2009	HCl	8000	9600	2600	1500	4200	190	58	95	2.70	380	82.0	33.0	9.0	0.71	2.5	0.0
		A. R.	370	140	23	16	320	34	9	0	0.00	0	0.0	0.0	0.2	0.03	0.7	0.0
		HF/HNO3	53000	2200	1000	590	38000	5400	1300	0	0.51	11	0.0	0.0	6.5	0.89	0.7	0.0
		Total	61370	11940	3623	2106	42520	5624	1367	95	3.21	391	82.0	33.0	15.7	1.63	3.9	0.0
NS5	2076	HCl	15000	31000	14000	11000	3300	570	490	640	47.00	3400	120.0	54.0	41.0	0.56	34.0	11.0
		A. R.	170	650	25	6	150	50	6	0	0.00	6	0.0	0.0	0.3	0.02	23.0	0.0
		HF/HNO3	53000	1500	3800	160	32000	16000	2200	7	0.25	33	0.0	0.0	4.8	1.50	1.7	0.0
		Total	68170	33150	17825	11166	35450	16620	2696	647	47.25	3439	120.0	54.0	46.1	2.08	58.7	11.0
NS5	2079	HCl	24000	46000	3400	14000	12000	730	2300	810	60.00	920	54.0	26.0	16.0	0.61	31.0	0.0
		A. R.	190	240	35	19	130	64	150	0	0.00	37	0.0	0.0	0.2	0.02	12.0	0.0
		HF/HNO3	72000	1000	20000	99	8000	32000	1400	0	0.20	33	0.0	0.0	2.6	3.10	2.4	0.0
		Total	96190	47240	23435	14118	20130	32794	3850	810	60.20	990	54.0	26.0	18.8	3.73	45.4	0.0
NS5	2091	HCl	16000	34000	40000	11000	4700	440	920	870	46.00	580	61.0	29.0	44.0	0.54	79.0	4.7
		A. R.	740	16000	98	53	570	140	37	20	0.40	45	0.0	0.0	1.6	0.04	130.0	13.0
		HF/HNO3	27000	1700	4500	120	17000	9700	1400	0	2.00	13	0.0	0.0	2.9	1.20	1.6	0.0
		Total	43740	51700	44598	11173	22270	10280	2357	890	48.40	638	61.0	29.0	48.5	1.78	210.6	17.7
NS5	2132-2138	HCl	18000	35000	3400	12000	12000	420	2600	690	57.00	450	88.0	41.0	25.0	0.36	3.7	0.0
		A. R.	89	220	61	12	81	42	53	0	0.00	0	0.0	0.0	0.8	0.01	1.4	0.0
		HF/HNO3	40000	1200	8300	58	11000	17000	1100	0	0.45	29	0.0	0.5	2.7	2.70	1.3	16.0
		Total	58089	36420	11761	12070	23081	17462	3753	690	57.45	479	88.0	41.5	28.5	3.07	6.4	16.0

Table 3. Cont.

Sample	Depth	Digest.	Zn	Ni	Co	Cr	Ba	Sr	V	Zr	Ag	As	Mo	Sn	Nb	Cd	W
		Metamorphic rocks, undivided															
NS2	1650	HCl	48.0	19.0	9.4	24.0	39.00	15.00	30.00	0.8	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		A. R.	2.9	0.0	0.0	1.4	1.90	0.11	1.10	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	5.5	1.3	2.0	21.0	610.00	11.00	45.00	170.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	56.4	20.3	11.4	46.4	650.90	26.11	76.10	170.8	0.0	0.00	0.00	0.00	0.0	0.0	0.0
NS2	1666	HCl	70.0	27.0	14.0	130.0	39.00	7.60	80.00	1.1	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		A. R.	3.0	0.7	0.0	5.7	1.80	0.09	2.90	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	4.7	1.8	2.0	78.0	280.00	48.00	67.00	180.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	77.7	29.5	16.0	213.7	320.80	55.69	149.90	181.1	0.0	0.00	0.00	0.00	0.0	0.0	0.0
NS2	1676	HCl	61.0	22.0	12.0	62.0	48.00	6.40	39.00	1.9	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		A. R.	2.8	0.0	0.0	6.2	1.20	0.08	3.50	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	3.8	0.0	0.0	26.0	350.00	53.00	18.00	160.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	67.6	22.0	12.0	94.2	399.20	59.48	60.50	161.9	0.0	0.00	0.00	0.00	0.0	0.0	0.0
NS5	1984-2009	HCl	14.0	2.0	1.5	3.0	16.00	12.00	9.90	1.4	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		A. R.	1.4	0.0	0.0	0.5	0.26	0.09	0.00	2.6	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	2.5	0.0	0.0	2.2	370.00	29.00	5.40	120.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	17.9	2.0	1.5	5.7	386.26	41.09	15.30	124.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
NS5	2076	HCl	35.0	12.0	6.1	31.0	34.00	7.60	45.00	0.8	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		A. R.	1.5	1.7	2.2	0.5	2.40	0.18	0.00	1.9	0.0	0.00	1.10	0.00	0.0	0.0	0.0
		HF/HNO3	0.8	0.0	0.0	5.3	910.00	100.00	18.00	120.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	37.3	13.7	8.3	36.8	946.40	107.78	63.00	122.7	0.0	0.00	1.10	0.00	0.0	0.0	0.0
NS5	2079	HCl	49.0	9.3	6.4	12.0	67.00	7.20	81.00	0.8	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		A. R.	1.5	0.0	0.0	0.5	1.00	0.19	0.00	0.0	0.0	0.00	2.70	0.00	0.0	0.0	0.0
		HF/HNO3	0.3	0.0	0.0	1.4	180.00	150.00	6.00	115.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	50.8	9.3	6.4	13.9	248.00	157.39	87.00	115.8	0.0	0.00	2.70	0.00	0.0	0.0	0.0
NS5	2091	HCl	49.0	10.0	4.1	40.0	31.00	15.00	62.00	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		A. R.	8.4	47.0	21.0	2.2	7.50	0.60	0.94	1.4	0.0	0.00	11.00	0.00	0.0	0.0	0.0
		HF/HNO3	0.8	0.0	0.0	13.0	240.00	67.00	15.00	100.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	58.2	57.0	25.1	55.2	278.50	82.60	77.94	101.4	0.0	0.00	11.00	0.00	0.0	0.0	0.0
NS5	2132-2138	HCl	61.0	10.0	6.6	15.0	68.00	4.50	53.00	1.5	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		A. R.	1.2	0.0	0.0	0.4	1.00	0.13	0.00	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	4.4	0.0	0.0	2.3	300.00	84.00	5.00	150.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	66.6	10.0	6.6	17.7	369.00	88.63	58.00	151.5	0.0	0.00	0.00	0.00	0.0	0.0	0.0

Table 3. Cont.

