Province of British Columbia
Ministry of Energy, Mines and
Petroleum Resources

Mineral Resources Division
Geological Survey Branch

STREAM SEDIMENT GEOCHEMISTRY OF THE PURCELL WILDERNESS CONSERVANCY STUDY AREA (NTS 82F/15,16 AND NTS 82K/1,2,7,8)

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Canada/British Columbia Mineral Development Agreement (1985-1990)

OPEN FILE 1990-11

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of the
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PREFACE

The Purcell Wilderness Conservancy was created in 1974 to preserve approximately 1320 square kilometres of the Purcell Mountains as a roadless tract of recreational wilderness area. It is located in the rugged mountain range between Kootenay Lake and the Columbia Valley (Figure 1), centered approximately 30 kilometres north of Kimberley and is adjoined on the south by St. Mary's Alpine Provincial Park. Resource development, including mineral exploration and mining, was prohibited and any existing claims were frozen by a mineral reserve when the conservancy was established. Prospecting and mining are traditional land uses in this region of British Columbia as mineral discoveries were made at the turn of the century and continue to be made in the 1980s. The stratabound Sullivan massive sulphide orebody is located 30 kilometres to the southeast and the rocks hosting the orebody are known to extend into the conservancy. Despite this history of exploration and mining in the region no systematic assessment of the mineral potential of the Purcell Wilderness Conservancy was undertaken prior to withdrawing it from the exploration land base.

In 1986 the Wilderness Advisory Committee studied the conservancy and recommended that a resource assessment be carried out; specifically, this included a mineral potential study which was to be completed prior to any final boundary decisions (Wilderness Advisory Committee, 1986). The Geological Survey Branch then summarized existing geological knowledge of the area preparatory to planning a mineral potential study (Grant, 1987). The Ministry of Parks subsequently identified a planning area for resource assessments surrounding the conservancy (Ministry of Parks, 1989). During the 1989 field season a mineral potential evaluation was initiated to provide the information required to settle the outstanding issues of mineral resource management in the conservancy. As an integral part of this evaluation a detailed stream sediment geochemical survey was completed to expand on the geochemical data available from the 1977 Regional Geochemical Survey (RGS). This Open File presents a compilation of new geochemical data and includes data from recent analyses of archived 1977 RGS samples, and of in-fill sediment sampling in 1989 from the eastern half of the study area. Further detailed sampling will be carried out in 1990 in the western half of the study area and a compilation of analytical results will be released in 1991.

Figure 1. Location Map

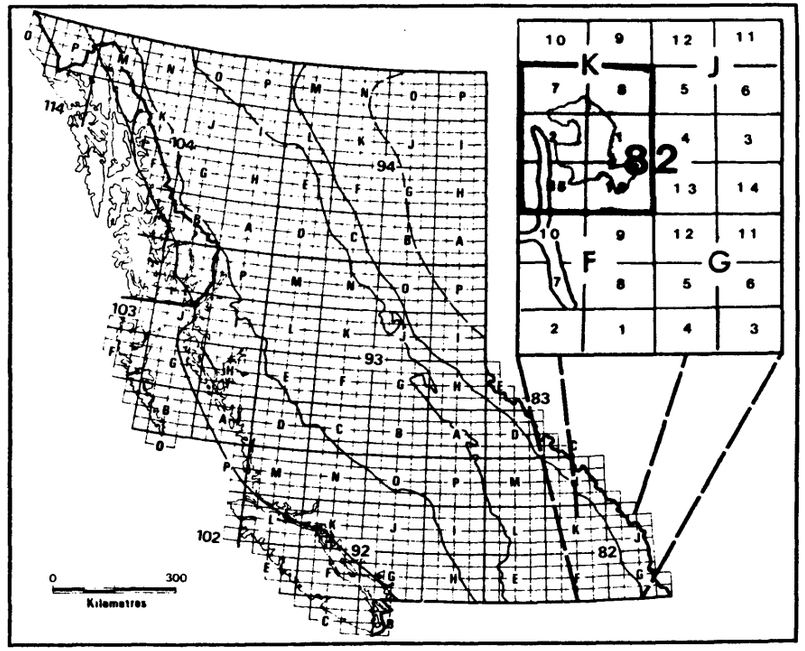

Table 1. **Digital Data Format**

FIELD	DESCRIPTION	COLUMNS	TYPE	LENGTH	EXAMPLE	FIELD	DESCRIPTION	COLUMNS	TYPE	LENGTH	EXAMPLE
01	NTS Map-Sheet	001-006	A	6	104N16	28	Gold (ppb)	069-074	N	5	47
02	ID (Year,Crew,Number)	007-012	N	6	841102	29	Antimony (ppm)	075-082	N	7 (1)	0.8
03	UTM Zone	013-014	N	2	10	30	Arsenic (ppm)	083-090	N	7 (1)	25.0
04	UTM East (Metres)	015-020	N	6	544654	31	Barium (ppm)	091-096	N	6	560
05	UTM North (Metres)	021-027	N	7	5911939	32	Bromine (ppm)	097-103	N	7 (1)	8.1
06	Elevation (Metres)	028-031	N	4	1500	33	Cerium (ppm)	104-110	N	7	86
07	Sample Material	032	N	1	1	34	Cesium (ppm)	111-116	N	6 (1)	17.0
08	Replicate Status	033-034	N	2	10	35	Chromium (ppm)	117-121	N	5	44
09	Formation	035-038	A	4	Kmg	36	Cobalt (ppm)	122-126	N	5	9
10	Source of Water	039	N	1	2	37	Hafnium (ppm)	127-131	N	5	5
11	Stream Order	040	N	1	1	38	Iron (pct)	132-137	N	6 (1)	2.7
12	Stream Type	041	N	1	2	39	Lanthanum (ppm)	138-143	N	6	46
13	Physiography	042	N	1	3	40	Lutetium (ppm)	144-150	N	7 (1)	0.1
14	Drainage Pattern	043	N	1	2	41	Molybdenum (ppm)	151-155	N	5	8
15	Contamination	044	N	1	3	42	Nickel (ppm)	156-161	N	6	32
16	Stream Width (metres)	045-048	N	4 (1)	10.5	43	Rubidium (ppm)	162-167	N	6	130
17	Stream Depth (cm)	049-051	N	3	220	44	Samarium (ppm)	168-174	N	7 (1)	9.3
18	Stream Flow Rate	052	N	1	1	45	Scandium (ppm)	175-181	N	7 (1)	9.0
19	Water Colour	053	N	1	3	46	Sodium (pct)	182-187	N	6 (1)	1.1
20	Bank Type	054	N	1	3	47	Tantalum (ppm)	188-193	N	6 (1)	1.2
21	Bank Precipitate	055	N	1	2	48	Terbium (ppm)	194-199	N	6 (1)	1.6
22	Sediment Composition	056-058	N	3	111	49	Thorium (ppm)	200-206	N	7 (1)	11.0
23	Sediment Colour	059	N	1	5	50	Tungsten (ppm)	207-212	N	6	21
24	Sediment Precipitate	060	N	1	2	51	Uranium (ppm)	213-219	N	7 (1)	3.7
25	Channel Bed Type	061	N	1	3	52	Ytterbium (ppm)	220-224	N	5	4
26	Channel Pattern	062	N	1	4	53	Zirconium (ppm)	225-230	N	6	200
27	Blanks	063-068	N	6		54	Copper (ppm)	231-235	N	5	22
						55	Lead (ppm)	236-240	N	5	3956
						56	Zinc (ppm)	241-245	N	5	180
						57	Sample Wt (grams)	246-247	N	2	19

INTRODUCTION

Open File 1990-11 presents analytical results for gold and 28 other elements from stream sediment samples collected in the Purcell Wilderness Conservancy Study Area (PWCSA) in southeastern British Columbia. The survey area covers portions of map-sheets 82F and 82K between 49° 45'N to 50° 30'N and 116°W to 117°W (Figure 1).

The objectives of the survey are:

- to augment the mineral resource assessment of the Purcell Wilderness Conservancy,
- to provide a detailed geochemical database for the mineral exploration industry,
- to identify areas of high mineral potential, and
- to provide baseline environmental geochemical data.

Geochemical data for this open file comes from two sources:

(1) selected archived stream sediment material from joint Federal and Provincial Regional Geochemical Surveys (RGS) conducted in 1977, and

(2) detailed 1989 stream sediment sampling from the eastern half of the study area.

Additional geochemical data can be obtained from the original 1977 Regional Geochemical Surveys published in 1978 as Geological Survey of Canada Open File 514 and 515 (NTS: 82F, Nelson and 82K, Lardeau). Further detailed sampling will be conducted in 1990 from the western half of the study area and results and interpretation for the entire study will be available in 1991.

OPEN FILE FORMAT

Open File 1990-11 consists of a data booklet and a set of 19 maps. The booklet contains a description of the survey program, data listings, statistical summaries, correlation matrices and sample evaluation charts. The maps include (1) 1:250 000 scale and (1) 1:100 000 scale sample location map; (1) 1:250 000 scale mineral inventory map plus (16) 1:250 000 scale symbol and value maps for selected analyzed elements.

DIGITAL DATA FORMAT

Analytical results, field observations and sample location information are provided in an ASCII file format (PURCELL.DAT) on a standard MS-DOS 5 1/4" double-sided, double density floppy diskette. A file describing the nature and organization of the data is stored in FORMAT.DOC. The format of the data is listed on Table 1.

SURVEY DESCRIPTION

Geology and Mineral Potential

The Purcell Wilderness Conservancy is underlain in the east by Proterozoic rocks of the Purcell and Windermere Supergroups exposed in the Purcell anticlinorium, and in the west by Paleozoic strata of the Kootenay arc. Mafic sills and dikes intrude the lower Purcell stratigraphy. The sedimentary units are cut by two major Cretaceous batholiths and a number of Jurassic and Cretaceous stocks. The Fry Creek batholith is a large, relatively homogeneous, quartz monzonite intrusion underlying much of the southwestern part of the conservancy. In contrast, the White Creek batholith in the southeast is a well-differentiated and zoned intrusion. Open file maps at 1:50 000 scale presenting geology, mineral occurrences and

Table 2. **Geology of the Purcell Wilderness Conservancy Study Area**

FORMATION	DESCRIPTION
STRATIFIED ROCKS	
MESOZOIC	
Triassic	
Tsk	Slocan and Kaslo Group; volcanic rocks
PALEOZOIC	
Carboniferous and Permian	
Pm	Milford Group; slate and silty slate; limestone and chert
Pre-Mississippian	
Pl	Lardeau Group; chlorite-muscovite-quartz schist, biotite-muscovite schist, micaceous quartzite and tremolite limestone
Cambrian	
Cbmh	Badshot-Mohican Formation and Hamill Group; marble, phyllite muscovite-quartz schist; quartzite and micaceous quartzite, dark slate and mica schist

FORMATION	DESCRIPTION
STRATIFIED ROCKS CONT.	
PROTEROZOIC	
Windermere Supergroup (Hadrynian)	
Pch	Horsethief Creek Group; pebble conglomerate, grits, quartzite, and slate
Purcell Supergroup (Helikian)	
PCmn	Mount Nelson Formation; white grey argellite and siltstone dolomitic quartz wacke and siltstone, maroon argillite, buff dolomite and grey limestone
PCd	Dutch Creek Formation; green siltstone brown dolomitic siltstone grey argillite, buff weathering, algal dolomite, minor quartz wacke
PCk	Kitchener Formation; buff weathering, dolomitic siltstone and dolomite, grey and green argillite and and siltstone, minor limestone
PCc	Creston Formation; grey and green quartz siltstone and argillite, green or grey-white quartzite, minor green quartz wacke, minor dolomitic siltstone

FORMATION	DESCRIPTION
STRATIFIED ROCKS CONT.	
PROTEROZOIC	
Purcell Supergroup (Helikian)	
Aldridge Formation	
PCau	Upper Division; massive grey quartz arenite and quartz wacke interbedded with thin argellite; quartz arenite, green siltstone,
PCal	Lower division; thin-bedded, rusty weathering, quartz wacke, quartz arenite, siltstone and argillite
INTRUSIVE ROCKS	
MESOZOIC	
Cretaceous	
Kmg	quartz monzonite, grandiorite
Geology legend derived from; Reesor, J.E. (1973)	

lithogeochemical analyses from rock chip sampling in the study area are also available (McLaren *et al.*, 1990a and 1990b).

Previous mapping in the conservancy itself is limited to that of Reesor (1985, 1973, Table 2) in the Lardeau map-area (82K) east-half, and in the Dewar Creek map area (82F/16). More recently, mapping to the east by Höy and Diakow (1982), Höy (1984) and Carter and Höy (1987a,b) has refined the Purcell stratigraphy. Stratigraphic descriptions by Höy (1985 and in preparation) have aided considerably in mapping during this project.

Exploration and mining in this region of the Purcell Mountains began at the turn of the century with discoveries of the stratabound silver-lead-zinc Sullivan orebody; lead-zinc-silver vein occurrences in Toby Creek valley north of the conservancy and near Dewar Creek to the south; and of the replacement and vein lead-zinc-silver-barite orebody at Mineral King mine. Subsequent discoveries include skarn mineralization, porphyry molybdenum occurrences and greisen-vein tin and tungsten occurrences. Beryllium has been located in pegmatite along the north side of the White Creek Batholith. The regional geology also suggests potential for stratiform barite-lead-zinc mineralization within thrust-emplaced Paleozoic carbonates. The potential for Kootenay arc type silver-lead-zinc deposits exists primarily in the western half of the study area and will be evaluated in the future.

In the Purcell Wilderness Conservancy planning area and surrounding environs, known mineral occurrences can be grouped into the following types: Sullivan-type sedimentary exhalative (sedex) deposits, structurally controlled silver-lead-zinc vein deposits, replacement and vein deposits similar to the Mineral King, carbonate hosted lead-zinc-silver deposits of the Kootenay arc, tungsten skarn occurrences and veins associated with felsic intrusions (including porphyry molybdenum-copper occurrences and tin-tungsten greisen vein occurrences). Accumulations of rare earth elements in placer deposits are reported to the north of the conservancy; however, the source of the heavy minerals containing these elements is at present undetermined.

Topography and Drainage

The Purcell Wilderness Conservancy lies in rugged, mountainous terrain developed through extensive glacial carving and erosion. The alpine ridges and peaks reach heights of 2700 to 3300 metres above sea level and form a northerly trending height of land between the Columbia River valley to the east and the Kootenay Lake-Duncan Lake drainage system to the west. The major valleys containing generally easterly flowing creeks lie at approximately 1350 metres elevation while generally westerly flowing creeks are often 300 metres lower.

In the western half of the conservancy the relief is greater and the drainages are shorter, have steeper gradients and generally cut through rocky canyons. In the eastern half most of the creeks are longer, the valleys wider and have gentler gradients. The tributary streams, however, have steeper gradients. They originate in hanging U-shaped valleys filled with glacial drift but in their lower reaches they often plunge through narrow bedrock canyons.

1977 and 1989 Sampling Programs

Geochemical data for this open file originates from the analysis of selected archived stream sediment collected from two joint Federal-Provincial Regional Geochemical Surveys conducted in 1977 (GSC OF 514 and 515) and from analysis of in-fill stream sediment sampling of eastern portions of the study area in 1989. Both surveys employed Geological Survey of Canada standards for sample collection and preparation.

Table 3. **Reference Guide for Field Observations**

Column	Definition and Descriptions
MAP	1:50 000 NTS map sheet number
SAMPLE ID	Sample number
UTM ZONE	UTM Zone Number
UTM EAST	UTM East Coordinate
UTM NORTH	UTM North Coordinate
STA	Replicate Sample Status: = Routine Sample **1** = 1st Field Duplicate **2** = 2nd Field Duplicate
MED	Sample Media Collected: **1** = Stream Sediment only
FORMATION	(see Table 2)
WAT COL	Water Colour: **0** = Colourless **2** = White Cloudy **1** = Brown Clear **3** = Brown Cloudy
FLW	Water Flow Rate: **0** = Stagnant **3** = Fast **1** = Slow **4** = Torrent **2** = Moderate

Column	Definition and Descriptions
SED COL	Sediment Colour: **B** = Black **R** = Red **G** = Grey-Blue **T** = Tan-Brown **O** = Olive-Green **W** = White-Buff **P** = Pink **Y** = Yellow
SED PPT	Sediment Precipitate: N = None (otherwise same as SED COL)
CON	Contamination: **N** = None **D** = Domestic **P** = Possible **F** = Forestry **A** = Agricultural **M** = Mining
SED COMP	Sediment Composition: estimate of Sand-Fines-Organic content **0** = Absent **1** = Minor (<1/3 of total) **2** = Moderate (>1/3 but <2/3) **3** = Major (>2/3 of total)
STRM WDTH	Stream Width: in metres
STRM DPTH	Stream Depth: in centimetres
BNK	Bank Composition: **A** = Alluvium **R** = Rock **C** = Colluvium **S** = Talus **G** = Outwash **T** = Till **O** = Organic **U** = Unknown
BNK PPT	Bank Precipitate: **N** = None (otherwise same as SED COL)
CHL BED	Channel Bed: **B** = Boulders **S** = Gravel-Sand **F** = Silt-Clay **O** = Organics

Column	Definition and Descriptions
CHL PTN	Channel Pattern: **S**=Shoots-Pools **M**=Meandering **B**=Braided **D**=Disturbed
ELEV	Elevation: in metres
PHY	Physiography: **H**=Hilly **P**=Plateau **L**=Lowland **S**=Swamp **M**=Mature mountains **Y**=Youthful
DRN	Drainage Pattern: **D**=Dendritic **H**=Herringbone **G**=Glacially deranged **I**=Interrupted **R**=Rectangular
TYP	Stream Type: **P**=Permanent **S**=Seasonal
ODR	Stream Order: **1**=Primary **3**=Tertiary **2**=Secondary **4**=Quaternary
SRC	Stream Source: **G**=Groundwater **S**=Spring runoff **M**=Melt water **U**=Unknown
WT	Sample Weight (grams)

Approximately 2800 stream sediment and water samples were collected in 1977 at an average density of 1 sample per 11.5 kilometres throughout the 31 000 square kilometres reconnaissance survey area (NTS: 82F, Nelson and 82K, Lardeau). Sediment samples were analyzed for Zn, Cu, Pb, Ni, Co, Ag, Mn, Fe, Mo, Sn, W, Hg and U, unused portions of samples were catalogued and archived for future non-destructive testing, and mineralogical research. In 1989 as part of the Regional Geochemical Survey Archive Analysis Program, archive samples for these two map-sheets were analyzed by instrumental neutron activation analysis (INAA). Within the Purcell Wilderness Conservancy Study Area sufficient sample for analysis was collected from approximately 427 sites.

A total of 212 stream sediment samples were collected in the 1989 program from an area of approximately 100 000 hectares, in and adjacent to the eastern boundary of the PWCSA. The density of sampling is approximately one sample site per 5.5 square kilometres. Whenever possible samples were collected from the lower reaches of tributary streams, and from below a major break in slope.

Sample site duplicate samples were routinely collected in each analytical block of twenty samples as well as field observations regarding sample material, sample site and the surrounding area (Table 3).

Sample Preparation

Sediment samples were field dried and shipped to the contracted sample preparation laboratory for sieving to -80 mesh ASTM (<177 microns). At this time, samples were split into two vials and control reference samples and blind duplicate samples were inserted into each block of 20 sediment samples.

SAMPLE ANALYSES

Archive and in-fill sediment samples were sent to Becquerel Laboratories for analyses of gold and 33 other elements by instrumental neutron activation analysis (INAA). In addition, prepared splits of the in-fill samples were sent to Barringer Laboratories (Calgary) for analyses of copper, lead and zinc. The methods and specifications for sediment analysis are listed below and a summary of analytical data and methods are given in Table 4.

Instrumental Neutron Activation Analysis (INAA)

The weighed stream sediment sample (generally 10 to 20 grams) are irradiated for 20 minutes in a neutron flux. Most of the elements in the sample become radioactive and emit radiation in the form of gamma rays which have energies (wavelengths) characteristic of particular elements. Samples are then removed from the neutron flux and placed close to a gamma-ray detector, which is commonly a germanium crystal held at the temperature of liquid nitrogen. Counting data is accumulated on a computer and converted to concentrations. International reference standards are irradiated with each batch of routine samples.

Elements determined by INNA analyses include: Au, Sb, As, Ba, Br, Cd, Ce, Co, Cs, Cr, Cu, Eu, Fe, Hf, Ir, Pb, La, Lu, Mo, Na, Ni, Rb, Sc, Se, Ag Sm, Ta, Te, Tb, Th, Sn, U, W, Yb, Zn and Zr. Data for Cd, Eu, Ir, Se, Ag, Te, Sn and Zn are not published because of inadequate detection limits or precision. Please note, that due to inter-element interferences and low sample weights, samples exhibiting elevated detection limits are arbitrarily assigned the analytical contractor's detection limit as shown in Table 4.

Atomic Absorption Spectroscopy (AAS)

For the determination of Cu, Pb and Zn, a 1 gram sample was reacted with 3 milliliters concentrated HNO3 in a test-tube overnight at room temperature. After digestion, the test-tube was immersed in a hot water bath at room temperature and brought up to 90° centigrade and held at this temperature with periodic shaking for 30 minutes. 1 milliliter concentrated HCl was added and heating was continued for a further 90 minutes. The sample solution was diluted to 20 milliliters with metal-free water. Zn, Cu and Pb were determined by atomic absorption spectroscopy using an air-acetylene flame. Background corrections were made for Pb.

Geological Survey of Canada quality control procedures were used to ensure that analytical data satisfy National Geochemical Reconnaissance standards.

Table 4.

Summary of Analytical Data and Methods

Element		Detection Level	Determination Method
Au	Gold	1 ppb	INAA
Sb	Antimony	0.1 ppm	INAA
As	Arsenic	0.5 ppm	INAA
Ba	Barium	50 ppm	INAA
Br	Bromine	0.5 ppm	INAA
Ce	Cerium	5 ppm	INAA
Cs	Cesium	0.5 ppm	INAA
Cr	Chromium	20 ppm	INAA
Co	Cobalt	5 ppm	INAA
Hf	Hafnium	1 ppm	INAA
Fe	Iron	0.2 pct	INAA
La	Lanthanum	2 ppm	INAA
Lu	Lutetium	0.1 ppm	INAA
Mo	Molybdenum	1 ppm	INAA
Ni	Nickel	10 ppm	INAA
Rb	Rubidium	5 ppm	INAA
Sm	Samarium	0.5 ppm	INAA
Sc	Scandium	0.5 ppm	INAA
Na	Sodium	0.1 pct	INAA
Ta	Tantalum	0.5 ppm	INAA
Tb	Terbium	0.2 ppm	INAA
Th	Thorium	0.2 ppm	INAA
W	Tungsten	1 ppm	INAA
U	Uranium	0.2 ppm	INAA
Yb	Ytterbium	1 ppm	INAA
Zr	Zirconium	200 ppm	INAA
Cu	Copper	2 ppm	AAS
Pb	Lead	2 ppm	AAS
Zn	Zinc	2 ppm	AAS

COMMENTS ON INTERPRETING GOLD DATA

The following discussion reviews the format used to present the gold geochemical data and outlines some important points to consider when doing an interpretation. Understanding gold geochemical data from regional stream sediments requires an appreciation of the unique chemical and physical characteristics of gold and its mobility in the surficial environment.

Gold occurs most commonly in the native form. It is chemically and physically resistant and is commonly dispersed in micron-sized particulate form. Gold's high specific gravity results in heterogeneous distributions, especially in stream sediments.

Gold typically occurs at low concentrations (in the ppb range). Gold concentrations of a few ppm may represent economic deposits. Background levels encountered for stream sediments seldom exceed 10 ppb and commonly are near the detection limit of 1 ppb.

The foregoing factors can result in a particle sparsity or "Nugget Effect", wherein very low concentrations of gold are heterogeneously distributed in the surficial environment. Hence, a major problem facing exploration personnel is obtaining a representative sample. In general, the lower the concentration of gold, the larger the sample size required to reduce uncertainty over whether subsample analytical values truly represent actual values. Conversely, as gold concentrations increase, the number of gold particles to be shared in random subsamples increases and the variability of results decreases (Clifton *et al.*, 1969; Harris, 1982).

The limited amount of material collected during the rapid, reconnaissance-style regional surveys and the need to analyze for a broad spectrum of elements precludes the use of a significantly large sample weight for gold analyses (usually 10 grams). Consequently, results from these analyses tend to be highly variable and qualitative rather than quantitative. To evaluate and monitor sampling and analytical variability inherent in the analysis of gold, the following control methods are currently employed for each block of twenty samples:

(1) random insertion of a standard reference sample to monitor and control analytical accuracy and long-term precision;

(2) collection of a field duplicate to monitor sampling variance; and

(3) analysis of a second subsample (blind duplicate) from one sample to monitor and control short-term precision.

In summary, geochemical follow-up investigations should be based on careful consideration of all geological and geochemical information and a particularily thorough appraisal of gold geochemical data and its variability. In some cases, prospective follow-up areas may be indirectly identified by pathfinder element associations in favorable geology, although an anomalous gold response due to natural variability may be lacking. Once an anomalous area has been identified, field investigations should be designed to include detailed geochemical follow-up surveys and collection of large representative samples. Subsequent repeat subsample analyses will increase the reliability of results and permit a better understanding of natural variability which can then be used to improve sampling methodology and interpretation.

CREDITS

1977 Regional Geochemical Survey Program

E.H.W. Hornbrook directed Geological Survey of Canada (GSC) activities. N.C. Carter directed British Columbia Ministry of Energy, Mines and Petroleum Resources (GSB) activities. Contracts let for sample collection and preparation were supervised and/or monitored by staff of the GSC and GSB as follows:

Collection:

Stokes Exploration Management (Vancouver)
S.B. Ballantyne (GSC); T.E. Kalnins (GSB)

Preparation:

Golder Associates (Ottawa)
J.J. Lynch (GSC)

Analyses:

(1976) Chemex Labs Ltd. (Cu,Pb,Zn) (Vancouver)
J.J. Lynch (GSC); W.M. Johnson (GSB)

(1989) Becquerel Laboratories (Au + 33 other elements)
P.F. Matysek (GSB)

Funding for 1989 analyses was supplied in part under the Canada/British Mineral Development Agreement (1985-1989).

1989 Detailed Stream Sediment Sampling Program

G. McLaren and P.F. Matysek directed British Columbia Ministry of Energy, Mines and Petroleum Resources activities. Contracts let for sample preparation and analyses were supervised or monitored by staff of the Geological Survey Branch as follows:

Collection:

G. McLaren, G.G. Stewart, R. Lane, B. Nielsen. (GSB)

Preparation:

Rossbacher Laboratories (Vancouver)
W. Jackaman (GSB)

Analyses:

Becquerel Laboratories (Au + 33 other elements)
Barringer Research (Cu,Pb,Zn) (Calgary)
P.F. Matysek (GSB)

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STREAM SEDIMENT GEOCHEMISTRY OF THE PURCELL WILDERNESS STUDY AREA

OPEN FILE 1990-11

FIELD OBSERVATIONS AND ANALYTICAL DATA

Field Observations

MAP	SAMPLE ID	UTM ZONE	UTM EAST	UTM NORTH	STA	MED	FORM-ATION	WAT COL	WAT FLW	SED COL	SED PPT	CON	SED COMP	STRM WDTH	STRM DPTH	BNK	BNK PPT	CHL BED	CHL PTN	ELEV	PHY	DRN	TYP	ODR	SRC	WT
82F15	773217	11	518564	5527915		1	Kmg	0	3	W	N	N	130	2.7	13	T	N				Y	H	P	4	G	28
82F15	773218	11	515314	5528295		1	Kmg	0	3	W	N	N	130	2.7	13	T	N				Y	H	P	4	G	32
82F15	773219	11	512964	5526819		1	Cbmh	0	3	W	N	N	120	2.7	13	T	N				Y	H	P	4	G	32
82F15	773220	11	510303	5526152		1	Kmg	0	4	W	N	N	220	3.3	13	T	N				M	H	P	4	G	31
82F15	773222	11	520537	5520320		1	Kmg	0	3	T	N	N	120	2.1	13	T	N				Y	H	P	4	G	25
82F15	773223	11	519326	5523131		1	Kmg	0	3	W	N	N	120	1.2	13	T	N				Y	H	P	4	G	30
82F15	773224	11	519570	5523473		1	Kmg	0	3	T	N	N	120	2.1	13	T	N				Y	H	P	4	G	20
82F15	773225	11	516132	5524057		1	Cbmh	0	3	T	N	N	120	1.8	13	T	N				M	H	P	4	G	20
82F15	773226	11	516019	5523435		1	Cbmh	0	2	B	N	N	031	0.3	13	T	N				M		P	4	G	15
82F15	773227	11	510436	5523718		1	Kmg	0	4	W	N	N	220	3.6	13	T	N				M	D	P	4	G	23
82F15	773228	11	511122	5521235		1	Kmg	0	3	T	N	N	120	1.5	13	T	N				M	H	P	4	G	29
82F15	773229	11	511285	5519302		1	Pl	0	3	W	N	N	220	1.8	13	T	N				M	H	P	4	G	36
82F15	773230	11	510701	5517838	1	1	Pl	0	3	T	N	N	120	1.2	13	T	N				M	H	P	4	G	26
82F15	773231	11	510701	5517838	2	1	Pl	0	3	T	N	N	120	1.2	13	T	N				M	H	P	4	G	27
82F15	773232	11	511018	5515288		1	Pl	0	3	T	N	N	121	3.3	13	T	N				M	H	P	4	G	27
82F15	773233	11	510862	5513230		1	Pl	0	2	T	N	N	120	0.6	13	T	N				M	D	P	4	G	30
82F15	773234	11	510995	5512378		1	Pl	0	2	W	N	P	120	0.9	13	T	N				M	D	P	4	G	27
82F15	773243	11	505263	5529868		1	Pl	0	1	T	N	N	120	0.3	13	T	N				M			4	G	17
82F15	773244	11	506547	5533290		1	Cbmh	0	1	T	N	N	030	0.3	13	T	N				M	D	P	4	G	19
82F15	773245	11	506359	5534346		1	Cbmh	0	2	T	N	N	031	0.6	13	T	N				M	D	P	4	G	21
82F15	773246	11	506196	5536272		1	Cbmh	0	3	T	N	N	030	0.9	13	T	N				M	D	P	4	G	29
82F15	775200	11	517226	5533135		1	Cbmh	0	3	W	N	N	120	1.2	13	A	N				Y	H	P	4	G	24
82F15	775202	11	517452	5532822	1	1	Cbmh	0	3	W	N	N	120	3.0	25	A	N				Y	H	P	4	G	20
82F15	775203	11	517452	5532822	2	1	Cbmh	0	3	W	N	N	120	3.0	25	A	N				Y	H	P	4	G	25
82F15	775204	11	516961	5532603		1	Cbmh	0	4	W	N	N	210	1.2	25	A	N				Y	H	P	4	G	7
82F15	775206	11	514087	5532237		1	Pl	0	3	W	N	N	210	0.6	25	A	N				Y	H	P	4	G	8
82F15	775207	11	510208	5535849		1	Kmg	0	3	T	N	N	220	0.9	13	C	N				Y	I	P	4	G	23
82F16	775210	11	554907	5512984		1	PCc	0	3	T	N	N	022	0.9	13	A	N				Y	I	P	4	G	5
82F16	775213	11	562177	5513222		1	PCc	0	1	T	N	N	021	0.6	13	A	N				Y	I	P	4	G	11
82F16	775214	11	568149	5511603		1	PCau	0	2	T	N	N	111	0.9	13	A	N				Y	I	P	4	G	3
82F16	775215	11	568422	5515655		1	PCc	1	1	T	N	N	012	1.8	25	O	N				Y	I	P	4	G	5
82F16	775216	11	571864	5519423		1	PCc	0	2	T	N	N	210	1.8	13	A	N				Y	I	P	4	G	7
82F16	775218	11	561406	5516164		1	PCc	0	2	T	N	N	120	1.2	13	A	N				Y	I	P	4	G	10
82F16	775219	11	558762	5520040		1	Kmg	0	1	T	N	N	121	1.8	25	A	N				Y	I	P	4	G	6
82F16	775220	11	563993	5521933		1	PCk	0	2	T	N	N	210	2.4	38	A	N				Y	I	P	3	G	6
82F16	775222	11	558602	5525506	1	1	Kmg	0	2	T	N	N	111	2.4	25	A	N				Y	H	P	3	G	14
82F16	775223	11	558602	5525506	2	1	Kmg	0	2	T	N	N	220	2.4	25	A	N				Y	H	P	3	G	13
82F16	775224	11	558878	5527467		1	Kmg	0	3	T	N	N	111	2.4	13	A	N				Y	H	P	3	G	20
82F16	775225	11	553694	5532302		1	PCal	0	2	T	N	N	021	0.3	13	A	N				Y	I	P	3	G	2
82F16	775226	11	557674	5531117		1	Kmg	0	3	T	N	N	111	1.2	25	A	N				Y	H	P	3	G	7
82F16	775227	11	554227	5527463		1	Kmg	0	2	T	N	N	111	1.8	13	A	N				Y	I	P	2	G	8
82F16	775228	11	555267	5530416		1	Kmg	0	2	T	N	N	120	2.4	25	A	N				Y	I	P	2	G	19
82F16	775231	11	559856	5535498		1	PCal	0	3	T	N	P	120	1.8	25	A	N				Y	H	P	4	G	14
82F16	775233	11	560094	5535890		1	PCal	0	3	T	N	P	120	1.8	25	A	N				Y	H	P	3	G	5
82F16	775234	11	563249	5534780		1	Kmg	0	2	T	N	P	021	3.6	25	A	N				Y	H	P	2	G	7
82F16	775235	11	566206	5535038		1	Kmg	0	2	T	N	P	210	3.6	25	A	N				Y	H	P	2	G	12
82F16	775236	11	568146	5535418		1	Kmg	0	3	T	N	N	111	2.1	13	A	N				Y	I	P	3	G	3
82F16	775237	11	571628	5535462		1	Kmg	0	3	T	N	N	120	1.2	13	A	N				Y	I	P	3	G	13
82F16	775238	11	568457	5532975		1	PCk	0	3	T	N	N	210	3.0	25	A	N				Y	H	P	3	G	3
82F16	775239	11	566671	5530409		1	PCk	0	3	T	N	N	021	0.9	13	A	N				Y	H	P	4	G	7

Analytical Results

MAP	SAMPLE ID	UTM EAST	UTM NORTH	STA	MED	FORM-ATION	Au 1 ppb	Sb 0.1 ppm	As 0.5 ppm	Ba 50 ppm	Br 0.5 ppm	Ce 5 ppm	Cs 0.5 ppm	Cr 20 ppm	Co 5 ppm	Hf 1 ppm	Fe 0.2 pct	La 2 ppm	Lu 0.1 ppm	Mo 1 ppm	Ni 10 ppm	Rb 5 ppm	Sm 0.5 ppm	Sc 0.5 ppm	Na 0.1 pct	Ta 0.5 ppm	Tb 0.2 ppm	Th 0.2 ppm	W 1 ppm	U 0.2 ppm	Yb 1 ppm	Zr 200 ppm	Cu 2 ppm	Pb 2 ppm	Zn 2 ppm
82F15	773217	518564	5527915		1	Kmg	1	0.3	1.3	1000	2.2	89	5.9	20	6	6	1.6	62	0.1	3	10	270	6.8	4.9	2.5	6.5	1.0	19.0	10	25.6	1	270	4	5	44
82F15	773218	515314	5528295		1	Kmg	1	0.3	1.7	890	1.7	120	4.5	25	5	10	2.0	80	0.1	1	10	210	8.8	4.4	2.0	8.0	1.3	25.4	11	23.9	2	600	4	7	38
82F15	773219	512964	5526819		1	Cbmh	1	0.3	1.6	970	3.4	84	5.5	26	7	6	1.9	58	0.1	4	10	230	6.8	4.4	1.8	5.0	1.1	19.0	7	23.5	1	390	6	7	42
82F15	773220	510303	5526152		1	Kmg	1	0.3	1.7	1100	4.0	120	6.3	35	7	10	2.7	88	0.1	1	10	240	10.7	6.3	2.0	9.1	1.6	30.2	9	28.9	3	660	8	7	42
82F15	773222	520537	5520320		1	Kmg	1	0.3	2.0	470	7.9	97	3.3	47	14	12	2.8	59	0.1	1	26	110	8.4	7.4	0.9	1.7	1.4	16.0	2	13.0	3	680	10	17	86
82F15	773223	519326	5523131		1	Kmg	2	0.2	1.5	750	4.3	110	4.2	39	11	13	2.7	74	0.1	1	18	150	8.9	6.9	1.5	3.0	1.3	19.0	4	17.0	3	710	8	9	58
82F15	773224	519570	5523473		1	Kmg	1	0.7	4.6	800	20.0	130	8.2	33	8	6	2.5	110	0.1	1	10	240	10.0	5.5	2.4	5.1	1.5	26.8	5	77.7	2	330	8	26	72
82F15	773225	516132	5524057		1	Cbmh	1	0.2	0.8	740	11.0	120	20.0	110	30	10	5.5	69	0.1	1	51	200	11.3	16.0	0.7	2.7	2.0	17.0	11	7.8	4	700	32	4	60
82F15	773226	516019	5523435		1	Cbmh	1	0.3	2.0	650	18.0	97	7.7	58	17	10	3.8	52	0.1	1	32	170	8.5	11.0	0.8	2.6	1.4	16.0	2	6.4	3	630	14	9	54
82F15	773227	510436	5523718		1	Kmg	7	0.2	1.4	410	4.6	160	5.4	80	19	23	6.5	100	0.1	1	30	100	14.8	13.0	1.3	7.7	2.6	28.5	29	18.0	6	1500	14	5	36
82F15	773228	511122	5521235		1	Kmg	1	0.2	0.7	680	7.4	94	9.1	84	26	10	5.6	58	0.1	1	48	130	12.3	17.0	1.4	3.9	2.3	13.0	2	6.5	4	630	32	6	58
82F15	773229	511285	5519302		1	Pl	1	0.2	0.6	780	1.8	120	5.3	100	29	11	7.0	76	0.1	1	58	110	14.7	20.2	2.0	7.4	2.7	17.0	9	7.2	4	770	28	3	36
82F15	773230	510701	5517838	1	1	Pl	1	0.3	0.8	540	17.0	74	5.8	110	16	5	3.6	45	0.1	1	65	98	8.2	13.0	1.7	5.1	1.7	13.0	4	7.2	3	360	26	8	74
82F15	773231	510701	5517838	2	1	Pl	1	0.3	0.7	520	18.0	71	5.7	120	16	5	3.6	43	0.1	1	72	97	8.0	13.0	1.7	4.8	1.5	12.0	6	7.2	4	310	24	8	66
82F15	773232	511018	5515288		1	Pl	1	0.3	2.4	560	6.6	110	5.6	140	31	10	7.2	61	0.1	1	77	80	10.7	19.0	1.4	5.1	2.1	16.0	7	6.4	4	530	28	9	72
82F15	773233	510862	5513230		1	Pl	1	0.4	2.6	760	6.5	110	5.6	83	21	7	5.0	66	0.2	1	48	110	12.1	17.0	1.8	4.5	2.5	18.0	5	7.0	6	500	24	7	38
82F15	773234	510995	5512378		1	Pl	1	0.2	2.0	940	6.4	91	4.9	100	19	7	4.4	56	0.1	1	52	98	10.0	15.0	1.6	4.3	2.0	16.0	5	6.9	5	440	26	17	50
82F15	773243	505263	5529868		1	Pl	1	0.4	1.6	400	75.3	36	2.3	39	8	2	1.8	32	0.1	1	180	64	4.2	5.8	0.7	0.9	0.7	5.3	1	2.3	1	290	20	20	400
82F15	773244	506547	5533290		1	Cbmh	1	0.4	5.1	470	50.0	80	4.1	280	45	5	7.6	49	0.1	1	140	76	9.1	21.4	1.6	3.4	1.4	8.1	1	3.6	1	400	42	25	80
82F15	773245	506359	5534346		1	Cbmh	1	0.5	24.0	730	18.0	72	6.2	130	32	4	6.5	45	0.1	1	80	78	8.6	21.5	1.0	2.6	1.4	8.8	1	2.9	3	290	50	25	160
82F15	773246	506196	5536272		1	Cbmh	1	0.5	9.5	750	11.0	72	3.3	70	16	7	3.1	44	0.1	1	45	83	7.0	9.1	1.4	2.1	1.2	10.0	1	3.5	2	460	22	12	66
82F15	775200	517226	5533135		1	Cbmh	1	0.2	0.9	520	1.1	120	7.7	92	24	15	5.5	96	0.1	1	36	150	11.1	16.0	1.5	6.7	1.4	26.8	3	11.0	3	580	16	4	38
82F15	775202	517452	5532822	1	1	Cbmh	1	0.2	2.8	650	6.0	200	6.5	63	19	10	4.6	160	0.1	3	22	130	11.4	11.0	2.0	7.2	1.5	41.8	13	40.0	1	420	14	6	60
82F15	775203	517452	5532822	2	1	Cbmh	3	0.2	4.3	490	8.1	200	11.0	82	24	11	5.9	150	0.1	3	36	140	12.3	15.0	2.0	6.6	1.8	35.7	12	43.4	2	560	28	6	84
82F15	775204	516961	5532603		1	Cbmh	1	0.3	2.7	200	39.0	76	10.0	91	28	6	5.6	53	0.1	2	48	82	7.1	16.0	1.4	2.9	1.6	9.1	10	24.7	3	290	40	11	78
82F15	775206	514087	5532237		1	Pl	3	0.4	11.0	600	24.0	58	8.9	110	19	5	3.7	42	0.1	1	37	99	3.6	13.0	1.1	4.4	1.2	10.0	6	48.7	3	320	32	22	172
82F15	775207	510208	5535849		1	Kmg	4	0.1	2.8	490	4.4	77	5.3	33	8	7	1.9	54	0.1	2	16	180	6.7	6.2	1.7	9.2	1.2	21.3	5	17.0	3	360	8	6	52
82F16	775210	554907	5512984		1	PCc	1	0.8	34.0	430	23.0	78	15.0	61	31	3	2.8	69	0.1	3	43	120	10.1	11.0	0.9	1.1	2.1	12.0	2	11.0	2	200	38	43	142
82F16	775213	562177	5513222		1	PCc	1	1.5	1.9	250	8.6	45	8.5	26	6	4	1.7	72	0.1	1	11	100	10.0	8.7	1.0	1.2	1.7	8.2	1	43.0	3	200	18	13	52
82F16	775214	568149	5511603		1	PCau	1	1.8	18.0	450	14.0	92	8.5	27	17	4	4.0	60	0.1	2	22	110	10.0	10.0	1.0	1.5	1.6	12.0	1	6.6	4	350	26	36	100
82F16	775215	568422	5515655		1	PCc	1	1.3	4.8	380	13.0	74	5.8	37	7	4	2.1	79	0.1	1	10	98	14.5	8.4	0.9	0.9	2.2	11.0	1	10.0	4	440	20	25	48
82F16	775216	571864	5519423		1	PCc	6	1.4	6.1	380	3.7	86	3.5	39	7	7	1.8	50	0.1	1	10	83	7.6	7.1	0.7	1.3	1.2	11.0	2	4.3	2	420	10	6	30
82F16	775218	561406	5516164		1	PCc	1	1.9	2.3	220	2.6	88	4.1	24	8	8	1.8	54	0.1	1	11	60	8.6	6.0	1.3	1.4	1.5	11.0	1	10.0	3	480	8	7	28
82F16	775219	558762	5520040		1	Kmg	10	0.4	6.4	800	3.0	170	14.0	29	18	19	3.5	110	0.1	4	10	120	11.4	16.0	1.6	4.4	1.6	23.1	12	20.0	4	940	18	13	84
82F16	775220	563993	5521933		1	PCk	1	0.6	4.9	600	5.3	180	4.7	32	13	15	3.4	110	0.1	2	10	70	13.0	13.0	1.3	4.2	1.8	27.5	4	13.0	3	970	10	7	44
82F16	775222	558602	5525506	1	1	Kmg	1	0.3	2.5	470	6.9	180	8.2	31	6	29	1.8	130	0.1	2	21	150	13.8	8.9	2.3	12.0	2.1	55.7	37	63.8	3	1300	6	6	46
82F16	775223	558602	5525506	2	1	Kmg	11	0.3	1.7	610	3.2	190	6.7	28	5	26	1.6	130	0.1	2	10	130	13.3	10.0	2.7	11.0	2.1	48.1	31	42.8	3	1400	4	6	38
82F16	775224	558878	5527467		1	Kmg	1	0.3	2.0	440	3.2	300	7.0	20	5	38	1.6	213	0.1	1	10	160	19.7	9.3	2.9	17.0	2.8	87.4	69	72.8	3	1900	4	5	32
82F16	775225	553694	5532302		1	PCal	8	0.6	181.0	290	21.0	83	21.0	69	31	6	3.8	57	0.1	10	10	100	4.9	15.0	1.1	2.4	1.3	15.0	130	36.2	2	200	54	28	146
82F16	775226	557674	5531117		1	Kmg	1	0.2	1.4	280	3.4	230	6.8	20	5	22	1.3	170	0.1	1	10	170	14.0	6.8	2.7	15.0	2.1	69.9	29	65.1	2	930	4	5	30
82F16	775227	554227	5527463		1	Kmg	3	0.3	5.8	50	15.0	120	19.0	20	5	3	0.4	93	0.1	1	10	260	2.8	2.7	2.7	7.0	1.2	39.8	11	112.0	1	290	6	11	58
82F16	775228	555267	5530416		1	Kmg	6	0.2	2.6	1000	1.6	190	7.5	23	6	12	1.9	140	0.1	2	10	140	12.7	10.0	2.7	8.3	1.5	44.8	21	27.2	1	850	6	2	32
82F16	775231	559856	5535498		1	PCal	1	0.2	19.0	220	27.0	130	16.0	54	50	4	4.3	72	0.1	13	41	120	16.3	17.0	1.3	3.2	3.3	19.0	110	24.3	6	210	86	11	360
82F16	775233	560094	5535890		1	PCal	12	0.4	8.9	140	6.1	84	16.0	36	14	7	2.8	76	0.1	1	15	160	7.6	10.0	2.3	5.7	1.1	39.3	23	23.3	1	200	26	11	200
82F16	775234	563249	5534780		1	Kmg	3	0.4	8.7	330	1.0	140	9.0	40	13	13	3.1	110	0.1	2	10	110	10.0	12.0	1.8	8.2	1.4	39.9	62	35.8	2	590	14	6	62
82F16	775235	566206	5535038		1	Kmg	3	0.3	5.8	120	1.4	280	7.6	48	13	19	4.8	210	0.1	1	10	100	18.1	18.0	1.9	19.0	2.6	83.5	90	48.8	2	1000	12	6	54
82F16	775236	568146	5535418		1	Kmg	6	0.3	2.9	50	2.7	310	5.2	28	5	34	4.3	243	0.1	1	26	120	17.4	7.2	2.6	31.0	2.4	138.0	17	91.3	1	1400	4	7	26
82F16	775237	571628	5535462		1	Kmg	1	0.2	1.5	200	4.6	120	6.0	22	8	14	2.4	92	0.1	1	12	140	8.2	7.9	2.3	8.2	1.2	53.1	7	35.6	1	670	8	5	36
82F16	775238	568457	5532975		1	PCk	4	0.5	5.2	560	1.2	160	3.5	37	10	8	2.8	110	0.1	1	10	62	11.2	11.0	1.3	4.0	1.6	23.8	2	8.5	2	200	12	5	42
82F16	775239	566671	5530409		1	PCk	18	0.7	6.3	410	5.6	110	3.2	38	12	7	2.4	64	0.1	1	16	71	10.0	8.4	1.1	1.3	1.3	13.0	1	5.1	2	380	16	7	38

Field Observations

MAP	SAMPLE ID	UTM ZONE	UTM EAST	UTM NORTH	STA	MED	FORM-ATION	WAT COL	WAT FLW	SED COL	SED PPT	CON	SED COMP	STRM WDTH	STRM DPTH	BNK	BNK PPT	CHL BED	CHL PTN	ELEV	PHY	DRN	TYP	ODR	SRC	WT
82F16	775240	11	566270	5530266		1	PCk	0	2	T	N	N	220	3.6	38	A	N				Y	H	P	3	G	21
82F16	775243	11	565794	5527200		1	PCk	0	2	T	N	N	120	0.9	25	A	N				Y	I	P	4	G	18
82F16	775244	11	565144	5526906		1	PCk	0	3	T	N	N	111	0.9	25	A	N				Y	I	P	4	G	23
82F16	775245	11	565844	5525402		1	PCk	0	2	T	N	P	120	0.6	25	A	N				Y	I	P	4	G	16
82F16	775246	11	564579	5523791		1	PCk	0	3	T	N	N	220	0.6	13	A	N				Y	I	P	4	G	5
82F16	775247	11	567678	5520362		1	PCc	0	1	T	N	N	120	2.4	25	A	N				Y	I	P	4	G	12
82F16	775248	11	548189	5536835		1	PCau	0	3	T	N	N	111	1.5	13	A	N				Y	H	P	4	G	18
82F16	775249	11	548601	5536692		1	PCau	0	3	T	N	N	111	2.1	25	A	N				Y	H	P	3	G	11
82F16	775250	11	549414	5532639		1	PCal	0	2	T	N	N	030	3.0	25	A	N				Y	H	P	3	G	23
82F16	775356	11	536702	5538374		1	Kmg	0	2	T	N	N	120	1.8	13	A	N				Y	H	P	4	G	25
82F15	775357	11	532454	5537834		1	Kmg	0	2	W	N	N	120	1.5	25	A	N				Y	H	P	4	G	37
82F15	775358	11	526841	5535015		1	Kmg	0	2	W	T	N	111	2.4	25	A	N				Y	H	P	4	G	20
82F16	775359	11	544987	5538460		1	PCau	0	1	T	N	N	030	3.0	50	O	N				Y	H	P	4	G	9
82F16	775360	11	544315	5535364		1	PCau	0	2	T	N	N	030	2.1	25	A	N				Y	D	P	3	G	32
82F16	775362	11	544715	5535297		1	PCau	0	2	W	N	N	130	2.1	13	A	N				Y	H	P	4	G	31
82F16	775363	11	549279	5526038	1	1	Kmg	0	2	T	N	N	120	4.5	25	A	N				Y	H	P	4	G	13
82F16	775364	11	549279	5526038	2	1	Kmg	0	2	T	N	N	120	4.5	25	A	N				Y	H	P	4	G	15
82F16	775365	11	547813	5516492		1	PCal	0	2	T	N	P	121	1.2	13	S	N				Y	D	P	4	G	6
82F15	775390	11	519248	5517204		1	Cbmh	0	2	T	N	N	120	0.9	25	A	N				Y	H	P	3	G	19
82F15	775391	11	518892	5514798		1	Cbmh	0	2	B	N	N	121	2.4	25	A	N				Y	H	P	4	G	10
82F15	775405	11	534471	5518922		1	PCk	0	2	T	N	N	030	1.5	13	A	N				Y	D	P	4	G	22
82F15	775406	11	534356	5522824		1	PCd	0	2	T	N	N	220	1.5	13	A	N				Y	D	P	4	G	9
82F16	775408	11	540019	5530395		1	PCc	0	3	W	N	N	130	1.5	13	A	N				Y	D	P	4	G	32
82F16	775409	11	537299	5533560		1	PCc	0	3	W	N	N	030	1.5	13	A	N				Y	H	P	4	G	38
82F15	775410	11	534251	5532896		1	PCc	0	2	T	N	N	030	2.4	25	R	N				Y	H	P	4	G	32
82F15	775411	11	534800	5533241		1	PCc	0	3	W	N	N	130	3.0	25	R	N				Y	H	P	4	G	23
82F15	775412	11	529402	5527111		1	Kmg	0	3	W	N	N	220	1.5	13	A	N				Y	D	P	4	G	29
82F15	775413	11	525217	5522427		1	Kmg	0	2	T	N	N	220	1.8	25	A	N				Y	H	P	4	G	13
82F15	775414	11	525553	5528861		1	Kmg	0	2	T	N	N	021	4.5	25	A	N				Y	H	P	4	G	12
82F15	775415	11	522585	5531965		1	Kmg	0	3	T	N	N	120	2.4	13	A	N				Y	H	P	4	G	28
82F15	775416	11	520153	5531252		1	Cbmh	0	3	T	N	N	030	1.5	13	A	N				Y	H	P	4	G	27
82F15	775417	11	514316	5533042		1	Pl	0	2	T	N	N	220	1.2	25	A	N				Y	D	P	4	G	18
82F15	775429	11	500876	5522276		1	Tsk	0	3	T	N	N	220	0.9	13	A	N				Y	H	P	3	G	7
82F16	777130	11	569573	5514064	1	1	PCau	0	2	T	N	N	130	0.9	13	C	N				H	D	P	4	G	11
82F16	777131	11	569573	5514064	2	1	PCau	0	2	T	N	N	130	0.9	13	C	N				H	D	P	4	G	14
82F16	777132	11	570371	5512222		1	PCau	0	2	T	N	P	021	4.2	50	O	N				S	D	P	3	G	15
82F16	777133	11	571063	5512134		1	PCau	0	1	T	N	N	121	6.0	50	O	N				S	D	P	4	G	11
82F16	777145	11	544712	5511603		1	PCau	0	1	T	N	N	130	0.3	13	T	N				H		S	4	G	19
82F16	777146	11	543835	5514761		1	PCau	0	3	T	N	N	220	2.7	25	T	N				H	D	P	4	G	23
82F16	777147	11	543065	5515440		1	PCau	0	3	T	N	N	121	3.6	38	T	N				H	D	P	4	G	20
82F16	777151	11	539629	5528504		1	PCc	0	3	T	N	N	220	2.4	38	C	N				M	D	P	4	G	22
82F16	777152	11	538708	5527685	1	1	PCc	0	3	T	N	N	111	4.2	50	T	N				M	D	P	4	G	20
82F16	777153	11	538708	5527685	2	1	PCc	0	3	T	N	N	111	4.2	50	T	N				M	D	P	4	G	12
82F16	777154	11	537973	5526280		1	PCc	0	3	T	N	N	031	2.4	38	C	N				M	D	P	4	G	23
82F16	777155	11	537999	5524043		1	PCc	0	3	T	N	N	111	1.5	25	C	N				M		P	4	G	21
82F16	777156	11	538801	5525784		1	PCc	0	3	T	N	F	121	1.8	38	T	N				H	D	P	4	G	8
82F16	777157	11	539711	5522791		1	PCc	0	3	T	N	F	120	2.4	25	T	N				M	D	P	4	G	25
82F16	777158	11	539973	5520508		1	PCc	0	3	T	N	F	121	2.7	25	T	N				H	D	P	4	G	20
82F16	777159	11	539948	5515806		1	PCc	0	3	T	N	F	120	2.7	38	T	N				M	D	P	4	G	24
82F16	777160	11	540980	5516885		1	PCk	0	1	T	N	N	031	0.3	13	C	N				Y	D	S	4	S	4

