



**BRITISH
COLUMBIA**

Ministry of Employment and Investment

Energy and Minerals Division
Geological Survey Branch

GEOCHEMISTRY of the GATAGA MOUNTAIN AREA

(parts of 94L/7, 8, 9, 10, 11, 14, 15)

By Wayne Jackaman

Ray Lett, P. Geo

Steve Sibbick, P. Geo

Open File 1996-18

B.C. Geological Survey Branch

OPEN FILE 1996-18

Geochemistry

of the

Gataga Mountain Area

(parts of 94L/7, 8, 9, 10, 11, 14, 15)

TABLE OF CONTENTS

INTRODUCTION	1	APPENDIX A FIELD OBSERVATIONS and ANALYTICAL DATA	
OPEN FILE FORMAT	1	Reference Guide to Field Observations	A-2
REGIONAL SETTING	1	Reference Guide to Geological Units	A-3
SAMPLE COLLECTION	2	Field Observations and Analytical Data	A-4
SAMPLE PREPARATION	2	APPENDIX B ANALYTICAL DUPLICATE DATA	
STREAM SEDIMENT ANALYSIS	2	AAS Analytical Duplicate Data	B-2
STREAM WATER ANALYSIS	3	INAA Analytical Duplicate Data	B-3
ANALYTICAL QUALITY CONTROL	5	APPENDIX C DISTRIBUTION of GEOLOGICAL UNITS WITHIN CATCHMENT BASINS	
CATCHMENT BASINS	5	APPENDIX D SUMMARY STATISTICS	
REFERENCES	6	AAS Elements plus pH, SO ₄ , FW and UW	D-2
		INAA Elements	D-3
		ICP-MS Elements	D-4
		Frequency Histograms for Each Element	D-5
		APPENDIX E MAPS	
		Sample Location Map	E-2
		Bedrock Geology Map	E-3
		Known Mineral Occurrences	E-4
		Element Maps	E-5

INTRODUCTION

Located in the Muskwa Ranges of the northern Rocky Mountains (Figure 1), the Gataga Mountain stream sediment and water regional geochemical survey is part of a multi-disciplinary examination of this portion of the Kechika Trough (Ferri *et al.*, 1995a, 1996a; Lett and Jackaman, 1995). Within the Kechika Trough several significant sedimentary exhalative barite-lead-zinc deposits, including Stronsay (Cirque), Driftpile Creek, Akie, Bear and Mount Alcock have been discovered in Cambrian to Mississippian rocks exposed along the western margin of the northern Rocky Mountains. Data from this type of reconnaissance-scale geochemical survey are suitable for mineral exploration, resource assessment and as an aid to metallogenetic studies and geological interpretations. Sample collection, preparation and analysis were closely monitored to ensure consistency and conformity to national standards described by Ballantyne (1991).

OPEN FILE FORMAT

The Open File is divided into the following sections. Notes preceding each section list important information on data presentation format.

- Survey details.
 - Listings of field and analytical data (Appendix A).
 - Listings of analytical duplicate data (Appendix B).
 - Distribution of geological units within catchment basins (Appendix C).
 - Summary statistics (Appendix D).
 - Sample location, geology and element distribution maps (Appendix E).

The Open File diskette (3.5", high-density) includes :

- Analytical and field data as comma delimited files.
 - Digital catchment basin polygons and attributes (DXF format).

REGIONAL SETTING

Located in the northern Rocky Mountains, the Gataga Mountain survey area covers part of the western Muskwa Ranges and the Rabbit Plateau. The area is bounded on the southwest by the Kechika and Gataga rivers, to the northeast by the Netson Creek valley, to the north by the Horneline Creek valley, and extends southeast to approximately 10 kilometres south of Split Top Mountain.

The Muskwa Ranges are characterized by ridges that are 1000 metres to over 2000 metres in elevation. The tree line reaches up to 1500 metres with mixed woodland, grassland and swamp in the valley bottoms and alpine fir, black spruce and alder extending up the valley sides. Above 1500 metres, ground cover consists of scattered alpine fir, willow and heather. The Rabbit Plateau, a transition zone

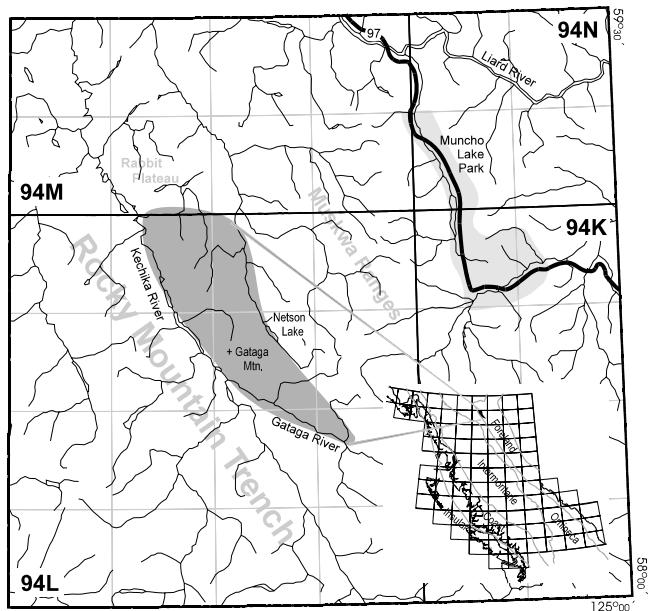


Figure 1. Location Map of Gataga Mountain Survey

between the Muskwa Ranges and the Liard Plain, is an area of relatively low wooded ridges rising to an elevation of 1200 to 1500 metres. Drift and colluvium deposits of varying thickness occupy the valley floors and lower valley slopes; ridge crests are covered with rock talus and felsenmeer.

Situated along the western margin of the Rocky Mountain subprovince of the Canadian Cordilleran Foreland Belt, the main depositional element in the region is the Paleozoic Kechika Trough which extends northwest to the Selwyn Basin in Yukon Territory. Strata range from Late Proterozoic to early Mississippian age and belong to the Hyland, Gog, Kechika, Road River and Earn groups (Ferri *et al.*, 1995a, 1996a). Sedimentary exhalative barite-sulphide mineralization within the Kechika Trough is Middle Ordovician, Early Silurian and Late Devonian in age. The most economically significant mineralization is in the Late Devonian shales and siliceous shales of the lower Earn Group which includes the Stronsay (Cirque), Driftpile Creek, Akie, Bear and Mount Alcock deposits. The bedrock geology base map (Appendix E, page E-2) included in this Open File is adapted from MacIntyre *et al.*, 1995.

Within the survey area, the British Columbia mineral deposits database lists the Black Wednesday (MINFILE 094L 06), Solo (MINFILE 094L 15), Smoke (MINFILE 094L 16), Bluff Creek (MINFILE 094L 18) and Mat (MINFILE 094L 19) mineral showings. Ferri *et al.* (1995b, 1996b) have also identified new minor barite-sulphide mineralization (Appendix E, page E-3) in the lower Earn

Group, in Ordovian shales of the Road River Group and basal rocks of the Kechika Group.

SAMPLE COLLECTION

Helicopter-supported sample collection was carried out during the summer of 1995. A total of 184 stream sediment and 182 stream water samples were systematically collected from 174 sites. Average sample site density was 1 site per 7 square kilometres over the 875 square kilometre survey area. Field duplicate samples were routinely collected in each analytical block of twenty samples.

Fine-grained stream sediment material (< 1 mm) weighing 1 to 2 kilograms was obtained from the active (subject to annual flooding) stream channel and placed in kraft paper bags. Surface water samples were collected in 250 millilitre bottles; precautions were taken to exclude suspended solids when possible. Standard field observations regarding sample media, sample site and local terrain were also recorded. To assist follow-up, aluminum tags inscribed with the sample site identification number were fixed to permanent objects at each sample site.

SAMPLE PREPARATION

Field-dried sediment samples were shipped to Rossbacher Laboratories Ltd. (Burnaby, B.C.) for final sample preparation. The samples were air dried and the -80 mesh (< 177 µm) fraction was obtained by dry sieving. Quality control reference standards and analytical duplicate samples were inserted into each analytical block of twenty sediment samples. Any remaining -80 mesh sediment was archived for future analyses.

In the field camp, a 250 millilitre portion of each surface water sample was filtered through a 0.45-micron cellulose nitrate filter paper and acidified to pH 2 to 3 with 50% ultrapure nitric acid. At the Ministry laboratory, quality control reference standards and analytical blanks were inserted into each analytical block of twenty water samples.

STREAM SEDIMENT ANALYSIS

CanTech Laboratories (Calgary, Alberta) analyzed the sediment samples for antimony, arsenic, bismuth, cadmium, cobalt, copper, fluorine, iron, lead, manganese, mercury, molybdenum, nickel, silver, vanadium, and zinc. Detection limits for each element are listed in Table 1.

Antimony was determined by aqua regia digestion - hydride generation atomic absorption spectroscopy. A 0.5-gram sample was placed in a test tube with 3 millilitres of concentrated nitric acid and 9 millilitres of hydrochloric acid. The mixture was allowed to stand overnight at room temperature prior to being heated to 90°C for 90 minutes. The mixture was cooled and a 1 millilitre aliquot was diluted to 10 millilitre with 1.8M hydrochloric acid. The

TABLE 1. STREAM SEDIMENT ANALYSIS

Element		Analytical Method	Detection Limit	Unit
Antimony	Sb	AAS-H/INAA	0.2/0.1	ppm
Arsenic	As	AAS-H/INAA	0.2/0.5	ppm
Barium	Ba	INAA	50	ppm
Bismuth	Bi	AAS-H	0.2	ppm
Bromine	Br	INAA	0.5	ppm
Cadmium	Cd	AAS	0.2	ppm
Cerium	Ce	INAA	3	ppm
Cesium	Cs	INAA	1	ppm
Chromium	Cr	INAA	5	ppm
Cobalt	Co	AAS/INAA	2/1	ppm
Copper	Cu	AAS	2	ppm
Fluorine	F	ION	40	ppm
Gold	Au	INAA	2	ppb
Hafnium	Hf	INAA	1	ppm
Iron	Fe	AAS/INAA	0.02/0.01	%
Lanthanum	La	INAA	0.5	ppm
Lead	Pb	AAS	2	ppm
Loss on Ignition	LOI	GRAV	0.1	%
Lutetium	Lu	INAA	0.05	ppm
Manganese	Mn	AAS	5	ppm
Mercury	Hg	AAS-F	10	ppb
Molybdenum	Mo	AAS/INAA	2/1	ppm
Nickel	Ni	AAS/INAA	2/20	ppm
Rubidium	Rb	INAA	5	ppm
Samarium	Sm	INAA	0.1	ppm
Scandium	Sc	INAA	0.1	ppm
Silver	Ag	AAS	0.2	ppm
Sodium	Na	INAA	0.01	%
Tantalum	Ta	INAA	0.5	ppm
Terbium	Tb	INAA	0.5	ppm
Thorium	Th	INAA	0.2	ppm
Tungsten	W	INAA	1	ppm
Uranium	U	INAA	0.5	ppm
Vanadium	V	AAS	5	ppm
Ytterbium	Yb	INAA	0.2	ppm
Zinc	Zn	AAS	2	ppm

solution was analyzed for antimony by hydride generation atomic absorption spectroscopy as described by Aslin (1976).

Arsenic and bismuth were determined by aqua regia digestion - hydride generation atomic absorption spectroscopy. A 1-gram sample was digested with 3 millilitres of concentrated nitric acid for 30 minutes at 90°C. Concentrated hydrochloric acid (1 mL) was added and the digestion was continued at 90°C for an additional 90 minutes. A 1-millilitre aliquot was diluted to 10 millilitres with 1.5M hydrochloric acid in a clean test tube. The diluted sample solution was added to a sodium borohydride solution and the hydride vapour passed through a heated quartz tube in the light path of an atomic absorption spectrometer.

Cadmium, cobalt, copper, iron, lead, manganese, nickel, silver and zinc were determined by aqua regia digestion - flame atomic absorption spectroscopy. A 1-gram sample was reacted with 3 millilitres of concentrated nitric acid for 30 minutes at 90°C. Concentrated hydrochloric

acid (1 mL) was added and the digestion was continued at 90°C for an additional 90 minutes. The sample solution was then diluted to 20 millilitres with metal-free water and mixed. The solution was analyzed for metals by atomic absorption spectroscopy. Background corrections were made for lead, nickel, cobalt and silver.

Fluorine was determined by specific ion electrode as described in Ficklin (1970). A 0.25-gram sample was sintered with a 1-gram flux consisting of 2 parts by weight of sodium carbonate and 1 part by weight of nitric acid. The residue was then leached with water and the sodium carbonate was neutralized with 10 millilitres 10% citric acid. The resulting solution was diluted to 100 millilitres with water to a pH of 5.5 to 6.5. Fluoride was measured using a fluoride ion electrode and reference electrode.

Molybdenum and vanadium were determined by aqua regia digestion - atomic absorption spectroscopy using a nitrous oxide acetylene flame. A 0.5-gram sample was reacted with 1.5 millilitres of concentrated nitric acid at 90°C for 30 minutes. Concentrated hydrochloric acid (0.5 mL) was added and the digestion continued for an additional 90 minutes. After cooling, 8 millilitre of 1250 ppm aluminium solution was added and the sample solution diluted to 10 millilitre before determination of molybdenum and vanadium by atomic absorption spectroscopy.

Mercury was determined by aqua regia digestion - flameless atomic absorption spectrometry. A 0.5-gram sample was reacted with 20 millilitres of concentrated nitric acid and 1 millilitre concentrated hydrochloric acid in a test tube for 10 minutes at room temperature and then for 2 hours in a 90°C water bath. After digestion, the sample was cooled and diluted to 100 millilitres with metal-free water. The mercury present was reduced to the elemental state by the addition of 10 millilitres of 10% weight per volume stannous sulphate in sulphuric acid. The mercury vapor was flushed by a stream of air into an absorption cell mounted in the light path of an atomic absorption spectrometer. Measurements were made at 253.7 nanometres. This method is described in detail by Jonasson *et al.* (1973).

Loss on ignition was determined using a 0.5-gram sample. The sample was weighed into a 30 millilitre beaker, placed in a cold muffle-furnace and heated to 500°C over a period of 2 to 3 hours. The sample was allowed to cool at room temperature for 4 hours before weighing.

A representative split of each sediment sample was analyzed for antimony, arsenic, barium, bromine, cerium, cesium, chromium, cobalt, gold, hafnium, iron, lanthanum, lutetium, molybdenum, nickel, rubidium, samarium, scandium, sodium, tantalum, terbium, thorium, tungsten, uranium and ytterbium using thermal, instrumental neutron activation analysis (INAA) by Activation Laboratories (Ancaster, Ontario). Instrumental neutron activation analysis involves irradiating the sediment samples, which range from 5 to 20 grams (average 15 g), for 30 minutes

TABLE 2. STREAM WATER ANALYSIS

Element		Analytical Method	Instrument D.L.	Method D.L.	Unit
pH	pH	GCE	0.1	0.1	
Sulphate	SO ₄	TURB	1	1	ppm
Fluoride	FW	ION	20	20	ppb
Uranium	UW	LIF	0.05	0.05	ppb
Antimony	Sb	ICPMS	0.02	0.02	ppb
Arsenic	As	ICPMS	0.002	0.07	ppb
Barium	Ba	ICPMS	0.002	1.62	ppb
Cadmium	Cd	ICPMS	0.002	0.07	ppb
Calcium	Ca	ICPMS	1	882	ppb
Cobalt	Co	ICPMS	0.001	0.013	ppb
Copper	Cu	ICPMS	0.002	2.24	ppb
Iron	Fe	ICPMS	0.1	19.36	ppb
Lead	Pb	ICPMS	0.02	0.2	ppb
Lithium	Li	ICPMS	0.1	0.44	ppb
Manganese	Mn	ICPMS	0.1	2.72	ppb
Magnesium	Mg	ICPMS	0.1	185	ppb
Molybdenum	Mo	ICPMS	0.02	0.66	ppb
Nickel	Ni	ICPMS	0.002	4.29	ppb
Potassium	K	ICPMS	1	145	ppb
Rubidium	Rb	ICPMS	0.002	0.14	ppb
Selenium	Se	ICPMS	0.002	2.71	ppb
Silicon	Si	ICPMS	1	120	ppb
Sodium	Na	ICPMS	0.1	454	ppb
Strontium	Sr	ICPMS	0.002	8	ppb
Uranium	U	ICPMS	0.002	0.15	ppb
Vanadium	V	ICPMS	0.02	0.33	ppb
Yttrium	Y	ICPMS	0.002	0.002	ppb
Zinc	Zn	ICPMS	0.002	13	ppb
Zirconium	Zr	ICPMS	0.002	0.002	ppb

with neutrons (flux density of 7×10^{11} neutrons/cm²/second). After approximately 1 week, the gamma-ray emissions for the elements were measured using a gamma-ray spectrometer with a high resolution, coaxial germanium detector. Counting time was approximately 15 minutes per sample. Table 1 lists the detection limits reported for elements determined by this method.

STREAM WATER ANALYSIS

Water samples were analyzed for trace and major elements by inductively coupled plasma mass spectrometer (ICP-MS) in addition to pH, sulphate, fluoride and uranium. Reported detection limits for each element are listed in Table 2.

pH of waters was measured by a combination glass-reference electrode and a Fisher Accumet pH meter using an aliquot of sample in a clean dry beaker.

Sulphate in waters was determined by a turbidimetric method. A 20-millilitre aliquot of the sample was mixed with barium chloride and an isopropyl alcohol - hydrochloric acid - sodium chloride reagent. The turbidity of the resulting barium sulphate suspension was measured with a spectrophotometer at 420 nanometres.

The determination of fluoride in waters involved mixing an aliquot of the sample with an equal volume of total ionic strength adjustment buffer (TISAB II solution). The fluoride was measured using a Corning 101 meter with an Orion fluoride electrode.

Uranium in waters was determined by laser-induced fluorescence analysis. A 5-millilitre sample was spiked with 0.5-millilitres of fluran solution for 24 hours and irradiated by a laser to induce fluorescence. Uranium was determined with a Scintrex UA-3 uranium analyzer.

Filtered and acidified water samples were analyzed for antimony, arsenic, barium, cadmium, calcium, cobalt, copper, iron, lead, lithium, manganese, magnesium, molybdenum, nickel, potassium, rubidium, selenium, silicon, sodium, strontium, uranium, vanadium, yttrium, zinc and zirconium by Activation Laboratories (Ancaster, Ontario) using a Perkin Elmer Elan 6000 inductively coupled plasma mass spectrometer and an Perkin Elmer AS91 autosampler. The main advantage of ICP-MS compared to inductively coupled plasma emission spectrometry (ICP-ES) and atomic absorption spectrometry (AAS) for water analysis is that this method can determine elements to lower concentrations.

To determine trace and major elements by ICP-MS, a 10-millilitre aliquot of each water sample is spiked with an internal standard. The sample is then introduced through a

nebulizer into a plasma where the elements are ionized at a temperature near 7500°K. Part of the plasma is transferred to a low-pressure region (1 Torr) by a water-cooled sampler. A skimmer allows the gas to pass into a high-vacuum chamber (10^{-5} Torr) where electrostatic lenses collect ions from the supersonic gas jet. The ion beam is focused into a quadrupole mass analyser where the ions are deflected into a detector depending on their mass to charge ratio. A channel electron multiplier counts the ions for a particular element and provides an estimate of element concentration.

The water samples were analysed using external calibration with internal standards. Two in-house reference standards were prepared using fully certified and traceable standards which contained all elements of interest. These standards are used to prepare calibration curves. Each group of samples analysed also contained a certified reference standard (SLRS-3) and a reagent blank (18.2 mΩ deionized water). The data were calculated from the in-house standard calibration curves and results for the SLRS-3 certified values.

Interferences found in ICP-MS are spectral and sample-matrix induced (Hall, 1992). Two mass spectral interferences are caused by species formed in the plasma gas (e.g. Ar^+) and in the acids used for water sample preservation (e.g. ArCl^+). The second interference can be

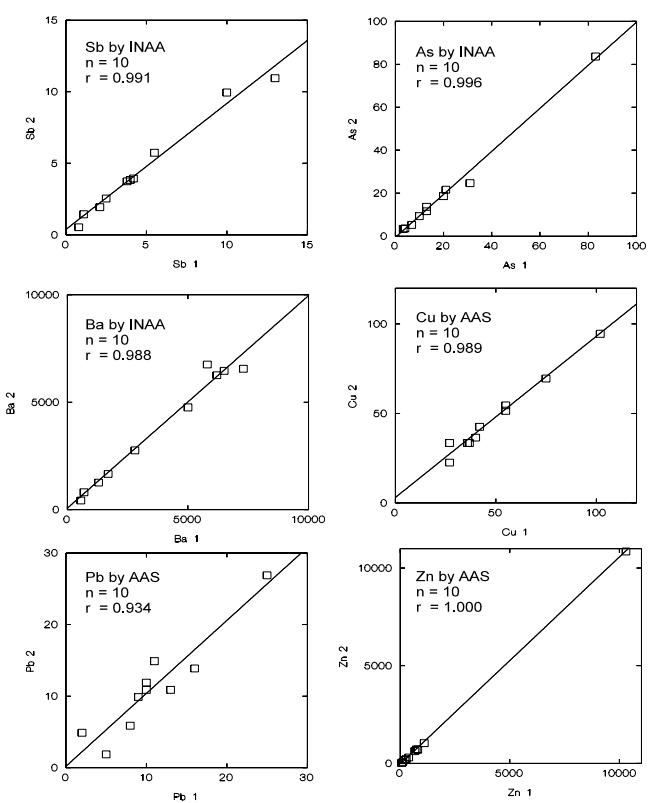


Figure 2a. Scatterplots showing field duplicate pairs.

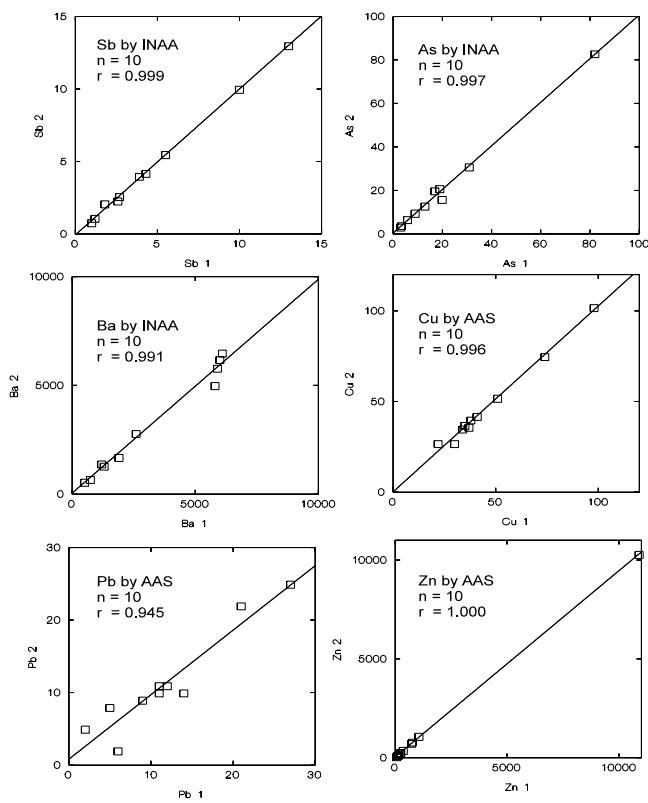


Figure 2b. Scatterplots showing analytical duplicate pairs.

minimized by using nitric acid as a preservative. Commonly associated matrix elements (*e.g.* TiO^+ on $^{62}\text{Ni}^+$, $^{63}\text{Cu}^+$, $^{65}\text{Cu}^+$) are also a potential source of spectral interference. This can be minimized by selecting an element isotope which is free from spectral overlap, or by mathematically correcting for its presence. Examples of interfering species are the formation of rare earth element, tungsten and molybdenum oxides (MO^+), the interference of cadmium by molybdenum oxide and the interference by ArCl^+ on arsenic and selenium isotopes. The spectral interference can be reduced by various measures such as adding an organic solvent to the sample which suppresses the influence of ArCl^+ . Non-spectral interference is caused by differences in transport efficiency of heavy and light ions in the ion beam. Because of this effect, suppression of lithium could be expected in a solution containing high uranium. Non-spectral interference can be reduced by appropriate instrument tuning to enhance the analyte signal and maintaining the total salt solution below 0.1%.

ICP-MS instrumental detection limits (reported by Activation Laboratories) and method detection limits are shown in Table 2. Method detection limits, calculated as the mean +3 standard deviation values, have been determined using analytical data from the acidified (ultrapure nitric acid), filtered, distilled, deionized water blanks. The resulting number indicates the maximum limit of element introduction during filtration. Several elements, such as gold, reported a significant number of values (over 95%) below instrumental detection limit and have not been included in this report.

ANALYTICAL QUALITY CONTROL

Meaningful interpretations of geochemical data require an ability to discriminate real trends, related to geological and geochemical conditions, from those that result from spurious factors such as sampling and analytical error. To monitor and assess accuracy and precision of analytical results, control reference standards, analytical duplicates and field duplicates are routinely used. Each analytical block of twenty sediment samples consists of :

- Seventeen routine samples.
- One field duplicate sample collected adjacent to one of the 17 routine samples (listed in Appendix A).
- One analytical duplicate sample; a subsample taken from one of the 17 routine samples prior to analysis (Listed in Appendix B).
- One control reference standard sample containing sediment of known element concentrations.

Analytical blocks of corresponding water samples contain two control reference standard samples but no analytical duplicate samples.

Scatterplots illustrating analytical reproducibility for field duplicate pairs and analytical duplicate pairs are

presented for antimony, arsenic, barium, copper, lead and zinc (Figures 2a and 2b). The results show excellent reproducibility ($r > 0.93$) which gives a high degree of confidence in the quality of both the field sampling and analytical methods.

CATCHMENT BASINS

Catchment basins are defined by the topographic height of land that separates a stream from surrounding streams. These polygons are assumed to represent the metal determination of a single stream sediment or water sample collected at the catchment basin outlet. Beginning in 1990, several methodologies for integrating catchment basin polygons with other digital geoscience data using geographic information system (GIS) technology have been examined (Bartier and Kellar, 1991; Sibbick, 1994; Jackaman *et al.*, 1995; Matysek and Jackaman, 1996). Each study concluded that using the catchment basin of each sample site to define its zone of influence (Bonham-Carter and Goodfellow, 1986; Bonham-Carter *et al.*, 1987) provided an effective technique for integrating digital geoscience data (*e.g.* geology) with stream sediment and water geochemistry.

For this survey, a total of 174 catchment basins were delineated from NTS 1:50 000 maps by hand tracing the catchment basin boundaries. This line-work was digitized and each resulting catchment basin polygon was labeled with its unique sample number. On occasion, nested polygons were produced where two samples were taken from successive sites on the same stream; in these cases the downstream polygon was defined to end at the upstream sample site. The corresponding field and analytical data were joined to each digital polygon record for interpretation. Areas of each polygon, polygon perimeter

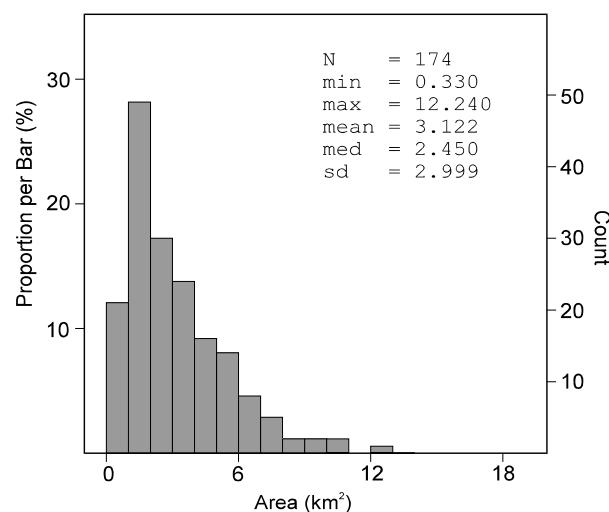


Figure 3. Histogram of catchment basin areas.

and percentage coverage of geological units underlying each basin were calculated using simple GIS subroutines (Appendix A and D).

Note that this is a discrete polygon method and therefore assumes within-polygon uniformity of the geochemistry. However, within a basin, various other physical factors may influence the composition of the stream sediment sample or contribute to within-basin variation. These include variations in rock and sediment, topography, drainage network, channel patterns, vegetation, differential weathering of bedrock, and precipitation. There are also factors that transcend drainage basin boundaries. Geological material from beyond the catchment boundary may be present due to glacial transport or anthropogenic pollution. These factors should be considered when interpreting catchment basin data.

A histogram of catchment basin areas is shown in Figure 3. Catchment basin areas range from less than 1 square kilometre to 12.24 square kilometres with a mean area on the order of 3 square kilometres. Of the 174 sites, 140 have catchment basins that cover an area of 5 square kilometres or less. Area coverage of the catchment basins totals 543 square kilometres or 62% of the survey land area. The remaining unsurveyed 38% represents broad valley floors which are characterized by meandering stream channels or swamps that would not provide appropriate stream sediment material.

REFERENCES

- Aslin, G.E.M. (1976): The Determination of Arsenic and Antimony in Geological Materials by Flameless Atomic Absorption Spectrophotometry; *Journal of Geochemical Exploration*, Volume 6, pages 321-330.
- Ballantyne, S.B. (1991): Stream Geochemistry in the Canadian Cordillera: Conventional and Future Applications for Exploration; in Exploration Geochemistry Workshop, *Geological Survey of Canada*, Open File 2390.
- Bartier, P.M. and Keller, C.P. (1991): Integrating Bedrock Geology with Stream Sediment Geochemistry in a Geographic Information System (GIS): Case Study NTS 92H; in Geological Fieldwork 1991, Grant, B. and Newell, J.M., Editors, *B.C. Ministry of Energy, Mines and Petroleum Resources*, Paper 1991-1, pages 315-321.
- Bonham-Carter, G.F. and Goodfellow, W.D. (1986): Background Correction to Stream Geochemical Data Using Digitized Drainage and Geological Maps: Application to Selwyn Basin, Yukon and Northwest Territories; *Journal of Geochemical Exploration*, Volume 25, pages 139-155.
- Bonham-Carter, G.F., Rogers, P.J. and Ellwood, D.J. (1987): Catchment Basin Analysis Applied to Surficial Geochemical Data, Cobéquid Highlands, Nova Scotia; *Journal of Geochemical Exploration*, Volume 29, pages 259-278.
- Ferri, F., Nelson, J.L. and Rees, C. (1995a): Geology and Mineralization of the Gataga River Area, Northern Rocky Mountains (94L/7, 8, 9, 10); in Geological Fieldwork 1994, Grant, B. and Newell, J.M., Editors, *B.C. Ministry of Energy, Mines and Petroleum Resources*, Paper 1995-1, pages 277-298.
- Ferri, F., Nelson, J.L. and Rees, C. (1995a): Geology and Mineralization of the Gataga River Area, Northern Rocky Mountains (94L/7, 8, 9, 10); *B.C. Ministry of Energy, Mines and Petroleum Resources*, Open File 1994-4.
- Ferri, F., Rees, C. and Nelson, J.L. (1996a): Geology and Mineralization of the Gataga Mountain Area, Northern Rocky Mountains; in Geological Fieldwork 1995, Grant, B. and Newell, J.M., Editors, *B.C. Ministry of Energy, Mines and Petroleum Resources*, Paper 1996-1, pages 137-154.
- Ferri, F., Rees, C. and Nelson, J.L. (1996b): Geology and Mineralization of the Gataga Mountain Area, Northern Rocky Mountains; *B.C. Ministry of Energy, Mines and Petroleum Resources*, Open File 1996-3.
- Ficklin, H.E. (1970): A Rapid Method for the Determination of Fluorine in Rocks and Soils, Using an Ion Selective Electrode; *U.S. Geological Survey*, Paper 700C, pages 186-188.
- Hall, G.E.M. (1992): Inductively Coupled Mass Spectrometry in Geoanalysis; *Journal of Geochemical Exploration*, Volume 44, pages 201-150.
- Jackaman, W., Sibbick, S.J. and Matysek, P.F. (1995): Stream Sediment Geochemistry of the Purcell Supergroup; *B.C. Ministry of Energy, Mines and Petroleum Resources*, Geoscience Map 1995-3.
- Jonasson, I.R., Lynch, J.J. and Trip, L.J. (1973) Field and Laboratory Methods Used by the Geological Survey of Canada in Geochemical Surveys: No. 12, Mercury in Ores, Rocks, Soils, Sediments and Water; *Geological Survey of Canada*, Paper 73-21.
- Lett, R.E. and Jackaman, W. (1994): Application of Spring-water Chemistry to Exploration in the Driftpile Creek Area, Northeastern B.C. (94K/4, 94L/1); in Geological Fieldwork 1994, Grant, B. and Newell, J.M., Editors, *B.C. Ministry of Energy, Mines and Petroleum Resources*, Paper 1995-1, pages 269-275.
- MacIntyre, D.G., Legun, A., Bellefontaine, K.S. and Massey, N.W.D. (1995): Mineral Potential Project - Digital Geological Compilation NEBC North 1/2; *B.C. Ministry of Energy, Mines and Petroleum Resources*, Open File 1995-6.
- Matysek, P.F. and Jackaman, W. (1996): B.C. Geochemical Survey Anomaly Recognition, an Example using Catchment Basin Analysis (103I, 103J); in Geological Fieldwork 1995, Grant, B. and Newell, J.M., Editors, *B.C. Ministry of Energy, Mines and Petroleum Resources*, Paper 1996-1, pages 185-190.
- MINFILE 094L, Rees, C. (1995): Kechika Mineral Occurrence Map; *B.C. Ministry of Energy, Mines and Petroleum Resources*, MINFILE, released March 1995.
- Sibbick, S.J. (1994): Preliminary Report on the Application of Catchment Basin Analysis to Regional Geochemical Survey Data, Northern Vancouver Island (NTS 92L/03, 04, 05 and 06); in Geological Fieldwork 1993, Grant, B. and Newell, J.M., Editors, *B.C. Ministry of Energy, Mines and Petroleum Resources*, Paper 1994-1, pages 111-117.

Geological Survey Branch
Open File 1996-18

**Geochemistry
of the
Gataga Mountain Area
(parts of 94L/7,8,9,10,11,14,15)**

APPENDIX A

Field Observations and Analytical Data

Page A - 2 Reference Guide to Field Observations

Page A - 3 Reference Guide to Geological Units (FORM)

Page A - 4 Field Observations and Analytical Data

Table A - 1. Reference Guide for Field Observations

MAP	1:50 000 NTS Map Sheet Number	WAT COL	Water Colour :	BNK	Bank Composition :
SAMPLE ID	Sample Site Number		0 Colourless 2 White Cloudy 1 Brown Clear 3 Brown Cloudy		U Unknown G Glacial Outwash A Alluvium R Rock C Colluvium S Scree-Talus O Organic
UTM ZONE	Site UTM Zone	FLW	Water Flow Rate :	BNK PPT	Bank Precipitate :
UTM EAST	Site UTM East Coordinate (NAD 83)		0 Stagnant 3 Fast 1 Slow 4 Torrent 2 Moderate		N None (otherwise, same as SED COL)
UTM NORTH	Site UTM North Coordinate (NAD 83)	SED COL	Sediment Colour :	CHL BED	Channel Bed :
ELEV	Elevation at Sample Site (metres)		R Red W White-Buff G Grey-Blue B Black T Tan-Brown		B Boulders F Clay-Sand S Sand-Gravel O Organic
STA	Replicate Sample Status : 10 1st Field Duplicate 20 2nd Field Duplicate	SED PPT	Sediment Precipitate : N None (otherwise, same as SED COL)	CHL PTN	Channel Pattern : S Shoots-Pools M Meandering
MED	Sample Media Collected : 1 Stream Sediment 6 Stream Sediment and Water	CON	Site Contamination : N None	PHY	Physiography : M Mature Mts P Plateau
AREA	Total Area of Catchment Basin (square kilometres)	SED COMP	Sediment Composition, Estimate of Sand - Fines - Organic Content : 0 Absent 1 Minor (<1/3 of total) 2 Moderate (1/3 to 2/3 of total) 3 Major (>2/3 of total)	DRN	Drainage Pattern : D Dendritic
PERI	Perimeter of Catchment Basin Boundary (kilometres)	STRM WDTH	Stream Width (metres)	TYP	Stream Type : P Permanent S Seasonal
FORM	Geological Unit Covering Largest Area in Catchment Basin (see Table A-1 for Description of Codes)	STRM DPTH	Stream Depth (centimetres)	ODR	Stream Order : 1 Primary 3 Tertiary 2 Secondary
%	Unit Coverage as a Percentage of Catchment Basin Area			SRC	Stream Source : G Groundwater
				DATE	Sample Collection Date (day/month)
				WT	Weight of Sediment Sample Analyzed by INAA (grams)

Table A - 2. Reference Guide for Geological Units (after MacIntyre *et al.*, 1995)

UPPER DEVONIAN TO LOWER MISSISSIPPIAN

EARN GROUP

DME

Slate (variably graphitic, calcareous, pyritic), siltstone, sandstone, conglomerate, porcellanite, dark grey limestone, siliceous and baritic exhalite.

LOWER SILURIAN TO LOWER DEVONIAN

UPPER ROAD RIVER GROUP

SDRR

Grey-green siltstone, dolomitic siltstone, slate, dolomite and limestone; in some areas may contain the Ordovician part of the Road River Group.

ORDOVICIAN

LOWER ROAD RIVER GROUP

ORR

Lower part: slate, siliceous slate, siltstone, thin, planar laminated limestone; upper part: chert, siliceous argillite, slate, local baritic tuff.

UPPER CAMBRIAN AND ORDOVICIAN

KECHIKA AND LOWER ROAD RIVER GROUPS UNDIVIDED

CmOKR

Siltstone, shale, argillaceous limestone, calcareous shale.

CAMBRIAN AND ORDOVICIAN

KECHIKA GROUP

CmOK

Limestone, argillaceous limestone, pale calcareous slate, phyllitic limestone, calcareous phyllite, pyritic and carbonaceous slate and shale.

LOWER TO UPPER CAMBRIAN

GOG GROUP AND YOUNGER CAMBRIAN ROCKS

1uCmGs

Interbedded quartz sandstone, siltstone and slate with local limestone; lesser quartzite and archaeocyathid-bearing limestone in basal sections and calcareous sandstone and quartzite in upper sections.

1uCml

Massive to thickly bedded grey limestone with lesser interlayered quartzite and quartz sandstones, carbonate breccia, local dolomite and rare quartz-pebble conglomerate.

1uCms

Siltstone, slate and quartzite with lesser sandy limestone, sandy dolomite, dolomite, limestone and argillaceous limestone.

MIDDLE CAMBRIAN

mCmc

Massive, granule to boulder polymictic conglomerate; probably equivalent to the Roosevelt facies.

LOWER CAMBRIAN

1Cmv

Alkalic to calc-alkalic basalt, andesite and dacite; minor limestone, argillite and siltstone.

GOG GROUP

1CmG

Thick and massively bedded white and beige quartzite, quartz sandstone with lesser grey siltstone, sandy siltstone, orange-weathering limestone and sandy limestone.

CAMBRIAN to MISSISSIPPIAN

UNDIVIDED ROAD RIVER AND EARN GROUPS

CmMRE

Shale, slate, minor coarse clastics and limestone; predominantly Road River Group with lesser Earn Group and Cambrian siliciclastic rocks.

NEOPROTEROZOIC

HYLAND GROUP

HAH

Grey-green phyllite and thin-bedded sandstone with lesser slate and calcareous siltstone.

Field Observations and Analytical Data

MAP	SAMPLE ID	UTM ZONE	UTM EAST	UTM NORTH	ELEV	STA MED	AREA	PERI	FORM	%	WAT COL	SED COL	SED PPT	CON	COMP	STRM WDTN	STRM DPTH	BNK BNK	CHL PPT	CHL BED	CHL PTN	PHY	DRN	TYP	ODR	SRC	DATE		
94L10	951002	9	633918	6506824	1000	6	3.16	8.72	CmOKR	56.1	0	2	T	N	N	030	1.5	30	A	N	S	M	D	P	1	G	0407		
94L10	951003	9	637620	6502680	1000	6	1.77	5.91	SDRR	46.1	0	2	T	N	N	121	1.0	30	A	N	S	M	D	P	1	G	0407		
94L10	951004	9	641293	6494507	1000	6	1.23	5.31	SDRR	64.7	0	2	T	N	N	220	1.0	30	A	N	S	M	D	P	1	G	0407		
94L10	951005	9	638476	6496888	1400	6	3.19	7.64	luCmGs	85.3	0	2	T	N	N	130	1.5	30	A	N	B	S	M	D	P	1	G	0407	
94L14	951006	9	608371	6517147	900	6	10.26	13.27	SDRR	64.3	0	3	W	N	N	031	2.0	70	A	N	S	S	M	D	P	3	G	0607	
94L14	951007	9	608705	6520254	880	10	6	2.57	7.55	DME	85.1	3	3	B	N	N	030	2.0	60	A	N	S	M	D	P	1	G	0607	
94L14	951008	9	608705	6520254	880	20	6	2.57	7.55	DME	85.1	3	3	B	N	N	030	2.0	60	A	N	S	M	D	P	1	G	0607	
94L14	951009	9	610960	6520602	1020	6	5.90	9.95	SDRR	97.8	2	3	T	N	N	220	2.0	60	A	N	S	S	M	D	P	2	G	0607	
94L14	951010	9	615369	6519815	1200	6	2.31	6.25	luCmGs	51.0	0	2	T	N	N	310	1.0	50	A	N	S	S	M	D	P	1	G	0607	
94L15	951011	9	615924	6522451	1180	6	1.18	4.43	SDRR	69.5	0	2	T	N	N	220	1.0	50	A	N	S	S	M	D	P	1	G	0607	
94L15	951012	9	617777	6520831	1200	6	2.15	6.54	SDRR	80.2	0	2	T	N	N	131	1.5	70	A	R	S	S	M	D	P	2	G	0607	
94L11	951013	9	611293	6512760	1100	6	1.07	4.06	luCms	69.1	0	3	T	N	N	310	2.0	40	R	N	S	S	M	D	P	1	G	0607	
94L11	951014	9	612207	6513733	1200	6	0.93	3.93	CmOKR	51.0	0	2	T	N	N	220	2.0	40	C	N	B	S	M	D	P	1	G	0607	
94L14	951015	9	613061	6513982	1000	6	1.52	5.26	SDRR	89.5	0	2	W	N	N	220	1.0	30	A	N	S	S	M	D	P	1	G	0607	
94L14	951017	9	614298	6514703	1040	6	2.82	7.68	SDRR	80.8	0	2	T	N	N	310	1.0	30	A	N	S	S	M	D	P	1	G	0607	
94L10	951018	9	618420	6512642	1100	6	3.43	8.37	SDRR	81.1	0	2	T	N	N	130	1.5	60	A	R	S	S	M	D	P	1	G	0607	
94L10	951019	9	618739	6512772	1100	6	4.71	8.92	SDRR	76.7	0	3	W	W	N	030	2.5	50	A	W	B	S	M	D	P	1	G	0607	
94L10	951020	9	619626	6507270	1460	6	1.07	4.02	CmOKR	100.0	0	3	B	N	N	220	5.0	50	A	N	B	S	M	D	P	1	G	0607	
94L10	951022	9	632610	6508147	980	6	3.28	8.96	SDRR	32.3	0	2	B	N	N	122	1.0	50	A	N	B	S	M	D	P	1	G	0407	
94L10	951023	9	635586	6504553	1000	6	2.21	6.58	CmOKR	55.9	0	2	B	N	N	121	1.0	30	A	N	B	S	M	D	P	1	G	0407	
94L10	951024	9	639658	6499934	1060	6	1.61	6.62	luCmGs	50.0	0	2	B	N	N	211	0.7	20	A	N	B	S	M	D	P	1	G	0407	
94L10	951025	9	641237	6493880	980	6	4.52	8.29	luCmGs	59.5	0	2	B	N	N	211	2.0	40	C	N	B	S	M	D	P	1	G	0407	
94L10	951026	9	639956	6493599	1020	10	6	1.60	5.64	SDRR	63.0	0	2	B	N	N	211	1.0	20	C	N	B	S	M	D	P	1	G	0407
94L10	951027	9	639956	6493599	1020	20	6	1.60	5.64	SDRR	63.0	0	2	B	N	N	211	1.0	20	C	N	B	S	M	D	P	1	G	0407
94L10	951029	9	637607	6493692	920	6	6.04	11.67	SDRR	47.3	0	3	B	R	N	221	3.0	70	A	R	B	S	M	D	P	2	G	0407	
94L10	951030	9	636347	6493326	880	6	2.02	7.38	SDRR	50.6	0	2	B	N	N	221	0.8	15	C	N	B	S	M	D	P	1	G	0407	
94L14	951031	9	608063	6514460	860	6	1.53	6.08	luCml	51.5	0	1	B	N	N	210	0.6	10	C	N	B	S	M	D	P	1	G	0607	
94L14	951032	9	606409	6519532	760	6	2.30	6.86	DME	66.5	0	1	T	N	N	122	0.5	15	A	N	F	M	M	D	P	1	G	0607	
94L14	951033	9	608999	6520720	980	6	0.91	4.56	SDRR	97.4	0	2	B	W	N	220	1.0	25	C	N	S	S	M	D	P	1	G	0607	
94L14	951034	9	610120	6520899	960	6	7.98	12.08	SDRR	87.6	0	2	W	R	N	221	2.0	30	A	N	B	S	M	D	P	2	G	0607	
94L14	951035	9	612305	6518880	1100	6	3.22	8.34	SDRR	52.0	0	2	B	N	N	121	1.5	25	A	N	S	S	M	D	P	2	G	0607	
94L14	951036	9	614311	6519126	1300	6	0.33	2.64	DME	77.3	0	2	B	N	N	120	3.5	10	C	N	F	S	M	D	P	1	G	0607	
94L15	951037	9	615858	6524578	1140	6	6.58	12.43	SDRR	65.4	0	3	B	N	N	211	1.0	20	A	N	B	S	M	D	P	1	G	0607	
94L11	951038	9	611492	6511587	940	6	1.00	4.30	luCms	88.1	0	3	T	N	N	210	2.0	20	C	N	B	S	M	D	P	1	G	0607	
94L11	951039	9	612995	6512770	960	6	3.02	7.94	luCml	57.8	0	3	T	N	N	210	4.0	35	A	N	B	S	M	D	P	1	G	0607	
94L11	951040	9	613605	6513226	1000	6	4.05	9.85	CmOKR	58.7	2	3	B	N	N	120	3.5	35	A	N	B	S	M	D	P	1	G	0607	
94L10	951042	9	619334	6507321	1460	6	2.32	6.47	CmOKR	61.4	1	3	T	N	N	130	2.5	80	A	N	B	S	M	D	P	1	G	0607	
94L10	951043	9	621344	6506698	1340	6	3.20	6.87	CmOKR	94.8	2	3	T	N	N	220	3.0	50	A	R	B	S	M	D	P	1	G	0607	
94L10	951045	9	622055	6506534	1380	10	6	2.52	7.25	CmOKR	80.1	0	3	T	N	N	220	1.5	60	A	R	S	S	M	D	P	1	G	0607
94L10	951046	9	622055	6506534	1380	20	6	2.52	7.25	CmOKR	80.1	0	3	T	N	N	220	1.5	60	A	R	S	S	M	D	P	1	G	0607
94L10	951047	9	622756	6508803	1240	6	4.74	9.68	SDRR	87.3	0	3	T	N	N	031	3.0	70	A	N	S	S	M	D	P	2	G	0607	
94L10	951048	9	625618	6504271	1300	6	2.72	6.50	DME	42.1	2	3	T	N	N	130	1.0	50	A	N	S	S	M	D	P	1	G	0607	
94L10	951049	9	625994	6504219	1280	6	6.50	11.49	SDRR	46.1	2	3	T	N	N	030	2.5	80	A	N	S	S	M	D	P	2	G	0607	
94L10	951050	9	622770	6501643	1360	6	2.65	7.18	CmOKR	98.6	0	2	T	N	N	220	1.5	40	A	N	S	S	M	D	P	1	G	0607	
94L10	951051	9	625211	6499359	1240	6	4.11	8.09	CmOKR	78.8	0	2	T	N	N	220	1.5	40	A	N	S	S	M	D	P	2	G	0707	
94L10	951052	9	626132	64948179	1200	6	0.98	3.97	luCml	48.2	0	2	T	N	N	310	1.5	30	A	W	S	S	M	D	P	1	G	0707	
94L10	951053	9	630495	6493795	1220	6	2.22	7.38	CmOK	53.3	0	2	T	N	N	220	3.5	75	A	W	B	S	M	D	P	2	G	0707	
94L10	951054	9	630785	6493709	1200	6	4.15	8.01	luCml	50.6	0	2	T	N	N	030	4.0	75	A	N	B	S	M	D	P	2	G	0707	
94L10	951055	9	631196	6493204	1240	6	1.11	4.58	luCml	72.3	0	2	T	N	N	310	1.0	30	A	N	S	S	M	D	P	1	G	0707	
94L10	951056	9	618617	6500738	1060	6	3.12	7.88	1Cmv	97.7	0	3	T	N	N	310	5.0	100	A	N	B	S	M	D	P	1	G	0707	

Field Observations and Analytical Data

MAP	SAMPLE ID	UTM ZONE	UTM EAST	UTM NORTH	STA MED FORM	AAS-H	STREAM SEDIMENT																STREAM WATER									
							Sb	As	Bi	Cd	Co	Cu	F	Fe	Pb	Mn	Hg	Mo	Ni	Ag	V	Zn	LOI	pH	SO4	FW	UW	0.1	1.0	20	0.05	
							ppm	ppm	ppm	ppm	ppm	ppm	ppm	PPM	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	0.1	1.0	20	0.05	ppb	ppb	ppb	LIF	
94L10	951002	9	633918	6506824	6	CmOKR	1.3	8.5	0.2	1.0	10	49	610	2.30	10	290	180	6	28	0.5	43	186	8.2	8.4	33	110	1.70					
94L10	951003	9	637620	6502680	6	SDRR	1.7	6.5	0.2	1.6	7	34	480	1.70	12	215	160	15	42	0.2	30	234	12.2	8.4	60	72	2.00					
94L10	951004	9	641293	6494507	6	SDRR	2.0	10.0	0.2	3.1	9	61	580	2.40	13	201	190	10	61	0.5	44	632	9.3	8.4	51	170	2.10					
94L10	951005	9	638476	6496888	6	luCmGs	0.6	5.5	0.2	0.5	11	37	400	2.50	15	246	100	4	23	0.4	25	119	6.8	8.1	15	42	0.19					
94L10	951006	9	608371	6517147	6	SDRR	0.3	2.1	0.2	5.7	4	22	300	0.45	4	220	60	5	70	0.2	22	1890	12.8	8.4	48	98	4.30					
94L14	951007	9	608705	6520254	10	6	DME	6.1	24.0	0.2	7.0	7	75	420	1.40	10	243	180	20	99	1.4	70	810	4.9	8.4	225	350	12.00				
94L14	951008	9	608705	6520254	20	6	DME	6.0	20.0	0.2	6.3	6	70	420	1.50	12	284	140	18	90	1.0	61	745	3.6	8.4	230	330	12.00				
94L14	951009	9	610960	6520602	6	SDRR	3.2	23.0	0.2	4.2	8	44	460	1.40	11	348	180	10	74	1.0	54	1010	6.7	8.2	155	270	5.00					
94L14	951010	9	615369	6519815	6	luCmGs	3.9	22.0	0.2	4.8	6	80	570	1.80	17	142	310	7	48	1.3	62	483	7.0	8.3	48	170	4.50					
94L15	951011	9	615924	6522451	6	SDRR	7.2	72.0	0.2	10.0	12	81	400	3.00	11	380	570	17	133	1.6	112	1620	12.8	8.2	45	250	2.40					
94L15	951012	9	617777	6520831	6	SDRR	2.4	13.0	0.2	6.7	7	55	550	2.10	10	310	370	4	86	1.3	66	600	16.7	8.2	36	110	1.20					
94L11	951013	9	611293	6512760	6	luCmGs	1.2	18.0	0.2	0.4	13	24	500	2.30	21	471	70	2	19	0.4	11	52	15.4	8.3	21	24	0.52					
94L11	951014	9	612207	6513733	6	CmOKR	1.5	6.8	0.2	0.6	10	41	580	1.90	11	205	40	3	20	0.9	23	85	6.5	8.4	165	66	3.80					
94L14	951015	9	613061	6513982	6	SDRR	0.5	2.4	0.2	0.9	6	38	450	0.85	5	103	90	4	38	0.8	22	116	21.5	8.2	255	154	6.50					
94L14	951017	9	614298	6514703	6	SDRR	2.9	19.0	0.2	8.8	5	37	530	1.70	10	330	90	7	87	0.4	37	1720	9.0	8.4	180	390	11.00					
94L10	951018	9	618420	6512642	6	SDRR	1.9	15.0	0.2	9.1	14	58	600	2.00	13	570	150	7	100	0.9	44	1400	8.3	8.4	160	310	8.00					
94L10	951019	9	618739	6512772	6	SDRR	0.2	6.0	0.2	1.0	6	18	310	0.50	3	750	80	2	17	0.6	23	230	6.7	8.3	120	160	6.00					
94L10	951020	9	619626	6507270	6	CmOKR	0.8	5.0	0.2	0.8	12	53	830	2.70	15	183	140	3	25	0.5	40	118	3.8	8.4	45	36	1.60					
94L10	951022	9	632610	6508147	6	CmOKR	2.8	9.0	0.2	3.7	7	57	630	1.60	10	154	250	7	46	1.3	63	456	6.7	8.4	32	88	1.80					
94L10	951023	9	635586	6504553	6	CmOKR	1.1	7.0	0.2	2.1	9	55	470	2.20	13	180	220	4	43	0.6	34	335	8.5	8.4	37	68	1.50					
94L10	951024	9	639658	6499934	6	luCmGs	1.7	8.0	0.2	2.3	12	78	470	2.50	19	205	140	3	50	1.0	30	330	7.2	8.5	30	72	1.10					
94L10	951025	9	641237	6493880	6	luCmGs	1.3	5.0	0.2	1.4	12	40	380	2.30	22	223	70	2	46	0.4	36	267	5.2	8.2	83	110	1.10					
94L10	951026	9	639956	6493599	10	6	SDRR	5.0	12.0	0.2	9.9	9	102	550	1.80	11	190	310	15	108	1.1	158	1100	10.8	8.4	86	210	4.50				
94L10	951027	9	639956	6493599	20	6	SDRR	5.6	14.0	0.2	9.3	8	95	490	1.70	15	171	280	16	103	1.7	150	1080	11.3	8.4	86	200	4.50				
94L10	951029	9	637607	6493692	6	SDRR	7.0	24.0	0.2	75.0	25	88	480	2.80	12	552	150	14	470	0.8	156	9100	13.4	8.5	120	350	7.00					
94L10	951030	9	636347	6493326	6	SDRR	3.1	17.0	0.2	10.0	11	83	520	1.90	37	330	330	6	93	1.6	45	993	15.5	8.5	48	100	3.30					
94L14	951031	9	608063	6514460	6	luCml	0.4	2.8	0.2	0.3	12	15	300	1.50	20	231	20	2	17	0.3	13	56	6.5	8.4	85	42	1.10					
94L14	951032	9	606409	6519532	6	DME	1.5	6.1	0.2	10.0	6	30	460	1.00	11	207	150	5	64	0.5	52	505	11.7	8.4	190	630	4.70					
94L14	951033	9	608999	6520720	6	SDRR	0.5	3.5	0.2	1.8	3	29	350	0.40	4	124	60	3	18	0.4	41	157	19.2	8.3	180	260	2.00					
94L14	951034	9	610120	6520899	6	SDRR	1.4	8.0	0.2	7.3	7	30	400	1.00	7	196	140	4	39	1.0	30	494	10.7	8.4	150	230	5.50					
94L14	951035	9	612305	6518880	6	SDRR	6.5	32.0	0.2	45.0	18	53	410	2.80	9	2050	210	35	503	0.7	115	6850	10.8	8.3	160	400	6.00					
94L14	951036	9	614311	6519126	6	DME	5.9	25.0	0.2	18.0	7	68	490	1.50	17	80	200	11	52	1.6	72	975	6.4	8.4	410	840	8.50					
94L15	951037	9	615858	6524578	6	SDRR	5.6	52.0	0.2	24.0	29	66	510	4.00	9	3700	310	12	187	0.7	124	2520	18.1	8.4	110	250	3.60					
94L11	951038	9	611492	6511587	6	luCmGs	1.8	13.0	0.2	0.4	10	20	370	2.10	35	473	80	2	22	0.5	31	108	12.1	8.3	1	24	0.42					
94L11	951039	9	612995	6512770	6	luCml	0.5	80.0	0.2	0.3	8	17	270	1.00	22	239	30	2	11	0.4	22	67	7.4	8.4	33	32	3.00					
94L11	951040	9	613605	6513226	6	CmOKR	2.2	11.0	0.2	1.2	7	56	500	1.70	12	206	40	5	25	0.5	18	248	7.2	8.4	63	62	4.20					
94L10	951042	9	619334	6507321	6	CmOKR	3.4	9.0	0.2	1.3	11	60	460	2.00	11	207	100	4	37	1.1	40	213	6.9	8.2	190	30	5.50					
94L10	951043	9	621344	6506698	6	CmOKR	0.7	38.0	0.2	0.9	11	49	700	2.40	13	162	70	2	25	0.2	39	145	6.6	8.4	51	24	1.00					
94L10	951045	9	622055	6506534	10	CmOKR	1.0	7.5	0.2	2.2	10	40	710	2.30	10	234	90	3	40	0.5	40	390	7.3	8.3	42	38	1.30					
94L10	951046	9	622055	6506534	20	CmOKR	0.9	7.0	0.2	1.9	8	37	690	2.20	11	191	90	5	35	0.2	42	342	6.1	8.2	43	30	1.30					
94L10	951047	9	622756	65																												

Field Observations and Analytical Data

MAP SAMPLE ID	ZONE	UTM EAST	UTM NORTH	STA	MED	FORM	S T R E A M S E D I M E N T																												Yb 0.2	Wt 0.01
							Sb 0.1 ppm	As 0.5 ppm	Ba 50 ppm	Br 0.5 ppm	Ce 3 ppm	Cs 1 ppm	Cr 5 ppm	Co 1 ppm	Au 2 ppb	Hf 1 ppm	Fe 0.01 %	La 0.5 ppm	Lu 0.05 ppm	Mo 1 ppm	Ni 20 ppm	Rb 5 ppm	Sm 0.1 ppm	Sc 0.1 ppm	Na 0.01 %	Ta 0.5 ppm	Tb 0.5 ppm	Th 0.2 ppm	W 1 ppm	U 0.5 ppm	Yb 0.2 ppm	Wt g				
							INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA		
94L10 951002 9	633918	6506824	6	CmOKR	2.6	13.0	6700	4.3	100	5	100	12	14	8	4.02	57.0	0.54	10	170	140	6.9	13.0	0.67	2.7	0.5	20.0	1	8.3	3.3	15.32						
94L10 951003 9	637620	6502680	6	SDRR	3.9	12.0	2200	5.7	110	4	84	8	2	10	2.80	57.0	0.49	14	20	110	6.7	10.0	0.37	1.7	0.8	18.0	2	12.0	3.5	15.47						
94L10 951004 9	641293	6494507	6	SDRR	3.8	15.0	4400	7.7	120	6	120	12	2	7	3.97	65.0	0.48	5	20	120	7.6	12.0	0.37	0.5	0.5	18.0	1	9.4	3.1	15.80						
94L10 951005 9	638476	6496888	6	luCmGs	1.4	7.2	3800	4.1	120	6	98	12	5	10	4.28	65.0	0.59	5	20	150	8.2	15.0	0.75	0.5	0.5	23.0	1	6.3	3.8	19.80						
94L14 951006 9	608371	6517147	6	SDRR	1.1	2.8	1700	24.0	29	1	26	4	2	4	0.85	13.0	0.18	1	20	24	2.0	3.1	0.08	0.5	0.6	4.8	1	3.8	1.1	14.97						
94L14 951007 9	608705	6520254	10	6	DME	13.0	31.0	5000	0.5	64	2	130	7	4	7	2.15	36.0	0.66	33	180	67	5.5	8.5	0.12	0.5	0.5	11.0	1	12.0	3.9	14.39					
94L14 951008 9	608705	6520254	20	6	DME	11.0	25.0	4800	0.5	60	2	120	8	8	6	2.25	35.0	0.57	16	130	72	5.2	8.3	0.17	0.5	0.5	10.0	1	8.9	3.7	19.99					
94L14 951009 9	610960	6520602	6	SDRR	6.1	26.0	9200	7.4	61	4	110	10	8	6	2.65	34.0	0.49	13	200	100	4.9	9.4	0.18	0.5	0.5	11.0	2	9.6	3.2	15.49						
94L14 951010 9	615369	6519815	6	luCmGs	6.2	24.0	14000	5.6	82	5	120	10	5	11	3.28	43.0	0.59	14	20	94	6.4	12.0	0.25	0.5	1.0	14.0	1	11.0	3.7	15.25						
94L15 951011 9	615924	6522451	6	SDRR	10.0	80.0	8800	8.2	63	8	130	14	2	6	4.55	37.0	0.69	24	20	130	6.4	14.0	0.24	0.5	1.2	13.0	1	14.0	3.7	16.74						
94L15 951012 9	617777	6520831	6	SDRR	4.3	13.0	6100	4.9	64	5	94	8	9	6	2.49	35.0	0.48	7	160	78	5.4	11.0	0.36	0.5	0.5	12.0	1	7.3	3.2	15.14						
94L11 951013 9	611293	6512760	6	luCmGs	2.4	12.0	1200	10.0	120	3	68	14	6	13	3.14	54.0	0.63	1	20	120	7.3	11.0	0.15	0.5	1.2	21.0	1	6.1	4.0	16.15						
94L11 951014 9	612207	6513733	6	CmOKR	3.7	8.0	3400	3.1	92	3	75	11	2	6	3.15	50.0	0.35	1	20	97	5.3	10.0	0.10	0.5	0.5	15.0	1	5.9	2.3	23.10						
94L14 951015 9	613061	6513982	6	SDRR	2.1	2.0	1600	52.0	35	1	39	4	5	3	1.37	19.0	0.22	3	110	44	2.3	5.4	0.16	0.5	0.5	6.8	1	5.2	1.0	14.65						
94L14 951017 9	614298	6514703	6	SDRR	7.3	19.0	6300	11.0	62	2	87	9	4	6	2.55	32.0	0.46	3	150	74	4.7	7.8	0.10	0.5	1.1	11.0	1	6.2	2.8	16.28						
94L10 951018 9	618420	6512642	6	SDRR	4.1	11.0	8800	11.0	78	4	80	14	6	7	3.07	41.0	0.45	10	20	100	6.0	10.0	0.29	0.5	1.0	13.0	1	6.7	2.9	15.93						
94L10 951019 9	618739	6512772	6	SDRR	0.4	4.5	1000	9.5	8	1	11	5	3	1	1.32	4.2	0.05	1	20	5	0.6	1.4	0.04	0.5	0.5	1.5	1	2.6	0.3	16.86						
94L10 951020 9	619626	6507270	6	CmOKR	2.3	6.6	3300	1.7	100	4	110	15	8	5	4.53	57.0	0.33	1	20	110	6.3	14.0	0.58	0.5	0.5	18.0	1	5.4	2.3	15.26						
94L10 951022 9	632610	6508147	6	CmOKR	5.3	12.0	3900	3.6	76	5	120	8	14	7	2.48	44.0	0.49	11	160	81	5.5	8.8	0.25	0.5	0.8	13.0	1	8.3	3.1	15.18						
94L10 951023 9	635586	6504553	6	CmOKR	2.2	11.0	3400	3.1	85	4	78	11	14	9	3.53	48.0	0.54	1	20	120	6.1	10.0	0.38	0.7	0.9	15.0	1	7.8	3.3	18.84						
94L10 951024 9	639658	6499934	6	luCmGs	3.0	13.0	4000	4.9	130	6	100	15	11	9	4.42	68.0	0.58	8	230	120	8.5	13.0	0.57	2.3	1.0	19.0	1	9.5	3.8	15.19						
94L10 951025 9	641237	6493880	6	luCmGs	2.3	11.0	2200	3.2	140	6	100	14	11	10	4.09	75.0	0.61	9	20	140	9.4	14.0	0.61	0.5	1.4	25.0	1	7.3	3.7	18.28						
94L10 951026 9	639956	6493599	10	6	SDRR	10.0	20.0	6200	13.0	67	4	100	10	9	7	2.79	38.0	0.58	20	160	95	5.5	9.0	0.34	0.5	1.0	12.0	1	14.0	3.7	14.79					
94L10 951027 9	639956	6493599	20	6	SDRR	10.0	19.0	6300	12.0	71	4	110	11	8	7	2.94	39.0	0.60	15	180	82	5.6	9.4	0.34	0.5	0.9	11.0	2	14.0	3.8	15.61					
94L10 951029 9	637607	6493692	6	SDRR	12.0	25.0	12000	10.0	71	4	110	30	10	7	4.49	42.0	0.54	17	570	94	5.8	8.9	0.36	0.5	1.1	11.0	1	11.0	3.7	19.89						
94L10 951030 9	636347	6493326	6	SDRR	5.6	18.0	3300	13.0	70	4	110	11	11	6	2.88	41.0	0.55	9	180	94	5.5	9.6	0.21	0.5	1.1	13.0	1	8.5	3.4	15.35						
94L14 951031 9	608063	6514460	6	luCml	0.6	4.8	1200	4.7	120	4	73	13	2	13	2.79	57.0	0.61	1	20	160	7.5	12.0	0.13	0.5	1.1	24.0	1	4.7	3.5	14.16						
94L14 951032 9	606409	6519532	6	DME	4.2	7.1	6000	5.0	62	2	62	6	8	6	1.90	33.0	0.37	5	110	62	4.8	6.9	0.20	0.9	0.8	10.0	1	5.0	2.2	17.17						
94L14 951033 9	608999	6507207	6	SDRR	1.3	3.0	1700	5.6	19	1	22	2	4	2	0.60	11.0	0.15	1	20	22	1.6	2.4	0.05	0.5	0.5	3.2	1	2.4	0.9	15.36						
94L14 951034 9	610120	6520899	6	SDRR	2.6	11.0	7800	13.0	35	3	58	8	4	4	2.45	20.0	0.26	6	20	54	3.0	6.5	0.10	0.5	0.5	6.2	1	5.2	1.9	15.40						
94L14 951035 9	612305	6518880	6	SDRR	14.0	33.0	18000	30.0	56	4	97	23	4	7	4.67	31.0	0.49	44	630	71	4.5	9.1	0.09	0.5	0.7	8.5	1	8.9	3.4	15.43						
94L14 951036 9	614311	6519126	6	DME	9.9	27.0	3400	0.5	88	3	120	6	6	7	2.32	51.0	0.50	14	20	110	6.0	11.0	0.05	1.0	0.9	18.0	1	11.0	3.3	22.50						
94L14 951037 9	615858	6524578	6	SDRR	6.7	59.0	9400	20.0	52	4	86	38	2	6	5.13	29.0	0.43	14	360	67	4.2	8.4	0.23	1.0	0.6	9.6	1	8.8	2.8	13.00						
94L11 951038 9	611492	6515187	6	luCmGs	2.3	18.0	1300	11.0	120	3	54	12	4	12	3.33	51.0	0.53	1	20	74	7.2	8.8	0.16	1.0	1.1	23.0	1	6.3	3.4	18.11						
94L11 951039 9	612995	6512770	6	luCml	1.7	9.4	960	2.7	66	2	37	6	2	11	1.91	31.0	0.38	1	20	52	4.4	6.0	0.12	0.8	0.8	12.0	1	4.2	2.5	23.14						

Field Observations and Analytical Data

MAP	SAMPLE ID	ZONE	UTM EAST	UTM NORTH STA MED	FORM	STREAM WATER																												Zn	Zr
						Sb	As	Ba	Cd	Ca	Co	Cu	Fe	Pb	Li	Mn	Mg	Mo	Ni	K	Rb	Se	Si	Na	Sr	U	V	Y	0.002	0.002	0.02	0.002			
						ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	0.1	0.1	0.10	0.1	0.02	1	0.002	0.02	1	0.1	0.002	0.02	1	0.1	0.002	0.02	1	0.1	0.002	0.02
94L10	951002	9	633918	6506824	6	CmOKR	0.45	0.06	261.3	0.14	309661	0.052	0.84	9.8	0.02	3.5	0.6	60546	8.29	2.0	1869	0.26	8.24	6943	6227	596.8	0.32	0.02	0.082	5.10	3.117				
94L10	951003	9	637620	6502680	6	SDRR	0.30	0.05	167.9	0.07	401773	0.067	0.81	11.6	0.02	6.2	0.6	62260	5.71	1.5	2852	0.54	9.11	6473	6656	623.0	0.39	0.02	0.051	5.60	13.111				
94L10	951004	9	641293	6494507	6	SDRR	0.45	0.08	132.5	0.26	327549	0.044	0.65	10.1	0.02	13.7	0.3	83743	10.81	3.1	2882	0.60	10.68	7206	4310	633.7	0.39	0.02	0.080	6.55	1.465				
94L10	951005	9	638476	6496888	6	luCmGs	0.17	0.02	222.4	0.06	124188	0.022	0.69	13.2	0.02	1.8	0.7	14423	1.79	0.5	968	0.17	6.44	4890	3349	282.8	0.04	0.02	0.136	3.39	1.723				
94L14	951006	9	608371	6517147	6	SDRR	0.37	0.03	184.3	0.09	354765	0.057	0.55	5.6	0.02	1.4	1.0	72456	6.71	8.6	2002	0.26	10.91	4684	1557	313.0	0.83	0.02	0.035	16.24	1.758				
94L14	951007	9	608705	6520254	10	DME	5.82	0.52	117.1	2.86	519587	0.194	3.15	16.6	0.02	3.0	8.6	94189	68.35	106.8	3266	0.57	41.15	6008	2309	643.6	2.53	0.43	0.256	99.90	5.960				
94L14	951008	9	608705	6520254	20	DME	5.38	0.45	113.8	2.61	401031	0.156	2.96	11.1	0.02	3.0	3.8	79027	62.24	110.1	2787	0.54	35.75	5406	1994	577.2	2.48	0.57	0.224	95.08	4.726				
94L14	951009	9	610960	6520602	6	SDRR	0.93	0.30	85.2	0.38	222461	0.102	1.41	30.2	0.02	2.2	2.8	56540	34.13	19.0	2107	0.46	5.65	4709	1539	345.7	1.10	0.36	0.101	43.27	1.534				
94L14	951010	9	615369	6519815	6	luCmGs	0.70	0.16	179.9	0.28	132599	0.094	2.11	24.7	0.02	3.2	0.9	36582	10.37	5.0	1453	0.30	4.37	3748	1302	323.0	1.00	0.70	0.085	11.94	1.970				
94L15	951011	9	615924	6522451	6	SDRR	1.31	0.74	68.2	0.45	91744	0.104	4.45	210.5	0.02	4.6	3.5	20810	24.42	16.8	1645	0.37	2.96	4980	1694	0.82	1.33	0.631	32.05	2.851					
94L15	951012	9	617777	6520831	6	SDRR	0.89	0.20	296.5	0.34	85484	0.061	2.78	89.0	0.02	2.8	2.6	19807	7.39	11.1	930	0.15	2.62	3863	1385	169.1	0.39	0.69	0.240	17.27	2.765				
94L11	951013	9	611293	6512760	6	luCmGs	0.05	0.07	67.3	0.05	66683	0.056	0.21	11.1	0.02	0.4	0.5	19399	0.37	0.7	809	0.07	1.33	2402	271	45.5	0.09	0.59	0.015	7.58	5.297				
94L11	951014	9	612207	6513733	6	CmOKR	0.38	0.05	205.6	0.05	184869	0.095	0.49	11.2	0.02	2.2	0.5	62459	2.75	1.5	2052	0.31	3.38	4269	1284	371.0	0.64	0.43	0.019	7.03	0.358				
94L14	951015	9	613061	6513982	6	SDRR	0.17	0.06	105.9	0.04	201174	0.101	0.40	13.7	0.02	2.0	0.4	66350	6.55	2.7	1674	0.28	3.63	4768	2107	399.2	1.34	0.50	0.012	8.43	9.972				
94L14	951017	9	614298	6514703	6	SDRR	0.86	0.23	90.5	0.26	223565	0.138	0.86	20.3	0.02	1.7	1.4	50100	21.23	32.8	1485	0.34	5.86	3650	815	298.4	2.27	0.71	0.027	56.78	0.608				
94L10	951018	9	618420	6512642	6	SDRR	0.40	0.10	105.5	0.37	183598	0.172	1.27	22.5	0.02	5.3	3.9	49244	11.13	23.0	1210	0.32	5.25	3827	2018	433.3	1.76	0.83	0.083	45.99	1.321				
94L10	951019	9	618739	6512772	6	SDRR	0.12	0.10	121.0	0.02	121062	0.184	0.58	16.0	0.02	4.3	4.3	45780	4.44	3.7	843	0.17	2.25	3634	1992	390.7	1.35	0.91	0.009	8.14	2.432				
94L10	951020	9	619626	6507270	6	CmOKR	0.10	0.05	32.6	0.02	72492	0.102	1.31	12.2	0.02	0.7	0.6	6139	1.59	1.1	268	0.03	1.89	1839	1157	245.3	0.37	1.19	0.028	7.18	0.447				
94L10	951022	9	632610	6508147	6	CmOKR	0.21	0.10	101.7	0.11	73175	0.092	0.89	7.5	0.05	2.4	0.6	17976	3.58	4.1	604	0.14	2.68	3385	1777	322.4	0.42	1.25	0.032	11.14	1.509				
94L10	951023	9	635586	6504553	6	CmOKR	0.07	0.10	88.4	0.04	80205	0.094	0.98	18.8	0.02	3.2	0.8	16396	1.40	2.8	515	0.12	2.02	2865	2453	334.2	0.37	1.18	0.036	8.31	1.176				
94L10	951024	9	639658	6499934	6	luCmGs	0.07	0.11	59.3	0.03	70339	0.079	0.74	10.2	0.04	3.9	0.7	14350	1.57	2.0	703	0.22	1.57	3024	2202	266.3	0.28	1.09	0.025	5.67	0.246				
94L10	951025	9	641237	6493880	6	luCmGs	0.09	0.11	39.4	0.08	69646	0.980	1.40	18.9	0.03	11.4	1.0	14099	2.11	3.1	691	0.30	3.24	2838	2404	301.4	0.23	1.08	0.042	12.12	1.707				
94L10	951026	9	639956	6493599	10	SDRR	0.46	0.22	130.3	0.25	77250	0.072	0.77	4.1	0.02	2.2	0.5	26781	6.33	6.7	840	0.27	5.39	3381	1167	262.0	1.18	1.42	0.037	16.59	4.113				
94L10	951027	9	639596	6493599	20	SDRR	0.45	0.23	120.1	0.24	73541	0.081	0.64	5.3	0.02	2.0	0.5	25772	6.33	7.4	776	0.27	7.16	3202	1080	264.6	1.23	1.48	0.031	16.64	0.378				
94L10	951029	9	637607	6493692	6	SDRR	0.62	0.16	78.0	3.83	104600	1.228	0.76	6.1	0.02	4.0	3.14	31610	9.18	161.6	947	0.55	7.40	3817	1556	569.2	2.29	1.32	0.145	325.81	1.226				
94L10	951030	9	636347	6493326	6	SDRR	0.12	0.16	63.3	0.14	78022	0.109	0.62	6.8	0.02	2.1	0.6	20654	3.70	7.2	438	0.13	4.41	2408	1166	241.8	1.44	0.87	0.026	16.68	2.285				
94L14	951031	9	608063	6514460	6	luCml	0.02	0.10	19.8	0.09	58397	0.095	0.47	16.1	0.03	5.0	0.8	26080	0.19	1.2	711	0.10	2.51	1633	709	279.4	0.51	0.79	0.009	8.66	0.048				
94L14	951032	9	606409	6519532	6	DME	1.65	0.59	39.2	0.35	152188	0.164	0.65	14.2	0.02	2.8	2.8	39470	74.96	19.1	1197	0.23	12.02	5399	1148	426.1	2.20	2.86	0.013	32.03	0.235				
94L14	951033	9	608999	6520720	6	SDRR	0.17	0.27	20.1	0.01	117660	0.154	0.67	10.0	0.02	6.2	0.7	36139	4.21	4.1	1790	0.33	3.98	4228	1314	537.5	1.16	0.89	0.006	4.13	1.171				
94L14	951034	9	610120	6520899	6	SDRR	0.21	0.20	33.4	0.05	101937	0.143	0.97	24.3	0.02	4.3	2.9	36871	6.71	8.1	1114	0.36	6.28	2447	925	328.2	5.19	0.56	0.020	9.76	0.246				
94L14	951035	9	612305	6518880	6	SDRR	1.07	0.32	48.4	1.51	100483	0.141	1.01	21.6	0.02	2.1	4.3	29907	26.05	133.3	1062	0.69	8.67	3396	580	228.9	5.88	1.25	0.037	280.27	0.720				
94L14	951036	9	614311	6519126	6	DME	1.16	0.40	54.0	1.20	141721	0.179	1.10	13.5	0.02	1.5	1.1	65929	19.82	38.5															

Field Observations and Analytical Data

94L10 951056 9 618617 6500738 6 1Cmv 0.02 0.25 4.9 0.01 21751 0.056 0.20 6.7 0.04 0.3 0.3 9041 1.29 0.3 290 0.35 5.79 992 1729 71.9 0.17 0.82 0.008 1.96 1.823

MAP	SAMPLE	UTM	UTM	UTM	ELEV	STA	MED	AREA	PERI	FORM	%	WAT	COL	SED	SED	STRM	STRM	BNK	CHL	CHL	PHY	DRN	TYP	ODR	SRC	DATE			
	ID	ZONE	EAST	NORTH																									
94L15	951057	9	620302	6516503	1060	6	12.24	16.72	SDRR	60.6	0	2	T	N	N	310	1.5	60	A	N	S	S	M	D	P	3	G	0707	
94L15	951058	9	620557	6516290	1080	6	9.50	15.54	SDRR	62.8	0	2	T	N	N	130	1.0	80	A	N	S	S	M	D	P	2	G	0707	
94L10	951059	9	626347	6508585	1240	6	1.12	5.34	SDRR	50.7	0	2	T	N	N	130	1.0	50	A	N	S	S	M	D	P	1	G	0707	
94L10	951060	9	632026	6500458	1150	6	0.74	3.85	SDRR	48.2	0	2	T	N	N	130	0.8	30	A	N	S	S	M	D	P	1	G	0707	
94L10	951062	9	616715	6513599	1020	6	4.78	11.93	SDRR	84.5	2	4	B	N	N	210	1.5	25	C	W	B	S	M	D	P	3	G	0607	
94L14	951063	9	615081	6514698	960	6	5.13	9.82	SDRR	88.9	2	2	T	N	N	221	0.5	20	A	N	S	S	M	D	P	2	G	0607	
94L10	951064	9	616997	6510593	1280	6	2.75	7.43	CmOKR	42.3	0	3	B	N	N	210	2.0	35	A	N	B	S	M	D	P	2	G	0607	
94L10	951065	9	616729	6510492	1280	6	2.68	7.01	SDRR	48.9	0	3	W	R	N	310	1.5	25	A	N	S	S	M	D	P	1	G	0607	
94L10	951066	9	616286	6511789	1220	10	6	1.00	3.96	CmOKR	54.6	0	2	W	N	N	311	0.7	20	A	N	S	S	M	D	P	1	G	0607
94L10	951067	9	616286	6511789	1220	20	6	1.00	3.96	CmOKR	54.6	0	2	W	N	N	311	0.7	20	A	N	S	S	M	D	P	1	G	0607
94L10	951068	9	619009	6509335	1400	6	3.01	7.80	CmOKR	58.8	1	2	B	N	N	210	1.0	40	A	W	B	M	M	D	P	1	G	0607	
94L10	951069	9	622116	6509442	1180	6	7.02	15.10	SDRR	68.0	3	3	B	N	N	120	4.0	50	A	N	B	S	M	D	P	3	G	0607	
94L10	951070	9	623164	6509091	1240	6	5.49	10.91	SDRR	47.8	0	2	T	N	N	120	0.5	20	O	N	S	M	M	D	P	1	G	0607	
94L10	951071	9	624024	6505063	1340	6	1.08	4.58	CmOKR	45.2	0	2	T	R	N	121	1.0	25	O	N	S	S	M	D	P	1	G	0607	
94L10	951072	9	623718	6505132	1320	6	5.53	12.61	CmOKR	90.4	0	3	B	N	N	220	4.0	40	A	N	B	S	M	D	P	1	G	0607	
94L10	951073	9	629070	6505569	1200	6	2.15	6.19	DME	51.5	0	2	B	N	N	221	2.0	20	O	N	S	M	M	D	P	1	G	0607	
94L10	951075	9	621895	6502573	1560	6	2.30	6.85	SDRR	49.9	0	3	B	N	N	120	5.0	40	C	N	B	S	M	D	P	1	G	0607	
94L10	951076	9	626479	6501319	1400	6	0.66	3.61	SDRR	41.3	0	1	T	N	N	221	0.6	10	O	N	S	M	M	D	P	1	G	0707	
94L10	951077	9	627395	6497170	1360	6	3.97	8.59	1uCmI	38.6	0	3	T	N	N	121	2.5	35	A	N	B	S	M	D	P	2	G	0707	
94L10	951078	9	627368	6496905	1360	6	3.53	8.53	CmOK	36.6	0	3	T	N	N	121	3.5	35	A	N	B	S	M	D	P	2	G	0707	
94L10	951079	9	627106	6496804	1380	6	1.17	4.36	CmOKR	74.8	0	3	B	N	N	120	2.0	25	A	N	B	S	M	D	P	1	G	0707	
94L10	951080	9	620887	6499395	1080	6	6.05	10.41	1Cmv	58.0	0	3	B	N	N	210	3.0	40	C	N	B	S	M	D	P	2	G	0707	
94L10	951082	9	625291	6498101	1080	6	3.25	10.57	1uCmI	27.3	0	3	T	N	N	130	5.0	100	R	N	B	S	M	D	P	3	G	0807	
94L10	951083	9	625081	6497732	1080	10	6	1.96	6.45	CmOKR	71.0	0	2	T	N	N	130	2.0	50	A	N	B	S	M	D	P	2	G	0807
94L10	951084	9	625081	6497732	1080	20	6	1.96	6.45	CmOKR	71.0	0	2	T	N	N	130	2.0	50	A	N	B	S	M	D	P	2	G	0807
94L10	951085	9	624808	6498390	1100	6	4.93	11.98	CmOKR	54.0	0	3	T	N	N	310	3.0	70	A	N	B	S	M	D	P	3	G	0807	
94L10	951086	9	624814	6493862	740	1	1.97	6.36	1uCmI	56.4	0	3	T	N	N	310	2.0	50	A	N	B	S	M	D	S	1	G	0807	
94L10	951087	9	624357	6498045	1040	6	3.27	7.08	CmOKR	39.5	0	2	T	T	N	211	0.6	20	C	N	B	S	M	D	P	1	G	0807	
94L10	951088	9	624692	6497551	1020	6	0.87	4.22	CmOKR	51.7	0	2	B	N	N	220	0.8	20	A	N	B	S	M	D	P	1	G	0807	
94L10	951089	9	624466	6512631	1320	6	1.22	5.20	DME	92.5	2	2	T	N	N	310	1.5	50	A	N	S	S	M	D	P	1	G	0807	
94L10	951090	9	628521	6500889	1260	6	4.57	9.54	CmOKR	64.3	0	3	B	N	N	220	5.0	40	C	N	B	S	M	D	P	1	G	0807	
94L10	951091	9	630974	6500199	1240	6	1.18	4.49	CmOKR	53.4	0	2	T	N	N	130	3.0	50	A	N	S	S	M	D	P	1	G	0807	
94L10	951092	9	624611	6512970	1300	6	7.02	12.93	SDRR	41.7	0	2	T	N	N	130	1.5	60	A	N	S	S	M	D	P	2	G	0807	
94L10	951093	9	634179	6500713	1220	6	9.62	13.71	DME	42.6	0	2	T	N	N	220	2.5	50	A	N	S	S	M	D	P	2	G	0807	
94L10	951094	9	636658	6496509	1160	6	4.70	8.94	1uCmGs	74.4	0	2	T	N	N	130	3.5	60	A	R	B	S	M	D	P	1	G	0807	
94L10	951095	9	630338	6501588	1240	6	0.75	3.69	1uCmGs	56.6	0	2	T	N	N	310	0.8	20	C	N	S	S	M	D	P	1	G	0807	
94L10	951096	9	641037	6487533	1160	6	5.48	11.01	SDRR	58.4	0	2	T	N	N	130	4.0	50	A	N	S	S	M	D	P	2	G	0907	
94L07	951097	9	645244	6483846	1840	6	5.74	12.00	1uCmGs	62.7	0	2	T	N	N	130	2.5	40	A	N	S	S	M	D	P	1	G	0907	
94L08	951098	9	649365	6483178	1100	6	3.77	8.12	1uCmI	44.7	0	1	T	N	N	130	0.5	20	C	N	S	S	M	D	P	1	G	0907	
94L08	951100	9	653305	6484331	920	6	1.08	5.78	HAH	39.8	0	2	T	N	N	130	2.0	50	A	R	S	S	M	D	P	1	G	0907	
94L10	951102	9	617593	6503443	1100	6	5.33	9.79	1Cmv	55.4	0	3	B	N	N	210	4.0	50	C	N	B	S	M	D	P	1	G	0707	
94L15	951103	9	618457	6515216	1080	6	8.98	13.54	SDRR	51.8	0	2	W	N	N	210	1.5	25	O	N	B	M	M	D	P	2	G	0707	
94L10	951105	9	625462	6509221	1260	6	0.68	4.05	DME	100.0	0	2	B	N	N	211	0.5	15	O	N	S	S	M	D	P	1	G	0707	
94L10	951106	9	631682	6499785	1100	6	5.08	10.77	CmOKR	38.3	0	3	B	N	N	220	3.5	40	A	N	B	M	M	D	P	2	G	0707	
94L10	951107	9	620981	6512611	1140	6	1.86	6.08	SDRR	87.0	0	1	T	R	N	221	0.5	15	A	N	S	S	M	D	P	1	G	0807	
94L10	951108	9	629216	6504625	1220	6	5.91	11.43	DME	64.9	0	2	B	N	N	221	2.0	25	O	N	B	S	M	D	P	2	G	0807	
94L10	951109	9	634639	6500076	1180	6	3.08	7.62	1uCmGs	88.7	0	3	T	N	N	221	1.5	20	C	N	B	S	M	D	P	1	G	0807	
94L10	951110	9	634761	6499534	1180	6	2.00	5.76	SDRR	35.3																			

Field Observations and Analytical Data

MAP	SAMPLE ID	UTM ZONE	UTM EAST	UTM NORTH	STA MED FORM	AAS-H	STREAM SEDIMENT																		WATER						
							Sb	As	Bi	Cd	Co	Cu	F	Fe	Pb	Mn	Hg	Mo	Ni	Ag	V	Zn	LOI	pH	SO4	FW	UW				
							ppm	ppm	ppm	ppm	ppm	ppm	PPM	%	ppm	ppm	ppb	ppb	ppm	ppm	ppm	ppm	ppm	0.1	0.1	1.0	20	0.05			
94L15	951057	9	620302	6516503	6	SDRR	2.4	11.0	0.2	4.1	7	34	430	1.80	10	471	180	4	60	0.5	75	750	10.9	8.3	165	220	6.00				
94L15	951058	9	620557	6516290	6	SDRR	2.7	13.0	0.2	4.7	6	47	510	1.70	12	270	240	7	52	0.8	83	736	11.9	8.4	87	160	3.70				
94L10	951059	9	626347	6508585	6	SDRR	2.0	10.0	0.2	3.2	7	68	630	1.90	11	135	290	5	42	0.7	72	552	6.5	8.2	45	78	1.20				
94L10	951060	9	632026	6500458	6	SDRR	6.8	21.0	0.2	43.0	8	65	410	2.10	10	324	140	18	545	0.6	104	11200	11.1	8.5	110	570	8.00				
94L10	951062	9	616715	6513599	6	SDRR	1.1	6.2	0.2	1.2	5	27	380	1.40	4	203	60	5	22	0.3	24	114	3.6	8.4	97	78	4.00				
94L14	951063	9	615081	6514698	6	SDRR	1.7	15.0	0.2	9.2	3	28	420	1.10	13	160	120	6	53	0.6	36	955	12.4	8.4	98	220	5.00				
94L10	951064	9	616997	6510593	6	CmOKR	3.2	19.0	0.2	1.6	12	51	420	1.90	12	279	110	7	35	0.8	35	201	5.3	8.5	88	60	3.30				
94L10	951065	9	616729	6510492	6	SDRR	0.9	4.0	0.2	1.0	5	25	290	0.70	5	144	50	6	18	0.4	27	216	6.7	8.5	60	64	2.60				
94L10	951066	9	616286	6511789	10	6	CmOKR	0.7	3.4	0.2	3.5	5	37	320	0.60	8	98	80	6	17	0.7	30	129	19.3	8.2	45	64	2.90			
94L10	951067	9	616286	6511789	20	6	CmOKR	0.6	3.3	0.2	3.1	4	34	360	0.75	6	103	80	2	16	0.4	24	120	21.6	8.3	53	64	2.90			
94L10	951068	9	619009	6509335	6	CmOKR	1.8	9.0	0.2	0.8	10	31	400	1.90	10	265	110	10	41	0.5	31	210	8.0	8.3	82	44	2.90				
94L10	951069	9	622116	6509442	6	SDRR	1.9	8.5	0.2	1.3	7	38	490	1.80	9	210	100	7	36	0.6	29	275	7.6	8.3	105	64	3.90				
94L10	951070	9	623164	6509091	6	SDRR	2.0	17.0	0.2	0.7	8	39	540	2.10	11	246	120	5	31	0.5	44	164	8.2	8.4	84	150	3.80				
94L10	951071	9	624024	6505063	6	CmOKR	1.6	9.5	0.2	3.0	11	46	530	2.40	12	293	80	6	62	0.8	46	533	8.0	8.1	42	84	1.70				
94L10	951072	9	623718	6505132	6	CmOKR	1.7	10.0	0.2	1.0	9	67	720	2.20	10	230	70	4	31	0.6	37	178	8.2	8.3	165	52	3.60				
94L10	951073	9	629070	6505569	6	DME	5.9	23.0	0.2	12.0	17	68	550	2.20	12	372	200	17	161	1.1	130	2560	9.7	8.3	45	310	3.20				
94L10	951075	9	621895	6502573	6	SDRR	4.2	21.0	0.2	6.1	11	139	1050	2.20	17	227	180	16	55	1.3	43	655	8.1	8.2	195	62	3.90				
94L10	951076	9	626479	6501319	6	SDRR	4.5	15.0	0.2	10.0	10	83	600	2.70	10	343	210	13	102	1.1	40	966	12.4	8.2	27	100	0.74				
94L10	951077	9	627395	6497170	6	luCml	1.8	13.0	0.2	0.8	12	42	560	2.50	12	470	60	4	25	0.6	26	101	11.0	8.3	42	28	0.94				
94L10	951078	9	627368	6496905	6	CmOK	2.5	10.0	0.2	2.9	11	45	570	2.10	17	392	100	5	41	0.7	29	450	11.7	8.4	33	38	1.80				
94L10	951079	9	627106	6496804	6	CmOKR	4.4	17.0	0.2	8.0	7	60	570	1.60	54	235	240	13	59	0.9	50	930	10.6	8.4	24	36	2.00				
94L10	951080	9	620887	6499395	6	lCmv	2.6	19.0	0.2	0.9	14	59	600	2.30	9	372	70	4	23	0.4	58	113	14.2	8.4	75	36	4.30				
94L10	951082	9	625291	6498101	6	luCml	2.1	9.0	0.2	2.0	10	39	400	1.60	29	300	120	5	28	0.3	34	376	13.9	8.4	36	34	1.90				
94L10	951083	9	625081	6497732	10	6	CmOKR	2.7	10.0	0.2	5.3	9	42	440	1.50	25	175	110	4	40	0.5	23	745	13.0	8.5	21	44	2.60			
94L10	951084	9	625081	6497732	20	6	CmOKR	2.7	10.0	0.2	4.9	11	43	530	1.70	27	184	100	5	41	0.8	28	764	12.9	8.6	21	46	2.80			
94L10	951085	9	624808	6498390	6	CmOKR	1.9	11.0	0.5	0.8	10	54	250	2.00	13	413	130	4	20	0.2	26	126	15.6	8.4	24	30	2.20				
94L10	951086	9	624814	6493862	1	luCml	0.7	3.7	0.2	0.2	6	17	470	0.55	22	141	70	7	8	0.6	31	54	11.9	8.4	24	36	2.00				
94L10	951087	9	624357	6498045	6	CmOKR	1.6	8.5	0.2	1.7	5	36	470	1.30	15	233	80	6	26	0.5	24	425	10.4	8.4	69	54	3.70				
94L10	951088	9	624692	6497551	6	CmOKR	3.1	11.0	0.2	3.6	9	50	480	1.90	36	175	120	10	71	0.4	21	934	10.5	8.4	230	140	11.00				
94L10	951089	9	624466	6512631	6	DME	3.2	9.5	0.2	12.0	9	49	600	2.00	10	218	170	4	62	0.6	65	985	8.8	8.0	27	170	0.42				
94L10	951090	9	628521	6500889	6	CmOKR	1.7	5.5	0.2	0.9	10	43	640	2.10	7	185	60	4	33	0.4	33	186	8.3	8.4	36	42	1.40				
94L10	951091	9	630974	6500019	6	CmOKR	5.8	51.0	0.2	3.3	13	62	720	2.40	20	218	230	11	57	0.6	42	465	8.7	8.4	54	82	2.30				
94L10	951092	9	624611	6512970	6	SDRR	1.9	11.0	0.2	1.4	7	43	550	2.10	11	360	140	6	29	0.5	40	203	6.8	8.4	30	74	1.10				
94L10	951093	9	634179	6500713	6	DME	3.5	11.0	0.2	4.0	8	53	520	1.90	14	191	150	7	45	0.7	68	500	5.7	8.3	33	130	0.95				
94L10	951094	9	636658	6496509	6	luCmGs	1.4	6.2	0.2	1.1	10	34	370	2.60	18	214	120	3	41	0.6	32	194	9.0	8.1	57	56	0.13				
94L10	951095	9	630338	6501588	6	luCmGs	3.8	14.0	0.2	9.4	21	70	490	3.10	13	1240	220	14	167	1.0	70	1440	10.0	8.4	60	530	1.80				
94L10	951096	9	641037	6487533	6	SDRR	3.5	8.3	0.2	2.9	13	51	460	2.80	19	280	120	6	61	0.5	33	510	5.1	8.4	140	170	3.50				
94L07	951097	9	645244	6483846	6	luCmGs	1.4	7.2	0.2	1.5	11	30	430	2.60	18	273	50	2	42	0.3	36	318	3.9	8.5	93	120	3.40				
94L08	951098	9	649365	6483178	6	luCml	1.0	4.6	0.2	0.6	8	25	500	2.20	12	245	60	2	23	0.2	41	106	8.6	8.5	12	36	3.30				
94L08	951100	9	653305	6484331	6	HAH	5.4	56.0	0.2	3.2	11	65	620	2.50	21	227	320	9	56	1.2	37	477	8.2	8.4	21	58	0.40				
94L10	951102	9	617593	6503443	6	lCmv	2.4	7.5	0.2	0.7	16	53	470	2.80	9	401	60	5	27	0.3	44	120	8.3	8.4	130	36	2.30				
94L15	951103	9	618457	6515216	6	SDRR	1.7	13.0	0.2	14.0	9	60	450	1.40	14	470	180	5	55	0.6	35	1390	14.1	8.5	90	160	4.20				
94L10	951105	9	625462	6509291	6	DME	4.5	17.0	0.2	6.9	11	51	350	3.40	9	510	180	16	91	0.5	43	862	9.1	8.4	160	540	2.30				
94L10	951106	9	631682	6499785	6</td																										