Sample	Depth	Digest.	Al	Fe	Ca	Mg	K	Na	Ti	Mn	Li	P	Ce	La	Y	Be	Cu	Pb
		Metamorphic rocks, undivided																
NS5	2144	HCl	2600	8000	660	1100	1000	580	110	97	6.30	120	46.0	22.0	19.0	1.10	3.4	6.7
		A. R.	460	530	63	9	370	120	53	0	0.10	0	0.0	0.6	1.2	0.07	1.3	0.0
		HF/HNO3	41000	1400	2000	64	28000	12000	500	0	1.40	26	0.0	0.0	1.6	1.20	0.6	0.0
		Total	44060	9930	2723	1173	29370	12700	663	97	7.80	146	46.0	22.6	21.8	2.37	5.3	6.7
NS6	1857-1886	HCl	5000	12000	730	2300	2200	160	54	140	4.00	150	130.0	56.0	22.0	1.10	2.5	0.0
		A. R.	2800	1200	17	180	1700	79	19	0	0.12	17	6.4	4.7	16.0	0.07	1.0	0.0
		HF/HNO3	48000	4000	91	1100	40000	2300	1900	6	1.20	57	0.0	3.6	8.6	1.10	1.4	0.0
		Total	55800	17200	838	3580	43900	2539	1973	146	5.32	224	136.4	64.3	46.6	2.27	4.9	0.0
NS6	1957	HCL	5200	13000	2100	4700	1300	300	170	310	10.00	150	100.0	48.0	13.0	0.91	4.3	4.0
		A. R.	1000	1000	16	160	760	90	32	0	0.33	11	6.6	4.7	3.8	0.19	0.6	0.0
		HF/HNO3	50000	2300	260	590	34000	13000	1300	0	1.50	36	0.0	0.0	6.0	1.50	0.6	0.0
		Total	56200	16300	2376	5450	36060	13390	1502	310	11.83	197	106.6	52.7	22.8	2.60	5.5	4.0
NS6	1990	HCl	6800	14000	810	6700	1100	360	180	370	7.60	120	130.0	63.0	21.0	0.93	1.6	0.0
		A. R.	890	670	20	120	720	110	29	0	0.10	8	3.9	3.5	2.6	0.17	0.6	0.0
		HF/HNO3	46000	2500	1400	480	27000	14000	1500	0	1.20	72	0.0	0.0	4.4	1.30	0.8	0.0
		Total	53690	17170	2230	7300	28820	14470	1709	370	8.90	200	133.9	66.5	28.0	2.40	3.0	0.0
TD1	1580-1590	HCl	14000	52000	4200	8400	8600	250	550	270	6.80	400	51.0	23.0	8.4	2.10	3.5	0.0
		A. R.	2600	5600	51	250	2500	44	47	13	0.16	23	0.0	0.5	6.2	0.37	1.5	0.0
		HF/HNO3	77000	19000	66	5900	34000	2300	6800	65	4.50	39	0.0	0.0	11.0	2.00	1.5	0.0
		TOtal	93600	76600	4317	14550	45100	2594	7397	348	11.46	462	51.0	23.5	25.6	4.47	6.5	0.0
TD1	1590-1602	HCl	18000	34000	12000	14000	9400	1000	2300	710	43.00	170	55.0	27.0	24.0	0.81	130.0	0.0
		A. R.	3000	4700	3900	1500	660	320	940	130	0.55	47	0.0	0.0	2.8	0.24	25.0	0.0
		HF/HNO3	35000	8800	15000	2200	8400	13000	620	170	1.40	46	0.0	0.0	2.8	3.80	2.1	5.5
		Total	56000	47500	30900	17700	18460	14320	3860	1010	44.95	263	55.0	27.0	29.6	4.85	157.1	5.5
63W82	1434-1456	HCl	8900	25000	1700	3500	4600	340	390	310	5.50	400	60.0	30.0	10.0	0.87	1.7	4.3
		A. R.	900	2100	21	63	890	36	11	0	0.17	11	0.0	0.4	3.9	0.10	0.6	0.0
		HF/HNO3	71000	5500	124	1600	34000	3600	2700	37	3.30	29	0.0	2.6	8.8	0.86	1.1	0.0
		Total	80800	32600	1845	5163	39490	3976	3101	347	8.97	440	60.0	33.0	22.7	1.83	3.4	4.3
63W82	1456-1473	HCl	11000	26000	12000	6400	4200	460	380	590	24.00	430	83.0	40.0	31.0	0.40	13.0	9.5
		A. R.	1900	2200	280	310	1100	110	170	5	1.30	62	0.0	0.0	1.8	0.16	4.6	0.0
		HF/HNO3	58000	1400	4100	400	25000	16000	2500	14	3.70	0	0.0	0.0	3.0	1.40	1.4	0.0
		Total	70900	29600	16380	7110	30300	16570	3050	609	29.00	492	83.0	40.0	35.8	1.96	19.0	9.5

Table 3. Cont.

Sample	Depth	Digest.	Zn	Ni	Co	Cr	Ba	Sr	V	Zr	Ag	As	Mo	Sn	Nb	Cd	W
			Metamorphic rocks, undivided														
NS5	2144	HCl	24.0	1.1	1.0	4.0	13.00	3.10	5.50	2.2	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		A. R.	7.4	0.0	0.0	1.3	2.50	0.41	0.00	2.6	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	0.7	0.0	0.0	1.9	250.00	35.00	0.83	66.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	32.1	1.1	1.0	7.2	265.50	38.51	6.33	70.8	0.0	0.00	0.00	0.00	0.0	0.0	0.0
NS6	1857-1886	HCl	59.0	6.9	3.0	2.8	33.00	9.20	3.30	0.6	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		A. R.	26.0	0.0	0.0	1.7	2.90	0.45	0.33	2.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	3.0	0.0	0.0	4.7	590.00	30.00	2.30	250.0	0.0	0.00	0.00	0.00	11.0	0.0	0.0
		Total	88.0	6.9	3.0	9.2	625.90	39.65	5.93	252.6	0.0	0.00	0.00	0.00	11.0	0.0	0.0
NS6	1957	HCL	70.0	1.0	1.8	2.8	18.00	4.30	5.20	1.7	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		A. R.	4.6	0.0	0.0	1.8	6.00	0.24	0.58	1.6	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	1.5	0.0	0.0	4.8	760.00	40.00	0.89	190.0	0.0	0.00	0.00	0.00	11.0	0.0	0.0
		Total	76.1	1.0	1.8	9.4	784.00	44.54	6.67	193.3	0.0	0.00	0.00	0.00	11.0	0.0	0.0
NS6	1990	HCl	71.0	1.1	1.8	1.6	16.00	3.30	3.10	2.1	0.0	1.70	0.00	0.00	0.0	0.0	0.0
		A. R.	11.0	0.0	0.0	1.4	5.90	0.38	0.00	2.4	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	2.6	0.0	0.0	2.2	670.00	67.00	2.10	130.0	0.0	0.00	0.00	0.00	13.0	0.0	0.0
		Total	84.6	1.1	1.8	5.2	691.90	70.68	5.20	134.5	0.0	1.70	0.00	0.00	13.0	0.0	0.0
TD1	1580-1590	HCl	53.0	50.0	12.0	33.0	68.00	40.00	42.00	4.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		A. R.	4.6	1.6	1.0	3.3	0.92	0.50	3.60	0.8	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	9.2	11.0	0.8	22.0	390.00	6.60	15.00	170.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		TOtal	66.8	62.6	13.7	58.3	458.92	47.10	60.60	174.8	0.0	0.00	0.00	0.00	0.0	0.0	0.0
TD1	1590-1602	HCl	59.0	32.0	11.0	25.0	89.00	18.00	66.00	1.6	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		A. R.	10.0	4.4	1.7	5.5	2.20	5.60	16.00	2.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	6.9	7.1	2.4	11.0	160.00	110.00	27.00	110.0	0.0	0.00	0.00	0.00	4.9	0.0	0.0
		Total	75.9	43.5	15.1	41.5	251.20	133.60	109.00	113.6	0.0	0.00	0.00	0.00	4.9	0.0	0.0
63W82	1434-1456	HCl	44.0	7.0	5.1	7.9	27.00	14.00	24.00	23.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		A. R.	2.2	0.0	0.7	1.2	0.67	0.18	2.30	0.5	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	4.0	2.3	0.0	3.9	500.00	13.00	13.00	160.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	50.2	9.3	5.8	13.0	527.67	27.18	39.30	183.5	0.0	0.00	0.00	0.00	0.0	0.0	0.0
63W82	1456-1473	HCl	63.0	6.2	5.9	7.4	30.00	9.50	20.00	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		A. R.	4.9	0.0	0.0	2.3	3.90	1.50	3.30	1.4	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	1.9	0.0	0.0	2.9	600.00	55.00	6.00	130.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	69.8	6.2	5.9	12.6	633.90	66.00	29.30	131.4	0.0	0.00	0.00	0.00	0.0	0.0	0.0

Table 3. Cont.