Analytical Results

MAP	SAMPLE ID	UTM EAST	UTM NORTH	STA	MED	FORM-ATION	Au 1 ppb	Sb 0.1 ppm	As 0.5 ppm	Ba 50 ppm	Br 0.5 ppm	Ce 5 ppm	Cs 0.5 ppm	Cr 20 ppm	Co 5 ppm	Hf 1 ppm	Fe 0.2 pct	La 2 ppm	Lu 0.1 ppm	Mo 1 ppm	Ni 10 ppm	Rb 5 ppm	Sm 0.5 ppm	Sc 0.5 ppm	Na 0.1 pct	Ta 0.5 ppm	Tb 0.2 ppm	Th 0.2 ppm	W 1 ppm	U 0.2 ppm	Yb 1 ppm	Zr 200 ppm	Cu 2 ppm	Pb 2 ppm	Zn 2 ppm
82F16	775240	566270	5530266		1	PCk	1	0.5	4.8	700	2.9	180	4.0	35	12	7	2.8	110	0.1	1	10	70	13.6	13.0	1.7	3.7	1.8	22.1	2	7.6	2	380	8	5	32
82F16	775243	565794	5527200		1	PCk	1	0.7	8.6	370	4.0	89	3.3	25	14	6	2.6	55	0.1	1	14	55	9.3	10.0	1.0	1.5	1.4	11.0	1	4.4	2	380	14	7	38
82F16	775244	565144	5526906		1	PCk	1	0.3	3.3	420	6.7	150	5.3	33	12	39	3.2	120	0.1	1	10	82	11.6	11.0	1.7	7.3	1.7	46.3	21	57.5	3	1800	12	5	24
82F16	775245	565844	5525402		1	PCk	1	0.9	16.0	400	9.4	77	4.9	29	16	6	3.1	46	0.2	1	20	74	7.7	11.0	1.1	1.1	1.3	10.0	1	3.1	3	240	20	13	52
82F16	775246	564579	5523791		1	PCk	1	0.3	3.3	710	12.0	250	3.9	55	14	31	3.5	180	0.1	2	10	63	16.0	15.0	1.8	7.8	2.0	48.9	6	32.2	3	1600	8	6	40
82F16	775247	567678	5520362		1	PCc	1	1.2	5.2	410	18.0	67	4.7	36	6	5	1.9	54	0.1	1	15	78	10.6	10.0	1.0	0.8	2.1	15.0	1	12.0	4	250	104	10	26
82F16	775248	548189	5536835		1	PCau	2	0.2	31.0	470	11.0	84	29.0	58	22	5	3.8	57	0.2	1	34	150	9.0	14.0	1.1	1.1	1.7	13.0	24	5.2	3	440	40	27	168
82F16	775249	548601	5536692		1	PCau	3	0.3	32.0	480	27.0	88	14.0	46	26	7	3.3	56	0.1	2	14	89	7.9	14.0	1.2	1.2	1.6	11.0	29	10.0	3	340	28	14	86
82F16	775250	549414	5532639		1	PCal	10	0.3	21.0	580	4.6	81	15.0	44	21	7	3.4	52	0.1	2	20	83	7.8	16.0	1.5	1.3	1.5	10.0	13	5.9	4	490	32	9	64
82F16	775356	536702	5538374		1	Kmg	1	0.2	3.9	2100	5.2	290	4.5	20	5	7	1.1	235	0.1	10	10	190	11.3	3.4	3.4	3.7	0.7	38.3	7	24.0	1	230	2	8	34
82F15	775357	532454	5537834		1	Kmg	1	0.2	10.0	440	0.5	140	6.1	36	9	10	2.6	100	0.1	1	12	110	9.4	6.9	1.5	2.9	1.2	25.3	3	11.0	2	350	18	6	34
82F15	775358	526841	5535015		1	Kmg	1	0.1	2.2	1700	2.6	210	6.8	20	5	6	1.1	170	0.1	7	10	230	10.0	2.6	3.3	5.8	0.7	44.7	2	38.4	1	260	2	6	40
82F16	775359	544987	5538460		1	PCau	1	0.3	8.0	500	5.3	83	8.6	33	19	5	2.2	55	0.1	5	18	110	7.0	7.6	1.1	1.7	1.0	16.0	2	14.0	1	200	20	8	74
82F16	775360	544315	5535364		1	PCau	3	0.3	23.0	400	0.7	98	8.6	42	14	7	3.2	63	0.4	1	15	130	9.3	8.8	1.3	1.9	1.3	18.0	1	5.0	3	280	26	11	50
82F16	775362	544715	5535297		1	PCau	1	0.2	16.0	550	1.6	100	9.4	54	12	8	3.2	66	0.6	1	10	150	10.0	12.0	1.4	1.6	1.2	16.0	2	4.8	3	200	20	12	58
82F16	775363	549279	5526038	1	1	Kmg	1	0.4	0.5	420	2.2	480	8.0	45	8	69	5.2	362	0.1	1	10	130	32.1	15.0	2.7	27.0	4.5	148.0	32	83.9	1	3700	4	7	28
82F16	775364	549279	5526038	2	1	Kmg	1	0.3	1.9	690	4.6	260	13.0	34	10	37	3.5	217	0.1	1	10	160	15.3	10.0	2.8	15.0	1.9	72.7	19	67.4	2	1100	6	7	40
82F16	775365	547813	5516492		1	PCal	1	0.8	85.5	390	13.0	150	21.0	48	30	4	4.4	79	0.4	1	20	93	15.3	10.0	1.7	0.9	2.1	13.0	7	5.4	3	210	82	115	170
82F15	775390	519248	5517204		1	Cbmh	2	0.4	3.9	250	8.8	100	4.0	49	10	19	2.6	64	0.1	5	16	61	8.0	8.5	0.6	1.4	1.2	12.0	2	15.0	2	970	8	18	104
82F15	775391	518892	5514798		1	Cbmh	4	0.5	9.1	380	16.0	81	8.0	100	21	10	3.4	55	0.1	4	41	78	9.1	11.0	0.5	1.8	1.4	12.0	11	6.7	2	420	22	21	178
82F15	775405	534471	5518922		1	PCk	3	0.6	7.3	550	4.4	81	5.1	32	13	8	2.8	52	0.3	1	14	110	8.0	10.0	1.0	1.7	1.4	14.0	2	5.2	4	330	18	18	64
82F15	775406	534356	5522824		1	PCd	1	0.2	1.5	820	2.8	140	5.5	23	8	6	2.3	100	0.1	4	10	140	6.9	5.2	2.3	2.7	1.1	21.9	4	15.0	1	380	10	8	52
82F16	775408	540019	5530395		1	PCc	1	0.2	8.9	400	1.9	78	8.8	39	16	5	2.8	48	0.3	1	16	130	8.2	11.0	1.5	1.2	1.4	13.0	1	4.1	3	370	30	6	52
82F16	775409	537299	5533560		1	PCc	1	0.3	2.6	330	0.5	110	5.4	88	13	6	2.2	76	0.5	1	36	86	11.5	8.3	1.9	3.2	2.3	34.3	1	4.6	3	370	14	4	34
82F15	775410	534251	5532896		1	PCc	1	0.5	15.0	400	1.3	89	6.7	35	14	6	3.0	63	0.1	3	17	120	8.4	8.1	1.0	1.9	1.3	16.0	36	7.9	2	400	26	10	52
82F15	775411	534800	5533241		1	PCc	1	0.3	4.9	860	3.6	130	10.0	76	14	6	3.3	94	0.1	3	21	190	11.1	13.0	1.7	2.7	1.9	29.6	6	10.0	3	360	16	6	56
82F15	775412	529402	5527111		1	Kmg	1	0.2	5.8	620	4.4	230	4.9	42	10	10	3.8	160	0.1	2	14	110	12.3	7.8	1.6	3.8	1.6	32.9	21	19.0	1	510	12	8	44
82F15	775413	525217	5522427		1	Kmg	1	0.2	0.5	1100	2.9	320	4.2	20	5	10	2.2	249	0.1	3	10	170	11.6	4.0	3.2	7.6	2.0	53.3	5	69.0	1	420	2	7	34
82F15	775414	525553	5528861		1	Kmg	1	0.2	2.5	1200	6.1	170	5.2	20	5	6	1.3	130	0.1	3	10	170	6.1	4.2	3.0	4.0	1.0	27.8	2	60.1	1	250	4	10	46
82F15	775415	522585	5531965		1	Kmg	2	0.2	1.2	1100	2.0	240	4.0	20	5	10	2.1	180	0.1	2	10	170	11.3	5.8	2.1	5.5	1.2	45.6	2	28.2	1	450	6	4	26
82F15	775416	520153	5531252		1	Cbmh	1	0.4	4.3	690	3.2	110	11.0	81	23	10	4.3	68	0.1	2	31	160	10.0	14.0	1.0	3.1	1.5	17.0	7	8.9	3	560	22	15	74
82F15	775417	514316	5533042		1	Pl	1	0.2	2.2	500	6.2	160	5.9	65	17	11	5.0	130	0.1	2	26	130	10.0	12.0	1.7	8.5	1.7	34.4	12	31.3	2	440	14	5	48
82F15	775429	500876	5522276		1	Tsk	1	0.5	5.0	560	12.0	47	3.3	260	21	4	3.0	35	0.1	1	130	53	4.3	13.0	1.0	0.9	0.6	6.5	1	11.0	2	200	16	12	104
82F16	777130	569573	5514064	1	1	PCau	1	1.4	3.9	400	2.8	130	6.1	45	8	6	2.1	82	0.1	1	21	100	14.4	10.0	1.0	2.6	2.0	16.0	1	4.9	3	280	16	18	42
82F16	777131	569573	5514064	2	1	PCau	2	1.5	4.1	410	3.5	120	6.0	42	10	6	2.2	83	0.1	1	31	100	13.9	10.0	1.0	3.0	2.0	16.0	3	4.6	3	360	14	15	38
82F16	777132	570371	5512222		1	PCau	1	1.5	5.1	400	4.7	98	5.9	31	7	6	2.3	72	0.1	1	12	100	12.8	8.4	1.1	1.8	1.9	13.0	1	5.9	4	280	10	12	36
82F16	777133	571063	5512134		1	PCau	1	1.7	5.4	390	5.0	110	5.1	38	7	6	2.1	68	0.2	1	13	91	23.2	9.3	0.7	2.9	1.7	13.0	1	4.1	3	250	8	12	40
82F16	777145	544712	5511603		1	PCau	1	0.6	159.0	290	11.0	58	13.0	79	22	6	4.5	38	0.5	1	24	71	7.1	22.9	1.6	1.0	1.4	8.7	7	3.6	3	310	42	26	72
82F16	777146	543835	5514761		1	PCau	1	0.4	35.0	290	5.1	72	11.0	49	18	8	3.9	44	0.5	1	25	71	8.4	17.0	1.3	1.2	1.7	11.0	5	3.6	3	470	36	20	100
82F16	777147	543065	5515440		1	PCau	1	0.7	35.0	330	4.5	83	7.3	21	14	8	3.5	53	0.4	1	29	98	10.0	12.0	1.0	1.8	1.8	14.0	2	4.4	3	430	28	26	50
82F16	777151	539629	5528504		1	PCc	1	0.5	4.9	560	16.0	160	12.0	56	12	12	3.1	110	0.1	1	18	120	12.6	12.0	1.2	1.8	1.9	20.4	16	10.0	4	640	14	9	40
82F16	777152	538708	5527685	1	1	PCc	1	0.3	11.0	400	2.8	91	7.7	44	13	6	3.0	54	0.5	1	12	110	9.0	10.0	1.3	1.4	1.5	14.0	2	4.5	3	300	24	6	50
82F16	777153	538708	5527685	2	1	PCc	1	0.3	13.0	420	3.1	100	8.5	51	14	6	3.3	62	0.6	1	19	120	10.0	11.0	1.3	1.6	1.6	16.0	2	4.8	4	240	24	6	52
82F16	777154	537973	5526280		1	PCc	1	0.3	2.3	600	10.0	88	8.7	38	15	7	3.0	55	0.1	10	23	130	9.1	10.0	1.0	1.3	1.5	13.0	10	8.8	3	300	24	15	76
82F16	777155	537999	5524043		1	PCc	1	0.5	5.1	260	6.1	60	3.9	31	8	5	2.0	35	0.1	1	17	63	6.4	6.6	0.7	0.9	1.0	8.9	1	4.3	2	220	14	26	58
82F16	777156	538801	5525784		1	PCc	1	0.6	24.0	970	18.0	140	16.0	56	15	10	3.7	91	0.1	7	19	130	11.1	12.0	1.2	2.7	1.8	20.9	23	22.2	2	670	22	24	112
82F16	777157	539711	5522791		1	PCc	17	0.5	2.9	600	2.5	120	8.9	35	8	11	2.5	70	0.3	1	19	100	10.0	10.0	1.2	2.0	1.6	16.0	3	5.9	3	560	12	5	28
82F16	777158	539973	5520508		1	PCc	3	0.8	21.0	550	7.0	100	10.0	130	16	7	3.6	65	0.3	1	43	93	9.3	14.0	0.9	1.6	1.5	14.0	3	5.9	3	340	22	22	44
82F16	777159	539948	5515806		1	PCc	1	1.0	5.8	350	4.9	78	4.1	38	10	7	2.8	47	0.4	1	19	83	7.8	8.3	1.1	1.5	1.4	13.0	1	5.3	3	290	14	12	40
82F16	777160	540980	5516885		1	PCk	1	0.9	9.2	520	45.0	62	5.8	36	12	6	2.9	40	0.1	1	23	90	6.1	10.0	0.6	1.1	1.3	11.0	1	8.8	3	410	24	21	50

Field Observations

MAP	SAMPLE ID	UTM ZONE	UTM EAST	UTM NORTH	STA	MED	FORM-ATION	WAT COL	WAT FLW	SED COL	SED PPT	CON	SED COMP	STRM WDTH	STRM DPTH	BNK	BNK PPT	CHL BED	CHL PTN	ELEV	PHY	DRN	TYP	ODR	SRC	WT
82F16	777162	11	538800	5517664		1	PCc	0	3	W	N	F	220	2.7	25	T	N				H	D	P	4	G	19
82F16	777163	11	538558	5519127	1	1	PCc	0	3	T	N	F	120	4.5	25	T	N				H	D	P	4	G	25
82F16	777164	11	538558	5519127	2	1	PCc	0	3	T	N	F	120	4.5	25	T	N				H	D	P	4	G	26
82F16	777165	11	538305	5520057		1	PCk	0	4	T	N	F	130	6.0	38	C	N				H	D	P	4	G	19
82F16	777171	11	549704	5523436		1	Kmg	0	2	W	N	N	121	5.4	100	T	N				H	D	P	4	G	14
82F16	777172	11	550075	5522143		1	Kmg	0	3	T	N	N	210	4.8	50	T	N				H	D	P	4	G	16
82F16	777174	11	552253	5520444		1	Kmg	0	2	T	N	N	310	1.5	25	T	N				H	D	P	4	G	22
82F16	777175	11	551609	5519393		1	Kmg	0	2	T	N	N	121	2.7	50	O	N				L	D	P	4	G	14
82F16	777176	11	552382	5518276		1	Kmg	0	2	T	N	N	210	2.4	38	T	N				H	D	P	4	G	18
82F16	777178	11	552184	5515704		1	PCc	0	4	T	N	P	310	3.6	75	S	N				H	D	P	4	G	11
82F16	777179	11	550988	5514715		1	PCc	0	2	T	N	N	310	1.5	13	T	T				H		P	4	G	9
82F16	777180	11	551743	5516235		1	PCau	0	2	T	N	N	021	0.6	13	T	N				H	D		4	G	14
82F16	777182	11	549914	5512200		1	PCc	0	2	T	N	N	220	0.9	13	T	T				M	D		4	G	9
82F16	777186	11	549788	5513174		1	PCc	0	2	T	N	N	130	1.5	25	T	T				H	D	P	4	G	25
82F16	777188	11	537269	5528051		1	PCc	0	2	T	N	N	130	0.9	13	T	N				H		P	4	G	12
82F15	777189	11	534788	5530166		1	PCk	0	2	T	N	N	030	6.0	25	T	N				H	D	P	3	G	21
82F15	777190	11	534812	5529060		1	PCk	0	3	T	N	N	220	2.4	38	T	N				H	D	P	4	G	22
82F15	777252	11	503348	5515840		1	Tsk	0	2	T	N	N	121	1.8	13	C	N				M		P	4	G	27
82F15	777253	11	504196	5516247		1	Pm	0	3	T	N	N	031	0.6	13	R	N				M	H	P	4	G	10
82F15	777262	11	504030	5512995		1	Pm	0	2	T	N	N	121	3.0	25	T	N				M		P	3	G	22
82F15	777263	11	506436	5514381		1	Pl	0	3	T	N	P	220	4.5	75	R	N				M	D	P	3	G	31
82F15	777264	11	506263	5514097		1	Pm	0	3	T	N	N	310	3.0	50	R	N				M		P	1	G	33
82F15	777265	11	501891	5515577		1	Tsk	0	2	T	N	N	031	0.6	13	C	N				H	D	P	4	G	16
82F15	777271	11	506805	5520796		1	Pl	0	3	G	N	N	220	3.6	25	T	N				M		P	3	G	27
82F15	777272	11	505834	5523396		1	Pl	0	3	G	N	P	220	3.0	38	C	N				H		P	4	G	29
82F15	777273	11	505199	5525033		1	Pl	0	2	T	N	P	220	0.6	13	C	N				H		P	4	G	9
82F15	777274	11	501399	5526605		1	Tsk	0	2	G	N	N	120	1.8	13	S	N				M	D	P	4	G	25
82F15	777275	11	501265	5528836		1	Tsk	0	2	G	N	N	130	0.6	13	C	N				M		P	4	G	16
82F15	777276	11	501397	5532781		1	Tsk	0	2	T	N	N	031	0.6	13	C	N				M		P	4	G	16
82F15	777314	11	507056	5518882		1	Pl	0	3	T	N	N	031	1.2	13	T	N				M	D	S	4	G	15
82F15	777315	11	500797	5534800		1	Tsk	0	3	T	N	N	031	1.5	13	T	N				M	D	P	4	G	15
82F15	777329	11	509478	5529418		1	Kmg	0	3	T	N	N	031	1.5	13	T	N				M		P	4	G	14
82F15	777330	11	509760	5532250		1	Cbmh	0	2	W	N	N	120	6.0	13	G	N				M	D	P	4	G	25
82F15	777331	11	509813	5533266		1	Cbmh	0	2	T	N	N	030	3.0	13	T	N				M	D	P	4	G	16
82F15	779128	11	528768	5524790		1	Kmg	0	2	W	N	N	210	3.6	25	T	N				Y	H	P	3	G	27
82F15	779129	11	529017	5520951		1	PCh	0	3	W	N	F	210	7.5	38	T	N				Y	H	P	3	G	22
82F15	779130	11	529189	5518567		1	PCh	0	3	W	N	N	130	1.2	13	T	N				Y		P	4	G	30
82F15	779131	11	526717	5519309		1	PCh	0	3	W	N	N	220	2.4	25	T	N				Y		P	4	G	18
82F15	779132	11	527074	5519529		1	PCh	0	4	W	N	N	121	4.5	50	R	N				Y	D	P	4	G	16
82F15	779133	11	526988	5518202		1	PCh	0	4	W	N	N	130	2.4	25	T	N				Y	D	P	4	G	18
82F15	779134	11	530162	5515522		1	PCd	0	3	W	N	N	210	0.9	13	T	N				Y		P	4	G	24
82F15	779135	11	528433	5515376	1	1	PCh	0	3	W	N	N	130	1.5	13	T	N				Y	D	P	4	G	27
82F15	779136	11	528433	5515376	2	1	PCh	0	3	W	N	N	130	1.5	13	T	N				Y	D	P	4	G	23
82F15	779137	11	528181	5512468		1	PCmn	0	2	W	N	N	121	1.8	13	R	N				Y	D	P	4	G	18
82F15	779138	11	533439	5512099		1	PCk	0	2	W	N	N	310	0.9	13	T	N				Y	D	P	4	G	28
82F15	779139	11	532278	5511472		1	PCd	0	3	W	N	N	121	3.6	25	T	N				Y	D	P	4	G	25
82F15	779140	11	531172	5512224		1	Kmg	0	2	B	N	N	120	1.2	13	T	N				Y	D	P	4	G	19
82F15	779143	11	534259	5511381		1	PCk	0	3	W	N	N	120	0.9	13	T	N				Y	D	P	4	G	23
82F15	779182	11	522617	5512674		1	PCh	0	2	W	N	N	310	0.9	13	T	N				Y	D	P	4	G	12
82F15	779183	11	522730	5513258		1	PCh	0	3	W	N	F	120	1.5	13	T	N				Y	H	P	3	G	23

Analytical Results

MAP	SAMPLE ID	UTM EAST	UTM NORTH	STA	MED	FORM-ATION	Au 1 ppb	Sb 0.1 ppm	As 0.5 ppm	Ba 50 ppm	Br 0.5 ppm	Ce 5 ppm	Cs 0.5 ppm	Cr 20 ppm	Co 5 ppm	Hf 1 ppm	Fe 0.2 pct	La 2 ppm	Lu 0.1 ppm	Mo 1 ppm	Ni 10 ppm	Rb 5 ppm	Sm 0.5 ppm	Sc 0.5 ppm	Na 0.1 pct	Ta 0.5 ppm	Tb 0.2 ppm	Th 0.2 ppm	W 1 ppm	U 0.2 ppm	Yb 1 ppm	Zr 200 ppm	Cu 2 ppm	Pb 2 ppm	Zn 2 ppm
82F16	777162	538800	5517664		1	PCc	1	1.0	3.6	290	16.0	83	4.9	46	9	10	2.6	52	0.1	1	23	95	9.2	9.0	1.1	1.4	1.5	15.0	1	14.0	4	440	12	8	36
82F16	777163	538558	5519127	1	1	PCc	1	0.6	8.1	510	4.1	82	5.4	32	11	10	2.9	53	0.5	1	20	110	8.6	10.0	1.1	1.6	1.5	14.0	1	5.5	3	420	14	14	52
82F16	777164	538558	5519127	2	1	PCc	1	0.6	7.6	460	3.8	80	4.7	29	10	9	2.7	48	0.4	1	11	110	8.1	8.3	1.0	1.5	1.4	13.0	1	5.1	3	400	14	15	52
82F16	777165	538305	5520057		1	PCk	2	0.3	2.5	550	4.7	88	4.9	27	7	8	2.2	65	0.1	2	11	100	7.8	5.8	1.2	1.8	1.2	16.0	4	11.0	2	460	10	9	52
82F16	777171	549704	5523436		1	Kmg	1	0.3	2.5	530	8.3	130	15.0	20	6	9	2.4	93	0.1	1	10	180	8.5	8.1	2.6	4.9	1.1	26.6	8	100.0	1	360	8	9	60
82F16	777172	550075	5522143		1	Kmg	5	0.3	4.6	1300	6.8	340	7.0	40	9	44	4.0	235	0.1	1	10	84	20.7	16.0	2.2	10.0	2.4	66.1	19	31.6	3	1900	8	7	38
82F16	777174	552253	5520444		1	Kmg	1	0.4	3.7	560	5.4	230	8.2	28	6	50	2.3	170	0.1	1	10	120	16.8	11.0	2.6	13.0	2.2	68.8	54	65.8	2	1900	4	9	38
82F16	777175	551609	5519393		1	Kmg	1	0.4	12.0	920	8.8	170	11.0	32	9	23	2.5	110	0.1	3	10	90	13.9	14.0	1.7	6.0	1.8	35.4	36	25.2	2	930	12	9	50
82F16	777176	552382	5518276		1	Kmg	1	0.5	5.8	1400	10.0	260	16.0	39	12	32	4.2	170	0.1	2	10	120	19.8	17.0	1.8	7.6	2.5	47.9	47	26.8	2	1500	14	10	64
82F16	777178	552184	5515704		1	PCc	1	0.6	5.1	570	6.7	140	11.0	30	10	11	2.8	83	0.3	1	12	95	11.6	9.1	1.3	2.2	1.8	17.0	41	7.2	3	450	12	8	40
82F16	777179	550988	5514715		1	PCc	1	0.6	21.0	550	18.0	140	12.0	33	19	6	3.9	80	0.4	1	34	110	12.7	11.0	1.3	1.9	2.4	14.0	3	6.8	4	320	24	22	68
82F16	777180	551743	5516235		1	PCau	4	0.3	2.6	600	4.1	110	6.8	26	6	11	2.0	76	0.3	1	11	93	10.3	11.0	1.5	2.4	1.7	15.0	7	5.9	3	470	12	10	42
82F16	777182	549914	5512200		1	PCc	1	1.1	27.0	420	33.0	150	19.0	120	59	4	6.6	110	0.9	1	170	130	17.8	16.0	1.0	1.3	3.6	18.0	1	4.5	5	280	90	51	192
82F16	777186	549788	5513174		1	PCc	2	0.4	40.0	700	5.6	120	14.0	64	18	11	4.6	78	0.4	1	28	100	12.9	20.0	1.8	3.2	2.1	22.5	13	6.3	3	490	18	15	56
82F16	777188	537269	5528051		1	PCc	1	0.3	2.8	360	3.9	84	7.0	33	10	8	3.0	53	0.4	1	10	110	9.4	11.0	1.3	1.3	1.9	11.0	1	7.0	4	300	12	4	32
82F15	777189	534788	5530166		1	PCk	1	0.3	7.9	490	1.7	160	6.3	53	10	8	3.1	110	0.1	3	19	110	11.4	10.0	1.2	2.5	1.6	23.2	35	9.0	2	250	16	5	42
82F15	777190	534812	5529060		1	PCk	1	0.3	2.5	650	11.0	96	7.4	34	13	7	3.2	65	0.1	19	14	110	8.7	10.0	1.2	1.6	1.4	14.0	8	16.0	2	290	16	10	86
82F15	777252	503348	5515840		1	Tsk	4	1.5	15.0	930	7.4	64	5.7	310	39	5	4.7	42	0.1	1	190	91	7.4	19.0	1.2	1.1	1.0	10.0	1	3.2	2	270	40	27	120
82F15	777253	504196	5516247		1	Pm	9	0.7	6.4	440	62.0	23	5.7	85	13	2	1.8	17	0.1	1	65	41	2.9	7.2	0.6	0.5	0.5	3.9	1	2.0	1	200	24	24	88
82F15	777262	504030	5512995		1	Pm	1	1.5	24.0	800	8.5	110	6.3	47	10	17	4.2	78	0.1	1	17	110	10.0	9.2	2.0	4.4	1.2	17.0	1	8.9	1	680	8	23	108
82F15	777263	506436	5514381		1	Pl	3	0.8	11.0	1000	3.2	78	5.6	240	27	8	4.0	56	0.1	1	140	100	7.8	14.0	2.2	2.3	0.9	12.0	1	7.2	1	320	16	14	82
82F15	777264	506263	5514097		1	Pm	25	1.1	33.0	840	2.7	150	5.1	200	29	24	7.0	110	0.1	1	59	80	12.8	20.8	2.4	4.2	1.6	21.1	1	7.3	3	840	22	77	100
82F15	777265	501891	5515577		1	Tsk	3	0.8	12.0	490	32.0	54	5.3	250	24	6	3.4	35	0.1	5	120	91	4.7	12.0	1.2	1.1	0.6	7.4	2	7.0	2	200	28	32	178
82F15	777271	506805	5520796		1	Pl	11	0.7	7.3	550	4.3	72	3.7	220	29	6	4.1	49	0.1	1	68	63	8.0	17.0	1.2	1.2	1.0	11.0	1	3.1	2	200	24	13	68
82F15	777272	505834	5523396		1	Pl	3	0.9	5.9	680	5.7	56	3.8	210	22	5	3.2	39	0.1	1	110	66	5.7	13.0	1.5	1.1	0.8	8.1	1	3.6	1	290	22	12	86
82F15	777273	505199	5525033		1	Pl	1	0.4	4.5	690	23.0	51	8.0	110	27	3	8.3	37	0.1	1	79	50	5.3	14.0	1.0	0.9	0.7	6.0	1	2.8	2	200	28	6	108
82F15	777274	501399	5526605		1	Tsk	10	4.1	11.0	600	13.0	54	4.5	160	13	6	2.7	39	0.1	11	73	69	4.9	9.2	1.1	1.2	0.7	8.2	1	4.4	1	280	20	16	310
82F15	777275	501265	5528836		1	Tsk	2	1.0	3.1	460	24.0	41	2.5	60	5	7	1.2	28	0.1	1	18	38	3.5	5.3	1.0	0.8	0.2	5.3	1	2.5	1	270	12	9	98
82F15	777276	501397	5532781		1	Tsk	16	1.3	15.0	910	27.0	41	9.2	190	43	3	4.7	25	0.5	1	81	35	5.1	29.0	1.8	0.8	0.9	4.3	1	1.4	3	200	70	10	72
82F15	777314	507056	5518882		1	Pl	1	0.6	2.1	390	58.9	80	9.2	140	24	2	4.2	52	0.1	1	52	81	6.0	13.0	1.2	1.1	0.7	11.0	1	3.6	1	200	38	26	360
82F15	777315	500797	5534800		1	Tsk	1	0.7	15.0	470	95.3	28	3.8	220	24	2	3.5	16	0.1	1	92	24	3.2	20.3	2.0	0.5	0.6	2.7	1	4.0	2	200	16	8	42
82F15	777329	509478	5529418		1	Kmg	1	0.3	1.6	280	7.3	90	5.8	30	8	8	1.8	64	0.1	1	10	110	6.6	5.2	1.3	6.7	0.9	20.5	2	37.9	1	230	8	9	40
82F15	777330	509760	5532250		1	Cbmh	1	0.1	0.5	620	1.4	140	5.9	84	20	12	3.9	100	0.1	1	36	120	10.8	12.0	1.5	6.3	1.3	28.4	1	15.0	1	440	16	3	36
82F15	777331	509813	5533266		1	Cbmh	1	0.4	6.5	420	13.0	120	12.0	58	17	8	3.2	92	0.1	1	20	180	10.7	9.1	1.5	7.7	1.6	26.4	1	37.9	3	200	18	14	96
82F15	779128	528768	5524790		1	Kmg	1	0.3	7.3	680	5.7	120	6.8	45	10	8	3.1	81	0.1	1	29	120	12.5	8.3	1.4	2.3	1.2	19.0	8	20.5	2	390	14	12	52
82F15	779129	529017	5520951		1	PCh	1	0.2	3.9	730	1.6	380	2.9	29	5	10	3.0	268	0.1	1	13	96	21.1	6.9	1.6	6.1	2.0	52.0	9	13.0	1	610	6	4	20
82F15	779130	529189	5518567		1	PCh	1	0.7	1.4	580	1.0	61	7.4	29	8	8	2.0	37	0.1	1	17	88	17.5	6.3	0.6	1.5	1.0	10.0	2	4.1	2	380	10	3	34
82F15	779131	526717	5519309		1	PCh	1	0.4	2.8	590	11.0	82	3.6	29	5	7	1.7	59	0.1	4	12	99	31.9	4.1	0.9	2.2	0.8	14.0	2	18.0	1	330	4	15	36
82F15	779132	527074	5519529		1	PCh	1	0.4	3.5	830	14.0	190	5.6	20	5	8	2.2	150	0.1	4	12	160	11.3	3.7	2.5	4.8	1.3	33.7	6	80.8	1	220	2	15	64
82F15	779133	526988	5518202		1	PCh	1	0.3	6.9	150	8.0	80	3.1	51	10	9	2.9	65	0.1	1	31	69	0.5	7.0	0.8	1.8	1.1	15.0	2	42.8	2	300	16	12	72
82F15	779134	530162	5515522		1	PCd	1	1.0	3.0	160	7.1	78	5.4	27	7	9	2.5	53	0.1	1	13	82	12.3	6.2	0.8	1.6	1.3	12.0	1	20.1	3	380	8	11	40
82F15	779135	528433	5515376	1	1	PCh	1	0.6	8.6	290	4.1	100	4.4	39	11	8	3.0	69	0.1	1	31	70	13.7	7.0	0.7	1.5	1.2	14.0	1	18.0	2	290	16	15	66
82F15	779136	528433	5515376	2	1	PCh	1	0.6	8.0	260	3.8	100	4.1	37	11	8	3.0	71	0.1	1	29	69	20.2	6.9	0.6	1.7	1.3	15.0	2	20.1	2	370	18	14	66
82F15	779137	528181	5512468		1	PCmn	1	1.1	4.5	380	10.0	70	5.2	34	8	6	2.4	48	0.1	1	21	74	8.6	7.0	0.6	1.3	1.1	10.0	1	9.0	3	320	14	23	58
82F15	779138	533439	5512099		1	PCk	1	0.7	7.4	1100	3.4	81	5.7	34	12	7	2.9	51	0.2	1	22	86	14.9	7.2	0.6	1.6	1.2	13.0	1	4.1	3	350	20	22	64
82F15	779139	532278	5511472		1	PCd	1	1.5	7.1	510	4.4	67	4.6	41	12	5	3.0	41	0.1	1	20	64	11.7	9.0	0.6	1.2	1.0	10.0	1	3.2	2	300	16	20	72
82F15	779140	531172	5512224		1	Kmg	1	0.6	6.7	490	17.0	95	6.7	30	10	5	2.4	62	0.1	2	15	96	9.3	6.8	1.0	1.9	1.3	14.0	7	9.1	2	220	14	24	100
82F15	779143	534259	5511381		1	PCk	1	1.2	7.7	820	4.5	71	5.5	30	12	6	2.8	42	0.3	1	10	85	7.1	7.2	0.5	1.0	1.3	11.0	1	4.1	2	410	56	71	74
82F15	779182	522617	5512674		1	PCh	1	0.7	7.7	490	24.0	90	5.3	59	19	9	3.2	60	0.1	1	27	65	7.7	9.0	0.6	1.0	1.3	13.0	5	5.0	2	400	28	28	98
82F15	779183	522730	5513258		1	PCh	1	0.3	7.3	780	10.0	120	3.5	25	7	9	2.2	78	0.1	7	10	75	10.0	4.9	1.6	1.9	1.1	16.0	2	11.0	2	340	8	14	92

Field Observations

MAP	SAMPLE ID	UTM ZONE	UTM EAST	UTM NORTH	STA	MED	FORM-ATION	WAT COL	WAT FLW	SED COL	SED PPT	CON	SED COMP	STRM WDTH	STRM DPTH	BNK	BNK PPT	CHL BED	CHL PTN	ELEV	PHY	DRN	TYP	ODR	SRC	WT
82F15	779184	11	524779	5512035		1	PCh	0	2	W	N	F	220	0.6	13	T	N				Y		P	4	G	9
82F16	890001	11	543616	5514809	1	1	PCau	0	3	G	N	N	030	2.0	20	G	N	S	S	1215	M	D	P	3	S	20
82F16	890002	11	543616	5514809	2	1	PCau	0	3	G	N	N	030	2.0	20	G	N	S	S	1215	M	D	P	3	S	5
82F16	890003	11	543553	5514866		1	PCau	0	3	G	N	N	030	1.0	15	G	N	S	S	1215	M	D	S	3	S	34
82F16	890004	11	543018	5515569		1	PCau	0	3	G	N	N	120	3.0	10	O	N	B	S	1245	M	D	P	2	S	31
82F16	890006	11	541859	5515959		1	PCc	0	1	G	N	N	021	0.3	6	O	N	S	S	1260	M	D	S	1	S	27
82F16	890007	11	540447	5516486		1	PCc	0	1	T	N	N	021	0.1	5	O	N	F	S	1290	M	D	S	1	S	37
82F16	890008	11	539421	5515559		1	PCc	0	3	G	N	N	120	3.5	30	G	N	B	S	1335	M	D	P	2	S	38
82F16	890009	11	539677	5515546		1	PCc	0	3	G	N	N	120	2.0	15	G	N	B	S	1347	M	D	P	1	S	37
82F16	890010	11	538938	5517827		1	PCc	0	3	G	N	F	120	3.0	20	O	N	B	S	1245	M	D	P	1	S	31
82F16	890011	11	538937	5519035		1	PCc	0	3	G	N	F	030	4.0	20	O	N	S	S	1245	M	D	D	1	S	40
82F16	890012	11	539156	5520123		1	PCc	0	3	G	N	F	120	4.0	60	G	N	B	S	1257	M	D	P	3	S	35
82F16	890013	11	539524	5519105		1	PCc	2	2	T	N	N	120	1.0	20	O	N	S	S	1260	M	D	P	1	S	41
82F16	890014	11	539388	5517877		1	PCc	0	1	T	N	N	121	0.2	5	O	N	O	S	1245	M	D	P	1	S	35
82F16	890015	11	539496	5524329		1	PCc	0	3	T	N	F	210	1.5	15	O	N	S	S	1590	M	D	S	1	S	37
82F16	890016	11	539387	5524935		1	PCc			G	N	F	210	0.0	0					1575	M	D	S	1	S	0
82F16	890017	11	539613	5522930		1	PCc	0	3	G	N	F	210	1.0	15	O	N	B	S	1500	M	D	S		S	42
82F16	890019	11	539772	5521425		1	PCc	0	3	G	N	F	120	1.0	5	O	N	B	S	1395	M	D	P	2	S	36
82F16	890020	11	539705	5521257		1	PCc	0	3	G	N	F	120	2.0	10	O	N	B	S	1380	M	D	P	2	S	8
82F16	890021	11	539653	5520674		1	PCc	0	3	G	N	F	210	3.0	30	O	N	B	S	1335	M	D	P	1	S	0
82F16	890022	11	537738	5524040		1	PCc	0	3	T	N	N	300	1.5	15	T	N	B	S	1662	M	D	P	1	S	36
82F16	890023	11	538020	5525031		1	PCc	0	3	G	N	N	030	0.1	10	R	N	B	S	1464	M	D	P	1	S	38
82F16	890024	11	537773	5526410		1	PCc	0	3	T	N	F	030	4.0	30	O	N	B	S	1371	M	D	P	1	S	35
82F16	890025	11	538554	5525778		1	PCc	0	3	T	N	F	300	3.0	20	O	N	B	S	1350	M	D	P	1	S	0
82F16	890026	11	538390	5526647		1	PCc	0	2	T	N	F	111	1.0	5	O	N	S	S	1374	M	D	P	1	S	38
82F16	890027	11	538045	5527725		1	PCc			T	N	N	120	0.5	0	O		S		1368	M	D	S	1	S	28
82F16	890028	11	537342	5528128		1	PCc	0	2	T	N	N	120	1.0	10	O	N	S	S	1380	M	D	P	1	S	35
82F16	890029	11	552317	5535694	1	1	PCal	0	3	T	N	N	120	3.5	15	C	N	B	S	2091	M	D	P	2	S	34
82F16	890030	11	552317	5535694	2	1	PCal	0	3	T	N	N	120	3.5	15	C	N	B	S	2091	M	D	P	2	S	29
82F16	890031	11	552252	5535499		1	PCal	0	3	T	N	N	012	2.5	15	O	N	B	S	2085	M	D	P	2	S	33
82F16	890032	11	552160	5536049		1	PCal	0	2	T	N	N	210	1.0	10	A	N	B	S	2064	M	D	P	2	S	34
82F16	890033	11	552097	5537283		1	PCau	0	1	T	N	N	121	1.0	5	O	N	B	M	2007	M	D	P	1	S	32
82F16	890034	11	552319	5536997		1	PCau	0	2	T	N	N	120	1.5	20	O	N	B	S	2034	M	D	P	2	S	33
82F16	890035	11	552332	5536758		1	PCau	0	2	T	N	N	121	1.5	15	O	N	F	S	2040	M	D	P	1	S	33
82F16	890036	11	552377	5536572		1	PCau	0	2	F	N	N	121	1.0	20	O	N	B	S	2064	M	D	P	2	G	35
82F16	890037	11	555611	5537703		1	PCal	0	2	T	N	N	210	0.5	10	O	N	S	S	2310	M	D	P	1	S	32
82F16	890038	11	555207	5537409		1	PCal	0	2	T	N	N	210	0.0	0	O	N	S	S	2310	M	D	P	1	S	31
82F16	890041	11	554938	5536894		1	PCal	0	2	T	N	N	210	0.5	10	O	N	S	S	2220	M	D	P	1	S	22
82F16	890042	11	557448	5537536		1	PCal	0	2	T	N	N	210	1.0	20	O	N	S	S	1980	M	D	P	1	S	0
82F16	890043	11	558737	5537591		1	PCal	0	2	T	N	N	210	1.0	20	O	N	S	S	1935	M	P	P	1	S	29
82F16	890044	11	559262	5537366		1	PCal	0	2	T	N	N	210	0.5	10	O	N	S	S	1875	M	D	P	1	S	0
82F16	890045	11	559666	5537048		1	PCal	0	2	T	N	N	300	0.5	5	O	N	S	S	1800	M	D	P	1	S	0
82F16	890046	11	559854	5536876		1	Kmg	0	2	T	N	N	210	0.5	10	O	N	S	S	1800	M	D	P	1	S	32
82F16	890047	11	556373	5534924		1	PCal	0	2	T	N	N	210	1.0	25	O	N	S	S	2010	M	D	P	1	S	26
82F16	890048	11	556354	5534502		1	Kmg	0	2	T	N	N	120	0.5	10	O	N	S	S	2160	M	D	P	1	S	23
82F16	890049	11	554849	5532348		1	PCal	0	3	T	N	N	120	2.0	40	O	N	B	S	1950	M	D	P	1	S	37
82F16	890050	11	555061	5532542		1	PCal	0	2	T	N	N	120	1.0	20	O	N	S	S	1950	M	D	P	1	S	21
82F16	890051	11	549484	5532772		1	PCal	0	2	T	N	N	030	4.0	40	O	N	S	S	1914	M	D	P	1	S	32
82F16	890052	11	549528	5532850		1	PCal	0	2	T	N	N	310	0.5	10	O	N	S	S	1914	M	D	P	1	S	36
82F16	890053	11	549301	5533127		1	PCal	0	2	T	N	N	120	0.7	15	O	N	S	S	2070	M	D	P	2	S	27

Analytical Results

MAP	SAMPLE ID	UTM EAST	UTM NORTH	STA	MED	FORM-ATION	Au 1 ppb	Sb 0.1 ppm	As 0.5 ppm	Ba 50 ppm	Br 0.5 ppm	Ce 5 ppm	Cs 0.5 ppm	Cr 20 ppm	Co 5 ppm	Hf 1 ppm	Fe 0.2 pct	La 2 ppm	Lu 0.1 ppm	Mo 1 ppm	Ni 10 ppm	Rb 5 ppm	Sm 0.5 ppm	Sc 0.5 ppm	Na 0.1 pct	Ta 0.5 ppm	Tb 0.2 ppm	Th 0.2 ppm	W 1 ppm	U 0.2 ppm	Yb 1 ppm	Zr 200 ppm	Cu 2 ppm	Pb 2 ppm	Zn 2 ppm
82F15	779184	524779	5512035		1	PCh	1	0.3	11.0	240	1.2	110	3.9	52	14	12	3.6	74	0.3	1	36	60	11.4	8.2	0.5	1.4	1.2	15.0	3	4.0	3	510	22	12	60
82F16	890001	543616	5514809	1	1	PCau	1	0.4	25.0	340	2.1	71	10.0	54	17	6	4.3	38	0.1	1	22	67	8.4	17.0	1.2	1.8	1.6	10.0	10	3.0	3	370	33	14	79
82F16	890002	543616	5514809	2	1	PCau	1	0.4	23.0	340	0.5	68	8.2	62	15	6	4.3	36	0.1	1	10	67	7.2	18.0	1.3	1.4	1.5	10.0	6	2.7	3	200	34	13	80
82F16	890003	543553	5514866		1	PCau	1	0.4	23.0	420	3.6	80	9.0	64	18	6	4.8	44	0.1	1	21	81	8.6	19.0	1.7	1.6	1.5	11.0	11	3.3	4	330	28	14	86
82F16	890004	543018	5515569		1	PCau	1	0.5	25.0	540	1.9	75	7.6	44	14	6	3.9	45	0.1	1	17	120	8.6	12.0	1.2	2.1	1.4	13.0	3	3.6	3	420	32	20	47
82F16	890006	541859	5515959		1	PCc	3	1.3	9.1	320	20.0	81	5.8	68	13	5	2.7	46	0.1	1	20	93	8.0	8.5	0.6	1.5	1.2	12.0	3	3.2	3	200	29	34	67
82F16	890007	540447	5516486		1	PCc	1	0.6	2.8	230	8.4	55	4.3	35	10	6	3.0	33	0.1	1	10	51	6.1	10.0	1.1	2.1	1.1	8.3	1	5.7	3	250	15	8	24
82F16	890008	539421	5515559		1	PCc	4	1.1	4.3	460	2.7	79	3.8	65	19	7	6.2	44	0.1	1	19	110	8.5	7.9	1.0	2.3	1.4	14.0	2	4.4	4	500	11	9	30
82F16	890009	539677	5515546		1	PCc	3	0.3	20.0	400	3.2	75	4.3	50	12	6	3.1	43	0.1	1	14	110	8.0	9.2	1.2	2.4	1.4	14.0	2	4.0	4	410	61	13	82
82F16	890010	538938	5517827		1	PCc	1	0.7	2.2	310	5.6	65	3.4	41	11	6	2.7	36	0.1	1	10	89	7.1	6.2	0.8	1.4	1.3	11.0	2	6.3	3	400	15	7	34
82F16	890011	538937	5519035		1	PCc	1	0.6	4.7	380	1.2	70	3.4	30	10	8	2.6	39	0.1	1	10	85	7.4	5.9	0.8	2.0	1.2	11.0	2	3.5	3	350	13	8	40
82F16	890012	539156	5520123		1	PCc	1	0.4	2.2	620	2.3	97	4.0	27	9	7	2.6	61	0.1	1	10	100	8.3	4.5	1.1	2.9	1.1	17.0	6	7.5	2	560	13	9	39
82F16	890013	539524	5519105		1	PCc	1	0.8	9.0	270	8.0	61	6.9	53	24	6	6.6	35	0.1	1	24	68	7.5	24.3	1.3	2.1	1.5	8.8	2	3.2	3	200	38	19	53
82F16	890014	539388	5517877		1	PCc	1	0.8	6.0	260	6.5	57	7.6	59	30	6	7.9	32	0.2	1	15	68	7.4	26.3	1.2	2.5	1.4	8.2	1	2.9	4	200	57	23	71
82F16	890015	539496	5524329		1	PCc	1	0.4	3.5	530	5.6	120	7.3	48	11	8	3.2	71	0.1	1	10	110	10.4	9.5	1.0	2.9	1.6	17.0	14	6.4	4	420	21	13	51
82F16	890016	539387	5524935		1	PCc	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	0.0	0.0	0.0	0.0	0	0.0	0	0	24	12	81
82F16	890017	539613	5522930		1	PCc	1	0.5	1.8	540	1.7	120	7.0	46	10	11	2.7	72	0.1	1	10	73	10.0	8.1	0.9	3.2	1.5	17.0	12	5.6	3	430	10	6	26
82F16	890019	539772	5521425		1	PCc	1	0.3	3.6	580	1.6	110	8.1	38	6	11	2.5	66	0.1	1	10	90	10.0	8.7	1.0	2.9	1.4	15.0	6	4.3	4	620	14	9	33
82F16	890020	539705	5521257		1	PCc	1	0.4	7.7	600	5.0	130	10.0	666	18	11	3.9	75	0.1	1	75	100	9.0	10.0	1.0	3.1	1.3	20.7	21	6.7	3	610	19	26	80
82F16	890021	539653	5520674		1	PCc	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	0.0	0.0	0.0	0.0	0	0.0	0	0	32	18	67
82F16	890022	537738	5524040		1	PCc	1	0.4	3.9	300	2.7	75	3.4	33	13	5	2.6	42	0.1	1	10	80	7.6	6.7	0.7	1.7	1.2	10.0	3	3.1	2	340	20	17	40
82F16	890023	538020	5525031		1	PCc	1	0.3	2.4	430	0.5	83	2.9	22	13	7	2.5	45	0.1	1	14	65	8.1	5.2	0.5	1.5	1.2	10.0	8	3.2	3	430	13	12	27
82F16	890024	537773	5526410		1	PCc	1	0.2	1.4	450	3.6	77	6.0	21	11	6	2.4	42	0.1	3	10	98	7.7	6.5	0.7	1.5	1.3	11.0	12	5.2	3	360	18	9	65
82F16	890025	538554	5525778		1	PCc	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	0.0	0.0	0.0	0.0	0	0.0	0	0	25	33	164
82F16	890026	538390	5526647		1	PCc	1	0.8	1.7	300	1.4	100	5.9	47	7	6	2.1	59	0.1	1	10	73	11.1	7.3	0.4	2.2	1.7	14.0	5	4.1	3	200	10	7	44
82F16	890027	538045	5527725		1	PCc	1	0.2	1.6	610	4.2	76	6.9	49	10	6	2.4	52	0.1	1	21	180	11.7	8.5	1.2	1.8	2.2	13.0	2	6.1	4	320	18	7	42
82F16	890028	537342	5528128		1	PCc	1	0.3	4.0	400	6.6	86	7.8	26	12	7	4.3	48	0.1	1	12	120	10.3	12.0	1.2	2.3	1.9	14.0	2	7.0	4	410	16	5	42
82F16	890029	552317	5535694	1	1	PCal	6	0.4	82.5	330	14.0	76	45.0	58	83	1	7.4	47	0.1	1	52	130	11.6	23.3	1.6	2.1	2.5	10.0	96	5.0	5	200	183	19	206
82F16	890030	552317	5535694	2	1	PCal	34	0.3	80.6	300	14.0	72	42.0	57	80	2	7.0	47	0.2	1	63	110	11.3	22.3	1.5	2.2	2.5	10.0	91	4.9	6	410	170	12	200
82F16	890031	552252	5535499		1	PCal	1	0.4	179.0	470	16.0	83	29.0	71	61	3	5.2	55	0.1	1	43	110	12.5	15.0	1.4	1.9	2.5	12.0	57	6.1	6	200	98	36	137
82F16	890032	552160	5536049		1	PCal	1	0.3	18.0	560	8.9	87	38.0	100	13	4	4.1	53	0.1	1	19	150	10.1	14.0	1.8	1.8	1.6	11.0	7	5.4	4	470	22	10	111
82F16	890033	552097	5537283		1	PCau	12	0.3	68.9	420	17.0	69	47.0	140	44	2	6.1	46	0.1	1	24	130	7.6	21.7	1.2	1.7	1.4	10.0	40	5.0	3	300	66	7	156
82F16	890034	552319	5536997		1	PCau	1	0.3	50.0	400	5.4	62	29.0	63	40	3	5.7	31	0.1	1	27	100	6.2	20.0	1.4	1.2	1.2	9.0	11	3.1	3	200	61	6	88
82F16	890035	552332	5536758		1	PCau	1	0.3	22.0	240	10.0	59	15.0	55	18	4	3.9	34	0.1	1	10	65	6.9	17.0	1.4	1.4	0.9	7.1	12	8.6	3	300	30	6	48
82F16	890036	552377	5536572		1	PCau	1	0.5	31.0	380	6.4	83	23.0	51	36	3	5.4	45	0.1	1	30	120	9.1	14.0	1.5	1.5	1.5	13.0	7	5.8	4	390	86	15	161
82F16	890037	555611	5537703		1	PCal	1	0.5	71.8	470	14.0	75	14.0	110	14	5	3.9	40	0.1	1	15	120	8.8	15.0	1.2	1.3	1.6	10.0	5	4.2	3	200	40	10	110
82F16	890038	555207	5537409		1	PCal	70	3.0	15.0	610	1.7	14	1.0	160	20	1	3.4	12	0.1	30	65	37	3.1	15.0	2.7	0.5	0.7	1.5	1	1.6	1	200	1200	1	40
82F16	890041	554938	5536894		1	PCal	1	1.0	96.1	410	28.0	93	37.0	83	83	1	5.7	44	0.1	1	54	120	10.0	18.0	1.2	0.9	1.9	10.0	15	5.1	5	360	152	32	164
82F16	890042	557448	5537536		1	PCal	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	0.0	0.0	0.0	0.0	0	0.0	0	0	68	30	400
82F16	890043	558737	5537591		1	PCal	1	0.7	16.0	370	27.0	47	20.0	74	22	3	5.5	28	0.1	1	10	110	6.4	19.0	1.3	1.5	1.2	6.8	130	2.6	3	260	29	16	111
82F16	890044	559262	5537366		1	PCal	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	0.0	0.0	0.0	0.0	0	0.0	0	0	30	43	74
82F16	890045	559666	5537048		1	PCal	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	0.0	0.0	0.0	0.0	0	0.0	0	0	15	14	62
82F16	890046	559854	5536876		1	Kmg	1	0.4	5.2	130	2.6	150	14.0	63	11	10	4.5	110	0.1	1	10	160	11.4	15.0	2.2	11.0	1.7	49.5	83	40.2	3	200	16	22	65
82F16	890047	556373	5534924		1	PCal	4	0.3	62.3	420	18.0	230	27.0	100	84	2	4.1	91	1.4	1	76	150	34.6	13.0	1.0	1.3	6.6	8.4	110	4.7	14	200	170	19	460
82F16	890048	556354	5534502		1	Kmg	1	0.3	47.0	610	25.0	120	18.0	67	56	4	4.2	48	0.4	5	22	130	17.3	11.0	1.1	1.2	2.9	11.0	30	5.1	6	200	126	16	129
82F16	890049	554849	5532348		1	PCal	3	0.2	30.0	910	2.4	140	10.0	56	16	13	4.1	86	0.1	5	10	110	10.7	16.0	1.7	5.9	1.3	23.4	93	15.0	3	730	22	6	49
82F16	890050	555061	5532542		1	PCal	3	0.2	33.0	410	19.0	69	22.0	54	43	4	4.1	35	0.2	1	24	100	8.2	15.0	1.2	1.6	1.6	8.7	91	3.4	4	430	50	15	130
82F16	890051	549484	5532772		1	PCal	1	0.4	5.9	1300	1.5	130	10.0	46	8	7	2.6	78	0.1	1	15	78	9.3	12.0	1.2	2.4	1.5	15.0	16	10.0	3	530	15	10	58
82F16	890052	549528	5532850		1	PCal	218	0.2	214.0	570	8.4	73	18.0	68	23	5	4.6	42	0.1	2	25	110	7.5	16.0	1.0	1.3	1.3	11.0	15	5.0	3	340	63	27	110
82F16	890053	549301	5533127		1	PCal	1	0.3	11.0	450	13.0	63	22.0	33	9	4	2.3	43	0.1	1	10	110	8.0	8.3	1.6	1.3	1.3	10.0	25	3.8	3	380	26	32	104

Field Observations

MAP	SAMPLE ID	UTM ZONE	UTM EAST	UTM NORTH	STA	MED	FORM-ATION	WAT COL	WAT FLW	SED COL	SED PPT	CON	SED COMP	STRM WDTH	STRM DPTH	BNK	BNK PPT	CHL BED	CHL PTN	ELEV	PHY	DRN	TYP	ODR	SRC	WT
82F16	890054	11	549315	5534193		1	PCal	0	1	T	N	N	120	0.3	15	O	N	S	S	1917	M	D	P	1	S	40
82F16	890055	11	549220	5535126		1	PCal	0	2	T	N	N	210	0.5	10	O	N	S	S	1890	M	D	S	1	S	29
82F16	890056	11	551241	5531011	1	1	Kmg	0	1	T	N	N	210	3.0	30	O	N	F	M	1905	M	D	P		S	43
82F16	890057	11	551241	5531011	2	1	Kmg	0	1	T	N	N	210	3.0	30	O	N	F	M	1905	M	D	P		S	30
82F16	890058	11	548763	5536695		1	PCau	0	1	T	N	N	121	0.2	60	O	N	F	M	1830	M	D	P	1	S	37
82F16	890061	11	547345	5535295		1	PCau	0	2	T	N	N	112	3.0	10	O	N	S	M	1950	M	D	P	1	S	29
82F16	890062	11	540350	5530928		1	PCc	0	2	T	N	N	210	0.2	10					1650	M	D	P	2	S	27
82F16	890063	11	540268	5530963		1	PCc	0	2	T	N	N	210	0.2	10					1650	M	D	P	2	S	33
82F16	890064	11	539674	5530251		1	PCc	0	3	T	N	N	120	0.0	0					1590	M	D	P	2	S	0
82F16	890065	11	545525	5537756	1	1	PCau	0	2	T	N	N	030	3.5	20	G	N	S	S	1614	M	D	P	1	S	37
82F16	890066	11	545525	5537756	2	1	PCau	0	2	T	N	N	030	3.5	20	G	N	S	S	1614	M	D	P	1	S	0
82F16	890067	11	544821	5538531		1	PCau	0	3	T	N	N	030	4.0	20		N	B	N	1530	M	D	P	1	S	14
82F16	890070	11	541858	5535551		1	PCau	0	2	T	N	N	211	1.5	10	O	N	B	S	1866	M	D	P	2	G	30
82F16	890072	11	543472	5534653		1	PCau	0	3	T	N	N	211	4.0	30	S	N	B	S	1731	M	D	P	3	G	27
82F16	890073	11	543520	5534814		1	PCau	0	2	T	N	N	211	5.0	20	S	N	B	S	1725	M	D	P	3	G	35
82F16	890079	11	544891	5537131		1	PCau	0	3	T	N	N	210	0.2	10					1650	M	D	P	1	S	38
82F16	890086	11	551766	5538362		1	PCau	0	3	T	N	N	120	1.5	10	O	N	S	S	2037	M	D	P	1	S	31
82F16	890087	11	551907	5538576		1	PCau	0	2	T	N	N	021	1.0	15	O	N	S	S	1965	M	D	P	1	S	17
82F16	890197	11	565301	5528032	1	1	PCk	0	3	G	N	N	120	1.0	10	O	N	F	S	1440	M	D	S	1	M	31
82F16	890198	11	565301	5528032	2	1	PCk	0	3	G	N	N	120	1.0	10	O	N	F	S	1440	M	D	S	1	M	31
82F16	890199	11	567355	5532581		1	PCc			G	N	N	030	1.0	0	O	N	O	S	1374	M	D	S	1	M	0
82F16	890201	11	566476	5531446		1	PCc	0	1	G	N	N	030	0.5	5	O	N	S	S	1392	M	D	S	1	M	26
82F16	890202	11	565793	5529560		1	PCc	0	2	G	N	N	030	1.0	5	O	N	S	S	1413	M	D	S	1	M	28
82F16	890203	11	565564	5528781		1	PCk	0	2	G	N	N	120	0.5	5	O	N	S	S	1425	M	D	S	1	M	28
82F16	890204	11	565279	5527622		1	PCk	0	3	G	N	N	210	2.0	20	S	N	B	S	1464	M	D	P	3	M	26
82F16	890205	11	565233	5527000		1	PCk	0	3	G	N	N	210	1.5	15	S	N	B	S	1500	M	D	P	1	M	0
82F16	890206	11	565349	5526408		1	PCk	0	3	G	N	N	210	2.5	20	O	N	S	S	1506	M	D	P	1	M	11
82F16	890207	11	568614	5535048		1	Kmg			G	N	N	120	0.5	0	O	N	O		1254	M	D	S	1	S	10
82F16	890208	11	568002	5535028		1	Kmg	0	3	G	N	N	210	4.0	35	O	N	B	S	1275	M	D	P	3	M	0
82F16	890209	11	564720	5535014		1	Kmg	0	2	G	N	N	030	1.0	10	O	N	S	S	1320	M	D	P	1	M	19
82F16	890210	11	563582	5535182		1	Kmg	0	2	G	N	N	210	0.5	5	O	N	S	S	1410	M	D	P	1	M	10
82F16	890211	11	562346	5534937		1	Kmg			G	N	N	121	0.5	0	O	N	O	S	1440	M	D	S	1	S	27
82F16	890212	11	561785	5534690		1	Kmg	0	1	G	N	N	120	0.5	5	O	N	S	S	1422	M	D	P	1	M	31
82F16	890213	11	552710	5535490		1	PCal	0	1	T	N	N	120	1.0	5	O	N	F	B	2310	M	D	P	1	S	18
82K01	771055	11	559097	5541834		1	PCal	0	2	T	N	N	031	2.7	25	C	N				M	D	P	4	G	17
82K01	771056	11	558838	5542007	1	1	PCal	0	2	T	N	N	030	3.6	13	T	N				M	D	P	4	G	6
82K01	771057	11	558838	5542007	2	1	PCal	0	2	T	N	N	030	3.6	13	T	N				M	D	P	4	G	4
82K01	771058	11	561736	5543318		1	Kmg	0	2	T	N	N	030	0.6	25	T	N				M	I	P	4	G	4
82K01	771059	11	561916	5545953		1	PCau	0	3	T	N	N	120	3.0	13	T	N				M	D	P	4	G	3
82K01	771062	11	562699	5548432		1	PCau	0	3	T	N	N	120	2.4	13	T	N				M	D	P	4	G	3
82K01	771063	11	563916	5549073		1	PCau	0	3	T	N	N	030	2.1	13	T	N				M	D	P	4	G	6
82K01	771065	11	566647	5547881		1	PCau	0	1	T	N	N	120	0.3	13	T	N				M		P	4	G	5
82K01	771066	11	560958	5557978		1	PCc	0	3	T	N	N	031	0.9	13	C	N				M	D	P	4	G	1
82K01	771067	11	563174	5556745		1	PCc	0	2	T	N	N	121	1.2	13	C	N				M	D	P	4	G	5
82K01	771068	11	564086	5556244	1	1	PCc	0	3	T	N	N	121	2.1	13	C	N				M	D	P	4	G	7
82K01	771069	11	564086	5556244	2	1	PCc	0	3	T	N	N	121	2.1	13	C	N				M	D	P	4	G	6
82K08	771072	11	557546	5581643		1	PCh	0	2	T	N	F	130	1.8	13	C	N				M	D	P	3	G	11
82K08	771073	11	559700	5582400		1	PCh	0	3	W	N	N	030	1.5	13	C	N				M	D	P	4	G	5
82K08	771074	11	560435	5581308		1	PCmn	0	3	T	N	N	121	2.4	13	C	Y				M	D	P	4	G	14
82K08	771075	11	563058	5581337		1	PCmn	0	1	T	N	N	021	0.3	13	C	N				M	D	S	4	G	3