Field Observations and Analytical Data

94L10	951110	9	634761	6499534	6	SDRR	2.5	12.0	0.2	3.2	6	63	380	1.50	13	130	190	11	33	0.9	75	331	5.5	8.3	120	170	2.20	
94L10	951111	9	634301	6497147	6	luCml	1.3	17.0	0.2	2.6	10	37	300	1.90	51	238	200	6	40	0.4	33	850	12.9	8.5	55	70	2.90	
94L10	951112	9	633274	6498488	10	6	SDRR	1.3	9.5	0.2	3.3	9	55	370	2.10	16	265	140	8	61	0.7	30	674	9.5	8.4	72	120	5.00

MAP SAMPLE ID	UTM ZONE	UTM EAST	UTM NORTH	STA MED	FORM	S T R E A M S E D I M E N T																								Yb Wt		
						Sb ppm	As ppm	Ba ppm	Br ppm	Ce ppm	Cs ppm	Cr ppm	Co ppm	Au ppb	Hf ppm	Fe %	La ppm	Lu ppm	Mo ppm	Ni ppm	Rb ppm	Sm ppm	Sc ppm	Na ppm	Ta ppm	Tb ppm	Th ppm	W ppm	U ppm	Yb ppm	Wt g	
						INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA				
94L15	951057	9	620302	6516503	6	SDRR	5.2	14.0	22000	7.5	70	4	92	8	3	10	3.18	39.0	0.50	1	20	88	5.3	9.0	0.29	0.5	1.0	11.0	1	8.5	3.0	16.20
94L15	951058	9	620557	6516290	6	SDRR	4.9	13.0	15000	5.3	64	4	92	7	4	7	2.50	36.0	0.45	8	20	85	4.9	9.3	0.34	1.3	0.9	11.0	3	9.5	3.1	16.40
94L10	951059	9	626347	6508585	6	SDRR	3.8	11.0	11000	2.3	75	5	89	9	11	7	3.16	44.0	0.45	5	150	87	5.8	11.0	0.41	0.5	0.9	13.0	1	7.8	3.1	18.84
94L10	951060	9	632026	6500458	6	SDRR	11.0	20.0	12000	11.0	75	6	110	10	8	7	3.24	43.0	0.46	20	720	100	5.7	12.0	0.37	1.3	0.9	12.0	1	7.3	3.0	15.91
94L10	951062	9	616715	6513599	6	SDRR	2.5	7.5	2100	1.8	69	2	64	7	2	8	1.94	36.0	0.41	1	20	67	5.0	7.0	0.19	1.1	0.9	12.0	1	4.8	2.7	19.03
94L14	951063	9	615081	6514698	6	SDRR	3.1	14.0	7400	16.0	57	3	63	6	2	6	1.95	29.0	0.37	3	20	60	4.2	7.8	0.16	1.0	0.7	9.8	1	4.6	2.5	15.59
94L10	951064	9	616997	6510593	6	CmOKR	5.9	16.0	1300	6.1	85	3	81	12	5	7	3.34	46.0	0.44	1	20	78	6.0	10.0	0.28	1.3	0.8	14.0	1	6.3	3.0	14.79
94L10	951065	9	616729	6510492	6	CmOKR	1.2	4.5	520	15.0	34	1	32	5	2	3	1.28	18.0	0.21	1	20	32	2.5	4.7	0.11	0.8	0.5	5.9	1	3.6	1.3	14.57
94L10	951066	9	616286	6511789	10	CmOKR	1.1	3.3	690	27.0	29	1	31	4	5	3	1.12	15.0	0.16	1	20	37	2.1	4.3	0.12	0.5	0.5	5.3	1	2.9	1.1	14.97
94L10	951067	9	616286	6511789	20	CmOKR	1.5	3.8	850	24.0	43	1	37	5	4	4	1.70	22.0	0.22	1	20	5	2.9	5.9	0.19	1.3	0.5	6.9	1	3.1	1.5	14.90
94L10	951068	9	619009	6509335	6	CmOKR	4.1	9.4	1500	0.5	110	4	93	10	2	11	3.35	60.0	0.64	1	20	110	8.0	11.0	0.34	1.8	0.9	18.0	1	9.2	4.2	14.94
94L10	951069	9	622116	6509442	6	SDRR	4.1	10.0	3300	0.5	86	2	88	10	5	8	3.10	47.0	0.50	5	20	110	6.1	9.9	0.29	1.2	0.5	14.0	1	5.7	3.2	18.64
94L10	951070	9	623164	6509091	6	SDRR	3.5	21.0	5000	0.5	95	3	86	9	9	6	3.80	49.0	0.47	8	20	110	5.8	11.0	0.39	0.5	0.5	15.0	1	6.5	2.9	14.78
94L10	951071	9	624024	6505063	6	CmOKR	3.1	11.0	2200	5.2	100	3	88	13	2	7	3.92	55.0	0.48	7	160	140	6.3	13.0	0.50	0.5	0.8	17.0	1	6.0	3.1	18.04
94L10	951072	9	623718	6505132	6	CmOKR	3.1	12.0	3500	0.5	81	2	96	12	6	4	3.90	46.0	0.38	1	20	88	5.4	12.0	0.47	0.5	0.5	14.0	1	6.9	2.6	16.69
94L10	951073	9	629070	6505569	6	DME	9.3	24.0	18000	8.6	69	6	140	20	10	8	4.08	40.0	0.65	21	380	110	5.7	14.0	0.30	0.5	0.5	13.0	1	9.0	3.9	15.15
94L10	951075	9	621895	6502573	6	SDRR	7.4	19.0	1500	0.5	72	2	110	14	10	6	3.60	42.0	0.58	17	160	79	4.7	11.0	0.10	1.3	0.5	14.0	1	11.0	3.6	23.50
94L10	951076	9	626479	6501319	6	SDRR	8.6	13.0	3200	9.3	100	4	100	14	9	9	4.21	55.0	0.61	16	330	120	6.9	13.0	0.31	0.5	0.5	15.0	1	6.7	3.8	15.25
94L10	951077	9	627395	6497170	6	luCml	2.3	12.0	2000	17.0	99	3	92	16	2	8	4.65	51.0	0.51	1	20	110	6.9	15.0	0.43	0.5	0.5	18.0	1	5.7	3.6	15.73
94L10	951078	9	627368	6496905	6	CmOKR	3.9	12.0	1700	24.0	100	4	100	15	2	8	3.88	55.0	0.60	6	20	100	7.1	12.0	0.30	0.5	0.8	16.0	1	6.7	3.6	14.75
94L10	951079	9	627106	6496804	6	CmOKR	6.7	17.0	3300	9.3	85	2	100	10	7	7	2.84	46.0	0.51	10	20	85	5.7	9.3	0.17	0.5	0.5	13.0	1	6.8	3.3	18.36
94L10	951080	9	620887	6499395	6	1Cmv	3.7	16.0	2100	19.0	53	2	56	19	12	5	3.66	34.0	0.34	1	20	58	5.2	11.0	0.45	0.5	0.5	12.0	1	3.1	2.3	5.88
94L10	951082	9	625291	6498101	6	luCml	2.6	11.0	2100	14.0	82	2	61	10	7	7	2.94	41.0	0.45	6	20	71	5.3	9.2	0.28	0.5	0.5	12.0	1	5.1	2.6	17.43
94L10	951083	9	625081	6497732	10	CmOKR	4.2	13.0	1700	5.6	92	3	93	9	2	9	2.74	47.0	0.53	5	20	110	5.9	9.6	0.20	0.5	1.1	15.0	1	6.1	3.4	16.00
94L10	951084	9	625081	6497732	20	CmOKR	4.0	14.0	1700	5.7	85	4	90	9	2	9	2.70	45.0	0.51	3	20	100	5.8	9.5	0.19	0.9	1.0	15.0	1	5.4	3.3	16.64
94L10	951085	9	624808	6498390	6	CmOKR	2.6	13.0	3400	25.0	81	3	64	12	4	6	3.27	43.0	0.41	1	130	77	5.0	8.8	0.38	0.5	0.5	12.0	1	5.7	2.5	14.40
94L10	951086	9	624814	6493862	6	luCml	0.6	3.6	410	2.7	25	1	20	3	2	2	1.00	13.0	0.08	1	20	19	1.5	2.7	0.13	0.5	0.5	3.7	1	2.3	0.5	21.73
94L10	951087	9	624357	6498045	6	CmOKR	2.9	10.0	1600	7.8	80	3	80	8	2	9	2.46	41.0	0.48	1	20	110	5.5	8.6	0.13	0.5	0.9	13.0	1	6.0	3.3	21.03
94L10	951088	9	624692	6497551	6	CmOKR	4.8	15.0	1300	5.1	82	4	92	7	2	9	2.70	44.0	0.55	7	20	99	5.6	9.3	0.18	0.5	0.9	14.0	1	6.7	3.7	21.72
94L10	951089	9	624466	6512631	6	DME	5.0	13.0	18000	2.5	84	5	120	12	2	9	3.48	44.0	0.60	12	20	110	6.0	13.0	0.41	0.5	0.9	13.0	1	6.8	3.5	17.35
94L10	951090	9	628521	6500889	6	CmOKR	2.8	7.1	2000	0.5	120	3	95	11	2	6	3.73	72.0	0.35	6	20	110	6.6	12.0	0.34	1.3	0.5	17.0	1	5.9	2.4	19.47
94L10	951091	9	630974	6500019	6	CmOKR	7.4	59.0	2200	4.9	100	5	100	14																		

Field Observations and Analytical Data

94L10	951109	9	634639	6500076	6	luCmGs	1.7	10.0	3200	4.0	140	5	99	20	2	15	4.11	75.0	0.69	6	20	150	9.0	15.0	0.44	1.7	1.2	31.0	1	8.6	4.3	18.17
94L10	951110	9	634761	6499534	6	SDRR	7.1	14.0	37000	0.5	73	4	88	7	8	8	2.67	42.0	0.52	11	130	86	5.4	9.9	0.32	0.6	0.9	11.0	1	7.7	3.2	23.53
94L10	951111	9	634301	6497147	6	luCml	3.5	25.0	2300	28.0	90	3	69	10	7	7	3.17	48.0	0.39	5	20	93	5.5	9.0	0.29	0.9	0.7	15.0	1	6.2	2.5	15.04
94L10	951112	9	633274	6498488	10	6	SDRR	3.8	13.0	7300	9.9	110	5	90	9	9	3.37	60.0	0.53	5	160	110	7.0	11.0	0.39	1.5	1.0	17.0	1	7.3	3.4	14.80

SAMPLE MAP ID	UTM ZONE	UTM EAST	UTM NORTH	STA MED	FORM	S T R E A M W A T E R																											
						Sb	As	Ba	Cd	Ca	Co	Cu	Fe	Pb	Li	Mn	Mg	Mo	Ni	K	Rb	Se	Si	Na	Sr	U	V	Y	Zn	Zr			
						0.02	0.02	0.002	0.002	ppb	ppb	ppb	ppb	ppb	0.1	0.01	0.002	0.1	0.02	0.002	1	0.002	0.02	1	0.1	0.002	0.002	0.02	0.002	0.002	0.002	0.002	
94L15	951057	9	620302	6516503	6	SDRR	0.40	0.36	38.7	0.09	68405	0.155	0.75	36.7	0.02	10.0	11.8	41067	12.81	12.6	663	0.17	10.26	2522	2589	391.8	6.20	1.27	0.026	17.63	0.535		
94L15	951058	9	620557	6516290	6	SDRR	0.35	0.35	79.9	0.13	44967	0.089	1.27	19.7	0.02	5.0	1.7	27176	9.74	9.3	448	0.13	5.09	1928	1917	278.1	4.64	1.41	0.041	19.74	1.242		
94L10	951059	9	626347	6508585	6	SDRR	0.24	0.24	149.8	0.13	29301	0.063	2.06	18.7	0.02	2.4	0.5	10419	1.77	6.7	294	0.10	3.56	1382	1460	216.8	1.87	0.56	0.084	9.65	0.188		
94L10	951060	9	632026	6500458	6	SDRR	2.19	1.08	47.4	1.45	63427	0.110	0.48	8.2	0.04	11.7	0.5	29455	35.49	44.4	866	0.51	18.72	5732	1968	476.8	7.27	4.54	0.043	79.20	1.438		
94L10	951062	9	616715	6513599	6	SDRR	0.16	0.24	41.8	0.04	54194	0.097	0.61	12.5	0.03	2.3	1.2	24167	3.48	4.7	431	0.13	3.40	1097	925	165.7	4.60	0.51	0.016	7.56	0.855		
94L14	951063	9	615081	6514698	6	SDRR	0.31	0.32	103.4	0.05	62149	0.087	0.42	12.2	0.03	3.3	0.5	36399	13.61	7.2	713	0.28	5.41	1553	1154	256.7	8.58	1.00	0.013	11.01	1.257		
94L10	951064	9	616997	6510593	6	CmOKR	0.16	0.23	44.4	0.03	48515	0.090	0.43	11.3	0.02	1.3	0.4	19136	1.65	1.7	304	0.09	3.06	950	762	149.1	4.75	0.44	0.017	3.82	0.717		
94L10	951065	9	616729	6510492	6	SDRR	0.13	0.16	40.5	0.02	43419	0.055	0.42	9.0	0.02	1.7	0.5	18163	2.85	1.4	261	0.07	2.18	882	617	80.3	3.30	0.30	0.009	4.25	1.362		
94L10	951066	9	616286	6511789	10	CmOKR	0.12	0.08	84.7	0.02	50354	0.073	0.28	8.2	0.02	1.2	0.2	25815	1.02	0.9	410	0.11	3.53	1176	1158	175.3	3.37	0.22	0.006	2.71	1.104		
94L10	951067	9	616286	6511789	20	CmOKR	0.12	0.05	84.9	0.01	49823	0.080	0.31	10.3	0.02	1.1	0.3	25905	1.03	1.1	407	0.13	3.11	1185	1173	174.6	3.19	0.23	0.005	3.13	0.060		
94L10	951068	9	619009	6509335	6	CmOKR	0.10	0.11	61.0	0.03	45204	0.078	0.37	10.2	0.02	0.8	1.5	19256	1.33	1.5	266	0.05	2.75	930	1012	175.1	3.08	0.29	0.035	3.97	0.002		
94L10	951069	9	622116	6509442	6	SDRR	0.19	0.10	65.4	0.05	45363	0.093	0.88	20.5	0.03	1.3	1.3	23574	1.85	3.8	311	0.08	2.67	937	933	192.0	5.22	0.32	0.059	6.96	0.036		
94L10	951070	9	623164	6509091	6	SDRR	0.13	0.32	96.4	0.02	53582	0.087	0.26	66.9	0.02	2.5	6.9	25753	2.43	1.7	513	0.19	1.38	1359	981	257.2	5.14	0.28	0.020	3.20	0.206		
94L10	951071	9	624024	6505063	6	CmOKR	0.30	0.08	41.8	0.09	28932	0.065	1.17	19.6	0.02	0.4	0.6	9820	3.60	7.5	217	0.08	1.00	878	723	136.7	2.37	0.29	0.077	14.18	1.404		
94L10	951072	9	623718	6505132	6	CmOKR	0.27	0.17	50.3	0.04	47519	0.066	0.33	8.1	0.02	0.8	0.4	24642	1.24	2.5	244	0.07	2.34	858	1297	239.1	4.98	0.34	0.018	4.66	0.274		
94L10	951073	9	629070	6505569	6	DME	0.49	0.34	133.6	0.40	35057	0.083	0.65	12.9	0.04	4.8	0.5	24035	8.34	19.7	653	0.23	2.72	2009	1108	263.4	4.44	0.88	0.043	60.28	0.995		
94L10	951075	9	621895	6502573	6	SDRR	0.10	0.17	27.8	0.04	49133	0.113	1.10	10.7	0.04	2.0	0.3	38074	1.31	5.1	262	0.08	2.72	732	729	122.7	5.07	0.52	0.011	5.99	0.299		
94L10	951076	9	626479	6501319	6	SDRR	0.40	0.19	109.9	0.16	23313	0.084	2.03	12.4	0.04	1.0	0.6	11014	3.84	6.8	269	0.12	3.49	1652	844	99.8	1.34	0.40	0.027	10.87	5.179		
94L10	951077	9	627395	6497170	6	luCml	0.05	0.13	22.4	0.02	25749	0.046	0.27	9.0	0.05	0.5	0.5	9638	0.38	0.5	190	0.10	0.86	707	749	69.3	1.12	0.31	0.006	2.52	0.276		
94L10	951078	9	627368	6496905	6	CmOK	0.17	0.11	58.9	0.05	29890	0.061	0.23	9.7	0.08	0.8	0.3	11315	1.75	1.2	227	0.07	0.82	886	649	70.7	2.80	0.32	0.010	4.49	0.145		
94L10	951079	9	627106	6496804	6	CmOKR	0.29	0.19	130.7	0.12	33351	0.063	0.47	8.2	0.09	0.5	0.4	9872	2.49	2.3	140	0.04	2.20	710	485	79.8	2.60	0.34	0.016	7.78	0.915		
94L10	951080	9	620887	6493935	6	1CmV	0.14	0.14	90.6	0.02	44461	0.081	0.35	7.3	0.05	0.9	0.4	22157	0.77	0.7	280	0.10	1.18	982	1393	241.8	4.99	0.30	0.013	1.97	0.095		
94L10	951082	9	625291	6498101	6	luCml	0.14	0.13	55.6	0.06	31522	0.082	0.31	9.0	0.04	0.8	0.8	14108	1.21	1.1	210	0.09	1.17	913	870	95.2	2.44	0.28	0.008	4.20	1.284		
94L10	951083	9	625081	6497732	10	CmOKR	0.26	0.06	100.3	0.07	37254	0.104	0.41	11.7	0.07	0.5	0.4	14098	2.14	2.1	188	0.07	1.46	758	429	76.8	2.57	0.21	0.010	9.45	0.263		
94L10	951084	9	625081	6497732	20	CmOKR	0.24	0.06	99.4	0.08	37398	0.091	0.38	11.2	0.05	0.6	0.4	11817	1.99	2.2	201	0.08	2.42	753	451	74.9	2.45	0.19	0.008	9.03	0.457		
94L10	951085	9	624808	6498390	6	CmOKR	0.18	0.12	61.8	0.02	30057	0.094	0.40	14.7	0.04	0.7	1.5	14109	0.59	0.5	158	0.08	0.31	946	913	125.1	2.38	0.20	0.016	1.72	0.432		
94L10	951086	9	624814	6493862	1	luCml	0.14	0.13	55.6	0.06	31522	0.131	0.48	13.5	0.04	2.8	0.3	64865	5.42	20.4	409	0.11	2.06	1003	434	146.3	14.55	0.47	0.029	51.25	0.058		
94L10	951087	9	624357	6498045	6	CmOKR	0.16	0.14	46.6	0.03	44150	0.106	0.34	12.8	0.04	1.7	1.2	40756	1.55	2.4	425	0.10	1.80	1068	784	168.0	4.71	0.26	0.009	5.			

Field Observations and Analytical Data

94L10	951108	9	629216	6504625	6	DME	0.44	0.24	132.6	0.20	32318	0.079	1.97	13.5	0.06	6.0	0.9	14821	6.73	9.8	594	0.20	0.02	2488	1723	259.3	2.89	0.63	0.072	15.86	0.357
94L10	951109	9	634639	6500076	6	luCmGs	0.04	0.12	40.7	0.03	19729	0.092	1.34	10.3	0.07	18.2	0.3	6639	0.45	2.6	585	0.37	0.02	1196	2703	173.1	0.54	0.46	0.048	2.76	0.002
94L10	951110	9	634761	6499534	6	SDRR	0.25	0.21	75.7	0.18	45948	0.119	1.57	13.4	0.15	14.6	2.3	20637	3.57	10.5	904	0.37	0.40	2342	2731	487.6	4.05	0.67	0.026	16.82	0.168
94L10	951111	9	634301	6497147	6	luCml	0.22	0.27	56.9	0.04	50843	0.106	1.36	8.0	0.09	2.6	0.3	11762	3.15	2.2	455	0.18	0.02	1119	1194	191.2	5.03	0.43	0.016	12.80	0.043
94L10	951112	9	633274	6498488	10	SDRR	0.21	0.16	102.2	0.06	59773	0.104	1.44	10.8	0.07	3.5	0.5	26827	4.63	3.2	675	0.21	0.02	1534	1750	330.5	10.49	0.38	0.039	4.33	0.002

MAP	SAMPLE ID	UTM ZONE	UTM EAST	UTM NORTH	ELEV	STA	MED	AREA	PERI	FORM	%	WAT COL	SED COL	SED PPT	CON	COMP	STRM WDTN	STRM DPTH	BNK BNK	CHL PPT	CHL BED	CHL PTN	PHY	DRN	TYP	ODR	SRC	DATE	
94L10	951113	9	633274	6498488	1000	20	6	0.81	4.67	SDRR	54.1	0	2	T	N	N	211	0.5	20	O	N	S	M	M	D	P	1	G	0807
94L10	951114	9	640926	6487811	1160	6	1.40	4.62	SDRR	59.8	0	2	T	N	N	221	1.0	30	O	N	S	M	D	P	1	G	0907		
94L07	951115	9	643132	6484077	800	6	1.71	6.74	luCml	45.9	0	2	T	N	N	221	1.5	30	O	N	S	M	D	P	1	G	0907		
94L08	951116	9	646931	6485946	1300	6	1.19	4.66	luCmGs	100.0	0	2	G	N	N	220	1.0	25	O	N	S	S	M	D	P	1	G	0907	
94L08	951117	9	647194	6485955	1300	6	3.09	8.18	CmOK	30.1	0	3	G	N	N	221	2.0	35	O	N	S	S	M	D	P	1	G	0907	
94L08	951118	9	654775	6482056	880	6	0.88	6.23	luCml	75.0	0	2	T	N	N	220	2.0	25	A	N	B	S	M	D	P	1	G	0907	
94L08	951119	9	651549	6486126	960	6	0.45	3.63	HAH	86.1	0	2	T	N	N	221	0.7	20	A	N	S	M	D	P	1	G	0907		
94L10	951120	9	643072	6487889	1360	6	4.07	7.98	luCmGs	64.9	0	3	G	N	N	220	2.5	35	C	N	B	S	M	D	P	1	G	1207	
94L07	951122	9	643054	6486305	1360	6	2.38	6.79	SDRR	46.0	0	2	T	N	N	130	2.0	50	C	N	S	S	M	D	P	1	G	1207	
94L10	951123	9	638070	6487500	760	6	6.17	13.28	luCml	49.4	0	2	T	N	N	130	4.0	50	A	N	S	S	M	D	P	2	G	1207	
94L10	951124	9	634342	6493248	1120	6	5.84	10.25	CmOKR	71.2	0	2	T	N	N	220	3.0	70	C	N	S	S	M	D	P	2	G	1207	
94L10	951125	9	639416	6494300	1265	6	1.38	5.08	luCmGs	96.4	0	2	T	N	N	310	0.5	20	C	R	S	S	M	D	P	1	G	1207	
94L10	951126	9	643008	6491460	1420	6	1.36	5.12	luCmGs	97.3	0	3	T	N	N	220	2.5	60	S	N	B	S	M	D	P	1	G	1207	
94L10	951127	9	629576	6511946	920	6	0.47	3.60	SDRR	44.5	0	2	W	N	N	130	2.0	20	A	W	S	S	M	D	P	1	G	1207	
94L10	951128	9	628809	6513018	1040	6	0.65	4.17	CmOKR	53.6	0	2	T	N	N	220	0.5	20	A	N	S	S	M	D	P	1	G	1207	
94L15	951129	9	626017	6518010	1060	10	6	7.44	13.15	SDRR	71.0	0	2	T	N	N	130	3.0	80	C	N	S	S	M	D	P	2	G	1207
94L15	951130	9	626017	6518010	1060	20	6	7.44	13.15	SDRR	71.0	0	2	T	N	N	130	3.0	80	C	N	S	S	M	D	P	2	G	1207
94L15	951131	9	623373	6519845	1220	6	2.27	6.76	luCmGs	73.4	0	2	T	N	N	130	1.0	50	A	N	S	S	M	D	P	1	G	1207	
94L15	951132	9	621670	6522944	1160	6	3.00	8.71	luCmGs	57.1	0	2	T	N	N	130	1.5	50	A	N	S	S	M	D	P	2	G	1207	
94L15	951134	9	618628	6521024	1200	6	0.65	4.47	SDRR	100.0	0	2	B	N	N	031	0.5	20	A	N	S	S	M	D	P	1	G	1207	
94L14	951135	9	607202	6525469	1020	6	3.12	7.03	SDRR	99.2	0	2	W	N	N	220	3.0	80	O	N	S	S	M	D	P	1	G	1307	
94L14	951136	9	607275	6525084	1040	6	7.12	11.92	SDRR	70.4	0	2	W	N	N	130	2.5	50	C	N	S	S	M	D	P	1	G	1307	
94L14	951137	9	604040	6526706	800	6	3.98	9.21	SDRR	90.4	0	1	T	N	N	310	0.5	20	O	N	S	S	M	D	P	1	G	1307	
94L14	951138	9	606868	6532082	1040	6	2.85	7.58	SDRR	89.2	0	1	T	N	N	130	0.5	20	O	N	S	S	M	D	P	1	G	1307	
94L14	951139	9	610794	6529656	1140	6	5.61	11.01	SDRR	100.0	0	2	T	N	N	220	2.0	60	O	R	S	S	M	D	P	2	G	1307	
94L14	951140	9	611154	6529140	1160	6	1.91	6.98	SDRR	80.6	0	2	T	N	N	310	1.0	30	O	R	S	S	M	D	P	2	G	1307	
94L10	951142	9	640485	6489760	1320	6	0.46	3.16	SDRR	79.0	0	2	G	N	N	221	0.5	20	C	N	S	S	M	D	P	1	G	1207	
94L10	951143	9	640799	6489667	1340	6	4.07	9.42	SDRR	38.5	0	3	G	N	N	221	2.0	30	A	N	B	S	M	D	P	1	G	1207	
94L10	951144	9	636036	6490341	800	6	3.65	6.97	luCml	58.0	0	2	W	R	N	220	0.7	25	O	N	S	S	M	D	P	1	G	1207	
94L10	951145	9	635752	6493807	860	6	4.69	8.67	luCml	41.8	0	2	T	N	N	230	1.5	40	C	N	S	S	M	D	P	2	G	1207	
94L10	951146	9	642920	6493929	1020	6	2.03	8.91	luCmGs	32.4	0	2	T	N	N	221	2.0	35	A	N	F	M	M	D	P	2	G	1207	
94L10	951147	9	643553	6491769	1280	6	3.30	8.77	luCmGs	45.8	0	3	T	N	N	220	1.5	35	A	N	S	M	D	P	1	G	1207		
94L10	951148	9	629130	6508857	1180	6	5.55	9.81	CmOKR	36.6	0	3	T	N	N	220	1.7	35	C	N	B	S	M	D	P	1	G	1207	
94L10	951149	9	629085	6507994	1080	6	1.25	4.81	SDRR	90.7	0	2	T	N	N	221	0.7	20	O	N	B	S	M	D	P	1	G	1207	
94L15	951150	9	628108	6515730	1020	6	1.28	6.26	SDRR	48.3	0	3	T	N	N	220	0.8	25	O	N	B	S	M	D	P	1	G	1207	
94L15	951151	9	623630	6515260	1220	6	1.04	5.12	SDRR	60.1	0	2	T	N	N	220	0.6	30	O	N	B	S	M	D	P	1	G	1207	
94L15	951152	9	622236	6520922	1260	6	1.80	5.88	luCmGs	57.3	0	3	T	N	N	221	1.6	40	A	N	F	S	M	D	P	1	G	1207	
94L15	951153	9	621347	6523340	1120	6	4.32	8.82	luCmGs	62.1	0	2	T	N	N	221	1.3	35	O	N	S	S	M	D	P	1	G	1207	
94L14	951154	9	606233	6522090	840	10	6	1.70	7.04	DME	54.8	0	2	T	N	N	220	3.0	20	C	N	F	S	M	D	P	1	G	1307
94L14	951155	9	606233	6522090	840	20	6	1.70	7.04	DME	54.8	0	2	T	N	N	220	3.0	20	C	N	F	S	M	D	P	1	G	1307
94L14	951156	9	604526	6525346	800	6	4.02	9.63	SDRR	62.9	0	2	W	W	N	220	1.8	40	A	W	S	S	M	D	P	2	G	1307	
94L14	951158	9	604802	6530159	940	6	2.84	8.51	SDRR	100.0	0	2	T	N	N	220	1.2	25	O	N	S	S	M	D	P	1	G	1307	
94L14	951159	9	610186	6531596	1100	6	3.08	7.62	SDRR	100.0	0	2	T	N	N	121	0.5	35	O	N	F	M	M	D	P	1	G	1307	
94L14	951160	9	608436	6527719	1240	6	1.99	7.54	SDRR	100.0	0	1	T	N	N	220	0.4	30	O										

Field Observations and Analytical Data

94L15 951165 9 618729 6526461 1140 6 4.22 10.54 SDRR 65.7 0 2 T N N 220 1.2 30 O N S S M D P 2 G 1307
 94L14 951166 9 615072 6527374 1120 6 8.81 13.37 SDRR 46.9 0 3 T N N 220 1.5 35 O N S S M D P 2 G 1307
 94L14 951167 9 614040 6533788 1100 6 1.91 5.98 CmRE 100.0 0 2 T N N 220 0.9 30 O N S S M D P 1 G 1307

MAP	SAMPLE ID	UTM ZONE	UTM EAST	UTM NORTH	STA	MED FORM	AAS-H	S T R E A M S E D I M E N T																	S T R E A M W A T E R						
								Sb	As	Bi	Cd	Co	Cu	F	Fe	Pb	Mn	Hg	Mo	Ni	Ag	V	Zn	LOI	pH	SO4	FW	UW			
								ppm	ppm	ppm	ppm	ppm	ppm	PPM	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	0.1	1.0	20	0.05			
4L10	951113	9	633274	6498488	20	6	SDRR	1.4	8.8	0.2	3.6	10	55	370	2.20	14	301	160	7	65	0.6	36	678	10.6	8.4	73	130	5.00			
4L10	951114	9	640926	6487811	6	SDRR	2.3	14.0	0.2	8.5	27	52	320	5.30	11	860	130	10	240	0.6	37	1190	15.8	8.4	115	320	3.70				
4L07	951115	9	643132	6484077	6	luCml	0.8	7.5	0.2	0.9	9	39	290	2.10	17	204	100	4	33	0.5	33	201	10.5	8.5	150	340	6.00				
4L08	951116	9	646931	6485946	6	luCmGs	0.2	5.7	0.2	0.5	11	31	240	3.00	22	233	30	5	32	0.3	28	112	7.4	8.1	73	70	0.68				
4L08	951117	9	647194	6485955	6	CmOK	1.6	9.2	0.2	3.1	9	34	370	2.20	14	172	70	10	52	0.7	50	580	6.4	8.4	48	52	3.60				
4L08	951118	9	654775	6482056	6	luCml	0.6	5.8	0.2	0.2	13	27	220	2.80	15	294	40	1	26	0.2	25	81	6.1	8.5	49	200	1.10				
4L08	951119	9	651549	6486126	6	HAH	1.8	15.0	0.3	1.3	14	63	480	3.00	21	280	120	3	34	0.5	28	208	8.1	8.4	25	60	0.52				
4L10	951120	9	643072	6487889	6	luCmGs	0.8	6.7	0.2	1.4	14	40	300	2.50	22	247	70	4	46	0.3	30	234	6.3	8.2	230	68	2.30				
4L07	951122	9	643054	6486305	6	SDRR	1.2	11.0	0.2	4.0	20	48	440	3.00	23	571	70	9	90	0.6	32	803	6.2	8.4	120	130	5.00				
4L10	951123	9	638070	6487500	6	luCml	1.1	7.0	0.2	3.3	7	29	370	1.80	11	230	60	8	51	0.2	34	571	9.5	8.5	110	110	4.20				
4L10	951124	9	634342	6493248	6	CmOKR	2.0	9.5	0.2	2.3	9	35	340	1.70	10	190	70	7	29	0.5	38	276	13.5	8.4	51	42	3.80				
4L10	951125	9	639416	6494300	6	luCmGs	0.2	4.4	0.2	1.2	13	24	430	5.20	9	5350	50	6	70	0.4	23	178	24.5	8.6	66	86	0.26				
4L10	951126	9	643008	6491460	6	luCmGs	0.4	5.3	0.3	0.7	12	32	370	2.90	22	430	40	6	93	0.2	25	287	6.2	7.9	180	58	0.70				
4L10	951127	9	629576	6511946	6	SDRR	0.3	7.0	0.2	1.8	3	36	410	0.40	4	53	200	10	40	0.6	36	280	30.6	8.3	170	300	4.20				
4L10	951128	9	628809	6513018	6	CmOKR	2.3	12.0	0.2	37.0	8	69	440	2.00	10	185	190	13	293	0.5	50	3080	16.1	8.4	86	410	5.00				
4L15	951129	9	626017	6518010	10	6	SDRR	0.9	9.0	0.2	1.4	9	55	580	2.10	13	168	140	5	30	0.4	41	217	5.5	8.3	56	86	2.40			
4L15	951130	9	626017	6518010	20	6	SDRR	0.9	7.8	0.2	1.5	8	52	440	2.10	11	171	120	6	31	0.5	43	218	5.9	8.4	55	84	2.40			
4L15	951131	9	623373	6519845	6	luCmGs	1.2	11.0	0.2	1.2	10	49	610	2.60	14	182	170	6	29	0.5	34	187	9.3	8.4	30	56	0.90				
4L15	951132	9	621670	6522944	6	luCmGs	1.1	10.0	0.2	2.0	9	48	570	2.30	11	213	200	10	32	0.4	60	267	10.3	8.5	50	90	2.40				
4L15	951134	9	618628	6521024	6	SDRR	2.3	14.0	0.2	55.0	4	102	480	1.20	7	110	960	10	540	2.0	156	5700	34.0	8.4	45	210	5.00				
4L14	951135	9	607202	6525469	6	SDRR	0.4	6.0	0.2	2.0	2	25	370	0.50	6	98	120	7	32	0.7	32	270	16.8	8.3	310	160	6.00				
4L14	951136	9	607275	6525084	6	SDRR	1.4	11.0	0.2	3.3	4	38	440	0.75	11	165	130	2	28	0.6	42	355	5.8	8.1	340	160	4.90				
4L14	951137	9	604040	6526706	6	SDRR	1.4	11.0	0.2	1.8	5	45	450	1.10	10	230	160	6	35	0.5	37	213	11.2	8.1	525	250	11.00				
4L14	951138	9	606868	6532082	6	SDRR	0.9	8.2	0.2	16.0	3	37	440	1.00	10	630	250	5	97	0.8	48	2990	15.7	7.9	385	240	23.00				
4L14	951139	9	610794	6529656	6	SDRR	1.0	13.0	0.2	5.5	9	36	600	1.90	13	872	190	4	56	0.6	42	663	13.4	8.3	255	240	8.50				
4L14	951140	9	611154	6529140	6	SDRR	4.2	61.0	0.2	24.0	8	62	780	1.90	17	512	370	15	131	0.9	87	1610	11.8	8.5	275	420	11.00				
4L10	951142	9	640485	6489760	6	SDRR	1.5	13.0	0.2	3.3	7	66	850	2.60	15	185	160	10	50	0.8	31	597	9.0	8.4	70	210	5.00				
4L10	951143	9	640799	6489667	6	SDRR	1.2	7.5	0.2	5.7	18	51	690	3.00	16	530	100	6	96	0.5	33	926	9.3	8.4	96	110	3.90				
4L10	951144	9	636036	6490341	6	luCml	0.4	6.3	0.2	2.4	5	24	510	0.55	4	94	40	6	17	1.0	29	275	14.3	8.3	125	58	8.00				
4L10	951145	9	635752	6493807	6	luCml	0.6	4.4	0.2	0.7	7	15	490	1.00	12	281	50	6	17	0.4	24	138	5.1	8.5	36	120	2.70				
4L10	951146	9	642920	6493929	6	luCmGs	1.5	8.8	0.2	1.8	9	33	630	1.90	15	360	120	12	53	0.5	40	322	5.8	8.4	125	70	3.00				
4L10	951147	9	643553	6491769	6	luCmGs	1.6	14.0	0.2	1.3	9	31	750	1.60	13	174	140	11	38	0.6	41	201	5.6	8.4	120	50	2.70				
4L10	951148	9	629130	6508587	6	CmOKR	1.1	7.7	0.2	1.6	7	39	890	2.00	9	293	100	4	31	0.4	53	395	7.0	8.4	44	120	1.90				
4L10	951149	9	629085	6507994	6	SDRR	2.0	9.6	0.2	5.0	8	70	870	1.70	14	161	270	5	62	1.3	64	646	14.0	8.5	33	94	3.90				
4L15	951150	9	628108	6515730	6	SDRR	2.1	16.0	0.2	5.8	7	96	730	2.40	10	164	280	9	80	0.8	57	1040	8.8	8.5	76	200	3.70				
4L15	951151	9	623630	6519260	6	SDRR	1.4	8.2	0.2	2.9	7	43	620	1.70	12	160	120	6	27	0.3	43	350	4.1	8.5	60	76	3.90				
4L15	951152	9	622236	6502922	6	luCmGs	1.1	6.7	0.2	1.7	10	39	640	2.80	15	278	130	4	33	0.2	41	257	11.4	8.5	75	110	2.30				
4L15	951153	9	621347	6523340	6	luCmGs	1.0	7.3	0.2	1.8	12	46	750	2.50	17	407	190	4	35	0.6	32	264	10.8	8.5	86	88	2.20				
4L14	951154	9	606233	6522090	10	6	DME	2.1	15.0	0.2	2.4	6	36	420	0.90	9	138	130	10	36	1.0	53	279	8.9	8.2	390	330	11.00			
4L14	951155	9	606233	6522090	20	6	DME	2.0	14.0	0.2	2.2	4	34	450	0.85	10	145	120	8	34	0.9	52	266	8.9	8.3	385	330	10.50			
4L14	951156	9	604526	6525346	6	SDRR	1.4	26.0	0.2	4.9	5	35	420	1.20	6	412	120	7	42	0.8	50	812	13.9	8.3	225	220	7.00				
4L14	951158	9	604802	6530159	6	SDRR	1.0	9.0	0.2	3.5	6	26	430	0.75	12	290	160	6	35	0.5	35	715	11.9	8.4	275	250	11.00				
4L14	951159	9	610186	6531596	6	SDRR	0.9	16.0	0.2	1.0	7	16	480	1.40	7	393	120	3	16	0.2	40	139	8.2	8.4	105	140	2.90				
4L14	951160	9	608436	6527719	6	SDRR	0.9	9.0	0.2	1.7	9	35	500	1.40	11	270	190	5	26	0.5	22	157	14.2	8.6	28	50	2.20				

Field Observations and Analytical Data

94L14	951162	9	608263	6527853	6	SDRR	1.1	12.0	0.2	3.8	7	47	490	1.40	14	1660	720	4	34	1.2	20	153	35.3	8.3	315	250	3.30
94L15	951163	9	618927	6526269	6	luCmGs	1.1	6.4	0.2	3.8	9	46	510	1.70	8	2150	170	4	30	0.5	43	254	16.3	8.6	105	180	2.70
94L14	951164	9	613850	6530297	6	SDRR	4.0	34.0	0.2	25.0	27	73	640	2.00	11	3720	380	27	250	1.1	110	3280	13.2	8.5	430	840	23.00
94L15	951165	9	618729	6526461	6	SDRR	1.8	8.4	0.2	2.1	10	45	580	1.90	16	315	160	8	33	0.8	42	269	9.4	8.6	87	170	3.30
94L14	951166	9	615072	6527374	6	SDRR	2.9	39.0	0.2	6.9	14	50	650	2.40	9	830	210	10	72	0.6	57	1230	9.2	8.5	230	370	8.00
94L14	951167	9	614040	6533788	6	CmMRE	2.7	25.0	0.2	5.7	7	44	440	1.30	10	195	300	13	44	0.9	50	491	7.7	8.6	165	240	7.00

S T R E A M S E D I M E N T																																	
MAP	SAMPLE ID	UTM ZONE	UTM EAST	UTM NORTH	STA	MED	FORM	INAA			INAA			INAA			INAA			INAA			INAA			INAA							
								Sb 0.1 ppm	As 0.5 ppm	Ba 50 ppm	Br 0.5 ppm	Ce 3 ppm	Cs 1 ppm	Cr 5 ppm	Co 1 ppm	Au 2 ppb	Hf 1 ppm	Fe 0.01 %	La 0.5 ppm	Lu 0.05 ppm	Mo 1 ppm	Ni 20 ppm	Rb 5 ppm	Sm 0.1 ppm	Sc 0.1 ppm	Na 0.01 %	Ta 0.5 ppm	Tb 0.5 ppm	Th 0.2 ppm	W 1 ppm	U 0.5 ppm	Yb 0.2 ppm	Wt g
94L10	951113	9	633274	6498488	20	6	SDRR	3.8	12.0	6600	11.0	100	6	97	10	10	9	3.36	54.0	0.53	8	87	100	6.3	11.0	0.38	1.3	0.7	17.0	1	7.8	3.2	14.62
94L10	951114	9	640926	6487811	6	SDRR	5.2	18.0	1900	16.0	110	7	88	35	7	8	8.18	59.0	0.46	11	280	120	6.6	12.0	0.38	1.2	0.9	20.0	1	6.2	3.2	16.30	
94L07	951115	9	643132	6484077	6	luCml	1.7	7.3	1600	2.4	150	4	72	9	6	7	2.99	78.0	0.41	6	20	99	8.9	10.0	0.37	1.1	0.8	18.0	1	4.5	2.7	19.98	
94L08	951116	9	646931	6485946	6	luCmGs	0.8	7.4	1000	7.6	160	7	120	13	2	11	4.78	82.0	0.67	1	20	160	10.0	17.0	0.77	1.5	1.3	29.0	1	7.7	4.1	14.44	
94L08	951117	9	647194	6485955	6	CmOK	4.4	12.0	1700	3.5	100	5	81	9	2	7	3.31	56.0	0.47	11	20	110	6.4	12.0	0.34	0.5	1.0	18.0	1	6.0	2.9	17.96	
94L08	951118	9	654775	6482056	6	luCml	0.8	6.9	870	0.5	130	4	76	14	4	9	4.03	65.0	0.59	1	82	110	8.2	13.0	0.56	1.4	1.0	21.0	1	3.7	3.6	24.56	
94L08	951119	9	651549	6486126	6	HAH	3.8	17.0	1700	5.9	120	5	88	15	2	9	4.24	63.0	0.59	4	20	120	7.8	13.0	0.51	1.0	0.9	23.0	3	6.2	3.9	21.37	
94L10	951120	9	643072	6487889	6	luCmGs	2.1	8.1	1900	4.9	150	6	110	16	7	12	4.01	77.0	0.65	6	20	160	9.5	15.0	0.62	0.5	1.3	26.0	1	7.0	4.3	18.97	
94L10	951122	9	643054	6486305	6	SDRR	2.5	14.0	1800	9.8	140	7	99	26	2	11	4.97	77.0	0.64	1	94	150	9.1	15.0	0.61	0.5	1.1	26.0	1	8.8	4.0	16.84	
94L10	951123	9	638070	6487500	6	luCml	2.6	9.2	1700	6.9	110	3	71	10	2	9	2.83	55.0	0.44	4	20	93	6.8	9.6	0.39	0.5	0.8	15.0	1	6.1	3.0	18.64	
94L10	951124	9	634342	6493248	6	CmOKR	3.3	10.0	1200	7.8	84	4	80	10	2	6	3.00	44.0	0.31	5	20	92	4.8	9.9	0.29	0.5	0.5	15.0	1	5.1	2.0	15.91	
94L10	951125	9	639416	6494300	6	luCmGs	0.9	4.4	1100	82.0	110	7	80	14	2	8	5.43	55.0	0.48	4	95	140	6.5	12.0	0.58	0.5	0.7	19.0	1	6.2	3.1	14.03	
94L10	951126	9	643008	6491460	6	luCmGs	1.1	7.6	1300	6.8	140	6	100	14	3	10	4.40	73.0	0.64	4	230	140	9.2	16.0	0.74	1.7	1.1	26.0	1	5.1	4.0	17.97	
94L10	951127	9	629775	6511946	6	SDRR	1.0	2.4	1300	33.0	11	1	23	2	5	1	0.62	6.2	0.12	3	55	5	0.8	2.4	0.06	0.5	0.5	2.2	1	4.2	0.6	15.26	
94L10	951128	9	628809	6513018	6	CmOKR	6.5	15.0	4500	10.0	84	5	98	11	10	6	3.15	50.0	0.43	11	390	87	5.5	9.0	0.16	0.8	0.9	11.0	1	7.9	2.9	15.35	
94L15	951129	9	626017	6518010	10	6	SDRR	2.5	10.0	6500	3.2	98	5	93	11	4	7	3.61	56.0	0.49	5	20	110	5.9	12.0	0.48	0.9	0.5	16.0	1	6.3	3.0	16.75
94L15	951130	9	626017	6518010	20	6	SDRR	2.6	9.7	6500	3.7	100	5	92	11	5	7	3.56	55.0	0.50	5	110	110	6.0	12.0	0.48	0.5	0.8	16.0	2	6.6	3.1	15.85
94L15	951131	9	623373	6519845	6	luCmGs	3.3	17.0	4800	11.0	110	6	100	11	7	8	3.75	58.0	0.53	6	20	130	6.8	13.0	0.49	0.5	1.0	19.0	4	6.3	3.4	14.55	
94L15	951132	9	621670	6522944	6	luCmGs	3.3	12.0	5600	8.6	89	5	99	9	5	8	3.08	49.0	0.53	1	20	100	5.9	11.0	0.38	1.3	0.7	16.0	1	6.6	3.2	16.22	
94L15	951134	9	618628	6521024	6	SDRR	6.8	14.0	3200	17.0	44	3	140	4	3	4	1.71	25.0	0.50	12	550	53	3.8	8.2	0.20	0.5	0.5	6.8	1	5.8	2.8	14.98	
94L14	951135	9	607202	6525469	6	SDRR	1.4	8.3	1600	22.0	23	1	25	3	4	3	0.87	11.0	0.16	7	66	35	1.8	2.7	0.07	0.5	0.5	3.3	1	3.1	1.0	14.72	
94L14	951136	9	607275	6525084	6	SDRR	3.2	13.0	2600	6.3	42	1	42	5	2	3	1.76	20.0	0.30	7	20	58	2.9	4.6	0.16	0.5	0.6	5.6	1	4.0	1.6	16.06	
94L14	951137	9	604040	6526706	6	SDRR	3.1	14.0	5200	6.0	53	1	66	7	9	7	2.27	27.0	0.41	4	20	70	4.0	6.1	0.18	0.5	0.7	8.5	1	6.6	2.1	14.58	
94L14	951138	9	606868	6532082	6	SDRR	2.9	10.0	1400	27.0	54	1	65	5	3	6	1.80	25.0	0.44	7	160	45	3.9	5.9	0.21	0.5	0.5	7.3	1	5.8	2.1	14.97	
94L14	951139	9	610794	6529656	6	SDRR	3.0	15.0	2400	35.0	65	3	66	10	2	7	2.72	30.0	0.41	7	110	68	4.7	6.6	0.17	0.5	0.9	9.5	1	3.8	2.7	15.33	
94L14	951140	9	611154	6529140	6	SDRR	9.2	48.0	5700	21.0	59	3	95	11	2	7	2.76	33.0	0.52	24	260	69	5.2	7.9	0.12	1.3	1.0	9.3	1	6.4	3.2	15.08	
94L10	951141	9	604045	6489760	6	SDRR	4.5	15.0	2800	8.0	140	6	94	10	14	11	4.06	70.0	0.71	7	20	130	7.8	12.0	0.47	0.5	0.5	21.0	1	7.8	4.0	15.76	
94L10	951143	9	640799	6489667	6	SDRR	3.1	13.0	2000	24.0	130	4	80	8	8	9	3.35	66.0	0.47	12	20	150	8.1	13.0	0.51	0.5	0.5	21.0	1	7.3	3.9	14.85	
94L10	951144	9	636036	6490341	6	luCml	1.7	3.6	800	8.7	27	1	29	3	2	1	2.11	16.0	0.15	1	20	44	1.8</td										

Field Observations and Analytical Data

94L14	951160	9	608436	6527719	6	SDRR	2.2	12.0	2700	14.0	68	3	62	8	5	8	2.43	33.0	0.51	7	20	78	4.9	7.9	0.22	0.5	0.8	10.0	1	4.5	2.9	15.08
94L14	951162	9	608263	6527853	6	SDRR	3.1	8.7	1100	43.0	45	2	65	5	8	4	1.90	23.0	0.39	6	20	60	3.3	6.7	0.15	0.5	0.6	6.2	1	4.3	2.0	13.47
94L15	951163	9	618927	6526269	6	luCmGs	2.5	9.3	4900	12.0	74	4	65	10	5	7	2.86	38.0	0.47	6	70	96	4.9	7.9	0.27	1.4	0.8	11.0	1	5.6	2.6	14.88
94L14	951164	9	613850	6530297	6	SDRR	9.0	42.0	9100	11.0	69	3	89	35	7	6	4.92	34.0	0.45	36	340	75	4.7	8.0	0.18	0.5	0.6	9.9	1	8.7	2.9	15.36
94L15	951165	9	618729	6526461	6	SDRR	3.3	14.0	6400	7.2	100	5	86	12	6	9	3.49	50.0	0.50	14	130	110	6.4	10.0	0.34	0.5	1.0	15.0	1	6.8	3.0	15.09
94L14	951166	9	615072	6527374	6	SDRR	5.8	50.0	11000	7.1	71	5	95	19	10	7	3.71	37.0	0.54	24	220	120	5.1	10.0	0.28	0.5	0.8	12.0	1	6.5	2.9	15.01
94L14	951167	9	614040	6533788	6	CmMRE	7.1	28.0	6600	4.3	71	4	92	7	4	6	2.56	36.0	0.47	21	20	100	5.0	9.5	0.10	0.5	0.7	11.0	1	6.0	2.8	16.07

MAP SAMPLE ID	UTM ZONE	UTM EAST	UTM NORTH	STA FORM	ICPMs	S T R E A M W A T E R																											
						Sb	As	Ba	Cd	Ca	Co	Cu	Fe	Pb	Li	Mn	Mg	Mo	Ni	K	Rb	Se	Si	Na	Sr	U	V	Y	Zn	Zr			
						0.02	0.02	0.002	0.002	1	0.001	0.002	0.1	0.02	0.1	0.10	0.1	0.02	0.002	1	0.002	0.02	1	0.1	0.002	0.002	0.02	0.002	0.002	0.002	0.002		
94L10	951113	9	633274	6498488	20	6	SDRR	0.22	0.13	104.0	0.08	59441	0.094	1.15	8.2	0.05	4.4	0.5	26893	4.42	3.1	652	0.21	0.80	1465	1783	321.5	8.40	0.38	0.030	4.28	0.077	
94L10	951114	9	640926	6487811	6	SDRR	0.07	0.16	29.4	0.03	68319	0.126	1.07	9.3	0.09	9.2	3.8	34899	3.58	4.1	688	0.37	0.87	2143	1850	313.3	6.82	0.41	0.010	3.89	0.600		
94L07	951115	9	643132	6484077	6	luCml	0.15	0.17	42.7	0.04	72964	0.135	1.71	12.5	0.05	11.5	0.6	32696	3.16	2.8	644	0.14	0.38	1625	2685	582.3	12.32	0.40	0.011	4.68	0.195		
94L08	951116	9	646931	6485946	6	luCmGs	0.02	0.14	13.8	0.00	39948	0.085	1.18	8.4	0.04	8.4	0.3	6311	0.20	0.8	292	0.14	0.02	1253	2263	209.0	1.07	0.29	0.013	2.83	0.002		
94L08	951117	9	647194	6485955	6	CmOK	0.22	0.12	85.5	0.15	43920	0.083	1.09	8.6	0.04	2.4	0.4	23293	3.61	4.1	339	0.10	1.11	1151	932	207.7	4.19	0.32	0.027	11.38	0.158		
94L08	951118	9	654775	6482056	6	luCml	0.06	0.15	33.2	0.01	45671	0.089	1.09	6.0	0.05	10.3	0.3	11154	0.43	0.4	991	0.40	0.02	1131	9390	212.6	1.30	0.23	0.012	1.70	0.002		
94L08	951119	9	651549	6486126	6	HAH	0.05	0.08	27.9	0.02	34301	0.083	0.90	5.6	0.03	3.5	0.2	7164	0.28	0.9	357	0.08	0.53	774	2300	69.6	0.60	0.18	0.004	1.99	0.002		
94L10	951120	9	643072	6487889	6	luCmGs	0.12	0.15	40.4	0.05	62141	0.110	0.94	7.2	0.04	7.9	0.4	24171	1.11	5.3	359	0.17	2.47	1201	2560	383.2	4.52	0.45	0.029	5.60	0.002		
94L07	951122	9	643054	6486305	6	SDRR	0.11	0.18	42.5	0.09	47185	0.074	1.83	7.7	0.08	8.5	0.5	21112	1.86	4.9	501	0.30	2.55	1619	2399	284.3	8.34	0.36	0.017	10.17	0.490		
94L10	951123	9	638070	6487500	6	luCml	0.15	0.14	58.1	0.07	52403	0.106	1.15	9.2	0.06	4.5	0.5	24062	2.36	6.9	376	0.19	2.05	1252	1976	254.9	6.04	0.38	0.016	10.32	0.553		
94L10	951124	9	634342	6493248	6	CmOKR	0.15	0.09	35.5	0.04	43820	0.081	0.94	5.8	0.03	1.4	0.4	20495	2.24	1.2	368	0.12	1.66	1220	1451	235.8	4.05	0.24	0.002	2.62	1.038		
94L10	951125	9	639416	6494300	6	luCmGs	0.02	0.12	13.8	0.01	33887	0.086	0.92	15.9	0.03	21.8	6.1	6368	0.23	0.8	440	0.37	1.39	1366	2429	278.0	0.44	0.30	0.004	2.02	0.002		
94L10	951126	9	643008	6491460	6	luCmGs	0.03	0.13	28.5	0.05	45718	0.122	0.93	9.1	0.04	10.9	15.5	12089	0.11	49.8	280	0.14	1.06	1079	2218	350.5	0.46	0.37	0.104	23.26	0.182		
94L10	951127	9	629576	6519194	6	SDRR	0.10	0.18	51.1	0.02	69763	0.112	0.89	7.0	0.03	3.9	0.3	37546	2.49	3.0	971	0.30	3.19	1803	1956	377.3	7.77	0.49	0.006	3.55	0.201		
94L10	951128	9	628809	6513018	6	CmOKR	0.78	0.24	58.7	1.10	62332	0.112	1.12	10.5	0.03	3.7	0.3	28234	11.16	63.7	1219	0.58	3.48	1564	650	229.0	7.76	0.45	0.020	178.20	0.002		
94L15	951129	9	626017	6518010	10	6	SDRR	0.11	0.09	113.8	0.04	42028	0.092	1.27	12.6	0.03	3.4	0.7	19857	2.04	1.4	565	0.16	1.34	1225	2004	219.3	2.70	0.23	0.027	4.75	0.002	
94L15	951130	9	626017	6518010	20	6	SDRR	0.10	0.13	112.9	0.04	42246	0.077	1.24	11.5	0.03	3.4	0.6	19581	2.22	1.6	546	0.15	1.42	1216	1987	219.1	2.64	0.25	0.033	3.93	0.431	
94L15	951131	9	623373	6519845	6	luCmGs	0.05	0.07	169.9	0.02	35718	0.072	0.87	7.7	0.04	4.0	0.2	11308	0.48	0.4	424	0.13	0.02	1083	2763	172.6	0.89	0.20	0.012	2.79	0.002		
94L15	951132	9	621670	6522944	6	luCmGs	0.15	0.11	114.8	0.04	46783	0.089	1.42	8.0	0.03	3.7	0.4	19651	2.06	1.0	513	0.15	0.25	1132	1724	233.0	2.38	0.29	0.013	2.56	0.002		
94L15	951134	9	618628	6512024	6	SDRR	0.34	0.23	89.7	0.37	55771	0.106	1.45	10.0	0.04	1.4	0.4	30903	21.45	26.5	594	0.15	4.81	1901	878	242.2	7.85	2.32	0.031	84.99	0.122		
94L14	951135	9	607202	6525469	6	SDRR	0.18	0.22	45.7	0.04	80642	0.118	0.91	11.3	0.08	2.1	0.5	62780	4.49	4.4	1581	0.51	0.02	1406	824	221.1	10.72	0.92	0.007	4.74	0.422		
94L14	951136	9	607275	6525084	6	SDRR	0.21	0.19	36.7	0.03	103340	0.134	1.16	9.7	0.04	3.5	1.6	52148	1.54	8.2	1549	0.37	0.88	1566	1075	245.2	7.20	0.52	0.005	5.24	0.171		
94L14	951137	9	604040	6526706	6	SDRR	0.13	0.10	37.7	0.02	129168	0.197	1.11	9.7	0.04	3.8	0.3	67589	1.52	3.4	2335	0.57	0.12	1362	854	320.1	12.15	0.35	0.012	4.49	0.002		
94L14	951138	9	606868	6530282	6	SDRR	0.20	0.15	59.8	0.14	167648	0.197	0.66	10.8	0.04	1.8	1.0	57608	5.99	27.0	1187	0.38	0.52	1342	812	254.0	21.13	0.50	0.025	65.46	0.043		
94L14	951139	9	610794	6529656	6	SDRR	0.16	0.09	73.3	0.09	94208	0.160	0.66	14.9	0.02	1.8	4.5	50619	4.32	9.8	957	0.30	0.38	1212	627	228.2	7.91	0.26	0.027	25.42	0.189		
9																																	

Field Observations and Analytical Data

94L14	951159	9	610186	6531596	6	SDRR	0.14	0.46	129.0	0.03	99139	0.130	1.54	55.4	0.05	4.0	30.1	28973	2.72	2.5	595	0.18	0.10	1671	1965	242.7	3.67	0.21	0.018	4.07	0.002
94L14	951160	9	608436	6527719	6	SDRR	0.08	0.10	202.4	0.02	79915	0.980	1.22	5.7	0.02	1.4	0.2	30498	1.29	0.8	674	0.13	2.85	1536	629	142.9	2.11	0.11	0.020	3.07	2.245
94L14	951162	9	608263	6527853	6	SDRR	0.08	0.07	68.2	0.01	182933	0.168	0.83	9.0	0.04	1.5	10.2	40458	0.92	2.5	642	0.27	0.90	1656	619	178.6	3.97	0.14	0.010	4.50	0.002

94L15	951163	9	618927	6526269	6	luCmGs	0.11	0.10	96.2	0.04	97130	0.101	1.42	7.8	0.02	7.0	0.8	24754	1.26	1.4	557	0.16	0.80	2167	2017	351.7	2.92	0.12	0.017	5.02	0.104
94L14	951164	9	613850	6530297	6	SDRR	0.31	0.16	32.7	0.51	220329	0.211	1.33	7.5	0.04	7.5	2.6	54853	26.26	34.5	2412	0.83	3.00	3426	1359	412.3	33.97	0.38	0.015	115.38	0.152
94L15	951165	9	618729	6526461	6	SDRR	0.17	0.06	117.1	0.03	86185	0.097	1.74	11.3	0.03	4.4	0.9	25666	3.17	2.4	507	0.13	1.81	1859	1623	328.0	3.81	0.10	0.023	4.37	0.660
94L14	951166	9	615072	6527374	6	SDRR	0.41	0.41	56.0	0.23	140494	0.152	1.76	14.2	0.02	7.2	6.3	36926	15.59	11.5	1184	0.50	3.21	2654	1896	266.8	12.13	0.21	0.025	44.54	0.042
94L14	951167	9	614040	6533788	6	CmMRE	0.71	0.42	68.2	0.27	127382	0.117	1.70	7.4	0.03	3.8	0.2	42196	29.36	13.2	1822	0.90	4.79	3253	992	276.2	10.57	0.47	0.026	25.60	0.002

MAP	SAMPLE	UTM	UTM	UTM	ELEV	STA	MED	AREA	PERI	FORM	%	WAT	COL	SED	SED	STRM	STRM	BNK	CHL	CHL	PHY	DRN	TYP	ODR	SRC	DATE			
	ID	ZONE	EAST	NORTH																									
94L14	951168	9	614100	6536302	1060	6	1.67	6.10	CmMRE	71.3	0	1	T	R	N	112	0.4	20	O	N	O	S	M	D	P	1	G	1307	
94L14	951169	9	606242	6535049	1040	10	6	2.35	6.83	CmMRE	100.0	0	2	B	R	N	012	0.3	20	O	W	O	S	M	D	P	1	G	1307
94L14	951170	9	606242	6535049	1040	20	6	2.35	6.83	CmMRE	100.0	0	2	B	R	N	012	0.3	20	O	W	O	S	M	D	P	1	G	1307
94L14	951171	9	607471	6537598	980	6	2.79	7.01	CmMRE	100.0	0	1	W	R	N	122	0.4	35	O	R	F	S	M	D	P	1	G	1307	
94L14	951172	9	612838	6540502	1000	6	0.84	4.14	CmOK	100.0	0	2	R	R	N	220	0.6	20	O	N	S	S	M	D	P	1	G	1407	
94L14	951173	9	607482	6540680	960	6	1.57	5.32	CmMRE	50.9	0	1	T	N	N	121	0.5	20	O	N	O	S	M	D	P	1	G	1407	
94L14	951174	9	605947	6541263	900	6	1.00	5.53	CmMRE	100.0	0	2	B	N	N	220	2.5	50	G	N	S	S	M	D	P	1	G	1407	
94L14	951175	9	601936	6540965	840	6	1.87	6.48	CmMRE	100.0	0	2	B	R	N	220	3.0	20	C	N	S	S	M	D	P	1	G	1407	
94L14	951176	9	599295	6537386	760	6	2.33	7.41	CmMRE	100.0	0	1	W	N	N	220	2.0	15	O	N	F	S	M	D	P	1	G	1407	
94L14	951177	9	599590	6536828	780	6	5.62	11.20	CmMRE	100.0	0	2	W	W	N	211	4.0	40	C	W	O	S	M	D	P	1	G	1407	
94L14	951178	9	602528	6533644	960	6	3.61	8.02	CmMRE	100.0	0	2	T	W	N	031	2.5	35	C	N	F	S	M	D	P	2	G	1407	
94L10	951179	9	632371	6490976	1020	6	1.14	4.91	luCml	42.8	0	2	T	N	N	321	0.4	20	O	N	F	S	M	D	P	1	G	1407	
94L15	951182	9	618364	6528954	1140	6	0.84	4.62	luCmGs	92.2	0	1	T	N	N	220	0.5	20	A	N	S	S	M	D	P	1	G	1307	
94L15	951183	9	615844	6528721	1120	6	1.66	5.20	SDRR	49.3	0	2	T	N	N	130	1.0	30	C	N	S	S	M	D	P	1	G	1307	
94L14	951184	9	612770	6531990	1180	6	2.12	6.59	CmOKR	41.2	0	2	T	N	N	130	1.0	30	R	N	S	S	M	D	P	1	G	1307	
94L14	951185	9	614161	6534750	1160	6	1.74	5.42	CmMRE	100.0	0	1	T	R	N	220	0.5	20	O	N	S	S	M	D	P	1	G	1307	
94L14	951187	9	610774	6536883	1020	6	10.99	15.55	CmMRE	99.5	0	1	T	N	N	310	1.5	30	U	R	S	S	M	D	P	2	G	1307	
94L14	951188	9	606330	6537419	1100	6	1.72	6.32	CmMRE	100.0	0	1	T	N	N	310	0.5	30	R	N	S	S	M	D	P	1	G	1307	
94L14	951189	9	609944	6541292	1040	6	5.76	10.31	CmOK	81.8	0	1	T	N	N	130	2.0	20	O	N	S	S	M	D	P	2	G	1307	
94L14	951190	9	606763	6539602	960	6	1.75	6.10	CmMRE	100.0	0	1	T	N	N	220	1.5	20	S	N	S	S	M	D	P	1	G	1307	
94L14	951191	9	603170	6538737	1100	6	6.08	12.59	CmMRE	100.0	0	1	T	N	N	030	0.5	20	O	N	S	S	M	D	P	1	G	1307	
94L14	951192	9	600104	6541059	820	6	1.45	6.60	CmMRE	100.0	0	1	T	N	N	310	0.3	10	O	N	S	S	M	D	P	1	G	1307	
94L14	951193	9	599349	6535386	700	10	6	6.25	10.46	CmMRE	100.0	0	1	T	N	N	220	1.5	40	A	N	S	S	M	D	P	2	G	1307
94L14	951194	9	599349	6535386	700	20	6	6.25	10.46	CmMRE	100.0	0	1	T	N	N	220	1.5	40	A	N	S	S	M	D	P	2	G	1307
94L10	951195	9	627487	6493021	880	6	1.07	4.77	luCml	100.0	0	1	T	N	N	310	3.0	80	A	N	B	S	M	D	P	1	G	1307	
94L10	951196	9	617238	6502193	920	1	1.01	6.29	1Cmv	95.3			T	N	N	220	0.5	20	C	N	B	S	M	D	S	1	G	1307	
94L08	951197	9	651090	6486761	1000	6	1.17	5.98	HAH	59.5	0	2	T	N	N	220	2.0	30	A	N	S	S	M	D	P	1	G	1607	
94L10	951198	9	621727	6498442	1200	6	0.70	4.07	luCml	73.4	0	1	G	N	N	310	0.5	15	C	N	S	S	P	D	P	1	G	1607	
94L11	951199	9	614729	6505622	880	6	6.43	12.08	1Cmv	59.1	0	3	T	R	N	220	4.0	45	C	N	B	S	M	D	P	2	G	1607	
94L10	951200	9	623035	6512068	1140	6	2.82	8.09	DME	73.7	0	2	T	N	N	130	2.0	80	A	N	S	S	M	D	P	3	G	1607	
94L09	951202	9	647209	6489396	1240	6	4.29	8.56	luCmGs	54.4	0	3	G	N	N	230	2.0	35	C	N	B	S	M	D	P	1	G	1607	
94L10	951203	9	630981	6501481	1280	6	0.54	3.44	SDRR	42.1	0	2	T	N	N	320	0.6	20	O	N	B	S	M	D	P	1	G	1607	
94L14	951204	9	613247	6518839	1120	6	1.19	6.10	SDRR	82.5	0	2	B	N	N	230	0.6	25	O	N	B	S	M	D	P	1	G	1607	
94L11	951205	9	612857	6507383	940	6	2.36	8.01	luCml	45.1	0	2	W	W	N	022	1.0	30	A	N	S	S	M	D	P	1	G	1607	

Field Observations and Analytical Data

MAP	SAMPLE ID	ZONE	UTM EAST	UTM NORTH	STA MED FORM	STREAM SEDIMENT																		WATER									
						Sb	As	Bi	Cd	Co	Cu	F	Fe	Pb	Mn	Hg	Mo	Ni	Ag	V	Zn	LOI	pH	SO4	FW	UW							
						0.2 ppm	0.2 ppm	0.2 ppm	0.2 ppm	2 ppm	2 ppm	40 PPM	0.02 %	2 ppm	5 ppm	10 ppb	1 ppm	2 ppm	0.2 ppm	5 ppm	2 ppm	0.1 %	0.1 pH	1.0 ppb	20 ppb	0.05 ppb							
94L14	951168	9	614100	6536302	6	CmMRE	6.5	64.0	0.2	78.0	61	65	360	11.00	3	11000	360	56	725	1.0	140	3500	26.2	8.5	250	580	1.80						
94L14	951169	9	606242	6535049	10	6	CmMRE	4.1	57.0	0.2	25.0	18	27	510	3.00	5	3400	250	25	268	0.9	84	10300	29.0	8.3	510	560	19.50					
94L14	951170	9	606242	6535049	20	6	CmMRE	2.8	73.0	0.2	28.0	17	34	500	2.90	2	3710	260	26	273	0.8	89	10900	28.4	8.2	540	640	20.00					
94L14	951171	9	607471	6537598	6	CmMRE	0.6	5.1	0.2	4.1	7	31	480	0.70	5	125	120	7	26	0.7	33	370	14.8	8.4	290	290	10.00						
94L14	951172	9	612838	6540502	6	CmOK	3.0	27.0	0.2	40.0	17	57	650	4.90	6	734	290	18	164	0.5	110	2390	11.2	8.5	300	840	7.50						
94L14	951173	9	607482	6540680	6	CmMRE	1.4	13.0	0.2	39.0	8	38	490	1.80	11	10800	210	9	327	0.6	59	2700	10.3	8.4	340	280	12.00						
94L14	951174	9	605947	6541263	6	CmMRE	2.9	17.0	0.2	3.4	7	56	550	1.60	9	197	220	10	45	0.6	93	422	6.3	8.1	370	360	11.00						
94L14	951175	9	601936	6540965	6	CmMRE	3.4	21.0	0.2	2.1	9	113	1040	1.70	12	104	190	15	51	1.9	46	395	9.5	8.5	530	310	11.00						
94L14	951176	9	599295	6537386	6	CmMRE	0.4	2.2	0.2	0.6	3	22	510	0.50	4	88	70	2	20	0.5	17	97	12.0	8.3	540	340	24.50						
94L14	951177	9	599590	6536828	6	CmMRE	0.3	0.8	0.2	0.3	4	17	480	0.10	2	53	20	4	12	0.6	21	54	13.6	8.5	375	290	5.50						
94L14	951178	9	602528	6533644	6	CmMRE	0.5	4.1	0.2	1.5	5	35	490	0.70	5	171	100	2	27	0.4	25	238	10.0	8.4	480	490	6.50						
94L10	951179	9	632371	6490976	6	luCml	0.8	7.5	0.2	1.4	8	24	470	2.20	10	320	30	3	29	0.5	28	295	10.6	8.6	44	110	2.00						
94L15	951182	9	618364	6528954	6	luCmGs	0.3	4.5	0.2	0.9	10	30	450	2.50	17	340	80	2	27	0.2	20	118	7.7	8.3	69	100	1.50						
94L15	951183	9	615844	6528721	6	SDRR	0.9	12.0	0.2	2.6	12	110	600	2.40	13	175	340	3	41	0.8	43	307	7.8	8.3	210	130	5.00						
94L14	951184	9	612770	6531990	6	CmOKR	1.2	13.0	0.2	4.0	11	65	920	1.70	12	611	220	5	40	0.6	55	506	9.5	8.2	200	360	9.50						
94L14	951185	9	614161	6534750	6	CmMRE	2.1	14.0	0.2	8.0	11	37	500	3.00	10	492	200	26	52	0.4	56	435	8.9	8.0	86	240	1.00						
94L14	951187	9	610774	6536883	6	CmMRE	1.2	18.0	0.2	10.0	20	43	590	2.70	11	1530	360	13	832	0.9	41	1370	14.2	8.2	215	410	7.30						
94L14	951188	9	606330	6537419	6	CmMRE	2.3	18.0	0.2	18.0	12	51	520	2.20	10	1960	300	5	165	1.0	110	2210	16.3	8.2	225	410	17.00						
94L14	951189	9	609944	6541292	6	CmOK	1.0	14.0	0.2	2.6	10	33	530	2.10	10	2040	230	2	31	0.4	34	274	14.4	8.4	96	150	3.90						
94L14	951190	9	606763	6539602	6	CmMRE	2.9	17.0	0.2	5.4	9	61	520	1.60	9	163	270	6	60	1.2	109	647	8.7	8.4	215	340	19.00						
94L14	951191	9	603170	6538737	6	CmMRE	1.4	12.0	0.2	4.1	6	42	520	1.10	11	196	280	2	41	0.5	62	780	7.6	8.2	225	200	11.00						
94L14	951192	9	600104	6541059	6	CmMRE	1.2	10.5	0.2	15.0	7	54	460	1.20	12	220	290	4	107	0.4	51	1640	17.5	8.0	470	380	23.50						
94L14	951193	9	599349	6535386	10	6	CmMRE	0.4	3.3	0.2	0.9	5	27	580	0.90	2	213	80	2	12	0.3	20	72	9.4	8.4	255	180	1.80					
94L14	951194	9	599349	6535386	20	6	CmMRE	0.3	3.2	0.2	0.9	6	23	380	0.75	5	197	70	1	10	0.2	23	67	8.4	8.5	260	190	1.80					
94L10	951195	9	627487	6493021	6	luCml	0.2	1.8	0.2	0.2	4	11	190	0.30	3	110	10	1	3	0.5	12	18	2.3	8.3	2	20	0.24						
94L10	951196	9	617238	6502193	1	lCmv	0.2	3.8	0.2	0.2	34	63	480	10.00	5	2050	50	3	21	0.4	175	137	17.4										
94L08	951197	9	651090	6486761	6	HAH	0.4	8.7	0.2	0.3	13	35	600	2.50	20	264	70	2	22	0.3	18	70	11.3	8.4	28	26	0.50						
94L10	951198	9	621727	6498442	6	luCml	0.3	8.5	0.3	0.2	23	44	520	4.80	19	515	50	2	31	0.5	27	145	11.4	8.3	34	36	0.25						
94L11	951199	9	614729	6505622	6	lCmv	1.2	16.0	0.2	0.2	18	37	270	3.00	11	744	30	3	26	0.4	43	73	6.6	8.3	185	44	2.10						
94L10	951200	9	623035	6512068	6	DME	1.4	10.0	0.2	3.4	9	48	450	2.00	10	261	150	6	33	0.8	50	401	6.1	8.3	35	94	1.90						
94L09	951202	9	647209	6489396	6	luCmGs	0.8	10.0	0.2	1.0	14	35	310	2.90	22	235	40	5	35	0.4	38	153	5.2	8.3	65	32	1.20						
94L10	951203	9	630981	6501481	6	SDRR	2.1	15.0	0.2	8.2	20	63	370	2.70	15	1100	180	14	143	0.8	70	1470	7.9	8.4	58	430	2.20						
94L14	951204	9	613247	6518839	6	SDRR	9.5	72.0	0.2	23.0	8	90	390	1.50	12	376	470	34	92	2.3	168	1780	9.2	8.4	100	380	4.80						
94L11	951205	9	612857	6507383	6	luCml	0.4	6.8	0.2	0.2	9	28	290	0.85	10	250	30	5	18	0.4	16	51	14.2	8.4	190	84	2.60						

Field Observations and Analytical Data

MAP SAMPLE ID	ZONE	UTM EAST	UTM NORTH	STA MED	FORM	STREAM SEDIMENT																								Yb 0.2	Wt 0.01		
						Sb 0.1 ppm	As 0.5 ppm	Ba 50 ppm	Br 0.5 ppm	Ce 3 ppm	Cs 1 ppm	Cr 5 ppm	Co 1 ppm	Au 2 ppb	Hf 1 ppm	Fe 0.01 %	La 0.5 ppm	Lu 0.05 ppm	Mo 1 ppm	Ni 20 ppm	Rb 5 ppm	Sm 0.1 ppm	Sc 0.1 ppm	Na 0.01 %	Ta 0.5 ppm	Tb 0.5 ppm	Th 0.2 ppm	W 1 ppm	U 0.5 ppm	Yb 0.2 ppm	Wt 0.01 g		
						INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA					
94L14	951168	9	614100	6536302	6	CmMRE	15.0	56.0	2700	17.0	41	3	59	76	9	4	11.70	20.0	0.34	130	850	54	3.1	5.7	0.19	1.1	0.9	6.3	1	5.3	1.8	14.86	
94L14	951169	9	606242	6535049	10	6	CmMRE	4.0	83.0	560	47.0	16	2	24	24	7	1	5.18	7.2	0.12	27	320	5	1.2	2.1	0.08	0.5	0.5	2.1	1	5.8	0.8	14.82
94L14	951170	9	606242	6535049	20	6	CmMRE	3.9	84.0	470	50.0	14	1	28	24	12	1	5.10	6.8	0.13	26	280	24	1.2	2.1	0.07	0.5	0.5	1.8	1	5.3	0.7	15.31
94L14	951171	9	607471	6537598	6	CmMRE	1.4	4.5	1400	15.0	25	2	34	4	5	2	1.15	14.0	0.20	1	20	28	2.0	4.1	0.12	0.5	0.5	3.5	1	4.3	1.1	15.01	
94L14	951172	9	612838	6540502	6	CmOK	7.5	32.0	5600	13.0	57	4	73	22	8	6	6.90	29.0	0.45	27	260	83	4.3	7.0	0.13	0.5	0.5	8.4	1	6.9	2.5	15.40	
94L14	951173	9	607482	6540680	6	CmMRE	3.3	11.0	4500	13.0	61	4	74	11	5	6	2.61	31.0	0.44	10	470	76	4.6	8.8	0.23	0.5	0.6	9.4	2	4.9	2.7	16.09	
94L14	951174	9	605947	6541263	6	CmMRE	7.4	25.0	4300	0.5	67	3	90	8	3	8	2.46	35.0	0.51	19	150	62	5.1	8.2	0.22	1.8	0.9	9.5	1	6.2	3.3	16.02	
94L14	951175	9	601936	6540965	6	CmMRE	6.9	28.0	3000	1.7	86	4	85	11	7	5	3.69	44.0	0.46	21	110	110	5.1	10.0	0.09	0.5	0.5	15.0	1	15.0	2.5	16.06	
94L14	951176	9	599295	6537386	6	CmMRE	0.7	3.0	900	8.7	35	1	33	3	21	4	1.24	16.0	0.20	1	84	36	2.3	3.7	0.35	0.5	0.5	4.2	1	3.6	1.1	15.49	
94L14	951177	9	599590	6536828	6	CmMRE	0.2	1.0	160	21.0	3	1	5	1	2	1	0.12	0.6	0.05	1	20	5	0.1	0.3	0.02	0.5	0.5	0.2	1	2.4	0.2	15.28	
94L14	951178	9	602528	6533644	6	CmMRE	1.4	5.5	940	6.9	34	1	34	4	2	4	1.36	17.0	0.23	3	20	31	2.4	3.7	0.21	0.5	0.5	4.9	1	2.9	1.3	15.30	
94L10	951179	9	632371	6490976	6	luCml	2.8	9.6	1100	17.0	150	5	78	10	6	8	3.90	69.0	0.52	5	20	110	11.0	12.0	0.40	1.4	0.5	17.0	1	4.7	3.0	15.35	
94L15	951182	9	618364	6528954	6	luCmGs	1.5	6.1	2400	5.4	120	5	87	12	2	9	3.88	57.0	0.58	3	100	160	7.2	13.0	0.60	1.3	0.5	19.0	1	4.5	3.6	15.52	
94L15	951183	9	615844	6528721	6	SDRR	4.0	15.0	7500	7.6	81	5	97	15	21	7	4.16	44.0	0.51	1	20	110	5.3	11.0	0.20	1.2	0.5	13.0	1	8.0	2.9	16.15	
94L14	951184	9	612770	6531990	6	CmOKR	4.1	16.0	14000	7.4	68	3	77	12	7	7	2.93	35.0	0.50	13	100	94	5.0	7.3	0.20	0.5	0.5	9.8	4	10.0	2.9	14.80	
94L14	951185	9	614161	6534750	6	CmMRE	5.1	21.0	8200	4.1	69	3	73	11	2	7	3.90	33.0	0.49	38	130	80	4.8	7.7	0.22	0.9	0.5	10.0	3	5.7	2.9	14.72	
94L14	951187	9	610774	6536883	6	CmMRE	4.4	25.0	4200	8.9	68	4	78	18	2	6	4.02	32.0	0.48	21	130	92	4.8	8.4	0.22	0.7	0.7	9.2	1	5.6	2.9	13.98	
94L14	951188	9	606330	6537419	6	CmMRE	5.8	24.0	2600	28.0	55	4	83	12	4	6	2.79	30.0	0.47	14	220	74	4.2	6.7	0.19	0.8	0.5	7.8	1	6.8	2.4	14.91	
94L14	951189	9	609944	6541292	6	CmOK	2.6	13.0	2800	12.0	55	3	61	9	3	6	2.94	28.0	0.44	6	20	76	4.1	6.9	0.17	0.5	0.5	8.2	1	4.8	2.3	18.96	
94L14	951190	9	606763	6539602	6	CmMRE	7.7	21.0	4000	6.1	66	4	97	8	6	6	2.50	34.0	0.52	9	120	78	5.0	8.6	0.24	0.9	0.9	9.7	1	7.0	3.1	15.09	
94L14	951191	9	603170	6538737	6	CmMRE	2.9	13.0	1900	4.4	45	2	58	5	6	5	1.61	25.0	0.34	7	49	53	3.5	5.1	0.17	0.5	0.5	7.0	1	4.3	2.1	25.74	
94L14	951192	9	600104	6541059	6	CmMRE	3.8	12.0	3100	44.0	56	2	62	6	6	6	2.14	29.0	0.37	7	110	57	4.1	6.4	0.33	0.7	0.5	7.4	1	5.2	2.1	16.36	
94L14	951193	9	599349	6535386	10	6	CmMRE	0.8	4.0	1300	9.7	57	2	53	5	6	7	2.21	27.0	0.33	1	20	57	3.9	5.8	0.72	0.5	0.5	7.0	1	2.8	2.0	21.68
94L14	951194	9	599349	6535386	20	6	CmMRE	0.6	4.0	1300	9.9	63	2	66	5	4	8	2.44	30.0	0.36	3	20	55	4.3	6.4	0.78	0.5	0.6	7.9	1	3.9	2.2	14.67
94L10	951195	9	627487	6493021	6	luCml	0.3	1.8	87	1.8	11	1	8	1	2	1	0.50	4.9	0.06	1	20	5	0.7	1.0	0.02	0.5	0.5	1.4	1	1.6	0.3	26.36	
94L10	951196	9	617238	6502193	6	lCmv	0.7	6.2	470	15.0	100	3	48	39	3	8	11.70	47.0	0.74	1	100	68	10.0	35.0	0.74	3.1	1.8	7.6	1	2.6	5.2	15.92	
94L08	951197	9	651090	6486761	6	HAH	1.0	12.0	4000	16.0	120	6	82	15	2	9	4.14	56.0	0.49	1	20	140	7.1	12.0	0.53	0.5	0.9	20.0	2	4.1	3.3	14.90	
94L10	951198	9	621727	6498442	6	luCml	1.2	14.0	1100	68.0	150	10	120	23	2	8	5.81	71.0	0.78	1	20	170	9.8	21.0	0.49	1.4	1.3	21.0	1	4.9	4.7	10.00	
94L11	951199	9	614729	6505622	6	lCmv	2.6	23.0	630	8.2	110	3	75	22	2	8	5.63	55.0	0.58	1	20	83	7.8	14.0	0.60	3.2	1.2	12.0	1	3.9	3.4	19.51	
94L10	951200	9	623035	6512068	6	DME	5.3	16.0	21000	3.5	98	4	100	10	12	9	3.74	50.0	0.54	8	20	100	6.8	11.0	0.44	0.5	1.4	14.0	1	7.0	2.9	19.26	
94L09	951202	9	647209	6489396	6	luCmGs	2.3	16.0	1400	0.5	180	8	130	19	2	11	5.62	85.0	0.70	1	20	220	11.0	18.0	0.72	3.3	0.5	30.0	1	11.0	4.5	17.92	
94L10	951203	9	630981	6501481	6	SDRR	6.5	24.0	12000	9.7	80	7	120	27	7	9	4.92	45.0	0.52	1	220	150	6.6	13.0	0.46	0.5	0.5	14.0	1	10.0	3.4	16.15	
94L14	951204	9	613247	6518839	6	SDRR	31.0	76.0	6300	8.8	62	4	160	8	6	5	2.81	38.0	0.75	44	230	97	5.7	9.0	0.12	0.5	0.5	9.2	1	14.0	3.9	17.83	
94L11	951205	9	612857	6507383	6	luCml	0.9	10.0	360	41.0	61	5	66	10	2	3	2.47	33.0	0.23	1	20	56	4.2	7.3	0.22	2.1	0.5	8.2	1	3.1	1.7	15.27	

Field Observations and Analytical Data

MAP ID	ZONE	SAMPLE	UTM UTM UTM	EAST NORTH STA MED FORM	S T R E A M W A T E R																								Zn Zr			
					Sb ppb	As ppb	Ba ppb	Cd ppb	Ca ppb	Co ppb	Cu ppb	Fe ppb	Pb ppb	Li %	Mn ppb	Mg ppb	Mo ppb	Ni ppb	K ppb	Rb ppb	Se ppb	Si ppb	Na ppb	Sr ppb	U ppb	V ppb	Y ppb	Zn ppb	Zr ppb			
					0.02	0.02	0.002	0.002	1	0.001	0.002	0.1	0.02	0.1	0.10	0.1	0.02	0.002	1	0.002	0.02	1	0.1	0.002	0.002	0.02	0.002					
94L14	951168	9	614100	6536302	6	CmMRE	0.40	0.09	24.4	0.24	120578	0.160	1.58	12.4	0.05	5.0	14.7	31677	39.18	21.6	1568	1.08	6.44	4437	930	172.2	2.91	0.19	0.002	27.89	0.002	
94L14	951169	9	606242	6535049	10	CmMRE	0.31	0.21	22.1	0.17	337554	0.251	1.18	8.4	0.05	1.6	1.8	51858	19.49	43.2	1684	0.95	1.92	2270	772	300.0	24.43	0.29	0.017	160.21	0.436	
94L14	951170	9	606242	6535049	20	CmMRE	0.33	0.27	22.4	0.16	330071	0.300	0.71	15.5	0.06	1.3	1.9	51195	19.14	44.4	1631	0.97	2.41	2296	717	308.2	23.74	0.31	0.015	159.09	1.389	
94L14	951171	9	607471	6537598	6	CmMRE	0.16	0.07	61.0	0.02	147812	0.178	0.93	7.2	0.04	3.7	0.3	45097	2.09	4.0	1282	0.37	1.90	2048	929	286.7	11.89	0.21	0.002	4.98	0.075	
94L14	951172	9	612838	6540502	6	CmOK	1.14	0.20	45.7	1.77	150681	0.327	0.83	13.9	0.03	7.0	12.9	51856	32.26	81.9	1830	1.46	5.79	4946	1069	299.5	11.04	1.01	0.021	156.09	1.660	
94L14	951173	9	607482	6540680	6	CmMRE	0.08	0.05	31.2	0.25	188525	0.197	0.54	6.3	0.03	24.2	3.6	46691	1.78	12.2	1664	0.64	2.57	2171	2571	484.9	14.53	0.17	0.017	63.04	0.218	
94L14	951174	9	605947	6541263	6	CmMRE	0.67	0.27	61.8	0.66	205753	0.262	1.67	10.3	0.03	7.0	2.2	67356	6.73	19.3	1950	0.44	18.69	2339	1734	359.5	14.53	0.83	0.089	174.79	0.435	
94L14	951175	9	601936	6540965	6	CmMRE	0.47	0.15	25.6	0.03	297104	0.248	0.89	9.7	0.02	10.1	0.2	67611	5.45	36.5	2720	1.16	10.06	2481	2488	639.6	13.92	0.22	0.002	9.44	0.377	
94L14	951176	9	599295	6537386	6	CmMRE	0.08	0.10	22.4	0.02	206356	0.259	0.79	9.4	0.03	3.9	0.6	81785	1.75	4.4	2403	0.74	1.73	2191	1993	572.0	13.92	0.11	0.002	4.11	0.375	
94L14	951177	9	599590	6536828	6	CmMRE	0.13	0.11	34.1	0.01	157368	0.198	0.83	9.4	0.03	3.5	0.5	62817	3.82	3.9	1744	0.62	1.24	2151	1391	390.6	7.18	0.09	0.002	4.48	1.442	
94L14	951178	9	602528	6533644	6	CmMRE	0.13	0.10	35.7	0.02	194428	0.219	0.93	7.7	0.03	3.0	0.7	60338	3.04	7.3	1764	0.68	3.21	2159	1102	400.8	8.45	0.16	0.009	4.57	0.002	
94L10	951179	9	632371	6490976	6	luCml	0.10	0.02	28.4	0.02	64639	0.078	0.48	4.6	0.03	3.3	0.1	26880	1.41	0.9	334	0.14	0.02	1731	1376	175.5	2.11	0.06	0.002	2.17	0.002	
94L15	951182	9	618364	6528954	6	luCmGs	0.05	0.03	65.2	0.01	75912	0.084	0.74	13.0	0.06	15.2	0.3	10213	0.37	0.5	557	0.14	0.81	1728	4973	359.1	1.45	0.05	0.028	0.82	0.002	
94L15	951183	9	615844	6528721	6	SDRR	0.11	0.03	94.8	0.05	153466	0.165	0.95	6.9	0.03	9.6	0.3	44694	0.87	2.3	1221	0.24	3.57	2214	2567	624.3	5.48	0.06	0.025	4.58	0.454	
94L14	951184	9	612770	6531990	6	CmOKR	0.17	0.07	47.3	0.09	151210	0.206	1.33	11.9	0.03	4.7	4.4	44961	6.11	6.2	1057	0.27	1.19	2739	1210	330.5	12.06	0.11	0.015	13.15	0.002	
94L14	951185	9	614161	6534750	6	CmMRE	0.45	0.09	82.8	0.31	75805	0.164	1.40	46.0	0.02	4.0	15.8	19321	48.62	15.6	965	0.37	0.75	3699	1075	121.0	1.01	0.12	0.026	25.54	0.103	
94L14	951187	9	610774	6536883	6	CmMRE	0.29	0.15	48.4	0.24	157297	0.251	1.94	33.9	0.11	5.9	29.0	47429	13.25	17.2	1519	0.44	1.31	2200	1715	273.4	10.66	0.16	0.032	56.82	0.403	
94L14	951188	9	606330	6537419	6	CmMRE	0.39	0.14	50.9	0.37	194211	0.197	0.25	6.9	0.04	4.9	0.3	41626	16.82	20.8	1712	1.01	3.04	2226	1353	447.4	18.46	1.15	0.024	97.16	0.315	
94L14	951189	9	609944	6541292	6	CmOK	0.12	0.04	125.4	0.01	98609	0.162	0.88	12.4	0.04	3.5	1.8	30359	1.72	1.7	614	0.13	0.17	1519	1030	219.3	3.99	0.04	0.011	3.27	0.002	
94L14	951190	9	606763	6539602	6	CmMRE	0.56	0.24	72.2	0.25	154443	0.196	1.09	7.6	0.04	4.2	0.1	31198	18.30	11.3	1035	0.33	7.17	1756	1035	381.9	20.82	1.50	0.047	24.66	0.344	
94L14	951191	9	603170	6538737	6	CmMRE	0.21	0.19	74.8	0.05	142674	0.187	1.05	8.0	0.02	4.9	0.2	38901	5.12	7.5	963	0.33	1.39	1682	1282	353.4	12.50	0.36	0.016	15.06	0.002	
94L14	951192	9	600104	6541059	6	CmMRE	0.19	0.13	30.2	0.29	319229	0.265	0.81	7.1	0.03	5.0	0.2	40764	9.71	27.0	1768	0.64	2.99	2009	2009	1575	602.4	25.39	0.26	0.034	109.40	0.002
94L14	951193	9	599349	6535386	10	CmMRE	0.08	0.09	40.0	0.02	126344	0.193	1.41	19.4	0.03	5.3	0.8	66828	1.08	2.5	1417	0.46	0.91	2135	1981	384.2	2.19	0.06	0.006	4.03	0.551	
94L14	951194	9	599349	6535386	20	CmMRE	0.07	0.14	39.6	0.01	128629	0.206	1.42	20.4	0.09	5.5	0.9	67815	1.04	2.4	1468	0.42	1.19	2117	2073	377.6	0.01	0.06	0.007	3.97	1.209	
94L10	951195	9	627487	6493021	6	luCml	0.02	0.02	4.3	0.03	32742	0.062	0.49	7.0	0.04	0.1	0.3	4474	0.09	0.6	128	0.05	0.19	308	188	21.1	0.24	0.02	0.002	1.46	0.126	
94L10	951196	9	617238	6502193	1	lCmv																										
94L08	951197	9	651090	6486761	6	HAH	0.02	0.02	19.6	0.01	44349	0.063	0.46	12.0	0.05	2.0	0.3	7076	0.15	0.4	226	0.16	0.02	1096	1093	84.5	0.53	0.02	0.019	1.83	2.702	
94L10	951198	9	621727	6498442	6	luCml	0.05	0.07	4.2	0.01	24560	0.001	0.53	25.7	0.03	13.2	0.1	11057	0.21	7.4	390	0.37	0.02	1771	584	47.5	0.12	0.22	0.002	2.08	0.002	
94L11	951199	9	614729	6505622	6	lCmv	0.08	0.11	16.1	0.01	96143	0.096	0.45	5.8	0.29	1.7	0.1	52357	0.95	0.8	435	0.20	0.84	1448	2047	214.5	2.10	0.02	0.005	1.61	0.002	
94L10	951200	9	623035	6512068	6	DME	0.22	0.13	217.0	0.11	54553	0.980	1.69	36.1	0.02	3.3	1.8	12210	4.21	2.9	303	0.11	2.71	1935	1541	232.0	1.82	0.51	0.073	4.78	0.002	
94L09	951202	9	647209	6489396	6	luCmGs	0.06	0.02	48.0	0.06	51869	0.067	0.53	12.8	0.02	3.2	0.9	9293	1.02	1.3	255	0.14	0.88	1255	1315	184.9	1.16	0.02	0.027	2.59	0.372	
94L10	951203	9	630981	6501481	6	SDRR	0.29	0.16	68.2	0.15	55233	0.067	0.60	6.6	0.02	17.0	0.2	14760	3.52	10.3	503	0.31	1.84	3981	3100	289.2	1.84	0.17	0.021	26.06	0.002	
94L14	951204	9	613247	6518839	6	SDRR	2.04	0.83	78.8	1.14	94251	0.094	1.70	13.2	0.02	0.9	7.0	16736	40.29	35.8	627	0.36	13.15	2787	651	186.6						

Geological Survey Branch
Open File 1996-18

**Geochemistry
of the
Gataga Mountain Area
(parts of 94L/7,8,9,10,11,14,15)**

APPENDIX B

Analytical Duplicate Data

Page B - 2 AAS Stream Sediment Analytical Duplicate Data

Page B - 3 INAA Stream Sediment Analytical Duplicate Data

Analytical Duplicate Data

MAP	SAMPLE	ID	STA	S T R E A M S E D I M E N T															LOI %
				Sb ppm	As ppm	Bi ppm	Cd ppm	Co ppm	Cu ppm	F ppm	Fe %	Pb ppm	Mn ppm	Hg ppb	Mo ppm	Ni ppm	Ag ppm	V ppm	Zn ppm
				0.2	0.2	0.2	0.2	2	2	40	0.02	2	5	10	1	2	5	2	0.1
AAS	AAS-H	AAS-H	AAS-H	AAS	AAS	AAS	AAS	ION	AAS	AAS	AAS	AAS	AAS-F	AAS	AAS	AAS	AAS	AAS	GRAV
94L14	951001		6.9	25.0	0.1	6.6	7	74	350	1.40	11	256	200	21	97	1.4	68	780	6.0
94L14	951007	10	6.1	24.0	0.1	7.0	7	75	420	1.40	10	243	180	20	99	1.4	70	810	4.9
94L10	951021		5.1	14.0	0.1	9.6	10	98	600	1.90	12	188	250	16	107	1.2	145	1070	9.9
94L10	951026	10	5.0	12.0	0.1	9.9	9	102	550	1.80	11	190	310	15	108	1.1	158	1100	10.8
94L10	951041		0.8	4.1	0.1	2.0	10	38	570	2.20	14	240	100	3	39	0.8	43	367	6.8
94L10	951045	10	1.0	3.9	0.1	2.2	10	40	710	2.30	10	234	90	3	40	0.5	40	390	7.3
94L10	951061		0.9	3.3	0.1	3.1	6	35	320	0.65	5	97	70	4	19	0.5	31	118	16.7
94L10	951066	10	0.7	3.4	0.1	3.5	5	37	320	0.60	8	98	80	6	17	0.7	30	129	19.3
94L10	951081		2.8	13.0	0.1	4.8	8	41	490	1.60	27	186	90	7	39	0.5	23	742	12.6
94L10	951083	10	2.7	10.0	0.1	5.3	9	42	440	1.50	25	175	110	4	40	0.5	23	745	13.0
94L15	951121		0.7	7.6	0.1	1.7	9	51	280	2.20	11	165	140	8	33	0.4	45	219	5.2
94L15	951130	20	0.9	7.8	0.1	1.5	8	52	440	2.10	11	171	120	6	31	0.5	43	218	5.9
94L14	951141		1.8	15.0	0.1	2.4	5	37	590	1.00	9	157	130	10	39	0.7	50	254	6.8
94L14	951154	10	2.1	15.0	0.1	2.4	6	36	420	0.90	9	138	130	10	36	1.0	53	279	8.9
94L14	951161		2.8	61.0	0.1	26.0	18	30	440	2.30	2	3300	270	24	257	0.8	83	10900	26.8
94L14	951169	10	4.1	57.0	0.1	25.0	18	27	510	3.00	5	3400	250	25	268	0.9	84	10300	29.0
94L14	951181		0.2	2.9	0.1	0.7	5	22	390	0.85	6	198	80	2	12	0.3	22	69	9.9
94L14	951193	10	0.4	3.3	0.1	0.9	5	27	580	0.90	2	213	80	2	12	0.3	20	72	9.4
94L09	951201		0.8	8.8	0.2	0.9	16	34	320	2.80	21	243	50	7	40	0.3	32	159	5.1
94L09	951202		0.8	10.0	0.2	1.0	14	35	310	2.90	22	235	40	5	35	0.4	38	153	5.2

Analytical Duplicate Data

MAP	SAMPLE ID	STA	STREAM SEDIMENT																								Wt g	
			Sb 0.1 ppm	As 0.5 ppm	Ba 50 ppm	Br 0.5 ppm	Ce 3 ppm	Cs 1 ppm	Cr 5 ppm	Co 1 ppm	Au 2 ppb	Hf 1 ppm	Fe 0.01 %	La 0.5 ppm	Lu 0.05 ppm	Mo 1 ppm	Ni 20 ppm	Rb 5 ppm	Sm 0.1 ppm	Sc 0.1 ppm	Na 0.01 %	Ta 0.5 ppm	Tb 0.2 ppm	Th 0.2 ppm	W 1 ppm	U 0.5 ppm	Yb 0.2 ppm	
			INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	
94L14	951001		13.0	31.0	5800	0.5	68	2	140	9	4	7	2.18	38.0	0.60	35	190	57	5.7	8.6	0.12	1.1	0.8	12.0	1	12.0	4.0	20.70
94L14	951007	10	13.0	31.0	5000	0.5	64	2	130	7	4	7	2.15	36.0	0.66	33	180	67	5.5	8.5	0.12	0.5	0.5	11.0	1	12.0	3.9	14.39
94L10	951021		10.0	17.0	6000	13.0	65	4	98	11	14	7	2.74	37.0	0.52	18	100	88	5.4	8.7	0.33	0.5	0.9	12.0	1	12.0	4.0	18.92
94L10	951026	10	10.0	20.0	6200	13.0	67	4	100	10	9	7	2.79	38.0	0.58	20	160	95	5.5	9.0	0.34	0.5	1.0	12.0	1	14.0	3.7	14.79
94L10	951041		1.8	5.9	2600	7.1	86	3	97	10	3	5	3.71	50.0	0.35	1	20	110	5.5	12.0	0.59	1.6	0.5	16.0	1	4.9	2.4	17.77
94L10	951045	10	2.1	6.8	2800	7.6	98	3	99	12	5	5	4.13	54.0	0.38	1	20	110	6.1	13.0	0.64	1.2	0.9	17.0	1	5.9	2.4	14.76
94L10	951061		1.2	3.1	740	28.0	31	1	30	4	4	3	1.15	16.0	0.17	1	20	31	2.2	4.6	0.13	0.5	0.5	5.3	1	3.1	1.1	14.66
94L10	951066	10	1.1	3.3	690	27.0	29	1	31	4	5	3	1.12	15.0	0.16	1	20	37	2.1	4.3	0.12	0.5	0.5	5.3	1	2.9	1.1	14.97
94L10	951081		4.3	13.0	1900	5.6	91	3	93	9	6	9	2.74	46.0	0.49	5	20	110	6.0	9.7	0.21	0.5	1.0	15.0	1	5.2	3.4	15.58
94L10	951083	10	4.2	13.0	1700	5.6	92	3	93	9	2	9	2.74	47.0	0.53	5	20	110	5.9	9.6	0.20	0.5	1.1	15.0	1	6.1	3.4	16.00
94L15	951121		2.7	9.0	6100	3.8	98	4	99	11	5	6	3.61	56.0	0.43	4	20	120	5.9	12.0	0.48	1.3	0.8	15.0	1	5.4	2.9	18.26
94L15	951130	20	2.6	9.7	6500	3.7	100	5	92	11	5	7	3.56	55.0	0.50	5	110	110	6.0	12.0	0.48	0.5	0.8	16.0	2	6.6	3.1	15.85
94L14	951141		5.5	19.0	5900	3.4	65	1	73	4	4	7	1.90	32.0	0.45	14	20	58	4.6	6.8	0.19	0.5	0.8	9.1	1	5.2	2.5	15.24
94L14	951154	10	5.5	21.0	5800	4.0	64	2	70	5	7	7	1.93	32.0	0.43	10	110	57	4.6	7.0	0.19	0.5	0.8	9.4	1	5.3	2.5	16.75
94L14	951161		3.9	82.0	510	48.0	13	1	20	25	2	1	5.01	7.1	0.13	27	360	5	1.2	2.2	0.07	0.5	0.5	2.1	1	5.1	0.7	14.90
94L14	951169	10	4.0	83.0	560	47.0	16	2	24	24	7	1	5.18	7.2	0.12	27	320	5	1.2	2.1	0.08	0.5	0.5	2.1	1	5.8	0.8	14.82
94L14	951181		1.0	3.5	1300	11.0	66	1	59	5	250	8	2.48	30.0	0.37	3	20	53	4.4	6.4	0.79	1.2	0.5	7.8	1	2.9	2.2	12.26
94L14	951193	10	0.8	4.0	1300	9.7	57	2	53	5	6	7	2.21	27.0	0.33	1	20	57	3.9	5.8	0.72	0.5	0.5	7.0	1	2.8	2.0	21.68
94L09	951201		2.6	20.0	1200	0.5	180	8	130	21	2	11	5.69	88.0	0.72	10	20	180	11.0	18.0	0.74	2.4	0.5	30.0	1	11.0	4.6	18.55
94L09	951202		2.3	16.0	1400	0.5	180	8	130	19	2	11	5.62	85.0	0.70	1	20	220	11.0	18.0	0.72	3.3	0.5	30.0	1	11.0	4.5	17.92

Geological Survey Branch
Open File 1996-18

**Geochemistry
of the
Gataga Mountain Area
(parts of 94L/7,8,9,10,11,14,15)**

APPENDIX C

Distribution of Geological Units Within Catchment Basins

- Unit cover is listed as a percentage (%) of the total catchment basin area (BASIN AREA).