Sample	Depth	Digest.	Al	Fe	Ca	Mg	K	Na	Ti	Mn	Li	P	Ce	La	Y	Be	Cu	Pb
			Metamorphic rocks, undivided															
63W89	1818-	HCl	13000	56000	4300	6300	9200	140	710	350	4.70	1100	70.0	34.0	10.0	2.10	1.2	0.0
	1827	A. R.	2200	17000	34	200	2100	41	66	37	0.14	63	0.0	0.6	5.2	0.30	0.4	0.0
		HF/HNO3	86000	13000	60	4600	48000	1700	5700	110	2.60	39	0.0	0.0	6.6	1.20	0.8	0.0
		Total	101200	86000	4394	11100	59300	1881	6476	497	7.44	1202	70.0	34.6	21.8	3.60	2.5	0.0
63W89	1827-	HCl	18000	58000	5800	12000	9100	340	600	480	15.00	660	44.0	22.0	6.9	1.20	7.1	0.0
	1840	A. R.	6200	2800	60	940	3800	85	200	0	0.98	72	0.0	0.0	1.2	0.38	2.7	0.0
		HF/HNO3	36000	3600	2300	1100	30000	11000	2900	0	2.40	25	0.0	0.0	1.0	1.20	0.9	0.0
		Total	60200	64400	8160	14040	42900	11425	3700	480	18.38	757	44.0	22.0	9.1	2.78	10.7	0.0
63W29	1647-	HCl	2400	3300	370	220	1600	140	86	9	0.69	77	120.0	56.0	11.0	0.33	0.9	6.6
	1673	A. R.	1700	3500	26	62	1100	280	180	10	0.42	41	58.0	28.0	5.7	0.10	1.0	0.0
		HF/HNO3	37000	11000	87	970	25000	1300	2200	48	6.10	74	9.0	4.9	7.2	0.96	1.0	0.0
		Total	41100	17800	483	1252	27700	1720	2466	67	7.21	192	187.0	88.9	23.9	1.39	2.9	6.6
63W29	1673-	HCl	7900	13000	1700	4800	5700	230	1100	340	11.00	620	33.0	15.0	6.1	0.29	2.7	0.0
	1726	A. R.	1500	1900	24	850	1200	430	220	50	1.70	16	14.0	7.5	1.5	0.05	4.5	0.0
		HF/HNO3	36000	5100	380	350	39000	4400	1100	0	2.30	200	5.8	4.1	1.8	0.39	1.2	11.0
		Total	45400	20000	2104	6000	45900	5060	2420	390	15.00	836	52.8	26.6	9.4	0.73	8.4	11.0
L05	1540-	HCl	2200	3200	18000	350	1600	230	48	48	0.53	60	83.0	39.0	5.3	0.19	1.1	3.0
	1550	A. R.	400	140	48	30	280	120	13	0	0.00	6	6.1	3.8	0.8	0.04	1.0	0.0
		HF/HNO3	42000	1600	810	230	38000	6600	660	0	0.76	12	0.0	1.1	3.3	0.53	0.7	5.7
		Total	44600	4940	18858	610	39880	6950	721	48	1.29	78	89.1	43.9	9.4	0.76	2.8	8.7
63W72	1521-	HCl	6200	13000	230	1900	4900	230	630	210	6.20	82	99.0	44.0	6.2	1.10	1.0	2.9
	1527	A. R.	2100	310	8	100	1300	65	27	0	0.00	6	3.0	3.1	2.6	0.06	0.5	0.0
		HF/HNO3	44000	2600	45	360	38000	1400	500	0	3.00	19	0.0	0.0	13.0	0.46	0.7	12.0
		Total	52300	15910	283	2360	44200	1695	1157	210	9.20	107	102.0	47.1	21.8	1.62	2.2	14.9
63W72	1527-	HCl	6000	14000	240	2700	4800	230	840	330	20.00	86	130.0	59.0	14.0	0.23	1.2	0.0
	1547	A. R.	200	58	9	11	160	80	38	0	0.08	0	3.3	3.1	1.6	0.03	0.7	0.0
		HF/HNO3	37000	1100	2100	36	22000	14000	370	0	0.49	13	8.1	8.0	5.7	2.20	0.6	5.9
		Total	43200	15158	2349	2747	26960	14310	1248	330	20.57	99	141.4	70.1	21.3	2.46	2.4	5.9
63W5	1317+	HCl	2700	8800	390	490	1800	120	100	33	0.56	73	94.0	45.0	7.5	0.34	1.1	3.3
		A. R.	2000	1100	17	77	1100	67	27	0	0.20	23	37.0	18.0	4.0	0.06	0.8	0.0
		HF/HNO3	46000	2500	130	420	34000	1800	1500	0	2.80	61	3.9	3.9	9.1	0.21	0.5	0.0
		Total	50700	12400	537	987	36900	1987	1627	33	3.56	157	134.9	66.9	20.6	0.61	2.5	3.3

Table 3. Cont.

Sample	Depth	Digest.	Zn	Ni	Co	Cr	Ba	Sr	V	Zr	Ag	As	Mo	Sn	Nb	Cd	W
			Metamorphic rocks, undivided														
63W89	1818-	HCl	55.0	4.9	9.5	2.1	100.00	29.00	37.00	1.5	0.0	0.00	0.00	0.00	0.0	0.0	0.0
	1827	A. R.	4.7	0.0	0.5	1.1	1.90	0.36	9.50	2.2	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	8.6	2.9	0.0	3.7	270.00	19.00	13.00	77.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	68.3	7.8	10.0	6.9	371.90	48.36	59.50	80.7	0.0	0.00	0.00	0.00	0.0	0.0	0.0
63W89	1827-	HCl	84.0	3.6	11.0	1.0	91.00	18.00	46.00	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
	1840	A. R.	6.4	0.6	0.0	1.6	1.40	0.57	7.80	0.9	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	1.8	0.0	0.0	2.8	220.00	78.00	15.00	39.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	92.2	4.2	11.0	5.4	312.40	96.57	68.80	39.9	0.0	0.00	0.00	0.00	0.0	0.0	0.0
63W29	1647-	HCl	14.0	0.0	0.0	1.4	19.00	5.20	2.80	0.5	0.0	0.00	0.00	0.00	0.0	0.0	0.0
	1673	A. R.	7.2	0.7	0.7	2.6	5.60	0.42	2.50	25.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	13.0	1.2	0.0	6.4	250.00	8.40	18.00	190.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	34.2	1.9	0.7	10.4	274.60	14.02	23.30	215.5	0.0	0.00	0.00	0.00	0.0	0.0	0.0
63W29	1673-	HCl	51.0	8.7	6.5	7.6	39.00	5.80	23.00	1.9	0.0	0.00	0.00	0.00	0.0	0.0	0.0
	1726	A. R.	23.0	1.8	1.1	1.8	7.00	0.36	3.60	8.5	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	32.0	0.0	0.0	5.1	700.00	53.00	13.00	75.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	106.0	10.5	7.6	14.5	746.00	59.16	39.60	85.4	0.0	0.00	0.00	0.00	0.0	0.0	0.0
L05	1540-	HCl	24.0	0.6	0.6	1.0	16.00	9.80	2.30	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
	1550	A. R.	3.7	0.0	0.0	0.0	0.72	0.18	0.00	3.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	1.8	0.0	0.0	1.3	260.00	17.00	0.75	110.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	29.5	0.6	0.6	2.3	276.72	26.98	3.05	113.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
63W72	1521-	HCl	50.0	1.3	1.1	2.2	69.00	8.50	1.60	4.8	0.0	0.00	0.00	2.80	0.0	0.0	0.0
	1527	A. R.	2.6	0.0	0.0	1.3	1.30	0.12	0.00	1.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	3.2	0.0	0.0	2.1	1100.00	10.00	0.00	240.0	0.0	0.00	0.00	0.00	14.0	0.0	0.0
		Total	55.8	1.3	1.1	5.6	1170.30	18.62	1.60	245.8	0.0	0.00	0.00	2.80	14.0	0.0	0.0
63W72	1527-	HCl	74.0	1.5	1.0	2.4	58.00	2.00	1.70	5.6	0.0	0.00	0.00	2.90	0.0	0.0	0.0
	1547	A. R.	4.6	0.0	0.0	1.3	3.20	0.11	0.00	1.8	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	0.5	0.8	0.0	2.1	830.00	23.00	0.00	230.0	0.0	0.00	0.00	0.00	11.0	0.0	0.0
		Total	79.1	2.3	1.0	5.8	891.20	25.11	1.70	237.4	0.0	0.00	0.00	2.90	11.0	0.0	0.0
63W5	1317+	HCl	21.0	0.7	0.5	1.9	14.00	5.30	3.50	1.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		A. R.	12.0	0.0	0.5	1.7	1.30	0.35	0.71	2.5	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	2.2	0.0	0.0	1.8	360.00	47.00	1.70	260.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	35.2	0.7	1.0	5.4	375.30	52.65	5.91	263.5	0.0	0.00	0.00	0.00	0.0	0.0	0.0

Table 3. Cont.

Sample	Depth	Digest.	Al	Fe	Ca	Mg	K	Na	Ti	Mn	Li	P	Ce	La	Y	Be	Cu	Pb
			Metamorphic rocks, undivided															
63W121	1565-	HCl	4000	5700	560	350	2700	310	45	9	0.17	110	2.7	3.0	11.0	0.50	1.0	0.0
	1584	A. R.	2800	350	8	98	1700	58	11	0	0.00	0	0.0	0.0	0.7	0.08	0.6	0.0
		HF/HNO3	65000	3600	130	790	38000	1300	1600	0	0.66	76	11.0	6.5	4.6	0.44	0.4	0.0
		Total	71800	9650	698	1238	42400	1668	1656	9	0.83	186	13.7	9.5	16.3	1.02	2.0	0.0
62W153	1350-	HCl	2700	8100	2400	750	1900	120	94	77	0.90	290	160.0	81.0	13.0	0.51	1.2	5.4
	1372	A. R.	400	1300	22	21	380	24	4	0	0.10	9	0.0	0.9	4.9	0.08	0.7	0.0
		HF/HNO3	63000	3200	210	780	46000	3800	2300	21	2.10	24	0.0	0.7	24.0	0.78	1.1	3.9
		Total	66100	12600	2632	1551	48280	3944	2398	98	3.10	323	160.0	82.6	41.9	1.37	3.0	9.3

Table 3. Cont.