Analytical Results

MAP	SAMPLE ID	UTM EAST	UTM NORTH	STA	MED	FORM-ATION	Au 1 ppb	Sb 0.1 ppm	As 0.5 ppm	Ba 50 ppm	Br 0.5 ppm	Ce 5 ppm	Cs 0.5 ppm	Cr 20 ppm	Co 5 ppm	Hf 1 ppm	Fe 0.2 pct	La 2 ppm	Lu 0.1 ppm	Mo 1 ppm	Ni 10 ppm	Rb 5 ppm	Sm 0.5 ppm	Sc 0.5 ppm	Na 0.1 pct	Ta 0.5 ppm	Tb 0.2 ppm	Th 0.2 ppm	W 1 ppm	U 0.2 ppm	Yb 1 ppm	Zr 200 ppm	Cu 2 ppm	Pb 2 ppm	Zn 2 ppm
82F16	890054	549315	5534193		1	PCal	1	0.3	17.0	440	2.8	69	33.0	60	37	4	6.5	36	0.4	1	30	150	8.0	24.3	1.4	1.4	1.8	11.0	9	3.4	5	390	74	11	96
82F16	890055	549220	5535126		1	PCal	1	0.2	16.0	260	11.0	50	7.1	44	10	6	2.3	28	0.1	1	12	57	5.3	12.0	1.2	1.2	0.9	5.8	14	4.4	3	360	8	7	32
82F16	890056	551241	5531011	1	1	Kmg	1	0.3	3.7	1400	1.4	380	6.4	51	11	18	3.7	299	0.1	1	10	97	27.9	16.0	2.5	20.0	3.3	100.0	33	29.4	5	1200	7	4	42
82F16	890057	551241	5531011	2	1	Kmg	1	0.3	3.6	1300	2.1	330	7.6	55	14	21	3.4	240	0.1	1	10	110	22.3	13.0	2.2	16.0	2.6	93.3	42	33.2	3	1100	9	6	56
82F16	890058	548763	5536695		1	PCau	1	0.2	14.0	460	6.1	69	12.0	36	17	7	4.0	41	0.1	1	10	100	8.0	12.0	1.1	1.6	1.2	10.0	15	3.2	3	350	15	8	60
82F16	890061	547345	5535295		1	PCau	1	0.2	17.0	720	2.4	89	30.0	69	19	5	3.7	54	0.1	1	23	190	10.0	13.0	1.0	1.6	1.7	14.0	21	5.8	4	360	48	37	160
82F16	890062	540350	5530928		1	PCc	1	0.2	14.0	440	0.7	89	8.4	40	13	5	2.9	48	0.1	1	13	140	9.5	8.7	1.1	1.7	1.7	14.0	3	4.2	3	310	40	6	53
82F16	890063	540268	5530963		1	PCc	1	0.2	19.0	430	1.9	73	8.6	60	14	5	3.4	42	0.1	1	21	130	8.6	8.3	0.8	3.1	1.5	15.0	3	4.0	3	470	28	10	56
82F16	890064	539674	5530251		1	PCc	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	0.0	0.0	0.0	0.0	0	0.0	0	0	16	9	51
82F16	890065	545525	5537756	1	1	PCau	1	0.3	19.0	550	1.7	100	9.1	50	11	6	3.4	60	0.1	1	16	150	12.0	8.5	0.9	2.9	1.9	18.0	7	5.5	3	360	29	9	58
82F16	890066	545525	5537756	2	1	PCau	1	0.2	17.0	520	0.9	99	8.1	33	11	7	3.0	58	0.1	1	10	140	11.6	7.9	0.9	2.7	1.9	17.0	6	5.1	3	450	28	9	60
82F16	890067	544821	5538531		1	PCau	1	0.3	29.0	650	6.0	120	8.3	47	30	6	3.6	71	0.1	3	23	150	10.0	9.0	1.2	3.8	1.5	21.0	7	15.0	2	700	32	9	92
82F16	890070	541858	5535551		1	PCau	1	0.2	3.5	600	5.5	100	6.7	56	10	5	2.7	60	0.1	5	21	140	8.5	8.6	1.2	3.2	1.3	18.0	8	11.0	3	200	16	11	56
82F16	890072	543472	5534653		1	PCau	5	1.2	25.0	640	3.3	130	10.0	48	20	6	3.9	73	0.1	1	15	190	13.2	11.0	0.8	2.5	2.0	20.0	7	5.1	4	200	80	16	88
82F16	890073	543520	5534814		1	PCau	1	0.3	49.0	560	1.4	180	7.6	87	20	8	4.8	120	0.1	1	10	150	14.8	11.0	1.1	6.0	2.1	35.4	29	16.0	4	270	30	8	57
82F16	890079	544891	5537131		1	PCau	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	0.0	0.0	0.0	0.0	0	0.0	0	0	57	10	70
82F16	890086	551766	5538362		1	PCau	1	0.3	13.0	640	7.0	110	20.0	75	20	5	3.9	56	0.1	1	25	160	10.1	12.0	1.1	1.7	1.6	17.0	6	5.7	4	200	38	18	184
82F16	890087	551907	5538576		1	PCau	5	0.6	35.0	360	24.0	70	11.0	34	17	4	2.5	50	0.1	1	13	95	10.0	7.7	0.7	0.9	1.5	8.9	4	4.3	3	360	26	24	76
82F16	890197	565301	5528032	1	1	PCk	1	0.2	0.7	170	17.0	110	4.4	20	5	8	1.4	57	0.1	1	10	92	4.4	5.0	1.4	4.1	1.0	17.0	11	88.0	2	320	8	3	30
82F16	890198	565301	5528032	2	1	PCk	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	0.0	0.0	0.0	0.0	0	0.0	0	0	10	9	53
82F16	890199	567355	5532581		1	PCc	1	0.4	1.0	720	0.5	110	7.1	25	5	7	1.9	48	0.1	1	10	150	7.9	6.6	1.6	2.6	1.2	19.0	8	6.0	2	280	8	5	43
82F16	890201	566476	5531446		1	PCc	1	0.4	1.1	390	4.4	74	6.3	21	6	4	1.6	42	0.1	1	10	100	8.1	4.2	1.0	2.0	1.3	13.0	4	14.0	2	310	38	8	38
82F16	890202	565793	5529560		1	PCc	1	0.4	1.6	1000	27.0	72	4.1	25	5	10	1.9	61	0.1	1	10	90	8.8	5.5	1.4	5.4	1.1	24.0	15	283.0	2	410	9	3	23
82F16	890203	565564	5528781		1	PCk	1	0.3	1.0	480	18.0	170	6.1	24	5	8	2.0	78	0.1	1	10	78	10.9	8.8	1.4	3.2	1.5	20.0	13	43.2	3	420	22	2	38
82F16	890204	565279	5527622		1	PCk	1	0.3	1.6	50	23.0	120	4.9	38	5	7	1.6	58	0.1	1	10	93	3.5	5.4	1.4	3.7	1.0	16.0	10	113.0	2	280	10	4	26
82F16	890205	565233	5527000		1	PCk	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	0.0	0.0	0.0	0.0	0	0.0	0	0	8	10	63
82F16	890206	565349	5526408		1	PCk	1	0.3	2.3	400	10.0	190	5.9	35	7	15	3.1	97	0.1	1	10	82	9.1	8.2	1.4	6.1	1.3	34.6	13	48.6	2	680	12	9	68
82F16	890207	568614	5535048		1	Kmg	4	0.3	1.6	230	4.6	280	10.0	30	9	19	3.8	120	0.1	1	10	150	15.9	10.0	2.0	16.0	1.7	78.6	10	42.5	1	840	7	10	74
82F16	890208	568002	5535028		1	Kmg	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	0.0	0.0	0.0	0.0	0	0.0	0	0	31	336	740
82F16	890209	564720	5535014		1	Kmg	2	0.3	1.2	50	12.0	140	8.2	29	5	10	1.8	80	0.1	1	10	130	2.9	5.6	2.1	10.0	1.0	46.5	6	147.0	2	200	8	6	54
82F16	890210	563582	5535182		1	Kmg	1	0.3	1.7	50	9.3	250	13.0	38	5	16	3.5	130	0.1	1	10	130	9.3	6.6	2.5	16.0	2.3	90.3	11	138.0	3	670	8	8	44
82F16	890211	562346	5534937		1	Kmg	1	0.2	4.0	50	5.4	100	45.0	55	13	5	3.9	48	0.1	1	32	240	5.5	14.0	1.8	4.2	1.5	24.1	12	79.3	3	290	47	9	122
82F16	890212	561785	5534690		1	Kmg	1	0.2	1.3	290	2.0	170	12.0	20	7	10	2.1	100	0.1	1	10	230	9.0	6.2	2.6	10.0	1.2	48.1	11	39.3	1	640	11	6	55
82F16	890213	552710	5535490		1	PCal	1	0.4	51.8	380	19.0	150	29.0	60	160	2	4.8	78	0.3	1	100	86	28.5	13.0	0.9	0.9	6.3	12.0	10	7.5	11	200	315	36	306
82K01	771055	559097	5541834		1	PCal	38	26.1	115.0	240	6.1	86	15.0	34	35	6	3.7	51	0.1	14	22	140	6.5	13.0	1.3	2.1	1.1	20.0	24	38.1	3	230	44	650	174
82K01	771056	558838	5542007	1	1	PCal	1	7.1	54.8	210	6.2	77	12.0	35	24	6	3.3	44	0.1	3	20	95	5.4	14.0	1.1	1.8	1.2	15.0	20	20.0	2	330	30	255	112
82K01	771057	558838	5542007	2	1	PCal	36	9.3	63.4	220	4.0	69	12.0	43	22	5	3.1	39	0.1	3	17	100	5.3	13.0	1.0	1.5	1.0	12.0	17	17.0	3	200	32	310	122
82K01	771058	561736	5543318		1	Kmg	7	0.6	2.3	50	6.8	170	5.2	20	6	26	2.1	110	0.1	1	10	110	9.0	6.5	2.0	14.0	1.5	58.0	28	123.0	1	990	4	8	32
82K01	771059	561916	5545953		1	PCau	10	1.3	46.0	330	12.0	78	11.0	37	13	8	2.7	46	0.1	1	22	92	7.0	11.0	1.0	1.2	1.4	12.0	12	5.0	3	370	24	26	114
82K01	771062	562699	5548432		1	PCau	56	0.7	48.0	310	4.1	58	12.0	44	24	6	4.7	37	0.3	1	23	95	5.5	20.0	1.2	1.5	1.1	10.0	1	3.7	3	200	60	42	96
82K01	771063	563916	5549073		1	PCau	28	1.2	381.0	510	5.4	130	8.7	55	16	6	3.6	71	0.3	1	19	130	10.5	14.0	1.2	2.8	1.6	19.0	6	5.6	4	210	24	145	94
82K01	771065	566647	5547881		1	PCau	1	0.9	20.0	390	7.3	110	4.9	25	10	12	2.4	73	0.1	2	15	86	8.8	9.2	1.2	3.4	1.3	17.0	5	6.4	3	530	12	23	54
82K01	771066	560958	5557978		1	PCc	1	1.3	7.3	260	29.0	61	3.7	47	5	3	0.7	37	0.1	3	10	63	4.6	5.3	0.5	0.6	0.9	10.0	1	19.0	2	200	26	16	48
82K01	771067	563174	5556745		1	PCc	12	1.4	4.1	400	4.8	110	3.9	33	8	8	2.2	62	0.1	1	10	99	8.7	8.3	0.8	1.7	1.5	14.0	1	7.4	4	460	10	7	28
82K01	771068	564086	5556244	1	1	PCc	38	1.0	5.5	450	3.5	130	3.3	49	7	9	2.2	75	0.1	1	15	89	10.0	7.8	1.0	1.6	1.5	16.0	3	5.3	3	400	6	7	22
82K01	771069	564086	5556244	2	1	PCc	17	1.0	5.0	420	3.5	110	3.2	39	8	7	2.0	61	0.1	1	10	89	8.0	7.4	0.9	1.4	1.4	14.0	2	4.6	3	350	6	6	26
82K08	771072	557546	5581643		1	PCh	5	1.2	11.0	600	12.0	82	8.1	55	18	6	3.2	45	0.1	1	22	130	6.7	11.0	0.4	1.3	1.2	12.0	1	4.1	2	440	26	14	64
82K08	771073	559700	5582400		1	PCh	1	2.2	12.0	720	4.2	86	8.0	54	21	7	3.9	48	0.2	1	31	150	6.6	13.0	0.3	1.4	1.1	15.0	1	4.1	3	450	38	20	62
82K08	771074	560435	5581308		1	PCmn	36	1.7	8.0	1000	8.7	57	7.9	53	12	5	2.6	33	0.3	1	20	96	4.4	9.2	0.2	0.9	1.0	9.2	1	2.7	2	310	22	11	34
82K08	771075	563058	5581337		1	PCmn	1	1.0	4.5	630	118.0	48	7.9	20	10	3	1.8	22	0.1	1	10	72	2.8	5.4	0.3	0.6	0.2	6.2	1	3.1	1	200	20	10	46

Field Observations

MAP	SAMPLE ID	UTM ZONE	UTM EAST	UTM NORTH	STA	MED	FORM-ATION	WAT COL	WAT FLW	SED COL	SED PPT	CON	SED COMP	STRM WDTH	STRM DPTH	BNK	BNK PPT	CHL BED	CHL PTN	ELEV	PHY	DRN	TYP	ODR	SRC	WT
82K08	771076	11	563834	5580360		1	PCmn	0	1	W	N	N	220	0.6	13	C	N				M			4	G	5
82K08	771077	11	565992	5578035		1	PCmn	0	2	T	N	N	130	1.8	13	C	N				M	D	P	4	G	12
82K08	771078	11	568866	5579523		1	PCmn	0	1	B	N	N	031	0.6	13	C	N				M	D	P	4	G	13
82K01	771079	11	569920	5557867		1	PCc	0	2	T	N	N	021	0.6	13	C	N				M		P	4	G	7
82K01	771080	11	570703	5560289		1	PCc	0	1	T	N	N	121	0.9	13	C	N				M	D	P	4	G	15
82K01	771082	11	569856	5563178		1	PCc	0	1	B	N	N	120	0.3	13	C	N				M	D		4	G	6
82K01	771083	11	568764	5563242		1	PCc	0	3	T	N	N	021	0.9	13	C	N				M	D	P	4	G	6
82K01	771084	11	565982	5565419		1	PCk	0	3	T	N	N	121	2.4	13	C	N				M	D	P	4	G	2
82K01	771085	11	564675	5553826		1	PCc	0	2	T	N	N	031	0.6	13	C	N				M	D	P	4	G	3
82K01	771086	11	565718	5552937		1	PCau	0	2	T	N	N	130	0.3	13	T	N				M	D	P	4	G	16
82K07	771087	11	529214	5581033		1	PCh	0	3	T	N	F	030	0.3	13	T	N				Y		P	4	M	18
82K07	771088	11	527914	5582584		1	PCh	0	2	T	N	N	030	0.3	13	C	N				Y	H	P	4	M	5
82K07	771089	11	527478	5582866		1	PCh	2	3	W	N	N	120	3.6	13	T	N				Y	D	P	3	M	27
82K07	771090	11	528877	5578843		1	PCh	0	3	W	N	F	130	0.6	13	T	N				Y	H	P	4	M	21
82K07	771092	11	529544	5576679		1	PCh	3	4	G	N	P	030	4.5	13	T	N				Y	D	P	4	M	18
82K07	771093	11	532278	5577203		1	PCd	0	4	T	N	P	030	1.8	13	T	N				Y	D	P	4	M	11
82K07	771094	11	535187	5578233		1	PCd	3	4	T	N	N	030	2.4	13	R	N				Y	D	P	4	M	22
82K08	771095	11	537481	5578486	1	1	PCd	0	2	W	N	N	130	0.3	13	T	N				Y	D	P	4	G	11
82K08	771096	11	537481	5578486	2	1	PCd	0	2	W	N	N	130	0.3	13	T	N				Y	D	P	4	G	25
82K08	771097	11	538693	5580448		1	PCmn	0	4	G	N	N	130	1.8	25	R	N				Y	D	P	4	G	17
82K08	771098	11	544675	5578043		1	PCd	0	2	T	N	N	121	0.3	13	T	N				M		P	3	M	2
82K07	771099	11	533976	5578685		1	PCd	1	3	W	N	N	130	2.4	13	T	N				Y	D	P	4	M	19
82K08	771100	11	536699	5579418		1	PCd	1	2	G	N	N	030	1.8	13	T	N				Y	D	P	4	M	7
82K08	771102	11	541034	5578865		1	PCmn	0	3	W	N	N	220	1.8	13	T	N				Y	D	P	4	G	8
82K08	771103	11	553758	5588705		1	PCh	0	2	T	N	N	031	0.3	13	C	N				M	D	P	3	G	3
82K08	771104	11	557587	5592932		1	PCmn	0	2	T	N	N	121	0.3	13	R	N				M	D	P	3	G	10
82K08	771105	11	570752	5571946		1	PCd	0	2	B	N	N	121	0.3	13	T	N				M	D	P	3	G	12
82K08	771106	11	568423	5574361		1	PCd	0	1	B	N	P	022	0.3	13	C	N				M		P	3	G	7
82K08	771107	11	561935	5586998		1	PCmn	0	2	T	N	N	030	0.6	13	T	N				M	D	P	2	G	12
82K08	771108	11	562753	5588810		1	PCmn	0	2	T	N	N	030	0.6	13	T	N				M	D	P	3	G	10
82K08	771109	11	563005	5588592		1	PCmn	0	1	T	N	N	031	0.1	13	C	N				M	D		3	G	7
82K08	771110	11	566101	5587824		1	PCmn	0	2	T	N	N	030	0.3	13	C	N				M	D	P	2	G	11
82K08	771111	11	567759	5585737		1	PCmn	0	2	T	N	N	030	0.3	13	C	N				M		P	2	G	10
82K08	771123	11	569563	5566394		1	PCk	0	2	T	N	N	031	0.3	13	C	N				P	D	P	3	G	15
82K08	771124	11	570354	5568022		1	PCk	0	2	T	N	N	121	0.3	13	C	N				P	D	P	3	G	16
82K08	771125	11	569879	5569232		1	PCk	0	1	W	N	N	130	0.3	13	T	N				M	D	P	3	G	6
82K02	773125	11	506815	5538611	1	1	Cbmh	0	2	T	N	P	220	0.9	13	T	N				M		P	4	G	28
82K02	773126	11	506815	5538611	2	1	Cbmh	0	2	T	N	P	220	0.9	13	T	N				M		P	4	G	17
82K02	773127	11	506749	5539183		1	Cbmh	0	2	T	N	N	120	0.6	13	U	N				M		P	4	G	24
82K02	773128	11	506460	5542024		1	Cbmh	0	3	B	N	N	220	3.0	13	R	N				M	H	P	4	G	13
82K02	773129	11	505365	5546891		1	Cbmh	0	1	W	N	N	120	0.3	13	S	N				M	D	S	4	G	21
82K02	773130	11	501336	5548770		1	Pl	0	3	W	N	N	130	1.5	13	R	N				M	D	P	4	G	18
82K02	773131	11	504578	5548090		1	Cbmh	0	2	W	N	N	120	0.9	13	T	N				M		P	4	G	26
82K02	773132	11	503126	5554007		1	Cbmh	0	3	G	N	N	310	3.6	25	R	N				M	D	P	4	G	34
82K02	773133	11	509299	5546257		1	Cbmh	0	2	W	N	N	220	1.2	13	T	N				M		P	4	G	27
82K02	773134	11	508977	5547612		1	Cbmh	0	2	W	N	N	220	0.9	13	T	N				M	D	P	4	G	29
82K02	773135	11	508391	5548467		1	Cbmh	0	2	T	N	N	030	0.6	13	T	N				M	D	P	4	G	29
82K02	773136	11	507404	5550106		1	Cbmh	0	3	W	N	N	220	1.5	13	T	N				M	D	P	4	G	27
82K02	773137	11	506891	5552631		1	Pl	0	3	T	N	N	130	0.9	13	T	N				M	D	P	4	G	4
82K02	773138	11	506287	5556802		1	Cbmh	0	2	T	N	N	130	0.9	13	T	N				M	D	P	4	G	23

Analytical Results

MAP	SAMPLE ID	UTM EAST	UTM NORTH	STA	MED	FORM-ATION	Au 1 ppb	Sb 0.1 ppm	As 0.5 ppm	Ba 50 ppm	Br 0.5 ppm	Ce 5 ppm	Cs 0.5 ppm	Cr 20 ppm	Co 5 ppm	Hf 1 ppm	Fe 0.2 pct	La 2 ppm	Lu 0.1 ppm	Mo 1 ppm	Ni 10 ppm	Rb 5 ppm	Sm 0.5 ppm	Sc 0.5 ppm	Na 0.1 pct	Ta 0.5 ppm	Tb 0.2 ppm	Th 0.2 ppm	W 1 ppm	U 0.2 ppm	Yb 1 ppm	Zr 200 ppm	Cu 2 ppm	Pb 2 ppm	Zn 2 ppm
82K08	771076	563834	5580360		1	PCmn	67	1.2	7.1	690	4.8	71	5.6	46	14	5	3.0	39	0.3	1	22	100	4.6	10.0	0.3	1.0	0.9	10.0	1	2.8	2	250	26	14	52
82K08	771077	565992	5578035		1	PCmn	9	1.4	7.4	670	12.0	51	6.5	75	13	5	2.8	29	0.1	1	26	81	3.8	10.0	0.4	1.0	0.8	8.0	1	2.9	2	410	28	10	36
82K08	771078	568866	5579523		1	PCmn	6	0.7	4.5	850	36.0	56	10.0	29	7	4	1.8	31	0.2	1	12	61	4.2	7.1	0.9	0.9	0.9	7.4	1	2.5	2	240	18	6	22
82K01	771079	569920	5557867		1	PCc	4	1.1	5.2	600	18.0	67	2.9	31	9	5	1.8	38	0.1	1	12	81	5.3	7.5	0.7	1.0	1.1	10.0	1	6.2	3	230	26	9	26
82K01	771080	570703	5560289		1	PCc	12	1.1	3.5	400	17.0	65	11.0	28	7	5	1.8	39	0.1	1	10	85	5.2	5.8	0.6	1.0	1.0	8.8	1	6.1	2	270	6	5	20
82K01	771082	569856	5563178		1	PCc	1	0.9	4.5	630	26.0	57	7.9	28	5	4	1.5	34	0.1	1	10	75	4.2	6.7	0.7	0.7	1.0	8.5	1	5.6	1	230	14	10	30
82K01	771083	568764	5563242		1	PCc	8	1.1	4.7	640	21.0	67	3.1	28	7	4	2.1	37	0.1	1	10	72	4.9	7.6	0.9	0.8	1.2	9.2	1	4.4	2	200	28	10	30
82K01	771084	565982	5565419		1	PCk	1	1.6	12.0	280	21.0	55	4.1	37	9	4	1.9	32	0.1	1	10	87	4.5	7.1	0.8	0.9	1.0	8.6	1	3.8	2	200	18	12	40
82K01	771085	564675	5553826		1	PCc	1	1.3	94.9	430	26.0	120	6.3	55	15	5	3.2	62	0.1	1	27	130	8.6	12.0	1.0	2.4	1.6	16.0	3	13.0	4	500	24	47	120
82K01	771086	565718	5552937		1	PCau	2	0.9	10.0	470	1.6	93	5.5	36	17	6	2.7	54	0.4	1	18	110	7.4	11.0	1.2	1.4	1.5	14.0	3	3.8	3	320	22	16	44
82K07	771087	529214	5581033		1	PCh	1	1.6	28.0	430	2.1	76	4.2	38	13	7	2.5	44	0.3	1	19	110	6.4	8.1	0.9	1.1	1.4	13.0	2	3.8	3	380	16	31	46
82K07	771088	527914	5582584		1	PCh	1	1.4	26.0	230	33.0	71	2.7	27	36	10	1.5	39	0.3	1	34	64	5.0	5.1	0.7	1.0	1.0	10.0	1	3.5	3	560	56	22	32
82K07	771089	527478	5582866		1	PCh	1	1.2	13.0	260	0.5	110	2.3	35	12	12	2.2	67	0.3	1	16	64	8.9	6.4	0.8	1.2	1.8	16.0	1	4.6	3	520	18	11	30
82K07	771090	528877	5578843		1	PCh	1	0.2	2.6	190	1.8	66	1.0	20	6	13	1.1	36	0.1	1	10	35	5.0	3.3	0.3	0.7	0.9	11.0	1	3.7	1	630	4	7	16
82K07	771092	529544	5576679		1	PCh	1	0.2	7.9	390	0.5	130	1.9	52	16	11	2.9	76	0.3	1	20	73	8.7	8.3	0.6	1.1	1.6	19.0	1	3.6	2	510	22	7	34
82K07	771093	532278	5577203		1	PCd	1	1.0	23.0	350	0.5	110	2.8	50	17	9	3.4	65	0.4	1	14	88	8.9	8.8	1.0	1.3	1.7	15.0	1	4.2	3	560	14	25	50
82K07	771094	535187	5578233		1	PCd	3	1.1	18.0	350	0.8	90	3.5	31	14	7	2.3	53	0.4	1	14	100	7.3	8.4	1.0	1.1	1.5	13.0	1	3.7	3	430	18	20	44
82K08	771095	537481	5578486	1	1	PCd	31	3.0	46.0	470	6.4	120	4.4	38	19	10	3.2	69	0.3	1	15	110	10.0	8.9	0.5	1.4	1.8	18.0	2	5.6	4	420	38	44	56
82K08	771096	537481	5578486	2	1	PCd	4	2.9	42.0	380	3.7	110	3.8	28	17	9	3.1	67	0.4	1	10	100	9.4	7.9	0.4	1.3	1.9	17.0	1	5.0	3	360	38	47	46
82K08	771097	538693	5580448		1	PCmn	1	6.0	24.0	2600	1.9	66	3.0	45	20	4	3.4	39	0.1	1	24	72	5.0	9.0	0.3	0.6	1.0	12.0	1	2.8	1	200	42	125	100
82K08	771098	544675	5578043		1	PCd	6	3.7	6.8	510	4.6	42	2.8	30	9	5	1.9	33	0.2	1	10	76	3.6	5.6	0.2	0.7	1.1	8.8	1	3.6	2	200	20	48	78
82K07	771099	533976	5578685		1	PCd	1	1.4	20.0	460	0.5	96	3.6	23	10	8	2.0	56	0.3	1	14	95	8.4	6.9	0.6	1.2	1.7	14.0	3	4.0	3	430	18	27	50
82K08	771100	536699	5579418		1	PCd	1	4.3	24.0	460	0.5	60	3.6	78	24	2	3.6	39	0.1	1	43	110	4.8	10.0	0.3	0.8	1.1	13.0	1	3.0	1	290	64	25	44
82K08	771102	541034	5578865		1	PCmn	1	5.5	38.0	610	5.9	93	4.6	37	18	7	3.4	51	0.3	1	17	120	6.8	10.0	0.7	1.5	1.6	17.0	1	4.5	3	510	28	37	70
82K08	771103	553758	5588705		1	PCh	56	0.8	6.9	390	19.0	64	4.5	57	19	4	3.0	35	0.2	1	14	86	4.3	10.0	0.3	0.7	0.9	9.1	1	2.6	2	200	24	15	58
82K08	771104	557587	5592932		1	PCmn	2	1.2	8.7	550	6.3	74	4.4	50	16	5	2.9	43	0.2	1	24	100	5.3	10.0	0.4	1.0	1.0	12.0	1	3.0	2	200	28	18	58
82K08	771105	570752	5571946		1	PCd	6	0.8	4.3	570	25.0	62	6.8	30	7	6	1.7	35	0.1	1	15	64	4.5	7.5	1.0	0.9	0.9	8.2	1	3.1	2	430	8	6	16
82K08	771106	568423	5574361		1	PCd	4	0.6	9.3	670	42.0	41	2.6	27	10	3	2.3	24	0.1	1	10	54	2.9	6.0	0.6	0.6	0.6	5.9	1	5.8	1	240	10	7	30
82K08	771107	561935	5586998		1	PCmn	3	1.1	8.3	440	4.9	77	5.5	53	17	6	3.0	45	0.2	1	25	110	5.4	10.0	0.3	1.2	1.0	12.0	1	3.2	2	350	26	15	44
82K08	771108	562753	5588810		1	PCmn	6	1.1	9.2	420	8.4	70	6.0	63	18	5	3.2	44	0.2	1	31	120	5.4	11.0	0.4	1.1	1.1	12.0	1	3.2	1	250	36	15	56
82K08	771109	563005	5588592		1	PCmn	12	1.3	8.9	500	15.0	75	10.0	43	16	5	2.7	40	0.3	1	18	120	5.7	11.0	0.3	1.3	1.0	12.0	1	3.0	1	200	30	15	48
82K08	771110	566101	5587824		1	PCmn	13	1.1	11.0	650	19.0	85	12.0	40	11	7	2.1	49	0.1	1	11	110	6.2	7.4	0.4	1.4	0.9	12.0	1	3.3	1	490	12	9	30
82K08	771111	567759	5585737		1	PCmn	8	1.0	7.5	920	32.0	54	4.9	23	6	5	2.0	33	0.1	1	12	62	4.2	6.4	0.5	0.9	0.7	8.5	1	2.4	1	260	12	8	26
82K08	771123	569563	5566394		1	PCk	1	1.5	9.1	480	58.3	65	10.0	25	7	5	1.9	36	0.1	1	12	79	4.8	7.8	0.9	0.9	0.9	8.4	1	7.1	2	250	84	33	116
82K08	771124	570354	5568022		1	PCk	1	1.1	5.1	320	37.0	60	3.9	22	8	5	2.2	35	0.2	1	10	73	4.5	8.3	0.7	0.9	1.0	8.3	1	2.9	1	290	16	10	42
82K08	771125	569879	5569232		1	PCk	1	0.3	1.1	330	60.3	12	1.3	20	5	1	0.2	5	0.1	1	10	14	0.9	1.5	0.1	0.5	0.2	1.6	1	1.7	1	200	16	1	8
82K02	773125	506815	5538611	1	1	Cbmh	4	0.9	24.0	810	2.3	89	5.4	160	37	8	5.7	54	0.1	1	95	87	8.2	18.0	1.3	2.5	1.1	11.0	3	4.0	1	220	46	15	96
82K02	773126	506815	5538611	2	1	Cbmh	10	0.9	27.0	870	2.9	99	5.8	170	40	8	6.0	58	0.1	1	100	90	9.1	19.0	1.4	2.7	1.3	13.0	3	4.6	2	250	48	15	96
82K02	773127	506749	5539183		1	Cbmh	8	0.6	15.0	790	20.0	94	6.7	100	23	7	4.3	58	0.1	1	50	92	7.6	12.0	1.4	1.8	1.1	12.0	1	4.3	2	200	40	15	82
82K02	773128	506460	5542024		1	Cbmh	7	1.3	51.9	860	3.8	100	4.2	190	31	8	5.5	59	0.1	1	74	64	7.9	17.0	1.4	1.8	1.2	11.0	3	4.1	2	230	50	29	142
82K02	773129	505365	5546891		1	Cbmh	7	0.3	6.4	840	13.0	91	4.3	280	34	5	5.4	55	0.1	1	120	76	6.8	15.0	1.2	2.3	1.0	10.0	1	3.5	2	250	54	15	102
82K02	773130	501336	5548770		1	Pl	5	0.6	18.0	370	1.6	140	2.6	42	31	10	4.8	81	0.3	1	36	89	10.5	11.0	1.2	1.5	1.6	18.0	1	5.2	3	310	48	23	78
82K02	773131	504578	5548090		1	Cbmh	8	0.3	8.3	740	5.9	95	2.8	543	38	6	4.9	54	0.1	1	220	69	7.2	13.0	1.3	2.2	1.1	11.0	1	4.0	2	300	40	12	74
82K02	773132	503126	5554007		1	Cbmh	340	0.6	13.0	620	1.1	120	2.5	85	29	11	5.3	71	0.3	1	51	85	10.0	15.0	1.4	2.0	1.5	14.0	1	4.9	3	420	42	14	68
82K02	773133	509299	5546257		1	Cbmh	5	0.5	8.4	350	3.7	95	11.0	63	16	8	3.9	51	0.1	1	34	170	7.2	12.0	1.2	4.2	1.3	13.0	12	24.2	3	350	16	19	126
82K02	773134	508977	5547612		1	Cbmh	1	0.3	5.5	850	8.1	84	8.0	93	23	7	4.4	49	0.1	1	53	98	7.1	14.0	0.9	2.8	1.1	11.0	5	5.2	1	420	26	11	98
82K02	773135	508391	5548467		1	Cbmh	2	0.2	2.1	1000	12.0	68	4.6	45	13	7	3.0	41	0.1	1	33	74	5.8	8.6	0.7	1.5	0.9	10.0	3	3.6	1	220	20	8	92
82K02	773136	507404	5550106		1	Cbmh	25	0.2	3.0	860	5.5	87	4.2	110	26	9	5.2	55	0.1	1	46	69	7.6	16.0	1.1	2.2	1.3	12.0	2	4.1	2	400	32	17	225
82K02	773137	506891	5552631		1	Pl	21	0.3	2.9	870	13.0	87	3.0	65	19	7	3.7	46	0.1	1	47	75	6.1	11.0	0.8	1.4	0.8	11.0	1	3.7	1	290	30	20	136
82K02	773138	506287	5556802		1	Cbmh	3	0.3	3.8	810	19.0	99	2.7	83	22	12	4.4	64	0.1	1	44	68	8.3	14.0	1.0	2.2	1.2	13.0	1	4.3	2	250	32	15	152

Field Observations

MAP	SAMPLE ID	UTM ZONE	UTM EAST	UTM NORTH	STA	MED	FORM-ATION	WAT COL	WAT FLW	SED COL	SED PPT	CON	SED COMP	STRM WDTH	STRM DPTH	BNK	BNK PPT	CHL BED	CHL PTN	ELEV	PHY	DRN	TYP	ODR	SRC	WT
82K02	773139	11	506587	5559290		1	Cbmh	0	1	T	N	N	030	0.3	13	T	N				M		P	4	G	2
82K02	773140	11	506640	5558451		1	Cbmh	0	1	B	N	P	030	0.3	13	T	N				M		P	4	G	17
82K02	773209	11	504287	5549368	1	1	Cbmh	0	2	W	N	N	130	2.4	13	T	N				M	D	P	4	G	22
82K02	773210	11	504287	5549368	2	1	Cbmh	0	2	W	N	N	130	2.4	13	T	N				M	D	P	4	G	25
82K08	773232	11	548400	5593500		1	PCh	0	2	W	N	N	130	2.4	13	C	N				Y	H	P	4	G	31
82K08	773249	11	540977	5592886		1	PCmn	0	3	W	N	N	130	2.7	13	T	N				Y	D	P	4	M	30
82K07	773256	11	527799	5592171		1	PCh	0	3	G	N	N	220	3.6	13	R	N				Y	D	P	3	G	26
82K07	773257	11	527695	5591765		1	PCd	3	3	W	N	N	130	7.5	38	R	N				Y	D	P	2	G	26
82K07	773258	11	529868	5592972		1	PCd	0	3	G	N	N	030	0.9	13	S	N				Y		P	3	G	21
82K07	773259	11	535825	5586215		1	PCh	0	3	W	N	N	130	2.4	13	C	N				Y	D	P	4	G	18
82K07	773260	11	534535	5588382		1	PCd	2	2	G	N	N	130	2.7	25	T	N				Y	D	P	3	G	30
82K07	773263	11	534275	5588416		1	PCd	2	3	W	N	N	120	4.5	25	T	N				Y	D	P	4	G	32
82K07	773264	11	534775	5589156		1	PCd	0	3	W	N	N	130	2.7	13	C	N				Y	D	P	4	G	19
82K07	773265	11	533552	5590733		1	PCd	3	3	G	N	N	120	1.8	13	C	N				Y	D	P	4	G	26
82K07	773266	11	533771	5591373		1	PCmn	0	1	T	N	N	130	0.3	13	C	N				Y	D	P	4	G	26
82K07	773270	11	527327	5590808		1	PCd	0	3	W	N	N	130	4.5	25	C	N				Y	D	P	3	G	30
82K07	773271	11	526853	5591173		1	PCd	3	2	W	N	N	030	2.7	25	C	N				Y	D	P	3	G	25
82K07	773272	11	528465	5589861		1	PCh	0	3	G	N	N	130	1.5	13	S	N				Y		P	4	G	20
82K01	773310	11	559058	5558968		1	PCc	0	2	W	N	N	030	2.4	13	C	N				M	D	P	4	G	12
82K01	773311	11	557245	5558432		1	PCc	0	2	T	N	N	030	2.1	13	C	N				M	D	P	4	G	7
82K08	773312	11	563776	5567249		1	PCk	0	2	W	N	N	031	1.8	13	C	N				M	D	P	3	G	22
82K08	773313	11	563869	5567928		1	PCk	0	2	W	N	N	030	2.1	13	C	N				M	D	P	3	G	25
82K02	775002	11	522697	5553018	1	1	PCh	0	3	T	N	N	210	0.6	13	C	N				Y	H	P	4	G	25
82K02	775003	11	522697	5553018	2	1	PCh	0	3	T	N	N	210	0.6	13	C	N				Y	H	P	4	G	16
82K02	775004	11	521682	5552135		1	PCh	0	3	T	N	N	220	1.2	13	C	N				Y	H	P	4	G	31
82K02	775005	11	518996	5551230		1	PCh	0	3	T	N	N	120	0.3	13	C	N				Y	H	P	4	G	22
82K02	775006	11	516629	5549383		1	Cbmh	3	4	T	N	P	220	3.0	38	C	N				Y	I	P	4	G	12
82K02	775007	11	514560	5550888		1	Cbmh	3	4	T	N	P	220	3.0	38	C	N				Y	I	P	4	G	28
82K02	775008	11	511518	5547718		1	Pl	0	3	T	N	N	210	0.9	13	C	N				Y	I	P	4	G	15
82K08	775257	11	550976	5588709		1	PCmn	0	3	W	N	N	210	0.9	15	T	N				Y	D	P	2	G	4
82K08	775258	11	545751	5591294		1	PCd	0	3	W	N	N	120	1.5	20	T	N				Y	H	P	4	G	27
82K07	775259	11	525493	5588805		1	PCh	0	3	W	N	N	220	3.0	25	T	N				Y	D	S	2	G	30
82K07	775271	11	517293	5593270		1	PCh	0	3		N	N	030	1.8	20	T	N				Y	D	P	4	G	28
82K07	775272	11	517782	5593172		1	PCh	0	3		N	N	220	2.4	25	T	N				Y	D	P	4	G	36
82K01	775354	11	537436	5562179		1	PCk	0	2	T	N	N	120	1.5	13	A	N				Y	H	P	3	M	31
82K01	775356	11	536907	5566077		1	PCk	0	2	T	N	N	120	1.8	13	R	N				Y	H	P	3	M	32
82K07	775357	11	534044	5569689		1	PCd	2	3	G	N	N	120	2.1	25	A	N				Y	I	P	2	M	39
82K07	775358	11	535116	5569378		1	PCd	0	2	T	N	N	121	2.1	13	A	N				Y	I	P	3	M	27
82K08	775359	11	540351	5572898		1	PCd	0	2	T	N	N	210	1.8	13	A	N				Y	I	P	3	G	29
82K08	775360	11	539651	5569325		1	PCk	0	2	T	N	N	220	1.5	13	A	N				Y	I	P	3	G	15
82K08	775362	11	541207	5570491	1	1	PCd	0	2	T	N	N	120	0.9	13	A	N				Y	I	P	3	G	22
82K08	775363	11	541207	5570491	2	1	PCd	0	2	T	N	N	120	0.9	13	A	N				Y	I	P	3	G	23
82K08	775364	11	539844	5574178		1	PCd	0	2	T	N	N	111	1.2	13	A	N				Y	I	P	3	G	14
82K08	775365	11	542782	5571517		1	PCk	0	3	T	N	N	211	0.6	13	A	N				Y	I	P	3	G	6
82K08	775366	11	546915	5575387		1	PCd	2	2	T	N	N	220	1.2	13	A	N				Y	H	P	3	M	45
82K08	775367	11	550448	5576693		1	PCd	0	2	T	N	N	210	1.2	13	A	N				Y	I	P	3	G	15
82K08	775368	11	550941	5578539		1	PCd	0	3	T	N	N	210	1.5	13	A	N				Y	I	P	3	G	9
82K08	775369	11	551515	5578942		1	PCd	0	3	T	N	N	022	1.5	13	A	N				Y	I	P	4	G	21
82K08	775371	11	550597	5585935		1	PCd	0	3	T	N	N	022	0.6	13	A	N				Y	I	P	3	G	5
82K08	775372	11	551489	5582036		1	PCmn	0	3	T	N	N	121	0.3	13	A	N				Y	I	P	3	G	2

Analytical Results

MAP	SAMPLE ID	UTM EAST	UTM NORTH	STA	MED	FORM-ATION	Au 1 ppb	Sb 0.1 ppm	As 0.5 ppm	Ba 50 ppm	Br 0.5 ppm	Ce 5 ppm	Cs 0.5 ppm	Cr 20 ppm	Co 5 ppm	Hf 1 ppm	Fe 0.2 pct	La 2 ppm	Lu 0.1 ppm	Mo 1 ppm	Ni 10 ppm	Rb 5 ppm	Sm 0.5 ppm	Sc 0.5 ppm	Na 0.1 pct	Ta 0.5 ppm	Tb 0.2 ppm	Th 0.2 ppm	W 1 ppm	U 0.2 ppm	Yb 1 ppm	Zr 200 ppm	Cu 2 ppm	Pb 2 ppm	Zn 2 ppm
82K02	773139	506587	5559290		1	Cbmh	17	0.2	0.9	440	52.9	38	1.3	20	5	3	2.9	22	0.1	1	20	26	2.8	4.4	0.6	0.8	0.2	5.0	1	3.0	1	200	10	6	146
82K02	773140	506640	5558451		1	Cbmh	3	0.1	0.7	590	27.0	90	1.5	31	5	11	1.8	51	0.1	1	10	51	6.6	7.8	0.9	1.5	0.9	10.0	1	4.4	2	440	6	4	50
82K02	773209	504287	5549368	1	1	Cbmh	8	0.5	16.0	400	1.7	110	2.5	59	30	7	4.6	77	0.1	1	43	88	9.3	11.0	1.3	1.6	1.5	16.0	1	4.5	2	210	48	23	70
82K02	773210	504287	5549368	2	1	Cbmh	5	0.5	17.0	420	1.6	110	2.5	58	29	8	4.5	77	0.1	1	34	92	10.0	11.0	1.2	1.8	1.5	16.0	1	5.0	2	250	46	21	76
82K08	773232	548400	5593500		1	PCh	1	6.3	15.0	770	2.6	81	4.9	45	15	7	3.2	50	0.1	1	22	110	7.4	11.0	0.3	1.3	1.1	14.0	2	4.1	2	200	32	73	88
82K08	773249	540977	5592886		1	PCmn	4	17.4	37.0	3300	1.3	100	5.2	74	25	7	4.3	62	0.2	2	36	120	8.7	14.0	0.3	1.3	1.4	16.0	2	4.0	2	290	46	180	96
82K07	773256	527799	5592171		1	PCh	4	1.7	58.0	500	1.7	150	4.3	110	31	7	5.2	90	0.1	1	57	110	11.1	14.0	1.1	1.2	1.5	20.0	1	5.5	3	390	42	23	74
82K07	773257	527695	5591765		1	PCd	29	1.1	73.3	250	0.5	260	2.9	89	31	16	5.8	170	0.4	1	56	77	21.1	12.0	0.8	1.2	2.8	30.8	1	6.7	6	840	52	25	74
82K07	773258	529868	5592972		1	PCd	4	1.1	24.0	640	0.5	100	6.5	83	24	6	4.6	58	0.1	1	38	160	8.1	16.0	0.7	1.4	1.3	17.0	2	4.8	3	410	34	24	76
82K07	773259	535825	5586215		1	PCh	1	19.9	50.2	6120	1.4	120	4.4	82	40	3	4.8	76	0.1	4	70	98	10.0	13.0	0.5	0.9	1.3	19.0	1	6.0	2	270	82	59	162
82K07	773260	534535	5588382		1	PCd	4	6.9	35.0	1600	1.3	150	3.8	41	26	11	3.4	87	0.3	1	34	95	13.1	9.3	0.3	1.2	1.9	19.0	1	5.5	3	520	38	39	60
82K07	773263	534275	5588416		1	PCd	2	1.4	24.0	830	1.1	140	6.0	38	23	10	3.6	80	0.4	1	25	120	12.7	10.0	0.7	1.5	2.0	17.0	12	5.1	4	610	38	18	54
82K07	773264	534775	5589156		1	PCd	4	2.7	22.0	870	11.0	150	9.2	46	16	8	4.0	84	0.1	2	12	150	12.4	13.0	0.7	1.5	2.0	20.0	3	6.2	5	480	32	29	62
82K07	773265	533552	5590733		1	PCd	4	1.4	33.0	530	0.8	150	6.6	64	24	8	5.0	92	0.1	13	32	130	12.6	12.0	0.9	1.9	1.8	18.0	33	7.3	3	540	42	24	118
82K07	773266	533771	5591373		1	PCmn	2	1.6	7.7	480	3.4	68	3.5	43	16	4	3.4	36	0.2	1	21	85	6.3	10.0	0.4	0.7	1.1	9.2	1	2.5	2	290	12	13	38
82K07	773270	527327	5590808		1	PCd	8	1.5	28.0	430	5.9	130	7.5	57	19	8	3.5	75	0.1	3	34	110	11.2	10.0	0.7	1.3	1.7	19.0	8	10.0	2	560	32	34	84
82K07	773271	526853	5591173		1	PCd	5	0.8	41.0	330	1.2	150	4.4	97	32	10	5.0	96	0.1	1	59	100	13.4	13.0	1.0	1.1	2.0	22.4	1	6.5	3	410	54	20	76
82K07	773272	528465	5589861		1	PCh	2	0.6	17.0	280	8.1	55	5.4	56	18	4	3.6	33	0.1	1	28	65	4.9	10.0	0.4	0.6	0.8	8.2	2	2.4	2	270	24	11	82
82K01	773310	559058	5558968		1	PCc	1	1.8	12.0	320	20.0	100	3.3	21	6	6	2.0	50	0.1	1	10	97	7.4	7.1	0.8	1.0	1.0	12.0	2	5.7	2	220	16	18	52
82K01	773311	557245	5558432		1	PCc	3	1.2	6.5	370	18.0	85	3.3	29	7	6	1.7	41	0.1	1	10	84	6.3	5.8	0.8	0.9	1.2	11.0	1	9.2	1	200	12	13	48
82K08	773312	563776	5567249		1	PCk	4	1.3	11.0	190	3.6	83	2.0	20	6	8	1.5	43	0.1	1	11	53	7.7	4.4	0.7	1.1	1.3	11.0	1	4.0	2	360	10	6	20
82K08	773313	563869	5567928		1	PCk	2	1.5	7.3	290	5.9	91	2.6	20	8	7	1.8	45	0.3	1	10	86	7.8	6.6	0.8	1.1	1.2	12.0	1	3.7	2	240	12	7	20
82K02	775002	522697	5553018	1	1	PCh	1	0.2	6.1	340	16.0	95	7.5	87	24	7	4.3	63	0.1	1	63	90	8.7	12.0	0.8	1.4	1.2	14.0	4	4.2	2	350	32	15	56
82K02	775003	522697	5553018	2	1	PCh	4	0.2	5.5	330	11.0	95	7.2	83	22	7	4.5	64	0.1	1	57	91	7.1	12.0	0.8	1.4	1.1	14.0	3	4.1	2	370	28	12	52
82K02	775004	521682	5552135		1	PCh	1	0.1	8.6	280	2.1	110	6.1	72	18	7	3.5	69	0.1	1	48	76	9.1	10.0	0.7	1.4	1.1	14.0	5	3.5	2	430	22	4	36
82K02	775005	518996	5551230		1	PCh	7	0.1	2.5	370	15.0	120	3.9	71	16	7	3.1	76	0.1	1	49	81	9.1	10.0	1.0	1.2	1.3	18.0	1	4.9	2	310	28	5	44
82K02	775006	516629	5549383		1	Cbmh	28	0.2	3.1	430	5.3	140	7.9	97	27	10	5.1	84	0.1	1	45	110	11.3	15.0	0.9	2.7	1.6	19.0	13	5.8	2	470	22	14	78
82K02	775007	514560	5550888		1	Cbmh	2	0.2	3.5	450	5.4	140	6.9	100	27	6	5.3	81	0.1	1	50	92	11.1	15.0	0.9	2.1	1.4	16.0	10	4.5	2	510	24	13	82
82K02	775008	511518	5547718		1	Pl	15	0.6	13.0	300	4.9	120	10.0	100	24	11	5.0	67	0.1	2	44	150	8.6	14.0	0.9	4.6	1.7	14.0	15	19.0	3	700	18	14	60
82K08	775257	550976	5588709		1	PCmn	17	3.0	10.0	610	16.0	61	4.4	39	17	5	3.2	30	0.1	1	14	73	4.8	10.0	0.3	0.8	0.9	8.8	1	2.7	2	290	32	13	48
82K08	775258	545751	5591294		1	PCd	3	7.1	17.0	1000	1.7	97	4.9	40	18	9	3.5	54	0.4	1	27	120	8.1	12.0	0.3	1.2	1.2	14.0	1	4.1	3	330	28	90	102
82K07	775259	525493	5588805		1	PCh	9	1.0	112.0	370	0.9	170	3.5	78	44	10	7.1	120	0.3	1	74	89	13.7	13.0	0.9	1.2	1.9	23.5	1	5.8	3	490	58	17	74
82K07	775271	517293	5593270		1	PCh	6	0.4	23.0	310	3.9	150	3.5	69	30	11	5.2	100	0.1	1	53	80	11.6	11.0	1.1	1.3	1.8	21.6	1	7.1	3	410	52	14	72
82K07	775272	517782	5593172		1	PCh	6	0.8	93.3	340	0.6	130	3.7	64	27	6	4.8	92	0.1	1	48	92	10.5	11.0	0.6	1.0	1.4	18.0	1	4.1	2	210	42	11	62
82K01	775354	537436	5562179		1	PCk	3	0.5	5.1	330	1.5	85	3.1	29	9	8	2.3	49	0.1	1	10	77	7.5	7.8	0.8	1.2	1.3	12.0	1	4.5	3	300	18	12	28
82K01	775356	536907	5566077		1	PCk	3	1.0	7.0	410	1.1	81	3.1	29	11	7	2.4	46	0.1	1	10	94	7.3	8.0	1.0	1.2	1.3	14.0	2	4.2	3	300	14	14	32
82K07	775357	534044	5569689		1	PCd	7	0.9	4.9	270	0.5	66	1.0	37	11	8	2.4	42	0.3	1	13	35	7.4	10.0	1.1	0.9	1.3	17.0	2	2.8	2	300	14	9	26
82K07	775358	535116	5569378		1	PCd	5	0.8	8.8	400	1.9	100	2.3	83	19	13	4.9	65	0.1	1	27	59	9.3	18.0	1.2	1.6	1.4	19.0	2	4.9	3	410	20	10	38
82K08	775359	540351	5572898		1	PCd	19	2.7	40.0	550	2.2	130	4.3	36	19	12	4.1	91	0.3	1	16	140	13.4	12.0	0.7	2.1	2.2	23.4	3	6.3	4	440	36	22	44
82K08	775360	539651	5569325		1	PCk	1	2.0	33.0	420	1.4	130	5.1	41	15	7	3.3	63	0.1	1	15	150	10.4	11.0	0.6	1.6	1.7	20.2	2	5.9	4	240	38	20	42
82K08	775362	541207	5570491	1	1	PCd	4	3.3	42.0	520	5.9	96	4.2	38	17	8	3.2	51	0.1	1	18	140	10.0	10.0	0.5	1.4	1.7	17.0	2	6.5	3	200	30	29	68
82K08	775363	541207	5570491	2	1	PCd	8	3.1	35.0	450	5.3	110	3.8	36	16	10	3.0	56	0.1	1	20	150	10.0	11.0	0.5	1.4	1.4	18.0	3	6.3	3	300	24	27	54
82K08	775364	539844	5574178		1	PCd	413	2.4	26.0	770	8.1	170	4.0	61	18	14	3.1	90	0.1	1	22	100	13.8	10.0	0.5	1.5	2.0	24.9	4	6.0	4	530	26	26	52
82K08	775365	542782	5571517		1	PCk	1	2.3	38.0	450	18.0	93	7.5	39	16	6	2.4	41	0.1	1	15	120	6.6	11.0	0.6	1.0	1.0	13.0	1	11.0	2	200	24	30	78
82K08	775366	546915	5575387		1	PCd	2	5.0	6.8	2900	0.9	51	1.1	20	10	6	1.8	25	0.1	1	10	34	4.0	3.7	0.2	0.6	0.6	7.0	1	2.8	1	220	16	57	36
82K08	775367	550448	5576693		1	PCd	6	4.2	25.0	460	3.3	170	5.3	23	16	7	2.4	80	0.1	1	10	150	13.0	10.0	0.2	1.4	1.5	18.0	3	5.1	3	320	34	10	30
82K08	775368	550941	5578539		1	PCd	6	3.6	23.0	400	2.4	180	4.8	36	14	7	2.3	78	0.1	1	10	140	12.8	10.0	0.2	1.4	1.6	18.0	2	5.2	4	200	32	8	24
82K08	775369	551515	5578942		1	PCd	1	6.0	21.0	1800	13.0	100	11.0	36	16	8	3.2	61	0.3	1	11	170	10.0	12.0	0.3	1.3	1.5	16.0	1	4.9	3	230	38	10	32
82K08	775371	550597	5585935		1	PCd	1	3.1	12.0	830	41.0	87	8.4	39	14	10	2.8	45	0.1	1	26	100	7.6	8.7	0.4	1.1	1.1	13.0	1	4.3	2	280	28	11	30
82K08	775372	551489	5582036		1	PCmn	12	3.0	10.0	700	5.8	77	6.8	39	14	4	2.4	38	0.1	1	10	100	5.9	9.2	0.3	0.7	0.8	10.0	1	2.9	2	200	24	8	36

Field Observations

MAP	SAMPLE ID	UTM ZONE	UTM EAST	UTM NORTH	STA	MED	FORM-ATION	WAT COL	WAT FLW	SED COL	SED PPT	CON	SED COMP	STRM WDTH	STRM DPTH	BNK	BNK PPT	CHL BED	CHL PTN	ELEV	PHY	DRN	TYP	ODR	SRC	WT
82K01	775375	11	540154	5558739		1	PCk	0	3	T	N	N	030	1.2	13	R	N				Y	I	P	3	M	30
82K01	775376	11	542943	5560018		1	PCc	0	2	T	N	N	120	1.5	13	A	N				Y	I	P	3	M	14
82K01	775377	11	543215	5559705		1	PCc	0	2	T	N	N	220	2.1	13	A	N				Y	I	P	2	G	21
82K01	775378	11	542737	5557402		1	PCc	0	2	T	N	N	120	0.9	13	A	N				Y	I	P	3	G	20
82K01	775379	11	542144	5557024		1	PCc	0	2	T	N	N	021	1.2	13	A	N				Y	I	P	2	G	11
82K01	775380	11	541910	5554910		1	PCc	0	2	T	N	N	030	0.9	13	A	N				Y	I	P	2	M	37
82K01	775383	11	537250	5554297	1	1	PCc	0	2	T	N	N	220	1.5	13	A	N				Y	I	P	3	M	21
82K01	775384	11	537250	5554297	2	1	PCc	0	2	T	N	N	210	1.5	13	A	N				Y	I	P	3	M	6
82K01	775385	11	546402	5557240		1	PCc	0	2	T	N	N	111	0.6	13	A	N				Y	I	P	3	G	3
82K01	775386	11	549862	5559138		1	PCc	0	2	T	N	N	111	0.9	13	A	N				Y	I	P	3	G	3
82K01	775388	11	547579	5565237		1	PCc	0	2	T	N	N	021	1.2	13	A	N				Y	I	P	3	G	6
82K01	775389	11	545719	5561087		1	PCc	0	2	T	N	N	111	0.6	13	A	N				Y	I	P	3	G	17
82K01	775390	11	545785	5564695		1	PCc	0	2	T	N	N	021	1.8	13	A	N				Y	H	P	3	G	11
82K01	775391	11	541668	5563519		1	PCk	0	3	T	N	N	120	0.9	13	A	N				Y	I	P	4	G	9
82K01	775392	11	541551	5563063		1	PCk	0	3	T	N	N	021	0.9	13	A	N				Y	I	P	3	G	9
82K08	775393	11	548872	5567987		1	PCk	0	3	T	N	N	210	2.1	13	A	N				Y	I	P	3	G	2
82K08	775394	11	549591	5568211		1	PCk	0	3	T	N	N	210	0.9	13	A	N				Y	I	P	3	G	7
82K08	775395	11	545771	5568812		1	PCk	0	3	T	N	N	120	1.5	13	A	N				Y	I	P	3	G	19
82K08	775397	11	552694	5567589		1	PCk	0	2	T	N	N	210	0.3	13	A	N				Y	I	P	3	G	11
82K08	775398	11	554400	5568366		1	PCk	0	3	T	N	N	012	0.6	13	A	N				Y	I	P	3	G	11
82K08	775399	11	562837	5577215		1	PCmn	0	3	T	N	N	120	0.9	13	A	N				Y	I	P	4	G	10
82K08	775400	11	558632	5579312		1	PCmn	0	3	T	N	N	022	0.6	13	A	N				Y	I	P	4	G	6
82K08	775402	11	566624	5577390		1	PCd	0	3	T	N	N	022	1.5	13	A	N				Y	I	P	4	G	5
82K08	775403	11	565316	5575371		1	PCd	0	3	T	N	P	111	1.5	13	A	N				Y	I	P	4	G	17
82K08	775404	11	558201	5575274		1	PCmn	0	2	T	N	N	210	0.9	13	A	N				Y	I	P	4	G	4
82K08	775405	11	557538	5573722		1	PCd	0	2	T	N	N	220	0.9	13	A	N				Y	I	P	3	G	18
82K08	775406	11	560362	5572224		1	PCd	0	3	T	N	N	220	1.8	13	A	N				Y	I	P	3	G	11
82K01	775407	11	551918	5560974		1	PCk	0	2	T	N	N	030	0.6	13	A	N				Y	I	P	3	G	2
82K01	775408	11	553279	5564510		1	PCk	0	3	T	N	N	021	0.6	13	A	N				Y	I	P	3	G	3
82K01	775409	11	556157	5564709		1	PCk	0	3	T	N	N	120	0.3	13	A	N				Y	I	P	3	G	13
82K08	775410	11	555082	5567593		1	PCk	0	3	T	N	N	111	1.2	13	A	N				Y	I	P	3	G	7
82K08	775412	11	560327	5568438		1	PCk	0	3	T	N	P	210	1.8	13	A	N				Y	I	P	3	G	25
82K08	775413	11	566042	5570342		1	PCd	0	2	T	N	N	111	0.6	13	A	N				Y	I	P	3	G	16
82K01	775414	11	570042	5546311	1	1	PCau	0	1	T	N	N	030	0.6	13	A	N				Y	I	P	3	G	13
82K01	775415	11	570042	5546311	2	1	PCau	0	1	T	N	N	030	0.6	13	A	N				Y	I	P	3	G	13
82K01	775417	11	570245	5541824		1	Kmg	0	2	T	N	N	210	1.5	25	A	N				Y	I	P	3	G	15
82K01	775418	11	551566	5538989		1	PCau	0	3	T	N	N	121	2.1	13	A	N				Y	I	P	3	G	12
82K01	775419	11	552700	5541900		1	PCau	0	3	T	N	N	111	1.2	13	A	N				Y	I	P	4	G	8
82K01	775420	11	551616	5542133		1	PCau	0	2	T	N	N	022	2.1	13	A	N				Y	I	P	3	G	19
82K01	775422	11	552305	5545757		1	PCau	0	3	T	N	N	120	1.5	13	A	N				Y	I	P	4	G	10
82K01	775423	11	551784	5546878		1	PCau	0	3	T	N	N	021	0.6	13	A	N				Y	I	P	4	G	5
82K01	775424	11	555233	5546762		1	PCau	0	3	T	N	N	121	0.6	13	A	N				Y	I	P	4	G	4
82K01	775425	11	552073	5550624		1	PCau	0	3	T	N	N	210	3.0	25	R	N				Y	I	P	3	G	12
82K01	775426	11	551933	5552741	1	1	PCau	0	3	T	N	N	120	1.2	13	A	N				Y	I	P	3	G	14
82K01	775427	11	551933	5552741	2	1	PCau	0	3	T	N	N	120	1.2	13	A	N				Y	I	P	3	G	12
82K01	775428	11	548164	5553373		1	PCc	0	3	T	N	N	030	1.2	13	A	N				Y	I	P	3	G	19
82K01	775429	11	554743	5554274		1	PCc	0	3	T	N	N	121	0.9	13	A	N				Y	I	P	3	G	16
82K01	775430	11	554573	5555558		1	PCc	0	3	T	N	N	220	1.2	13	A	N				Y	I	P	3	G	20
82K01	775432	11	551408	5556416		1	Kmg	0	2	T	T	N	030	1.2	13	A	N				Y	I	P	3	G	21
82K01	775433	11	556822	5556675		1	PCc	0	2	T	N	N	021	1.2	13	A	N				Y	I	P	3	G	12