Distribution of Geological Units Within Catchment Basins

MAP	SAMPLE	UTM	UTM	UTM	BASIN	BASIN	UNIT 1	%	UNIT 2	UNIT 3	UNIT 4	UNIT 5	UNIT 6	%	
	ID	ZONE	EAST	NORTH STA	AREA	PERI			DME	SDRR	DME	ORR	CmOKR	DME	
94L10	951002	9	633918	6506824	3.16	8.72	CmOKR	56.1	luCmGs	24.4	SDRR	8.1			
94L10	951003	9	637620	6502680	1.77	5.91	SDRR	46.1	luCmGs	23.7	DME	15.9			
94L10	951004	9	641293	6494507	1.23	5.31	SDRR	64.7	luCmGs	27.7	CmOK	7.6			
94L10	951005	9	638476	6496888	3.19	7.64	luCmGs	85.3	SDRR	7.7	CmOK	7.0			
94L14	951006	9	608371	6517147	10.26	13.27	SDRR	64.3	DME	19.0	CmOKR	9.0	luCml	5.2	
94L14	951007	9	608705	6520254	10	2.57	7.55	DME	85.1	SDRR	14.9				
94L14	951008	9	608705	6520254	20	2.57	7.55	DME	85.1	SDRR	14.9				
94L14	951009	9	610960	6520602	5.90	9.95	SDRR	97.8	DME	1.7	luCmGs	0.5			
94L14	951010	9	615369	6519815	2.31	6.25	luCmGs	51.0	SDRR	47.8	DME	1.2			
94L15	951011	9	615924	6522451	1.18	4.43	SDRR	69.5	luCmGs	19.7	DME	10.9			
94L15	951012	9	617777	6520831	2.15	6.54	SDRR	80.2	DME	11.1	luCmGs	8.7			
94L11	951013	9	611293	6512760	1.07	4.06	luCms	69.1	luCml	30.9					
94L11	951014	9	612207	6513733	0.93	3.93	CmOKR	51.0	luCml	37.2	SDRR	11.8			
94L14	951015	9	613061	6513982	1.52	5.26	SDRR	89.5	CmOKR	6.4	DME	4.1			
94L14	951017	9	614298	6514703	2.82	7.68	SDRR	80.8	DME	19.1	CmOKR	0.2			
94L10	951018	9	618420	6512642	3.43	8.37	SDRR	81.1	DME	9.1	CmOKR	5.6	luCmGs	4.3	
94L10	951019	9	618739	6512772	4.71	8.92	SDRR	76.7	DME	12.6	luCmGs	8.6	CmOKR	2.2	
94L10	951020	9	619626	6507270	1.07	4.02	CmOKR	100.0							
94L10	951022	9	632610	6508147	3.28	8.96	CmOKR	32.3	SDRR	27.0	luCmGs	20.2	ORR	10.9	
94L10	951023	9	635586	6504553	2.21	6.58	CmOKR	55.9	luCmGs	21.8	DME	12.9	SDRR	9.6	
94L10	951024	9	639658	6499934	1.61	6.62	luCmGs	50.0	SDRR	29.5	DME	10.8	CmOKR	5.5	
94L10	951025	9	641237	6493880	3.52	8.29	luCmGs	59.5	SDRR	28.0	CmOKR	7.3	DME	5.3	
94L10	951026	9	639956	6493599	10	1.60	5.64	SDRR	63.0	DME	22.4	CmOKR	9.3	luCmGs	5.4
94L10	951027	9	639956	6493599	20	1.60	5.64	SDRR	63.0	DME	22.4	CmOKR	9.3	luCmGs	5.4
94L10	951029	9	637607	6493692	6.04	11.67	SDRR	47.3	DME	34.9	luCml	15.0	CmOKR	2.8	
94L10	951030	9	636347	6493326	2.02	7.38	SDRR	50.6	luCml	28.4	CmOKR	21.0			
94L14	951031	9	608063	6514460	1.53	6.08	luCml	51.5	luCms	43.6	CmOK	4.3	DME	0.4	
94L14	951032	9	606409	6519532	2.30	6.86	DME	66.5	SDRR	33.2	CmOKR	0.4	SDRR	0.2	
94L14	951033	9	608999	6520720	0.91	4.56	SDRR	97.4	DME	2.7					
94L14	951034	9	610120	6520899	7.98	12.08	SDRR	87.6	DME	12.4					
94L14	951035	9	612305	6518880	3.22	8.34	SDRR	52.0	DME	48.0					
94L14	951036	9	614311	6519126	0.33	2.64	DME	77.3	SDRR	22.3					
94L15	951037	9	615858	6524578	6.58	12.43	SDRR	65.4	DME	33.6	luCmGs	1.0			
94L11	951038	9	611492	6511587	1.00	4.30	luCms	88.1	luCml	11.8					
94L11	951039	9	612995	6512770	3.02	7.94	luCml	57.8	CmOKR	37.6	luCms	3.9	SDRR	0.7	
94L11	951040	9	613605	6513226	4.05	9.85	CmOKR	58.7	luCml	25.7	SDRR	15.0	luCms	0.6	
94L10	951042	9	619334	6507321	2.32	6.47	CmOKR	61.4	SDRR	24.2	CmOK	14.1	luCms	0.3	
94L10	951043	9	621344	6506698	3.20	6.87	CmOKR	94.8	DME	5.2					
94L10	951045	9	622055	6506534	10	2.52	7.25	CmOKR	80.1	DME	15.7	SDRR	4.3		
94L10	951046	9	622055	6506534	20	2.52	7.25	CmOKR	80.1	DME	15.7	SDRR	4.3		
94L10	951047	9	622756	6508803	4.74	9.68	SDRR	87.3	DME	9.4	CmOKR	2.8	luCmGs	0.6	
94L10	951048	9	625618	6504271	2.72	6.50	DME	42.1	CmOKR	33.3	SDRR	24.5			
94L10	951049	9	625994	6504219	6.50	11.49	SDRR	46.1	CmOKR	32.1	DME	21.8			
94L10	951050	9	622770	6501643	2.65	7.18	CmOKR	98.6	SDRR	1.5					
94L10	951051	9	625211	6499359	4.11	8.09	CmOKR	78.8	luCml	15.5	mCmc	5.0	CmOK	0.7	
94L10	951052	9	626132	6498179	0.98	3.97	luCml	48.2	CmOKR	46.6	luCms	5.2			
94L10	951053	9	630495	6493795	2.22	7.38	CmOK	53.3	luCms	23.9	luCml	12.5	mCmc	9.3	
94L10	951054	9	630785	6493709	4.15	8.01	luCml	50.6	luCms	28.7	mCmc	10.7	CmOKR	10.1	
94L10	951055	9	631196	6493204	1.11	4.58	luCml	72.3	luCms	27.7					
94L10	951056	9	618617	6500738	3.12	7.88	luCmv	97.7	luCms	2.3	luCml				

Distribution of Geological Units Within Catchment Basins

MAP	SAMPLE ID	UTM ZONE	UTM EAST	UTM NORTH STA	BASIN AREA	BASIN PERI	UNIT 1	%	UNIT 2	%	UNIT 3	%	UNIT 4	%	UNIT 5	%	UNIT 6	%		
									DME	SDRR	luCmGs	luCml	luCms	luCmr	luCml	luCms	luCmr	luCml	luCms	
94L15	951057	9	620302	6516503	12.24	16.72	SDRR	60.6	DME	31.2	luCmGs	8.1								
94L15	951058	9	620557	6516290	9.50	15.54	SDRR	62.8	DME	32.8	luCmGs	4.3								
94L10	951059	9	626347	6508585	1.12	5.34	SDRR	50.7	DME	37.2	luCmGs	12.2								
94L10	951060	9	632026	6500458	0.74	3.85	SDRR	48.2	DME	45.8	luCmGs	5.0	CmOKR	1.0						
94L10	951062	9	616715	6513599	4.78	11.93	SDRR	84.5	CmOKR	12.8	luCml	2.7								
94L14	951063	9	615081	6514698	5.13	9.82	SDRR	88.9	DME	6.1	CmOKR	4.1	luCmGs	0.9						
94L10	951064	9	616997	6510593	2.75	7.43	CmOKR	42.3	SDRR	32.3	luCml	10.3	luCms	8.3	CmOK	6.7				
94L10	951065	9	616729	6510492	2.68	7.01	SDRR	48.9	luCml	24.2	luCms	16.4	CmOKR	10.4						
94L10	951066	9	616286	6511789	10	1.00	3.96	CmOKR	54.6	SDRR	41.8	luCml	3.7							
94L10	951067	9	616286	6511789	20	1.00	3.96	CmOKR	54.6	SDRR	41.8	luCml	3.7							
94L10	951068	9	619009	6509335	3.01	7.80	CmOKR	58.8	SDRR	29.7	CmOK	11.5								
94L10	951069	9	622116	6509442	7.02	15.10	SDRR	68.0	CmOKR	23.1	luCmGs	4.8	DME	4.2						
94L10	951070	9	623164	6509091	5.49	10.91	SDRR	47.8	DME	46.1	luCmGs	6.2								
94L10	951071	9	624024	6505063	1.08	4.58	CmOKR	45.2	SDRR	30.4	DME	24.4								
94L10	951072	9	623718	6505132	5.53	12.61	CmOKR	90.4	DME	4.1	SDRR	2.6	luCms	2.0	lCmv	1.0				
94L10	951073	9	629070	6505569	2.15	6.19	DME	51.5	SDRR	48.5	luCms	15.6	CmOKR	10.0						
94L10	951075	9	621895	6502573	2.30	6.85	SDRR	49.9	lCmv	24.5	CmOKR	21.7								
94L10	951076	9	626479	6501319	0.66	3.61	SDRR	41.3	DME	36.7	luCmGs	11.8								
94L10	951077	9	627395	6497170	3.97	8.59	luCml	38.6	mCmc	34.1	CmOKR	15.6	luCms	8.5	luCml	4.5				
94L10	951078	9	627368	6496905	3.53	8.53	CmOKR	36.6	luCms	26.2	CmOKR	24.2	mCmc	3.7						
94L10	951079	9	627106	6496804	1.17	4.36	CmOKR	74.8	luCml	12.6	mCmc	12.6								
94L10	951080	9	620887	6499395	6.05	10.41	lCmv	58.0	CmOKR	21.3	luCms	15.1	SDRR	4.5	luCml	1.2				
94L10	951082	9	625291	6498101	3.25	10.57	luCml	27.3	luCms	26.8	CmOKR	23.9	CmOK	22.0						
94L10	951083	9	625081	6497732	10	1.96	6.45	CmOKR	71.0	luCml	24.0	mCmc	3.7	SDRR	1.4					
94L10	951084	9	625081	6497732	20	1.96	6.45	CmOKR	71.0	luCml	24.0	mCmc	3.7	SDRR	1.4					
94L10	951085	9	624808	6498390	4.93	11.98	CmOKR	54.0	luCml	24.6	mCmc	8.2	CmOK	6.5	luCms	5.4	SDRR	1.5		
94L10	951086	9	624814	6493862	1.97	6.36	luCml	56.4	CmOK	43.6										
94L10	951087	9	624357	6498045	3.27	7.08	CmOKR	39.5	luCml	26.1	SDRR	23.6	luCms	6.8	lCmv	4.0				
94L10	951088	9	624692	6497551	0.87	4.22	CmOKR	51.7	luCml	25.1	SDRR	23.2								
94L10	951089	9	624466	6512631	1.22	5.20	DME	92.5	SDRR	7.5										
94L10	951090	9	628521	6500889	4.57	9.54	CmOKR	64.3	luCml	25.0	SDRR	7.5	DME	1.8	mCmc	1.3	lCmG	0.1		
94L10	951091	9	630974	6500019	1.18	4.49	CmOKR	53.4	SDRR	26.1	DME	19.0	luCml	1.5						
94L10	951092	9	624611	6512970	7.02	12.93	SDRR	41.7	luCmGs	30.2	CmOKR	20.6	DME	7.5						
94L10	951093	9	634179	6500713	9.62	13.71	DME	42.6	luCmGs	35.1	SDRR	17.6	CmOKR	4.7						
94L10	951094	9	636658	6496509	4.70	8.94	luCmGs	74.4	SDRR	16.1	DME	6.1	CmOKR	3.4						
94L10	951095	9	630338	6501588	0.75	3.69	luCmGs	56.6	SDRR	38.4	DME	5.0								
94L10	951096	9	641037	6487533	5.48	11.01	SDRR	58.4	luCml	21.6	DME	13.4	CmOKR	6.6						
94L07	951097	9	645244	6483846	5.74	12.00	luCmGs	62.7	SDRR	21.9	CmOKR	8.0	ORR	5.8	DME	1.7				
94L08	951098	9	649365	6483178	3.77	8.12	luCml	44.7	ORR	31.4	CmOK	19.0	luCmGs	4.9						
94L08	951100	9	653305	6484331	1.08	5.78	HAH	39.8	luCml	38.0	CmOK	13.2	lCmG	9.1						
94L10	951102	9	617593	6503443	5.33	9.79	lCmv	55.4	luCms	14.5	SDRR	13.6	CmOKR	11.0	CmOK	5.4				
94L15	951103	9	618457	6515216	8.98	13.54	SDRR	51.8	luCmGs	42.7	DME	4.2	CmOK	1.3						
94L10	951105	9	625462	6509921	0.68	4.05	DME	100.0												
94L10	951106	9	631682	6499785	5.08	10.77	CmOKR	38.3	luCml	20.0	lCmG	12.6	SDRR	10.5	DME	10.0	mCmc	8.6		
94L10	951107	9	620981	6512611	1.86	6.08	SDRR	87.0	luCmGs	9.7	CmOKR	3.3								
94L10	951108	9	629216	6504625	5.91	11.43	DME	64.9	SDRR	32.0	luCmGs	2.3	CmOKR	0.9						
94L10	951109	9	634639	6500076	3.08	7.62	luCmGs	88.7	DME	3.9	SDRR	3.8	CmOKR	3.6						
94L10	951110	9	634761	6499534	2.00	5.76	SDRR	35.3	luCmGs	32.6	DME	23.5	CmOKR	8.6						
94L10	951111	9	634301	6497147	2.84	8.37	luCml	34.1	SDRR	27.2	CmOKR	24.8	lCmG	5.9	DME	5.4	mCmc	1.6		
94L10	951112	9	633274	6498488	10	0.81	4.67	SDRR	54.1	DME	22.2	luCml	14.0	CmOKR	9.7					

Distribution of Geological Units Within Catchment Basins

MAP	SAMPLE ID	UTM ZONE	UTM EAST	UTM NORTH STA	BASIN AREA	BASIN PERI	UNIT 1	%	UNIT 2	%	UNIT 3	%	UNIT 4	%	UNIT 5	%	UNIT 6	%
94L10	951113	9	633274	6498488	20	0.81	4.67	SDRR	54.1	DME	22.2	luCml	14.0	CmOKR	9.7			
94L10	951114	9	640926	6487811		1.40	4.62	SDRR	59.8	DME	16.5	luCml	15.7	CmOKR	8.1			
94L07	951115	9	643132	6484077		1.71	6.74	luCml	45.9	DME	37.8	SDRR	9.4	CmOKR	7.0			
94L08	951116	9	646931	6485946		1.19	4.66	luCmGs	100.0									
94L08	951117	9	647194	6485955		3.09	8.18	CmOK	30.1	ORR	27.3	luCmGs	24.6	luCml	18.0			
94L08	951118	9	654775	6482056		0.88	6.23	luCml	75.0	CmOK	12.7	lCmG	7.5	HAH	4.8			
94L08	951119	9	651549	6486126		0.45	3.63	HAH	86.1	CmOK	13.2	lCmG	0.9					
94L10	951120	9	643072	6487889		4.07	7.98	luCmGs	64.9	SDRR	18.2	CmOKR	16.9					
94L07	951122	9	643054	6486305		2.38	6.79	SDRR	46.0	luCmGs	21.4	DME	18.2	CmOKR	14.4			
94L10	951123	9	638070	6487500		6.17	13.28	luCml	49.4	CmOKR	21.5	SDRR	17.8	DME	6.5	luCms	4.8	
94L10	951124	9	634342	6493248		5.84	10.25	CmOKR	71.2	luCml	17.5	mcMc	8.9	lCmG	1.7	luCms	0.7	
94L10	951125	9	639416	6494300		1.38	5.08	luCmGs	96.4	CmOKR	3.5							
94L10	951126	9	643008	6491460		1.36	5.12	luCmGs	97.3	CmOKR	2.7							
94L10	951127	9	629576	6511946		0.47	3.60	SDRR	44.5	CmOKR	30.7	DME	24.8					
94L10	951128	9	628809	6513018		0.65	4.17	CmOKR	53.6	SDRR	40.9	DME	5.5					
94L15	951129	9	626017	6518010	10	7.44	13.15	SDRR	71.0	luCmGs	17.6	CmOKR	10.3	DME	1.2			
94L15	951130	9	626017	6518010	20	7.44	13.15	SDRR	71.0	luCmGs	17.6	CmOKR	10.3	DME	1.2			
94L15	951131	9	623373	6519845		2.27	6.76	luCmGs	73.4	SDRR	21.6	CmOKR	5.0					
94L15	951132	9	621670	6522944		3.00	8.71	luCmGs	57.1	SDRR	32.4	CmOKR	10.5					
94L15	951134	9	618628	6521024		0.65	4.47	SDRR	100.0									
94L14	951135	9	607202	6525469		3.12	7.03	SDRR	99.2	DME	0.7							
94L14	951136	9	607275	6525084		7.12	11.92	SDRR	70.4	DME	29.6							
94L14	951137	9	604040	6526706		3.98	9.21	SDRR	90.4	DME	9.6							
94L14	951138	9	606868	6532082		2.85	7.58	SDRR	89.2	CmMRE	10.8							
94L14	951139	9	610794	6529656		5.61	11.01	SDRR	100.0									
94L14	951140	9	611154	6529140		1.91	6.98	SDRR	80.6	DME	19.4							
94L14	951142	9	640485	6489760		0.46	3.16	SDRR	79.0	DME	21.0							
94L10	951143	9	640799	6489667		4.07	9.42	SDRR	38.5	luCmGs	34.8	DME	14.3	CmOKR	12.5			
94L10	951144	9	636036	6490341		3.65	9.27	luCml	58.0	CmOKR	29.8	SDRR	12.2					
94L10	951145	9	635752	6493807		4.69	8.67	luCml	41.8	SDRR	36.6	CmOKR	20.1	DME	1.6			
94L10	951146	9	642920	6493929		2.03	8.91	luCmGs	32.4	CmOK	26.4	luCml	22.3	SDRR	18.9			
94L10	951147	9	643553	6491769		3.30	8.77	luCmGs	45.8	CmOK	38.6	ORR	12.0	SDRR	3.2	luCml	0.4	
94L10	951148	9	629110	6508857		5.55	9.81	CmOKR	36.6	luCmGs	34.6	SDRR	28.9					
94L10	951149	9	629085	6507994		1.25	4.81	SDRR	90.7	DME	9.3							
94L15	951150	9	628108	6515730		1.28	6.26	SDRR	48.3	CmOKR	37.8	DME	13.9					
94L15	951151	9	623630	6519260		1.04	5.12	SDRR	60.1	CmOKR	28.0	luCmGs	12.0					
94L15	951152	9	622336	6520922		1.80	5.88	luCmGs	57.3	SDRR	39.4	CmOKR	3.3					
94L15	951153	9	621347	6523340		4.32	8.82	luCmGs	62.1	SDRR	33.4	CmOKR	4.5					
94L14	951154	9	606233	6522090	10	1.70	7.04	DME	54.8	SDRR	45.2							
94L14	951155	9	606233	6522090	20	1.70	7.04	DME	54.8	SDRR	45.2							
94L14	951156	9	604526	6525346		4.02	9.63	SDRR	62.9	DME	37.1							
94L14	951158	9	604802	6530159		2.84	8.51	SDRR	100.0									
94L14	951159	9	610186	6531596		3.08	7.62	SDRR	100.0									
94L14	951160	9	608436	6527719		1.99	7.54	SDRR	100.0									
94L14	951162	9	608263	6527853		1.26	5.43	SDRR	100.0									
94L15	951163	9	618927	6526269		2.79	8.23	luCmGs	63.1	SDRR	35.7	CmOKR	1.2					
94L14	951164	9	613850	6530297		0.79	4.04	SDRR	51.3	CmOKR	48.0	luCmGs	0.8					
94L15	951165	9	618729	6526461		4.22	10.54	SDRR	65.7	luCmGs	27.3	CmOKR	7.0					
94L14	951166	9	615072	6527374		8.81	13.37	SDRR	46.9	DME	44.8	luCmGs	8.2					
94L14	951167	9	614040	6533788		1.91	5.98	CmMRE	100.0									

Distribution of Geological Units Within Catchment Basins

MAP	SAMPLE ID	UTM ZONE	UTM EAST	UTM NORTH STA	BASIN AREA	BASIN PERI	UNIT 1 %		UNIT 2 %		UNIT 3 %		UNIT 4 %		UNIT 5 %		UNIT 6 %				
							UNIT	%	UNIT	%	UNIT	%	UNIT	%	UNIT	%	UNIT	%			
94L14	951168	9	614100	6536302	1.67	6.10	CmMRE	71.3	CmOK	28.8											
94L14	951169	9	606242	6535049	10	2.35	6.83	CmMRE	100.0												
94L14	951170	9	606242	6535049	20	2.35	6.83	CmMRE	100.0												
94L14	951171	9	607471	6537598	2.79	7.01	CmMRE	100.0													
94L14	951172	9	612838	6540502	0.84	4.14	CmOK	100.0													
94L14	951173	9	607482	6540680	1.57	5.32	CmMRE	50.9	CmOK	49.1											
94L14	951174	9	605947	6541263	1.00	5.53	CmMRE	100.0													
94L14	951175	9	601936	6540965	1.87	6.48	CmMRE	100.0													
94L14	951176	9	599295	6537386	2.33	7.41	CmMRE	100.0													
94L14	951177	9	599590	6536828	5.62	11.20	CmMRE	100.0													
94L14	951178	9	602528	6533644	3.61	8.02	CmMRE	100.0													
94L10	951179	9	632371	6490976	1.14	4.91	luCml	42.8	luCms	38.3	CmOK	18.9									
94L15	951182	9	618364	6528954	0.84	4.62	luCmGs	92.2	SDRR	4.9	CmOKR	3.0									
94L15	951183	9	615844	6528721	1.66	5.20	SDRR	49.3	luCmGs	34.8	CmOKR	15.9									
94L14	951184	9	612770	6531990	2.12	6.59	CmOKR	41.2	CmMRE	35.6	SDRR	13.7	luCmGs	9.6							
94L14	951185	9	614161	6534750	1.74	5.42	CmMRE	100.0													
94L14	951187	9	610774	6536883	10.99	15.55	CmMRE	99.5	CmOK	0.6											
94L14	951188	9	606330	6537419	1.72	6.32	CmMRE	100.0													
94L14	951189	9	609944	6541292	5.76	10.31	CmOK	81.8	CmMRE	18.2											
94L14	951190	9	606763	6539602	1.75	6.10	CmMRE	100.0													
94L14	951191	9	603170	6538737	6.08	12.59	CmMRE	100.0													
94L14	951192	9	600104	6541059	1.45	6.60	CmMRE	100.0													
94L14	951193	9	599349	6535386	10	6.25	10.46	CmMRE	100.0												
94L14	951194	9	599349	6535386	20	6.25	10.46	CmMRE	100.0												
94L10	951195	9	627487	6493021	1.07	4.77	luCml	99.9	CmOK	0.1											
94L10	951196	9	617238	6502193	1.01	6.29	lCmv	95.3	luCms	4.7											
94L08	951197	9	651090	6486761	1.17	5.98	HAH	59.5	luCml	23.9	lCmG	13.8	CmOK	2.9							
94L10	951198	9	621727	6498442	0.70	4.07	luCml	73.4	luCms	16.0	lCmv	10.6									
94L11	951199	9	614729	6505622	6.43	12.08	lCmv	59.1	luCms	21.1	luCml	11.7	CmOK	6.0	SDRR	2.2					
94L10	951200	9	623035	6512068	2.82	8.09	DME	73.7	SDRR	26.3											
94L09	951202	9	647209	6489396	4.29	8.56	luCmGs	54.4	CmOK	30.4	luCml	7.9	ORR	7.1	HAH	0.3					
94L10	951203	9	630981	6501481	0.54	3.44	SDRR	42.1	luCmGs	34.5	DME	23.5									
94L14	951204	9	613247	6518839	1.19	6.10	SDRR	82.5	DME	17.5											
94L11	951205	9	612857	6507383	2.36	8.01	luCml	45.1	luCms	28.4	lCmv	26.5									

Geological Survey Branch
Open File 1996-18

Geochemistry of the Gataga Mountain Area

(parts of 94L/7,8,9,10,11,14,15)

APPENDIX D

Summary Statistics

Page D - 2 AAS Elements plus pH, SO₄, FW, UW

Page D - 5 Frequency Histograms - AAS Elements plus LOI

Page D - 3 INAA Elements

Page D - 22 Frequency Histograms - INAA Elements

Page D - 4 ICPMS Elements

Page D - 47 Frequency Histograms - ICPMS Elements plus pH, SO₄, FW, UW

- Calculations ignore analytical results from the second of paired field duplicates.

Summary Statistics

Unit	DL	Mthd	S T R E A M S E D I M E N T															S T R E A M W A T E R						
			Sb	As	Bi	Cd	Co	Cu	F	Fe	Pb	Mn	Hg	Mo	Ni	Ag	V	Zn	LOI	pH	SO4	FW	UW	
			ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	%	ppb	ppb	ppb	ppb	
AAS-H	AAS-H	AAS-H	AAS	AAS	AAS	ION	AAS	AAS	AAS-F	AAS	AAS	AAS	AAS	AAS	AAS	AAS	AAS	GRAV	GCE	TURB	ION	LIF		
N	174	174	174	174	174	174	174	174	174	174	174	174	174	174	174	174	174	174	172	172	172	172		
N > DL	169	174	4	167	173	174	174	174	172	174	173	172	174	160	174	174	174	174	172	171	171	172		
Missing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2		
Mean	2.08	14.24	0.20	6.34	10.5	47.9	500.0	2.10	13.0	573.2	158.2	7.5	74.2	0.65	48.6	822.7	10.51	8.35	127.2	174.8	4.48			
Median	1.60	10.00	0.20	2.60	9.0	44.0	480.0	2.00	11.0	243.0	130.0	6.0	40.0	0.50	40.0	355.0	9.20	8.40	85.0	110.0	3.30			
Mode	1.40	11.00	0.20	0.20	7.0	37.0	480.0	1.90	10.0	175.0	120.0	4.0	33.0	0.50	43.0	201.0	8.20	8.40	45.0	110.0	5.00			
Range	9.3	79.2	0.3	77.8	59	128	860	10.90	52	10947	950	55	829	2.1	164	11182	33.0	0.7	539	820	24.37			
St Dev	1.68	13.29	0.03	11.57	6.40	20.73	149.36	1.29	7.30	1306.95	121.22	6.71	114.70	0.37	31.61	1541.22	5.22	0.14	118.17	162.57	4.52			
Coef Var	0.809	0.933	0.128	1.824	0.611	0.433	0.299	0.616	0.559	2.280	0.766	0.897	1.547	0.564	0.650	1.873	0.497	0.016	0.929	0.930	1.009			
Log Mean	0.180	1.034	-0.694	0.418	0.965	1.641	2.680	0.256	1.058	2.485	2.092	0.759	1.665	-0.248	1.619	2.589	0.978	0.922	1.931	2.074	0.463			
Geo Mean	1.51	10.82	0.20	2.62	9.2	43.7	478.9	1.80	11.4	305.6	123.5	5.7	46.3	0.56	41.6	387.8	9.50	8.35	85.3	118.6	2.90			
Log StDv	0.365	0.311	0.038	0.564	0.213	0.189	0.129	0.255	0.229	0.380	0.319	0.306	0.365	0.231	0.233	0.498	0.192	0.007	0.417	0.389	0.435			
Log CVar	2.026	0.301	-0.054	1.350	0.221	0.115	0.048	0.998	0.216	0.153	0.152	0.403	0.219	-0.931	0.144	0.192	0.196	0.008	0.216	0.188	0.940			
Percentls																								
Minimum	0.2	0.8	0.2	0.2	2	11	190	0.10	2	53	10	1	3	0.2	11	18	2.3	7.9	1	20	0.13			
10th	0.4	4.6	0.2	0.5	5	25	310	0.85	5	135	50	2	20	0.3	22	101	5.7	8.2	30	36	0.78			
20th	0.8	6.5	0.2	0.9	7	31	380	1.30	9	174	70	3	26	0.4	28	145	6.6	8.3	39	52	1.50			
30th	1.1	8.0	0.2	1.3	7	36	430	1.60	10	201	80	4	30	0.4	32	203	7.6	8.3	49	68	2.00			
40th	1.3	9.0	0.2	1.8	8	39	460	1.80	11	220	120	5	34	0.5	35	269	8.3	8.4	63	84	2.40			
50th	1.6	10.0	0.2	2.6	9	44	480	2.00	11	243	130	6	40	0.5	40	355	9.2	8.4	85	110	3.30			
60th	1.9	12.0	0.2	3.3	10	49	510	2.10	12	280	160	6	46	0.6	43	477	10.5	8.4	105	160	3.90			
70th	2.3	14.0	0.2	4.8	11	55	550	2.40	14	360	190	8	57	0.7	50	647	11.8	8.4	150	210	4.80			
80th	3.1	17.0	0.2	7.3	13	63	600	2.60	17	471	220	10	74	0.9	60	955	13.6	8.5	200	290	6.00			
85th	3.6	19.0	0.2	9.9	14	66	630	2.80	18	571	250	12	96	1.0	70	1230	14.2	8.5	230	340	7.50			
90th	4.5	24.0	0.2	14.0	17	72	690	3.00	21	860	300	14	133	1.1	87	1640	16.1	8.5	290	380	11.00			
95th	5.8	39.0	0.2	25.0	20	83	750	3.10	23	2040	350	17	250	1.3	115	2700	18.4	8.5	385	490	11.00			
98th	6.8	64.0	0.3	45.0	27	102	900	5.30	36	3720	470	27	540	1.6	156	6850	29.0	8.6	510	630	23.00			
99th	7.0	72.0	0.3	55.0	29	110	920	6.30	37	5350	570	34	545	1.9	158	9100	30.6	8.6	525	840	23.00			
Maximum	9.5	80.0	0.5	78.0	61	139	1050	11.00	54	11000	960	56	832	2.3	175	11200	35.3	8.6	540	840	24.50			

Summary Statistics

Unit DL Mthd	S T R E A M S E D I M E N T																									
	Sb ppm INAA	As ppm INAA	Ba ppm INAA	Br ppm INAA	Ce ppm INAA	Cs ppm INAA	Cr ppm INAA	Co ppm INAA	Au ppb INAA	Hf ppm INAA	Fe %	La ppm INAA	Lu ppm INAA	Mo ppm INAA	Ni ppm INAA	Rb ppm INAA	Sm ppm INAA	Sc ppm INAA	Na %	Ta ppm INAA	Tb ppm INAA	Th ppm INAA	W ppm INAA	U ppm INAA	Yb ppm INAA	
	0.1 INAA	0.5 INAA	50 INAA	0.5 INAA	3 INAA	1 INAA	5 INAA	1 INAA	2 INAA	1 INAA	0.01 INAA	0.5 INAA	0.05 INAA	1 INAA	20 INAA	5 INAA	0.1 INAA	0.1 INAA	0.01 INAA	0.5 INAA	0.5 INAA	0.2 INAA	1 INAA	0.5 INAA	0.2 INAA	
N	174	174	174	174	174	174	174	174	174	174	174	174	174	174	174	174	174	174	174	174	174	174	174	174	174	
N > DL	174	174	174	161	173	155	173	172	118	169	174	174	172	124	68	169	173	174	174	74	105	173	17	174	174	174
Missing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mean	4.16	16.34	4672.5	11.36	82.9	3.7	82.0	12.1	5.6	7.0	3.36	43.66	0.46	8.7	92.8	91.3	5.63	9.93	0.32	0.87	0.76	13.35	1.2	6.45	2.86	
Median	3.30	13.00	3000.0	7.20	81.0	4.0	87.0	10.0	5.0	7.0	3.24	44.00	0.48	6.0	20.0	95.0	5.70	9.90	0.29	0.50	0.70	13.00	1.0	6.20	3.00	
Mode	2.50	13.00	1700.0	0.50	110.0	4.0	100.0	10.0	2.0	6.0	2.79	55.00	0.45	1.0	20.0	110.0	5.50	12.00	0.19	0.50	0.50	15.00	1.0	6.20	2.90	
Range	30.8	82.0	36913	81.5	177	9	155	75	19	14	11.58	84.4	0.73	129	830	215	10.9	34.7	0.80	2.8	1.3	30.8	3	13.4	5.0	
St Dev	3.42	13.67	5066.80	13.24	33.87	1.72	27.51	8.27	4.04	2.57	1.55	17.43	0.14	12.33	134.43	36.53	2.04	4.11	0.18	0.57	0.27	5.91	0.52	2.36	0.91	
Coef Var	0.823	0.837	1.084	1.166	0.409	0.462	0.336	0.684	0.716	0.369	0.461	0.399	0.310	1.418	1.449	0.400	0.363	0.414	0.574	0.659	0.352	0.442	0.450	0.365	0.320	
Log Mean	0.501	1.105	3.475	0.831	1.867	0.516	1.876	1.007	0.652	0.803	0.478	1.586	-0.370	0.679	1.662	1.903	0.706	0.950	-0.587	-0.130	-0.145	1.066	0.039	0.780	0.419	
Geo Mean	3.17	12.74	2982.4	6.78	73.6	3.3	75.1	10.2	4.5	6.4	3.01	38.56	0.43	4.8	45.9	79.9	5.08	8.91	0.26	0.74	0.72	11.65	1.1	6.03	2.62	
Log StDv	0.336	0.307	0.422	0.474	0.247	0.238	0.214	0.264	0.294	0.213	0.230	0.265	0.200	0.497	0.481	0.277	0.244	0.236	0.300	0.227	0.147	0.269	0.124	0.163	0.215	
Log CVar	0.673	0.278	0.122	0.570	0.132	0.462	0.114	0.262	0.451	0.265	0.483	0.167	-0.543	0.732	0.290	0.145	0.345	0.249	-0.511	-1.757	-1.011	0.253	3.252	0.209	0.515	
Percentiles																										
Minimum	0.2	1.0	87	0.5	3	1	5	1	2	1	0.12	0.6	0.05	1	20	5	0.1	0.3	0.02	0.5	0.5	0.2	1	1.6	0.2	
10th	1.1	5.1	1000	1.8	35	1	39	5	2	3	1.66	19.0	0.23	1	20	39	2.4	4.7	0.10	0.5	0.5	5.9	1	3.8	1.3	
20th	1.7	8.0	1300	3.5	57	2	62	7	2	5	2.45	29.0	0.37	1	20	60	4.2	7.0	0.16	0.5	0.5	8.4	1	4.5	2.3	
30th	2.3	10.0	1700	4.7	65	3	70	8	2	6	2.72	34.0	0.42	3	20	74	4.8	8.2	0.19	0.5	0.5	9.9	1	5.2	2.5	
40th	2.8	12.0	2100	5.6	71	3	79	10	4	6	2.96	40.0	0.45	5	20	85	5.3	9.1	0.22	0.5	0.6	12.0	1	5.7	2.8	
50th	3.3	13.0	3000	7.2	81	4	87	10	5	7	3.24	44.0	0.48	6	20	95	5.7	9.9	0.29	0.5	0.7	13.0	1	6.2	3.0	
60th	3.9	14.0	3800	8.8	88	4	92	12	6	7	3.60	48.0	0.50	7	20	100	6.0	11.0	0.34	0.7	0.8	15.0	1	6.6	3.1	
70th	5.1	16.0	5000	11.0	100	4	98	13	7	8	3.92	55.0	0.53	10	110	110	6.5	12.0	0.39	1.0	0.9	16.0	1	7.3	3.4	
80th	5.9	21.0	6300	15.0	110	5	100	15	8	9	4.14	57.0	0.57	12	150	120	7.0	13.0	0.48	1.3	1.0	18.0	1	8.0	3.6	
85th	6.7	24.0	8200	18.0	120	5	110	16	9	9	4.30	61.0	0.59	14	160	120	7.6	13.0	0.51	1.3	1.0	19.0	1	8.7	3.7	
90th	7.4	28.0	12000	24.0	130	6	110	20	11	10	4.65	65.0	0.62	20	230	140	8.3	14.0	0.59	1.5	1.1	21.0	1	9.2	3.9	
95th	9.6	48.0	15000	35.0	140	7	120	25	14	11	5.18	72.0	0.65	24	340	150	9.0	15.0	0.62	1.9	1.2	23.0	2	11.0	4.0	
98th	13.0	59.0	18000	67.0	150	7	130	35	20	13	8.18	77.0	0.71	38	570	160	10.0	18.0	0.74	2.7	1.4	26.0	3	14.0	4.3	
99th	14.0	76.0	21000	68.0	150	8	140	38	21	13	8.67	78.0	0.74	44	630	160	10.0	21.0	0.75	3.1	1.4	29.0	3	14.0	4.5	
Maximum	31.0	83.0	37000	82.0	180	10	160	76	21	15	11.70	85.0	0.78	130	850	220	11.0	35.0	0.82	3.3	1.8	31.0	4	15.0	5.2	

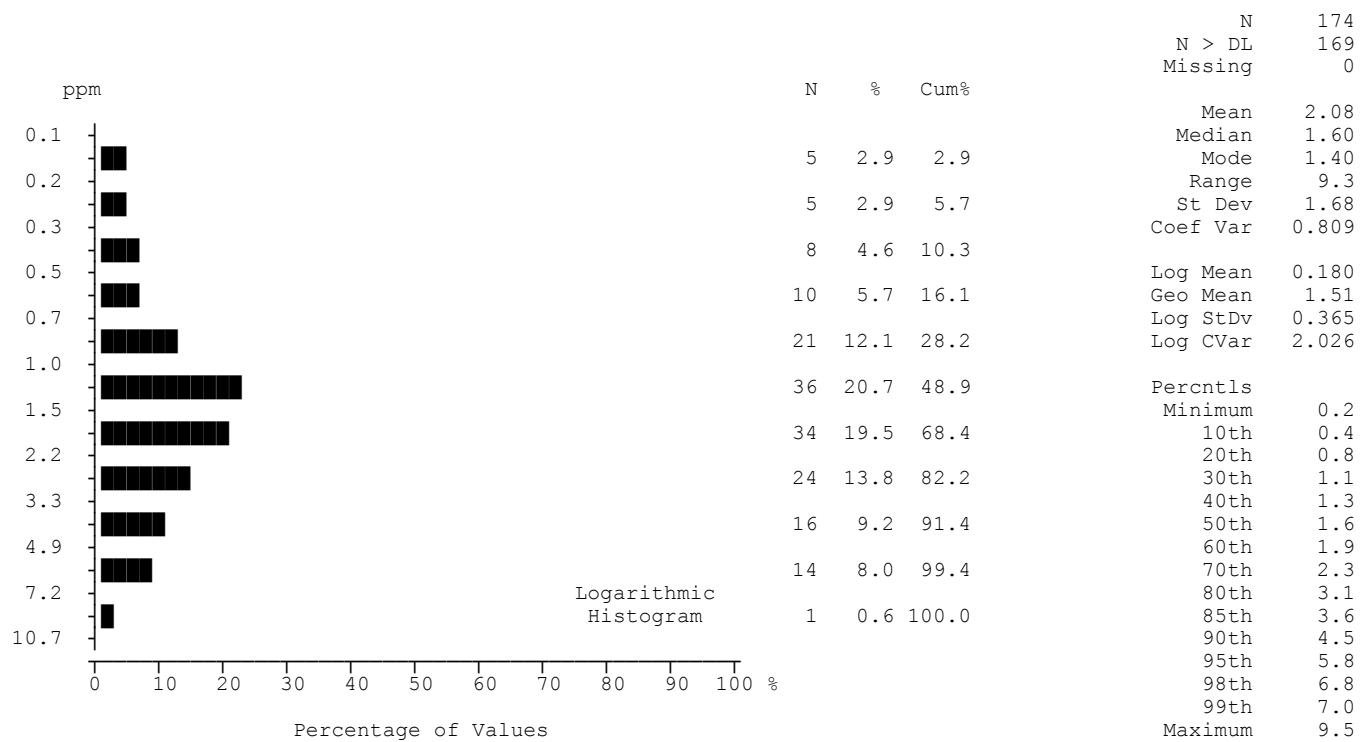
Summary Statistics

		S T R E A M W A T E R																									
Unit		Sb	As	Ba	Cd	Ca	Co	Cu	Fe	Pb	Li	Mn	Mg	Mo	Ni	K	Rb	Se	Si	Na	Sr	U	V	Y	Zn	Zr	
DL	Mthd	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	
ICPMS	ICPMS	ICPMS	ICPMS	ICPMS	ICPMS	ICPMS	ICPMS	ICPMS	ICPMS	ICPMS	ICPMS	ICPMS	ICPMS	ICPMS	ICPMS	ICPMS	ICPMS	ICPMS	ICPMS	ICPMS	ICPMS	ICPMS	ICPMS	ICPMS	ICPMS		
N	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172	172		
N > DL	164	164	172	172	172	171	172	172	171	171	172	172	172	172	172	172	172	151	172	172	172	172	162	172	172	141	
Missing	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
Mean	0.32	0.18	73.11	0.18	91937.3	0.15	1.00	14.73	0.05	4.32	2.22	29474.6	6.74	10.29	805.4	0.27	3.06	2053.8	1585.7	263.76	4.88	0.48	0.04	22.13	0.89		
Median	0.16	0.13	58.10	0.05	62332.0	0.10	0.93	10.30	0.03	3.20	0.60	24188.0	2.49	3.80	547.0	0.18	2.02	1595.0	1359.0	245.20	2.92	0.32	0.02	6.48	0.37		
Mode	0.08	0.10	68.20	0.02	15866.0	0.08	0.25	7.50	0.02	0.90	0.30	11762.0	0.19	0.50	158.0	0.07	0.02	1242.0	925.0	95.20	0.39	0.02	0.00	4.48	0.00		
Range	5.80	1.47	292.9	3.82	503721	1.227	4.51	206.4	1.42	24.1	31.3	89715	73.97	161.3	3138	1.43	41.13	6898	9206	622.5	33.96	4.52	0.629	324.99	13.109		
St Dev	0.57	0.17	52.70	0.44	78406.9	0.18	0.62	19.35	0.11	4.26	4.73	18820.8	11.31	20.57	646.21	0.24	4.44	1316.43	1111.22	131.79	5.49	0.54	0.06	45.14	1.55		
Coef Var	1.773	0.981	0.721	2.399	0.853	1.215	0.618	1.314	2.313	0.988	2.126	0.639	1.677	1.999	0.802	0.877	1.452	0.641	0.701	0.500	1.126	1.129	1.705	2.040	1.747		
Log Mean	-0.753	-0.886	1.755	-1.192	4.852	-0.960	-0.084	1.061	-1.458	0.453	-0.073	4.376	0.448	0.598	2.782	-0.701	0.077	3.241	3.122	2.359	0.422	-0.517	-1.697	0.929	-0.705		
Geo Mean	0.18	0.13	56.91	0.06	71041.2	0.11	0.82	11.51	0.03	2.84	0.85	23782.9	2.81	3.96	605.5	0.20	1.19	1742.2	1324.7	228.61	2.64	0.30	0.02	8.49	0.20		
Log StDv	0.448	0.339	0.330	0.566	0.299	0.301	0.293	0.248	0.253	0.422	0.531	0.297	0.583	0.581	0.327	0.345	0.789	0.243	0.262	0.254	0.653	0.454	0.444	0.533	1.053		
Log CVar	-0.595	-0.383	0.188	-0.476	0.062	-0.314	-3.489	0.234	-0.174	0.931	-7.379	0.068	1.301	0.973	0.117	-0.493	10.386	0.075	0.084	0.108	1.312	-0.877	-0.261	0.575	-1.494		
Percentiles																											
Minimum	0.02	0.02	3.6	0.01	15866	0.001	0.04	4.1	0.02	0.1	0.1	4474	0.09	0.3	128	0.03	0.02	308	184	21.1	0.01	0.02	0.002	0.82	0.002		
10th	0.05	0.05	24.4	0.01	31522	0.063	0.33	6.7	0.02	0.8	0.2	9554	0.45	0.7	244	0.07	0.02	913	629	95.2	0.42	0.09	0.006	2.08	0.002		
20th	0.08	0.08	33.4	0.02	40762	0.078	0.47	7.5	0.02	1.3	0.3	12089	1.21	1.1	294	0.10	0.50	1096	824	169.1	1.07	0.17	0.009	2.93	0.036		
30th	0.11	0.10	40.7	0.03	46593	0.084	0.65	8.2	0.02	1.8	0.4	17337	1.56	1.8	370	0.12	1.00	1242	1013	199.4	1.82	0.21	0.013	4.12	0.162		
40th	0.13	0.11	48.4	0.04	54553	0.089	0.81	9.3	0.03	2.5	0.5	20458	1.85	2.6	438	0.15	1.46	1391	1154	219.3	2.37	0.26	0.017	4.68	0.246		
50th	0.16	0.13	58.1	0.05	62332	0.095	0.93	10.3	0.03	3.2	0.6	24188	2.49	3.8	547	0.18	2.02	1595	1359	245.2	2.92	0.32	0.020	6.48	0.372		
60th	0.21	0.16	67.3	0.08	73175	0.106	1.07	11.7	0.04	3.7	0.8	29455	3.58	5.1	663	0.24	2.57	1839	1573	271.8	4.05	0.40	0.026	9.33	0.575		
70th	0.29	0.19	82.8	0.12	95321	0.122	1.20	13.0	0.04	4.4	1.2	36582	5.12	7.5	957	0.32	3.06	2191	1850	301.4	4.98	0.47	0.031	11.94	0.995		
80th	0.40	0.23	105.5	0.20	140494	0.164	1.41	16.0	0.05	6.0	2.3	46691	8.29	11.3	1282	0.38	4.05	2787	2186	350.5	7.76	0.67	0.039	19.74	1.404		
85th	0.46	0.24	121.0	0.25	154443	0.184	1.46	18.9	0.06	7.2	3.5	50614	10.81	16.8	1568	0.46	5.16	3385	2300	381.9	9.24	0.87	0.049	27.89	1.618		
90th	0.65	0.32	133.6	0.37	188525	0.198	1.70	20.9	0.07	10.0	4.5	59536	19.49	23.0	1764	0.57	6.28	3863	2560	426.1	12.06	1.07	0.073	56.82	1.865		
95th	0.93	0.40	184.3	0.59	222461	0.262	1.94	33.9	0.09	13.2	10.2	65929	29.36	38.5	2052	0.69	10.06	4768	3100	569.2	14.53	1.27	0.089	99.90	2.765		
98th	2.04	0.74	222.4	1.51	337554	0.980	2.78	66.9	0.12	18.2	15.8	72456	43.74	81.9	2720	1.01	18.69	6008	4973	624.3	24.43	2.32	0.240	174.79	5.297		
99th	2.19	0.83	231.0	1.77	354765	0.980	3.15	89.0	0.15	20.0	29.0	81785	48.62	106.8	2852	1.08	18.72	6473	6227	633.7	24.67	2.72	0.244	178.20	5.960		
Maximum	5.82	1.49	296.5	3.83	519587	1.228	4.55	210.5	1.44	24.2	31.4	94189	74.06	161.6	3266	1.46	41.15	7206	9390	643.6	33.97	4.54	0.631	325.81	13.111		

Summary Statistics

Antimony in Stream Sediment

Detection Limit - 0.2
 Analytical Method - AAS-H
 Units - ppm

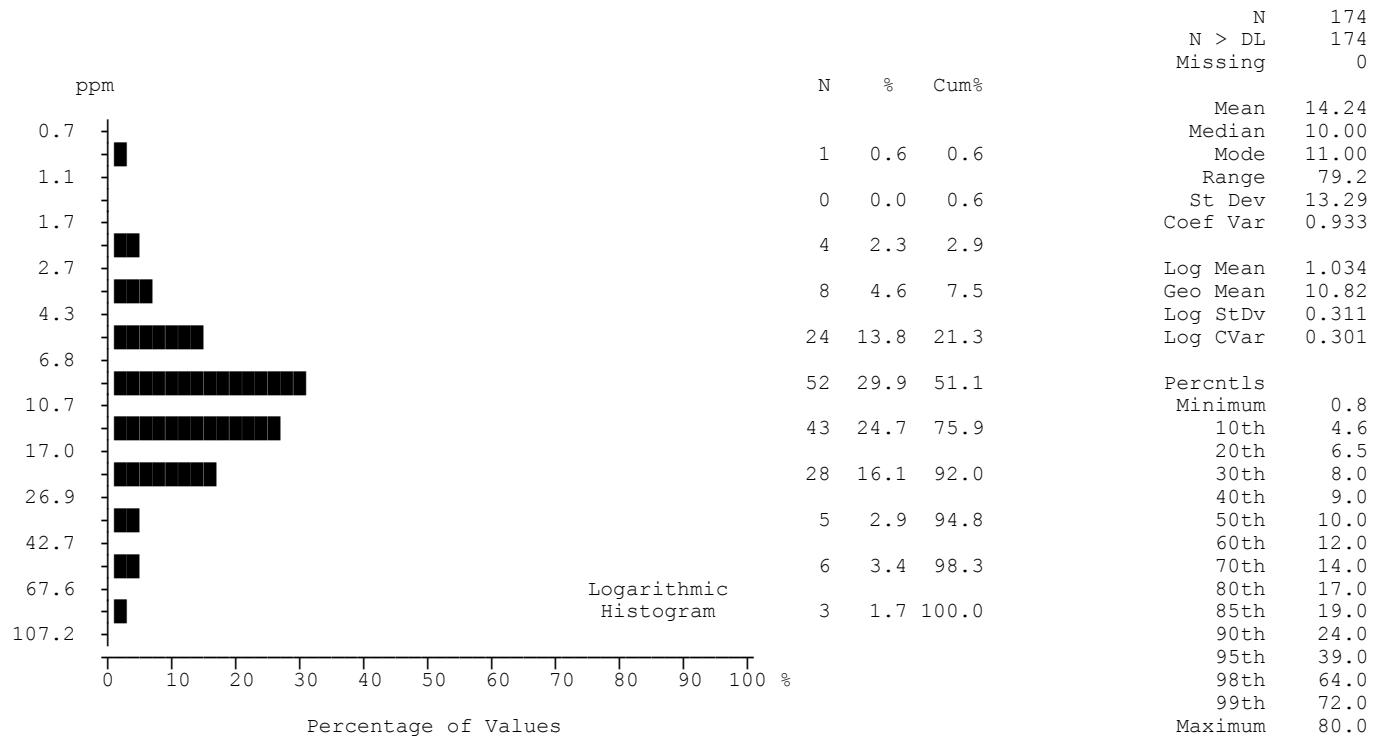


Sb

Summary Statistics

Arsenic in Stream Sediment

Detection Limit - 0.2
Analytical Method - AAS-H
Units - ppm



As

Summary Statistics

Bismuth in Stream Sediment

Detection Limit - 0.2
Analytical Method - AAS-H
Units - ppm

Histograms are not calculated for variables with fewer than 15 samples above the detection limit.

N	174
N > DL	4
Missing	0

Mean	0.20
Median	0.20
Mode	0.20
Range	0.3
St Dev	0.03
Coef Var	0.128

Log Mean	-0.694
Geo Mean	0.20
Log StDv	0.038
Log CVar	-0.054

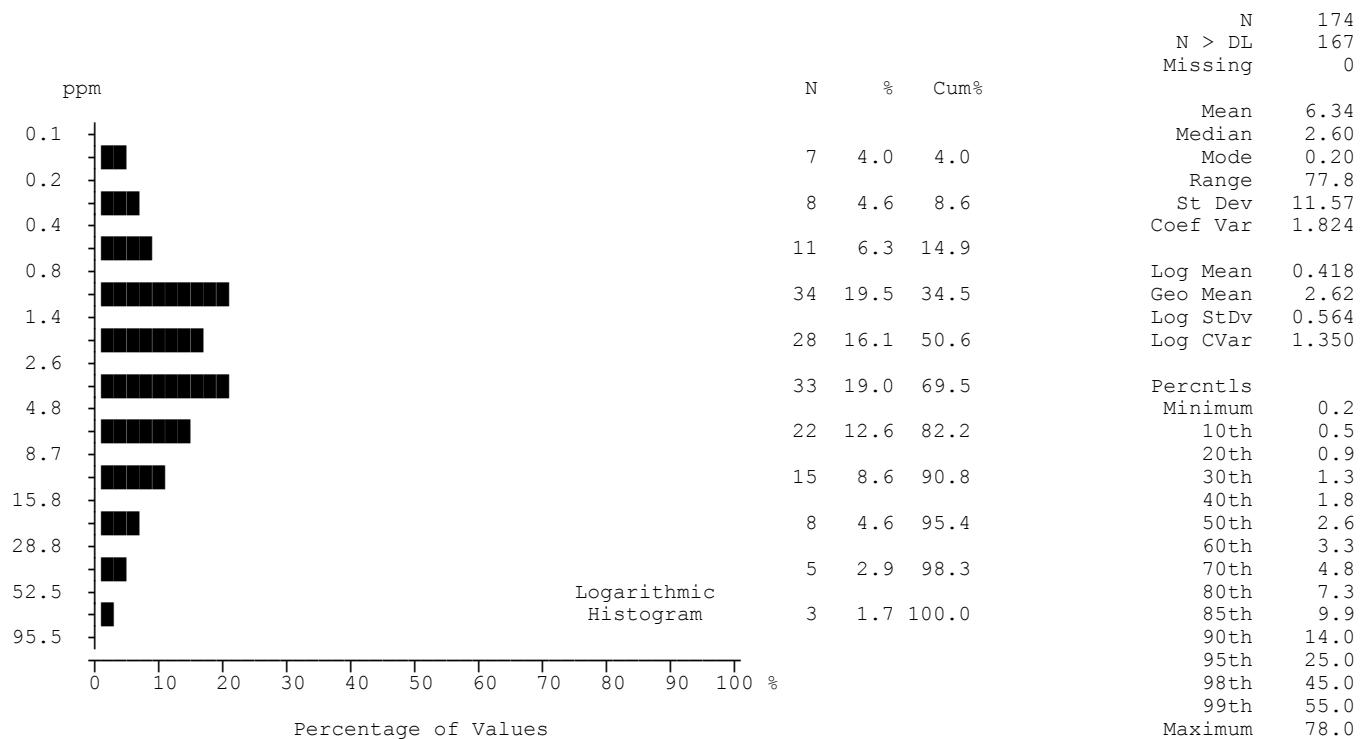
Perctl	s
Minimum	0.2
10th	0.2
20th	0.2
30th	0.2
40th	0.2
50th	0.2
60th	0.2
70th	0.2
80th	0.2
85th	0.2
90th	0.2
95th	0.2
98th	0.3
99th	0.3
Maximum	0.5