Sample	Depth	Digest.	Zn	Ni	Co	Cr	Ba	Sr	V	Zr	Ag	As	Mo	Sn	Nb	Cd	W
			Metamorphic rocks, undivided														
63W121	1565-	HCl	14.0	0.0	0.0	5.2	8.80	8.50	4.90	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
	1584	A. R.	6.3	0.0	0.9	2.0	0.38	0.59	0.24	1.2	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	0.4	3.3	0.0	6.0	280.00	36.00	3.50	74.0	0.0	0.00	0.00	0.00	6.8	0.0	0.0
		Total	20.7	3.3	0.9	13.2	289.18	45.09	8.64	75.2	0.0	0.00	0.00	0.00	6.8	0.0	0.0
62W153	1350-	HCl	15.0	1.3	1.0	2.6	40.00	13.00	8.10	9.7	0.0	2.30	0.00	0.00	0.0	0.0	0.0
	1372	A. R.	3.5	1.0	1.2	0.9	0.41	0.13	1.50	0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		HF/HNO3	4.4	1.0	0.0	2.6	730.00	37.00	5.90	190.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
		Total	22.9	3.3	2.2	6.1	770.41	50.13	15.50	199.7	0.0	2.30	0.00	0.00	0.0	0.0	0.0

Table 4. Total values and statistical summary by rock type.

Epizonal micrographic granite porphyry and granite-Spavinaw terrane

Sample	Depth	Al	Fe	Ca	Mg	K	Na	Ti	MN	Li	P	Ce	La	Y	Be	Cu	Pb
66AK2	1952-1974	54000	30000	14000	14000	30000	17000	5200	450	16.0	800	97	47.0	38.0	2.50	15.0	3.3
66AK3	1896-1926	48000	5400	460	1900	47000	1800	1700	8	5.4	150	150	74.0	32.0	2.90	3.8	4.9
67AK1	2072-2093	46000	17000	12000	5700	30000	18000	2900	490	13.0	420	130	63.0	40.0	2.70	5.0	24.0
66WB4	1457+	60000	21000	12000	5400	28000	19000	3600	420	14.0	680	85	41.0	32.0	2.60	11.0	7.1
WEB	1644-1666	54000	6000	2000	1100	30000	18000	970	220	3.0	73	74	36.0	25.0	2.40	2.7	8.8
WIL	1798-1831	84000	58000	4700	31000	53000	2900	6400	360	47.0	680	73	36.0	32.0	3.30	14.0	0.0
WIL	1831-1876	73000	94000	26000	37000	13000	17000	4900	600	80.0	610	49	25.0	27.0	2.20	20.0	0.0
KX	1951	25000	56000	700	3600	26000	2300	6400	70	4.1	110	57	25.0	16.0	2.70	8.1	3.4
KX	1961	75000	17000	18000	7700	34000	2600	5800	170	11.0	5500	76	38.0	29.0	3.50	3.9	0.0
KX	2025	58000	35000	4300	14000	23000	7100	2800	460	39.0	320	73	34.0	21.0	4.40	6.2	0.0
KB	1707	56000	22000	2900	3800	46000	2900	6300	140	5.5	1000	110	43.0	26.0	1.80	16.0	29.0
KB	1723	60000	19000	2400	3300	43000	2500	3300	89	7.5	660	210	78.0	31.0	10.00	7.8	7.6
KB	1821	70000	58000	24000	22000	26000	13000	4900	690	42.0	690	44	24.0	19.0	2.20	3.3	0.0
WI	1505-1516	36000	24000	14000	31000	30000	12000	4500	600	13.0	950	110	54.0	43.0	2.80	9.9	18.0
Average		57071	33029	9819	12964	32786	9721	4262	341	21.5	903	96	44.1	29.4	3.3	9.1	7.6
Maximum		84000	94000	26000	37000	53000	19000	6400	690	80.0	5500	210	78.0	43.0	10.0	20.0	29.0
Minimum		25000	5400	460	1100	13000	1800	970	8	3.0	73	44	24.0	16.0	1.8	2.7	0.0
Standard Deviation		15078	23991	8306	11886	10435	6896	1694	214	21.5	1307	43	16.7	7.5	2.0	5.3	9.1

Sample	Depth	Zn	Ni	Co	Cr	Ba	Sr	V	Zr	Ag	As	Mo	Sn	Nb	Cd	W
66AK2	1952-1974	72	20.0	7.3	62.0	880	120	48.0	240	0.0	0.00	1.1	0.0	0.0	0.0	0.0
66AK3	1896-1926	53	0.0	0.0	9.3	140	18	7.7	220	0.0	0.00	0.4	5.3	16.0	0.0	0.0
67AK1	2072-2093	78	6.2	3.3	19.0	620	66	26.0	180	0.0	1.60	0.0	2.1	15.0	0.0	0.0
66WB4	1457+	51	11.0	6.9	15.0	710	170	65.0	160	0.0	1.80	1.2	0.0	0.0	0.0	0.0
WEB	1644-1666	50	1.0	0.0	6.0	100	38	3.3	120	0.0	0.00	0.0	0.0	14.0	0.0	0.0
WIL	1798-1831	93	100.0	18.0	280.0	130	29	75.0	300	0.0	0.00	0.0	0.0	0.0	0.0	0.0
WIL	1831-1876	83	94.0	22.0	349.0	260	200	120.0	240	0.0	0.00	0.0	0.0	0.0	0.0	0.0
KX	1951	62	6.9	4.1	18.0	270	25	35.0	170	0.0	0.00	0.0	0.0	0.0	0.0	0.0
KX	1961	44	8.1	4.1	44.0	280	36	45.0	240	0.0	2.20	0.0	0.0	0.0	0.0	0.0
KX	2025	44	5.5	7.2	19.0	450	71	28.0	230	0.0	4.70	1.4	0.0	0.0	0.0	0.0
KB	1707	30	14.0	8.5	21.0	920	58	45.0	230	0.0	1.70	1.9	0.0	0.0	0.0	0.0
KB	1723	71	4.7	2.3	10.0	430	48	27.0	290	0.0	2.20	0.4	0.0	0.0	0.0	0.0
KB	1821	83	3.3	19.0	8.8	380	360	140.0	180	0.0	0.00	0.0	0.0	0.0	0.0	0.0
WI	1505-1516	95	4.1	3.9	13.0	1100	130	33.0	190	0.0	0.00	0.4	0.0	0.0	0.0	0.0
Average		65	19.9	7.6	62.4	476	98	49.9	214	0.0	1.01	0.5	0.5	3.2	0.0	0.0
Maximum		95	100.0	22.0	349.0	1100	360	140.0	300	0.0	4.70	1.9	5.3	16.0	0.0	0.0
Minimum		30	0.0	0.0	6.0	100	18	3.3	120	0.0	0.00	0.0	0.0	0.0	0.0	0.0
Standard Deviation		19	31.9	6.8	104.7	309	91	37.8	48	0.0	1.36	0.6	1.4	6.2	0.0	0.0

Table 4. Continued

Mesozonal granite

Sample	Depth	Al	Fe	Ca	Mg	K	Na	Ti	MN	Li	P	Ce	La	Y	Be	Cu	Pb
NS3	1538	68000	9700	2400	5200	45000	7300	1700	190	6.6	720	24	10.0	38.0	3.70	5.9	0.0
NS3	1560	45000	10000	3400	5900	38000	19000	1900	430	11.0	740	31	13.0	26.0	3.80	13.0	7.5
NS3	1594	59000	5600	9600	2400	36000	18000	1100	160	13.0	600	58	27.0	31.0	70.00	4.1	3.2
NS4	1913	57000	19000	2200	4000	45000	2200	2600	190	6.7	720	170	71.0	58.0	3.80	2.5	6.2
NS4	1935	92000	34000	3400	19000	48000	2888	5900	650	56.0	970	60	27.0	74.0	5.70	2.9	0.0
NS4	?	74000	35000	8800	5000	23000	19000	3100	470	39.0	680	210	99.0	64.0	4.40	3.2	2.8
64W58	1870-1880	62000	20000	6600	6000	49000	4000	3700	260	5.7	690	110	48.0	34.0	2.40	14.0	0.0
62W161	1840	44000	29000	3500	4200	56000	2400	3900	270	8.2	1200	100	51.0	57.0	4.00	7.0	17.0
Average		62625	20288	4988	6463	42500	9349	2988	328	18.3	790	95	43.3	47.8	12.23	6.6	4.6
Maximum		92000	35000	9600	19000	56000	19000	5900	650	56.0	1200	210	99.0	74.0	70.00	14.0	17.0
Minimum		44000	5600	2200	2400	23000	2200	1100	160	5.7	600	24	10.0	26.0	2.40	2.5	0.0
Standard Deviation		14679	10699	2742	4862	9421	7375	1431	161	17.5	184	62	28.5	16.5	21.85	4.3	5.4