Analytical Results

MAP	SAMPLE ID	UTM EAST	UTM NORTH	STA	MED	FORM-ATION	Au 1 ppb	Sb 0.1 ppm	As 0.5 ppm	Ba 50 ppm	Br 0.5 ppm	Ce 5 ppm	Cs 0.5 ppm	Cr 20 ppm	Co 5 ppm	Hf 1 ppm	Fe 0.2 pct	La 2 ppm	Lu 0.1 ppm	Mo 1 ppm	Ni 10 ppm	Rb 5 ppm	Sm 0.5 ppm	Sc 0.5 ppm	Na 0.1 pct	Ta 0.5 ppm	Tb 0.2 ppm	Th 0.2 ppm	W 1 ppm	U 0.2 ppm	Yb 1 ppm	Zr 200 ppm	Cu 2 ppm	Pb 2 ppm	Zn 2 ppm
82K01	775375	540154	5558739		1	PCk	10	1.0	4.8	2200	0.5	170	1.6	20	17	15	2.7	110	0.6	1	10	47	15.4	5.4	0.5	1.7	2.1	22.0	1	5.0	4	610	18	10	20
82K01	775376	542943	5560018		1	PCc	2	0.5	2.1	680	0.5	60	0.9	20	9	5	1.6	30	0.3	1	10	21	5.2	2.9	0.3	0.6	0.8	7.6	1	2.2	2	200	16	9	16
82K01	775377	543215	5559705		1	PCc	4	0.5	3.2	280	0.6	86	2.8	20	9	7	2.6	44	0.2	1	10	73	7.1	6.8	0.9	1.5	1.2	12.0	1	4.2	3	200	10	4	24
82K01	775378	542737	5557402		1	PCc	3	0.6	12.0	370	7.5	88	4.6	28	13	6	3.8	47	0.1	1	19	100	7.4	9.3	1.2	1.5	1.4	13.0	2	7.1	3	210	14	7	42
82K01	775379	542144	5557024		1	PCc	3	0.5	2.9	240	0.5	77	2.7	20	6	6	2.1	39	0.1	1	12	65	6.3	5.8	0.8	1.3	1.1	11.0	1	3.7	3	290	10	5	24
82K01	775380	541910	5554910		1	PCc	1	0.7	1.9	170	0.5	69	1.6	20	7	6	1.6	36	0.3	1	10	43	6.1	4.2	0.6	1.1	1.1	10.0	1	3.5	3	230	12	5	16
82K01	775383	537250	5554297	1	1	PCc	2	1.0	2.4	310	1.0	86	4.4	20	7	6	2.0	44	0.1	1	10	86	7.8	6.5	0.6	1.1	1.2	12.0	1	4.4	2	250	14	6	20
82K01	775384	537250	5554297	2	1	PCc	2	0.8	2.1	300	0.5	82	4.0	20	10	5	2.5	37	0.1	1	10	85	6.3	7.1	0.6	0.7	1.0	10.0	1	3.5	3	230	12	8	26
82K01	775385	546402	5557240		1	PCc	9	0.8	10.0	330	3.3	120	4.9	42	9	4	3.0	60	0.1	1	10	100	9.2	10.0	0.7	2.2	1.5	16.0	10	4.3	2	200	34	10	104
82K01	775386	549862	5559138		1	PCc	67	18.4	370.0	410	7.6	120	5.8	20	6	5	2.5	71	0.1	54	10	180	6.7	6.3	1.1	1.6	0.7	15.0	24	33.3	1	200	42	270	800
82K01	775388	547579	5565237		1	PCc	6	2.5	71.4	400	13.0	120	4.1	34	8	7	2.6	58	0.1	1	11	110	8.3	8.8	0.9	0.9	1.1	13.0	4	6.5	3	290	18	36	156
82K01	775389	545719	5561087		1	PCc	1	2.5	41.0	320	7.0	110	4.6	39	15	7	4.4	63	0.1	1	18	100	9.2	10.0	1.0	1.9	1.5	15.0	12	7.0	4	240	18	11	82
82K01	775390	545785	5564695		1	PCc	3	1.6	20.0	360	2.8	130	3.4	39	12	10	2.7	64	0.4	1	10	100	10.0	9.2	0.7	1.3	1.7	17.0	2	4.9	4	300	22	17	34
82K01	775391	541668	5563519		1	PCk	7	1.8	18.0	460	1.5	110	3.6	42	17	7	3.1	55	0.1	1	14	100	8.5	9.5	0.4	1.1	1.3	15.0	1	4.7	3	310	34	18	38
82K01	775392	541551	5563063		1	PCk	25	1.7	11.0	260	7.3	110	3.1	22	13	7	2.2	54	0.1	1	10	90	8.3	7.4	0.6	1.3	1.2	13.0	1	4.8	3	200	20	20	42
82K08	775393	548872	5567987		1	PCk	5	2.8	21.0	440	0.5	83	3.8	41	17	7	2.9	44	0.1	1	36	130	7.6	7.7	0.4	1.0	1.1	13.0	1	4.0	2	360	30	19	40
82K08	775394	549591	5568211		1	PCk	1	3.0	19.0	680	2.7	150	3.6	23	15	9	2.6	71	0.3	1	20	120	11.3	9.1	0.3	1.2	1.6	16.0	2	4.7	3	370	24	15	26
82K08	775395	545771	5568812		1	PCk	2	2.1	26.0	370	0.8	96	2.7	35	14	8	3.0	49	0.3	1	18	95	7.8	8.3	0.6	1.2	1.3	13.0	2	4.2	3	290	32	15	34
82K08	775397	552694	5567589		1	PCk	4	3.1	21.0	430	7.3	120	4.0	39	23	8	3.3	63	0.1	1	21	120	10.0	10.0	0.5	1.3	1.5	15.0	2	5.0	4	430	24	14	32
82K08	775398	554400	5568366		1	PCk	5	2.4	10.0	630	23.0	130	4.7	29	11	10	2.4	65	0.1	1	12	100	9.1	8.7	0.3	1.1	1.3	13.0	2	5.3	3	380	18	12	18
82K08	775399	562837	5577215		1	PCmn	6	1.3	8.5	700	26.0	56	8.6	88	15	5	3.4	28	0.1	1	18	77	4.2	12.0	0.3	0.8	0.7	7.6	1	2.5	2	200	26	5	28
82K08	775400	558632	5579312		1	PCmn	4	2.0	8.0	870	16.0	65	7.4	39	9	6	2.4	34	0.1	1	22	100	5.0	9.5	0.3	0.9	0.9	10.0	1	3.5	1	260	22	10	44
82K08	775402	566624	5577390		1	PCd	16	1.7	7.4	750	22.0	81	8.6	50	12	7	2.2	38	0.1	1	10	96	5.9	9.1	0.5	0.9	1.1	11.0	2	5.9	2	200	20	12	26
82K08	775403	565316	5575371		1	PCd	3	2.3	10.0	1300	27.0	90	8.7	56	12	7	2.7	44	0.1	1	21	120	6.9	10.0	0.5	1.3	1.2	12.0	1	5.1	2	290	20	30	34
82K08	775404	558201	5575274		1	PCmn	4	3.5	14.0	890	12.0	77	13.0	29	16	5	2.7	39	0.1	1	25	130	6.5	10.0	0.3	0.8	0.9	11.0	1	4.1	2	220	32	10	32
82K08	775405	557538	5573722		1	PCd	4	5.3	24.0	1300	8.1	140	8.3	31	15	8	3.1	73	0.3	1	20	170	10.6	11.0	0.3	1.4	1.6	17.0	1	7.1	4	320	42	39	26
82K08	775406	560362	5572224		1	PCd	3	2.8	14.0	1100	12.0	98	7.2	50	15	7	2.9	50	0.3	1	15	120	7.5	10.0	0.3	1.0	1.1	12.0	1	4.5	3	240	30	18	30
82K01	775407	551918	5560974		1	PCk	18	2.7	63.8	410	10.0	60	9.1	56	24	3	3.8	30	0.1	1	37	150	5.1	13.0	0.5	0.7	1.1	12.0	4	5.8	3	200	56	95	230
82K01	775408	553279	5564510		1	PCk	5	1.1	30.0	220	45.0	71	5.0	33	10	5	2.1	35	0.1	1	10	76	5.3	8.6	0.8	0.8	1.1	8.4	1	11.0	3	240	18	30	64
82K01	775409	556157	5564709		1	PCk	28	2.4	13.0	300	10.0	96	4.8	27	12	6	2.4	53	0.3	1	12	120	7.7	10.0	0.5	0.9	1.2	12.0	1	3.9	3	200	14	14	38
82K08	775410	555082	5567593		1	PCk	18	1.7	16.0	250	12.0	100	3.7	33	11	6	2.3	49	0.3	1	13	93	7.4	8.7	0.5	0.9	1.2	11.0	1	3.8	3	210	16	15	44
82K08	775412	560327	5568438		1	PCk	3	2.4	13.0	1700	5.7	110	4.2	55	16	9	3.1	56	0.4	1	14	95	8.5	10.0	0.5	1.2	1.4	12.0	1	3.8	3	330	22	10	24
82K08	775413	566042	5570342		1	PCd	4	1.5	4.9	350	29.0	68	6.6	32	7	6	1.7	39	0.1	1	17	99	6.5	10.0	0.5	1.0	1.2	11.0	1	11.0	3	220	18	12	30
82K01	775414	570042	5546311	1	1	PCau	13	0.3	1.9	460	7.1	220	2.8	20	8	21	1.3	120	0.1	1	10	88	16.2	8.8	2.4	18.0	2.5	58.5	1	20.0	2	1200	4	2	24
82K01	775415	570042	5546311	2	1	PCau	7	0.2	1.4	410	4.9	220	2.8	20	7	23	1.4	110	0.1	1	10	90	15.1	8.8	2.7	15.0	2.1	50.6	2	20.1	3	1200	4	2	22
82K01	775417	570245	5541824		1	Kmg	3	0.2	1.5	220	4.6	160	3.3	20	5	10	1.0	100	0.1	1	10	150	8.7	5.0	3.1	10.0	1.1	41.9	3	35.3	1	350	2	8	24
82K01	775418	551566	5538989		1	PCau	1	0.3	33.0	320	9.2	100	17.0	53	26	6	4.2	57	0.3	1	16	98	7.6	19.0	1.3	1.7	1.8	11.0	65	4.5	4	330	26	10	88
82K01	775419	552700	5541900		1	PCau	3	1.2	41.0	230	25.0	96	12.0	45	14	6	2.7	64	0.1	1	17	74	8.4	11.0	1.1	1.3	1.8	12.0	7	9.4	5	250	20	30	92
82K01	775420	551616	5542133		1	PCau	2	0.3	34.0	360	10.0	85	17.0	47	26	5	3.7	52	0.1	1	24	95	7.4	15.0	1.2	1.3	1.6	11.0	23	5.2	4	320	32	15	88
82K01	775422	552305	5545757		1	PCau	33	1.4	49.0	440	13.0	90	7.6	46	22	7	4.0	53	0.3	1	17	110	7.6	16.0	1.2	1.4	1.7	15.0	4	5.7	5	340	40	35	82
82K01	775423	551784	5546878		1	PCau	8	0.5	24.0	360	12.0	63	9.0	46	16	5	2.8	35	0.1	1	26	110	5.1	12.0	0.9	1.2	1.1	11.0	5	6.9	2	270	38	18	82
82K01	775424	555233	5546762		1	PCau	5	0.9	37.0	330	17.0	54	12.0	37	41	4	5.5	34	0.1	1	33	67	5.3	20.2	1.0	1.4	1.1	11.0	3	11.0	3	440	84	53	110
82K01	775425	552073	5550624		1	PCau	4	0.7	26.0	240	4.1	76	7.6	44	21	6	3.8	44	0.4	1	21	73	6.1	17.0	1.2	1.3	1.5	10.0	20	3.5	3	290	42	14	62
82K01	775426	551933	5552741	1	1	PCau	2	0.2	4.1	410	3.8	82	5.9	29	12	5	2.9	50	0.3	1	10	120	6.4	10.0	1.0	1.7	1.4	13.0	5	3.8	4	210	24	6	72
82K01	775427	551933	5552741	2	1	PCau	4	0.2	4.6	490	4.3	100	7.0	47	15	6	3.2	57	0.4	1	11	130	7.7	12.0	1.1	2.0	1.5	16.0	5	4.5	4	200	24	6	66
82K01	775428	548164	5553373		1	PCc	3	0.3	5.9	340	2.1	120	4.5	39	10	5	2.6	77	0.4	1	16	92	10.0	10.0	0.9	3.7	1.9	16.0	10	3.8	4	370	12	7	52
82K01	775429	554743	5554274		1	PCc	25	0.6	20.0	360	14.0	110	7.1	40	12	6	3.4	63	0.1	1	13	110	8.1	12.0	1.2	2.4	1.7	15.0	3	8.8	4	280	24	24	58
82K01	775430	554573	5555558		1	PCc	3	1.1	56.6	400	5.6	140	5.0	24	11	6	2.3	96	0.1	5	10	110	8.7	7.0	1.3	2.5	1.4	18.0	8	16.0	3	230	10	15	156
82K01	775432	551408	5556416		1	Kmg	6	0.9	50.0	340	2.4	110	6.4	39	15	6	2.5	82	0.1	2	17	110	12.7	10.0	1.0	1.9	2.4	16.0	5	22.1	4	290	26	12	104
82K01	775433	556822	5556675		1	PCc	5	0.6	12.0	640	16.0	130	6.7	31	13	7	2.4	85	0.1	1	21	120	10.0	10.0	1.5	3.1	1.7	20.0	5	20.1	2	320	14	10	54

Field Observations

MAP	SAMPLE ID	UTM ZONE	UTM EAST	UTM NORTH	STA	MED	FORM-ATION	WAT COL	WAT FLW	SED COL	SED PPT	CON	SED COMP	STRM WDTH	STRM DPTH	BNK	BNK PPT	CHL BED	CHL PTN	ELEV	PHY	DRN	TYP	ODR	SRC	WT
82K01	775434	11	557701	5553907		1	PCc	0	2	T	N	N	021	1.2	13	A	N				Y	I	P	3	G	2
82K01	775435	11	560448	5551139		1	PCau	0	3	T	N	N	121	0.6	13	A	N				Y	I	P	4	G	3
82K01	775436	11	558733	5547961		1	PCau	0	3	T	N	N	021	0.6	13	A	N				Y	I	P	4	G	5
82K01	775438	11	563584	5562695		1	PCk	0	2	T	N	N	120	0.3	13	A	N				Y	I	P	3	G	7
82K01	775439	11	562050	5564445		1	PCk	0	2	T	N	N	030	0.6	13	A	N				Y	I	P	3	G	6
82K01	775440	11	560700	5557300		1	PCc	0	3	T	N	N	210	0.6	13	A	N				Y	I	P	3	G	17
82K01	775442	11	549497	5550068		1	PCau	0	2	T	N	N	030	0.6	13	A	N				Y	I	P	3	G	28
82K01	775443	11	546115	5549612		1	PCau	0	3	T	N	N	220	0.6	13	A	N				Y	I	P	3	G	25
82K01	775444	11	539243	5547443	1	1	PCc	0	2	T	T	N	220	2.4	25	A	N				Y	I	P	3	M	4
82K01	775445	11	539243	5547443	2	1	PCc	0	2	T	T	N	220	2.4	25	A	N				Y	I	P	3	M	7
82K01	775446	11	542620	5549373		1	PCau	0	3	T	N	N	220	0.9	25	A	N				Y	I	P	4	M	20
82K01	775447	11	542199	5548943		1	PCau	0	3	T	N	N	220	1.5	25	A	N				Y	I	P	3	M	18
82K01	775448	11	545125	5545419		1	PCau	0	2	T	T	N	220	0.6	13	A	N				Y	I	P	3	G	6
82K01	775449	11	546202	5543843		1	PCau	0	3	T	N	N	021	0.6	13	A	N				Y	I	P	3	G	15
82K01	775450	11	544750	5541038		1	PCau	0	2	W	N	N	210	3.0	25	A	N				Y	I	P	3	M	13
82K01	775451	11	545372	5541015		1	PCau	0	2	T	N	N	210	3.0	25	A	N				Y	I	P	2	G	10
82K01	775452	11	545083	5542649		1	PCau	0	3	T	N	N	030	0.3	13	A	N				Y	I	P	3	G	11
82K01	775453	11	545947	5542650		1	PCau	0	3	T	N	N	111	1.8	13	A	N				Y	H	P	3	G	5
82K01	775454	11	547381	5540101		1	PCau	0	2	T	N	N	210	1.8	13	A	N				Y	H	P	3	G	20
82K02	775457	11	533326	5549105		1	Kmg	0	3	W	T	N	030	4.2	50	A	N				Y	H	P	4	M	32
82K02	775458	11	533629	5553168		1	PCc	0	3	W	N	N	030	3.0	25	A	N				Y	H	P	4	M	40
82K02	775460	11	535052	5555326		1	PCc	0	2	W	N	N	030	3.0	13	R	N				Y	I	P	4	G	31
82K02	775462	11	531608	5559470		1	PCmn	0	2	W	N	N	030	2.4	25	A	N				Y	I	P	4	M	20
82K02	775463	11	534056	5558712	1	1	PCd	0	3	W	N	N	030	3.0	25	R	N				Y	I	P	4	M	33
82K02	775464	11	534056	5558712	2	1	PCk	0	3	W	N	N	130	3.0	25	R	N				Y	I	P	4	M	31
82K02	775465	11	533742	5556071		1	PCk	0	3	W	N	N	130	3.0	25	A	N				Y	I	P	4	M	32
82K02	775466	11	530971	5555802		1	PCmn	0	3	W	N	N	130	0.9	13	A	N				Y	I	P	4	M	21
82K02	775467	11	527038	5556747		1	PCh	0	3	T	N	N	120	3.0	50	A	N				Y	D	P	4	G	29
82K02	775469	11	526421	5560873		1	PCh	0	3	W	N	N	030	1.2	13	A	N				Y	D	P	4	G	31
82K02	775470	11	524386	5560454		1	PCh	0	3	W	N	N	220	1.8	13	A	N				Y	D	P	4	G	12
82K02	775471	11	526877	5551977		1	PCh	0	3	T	N	N	130	1.8	25	A	N				Y	H	P	4	G	29
82K02	775472	11	523513	5554633		1	PCh	0	3	T	N	N	030	2.4	25	A	N				Y	H	P	4	M	23
82K02	775473	11	520191	5552525		1	PCh	0	3	W	N	N	310	0.3	13	R	N				Y	H	P	4	G	14
82K02	775474	11	517578	5554205		1	Cbmh	0	3	T	N	N	120	1.2	13	A	N				Y	D	P	4	G	9
82K02	775475	11	535445	5541037		1	Kmg	0	1	T	N	N	021	4.5	25	A	N				Y	H	P	4	G	21
82K02	775476	11	532393	5543895		1	Kmg	0	2	W	N	N	210	2.4	25	A	N				Y	H	P	4	G	21
82K02	775478	11	528369	5538887		1	Kmg	0	3	W	N	N	220	0.9	13	A	N				Y	H	P	4	G	21
82K02	775479	11	528288	5539282		1	Kmg	0	3	W	N	N	210	3.0	25	A	N				Y	H	P	4	G	15
82K02	775480	11	529741	5541090		1	Kmg	0	3	W	N	N	220	2.1	25	A	N				Y	H	P	4	G	31
82K02	775482	11	525905	5544378	1	1	Kmg	0	3	W	N	N	220	0.6	13	R	N				Y	H	P	4	G	14
82K02	775483	11	525905	5544378	2	1	Kmg	0	3	W	N	N	220	0.6	13	R	N				Y	H	P	4	G	14
82K02	775484	11	521553	5539977		1	Kmg	0	2	W	N	N	210	2.1	25	A	N				Y	H	P	4	G	17
82K02	775485	11	520830	5543348		1	Kmg	0	3	W	N	N	220	2.4	25	A	N				Y	H	P	4	G	23
82K02	775486	11	520972	5546003		1	Kmg	0	3	W	N	N	310	2.4	25	A	N				Y	H	P	4	G	22
82K02	775488	11	519665	5547281		1	Kmg	0	3	T	N	N	021	0.3	13	A	N				Y	H	P	4	G	13
82K02	775489	11	515791	5547330		1	Kmg	0	3	W	N	N	310	0.3	13	A	N				Y	H	P	4	G	16
82K07	775490	11	518275	5577630		1	Kmg	0	3	T	N	N	220	1.5	25	A	N				Y	D	P	4	M	37
82K07	775491	11	514473	5577087		1	PCh	0	3	T	N	N	220	1.5	25	A	N				Y	D	P	4	G	37
82K07	775492	11	508808	5572903		1	Pl	0	3	T	N	N	210	1.5	13	A	N				Y	D	P	4	G	5
82K07	775504	11	509124	5593205		1	PCh	0	3	W	N	N	220	1.5	13	A	N				Y	D	P	4	G	31

Analytical Results

MAP	SAMPLE ID	UTM EAST	UTM NORTH	STA	MED	FORM-ATION	Au 1 ppb	Sb 0.1 ppm	As 0.5 ppm	Ba 50 ppm	Br 0.5 ppm	Ce 5 ppm	Cs 0.5 ppm	Cr 20 ppm	Co 5 ppm	Hf 1 ppm	Fe 0.2 pct	La 2 ppm	Lu 0.1 ppm	Mo 1 ppm	Ni 10 ppm	Rb 5 ppm	Sm 0.5 ppm	Sc 0.5 ppm	Na 0.1 pct	Ta 0.5 ppm	Tb 0.2 ppm	Th 0.2 ppm	W 1 ppm	U 0.2 ppm	Yb 1 ppm	Zr 200 ppm	Cu 2 ppm	Pb 2 ppm	Zn 2 ppm
82K01	775434	557701	5553907		1	PCc	1	0.6	17.0	530	0.5	100	9.4	48	32	4	3.0	57	0.1	1	56	140	8.5	13.0	1.2	1.9	2.2	16.0	2	20.9	5	440	26	29	132
82K01	775435	560448	5551139		1	PCau	1	1.1	575.0	550	24.0	95	9.1	58	19	5	3.5	57	0.1	1	10	140	7.4	12.0	1.0	1.8	1.6	16.0	3	11.0	3	470	38	220	144
82K01	775436	558733	5547961		1	PCau	5	0.6	67.9	450	8.9	77	12.0	30	31	5	5.0	46	0.1	2	22	100	6.4	18.0	1.1	1.2	1.6	13.0	3	6.5	4	200	72	65	116
82K01	775438	563584	5562695		1	PCk	3	2.1	10.0	270	17.0	72	3.8	42	6	5	2.1	39	0.1	1	10	100	5.5	8.6	0.5	1.2	1.3	10.0	2	9.0	3	270	16	22	48
82K01	775439	562050	5564445		1	PCk	5	1.3	5.3	250	3.6	68	4.7	32	8	4	1.9	37	0.1	1	10	88	4.9	8.8	0.4	0.9	1.2	9.3	1	6.0	3	250	12	13	50
82K01	775440	560700	5557300		1	PCc	10	0.5	7.5	650	6.5	210	4.3	30	9	8	3.0	140	0.1	1	10	100	9.5	8.5	1.5	3.6	1.5	27.9	8	12.0	2	410	14	7	44
82K01	775442	549497	5550068		1	PCau	2	0.2	4.8	1200	1.1	210	3.9	20	5	7	1.8	140	0.1	1	10	130	10.0	5.4	2.1	3.2	1.3	29.5	4	9.2	1	330	10	4	32
82K01	775443	546115	5549612		1	PCau	1	0.4	15.0	480	2.1	110	8.6	36	14	6	3.3	64	0.3	1	13	130	9.4	11.0	1.1	2.8	1.8	19.0	3	5.0	3	290	20	6	50
82K01	775444	539243	5547443	1	1	PCc	5	0.3	1.9	1800	0.5	590	2.4	26	5	13	2.4	411	0.1	3	10	140	17.8	3.9	2.5	7.2	1.3	104.0	6	33.1	1	610	2	6	32
82K01	775445	539243	5547443	2	1	PCc	1	0.2	1.4	1500	0.6	639	2.3	29	5	20	5.4	459	0.1	1	10	120	17.9	5.3	2.4	9.2	1.2	126.0	15	45.8	1	980	2	5	26
82K01	775446	542620	5549373		1	PCau	1	0.6	4.3	1100	0.5	230	3.6	20	5	11	2.9	150	0.1	1	10	120	10.0	6.5	1.8	3.7	1.2	32.2	3	11.0	1	630	8	3	26
82K01	775447	542199	5548943		1	PCau	17	0.2	2.0	1500	1.3	784	2.3	20	5	28	1.9	592	0.1	1	10	130	23.1	5.9	2.7	8.8	2.2	102.0	8	28.2	1	1300	4	3	24
82K01	775448	545125	5545419		1	PCau	1	0.2	5.6	680	2.4	190	5.6	38	10	6	2.9	120	0.1	1	10	120	9.3	7.7	1.4	2.7	1.2	28.5	5	7.9	1	360	14	5	46
82K01	775449	546202	5543843		1	PCau	1	0.3	51.4	290	14.0	66	11.0	25	15	6	3.2	43	0.1	1	12	77	6.2	13.0	1.2	1.3	1.3	11.0	3	5.5	3	370	24	21	84
82K01	775450	544750	5541038		1	PCau	1	0.1	0.5	1500	0.5	300	1.3	20	5	6	0.9	201	0.1	1	10	130	11.0	2.6	3.0	5.3	1.0	41.6	3	14.0	1	200	2	1	8
82K01	775451	545372	5541015		1	PCau	4	0.2	10.0	450	1.6	240	6.4	74	10	15	4.4	150	0.1	2	10	120	14.2	15.0	1.1	6.7	2.6	37.2	34	11.0	6	630	18	5	52
82K01	775452	545083	5542649		1	PCau	2	0.3	7.2	440	5.5	98	9.2	39	17	5	3.2	59	0.1	1	21	130	8.0	10.0	0.9	2.1	1.5	15.0	1	4.9	3	300	24	7	66
82K01	775453	545947	5542650		1	PCau	1	0.2	18.0	330	1.7	79	11.0	57	14	9	3.3	52	0.1	1	10	75	6.0	13.0	0.9	1.6	1.3	11.0	100	4.1	2	530	22	8	68
82K01	775454	547381	5540101		1	PCau	332	0.2	28.0	460	5.5	71	15.0	39	14	6	2.7	46	0.1	1	10	110	6.6	13.0	1.2	1.2	1.3	10.0	19	6.8	3	410	22	12	74
82K02	775457	533326	5549105		1	Kmg	1	0.2	1.7	2300	0.6	180	2.7	20	5	6	0.4	130	0.1	4	10	200	8.3	2.1	3.4	3.7	0.6	28.5	1	18.0	1	260	2	7	18
82K02	775458	533629	5553168		1	PCc	1	0.2	14.0	470	0.5	85	3.0	23	7	5	1.7	51	0.1	2	10	78	6.0	5.6	0.9	1.6	0.8	12.0	5	4.6	2	220	14	4	24
82K02	775460	535052	5555326		1	PCc	1	0.8	2.6	350	0.5	82	4.5	20	7	6	1.8	44	0.2	1	10	83	7.2	7.2	0.9	1.2	1.1	11.0	1	3.8	3	210	10	6	24
82K02	775462	531608	5559470		1	PCmn	1	0.4	3.6	420	0.7	49	1.7	40	10	4	1.9	28	0.1	1	18	38	4.5	6.7	0.4	0.7	0.7	7.4	1	2.3	1	200	20	8	52
82K02	775463	534056	5558712	1	1	PCd	5	1.0	4.1	350	0.5	90	2.9	21	6	6	1.3	50	0.1	1	10	72	9.1	5.2	1.2	1.2	1.5	14.0	1	4.2	3	350	4	3	14
82K02	775464	534056	5558712	2	1	PCk	1	0.8	3.3	330	0.5	83	2.4	22	5	5	1.3	45	0.3	1	10	74	7.1	5.2	1.2	1.2	1.4	12.0	1	3.6	3	310	6	4	14
82K02	775465	533742	5556071		1	PCk	3	0.9	4.9	420	0.5	91	3.3	36	9	7	2.6	49	0.3	1	13	93	7.5	7.8	1.4	1.2	1.6	13.0	2	3.8	3	330	6	4	18
82K02	775466	530971	5555802		1	PCmn	3	0.2	2.4	330	1.0	110	3.4	73	16	5	3.6	69	0.1	1	34	81	7.9	11.0	0.8	1.5	1.2	15.0	1	3.6	1	200	32	3	52
82K02	775467	527038	5556747		1	PCh	1	0.2	1.9	520	1.5	120	2.3	52	13	12	2.9	74	0.1	1	14	82	8.4	10.0	0.7	1.6	1.3	18.0	1	4.0	2	610	16	8	52
82K02	775469	526421	5560873		1	PCh	1	0.1	1.4	380	0.5	140	1.6	31	11	17	1.9	78	0.1	1	13	52	9.4	6.9	0.5	0.9	1.4	18.0	1	4.0	2	800	10	6	32
82K02	775470	524386	5560454		1	PCh	3	0.3	2.2	260	1.6	120	2.1	54	10	12	2.7	69	0.1	1	11	44	7.4	7.3	0.5	1.9	1.1	17.0	1	4.7	2	450	10	5	24
82K02	775471	526877	5551977		1	PCh	1	0.2	4.9	670	1.7	110	3.9	42	10	6	2.7	74	0.1	1	21	120	7.6	6.9	1.2	3.3	1.1	20.0	4	11.0	1	300	8	5	38
82K02	775472	523513	5554633		1	PCh	1	0.2	2.0	160	2.0	62	1.5	45	7	9	1.4	38	0.1	1	16	32	4.8	4.1	0.2	0.9	0.8	10.0	2	2.9	1	430	10	5	18
82K02	775473	520191	5552525		1	PCh	2	0.4	2.0	410	2.0	87	2.2	240	21	11	3.3	50	0.1	1	73	65	6.1	11.0	0.4	1.3	1.0	15.0	7	3.8	2	420	22	12	32
82K02	775474	517578	5554205		1	Cbmh	1	0.2	1.7	810	0.5	83	7.1	63	18	5	3.7	46	0.1	1	18	150	5.0	14.0	0.5	1.2	1.1	13.0	3	2.6	2	330	24	11	64
82K02	775475	535445	5541037		1	Kmg	1	0.2	1.4	1700	2.5	270	2.9	20	5	7	0.6	190	0.1	2	10	160	9.4	2.7	2.9	3.7	0.9	35.3	7	35.5	1	390	2	6	30
82K02	775476	532393	5543895		1	Kmg	1	0.2	7.1	1900	2.7	220	4.3	20	5	5	2.5	150	0.1	18	10	240	8.4	2.6	3.2	6.3	0.9	44.3	2	35.3	1	200	2	12	36
82K02	775478	528369	5538887		1	Kmg	2	0.2	11.0	1200	5.6	290	5.7	27	27	12	3.7	210	0.1	3	20	180	10.8	7.1	2.5	6.0	1.3	51.6	4	37.0	1	550	6	16	98
82K02	775479	528288	5539282		1	Kmg	1	0.2	1.9	1300	4.2	200	5.1	20	5	5	0.5	150	0.1	1	10	230	7.2	2.7	3.0	7.6	0.7	43.4	2	57.1	1	200	4	7	42
82K02	775480	529741	5541090		1	Kmg	1	0.2	10.0	590	0.5	110	6.3	32	11	6	2.6	68	0.1	1	12	140	6.6	8.4	1.6	2.3	1.3	18.0	3	10.0	2	240	20	6	46
82K02	775482	525905	5544378	1	1	Kmg	3	0.3	1.0	890	1.2	100	5.2	20	5	3	0.6	72	0.1	1	10	260	5.1	1.9	2.5	10.0	0.9	33.1	2	23.9	1	230	2	13	24
82K02	775483	525905	5544378	2	1	Kmg	8	0.3	1.2	900	1.5	95	5.4	20	5	3	0.3	69	0.1	4	10	270	5.3	1.8	2.5	10.0	0.9	32.6	2	24.9	1	200	2	12	22
82K02	775484	521553	5539977		1	Kmg	50	0.2	1.9	50	2.0	639	3.5	20	5	10	1.4	520	0.1	1	10	270	35.0	3.9	3.0	71.2	3.6	308.0	1	121.0	1	660	2	8	16
82K02	775485	520830	5543348		1	Kmg	3	0.2	1.6	570	2.2	150	4.5	33	5	4	0.5	110	0.1	2	10	260	8.2	2.5	3.0	14.0	1.0	59.6	2	38.0	1	200	2	10	24
82K02	775486	520972	5546003		1	Kmg	3	0.2	1.7	750	1.4	170	4.7	39	5	4	0.5	120	0.1	2	10	240	8.2	2.8	2.8	13.0	1.0	53.2	2	30.3	1	220	2	10	24
82K02	775488	519665	5547281		1	Kmg	2	0.2	2.9	400	7.8	100	5.2	47	10	5	2.4	63	0.1	1	20	95	6.9	8.6	0.9	2.0	1.0	16.0	11	6.8	2	220	14	5	42
82K02	775489	515791	5547330		1	Kmg	1	0.3	1.6	360	1.4	90	5.7	20	5	3	0.3	64	0.1	1	10	220	5.6	1.9	2.6	14.0	1.0	34.3	3	23.2	2	200	2	9	18
82K07	775490	518275	5577630		1	Kmg	1	0.5	3.0	520	0.5	150	1.7	75	10	16	3.1	98	0.1	1	16	63	10.7	13.0	0.9	1.8	1.5	33.7	1	6.7	3	840	8	3	16
82K07	775491	514473	5577087		1	PCh	1	0.3	2.5	300	1.6	82	2.1	35	9	10	1.9	50	0.1	1	20	51	6.8	6.0	0.4	1.4	1.0	13.0	1	3.9	2	410	14	6	24
82K07	775492	508808	5572903		1	Pl	6	0.6	13.0	600	7.7	140	2.8	58	24	13	4.6	77	0.1	3	32	83	10.2	11.0	0.3	2.7	1.7	20.0	1	5.7	3	670	34	18	152
82K07	775504	509124	5593205		1	PCh	3	0.5	14.0	380	0.6	210	3.3	120	28	14	4.7	130	0.3	1	65	90	16.2	14.0	0.6	1.5	2.3	33.7	1	6.8	4	640	50	11	56

Field Observations

MAP	SAMPLE ID	UTM ZONE	UTM EAST	UTM NORTH	STA	MED	FORM-ATION	WAT COL	WAT FLW	SED COL	SED PPT	CON	SED COMP	STRM WDTH	STRM DPTH	BNK	BNK PPT	CHL BED	CHL PTN	ELEV	PHY	DRN	TYP	ODR	SRC	WT
82K07	775505	11	512038	5591904		1	PCh	0	3	W	N	N	120	1.2	13	R	N				Y	D	P	4	G	11
82K07	775506	11	509824	5586924		1	PCh	2	3	W	N	N	310	1.5	13	A	N				Y	D	P	4	M	27
82K07	775507	11	515991	5573845		1	PCh	0	3	W	N	N	310	0.6	13	A	N				Y	D	P	4	G	31
82K07	775508	11	529178	5569642		1	PCh	0	3	G	N	N	310	1.5	13	A	N				Y	D	P	4	G	17
82K07	775509	11	529125	5569166		1	PCh	0	2	G	N	N	120	1.8	13	A	N				Y	D	P	4	M	35
82K07	775510	11	527156	5570334		1	Cbmh	0	2	W	N	N	220	0.9	13	A	N				Y	H	P	4	G	24
82K07	775511	11	526412	5569062		1	Cbmh	0	3	W	N	N	111	0.3	13	A	N				Y	H	P	4	G	14
82K07	775512	11	524057	5568212		1	PCh	0	3	W	N	N	120	1.5	13	A	N				Y	H	P	4	G	35
82K07	775514	11	523305	5568871		1	PCh	0	3	W	N	N	130	0.3	13	A	N				Y	H	P	4	M	29
82K02	775515	11	525051	5565576		1	PCh	0	2	W	N	N	210	1.5	25	A	N				Y	H	P	4	G	27
82K02	775516	11	521444	5564658		1	PCh	0	3	W	N	N	130	0.6	13	A	N				Y	H	P	4	G	28
82K02	775517	11	516336	5562236		1	Cbmh	0	3	W	N	N	210	0.9	13	A	N				Y	H	P	4	G	9
82K02	775518	11	511912	5564918		1	Pl	0	3	B	N	N	220	0.3	13	A	N				Y	H	P	4	G	37
82K02	775519	11	516506	5558824		1	Cbmh	0	2	W	T	N	210	1.5	25	A	N				Y	I	P	4	G	31
82K02	775520	11	516104	5558426		1	Cbmh	0	3	T	N	N	310	0.9	13	A	N				Y	I	P	4	G	24
82K02	775522	11	513164	5560782	1	1	Pl	0	3	W	N	N	120	2.4	13	A	N				Y	H	P	4	G	30
82K02	775523	11	513164	5560782	2	1	Pl	0	3	W	N	N	120	2.4	13	A	N				Y	H	P	4	G	27
82K02	775524	11	511719	5557087		1	Cbmh	0	3	T	N	N	111	0.9	13	A	N				Y	D	P	4	G	23
82K02	775525	11	511942	5544189		1	Kmg	0	3	T	N	N	210	0.6	13	R	N				Y	H	P	4	G	6
82K01	775526	11	542065	5540336		1	PCc	0	1	W	N	N	130	3.0	38	A	N				Y	D	P	4	G	9
82K01	775527	11	542137	5540710		1	PCc	2	2	W	N	N	130	2.1	13	A	N				Y	D	P	4	M	34
82K07	777054	11	507683	5589999		1	PCh	0	2	T	N	N	120	1.2	13	T	N				M		P	4	G	13
82K07	777055	11	508535	5591271		1	PCh	0	2	T	N	N	220	1.2	13	T	N				M		P	4	G	17
82K07	777058	11	502375	5592623		1	Cbmh	0	3	T	N	N	030	2.4	13	T	N				Y	D	P	4	G	2
82K07	777059	11	503556	5590284		1	Cbmh	0	2	T	N	N	031	0.6	13	C	N				M		P	4	G	4
82K07	777060	11	503075	5586412		1	Cbmh	0	3	T	N	N	121	2.4	13	T	N				Y	D	P	4	G	9
82K07	777062	11	501797	5583891		1	Pl	0	3	T	N	N	030	1.2	13	G	N				M	D	P	4	G	11
82K07	777063	11	500962	5582429		1	Pl	0	3	T	N	N	130	2.4	13	T	N				Y	D	P	4	G	6
82K02	777078	11	509068	5539321		1	Kmg	0	3	T	N	N	031	3.0	13	T	N				M		P	4	G	6
82K02	777079	11	508790	5538573		1	Kmg	0	3	T	N	N	130	2.4	13	T	N				M		P	4	G	6
82K07	779112	11	502822	5572520		1	Pl	0	1	G	N	P	130	0.3	13	C	N				M			4	G	15
82K07	779117	11	506345	5587205		1	Cbmh	2	4	W	N	N	130	3.0	38	R	N				M	H	P	4	M	33
82K07	779118	11	505018	5581858		1	Pl	0	3	G	N	N	130	1.5	13	R	N				M	H	P	4	M	6
82K07	779120	11	505830	5580653		1	Pl	0	3	T	N	N	130	1.2	13	T	N				M	H	P	4	G	10
82K07	779122	11	502353	5569455		1	Pl	0	1	W	N	P	120	0.3	13	T	W				M			4	G	1
82K07	779123	11	524886	5577508		1	PCh	2	3	W	N	F	130	3.6	38	T	N				Y	H	P	4	M	25
82K07	779124	11	525496	5577586		1	PCh	0	3	T	N	F	030	0.6	13	T	N				Y		P	4	G	15
82K07	779125	11	523902	5580804		1	PCh	0	4	W	N	N	310	1.2	13	T	N				Y		P	4	G	10
82K07	779126	11	520899	5578847		1	PCh	2	4	T	N	F	030	3.0	25	T	N				Y		P	4	M	19
82K07	779127	11	516393	5578531		1	Kmg	0	3	T	N	N	030	0.6	13	T	N				Y		P	4	G	17
82K07	779128	11	519240	5584066		1	PCh	2	4	G	N	N	030	1.8	25	T	N				Y		P	4	M	22
82K07	779129	11	519697	5585054		1	PCh	2	4	G	N	N	220	1.2	25	T	N				Y		P	4	M	14
82K07	779131	11	520087	5582263		1	PCh	2	4	W	N	N	220	2.4	25	R	N				Y		P	4	M	23
82K07	779132	11	521792	5581605		1	PCh	0	3	T	N	N	121	1.2	13	T	N				M	D	P	4	G	8
82K07	779133	11	510905	5575203		1	Cbmh	0	3	T	N	F	030	1.2	13	T	N				M	D	P	4	G	13
82K07	779134	11	510958	5576613	1	1	Cbmh	2	3	W	N	P	220	3.0	25	T	N				M	H	P	4	M	20
82K07	779135	11	510958	5576613	2	1	Cbmh	2	3	W	N	P	220	3.0	25	T	N				M	H	P	4	M	6
82K07	779136	11	510514	5575707		1	Cbmh	0	1	T	N	N	022	0.3	13	T	N				M			4	G	9
82K02	779137	11	506478	5562366		1	Cbmh	0	3	G	N	N	220	2.4	25	T	N				M	H	P	3	G	22
82K07	779138	11	519280	5568133		1	PCh	2	3	W	N	N	130	2.4	13	T	N				M	D	P	4	M	11

Analytical Results

MAP	SAMPLE ID	UTM EAST	UTM NORTH	STA	MED	FORM-ATION	Au 1 ppb	Sb 0.1 ppm	As 0.5 ppm	Ba 50 ppm	Br 0.5 ppm	Ce 5 ppm	Cs 0.5 ppm	Cr 20 ppm	Co 5 ppm	Hf 1 ppm	Fe 0.2 pct	La 2 ppm	Lu 0.1 ppm	Mo 1 ppm	Ni 10 ppm	Rb 5 ppm	Sm 0.5 ppm	Sc 0.5 ppm	Na 0.1 pct	Ta 0.5 ppm	Tb 0.2 ppm	Th 0.2 ppm	W 1 ppm	U 0.2 ppm	Yb 1 ppm	Zr 200 ppm	Cu 2 ppm	Pb 2 ppm	Zn 2 ppm
82K07	775505	512038	5591904		1	PCh	4	0.6	18.0	330	0.5	270	2.9	120	31	19	4.7	170	0.4	1	72	81	19.8	14.0	0.6	1.8	3.1	44.5	2	7.9	6	900	62	12	52
82K07	775506	509824	5586924		1	PCh	6	0.5	15.0	270	0.5	170	2.0	68	23	22	3.9	110	0.1	1	41	56	13.3	9.4	0.7	1.6	2.0	27.2	2	6.7	4	1000	56	8	36
82K07	775507	515991	5573845		1	PCh	1	0.3	3.0	360	0.9	55	2.5	40	11	6	1.9	33	0.1	1	20	67	4.3	6.1	0.3	0.9	0.6	10.0	1	3.1	1	270	18	8	24
82K07	775508	529178	5569642		1	PCh	1	0.9	38.0	370	3.0	180	3.0	74	31	13	5.6	120	0.1	1	49	84	14.0	12.0	0.8	1.3	1.7	22.8	3	5.7	3	450	48	18	72
82K07	775509	529125	5569166		1	PCh	6	0.2	1.9	290	0.5	150	1.3	36	13	39	3.3	100	0.3	1	16	40	12.5	13.0	0.7	1.8	1.8	26.2	1	6.7	4	1400	10	2	22
82K07	775510	527156	5570334		1	Cbmh	17	0.1	2.3	310	1.3	150	1.7	24	6	21	2.0	80	0.1	1	15	58	10.1	6.2	0.9	1.3	1.3	17.0	1	4.0	2	770	6	7	26
82K07	775511	526412	5569062		1	Cbmh	1	0.2	1.7	210	1.9	28	0.6	20	5	7	0.4	15	0.1	1	10	27	2.3	1.7	0.1	0.5	0.2	4.4	1	1.6	1	300	4	8	8
82K07	775512	524057	5568212		1	PCh	2	0.2	4.4	390	2.3	110	2.4	50	14	12	2.6	66	0.1	1	29	68	8.6	9.0	0.5	1.6	1.1	16.0	1	4.6	2	510	18	4	38
82K07	775514	523305	5568871		1	PCh	1	0.3	2.8	680	2.6	67	2.2	67	15	5	2.9	37	0.1	1	24	85	4.7	10.0	0.5	0.7	0.7	11.0	1	3.4	1	240	14	13	28
82K02	775515	525051	5565576		1	PCh	1	0.2	5.0	380	1.4	130	2.4	71	16	13	3.2	76	0.1	1	32	77	9.1	11.0	0.6	1.7	1.3	17.0	1	4.4	2	390	22	4	52
82K02	775516	521444	5564658		1	PCh	4	0.3	6.6	460	0.5	130	3.5	86	28	9	4.2	90	0.1	1	54	98	10.2	15.0	0.7	1.5	1.5	20.7	1	5.6	3	390	64	5	50
82K02	775517	516336	5562236		1	Cbmh	1	0.3	4.9	470	13.0	89	3.0	61	13	12	3.0	44	0.1	1	19	80	6.1	8.6	0.6	0.9	0.9	13.0	1	7.3	1	380	14	18	62
82K02	775518	511912	5564918		1	Pl	1	1.2	21.0	1800	1.0	64	2.8	40	15	2	2.9	43	0.1	15	53	57	5.1	6.6	0.2	1.2	0.7	8.8	1	6.1	1	200	84	13	210
82K02	775519	516506	5558824		1	Cbmh	1	0.2	1.6	250	1.6	62	1.1	30	6	11	1.5	33	0.1	1	11	36	4.4	4.0	0.3	0.9	0.6	8.9	2	2.7	1	390	6	7	20
82K02	775520	516104	5558426		1	Cbmh	1	0.2	3.0	550	6.5	130	3.0	69	16	14	3.4	72	0.2	1	23	97	10.0	11.0	0.5	1.7	1.4	17.0	1	4.2	2	430	20	9	48
82K02	775522	513164	5560782	1	1	Pl	9	0.2	2.4	430	1.9	93	2.2	89	12	16	2.5	53	0.1	1	27	63	7.7	7.8	0.4	1.4	1.1	14.0	3	3.8	2	520	12	7	32
82K02	775523	513164	5560782	2	1	Pl	1	0.2	2.2	350	2.1	95	1.9	79	11	16	2.5	52	0.1	1	22	60	6.9	7.6	0.4	1.3	1.0	13.0	4	3.6	2	530	12	7	32
82K02	775524	511719	5557087		1	Cbmh	1	0.2	3.9	520	8.2	160	4.3	69	25	7	4.9	98	0.1	1	36	86	11.4	14.0	0.9	2.5	1.3	19.0	4	4.0	2	230	22	10	66
82K02	775525	511942	5544189		1	Kmg	1	0.3	5.1	50	16.0	240	4.8	20	5	4	0.7	170	0.1	1	10	170	9.5	2.9	2.2	7.6	1.4	63.0	1	100.0	1	200	6	12	42
82K01	775526	542065	5540336		1	PCc	3	0.1	0.8	1400	0.5	320	1.2	20	5	6	0.6	220	0.1	1	10	110	11.4	2.1	2.7	3.7	0.8	42.4	4	12.0	1	240	2	3	12
82K01	775527	542137	5540710		1	PCc	1	0.1	0.5	1700	0.6	320	1.7	20	5	8	1.5	255	0.1	1	10	160	15.2	2.2	3.7	5.4	1.1	53.1	3	16.0	1	400	2	1	8
82K07	777054	507683	5589999		1	PCh	5	0.4	4.8	290	3.4	100	6.8	38	16	7	3.4	59	0.2	1	19	60	7.4	7.9	0.6	1.4	1.3	12.0	4	3.5	2	350	20	13	40
82K07	777055	508535	5591271		1	PCh	1	0.3	7.2	300	0.5	87	3.4	48	15	7	2.9	50	0.1	1	30	72	5.8	8.3	0.3	1.3	1.2	11.0	3	3.3	2	370	28	10	36
82K07	777058	502375	5592623		1	Cbmh	1	0.4	3.7	350	38.0	78	2.8	110	18	9	3.6	49	0.1	1	52	70	6.6	11.0	0.5	2.3	1.6	12.0	1	4.9	1	200	16	15	98
82K07	777059	503556	5590284		1	Cbmh	27	0.7	3.6	290	41.0	58	1.7	43	18	5	3.5	37	0.1	2	21	40	4.3	7.1	0.4	1.6	0.8	7.6	1	6.2	2	400	22	21	28
82K07	777060	503075	5586412		1	Cbmh	5	0.5	9.1	650	25.0	140	4.1	69	30	18	5.4	75	0.5	1	32	120	10.0	14.0	0.4	1.6	1.8	18.0	1	5.0	4	790	26	38	255
82K07	777062	501797	5583891		1	Pl	9	6.0	50.0	1700	5.3	110	3.8	350	46	7	5.2	65	0.2	3	300	110	7.5	16.0	0.8	1.8	1.4	14.0	1	4.4	2	440	46	100	220
82K07	777063	500962	5582429		1	Pl	14	0.8	13.0	1100	3.7	100	3.9	75	30	4	5.6	67	0.1	3	53	98	7.3	15.0	0.8	1.8	1.4	14.0	3	3.6	2	200	78	30	182
82K02	777078	509068	5539321		1	Kmg	3	0.4	2.2	170	7.0	140	5.9	20	5	3	1.4	87	0.1	8	10	230	6.2	4.5	2.0	11.0	1.2	45.1	5	89.1	2	200	8	15	50
82K02	777079	508790	5538573		1	Kmg	1	0.2	2.3	450	5.4	90	5.1	35	7	8	1.8	57	0.1	2	16	160	6.9	5.9	1.4	9.4	1.3	24.7	6	27.1	2	350	6	8	62
82K07	779112	502822	5572520		1	Pl	1	0.5	7.2	530	8.8	80	2.0	65	17	4	3.0	47	0.1	1	33	51	6.9	8.8	1.1	1.3	1.0	10.0	1	2.1	1	200	24	8	46
82K07	779117	506345	5587205		1	Cbmh	3	0.3	5.2	190	0.5	120	3.2	43	14	14	2.8	72	0.1	1	24	51	10.2	6.7	0.4	2.0	1.4	15.0	3	4.3	3	650	24	14	32
82K07	779118	505018	5581858		1	Pl	10	1.0	14.0	1500	11.0	120	2.9	110	19	11	4.0	71	0.1	4	58	66	8.8	9.2	0.5	1.8	1.4	14.0	1	6.9	3	420	38	17	140
82K07	779120	505830	5580653		1	Pl	1	0.4	8.0	410	6.3	100	3.7	67	19	12	4.1	59	0.1	1	33	82	8.4	11.0	0.6	2.1	1.3	15.0	1	4.3	3	630	20	13	58
82K07	779122	502353	5569455		1	Pl	22	0.2	1.4	240	33.0	21	1.0	20	5	2	0.5	12	0.1	2	10	5	1.5	2.7	0.4	0.6	0.2	2.9	1	1.6	1	200	16	3	22
82K07	779123	524886	5577508		1	PCh	1	0.3	7.9	520	1.0	110	2.3	71	12	10	3.1	67	0.1	1	22	72	9.0	13.0	1.1	1.3	1.5	20.4	1	4.7	2	620	14	7	30
82K07	779124	525496	5577586		1	PCh	2	0.2	5.0	470	10.0	110	2.5	48	13	12	2.6	63	0.1	1	15	89	8.6	8.1	1.2	1.1	1.2	16.0	1	5.1	2	620	10	14	36
82K07	779125	523902	5580804		1	PCh	4	0.6	3.3	270	31.0	86	1.0	24	8	15	1.6	49	0.1	1	16	36	6.3	3.9	0.3	0.8	1.1	14.0	1	7.5	2	830	8	16	24
82K07	779126	520899	5578847		1	PCh	1	0.4	4.3	550	1.6	190	2.9	64	13	21	3.7	110	0.1	2	21	100	13.3	20.0	1.4	2.6	2.1	42.3	7	11.0	3	980	16	8	24
82K07	779127	516393	5578531		1	Kmg	1	0.6	13.0	420	4.2	89	4.8	170	22	7	4.7	52	0.1	1	48	120	7.6	23.4	1.9	1.7	1.4	20.8	1	15.0	2	430	18	9	42
82K07	779128	519240	5584066		1	PCh	3	0.6	6.2	350	0.6	160	2.3	83	23	13	4.1	98	0.1	1	50	76	12.9	10.0	0.6	1.1	1.9	28.6	1	5.8	3	730	34	9	36
82K07	779129	519697	5585054		1	PCh	4	0.6	24.0	280	0.6	260	3.0	100	21	14	3.7	170	0.2	1	52	81	20.0	10.0	1.0	1.3	2.6	28.5	1	6.2	4	770	52	12	52
82K07	779131	520087	5582263		1	PCh	3	0.6	5.5	410	1.1	140	2.2	88	22	16	4.4	91	0.1	1	43	81	13.0	14.0	0.8	1.8	2.1	25.9	2	6.5	3	910	26	4	28
82K07	779132	521792	5581605		1	PCh	8	0.7	30.0	400	20.0	110	2.1	47	18	9	3.1	67	0.1	2	48	64	8.9	7.2	0.6	1.0	1.3	19.0	1	13.0	1	470	34	14	46
82K07	779133	510905	5575203		1	Cbmh	1	0.6	8.6	520	10.0	120	4.3	74	24	9	4.5	68	0.1	1	40	95	9.3	13.0	0.9	2.1	1.4	16.0	1	3.9	2	530	20	11	56
82K07	779134	510958	5576613	1	1	Cbmh	9	0.5	4.5	280	1.7	120	2.1	460	41	16	6.3	74	0.1	1	110	49	11.0	26.9	1.0	1.8	1.6	20.0	2	5.4	3	820	22	5	30
82K07	779135	510958	5576613	2	1	Cbmh	1	0.4	3.5	280	0.5	110	2.3	450	35	16	6.0	67	0.1	1	110	50	10.0	25.0	1.0	1.5	1.6	18.0	1	5.4	3	540	22	5	30
82K07	779136	510514	5575707		1	Cbmh	1	0.6	14.0	730	50.6	120	4.6	160	41	7	8.8	81	0.1	1	62	80	12.4	23.8	1.7	4.7	2.1	13.0	1	16.0	2	530	34	15	76
82K02	779137	506478	5562366		1	Cbmh	2	0.2	2.1	360	2.8	130	2.1	120	18	20	3.3	72	0.3	1	36	56	10.0	10.0	0.5	1.7	1.3	17.0	3	4.0	3	960	14	8	44
82K07	779138	519280	5568133		1	PCh	1	0.4	4.4	390	2.6	120	2.9	81	17	12	3.6	72	0.1	1	35	77	10.0	10.0	0.5	1.7	1.4	20.6	1	5.0	3	550	26	9	30

Field Observations

MAP	SAMPLE ID	UTM ZONE	UTM EAST	UTM NORTH	STA	MED	FORM-ATION	WAT COL	WAT FLW	SED COL	SED PPT	CON	SED COMP	STRM WDTH	STRM DPTH	BNK	BNK PPT	CHL BED	CHL PTN	ELEV	PHY	DRN	TYP	ODR	SRC	WT
82K07	779139	11	517557	5566930		1	Cbmh	0	2	W	N	N	030	0.6	13	T	N				M		P	4	G	21
82K07	779140	11	515062	5567009		1	Cbmh	2	3	W	N	N	030	1.8	13	T	N				M	D	P	4	M	19
82K07	779142	11	514975	5566323		1	Cbmh	2	3	W	N	N	220	3.3	25	T	N				M	D	P	4	M	8
82K02	779143	11	511548	5565797		1	Pl	0	2	G	N	N	030	0.3	13	T	N				M	D	P	4	G	15
82K02	779144	11	509899	5565032		1	Pl	0	2	T	N	N	030	0.9	13	T	N				M	D	P	4	G	3
82K02	779145	11	508781	5563997		1	Pl	0	2	W	N	N	030	0.3	13	T	N				M		P	4	G	30
82K02	779146	11	507313	5563930		1	Pl	0	2	W	N	P	220	0.3	13	T	N				M		P	4	G	5
82K02	779148	11	503612	5541546		1	Pl	0	4	G	N	N	130	0.6	13	T	N				M		P	4	G	7
82K02	779149	11	503608	5541883		1	Pl	0	3	G	N	N	030	1.5	13	T	N				M	D	P	3	G	12
82K08	779150	11	555408	5589597		1	PCh	0	3	T	N	N	130	0.6	13	T	N				M	D	P	3	G	13
82K08	779151	11	554206	5590335		1	PCh	0	2	T	N	P	220	0.3	13	T	N				M	D	P	3	G	5
82K08	779152	11	555170	5591187		1	PCh	0	2	T	N	P	120	0.3	13	C	N				M	D	P	3	G	5
82K08	779153	11	541583	5576009		1	PCd	0	3	W	N	P	130	1.2	13	T	N				M	D	P	3	G	19
82K08	779154	11	542967	5576986		1	PCd	0	2	W	N	N	220	0.3	13	T	N				M		P	3	G	11
82K08	779155	11	544286	5578725		1	PCd	0	3	T	N	N	031	0.3	13	R	N				M		P	3	G	14
82K08	779156	11	545318	5579240	1	1	PCd	2	3	W	N	N	120	0.9	13	T	N				M	D	P	3	M	18
82K08	779157	11	545318	5579240	2	1	PCd	2	3	W	N	N	120	0.9	13	T	N				M	D	P	3	M	12
82K08	779158	11	546430	5579430		1	PCd	2	3	G	N	N	031	2.1	13	T	N				M	H	P	3	M	12
82K08	779160	11	547952	5582120		1	PCd	0	2	G	N	N	220	1.8	13	T	N				M	H	P	3	G	13
82K08	779162	11	552542	5588299		1	PCh	0	3	T	N	N	021	0.9	13	T	N				M	H	P	3	G	5
82K08	779163	11	540612	5584782		1	PCmn	2	4	G	N	N	130	1.8	13	T	T				Y	H	P	4	M	19
82K08	779164	11	542531	5584948		1	PCmn	2	3	W	N	P	130	1.8	13	T	N				M	D	P	4	M	17
82K08	779166	11	544768	5585113		1	PCd	0	2	G	N	N	220	0.6	13	T	N				M	D	P	4	G	22
82K08	779167	11	544904	5584553		1	PCd	3	4	W	N	N	130	1.2	13	T	N				M		P	4	M	33
82K08	779168	11	547499	5585166		1	PCd	0	3	T	N	N	130	0.6	13	T	T				M	D	P	4	G	17
82K08	779169	11	550457	5586857		1	PCd	0	3	T	N	N	022	0.3	13	T	N				M	D		4	G	1
82K08	779170	11	552165	5592202		1	PCh	0	2	T	N	M	120	0.3	13	T	N				M		P	4	G	5
82K08	779223	11	538369	5572744		1	PCd	0	1	T	N	N	130	1.8	13	T	N				M	D	P	3	G	25
82K08	779224	11	538337	5573901		1	PCd	2	2	W	N	N	030	2.1	13	T	N				M	D	P	3	G	16
82K08	779225	11	539717	5575131		1	PCd	0	1	G	N	N	120	0.3	13	T	N				M		S	3	G	23
82K01	890069	11	545049	5541392		1	PCau	1	2	T	N	N	030	6.0	25	O	N	F		1554	M	D	P	4	S	42
82K01	890074	11	542137	5540531		1	PCc	0	2				030	2.5	15	G	N	S		1635	M	D	P	1	S	46
82K01	890075	11	545222	5542737		1	PCau	0	2	T	N	N	120	1.0	8	O	N	S	S	1554	M	D	P	1	S	23
82K01	890076	11	545761	5543602		1	PCau	0	3	T	N	N	210	2.0	10					1512	M	D	P	1	S	28
82K01	890077	11	545327	5545922		1	PCau	0	2	T	N	N	210	2.5	10	O	N	F		1500	M	D	P	1	S	31
82K01	890078	11	547286	5549919		1	PCau			T	N	N	210	1.0	10	A	N	B	S	1470	M	D	P	2	S	31
82K01	890081	11	546000	5549589		1	PCau	T	2	T	N	N	120	5.0	10	T	N	B	S	1554	M	D	P	2	S	10
82K01	890082	11	544940	5548516		1	PCau	0	2	T	N	N	030	7.0	25	G	N	B	M	1500	M	D	P	4	S	38
82K01	890083	11	542581	5549664		1	PCau	0	3	T	N	N	030	2.0	20	G	N	B	S	1650	M	D	P	3	S	40
82K01	890084	11	548490	5547474		1	PCau	0	2	T	N	N	021	2.0	20	O	N	B	S	1986	M	D	P	2	G	23
82K01	890085	11	549359	5547381		1	PCau	0	1	B	N	N	021	1.0	5	N	N	S	M	2145	M	D	P	1	S	12
82K01	890088	11	551404	5539216		1	PCau	0		T	N	N	210	1.0	10	O	N	S	S	1890	M	D	P	2	S	23
82K01	890089	11	551286	5540608		1	PCau	0		T	N	N	210	2.5	10	O	N	S	S	1890	M	D	P	1	S	30
82K01	890090	11	551691	5542729	1	1	PCau	0	2	T	N	N	210	1.5	10	O	N	S	S	1950	M	D	P	1	S	0
82K01	890091	11	551691	5542729	2	1	PCau	0	2	T	N	N	210	1.5	10	O	N	S	S	1950	M	D	P	1	S	25
82K01	890092	11	551562	5543863		1	PCau	0	2	T	N	N	210	1.0	5	O	N	S	S	1740	M	D	P	1	S	29
82K01	890094	11	552220	5545737		1	PCau	0	1	T	N	N	210	1.5	10	O	N	S	S	1680	M	D	P	1	S	35
82K01	890095	11	552122	5547011		1	PCau	0	1	T	N	N	210	1.0	10	O	N	S	S	1650	M	D	P	1	S	30
82K01	890096	11	553486	5549585		1	PCau	0	1	T	N	N	210	2.0	30	O	N	S	S	1680	M	D	P	4	S	28
82K01	890097	11	549638	5556312		1	PCc	0	3	T	N	N	120	1.0	20	N	N	S	S	2034	M	D	P	1	S	28