Bi

Summary Statistics

Cadmium in Stream Sediment

Detection Limit - 0.2
 Analytical Method - AAS
 Units - ppm

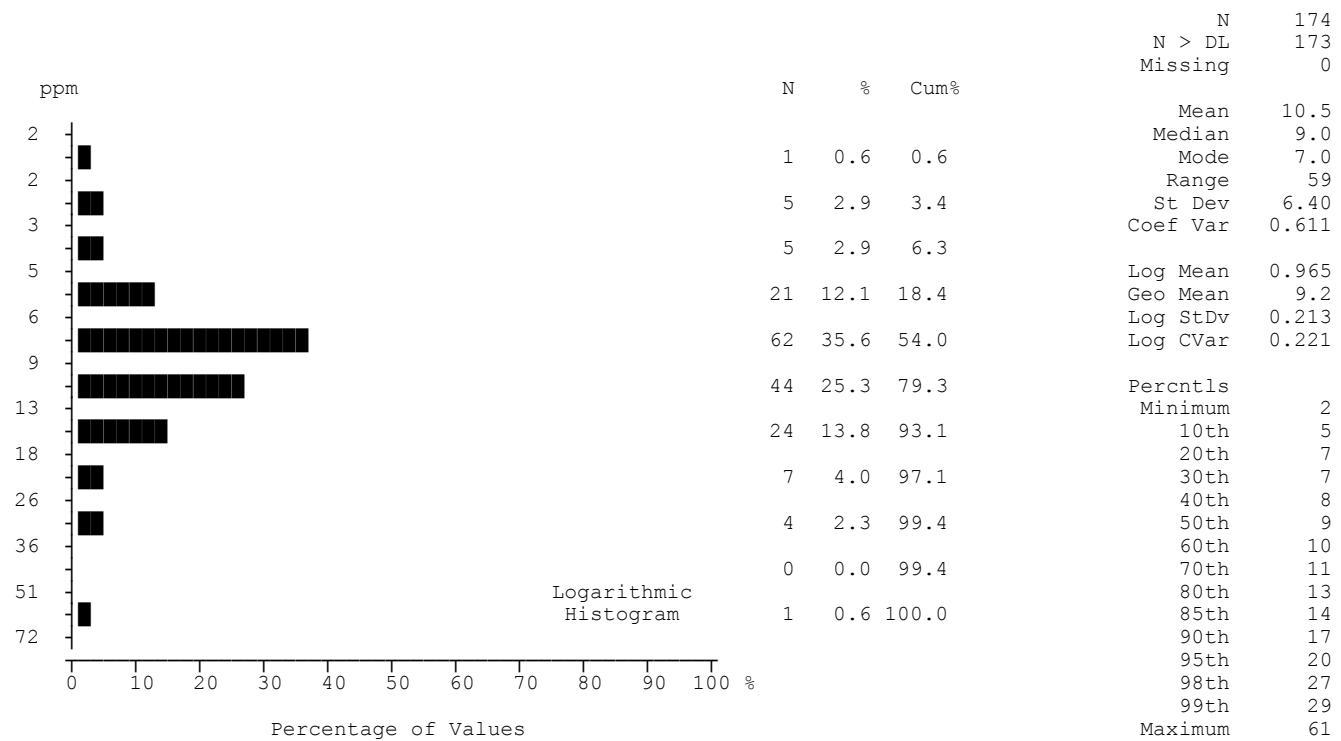


Cd

Summary Statistics

Cobalt in Stream Sediment

Detection Limit - 2
Analytical Method - AAS
Units - ppm

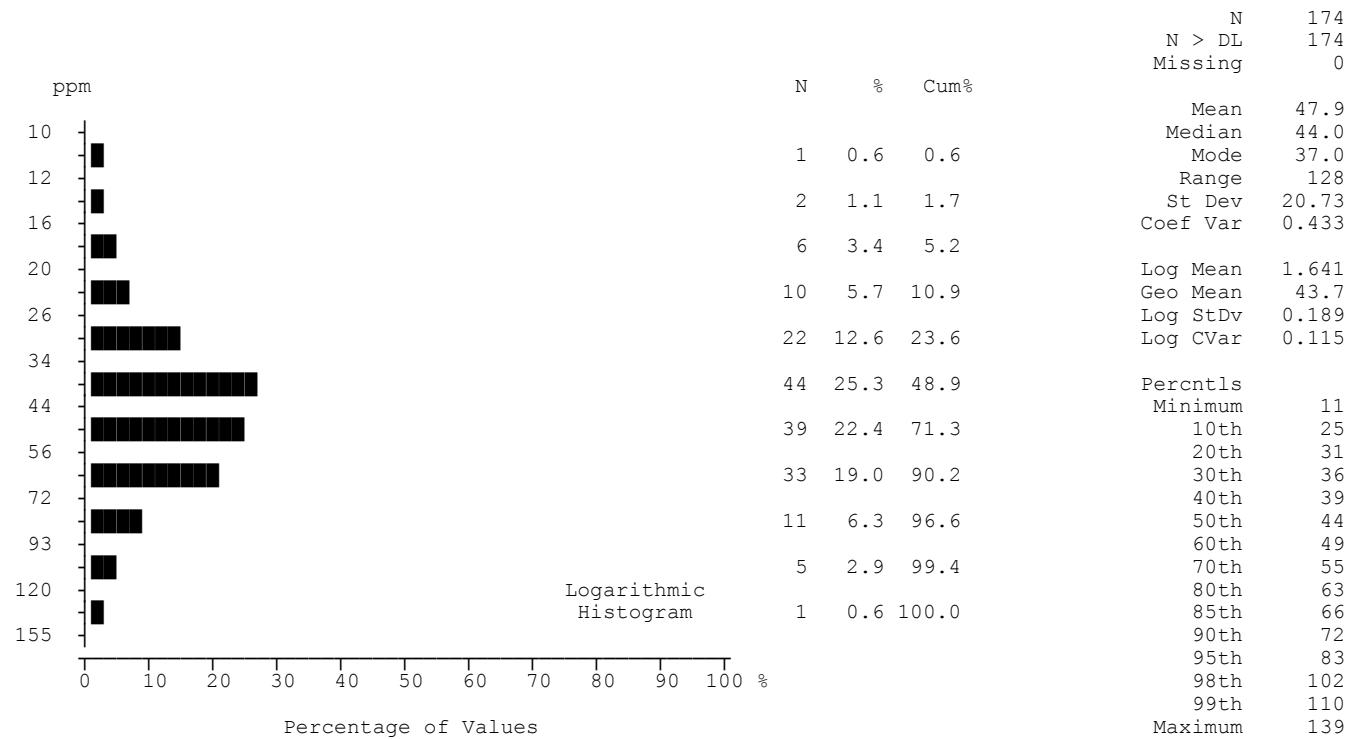


Co

Summary Statistics

Copper in Stream Sediment

Detection Limit - 2
Analytical Method - AAS
Units - ppm

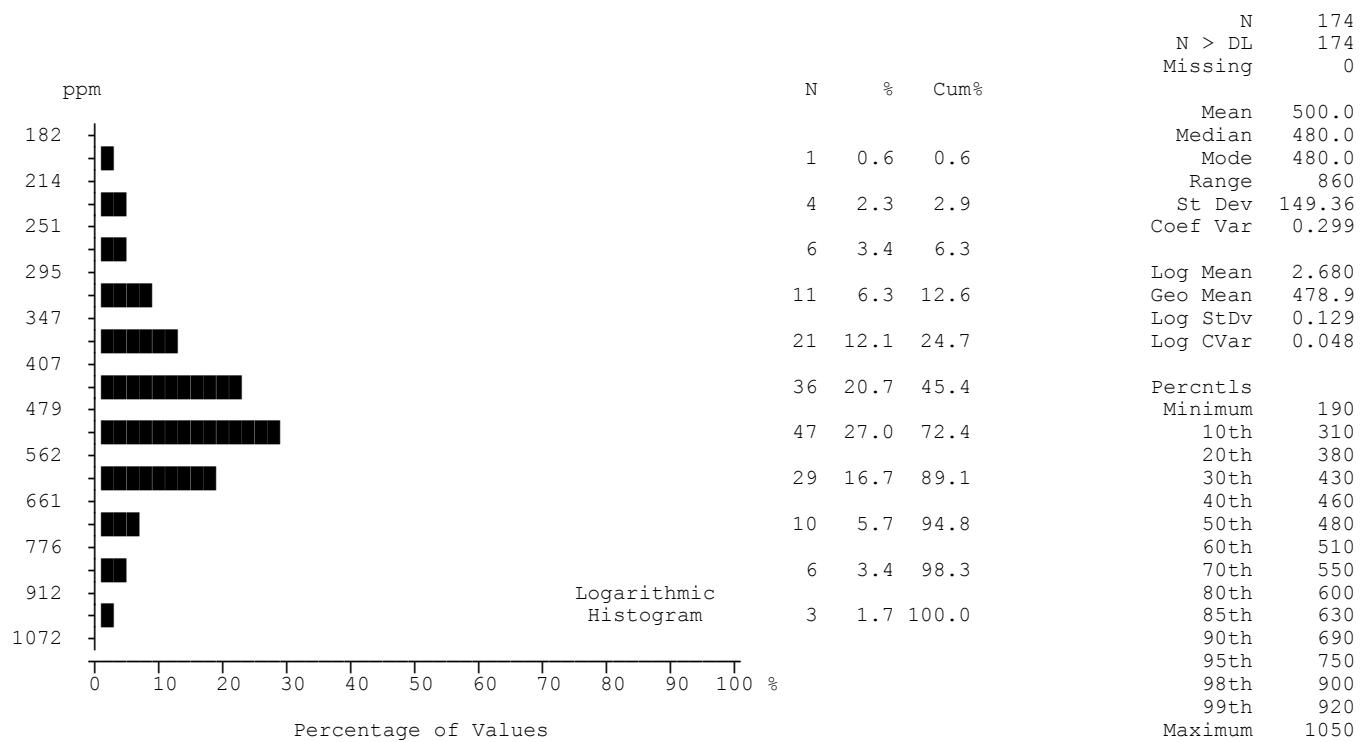


Cu

Summary Statistics

Fluorine in Stream Sediment

Detection Limit - 40
 Analytical Method - ION
 Units - ppm

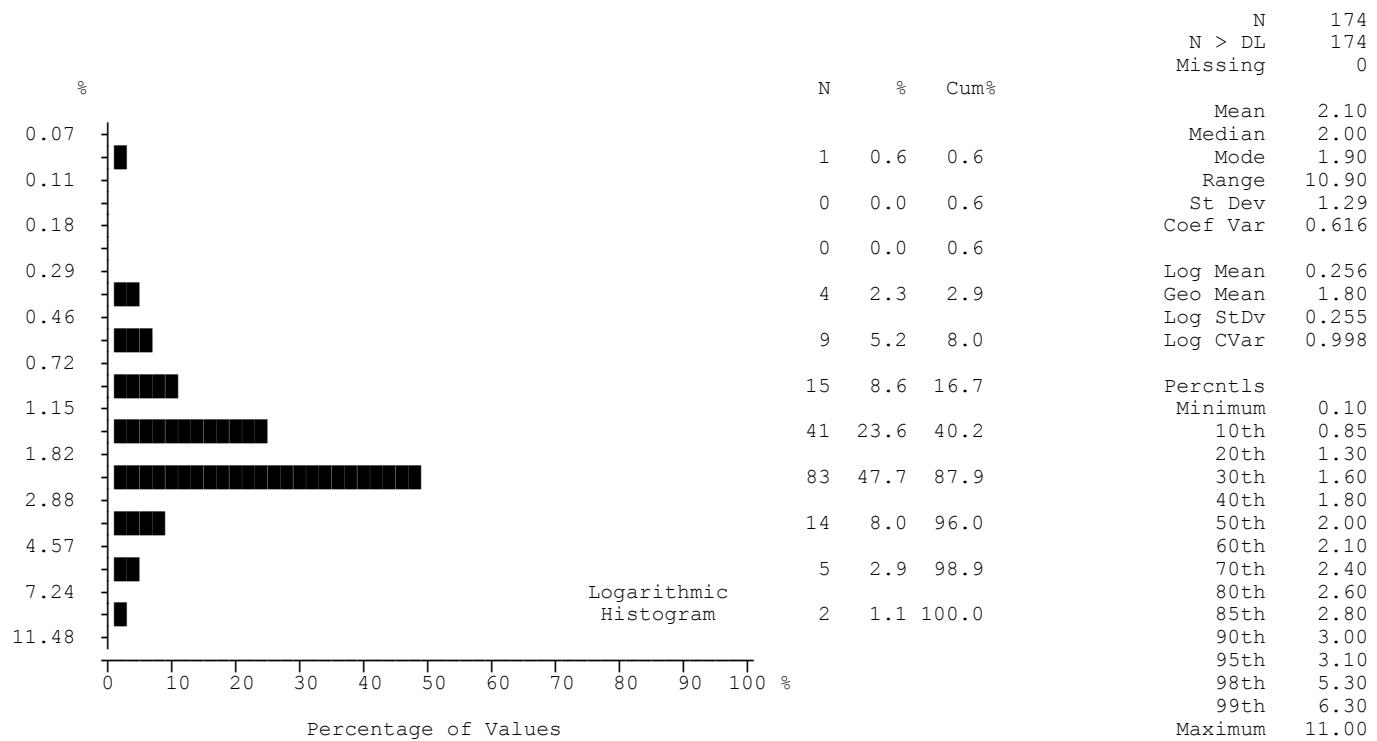


F

Summary Statistics

Iron in Stream Sediment

Detection Limit - 0.02
 Analytical Method - AAS
 Units - %

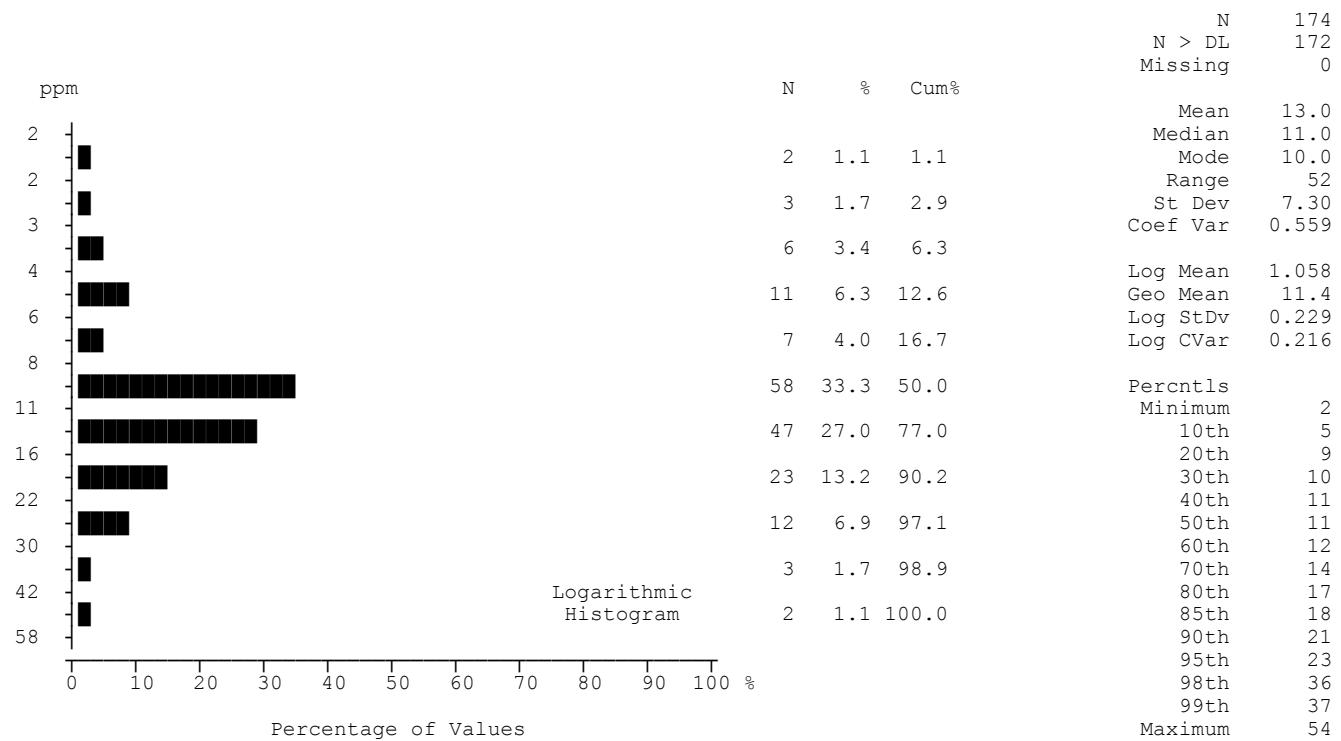


Fe

Summary Statistics

Lead in Stream Sediment

Detection Limit - 2
 Analytical Method - AAS
 Units - ppm

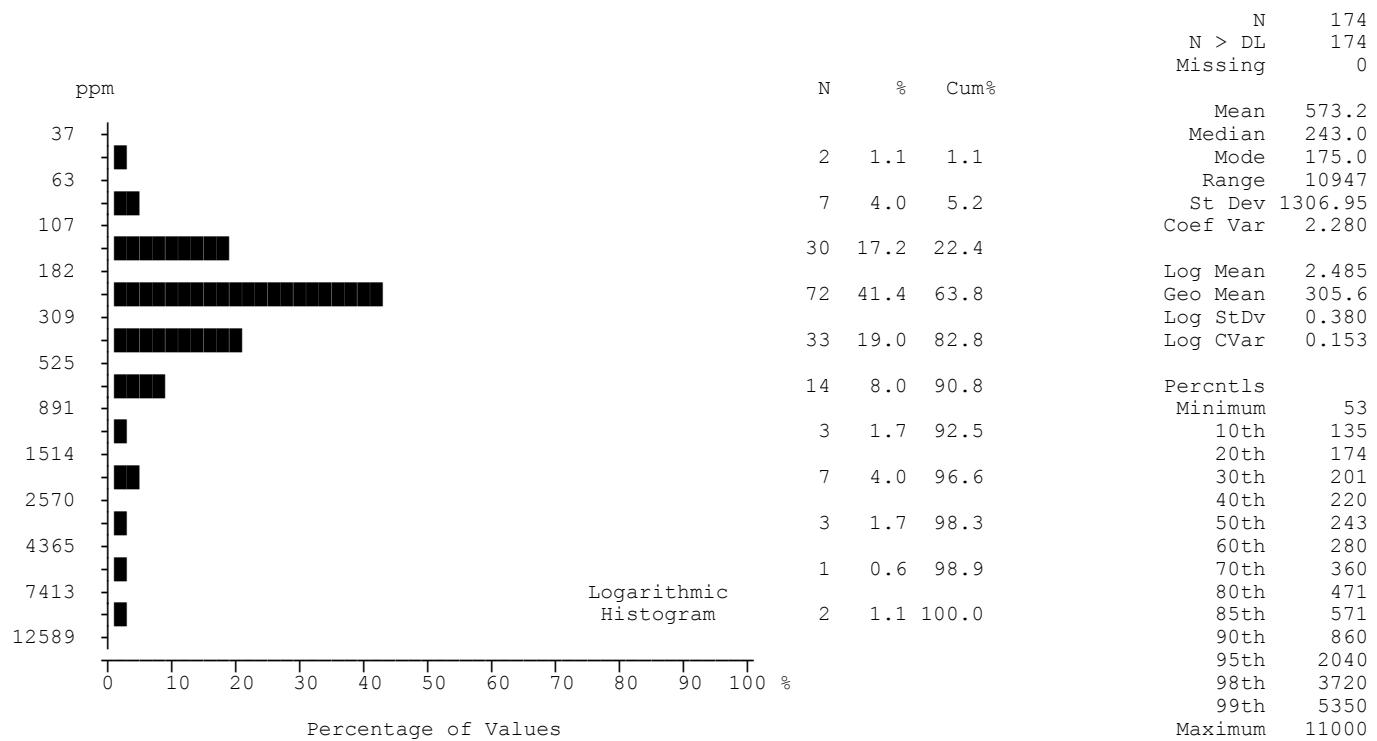


Pb

Summary Statistics

Manganese in Stream Sediment

Detection Limit - 5
 Analytical Method - AAS
 Units - ppm

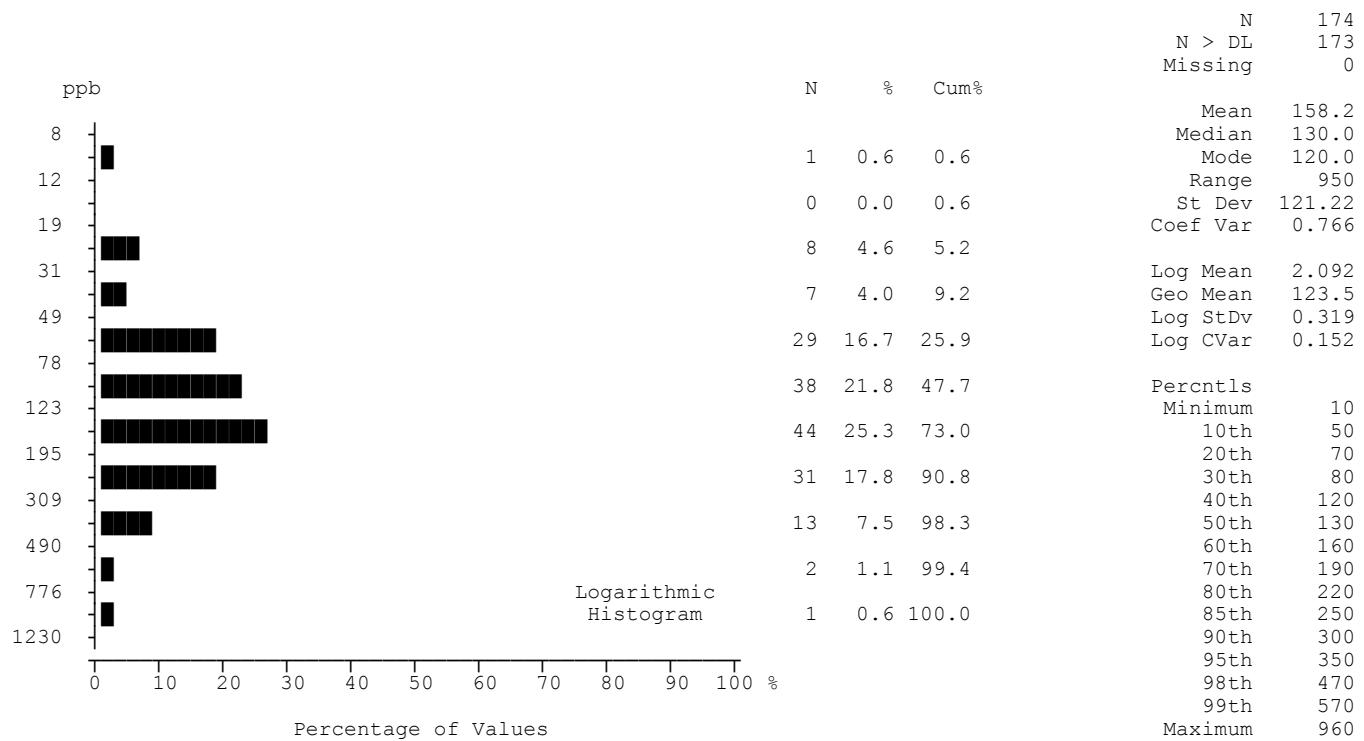


Mn

Summary Statistics

Mercury in Stream Sediment

Detection Limit - 10
 Analytical Method - AAS-F
 Units - ppb

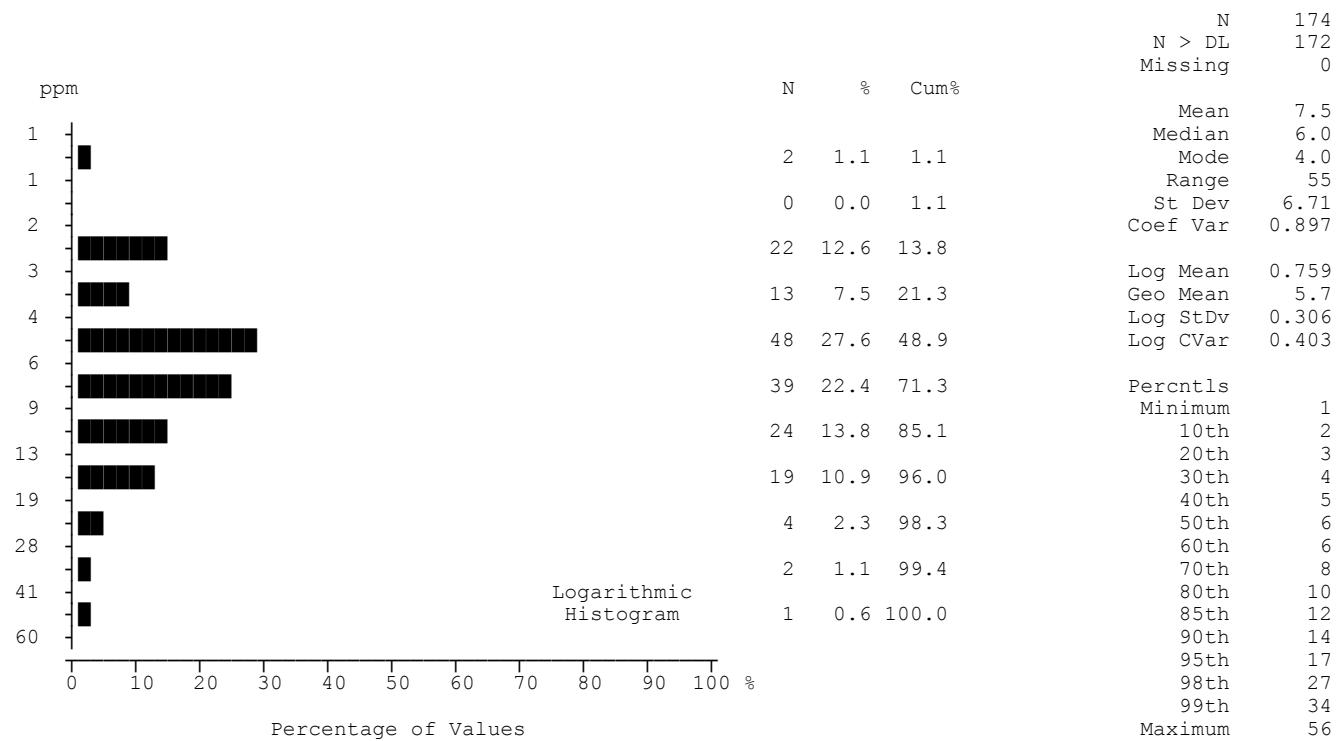


Hg

Summary Statistics

Molybdenum in Stream Sediment

Detection Limit - 1
 Analytical Method - AAS
 Units - ppm

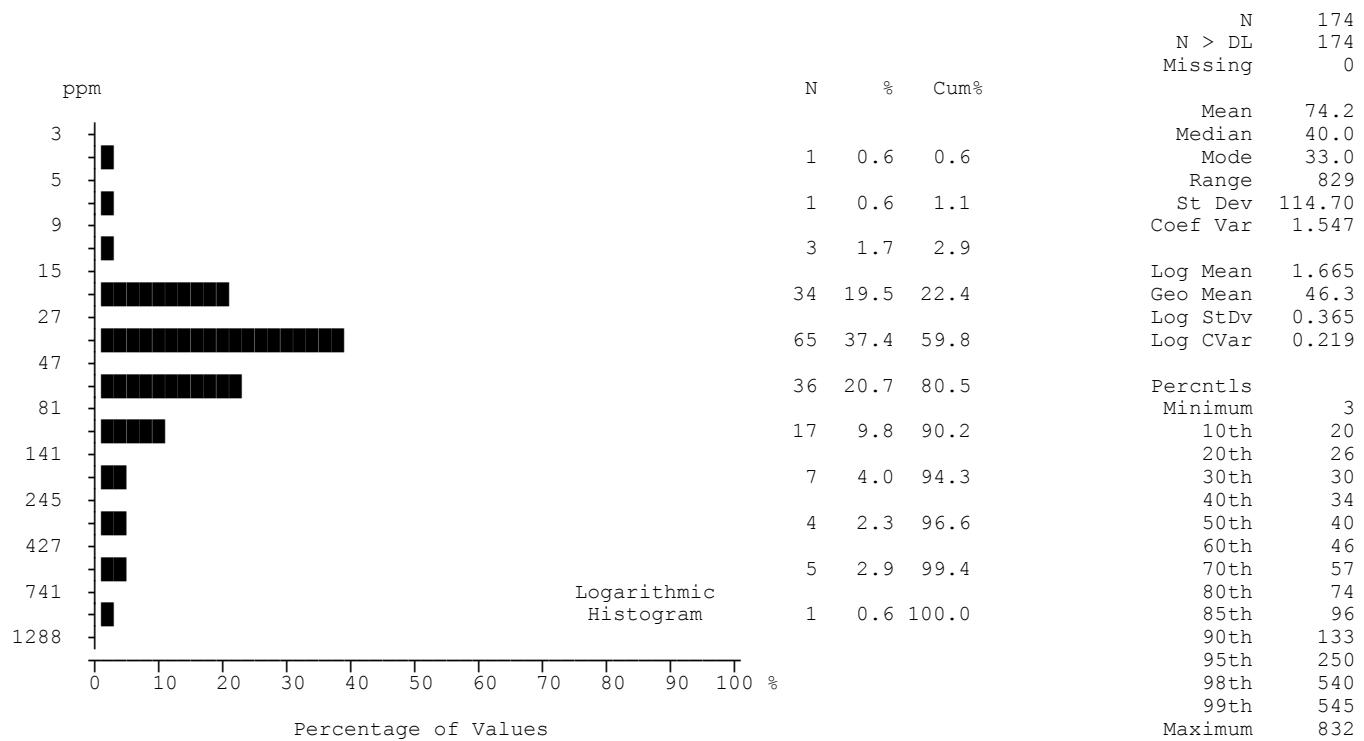


Mo

Summary Statistics

Nickel in Stream Sediment

Detection Limit - 2
 Analytical Method - AAS
 Units - ppm

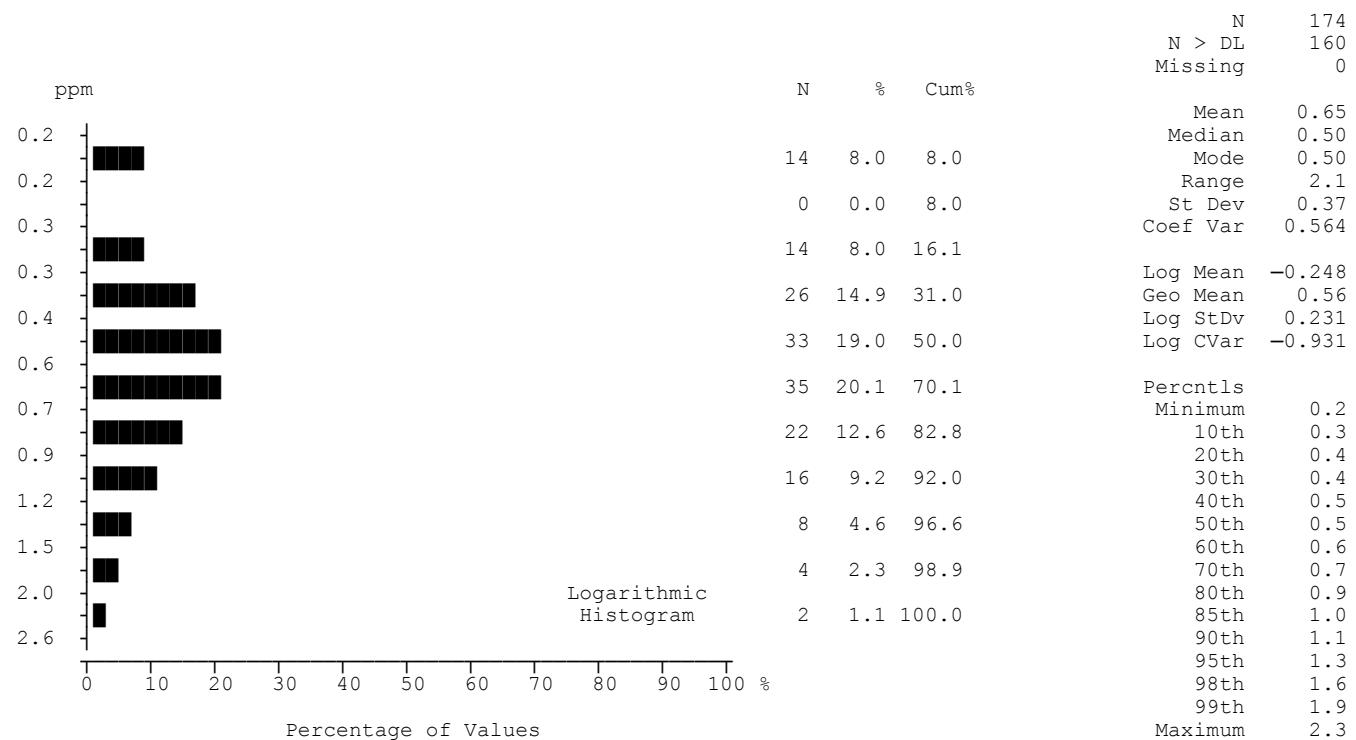


Ni

Summary Statistics

Silver in Stream Sediment

Detection Limit - 0.2
 Analytical Method - AAS
 Units - ppm

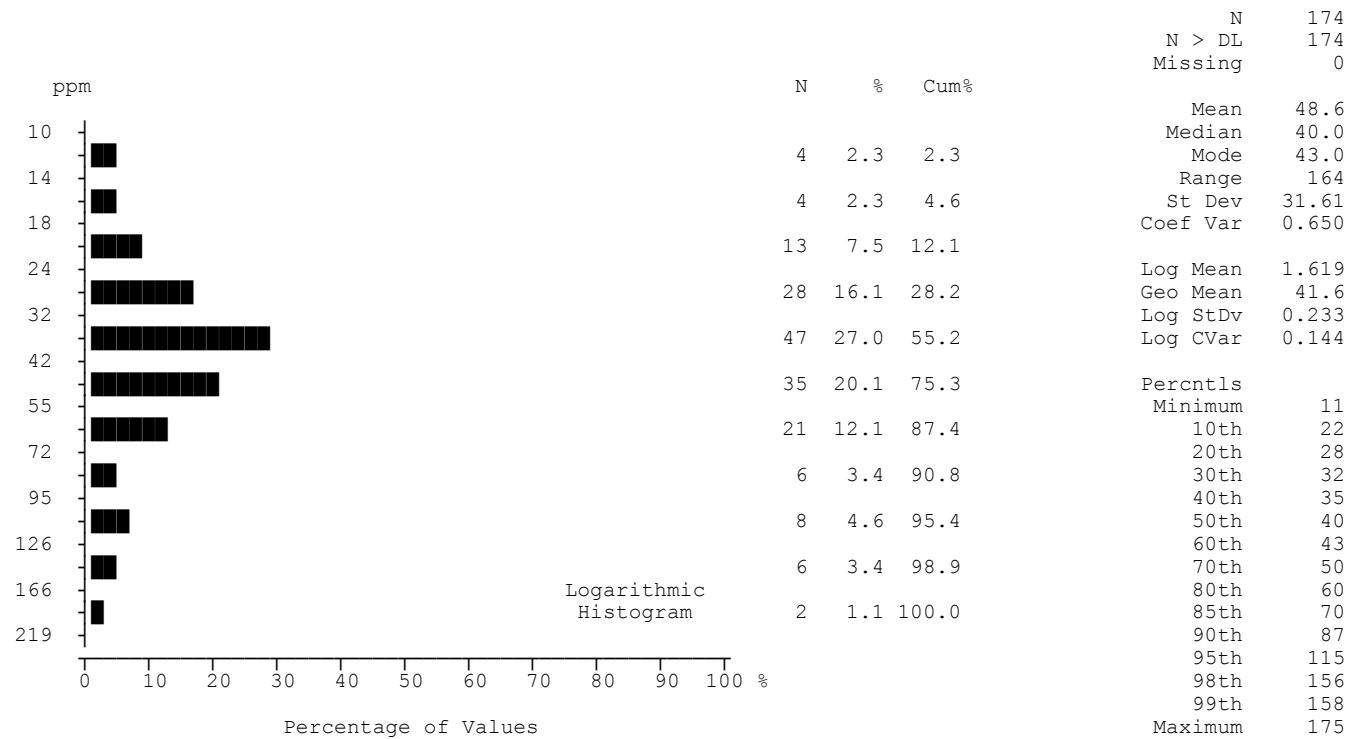


Ag

Summary Statistics

Vanadium in Stream Sediment

Detection Limit - 5
Analytical Method - AAS
Units - ppm

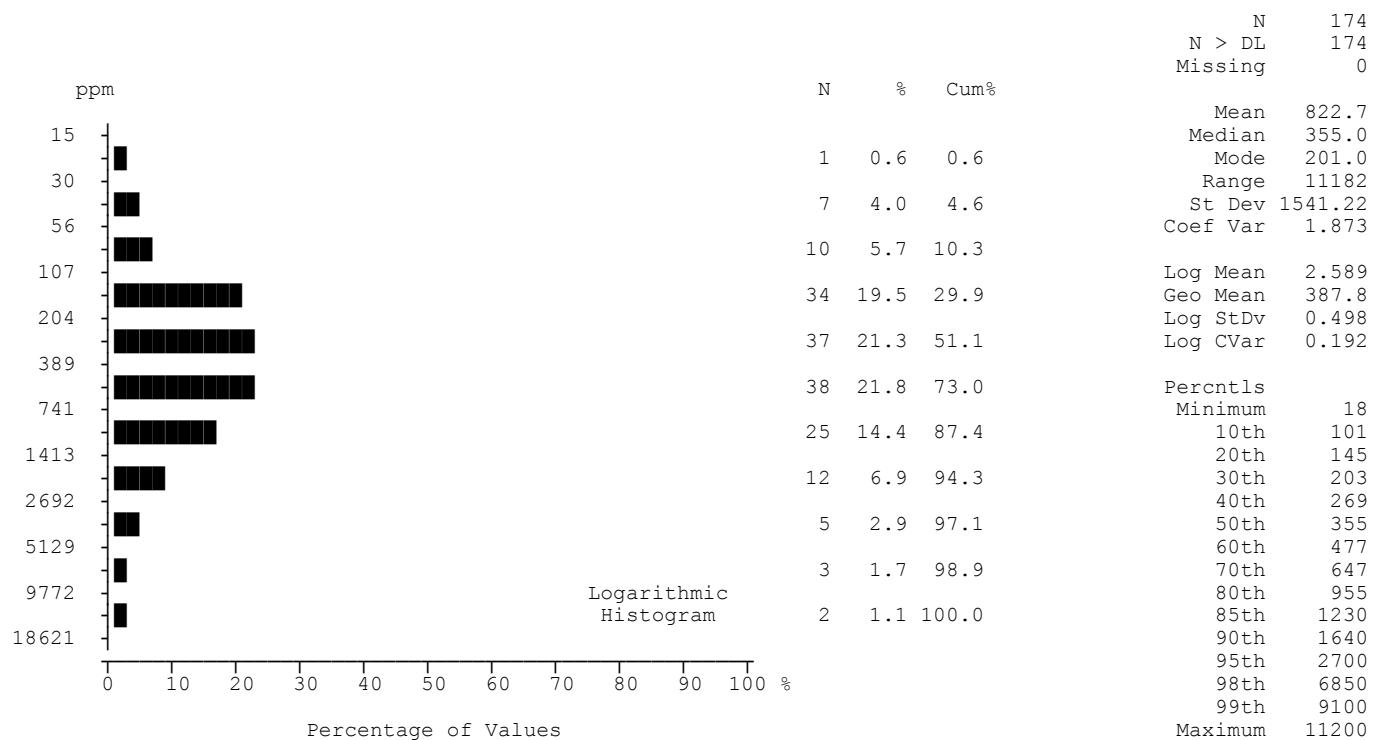


V

Summary Statistics

Zinc in Stream Sediment

Detection Limit - 2
 Analytical Method - AAS
 Units - ppm

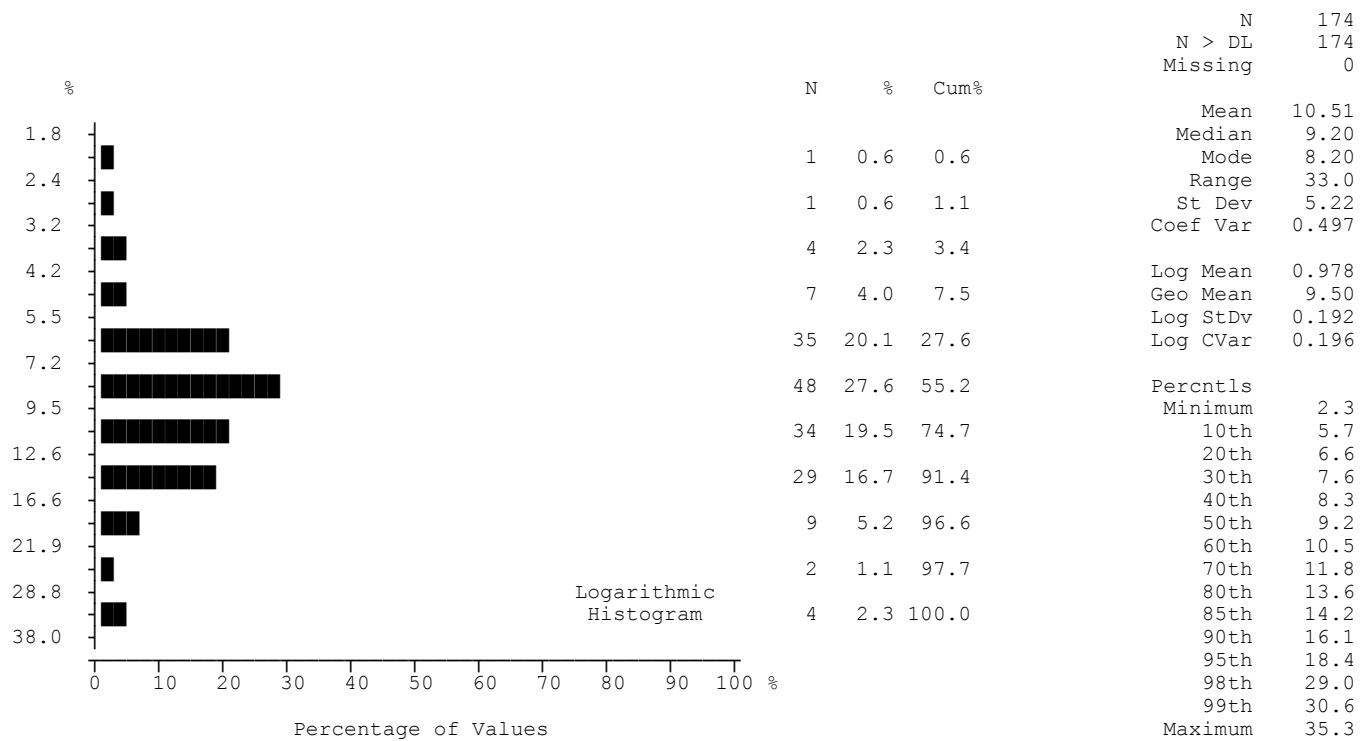


Zn

Summary Statistics

Loss on Ignition in Stream Sediment

Detection Limit - 0.1
 Analytical Method - GRAV
 Units - %

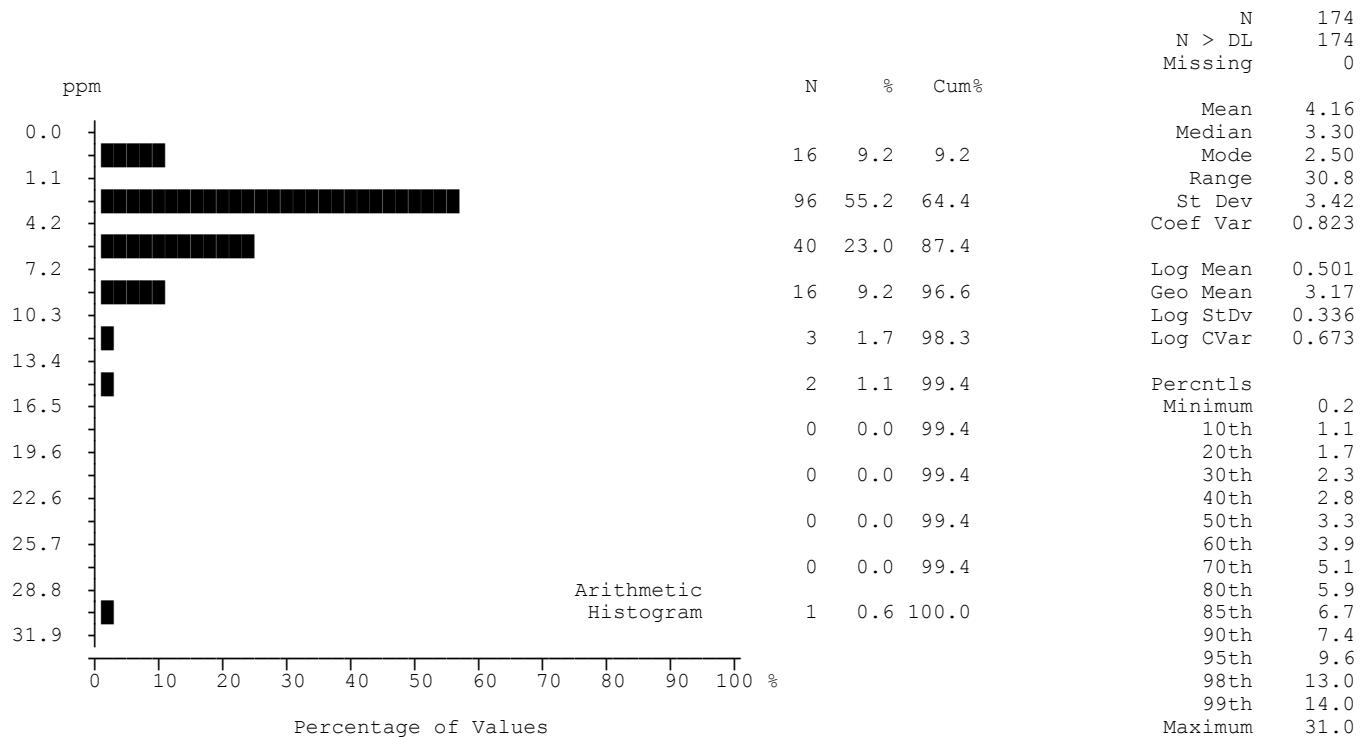


LOI

Summary Statistics

Antimony in Stream Sediment

Detection Limit = 0.1
 Analytical Method = INAA
 Units = ppm

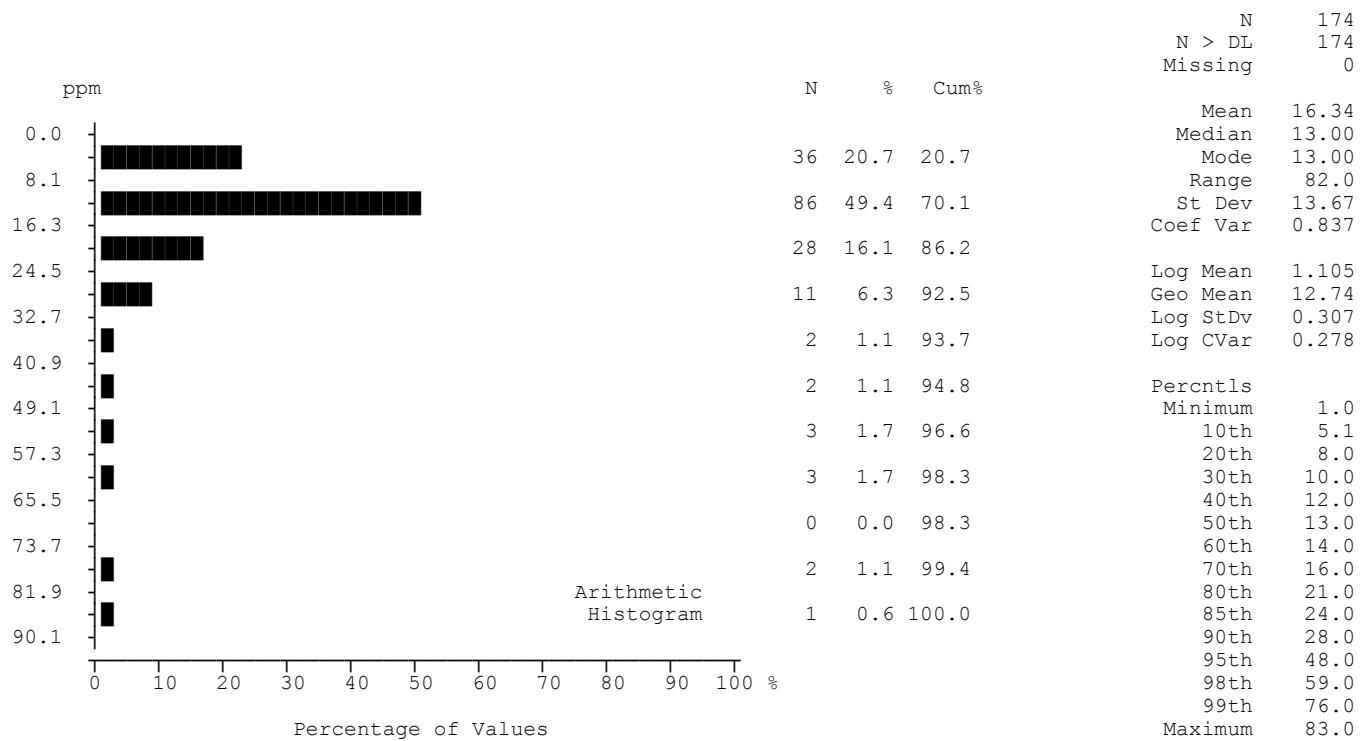


Sb

Summary Statistics

Arsenic in Stream Sediment

Detection Limit = 0.5
 Analytical Method = INAA
 Units = ppm

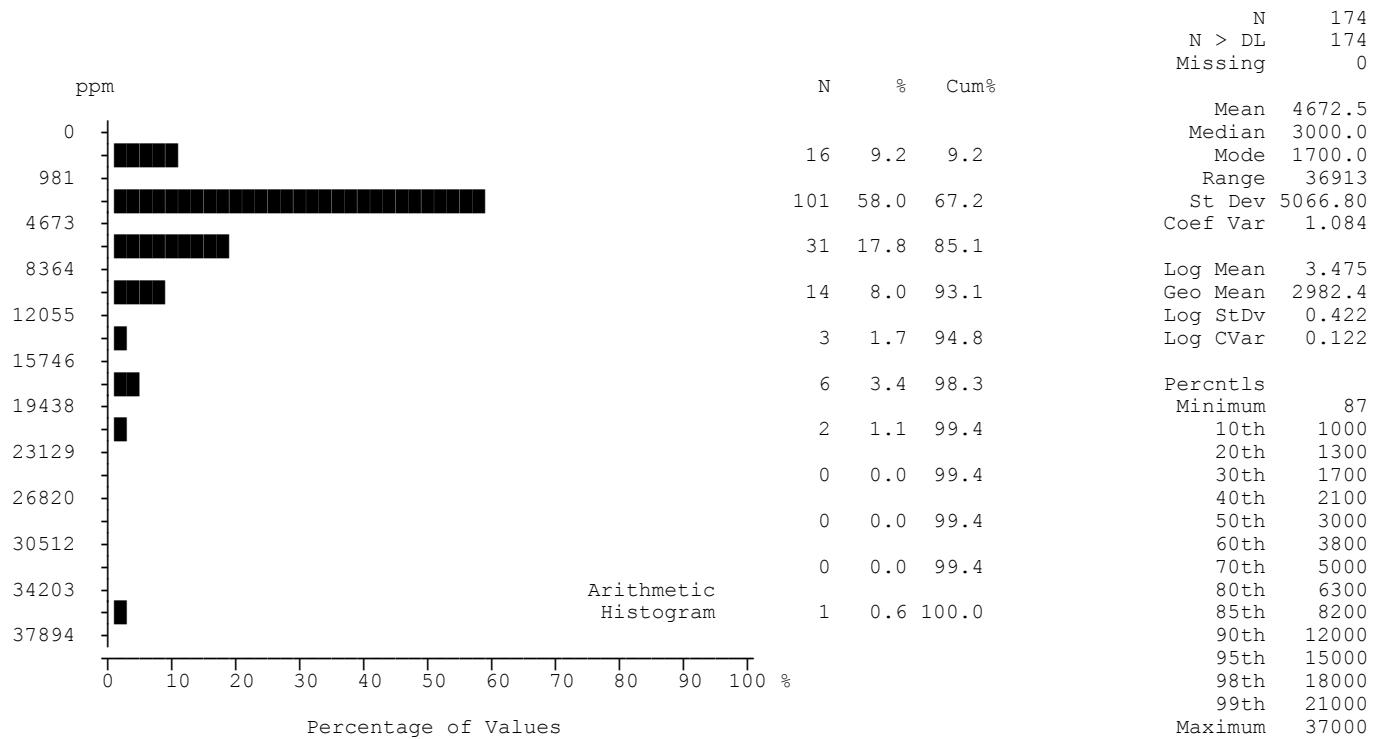


As

Summary Statistics

Barium in Stream Sediment

Detection Limit = 50
 Analytical Method = INAA
 Units = ppm

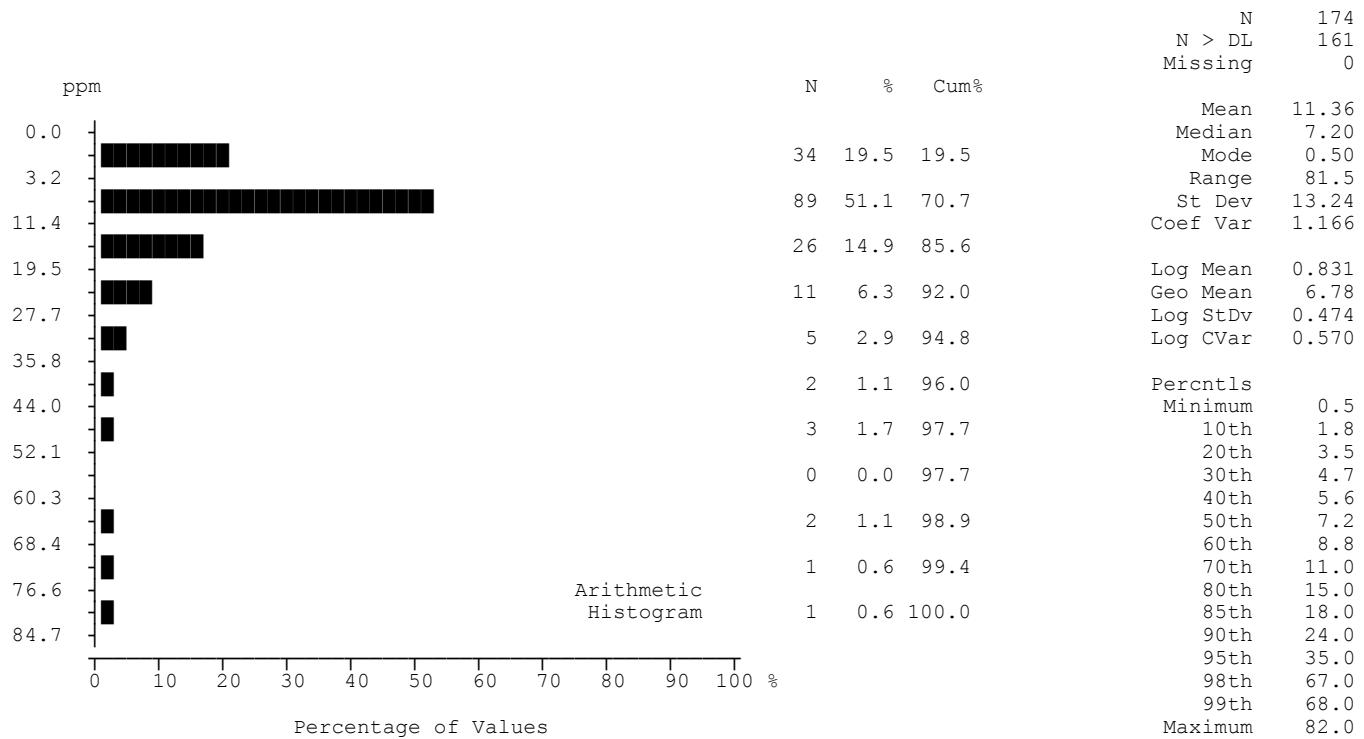


Ba

Summary Statistics

Bromine in Stream Sediment

Detection Limit - 0.5
Analytical Method - INAA
Units - ppm

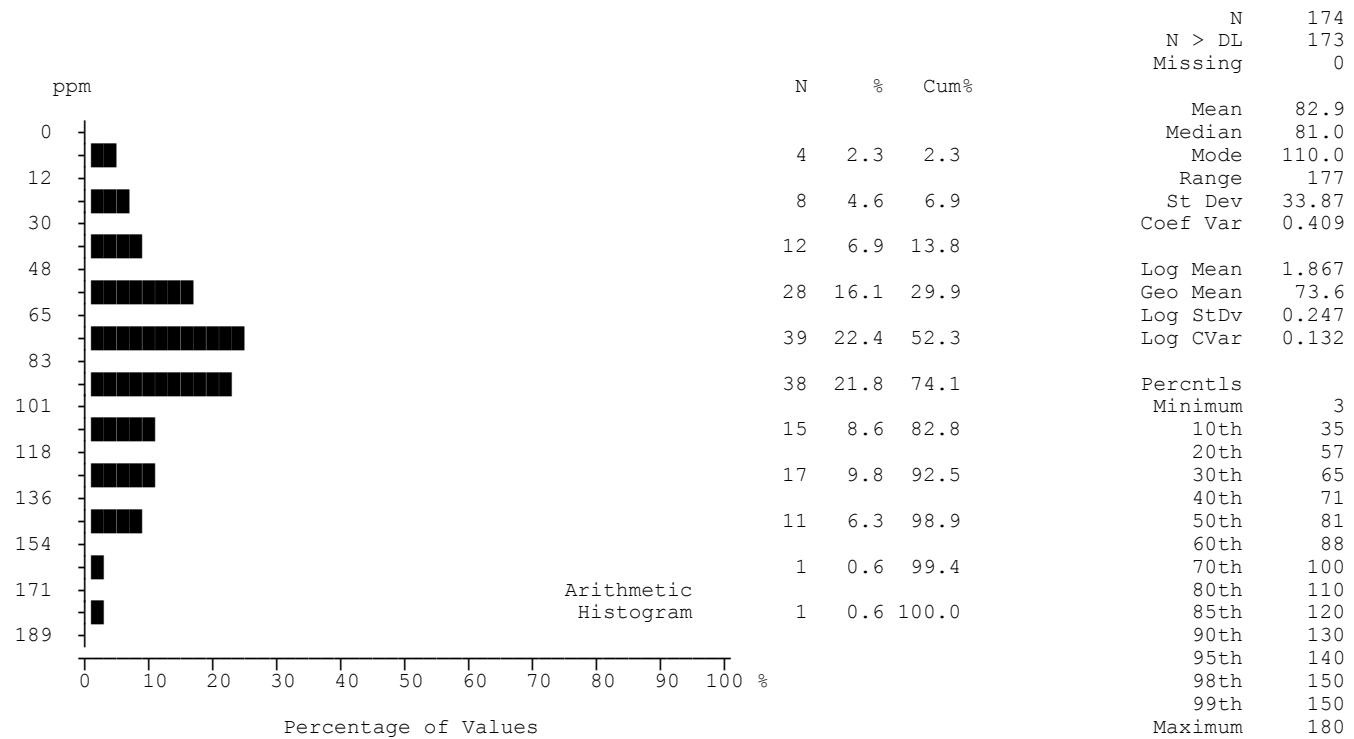


Br

Summary Statistics

Cerium in Stream Sediment

Detection Limit = 3
 Analytical Method = INAA
 Units = ppm

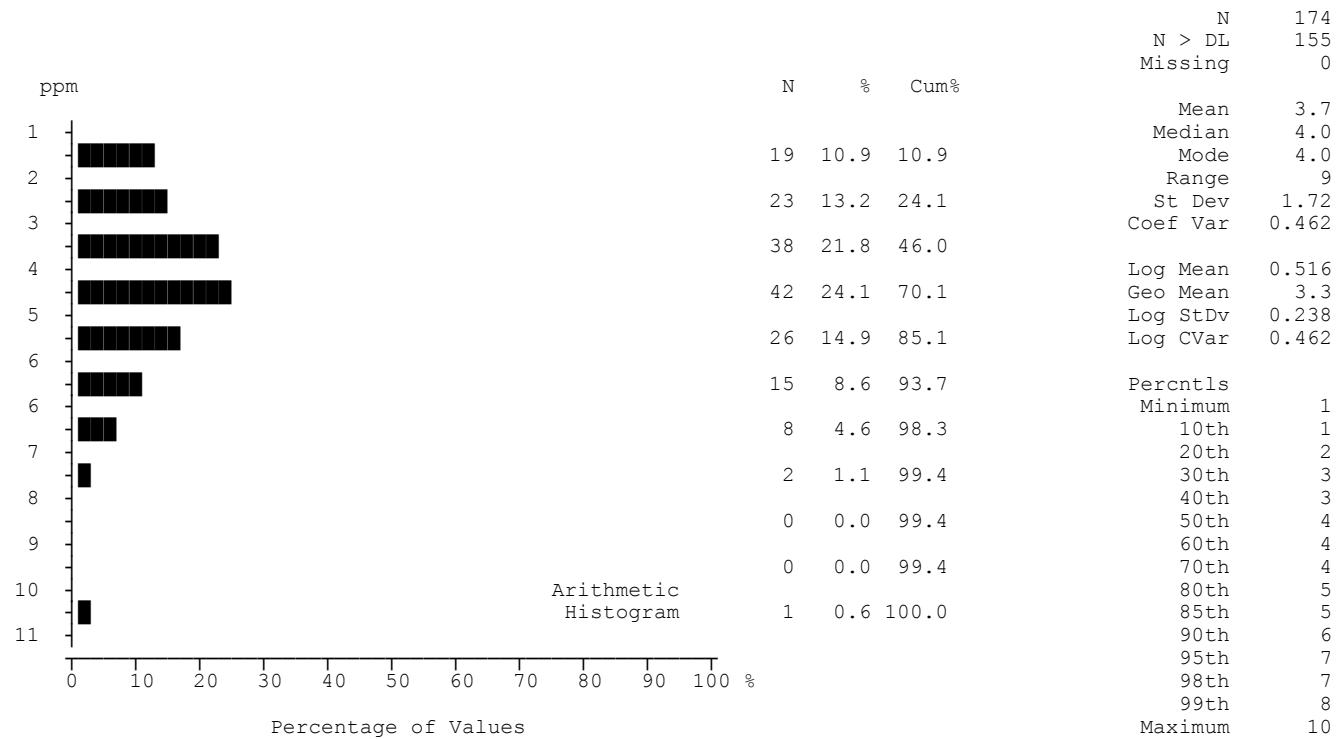


Ce

Summary Statistics

Cesium in Stream Sediment

Detection Limit = 1
Analytical Method = INAA
Units = ppm

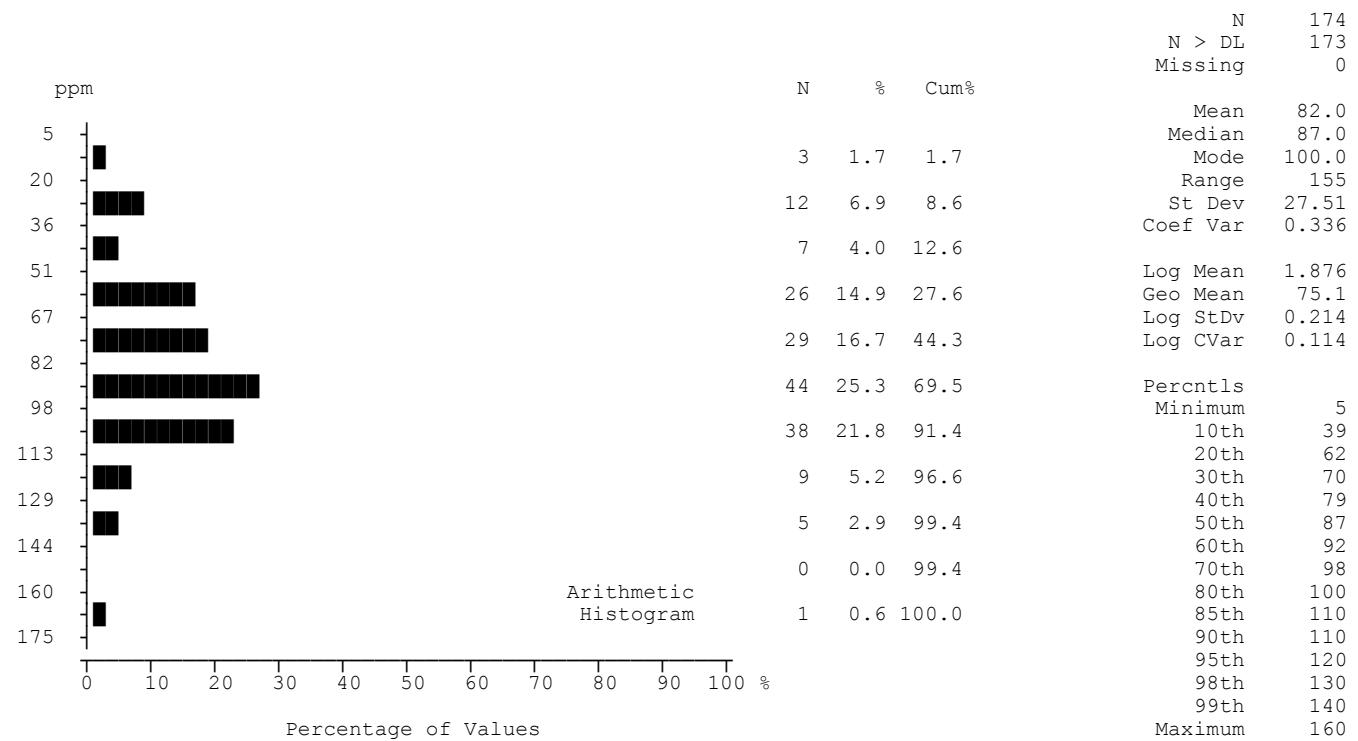


Cs

Summary Statistics

Chromium in Stream Sediment

Detection Limit = 5
 Analytical Method = INAA
 Units = ppm

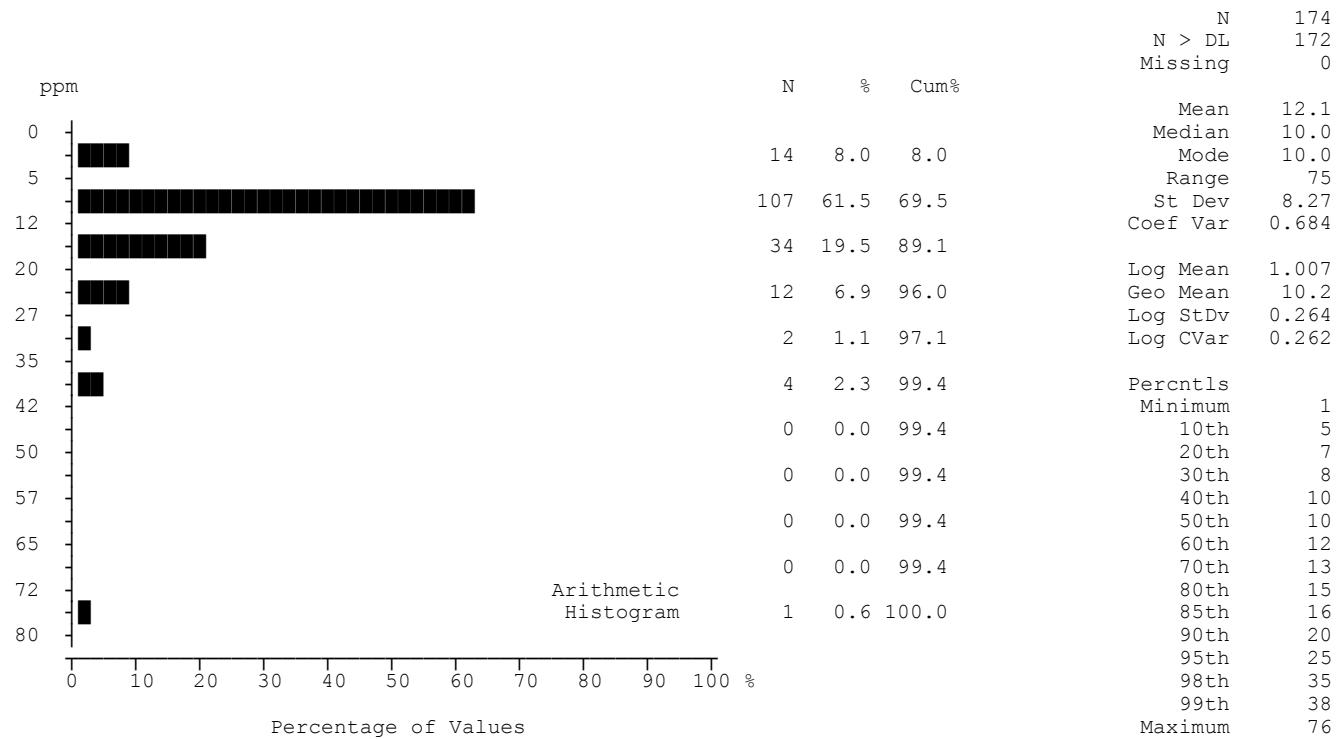


Cr

Summary Statistics

Cobalt in Stream Sediment

Detection Limit = 1
 Analytical Method = INAA
 Units = ppm

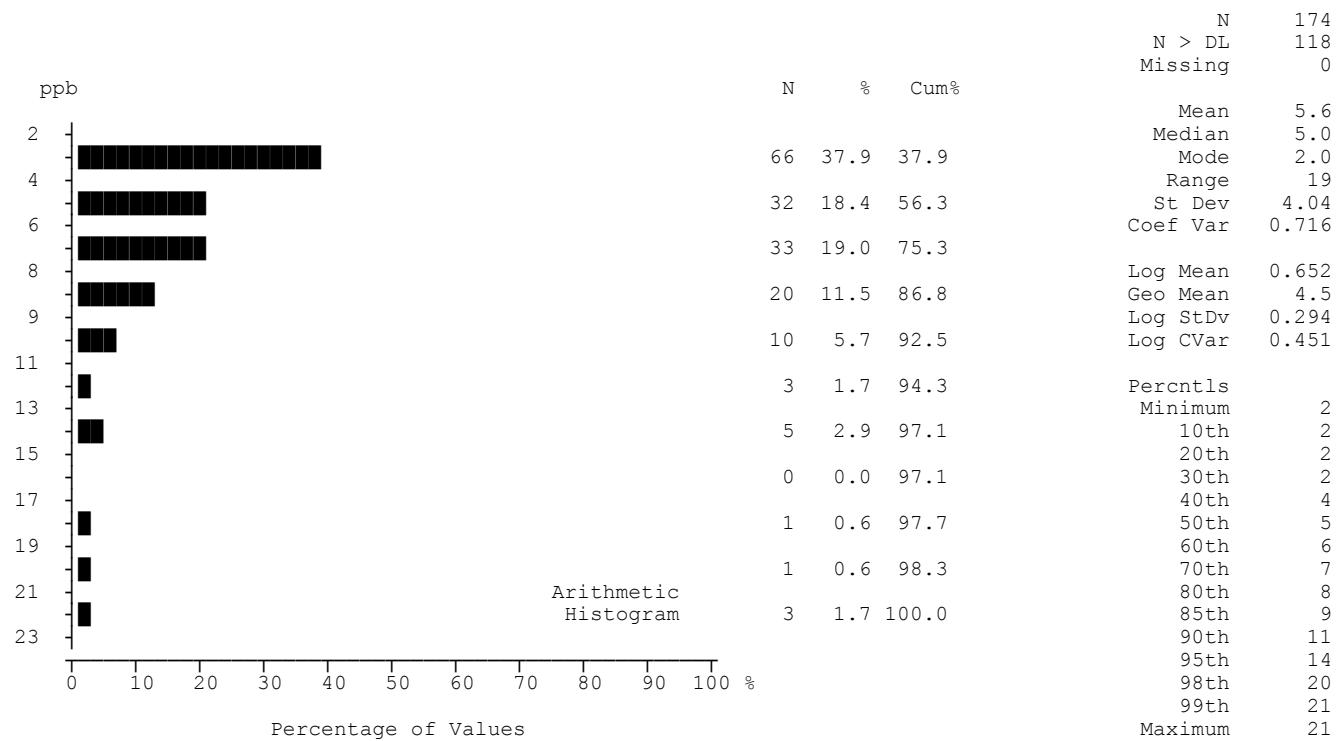


Co

Summary Statistics

Gold in Stream Sediment

Detection Limit = 2
Analytical Method = INAA
Units = ppb

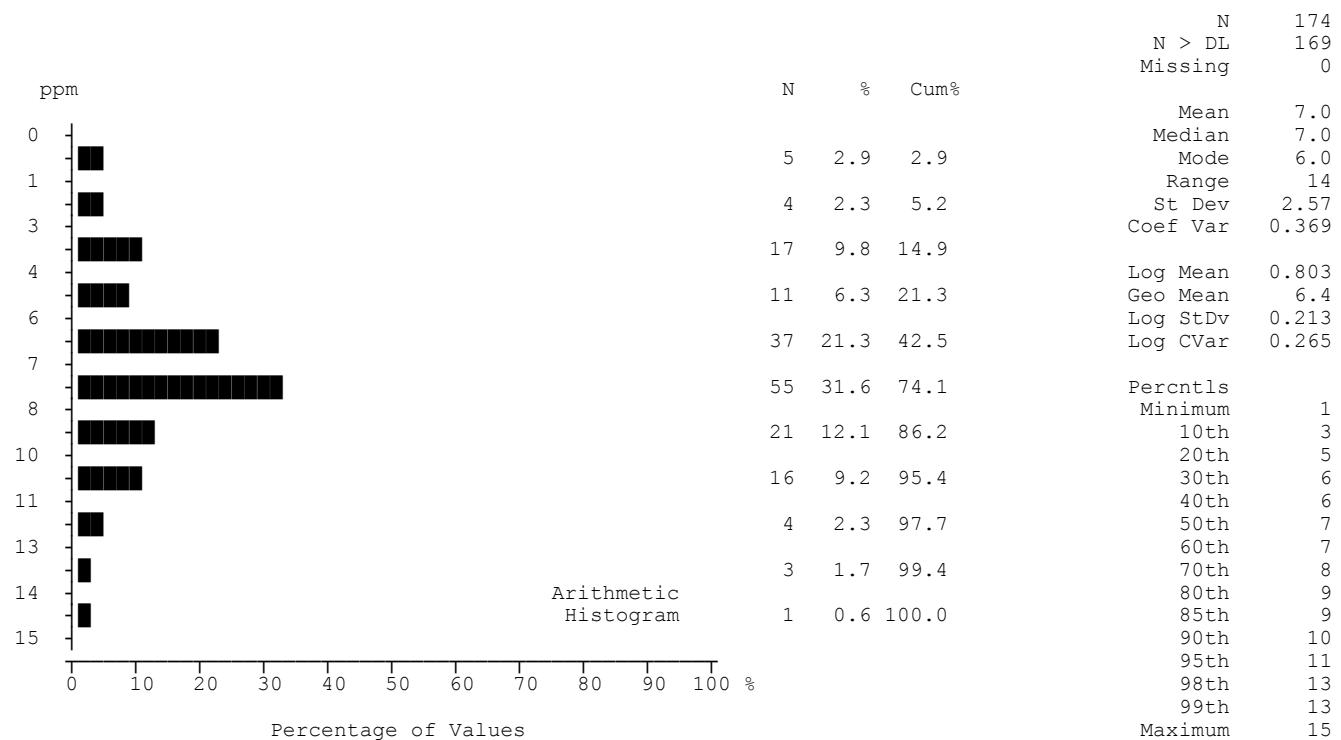


Au

Summary Statistics

Hafnium in Stream Sediment

Detection Limit = 1
 Analytical Method = INAA
 Units = ppm

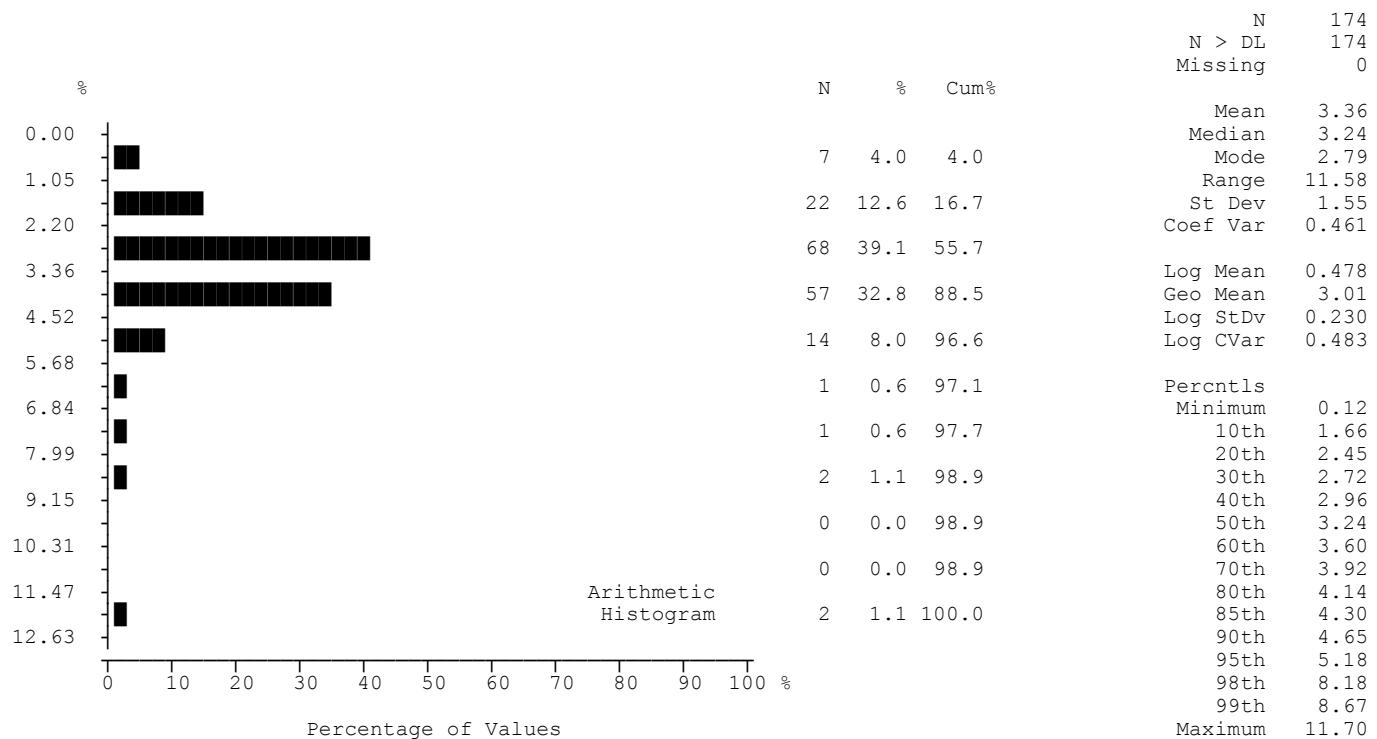


Hf

Summary Statistics

Iron in Stream Sediment

Detection Limit = 0.01
 Analytical Method = INAA
 Units = %

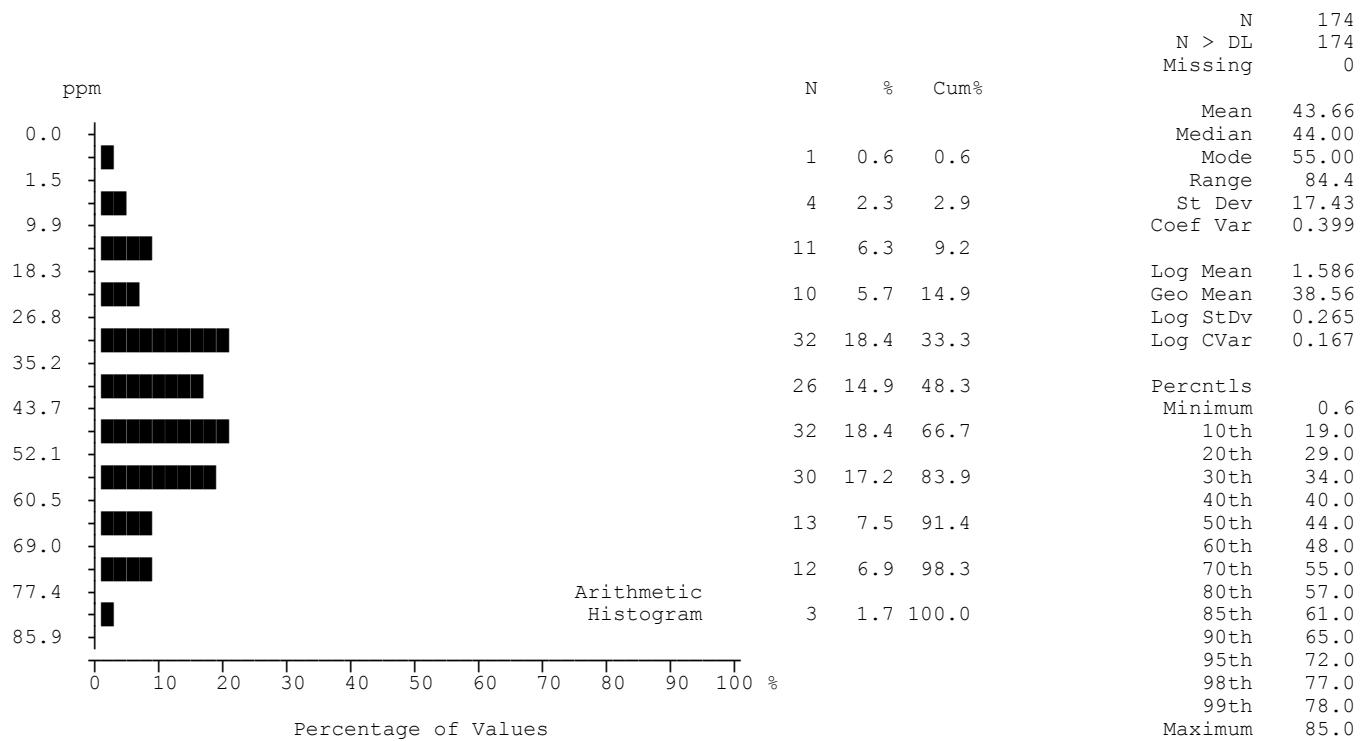


Fe

Summary Statistics

Lanthanum in Stream Sediment

Detection Limit = 0.5
 Analytical Method = INAA
 Units = ppm

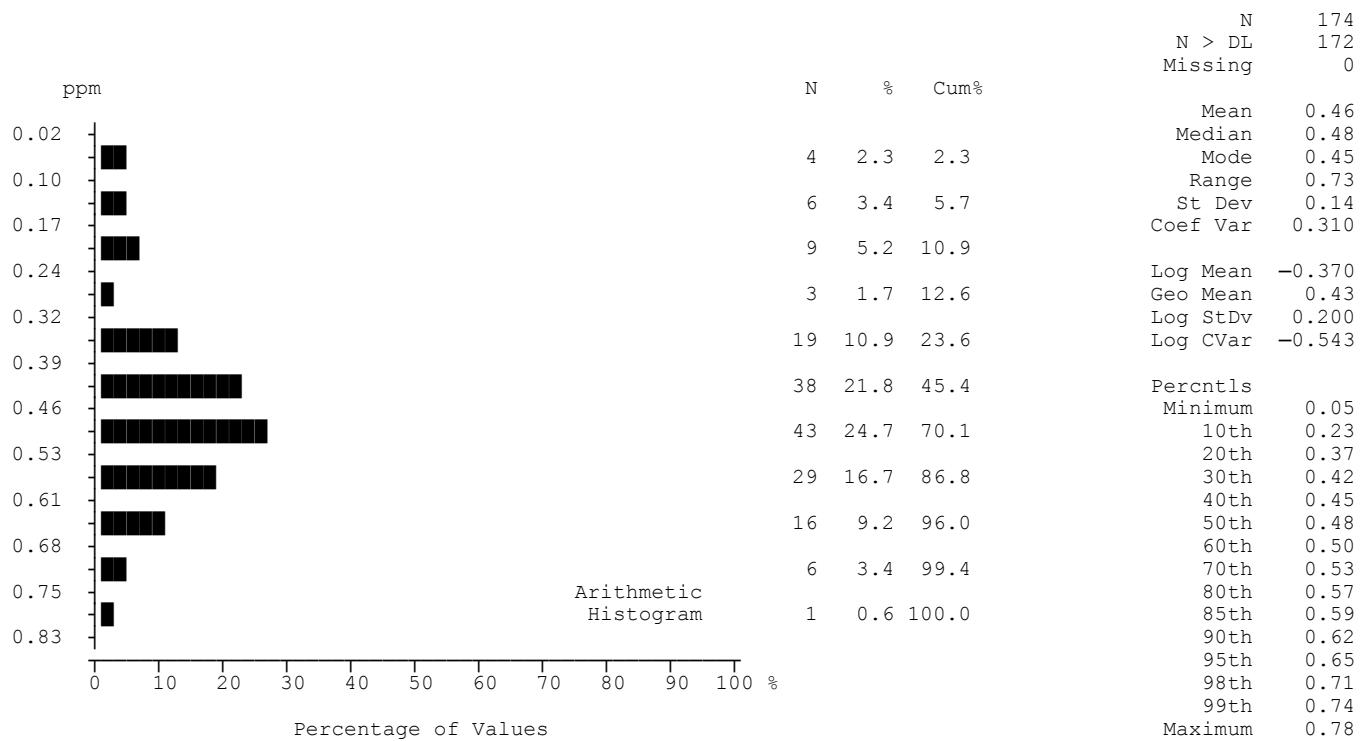


La

Summary Statistics

Lutetium in Stream Sediment

Detection Limit = 0.05
 Analytical Method = INAA
 Units = ppm

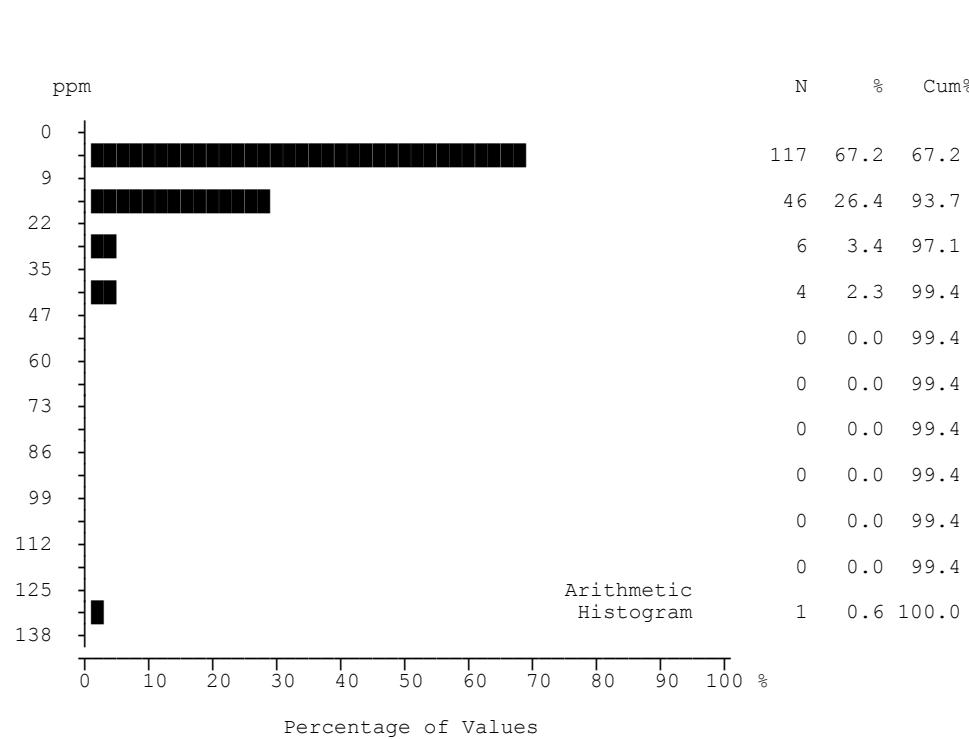


Lu

Summary Statistics

Molybdenum in Stream Sediment

Detection Limit = 1
Analytical Method = INAA
Units = ppm



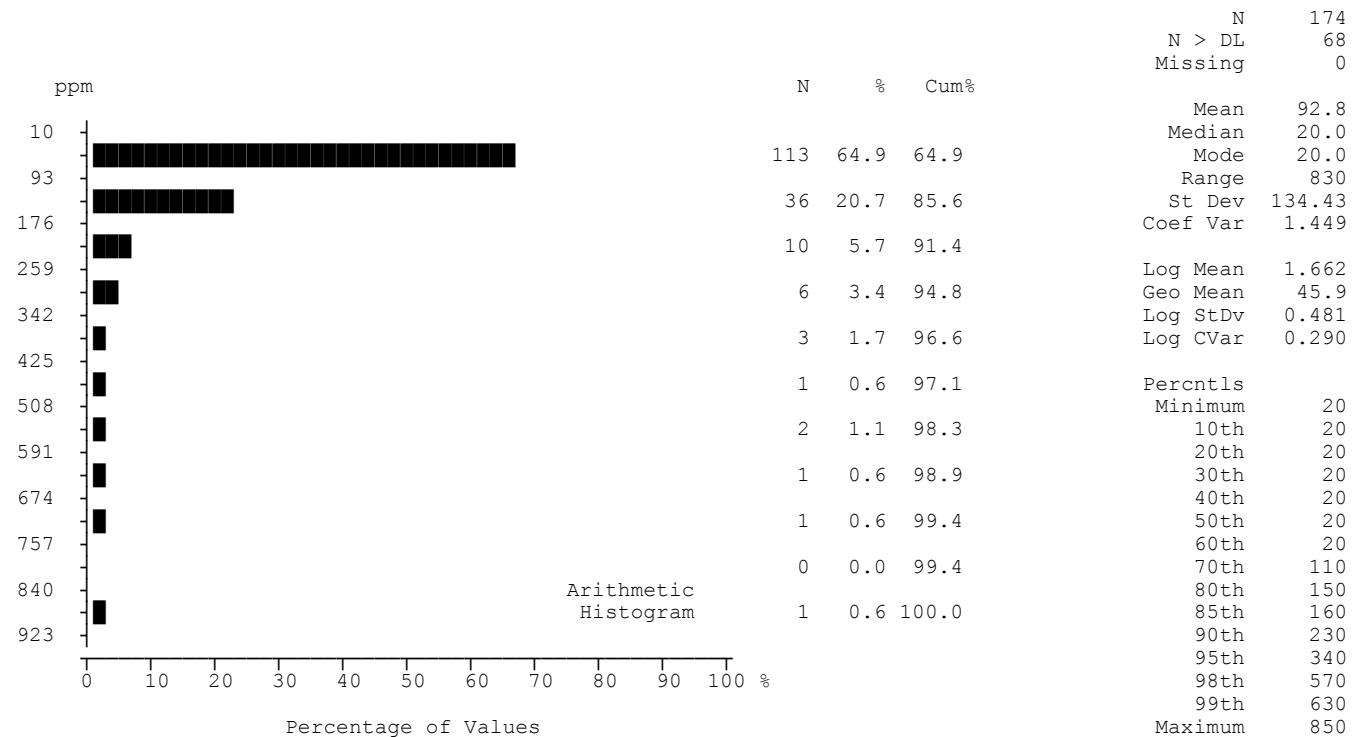
	N	174
N > DL	124	
Missing	0	
Mean	8.7	
Median	6.0	
Mode	1.0	
Range	129	
St Dev	12.33	
Coef Var	1.418	
Log Mean	0.679	
Geo Mean	4.8	
Log StDv	0.497	
Log CVar	0.732	
Percentiles		
Minimum	1	
10th	1	
20th	1	
30th	3	
40th	5	
50th	6	
60th	7	
70th	10	
80th	12	
85th	14	
90th	20	
95th	24	
98th	38	
99th	44	
Maximum	130	