Sample	Depth	Zn	Ni	Co	Cr	Ba	Sr	V	Zr	Ag	As	Mo	Sn	Nb	Cd	W
NS3	1538	48	7.8	3.0	7.4	280	45	14.0	84	0.0	0.00	0.0	0.0	0.0	0.0	0.0
NS3	1560	87	5.7	1.9	8.4	310	41	10.0	100	0.0	0.00	0.0	0.0	16.0	0.0	3.5
NS3	1594	25	2.2	2.4	6.1	120	45	9.8	82	0.0	0.00	0.0	0.0	0.0	0.0	0.0
NS4	1913	45	4.0	4.0	5.0	620	44	22.0	113	0.0	0.00	0.0	2.6	0.0	0.0	0.0
NS4	1935	130	3.9	8.9	6.7	790	50	42.0	220	0.0	0.00	0.0	0.0	0.0	0.0	0.0
NS4	?	61	2.6	5.1	6.7	520	110	28.0	140	0.0	0.00	0.0	2.8	0.0	0.0	0.0
64W58	1870-1880	78	6.9	7.6	12.0	720	64	52.0	210	0.0	0.00	0.0	0.0	0.0	0.0	0.0
62W161	1840	180	6.8	4.2	13.0	640	51	18.0	140	0.0	0.00	0.0	5.0	0.0	0.0	0.0
Average		82	5.0	4.6	8.2	500	56	24.5	136.1	0.0	0.00	0.0	1.3	2.0	0.0	0.4
Maximum		180	7.8	8.9	13.0	790	110	52.0	220.0	0.0	0.00	0.0	5.0	16.0	0.0	3.5
Minimum		25	2.2	1.9	5.0	120	41	9.8	82.0	0.0	0.00	0.0	0.0	0.0	0.0	0.0
Standard Deviation		48	2.0	2.3	2.7	222	21	14.4	50.0	0.0	0.00	0.0	1.8	5.3	0.0	1.2

Table 4. Continued

Magnetite bearing granite

Sample	Depth	Al	Fe	Ca	Mg	K	Na	Ti	MN	Li	P	Ce	La	Y	Be	Cu	Pb
GT1	2234-2236	47000	3000	710	2600	44000	2400	1400	160	21.0	280	110	55.0	24.0	0.97	4.3	13.0

Sample	Depth	Zn	Ni	Co	Cr	Ba	Sr	V	Zr	Ag	As	Mo	Sn	Nb	Cd	W
GT1	2234-2236	48	2.3	5.0	5.9	670	97	15.0	190	0.0	0.00	1.1	0.0	0.0	0.0	0.0

Rhyolite, dacite, and andesite flows and tuffs-Spavinaw terrane

Sample	Depth	Al	Fe	Ca	Mg	K	Na	Ti	MN	Li	P	Ce	La	Y	Be	Cu	Pb
66AK1	1999-2019	52000	30000	3500	5400	9400	2800	6400	180	7.3	1100	63	28.0	32.0	2.00	2.7	0.0

Sample	Depth	Zn	Ni	Co	Cr	Ba	Sr	V	Zr	Ag	As	Mo	Sn	Nb	Cd	W
66AK1	1999-2019	77	20.0	5.5	130.0	520	27	46.0	360	0.0	0.00	0.0	1.5	0.0	0.0	0.0

Rhyolite and minor trachyte, basalt flows and tuffs-St. Francois terrane

Sample	Depth	Al	Fe	Ca	Mg	K	Na	Ti	MN	Li	P	Ce	La	Y	Be	Cu	Pb
58W49	923-939	30000	25000	1300	1500	41000	1600	11000	31	2.2	130	12	6.4	23.0	1.30	4.1	0.0
58W49	939-968	45000	47000	30000	21000	31000	11000	8200	300	21.0	690	77	37.0	30.0	1.20	21.0	0.0
58W49	968-969	48000	62000	4800	10000	26000	12000	10000	250	17.0	780	75	40.0	28.0	2.10	45.0	0.0
23-1	1679-1712	36000	38000	2500	3000	45000	1900	4700	160	2.7	710	87	41.0	38.0	1.50	2.5	3.9
SV1	2121-2130	73000	6800	160	890	18000	870	3600	7	40.0	180	34	21.0	37.0	1.40	1.7	10.0
Average		46400	35760	7752	7278	32200	5474	7500	150	16.6	498	57	29.1	31.2	1.50	14.9	2.8
Maximum		73000	62000	30000	21000	45000	12000	11000	300	40.0	780	87	41.0	38.0	2.10	45.0	10.0
Minimum		30000	6800	160	890	18000	870	3600	7	2.2	130	12	6.4	23.0	1.20	1.7	0.0
Standard Deviation		14759	18838	11230	7592	9826	4942	2900	116	13.9	282	29	13.4	5.6	0.32	16.7	3.9

Sample	Depth	Zn	Ni	Co	Cr	Ba	Sr	V	Zr	Ag	As	Mo	Sn	Nb	Cd	W
58W49	923-939	18	1.8	2.7	6.5	440	19	31.0	290	0.0	0.30	0.0	0.0	0.0	0.0	0.0
58W49	939-968	37	5.2	15.0	11.0	520	56	84.0	270	0.0	0.00	2.1	0.0	0.0	0.0	0.0
58W49	968-969	57	6.2	16.0	11.0	520	80	100.0	310	0.0	0.00	0.8	3.3	0.0	0.0	0.0
23-1	1679-1712	63	6.5	2.4	15.0	570	23	31.0	260	0.0	1.90	0.0	0.0	0.0	0.0	0.0
SV1	2121-2130	18	2.4	0.1	11.0	110	35	21.0	370	0.0	0.00	0.0	0.3	4.1	0.0	0.0
Average		39	4.4	7.2	10.9	432	43	53.4	300	0.0	0.44	0.6	0.7	0.8	0.0	0.0
Maximum		63	6.5	16.0	15.0	570	80	100.0	370	0.0	1.90	2.1	3.3	4.1	0.0	0.0
Minimum		18	1.8	0.1	6.5	110	19	21.0	260	0.0	0.00	0.0	0.0	0.0	0.0	0.0
Standard Deviation		19	2.0	6.8	2.7	166	23	32.1	39	0.0	0.74	0.8	1.3	1.6	0.0	0.0

Table 4. Continued

Epizonal granite and granite porphyry-St. Francois terrane

Sample	Depth	Al	Fe	Ca	Mg	K	Na	Ti	MN	Li	P	Ce	La	Y	Be	Cu	Pb
MH1	2524-2533	34000	14000	6600	5000	40000	7800	1500	280	7.5	450	51.0	26.0	19.0	1.40	20.0	2.5
4-1	1400-1410	36000	12000	4600	830	21000	18000	960	170	2.0	75	90.0	42.0	57.0	2.60	7.4	7.4
1EW	1696-1706	41000	31000	1200	510	44000	2200	2800	110	4.4	490	48.0	27.0	39.0	0.88	2.8	18.0
GA1	2203-2217	43000	16000	21000	9400	36000	10000	1200	870	3.8	130	30.0	18.0	26.0	1.90	4.1	9.3
DC1	2010-2014	75000	20000	2800	6700	47000	2300	6300	140	21.0	970	72.0	31.0	49.0	3.70	6.9	3.2
DC1	2014-2016	110000	110000	2200	24000	50000	3000	10000	460	96.0	120	5.6	4.0	22.0	9.50	2.5	0.0
DC1	2016-2044	73000	52000	2300	7500	39000	5400	5000	310	30.0	740	140.0	57.0	43.0	3.50	4.6	0.0
HF1	2064-2080	62000	36000	18000	3500	37000	8600	3700	420	15.0	360	51.0	19.0	35.0	2.10	7.4	2.6
164B	2359	48000	21000	530	1500	49000	1500	1500	110	24.0	150	77.0	31.0	37.0	1.00	2.5	6.8
Average		58000	34667	6581	6549	40333	6533	3662	319	22.6	387	62.7	28.3	36.3	2.95	6.5	5.5
Maximum		110000	110000	21000	24000	50000	18000	10000	870	96.0	970	140.0	57.0	57.0	9.50	20.0	18.0
Minimum		34000	12000	530	510	21000	1500	960	110	2.0	75	5.6	4.0	19.0	0.88	2.5	0.0
Standard Deviation		23352	29216	7146	6831	8380	5002	2836	230	27.6	293	36.3	14.2	11.8	2.50	5.2	5.4