Analytical Results

MAP	SAMPLE ID	UTM EAST	UTM NORTH	STA	MED	FORM-ATION	Au 1 ppb	Sb 0.1 ppm	As 0.5 ppm	Ba 50 ppm	Br 0.5 ppm	Ce 5 ppm	Cs 0.5 ppm	Cr 20 ppm	Co 5 ppm	Hf 1 ppm	Fe 0.2 pct	La 2 ppm	Lu 0.1 ppm	Mo 1 ppm	Ni 10 ppm	Rb 5 ppm	Sm 0.5 ppm	Sc 0.5 ppm	Na 0.1 pct	Ta 0.5 ppm	Tb 0.2 ppm	Th 0.2 ppm	W 1 ppm	U 0.2 ppm	Yb 1 ppm	Zr 200 ppm	Cu 2 ppm	Pb 2 ppm	Zn 2 ppm
82K07	779139	517557	5566930		1	Cbmh	2	0.2	1.8	280	7.1	57	1.8	52	14	6	1.6	31	0.1	1	24	61	4.5	5.8	0.4	0.6	0.6	8.7	1	3.4	1	380	8	8	32
82K07	779140	515062	5567009		1	Cbmh	2	0.4	5.7	430	5.6	99	4.0	67	19	8	3.1	58	0.1	1	35	92	8.4	9.1	0.6	1.0	1.2	16.0	1	3.5	1	440	16	12	52
82K07	779142	514975	5566323		1	Cbmh	11	0.2	3.4	370	6.8	110	2.4	54	14	13	3.4	55	0.1	1	18	63	7.6	9.2	0.6	1.6	1.2	14.0	1	5.0	2	450	16	10	44
82K02	779143	511548	5565797		1	Pl	3	0.7	8.4	3200	5.7	85	3.0	60	16	6	3.0	55	0.1	3	44	79	6.5	8.6	0.4	1.2	0.9	13.0	1	4.7	1	270	52	15	205
82K02	779144	509899	5565032		1	Pl	7	1.4	8.7	1800	3.3	64	2.9	62	16	3	2.9	37	0.1	10	49	65	4.7	7.4	0.4	0.9	0.6	9.2	1	4.1	2	250	70	18	280
82K02	779145	508781	5563997		1	Pl	5	0.3	4.8	620	2.1	100	2.3	43	13	13	3.0	67	0.1	1	29	62	8.2	11.0	0.7	1.3	1.3	16.0	1	4.7	2	390	16	5	48
82K02	779146	507313	5563930		1	Pl	2	0.6	2.6	420	39.0	62	2.4	20	12	6	2.2	31	0.1	1	42	47	4.3	6.8	0.4	0.8	0.6	7.6	1	2.6	1	350	22	37	6000
82K02	779148	503612	5541546		1	Pl	1	0.5	13.0	500	11.0	100	4.4	97	34	5	5.6	57	0.1	1	65	88	7.6	17.0	1.2	1.8	1.1	12.0	1	4.2	2	200	62	21	98
82K02	779149	503608	5541883		1	Pl	11	1.5	19.0	860	6.5	74	4.1	120	21	7	4.1	49	0.1	1	51	73	6.6	13.0	1.3	1.3	0.9	10.0	1	3.8	2	300	40	23	134
82K08	779150	555408	5589597		1	PCh	1	1.0	8.0	460	8.7	76	5.8	52	15	7	3.0	42	0.1	1	24	110	6.3	10.0	0.4	1.1	1.0	13.0	1	3.6	2	340	28	15	60
82K08	779151	554206	5590335		1	PCh	6	13.6	28.0	520	11.0	73	4.3	42	14	6	5.1	42	0.1	1	26	94	6.6	7.9	0.3	0.9	1.1	11.0	2	3.5	1	250	42	1450	3440
82K08	779152	555170	5591187		1	PCh	11	1.2	10.0	380	3.0	92	4.4	60	11	5	3.2	42	0.1	1	31	94	6.2	10.0	0.5	1.1	0.9	12.0	1	3.5	1	210	28	21	60
82K08	779153	541583	5576009		1	PCd	3	3.4	22.0	860	8.0	110	4.9	31	14	9	2.8	65	0.1	1	14	140	9.3	10.0	1.0	1.8	1.5	18.0	2	5.9	4	350	26	21	50
82K08	779154	542967	5576986		1	PCd	5	6.0	38.0	500	4.1	140	4.3	28	22	8	3.2	73	0.1	1	20	130	10.2	13.0	0.7	1.9	1.6	19.0	3	5.8	3	260	32	31	40
82K08	779155	544286	5578725		1	PCd	2	7.2	23.0	800	15.0	83	5.1	34	17	6	3.5	48	0.1	1	25	120	6.9	11.0	0.6	1.4	1.2	17.0	3	9.2	3	220	30	130	128
82K08	779156	545318	5579240	1	1	PCd	1	3.7	28.0	580	1.1	110	3.5	44	19	10	3.6	75	0.1	1	13	140	10.4	11.0	0.7	2.4	1.8	21.1	5	6.5	4	360	52	18	36
82K08	779157	545318	5579240	2	1	PCd	6	3.4	27.0	520	1.1	110	3.3	34	16	9	3.4	67	0.1	1	24	140	10.0	11.0	0.7	2.2	1.8	20.0	4	6.0	4	340	44	18	30
82K08	779158	546430	5579430		1	PCd	2	3.5	10.0	760	2.9	85	2.8	23	13	8	1.9	46	0.1	1	11	82	7.0	6.2	0.3	0.9	1.1	12.0	1	3.7	2	230	20	29	40
82K08	779160	547952	5582120		1	PCd	2	3.8	21.0	580	2.6	160	5.5	30	15	9	2.4	87	0.1	1	10	150	14.2	9.0	0.3	1.4	1.7	19.0	1	5.1	3	390	28	9	24
82K08	779162	552542	5588299		1	PCh	18	1.9	7.0	1000	23.0	57	4.7	35	14	6	2.8	31	0.1	1	22	77	4.9	8.6	0.3	0.9	0.8	8.6	1	2.6	2	400	24	17	38
82K08	779163	540612	5584782		1	PCmn	2	1.5	11.0	690	1.0	82	2.5	66	19	4	4.0	50	0.1	1	33	82	6.8	11.0	0.3	0.8	1.1	12.0	1	3.2	2	200	28	14	52
82K08	779164	542531	5584948		1	PCmn	1	3.4	13.0	1500	0.6	74	2.7	39	13	5	2.7	42	0.1	1	13	75	5.5	7.9	0.2	0.7	0.9	11.0	1	2.6	1	260	24	32	32
82K08	779166	544768	5585113		1	PCd	1	5.3	27.0	2400	0.7	92	3.7	60	21	6	3.8	59	0.1	1	25	120	8.2	13.0	0.4	1.2	1.0	13.0	2	3.5	2	260	32	54	64
82K08	779167	544904	5584553		1	PCd	1	5.7	21.0	760	0.8	110	3.0	26	18	9	4.4	74	0.4	1	11	120	10.8	11.0	0.9	1.9	2.0	20.7	4	5.3	4	420	38	15	42
82K08	779168	547499	5585166		1	PCd	4	5.2	21.0	670	2.4	120	5.4	39	19	8	3.6	70	0.1	1	20	150	10.2	12.0	0.6	1.4	1.6	18.0	2	5.3	4	290	32	26	44
82K08	779169	550457	5586857		1	PCd	1	2.9	15.0	350	8.6	70	4.3	20	12	5	1.9	37	0.1	1	10	94	6.2	6.4	0.3	0.9	0.7	10.0	1	3.9	2	340	52	15	42
82K08	779170	552165	5592202		1	PCh	8	2.6	11.0	540	13.0	89	8.5	76	21	4	3.6	51	0.1	1	29	120	7.5	12.0	0.5	1.0	1.0	15.0	1	4.1	1	250	30	19	66
82K08	779223	538369	5572744		1	PCd	3	2.0	33.0	390	3.1	130	4.4	33	17	8	3.2	71	0.1	2	20	130	11.7	10.0	0.6	1.7	1.9	19.0	2	5.2	4	440	34	23	40
82K08	779224	538337	5573901		1	PCd	1	1.3	16.0	300	0.5	88	3.0	32	10	7	2.4	47	0.2	1	11	78	8.1	7.3	1.1	1.1	1.4	12.0	1	3.3	3	310	20	29	38
82K08	779225	539717	5575131		1	PCd	1	2.8	28.0	650	2.7	160	8.6	33	16	9	3.2	90	0.2	2	17	160	15.0	11.0	1.1	1.9	2.2	21.8	2	5.3	4	540	38	32	66
82K01	890069	545049	5541392		1	PCau	1	0.1	0.6	1900	0.5	330	2.0	27	5	7	1.5	239	0.1	1	10	170	17.9	2.3	3.0	8.1	1.4	59.3	4	17.0	1	420	2	2	9
82K01	890074	542137	5540531		1	PCc	1	0.1	0.5	1900	0.5	250	1.8	20	5	6	1.3	180	0.1	1	10	160	13.7	1.9	3.0	6.2	1.1	43.0	4	14.0	1	200	3	2	11
82K01	890075	545222	5542737		1	PCau	1	0.3	7.5	670	8.6	91	10.0	51	14	5	3.3	54	0.1	1	18	160	10.0	10.0	0.9	2.2	1.8	15.0	1	4.9	3	230	27	11	76
82K01	890076	545761	5543602		1	PCau	1	0.8	45.0	420	10.0	65	10.0	38	9	6	3.2	38	0.1	1	10	92	7.2	12.0	1.0	1.5	1.4	10.0	4	5.5	3	360	25	25	77
82K01	890077	545327	5545922		1	PCau	1	0.9	6.5	680	3.1	92	11.0	56	11	5	4.3	52	0.1	1	13	180	9.0	12.0	1.0	3.4	1.5	16.0	4	4.5	4	420	24	6	80
82K01	890078	547286	5549919		1	PCau	100	0.3	8.8	590	7.4	80	11.0	46	13	5	3.1	47	0.1	1	18	160	10.0	8.6	0.9	2.3	1.7	16.0	5	4.6	3	410	31	9	78
82K01	890081	546000	5549589		1	PCau	17	0.5	19.0	560	1.1	94	8.6	49	10	5	3.3	50	0.1	1	23	150	9.2	10.0	0.9	2.7	1.5	16.0	5	4.0	3	390	24	9	57
82K01	890082	544940	5548516		1	PCau	1	0.4	3.7	1500	0.8	240	3.9	30	5	9	2.6	160	0.1	1	10	140	12.3	4.8	1.9	4.8	1.2	35.2	1	11.0	1	530	10	5	27
82K01	890083	542581	5549664		1	PCau	3	0.5	4.6	1300	0.8	240	3.3	20	5	11	3.7	160	0.1	1	10	130	12.7	4.8	1.8	5.6	1.5	37.8	3	14.0	1	650	5	4	22
82K01	890084	548490	5547474		1	PCau	1	0.4	14.0	630	10.0	71	5.7	75	13	5	3.1	39	0.1	1	24	160	7.5	12.0	0.9	1.7	1.3	16.0	3	6.1	3	400	22	30	63
82K01	890085	549359	5547381		1	PCau	1	0.6	3.3	400	29.0	44	3.0	38	5	3	1.3	35	0.1	1	10	90	5.7	6.8	0.7	0.9	1.0	8.3	2	8.6	1	370	14	41	48
82K01	890088	551404	5539216		1	PCau	1	0.2	25.0	560	16.0	68	17.0	34	10	4	2.7	53	0.1	1	13	130	10.8	9.4	0.9	1.3	1.8	11.0	4	10.0	4	230	24	16	146
82K01	890089	551286	5540608		1	PCau	1	0.3	27.0	600	9.0	61	14.0	48	11	5	2.9	37	0.1	1	22	140	8.4	10.0	0.9	1.4	1.4	12.0	2	4.5	3	370	22	19	97
82K01	890090	551691	5542729	1	1	PCau	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	0.0	0.0	0.0	0.0	0	0.0	0	0	19	18	90
82K01	890091	551691	5542729	2	1	PCau	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	0.0	0.0	0.0	0.0	0	0.0	0	0	19	18	91
82K01	890092	551562	5543863		1	PCau	1	0.4	36.0	400	11.0	82	16.0	49	17	5	3.7	47	0.1	1	22	97	9.3	13.0	1.2	1.5	1.6	12.0	17	6.1	3	470	30	17	86
82K01	890094	552220	5545737		1	PCau	3	1.5	50.5	540	4.8	90	7.1	59	20	9	4.7	50	0.3	1	19	130	10.0	14.0	1.2	2.4	1.9	16.0	6	4.9	5	470	46	36	78
82K01	890095	552122	5547011		1	PCau	1	0.6	20.0	480	15.0	60	6.2	54	15	6	3.5	35	0.1	1	25	120	6.6	13.0	1.0	1.6	1.2	11.0	12	4.5	3	340	44	16	77
82K01	890096	553486	5549585		1	PCau	1	1.0	41.0	490	19.0	75	8.8	42	21	6	4.7	40	0.1	1	29	110	7.8	16.0	1.2	1.7	1.7	12.0	3	7.9	4	200	45	36	81
82K01	890097	549638	5556312		1	PCc	1	0.9	20.0	530	14.0	110	7.6	53	22	5	3.5	69	0.1	1	24	140	12.5	10.0	0.9	2.3	1.8	16.0	6	10.0	4	200	34	18	116

Field Observations

MAP	SAMPLE ID	UTM ZONE	UTM EAST	UTM NORTH	STA	MED	FORM-ATION	WAT COL	WAT FLW	SED COL	SED PPT	CON	SED COMP	STRM WDTH	STRM DPTH	BNK	BNK PPT	CHL BED	CHL PTN	ELEV	PHY	DRN	TYP	ODR	SRC	WT
82K01	890098	11	549124	5555666		1	PCc	0	2	T	N	N	210	1.0	15	O	N	S	S	2148	M	D	P	1	S	27
82K01	890099	11	551358	5542567		1	PCau	0	1	T	N	N	210	0.5	5	O	N	S	S	2010	M	D	P	1	S	0
82K01	890101	11	548832	5555287		0	PCc	1	2	T	N	N	120	0.5	10	O	N	S	S	2250	M	D	P	1	S	22
82K01	890102	11	551819	5552689		1	PCau	0	3	T	N	N	030	1.5	20	O	N	S	S	1380	M	D	P	3	S	30
82K01	890104	11	552771	5553760		1	PCc	0	1	T	N	N	120	3.0	10	O	N	S	S	1350	M	D	P	1	S	40
82K01	890105	11	554312	5554361		1	PCc	0	3	T	N	N	210	2.0	10	O	N	S	S	1314	M	D	P	1	S	28
82K01	890106	11	554167	5554686		1	PCc	0	1	T	N	N	210	2.0	15	O	N	S	S	1320	M	D	P	1	S	31
82K01	890107	11	556365	5556940	1	1	PCc	0	1	T	N	N	210	1.0	10	O	N	S	S	1275	M	D	P	1	S	37
82K01	890108	11	556365	5556940	2	1	PCc	0	1	T	N	N	210	1.0	10	O	N	S	S	1275	M	D	P	1	S	16
82K01	890109	11	554746	5555515			PCc	0	2	T	N	N	120	3.0	20	O	N	O	M	1260	M	D	P	1	S	0
82K01	890110	11	556589	5556817		1	PCc	0	2	T	N	N	030	2.0	100	O	N	S	M	1230	M	D	P	1	S	36
82K01	890111	11	559046	5558830		1	PCc	0	2	T	N	N	210	0.8	10	G	N	B	S	1230	M	D	P	1	S	34
82K01	890112	11	560816	5557520		1	PCc	0	3	T	N	N	111	1.0	20					1170	M	D	P	2	S	0
82K01	890113	11	561627	5556713		1	PCc	0	1	T	N	N	111	0.5	5	O	N	F	M	1200	M	D	P	1	S	28
82K01	890114	11	556155	5560785		1	PCk	0	2	T	N	N	210	5.0	30	T	N	S	S	1770	M	D	P	1	S	34
82K01	890115	11	549766	5559434		1	PCc	0	2	T	N	N	120	2.0	20	T	N	B	M	2010	M	D	P	1	S	27
82K01	890116	11	548246	5564399		1	PCk	0	3	T	N	N	210	2.5	35	G	N	B	S	1605	M	D	P	1	S	0
82K01	890117	11	546375	5564984		1	PCc	0	3	T	N	N	210	2.5	25	G	N	B	S	1530	M	D	P	1	S	0
82K01	890118	11	545263	5561529		1	PCc	0	2	T	N	N	210	1.5	15	A	N	B	M	1560	M	D	P	1	S	28
82K01	890119	11	548155	5555463		1	PCc	0	2	G	N	N	120	1.0	10	O	N	S	S	2310	M	D	P	2	S	28
82K01	890121	11	546521	5560161		1	PCc	0	2	T	N	N	210	0.8	8	G	N	B	S	1764	M	D	P	1	S	0
82K01	890122	11	546396	5557145		1	PCc	0	2	T	N	N	120	2.0	8	O	N	S	S	1920	M	D	P	1	S	0
82K01	890123	11	546348	5557057		1	PCc	0	2	T	N	N	120	2.0	10	O	N	S	S	1920	M	D	P	1	S	19
82K01	890124	11	543851	5554960		1	PCc	0	2	T	N	N	210	1.0	10	O	N	S	M	1860	M	D	P	2	S	14
82K01	890125	11	541468	5554223		1	PCc	0	2	T	N	N	120	2.5	25	C	N	B	S	1590	M	D	P	2	S	38
82K01	890126	11	541558	5554156		1	PCc	0	2	T	N	N	210	1.5	10	C	N	B	S	1590	M	D	P	1	S	36
82K01	890127	11	543272	5559848		1	PCc	0	2	T	N	N	210	2.5	25	G	N	B	M	1590	M	D	P	4	S	37
82K01	890129	11	543090	5559934		1	PCc	0	2	T	N	N	120	4.5	30	G	N	S	M	1590	M	D	P	4	S	39
82K01	890130	11	539853	5558582	1	1	PCk	0	3	T	N	N	030	1.5	10	G	N	B	S	1740	M	D	P	1	S	39
82K01	890131	11	539853	5558582	2	1	PCk	0	3	T	N	N	030	1.5	10	G	N	B	S	1740	M	D	P	2	S	39
82K01	890132	11	554069	5573629		1	PCd	0	3	T	N	N	210	1.0	6	C	N	B	S	2160	M	D	P	1	S	5
82K01	890133	11	554013	5573604		1	PCd	0	3	T	N	N	210	1.5	10	C	N	B	S	2160	M	D	P	1	S	33
82K01	890134	11	554561	5573765		1	PCd			T	N	N	210	1.0	0	A	N	B	M	2109	M	D	P	1	S	29
82K01	890135	11	555315	5573412		1	PCd	0	2	T	N	N	210	2.0	12	C	N	B	S	1965	M	D	P	1	G	4
82K01	890136	11	557382	5574021		1	PCmn	0	2	T	N	N	210	1.5	10	O	N	B	S	1875	M	D	P	1	S	0
82K01	890137	11	557348	5574110		1	PCmn	0	3	T	N	N	210	3.0	15	A	N	B	S	1860	M	D	P	1	G	8
82K01	890138	11	557648	5574062		1	PCmn	0	2	T	N	N	210	1.5	10	O	N	B	S	1776	M	D	P	1	S	14
82K01	890139	11	538823	5558176		1	PCk	0	2	T	N	N	120	0.0	0	O	N	B	S	1785						34
82K01	890141	11	558557	5574094		1	PCmn	0	3	T	N	N	210	2.3	15	C	N	B	S	1725	M	D	P	2	G	28
82K01	890142	11	546322	5579481		1	PCd	0	2	T	N	N	120	4.0	30	C	N	B	S	1260	M	D	P	2	G	36
82K01	890143	11	544580	5578245		1	PCd	0	2	T	N	N	210	2.0	15	C	N	B	S	1245	M	D	P	2	G	22
82K01	890144	11	542972	5577210		1	PCd	0	2	T	N	N	120	1.5	15	C	N	B	S	1290	M	D	P	2	G	25
82K01	890145	11	541571	5576128		1	PCd	0	3	T	N	N		4.0	25	O	N	B	S	1305	M	D	P	2	G	32
82K01	890146	11	539714	5575295		1	PCd			G	N	N	210	2.0	0	G	N	S	S	1440	M	D	S	1	S	0
82K01	890147	11	539389	5574925		1	PCd	0	1	G	N	N	210	0.5	5	O	N	S	D	1425	M	D	S	2	S	21
82K01	890148	11	538174	5573984		1	PCd	0	3	G	N	N	210	4.0	20	O	N	S	D	1422	M	D	P	4	S	37
82K01	890149	11	555690	5540979		1	PCal	0	2	T	N	N	210	1.0	10	O	N	S	S	2232	M	D	P	1	S	30
82K01	890150	11	555560	5541338		1	PCau	0	2	T	N	N	120	1.0	10	O	N	S	S	2250	M	D	P	1	S	18
82K01	890151	11	557660	5541966		1	PCau	0	2	T	N	N	121	0.5	5	O	N	S	S	2070	M	D	P	1	S	13
82K01	890152	11	557722	5541785		1	PCal	0	3	G	N	N	221	1.5	20	O	N	S	S	2055	M	D	P	2	S	30

Analytical Results

MAP	SAMPLE ID	UTM EAST	UTM NORTH	STA	MED	FORM-ATION	Au 1 ppb	Sb 0.1 ppm	As 0.5 ppm	Ba 50 ppm	Br 0.5 ppm	Ce 5 ppm	Cs 0.5 ppm	Cr 20 ppm	Co 5 ppm	Hf 1 ppm	Fe 0.2 pct	La 2 ppm	Lu 0.1 ppm	Mo 1 ppm	Ni 10 ppm	Rb 5 ppm	Sm 0.5 ppm	Sc 0.5 ppm	Na 0.1 pct	Ta 0.5 ppm	Tb 0.2 ppm	Th 0.2 ppm	W 1 ppm	U 0.2 ppm	Yb 1 ppm	Zr 200 ppm	Cu 2 ppm	Pb 2 ppm	Zn 2 ppm
82K01	890098	549124	5555666		1	PCc	1	0.4	11.0	680	8.1	120	9.0	57	23	5	4.3	71	0.1	1	20	190	13.3	12.0	0.9	2.2	2.1	20.2	3	7.1	4	380	60	17	106
82K01	890099	551358	5542567		1	PCau	1	0.4	78.4	540	7.1	58	11.0	49	13	6	4.0	35	0.1	1	22	120	7.5	13.0	1.2	1.6	1.3	11.0	3	4.7	3	310	30	23	82
82K01	890101	548832	5555287		1	PCc	2	1.2	12.0	670	22.0	110	11.0	52	22	5	3.5	71	0.1	1	34	180	13.3	11.0	1.0	1.9	2.1	16.0	2	9.4	4	340	58	34	214
82K01	890102	551819	5552689		1	PCau	1	0.2	4.4	580	3.8	80	7.4	38	10	6	2.7	45	0.1	1	16	150	9.0	7.6	0.8	2.3	1.5	15.0	3	4.4	3	410	27	9	75
82K01	890104	552771	5553760		1	PCc	4	0.3	6.6	1100	2.2	190	6.7	32	5	8	2.1	100	0.1	1	10	140	10.9	7.2	1.7	3.1	1.2	24.9	4	7.5	2	200	15	7	37
82K01	890105	554312	5554361		1	PCc	1	0.7	19.0	560	11.0	130	9.3	58	11	5	3.5	63	0.1	1	10	130	11.8	12.0	1.1	3.2	1.8	17.0	4	7.6	5	310	28	26	65
82K01	890106	554167	5554686		1	PCc	1	0.3	7.2	990	3.3	330	7.0	58	6	11	3.9	190	0.1	1	10	120	15.9	8.5	1.7	6.2	1.7	44.5	18	15.0	2	430	16	7	42
82K01	890107	556365	5556940	1	1	PCc	1	1.8	8.9	380	3.8	140	3.5	30	8	7	2.0	64	0.1	1	10	110	12.0	6.5	0.7	1.5	1.7	14.0	3	3.5	3	330	18	14	32
82K01	890108	556365	5556940	2	1	PCc	1	1.9	10.0	430	5.2	130	4.0	37	8	6	2.1	63	0.1	1	10	110	11.7	7.0	0.7	1.4	1.5	14.0	3	4.0	3	200	18	17	36
82K01	890109	554746	5555515		1	PCc	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	0.0	0.0	0.0	0.0	0	0.0	0	0	7	11	146
82K01	890110	556589	5556817		1	PCc	1	0.4	6.1	820	5.3	160	5.4	45	5	6	2.0	87	0.1	1	10	110	10.4	7.3	1.6	2.8	1.4	18.0	5	8.6	2	440	11	7	46
82K01	890111	559046	5558830		1	PCc	2	1.7	8.1	500	7.4	110	4.9	35	8	7	2.2	52	0.1	1	13	120	9.0	7.7	0.9	1.6	1.5	13.0	3	6.4	3	290	14	14	44
82K01	890112	560816	5557520		1	PCc	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	0.0	0.0	0.0	0.0	0	0.0	0	0	24	17	61
82K01	890113	561627	5556713		1	PCc	1	1.9	309.0	480	14.0	93	22.0	56	12	3	2.6	44	0.1	2	10	140	7.6	9.3	0.8	1.1	1.4	16.0	2	31.6	5	410	41	47	246
82K01	890114	556155	5560785		1	PCk	1	2.1	19.0	330	5.7	130	3.9	30	15	5	2.5	61	0.1	1	10	120	11.7	7.6	0.4	1.2	1.6	13.0	1	4.3	3	280	38	26	39
82K01	890115	549766	5559434		1	PCc	50	11.6	423.0	540	12.0	130	7.1	20	7	4	2.4	67	0.1	36	10	160	8.4	5.5	0.9	1.9	1.2	16.0	30	29.1	3	200	38	299	710
82K01	890116	548246	5564399		1	PCk	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	0.0	0.0	0.0	0.0	0	0.0	0	0	24	56	281
82K01	890117	546375	5564984		1	PCc	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	0.0	0.0	0.0	0.0	0	0.0	0	0	24	15	37
82K01	890118	545263	5561529		1	PCc	1	2.1	48.0	420	15.0	81	5.8	36	9	5	2.6	41	0.1	1	18	110	8.8	6.5	0.6	1.8	1.4	13.0	8	8.6	2	260	23	13	112
82K01	890119	548155	5555463		1	PCc	1	0.9	9.0	550	13.0	110	11.0	47	16	4	2.8	81	0.1	1	10	140	13.4	10.0	0.6	1.5	2.0	15.0	4	7.9	4	200	50	42	132
82K01	890121	546521	5560161		1	PCc	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	0.0	0.0	0.0	0.0	0	0.0	0	0	12	26	76
82K01	890122	546396	5557145		1	PCc	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	0.0	0.0	0.0	0.0	0	0.0	0	0	30	8	114
82K01	890123	546348	5557057		1	PCc	4	1.0	32.0	480	30.0	100	7.3	62	17	5	3.3	61	0.1	1	49	130	11.1	11.0	0.9	1.7	1.8	13.0	5	11.0	4	360	28	16	122
82K01	890124	543851	5554960		1	PCc	1	0.3	17.0	420	11.0	74	6.1	27	7	5	2.3	38	0.1	1	10	100	7.8	8.0	1.2	1.3	1.1	11.0	3	7.0	3	200	15	9	56
82K01	890125	541468	5554223		1	PCc	1	0.7	1.9	240	0.5	74	2.2	24	8	5	2.2	33	0.1	1	10	60	6.8	4.7	0.6	1.3	1.3	11.0	1	3.3	3	250	12	4	15
82K01	890126	541558	5554156		1	PCc	1	0.5	5.3	470	2.0	100	5.5	43	12	6	4.8	49	0.1	1	10	110	9.4	8.1	1.0	1.9	1.5	15.0	3	5.3	4	420	17	8	40
82K01	890127	543272	5559848		1	PCc	82	0.7	3.2	340	0.5	100	3.1	42	11	7	6.0	49	0.1	1	10	74	10.0	7.0	0.9	2.4	1.5	14.0	5	4.0	4	220	7	4	22
82K01	890129	543090	5559934		1	PCc	1	0.7	2.4	690	0.5	78	2.1	20	9	6	1.8	35	0.1	1	10	56	7.0	4.0	0.4	0.9	1.1	9.5	1	2.5	3	310	9	9	20
82K01	890130	539853	5558582	1	1	PCk	1	0.7	6.2	200	0.5	140	2.4	25	13	11	2.1	65	0.1	1	10	74	12.9	5.5	0.4	1.6	2.0	19.0	2	5.1	4	570	26	6	18
82K01	890131	539853	5558582	2	1	PCk	1	0.8	6.3	150	0.5	140	2.4	27	15	12	2.3	69	0.1	1	10	81	13.3	6.0	0.5	2.0	1.9	20.0	3	5.4	5	520	29	5	16
82K01	890132	554069	5573629		1	PCd	1	6.5	31.0	1500	1.9	100	9.1	22	15	6	2.4	43	0.1	1	10	170	9.5	7.2	0.1	1.1	1.7	15.0	1	5.0	3	240	83	70	27
82K01	890133	554013	5573604		1	PCd	1	5.8	25.0	860	21.0	94	9.1	48	21	7	3.7	45	0.1	2	22	160	9.3	10.0	0.2	1.4	1.5	15.0	2	8.0	4	240	43	45	66
82K01	890134	554561	5573765		1	PCd	13	8.6	27.0	4300	7.0	100	12.0	37	14	6	2.9	52	0.1	1	10	180	10.6	9.0	0.2	1.4	1.8	15.0	2	5.2	4	420	77	94	36
82K01	890135	555315	5573412		1	PCd	8	4.6	20.0	810	123.0	73	16.0	37	17	4	3.2	32	0.1	2	15	130	5.8	9.0	0.3	0.8	1.1	13.0	1	13.0	2	200	38	34	44
82K01	890136	557382	5574021		1	PCmn	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	0.0	0.0	0.0	0.0	0	0.0	0	0	44	30	68
82K01	890137	557348	5574110		1	PCmn	1	4.5	20.0	1400	11.0	120	9.4	50	13	7	2.5	53	0.1	1	25	160	10.0	9.0	0.2	1.1	1.6	15.0	2	6.4	4	400	52	42	33
82K01	890138	557648	5574062		1	PCmn	1	4.1	13.0	490	23.0	120	13.0	50	13	7	2.4	52	0.1	1	10	160	9.4	9.3	0.3	1.2	1.6	14.0	2	6.5	3	380	41	18	40
82K01	890139	538823	5558176		1	PCk	1	0.8	1.6	650	0.5	45	1.9	20	6	5	1.4	19	0.1	1	10	54	4.8	3.3	0.2	0.8	0.8	7.0	1	2.0	2	250	7	10	16
82K01	890141	558557	5574094		1	PCmn	1	3.2	12.0	1100	23.0	65	12.0	45	12	5	2.9	31	0.1	1	12	110	6.3	8.8	0.3	1.0	1.2	10.0	1	3.2	3	290	31	9	42
82K01	890142	546322	5579481		1	PCd	1	4.7	17.0	890	2.3	120	6.0	33	14	8	3.1	56	0.1	1	16	140	10.5	8.8	0.4	1.3	1.5	16.0	2	4.4	3	210	30	26	46
82K01	890143	544580	5578245		1	PCd	3	5.6	9.1	1200	22.0	80	4.9	44	14	7	2.6	36	0.1	1	10	110	6.9	7.5	0.3	1.1	1.1	12.0	1	5.2	3	250	23	47	83
82K01	890144	542972	5577210		1	PCd	1	5.8	42.0	520	12.0	110	5.9	43	16	7	2.8	57	0.1	1	17	160	11.1	10.0	0.5	2.1	1.5	19.0	3	5.7	3	300	41	34	49
82K01	890145	541571	5576128		1	PCd	1	4.0	28.0	750	7.3	120	7.0	45	12	8	2.9	61	0.1	1	10	170	12.4	9.1	0.8	2.3	1.8	19.0	3	5.6	3	330	30	16	56
82K01	890146	539714	5575295		1	PCd	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	0.0	0.0	0.0	0.0	0	0.0	0	0	48	35	109
82K01	890147	539389	5574925		1	PCd	3	3.1	25.0	840	5.8	120	6.8	34	16	8	3.2	54	0.1	1	30	150	10.9	9.3	0.7	1.8	1.9	16.0	2	5.2	4	290	35	49	101
82K01	890148	538174	5573984		1	PCd	1	1.5	14.0	470	0.5	120	3.4	50	12	11	3.3	56	0.1	1	20	99	10.8	7.2	0.6	1.4	1.6	14.0	1	3.8	4	550	24	25	38
82K01	890149	555690	5540979		1	PCal	1	0.9	32.0	610	13.0	120	15.0	41	15	7	3.5	63	0.1	1	10	150	12.2	10.0	1.1	1.3	1.8	16.0	4	5.7	4	200	25	58	177
82K01	890150	555560	5541338		1	PCau	3	0.7	135.0	270	40.0	79	14.0	47	17	4	2.7	45	0.1	1	26	71	7.8	8.4	0.8	0.8	1.5	11.0	2	18.0	3	200	30	61	128
82K01	890151	557660	5541966		1	PCau	1	3.5	35.0	250	117.0	73	25.0	37	7	2	2.4	58	0.1	1	36	110	11.9	7.4	0.6	0.6	2.3	12.0	2	29.9	3	200	53	89	307
82K01	890152	557722	5541785		1	PCal	1	1.6	66.7	350	19.0	81	28.0	70	37	3	5.4	40	0.1	1	38	99	8.2	22.0	1.1	1.1	1.5	9.3	47	5.5	4	290	72	36	135

Field Observations

MAP	SAMPLE ID	UTM ZONE	UTM EAST	UTM NORTH	STA	MED	FORM-ATION	WAT COL	WAT FLW	SED COL	SED PPT	CON	SED COMP	STRM WDTH	STRM DPTH	BNK	BNK PPT	CHL BED	CHL PTN	ELEV	PHY	DRN	TYP	ODR	SRC	WT
82K01	890153	11	557922	5542185		1	PCau	0		G	N	N	210	2.0	0	G	N	S	S	2100	M	D	S	1	S	18
82K01	890154	11	559122	5542128		1	PCal	0	3	G	N	N	210	1.0	15	O	N	S	S	1938	M	D	P	1	S	35
82K01	890156	11	559780	5542572		1	Kmg	0	3	T	N	N	120	0.3	10	O	N	S	N	1890	M	D	P	1	S	26
82K01	890157	11	561245	5543376		1	Kmg	0	3	G	N	N	211	0.5	15	O	W	S	N	1800	M	D	P	1	S	28
82K01	890158	11	561548	5543618		1	Kmg	0	3	G	N	N	210	1.0	10	O	W	S	N	1785	M	D	P	1	S	0
82K01	890159	11	562178	5544534		1	Kmg	0	3	G	N	N	210	1.0	10	O	N	S	N	1722	M	D	P	1	S	27
82K01	890161	11	562110	5546007	1	1	PCau	0	3	G	N	N	120	2.0	20	O	N	S	N	1650	M	D	P	3	S	0
82K01	890162	11	562110	5546007	2	1	PCau	0	3	G	N	N	120	2.0	20	O	N	S	N	1650	M	D	P	3	S	8
82K01	890163	11	562162	5546515		1	PCau	0	3	G	N	N	210	1.0	5	O	N	S	N	1650	M	D	P	1	S	0
82K01	890164	11	555489	5541107		1	PCau	0	2	T	N	N	210	1.0	10	O	N	S	S	2262	M	D	P	1	S	25
82K01	890165	11	560516	5572089		1	PCd	0	2	T	N	N	121	1.5	15		N	B	S	1530	M	D	P	1	S	0
82K01	890166	11	560728	5573332		1	PCmn	0	2	T	N	N	121	1.0	6	O	N	S	S	1830	M	D	P	1	S	0
82K01	890167	11	558360	5572390		1	PCd	0	2	T	N	N	210	1.5	12	O	N	S	S	1950	M	D	P	1	S	0
82K01	890168	11	557266	5568801		1	PCk	0	1	T	N	N	210	0.8	4	A	N	B	S	1470	M	D	P	1	S	25
82K01	890169	11	557317	5567140		1	PCk	0	2	T	N	N	111	1.5	8	O	N	B	S	1542	M	D	P	2	S	22
82K01	890170	11	554133	5565276		1	PCk	0	2	T	N	N	121	2.5	10	O	N	S	S	1740	M	D	P	1	S	26
82K01	890171	11	554929	5563617	1	1	PCk	0	0	T	N	N	120	3.0	5	O	N	F	S	2100	M	D	P	1	S	17
82K01	890172	11	554929	5563617	2	1	PCk	0	0	T	N	N	120	3.0	5	O	N	F	S	2100	M	D	P	1	S	22
82K01	890174	11	552351	5568568		1	PCk	0	2	T	N	N	211	3.0	10	O	N	B	S	1470	M	D	P	3	S	0
82K01	890175	11	550819	5567587		1	PCk	0	2	T	N	N	211	0.8	8	O	N	S	S	1380	M	D	P	1	S	0
82K01	890176	11	549828	5568939		1	PCk	0	2	T	N	N	211	2.0	10	O	N	B	S	1680	M	D	P	2	S	37
82K01	890177	11	548038	5566229		1	PCk	0		T	N	N	211	0.5	0	O	N	S	S	1440	M	D	P	2	S	0
82K01	890178	11	545421	5564809		1	PCc	0	2	T	N	N	211	1.5	8	O	N	S	S	1620	M	D	P	2	S	29
82K01	890179	11	556323	5564329		1	PCk	0	0	T	N	N	210	3.0	0	A	N	B	S	1965	M	D	P	2	S	20
82K01	890181	11	544459	5564533		1	PCc	0	1	T	N	N	121	1.5	8	O				1740	M	D	P	1	S	34
82K01	890182	11	543971	5564050		1	PCc			T	N	N	211	2.0	0	O	N	B	S	1710	M	D	P	1	S	25
82K01	890183	11	543283	5563883		1	PCc	0	1	T	N	N	121	2.0	10	O	N	S		1770	M	D	P	1	S	30
82K01	890184	11	541684	5563449		1	PCk	0	2	T	N	N	121	3.0	10	O	N	S	S	1830	M	D	P	2	S	33
82K01	890185	11	540619	5562272		1	PCk	0	2	T	N	N	120	5.0	8	O	N	S	S	1905	M	D	P	2	S	31
82K01	890186	11	537554	5561268		1	PCk	0	2	T	N	N	120	3.0	12	O	N	S	S	1770	M	D	P	2	S	33
82K01	890187	11	537595	5561390		1	PCk	0	2	T	N	N	211	1.0	6	O	N	S	S	1770	M	D	P	2	S	21
82K01	890188	11	537398	5561412		1	PCk	0	2	T	N	N	111	1.0	8	O	N	S	S	1770	M	D	P	1	S	34
82K01	890189	11	537189	5564316		1	PCk	0	1	T	N	N	120	0.8	4	O	N	S	S	1680	M	D	P	1	S	29
82K01	890190	11	537272	5564969		1	PCk	0	2	T	N	N	120	0.8	4	S	N	S	S	1680	M	D	P	2	S	30
82K01	890191	11	536112	5567324		1	PCd	0	2	T	N	N	211	0.8	6	O	N	S	S	1620	M	D	P	1	S	0
82K01	890192	11	544459	5568032		1	PCk	0	2	T	N	N	121	1.0	8	O	N	S	S	1950	M	D	P	1	S	22
82K01	890193	11	543762	5567703		1	PCk	0	2	T	N	N	121	3.0	0					1890	M	D	P	2	S	31
82K01	890194	11	545021	5569255		1	PCk	0	2	T	N	N	121	1.5	6	O	N	S	S	2040	M	D	P	1	S	12
82K01	890195	11	547220	5568990		1	PCk	0	2	T	N	N	120	1.5	8	O	N	S	S	1710	M	D	P	2	S	36

Analytical Results

MAP	SAMPLE ID	UTM EAST	UTM NORTH	STA	MED	FORM-ATION	Au 1 ppb	Sb 0.1 ppm	As 0.5 ppm	Ba 50 ppm	Br 0.5 ppm	Ce 5 ppm	Cs 0.5 ppm	Cr 20 ppm	Co 5 ppm	Hf 1 ppm	Fe 0.2 pct	La 2 ppm	Lu 0.1 ppm	Mo 1 ppm	Ni 10 ppm	Rb 5 ppm	Sm 0.5 ppm	Sc 0.5 ppm	Na 0.1 pct	Ta 0.5 ppm	Tb 0.2 ppm	Th 0.2 ppm	W 1 ppm	U 0.2 ppm	Yb 1 ppm	Zr 200 ppm	Cu 2 ppm	Pb 2 ppm	Zn 2 ppm
82K01	890153	557922	5542185		1	PCau	1	0.8	26.0	560	8.1	86	17.0	44	9	5	2.7	46	0.1	1	10	130	9.3	9.0	1.1	1.2	1.6	11.0	2	3.7	3	200	22	39	180
82K01	890154	559122	5542128		1	PCal	7	24.7	99.2	320	4.7	88	13.0	59	25	6	3.9	42	0.1	7	24	130	7.0	14.0	1.2	1.9	1.4	15.0	21	24.4	4	480	44	698	141
82K01	890156	559780	5542572		1	Kmg	1	0.7	4.0	50	6.4	120	20.0	54	6	8	2.0	77	0.1	1	10	160	6.1	6.4	1.8	10.0	1.1	49.3	33	200.0	1	200	9	21	80
82K01	890157	561245	5543376		1	Kmg	1	0.6	1.8	50	11.0	170	5.5	33	5	25	2.2	88	0.1	1	10	120	10.0	5.3	1.9	14.0	1.5	50.0	34	132.0	2	800	4	9	36
82K01	890158	561548	5543618		1	Kmg	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	0.0	0.0	0.0	0.0	0	0.0	0	0	6	15	66
82K01	890159	562178	5544534		1	Kmg	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	0.0	0.0	0.0	0.0	0	0.0	0	0	6	14	60
82K01	890161	562110	5546007	1	1	PCau	1	1.1	355.0	620	16.0	120	11.0	69	13	6	3.4	59	0.1	1	35	150	11.6	11.0	1.0	2.5	1.9	17.0	5	6.1	5	200	31	173	112
82K01	890162	562110	5546007	2	1	PCau	1	1.0	326.0	520	11.0	140	9.4	59	13	6	3.3	58	0.1	1	10	130	11.4	11.0	1.0	2.9	1.6	17.0	3	5.3	5	200	30	160	107
82K01	890163	562162	5546515		1	PCau	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	0.0	0.0	0.0	0.0	0	0.0	0	0	33	33	108
82K01	890164	555489	5541107		1	PCau	4	1.3	75.8	610	14.0	110	16.0	34	15	6	4.2	46	0.1	1	10	130	10.2	11.0	1.0	1.3	1.8	15.0	5	5.9	4	320	31	115	216
82K01	890165	560516	5572089		1	PCd	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	0.0	0.0	0.0	0.0	0	0.0	0	0	30	15	31
82K01	890166	560728	5573332		1	PCmn	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	0.0	0.0	0.0	0.0	0	0.0	0	0	29	12	47
82K01	890167	558360	5572390		1	PCd	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	0.0	0.0	0.0	0.0	0	0.0	0	0	32	119	298
82K01	890168	557266	5568801		1	PCk	1	2.6	8.2	500	15.0	98	5.6	44	11	7	2.3	42	0.1	1	16	130	8.1	8.4	0.3	1.2	1.4	13.0	1	4.6	3	310	20	17	34
82K01	890169	557317	5567140		1	PCk	1	1.9	14.0	420	16.0	91	6.8	48	10	5	2.5	39	0.1	1	10	140	7.6	10.0	0.5	1.0	1.4	12.0	2	4.2	3	270	21	23	44
82K01	890170	554133	5565276		1	PCk	1	1.8	30.0	360	13.0	110	6.1	39	11	6	2.7	49	0.1	1	13	110	9.3	8.8	0.5	1.1	1.4	13.0	2	6.3	3	330	22	25	66
82K01	890171	554929	5563617	1	1	PCk	1	3.0	11.0	470	4.2	64	7.6	25	8	4	2.1	26	0.1	1	10	120	5.5	9.2	0.9	0.8	1.0	10.0	2	4.5	2	200	19	26	57
82K01	890172	554929	5563617	2	1	PCk	1	3.2	14.0	500	4.2	68	7.9	43	8	5	2.3	28	0.1	1	10	130	5.9	10.0	0.9	1.1	1.1	10.0	1	5.0	3	310	18	25	58
82K01	890174	552351	5568568		1	PCk	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	0.0	0.0	0.0	0.0	0	0.0	0	0	28	19	52
82K01	890175	550819	5567587		1	PCk	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	0.0	0.0	0.0	0.0	0	0.0	0	0	38	17	66
82K01	890176	549828	5568939		1	PCk	1	3.6	20.0	750	6.8	130	5.5	26	13	7	2.3	63	0.1	1	10	150	13.6	6.9	0.2	1.3	1.9	16.0	3	4.7	3	380	31	16	33
82K01	890177	548038	5566229		1	PCk	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	0.0	0.0	0.0	0.0	0	0.0	0	0	33	13	52
82K01	890178	545421	5564809		1	PCc	1	2.6	5.7	580	1.6	150	6.2	41	8	10	2.4	72	0.1	1	10	170	15.6	7.9	0.6	1.7	2.1	20.0	2	5.7	4	400	11	15	32
82K01	890179	556323	5564329		1	PCk	1	3.5	18.0	370	13.0	88	10.0	46	11	5	2.4	37	0.1	1	13	160	7.6	9.4	0.3	1.1	1.4	13.0	1	4.2	3	200	20	26	72
82K01	890181	544459	5564533		1	PCc	1	2.0	32.0	760	1.3	120	8.5	45	18	6	3.4	59	0.1	1	10	170	11.2	12.0	1.0	3.0	1.9	20.0	5	5.3	5	410	53	20	51
82K01	890182	543971	5564050		1	PCc	1	1.6	28.0	880	3.5	110	8.2	40	14	6	3.1	53	0.1	1	15	180	10.2	12.0	1.1	2.1	1.7	22.2	5	7.0	4	300	45	18	26
82K01	890183	543283	5563883		1	PCc	1	1.8	43.0	500	1.3	120	4.8	50	15	8	3.0	56	0.1	1	16	150	11.0	10.0	0.6	1.3	1.7	16.0	2	4.7	4	350	25	15	33
82K01	890184	541684	5563449		1	PCk	16	1.9	16.0	550	2.0	110	4.9	35	15	7	3.0	50	0.1	1	27	120	10.0	8.8	0.4	1.6	1.6	15.0	1	5.2	3	400	31	19	42
82K01	890185	540619	5562272		1	PCk	2	1.8	18.0	440	6.1	85	6.0	30	12	6	2.7	41	0.1	1	12	150	8.2	8.7	0.6	1.4	1.4	13.0	1	5.9	3	200	42	22	59
82K01	890186	537554	5561268		1	PCk	1	0.6	5.0	490	1.7	83	4.1	31	10	7	2.3	39	0.1	1	11	91	7.8	7.1	0.7	1.2	1.3	12.0	2	4.4	3	480	18	18	34
82K01	890187	537595	5561390		1	PCk	1	0.8	13.0	380	8.3	88	5.2	26	8	6	2.2	40	0.1	1	23	120	7.6	7.5	0.8	1.2	1.2	13.0	1	10.0	3	300	19	19	80
82K01	890188	537398	5561412		1	PCk	1	0.4	5.1	380	0.7	72	4.0	27	7	5	1.6	33	0.1	1	10	84	7.4	5.2	0.9	1.1	1.1	11.0	1	3.0	2	240	22	18	45
82K01	890189	537189	5564316		1	PCk	3	0.6	10.0	520	3.5	76	4.2	28	11	5	2.0	35	0.1	1	10	110	7.7	6.7	0.6	1.2	1.4	14.0	1	6.3	2	340	18	20	42
82K01	890190	537272	5564969		1	PCk	1	2.7	24.0	720	2.2	140	6.2	53	17	8	3.5	69	0.1	1	17	150	13.8	9.2	0.5	2.0	1.9	20.9	1	5.8	3	320	47	17	28
82K01	890191	536112	5567324		1	PCd	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	0.0	0.0	0.0	0.0	0	0.0	0	0	27	43	88
82K01	890192	544459	5568032		1	PCk	1	1.5	25.0	550	4.1	94	7.0	41	12	6	2.5	45	0.1	1	10	150	8.9	10.0	0.9	1.8	1.4	16.0	3	5.4	3	280	26	26	48
82K01	890193	543762	5567703		1	PCk	1	2.1	22.0	600	0.5	86	4.8	41	11	7	2.4	41	0.1	1	10	150	8.3	8.1	0.6	1.5	1.4	14.0	3	4.3	3	440	26	16	26
82K01	890194	545021	5569255		1	PCk	1	2.7	21.0	600	4.6	110	3.8	38	16	7	2.7	44	0.1	1	15	150	8.8	8.1	0.3	1.2	1.6	14.0	1	5.1	3	440	38	18	33
82K01	890195	547220	5568990		1	PCk	3	4.4	20.0	510	2.0	140	4.2	36	19	9	3.2	68	0.1	1	20	130	12.5	9.2	0.2	1.4	1.8	17.0	2	4.6	4	590	25	17	32

STREAM SEDIMENT GEOCHEMISTRY
OF THE
PURCELL WILDERNESS STUDY AREA

OPEN FILE 1990-11

STATISTICAL SUMMARY OF TOTAL DATA SET

Notes: 1. Calculations ignore missing values, and analytical determinations from the second of paired duplicates.

Statistical Summary for Total Data Set

Variable	Au	Sb	As	Ba	Br	Ce	Cs	Cr	Co	Hf	Fe	La	Lu	Mo	Ni	Rb	Sm	Sc	Na	Ta	Tb	Th	W	U	Yb	Zr
Units	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	pct	ppm	ppm	ppm	ppm	ppm	ppm	ppm	pct	ppm	ppm	ppm	ppm	ppm	ppm	ppm
D.L.	1	0.1	0.5	50	0.5	5	0.5	20	5	1	0.2	2	0.1	1	10	5	0.5	0.5	0.1	0.5	0.2	0.2	1	0.2	1	200
Anal Mth	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
N	577	577	577	577	577	577	577	577	577	577	577	577	577	577	577	577	577	577	577	577	577	577	577	577	577	577
N > DL	263	563	570	565	530	576	576	521	521	572	575	576	103	94	398	575	575	576	573	571	570	576	353	576	472	481
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	6.9	1.29	20.09	601.2	9.59	114.2	6.99	55.1	15.7	8.1	3.14	70.4	0.14	1.7	25.0	108.1	9.20	10.05	1.07	2.78	1.43	19.29	7.3	12.95	2.6	401.9
Median	1.0	0.60	8.40	480.0	5.40	97.0	5.40	42.0	13.0	7.0	3.00	56.0	0.10	1.0	17.0	100.0	8.60	10.00	1.00	1.60	1.40	14.00	2.0	5.50	3.0	340.0
Mode	1.0	0.30	11.00	400.0	0.50	110.0	11.00	20.0	5.0	6.0	2.40	44.0	0.10	1.0	10.0	110.0	10.00	10.00	1.20	1.30	1.30	11.00	1.0	11.00	3.0	200.0
Range	412	26.0	574.5	6070	122.5	779	46.5	646	155	68	8.6	590	1.3	53	290	265	34.5	28.5	3.6	70.7	6.4	307.8	129	282.8	13	3500
St Dev	28.97	2.41	46.16	489.61	13.57	70.15	5.90	54.55	11.79	5.97	1.29	52.95	0.11	3.43	26.60	42.26	4.05	4.26	0.66	4.30	0.57	19.59	15.78	23.70	1.25	278.81
Coef Var	4.189	1.867	2.298	0.814	1.416	0.614	0.843	0.989	0.750	0.734	0.411	0.752	0.776	1.997	1.062	0.391	0.441	0.424	0.620	1.547	0.400	1.016	2.168	1.830	0.476	0.694
Log Mean	0.353	-0.176	0.936	2.692	0.681	2.004	0.740	1.650	1.119	0.842	0.455	1.778	-0.912	0.091	1.279	1.998	0.926	0.960	-0.056	0.276	0.125	1.193	0.464	0.858	0.372	2.547
Geo Mean	2.3	0.67	8.64	492.6	4.80	101.0	5.50	44.7	13.1	7.0	2.85	60.0	0.12	1.2	19.0	99.5	8.43	9.11	0.88	1.89	1.33	15.60	2.9	7.22	2.4	352.1
Log StDv	0.485	0.451	0.535	0.273	0.537	0.210	0.294	0.249	0.252	0.232	0.209	0.233	0.199	0.245	0.288	0.190	0.190	0.206	0.282	0.325	0.170	0.261	0.508	0.392	0.213	0.204
Log CVar	1.377	-2.574	0.572	0.101	0.790	0.105	0.398	0.151	0.225	0.276	0.460	0.131	-0.218	2.697	0.225	0.095	0.206	0.214	-5.133	1.183	1.361	0.218	1.095	0.457	0.572	0.080
Percntls																										
Minimum	1	0.1	0.5	50	0.5	5	0.5	20	5	1	0.2	2	0.1	1	10	5	0.5	0.5	0.1	0.5	0.2	0.2	1	0.2	1	200
10th	1	0.2	1.8	260	0.7	62	2.4	21	6	4	1.8	35	0.1	1	10	63	5.0	5.3	0.3	0.9	0.9	9.0	1	3.2	1	200
20th	1	0.3	2.8	330	1.6	73	3.3	28	8	5	2.1	41	0.1	1	10	74	6.4	6.8	0.5	1.1	1.1	11.0	1	3.8	2	220
30th	1	0.3	4.5	390	2.4	81	4.0	33	10	6	2.4	46	0.1	1	10	84	7.4	7.8	0.7	1.2	1.2	12.0	1	4.3	2	260
40th	1	0.4	6.0	430	3.8	88	4.6	38	12	6	2.7	51	0.1	1	13	93	7.9	8.7	0.8	1.4	1.3	13.0	2	4.9	2	300
50th	1	0.6	8.4	480	5.4	97	5.4	42	13	7	3.0	56	0.1	1	17	100	8.6	10.0	1.0	1.6	1.4	14.0	2	5.5	3	340
60th	2	0.8	12.0	550	7.0	110	6.2	47	15	7	3.2	63	0.1	1	20	110	9.3	10.0	1.1	1.8	1.5	16.0	3	6.4	3	380
70th	3	1.1	18.0	620	10.0	120	7.5	55	17	8	3.6	72	0.1	1	24	120	10.0	11.0	1.2	2.2	1.6	18.0	5	7.9	3	420
80th	5	1.5	24.0	750	14.0	140	9.1	66	21	10	4.0	82	0.1	1	33	140	11.3	13.0	1.4	3.1	1.7	20.8	8	13.0	3	480
85th	7	2.0	30.0	840	18.0	150	11.0	75	23	11	4.4	96	0.2	2	40	150	12.3	14.0	1.7	4.0	1.8	25.4	11	19.0	4	550
90th	10	2.9	38.0	1000	23.0	170	12.0	88	27	13	4.8	110	0.3	2	50	160	13.3	15.0	2.0	6.0	2.0	34.4	15	28.9	4	640
95th	19	4.5	58.0	1400	30.0	240	17.0	120	32	17	5.5	170	0.4	4	65	180	15.6	18.0	2.5	8.5	2.3	48.1	30	43.2	4	840
98th	50	6.5	112.0	1900	45.0	310	27.0	220	43	25	6.5	220	0.4	10	100	230	19.8	21.4	3.0	14.0	2.6	66.1	62	89.1	5	1200
99th	70	11.6	214.0	2400	60.3	340	30.0	280	56	34	7.1	255	0.5	14	140	240	23.2	23.4	3.1	17.0	3.3	90.3	93	121.0	6	1500
Maximum	413	26.1	575.0	6120	123.0	784	47.0	666	160	69	8.8	592	1.4	54	300	270	35.0	29.0	3.7	71.2	6.6	308.0	130	283.0	14	3700

Statistical Summary for Total Data Set

Variable	Cu	Pb	Zn
Units	ppm	ppm	ppm
D.L.	2	2	2
Anal Mth	AAS	AAS	AAS
N	605	605	605
N > DL	587	595	605
Missing	0	0	0
Mean	28.3	24.7	87.2
Median	22.0	13.0	52.0
Mode	14.0	9.0	42.0
Range	1198	1449	5992
St Dev	53.16	75.68	286.67
Coef Var	1.878	3.069	3.289
Log Mean	1.300	1.130	1.748
Geo Mean	19.9	13.5	56.0
Log StDv	0.354	0.382	0.312
Log CVar	0.273	0.338	0.178
Percntls			
Minimum	2	1	8
10th	8	5	26
20th	12	7	32
30th	14	9	38
40th	18	10	44
50th	22	13	52
60th	26	15	60
70th	30	18	74
80th	38	25	92
85th	41	29	108
90th	50	36	135
95th	62	56	180
98th	84	125	306
99th	104	255	400
Maximum	1200	1450	6000

STREAM SEDIMENT GEOCHEMISTRY OF THE PURCELL WILDERNESS STUDY AREA

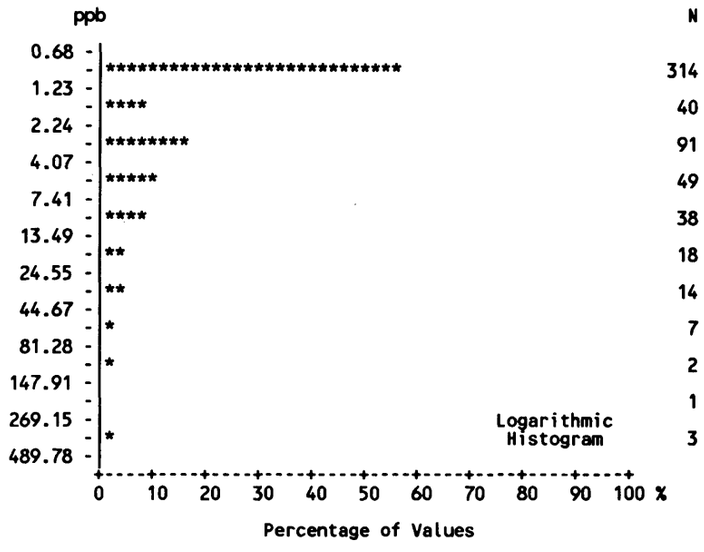
OPEN FILE 1990-11

STATISTICAL SUMMARY OF DATA BY GEOLOGICAL FORMATION

Notes: 1. Raw data are subsetted by geological formation.

2. Calculations ignore missing values, analytical determinations from the second of paired duplicates, and samples with less than 10 samples per formation.