Mo

Summary Statistics

Nickel in Stream Sediment

Detection Limit = 20
Analytical Method = INAA
Units = ppm

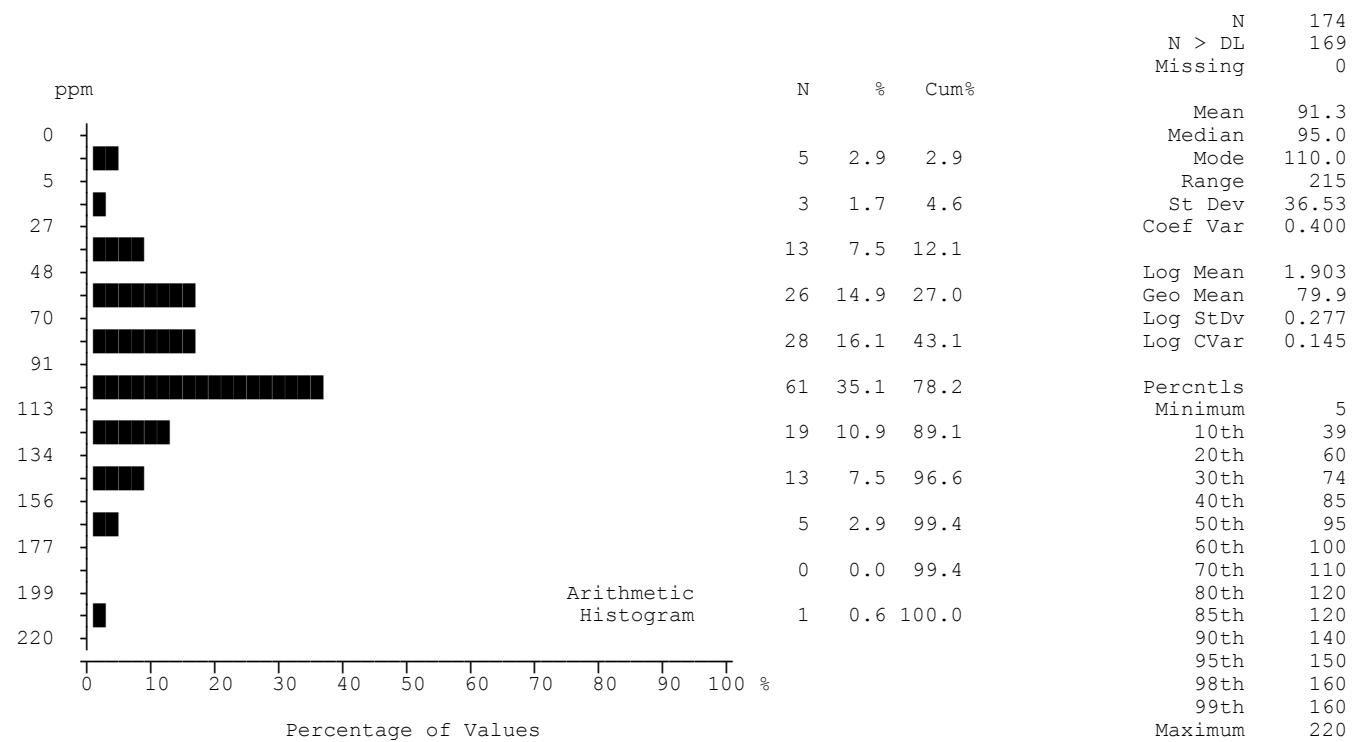


Ni

Summary Statistics

Rubidium in Stream Sediment

Detection Limit = 5
 Analytical Method = INAA
 Units = ppm

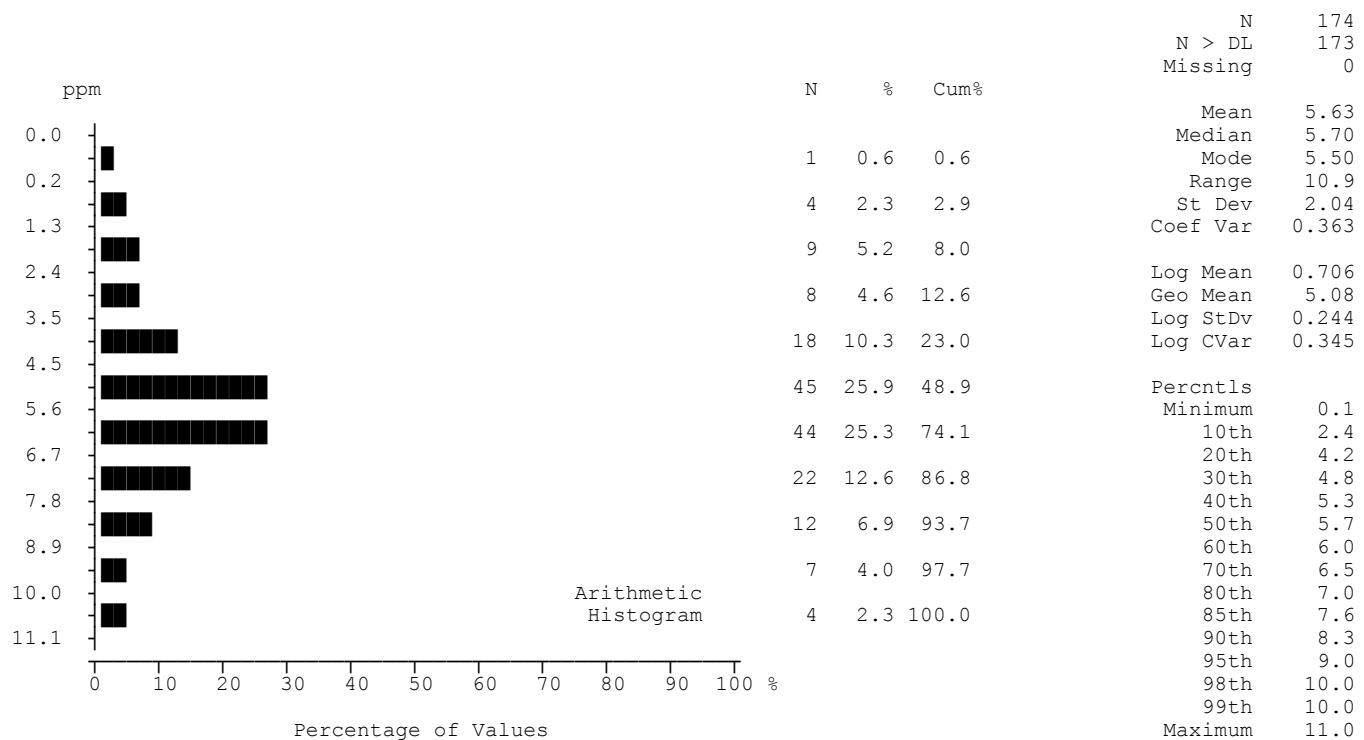


Rb

Summary Statistics

Samarium in Stream Sediment

Detection Limit = 0.1
 Analytical Method = INAA
 Units = ppm

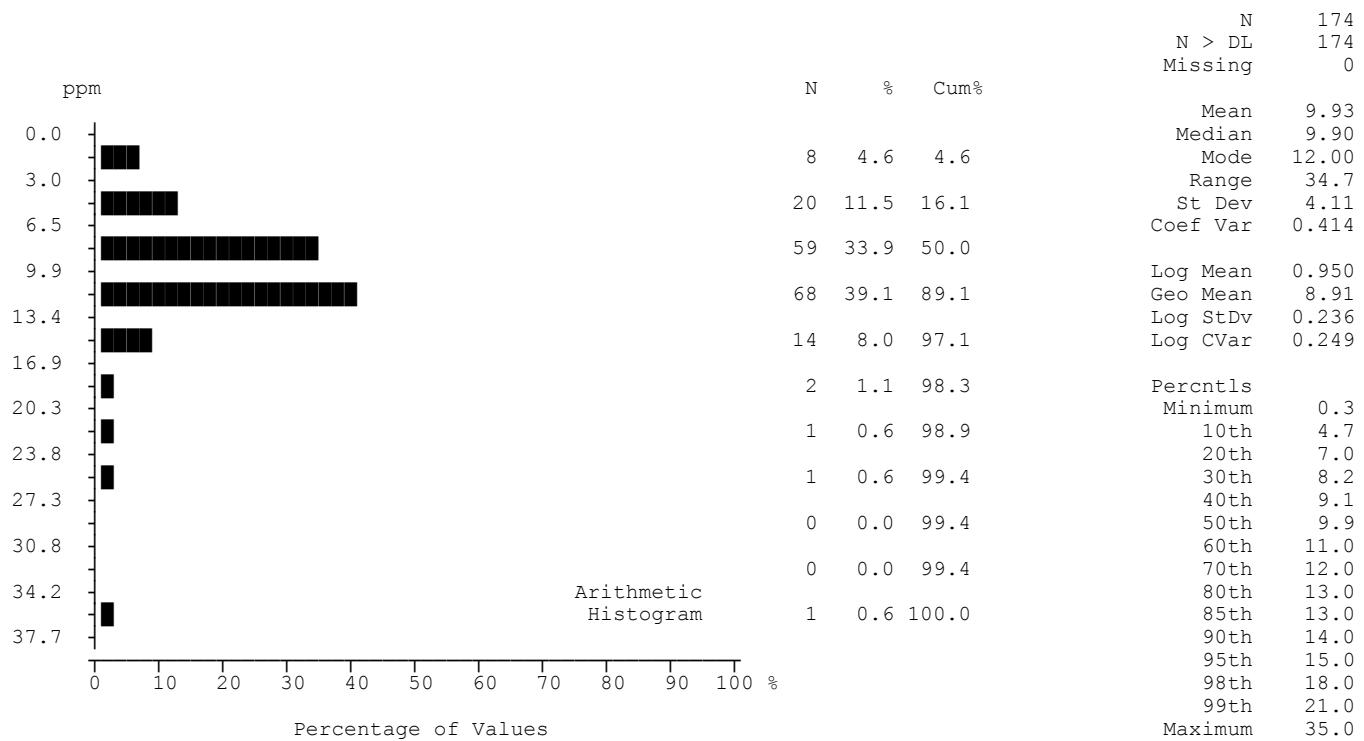


Sm

Summary Statistics

Scandium in Stream Sediment

Detection Limit = 0.1
Analytical Method = INAA
Units = ppm

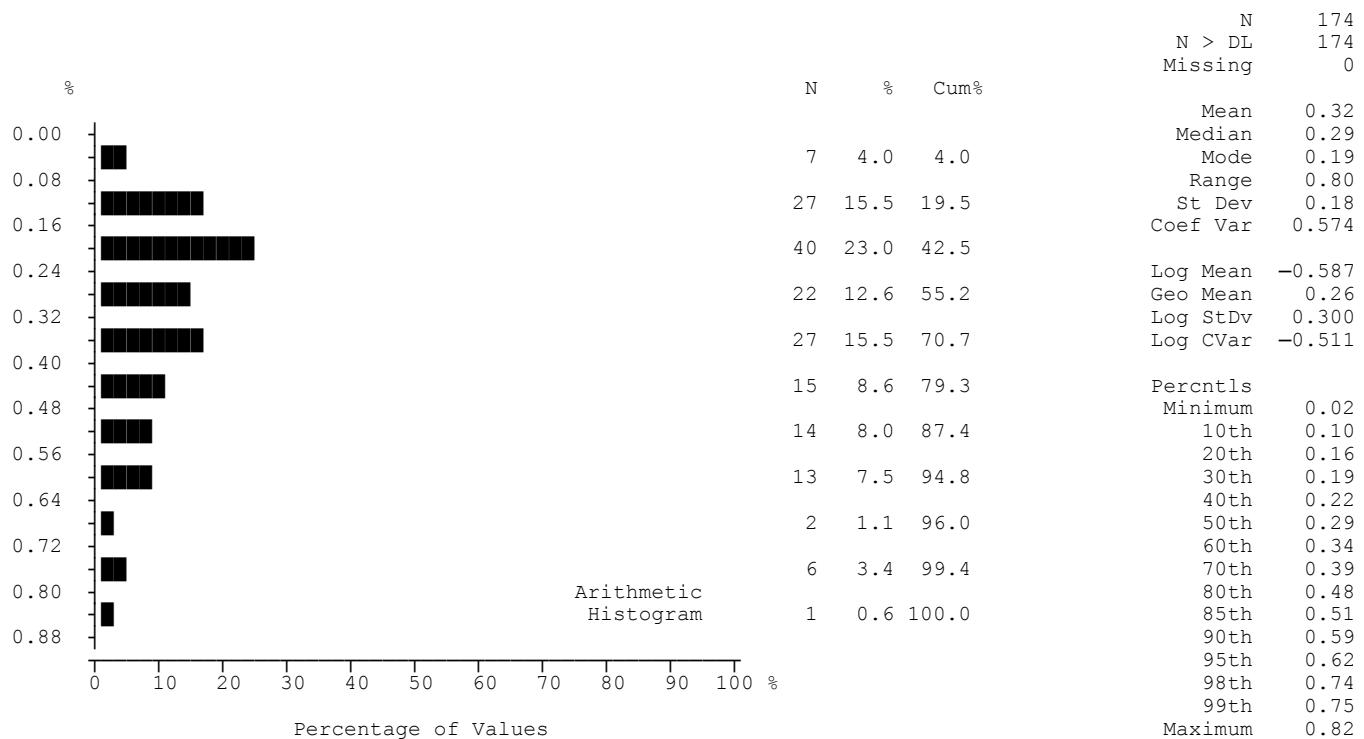


Sc

Summary Statistics

Sodium in Stream Sediment

Detection Limit = 0.01
 Analytical Method = INAA
 Units = %

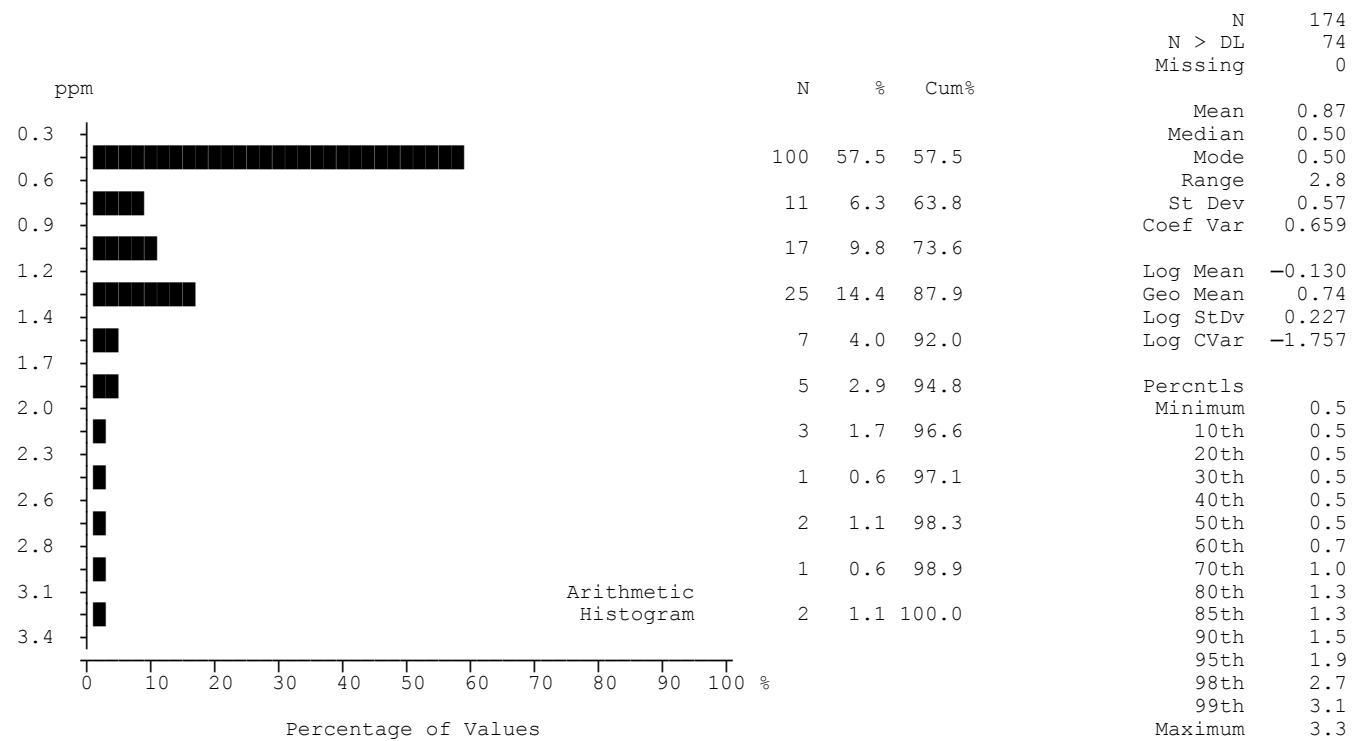


Na

Summary Statistics

Tantalum in Stream Sediment

Detection Limit = 0.5
 Analytical Method = INAA
 Units = ppm

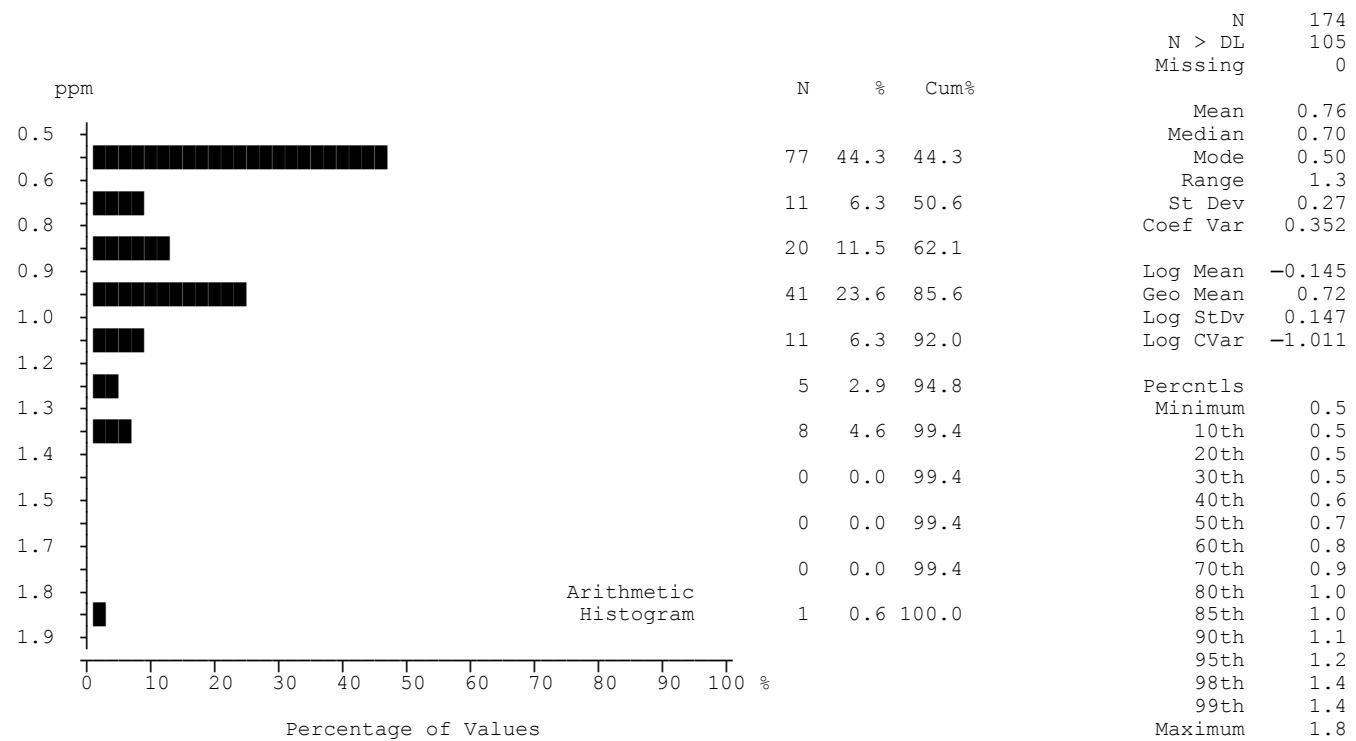


Ta

Summary Statistics

Terbium in Stream Sediment

Detection Limit = 0.5
 Analytical Method = INAA
 Units = ppm

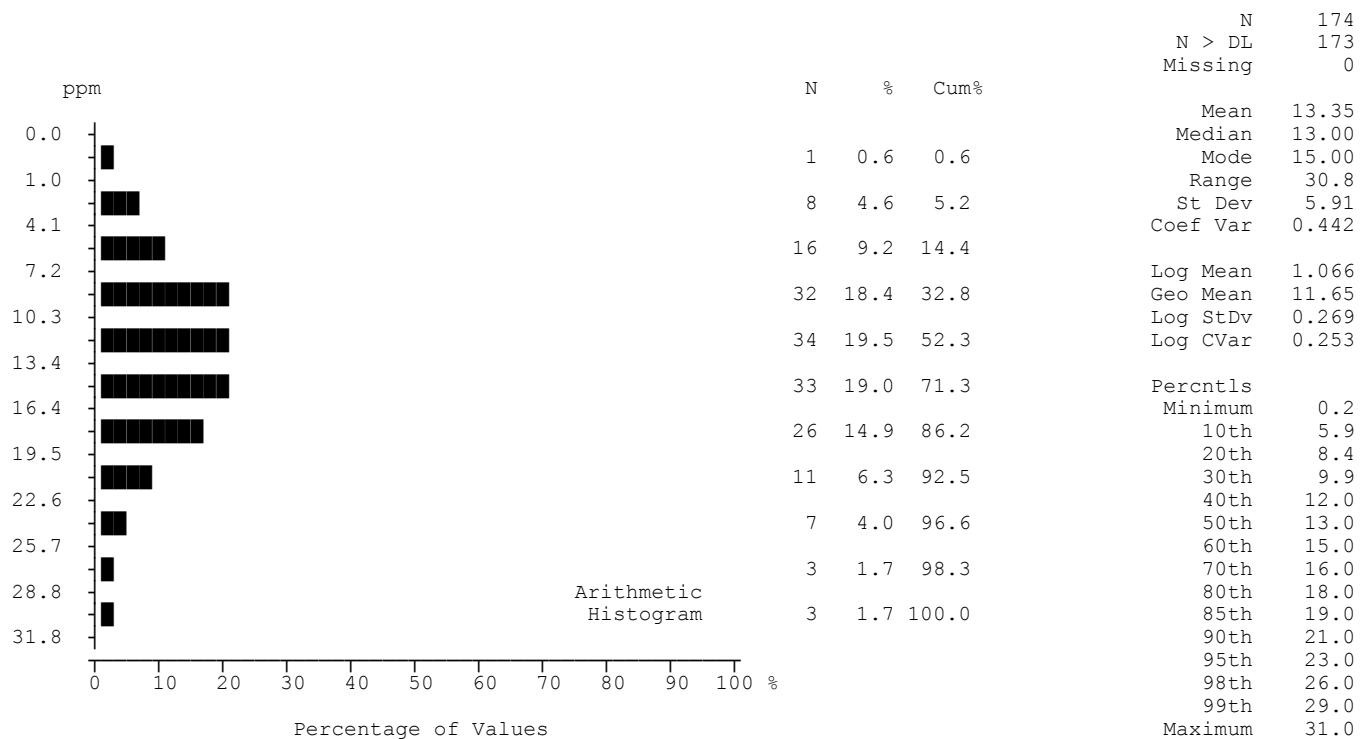


Tb

Summary Statistics

Thorium in Stream Sediment

Detection Limit = 0.2
Analytical Method = INAA
Units = ppm

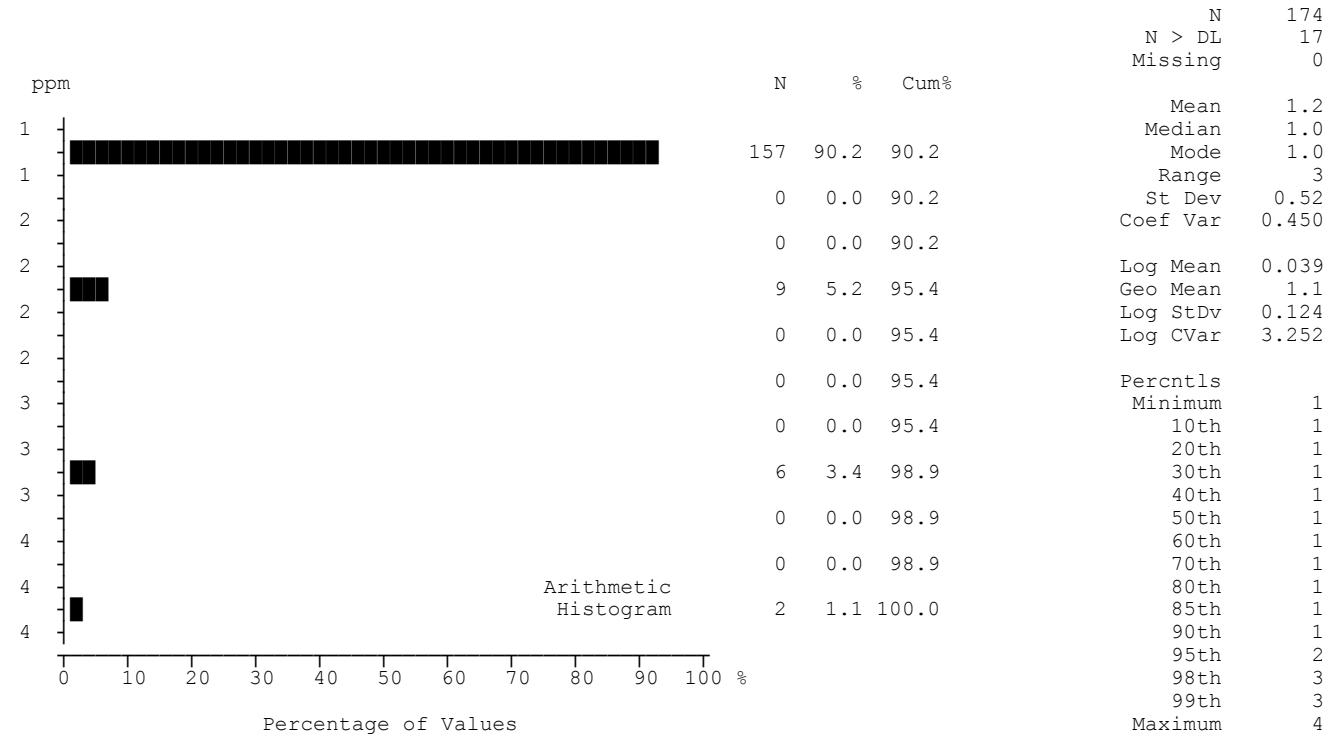


Th

Summary Statistics

Tungsten in Stream Sediment

Detection Limit = 1
Analytical Method = INAA
Units = ppm

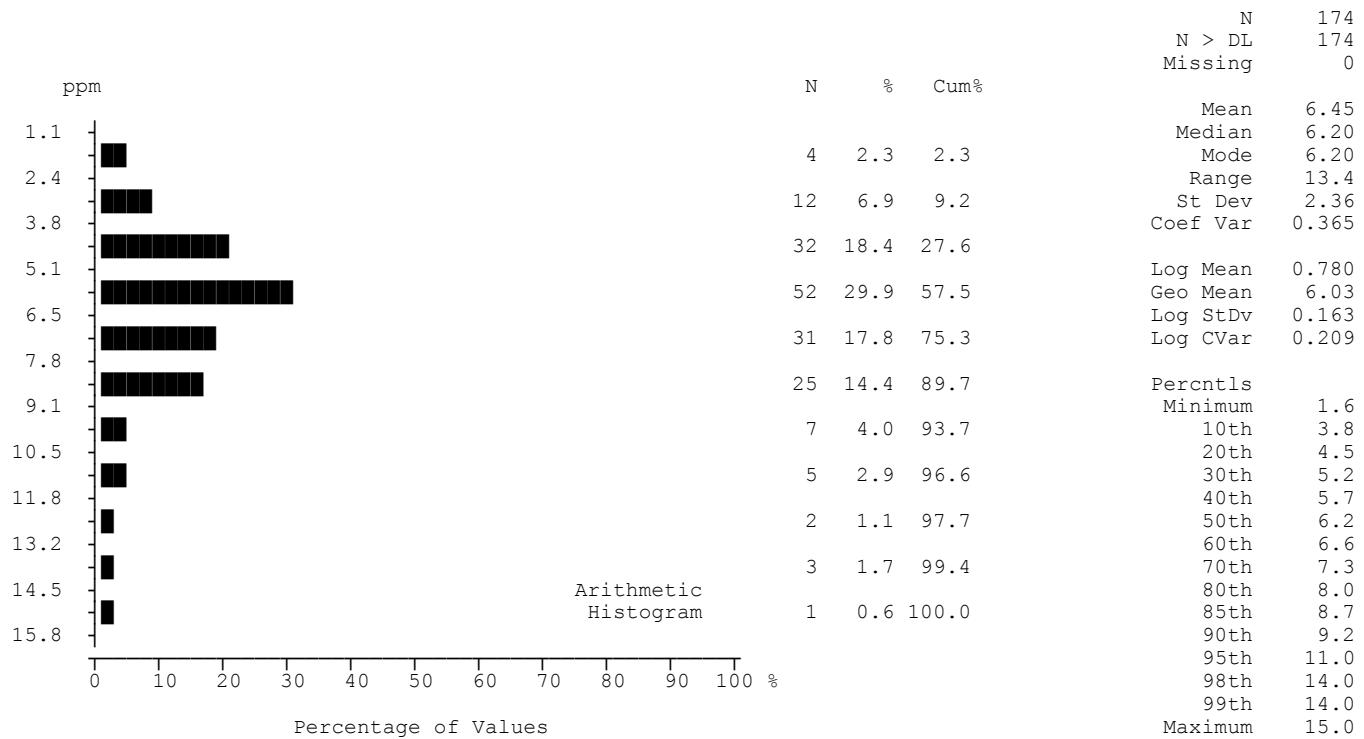


W

Summary Statistics

Uranium in Stream Sediment

Detection Limit = 0.5
 Analytical Method = INAA
 Units = ppm

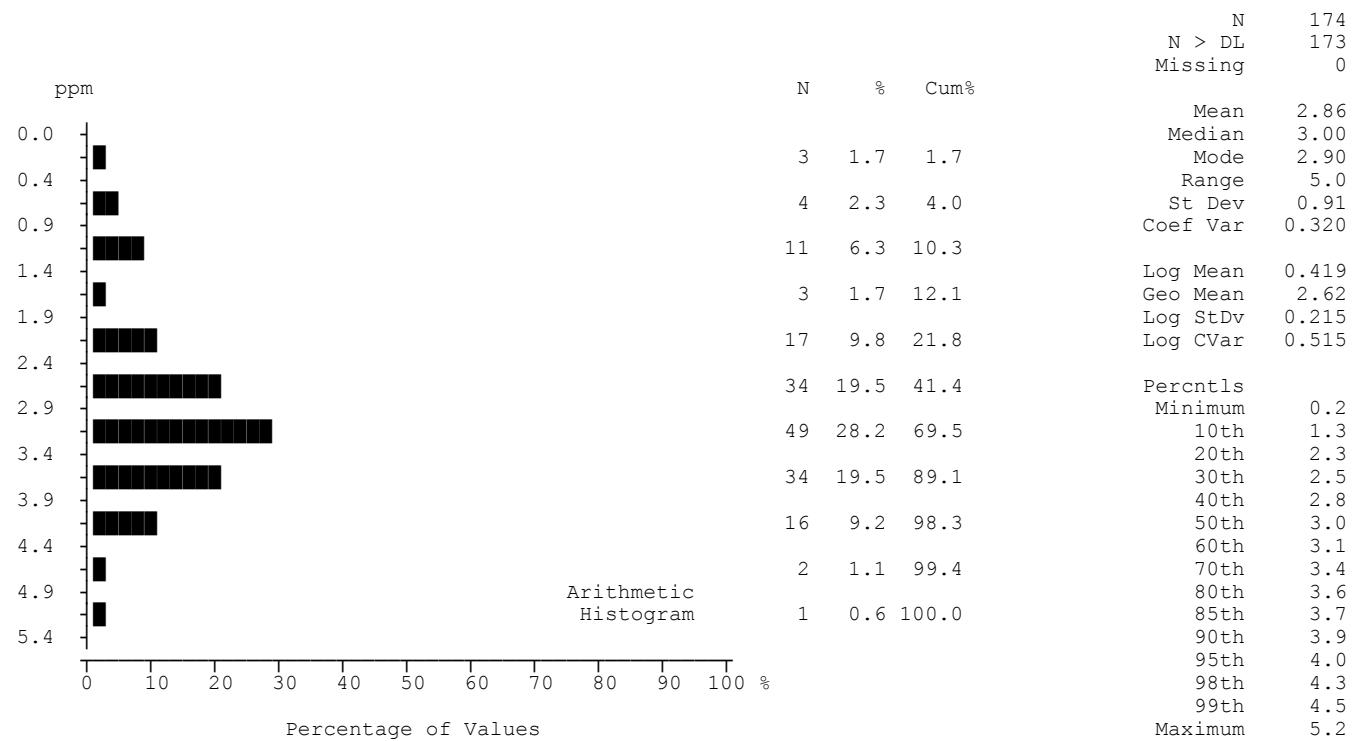


U

Summary Statistics

Ytterbium in Stream Sediment

Detection Limit = 0.2
 Analytical Method = INAA
 Units = ppm

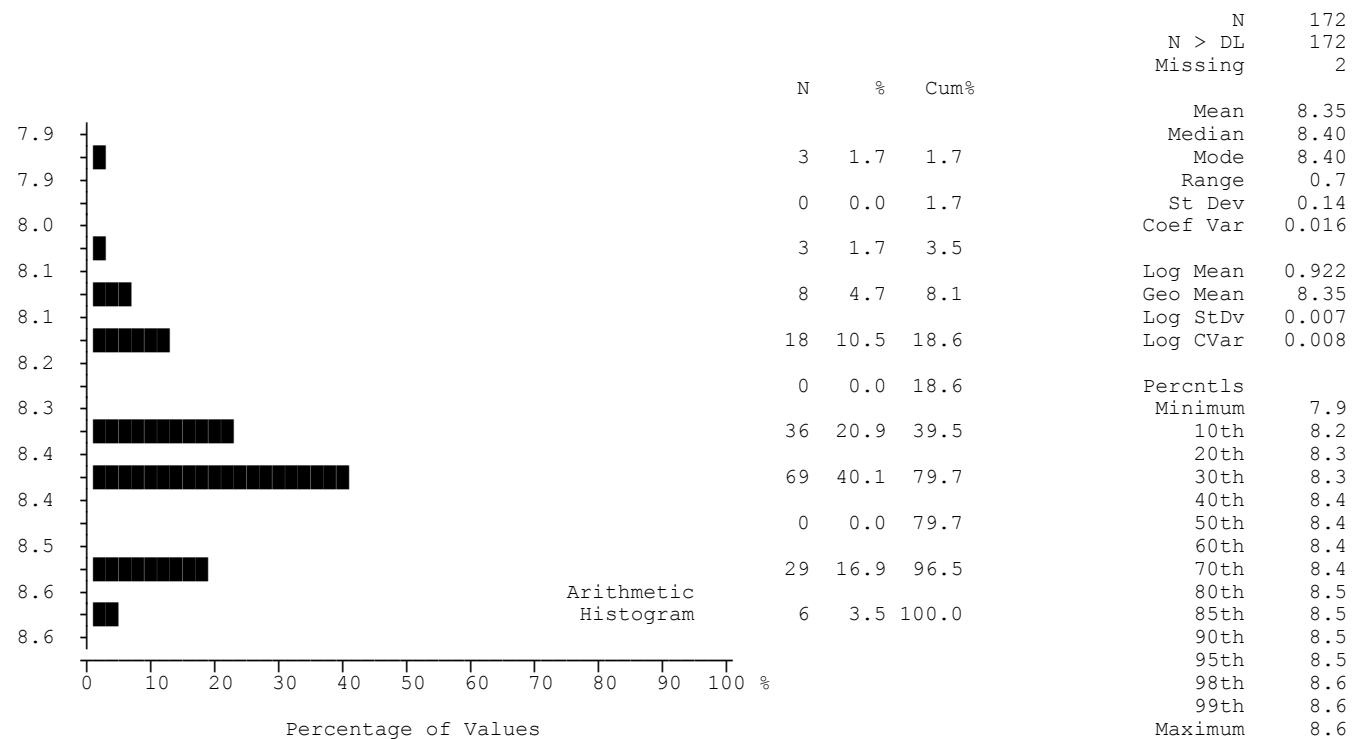


Yb

Summary Statistics

pH in Stream Water

Detection Limit - 0.1
Analytical Method - GCE

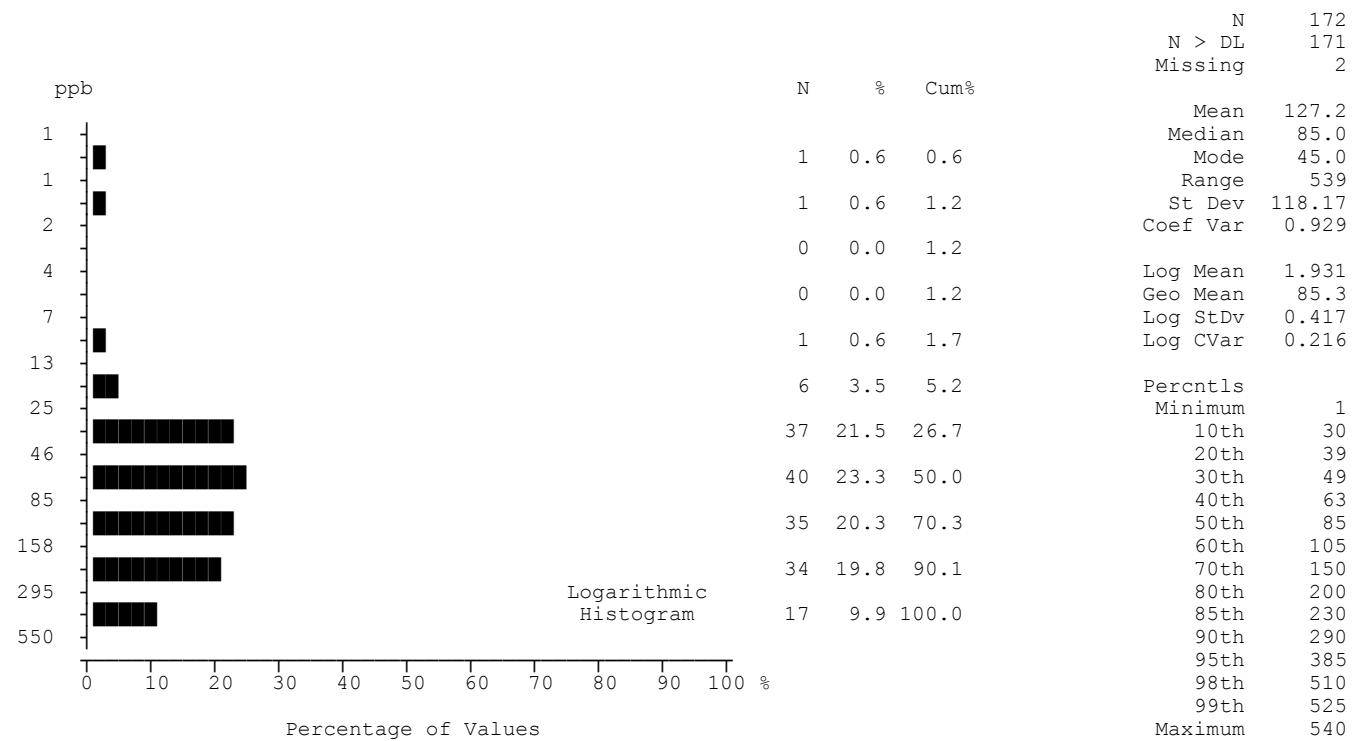


pH

Summary Statistics

Sulphate in Stream Water

Detection Limit - 1
 Analytical Method - TURB
 Units - ppb

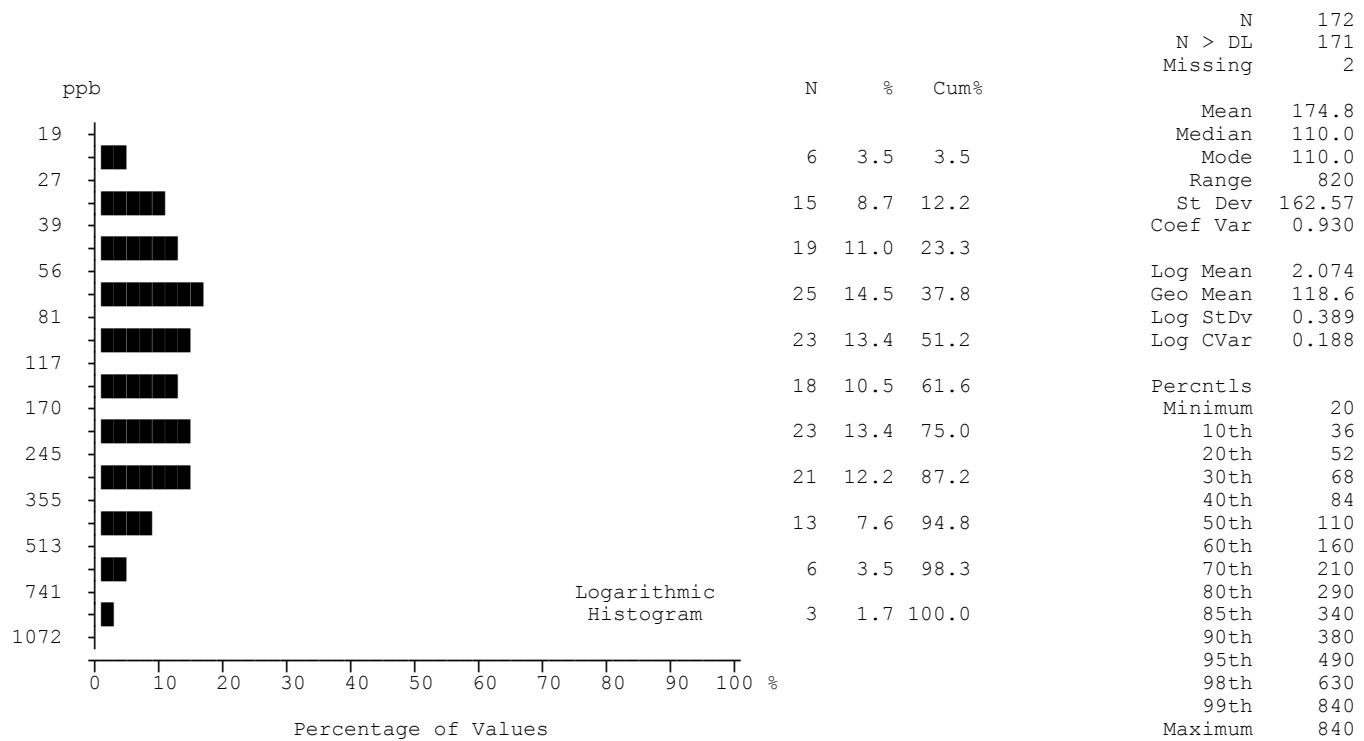


SO₄

Summary Statistics

Fluoride in Stream Water

Detection Limit - 20
 Analytical Method - ION
 Units - ppb

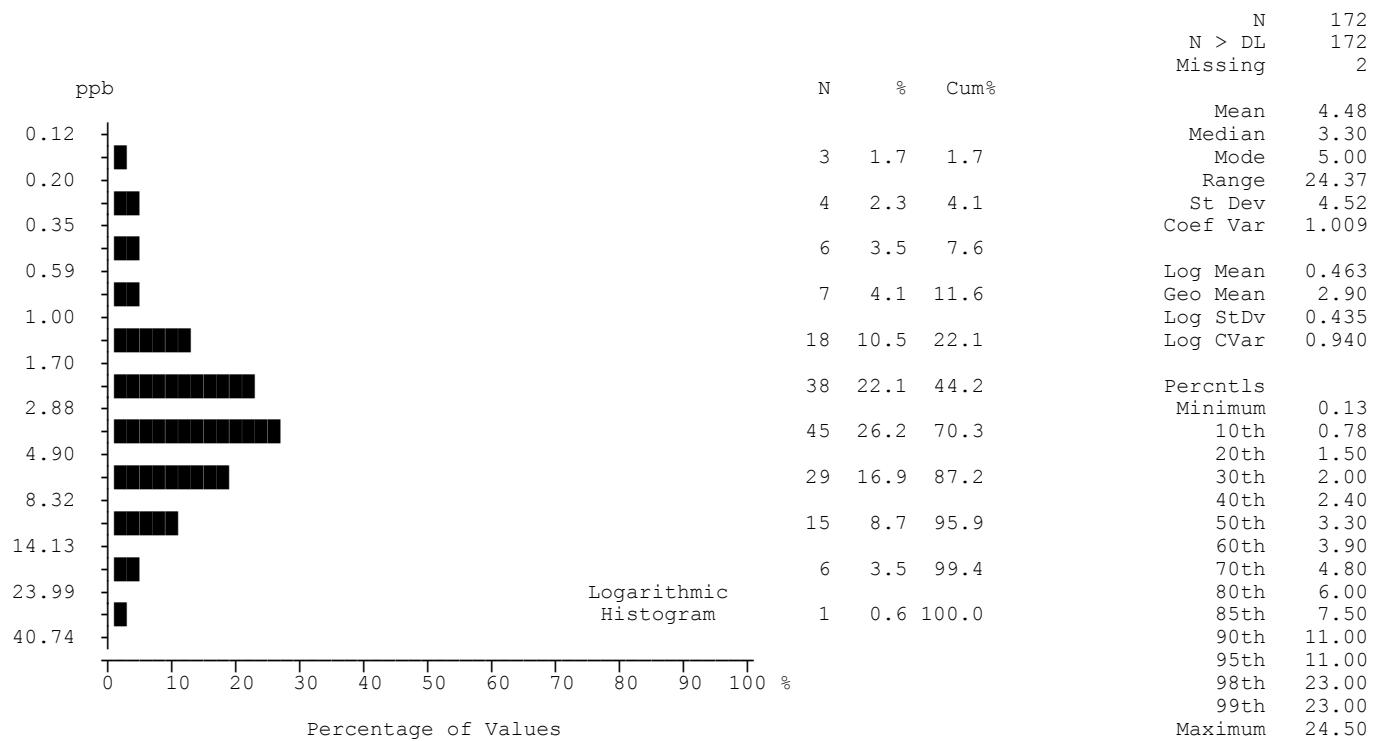


FW

Summary Statistics

Uranium in Stream Water

Detection Limit - 0.05
 Analytical Method - LIF
 Units - ppb

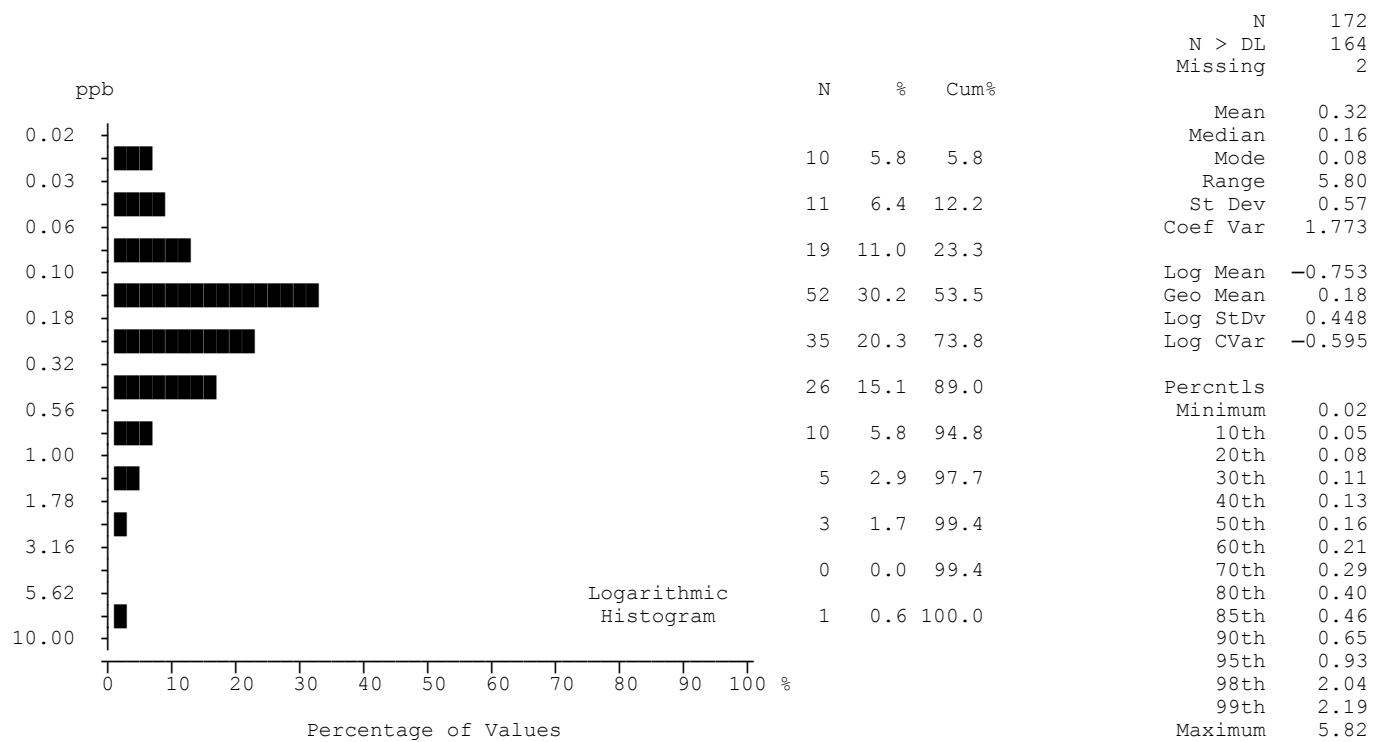


UW

Summary Statistics

Antimony in Stream Water

Detection Limit = 0.02
 Analytical Method = ICPMS
 Units = ppb

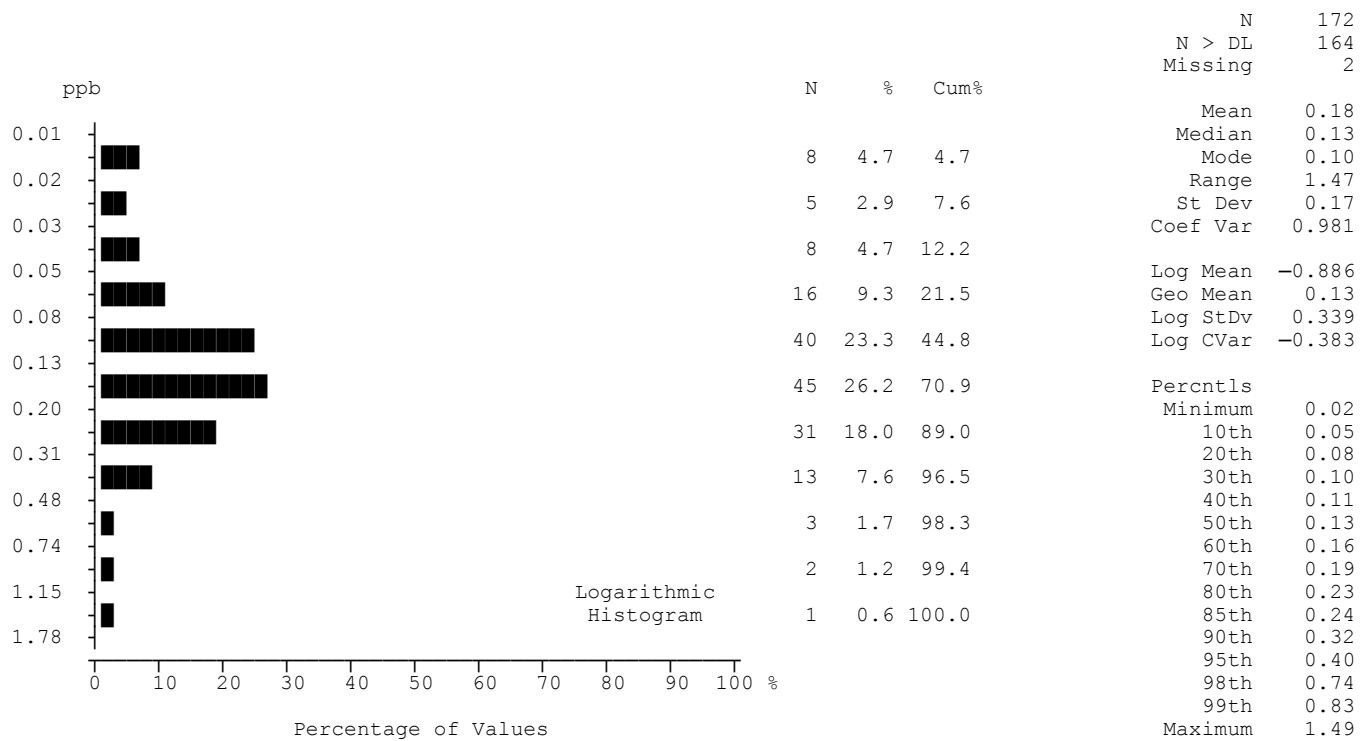


Sb

Summary Statistics

Arsenic in Stream Water

Detection Limit = 0.02
 Analytical Method = ICPMS
 Units = ppb

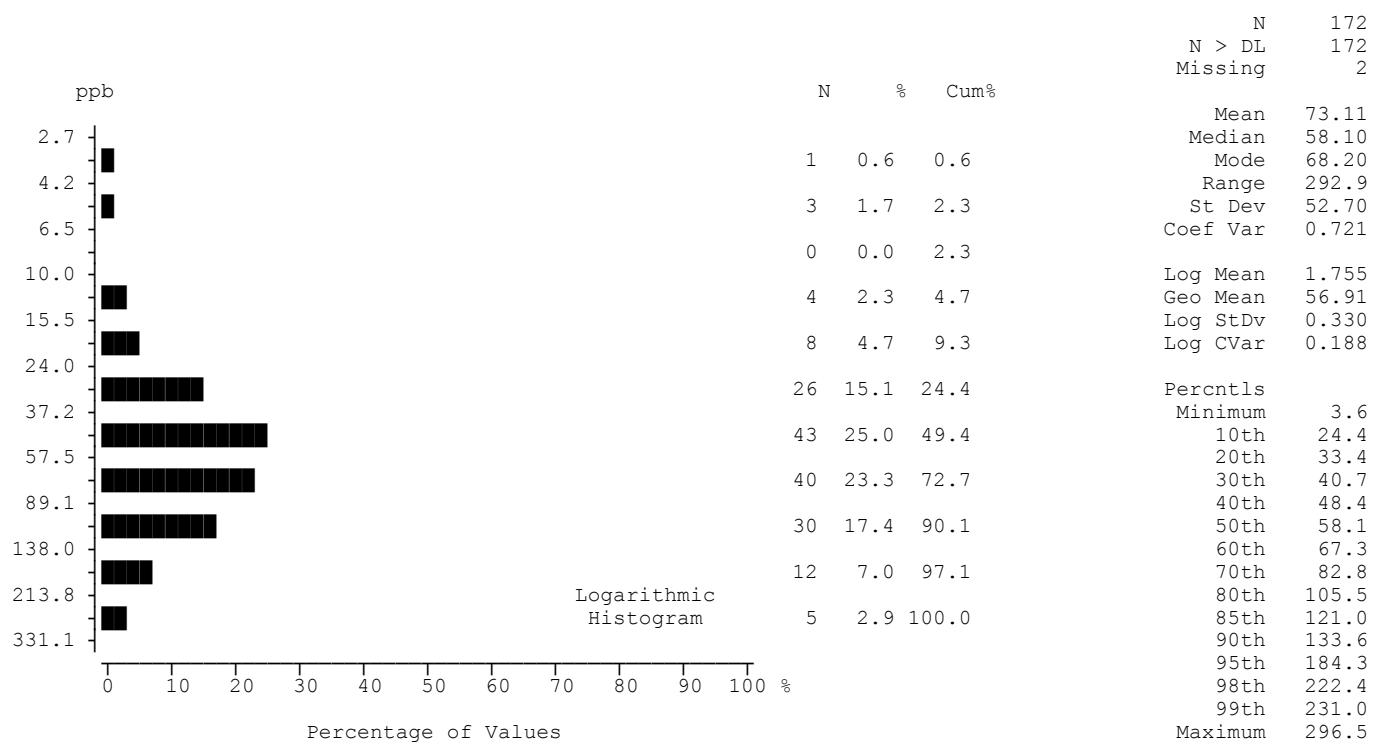


As

Summary Statistics

Barium in Stream Water

Detection Limit = 0.002
 Analytical Method = ICPMS
 Units = ppb

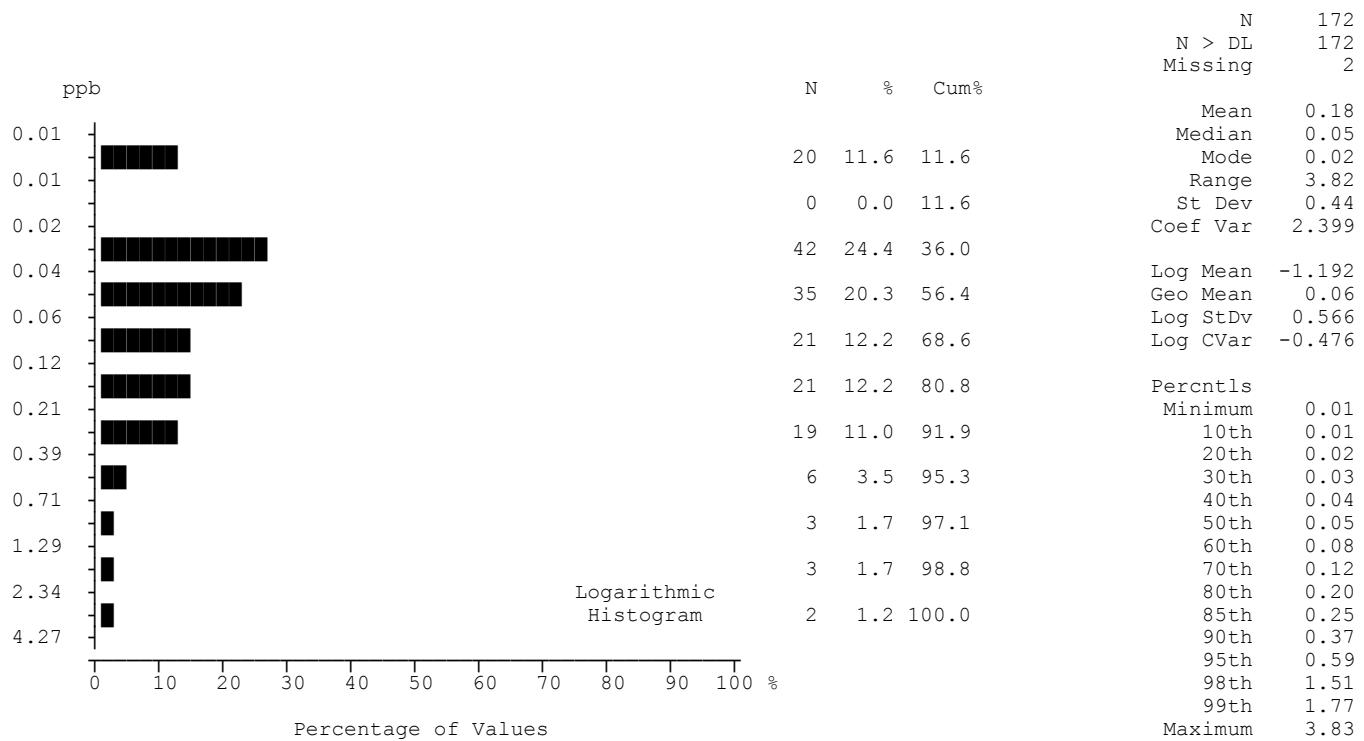


Ba

Summary Statistics

Cadmium in Stream Water

Detection Limit = 0.002
 Analytical Method = ICPMS
 Units = ppb

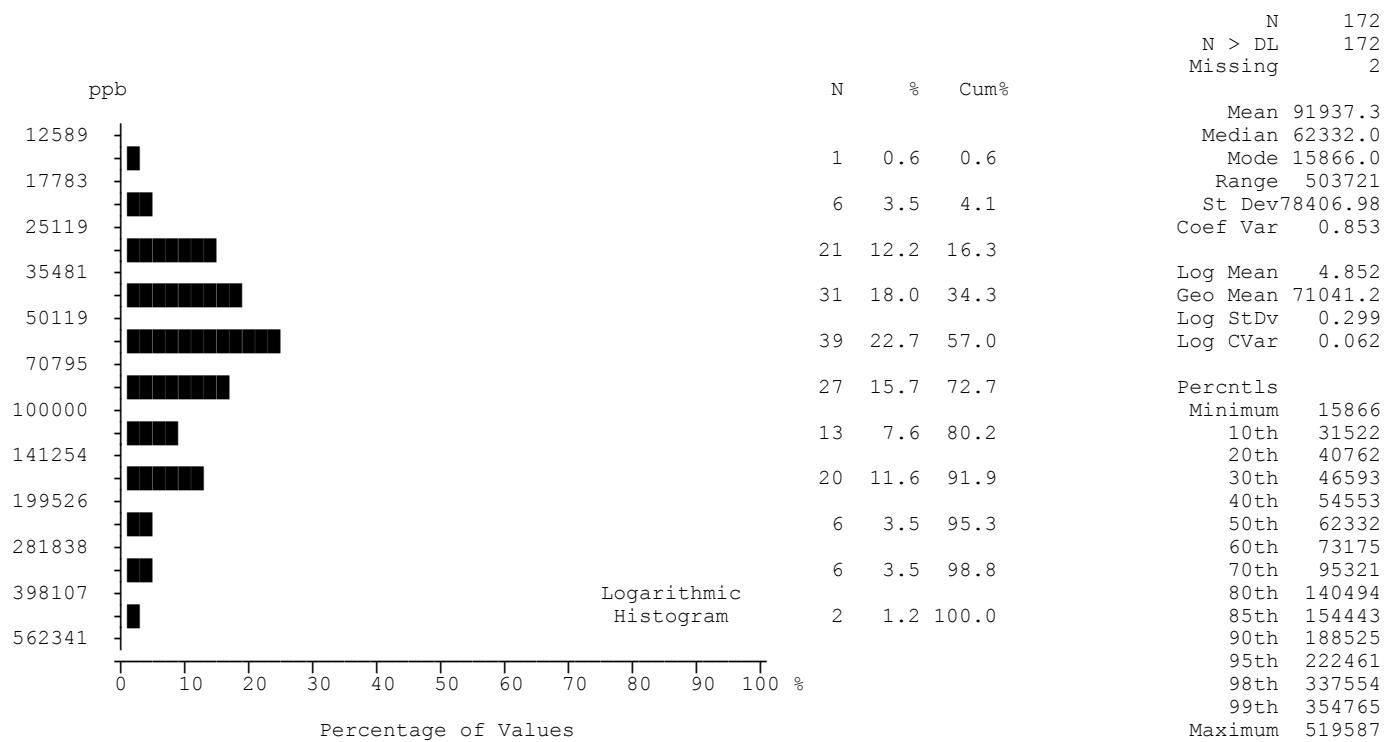


Cd

Summary Statistics

Calcium in Stream Water

Detection Limit = 1
 Analytical Method = ICPMS
 Units = ppb

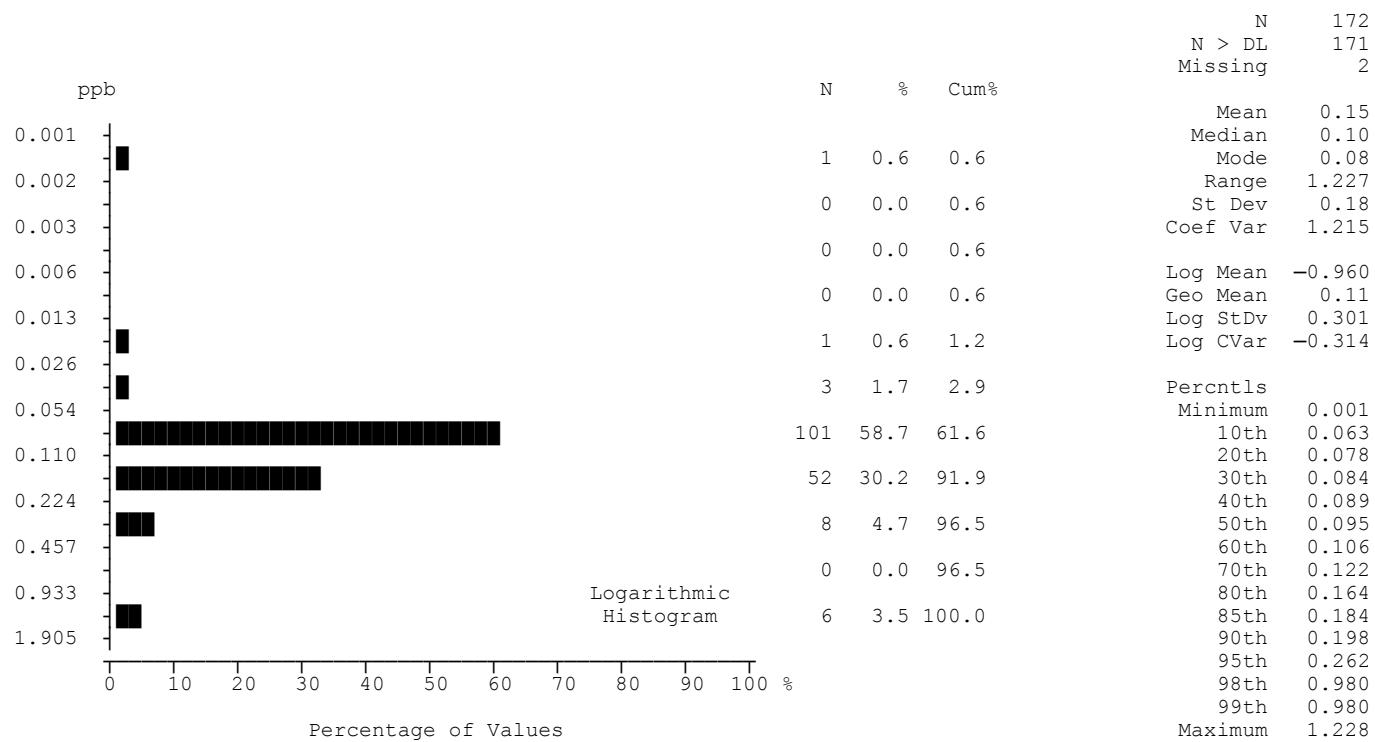


Ca

Summary Statistics

Cobalt in Stream Water

Detection Limit = 0.01
 Analytical Method = ICPMS
 Units = ppb

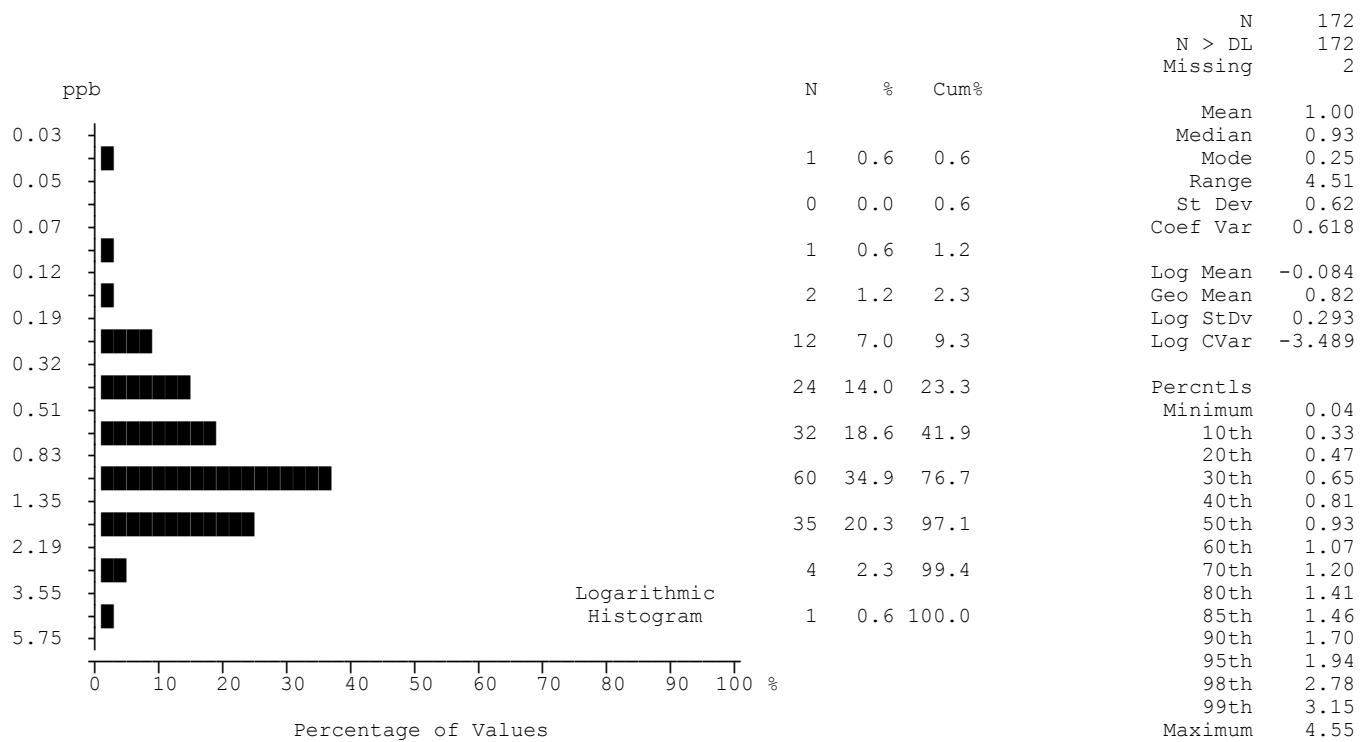


Co

Summary Statistics

Copper in Stream Water

Detection Limit = 0.002
 Analytical Method = ICPMS
 Units = ppb

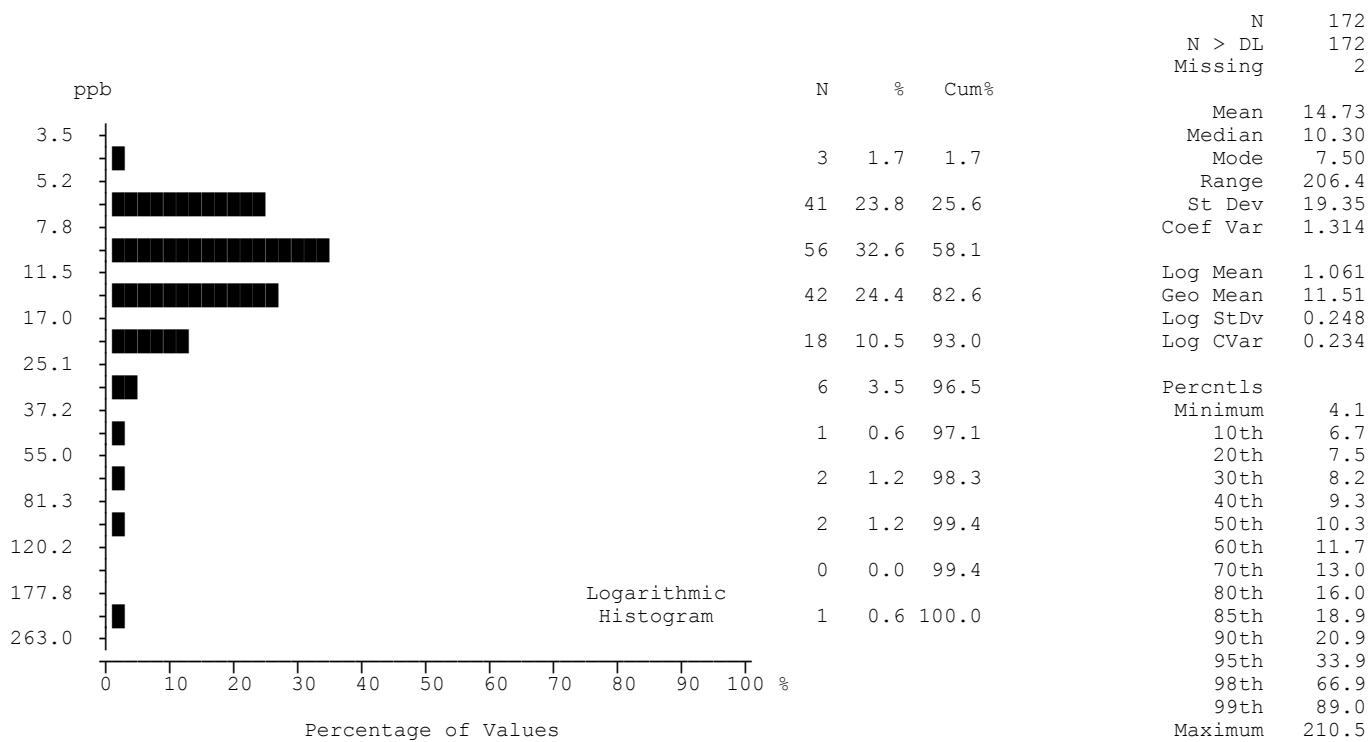


Cu

Summary Statistics

Iron in Stream Water

Detection Limit = 0.1
 Analytical Method = ICPMS
 Units = ppb

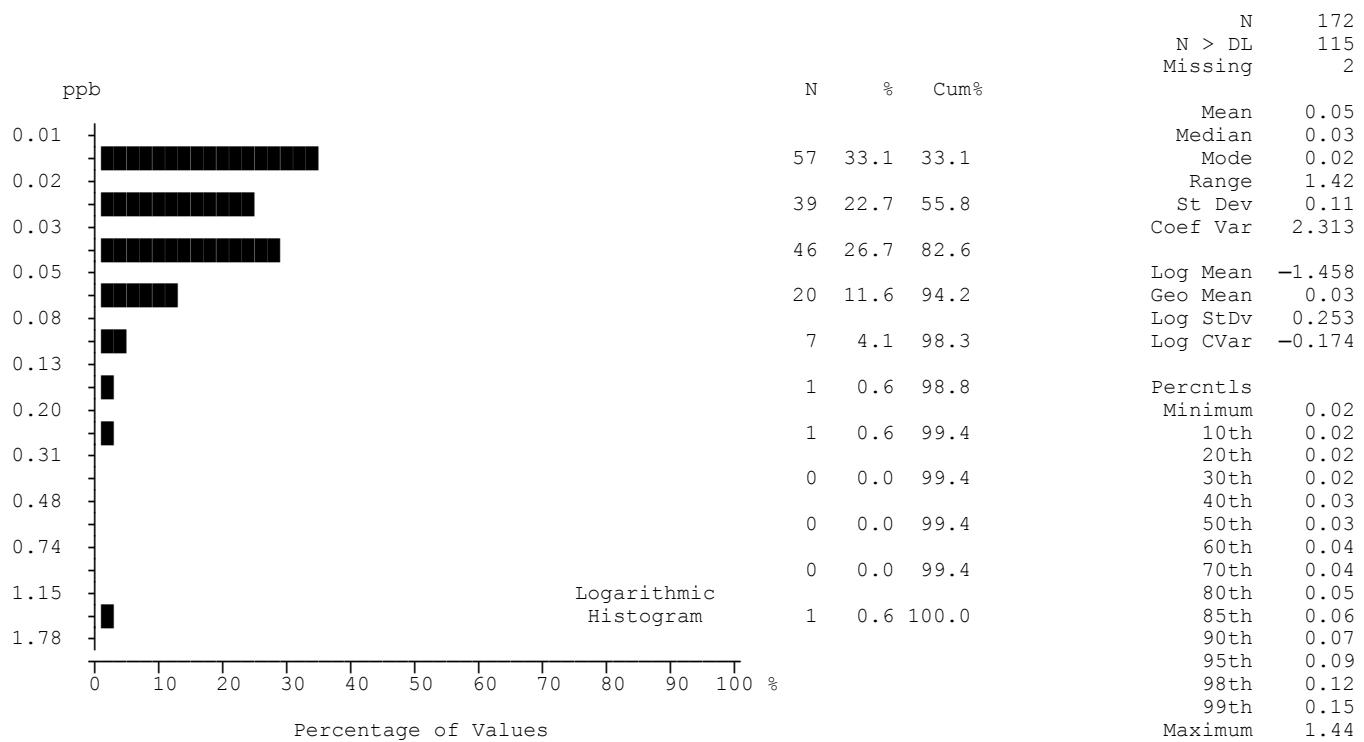


Fe

Summary Statistics

Lead in Stream Water

Detection Limit = 0.02
 Analytical Method = ICPMS
 Units = ppb

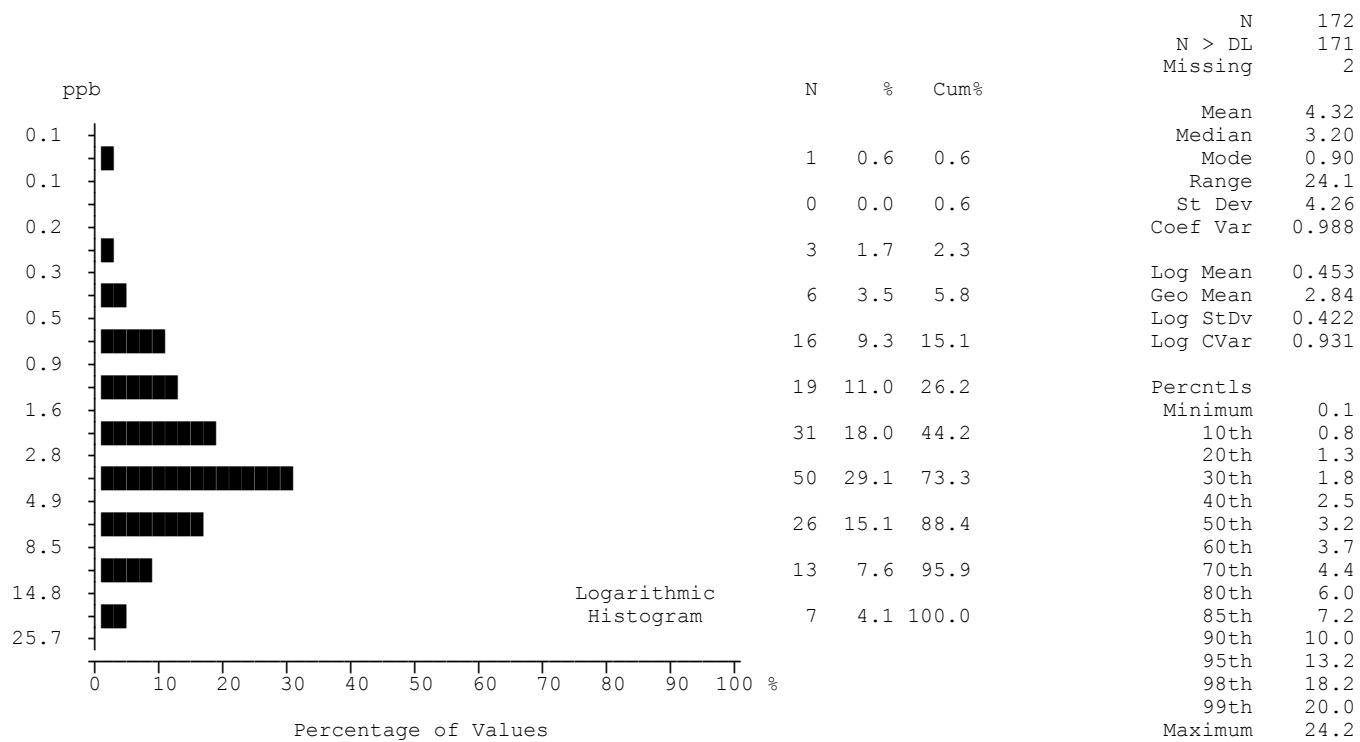


Pb

Summary Statistics

Lithium in Stream Water

Detection Limit = 0.1
 Analytical Method = ICPMS
 Units = ppb

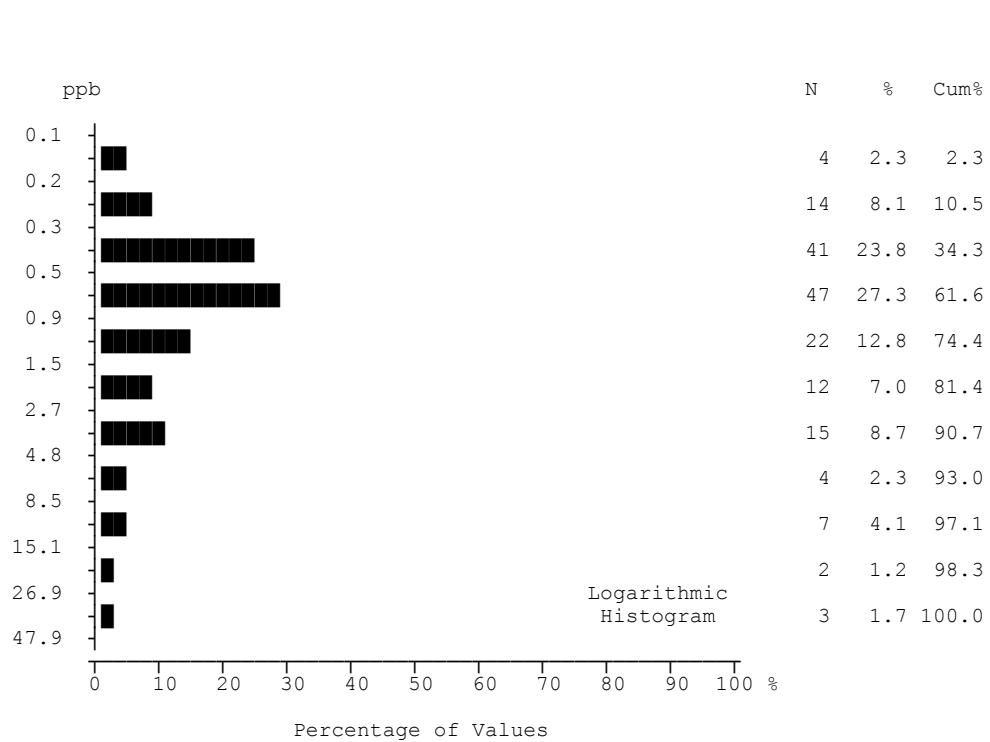


Li

Summary Statistics

Manganese in Stream Water

Detection Limit = 0.1
 Analytical Method = ICPMS
 Units = ppb



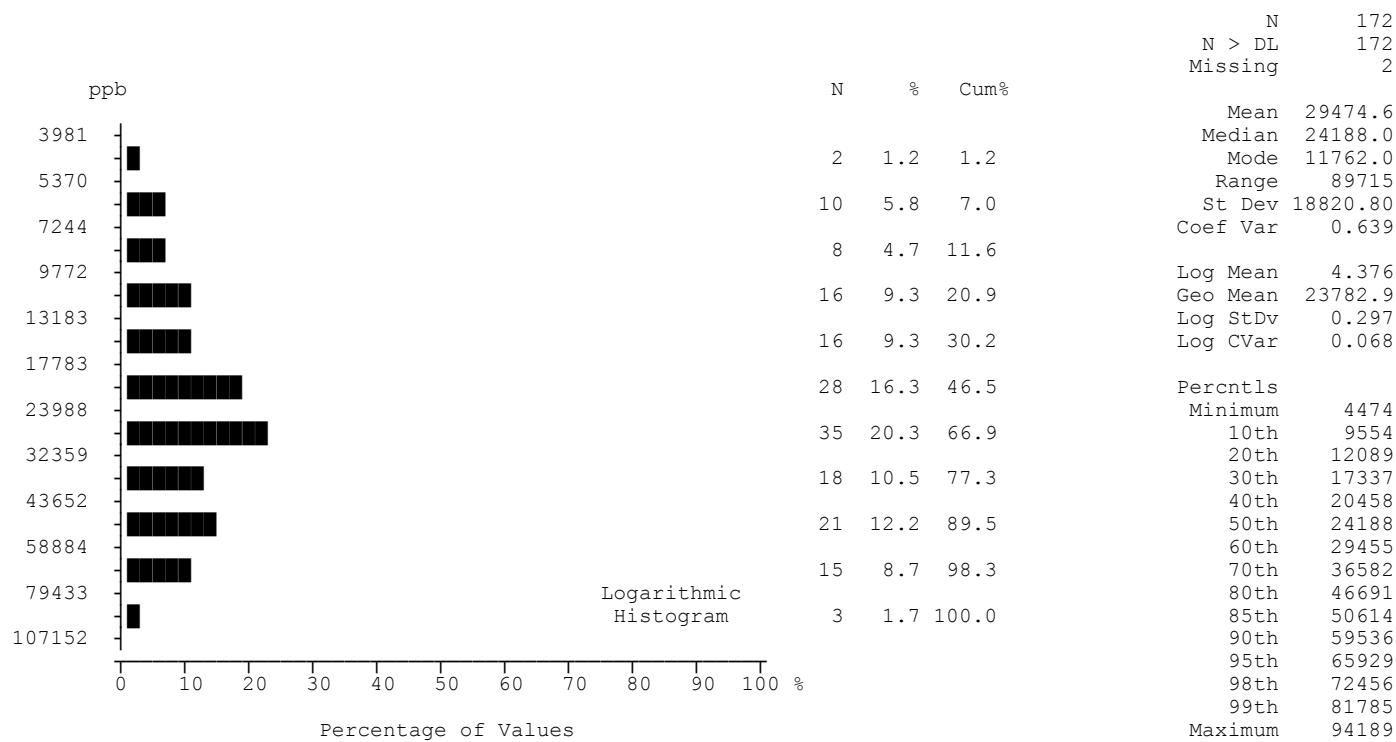
N	172
N > DL	168
Missing	2
Mean	2.22
Median	0.60
Mode	0.30
Range	31.3
St Dev	4.73
Coef Var	2.126
Log Mean	-0.073
Geo Mean	0.85
Log StDv	0.531
Log CVar	-7.379
Percentiles	
Minimum	0.1
10th	0.2
20th	0.3
30th	0.4
40th	0.5
50th	0.6
60th	0.8
70th	1.2
80th	2.3
85th	3.5
90th	4.5
95th	10.2
98th	15.8
99th	29.0
Maximum	31.4

Mn

Summary Statistics

Magnesium in Stream Water

Detection Limit = 0.1
 Analytical Method = ICPMS
 Units = ppb

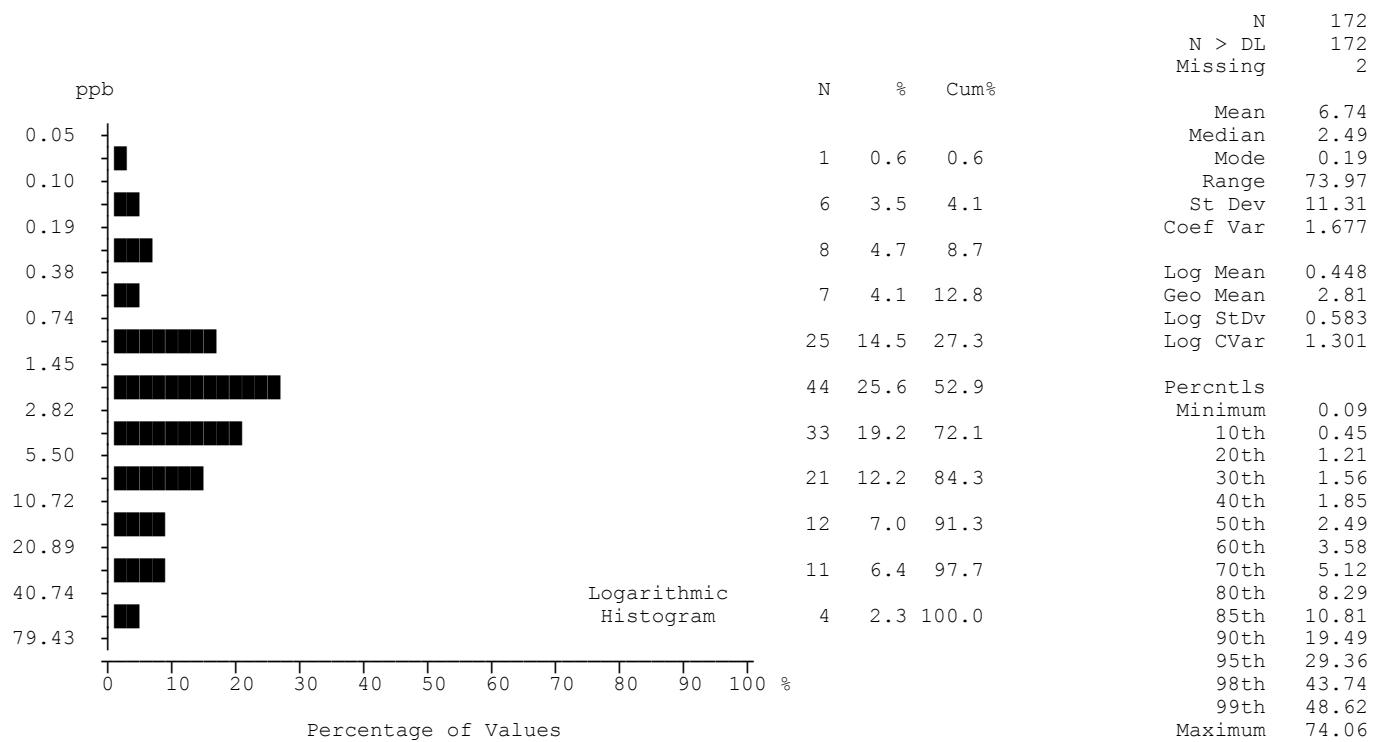


Mg

Summary Statistics

Molybdenum in Stream Water

Detection Limit = 0.02
 Analytical Method = ICPMS
 Units = ppb

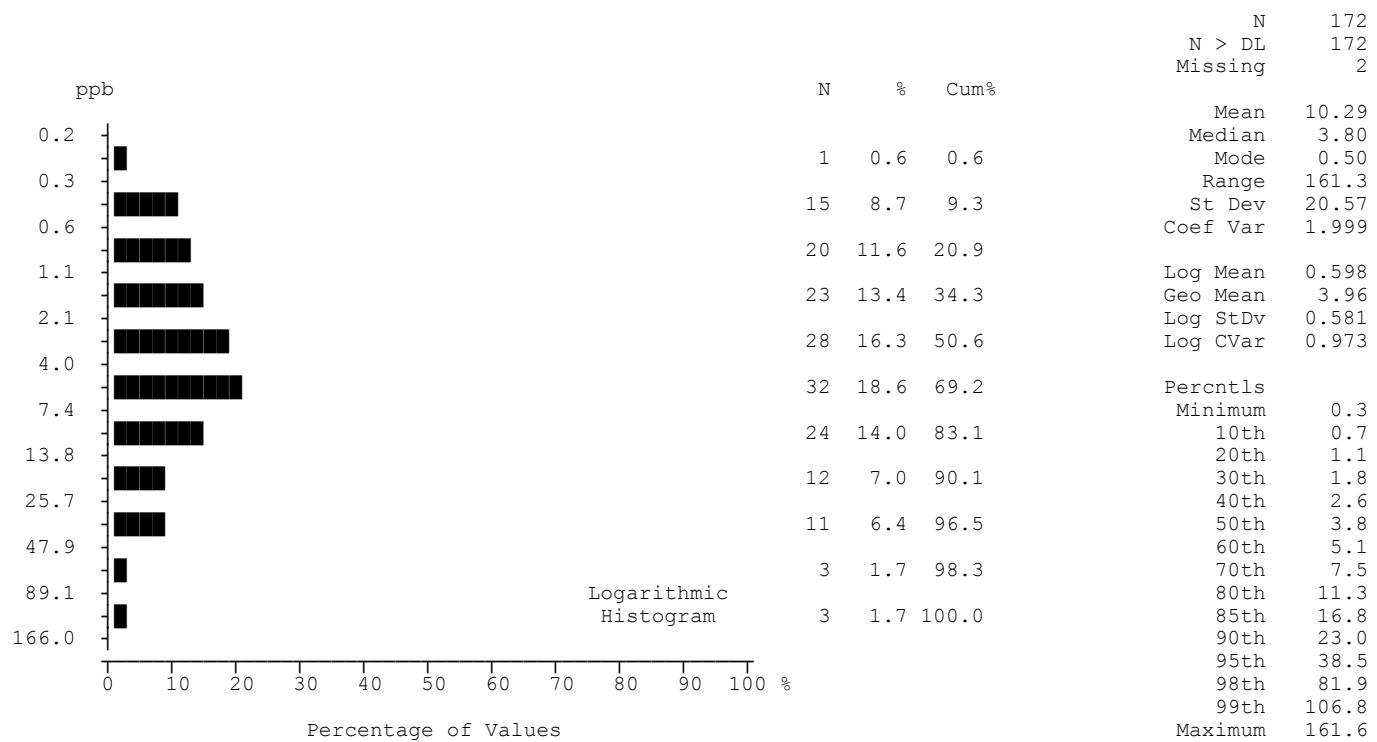


Mo

Summary Statistics

Nickel in Stream Water

Detection Limit = 0.002
 Analytical Method = ICPMS
 Units = ppb

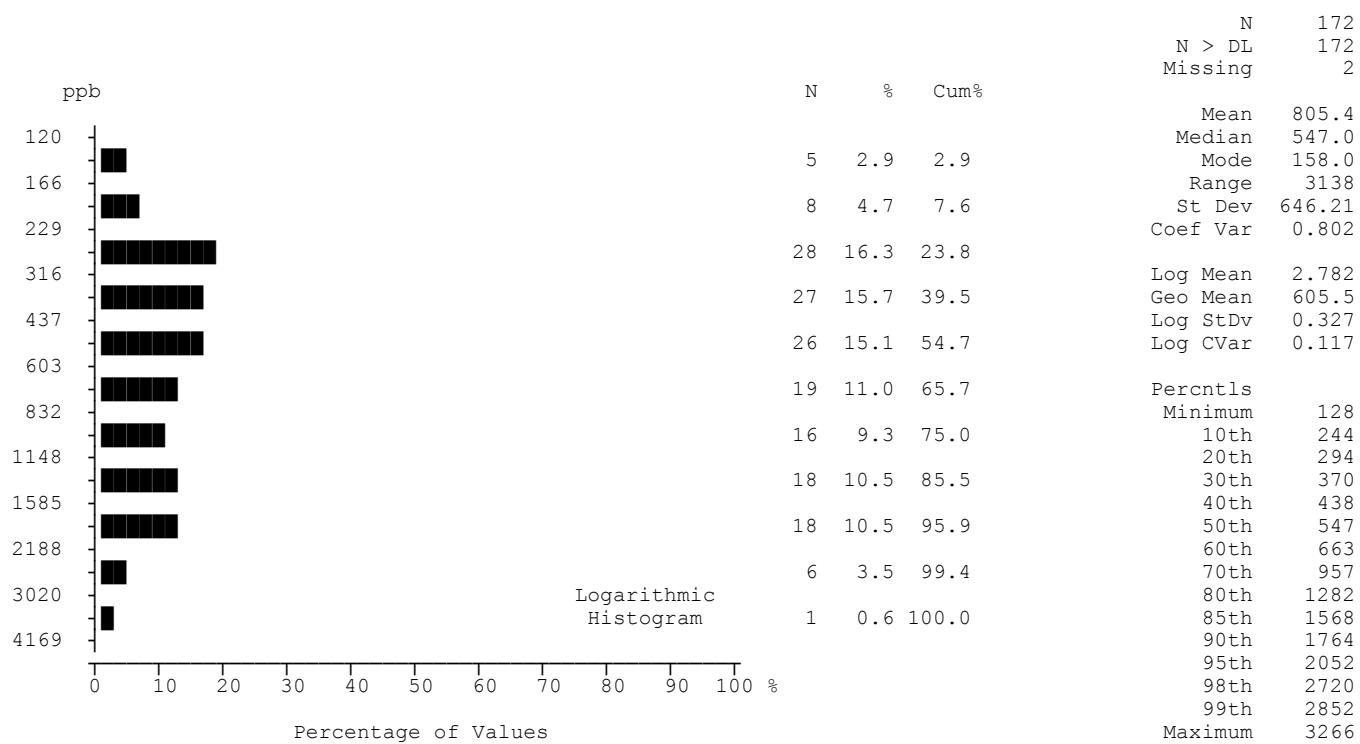


Ni

Summary Statistics

Potassium in Stream Water

Detection Limit = 1
 Analytical Method = ICPMS
 Units = ppb

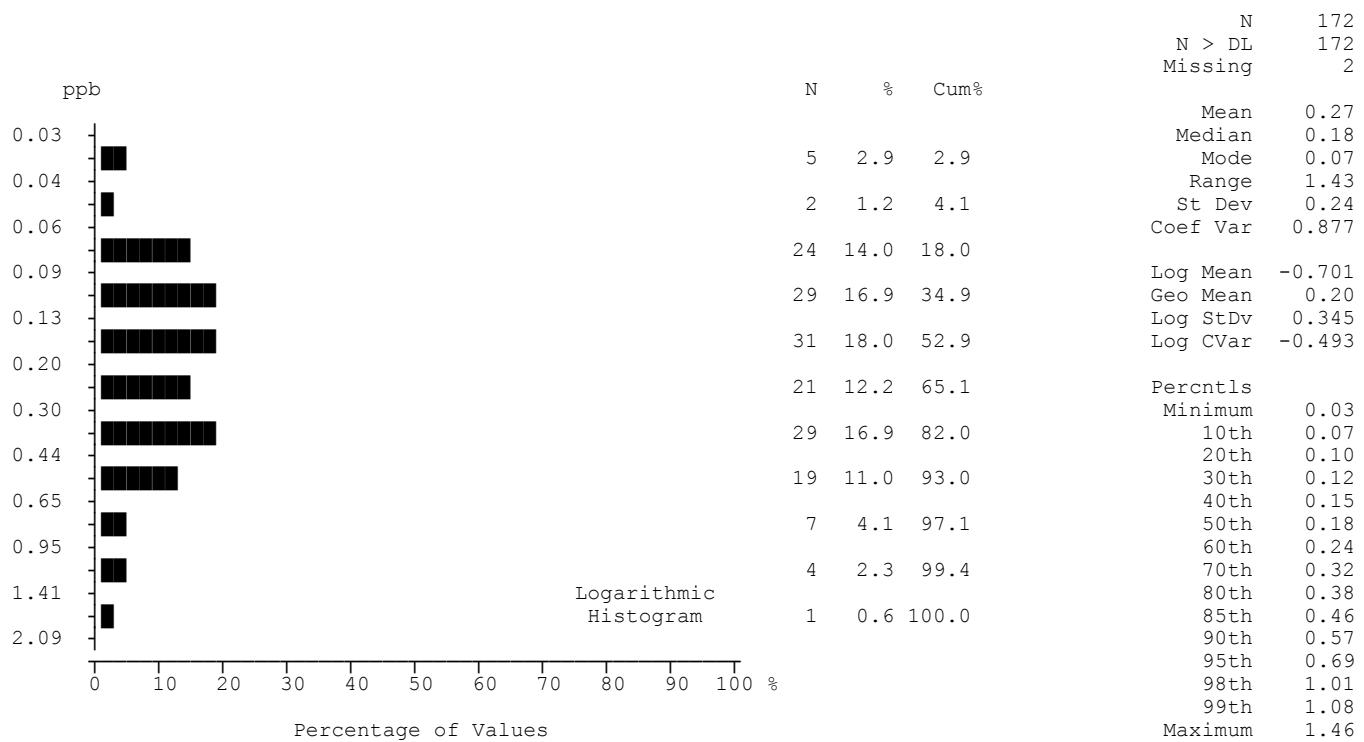


K

Summary Statistics

Rubidium in Stream Water

Detection Limit = 0.002
 Analytical Method = ICPMS
 Units = ppb

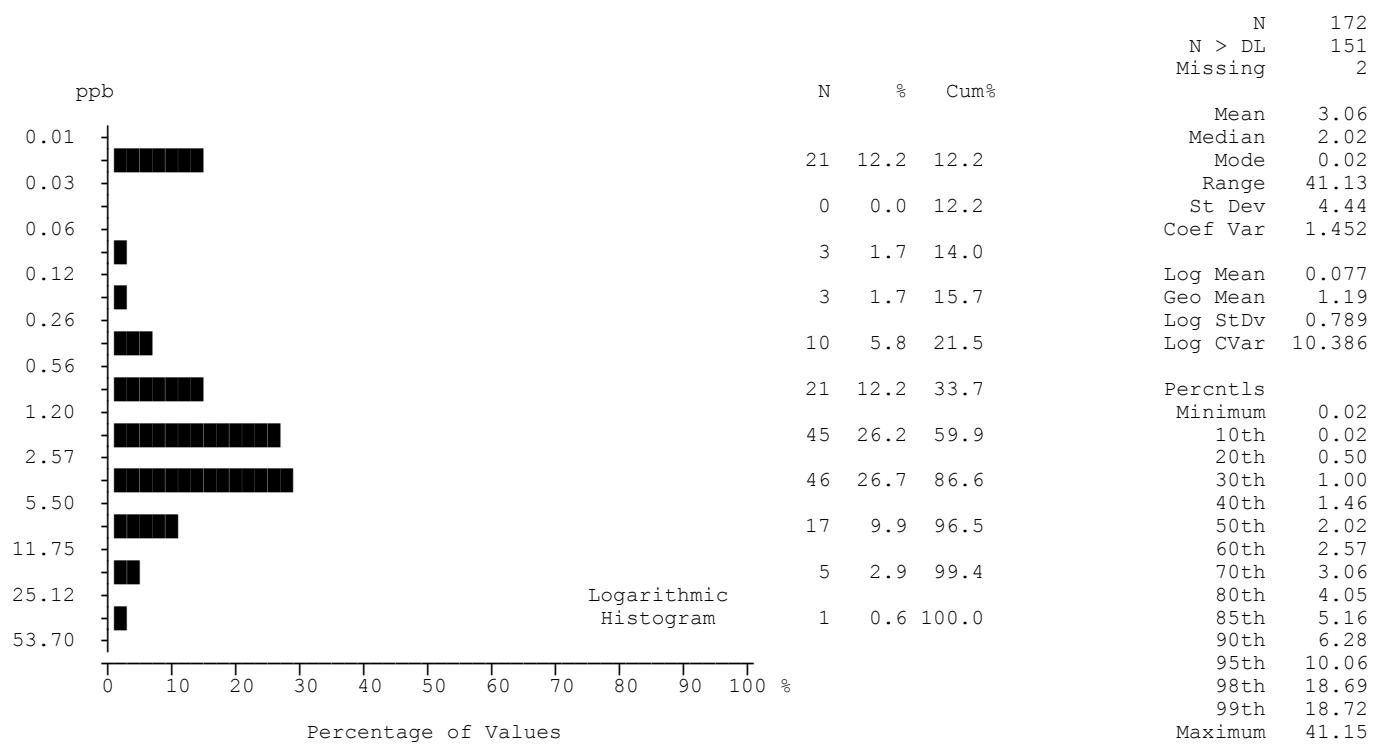


Rb

Summary Statistics

Selenium in Stream Water

Detection Limit = 0.02
Analytical Method = ICPMS
Units = ppb

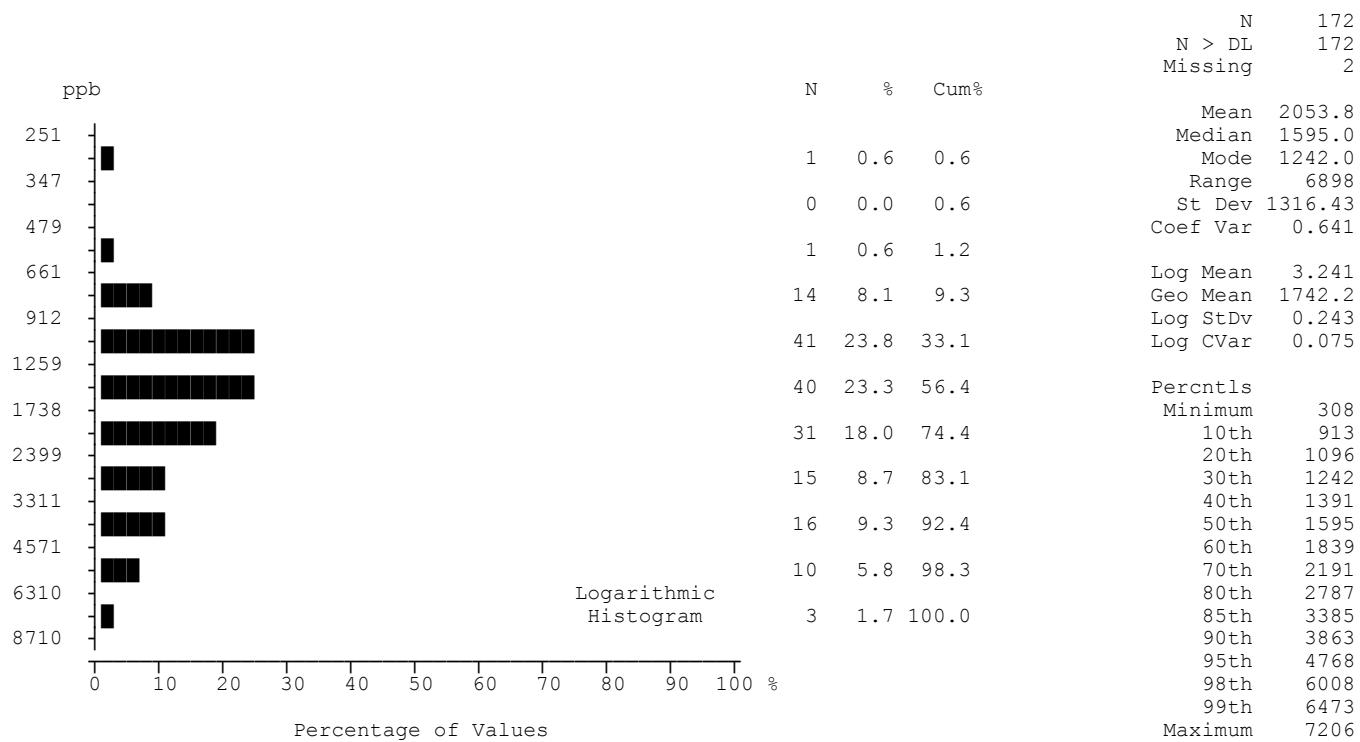


Se

Summary Statistics

Silicon in Stream Water

Detection Limit = 1
 Analytical Method = ICPMS
 Units = ppb

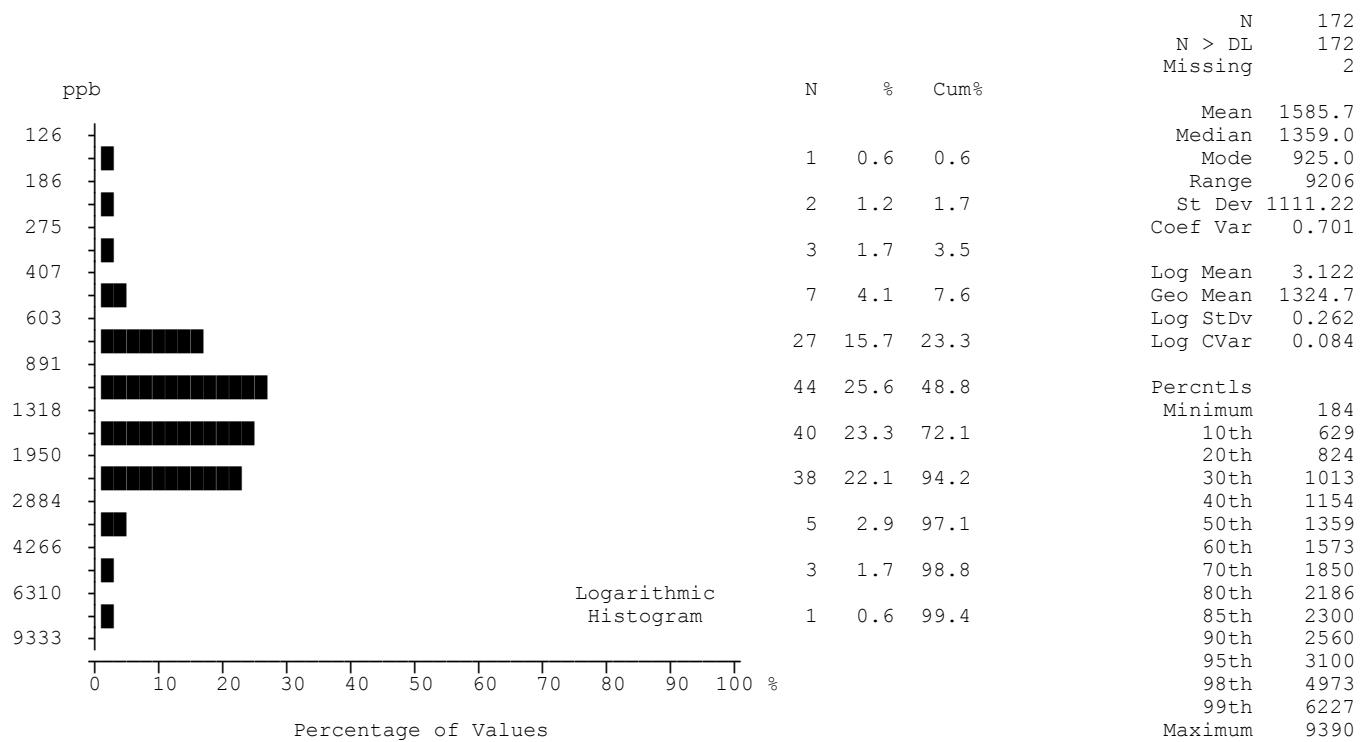


Si

Summary Statistics

Sodium in Stream Water

Detection Limit = 0.1
 Analytical Method = ICPMS
 Units = ppb

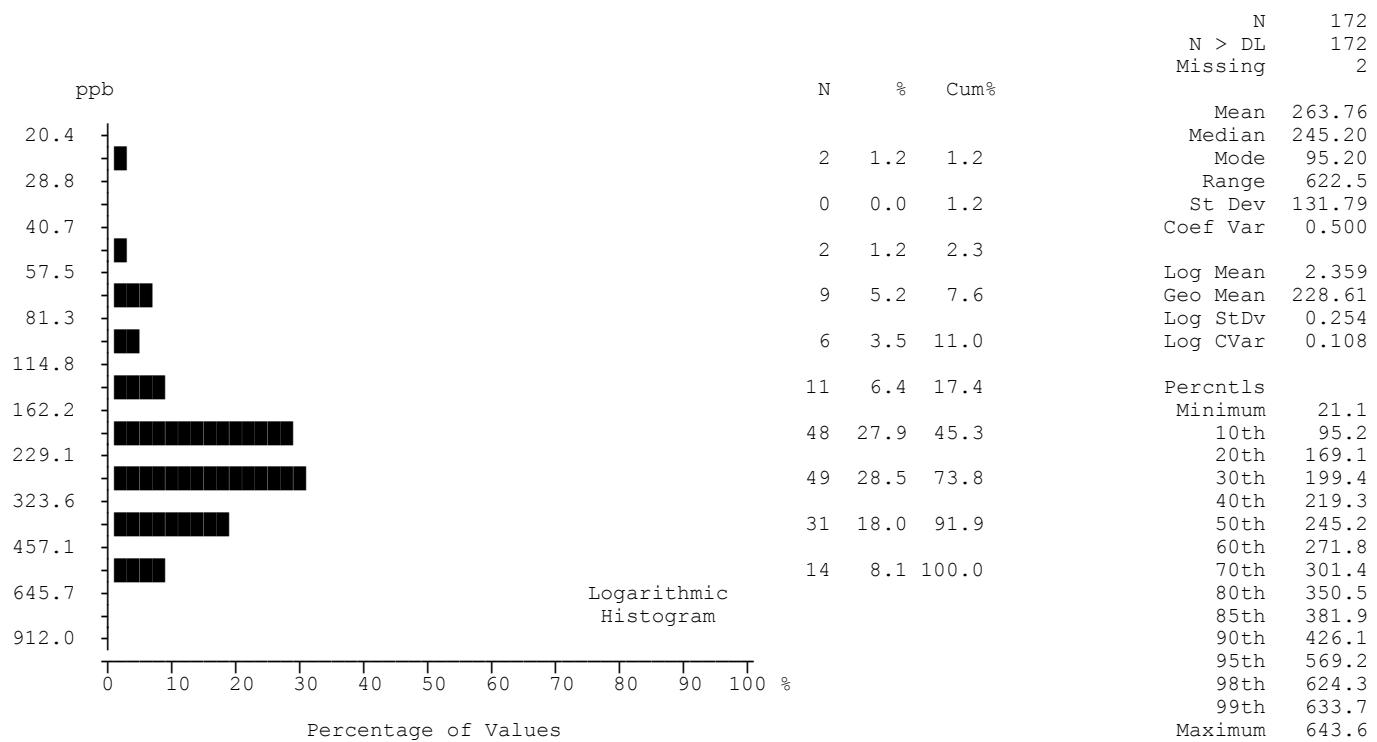


Na

Summary Statistics

Strontium in Stream Water

Detection Limit = 0.002
 Analytical Method = ICPMS
 Units = ppb

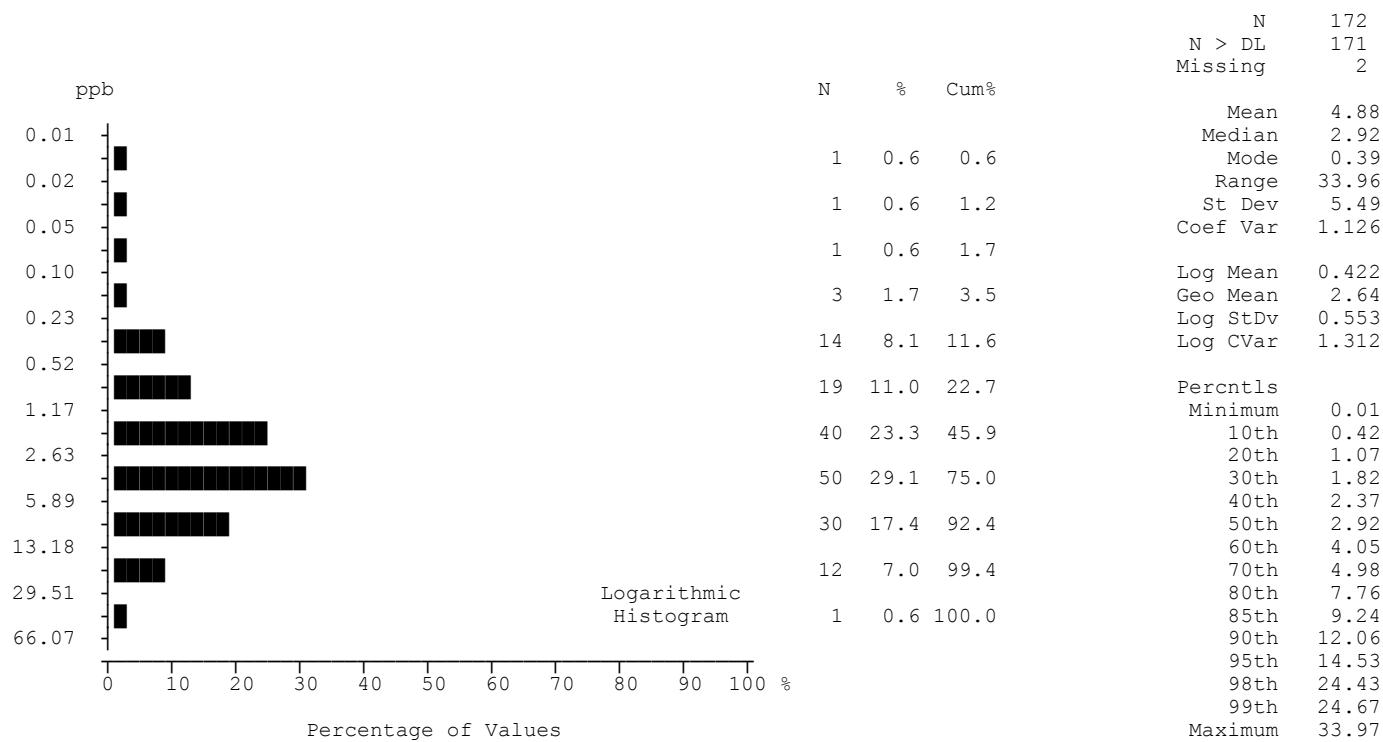


Sr

Summary Statistics

Uranium in Stream Water

Detection Limit = 0.002
 Analytical Method = ICPMS
 Units = ppb

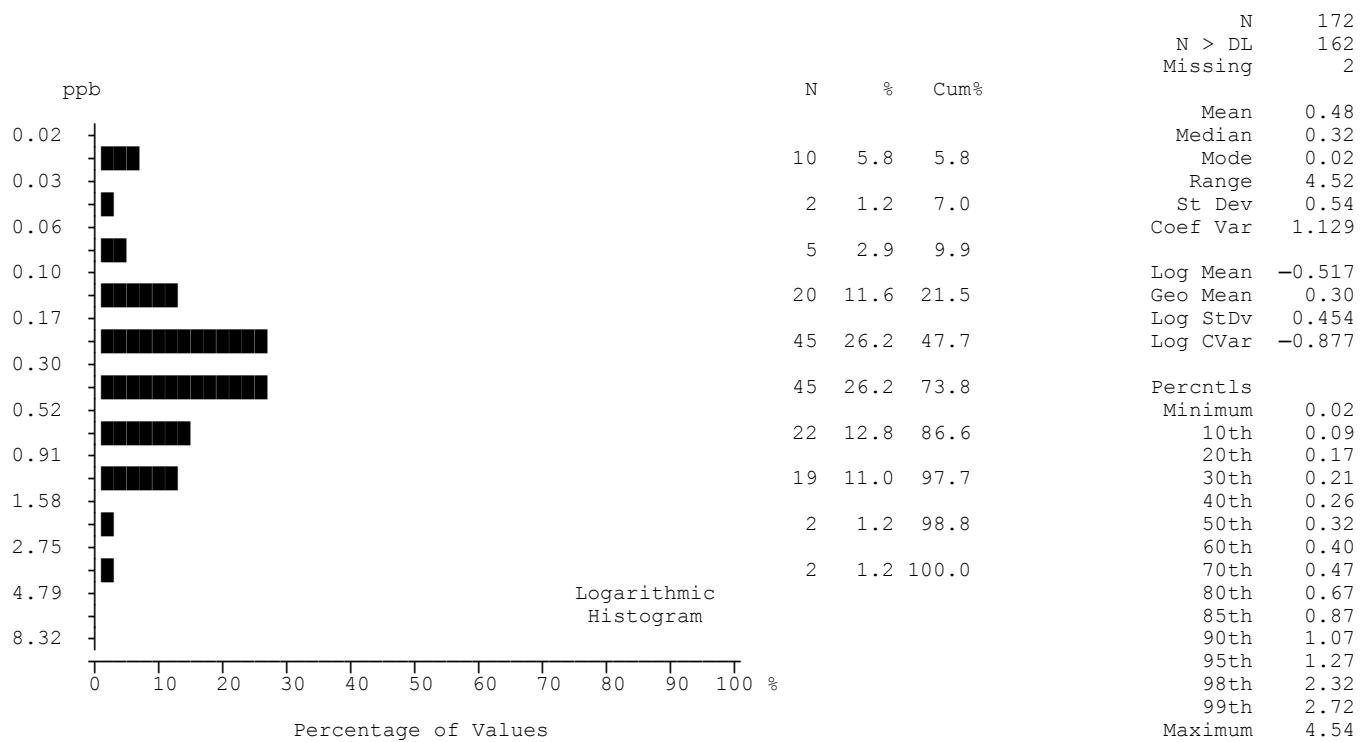


U

Summary Statistics

Vanadium in Stream Water

Detection Limit = 0.02
 Analytical Method = ICPMS
 Units = ppb

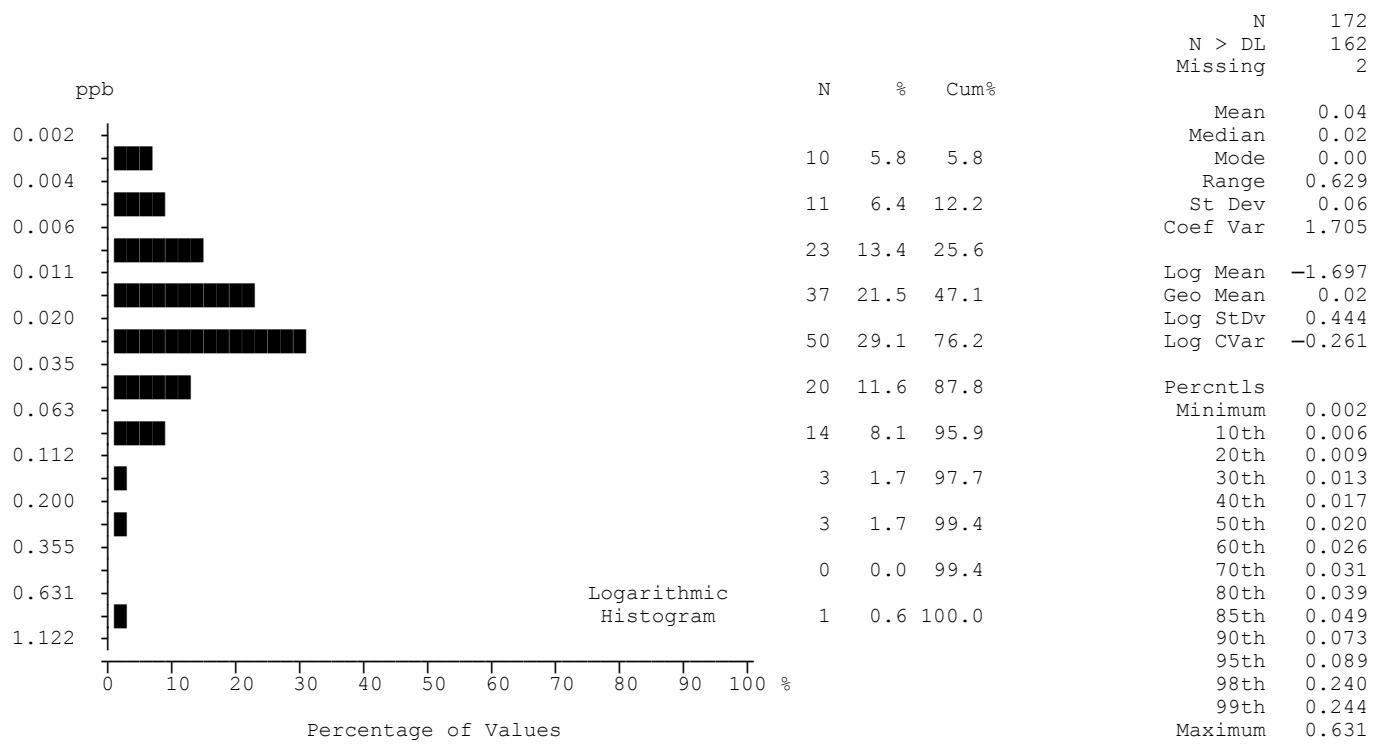


V

Summary Statistics

Yttrium in Stream Water

Detection Limit = 0.002
 Analytical Method = ICPMS
 Units = ppb

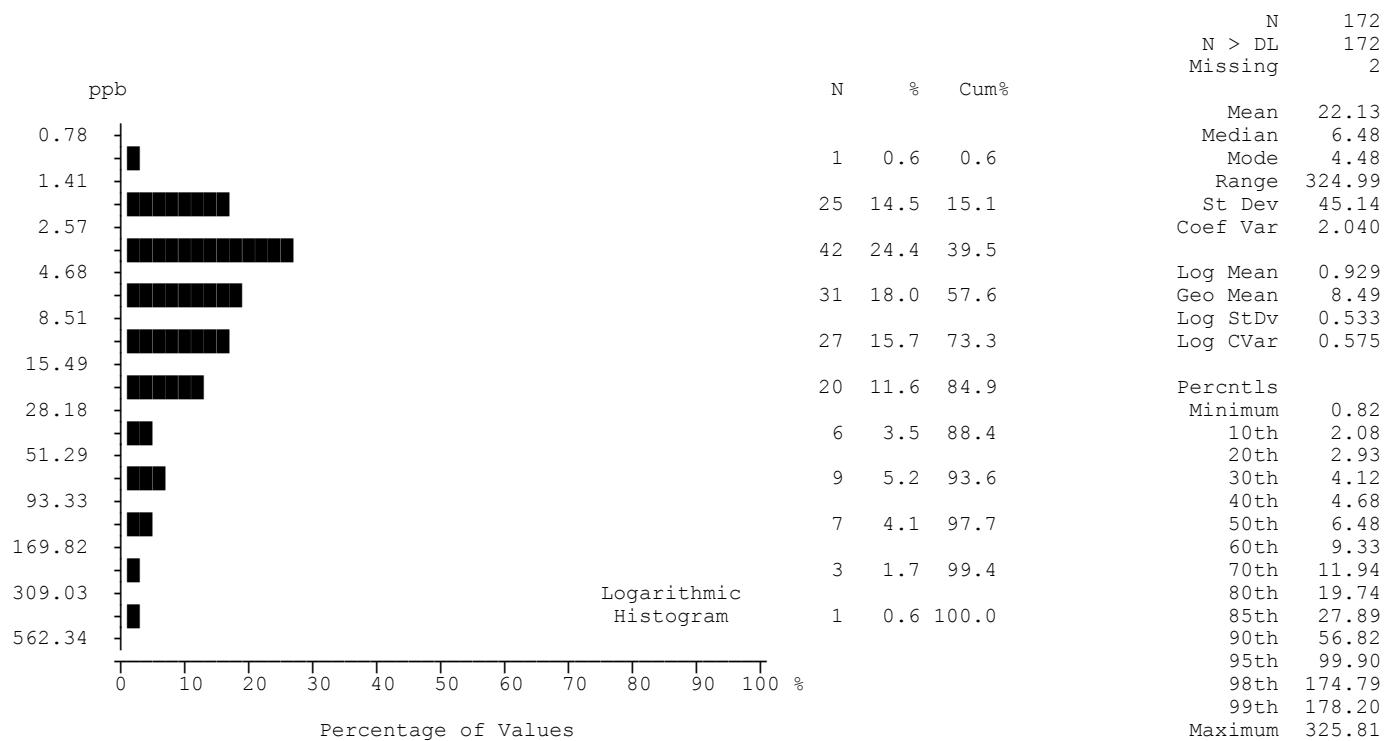


Y

Summary Statistics

Zinc in Stream Water

Detection Limit = 0.002
 Analytical Method = ICPMS
 Units = ppb

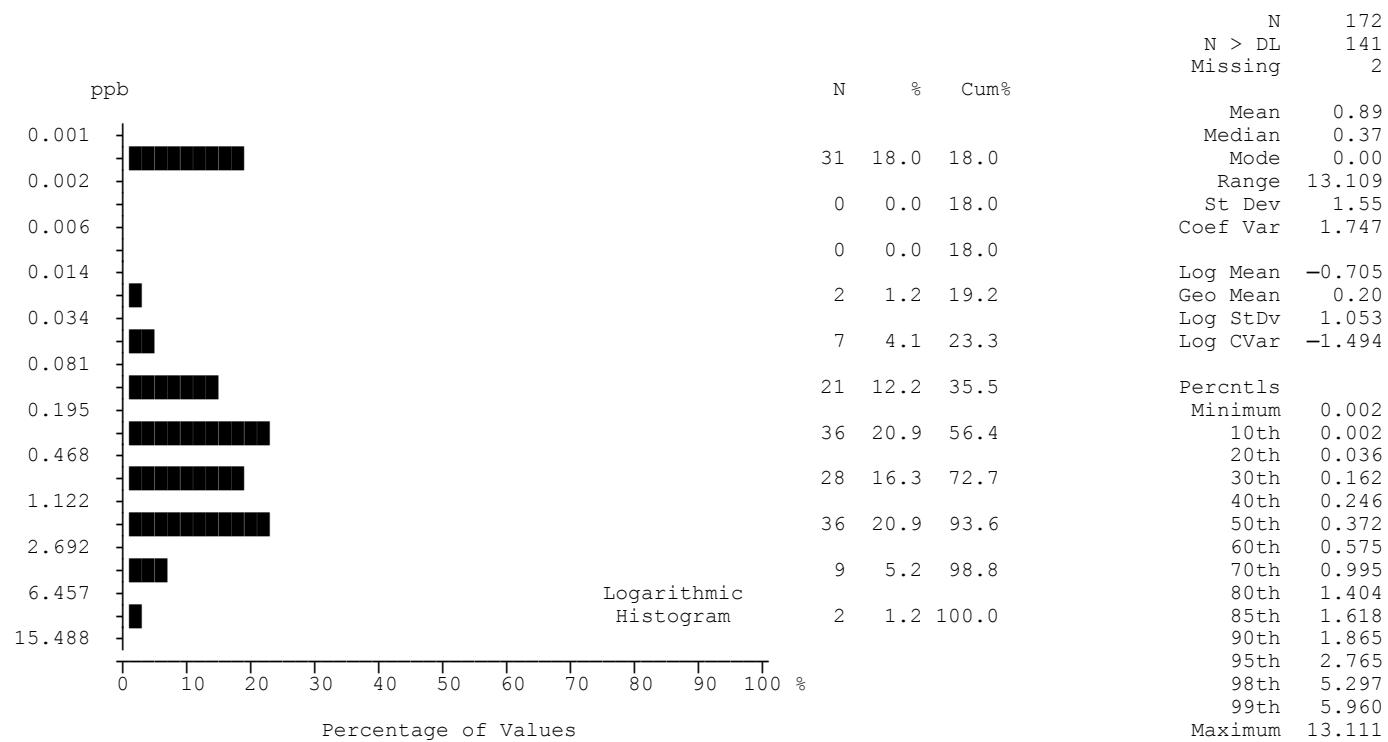


Zn

Summary Statistics

Zirconium in Stream Water

Detection Limit = 0.002
 Analytical Method = ICPMS
 Units = ppb



Zr

Geological Survey Branch
Open File 1996-18

Geochemistry of the Gataga Mountain Area

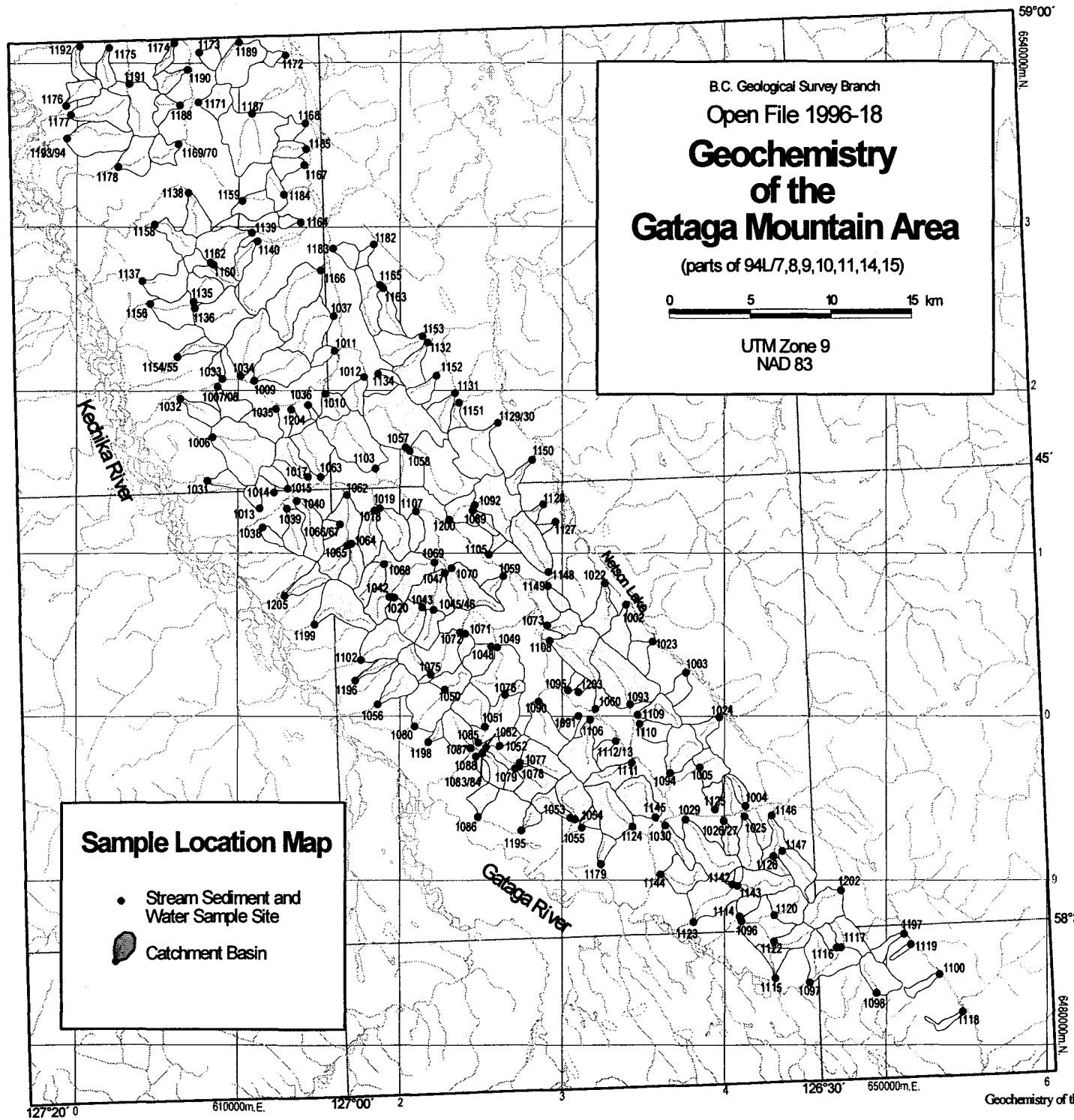
(parts of 94L/7,8,9,10,11,14,15)