Sample	Depth	Zn	Ni	Co	Cr	Ba	Sr	V	Zr	Ag	As	Mo	Sn	Nb	Cd	W
MH1	2524-2533	72	5.7	2.4	5.7	420	51	26.0	96	0.0	0.00	0.0	0.0	0.0	0.0	0.0
4-1	1400-1410	39	0.0	0.0	2.1	460	26	0.8	280	0.0	0.00	0.4	0.0	0.0	0.0	0.0
1EW	1696-1706	46	2.4	0.4	9.9	700	81	26.0	270	0.0	2.90	0.0	0.0	0.0	0.0	0.0
GA1	2203-2217	45	4.3	1.6	7.1	290	59	8.8	190	0.0	8.00	0.0	0.0	0.0	0.0	0.0
DC1	2010-2014	54	16.0	8.1	41.0	170	25	28.0	280	0.0	1.70	0.0	0.0	0.0	0.0	0.0
DC1	2014-2016	120	47.0	19.0	34.0	290	42	75.0	50	0.0	0.00	0.0	0.0	0.0	0.0	0.0
DC1	2016-2044	87	11.0	8.5	18.0	550	27	43.0	280	0.0	2.10	0.0	0.0	0.0	0.0	0.0
HF1	2064-2080	64	4.1	4.0	11.0	690	45	29.0	180	0.0	2.40	0.4	0.0	0.0	0.0	0.0
164B	2359	58	3.7	2.4	3.9	600	69	6.8	210	0.0	0.51	0.4	0.0	0.0	0.0	0.0
Average		65	10.5	5.2	14.7	463	47	27.0	204	0.0	2.0	0.1	0.0	0.0	0.0	0.0
Maximum		120	47.0	19.0	41.0	700	81	75.0	280	0.0	8.0	0.4	0.0	0.0	0.0	0.0
Minimum		39	0.0	0.0	2.1	170	25	0.8	50	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Standard Deviation		24	13.7	5.7	13.0	177	19	21.1	80	0.0	2.4	0.2	0.0	0.0	0.0	0.0

Table 4. Continued

Gabbro

Sample	Depth	Al	Fe	Ca	Mg	K	Na	Ti	MN	Li	P	Ce	La	Y	Be	Cu	Pb
63W25	2546-2553	81000	93000	1900	13000	51000	3700	14000	620	24.0	4700	23.0	20.0	31.0	6.60	11.0	13.0
63W25	2553-2600	68000	82000	63000	32000	18000	14000	8300	1600	25.0	4600	18.0	11.0	26.0	1.50	15.0	3.3
63W25	2600-2628	70000	57000	64000	23000	14000	18000	3700	710	17.0	540	26.0	15.0	17.0	1.40	16.0	20.0
63W25	2628-2650	51000	50000	34000	21000	22000	13000	2700	730	27.0	710	57.0	32.0	25.0	2.10	28.0	9.5
63W25	2650-2666	29000	18000	45000	7800	40000	6400	1400	1100	15.0	310	110.0	59.0	36.0	1.50	58.0	13.0
63W25	2666-2683	59000	61000	56000	27000	17000	15000	2900	1000	27.0	700	38.0	26.0	24.0	1.30	43.0	26.0
63W25	2683-2692	36000	27000	4100	12000	31000	10000	1700	330	19.0	630	91.0	48.0	26.0	2.10	15.0	15.0
63W25	2692-2826	47000	80000	67000	47000	5600	18000	5900	1200	27.0	590	7.8	5.2	11.0	0.69	80.0	0.0
57M1	666-696	51000	79000	28000	15000	45000	1000	11000	740	57.0	870	6.3	4.3	9.2	8.50	12.0	0.0
57M1	696-714	56000	76000	44000	16000	14000	14000	8200	750	26.0	710	13.0	9.3	14.3	1.10	52.0	0.0
59M1	2931-2945	60000	110000	28000	17000	43000	9100	25000	800	26.0	4900	170.0	69.0	46.0	3.00	2.8	0.0
59M1	2945-3235	69000	97000	41000	26000	21000	19000	12000	980	26.0	1700	79.0	34.0	32.0	3.00	19.0	0.0
59M1	3235-3315	73000	98000	52000	28000	13000	21000	17000	1100	18.0	2300	52.0	24.0	22.0	1.60	57.0	0.0
L4	2250-2265	85000	34000	11000	13000	21000	3200	19000	1300	83.0	2300	4.9	4.0	16.0	4.70	18.0	0.0
L4	2265-2286	79000	110000	59000	18000	6300	12000	22000	1700	22.0	3200	5.6	4.9	12.0	1.20	39.0	0.0
62W126	1726-1750	80000	82000	18000	34000	48000	1500	8600	520	24.0	1500	32.0	16.0	8.2	2.50	42.0	0.0
62W126	1750-1862	73000	76000	62000	22000	7900	18000	8900	890	9.7	2300	45.0	29.0	16.0	1.30	55.0	0.0
Average		62765	72353	39882	21871	24576	11582	10135	945	27.8	1915	45.8	24.2	21.9	2.59	33.1	5.9
Maximum		85000	110000	67000	47000	51000	21000	25000	1700	83.0	4900	170.0	69.0	46.0	8.50	80.0	26.0
Minimum		29000	18000	1900	7800	5600	1000	1400	330	9.7	310	4.9	4.0	8.2	0.69	2.8	0.0
Standard Deviation		15653	26776	21018	9510	14843	6298	6996	353	16.7	1525	43.5	18.9	10.1	2.06	21.3	8.2

Sample	Depth	Zn	Ni	Co	Cr	Ba	Sr	V	Zr	Ag	As	Mo	Sn	Nb	Cd	W
63W25	2546-2553	45	62.0	14.0	110.0	660	54	210.0	92	0.0	2.10	0.0	0.0	0.3	0.3	0.0
63W25	2553-2600	70	77.0	29.0	91.0	1100	300	160.0	43	0.0	0.00	0.0	0.0	0.0	0.3	0.0
63W25	2600-2628	64	62.0	27.0	80.0	460	300	170.0	64	0.0	0.00	0.0	0.0	0.0	0.0	0.0
63W25	2628-2650	88	32.0	20.0	35.0	580	130	110.0	150	0.0	0.00	0.0	0.0	0.0	0.0	0.0
63W25	2650-2666	47	8.1	5.5	9.0	980	24	24.0	200	0.0	0.00	0.0	0.0	0.0	0.0	0.0
63W25	2666-2683	91	41.0	27.0	44.0	570	180	150.0	130	0.0	0.00	0.0	0.0	0.0	0.0	0.0
63W25	2683-2692	82	24.0	11.0	29.0	730	62	35.0	160	0.0	0.00	0.0	0.0	0.0	0.0	0.0
63W25	2692-2826	79	79.0	40.0	52.0	230	280	190.0	50	0.0	0.00	0.0	0.0	0.0	0.0	0.0
57M1	666-696	54	43.0	22.0	140.0	99	26	180.0	36	0.0	0.00	0.0	0.0	0.0	0.0	0.0
57M1	696-714	68	41.0	26.0	97.0	380	270	63.0	0	0.0	0.00	0.0	0.0	0.0	0.0	0.0
59M1	2931-2945	86	6.9	12.0	2.2	1300	220	190.0	99	0.0	0.00	0.0	0.0	0.0	0.0	0.0
59M1	2945-3235	140	23.0	21.0	42.0	900	560	180.0	150	0.0	0.00	0.0	0.0	0.0	0.0	0.0
59M1	3235-3315	130	54.0	31.0	190.0	750	660	220.0	60	0.0	0.00	0.0	0.0	0.0	0.0	0.0
L4	2250-2265	110	50.0	32.0	65.0	81	58	310.0	18	0.0	0.00	0.0	0.0	0.0	0.0	0.0
L4	2265-2286	130	34.0	24.0	66.0	130	300	280.0	13	0.0	0.00	0.0	0.0	0.0	0.0	0.0
62W126	1726-1750	77	120.0	27.0	240.0	170	42	110.0	29	0.0	0.00	0.0	0.0	0.0	0.0	0.0
62W126	1750-1862	87	29.0	27.0	19.0	290	560	200.0	31	0.0	0.00	0.0	0.0	0.0	0.0	0.0
Average		85	46.2	23.3	77.1	554	237	163.6	78	0.0	0.12	0.0	0.0	0.0	0.0	0.0
Maximum		140	120.0	40.0	240.0	1300	660	310.0	200	0.0	2.10	0.0	0.0	0.3	0.3	0.0
Minimum		45	6.9	5.5	2.2	81	24	24.0	0	0.0	0.00	0.0	0.0	0.0	0.0	0.0
Standard Deviation		27	27.4	8.4	62.2	360	194	75.0	58	0.0	0.49	0.0	0.0	0.1	0.1	0.0