Statistical Summary for Total Data Set

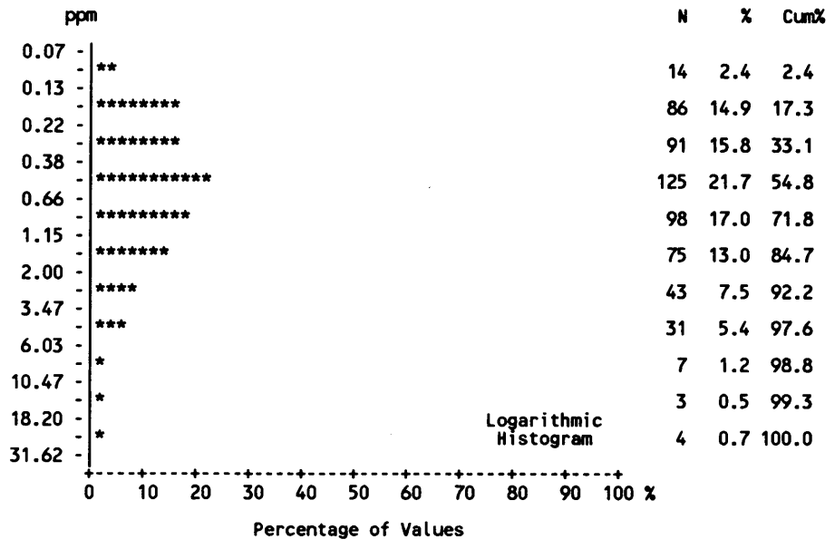


Element Statistics
Element - Gold [Au]
Number of Values - 577
Units - ppb
Detection Limit - 1
Analytical Method - INAA

	All	PCc	PCau	Kmg	PCk	PCh	PCd	Cbmh	Pl	PCmn	PCal
N	577	105	79	66	65	60	59	48	31	28	26
N > DL	263	35	31	23	27	27	39	26	18	19	11
Missing	0	0	0	0	0	0	0	0	0	0	0
Mean	6.9	4.6	9.4	2.8	3.7	3.8	11.5	11.9	5.5	8.0	15.2
Median	1.0	1.0	1.0	1.0	1.0	1.0	3.0	2.0	3.0	3.0	1.0
Mode	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Range	412	81	331	49	27	55	412	339	21	66	217
St Dev	28.97	11.92	39.17	6.20	5.81	7.54	53.51	48.84	6.01	13.69	43.97
Coef Var	4.189	2.596	4.181	2.247	1.560	1.966	4.656	4.092	1.083	1.704	2.902
Log Mean	0.353	0.256	0.325	0.211	0.297	0.318	0.482	0.448	0.491	0.562	0.459
Geo Mean	2.3	1.8	2.1	1.6	2.0	2.1	3.0	2.8	3.1	3.6	2.9
Log StDv	0.485	0.447	0.532	0.344	0.423	0.412	0.492	0.559	0.486	0.522	0.664
Log CVar	1.377	1.744	1.641	1.628	1.429	1.299	1.021	1.251	0.991	0.928	1.449
Percntls											
Minimum	1	1	1	1	1	1	1	1	1	1	1
10th	1	1	1	1	1	1	1	1	1	1	1
20th	1	1	1	1	1	1	1	1	1	1	1
30th	1	1	1	1	1	1	1	1	1	1	1
40th	1	1	1	1	1	1	2	1	1	2	1
50th	1	1	1	1	1	1	3	2	3	3	1
60th	2	1	1	1	2	2	4	3	5	4	3
70th	3	2	3	2	3	4	4	5	7	6	4
80th	5	3	4	3	4	5	6	8	10	9	8
85th	7	4	5	3	5	6	6	9	11	12	10
90th	10	8	12	5	10	7	8	17	14	13	12
95th	19	17	28	7	18	9	19	27	15	36	70
98th	50	50	56	10	25	18	31	28	21	36	70
99th	70	67	100	10	25	18	31	340	22	67	218
Maximum	413	82	332	50	28	56	413	340	22	67	218

(Summary statistics not calculated for formations with fewer than ten values.)

Statistical Summary for Total Data Set



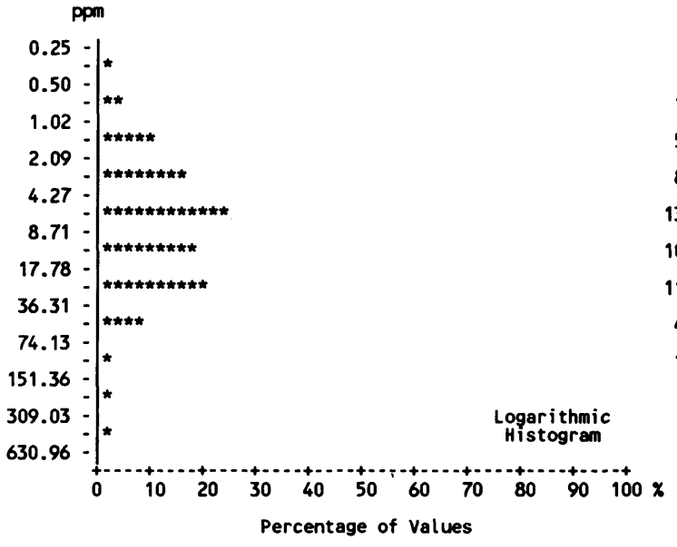
ppm	N	%	Cum%
0.07 - 0.13	14	2.4	2.4
0.13 - 0.22	86	14.9	17.3
0.22 - 0.38	91	15.8	33.1
0.38 - 0.66	125	21.7	54.8
0.66 - 1.15	98	17.0	71.8
1.15 - 2.00	75	13.0	84.7
2.00 - 3.47	43	7.5	92.2
3.47 - 6.03	31	5.4	97.6
6.03 - 10.47	7	1.2	98.8
10.47 - 18.20	3	0.5	99.3
18.20 - 31.62	4	0.7	100.0

Element Statistics
Element - Antimony [Sb]
Number of Values - 577
Units - ppm
Detection Limit - 0.1
Analytical Method - INAA

	All	PCc	PCau	Kmg	PCk	PCh	PCd	Cbmh	Pl	PCmn	PCal
N	577	105	79	66	65	60	59	48	31	28	26
N > DL	563	102	77	63	65	57	59	45	31	28	26
Missing	0	0	0	0	0	0	0	0	0	0	0
Mean	1.29	1.08	0.61	0.31	1.46	1.25	3.26	0.36	0.75	2.66	2.75
Median	0.60	0.60	0.40	0.30	1.30	0.40	3.00	0.30	0.50	1.40	0.40
Mode	0.30	0.30	0.30	0.20	0.30	0.20	1.50	0.20	0.20	1.10	0.20
Range	26.0	18.3	3.4	0.8	4.2	19.8	8.4	1.2	5.8	17.2	25.9
St Dev	2.41	2.08	0.53	0.16	1.00	3.10	2.06	0.22	1.03	3.26	6.82
Coef Var	1.867	1.924	0.870	0.505	0.685	2.479	0.634	0.612	1.380	1.226	2.479
Log Mean	-0.176	-0.171	-0.336	-0.557	0.043	-0.275	0.405	-0.507	-0.279	0.247	-0.176
Geo Mean	0.67	0.67	0.46	0.28	1.10	0.53	2.54	0.31	0.53	1.77	0.67
Log StDv	0.451	0.366	0.317	0.195	0.352	0.459	0.339	0.241	0.320	0.386	0.597
Log CVar	-2.574	-2.155	-0.946	-0.351	8.182	-1.675	0.839	-0.476	-1.147	1.564	-3.392
Percntls											
Minimum	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.2	0.2
10th	0.2	0.3	0.2	0.2	0.3	0.2	0.9	0.2	0.2	0.7	0.2
20th	0.3	0.3	0.2	0.2	0.5	0.2	1.1	0.2	0.3	1.1	0.2
30th	0.3	0.4	0.3	0.2	0.7	0.3	1.5	0.2	0.3	1.1	0.3
40th	0.4	0.5	0.3	0.2	0.9	0.3	2.4	0.2	0.4	1.2	0.3
50th	0.6	0.6	0.4	0.3	1.3	0.4	3.0	0.3	0.5	1.4	0.4
60th	0.8	0.8	0.5	0.3	1.7	0.6	3.5	0.4	0.6	1.7	0.5
70th	1.1	1.0	0.7	0.3	2.0	0.7	4.2	0.4	0.7	3.0	0.7
80th	1.5	1.3	0.9	0.4	2.4	1.0	5.3	0.5	0.8	3.4	1.0
85th	2.0	1.4	1.1	0.4	2.6	1.2	5.7	0.5	0.9	4.1	1.6
90th	2.9	1.8	1.3	0.5	2.8	1.7	6.0	0.6	1.2	4.5	3.0
95th	4.5	2.1	1.5	0.6	3.1	2.6	6.9	0.7	1.4	6.0	24.7
98th	6.5	2.6	1.7	0.7	3.6	13.6	7.2	0.9	1.5	6.0	24.7
99th	11.6	11.6	1.8	0.7	3.6	13.6	7.2	1.3	6.0	17.4	26.1
Maximum	26.1	18.4	3.5	0.9	4.4	19.9	8.6	1.3	6.0	17.4	26.1

(Summary statistics not calculated for formations with fewer than ten values.)

Statistical Summary for Total Data Set



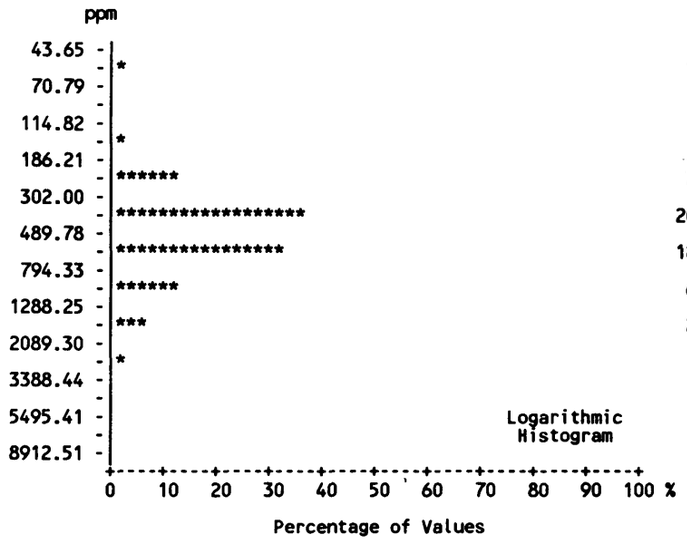
	N	%	Cum%
*	7	1.2	1.2
**	13	2.3	3.5
*****	55	9.5	13.0
********	88	15.3	28.2
************	135	23.4	51.6
*********	104	18.0	69.7
**********	112	19.4	89.1
****	42	7.3	96.4
*	11	1.9	98.3
*	5	0.9	99.1
*	5	0.9	100.0

Element Statistics
Element - Arsenic [As]
Number of Values - 577
Units - ppm
Detection Limit - 0.5
Analytical Method - INAA

	All	PCc	PCau	Kmg	PCk	PCh	PCd	Cbmh	Pl	PCmn	PCal
N	577	105	79	66	65	60	59	48	31	28	26
N > DL	570	103	78	63	65	60	59	47	31	28	26
Missing	0	0	0	0	0	0	0	0	0	0	0
Mean	20.09	21.73	42.91	4.90	12.69	13.97	21.62	6.67	8.85	11.49	61.63
Median	8.40	5.90	24.00	2.30	10.00	7.00	22.00	3.80	7.20	8.70	33.00
Mode	11.00	1.90	25.00	1.70	5.10	11.00	21.00	0.90	13.00	4.50	16.00
Range	574.5	422.5	574.5	49.5	63.1	110.6	71.8	51.4	49.4	35.6	208.1
St Dev	46.16	61.92	85.39	8.30	10.76	20.25	12.98	8.58	9.59	8.65	57.56
Coef Var	2.298	2.849	1.990	1.693	0.847	1.449	0.600	1.287	1.083	0.753	0.934
Log Mean	0.936	0.854	1.274	0.457	0.949	0.891	1.239	0.612	0.738	0.973	1.600
Geo Mean	8.64	7.15	18.78	2.87	8.89	7.78	17.33	4.09	5.47	9.40	39.78
Log StDv	0.535	0.551	0.559	0.399	0.403	0.444	0.327	0.423	0.455	0.271	0.433
Log CVar	0.572	0.645	0.439	0.872	0.425	0.499	0.264	0.691	0.616	0.278	0.271
Percntls											
Minimum	0.5	0.5	0.5	0.5	0.7	1.4	1.5	0.5	0.6	2.4	5.9
10th	1.8	1.9	3.7	1.2	2.5	2.0	4.9	0.9	1.4	4.5	11.0
20th	2.8	2.4	5.4	1.5	4.9	2.8	9.1	1.8	2.1	7.1	16.0
30th	4.5	3.5	10.0	1.7	5.3	4.4	14.0	2.3	2.4	7.5	18.0
40th	6.0	4.8	18.0	1.9	7.4	5.5	20.0	3.1	2.9	8.0	21.0
50th	8.4	5.9	24.0	2.3	10.0	7.0	22.0	3.8	7.2	8.7	33.0
60th	12.0	8.1	27.0	2.9	12.0	8.0	24.0	4.9	8.4	10.0	62.3
70th	18.0	12.0	35.0	4.0	16.0	11.0	25.0	6.4	11.0	11.0	71.8
80th	24.0	20.0	45.0	5.8	20.0	17.0	28.0	8.6	13.0	13.0	96.1
85th	30.0	21.0	49.0	6.7	21.0	24.0	33.0	9.5	13.0	14.0	99.2
90th	38.0	34.0	67.9	8.7	25.0	28.0	38.0	14.0	18.0	20.0	115.0
95th	58.0	56.6	135.0	12.0	30.0	50.2	42.0	24.0	19.0	37.0	181.0
98th	112.0	309.0	355.0	47.0	38.0	93.3	46.0	24.0	21.0	37.0	181.0
99th	214.0	370.0	381.0	47.0	38.0	93.3	46.0	51.9	50.0	38.0	214.0
Maximum	575.0	423.0	575.0	50.0	63.8	112.0	73.3	51.9	50.0	38.0	214.0

(Summary statistics not calculated for formations with fewer than ten values.)

Statistical Summary for Total Data Set



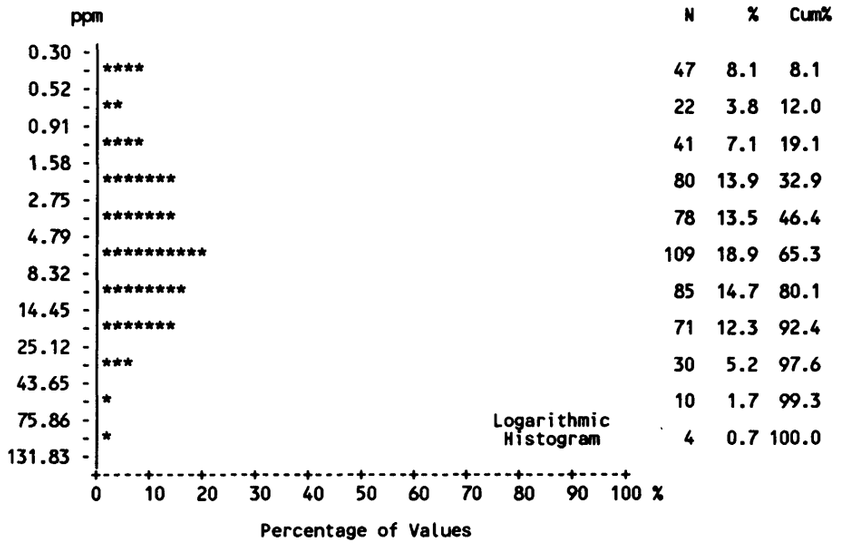
	N	%	Cum%
*	12	2.1	2.1
	0	0.0	2.1
*	9	1.6	3.6
******	70	12.1	15.8
******************	203	35.2	51.0
*****************	181	31.4	82.3
******	63	10.9	93.2
***	29	5.0	98.3
*	8	1.4	99.7
	1	0.2	99.8
	1	0.2	100.0

Element Statistics
Element - Barium [Ba]
Number of Values - 577
Units - ppm
Detection Limit - 50
Analytical Method - INAA

	All	PCc	PCau	Kmg	PCk	PCh	PCd	Cbmh	Pl	PCmn	PCal
N	577	105	79	66	65	60	59	48	31	28	26
N > DL	565	105	79	55	64	60	59	48	31	28	26
Missing	0	0	0	0	0	0	0	0	0	0	0
Mean	601.2	525.8	547.0	641.8	500.5	521.8	806.8	551.0	827.1	871.1	450.4
Median	480.0	430.0	470.0	490.0	440.0	380.0	640.0	520.0	600.0	670.0	410.0
Mode	400.0	400.0	400.0	50.0	420.0	380.0	350.0	520.0	500.0	420.0	410.0
Range	6070	1730	1670	2250	2150	5970	4140	810	2960	2970	1160
St Dev	489.61	298.17	309.41	537.57	315.64	755.34	677.45	223.39	613.37	658.56	236.84
Coef Var	0.814	0.567	0.566	0.838	0.631	1.447	0.840	0.405	0.742	0.756	0.526
Log Mean	2.692	2.673	2.692	2.603	2.641	2.616	2.817	2.701	2.837	2.866	2.607
Geo Mean	492.6	471.3	491.9	401.0	437.2	413.4	655.5	502.8	686.5	734.9	404.4
Log StDv	0.273	0.192	0.187	0.492	0.228	0.230	0.262	0.196	0.254	0.234	0.202
Log CVar	0.101	0.072	0.069	0.189	0.086	0.088	0.093	0.072	0.089	0.082	0.078
Percntls											
Minimum	50	170	230	50	50	150	160	190	240	330	140
10th	260	280	290	50	250	260	350	250	370	420	220
20th	330	330	360	130	320	280	400	350	410	480	260
30th	390	380	400	290	370	310	470	380	500	500	330
40th	430	400	440	420	410	370	520	440	540	610	370
50th	480	430	470	490	440	380	640	520	600	670	410
60th	550	500	510	610	480	410	750	620	690	700	440
70th	620	560	560	800	550	490	820	730	860	870	470
80th	750	630	610	1100	600	550	870	750	1000	920	570
85th	840	680	640	1200	650	600	1100	810	1100	1100	580
90th	1000	820	680	1300	710	720	1300	840	1700	1400	610
95th	1400	1000	1300	1700	820	780	1800	860	1800	2600	910
98th	1900	1700	1500	2100	1700	1000	2900	970	1800	2600	910
99th	2400	1800	1500	2100	1700	1000	2900	1000	3200	3300	1300
Maximum	6120	1900	1900	2300	2200	6120	4300	1000	3200	3300	1300

(Summary statistics not calculated for formations with fewer than ten values.)

Statistical Summary for Total Data Set

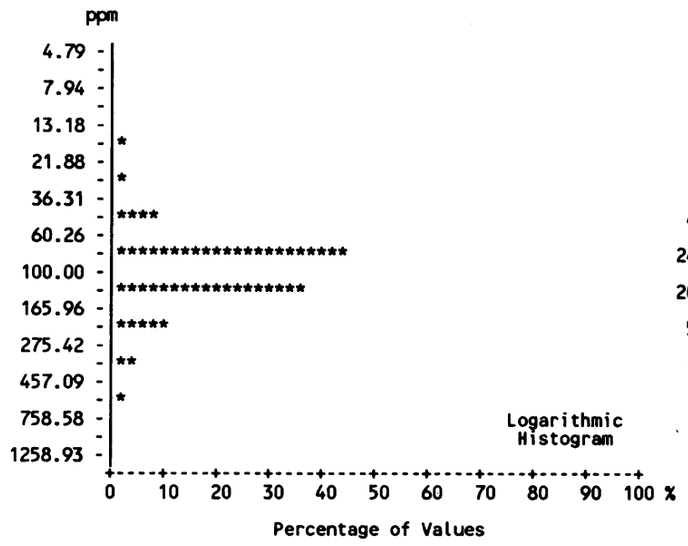


Element Statistics
Element - Bromine [Br]
Number of Values - 577
Units - ppm
Detection Limit - 0.5
Analytical Method - INAA

	All	PCc	PCau	Kmg	PCk	PCh	PCd	Cbmh	Pl	PCmn	PCal
N	577	105	79	66	65	60	59	48	31	28	26
N > DL	530	90	76	62	59	52	50	46	31	28	26
Missing	0	0	0	0	0	0	0	0	0	0	0
Mean	9.59	7.76	9.54	5.36	10.09	5.92	9.35	12.68	13.05	15.13	12.52
Median	5.40	4.80	5.50	4.30	5.60	2.00	3.10	6.80	6.40	8.70	13.00
Mode	0.50	0.50	10.00	0.50	0.50	0.50	0.50	13.00	5.70	1.00	13.00
Range	122.5	32.5	116.5	24.5	59.8	32.5	122.5	52.4	74.3	117.4	26.5
St Dev	13.57	7.95	14.39	4.79	13.03	7.82	17.88	14.16	17.17	22.36	8.05
Coef Var	1.416	1.024	1.509	0.893	1.292	1.321	1.912	1.116	1.315	1.477	0.643
Log Mean	0.681	0.613	0.733	0.570	0.701	0.430	0.550	0.833	0.865	0.873	0.977
Geo Mean	4.80	4.10	5.41	3.71	5.03	2.69	3.55	6.80	7.33	7.47	9.49
Log StDv	0.537	0.549	0.475	0.397	0.548	0.553	0.607	0.527	0.457	0.565	0.369
Log CVar	0.790	0.897	0.647	0.698	0.782	1.288	1.104	0.634	0.528	0.647	0.378
Percntls											
Minimum	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.0	0.6	1.5
10th	0.7	0.5	1.1	1.2	0.7	0.5	0.5	1.3	1.8	1.0	2.4
20th	1.6	1.3	1.9	1.7	1.5	0.6	0.8	1.9	3.2	1.9	4.6
30th	2.4	2.2	3.6	2.4	2.9	1.2	1.3	3.4	4.3	4.8	6.1
40th	3.8	3.3	4.8	2.9	4.1	1.6	2.4	5.5	5.7	5.9	8.4
50th	5.4	4.8	5.5	4.3	5.6	2.0	3.1	6.8	6.4	8.7	13.0
60th	7.0	6.5	7.3	5.2	6.8	2.6	5.8	10.0	6.6	12.0	14.0
70th	10.0	8.6	10.0	6.1	10.0	4.2	7.3	13.0	11.0	16.0	16.0
80th	14.0	14.0	13.0	7.4	15.0	11.0	12.0	18.0	17.0	19.0	19.0
85th	18.0	17.0	15.0	8.3	17.0	13.0	15.0	25.0	23.0	23.0	19.0
90th	23.0	20.0	17.0	10.0	23.0	16.0	22.0	38.0	33.0	26.0	21.0
95th	30.0	26.0	25.0	16.0	45.0	23.0	29.0	50.0	39.0	36.0	27.0
98th	45.0	29.0	29.0	20.0	58.3	31.0	42.0	50.6	58.9	36.0	27.0
99th	60.3	30.0	40.0	20.0	58.3	31.0	42.0	52.9	75.3	118.0	28.0
Maximum	123.0	33.0	117.0	25.0	60.3	33.0	123.0	52.9	75.3	118.0	28.0

(Summary statistics not calculated for formations with fewer than ten values.)

Statistical Summary for Total Data Set



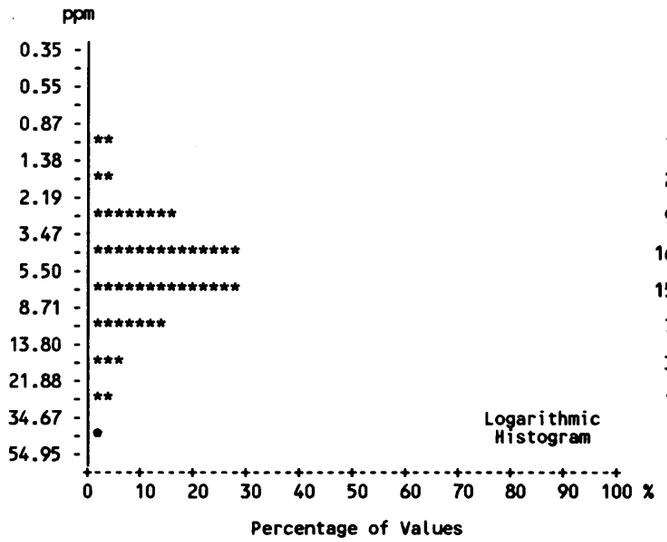
	N	%	Cum%
*	1	0.2	0.2
*	1	0.2	0.3
****	2	0.3	0.7
**********	4	0.7	1.4
**********	44	7.6	9.0
**********	246	42.6	51.6
**********	208	36.0	87.7
*****	52	9.0	96.7
**	15	2.6	99.3
*	3	0.5	99.8
	1	0.2	100.0

Element Statistics
Element - Cerium [Ce]
Number of Values - 577
Units - ppm
Detection Limit - 5
Analytical Method - INAA

	All	PCc	PCau	Kmg	PCk	PCh	PCd	Cbmh	Pl	PCmn	PCal
N	577	105	79	66	65	60	59	48	31	28	26
N > DL	576	105	79	65	65	60	59	48	31	28	26
Missing	0	0	0	0	0	0	0	0	0	0	0
Mean	114.2	111.8	113.3	183.4	104.6	118.9	109.2	101.4	88.9	74.0	93.4
Median	97.0	100.0	88.0	160.0	94.0	110.0	100.0	97.0	87.0	70.0	83.0
Mode	110.0	120.0	110.0	120.0	110.0	110.0	120.0	120.0	100.0	77.0	69.0
Range	779	545	740	634	238	325	219	172	139	72	216
St Dev	70.15	68.40	95.01	101.98	40.10	57.50	38.43	31.86	31.04	19.64	42.49
Coef Var	0.614	0.612	0.839	0.556	0.383	0.484	0.352	0.314	0.349	0.266	0.455
Log Mean	2.004	2.005	1.988	2.198	1.986	2.037	2.012	1.982	1.918	1.855	1.924
Geo Mean	101.0	101.2	97.3	157.7	96.7	108.8	102.9	96.0	82.8	71.7	84.0
Log StDv	0.210	0.175	0.207	0.273	0.186	0.177	0.154	0.153	0.180	0.109	0.221
Log CVar	0.105	0.087	0.104	0.124	0.094	0.087	0.076	0.077	0.094	0.059	0.115
Percntls											
Minimum	5	45	44	5	12	55	41	28	21	48	14
10th	62	67	61	90	64	64	66	62	51	51	50
20th	73	74	70	100	72	76	80	78	62	56	69
30th	81	81	76	120	83	86	90	84	72	61	75
40th	88	86	82	140	88	92	96	90	78	66	77
50th	97	100	88	160	94	110	100	97	87	70	83
60th	110	110	93	170	110	120	110	110	100	74	86
70th	120	120	100	210	110	130	120	120	100	77	88
80th	140	130	110	250	130	150	140	120	110	82	130
85th	150	130	130	280	140	160	150	130	120	93	130
90th	170	150	210	290	160	180	150	140	120	100	140
95th	240	210	240	340	180	210	170	150	140	120	150
98th	310	320	300	480	190	270	180	160	140	120	150
99th	340	330	330	480	190	270	180	200	160	120	230
Maximum	784	590	784	639	250	380	260	200	160	120	230

(Summary statistics not calculated for formations with fewer than ten values.)

Statistical Summary for Total Data Set



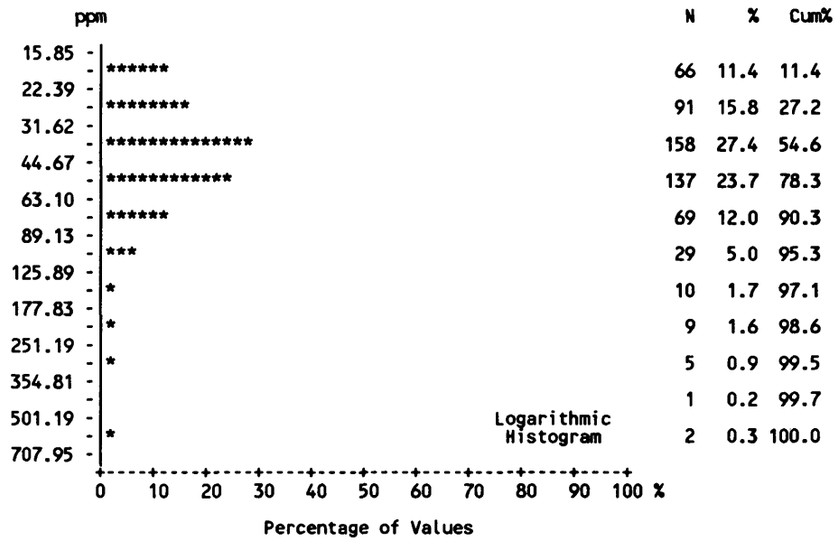
ppm	N	%	Cum%
0.35	1	0.2	0.2
0.55	1	0.2	0.3
0.87	13	2.3	2.6
1.38	24	4.2	6.8
2.19	91	15.8	22.5
3.47	162	28.1	50.6
5.50	159	27.6	78.2
8.71	73	12.7	90.8
13.80	35	6.1	96.9
21.88	13	2.3	99.1
34.67	5	0.9	100.0
54.95			

Element Statistics
Element - Cesium [Cs]
Number of Values - 577
Units - ppm
Detection Limit - 0.5
Analytical Method - INAA

	All	PCc	PCau	Kmg	PCk	PCh	PCd	Cbmh	Pl	PCmn	PCal
N	577	105	79	66	65	60	59	48	31	28	26
N > DL	576	105	79	65	65	60	59	48	31	28	26
Missing	0	0	0	0	0	0	0	0	0	0	0
Mean	6.99	6.33	10.88	7.70	4.73	3.67	5.51	5.05	4.34	6.68	20.54
Median	5.40	5.80	9.10	5.90	4.70	3.30	4.90	4.20	3.80	5.60	18.00
Mode	11.00	3.40	11.00	5.20	4.90	2.30	2.80	4.30	5.60	4.40	15.00
Range	46.5	21.1	45.7	44.5	8.7	7.5	15.0	19.4	9.0	11.3	44.0
St Dev	5.90	3.59	7.21	6.14	1.78	1.81	2.73	3.55	2.24	3.28	10.34
Coef Var	0.843	0.566	0.663	0.797	0.376	0.493	0.495	0.703	0.517	0.491	0.503
Log Mean	0.740	0.737	0.958	0.803	0.644	0.514	0.689	0.607	0.583	0.770	1.236
Geo Mean	5.50	5.45	9.07	6.35	4.40	3.26	4.89	4.05	3.83	5.89	17.22
Log StDv	0.294	0.245	0.270	0.269	0.171	0.213	0.222	0.300	0.222	0.231	0.320
Log CVar	0.398	0.333	0.282	0.335	0.266	0.416	0.323	0.495	0.380	0.301	0.259
Percntls											
Minimum	0.5	0.9	1.3	0.5	1.3	1.0	1.0	0.6	1.0	1.7	1.0
10th	2.4	2.9	3.9	3.5	2.7	1.9	2.8	1.7	2.2	2.7	10.0
20th	3.3	3.4	5.9	4.5	3.3	2.2	3.4	2.4	2.4	3.5	12.0
30th	4.0	4.1	7.4	5.1	3.8	2.4	3.8	2.8	2.8	4.4	15.0
40th	4.6	4.7	8.6	5.3	4.0	2.9	4.4	3.3	3.0	5.2	15.0
50th	5.4	5.8	9.1	5.9	4.7	3.3	4.9	4.2	3.8	5.6	18.0
60th	6.2	6.7	11.0	6.7	4.9	3.6	5.4	4.6	4.1	6.8	21.0
70th	7.5	7.3	11.0	7.5	5.3	4.3	6.5	6.2	5.3	7.9	22.0
80th	9.1	8.5	14.0	9.0	5.9	4.7	7.2	7.1	5.6	9.4	29.0
85th	11.0	9.0	16.0	11.0	6.1	5.4	8.4	7.9	5.8	10.0	29.0
90th	12.0	11.0	17.0	14.0	7.0	6.1	8.7	8.0	8.0	12.0	33.0
95th	17.0	12.0	25.0	18.0	7.6	7.5	9.2	11.0	8.9	13.0	38.0
98th	27.0	16.0	29.0	20.0	10.0	8.1	12.0	12.0	9.2	13.0	38.0
99th	30.0	19.0	30.0	20.0	10.0	8.1	12.0	20.0	10.0	13.0	45.0
Maximum	47.0	22.0	47.0	45.0	10.0	8.5	16.0	20.0	10.0	13.0	45.0

(Summary statistics not calculated for formations with fewer than ten values.)

Statistical Summary for Total Data Set

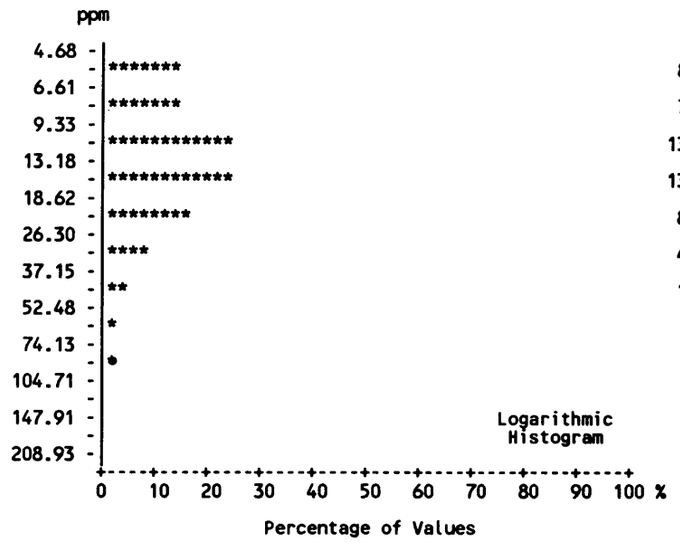


Element Statistics
Element - Chromium [Cr]
Number of Values - 577
Units - ppm
Detection Limit - 20
Analytical Method - INAA

	All	PCc	PCau	Kmg	PCk	PCh	PCd	Cbmh	Pl	PCmn	PCal
N	577	105	79	66	65	60	59	48	31	28	26
N > DL	521	93	73	43	59	58	57	46	29	27	26
Missing	0	0	0	0	0	0	0	0	0	0	0
Mean	55.1	45.8	45.5	35.5	33.6	59.9	41.2	102.9	101.6	47.3	64.1
Median	42.0	37.0	45.0	30.0	33.0	52.0	37.0	70.0	89.0	43.0	58.0
Mode	20.0	20.0	20.0	20.0	20.0	52.0	23.0	63.0	110.0	39.0	44.0
Range	646	646	120	150	36	220	77	523	330	68	127
St Dev	54.55	63.84	18.38	22.82	9.26	33.39	17.39	100.54	70.68	16.33	28.47
Coef Var	0.989	1.394	0.404	0.643	0.276	0.558	0.423	0.977	0.696	0.345	0.444
Log Mean	1.650	1.575	1.627	1.497	1.510	1.728	1.582	1.892	1.920	1.650	1.773
Geo Mean	44.7	37.5	42.4	31.4	32.4	53.4	38.2	78.0	83.1	44.7	59.3
Log StDv	0.249	0.214	0.165	0.199	0.119	0.205	0.164	0.306	0.283	0.151	0.169
Log CVar	0.151	0.136	0.101	0.133	0.079	0.118	0.104	0.162	0.148	0.092	0.096
Percntls											
Minimum	20	20	20	20	20	20	20	20	20	20	33
10th	21	20	25	20	22	29	23	30	39	29	35
20th	28	25	31	20	25	35	28	49	43	37	41
30th	33	29	37	20	28	42	31	58	62	39	46
40th	38	33	39	25	30	48	34	63	65	40	54
50th	42	37	45	30	33	52	37	70	89	43	58
60th	47	40	47	33	35	59	39	85	100	46	60
70th	55	46	50	39	38	69	44	100	110	50	69
80th	66	52	55	45	41	76	50	110	120	53	74
85th	75	56	58	47	41	82	56	130	140	66	83
90th	88	60	64	54	46	87	61	160	210	73	100
95th	120	68	75	75	53	110	83	280	220	75	110
98th	220	120	79	84	55	120	89	460	240	75	110
99th	280	130	87	84	55	120	89	543	350	88	160
Maximum	666	666	140	170	56	240	97	543	350	88	160

(Summary statistics not calculated for formations with fewer than ten values.)

Statistical Summary for Total Data Set



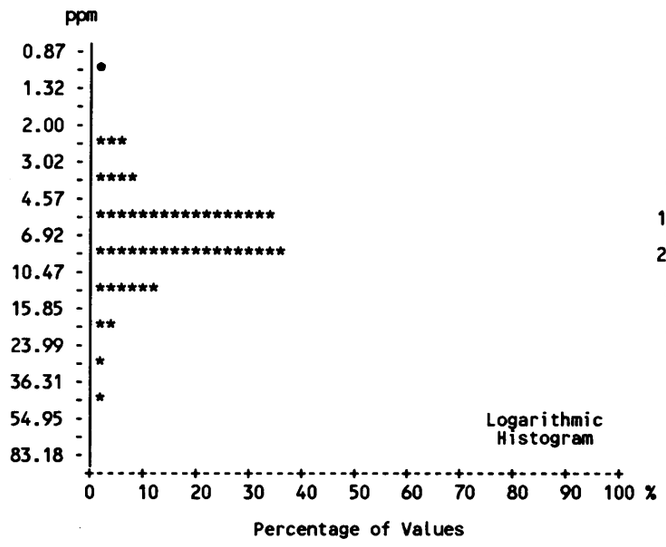
	N	%	Cum%
*******	80	13.9	13.9
*******	79	13.7	27.6
**********	134	23.2	50.8
**********	134	23.2	74.0
********	87	15.1	89.1
****	42	7.3	96.4
**	14	2.4	98.8
*	3	0.5	99.3
*	3	0.5	99.8
	0	0.0	99.8
	1	0.2	100.0

Element Statistics
Element - Cobalt [Co]
Number of Values - 577
Units - ppm
Detection Limit - 5
Analytical Method - INAA

	All	PCc	PCau	Kmg	PCk	PCh	PCd	Cbmh	Pl	PCmn	PCal
N	577	105	79	66	65	60	59	48	31	28	26
N > DL	521	95	71	40	61	57	59	45	30	28	26
Missing	0	0	0	0	0	0	0	0	0	0	0
Mean	15.7	11.6	15.7	9.3	11.6	17.2	15.8	21.6	21.4	14.1	37.2
Median	13.0	10.0	14.0	6.0	12.0	15.0	16.0	20.0	19.0	14.0	24.0
Mode	5.0	7.0	5.0	5.0	12.0	13.0	14.0	18.0	19.0	16.0	14.0
Range	155	54	39	51	19	39	26	40	41	19	152
St Dev	11.79	7.24	8.33	7.65	4.08	8.63	5.48	10.06	8.39	4.22	33.84
Coef Var	0.750	0.624	0.530	0.826	0.350	0.502	0.346	0.467	0.393	0.300	0.909
Log Mean	1.119	1.009	1.138	0.892	1.039	1.182	1.174	1.275	1.293	1.128	1.442
Geo Mean	13.1	10.2	13.7	7.8	10.9	15.2	14.9	18.8	19.6	13.4	27.6
Log StDv	0.252	0.207	0.231	0.227	0.160	0.221	0.156	0.249	0.192	0.141	0.330
Log CVar	0.225	0.205	0.203	0.254	0.154	0.187	0.133	0.195	0.148	0.125	0.229
Percntls											
Minimum	5	5	5	5	5	5	6	5	5	6	8
10th	6	6	5	5	6	7	9	6	12	8	10
20th	8	7	9	5	8	10	12	14	15	10	14
30th	10	8	11	5	10	12	13	16	16	12	16
40th	12	9	13	5	11	14	14	18	19	13	21
50th	13	10	14	6	12	15	16	20	19	14	24
60th	15	11	17	8	12	17	16	23	22	16	31
70th	17	13	18	10	13	19	18	27	24	16	37
80th	21	15	20	11	15	23	19	30	29	17	50
85th	23	16	22	13	16	27	21	31	29	18	61
90th	27	18	26	14	17	30	23	34	31	18	83
95th	32	23	31	22	17	31	24	41	31	20	84
98th	43	31	40	27	23	40	31	41	34	20	84
99th	56	32	41	27	23	40	31	45	46	25	160
Maximum	160	59	44	56	24	44	32	45	46	25	160

(Summary statistics not calculated for formations with fewer than ten values.)

Statistical Summary for Total Data Set



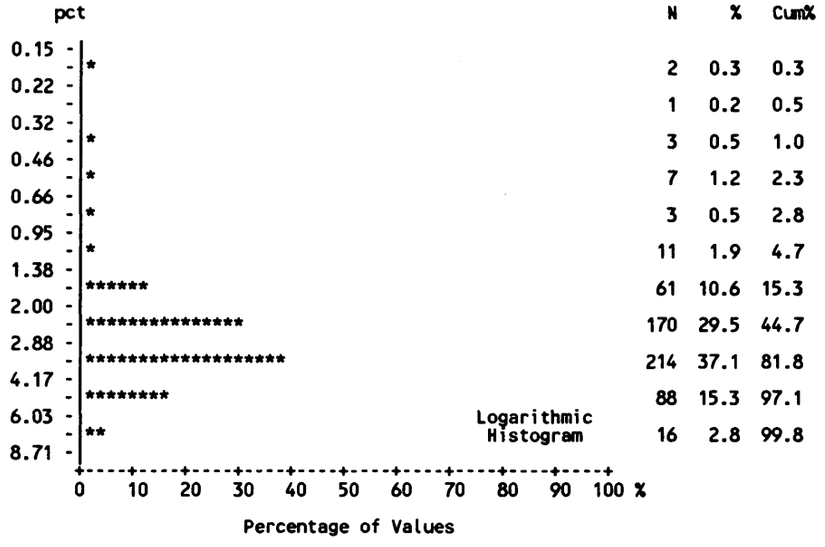
	N	%	Cum%
•	5	0.9	0.9
	0	0.0	0.9
***	32	5.5	6.4
****	43	7.5	13.9
**********	194	33.6	47.5
**********	202	35.0	82.5
******	64	11.1	93.6
**	23	4.0	97.6
*	8	1.4	99.0
*	5	0.9	99.8
	1	0.2	100.0

Element Statistics
Element - Hafnium [Hf]
Number of Values - 577
Units - ppm
Detection Limit - 1
Analytical Method - INAA

	All	PCc	PCau	Kmg	PCk	PCh	PCd	Cbmh	Pl	PCmn	PCal
N	577	105	79	66	65	60	59	48	31	28	26
N > DL	572	105	79	65	64	60	59	48	31	28	23
Missing	0	0	0	0	0	0	0	0	0	0	0
Mean	8.1	6.6	6.6	13.4	7.8	10.2	7.9	9.6	7.1	5.2	4.7
Median	7.0	6.0	6.0	10.0	7.0	9.0	8.0	8.0	7.0	5.0	4.0
Mode	6.0	6.0	6.0	10.0	7.0	7.0	8.0	7.0	7.0	5.0	4.0
Range	68	10	26	68	38	36	14	18	14	4	12
St Dev	5.97	2.13	3.64	12.27	5.48	5.54	2.42	4.21	3.78	1.09	2.58
Coef Var	0.734	0.326	0.555	0.917	0.700	0.544	0.307	0.440	0.531	0.211	0.554
Log Mean	0.842	0.795	0.776	0.992	0.838	0.961	0.874	0.942	0.784	0.705	0.593
Geo Mean	7.0	6.2	6.0	9.8	6.9	9.1	7.5	8.7	6.1	5.1	3.9
Log StDv	0.232	0.136	0.177	0.340	0.206	0.200	0.145	0.185	0.264	0.092	0.282
Log CVar	0.276	0.171	0.227	0.343	0.246	0.208	0.167	0.197	0.337	0.131	0.475
Percntls											
Minimum	1	3	2	1	1	3	2	3	2	3	1
10th	4	4	4	4	5	5	5	5	2	4	1
20th	5	5	5	5	5	6	6	6	3	4	2
30th	6	5	5	6	6	7	7	7	5	5	3
40th	6	6	6	8	6	8	7	7	5	5	4
50th	7	6	6	10	7	9	8	8	7	5	4
60th	7	6	6	10	7	10	8	10	7	5	5
70th	8	7	6	13	8	12	8	11	10	5	6
80th	10	8	7	19	8	13	9	12	11	6	6
85th	11	8	8	23	8	13	10	14	11	7	7
90th	13	10	9	26	10	15	10	15	12	7	7
95th	17	11	11	38	15	19	12	19	13	7	7
98th	25	11	15	50	31	22	14	20	13	7	7
99th	34	12	21	50	31	22	14	21	16	7	13
Maximum	69	13	28	69	39	39	16	21	16	7	13

(Summary statistics not calculated for formations with fewer than ten values.)

Statistical Summary for Total Data Set



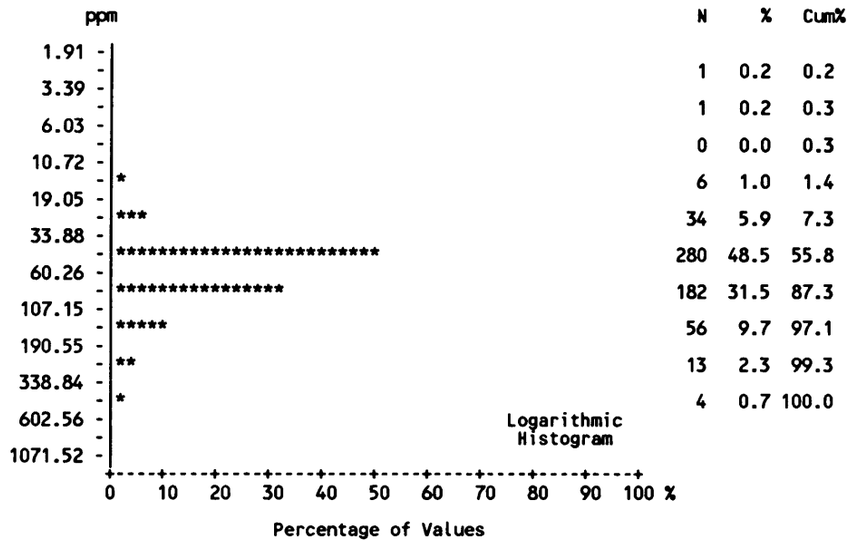
	N	%	Cum%
*	2	0.3	0.3
	1	0.2	0.5
*	3	0.5	1.0
*	7	1.2	2.3
*	3	0.5	2.8
*	11	1.9	4.7
******	61	10.6	15.3
**********	170	29.5	44.7
**********	214	37.1	81.8
********	88	15.3	97.1
**	16	2.8	99.8

Element Statistics
Element - Iron [Fe]
Number of Values - 577
Units - pct
Detection Limit - 0.2
Analytical Method - INAA

	All	PCc	PCau	Kmg	PCk	PCh	PCd	Cbmh	Pl	PCmn	PCal
N	577	105	79	66	65	60	59	48	31	28	26
N > DL	575	105	79	65	64	60	59	48	31	28	26
Missing	0	0	0	0	0	0	0	0	0	0	0
Mean	3.14	2.81	3.37	2.43	2.50	3.28	3.06	4.13	4.14	2.82	4.20
Median	3.00	2.60	3.30	2.30	2.50	3.10	3.10	3.90	4.10	2.70	4.10
Mode	2.40	2.60	2.70	1.80	2.40	2.90	3.20	3.40	3.00	2.40	4.10
Range	8.6	7.3	5.2	6.3	3.6	6.0	4.5	8.4	7.8	2.5	5.1
St Dev	1.29	1.17	1.03	1.40	0.62	1.13	0.90	1.61	1.60	0.64	1.22
Coef Var	0.411	0.416	0.304	0.576	0.246	0.346	0.295	0.388	0.387	0.226	0.292
Log Mean	0.455	0.416	0.505	0.290	0.377	0.489	0.468	0.574	0.575	0.439	0.605
Geo Mean	2.85	2.61	3.20	1.95	2.38	3.08	2.93	3.75	3.76	2.75	4.03
Log StDv	0.209	0.170	0.150	0.330	0.167	0.157	0.130	0.221	0.219	0.100	0.126
Log CVar	0.460	0.408	0.296	1.137	0.445	0.322	0.278	0.385	0.381	0.227	0.209
Percntls											
Minimum	0.2	0.6	0.9	0.2	0.2	1.1	1.3	0.4	0.5	1.8	2.3
10th	1.8	1.7	2.1	0.5	1.8	1.9	1.9	1.9	2.2	1.9	2.6
20th	2.1	2.0	2.7	1.1	2.1	2.2	2.3	3.0	2.9	2.4	3.3
30th	2.4	2.2	2.7	1.8	2.2	2.8	2.4	3.2	3.0	2.4	3.5
40th	2.7	2.4	3.2	2.0	2.4	3.0	2.8	3.5	3.7	2.6	3.8
50th	3.0	2.6	3.3	2.3	2.5	3.1	3.1	3.9	4.1	2.7	4.1
60th	3.2	2.8	3.6	2.5	2.7	3.3	3.2	4.5	4.2	2.9	4.1
70th	3.6	3.0	3.9	2.8	2.8	3.6	3.4	5.1	4.8	3.2	4.4
80th	4.0	3.4	4.0	3.7	3.1	4.1	3.6	5.4	5.0	3.4	5.2
85th	4.4	3.5	4.3	3.9	3.1	4.4	3.7	5.5	5.2	3.4	5.4
90th	4.8	3.9	4.7	4.2	3.2	4.8	4.1	5.6	5.6	3.4	5.5
95th	5.5	4.8	5.0	4.8	3.4	5.2	4.9	6.5	7.0	4.0	6.5
98th	6.5	6.6	5.5	5.6	3.5	5.6	5.0	7.6	7.2	4.0	6.5
99th	7.1	6.6	5.7	5.6	3.5	5.6	5.0	8.8	8.3	4.3	7.4
Maximum	8.8	7.9	6.1	6.5	3.8	7.1	5.8	8.8	8.3	4.3	7.4

(Summary statistics not calculated for formations with fewer than ten values.)

Statistical Summary for Total Data Set



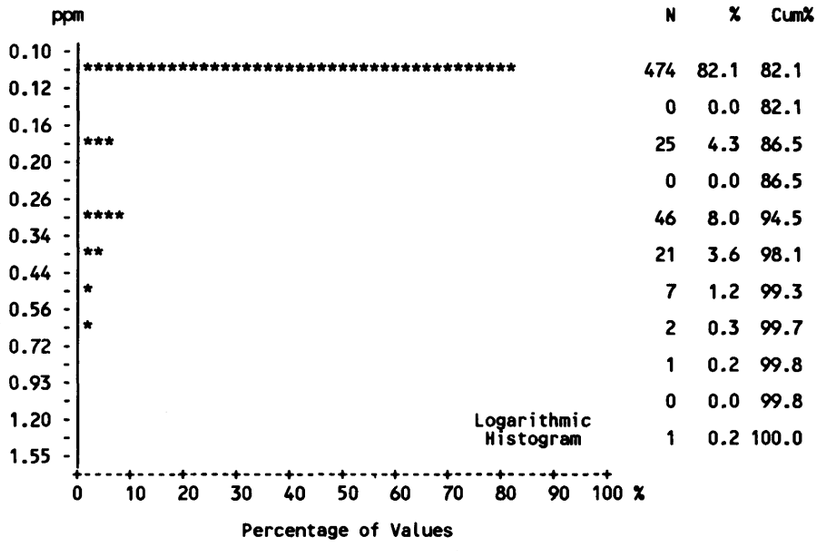
	N	%	Cum%
	1	0.2	0.2
	1	0.2	0.3
	0	0.0	0.3
*	6	1.0	1.4
***	34	5.9	7.3
**************************	280	48.5	55.8
**********	182	31.5	87.3
*****	56	9.7	97.1
**	13	2.3	99.3
*	4	0.7	100.0

Element Statistics
Element - Lanthanum [La]
Number of Values - 577
Units - ppm
Detection Limit - 2
Analytical Method - INAA

	All	PCc	PCau	Kmg	PCk	PCh	PCd	Cbmh	Pl	PCmn	PCal
N	577	105	79	66	65	60	59	48	31	28	26
N > DL	576	105	79	65	65	60	59	48	31	28	26
Missing	0	0	0	0	0	0	0	0	0	0	0
Mean	70.4	67.5	71.4	128.4	56.5	74.8	61.4	62.3	55.6	40.6	52.8
Median	56.0	56.0	53.0	110.0	49.0	67.0	56.0	58.0	55.0	39.0	47.0
Mode	44.0	44.0	46.0	110.0	49.0	50.0	56.0	55.0	67.0	39.0	28.0
Range	590	381	561	518	175	237	146	145	118	47	79
St Dev	52.95	49.08	70.94	82.15	27.97	40.86	23.89	23.59	20.56	10.88	19.89
Coef Var	0.752	0.727	0.994	0.640	0.495	0.546	0.389	0.379	0.369	0.268	0.377
Log Mean	1.778	1.774	1.774	2.026	1.705	1.826	1.759	1.764	1.715	1.594	1.687
Geo Mean	60.0	59.5	59.4	106.2	50.6	66.9	57.4	58.1	51.9	39.3	48.7
Log StDv	0.233	0.193	0.221	0.310	0.214	0.198	0.159	0.171	0.175	0.115	0.190
Log CVar	0.131	0.109	0.124	0.153	0.126	0.109	0.091	0.097	0.102	0.072	0.113
Percntls											
Minimum	2	30	31	2	5	31	24	15	12	22	12
10th	35	37	37	58	35	37	36	37	32	28	28
20th	41	42	43	64	39	42	42	46	39	31	36
30th	46	47	46	81	41	50	47	51	45	33	42
40th	51	51	50	93	45	60	53	54	49	36	43
50th	56	56	53	110	49	67	56	58	55	39	47
60th	63	62	56	120	54	74	61	64	57	42	53
70th	72	69	60	140	63	76	71	72	65	45	57
80th	82	75	71	170	65	92	78	75	67	49	76
85th	96	80	76	190	69	100	84	81	67	51	78
90th	110	94	120	213	110	120	90	84	76	52	78
95th	170	140	160	249	110	150	92	98	77	62	86
98th	220	220	201	362	120	170	100	100	81	62	86
99th	255	255	239	362	120	170	100	160	130	69	91
Maximum	592	411	592	520	180	268	170	160	130	69	91

(Summary statistics not calculated for formations with fewer than ten values.)

Statistical Summary for Total Data Set

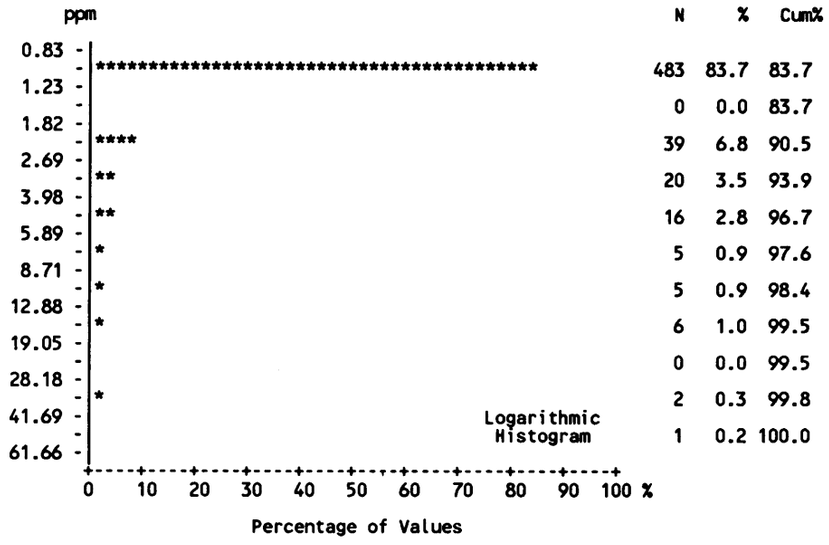


Element Statistics
Element - Lutetium [Lu]
Number of Values - 577
Units - ppm
Detection Limit - 0.1
Analytical Method - INAA

	All	PCc	PCau	Kmg	PCk	PCh	PCd	Cbmh	Pl	PCmn	PCal
N	577	105	79	66	65	60	59	48	31	28	26
N > DL	103	19	17	1	13	13	17	4	3	10	5
Missing	0	0	0	0	0	0	0	0	0	0	0
Mean	0.14	0.15	0.15	0.10	0.14	0.14	0.16	0.12	0.11	0.15	0.18
Median	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Mode	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Range	1.3	0.8	0.5	0.3	0.5	0.3	0.3	0.4	0.2	0.2	1.3
St Dev	0.11	0.13	0.12	0.04	0.10	0.08	0.11	0.07	0.04	0.07	0.26
Coef Var	0.776	0.840	0.746	0.353	0.671	0.566	0.655	0.593	0.379	0.497	1.426
Log Mean	-0.912	-0.901	-0.886	-0.991	-0.906	-0.906	-0.859	-0.959	-0.965	-0.867	-0.880
Geo Mean	0.12	0.13	0.13	0.10	0.12	0.12	0.14	0.11	0.11	0.14	0.13
Log StDv	0.199	0.223	0.227	0.074	0.197	0.185	0.231	0.143	0.111	0.189	0.281
Log CVar	-0.218	-0.247	-0.256	-0.075	-0.218	-0.204	-0.269	-0.149	-0.115	-0.218	-0.320
Percntls											
Minimum	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
10th	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
20th	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
30th	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
40th	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
50th	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
60th	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
70th	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
80th	0.1	0.1	0.2	0.1	0.1	0.2	0.3	0.1	0.1	0.2	0.1
85th	0.2	0.2	0.3	0.1	0.2	0.2	0.3	0.1	0.1	0.2	0.2
90th	0.3	0.3	0.3	0.1	0.3	0.3	0.3	0.1	0.1	0.3	0.3
95th	0.4	0.4	0.4	0.1	0.3	0.3	0.4	0.3	0.2	0.3	0.4
98th	0.4	0.5	0.5	0.1	0.4	0.3	0.4	0.3	0.2	0.3	0.4
99th	0.5	0.5	0.5	0.1	0.4	0.3	0.4	0.5	0.3	0.3	1.4
Maximum	1.4	0.9	0.6	0.4	0.6	0.4	0.4	0.5	0.3	0.3	1.4

(Summary statistics not calculated for formations with fewer than ten values.)