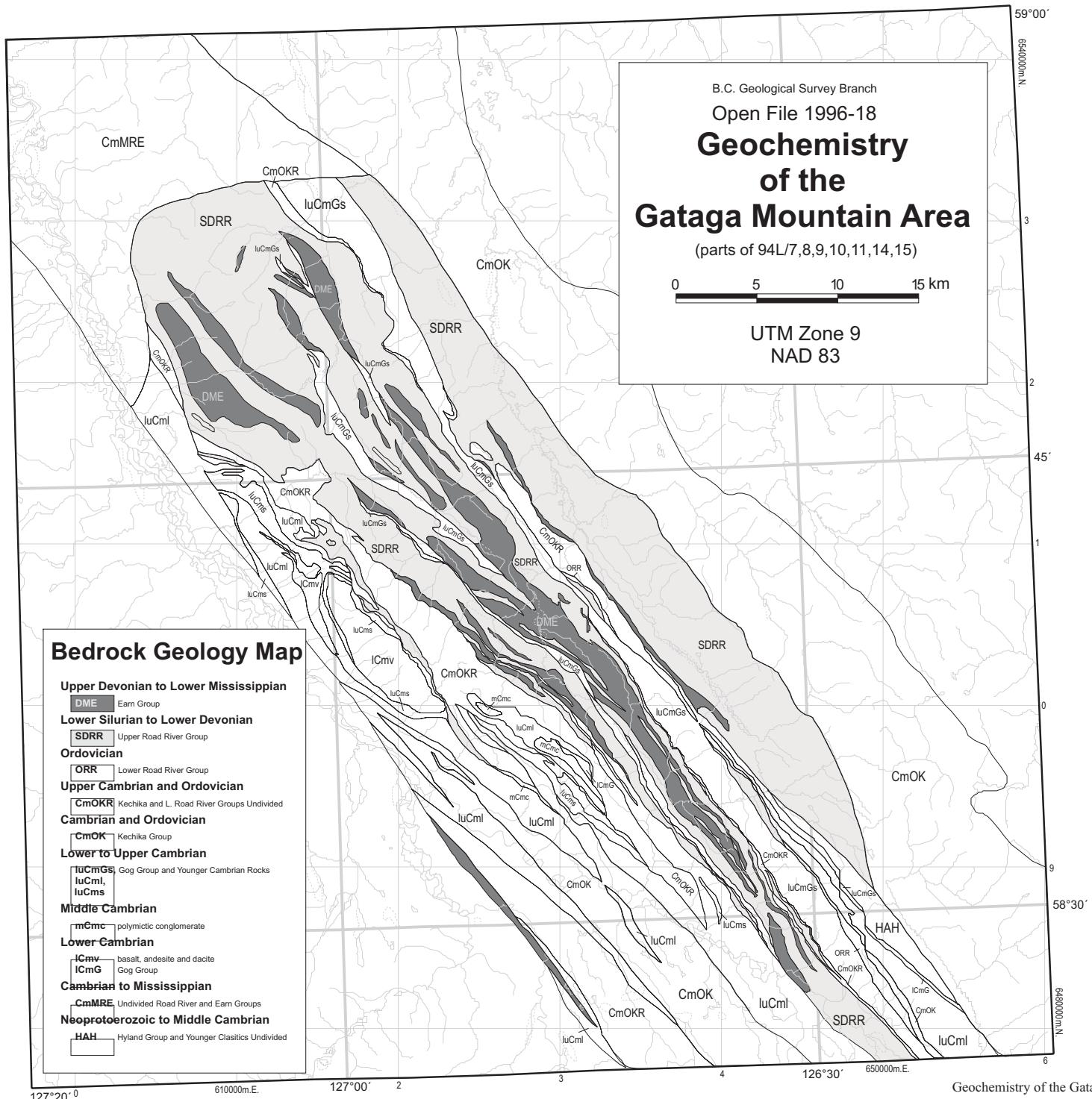
APPENDIX E

Element Maps

Page E - 2	Sample Location Map	Page E - 5	Element Maps - Stream Sediment by AAS plus LOI
Page E - 3	Bedrock Geology Map	Page E - 22	Element Maps - Stream Sediment by INAA
Page E - 4	Known Mineral Occurrences	Page E - 47	Element Maps - Stream Water by ICPMS plus pH, SO ₄ , FW, UW

- Calculations ignore analytical results from the second of paired field duplicates.





B.C. Geological Survey Branch
Open File 1996-18
Geochemistry
of the
Gataga Mountain Area

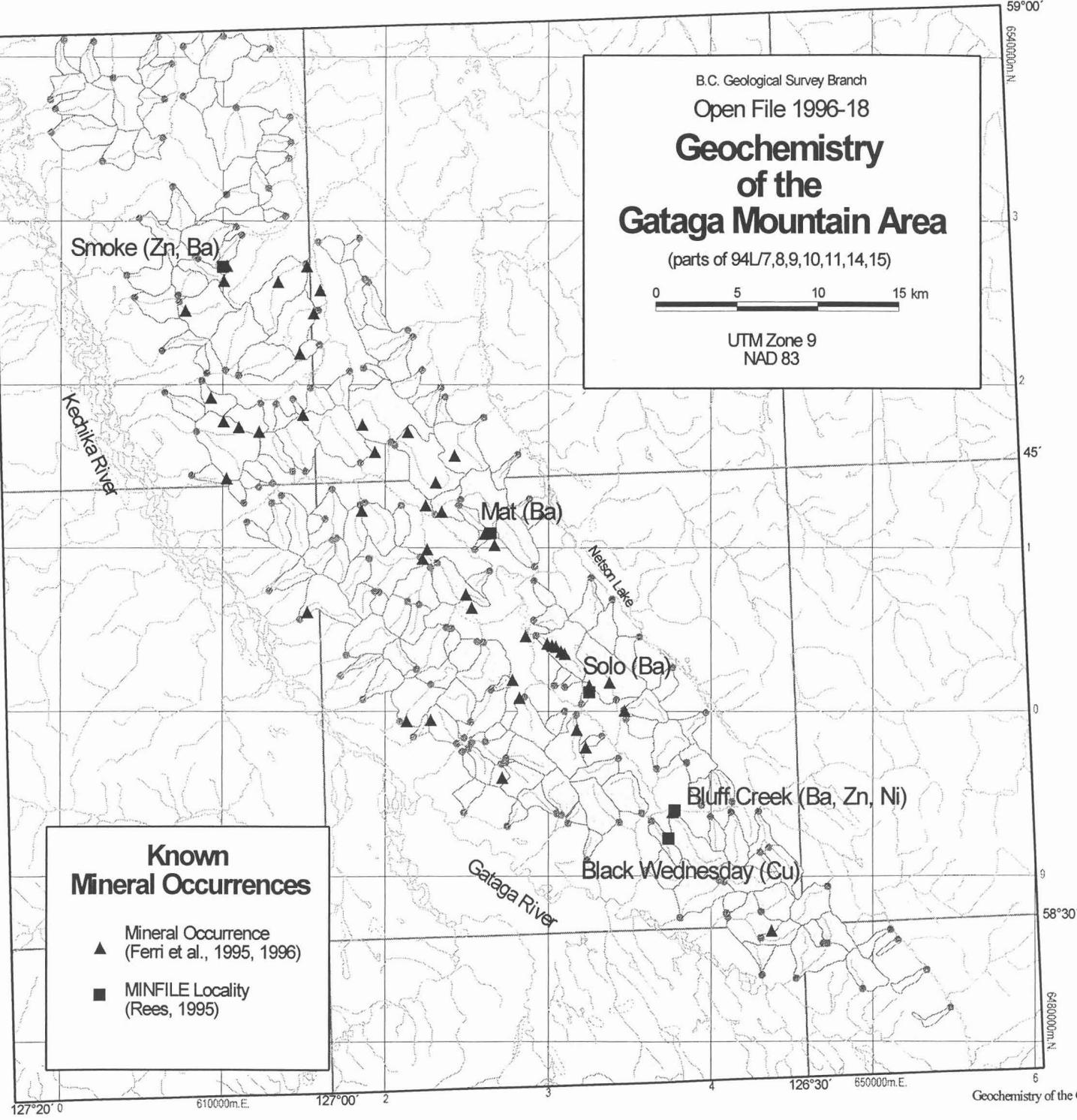
(parts of 94L/7,8,9,10,11,14,15)

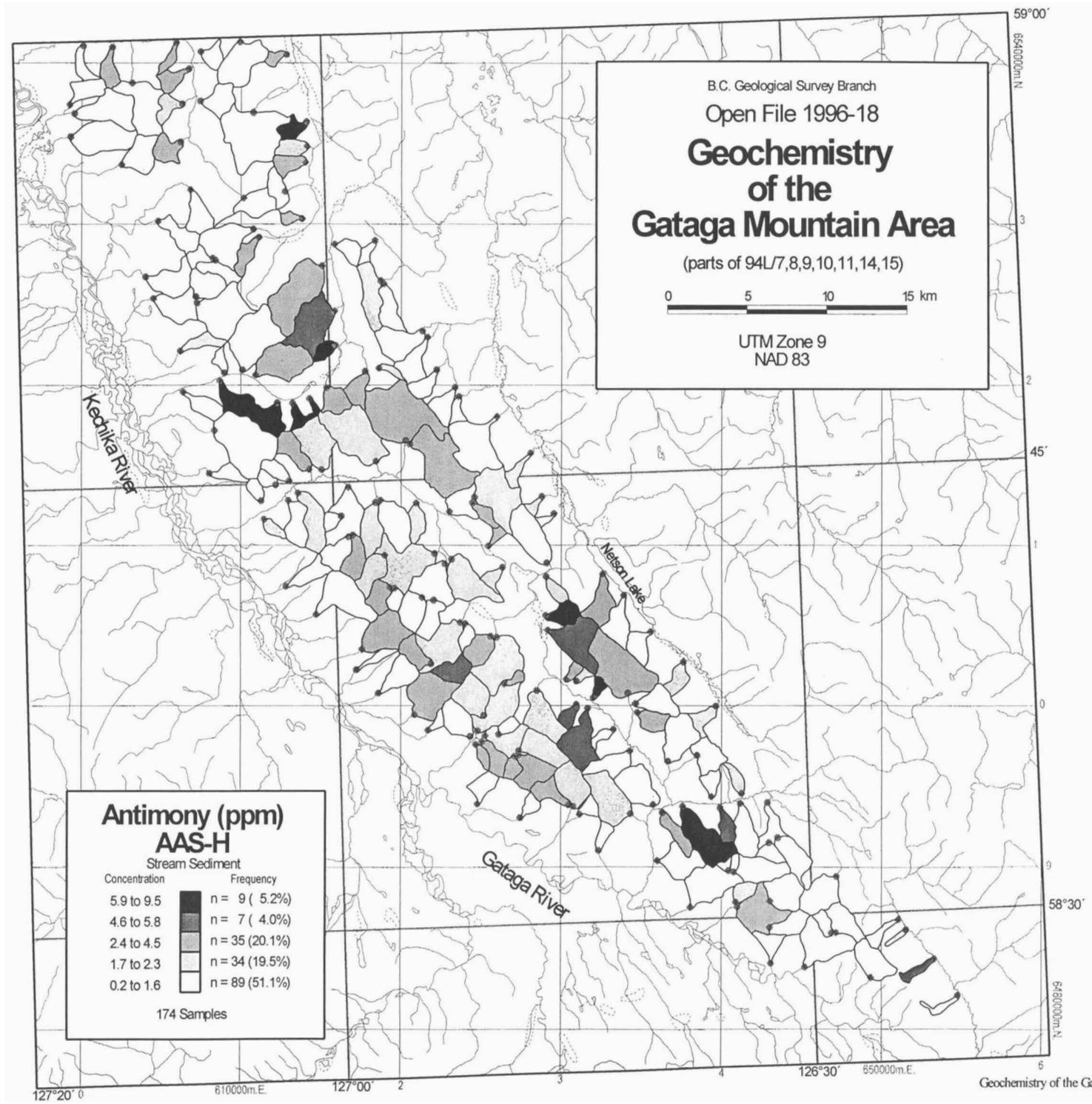
0 5 10 15 km

UTM Zone 9
NAD 83

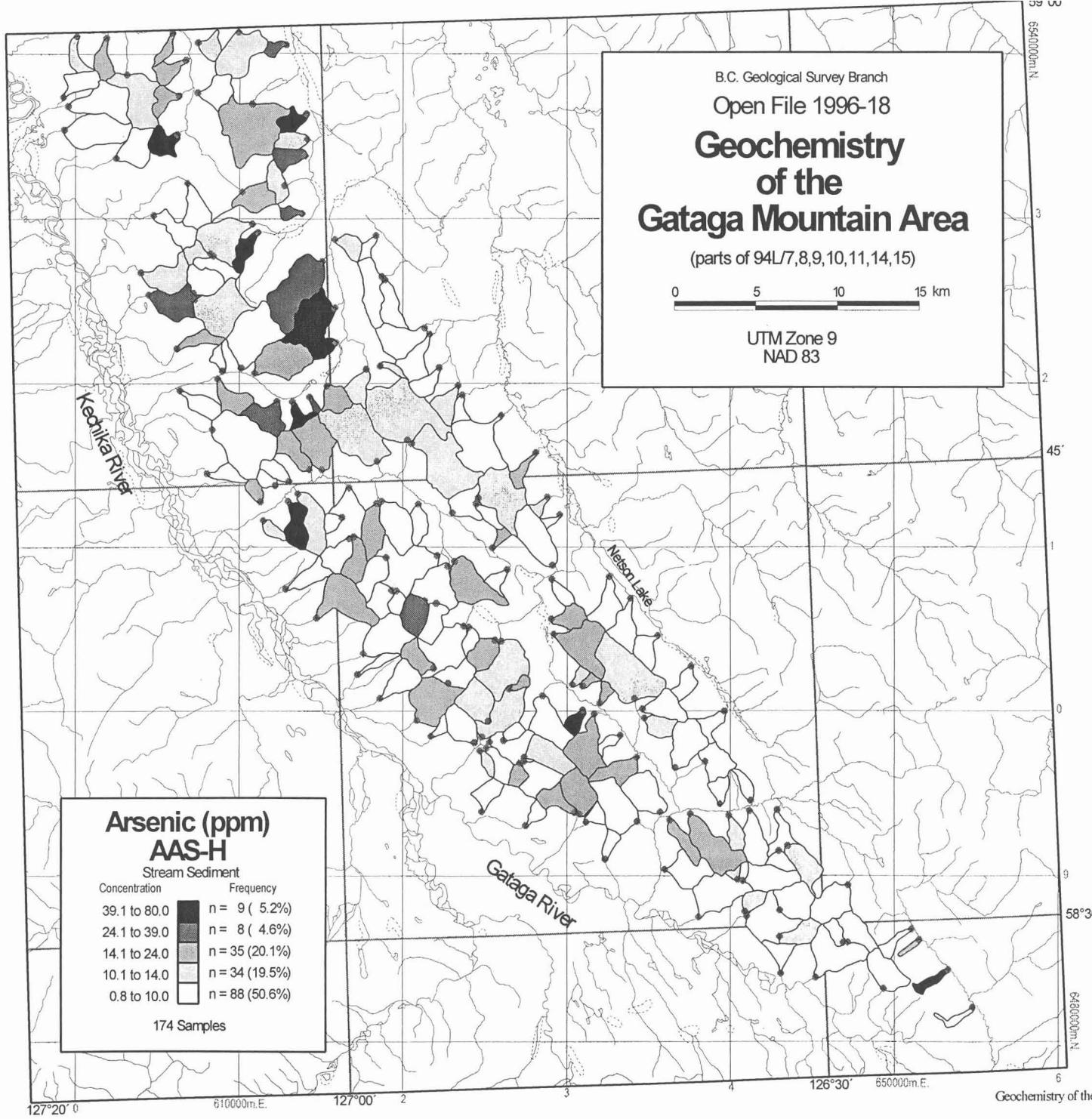
**Known
Mineral Occurrences**

- ▲ Mineral Occurrence
(Feri et al., 1995, 1996)
- MINFILE Locality
(Rees, 1995)

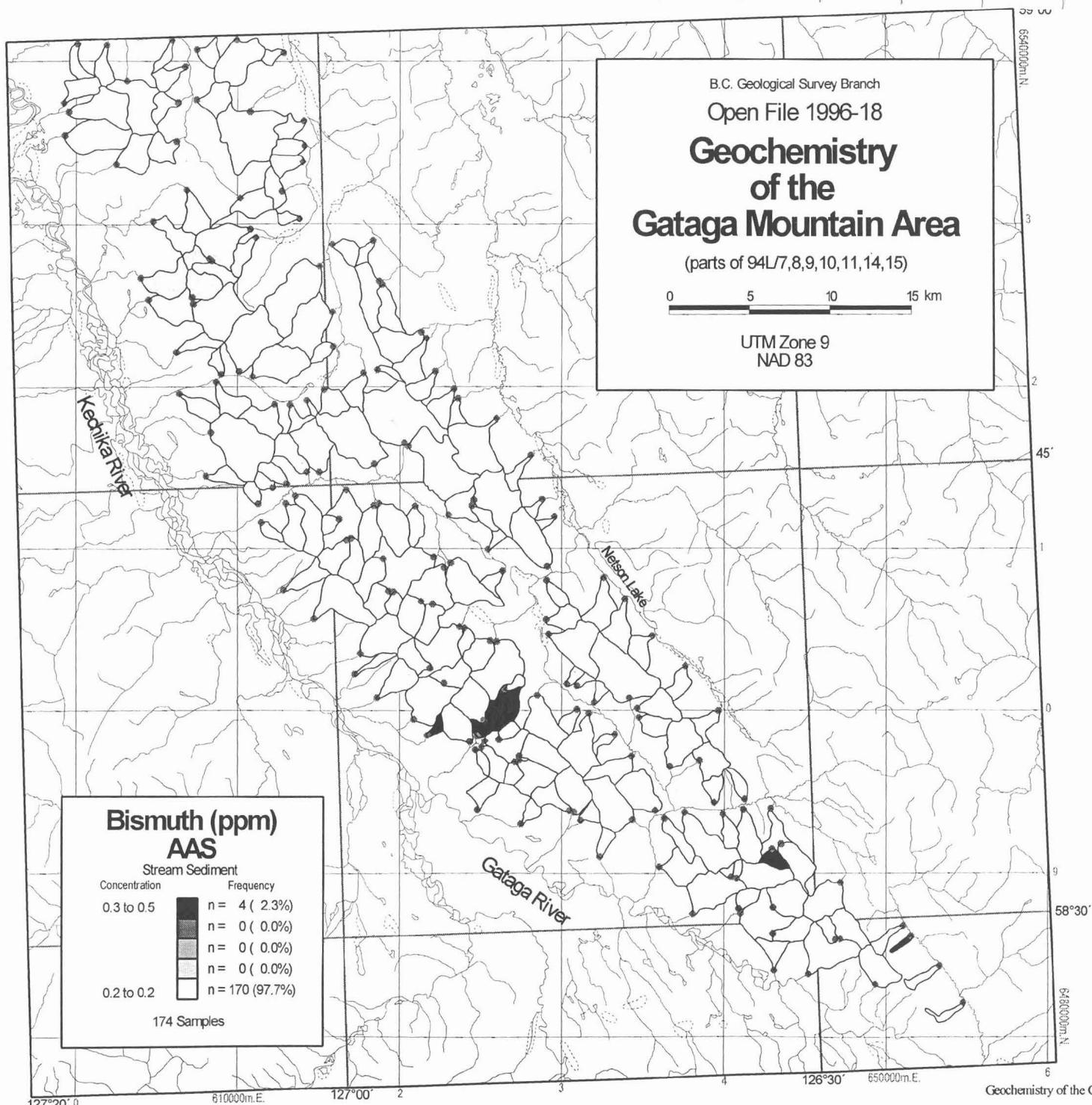


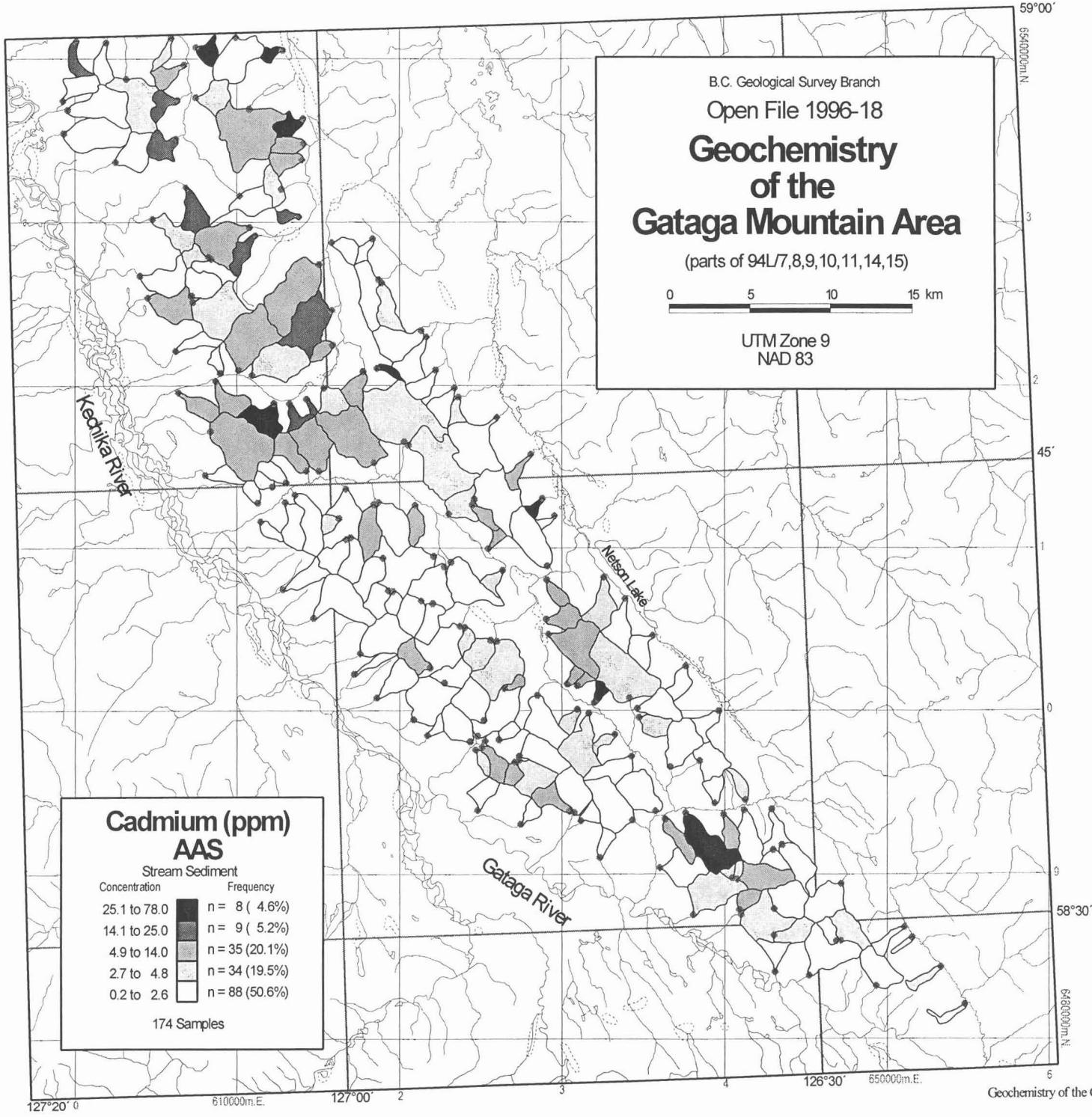


Sb



As





B.C. Geological Survey Branch
Open File 1996-18
Geochemistry
of the
Gataga Mountain Area

(parts of 94L/7,8,9,10,11,14,15)

0 5 10 15 km

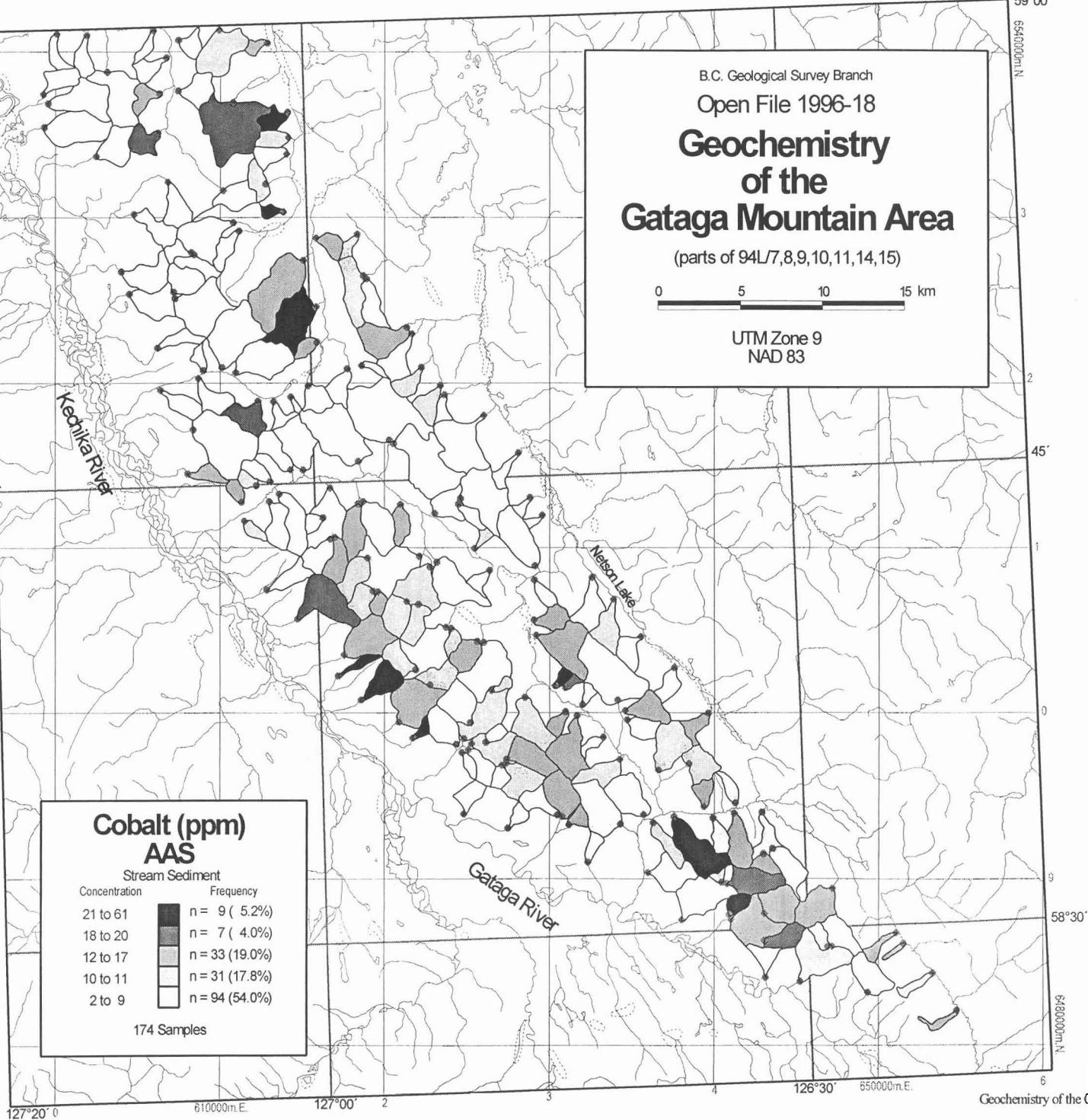
UTM Zone 9
NAD 83

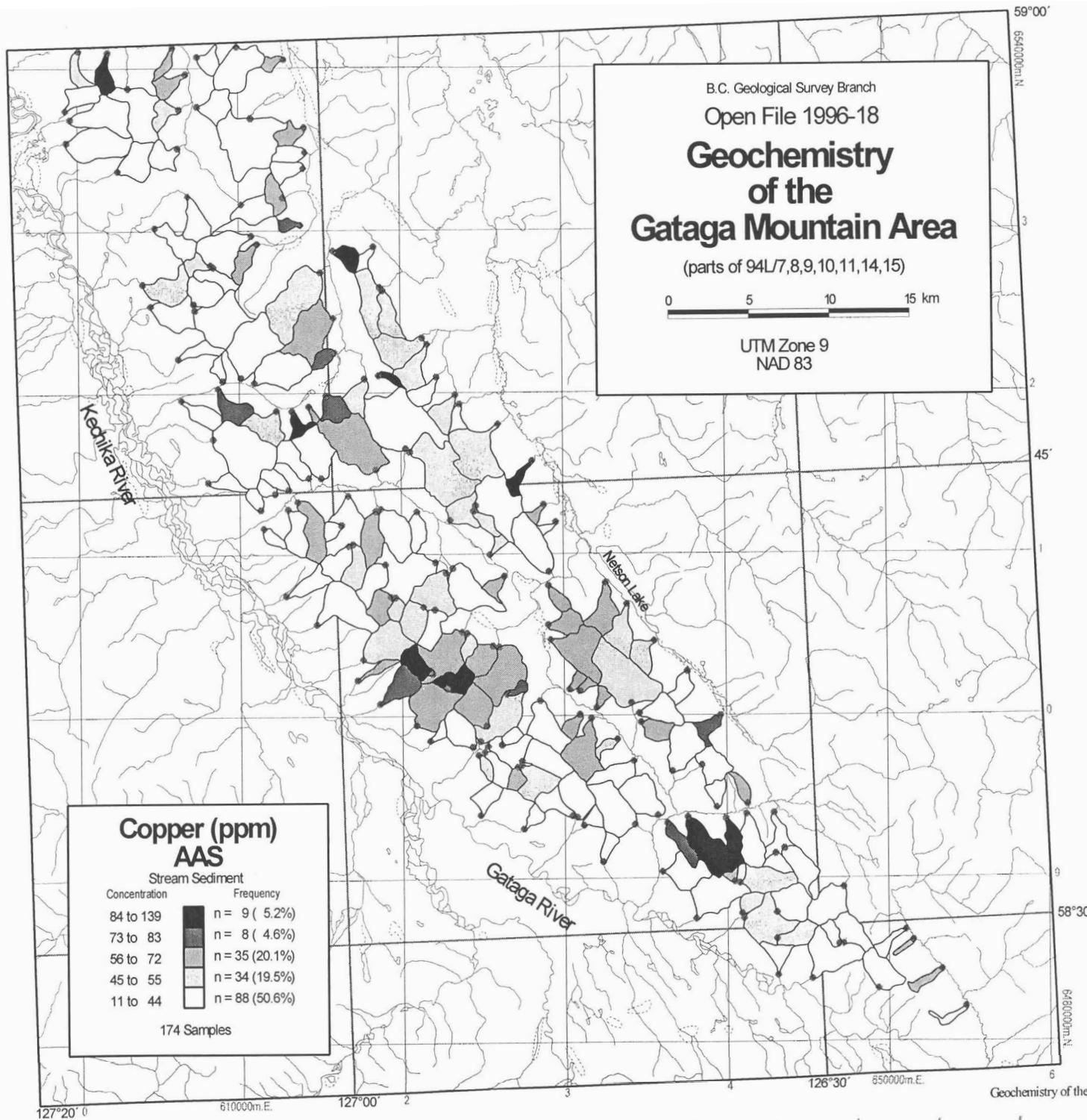
Cobalt (ppm)
AAS

Stream Sediment

Concentration	Frequency
21 to 61	n = 9 (5.2%)
18 to 20	n = 7 (4.0%)
12 to 17	n = 33 (19.0%)
10 to 11	n = 31 (17.8%)
2 to 9	n = 94 (54.0%)

174 Samples





B.C. Geological Survey Branch

Open File 1996-18

Geochemistry of the Gataga Mountain Area

(parts of 94L7,8,9,10,11,14,15)

0 5 10 15 km

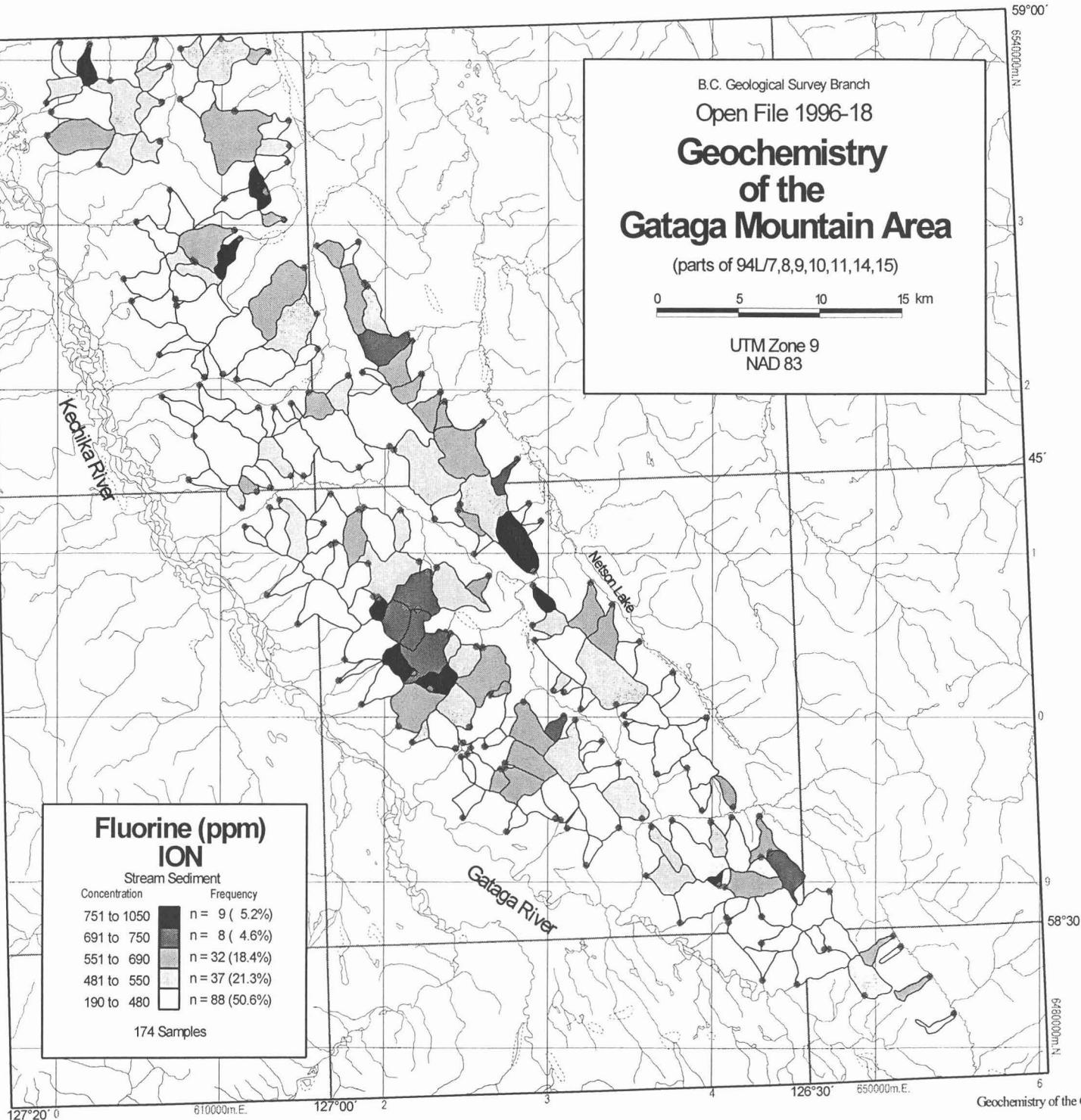
UTM Zone 9
NAD 83

Fluorine (ppm) ION

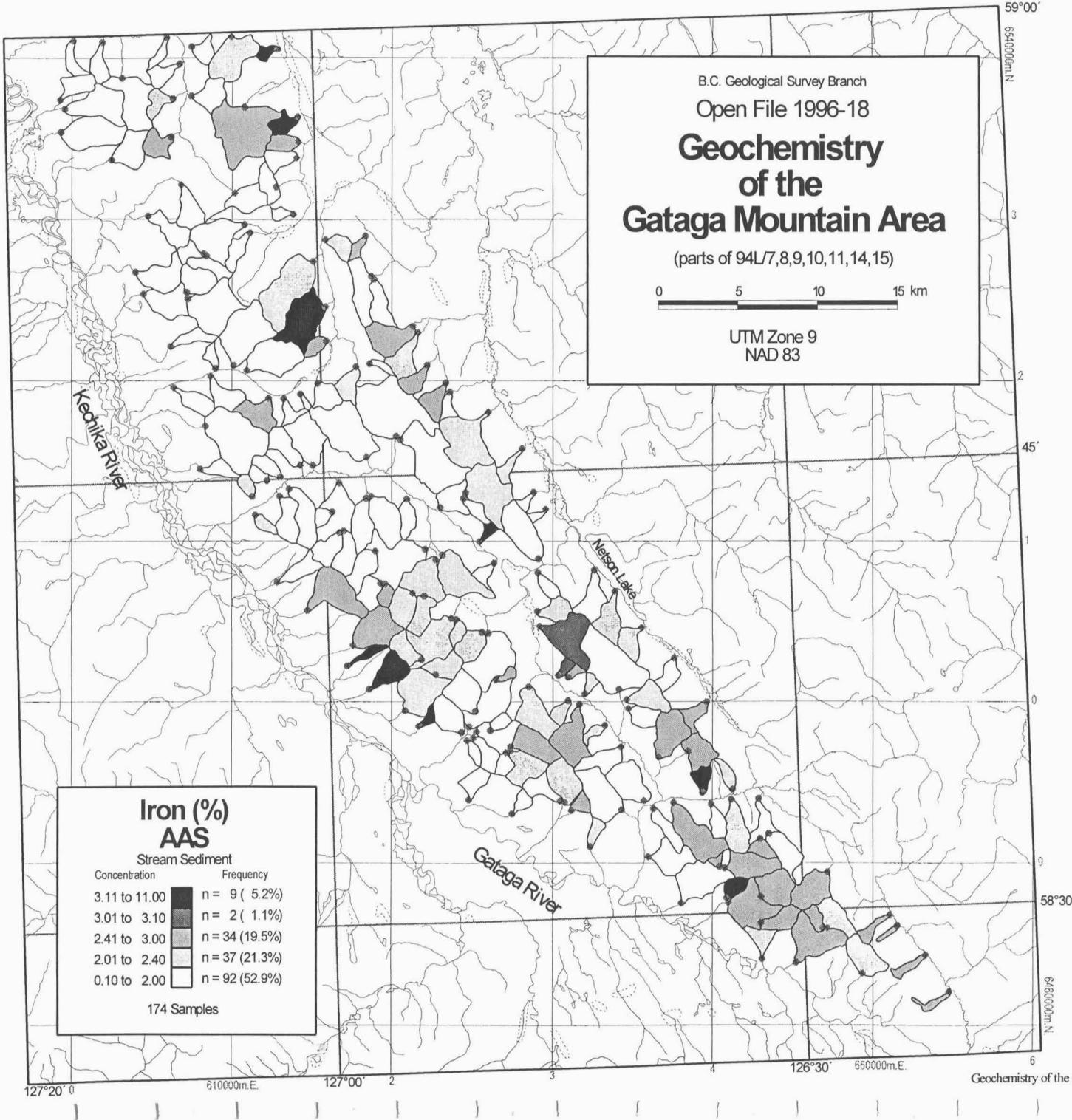
Stream Sediment

Concentration	Frequency
751 to 1050	n = 9 (5.2%)
691 to 750	n = 8 (4.6%)
551 to 690	n = 32 (18.4%)
481 to 550	n = 37 (21.3%)
190 to 480	n = 88 (50.6%)

174 Samples



F



B.C. Geological Survey Branch
Open File 1996-18

Geochemistry of the Gataga Mountain Area

(parts of 94L7,8,9,10,11,14,15)

0 5 10 15 km

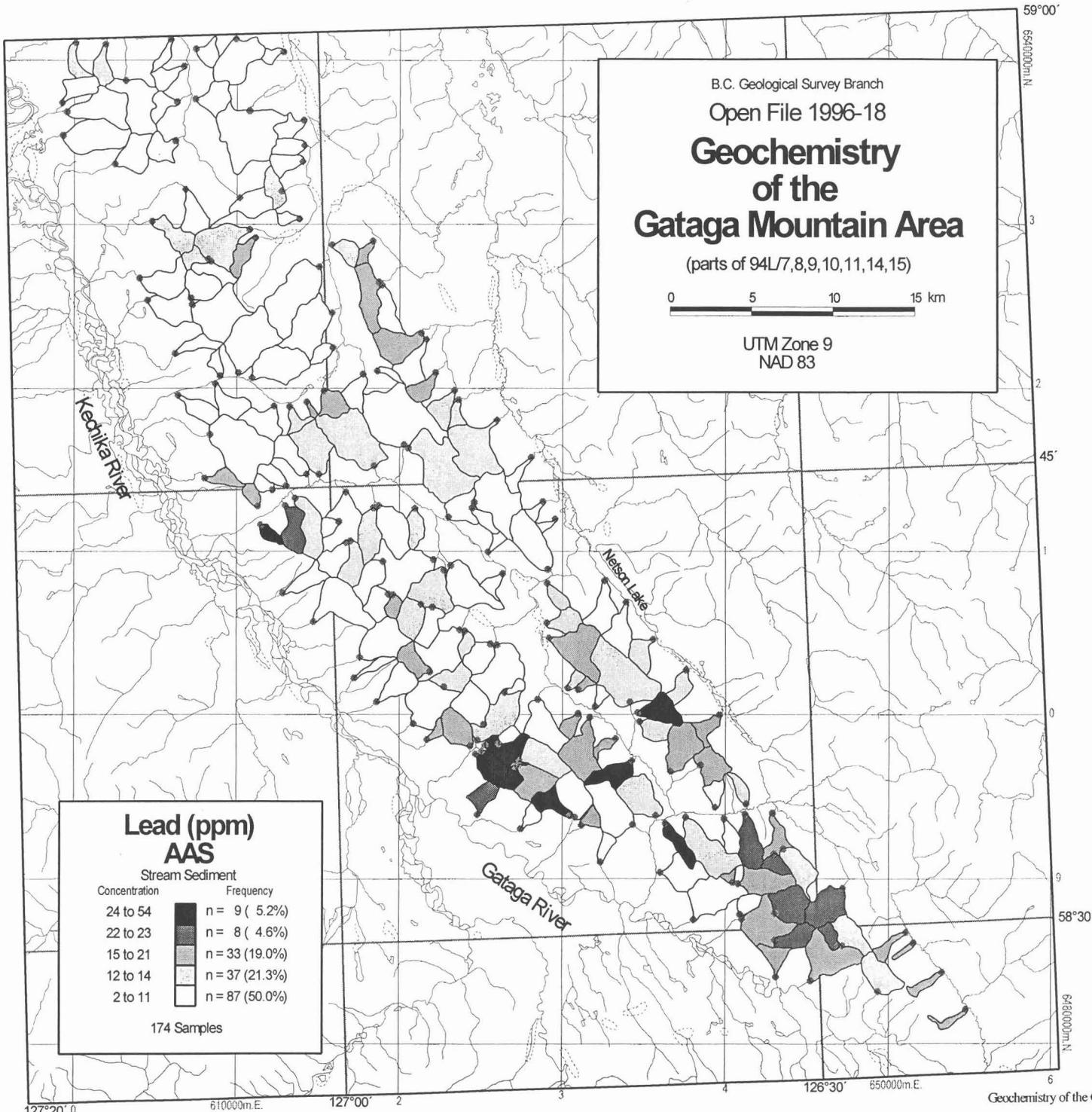
UTM Zone 9
NAD 83

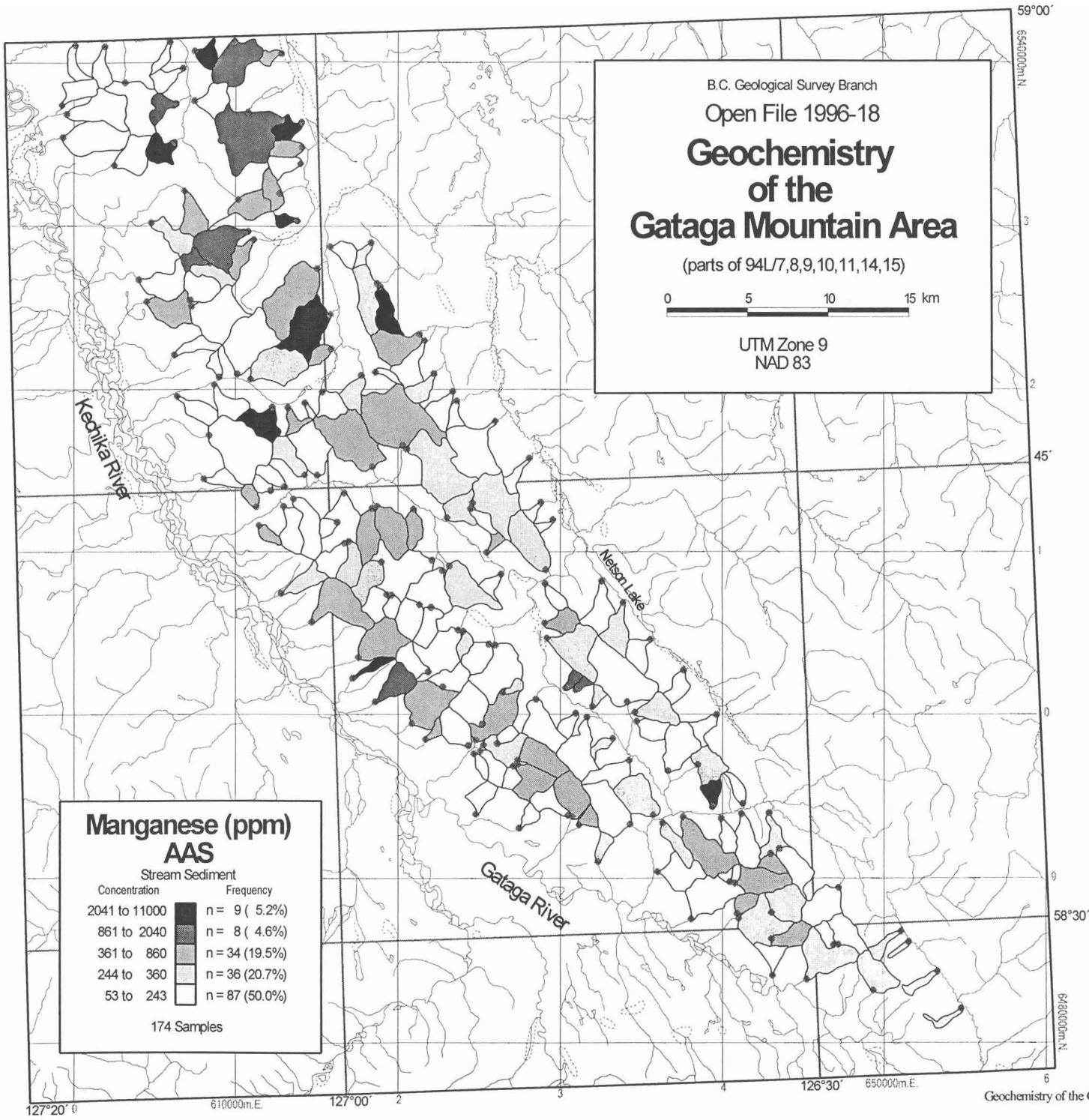
Lead (ppm) AAS

Stream Sediment

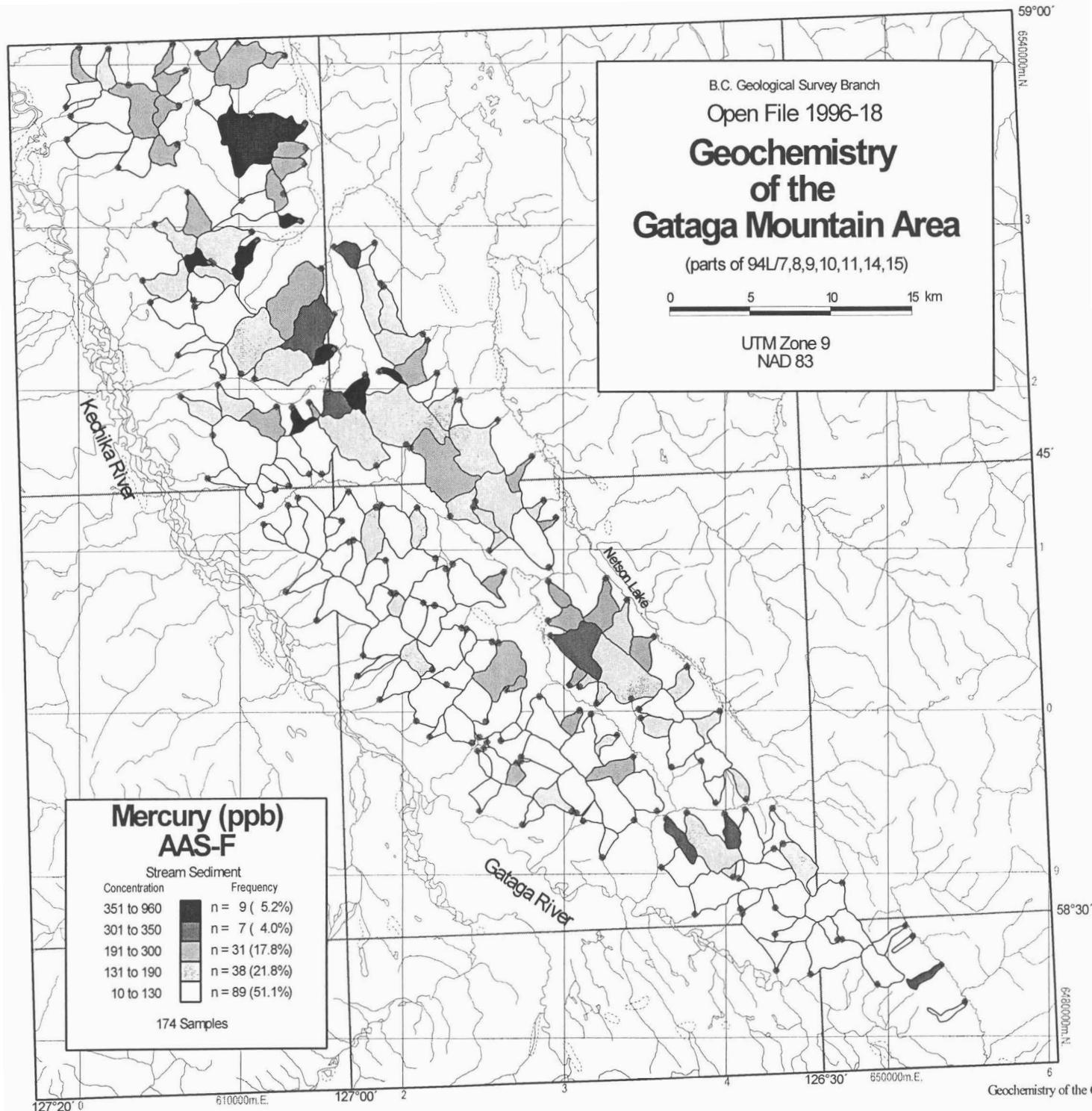
Concentration	Frequency
24 to 54	n = 9 (5.2%)
22 to 23	n = 8 (4.6%)
15 to 21	n = 33 (19.0%)
12 to 14	n = 37 (21.3%)
2 to 11	n = 87 (50.0%)

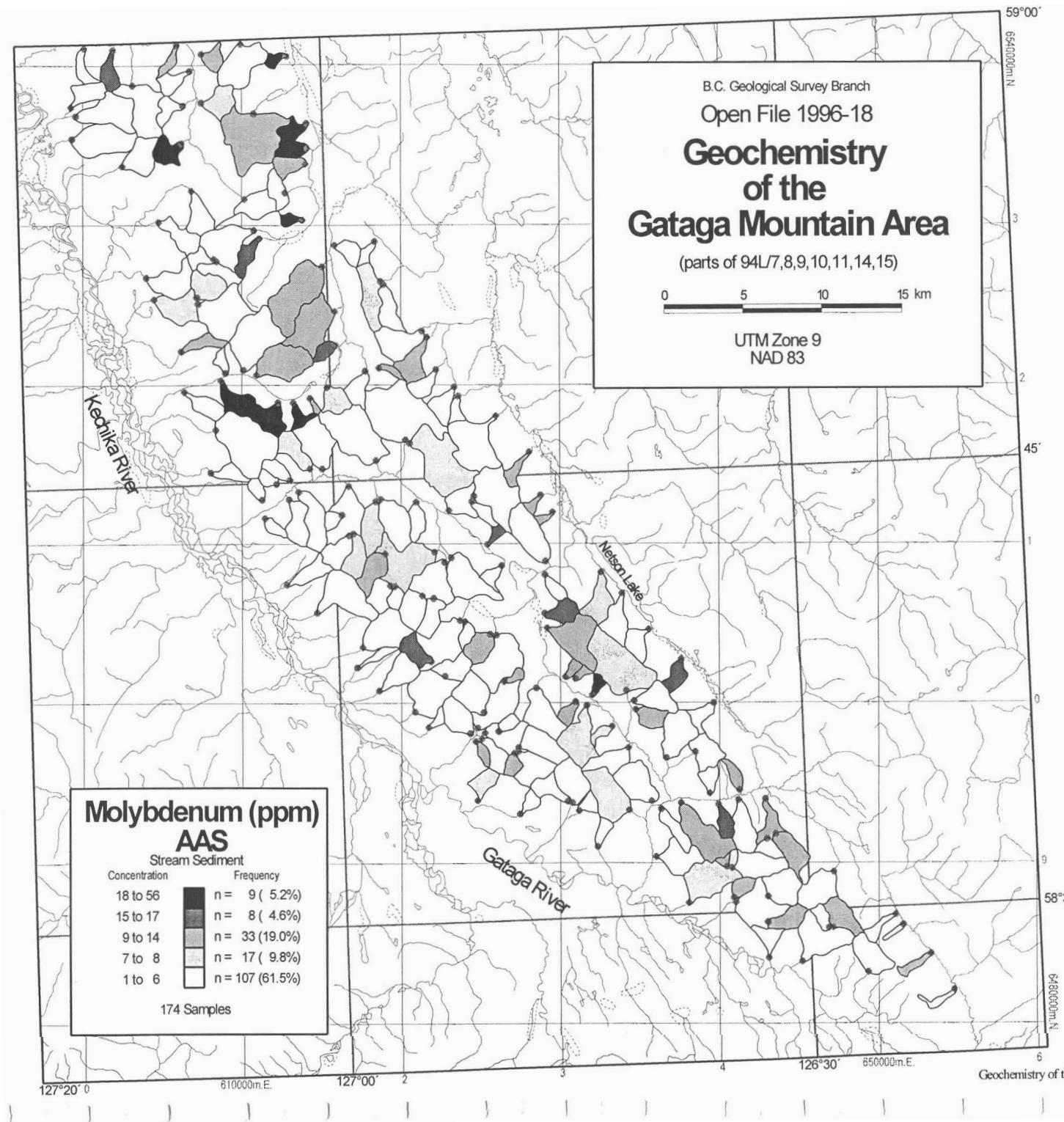
174 Samples



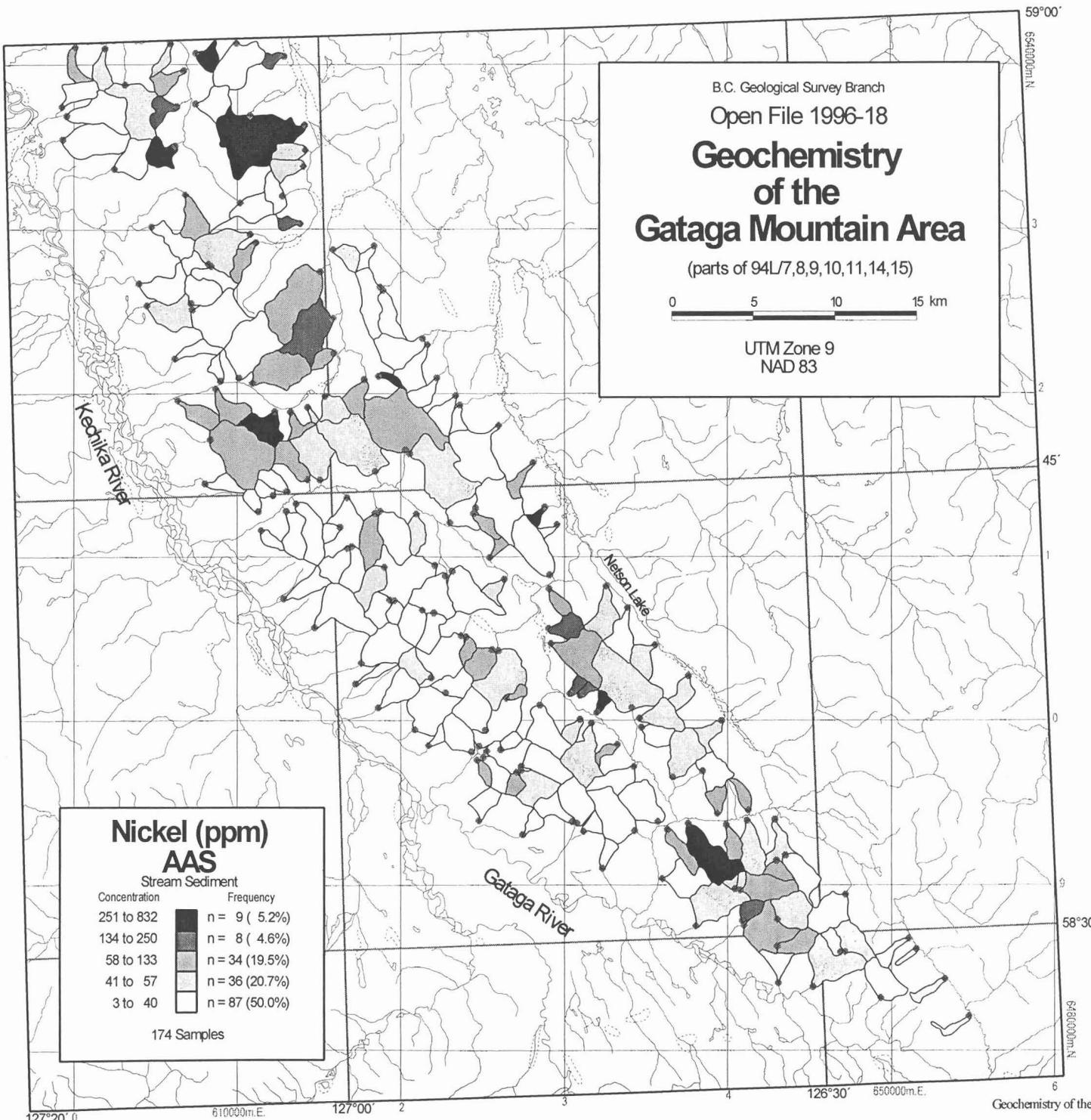


Mn

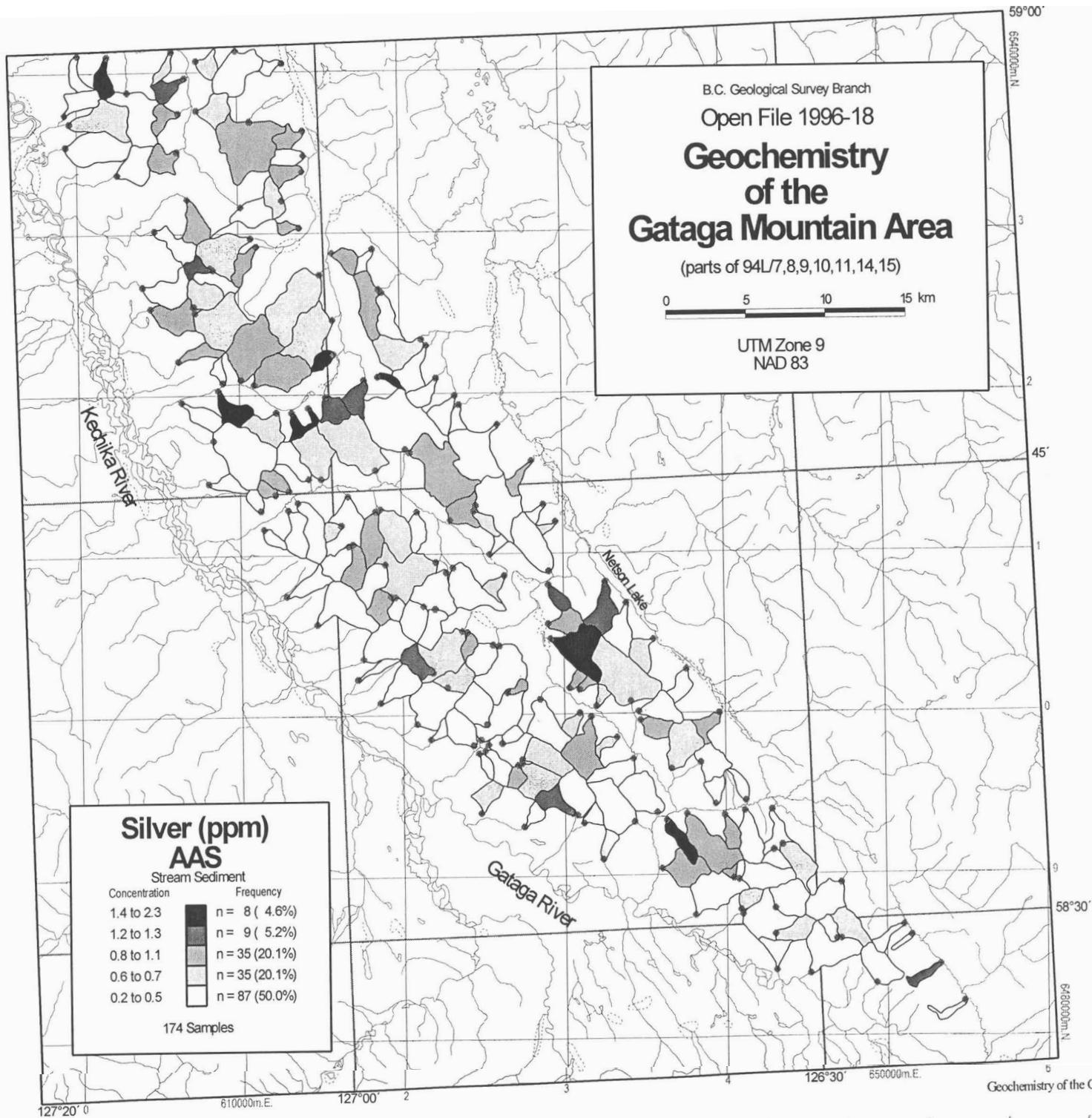


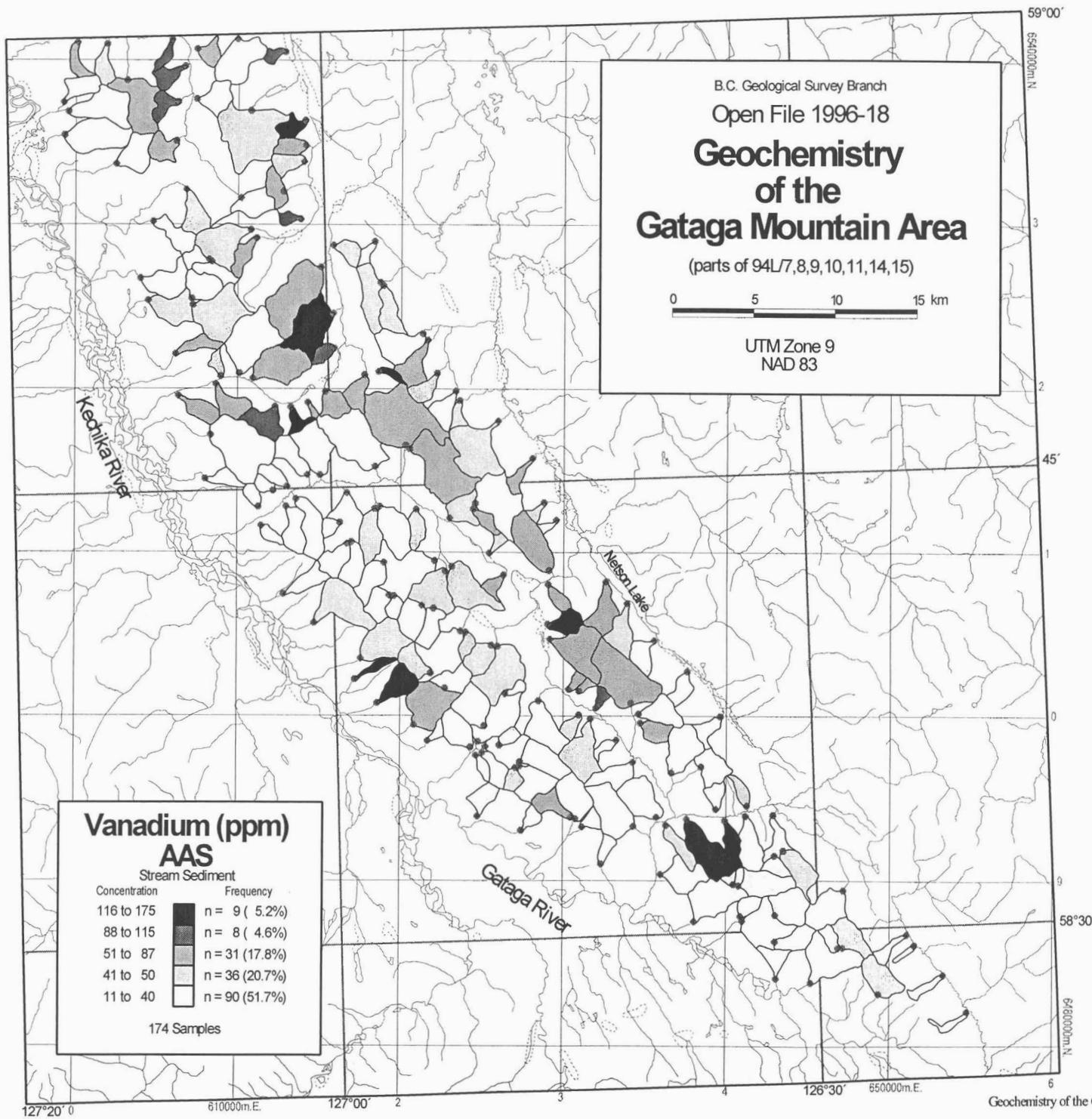


Mo

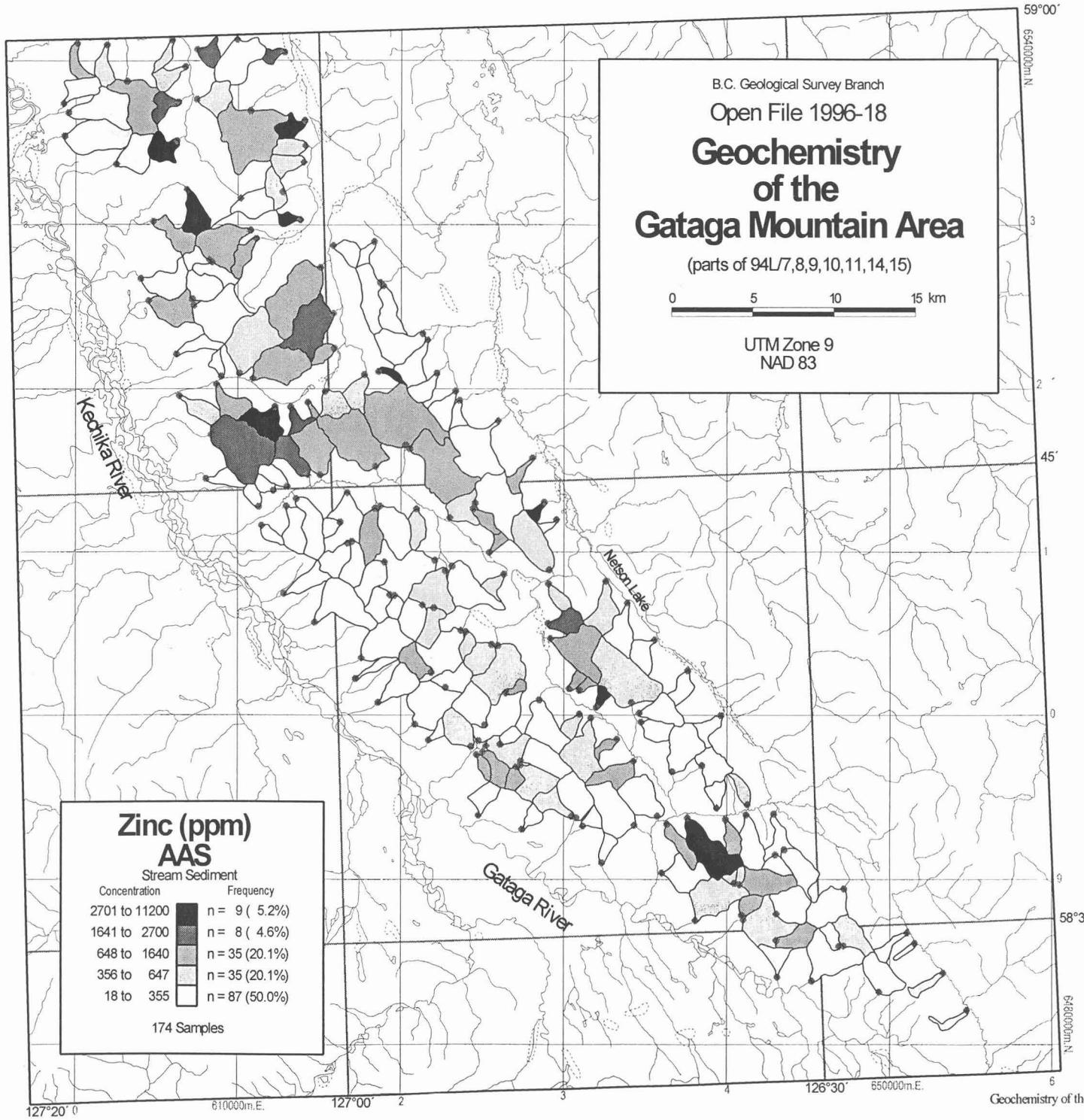


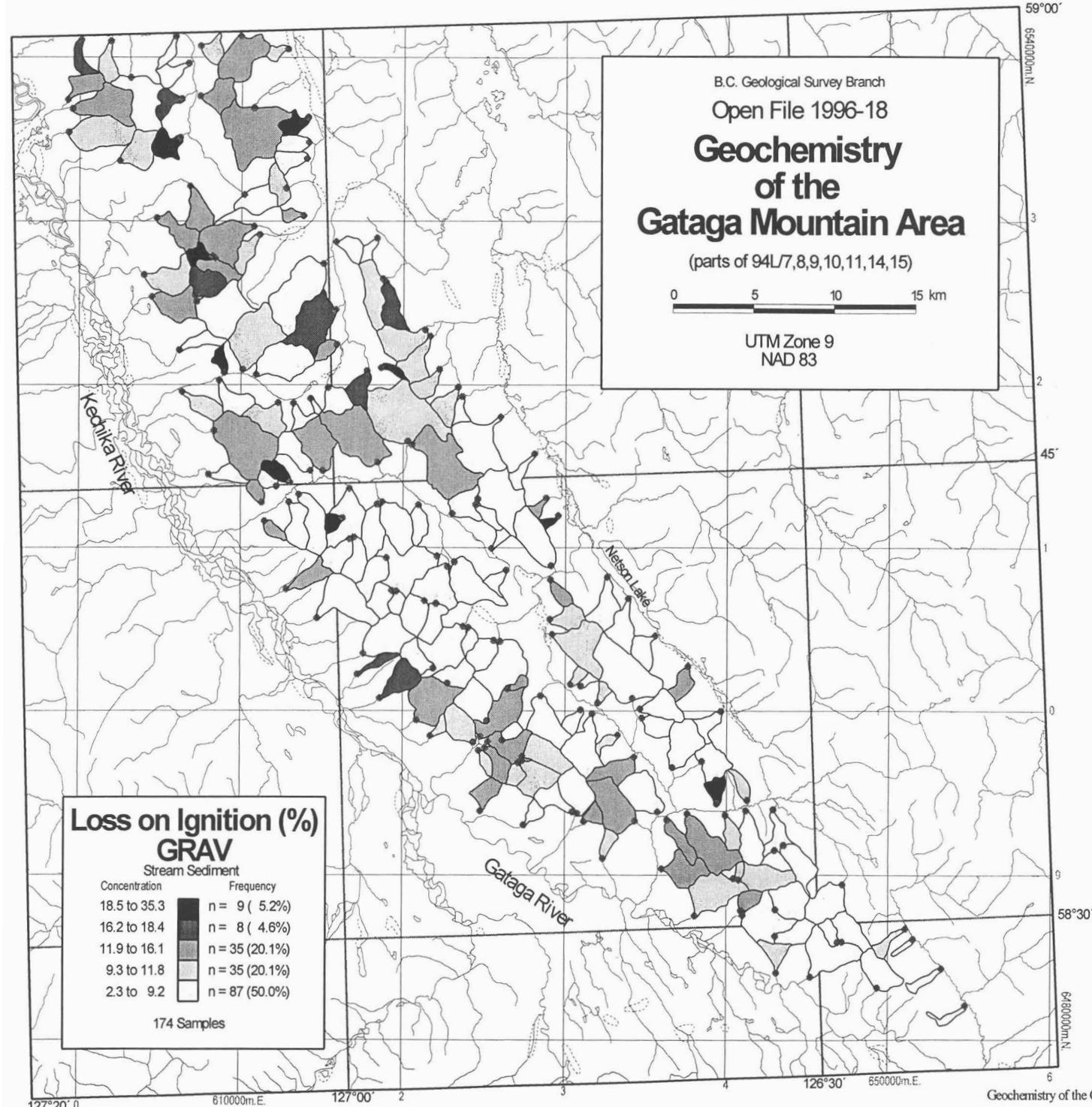
Ni

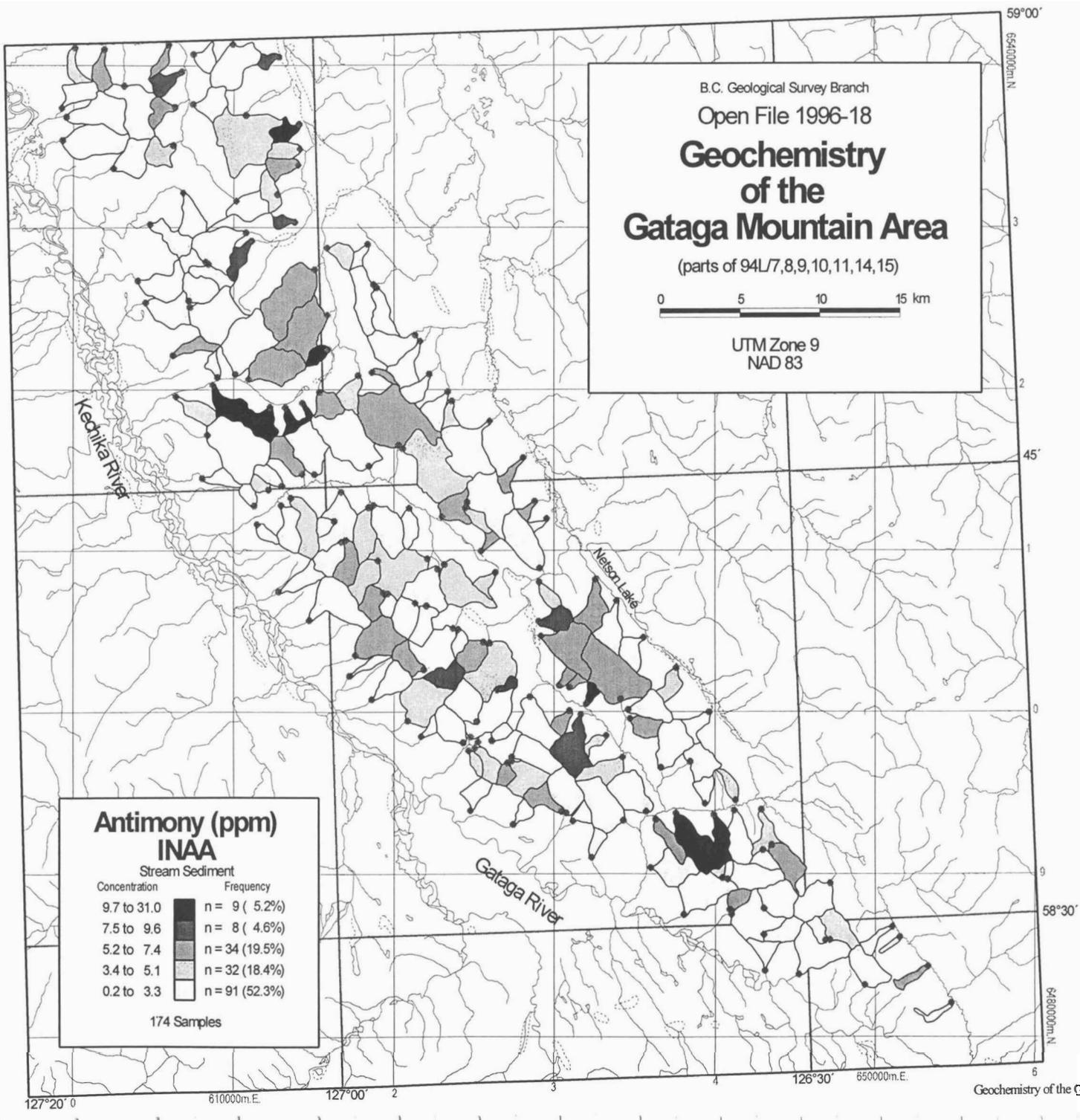


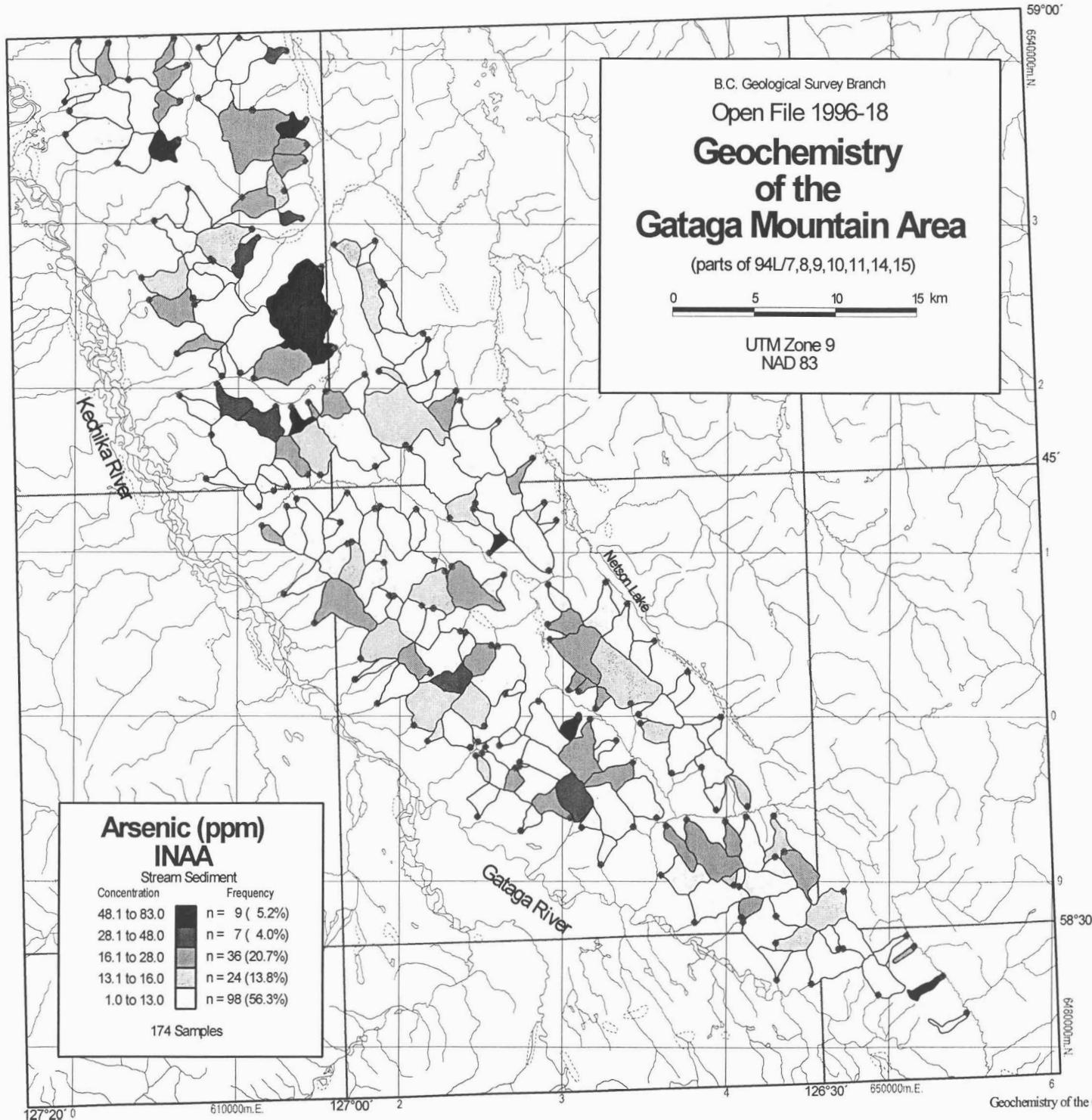


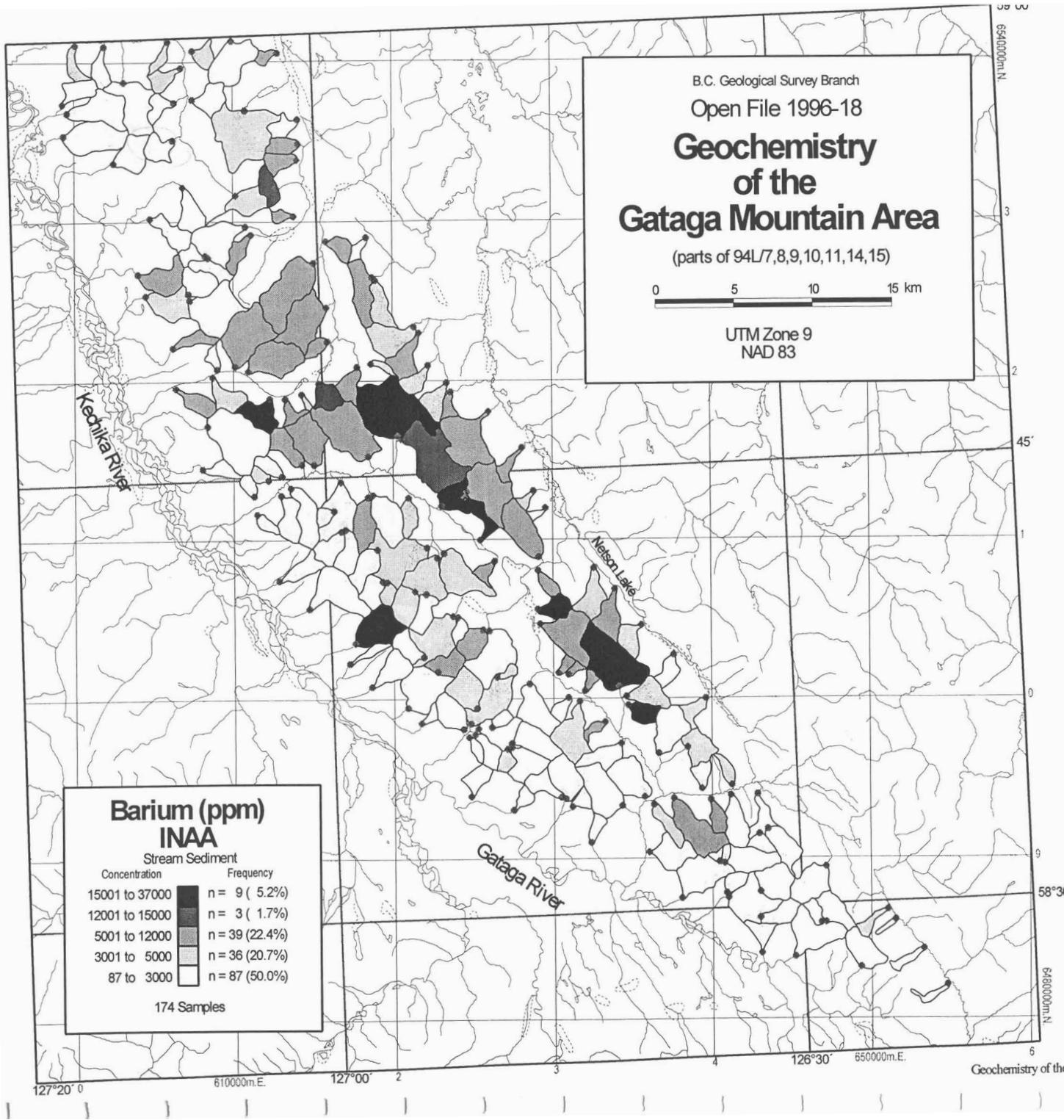
Geochemistry of the Gata Mountain Area ... Page E - 19