Table 4. Continued

Metagabbro

Sample	Depth	Al	Fe	Ca	Mg	K	Na	Ti	MN	Li	P	Ce	La	Y	Be	Cu	Pb
57M2	1806-1813	51000	70000	16000	18000	37000	8500	7900	360	27.0	1700	120	54.0	23.0	2.70	5.9	0.0
57M2	1813-2015	47000	69000	40000	18000	14000	14000	13000	1100	22.0	1900	110	63.0	37.0	1.80	16.0	6.4
57M2	2015-2050	56000	84000	52000	15000	16000	18000	14000	1300	17.0	2700	130	66.0	47.0	2.00	20.0	11.0
57M2	2050-2060	48000	94000	49000	16000	17000	14000	17000	1300	15.0	2700	150	79.0	56.0	2.10	12.0	11.0
57M2	2060-2061	29000	4300	4100	1600	59000	6100	490	88	11.0	76	13	8.9	6.0	1.10	4.0	14.0
XT1	3138	69000	84000	2500	16000	52000	3000	5700	180	13.0	270	56	25.0	28.0	4.10	26.0	0.0
XT1	3177	58000	65000	32000	25000	17000	15000	6200	810	32.0	500	45	5.8	22.0	1.50	28.0	0.0
Average		51143	67186	27943	15657	30286	11229	9184	734	19.6	1407	89	43.1	31.3	2.19	16.0	6.1
Maximum		69000	94000	52000	25000	59000	18000	17000	1300	32.0	2700	150	79.0	56.0	4.10	28.0	14.0
Minimum		29000	4300	2500	1600	14000	3000	490	88	11.0	76	13	5.8	6.0	1.10	4.0	0.0
Standard Deviation		11382	27399	19058	6509	17580	5027	5307	485	7.2	1039	47	27.3	15.6	0.91	8.6	5.6

Sample	Depth	Zn	Ni	Co	Cr	Ba	Sr	V	Zr	Ag	As	Mo	Sn	Nb	Cd	W
57M2	1806-1813	60	23.0	19.0	27.0	650	120	160.0	82	0.0	0.00	0.0	0.0	0.0	0.0	0.0
57M2	1813-2015	84	17.0	18.0	17.0	670	290	180.0	78	0.0	0.00	0.5	14.0	0.0	0.0	0.0
57M2	2015-2050	120	3.3	16.0	6.4	830	350	170.0	57	0.0	0.00	0.5	0.0	0.0	0.0	0.0
57M2	2050-2060	160	5.4	23.0	7.4	810	170	210.0	49	0.0	0.00	0.5	0.0	0.0	0.0	0.0
57M2	2060-2061	36	1.0	0.7	3.8	1000	110	4.3	2	0.0	0.00	0.0	0.0	0.0	0.0	0.0
XT1	3138	65	57.0	25.0	48.0	240	39	140.0	120	0.0	0.00	0.0	0.0	0.0	0.0	0.0
XT1	3177	85	33.0	21.0	34.0	360	140	120.0	120	0.0	0.00	0.0	0.0	0.0	0.0	0.0
Average		87	20.0	17.5	20.5	651	174	140.6	73	0.0	0.00	0.2	2.0	0.0	0.0	0.0
Maximum		160	57.0	25.0	48.0	1000	350	210.0	120	0.0	0.00	0.5	14.0	0.0	0.0	0.0
Minimum		36	1.0	0.7	3.8	240	39	4.3	2	0.0	0.00	0.0	0.0	0.0	0.0	0.0
Standard Deviation		38	18.6	7.4	15.3	249	101	61.7	39	0.0	0.00	0.2	4.9	0.0	0.0	0.0

Table 4. Continued

Metamorphic rocks, undivided

Sample	Depth	Al	Fe	Ca	Mg	K	Na	Ti	MN	Li	P	Ce	La	Y	Be	Cu	Pb
NS1	1498-1534	52000	45000	4100	18000	29000	1700	5900	470	29.0	740	45	23.0	11.0	5.10	37.0	0.0
NS1	1534-1569	68000	27000	10000	17000	24000	27000	2500	1000	69.0	230	120	59.0	17.0	2.40	38.0	17.0
NS1	1647	61000	18000	8400	6400	19000	26000	2400	610	32.0	250	110	56.0	14.0	4.60	6.2	10.0
NS1	1654	63000	3300	1200	730	40000	14000	400	57	11.0	240	13	7.5	4.3	1.40	3.3	20.0
NS1	1731-1732	70000	2600	20000	11000	27000	35000	530	720	11.0	200	19	10.0	17.0	1.40	4.1	0.0
NS1	1739-1744	78000	36000	2000	21000	37000	14000	2800	600	57.0	350	34	38.0	24.0	8.70	50.0	0.0
NS2	1603-1612	78000	36000	1700	14000	110000	2300	2800	960	22.0	490	74	41.0	17.0	2.40	3.1	0.0
NS2	1612-1637	67000	50000	2000	31000	46000	2500	3800	1400	49.0	470	68	30.0	10.0	2.20	3.7	0.0
NS2	1650	63000	31000	2200	17000	45000	2000	2700	900	22.0	520	53	30.0	10.0	1.90	5.3	3.6
NS2	1666	61000	81000	5500	18000	30000	12000	6600	1100	29.0	640	100	53.0	14.0	1.70	3.6	0.0
NS2	1676	53000	46000	4900	13000	39000	13000	3200	880	25.0	530	67	36.0	13.0	2.10	2.8	9.7
NS5	1984-2009	61000	12000	3600	2100	43000	5600	1400	95	3.2	390	82	33.0	16.0	1.60	3.9	0.0
NS5	2076	68000	33000	18000	11000	35000	17000	2700	650	47.0	3400	120	54.0	46.0	2.10	59.0	11.0
NS5	2079	96000	47000	23000	14000	20000	33000	3900	810	60.0	990	54	26.0	19.0	3.70	45.0	0.0
NS5	2091	44000	52000	46000	11000	22000	10000	2400	890	48.0	640	61	29.0	49.0	1.80	210.0	18.0
NS5	2132-2138	58000	36000	12000	12000	23000	17000	3800	690	57.0	480	88	42.0	29.0	3.10	6.4	16.0
NS5	2144	44000	9900	2700	1200	29000	13000	660	97	7.8	150	46	23.0	22.0	2.40	5.3	6.7
NS6	1857-1886	56000	17000	840	3600	44000	2500	2000	150	5.3	220	140	64.0	47.0	2.30	4.9	0.0
NS6	1957	56000	16000	2400	5500	36000	13000	1500	310	12.0	200	110	53.0	23.0	2.60	5.5	4.0
NS6	1990	54000	17000	2200	7300	29000	14000	1700	370	8.9	200	130	67.0	28.0	2.40	3.0	0.0
TD1	1580-1590	94000	77000	4300	15000	45000	2600	7400	350	11.0	460	51	24.0	26.0	4.50	6.5	0.0
TD1	1590-1602	56000	48000	31000	18000	18000	14000	3900	1000	45.0	260	55	27.0	30.0	4.90	160.0	5.5
63W82	1434-1456	81000	33000	1800	5200	39000	4000	3100	350	9.0	440	60	33.0	23.0	1.80	3.4	4.3
63W82	1456-1473	71000	30000	16000	7100	30000	17000	3100	610	29.0	490	83	40.0	36.0	2.00	19.0	9.5
63W89	1818-1827	100000	86000	4400	11000	59000	1900	6500	500	7.4	1200	70	35.0	22.0	3.60	2.5	0.0
63W89	1827-1840	60000	64000	8200	14000	43000	11000	3700	480	18.0	760	44	22.0	9.1	2.80	11.0	0.0
63W29	1647-1673	41000	18000	480	1300	28000	1700	2500	67	7.2	190	190	89.0	24.0	1.40	2.9	6.6
63W29	1673-1726	45000	20000	2100	6000	46000	5100	2400	390	15.0	840	53	27.0	9.4	0.73	8.4	11.0
LD5	1540-1550	45000	4900	19000	610	40000	7000	720	48	1.3	78	89	44.0	9.4	0.76	2.8	8.7
63W72	1521-1527	52000	16000	280	2400	44000	1700	1200	210	9.2	110	100	47.0	22.0	1.60	2.2	15.0
63W72	1527-1547	43000	15000	2300	2700	27000	14000	1200	330	21.0	99	140	70.0	21.0	2.50	2.4	5.9
63W5	1317+	51000	12000	540	990	37000	2000	1600	33	3.6	160	130	67.0	21.0	0.61	2.5	3.3
63W121	1565-1584	72000	9700	700	1200	42000	1700	1700	9	0.8	190	14	9.5	16.0	1.00	2.0	0.0
62W153	1350-1372	66000	13000	2600	1600	48000	3900	2400	98	3.1	320	160	83.0	42.0	1.40	3.0	9.3
Average		62588	31247	7836	9469	37441	10653	2797	507	23.1	498	82	40.9	21.8	2.51	21.4	5.7
Maximum		100000	86000	46000	31000	110000	35000	7400	1400	69.0	3400	190	89.0	49.0	8.70	210.0	20.0
Minimum		41000	2600	280	610	18000	1700	400	9	0.8	78	13	7.5	4.3	0.61	2.0	0.0
Standard Deviation		14823	21931	10028	7258	15884	9018	1701	362	19.4	569	42	19.9	11.2	1.57	44.0	6.1