Statistical Summary for Total Data Set



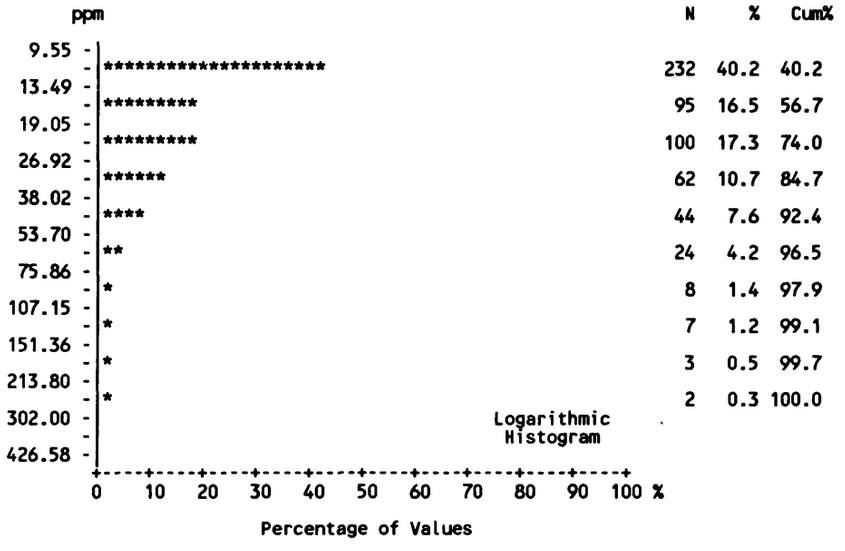
	N	%	Cum%
**********	483	83.7	83.7
	0	0.0	83.7
****	39	6.8	90.5
**	20	3.5	93.9
**	16	2.8	96.7
*	5	0.9	97.6
*	5	0.9	98.4
*	6	1.0	99.5
	0	0.0	99.5
*	2	0.3	99.8
	1	0.2	100.0

Element Statistics
Element - Molybdenum [Mo]
Number of Values - 577
Units - ppm
Detection Limit - 1
Analytical Method - INAA

	All	PCc	PCau	Kmg	PCk	PCh	PCd	Cbmh	Pl	PCmn	PCal
N	577	105	79	66	65	60	59	48	31	28	26
N > DL	94	13	8	25	5	6	8	7	10	1	9
Missing	0	0	0	0	0	0	0	0	0	0	0
Mean	1.7	2.2	1.2	2.1	1.4	1.3	1.4	1.3	2.2	1.0	4.0
Median	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Mode	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Range	53	53	4	17	18	6	12	4	14	1	29
St Dev	3.43	6.24	0.70	2.61	2.25	1.01	1.63	0.88	2.95	0.19	6.53
Coef Var	1.997	2.901	0.588	1.249	1.659	0.787	1.186	0.670	1.344	0.182	1.648
Log Mean	0.091	0.089	0.043	0.185	0.041	0.054	0.063	0.068	0.180	0.011	0.283
Geo Mean	1.2	1.2	1.1	1.5	1.1	1.1	1.2	1.2	1.5	1.0	1.9
Log StDv	0.245	0.283	0.139	0.288	0.178	0.175	0.188	0.178	0.312	0.057	0.459
Log CVar	2.697	3.220	3.316	1.563	4.448	3.240	3.034	2.617	1.733	5.689	1.621
Percntls											
Minimum	1	1	1	1	1	1	1	1	1	1	1
10th	1	1	1	1	1	1	1	1	1	1	1
20th	1	1	1	1	1	1	1	1	1	1	1
30th	1	1	1	1	1	1	1	1	1	1	1
40th	1	1	1	1	1	1	1	1	1	1	1
50th	1	1	1	1	1	1	1	1	1	1	1
60th	1	1	1	1	1	1	1	1	1	1	1
70th	1	1	1	2	1	1	1	1	2	1	2
80th	1	1	1	2	1	1	1	1	3	1	5
85th	2	1	1	3	1	1	1	1	3	1	7
90th	2	3	1	3	1	1	2	2	3	1	10
95th	4	3	2	7	2	4	2	4	4	1	14
98th	10	10	3	10	3	4	4	4	10	1	14
99th	14	36	5	10	3	4	4	5	15	2	30
Maximum	54	54	5	18	19	7	13	5	15	2	30

(Summary statistics not calculated for formations with fewer than ten values.)

Statistical Summary for Total Data Set

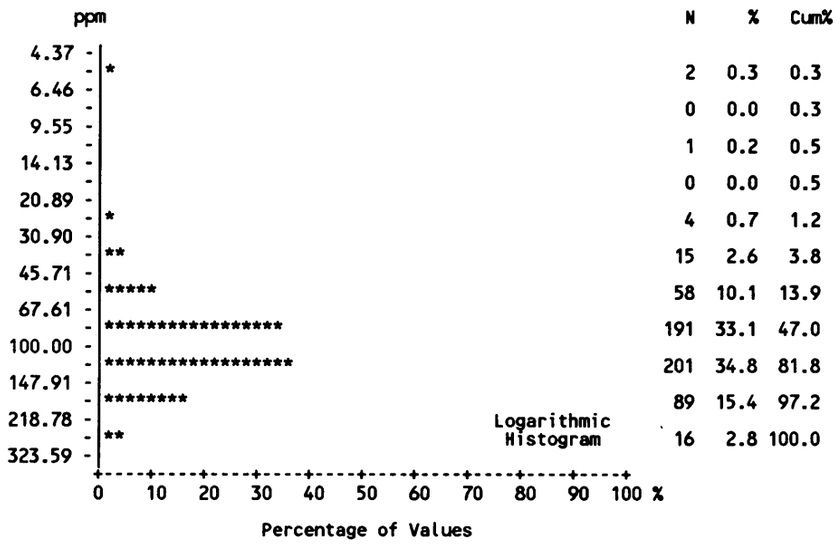


Element Statistics
Element - Nickel [Ni]
Number of Values - 577
Units - ppm
Detection Limit - 10
Analytical Method - INAA

	All	PCc	PCau	Kmg	PCk	PCh	PCd	Cbmh	Pl	PCmn	PCal
N	577	105	79	66	65	60	59	48	31	28	26
N > DL	398	52	57	21	34	58	45	45	30	25	21
Missing	0	0	0	0	0	0	0	0	0	0	0
Mean	25.0	17.3	17.9	13.9	13.7	32.0	18.9	45.5	64.5	20.1	30.0
Median	17.0	10.0	17.0	10.0	11.0	27.0	15.0	36.0	51.0	20.0	20.0
Mode	10.0	10.0	10.0	10.0	10.0	16.0	10.0	36.0	33.0	10.0	10.0
Range	290	160	26	38	27	64	49	210	290	26	90
St Dev	26.60	18.35	7.12	8.19	5.82	18.02	10.75	38.12	55.28	7.63	23.01
Coef Var	1.062	1.062	0.397	0.588	0.423	0.563	0.567	0.839	0.858	0.379	0.767
Log Mean	1.279	1.153	1.219	1.099	1.110	1.439	1.225	1.551	1.716	1.273	1.374
Geo Mean	19.0	14.2	16.6	12.6	12.9	27.5	16.8	35.6	52.0	18.7	23.7
Log StDv	0.288	0.224	0.174	0.177	0.145	0.244	0.204	0.299	0.271	0.172	0.296
Log CVar	0.225	0.194	0.143	0.161	0.130	0.170	0.167	0.193	0.158	0.135	0.216
Percntls											
Minimum	10	10	10	10	10	10	10	10	10	10	10
10th	10	10	10	10	10	13	10	15	27	10	10
20th	10	10	10	10	10	16	10	20	33	12	10
30th	10	10	12	10	10	20	11	23	37	13	15
40th	13	10	15	10	10	22	14	32	44	18	19
50th	17	10	17	10	11	27	15	36	51	20	20
60th	20	13	21	10	13	31	17	43	53	22	24
70th	24	17	22	12	14	36	20	48	58	24	30
80th	33	20	24	16	16	49	25	51	68	25	43
85th	40	21	25	20	19	52	27	62	77	26	52
90th	50	27	26	22	21	57	32	80	110	31	54
95th	65	43	30	30	23	70	38	120	140	34	76
98th	100	56	34	48	36	73	56	140	180	34	76
99th	140	75	35	48	36	73	56	220	300	36	100
Maximum	300	170	36	48	37	74	59	220	300	36	100

(Summary statistics not calculated for formations with fewer than ten values.)

Statistical Summary for Total Data Set



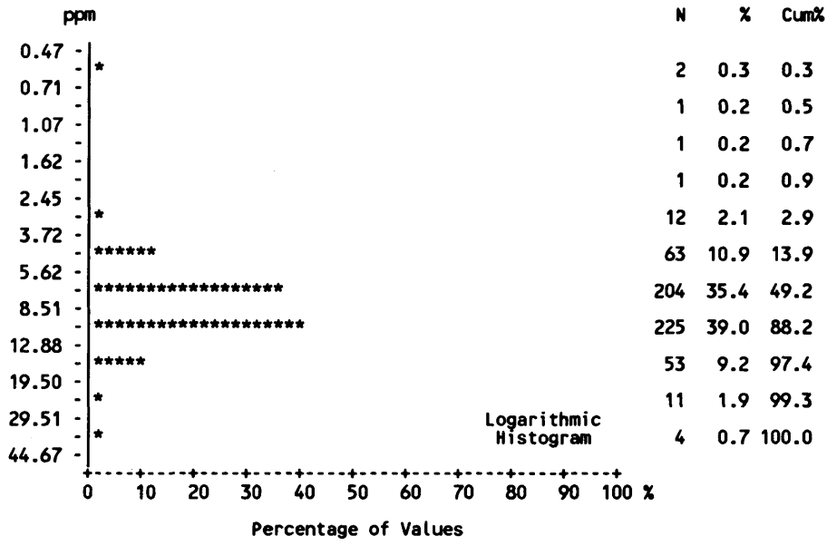
	N	%	Cum%
*	2	0.3	0.3
	0	0.0	0.3
	1	0.2	0.5
	0	0.0	0.5
*	4	0.7	1.2
**	15	2.6	3.8
*****	58	10.1	13.9
******************	191	33.1	47.0
*******************	201	34.8	81.8
********	89	15.4	97.2
**	16	2.8	100.0

Element Statistics
Element - Rubidium [Rb]
Number of Values - 577
Units - ppm
Detection Limit - 5
Analytical Method - INAA

	All	PCc	PCau	Kmg	PCk	PCh	PCd	Cbmh	Pl	PCmn	PCal
N	577	105	79	66	65	60	59	48	31	28	26
N > DL	575	105	79	65	65	60	59	48	30	28	26
Missing	0	0	0	0	0	0	0	0	0	0	0
Mean	108.1	107.3	117.1	158.5	99.9	81.3	116.5	92.2	80.4	96.0	111.5
Median	100.0	100.0	120.0	150.0	94.0	80.0	120.0	80.0	80.0	96.0	110.0
Mode	110.0	110.0	130.0	110.0	120.0	81.0	120.0	92.0	98.0	100.0	110.0
Range	265	169	125	265	146	128	146	204	145	122	123
St Dev	42.26	33.61	30.10	57.43	30.65	25.25	35.50	44.95	27.58	28.40	29.76
Coef Var	0.391	0.313	0.257	0.362	0.307	0.310	0.305	0.487	0.343	0.296	0.267
Log Mean	1.998	2.008	2.054	2.159	1.975	1.889	2.042	1.918	1.863	1.963	2.028
Geo Mean	99.5	101.8	113.2	144.3	94.3	77.4	110.1	82.7	72.9	91.9	106.8
Log StDv	0.190	0.148	0.115	0.234	0.164	0.141	0.158	0.206	0.248	0.135	0.140
Log CVar	0.095	0.074	0.056	0.109	0.083	0.075	0.078	0.108	0.133	0.069	0.069
Percntls											
Minimum	5	21	65	5	14	32	34	26	5	38	37
10th	63	68	74	97	63	51	64	49	50	62	78
20th	74	80	91	110	74	64	82	61	62	73	86
30th	84	89	98	120	84	68	99	68	64	75	99
40th	93	98	110	130	90	75	110	76	66	81	100
50th	100	100	120	150	94	80	120	80	80	96	110
60th	110	110	130	160	100	84	130	87	83	100	120
70th	120	120	130	180	120	90	140	95	98	110	120
80th	140	130	140	230	120	98	150	120	99	120	140
85th	150	140	150	230	130	100	150	150	100	120	150
90th	160	160	150	240	150	110	160	160	110	120	150
95th	180	180	160	260	150	120	170	180	110	160	150
98th	230	180	180	270	150	150	170	200	130	160	150
99th	240	190	190	270	150	150	170	230	150	160	160
Maximum	270	190	190	270	160	160	180	230	150	160	160

(Summary statistics not calculated for formations with fewer than ten values.)

Statistical Summary for Total Data Set

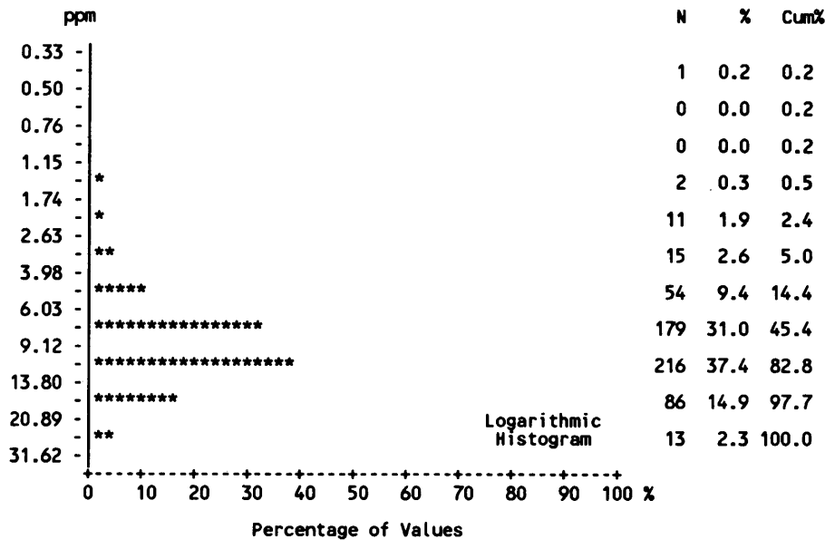


Element Statistics
Element - Samarium [Sm]
Number of Values - 577
Units - ppm
Detection Limit - 0.5
Analytical Method - INAA

	All	PCc	PCau	Kmg	PCk	PCh	PCd	Cbmh	Pl	PCmn	PCal
N	577	105	79	66	65	60	59	48	31	28	26
N > DL	575	105	79	65	65	59	59	48	31	28	26
Missing	0	0	0	0	0	0	0	0	0	0	0
Mean	9.20	9.40	9.49	11.13	8.59	9.71	9.62	8.29	7.51	5.86	10.53
Median	8.60	9.00	9.00	9.40	8.00	8.70	10.00	8.30	7.60	5.40	8.20
Mode	10.00	10.00	10.00	10.00	7.60	7.40	6.90	10.00	8.20	4.20	8.00
Range	34.5	13.6	18.1	34.5	15.1	31.4	18.2	10.1	13.2	7.2	31.5
St Dev	4.05	2.65	3.33	6.11	3.01	5.01	3.23	2.38	2.69	1.75	6.95
Coef Var	0.441	0.282	0.351	0.549	0.350	0.516	0.335	0.287	0.359	0.299	0.660
Log Mean	0.926	0.957	0.956	0.984	0.902	0.931	0.957	0.896	0.843	0.750	0.960
Geo Mean	8.43	9.05	9.05	9.64	7.97	8.54	9.05	7.87	6.96	5.63	9.13
Log StDv	0.190	0.121	0.130	0.259	0.188	0.245	0.161	0.154	0.187	0.127	0.222
Log CVar	0.206	0.127	0.136	0.263	0.208	0.264	0.168	0.173	0.222	0.170	0.232
Percntls											
Minimum	0.5	4.2	5.1	0.5	0.9	0.5	2.9	2.3	1.5	2.8	3.1
10th	5.0	6.3	6.2	6.1	4.8	4.9	5.8	4.5	4.2	4.2	5.3
20th	6.4	7.4	7.1	6.8	6.1	6.2	6.9	6.6	5.1	4.4	6.4
30th	7.4	8.0	7.6	8.2	7.5	6.7	7.6	7.1	6.0	4.6	7.5
40th	7.9	8.5	8.4	8.8	7.7	7.6	8.9	7.6	6.6	5.0	7.8
50th	8.6	9.0	9.0	9.4	8.0	8.7	10.0	8.3	7.6	5.4	8.2
60th	9.3	9.5	9.3	10.7	8.5	9.1	10.4	9.1	8.0	5.9	9.3
70th	10.0	10.2	10.0	11.6	9.3	10.5	10.9	10.0	8.4	6.3	10.1
80th	11.3	11.1	10.5	13.9	11.2	12.9	12.4	10.2	10.0	6.8	12.2
85th	12.3	11.7	11.9	15.9	11.6	13.3	12.7	11.0	10.0	7.9	12.5
90th	13.3	12.9	12.8	17.4	13.0	14.0	13.1	11.1	10.5	8.6	15.3
95th	15.6	14.5	14.8	20.7	13.8	19.8	13.8	11.4	10.7	9.4	28.5
98th	19.8	15.9	17.9	32.1	15.4	21.1	15.0	11.4	12.1	9.4	28.5
99th	23.2	17.8	23.1	32.1	15.4	21.1	15.0	12.4	14.7	10.0	34.6
Maximum	35.0	17.8	23.2	35.0	16.0	31.9	21.1	12.4	14.7	10.0	34.6

(Summary statistics not calculated for formations with fewer than ten values.)

Statistical Summary for Total Data Set



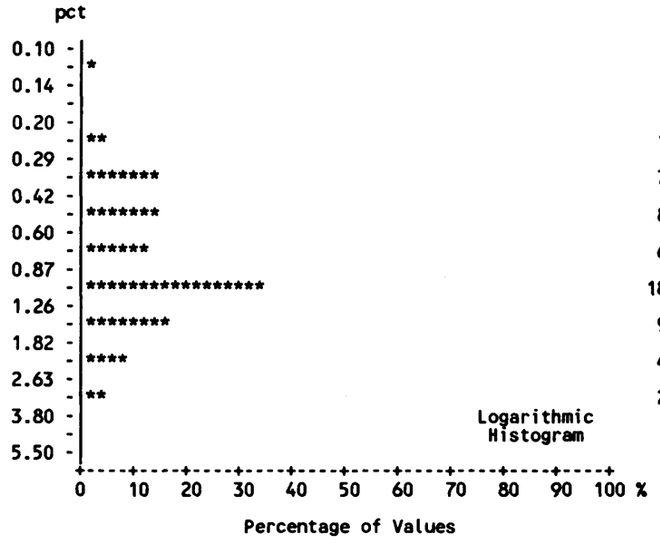
ppm	N	%	Cum%
0.33	1	0.2	0.2
0.50	0	0.0	0.2
0.76	0	0.0	0.2
1.15	2	0.3	0.5
1.74	11	1.9	2.4
2.63	15	2.6	5.0
3.98	54	9.4	14.4
6.03	179	31.0	45.4
9.12	216	37.4	82.8
13.80	86	14.9	97.7
20.89	13	2.3	100.0
31.62			

Element Statistics
Element - Scandium [Sc]
Number of Values - 577
Units - ppm
Detection Limit - 0.5
Analytical Method - INAA

	All	PCc	PCau	Kmg	PCk	PCh	PCd	Cbmh	Pl	PCmn	PCal
N	577	105	79	66	65	60	59	48	31	28	26
N > DL	576	105	79	65	65	60	59	48	31	28	26
Missing	0	0	0	0	0	0	0	0	0	0	0
Mean	10.05	8.71	11.69	7.90	8.50	9.40	9.62	12.19	12.06	9.35	15.00
Median	10.00	8.30	11.00	6.80	8.60	10.00	10.00	12.00	13.00	9.50	15.00
Mode	10.00	10.00	12.00	2.70	10.00	10.00	10.00	11.00	11.00	10.00	15.00
Range	28.5	24.4	20.6	22.9	13.5	16.7	14.3	25.2	17.5	8.6	16.0
St Dev	4.26	3.69	4.22	4.84	2.29	3.24	2.56	5.12	4.07	1.84	3.95
Coef Var	0.424	0.423	0.361	0.613	0.269	0.345	0.266	0.420	0.337	0.197	0.263
Log Mean	0.960	0.904	1.036	0.809	0.910	0.945	0.967	1.041	1.051	0.962	1.162
Geo Mean	9.11	8.02	10.86	6.44	8.12	8.81	9.27	10.98	11.24	9.17	14.52
Log StDv	0.206	0.183	0.180	0.302	0.147	0.164	0.123	0.219	0.180	0.090	0.113
Log CVar	0.214	0.203	0.174	0.374	0.162	0.174	0.127	0.210	0.172	0.094	0.097
Percntls											
Minimum	0.5	1.9	2.3	0.5	1.5	3.3	3.7	1.7	2.7	5.4	8.3
10th	5.3	5.2	6.8	2.6	5.4	4.9	6.2	5.8	6.6	6.7	10.0
20th	6.8	6.2	8.5	3.4	7.1	6.9	7.3	8.5	7.8	7.4	12.0
30th	7.8	7.0	9.3	5.0	7.7	7.3	8.8	9.1	9.2	8.8	13.0
40th	8.7	7.7	10.0	5.9	8.1	8.3	9.1	11.0	11.0	9.2	14.0
50th	10.0	8.3	11.0	6.8	8.6	10.0	10.0	12.0	13.0	9.5	15.0
60th	10.0	9.0	12.0	7.8	8.8	10.0	10.0	14.0	13.0	10.0	15.0
70th	11.0	10.0	13.0	8.9	9.5	11.0	10.0	14.0	14.0	10.0	16.0
80th	13.0	11.0	14.0	12.0	10.0	12.0	11.0	15.0	15.0	10.0	17.0
85th	14.0	11.0	16.0	14.0	10.0	13.0	12.0	16.0	16.0	11.0	18.0
90th	15.0	12.0	17.0	15.0	11.0	13.0	12.0	17.0	17.0	11.0	19.0
95th	18.0	13.0	20.0	17.0	13.0	14.0	13.0	21.5	17.0	12.0	23.3
98th	21.4	20.0	20.2	18.0	13.0	15.0	16.0	23.8	19.0	12.0	23.3
99th	23.4	24.3	21.7	18.0	13.0	15.0	16.0	26.9	20.2	14.0	24.3
Maximum	29.0	26.3	22.9	23.4	15.0	20.0	18.0	26.9	20.2	14.0	24.3

(Summary statistics not calculated for formations with fewer than ten values.)

Statistical Summary for Total Data Set



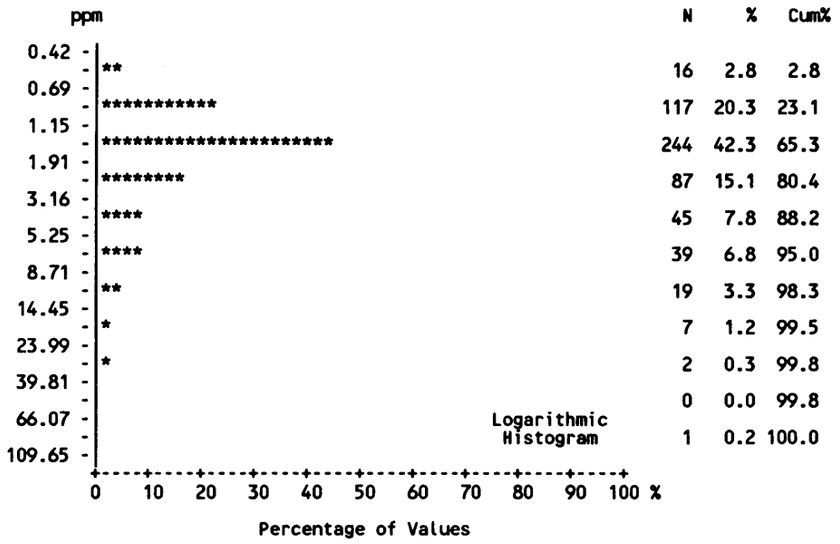
	N	%	Cum%
	4	0.7	0.7
	0	0.0	0.7
	14	2.4	3.1
	73	12.7	15.8
	80	13.9	29.6
	64	11.1	40.7
	186	32.2	73.0
	92	15.9	88.9
	40	6.9	95.8
	24	4.2	100.0

Element Statistics
Element - Sodium [Na]
Number of Values - 577
Units - pct
Detection Limit - 0.1
Analytical Method - INAA

	All	PCc	PCau	Kmg	PCk	PCh	PCd	Cbmh	Pl	PCmn	PCal
N	577	105	79	66	65	60	59	48	31	28	26
N > DL	573	105	79	65	64	60	58	47	31	28	26
Missing	0	0	0	0	0	0	0	0	0	0	0
Mean	1.07	1.07	1.22	2.14	0.75	0.70	0.62	0.96	1.02	0.38	1.39
Median	1.00	1.00	1.10	2.10	0.60	0.60	0.60	0.90	1.00	0.30	1.20
Mode	1.20	0.90	1.20	2.00	0.50	0.60	0.30	0.90	0.40	0.30	1.20
Range	3.6	3.4	2.4	3.3	1.7	2.3	2.2	1.9	2.0	0.7	1.8
St Dev	0.66	0.50	0.45	0.72	0.41	0.40	0.37	0.45	0.54	0.17	0.41
Coef Var	0.620	0.467	0.371	0.337	0.546	0.569	0.600	0.467	0.531	0.451	0.293
Log Mean	-0.056	-0.006	0.065	0.292	-0.193	-0.213	-0.284	-0.076	-0.064	-0.451	0.128
Geo Mean	0.88	0.99	1.16	1.96	0.64	0.61	0.52	0.84	0.86	0.35	1.34
Log StDv	0.282	0.173	0.132	0.221	0.258	0.219	0.262	0.248	0.268	0.164	0.111
Log CVar	-5.133	-34.561	2.060	0.758	-1.343	-1.027	-0.924	-3.269	-4.259	-0.364	0.872
Percntls											
Minimum	0.1	0.3	0.6	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.9
10th	0.3	0.6	0.9	1.1	0.3	0.3	0.2	0.4	0.4	0.2	1.0
20th	0.5	0.7	0.9	1.5	0.4	0.4	0.3	0.5	0.4	0.3	1.1
30th	0.7	0.9	1.0	1.8	0.5	0.5	0.3	0.6	0.6	0.3	1.2
40th	0.8	0.9	1.1	1.9	0.5	0.5	0.5	0.8	0.8	0.3	1.2
50th	1.0	1.0	1.1	2.1	0.6	0.6	0.6	0.9	1.0	0.3	1.2
60th	1.1	1.0	1.2	2.5	0.8	0.7	0.6	1.0	1.2	0.3	1.3
70th	1.2	1.2	1.2	2.6	0.9	0.8	0.7	1.3	1.2	0.4	1.4
80th	1.4	1.3	1.3	2.7	1.1	0.9	0.9	1.4	1.5	0.4	1.6
85th	1.7	1.3	1.4	2.9	1.2	1.0	1.0	1.4	1.6	0.5	1.7
90th	2.0	1.6	1.7	3.0	1.4	1.1	1.0	1.5	1.7	0.6	1.7
95th	2.5	1.8	2.1	3.2	1.4	1.4	1.1	1.7	1.8	0.8	2.3
98th	3.0	2.7	2.7	3.4	1.7	1.6	1.2	1.8	2.0	0.8	2.3
99th	3.1	3.0	3.0	3.4	1.7	1.6	1.2	2.0	2.2	0.9	2.7
Maximum	3.7	3.7	3.0	3.4	1.8	2.5	2.3	2.0	2.2	0.9	2.7

(Summary statistics not calculated for formations with fewer than ten values.)

Statistical Summary for Total Data Set



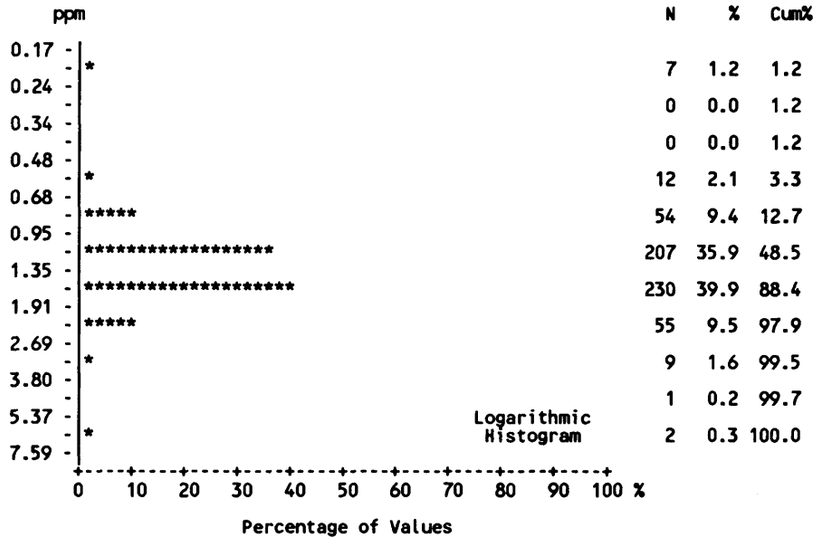
ppm	N	%	Cum%
0.42	16	2.8	2.8
0.69	117	20.3	23.1
1.15	244	42.3	65.3
1.91	87	15.1	80.4
3.16	45	7.8	88.2
5.25	39	6.8	95.0
8.71	19	3.3	98.3
14.45	7	1.2	99.5
23.99	2	0.3	99.8
39.81	0	0.0	99.8
66.07	1	0.2	100.0
109.65			

Element Statistics
Element - Tantalum [Ta]
Number of Values - 577
Units - ppm
Detection Limit - 0.5
Analytical Method - INAA

	All	PCc	PCau	Kmg	PCk	PCh	PCd	Cbmh	Pl	PCmn	PCal
N	577	105	79	66	65	60	59	48	31	28	26
N > DL	571	105	79	65	64	60	59	47	31	28	25
Missing	0	0	0	0	0	0	0	0	0	0	0
Mean	2.78	2.06	2.45	9.41	1.74	1.47	1.36	2.49	2.46	0.99	1.88
Median	1.60	1.80	1.70	7.60	1.20	1.30	1.30	2.10	1.50	0.90	1.40
Mode	1.30	1.30	1.20	10.00	1.20	1.30	1.40	1.60	1.80	0.70	1.30
Range	70.7	6.6	17.4	70.7	7.3	5.5	2.1	7.2	7.9	0.9	5.4
St Dev	4.30	1.17	2.35	9.73	1.45	0.88	0.43	1.65	2.02	0.27	1.29
Coef Var	1.547	0.568	0.960	1.034	0.832	0.600	0.317	0.664	0.819	0.269	0.683
Log Mean	0.276	0.260	0.296	0.827	0.157	0.123	0.114	0.320	0.278	-0.020	0.208
Geo Mean	1.89	1.82	1.98	6.72	1.43	1.33	1.30	2.09	1.90	0.96	1.61
Log StDv	0.325	0.213	0.253	0.368	0.240	0.180	0.138	0.257	0.305	0.117	0.233
Log CVar	1.183	0.821	0.857	0.445	1.539	1.463	1.220	0.804	1.100	-6.142	1.127
Percntls											
Minimum	0.5	0.6	0.6	0.5	0.5	0.6	0.6	0.5	0.6	0.6	0.5
10th	0.9	1.0	1.2	1.9	0.9	0.9	0.9	0.9	0.9	0.7	0.9
20th	1.1	1.3	1.3	3.7	1.0	1.0	1.0	1.5	1.1	0.7	1.1
30th	1.2	1.4	1.4	4.4	1.1	1.1	1.1	1.6	1.2	0.8	1.3
40th	1.4	1.6	1.6	6.0	1.2	1.2	1.2	1.8	1.3	0.9	1.3
50th	1.6	1.8	1.7	7.6	1.2	1.3	1.3	2.1	1.5	0.9	1.4
60th	1.8	2.0	1.8	9.1	1.3	1.4	1.4	2.2	1.8	1.0	1.8
70th	2.2	2.3	2.4	10.0	1.6	1.5	1.4	2.6	2.3	1.1	1.9
80th	3.1	2.7	2.8	13.0	1.7	1.7	1.6	2.8	4.4	1.2	2.1
85th	4.0	3.0	3.2	14.0	2.0	1.8	1.8	3.4	4.5	1.3	2.4
90th	6.0	3.2	3.8	16.0	3.7	1.9	1.9	4.7	5.1	1.3	2.4
95th	8.5	3.7	6.0	20.0	4.2	2.6	2.1	6.7	5.1	1.5	5.7
98th	14.0	6.2	8.1	31.0	7.3	4.8	2.4	7.2	7.4	1.5	5.7
99th	17.0	6.2	8.8	31.0	7.3	4.8	2.4	7.7	8.5	1.5	5.9
Maximum	71.2	7.2	18.0	71.2	7.8	6.1	2.7	7.7	8.5	1.5	5.9

(Summary statistics not calculated for formations with fewer than ten values.)

Statistical Summary for Total Data Set

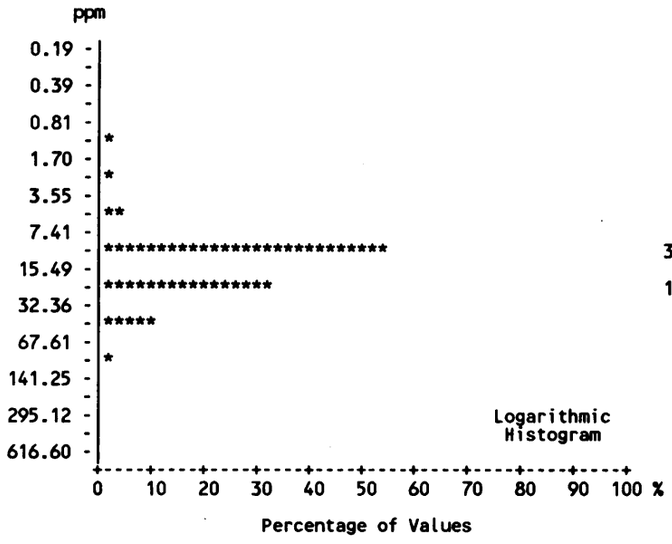


Element Statistics
Element - Terbium [Tb]
Number of Values - 577
Units - ppm
Detection Limit - 0.2
Analytical Method - INAA

	All	PCc	PCau	Kmg	PCk	PCh	PCd	Cbmh	Pl	PCmn	PCal
N	577	105	79	66	65	60	59	48	31	28	26
N > DL	570	105	79	65	64	60	59	46	30	27	26
Missing	0	0	0	0	0	0	0	0	0	0	0
Mean	1.43	1.50	1.54	1.57	1.36	1.34	1.50	1.25	1.24	1.01	1.96
Median	1.40	1.50	1.50	1.30	1.30	1.20	1.50	1.30	1.10	1.00	1.50
Mode	1.30	1.50	1.50	1.20	1.30	1.10	1.10	1.40	0.70	0.90	1.30
Range	6.4	2.9	1.7	4.3	1.9	2.5	2.2	1.9	2.5	1.4	5.9
St Dev	0.57	0.42	0.33	0.76	0.32	0.47	0.42	0.37	0.58	0.30	1.43
Coef Var	0.400	0.281	0.212	0.485	0.232	0.353	0.280	0.296	0.467	0.297	0.731
Log Mean	0.125	0.160	0.179	0.149	0.118	0.105	0.157	0.068	0.042	-0.021	0.224
Geo Mean	1.33	1.44	1.51	1.41	1.31	1.27	1.43	1.17	1.10	0.95	1.68
Log StDv	0.170	0.117	0.091	0.210	0.135	0.141	0.133	0.195	0.227	0.166	0.222
Log CVar	1.361	0.735	0.507	1.412	1.146	1.357	0.850	2.906	5.403	-7.921	0.992
Percntls											
Minimum	0.2	0.7	0.9	0.2	0.2	0.6	0.6	0.2	0.2	0.2	0.7
10th	0.9	1.1	1.2	0.9	1.0	0.8	1.0	0.8	0.6	0.7	1.1
20th	1.1	1.1	1.3	1.0	1.1	1.0	1.1	1.1	0.7	0.8	1.2
30th	1.2	1.2	1.4	1.2	1.2	1.1	1.2	1.1	0.8	0.9	1.3
40th	1.3	1.4	1.5	1.2	1.3	1.1	1.4	1.2	0.9	0.9	1.3
50th	1.4	1.5	1.5	1.3	1.3	1.2	1.5	1.3	1.1	1.0	1.5
60th	1.5	1.5	1.6	1.5	1.4	1.3	1.6	1.4	1.3	1.0	1.6
70th	1.6	1.7	1.7	1.6	1.4	1.4	1.7	1.4	1.4	1.1	1.8
80th	1.7	1.8	1.8	2.2	1.6	1.7	1.8	1.5	1.7	1.1	2.1
85th	1.8	1.9	1.8	2.4	1.6	1.8	1.9	1.6	1.7	1.2	2.5
90th	2.0	2.1	1.9	2.5	1.8	2.0	2.0	1.6	2.0	1.4	2.5
95th	2.3	2.2	2.1	2.9	1.9	2.1	2.0	1.8	2.1	1.6	6.3
98th	2.6	2.3	2.3	3.6	2.0	2.6	2.2	2.0	2.5	1.6	6.3
99th	3.3	2.4	2.5	3.6	2.0	2.6	2.2	2.1	2.7	1.6	6.6
Maximum	6.6	3.6	2.6	4.5	2.1	3.1	2.8	2.1	2.7	1.6	6.6

(Summary statistics not calculated for formations with fewer than ten values.)

Statistical Summary for Total Data Set



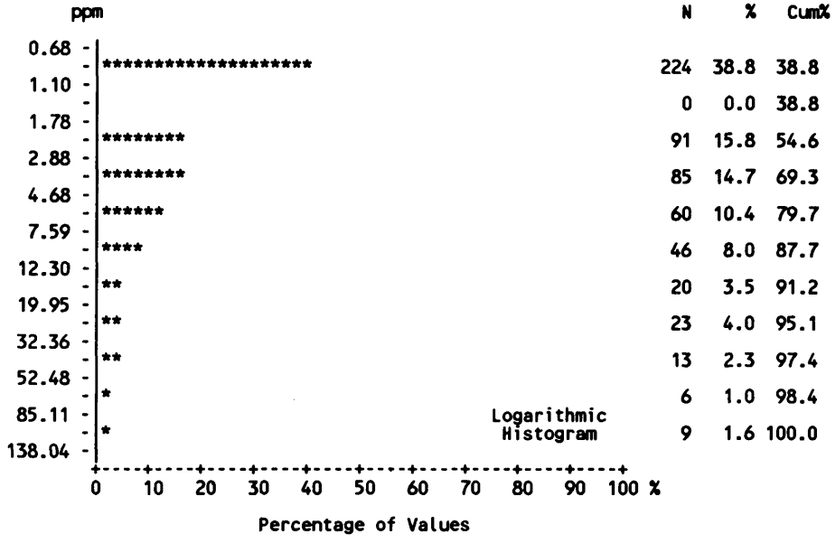
	N	%	Cum%
	1	0.2	0.2
	0	0.0	0.2
*	2	0.3	0.5
*	2	0.3	0.9
**	18	3.1	4.0
**********	303	52.5	56.5
**********	185	32.1	88.6
*****	54	9.4	97.9
*	10	1.7	99.7
	1	0.2	99.8
	1	0.2	100.0

Element Statistics
Element - Thorium [Th]
Number of Values - 577
Units - ppm
Detection Limit - 0.2
Analytical Method - INAA

	All	PCc	PCau	Kmg	PCk	PCh	PCd	Cbmh	Pl	PCmn	PCal
N	577	105	79	66	65	60	59	48	31	28	26
N > DL	576	105	79	65	65	60	59	48	31	28	26
Missing	0	0	0	0	0	0	0	0	0	0	0
Mean	19.29	16.71	17.70	47.34	15.16	18.27	15.96	14.50	12.95	10.90	13.01
Median	14.00	14.00	13.00	39.80	13.00	16.00	16.00	13.00	13.00	10.00	11.00
Mode	11.00	11.00	11.00	16.00	13.00	14.00	19.00	12.00	14.00	12.00	10.00
Range	307.8	96.4	94.9	307.8	47.3	43.8	24.9	37.4	31.5	10.8	37.8
St Dev	19.59	11.44	13.84	42.46	7.68	8.79	4.56	6.45	5.61	2.73	7.06
Coef Var	1.016	0.685	0.782	0.897	0.507	0.481	0.286	0.445	0.434	0.250	0.542
Log Mean	1.193	1.175	1.182	1.553	1.138	1.223	1.184	1.125	1.073	1.025	1.056
Geo Mean	15.60	14.97	15.20	35.74	13.74	16.72	15.29	13.34	11.84	10.58	11.37
Log StDv	0.261	0.179	0.210	0.389	0.197	0.177	0.134	0.178	0.195	0.109	0.249
Log CVar	0.218	0.152	0.178	0.250	0.173	0.144	0.113	0.158	0.182	0.106	0.236
Percntls											
Minimum	0.2	7.6	7.1	0.2	1.6	8.2	5.9	4.4	2.9	6.2	1.5
10th	9.0	10.0	10.0	16.0	9.3	10.0	10.0	8.7	6.0	7.4	6.8
20th	11.0	11.0	11.0	20.8	11.0	12.0	12.0	10.0	8.8	8.5	8.7
30th	12.0	12.0	11.0	26.6	12.0	13.0	13.0	11.0	10.0	9.2	10.0
40th	13.0	13.0	12.0	32.9	13.0	14.0	15.0	12.0	11.0	10.0	10.0
50th	14.0	14.0	13.0	39.8	13.0	16.0	16.0	13.0	13.0	10.0	11.0
60th	16.0	15.0	15.0	45.1	14.0	18.0	17.0	15.0	14.0	12.0	12.0
70th	18.0	16.0	16.0	49.5	15.0	19.0	18.0	16.0	14.0	12.0	15.0
80th	20.8	18.0	18.0	58.0	17.0	21.6	19.0	17.0	16.0	12.0	15.0
85th	25.4	20.0	20.0	66.1	20.0	25.9	19.0	19.0	16.0	14.0	16.0
90th	34.4	22.5	32.2	78.6	22.1	28.5	21.1	19.0	18.0	15.0	19.0
95th	48.1	34.3	37.8	100.0	27.5	33.7	22.4	26.8	18.0	16.0	23.4
98th	66.1	44.5	58.5	148.0	46.3	44.5	24.9	28.4	20.0	16.0	23.4
99th	90.3	53.1	59.3	148.0	46.3	44.5	24.9	41.8	34.4	17.0	39.3
Maximum	308.0	104.0	102.0	308.0	48.9	52.0	30.8	41.8	34.4	17.0	39.3

(Summary statistics not calculated for formations with fewer than ten values.)

Statistical Summary for Total Data Set

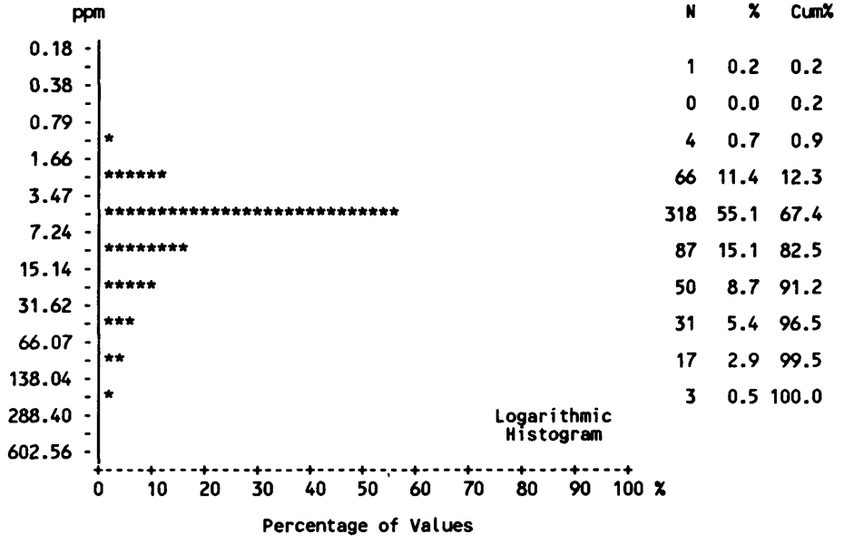


Element Statistics
Element - Tungsten [W]
Number of Values - 577
Units - ppm
Detection Limit - 1
Analytical Method - INAA

	All	PCc	PCau	Kmg	PCk	PCh	PCd	Cbmh	Pl	PCmn	PCal
N	577	105	79	66	65	60	59	48	31	28	26
N > DL	353	76	69	60	31	24	31	23	10	3	25
Missing	0	0	0	0	0	0	0	0	0	0	0
Mean	7.3	5.4	9.2	15.8	3.2	2.0	2.6	3.3	2.9	1.1	42.0
Median	2.0	3.0	5.0	7.0	1.0	1.0	2.0	1.0	1.0	1.0	20.0
Mode	1.0	1.0	3.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	7.0
Range	129	40	99	89	34	8	32	12	14	1	129
St Dev	15.78	7.15	14.60	20.01	5.38	1.77	4.42	3.70	3.55	0.31	43.64
Coef Var	2.168	1.321	1.585	1.269	1.696	0.883	1.693	1.118	1.224	0.284	1.038
Log Mean	0.464	0.496	0.695	0.880	0.264	0.195	0.248	0.317	0.251	0.032	1.353
Geo Mean	2.9	3.1	5.0	7.6	1.8	1.6	1.8	2.1	1.8	1.1	22.5
Log StDv	0.508	0.429	0.453	0.548	0.373	0.276	0.308	0.394	0.392	0.095	0.541
Log CVar	1.095	0.865	0.653	0.622	1.412	1.425	1.242	1.244	1.563	2.963	0.400
Percntls											
Minimum	1	1	1	1	1	1	1	1	1	1	1
10th	1	1	1	2	1	1	1	1	1	1	5
20th	1	1	2	2	1	1	1	1	1	1	7
30th	1	2	3	3	1	1	1	1	1	1	13
40th	2	2	3	5	1	1	1	1	1	1	15
50th	2	3	5	7	1	1	2	1	1	1	20
60th	3	3	5	11	2	1	2	2	1	1	24
70th	5	5	7	12	2	2	2	3	3	1	47
80th	8	8	11	29	3	2	3	4	5	1	93
85th	11	10	15	33	4	3	3	7	5	1	96
90th	15	13	21	36	8	4	4	10	7	1	110
95th	30	21	29	62	13	6	5	12	9	2	130
98th	62	30	40	83	21	7	12	13	12	2	130
99th	93	36	65	83	21	7	12	13	15	2	130
Maximum	130	41	100	90	35	9	33	13	15	2	130

(Summary statistics not calculated for formations with fewer than ten values.)

Statistical Summary for Total Data Set



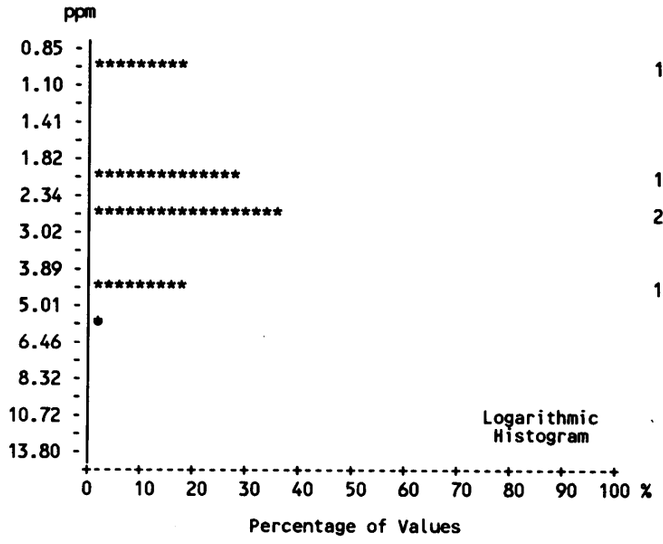
ppm	N	%	Cum%
0.18	1	0.2	0.2
0.38	0	0.0	0.2
0.79	4	0.7	0.9
1.66	66	11.4	12.3
3.47	318	55.1	67.4
7.24	87	15.1	82.5
15.14	50	8.7	91.2
31.62	31	5.4	96.5
66.07	17	2.9	99.5
138.04	3	0.5	100.0
288.40			
602.56			

Element Statistics
Element - Uranium [U]
Number of Values - 577
Units - ppm
Detection Limit - 0.2
Analytical Method - INAA

	All	PCc	PCau	Kmg	PCk	PCh	PCd	Cbmh	Pl	PCmn	PCal
N	577	105	79	66	65	60	59	48	31	28	26
N > DL	576	105	79	65	65	60	59	48	31	28	26
Missing	0	0	0	0	0	0	0	0	0	0	0
Mean	12.95	11.19	7.50	47.85	11.01	7.54	5.82	7.99	7.35	3.51	10.62
Median	5.50	6.30	5.60	35.30	5.00	4.60	5.20	4.40	4.40	3.00	5.40
Mode	11.00	7.00	11.00	17.00	3.80	4.10	5.20	4.00	3.60	3.20	3.40
Range	282.8	280.8	26.9	199.8	111.3	78.4	17.3	38.4	47.1	6.7	36.5
St Dev	23.70	27.70	5.15	40.72	19.16	11.24	2.96	8.54	9.50	1.49	10.43
Coef Var	1.830	2.476	0.687	0.851	1.740	1.491	0.508	1.069	1.293	0.423	0.982
Log Mean	0.858	0.856	0.807	1.512	0.810	0.737	0.728	0.763	0.713	0.520	0.864
Geo Mean	7.22	7.18	6.41	32.49	6.46	5.46	5.34	5.79	5.17	3.31	7.31
Log StDv	0.392	0.305	0.226	0.454	0.356	0.275	0.168	0.311	0.312	0.140	0.366
Log CVar	0.457	0.356	0.281	0.301	0.440	0.373	0.231	0.408	0.437	0.270	0.424
Percntls											
Minimum	0.2	2.2	3.0	0.2	1.7	2.4	2.8	1.6	1.6	2.3	1.6
10th	3.2	3.5	3.6	10.0	3.8	3.3	3.3	3.0	2.3	2.5	3.4
20th	3.8	4.2	4.3	18.0	4.0	3.5	3.9	3.6	3.1	2.6	3.8
30th	4.3	4.6	4.7	23.9	4.3	3.9	4.4	4.0	3.6	2.7	4.7
40th	4.9	5.6	5.0	27.1	4.6	4.1	5.1	4.1	3.8	2.9	5.0
50th	5.5	6.3	5.6	35.3	5.0	4.6	5.2	4.4	4.4	3.0	5.4
60th	6.4	7.0	5.9	38.0	5.3	5.0	5.3	5.0	5.2	3.2	5.9
70th	7.9	8.6	6.9	57.1	6.3	5.8	5.8	6.2	6.4	3.3	7.5
80th	13.0	11.0	10.0	77.7	9.0	6.8	6.5	7.8	7.0	3.6	20.0
85th	19.0	13.0	11.0	89.1	11.0	7.9	6.7	15.0	7.2	4.1	23.3
90th	28.9	16.0	14.0	100.0	16.0	11.0	8.0	16.0	7.2	4.5	24.3
95th	43.2	29.1	17.0	132.0	48.6	18.0	11.0	24.7	19.0	6.5	36.2
98th	89.1	33.3	20.0	147.0	88.0	42.8	15.0	37.9	31.3	6.5	36.2
99th	121.0	43.0	28.2	147.0	88.0	42.8	15.0	40.0	48.7	9.0	38.1
Maximum	283.0	283.0	29.9	200.0	113.0	80.8	20.1	40.0	48.7	9.0	38.1

(Summary statistics not calculated for formations with fewer than ten values.)

Statistical Summary for Total Data Set



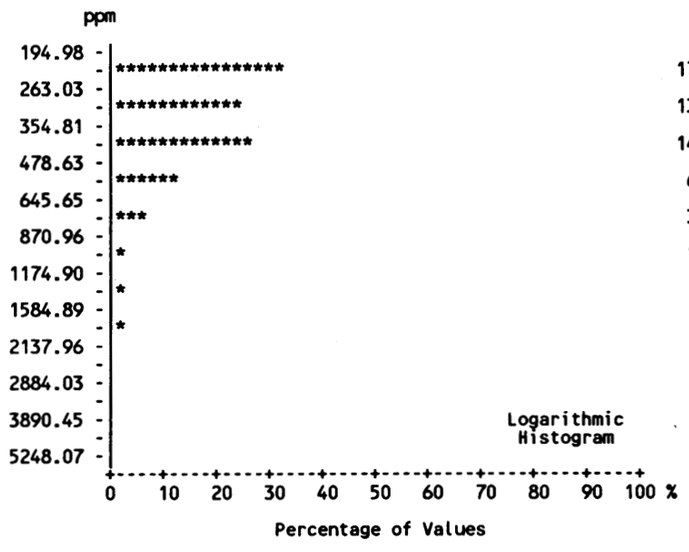
	N	%	Cum%
*********	105	18.2	18.2
	0	0.0	18.2
	0	0.0	18.2
**********	159	27.6	45.8
**********	202	35.0	80.8
	0	0.0	80.8
*********	101	17.5	98.3
*	8	1.4	99.7
	0	0.0	99.7
	0	0.0	99.7
	1	0.2	99.8

Element Statistics
Element - Ytterbium [Yb]
Number of Values - 577
Units - ppm
Detection Limit - 1
Analytical Method - INAA

	All	PCc	PCau	Kmg	PCk	PCh	PCd	Cbmh	Pl	PCmn	PCal
N	577	105	79	66	65	60	59	48	31	28	26
N > DL	472	98	69	36	63	48	55	34	21	18	24
Missing	0	0	0	0	0	0	0	0	0	0	0
Mean	2.6	3.0	3.1	2.0	2.7	2.2	3.0	2.0	2.3	1.9	4.2
Median	3.0	3.0	3.0	2.0	3.0	2.0	3.0	2.0	2.0	2.0	3.0
Mode	3.0	3.0	3.0	1.0	3.0	2.0	3.0	2.0	1.0	2.0	3.0
Range	13	4	5	5	3	5	5	3	5	3	13
St Dev	1.25	0.99	1.05	1.20	0.68	0.96	0.99	0.84	1.26	0.80	2.79
Coef Var	0.476	0.327	0.344	0.610	0.251	0.431	0.329	0.415	0.560	0.433	0.665
Log Mean	0.372	0.450	0.450	0.228	0.417	0.310	0.452	0.266	0.291	0.229	0.552
Geo Mean	2.4	2.8	2.8	1.7	2.6	2.0	2.8	1.8	2.0	1.7	3.6
Log StDv	0.213	0.169	0.193	0.235	0.123	0.189	0.168	0.192	0.237	0.190	0.250
Log CVar	0.572	0.375	0.429	1.035	0.295	0.612	0.372	0.722	0.815	0.831	0.453
Percntls											
Minimum	1	1	1	1	1	1	1	1	1	1	1
10th	1	2	1	1	2	1	2	1	1	1	2
20th	2	2	3	1	2	1	2	1	1	1	3
30th	2	3	3	1	2	2	3	1	1	1	3
40th	2	3	3	1	3	2	3	2	2	2	3
50th	3	3	3	2	3	2	3	2	2	2	3
60th	3	3	3	2	3	2	3	2	2	2	4
70th	3	4	3	2	3	3	3	2	3	2	4
80th	3	4	4	3	3	3	4	3	3	2	5
85th	4	4	4	3	3	3	4	3	3	3	5
90th	4	4	4	3	3	3	4	3	4	3	6
95th	4	4	5	4	4	4	4	3	4	3	11
98th	5	5	5	6	4	4	5	4	5	3	11
99th	6	5	5	6	4	4	5	4	6	4	14
Maximum	14	5	6	6	4	6	6	4	6	4	14

(Summary statistics not calculated for formations with fewer than ten values.)

Statistical Summary for Total Data Set



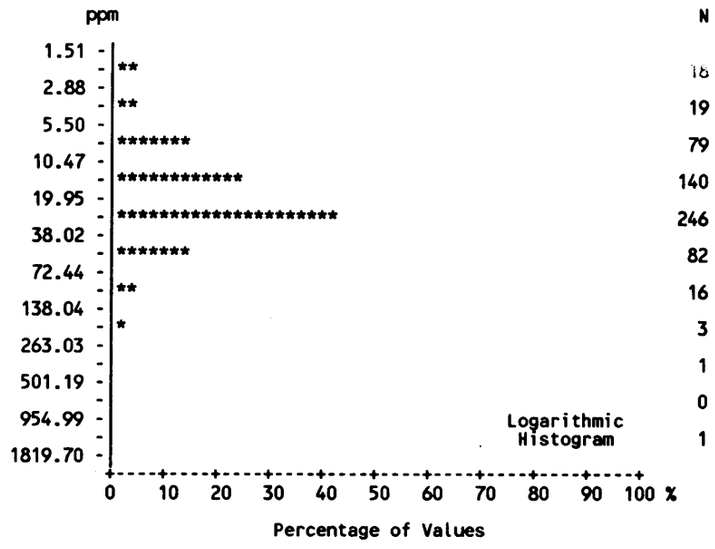
	N	%	Cum%
**********	177	30.7	30.7
**********	134	23.2	53.9
**********	148	25.6	79.5
******	62	10.7	90.3
***	30	5.2	95.5
*	12	2.1	97.6
*	8	1.4	99.0
*	5	0.9	99.8
	0	0.0	99.8
	1	0.2	100.0

Element Statistics
Element - Zirconium [Zr]
Number of Values - 577
Units - ppm
Detection Limit - 200
Analytical Method - INAA

	All	PCc	PCau	Kmg	PCk	PCh	PCd	Cbmh	Pl	PCmn	PCal
N	577	105	79	66	65	60	59	48	31	28	26
N > DL	481	86	65	55	55	58	54	44	23	19	17
Missing	0	0	0	0	0	0	0	0	0	0	0
Mean	401.9	334.9	367.2	634.4	377.4	477.7	355.1	433.7	367.7	281.1	318.8
Median	340.0	310.0	340.0	390.0	310.0	410.0	330.0	400.0	320.0	260.0	260.0
Mode	200.0	200.0	200.0	200.0	200.0	270.0	200.0	200.0	200.0	200.0	200.0
Range	3500	470	1100	3500	1600	1200	640	770	570	310	530
St Dev	278.81	116.29	184.29	590.38	272.49	233.59	129.09	195.32	163.07	88.58	138.54
Coef Var	0.694	0.347	0.502	0.931	0.722	0.489	0.364	0.450	0.443	0.315	0.435
Log Mean	2.547	2.500	2.528	2.674	2.521	2.636	2.525	2.597	2.527	2.431	2.469
Geo Mean	352.1	316.2	337.1	471.8	332.0	432.1	334.6	395.4	336.7	269.5	294.4
Log StDv	0.204	0.147	0.170	0.320	0.193	0.192	0.149	0.188	0.183	0.125	0.172
Log CVar	0.080	0.059	0.067	0.120	0.077	0.073	0.059	0.072	0.072	0.051	0.070
Percntls											
Minimum	200	200	200	200	200	200	200	200	200	200	200
10th	200	200	200	200	200	240	210	210	200	200	200
20th	220	210	210	220	240	290	240	250	200	200	200
30th	260	250	280	260	250	340	260	300	250	200	200
40th	300	290	310	330	290	390	300	380	290	240	210
50th	340	310	340	390	310	410	330	400	320	260	260
60th	380	360	360	600	330	450	360	430	360	290	340
70th	420	400	390	670	380	510	410	460	440	290	360
80th	480	420	430	930	410	620	430	530	500	320	430
85th	550	440	470	990	440	640	480	630	520	380	470
90th	640	480	530	1300	570	800	540	700	630	400	480
95th	840	560	630	1900	680	910	560	820	670	490	530
98th	1200	620	700	1900	1600	1000	610	960	700	490	530
99th	1500	640	1200	1900	1600	1000	610	970	770	510	730
Maximum	3700	670	1300	3700	1800	1400	840	970	770	510	730

(Summary statistics not calculated for formations with fewer than ten values.)