B.C. Geological Survey Branch

Open File 1996-18

Geochemistry of the Gataga Mountain Area

(parts of 94L/7,8,9,10,11,14,15)

0 5 10 15 km

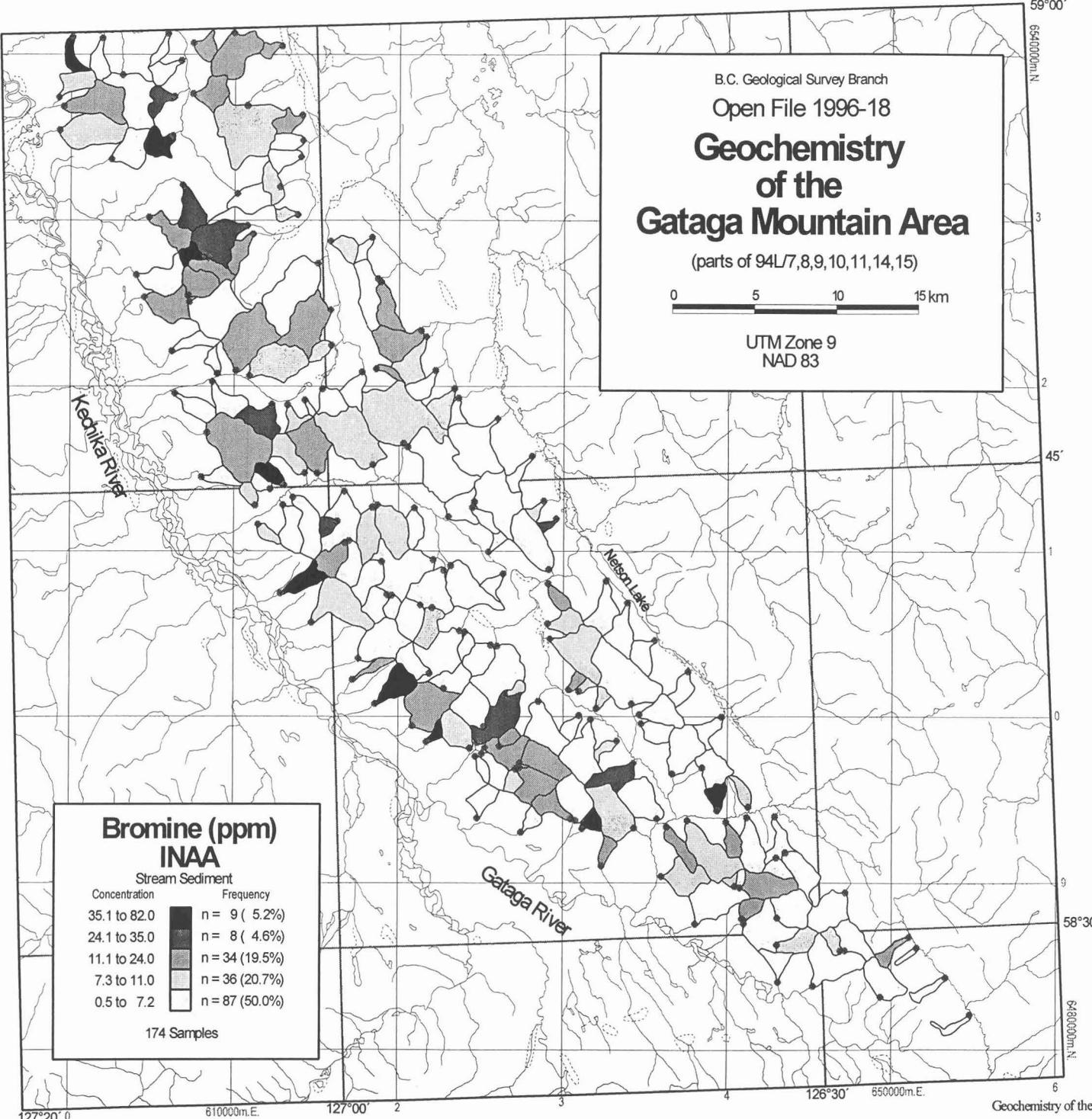
UTM Zone 9
NAD 83

Bromine (ppm) INAA

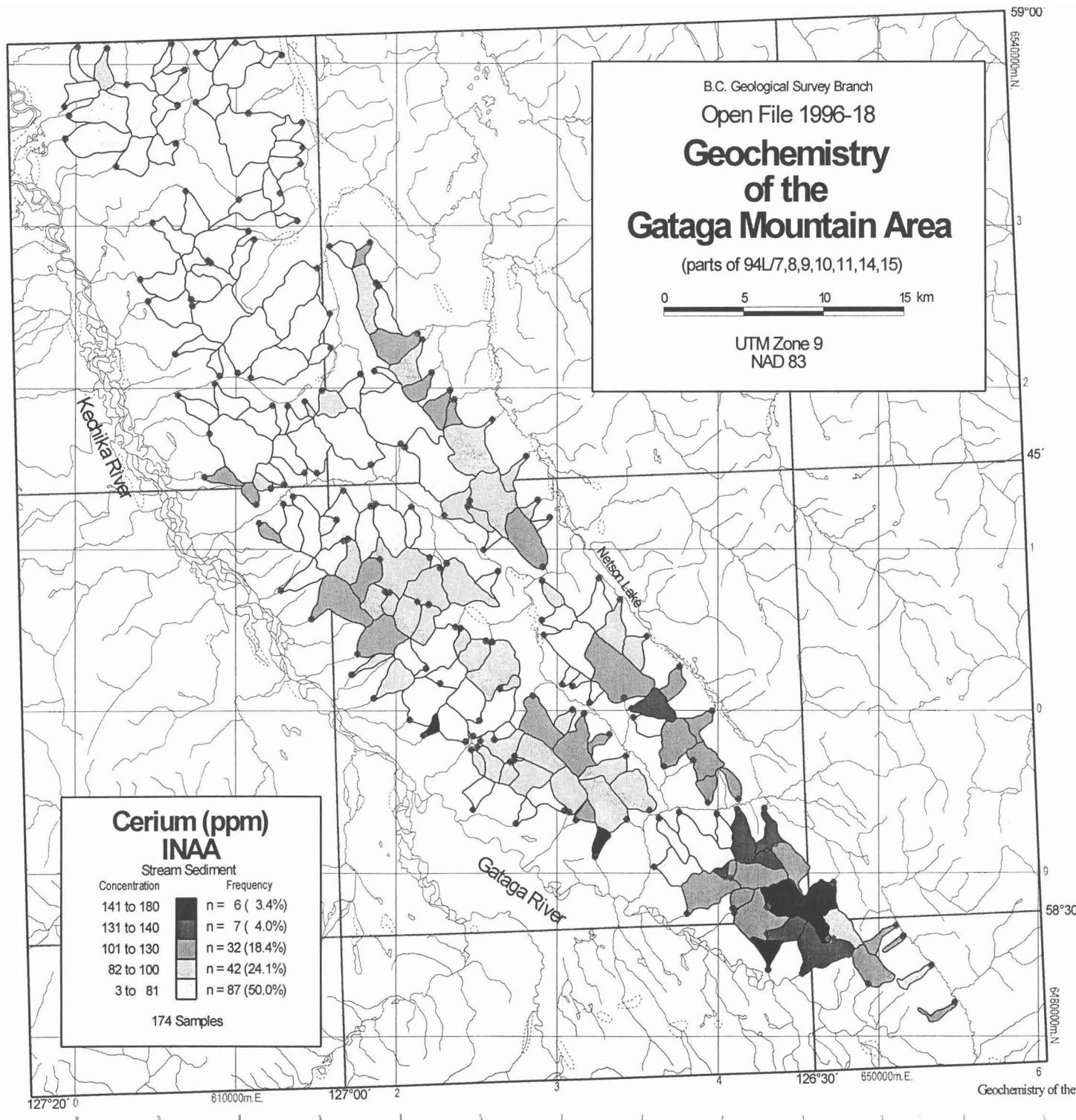
Stream Sediment

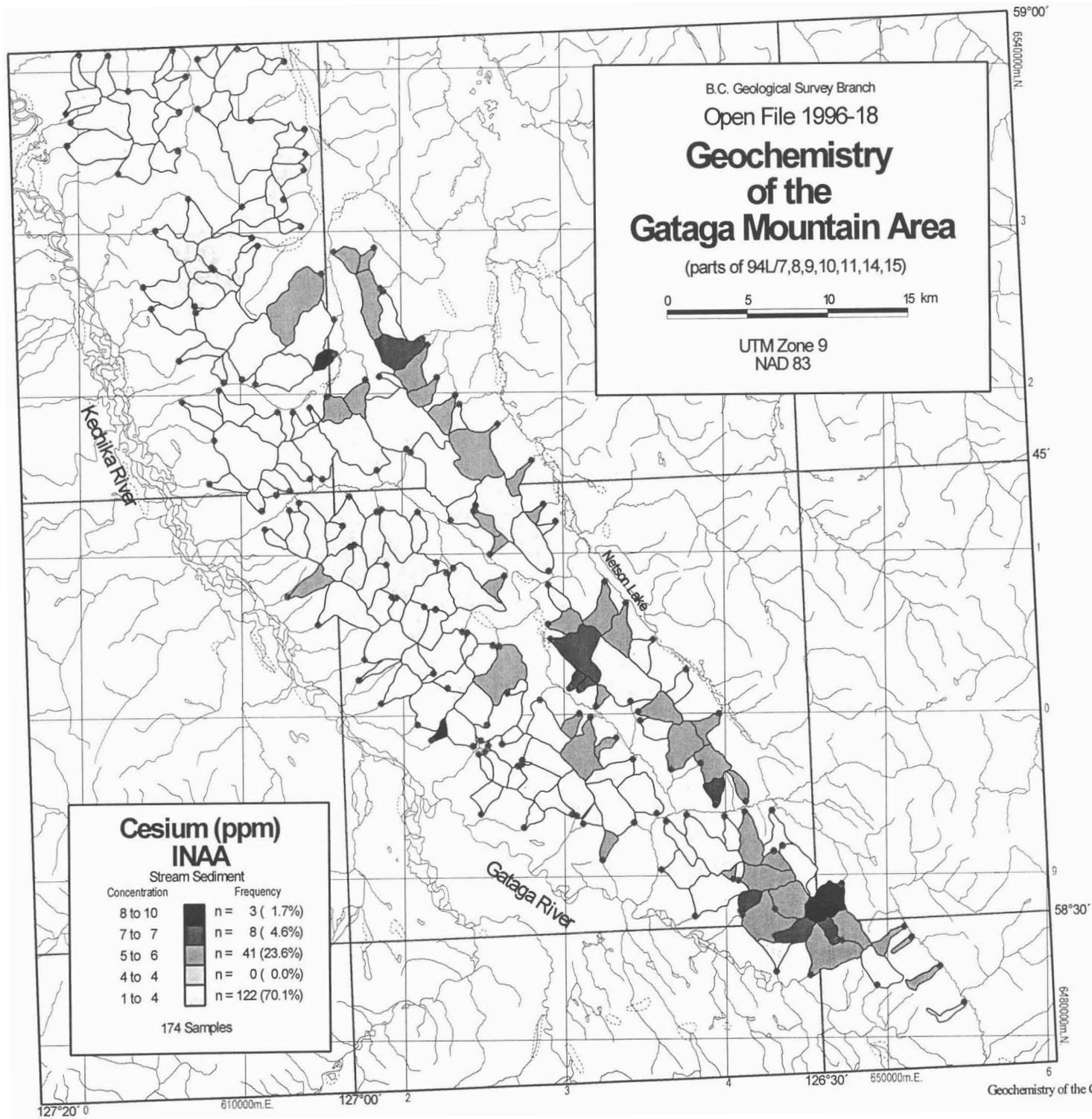
Concentration	Frequency
35.1 to 82.0	n = 9 (5.2%)
24.1 to 35.0	n = 8 (4.6%)
11.1 to 24.0	n = 34 (19.5%)
7.3 to 11.0	n = 36 (20.7%)
0.5 to 7.2	n = 87 (50.0%)

174 Samples

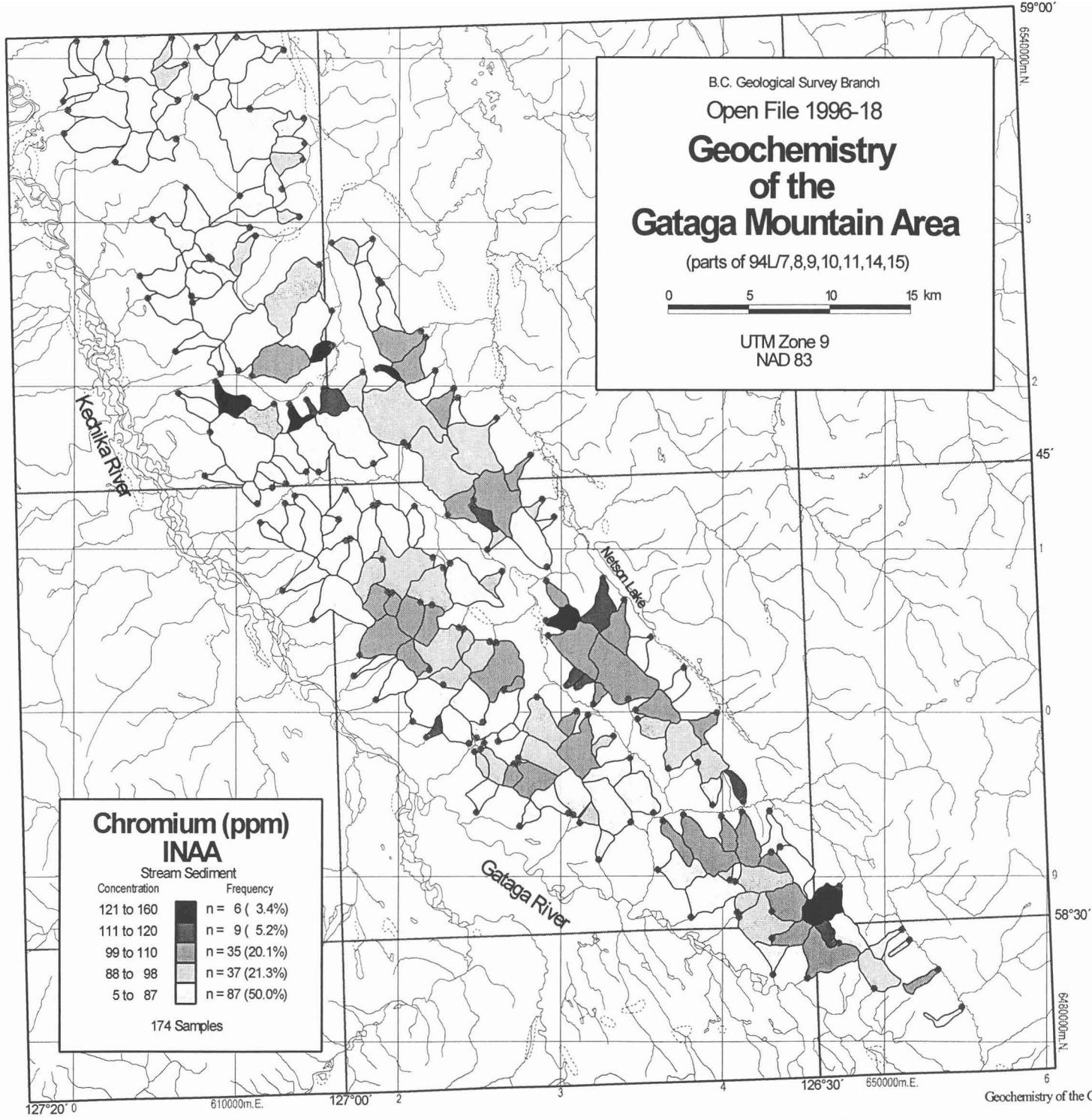


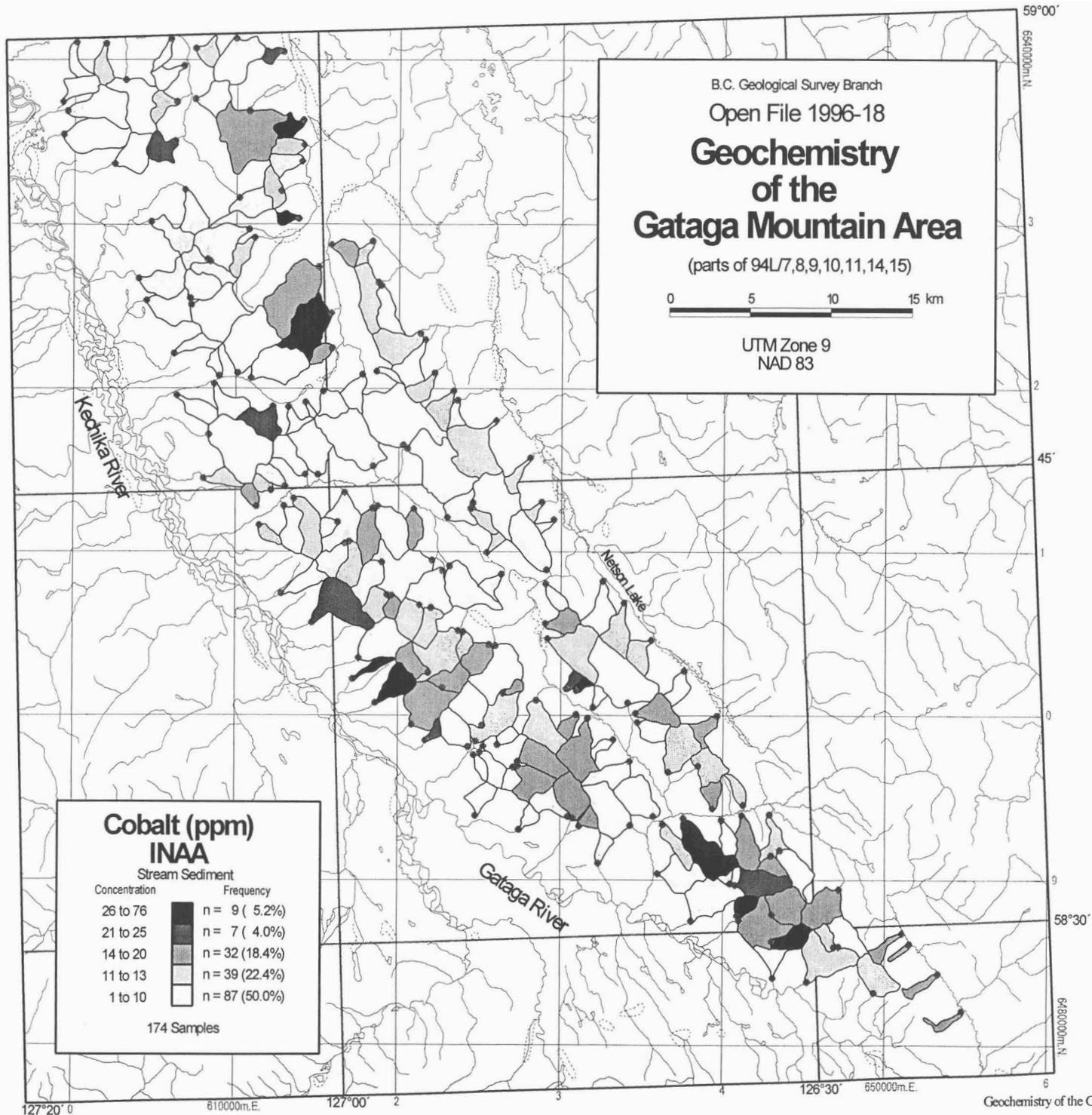
Br



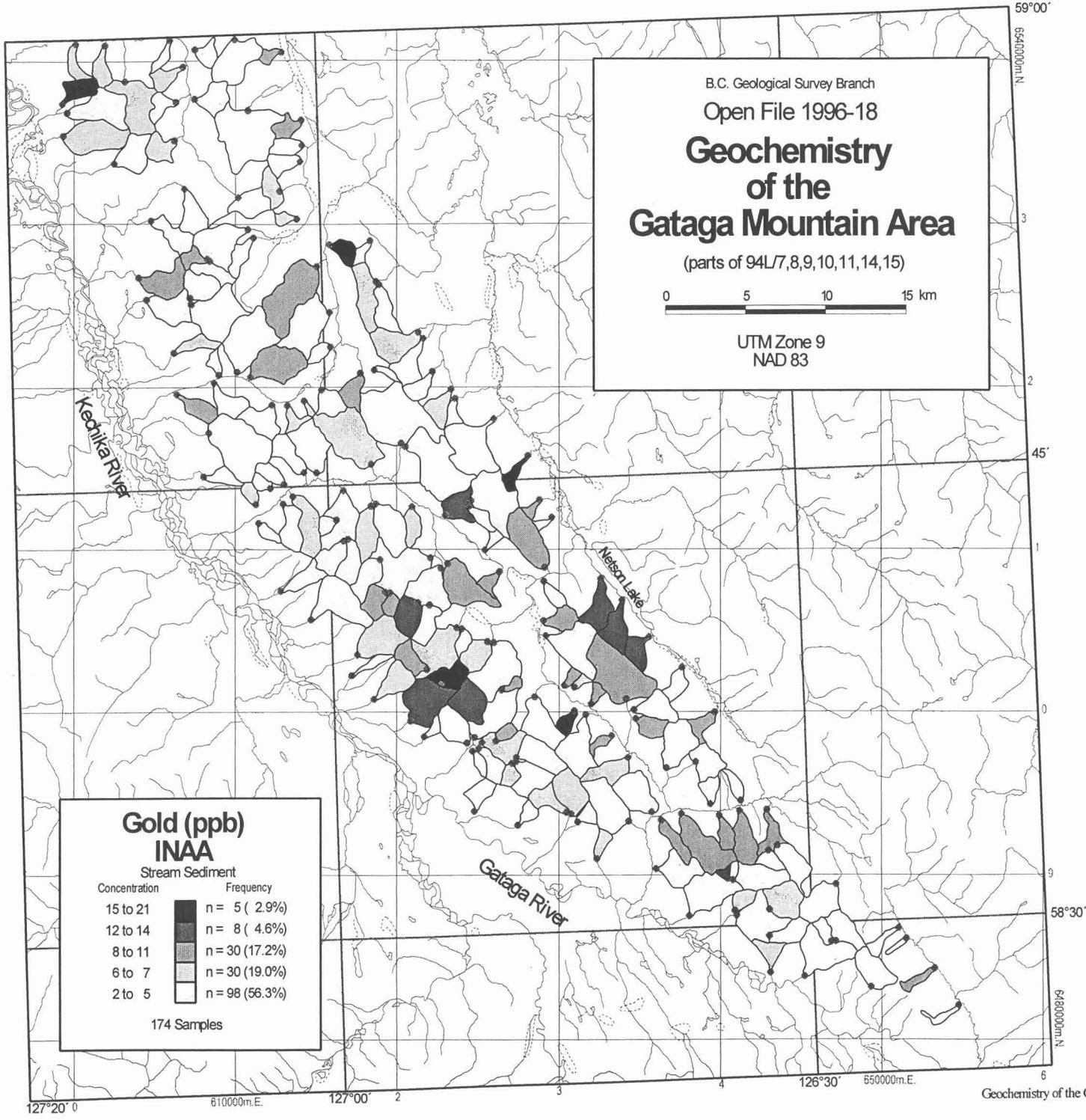


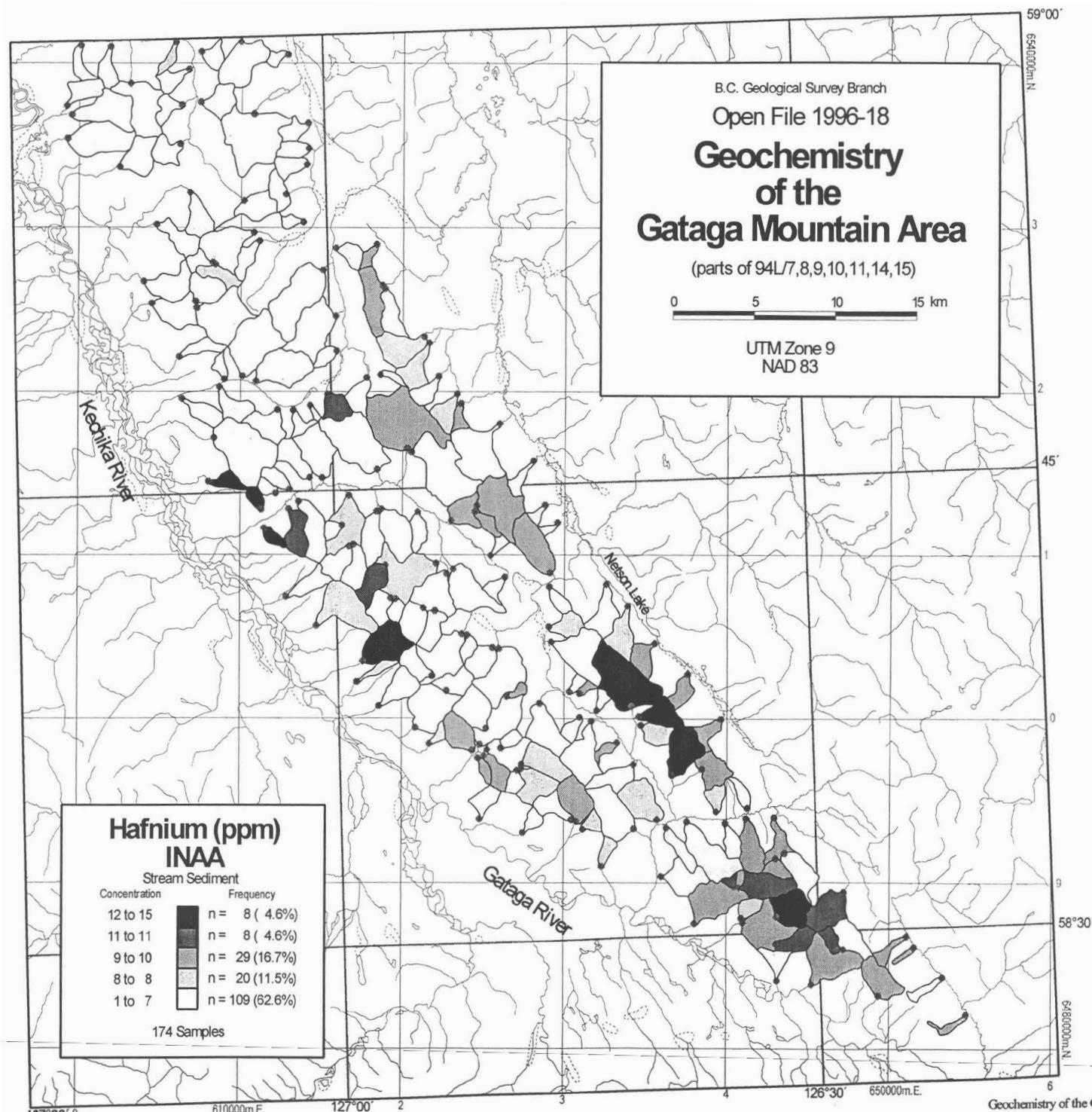
Cs

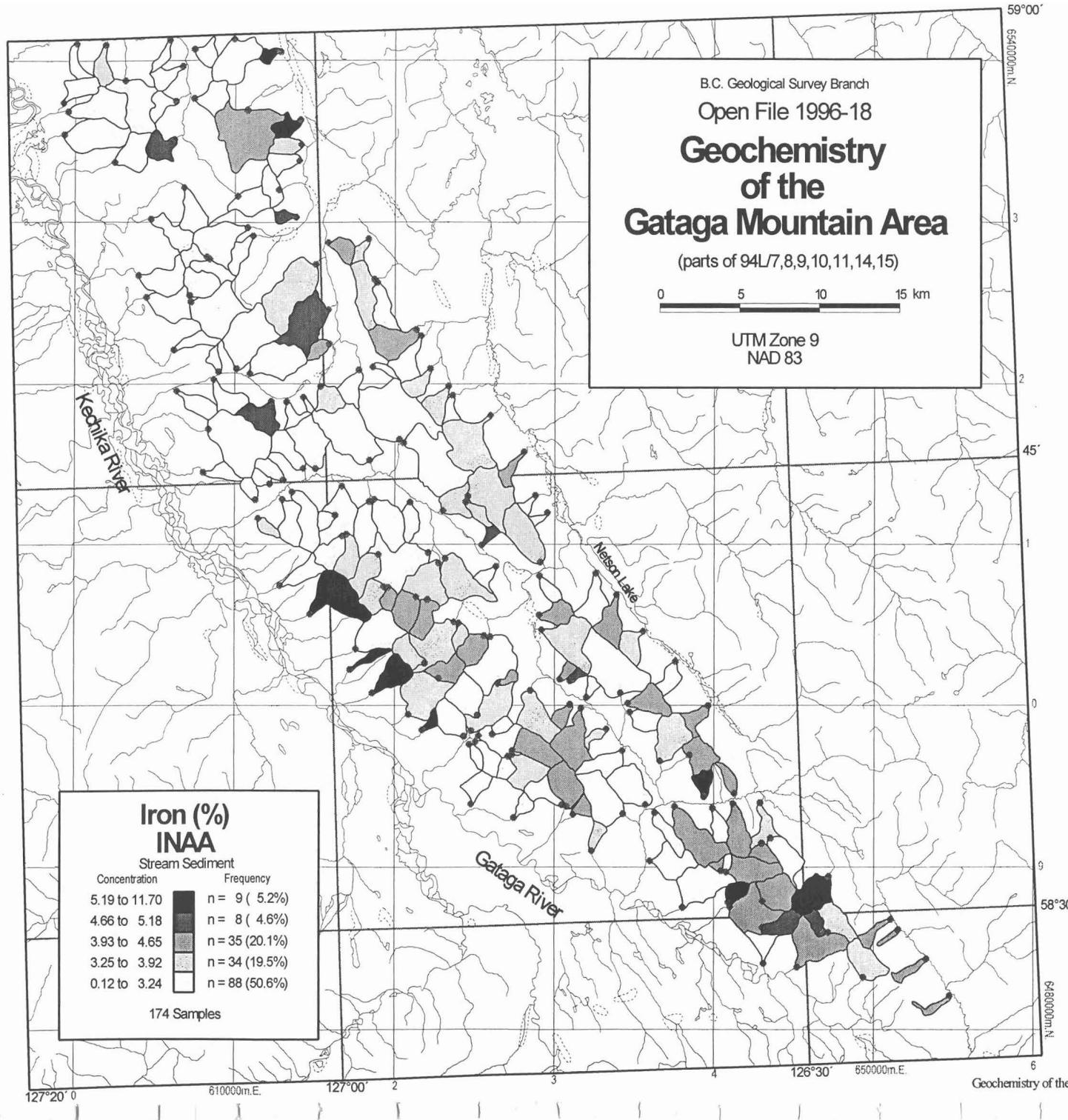




Co







B.C. Geological Survey Branch

Open File 1996-18

Geochemistry of the Gataga Mountain Area

(parts of 94L/7,8,9,10,11,14,15)

0 5 10 15 km

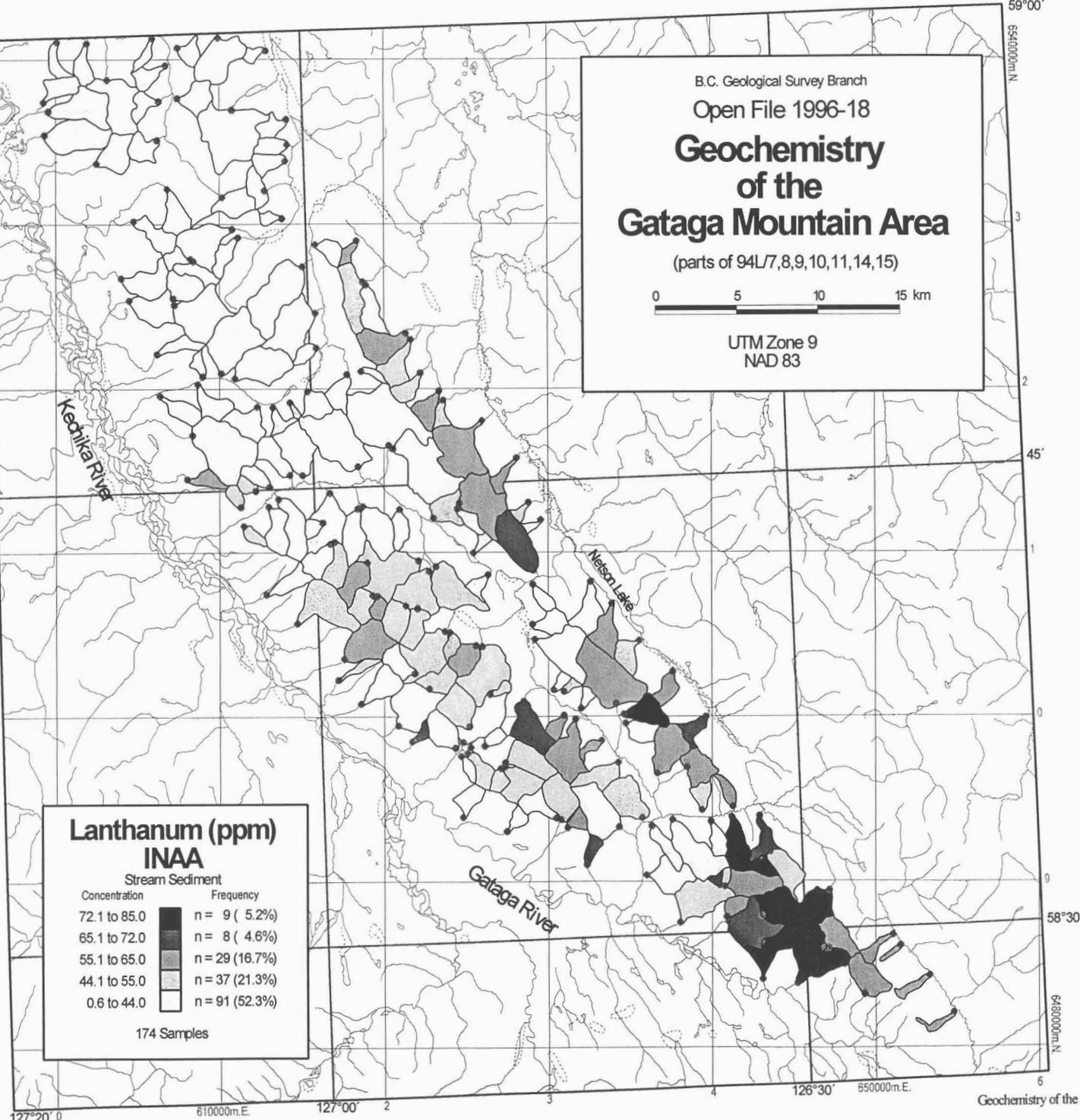
UTM Zone 9
NAD 83

Lanthanum (ppm) INAA

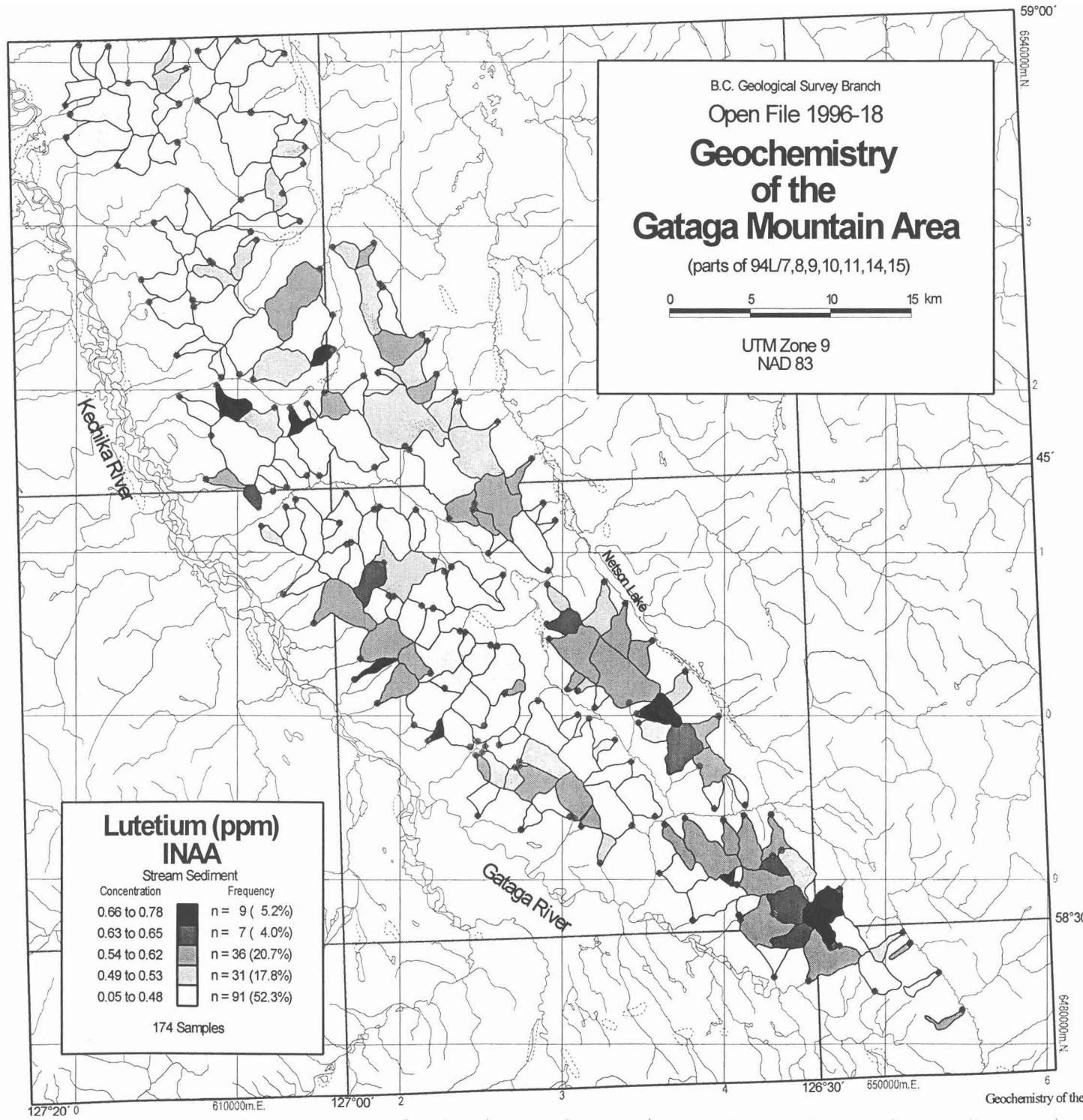
Stream Sediment

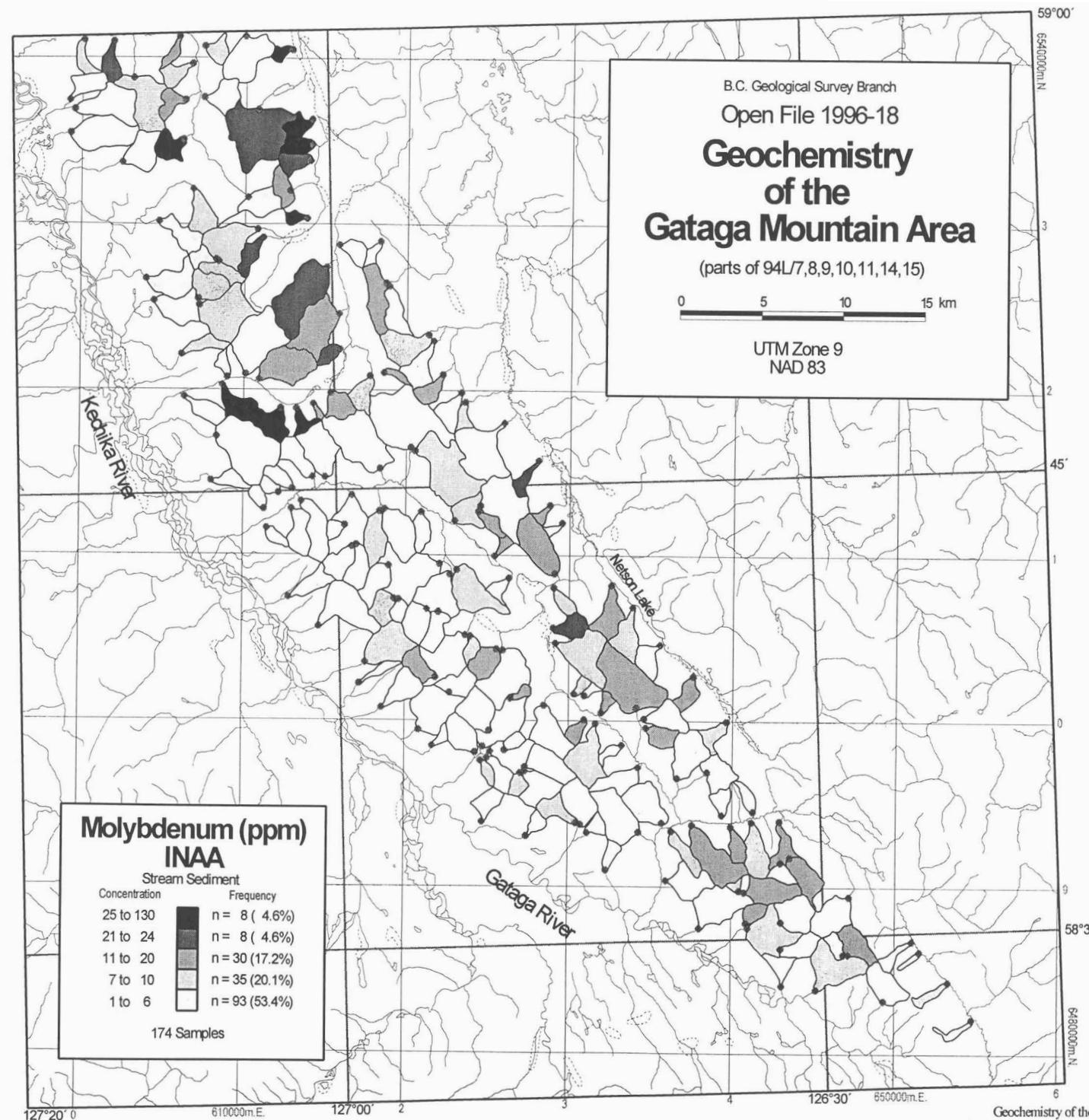
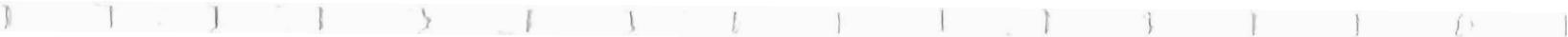
Concentration	Frequency
72.1 to 85.0	n = 9 (5.2%)
65.1 to 72.0	n = 8 (4.6%)
55.1 to 65.0	n = 29 (16.7%)
44.1 to 55.0	n = 37 (21.3%)
0.6 to 44.0	n = 91 (52.3%)

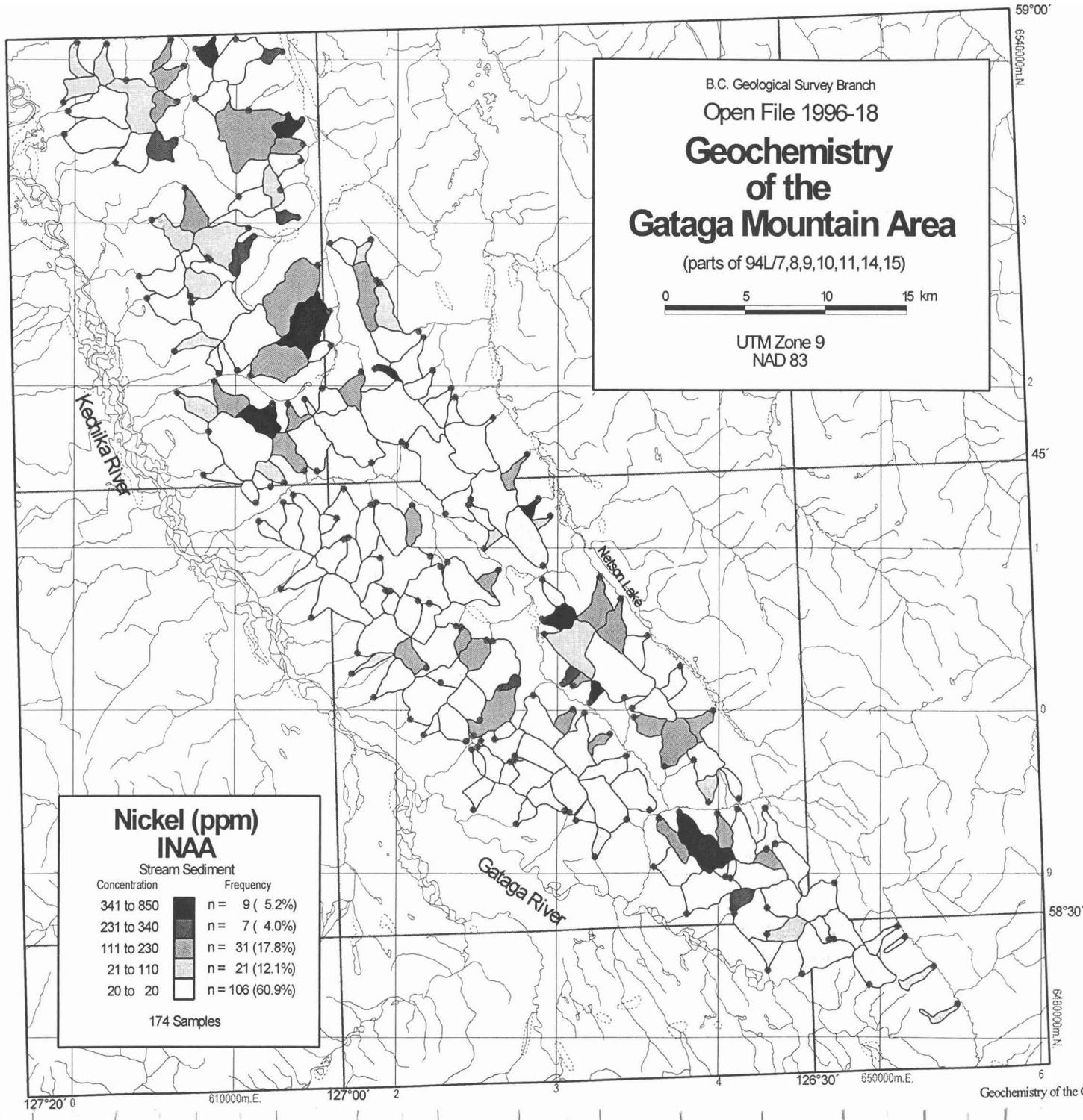
174 Samples

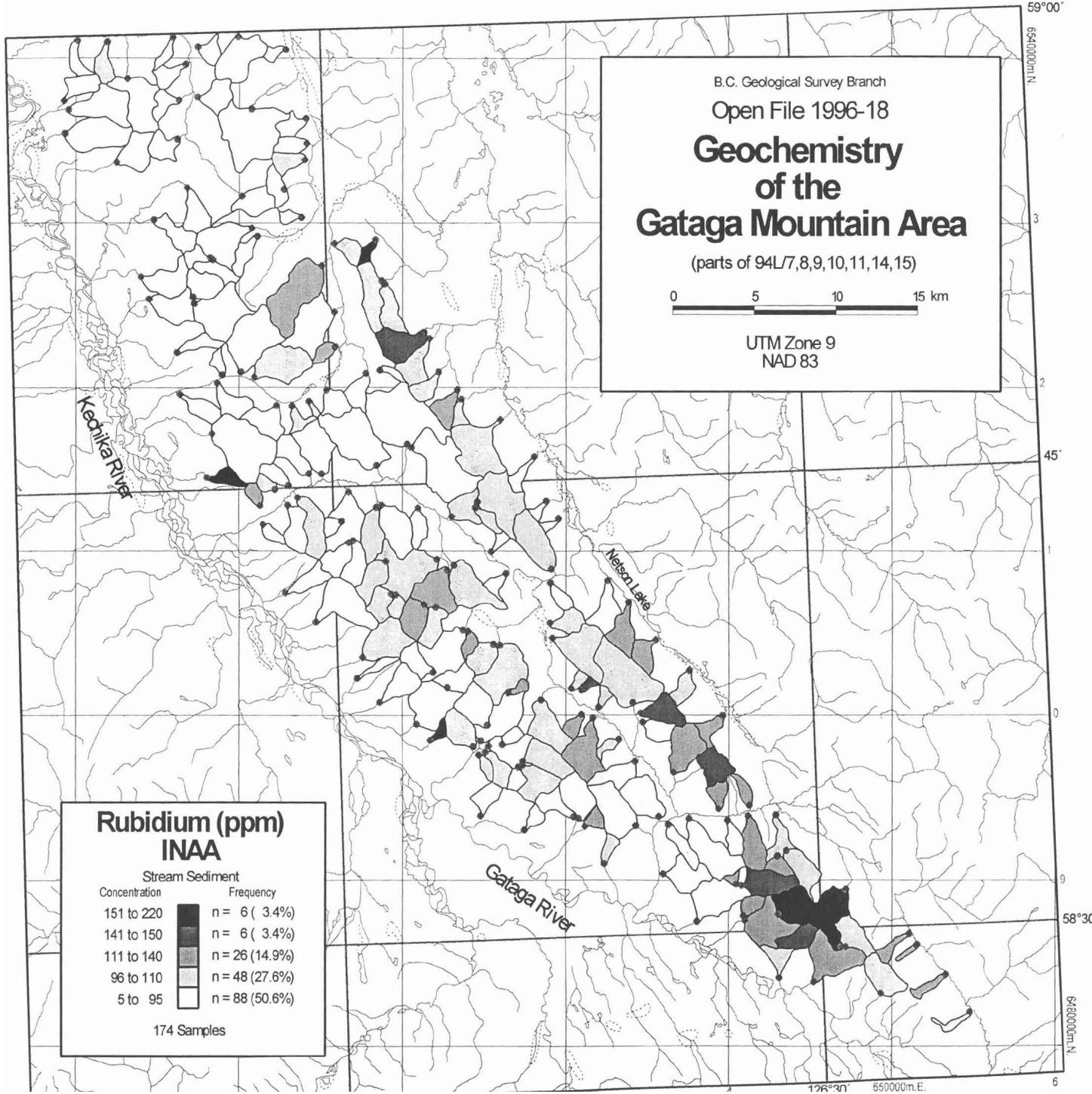


La

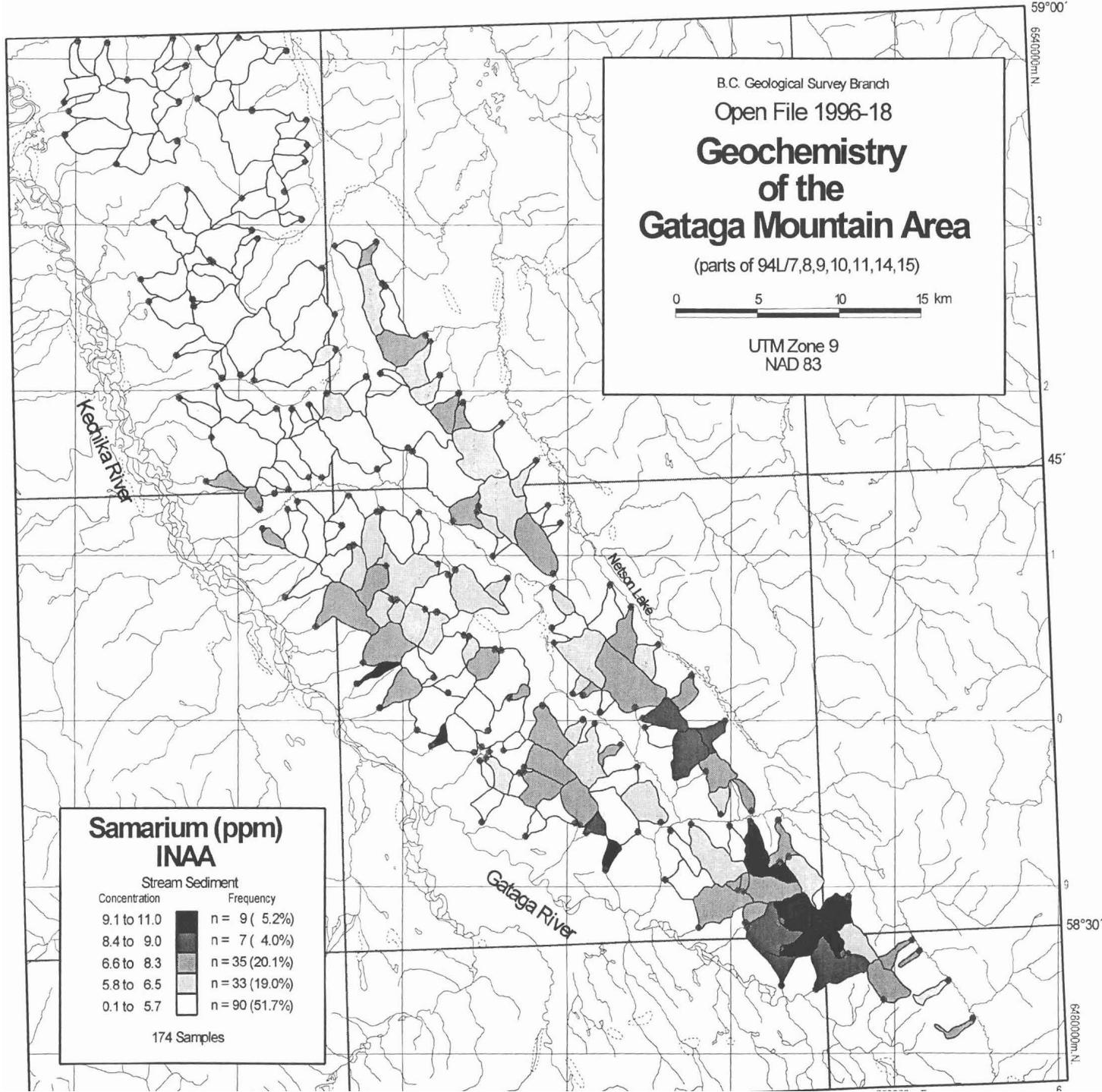








Rb



B.C. Geological Survey Branch
Open File 1996-18

Geochemistry of the Gataga Mountain Area

(parts of 94L/7,8,9,10,11,14,15)

0 5 10 15 km

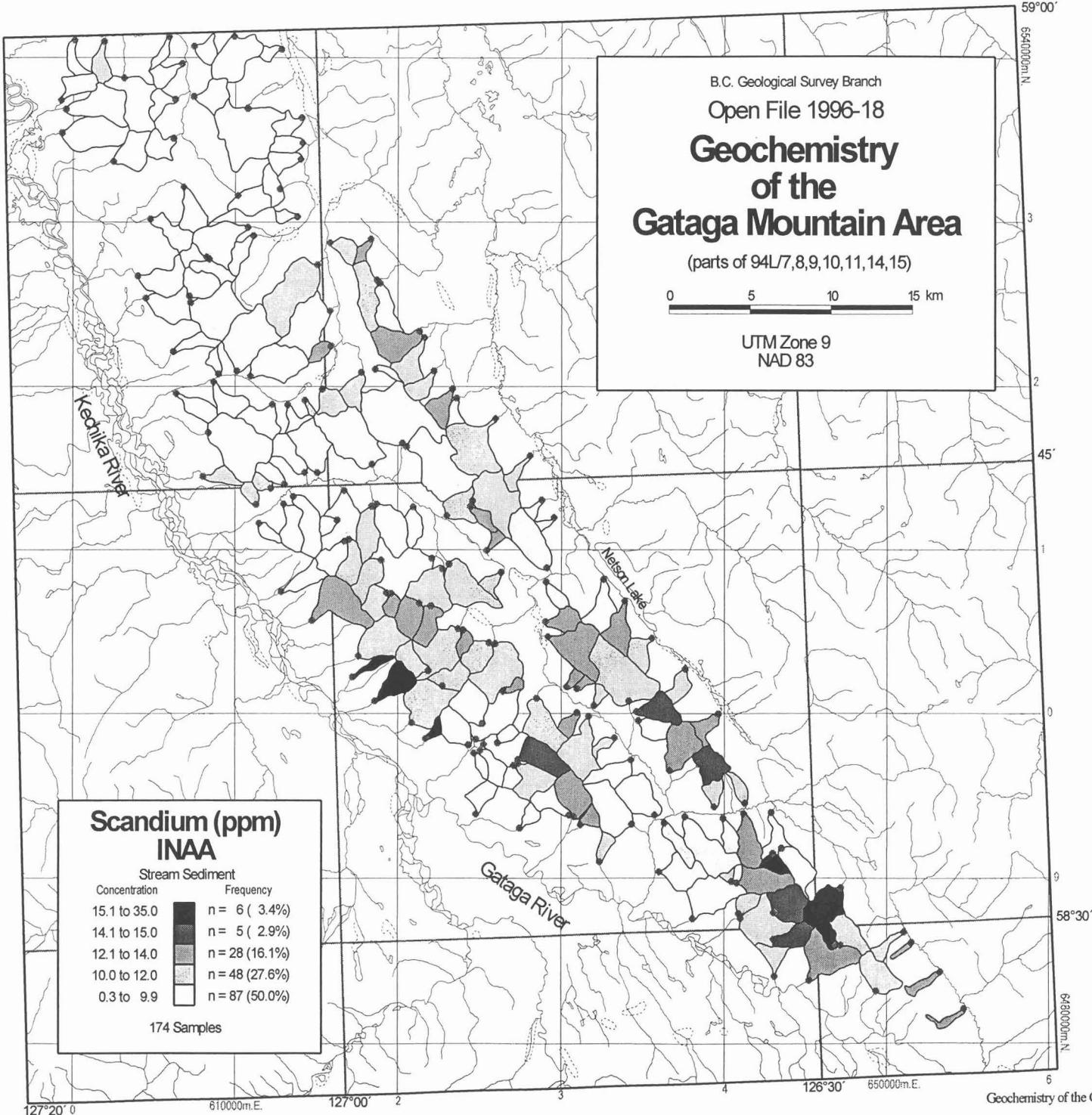
UTM Zone 9
NAD 83

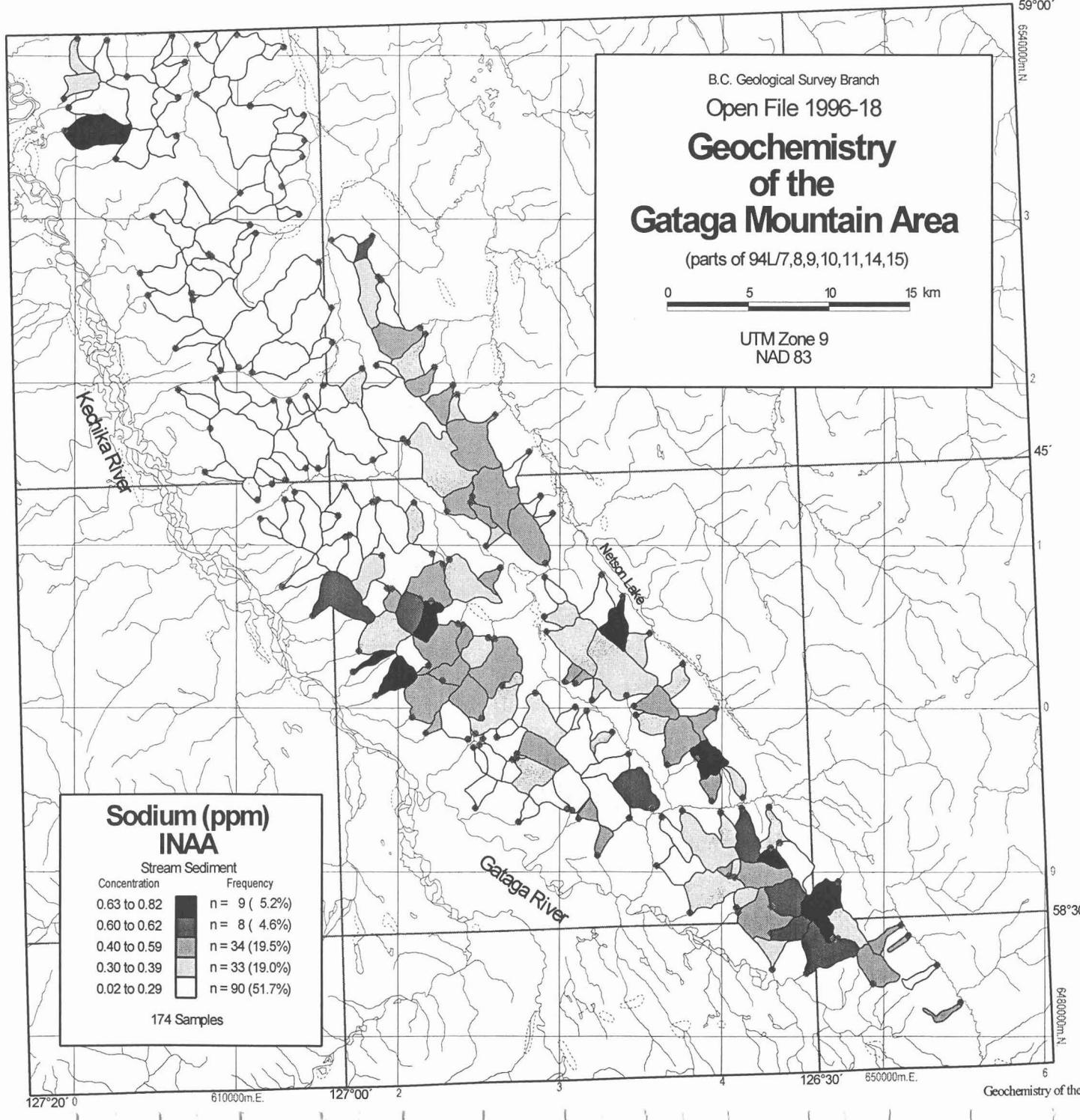
Samarium (ppm) INAA

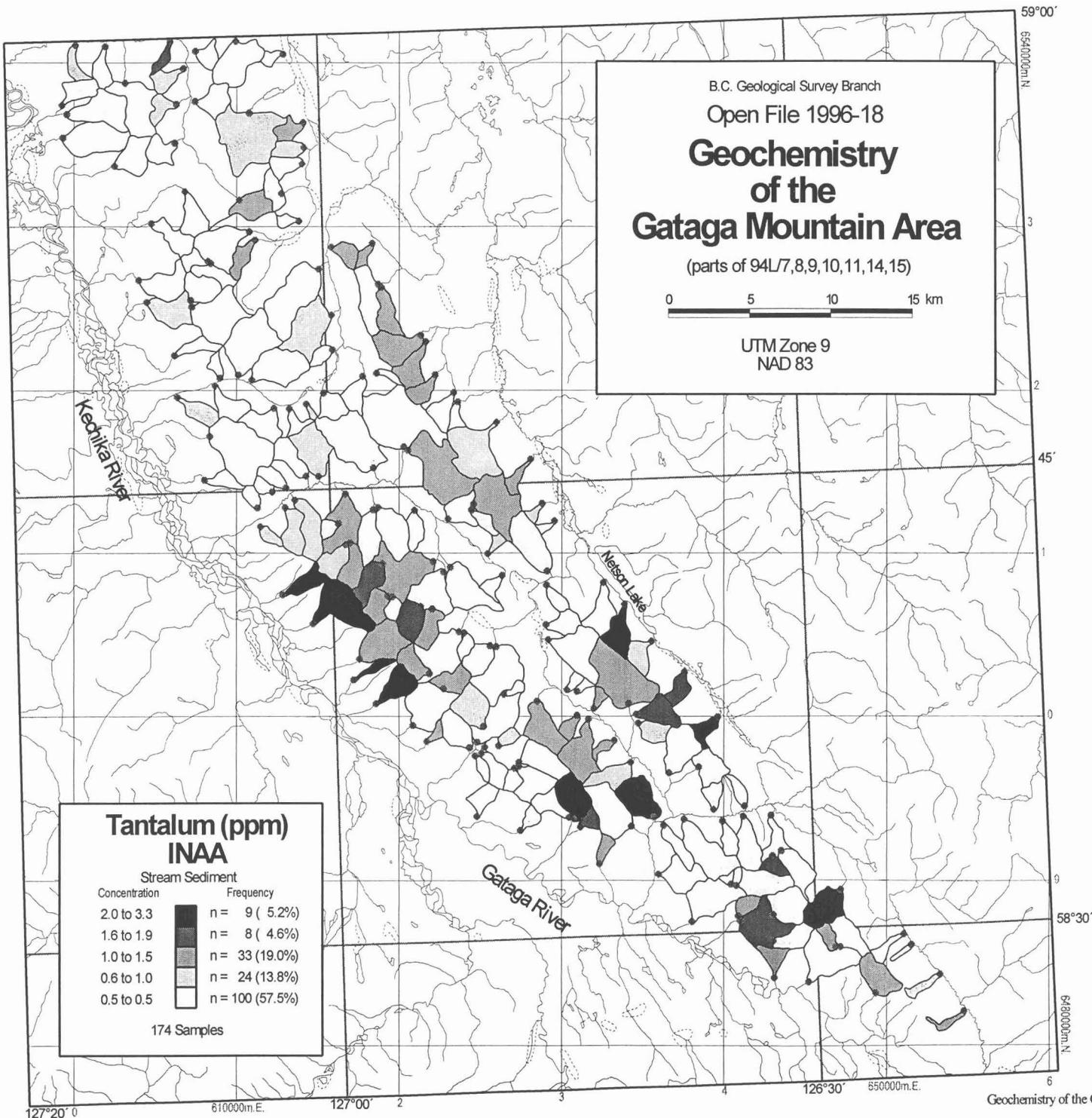
Concentration	Frequency
9.1 to 11.0	n = 9 (5.2%)
8.4 to 9.0	n = 7 (4.0%)
6.6 to 8.3	n = 35 (20.1%)
5.8 to 6.5	n = 33 (19.0%)
0.1 to 5.7	n = 90 (51.7%)

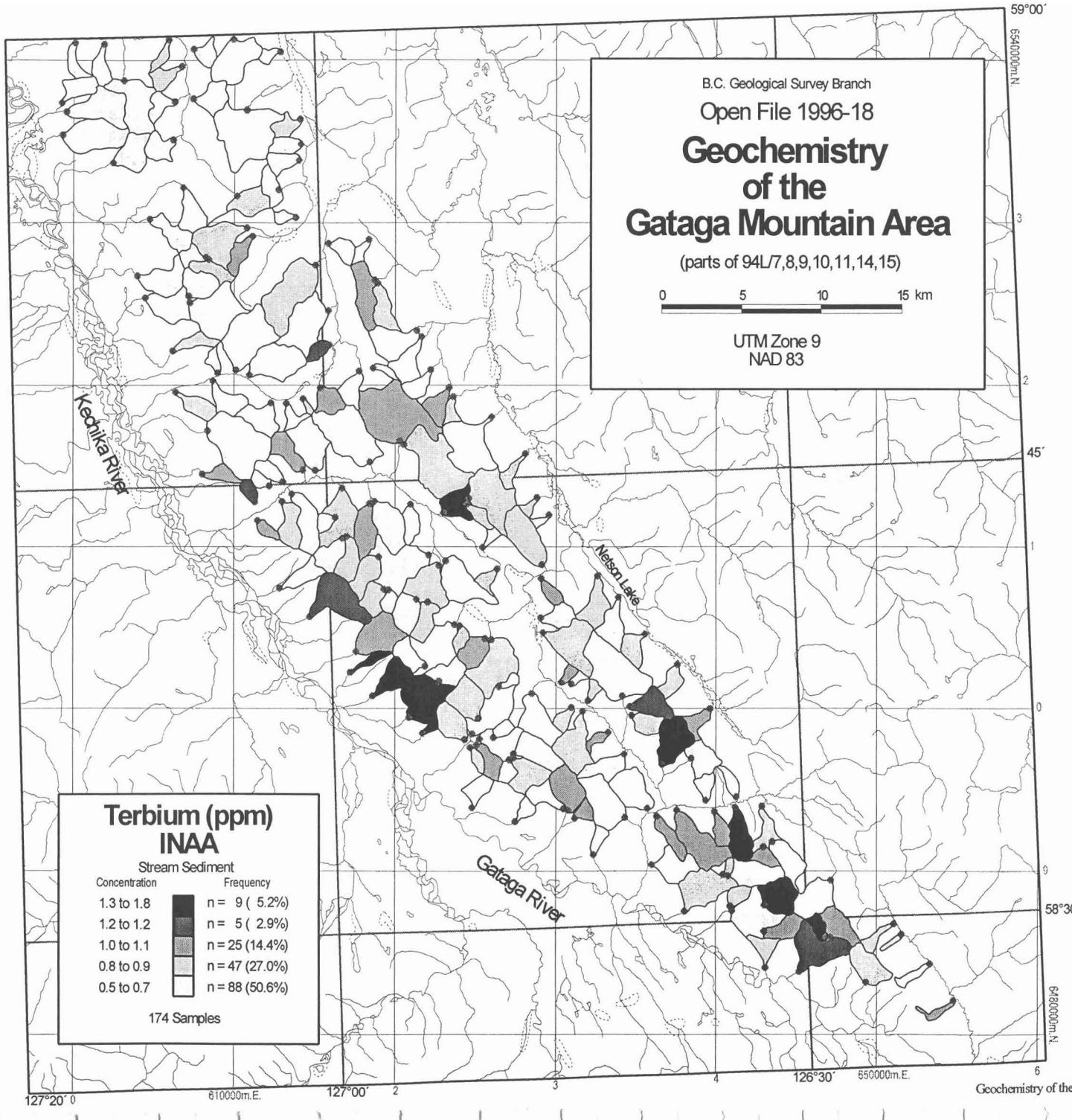
174 Samples

Sm

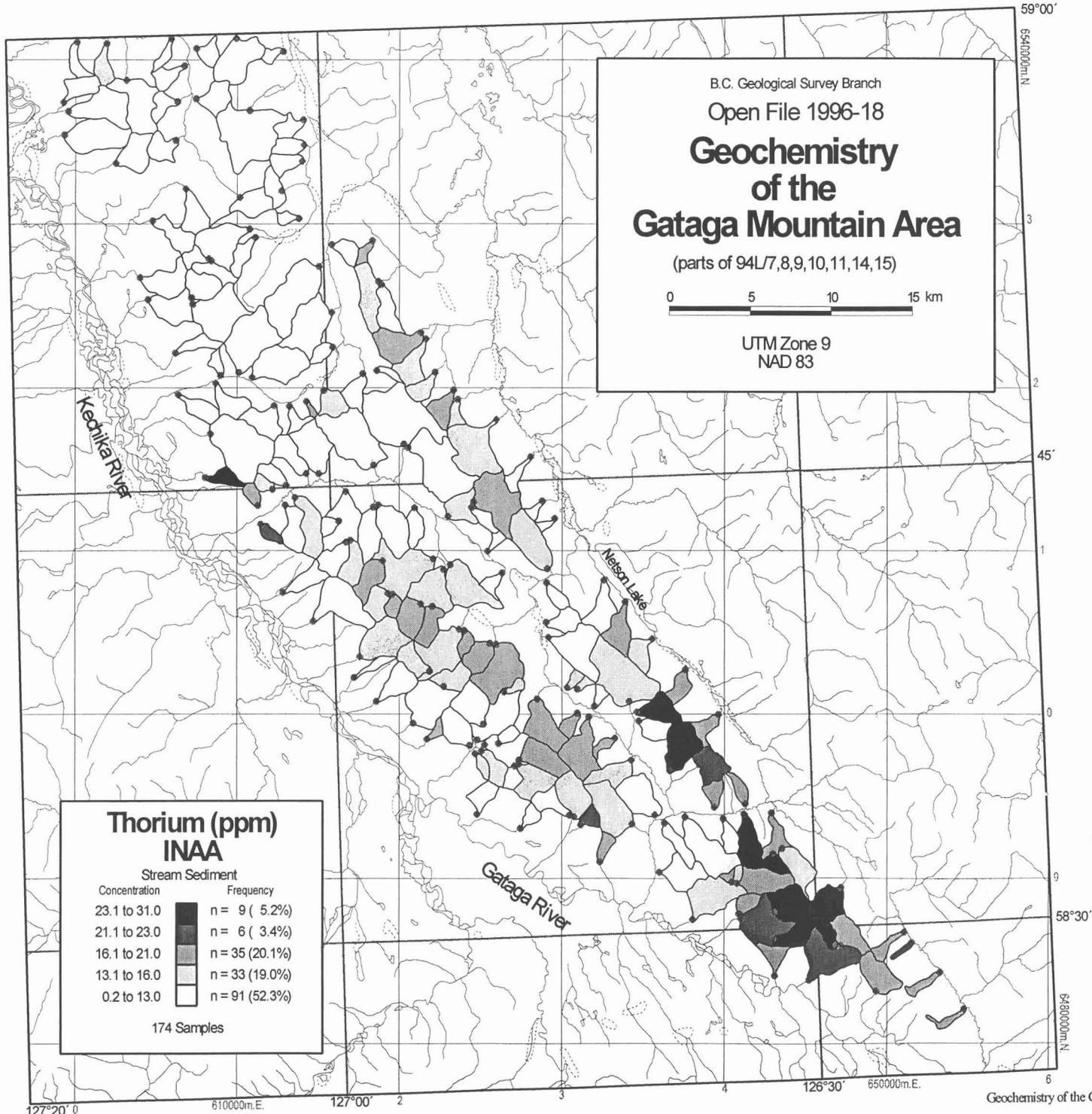








Tb



B.C. Geological Survey Branch
Open File 1996-18
**Geochemistry
of the
Gataga Mountain Area**

(parts of 94L/7,8,9,10,11,14,15)

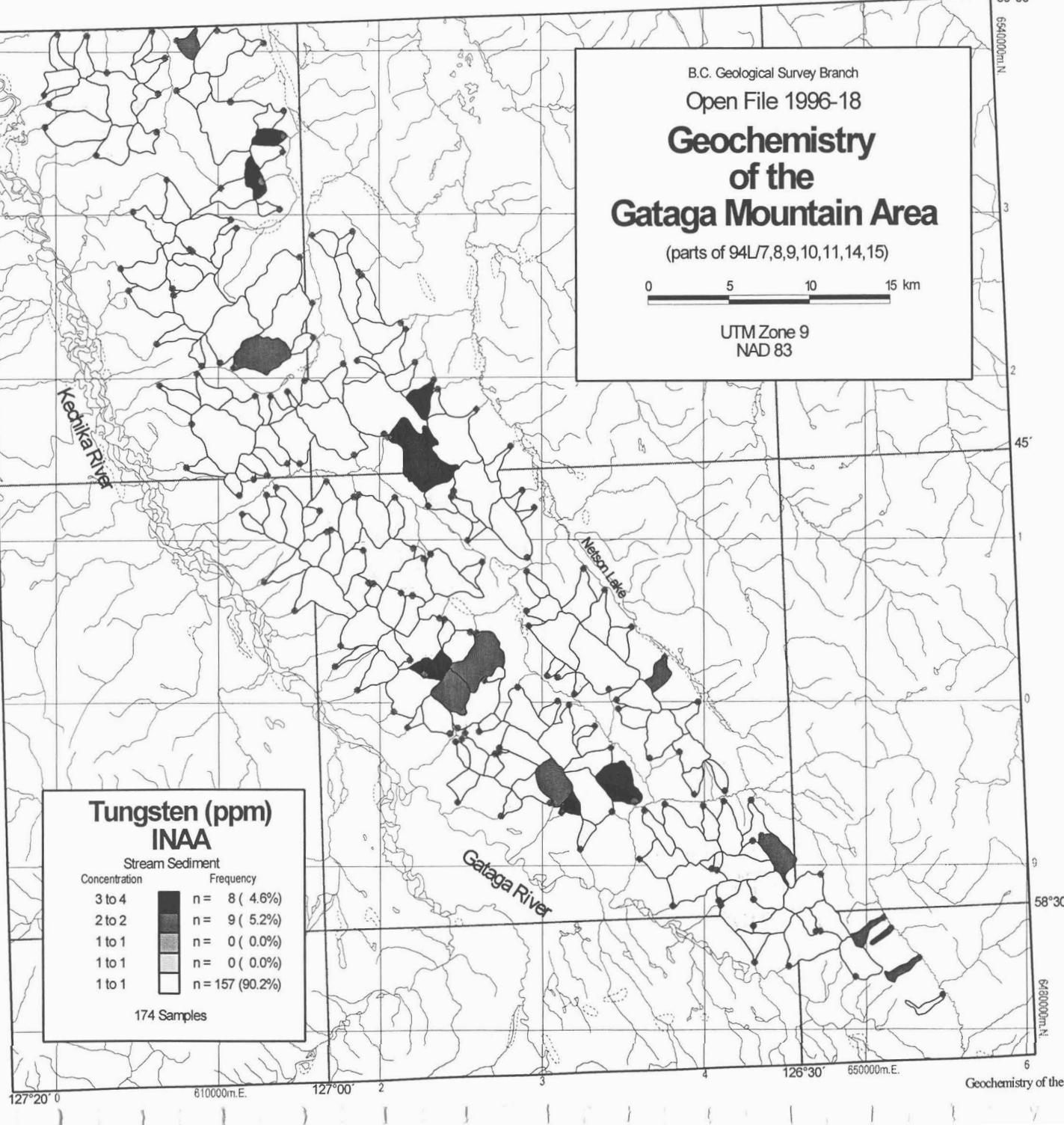
0 5 10 15 km

UTM Zone 9
NAD 83

**Tungsten (ppm)
INAA**

Concentration	Frequency
3 to 4	n = 8 (4.6%)
2 to 2	n = 9 (5.2%)
1 to 1	n = 0 (0.0%)
1 to 1	n = 0 (0.0%)
1 to 1	n = 157 (90.2%)

174 Samples



W

B.C. Geological Survey Branch
Open File 1996-18
**Geochemistry
of the
Gataga Mountain Area**

(parts of 94L/7,8,9,10,11,14,15)

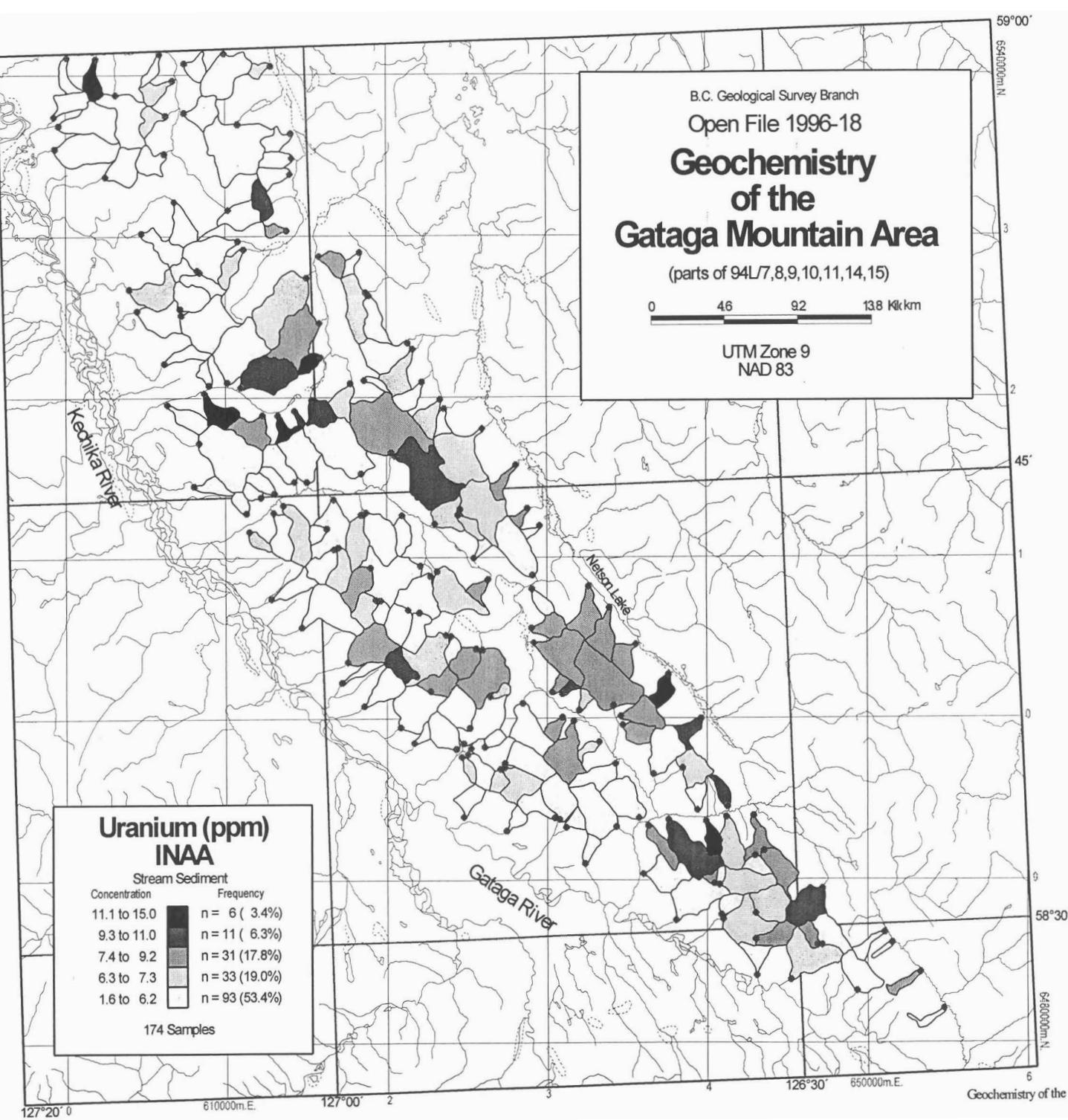
0 46 92 138 Kilometers

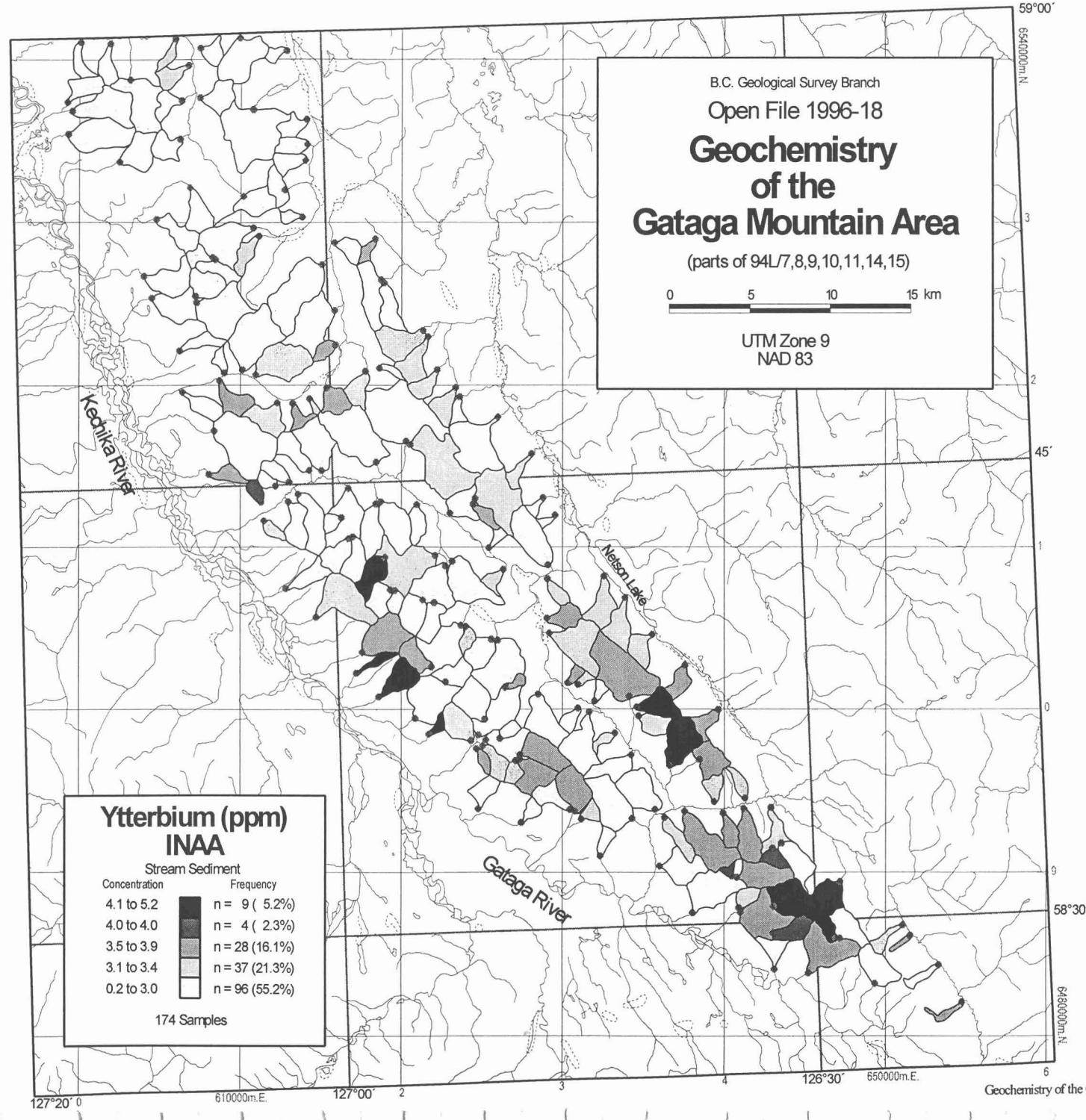
UTM Zone 9
NAD 83

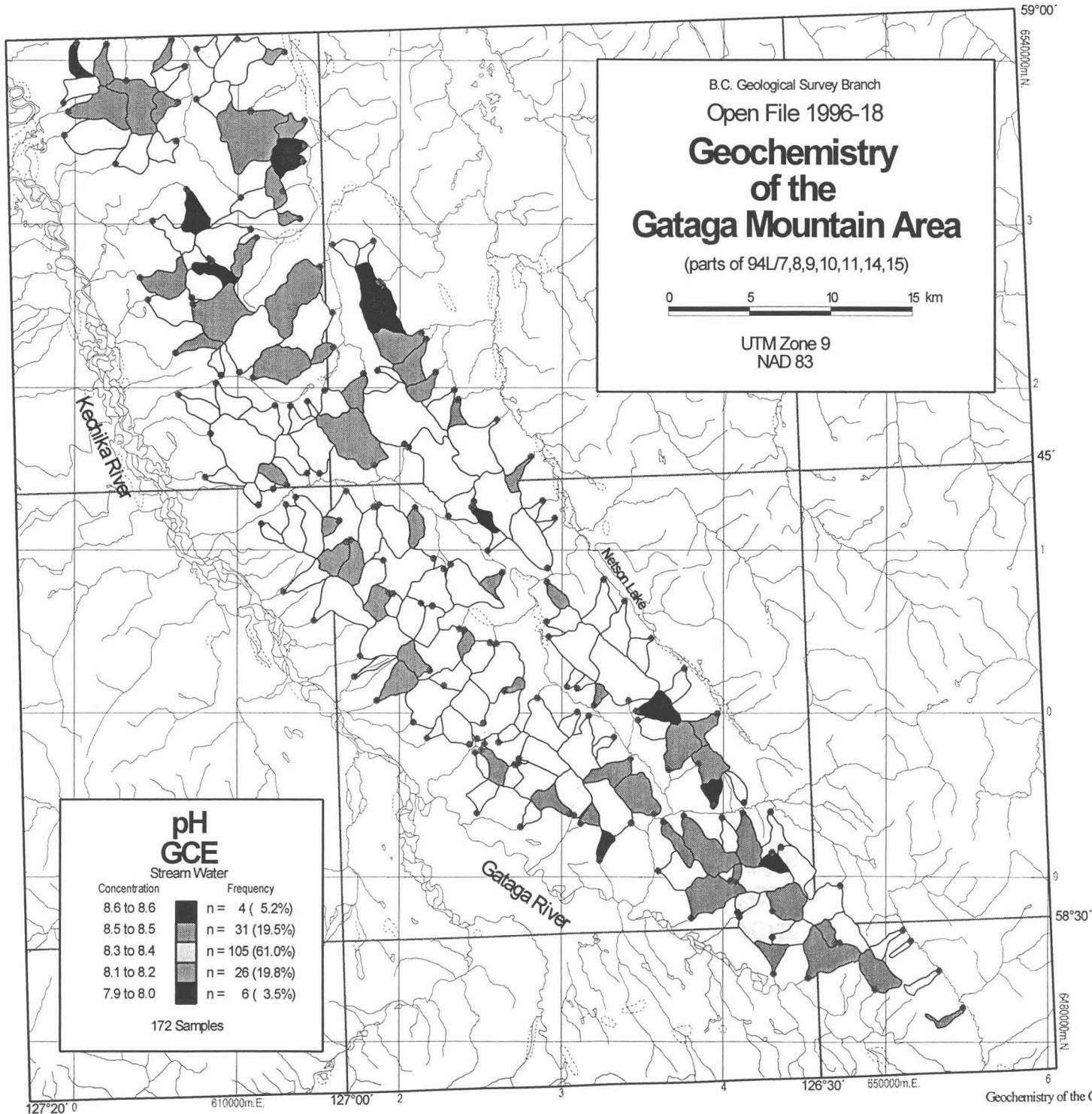
**Uranium (ppm)
INAA**

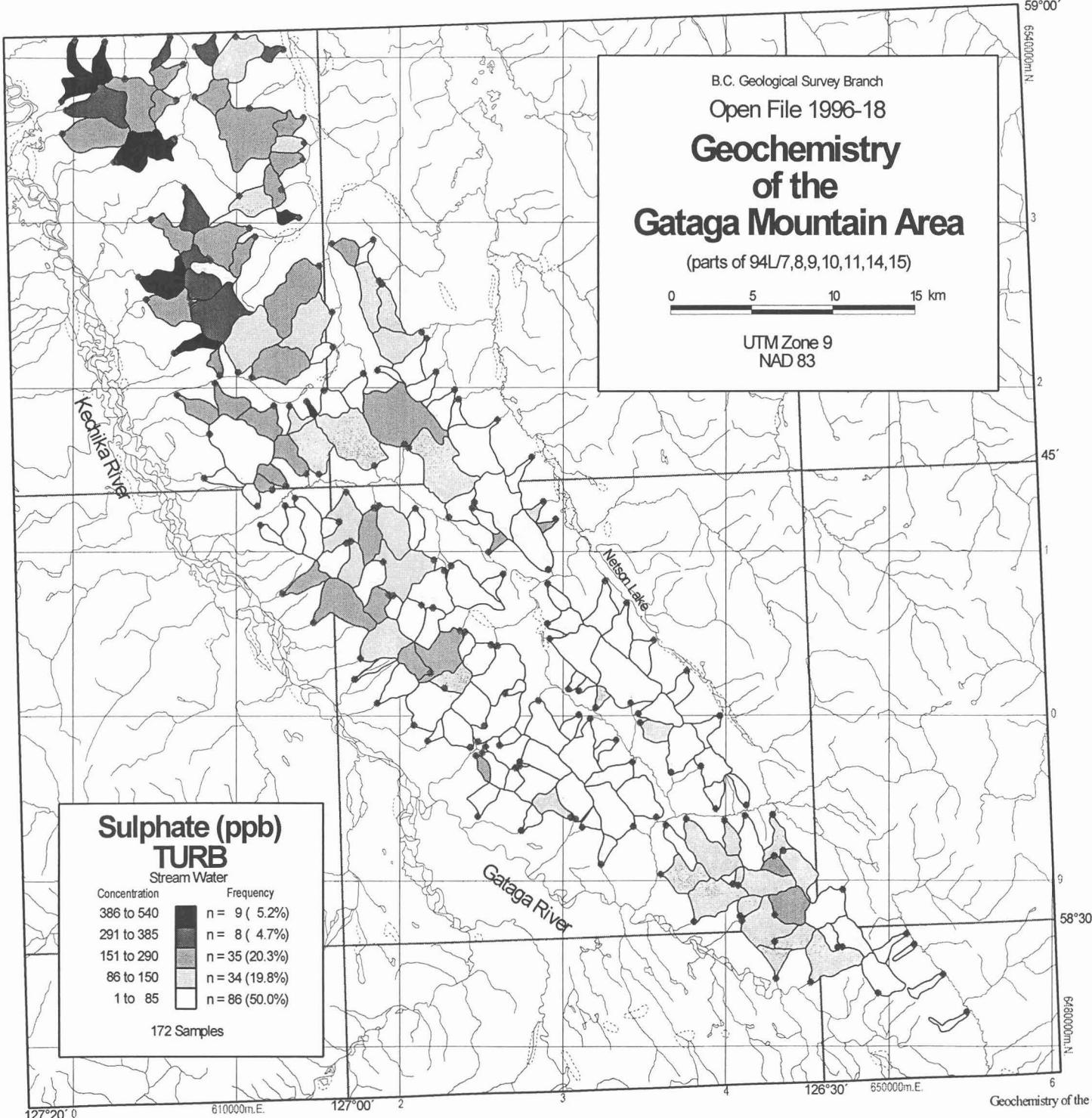
Concentration	Frequency
11.1 to 15.0	n = 6 (3.4%)
9.3 to 11.0	n = 11 (6.3%)
7.4 to 9.2	n = 31 (17.8%)
6.3 to 7.3	n = 33 (19.0%)
1.6 to 6.2	n = 93 (53.4%)