Table 4. Continued

Sample	Depth	Zn	Ni	Co	Cr	Ba	Sr	V	Zr	Ag	As	Mo	Sn	Nb	Cd	W
NS1	1498-1534	97	38.0	15.0	200.0	290	41	82.0	72	0.0	0.00	0.0	0.0	0.0	0.0	0.0
NS1	1534-1569	140	1.7	4.0	3.4	610	140	190.0	170	0.5	0.00	0.0	6.6	0.0	0.8	0.0
NS1	1647	150	1.6	2.3	3.7	700	130	24.0	140	0.0	0.00	0.0	1.8	1.4	1.4	0.0
NS1	1654	17	0.0	0.0	2.9	820	68	4.1	38	0.0	0.00	0.0	0.0	0.0	0.0	0.0
NS1	1731-1732	14	1.6	1.3	13.0	430	19	2.5	49	0.0	0.00	0.0	0.0	0.0	0.0	0.0
NS1	1739-1744	100	20.0	9.2	50.0	890	52	34.0	120	0.0	0.00	0.0	0.0	0.0	0.0	0.0
NS2	1603-1612	68	31.0	13.0	83.0	650	22	57.0	190	0.0	0.00	0.0	0.0	0.0	0.0	0.0
NS2	1612-1637	77	36.0	18.0	180.0	640	19	100.0	170	0.0	0.00	0.0	0.0	0.0	0.0	0.0
NS2	1650	56	20.0	11.0	46.0	650	26	76.0	170	0.0	0.00	0.0	0.0	0.0	0.0	0.0
NS2	1666	78	30.0	16.0	210.0	320	56	150.0	180	0.0	0.00	0.0	0.0	0.0	0.0	0.0
NS2	1676	68	22.0	12.0	94.0	400	59	61.0	160	0.0	0.00	0.0	0.0	0.0	0.0	0.0
NS5	1984-2009	18	2.0	1.5	5.7	390	41	15.0	120	0.0	0.00	0.0	0.0	0.0	0.0	0.0
NS5	2076	37	14.0	8.3	37.0	950	110	63.0	120	0.0	0.00	1.1	0.0	0.0	0.0	0.0
NS5	2079	51	9.3	6.4	14.0	250	160	87.0	120	0.0	0.00	2.7	0.0	0.0	0.0	0.0
NS5	2091	58	57.0	25.0	55.0	280	83	78.0	100	0.0	0.00	11.0	0.0	0.0	0.0	0.0
NS5	2132-2138	67	10.0	6.6	18.0	370	89	58.0	150	0.0	0.00	0.0	0.0	0.0	0.0	0.0
NS5	2144	32	1.1	1.0	7.2	270	39	6.3	71	0.0	0.00	0.0	0.0	0.0	0.0	0.0
NS6	1857-1886	88	6.9	3.0	9.2	630	40	5.9	250	0.0	0.00	0.0	0.0	11.0	0.0	0.0
NS6	1957	76	1.0	1.8	9.4	780	45	6.7	190	0.0	0.00	0.0	0.0	11.0	0.0	0.0
NS6	1990	85	1.1	1.8	5.2	690	71	5.2	130	0.0	1.70	0.0	0.0	13.0	0.0	0.0
TD1	1580-1590	67	63.0	14.0	58.0	460	47	61.0	170	0.0	0.00	0.0	0.0	0.0	0.0	0.0
TD1	1590-1602	76	44.0	15.0	42.0	250	130	110.0	110	0.0	0.00	0.0	0.0	4.9	0.0	0.0
63W82	1434-1456	50	9.3	5.8	13.0	530	27	39.0	180	0.0	0.00	0.0	0.0	0.0	0.0	0.0
63W82	1456-1473	70	6.2	5.9	13.0	630	66	29.0	130	0.0	0.00	0.0	0.0	0.0	0.0	0.0
63W89	1818-1827	68	7.8	10.0	6.9	370	48	60.0	81	0.0	0.00	0.0	0.0	0.0	0.0	0.0
63W89	1827-1840	92	4.2	11.0	5.4	310	97	69.0	40	0.0	0.00	0.0	0.0	0.0	0.0	0.0
63W29	1647-1673	34	1.9	0.7	10.0	270	14	23.0	220	0.0	0.00	0.0	0.0	0.0	0.0	0.0
63W29	1673-1726	110	11.0	7.6	15.0	750	59	40.0	85	0.0	0.00	0.0	0.0	0.0	0.0	0.0
L05	1540-1550	30	0.6	0.6	2.3	270	27	3.1	110	0.0	0.00	0.0	0.0	0.0	0.0	0.0
63W72	1521-1527	56	1.3	1.1	5.6	1200	19	1.6	250	0.0	0.00	0.0	2.8	14.0	0.0	0.0
63W72	1527-1547	79	2.3	1.0	5.8	890	25	1.7	240	0.0	0.00	0.0	2.9	11.0	0.0	0.0
63W5	1317+	35	0.7	1.0	5.4	380	53	5.9	260	0.0	0.00	0.0	0.0	0.0	0.0	0.0
63W121	1565-1584	21	3.3	0.9	13.0	290	45	8.6	75	0.0	0.00	0.0	0.0	6.8	0.0	0.0
62W153	1350-1372	23	3.3	2.2	6.1	770	50	16.0	200	0.0	2.30	0.0	0.0	0.0	0.0	0.0
Average		64	13.6	6.9	36.7	541	59	46.3	143	0.0	0.12	0.4	0.4	2.2	0.1	0.0
Maximum		150	63.0	25.0	210.0	1200	160	190.0	260	0.5	2.30	11.0	6.6	14.0	1.4	0.0
Minimum		14	0.0	0.0	2.3	250	14	1.6	38	0.0	0.00	0.0	0.0	0.0	0.0	0.0
Standard Deviation		33	16.7	6.2	54.9	243	37	44.5	61	0.1	0.48	1.9	1.3	4.3	0.3	0.0

Table 5. Comparison of rock type average total values.

Rock Type	Al	Fe	Ca	Mg	K	Na	Ti	Mn	Li	P	Ce	La	Y	Be	Cu	Pb
1	57071	33029	9819	12964	32786	9721	4262	341	21.5	903	96.0	44.1	29.4	3.30	9.1	7.6
2	62625	20288	4988	6463	42500	9349	2988	328	18.3	790	95.0	43.3	47.8	12.23	6.6	4.6
3	47000	3000	710	2600	44000	2400	1400	160	21.0	280	110.0	55.0	24.0	0.97	4.3	13.0
4	52000	30000	3500	5400	9400	2800	6400	180	7.3	1100	63.0	28.0	32.0	2.00	2.7	0.0
5	46400	35760	7752	7278	32200	5474	7500	150	16.6	498	57.0	29.1	31.2	1.50	14.9	0.3
6	58000	34667	6581	6549	40333	6533	3662	319	22.6	387	62.7	28.3	36.3	2.95	6.5	5.5
7	62765	72353	39882	21871	24576	11582	10135	945	27.8	1915	45.8	24.2	21.9	2.59	33.1	5.9
8	51143	67186	27943	15657	30286	11229	9184	734	19.6	1407	89.0	43.1	31.3	2.19	16.0	6.1
9	62588	31247	7836	9469	37441	10653	2797	507	23.1	498	82.0	40.9	21.8	2.51	21.4	5.7

Rock Type	Zn	Ni	Co	Cr	Ba	Sr	V	Zr	Ag	As	Mo	Sn	Nb	Cd	W
1	65	19.9	7.6	62.4	476	98	49.9	214.0	0	1.01	0.5	0.5	3.2	0.0	0.0
2	82	5.0	4.6	8.2	500	56	24.5	136.1	0	0.00	0.0	1.3	2.0	0.0	0.4
3	48	2.3	5.0	5.9	670	97	15.0	190.0	0	0.00	1.1	0.0	0.0	0.0	0.0
4	77	20.0	5.5	130.0	520	27	46.0	360.0	0	0.00	0.0	1.5	0.0	0.0	0.0
5	39	4.4	7.2	10.9	432	43	53.4	300.0	0	0.44	0.6	0.7	0.8	0.0	0.0
6	65	10.5	5.2	14.7	463	47	27.0	204.0	0	2.00	0.1	0.0	0.0	0.0	0.0
7	85	46.2	23.3	77.1	554	237	163.6	78.0	0	0.12	0.0	0.0	0.0	0.0	0.0
8	87	20.0	17.5	20.5	651	174	140.6	73.0	0	0.00	0.2	2.0	0.0	0.0	0.0
9	64	13.6	6.9	36.7	541	59	46.3	143.0	0	0.12	0.4	0.4	2.2	0.1	0.0

Rock Type

1 Epizonal micrographic granite porphyry and granite-Spavinaw terrane
2 Mesozonal granite
3 Magnetite bearing granite
4 Rhyolite-Spavinaw terrane
5 Rhyolite- St. Francois terrane
6 Epizonal granite and granite porphyry-St. Francois terrane
7 Gabbro
8 Metagabbro
9 Metamorphic rocks, undivided