174 Samples

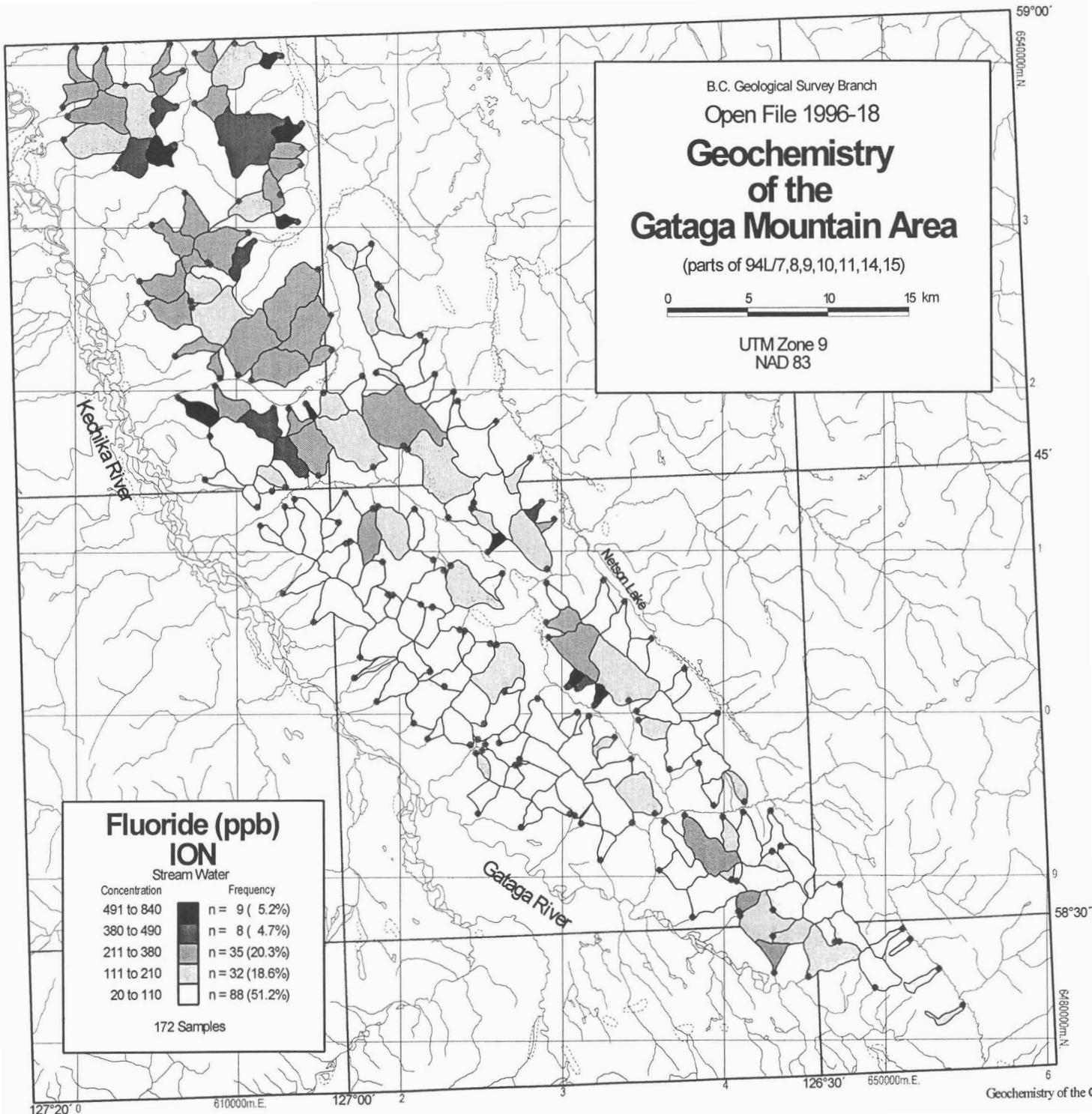








so4



B.C. Geological Survey Branch
Open File 1996-18
**Geochemistry
of the
Gataga Mountain Area**

(parts of 94L/7,8,9,10,11,14,15)

0 5 10 15 km

UTM Zone 9
NAD 83

Kedika River

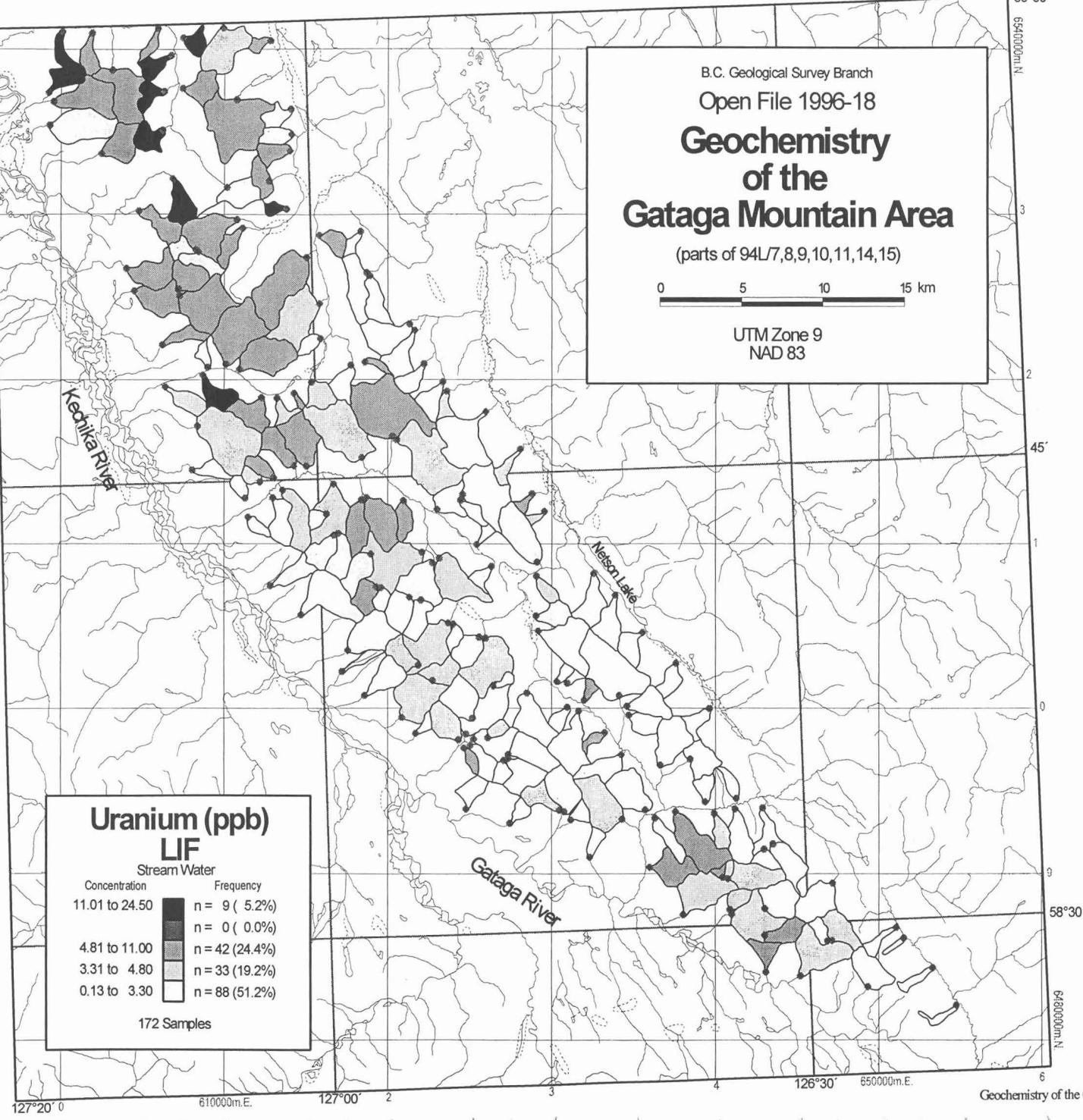
Nelson Lake

Gataga River

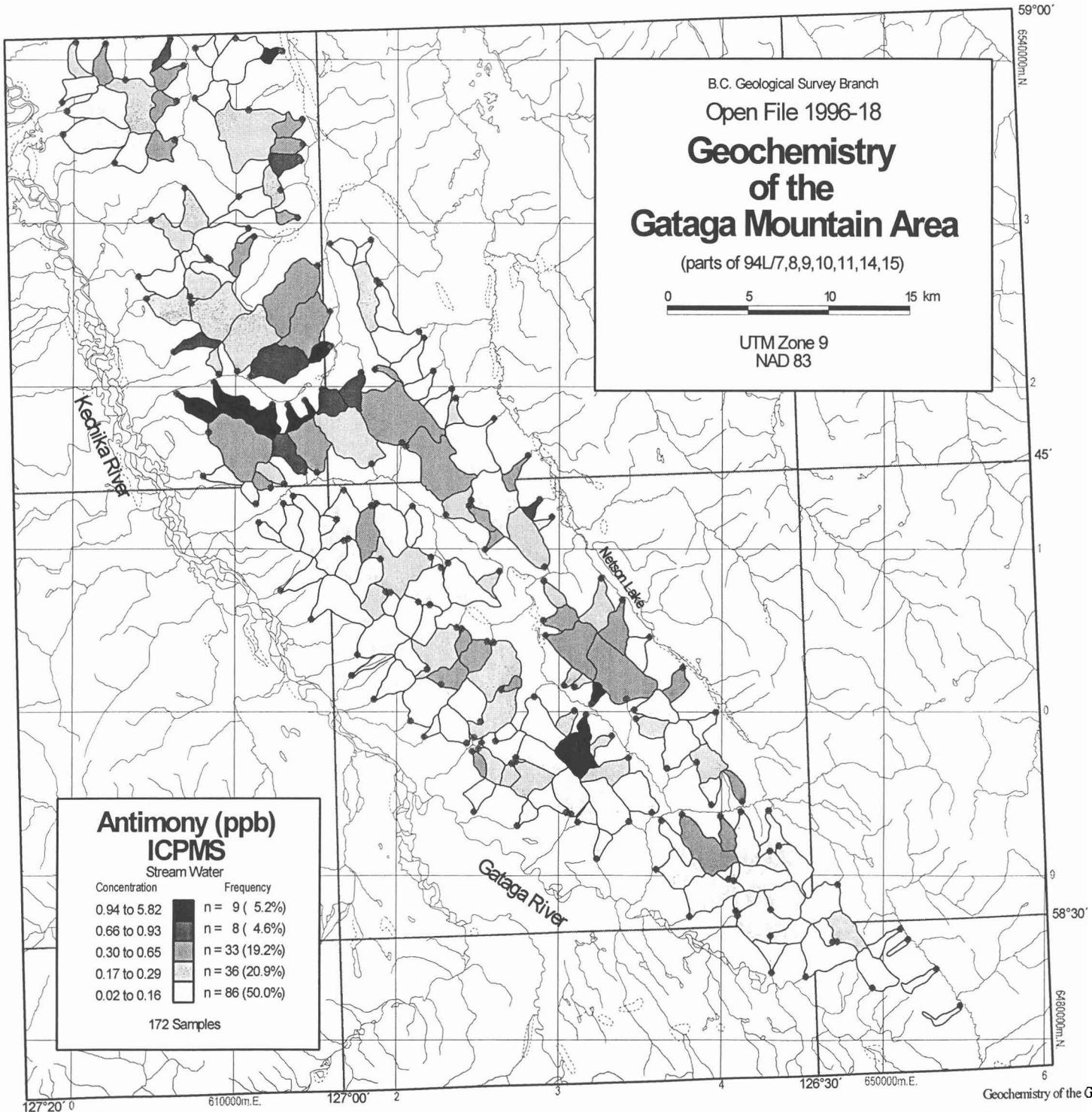
**Uranium (ppb)
LIF**

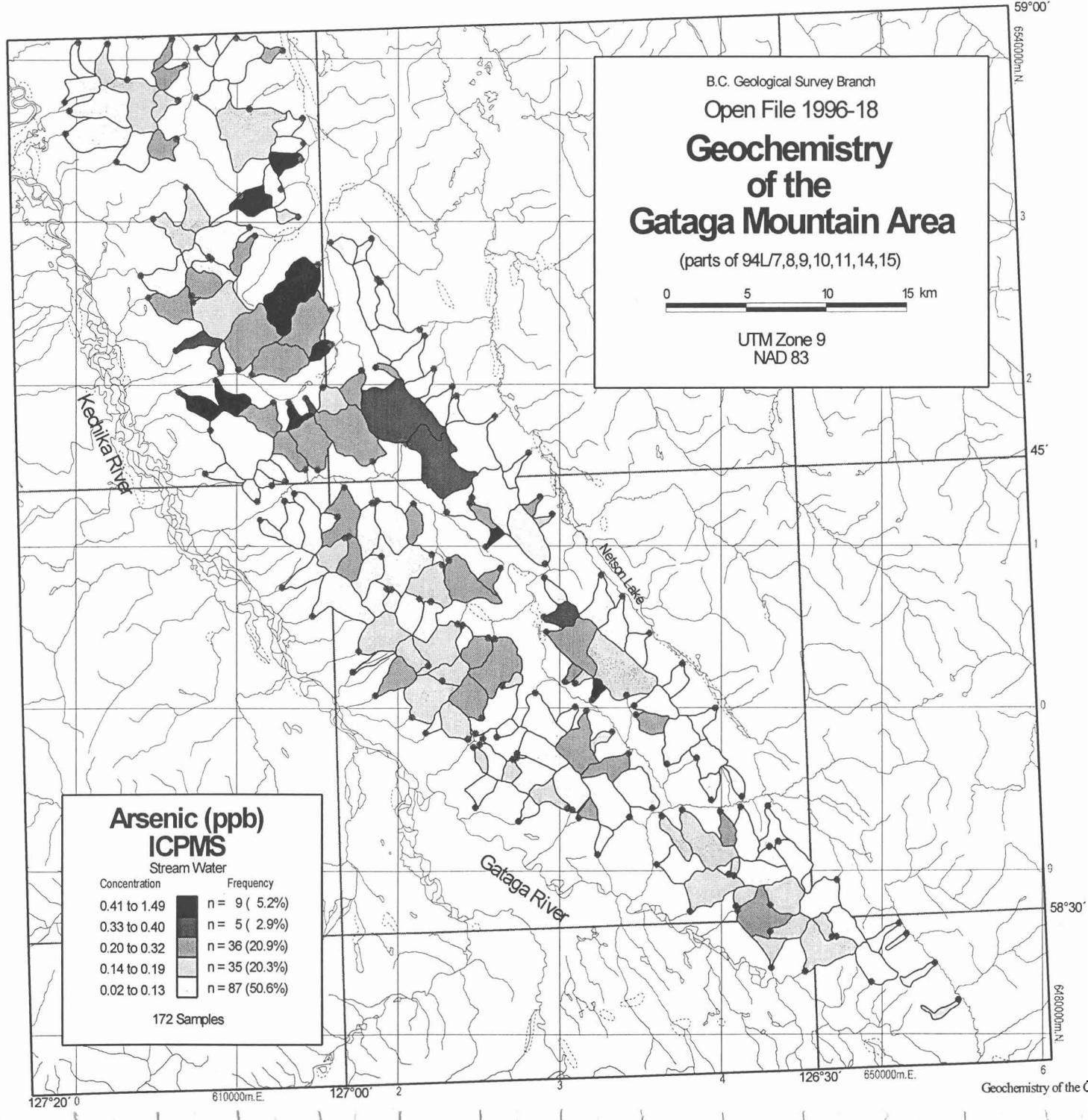
Concentration	Frequency
11.01 to 24.50	n = 9 (5.2%)
	n = 0 (0.0%)
4.81 to 11.00	n = 42 (24.4%)
3.31 to 4.80	n = 33 (19.2%)
0.13 to 3.30	n = 88 (51.2%)

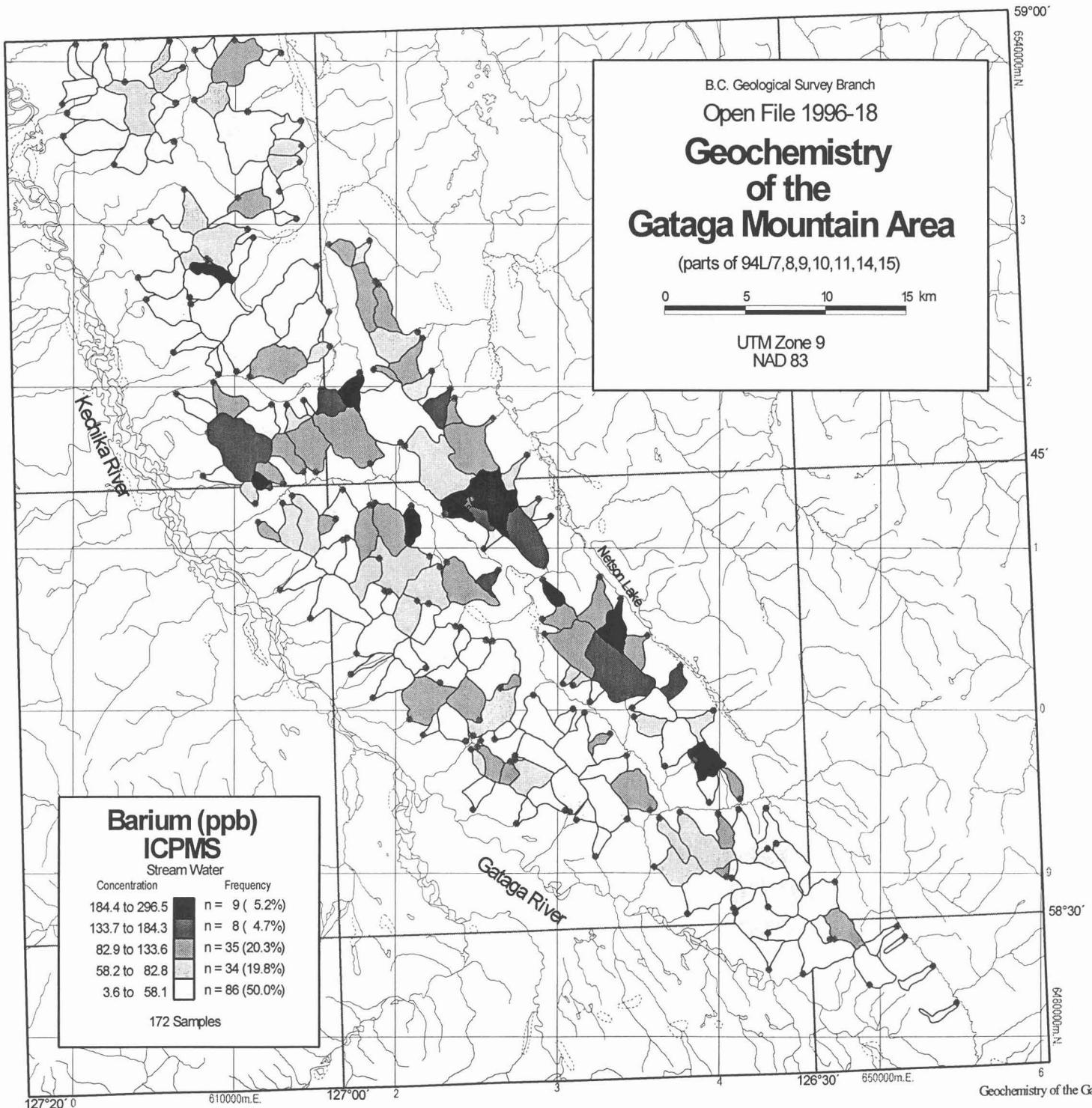
172 Samples

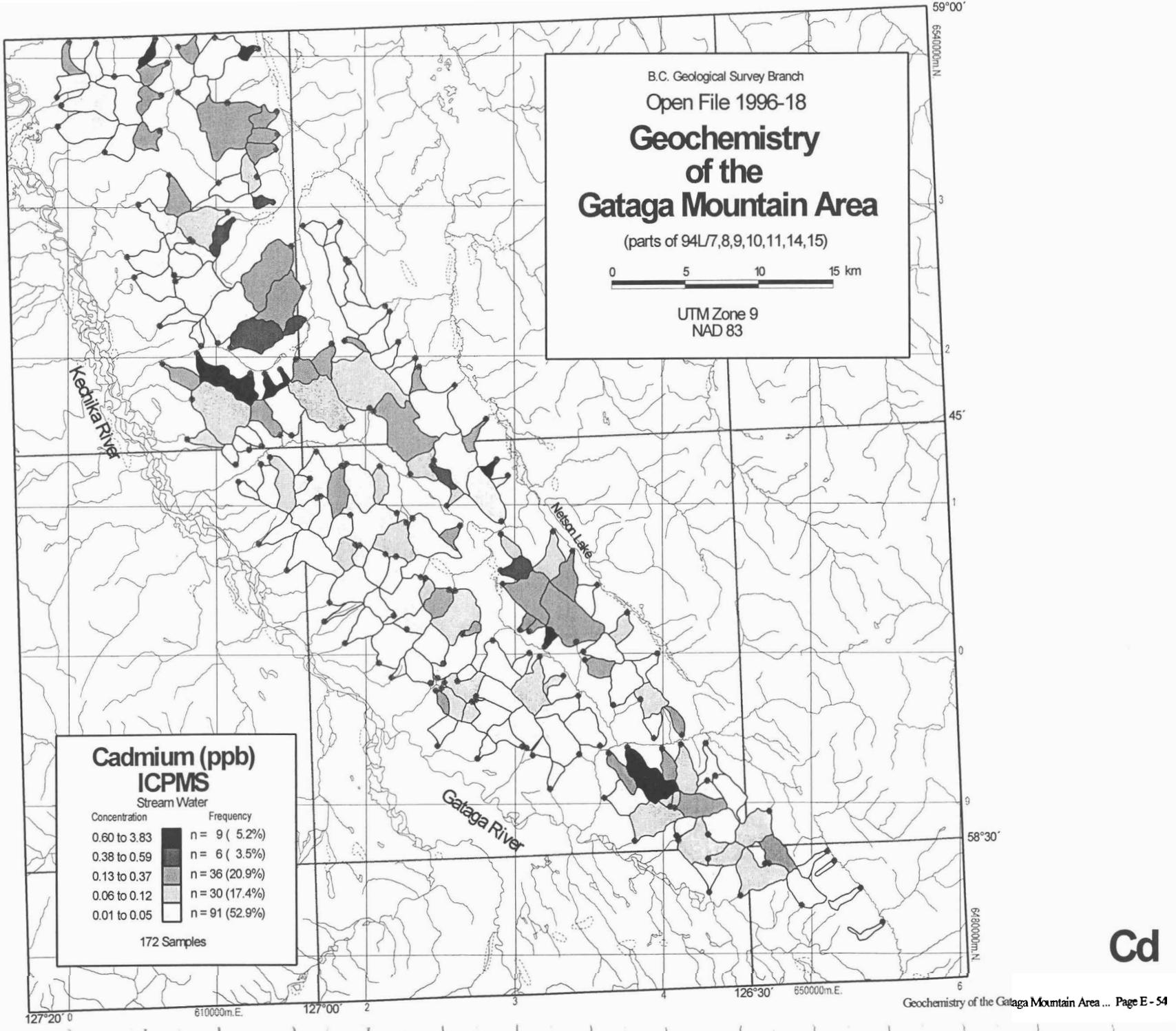


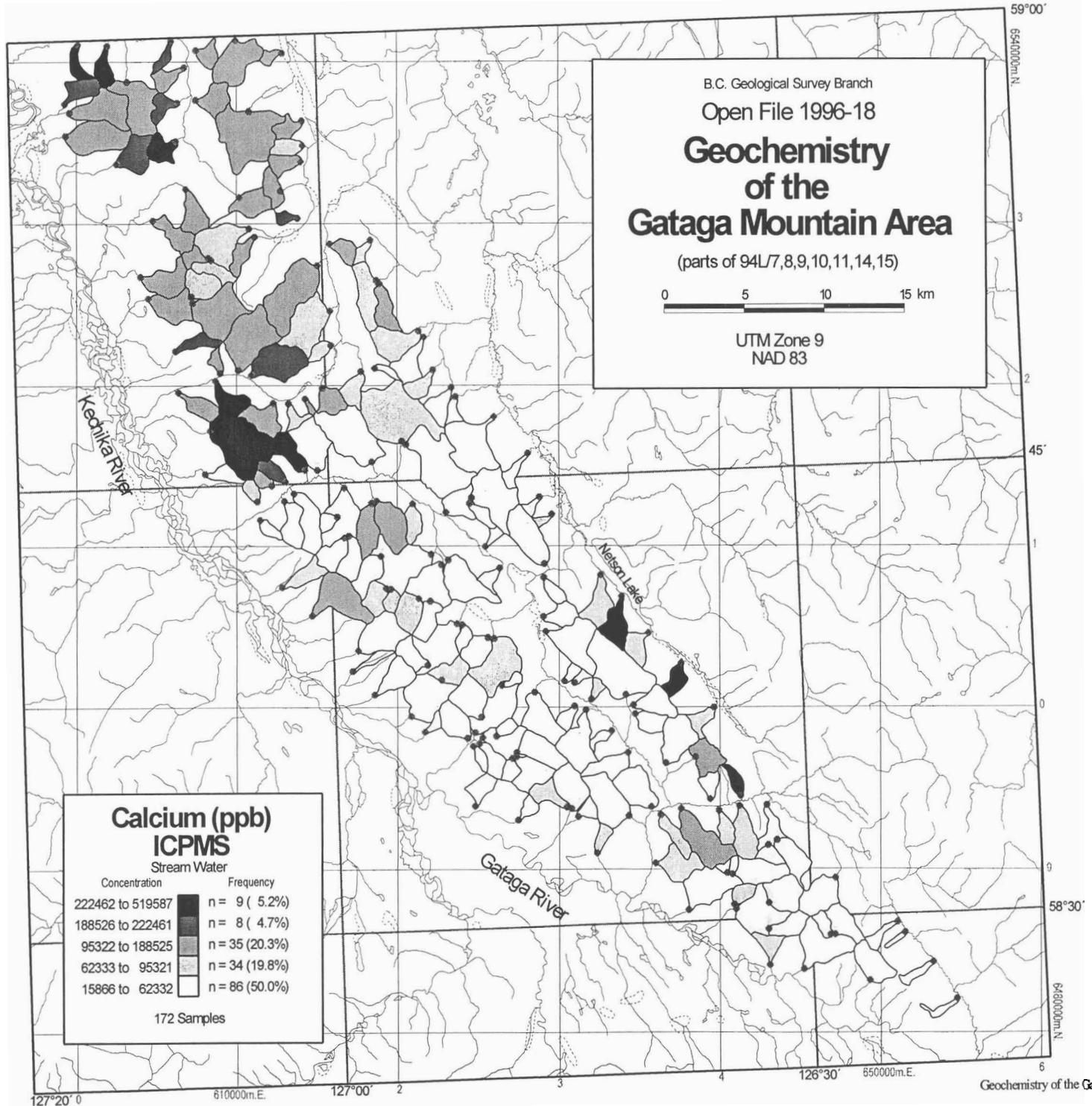
UW











B.C. Geological Survey Branch
Open File 1996-18
**Geochemistry
of the
Gataga Mountain Area**

(parts of 94L/7,8,9,10,11,14,15)

0 5 10 15 km

UTM Zone 9
NAD 83

**Cobalt (ppb)
ICPMS
Stream Water**

Concentration	Frequency
0.263 to 1.228	n = 9 (5.2%)
0.199 to 0.262	n = 8 (4.7%)
0.123 to 0.198	n = 35 (20.3%)
0.096 to 0.122	n = 33 (19.2%)
0.001 to 0.095	n = 87 (50.6%)

172 Samples

127°20' 0"

610000m.E.

127°00' 2"

3

126°30' 4"

Geochemistry of the Gataga Mountain Area ... Page E - 56

Co

59°00'

N

6480000m.N

E

6460000m.N

E

6440000m.N

E

6420000m.N

E

6400000m.N

E

6380000m.N

E

6360000m.N

E

6340000m.N

E

6320000m.N

E

6300000m.N

E

6280000m.N

E

6260000m.N

E

6240000m.N

E

6220000m.N

E

6200000m.N

E

6180000m.N

E

6160000m.N

E

6140000m.N

E

6120000m.N

E

6100000m.N

E

6080000m.N

E

6060000m.N

E

6040000m.N

E

6020000m.N

E

6000000m.N

E

5980000m.N

E

5960000m.N

E

5940000m.N

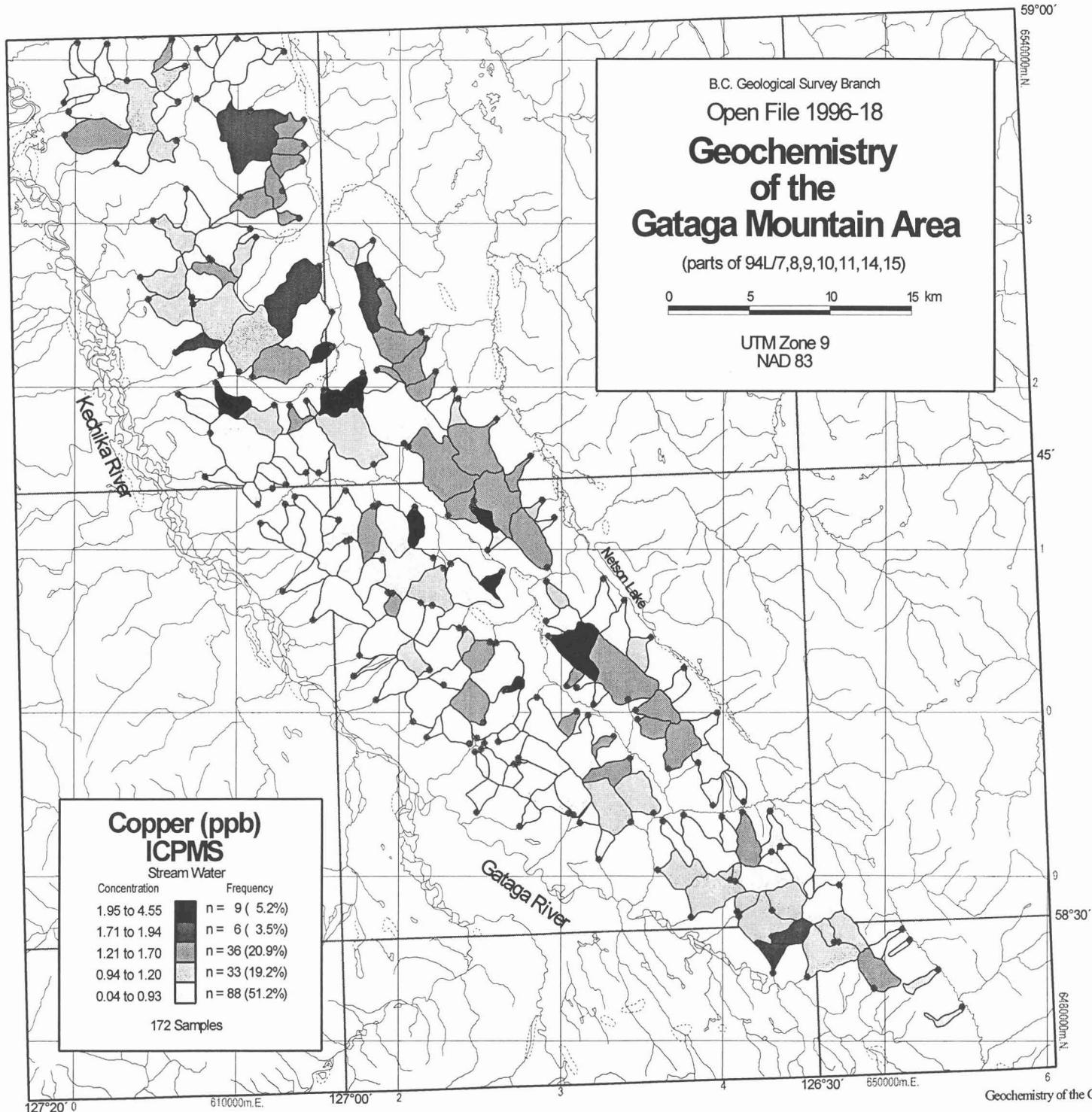
E

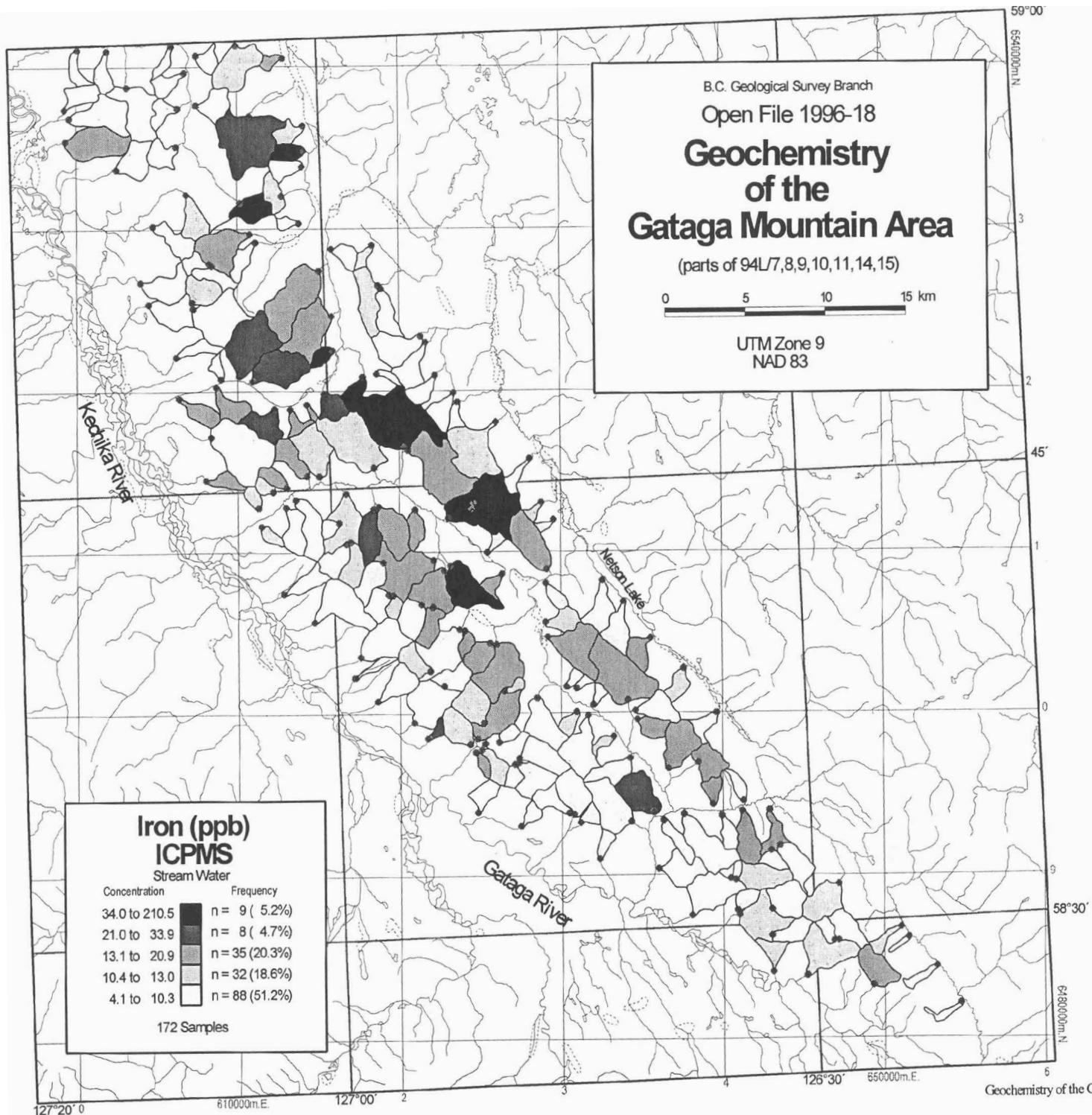
5920000m.N

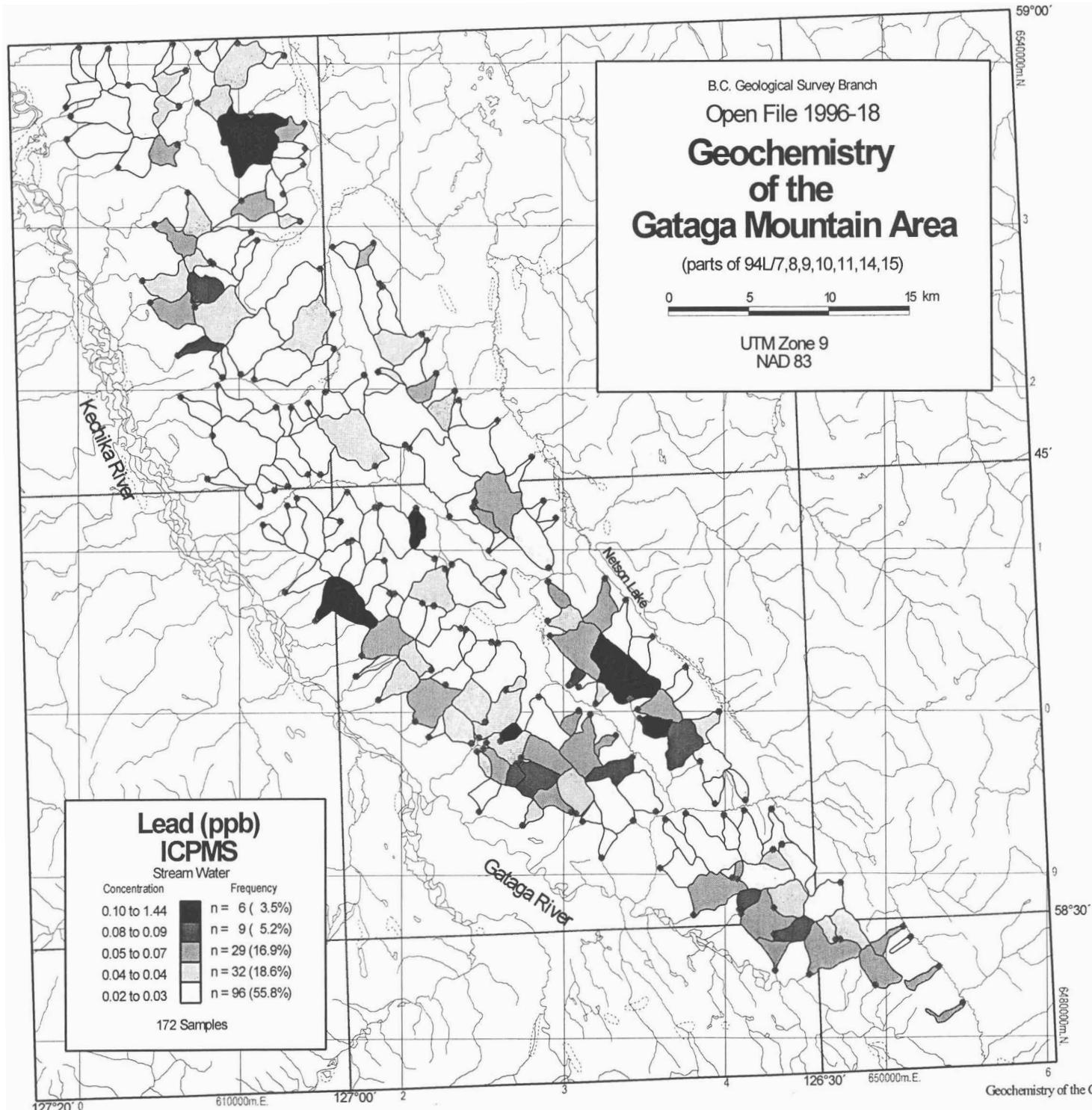
E

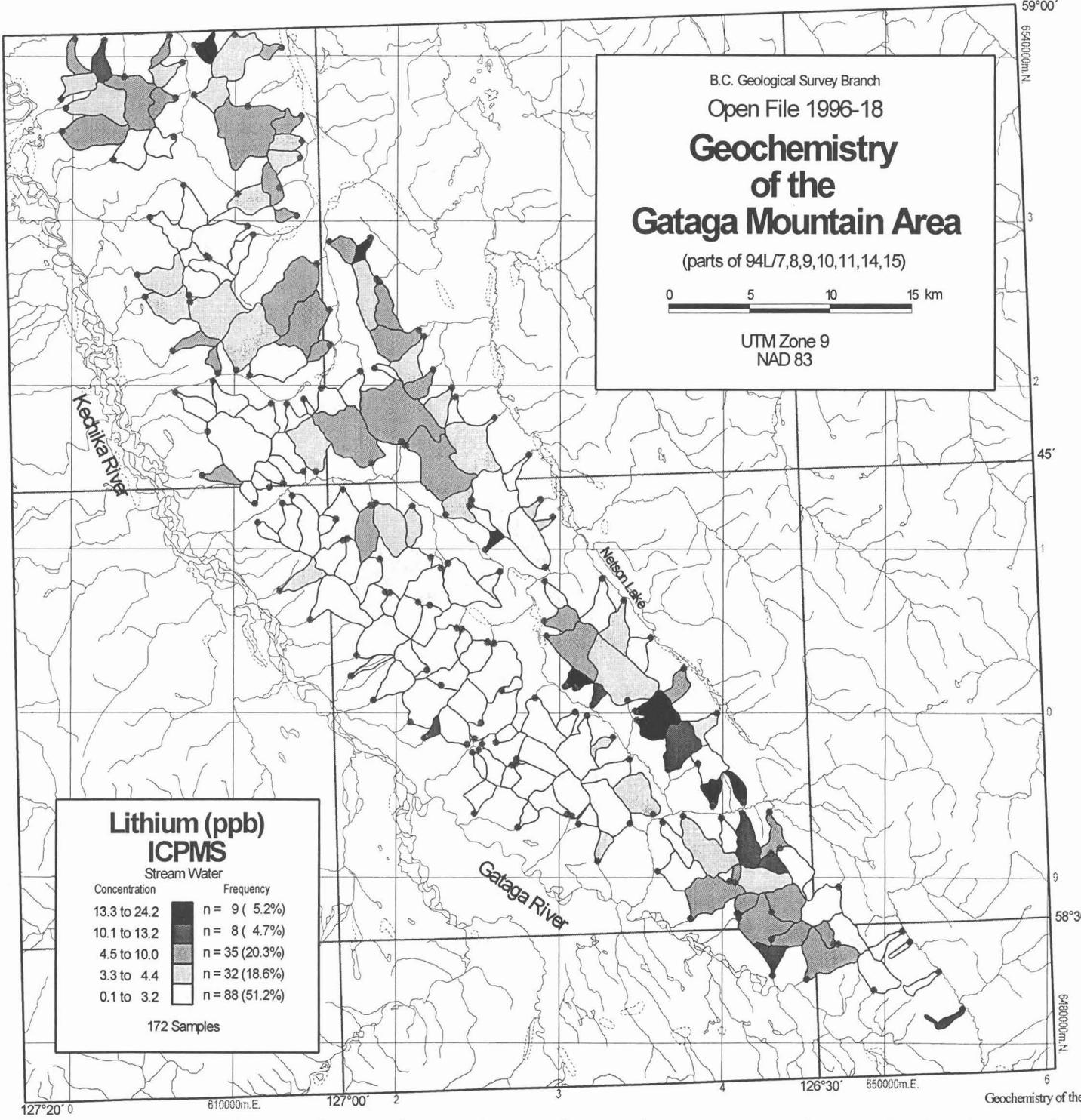
5900000m.N

E

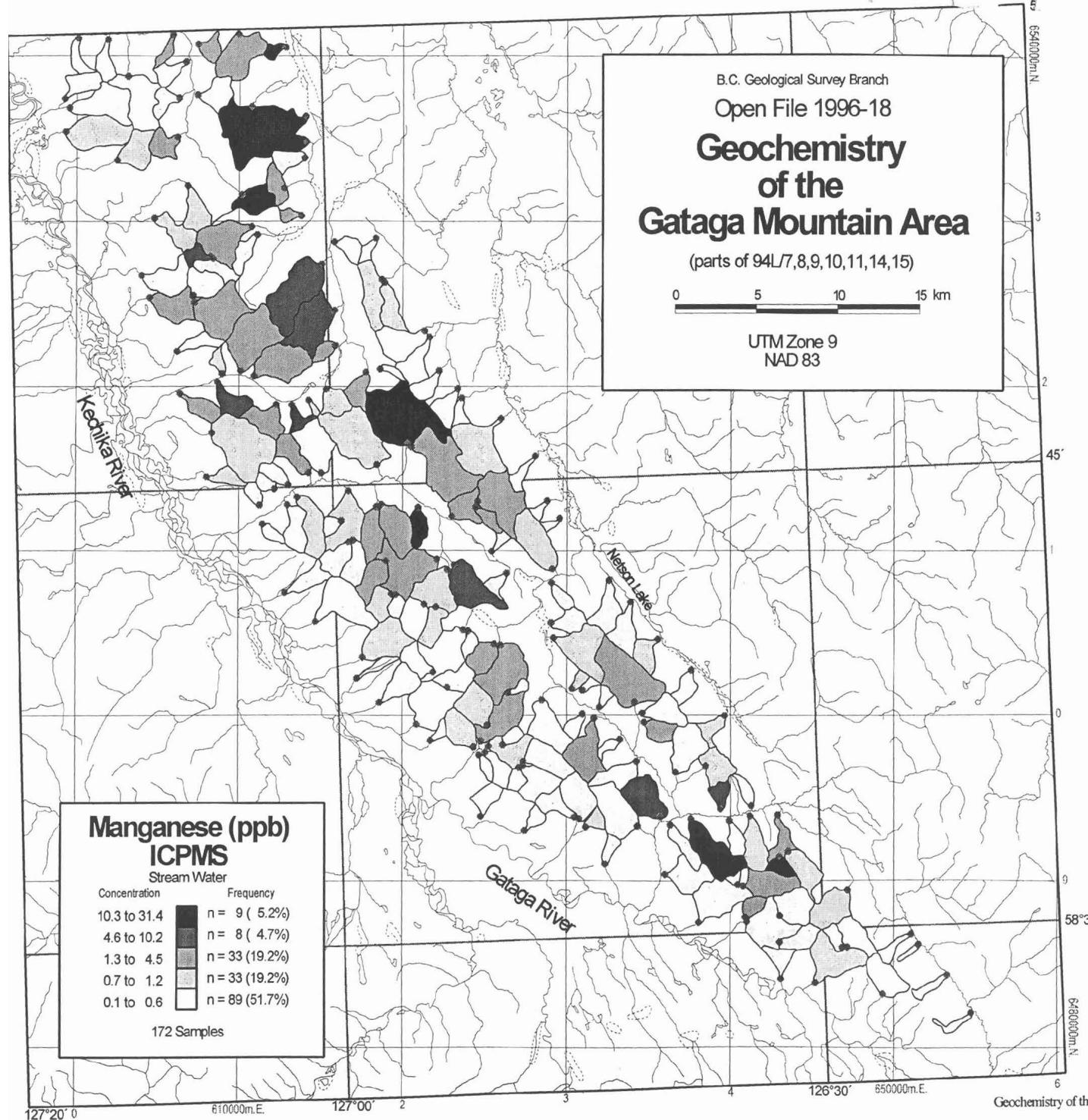


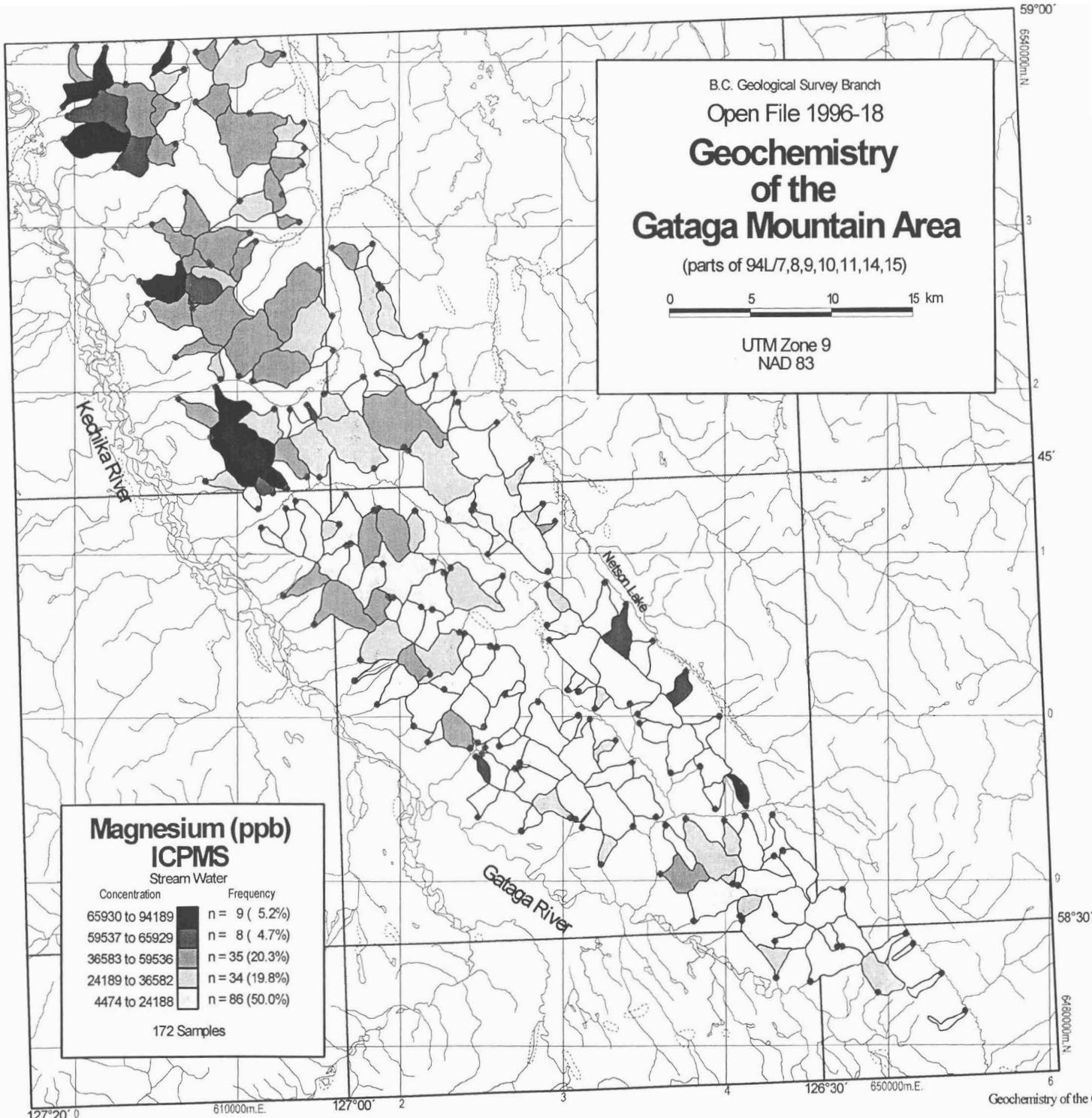




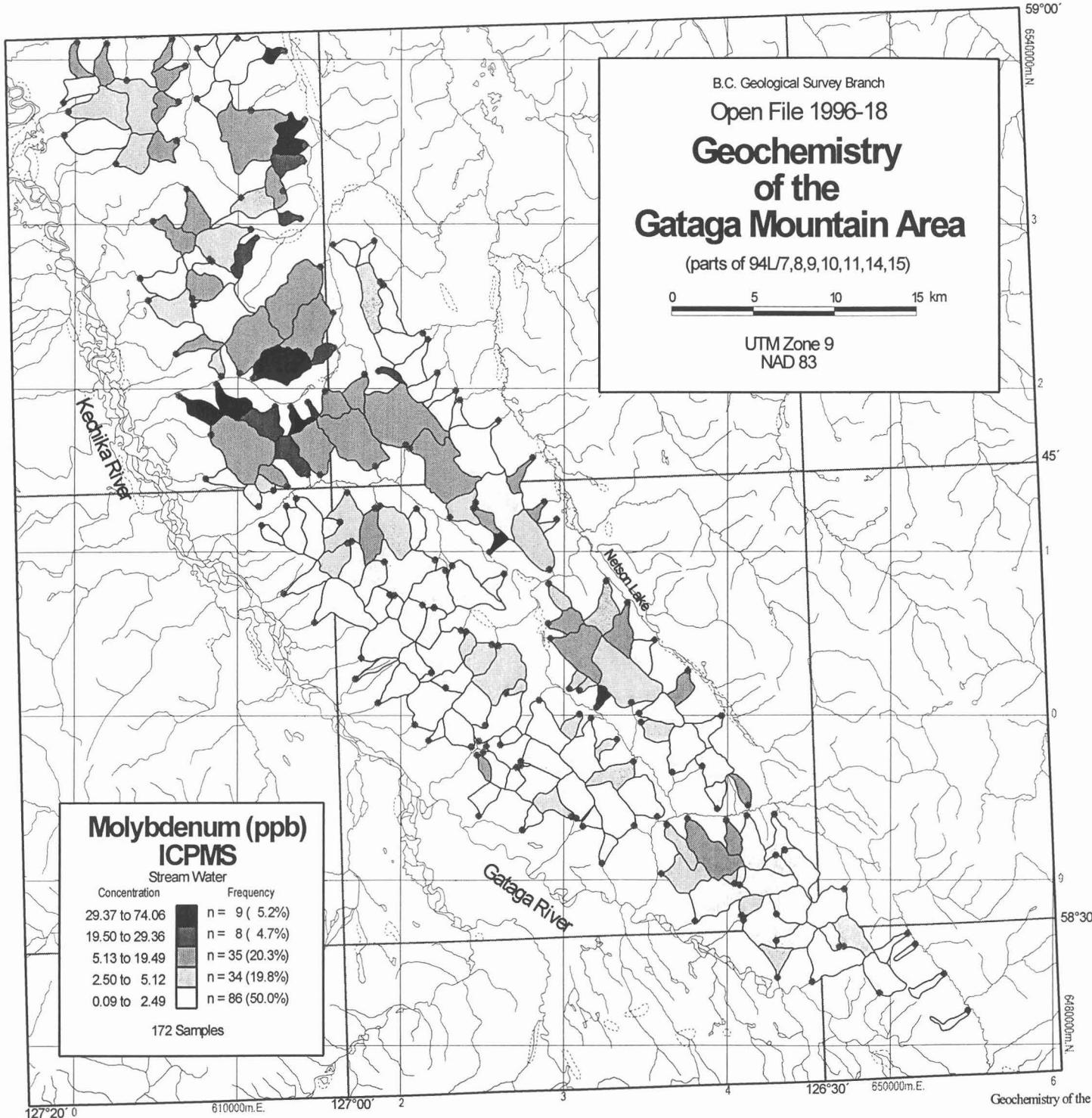


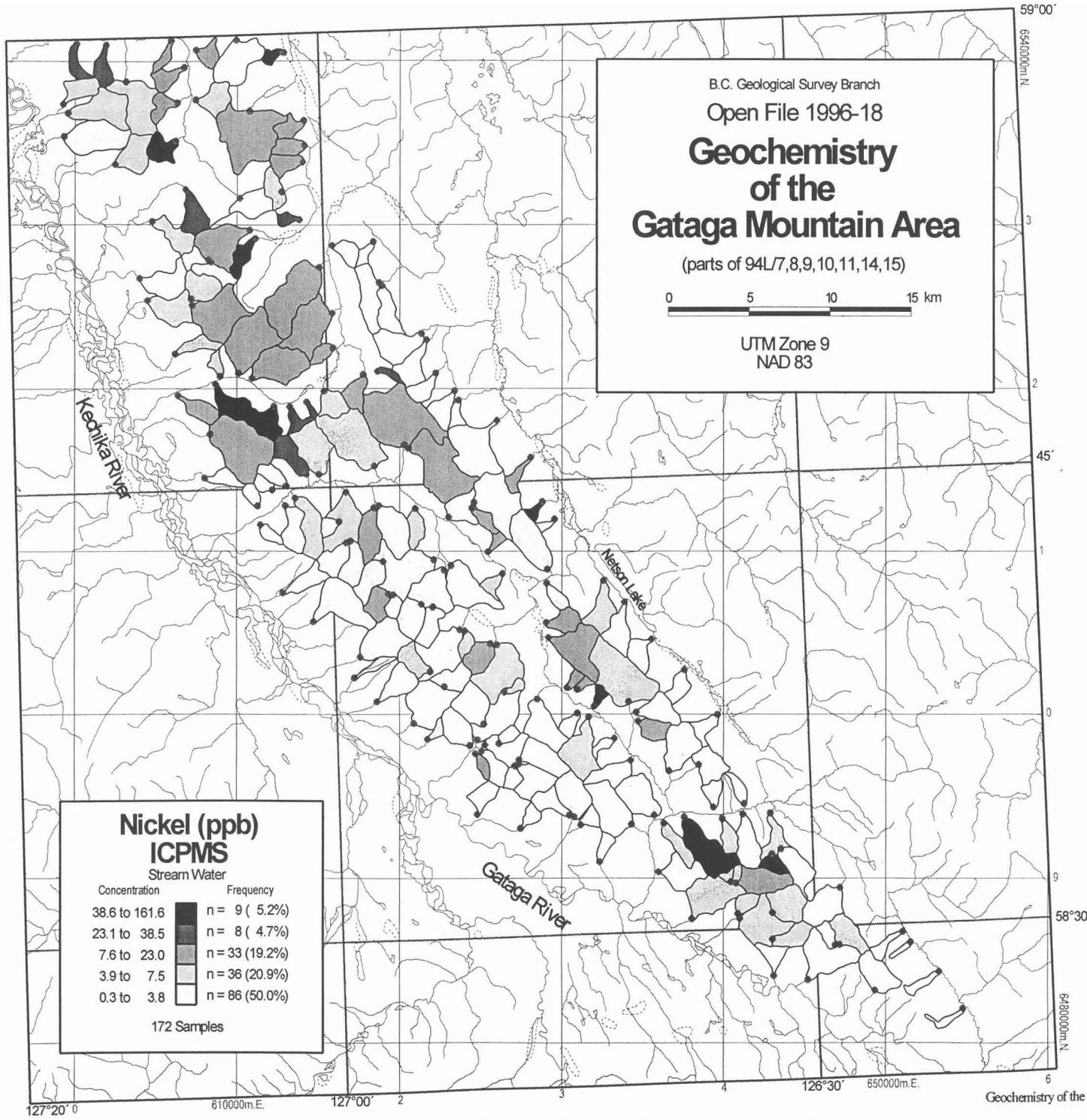
Li



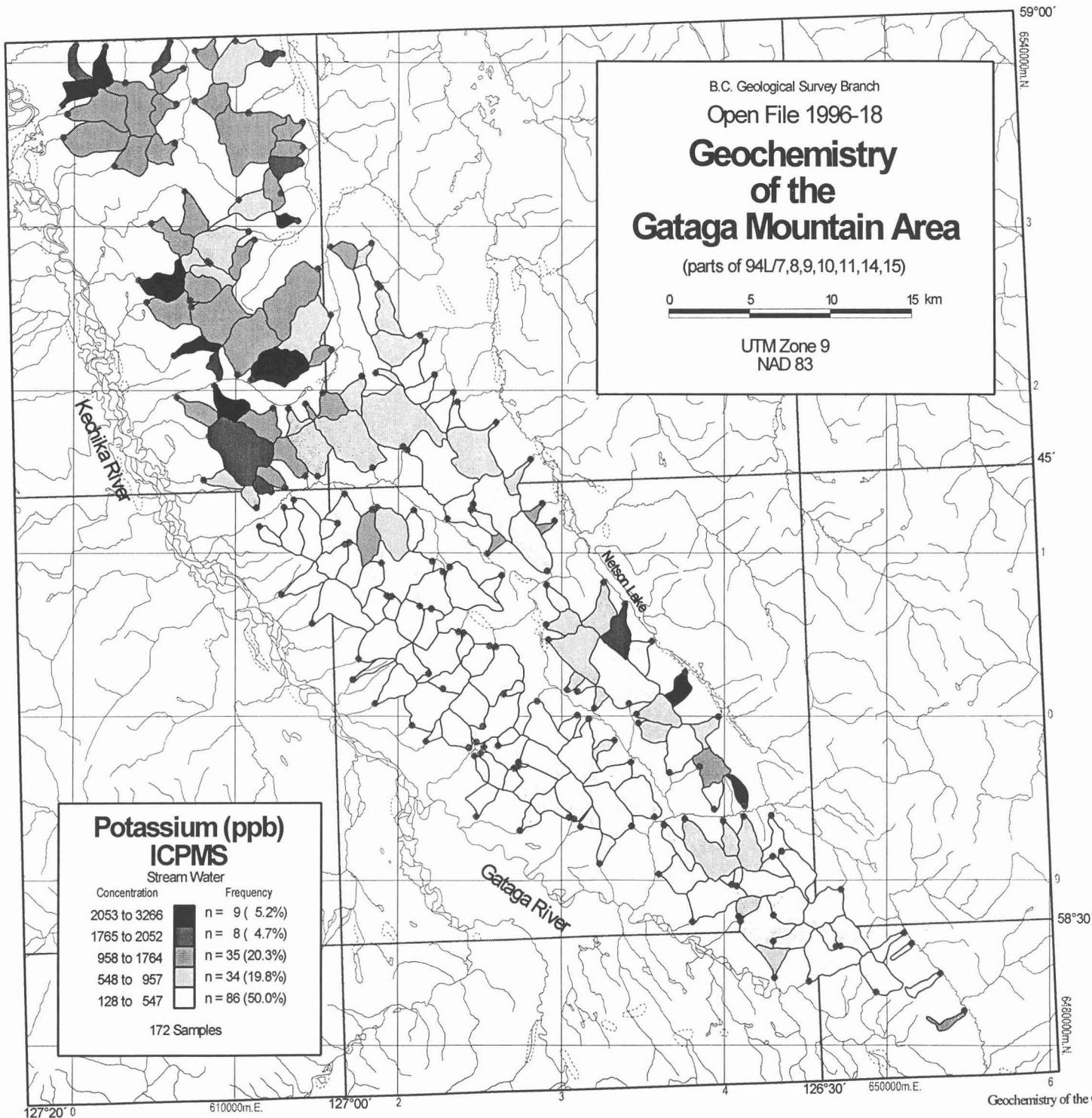


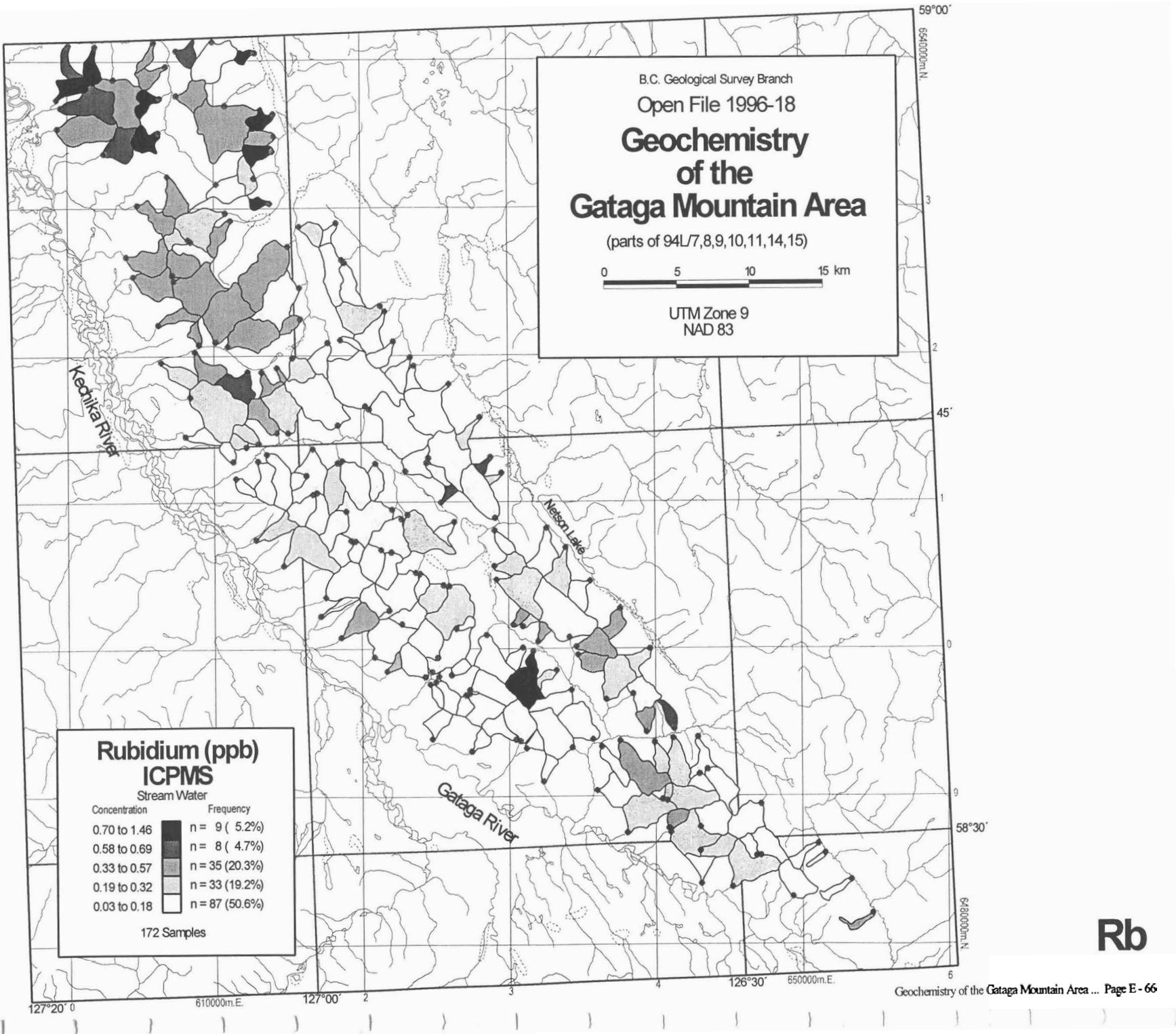
Mg

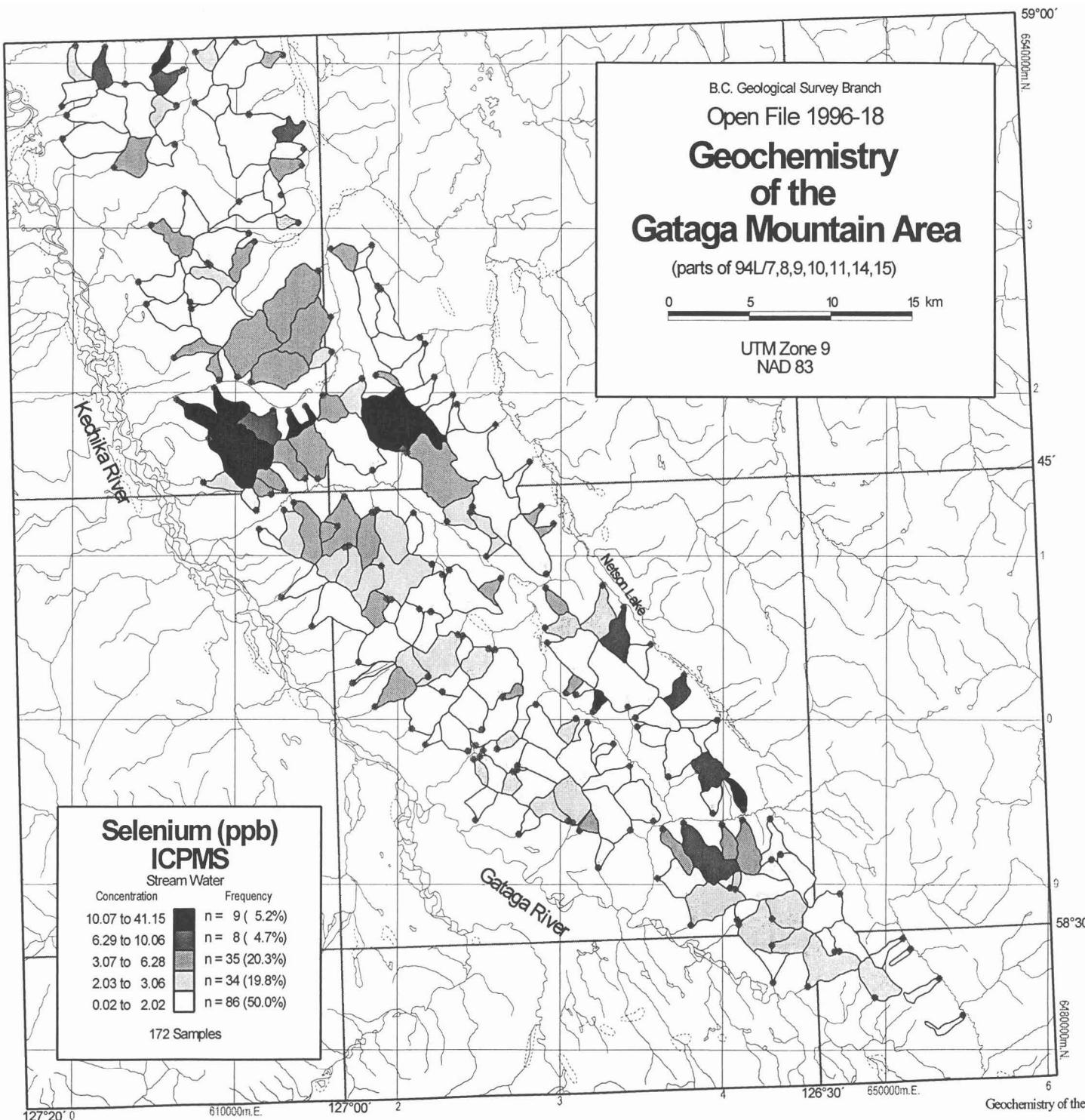


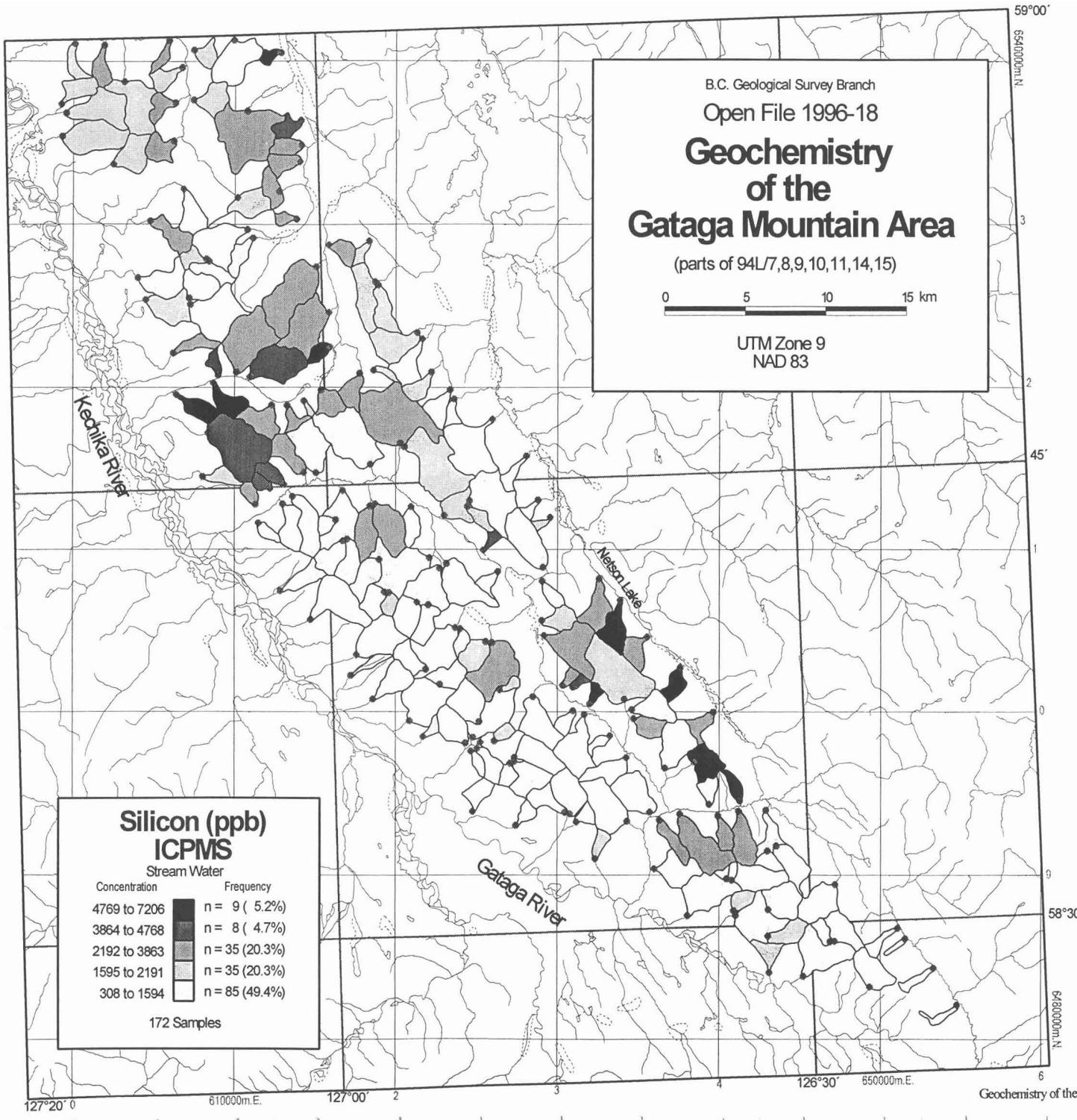


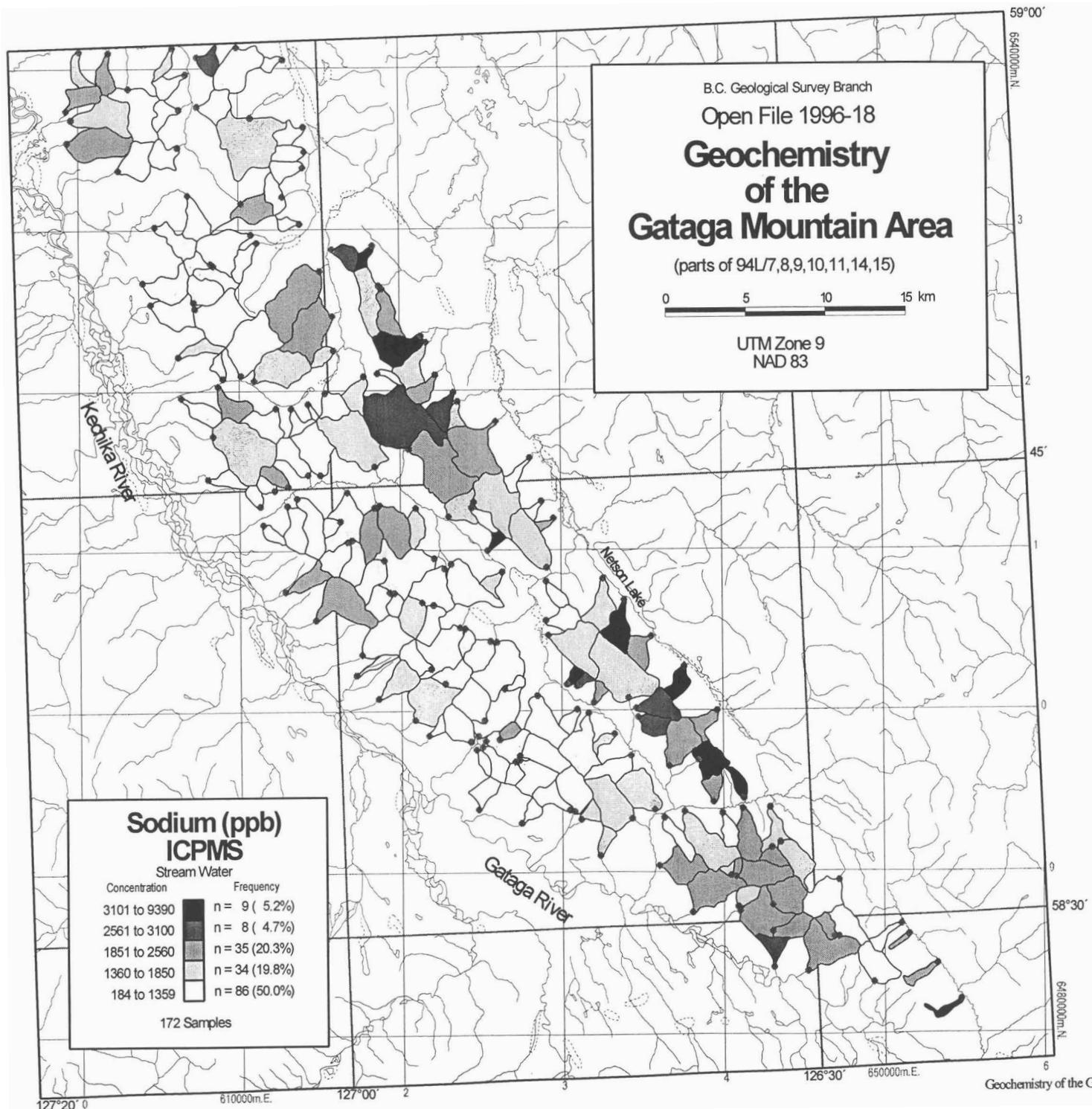
Ni



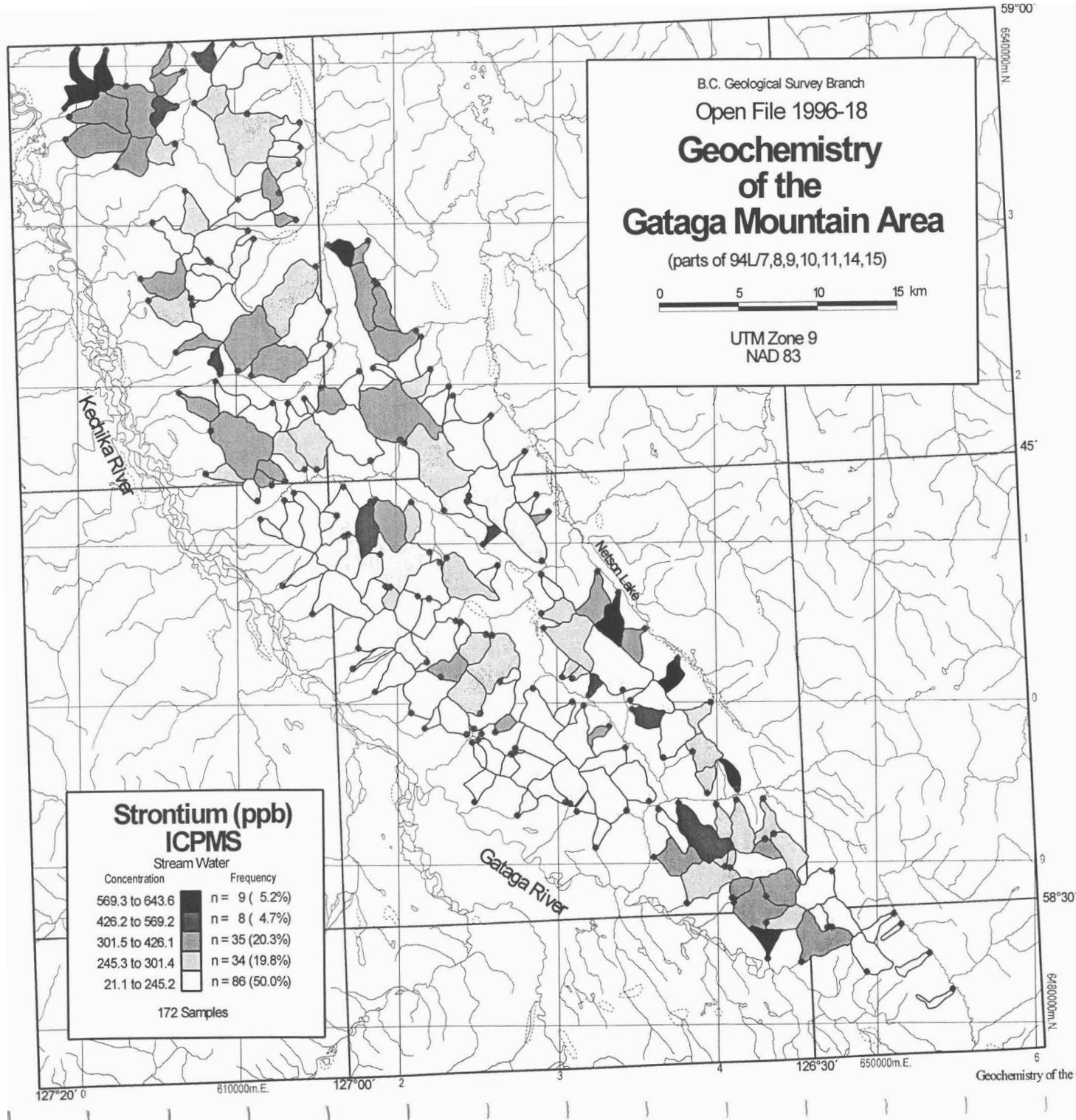


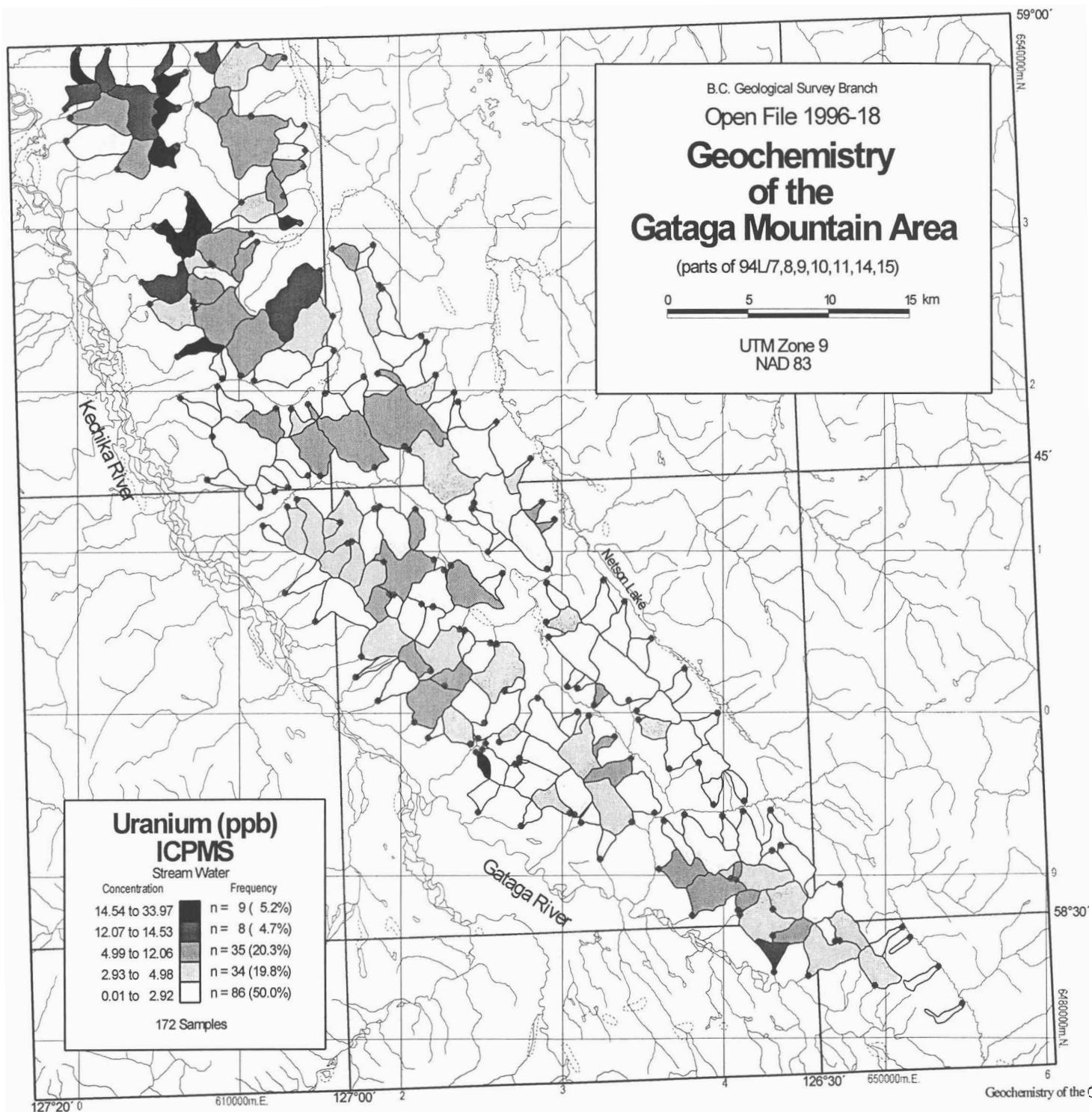


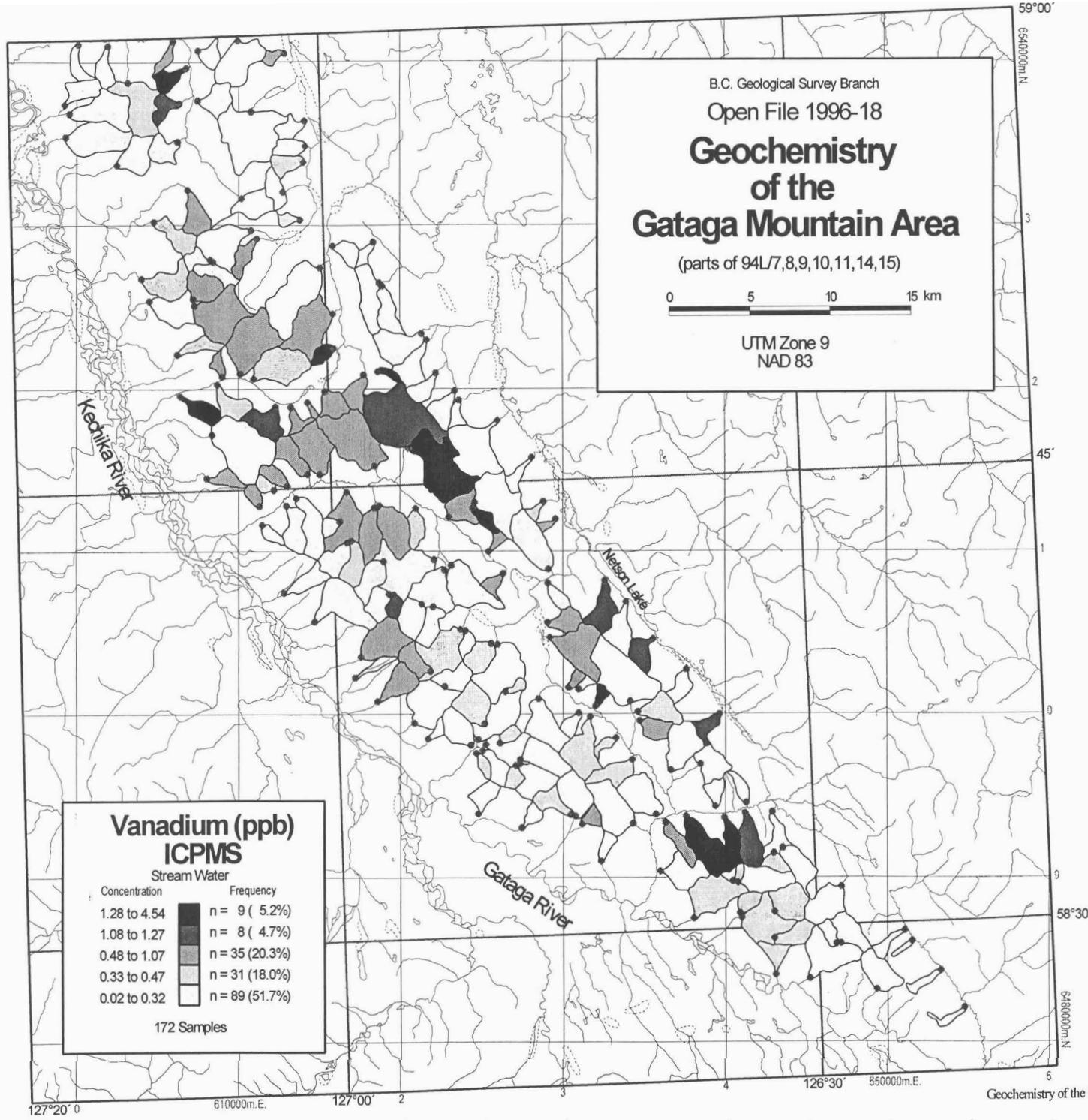




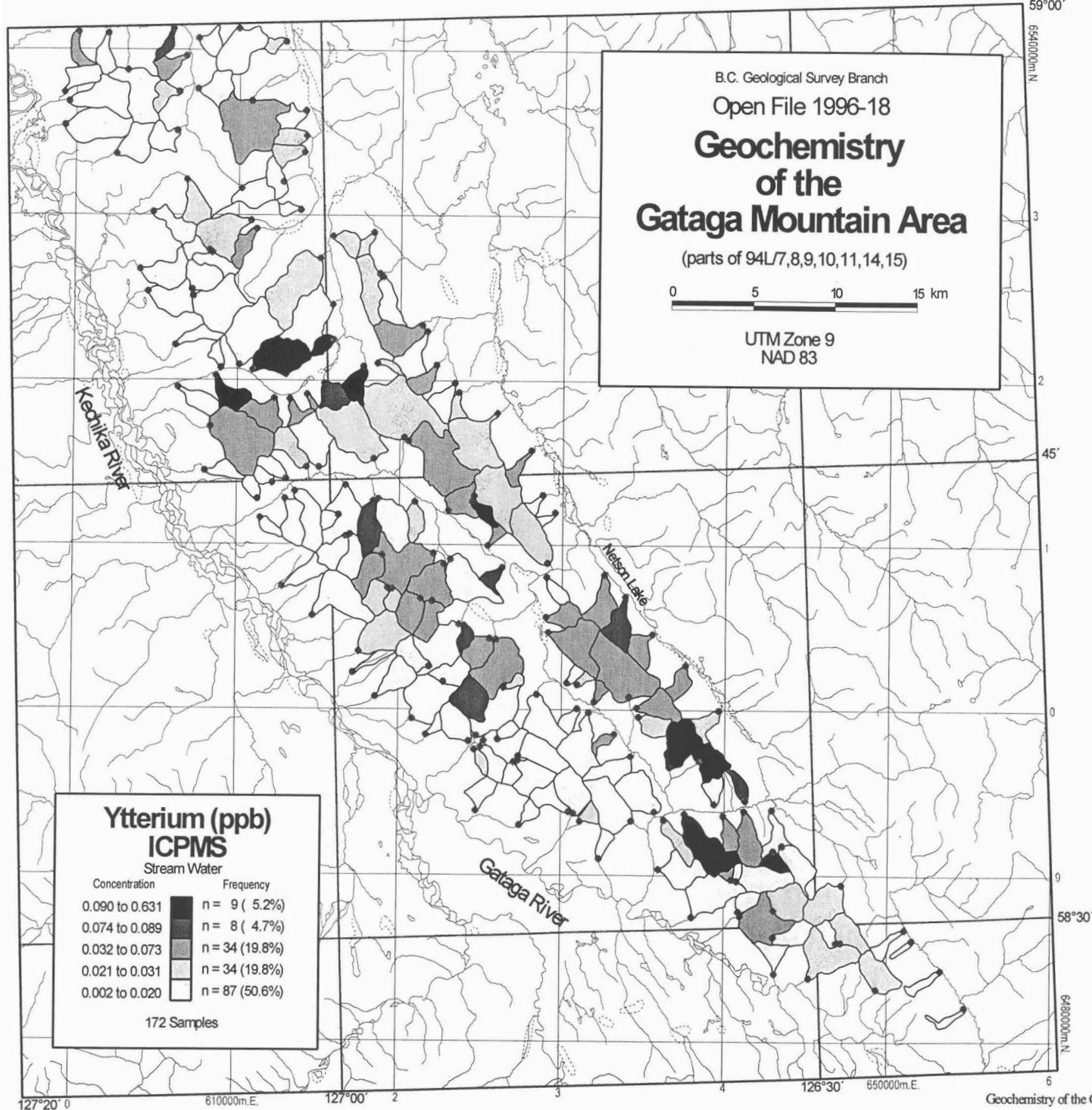
Na







V



Y