Statistical Summary for Total Data Set



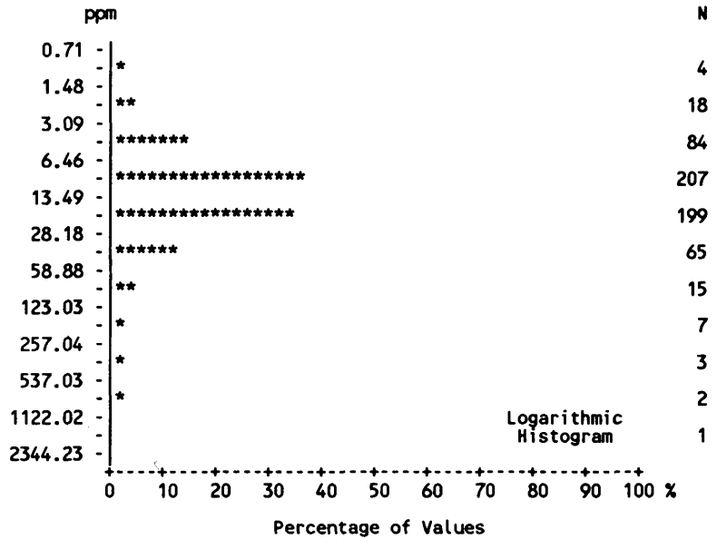
	N	%	Cum%
**	18	3.0	3.0
**	19	3.1	6.1
*******	79	13.1	19.2
**********	140	23.1	42.3
*********************	246	40.7	83.0
*******	82	13.6	96.5
**	16	2.6	99.2
*	3	0.5	99.7
	1	0.2	99.8
	0	0.0	99.8
	1	0.2	100.0

Element Statistics
Element - Copper [Cu]
Number of Values - 605
Units - ppm
Detection Limit - 2
Analytical Method - AAS

	All	PCc	PCau	PCk	Kmg	PCd	PCh	Cbmh	Pl	PCmn	PCal
N	605	114	82	69	68	64	60	48	31	30	29
N > DL	587	111	80	69	56	64	59	48	31	30	29
Missing	0	0	0	0	0	0	0	0	0	0	0
Mean	28.3	21.7	29.5	22.2	10.8	31.5	26.7	23.8	33.4	27.9	106.0
Median	22.0	16.0	26.0	19.0	7.0	30.0	22.0	22.0	28.0	28.0	44.0
Mode	14.0	14.0	24.0	18.0	2.0	38.0	10.0	22.0	16.0	28.0	15.0
Range	1198	102	84	78	124	79	80	50	72	40	1192
St Dev	53.16	16.11	17.71	13.06	16.29	14.98	17.43	13.31	18.78	10.09	220.36
Coef Var	1.878	0.741	0.600	0.589	1.509	0.476	0.653	0.558	0.562	0.362	2.078
Log Mean	1.300	1.241	1.380	1.286	0.843	1.444	1.324	1.301	1.467	1.416	1.719
Geo Mean	19.9	17.4	24.0	19.3	7.0	27.8	21.1	20.0	29.3	26.1	52.4
Log StDv	0.354	0.298	0.316	0.226	0.373	0.235	0.326	0.278	0.220	0.168	0.444
Log CVar	0.273	0.240	0.229	0.176	0.443	0.163	0.247	0.214	0.150	0.119	0.259
Percntls											
Minimum	2	2	2	6	2	4	2	4	12	12	8
10th	8	9	10	10	2	14	8	6	16	12	15
20th	12	11	16	12	4	20	10	14	18	20	25
30th	14	13	22	16	4	23	16	16	22	22	29
40th	18	14	24	18	6	28	18	18	24	26	32
50th	22	16	26	19	7	30	22	22	28	28	44
60th	26	20	30	21	8	32	26	22	30	28	54
70th	30	24	32	24	10	38	30	26	38	31	72
80th	38	28	40	28	14	38	42	34	46	32	86
85th	41	34	44	32	14	42	48	40	48	41	152
90th	50	40	53	38	18	52	52	42	62	42	170
95th	62	53	66	47	31	54	58	50	70	46	315
98th	84	61	80	56	47	77	64	50	78	46	315
99th	104	90	84	56	47	77	64	54	84	52	1200
Maximum	1200	104	86	84	126	83	82	54	84	52	1200

(Summary statistics not calculated for formations with fewer than ten values.)

Statistical Summary for Total Data Set



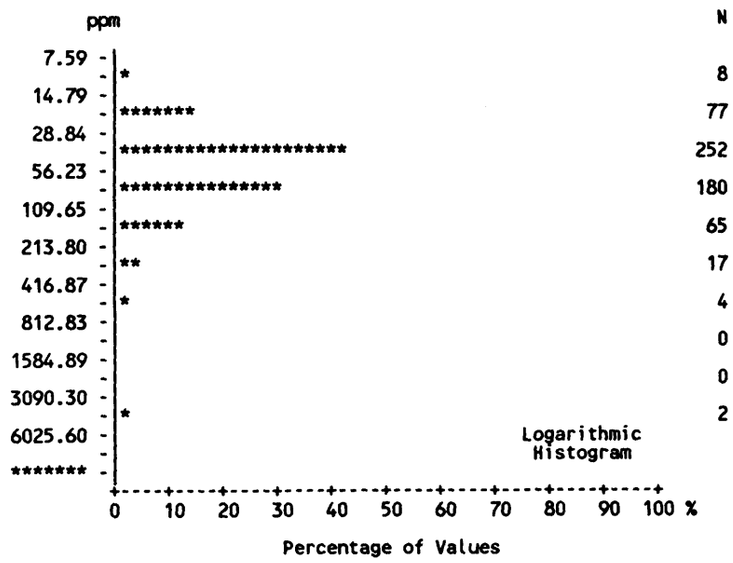
	N	%	Cum%
*	4	0.7	0.7
**	18	3.0	3.6
*******	84	13.9	17.5
******************	207	34.2	51.7
*****************	199	32.9	84.6
******	65	10.7	95.4
**	15	2.5	97.9
*	7	1.2	99.0
*	3	0.5	99.5
*	2	0.3	99.8
	1	0.2	100.0

Element Statistics
Element - Lead [Pb]
Number of Values - 605
Units - ppm
Detection Limit - 2
Analytical Method - AAS

	All	PCc	PCau	PCk	Kmg	PCd	PCh	Cbmh	Pl	PCmn	PCal
N	605	114	82	69	68	64	60	48	31	30	29
N > DL	595	112	79	67	67	64	59	48	31	30	28
Missing	0	0	0	0	0	0	0	0	0	0	0
Mean	24.7	18.4	25.6	17.1	14.1	30.5	37.5	13.1	17.6	24.1	77.4
Median	13.0	10.0	15.0	15.0	8.0	25.0	12.0	12.0	14.0	13.0	19.0
Mode	9.0	7.0	6.0	10.0	6.0	25.0	15.0	15.0	13.0	10.0	10.0
Range	1449	298	219	94	334	127	1448	35	97	177	697
St Dev	75.68	37.20	35.92	14.66	39.90	24.81	185.81	7.01	17.30	36.83	172.17
Coef Var	3.069	2.027	1.402	0.855	2.830	0.814	4.962	0.534	0.981	1.528	2.224
Log Mean	1.130	1.053	1.181	1.118	0.943	1.372	1.062	1.058	1.126	1.171	1.391
Geo Mean	13.5	11.3	15.2	13.1	8.8	23.6	11.5	11.4	13.4	14.8	24.6
Log StDv	0.382	0.357	0.430	0.332	0.283	0.316	0.402	0.240	0.321	0.370	0.589
Log CVar	0.338	0.339	0.364	0.297	0.300	0.230	0.378	0.226	0.286	0.316	0.424
Percntls											
Minimum	1	1	1	1	2	3	2	3	3	3	1
10th	5	5	5	5	5	9	4	5	5	6	7
20th	7	6	7	7	6	12	5	7	7	8	10
30th	9	7	9	10	6	17	8	8	8	10	11
40th	10	9	12	13	7	21	10	11	13	10	15
50th	13	10	15	15	8	25	12	12	14	13	19
60th	15	13	18	17	9	27	14	14	17	14	28
70th	18	15	23	19	10	32	15	15	20	15	32
80th	25	19	33	22	12	39	17	17	22	23	36
85th	29	24	36	25	14	45	19	19	23	32	58
90th	36	29	42	26	16	54	22	21	26	37	115
95th	56	42	89	33	22	90	31	25	30	125	650
98th	125	51	145	71	26	119	73	29	37	125	650
99th	255	270	173	71	26	119	73	38	100	180	698
Maximum	1450	299	220	95	336	130	1450	38	100	180	698

(Summary statistics not calculated for formations with fewer than ten values.)

Statistical Summary for Total Data Set



	N	%	Cum%
*	8	1.3	1.3
*******	77	12.7	14.0
**********	252	41.7	55.7
*******	180	29.8	85.5
******	65	10.7	96.2
**	17	2.8	99.0
*	4	0.7	99.7
	0	0.0	99.7
	0	0.0	99.7
*	2	0.3	100.0

Element Statistics
Element - Zinc [Zn]
Number of Values - 605
Units - ppm
Detection Limit - 2
Analytical Method - AAS

	All	PCc	PCau	PCk	Kmg	PCd	PCh	Cbmh	Pl	PCmn	PCal
N	605	114	82	69	68	64	60	48	31	30	29
N > DL	605	114	82	69	68	64	60	48	31	30	29
Missing	0	0	0	0	0	0	0	0	0	0	0
Mean	87.2	70.3	82.6	49.2	59.3	55.8	105.5	80.2	312.7	47.3	153.1
Median	52.0	44.0	77.0	42.0	42.0	44.0	44.0	68.0	86.0	44.0	130.0
Mode	42.0	40.0	88.0	42.0	42.0	30.0	36.0	32.0	48.0	52.0	110.0
Range	5992	792	299	273	724	284	3424	247	5978	78	428
St Dev	286.67	101.76	47.58	40.78	87.11	39.46	438.47	50.71	1059.71	18.15	105.82
Coef Var	3.289	1.448	0.576	0.830	1.470	0.707	4.156	0.632	3.388	0.383	0.691
Log Mean	1.748	1.690	1.848	1.614	1.663	1.682	1.674	1.824	2.033	1.648	2.097
Geo Mean	56.0	49.0	70.5	41.2	46.0	48.1	47.2	66.6	107.9	44.5	124.9
Log StDv	0.312	0.322	0.264	0.241	0.249	0.225	0.318	0.279	0.454	0.153	0.283
Log CVar	0.178	0.191	0.143	0.149	0.150	0.134	0.190	0.153	0.223	0.093	0.135
Percntls											
Minimum	8	8	8	8	16	14	16	8	22	22	32
10th	26	22	32	20	24	26	24	30	36	28	49
20th	32	28	48	28	32	30	30	42	48	32	64
30th	38	33	57	33	36	36	34	50	58	36	104
40th	44	40	70	38	40	40	36	60	72	40	111
50th	52	44	77	42	42	44	44	68	86	44	130
60th	60	52	82	42	50	50	52	78	134	48	137
70th	74	58	88	50	58	62	60	92	152	52	164
80th	92	80	100	59	62	72	66	98	205	56	177
85th	108	112	114	64	72	76	72	126	210	58	206
90th	135	132	146	72	84	88	74	146	280	68	306
95th	180	156	168	86	104	109	92	178	360	96	400
98th	306	246	184	230	129	128	162	225	400	96	400
99th	400	710	216	230	129	128	162	255	6000	100	460
Maximum	6000	800	307	281	740	298	3440	255	6000	100	460

(Summary statistics not calculated for formations with fewer than ten values.)

STREAM SEDIMENT GEOCHEMISTRY OF THE PURCELL WILDERNESS STUDY AREA

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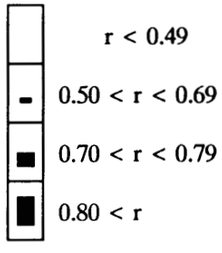
CORRELATION MATRICES

Notes:

1) Raw elemental data has been subdivided on the basis of underlying geological formation.

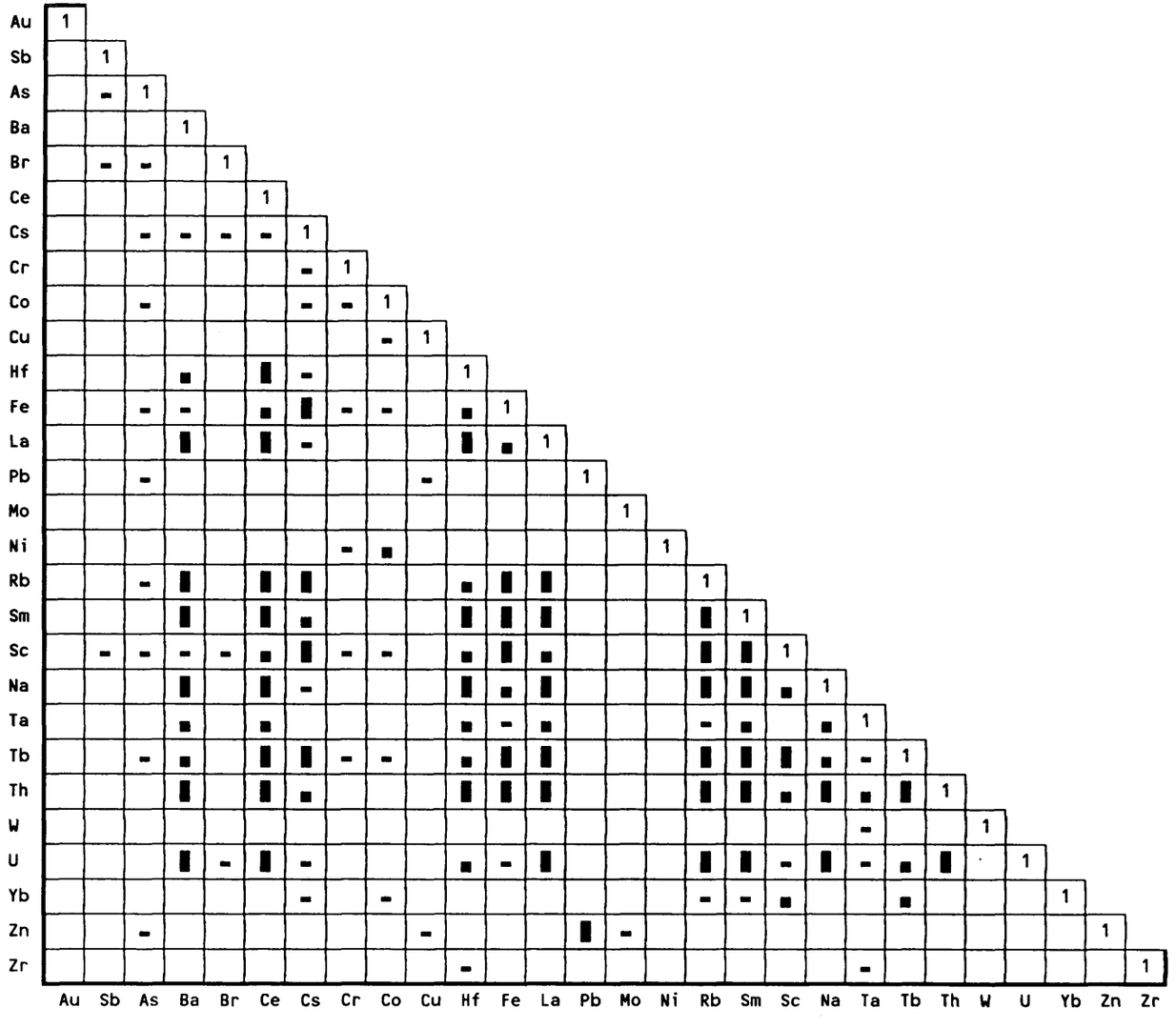
2) Raw data has been log transformed.

3) Results are displayed according to the following legend;

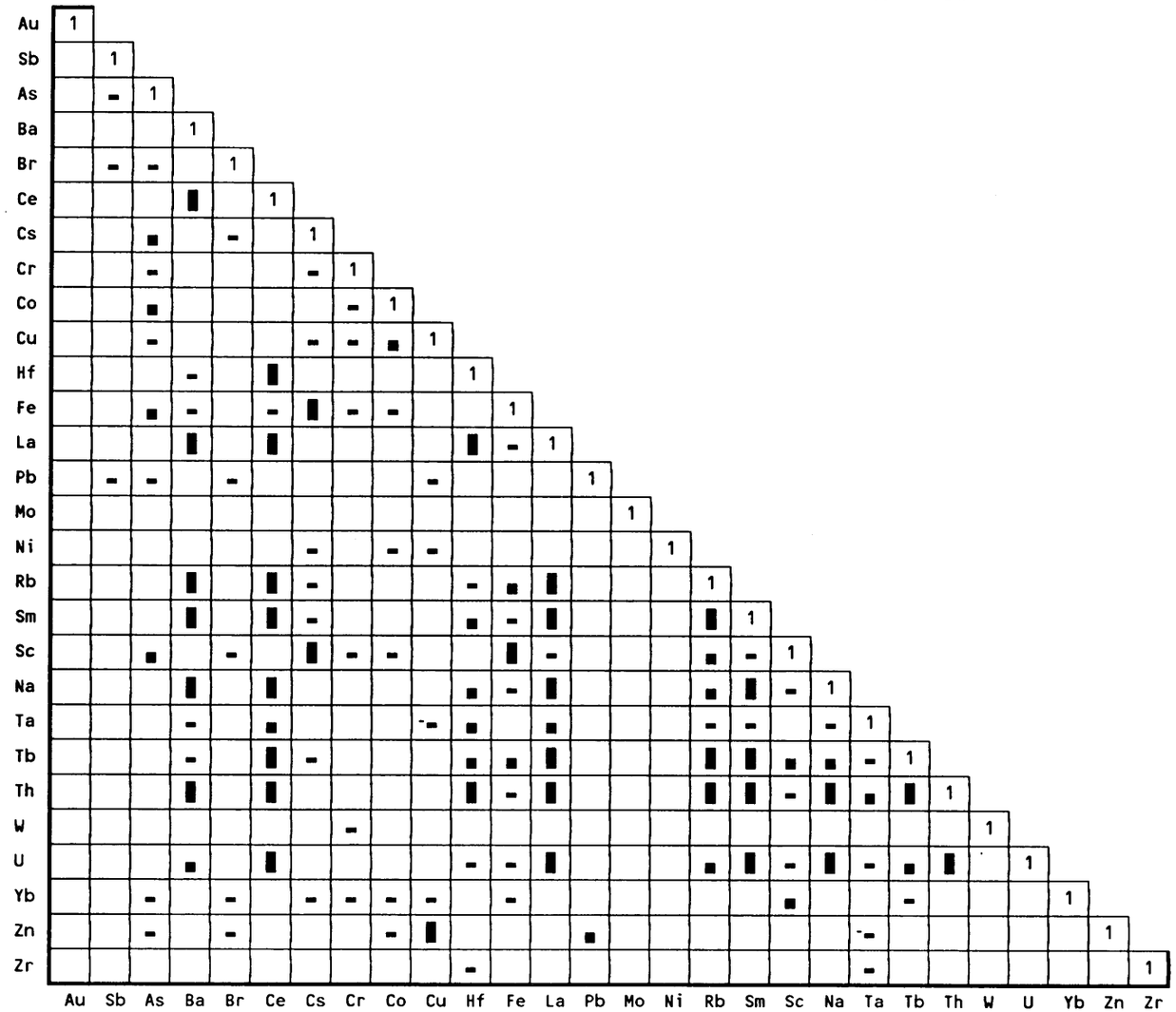


4) Negative correlations are displayed with a negative sign.

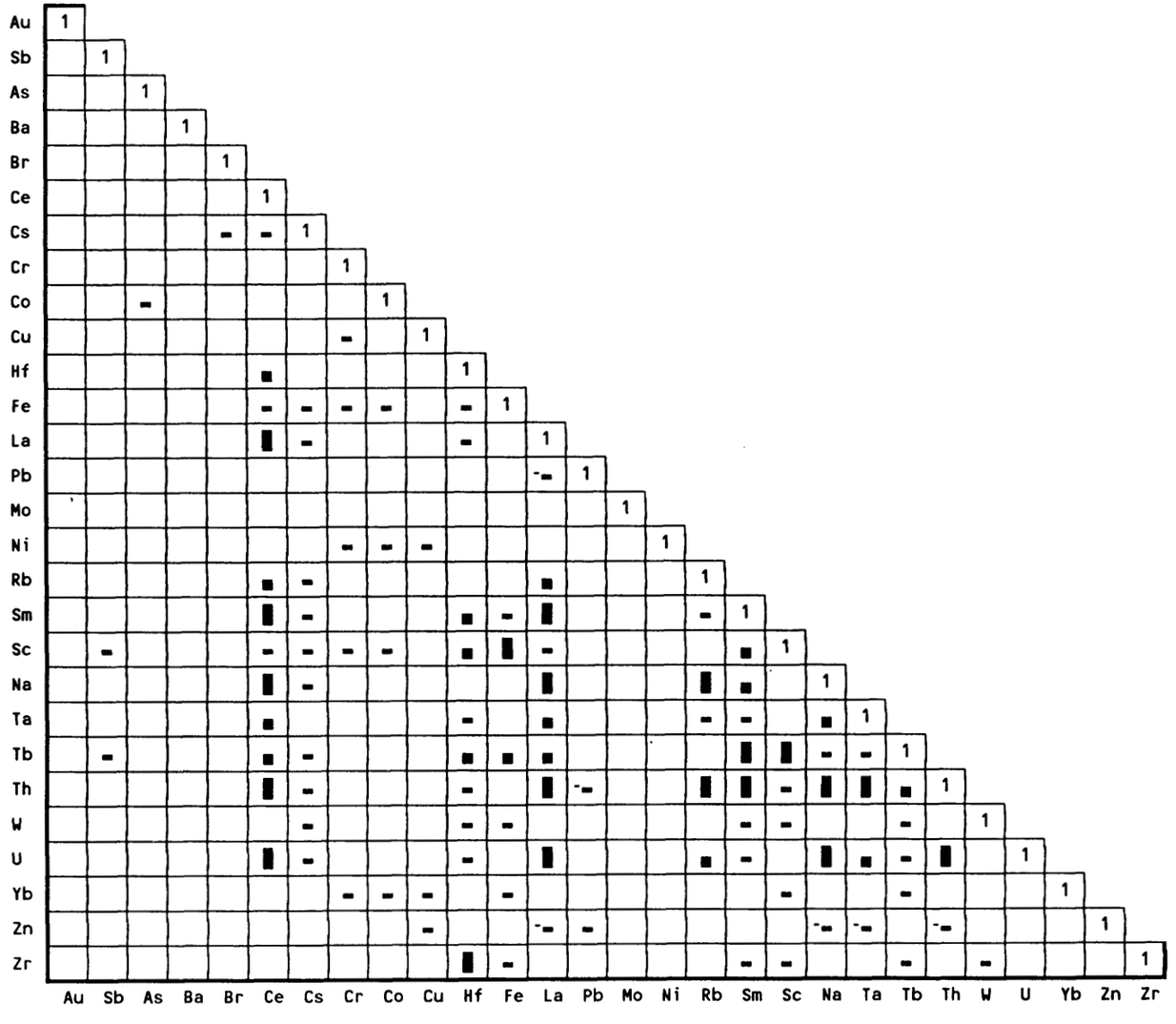
Formation = PCc
N = 120



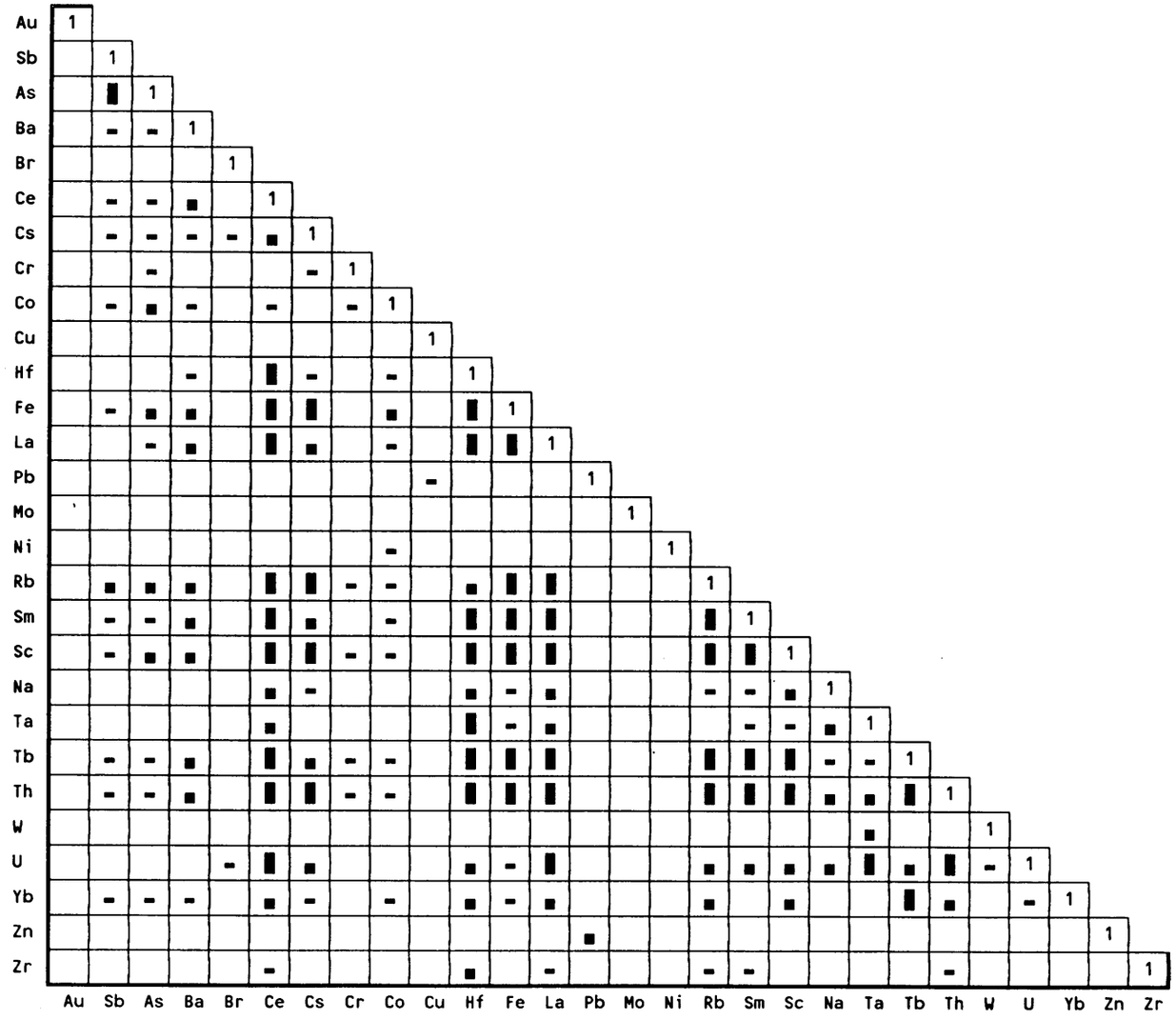
Formation = PCau
N = 89



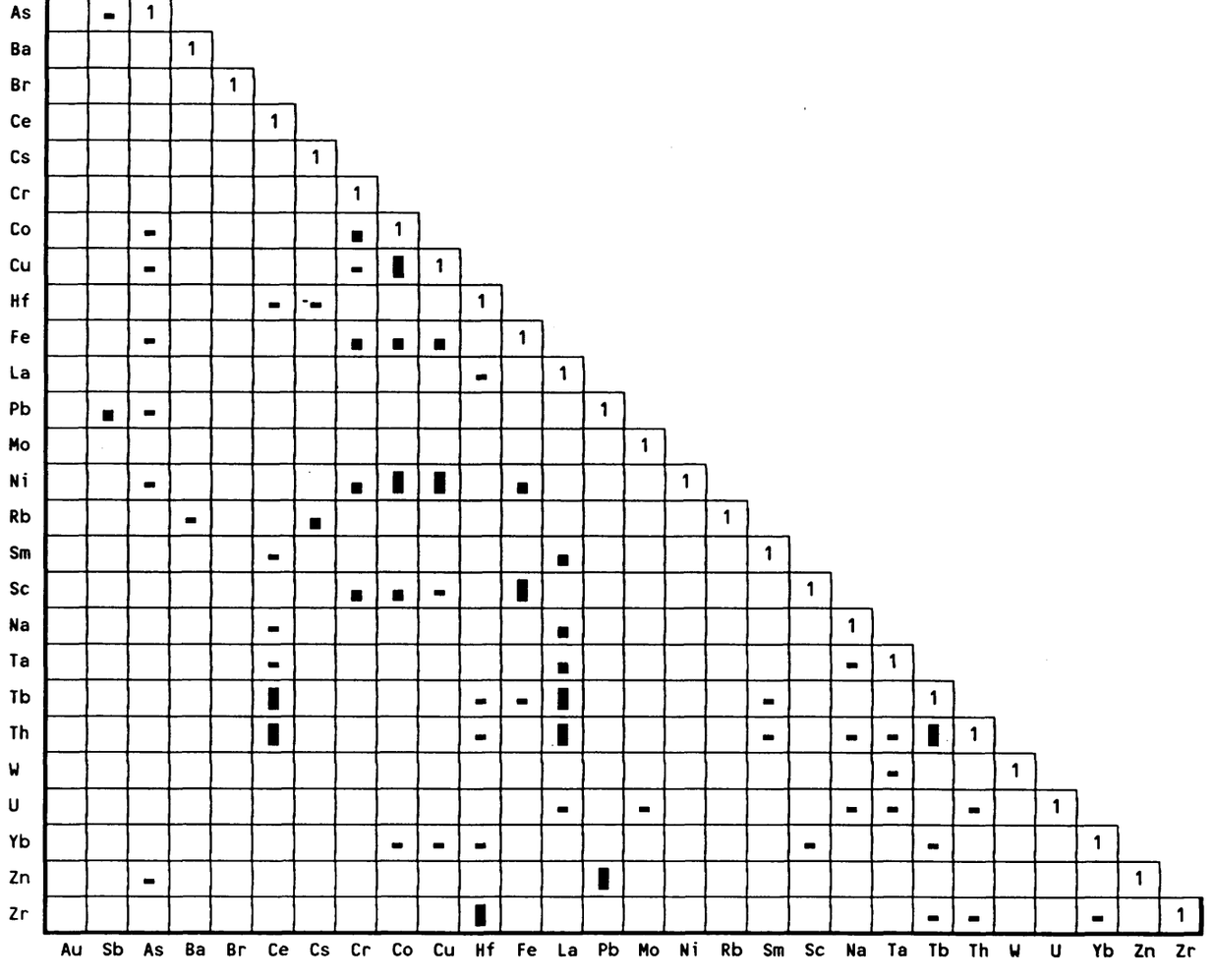
Formation = Kmg
N = 72



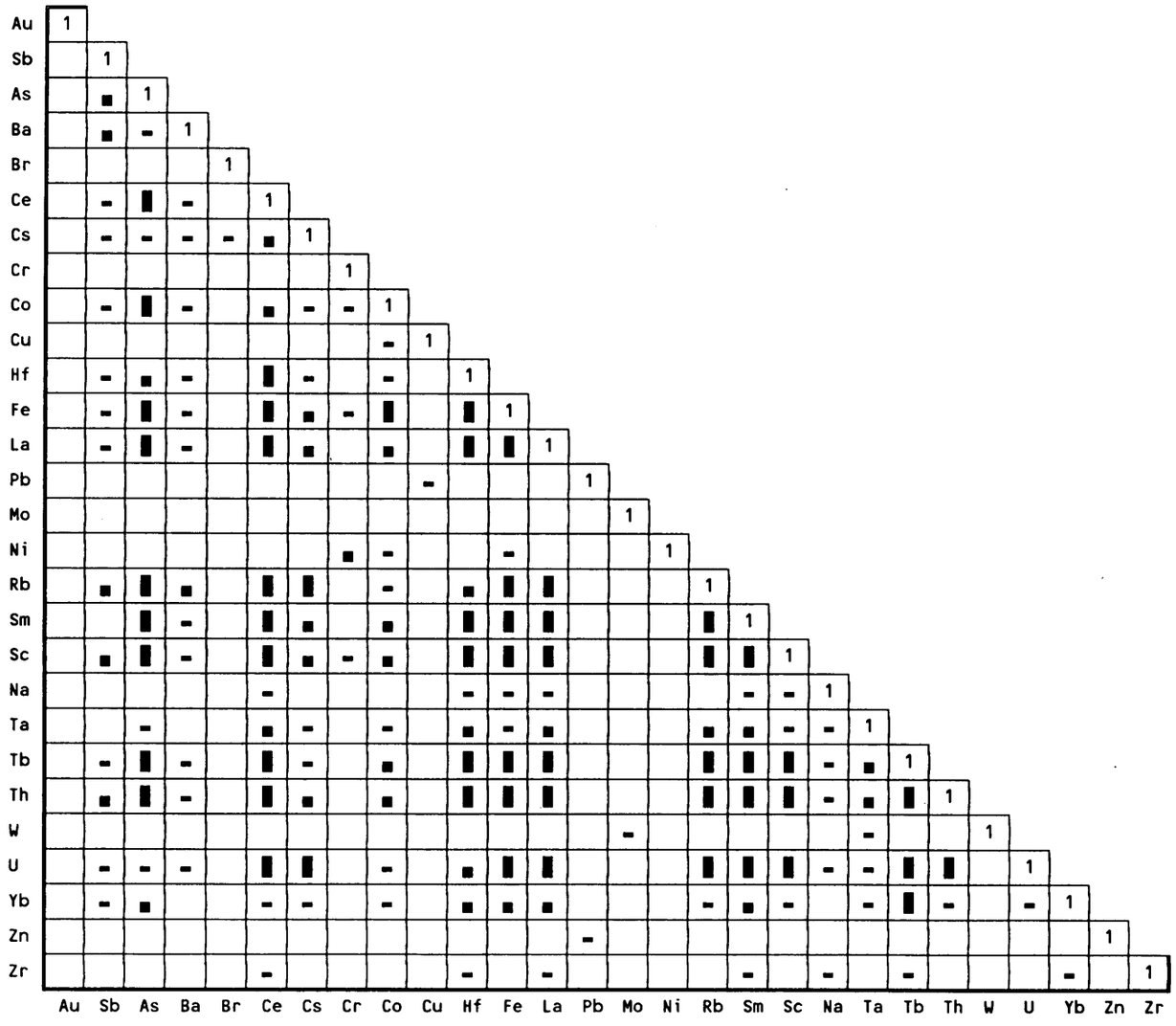
Formation = PCk
N = 74



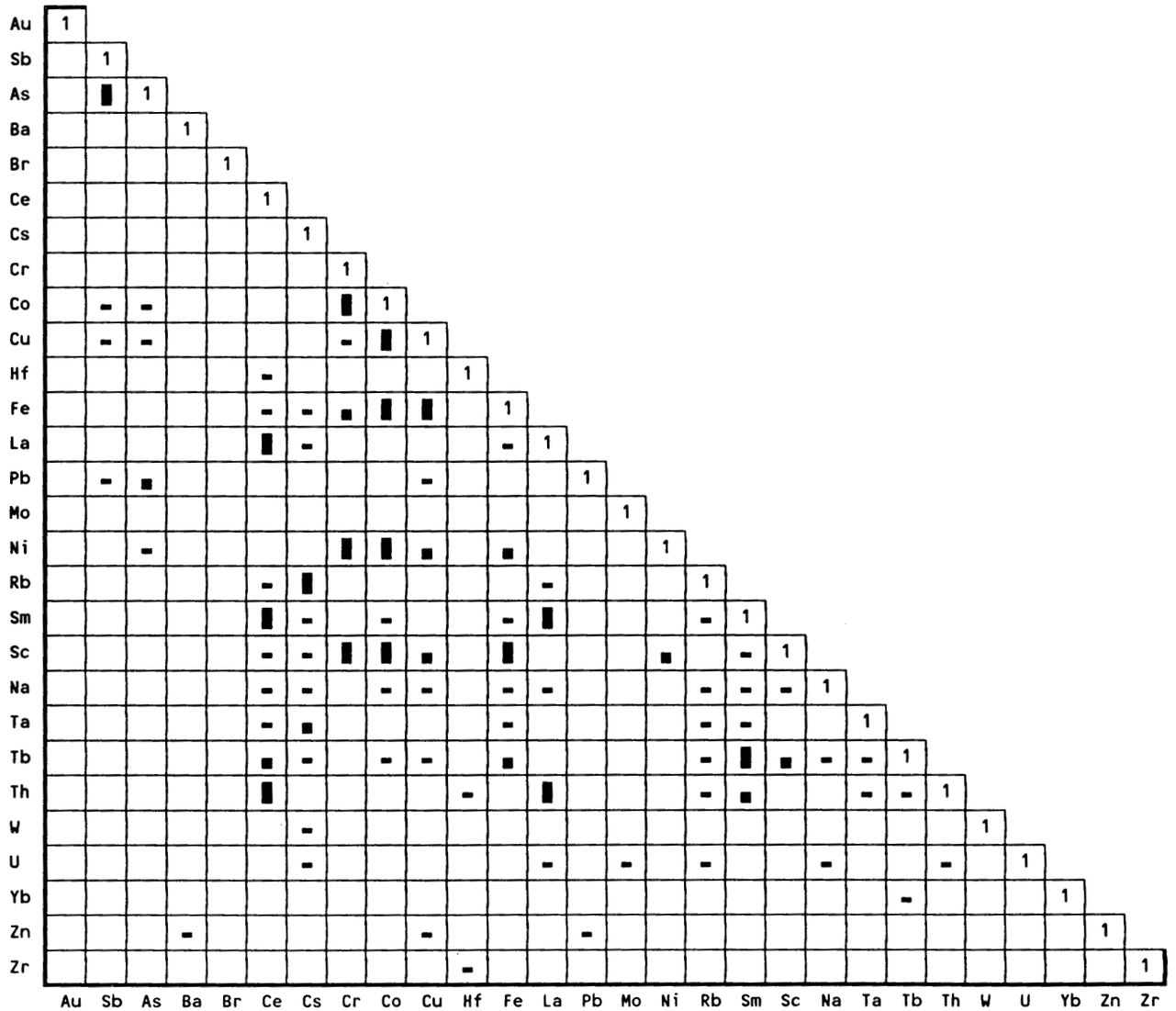
Formation = PCh
N = 62



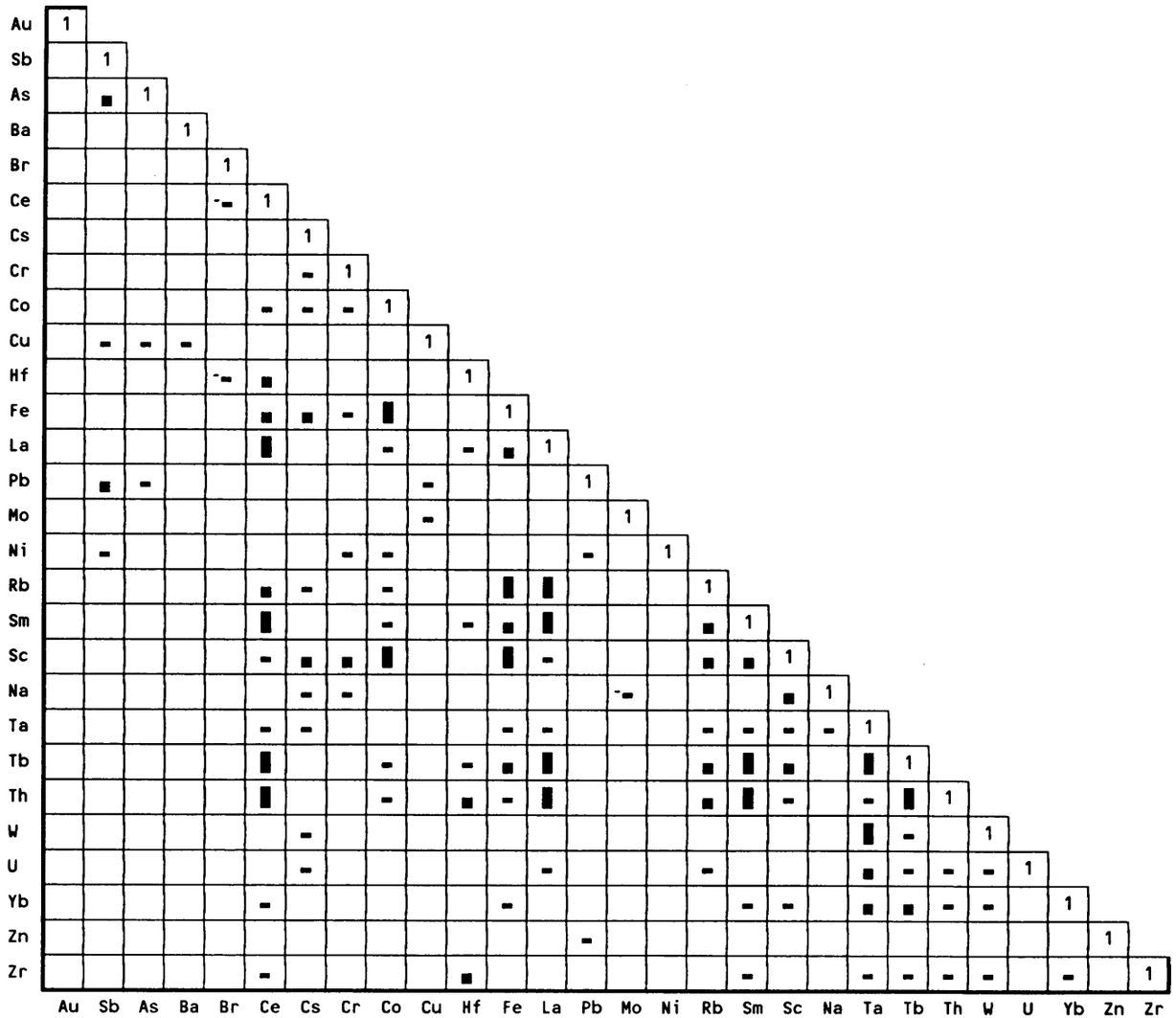
Formation = PCd
N = 66



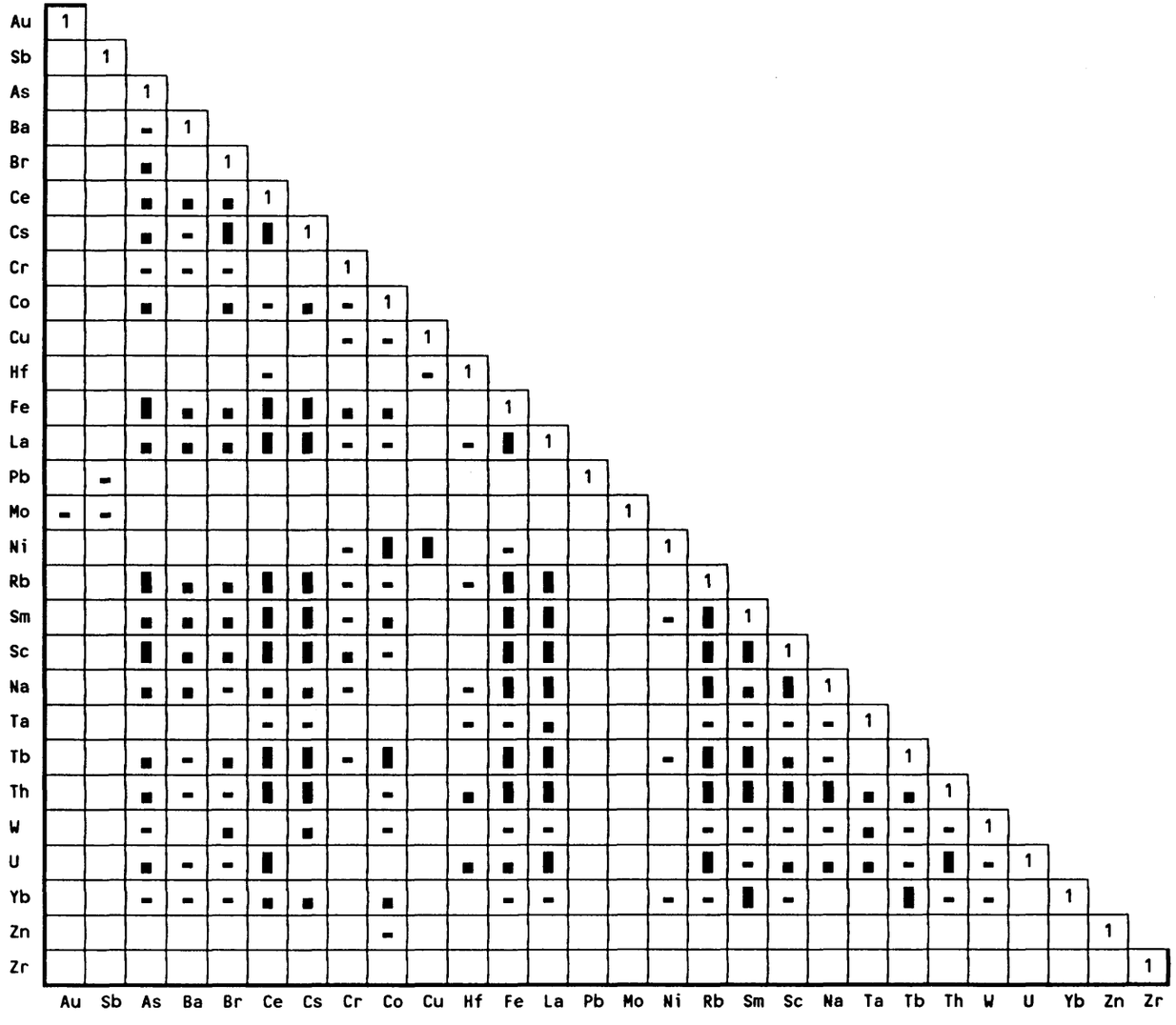
Formation = Cbmh
N = 52



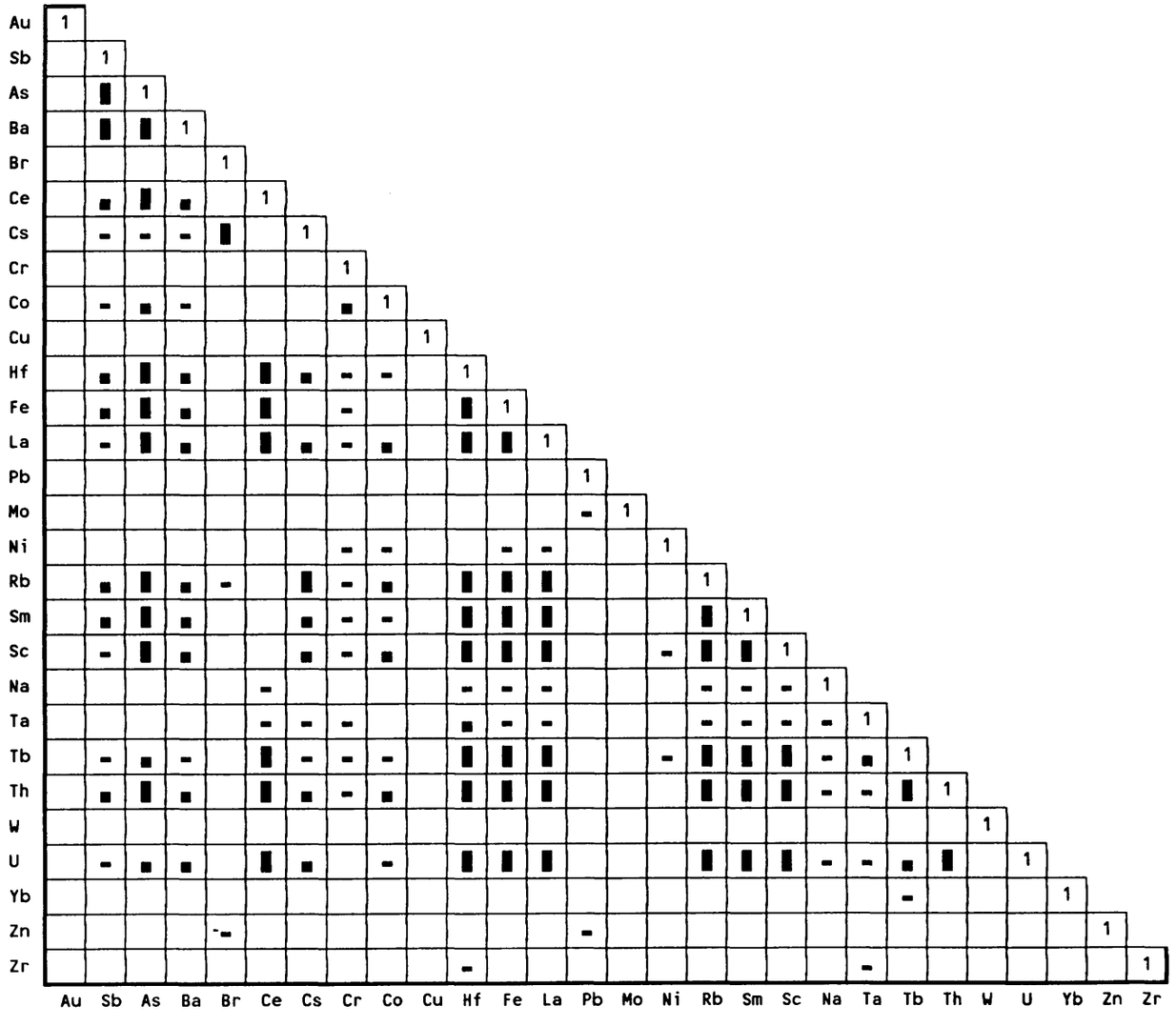
Formation = Pl
N = 33



Formation = PCal
N = 31



Formation = PCmn
N = 30



STREAM SEDIMENT GEOCHEMISTRY OF THE PURCELL WILDERNESS STUDY AREA

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SAMPLE EVALUATION CHARTS

* The following evaluation is one of several methods for interpreting geochemical data. Careful interpretation of this with other data may assist in the identification of mineral targets worthy of further exploration.

Notes: 1) Raw elemental data has been subdivided on the basis of underlying geological formation and percentiles.

2) Charts were produced for a selected number of elements (listed below).

3) The 90th, 95th and 98th percentiles were calculated for each element within each geological formation and listed in a threshold table. A rating is assigned to each analytical result as follows:
A rating of 1 for concentrations >= 90th and < 95th percentile.
A rating of 2 for concentrations >= 95th and < 98th percentile.
A rating of 3 for concentrations >= 98th percentile.

4) A sample rating is then calculated by summing element ratings. Samples with a rating >= 3 are listed.

5) Ratings have been determined for the following elements. To be included within the chart there must be; a) greater than 10 samples per formation, and; b) the determinations must be greater than the listed base level concentrations:

Element:	Au	Sb	As	Ba	Ce	Cr	Co	Fe	Mo	Ni	Th	W	U	Cu	Pb	Zn
Base Level:	5	0.5	5	500	100	50	10	2	5	10	5	5	2	10	10	10
Unit:	ppb	ppm	ppm	ppm	ppm	ppm	ppm	pct	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm

Threshold Table

Form	N	Au90	Au95	Au98	Sb90	Sb95	Sb98	As90	As95	As98	Ba90	Ba95	Ba98	Ce90	Ce95	Ce98	Cr90	Cr95	Cr98	Co90	Co95	Co98	Fe90	Fe95	Fe98
Cbmh	48	17	27	28	0.6	0.7	0.9	14.0	24.0	24.0	840	860	970	140	150	160	160	280	460	34	41	41	5.6	6.5	7.6
Kmg	68	5	7	10	0.5	0.6	0.7	8.7	12.0	47.0	1300	1700	2100	290	340	480	54	75	84	14	22	27	4.2	4.8	5.6
PCal	29	12	70	70	3.0	24.7	24.7	115.0	181.0	181.0	610	910	910	140	150	150	100	110	110	83	84	84	5.5	6.5	6.5
PCau	82	12	28	56	1.3	1.5	1.7	67.9	135.0	355.0	680	1300	1500	210	240	300	64	75	79	26	31	40	4.7	5.0	5.5
PCc	114	6	12	50	1.8	2.0	2.6	32.0	48.0	309.0	760	990	1700	140	190	320	59	65	120	18	22	31	3.9	4.6	6.6
PCd	64	8	19	31	6.0	6.9	7.2	38.0	42.0	46.0	1300	1800	2900	150	170	180	61	83	89	23	24	31	4.1	4.9	5.0
PCh	60	7	9	18	1.7	2.6	13.6	28.0	50.2	93.3	720	780	1000	180	210	270	87	110	120	30	31	40	4.8	5.2	5.6
PCk	69	7	18	25	2.7	3.1	3.6	24.0	30.0	38.0	700	820	1700	160	180	190	44	53	55	16	17	23	3.2	3.4	3.5
PCmn	30	13	36	36	4.5	6.0	6.0	20.0	37.0	37.0	1400	2600	2600	100	120	120	73	75	75	18	20	20	3.4	4.0	4.0
Pl	31	14	15	21	1.2	1.4	1.5	18.0	19.0	21.0	1700	1800	1800	120	140	140	210	220	240	31	31	34	5.6	7.0	7.2

Form	N	Mo90	Mo95	Mo98	Ni90	Ni95	Ni98	Th90	Th95	Th98	W90	W95	W98	U90	U95	U98	Cu90	Cu95	Cu98	Pb90	Pb95	Pb98	Zn90	Zn95	Zn98
Cbmh	48	2	4	4	80	120	140	19.0	26.8	28.4	10	12	13	16.0	24.7	37.9	42	50	50	21	25	29	146	178	225
Kmg	68	3	7	10	22	30	48	78.6	100.0	148.0	36	62	83	100.0	132.0	147.0	18	31	47	16	22	26	84	104	129
PCal	29	10	14	14	54	76	76	19.0	23.4	23.4	110	130	130	24.3	36.2	36.2	170	315	315	115	650	650	306	400	400
PCau	82	1	2	3	26	30	34	32.2	37.8	58.5	21	29	40	14.0	17.0	20.0	53	66	80	42	89	145	146	168	184
PCc	114	2	3	10	24	36	56	22.2	29.6	44.5	12	18	30	16.0	22.2	33.3	40	53	61	29	42	51	132	156	246
PCd	64	2	2	4	32	38	56	21.1	22.4	24.9	4	5	12	8.0	11.0	15.0	52	54	77	54	90	119	88	109	128
PCh	60	1	4	4	57	70	73	28.5	33.7	44.5	4	6	7	11.0	18.0	42.8	52	58	64	22	31	73	74	92	162
PCk	69	1	2	3	20	23	36	22.0	27.5	46.3	6	13	21	13.0	48.6	88.0	38	47	56	26	33	71	72	86	230
PCmn	30	1	1	1	31	34	34	15.0	16.0	16.0	1	2	2	4.5	6.5	6.5	42	46	46	37	125	125	68	96	96
Pl	31	3	4	10	110	140	180	18.0	18.0	20.0	7	9	12	7.2	19.0	31.3	62	70	78	26	30	37	280	360	400

Sample Evaluation Chart

Sample	Map	UTM East	UTM North	Form	Rating	0 10 20 30 40	Au	Sb	As	Ba	Ce	Cr	Co	Fe	Mo	Ni	Th	W	U	Cu	Pb	Zn
773219	82F15	512964	5526819	Cbmh	5	***				3							1		1			
773222	82F15	520537	5520320	Kmg	4	**							1			1					1	1
773224	82F15	519570	5523473	Kmg	6	***		3													3	
773227	82F15	510436	5523718	Kmg	10	*****	2					2	1	3		2						
773228	82F15	511122	5521235	Kmg	13	*******						3	2	3		3				2		
773229	82F15	511285	5519302	Pl	6	***					1			2				2	1			
773232	82F15	511018	5515288	Pl	6	***							2	3				1				
773243	82F15	505263	5529868	Pl	6	***										3						3
773244	82F15	506547	5533290	Cbmh	14	*******						2	3	3		3				1	2	
773245	82F15	506359	5534346	Cbmh	12	******			3					2		1				3	2	1
775202 1	82F15	517452	5532822	Cbmh	12	******					3						3	3	3			
775203 2	82F15	517452	5532822	Cbmh	12	******					3			1			3	2	3			
775204	82F15	516961	5532603	Cbmh	4	**								1				1	2			
775206	82F15	514087	5532237	Pl	3	**													3			
775210	82F16	554907	5512984	PCc	10	*****			1			1	3			2					2	1
75213	82F16	562177	5513222	PCc	3	**													3			
75214	82F16	568149	5511603	PCau	3	**		3														
775219	82F16	558762	5520040	Kmg	6	***	3						1							1		1
775220	82F16	563993	5521933	PCk	7	****					2			2			2		1			
775223 2	82F16	558602	5525506	Kmg	3	**	3															
775224	82F16	558878	5527467	Kmg	4	**					1						1	2				
775225	82F16	553694	5532302	PCal	10	*****			3						1			3	3			
775231	82F16	559856	5535498	PCal	5	***									1		1	1	1			1
775233	82F16	560094	5535890	PCal	4	**	1										3					
775234	82F16	563249	5534780	Kmg	3	**			1									2				
775235	82F16	566206	5535038	Kmg	6	***								2			1	3				
775236	82F16	568146	5535418	Kmg	6	***	1				1			1		1	2					
775240	82F16	566270	5530266	PCk	4	**				1	2						1					
775244	82F16	565144	5526906	PCk	9	*****								1			3	3	2			
775246	82F16	564579	5523791	PCk	15	********				1	3	3		3			3	1	1			
775247	82F16	567678	5520362	PCc	3	**														3		
775248	82F16	548189	5536835	PCau	6	***										3		1				2
775249	82F16	548601	5536692	PCau	3	**							1					2				
775356	82F16	536702	5538374	Kmg	7	****				3	1				3							
775358	82F15	526841	5535015	Kmg	4	**				2					2							
775363 1	82F16	549279	5526038	Kmg	8	****					3			2			3					
775365	82F16	547813	5516492	PCal	4	**					3										1	
775391	82F15	518892	5514798	Cbmh	4	**												1			1	2
775406	82F15	534356	5522824	PCd	4	**											1		3			
775409	82F16	537299	5533560	PCc	6	***						2				2	2					

Sample Evaluation Chart

Sample	Map	UTM East	UTM North	Form	Rating	0 10 20 30 40	Au	Sb	As	Ba	Ce	Cr	Co	Fe	Mo	Ni	Th	W	U	Cu	Pb	Zn
775410	82F15	534251	5532896	PCc	3	**												3				
775411	82F15	534800	5533241	PCc	5	***				1		2					2					
775417	82F15	514316	5533042	Pl	12	******					3						3	3	3			
777131 2	82F16	569573	5514064	PCau	4	**		2								2						
777133	82F16	571063	5512134	PCau	3	**		3														
777145	82F16	544712	5511603	PCau	5	***			2			3										
777154	82F16	537973	5526280	PCc	3	**									3							
777156	82F16	538801	5525784	PCc	8	****				1	1				2			2	2			
777158	82F16	539973	5520508	PCc	5	***						3				2						
777172	82F16	550075	5522143	Kmg	3	**				1	2											
777175	82F16	551609	5519393	Kmg	3	**			2									1				
777176	82F16	552382	5518276	Kmg	3	**				1				1				1				
777178	82F16	552184	5515704	PCc	4	**					1							3				
777179	82F16	550988	5514715	PCc	4	**					1		1	1		1						
777182	82F16	549914	5512200	PCc	21	**********					1	3	3	3		3				3	3	2
777186	82F16	549788	5513174	PCc	8	****			1			1	1	2		1	1	1				
777189	82F15	534788	5530166	PCk	7	****					1	2					1	3				
777190	82F15	534812	5529060	PCk	8	****								1	3			1	1			2
777263	82F15	506436	5514381	Pl	6	***						3				2			1			
777273	82F15	505199	5525033	Pl	3	**								3								
777314	82F15	507056	5518882	Pl	3	**															1	2
777330	82F15	509760	5532250	Cbmh	4	**					1						3					
777331	82F15	509813	5533266	Cbmh	4	**											1		3			
779129	82F15	529017	5520951	PCh	11	******				1	3						3	3	1			
779132	82F15	527074	5519529	PCh	10	*****				2	1						2	2	3			
779133	82F15	526988	5518202	PCh	3	**													3			
779134	82F15	530162	5515522	PCd	3	**													3			
779137	82F15	528181	5512468	PCmn	3	**													3			
779138	82F15	533439	5512099	PCk	3	**				2						1						
779140	82F15	531172	5512224	Kmg	5	***		2													2	1
779143	82F15	534259	5511381	PCk	9	*****				2										3	3	1
779182	82F15	522617	5512674	PCh	3	**															1	2
779183	82F15	522730	5513258	PCh	8	****				2					3				1			2
771055	82K01	559097	5541834	PCal	15	********	1	3	1						3		1		3		3	
771057 2	82K01	558838	5542007	PCal	3	**	1	1													1	
771058	82K01	561736	5543318	Kmg	5	***	2	2											1			
771062	82K01	562699	5548432	PCau	6	***	3							1						1	1	
771063	82K01	563916	5549073	PCau	8	****	2		3												3	
771074	82K08	560435	5581308	PCmn	3	**	3															
771076	82K08	563834	5580360	PCmn	3	**	3															

Sample Evaluation Chart

Sample	Map	UTM East	UTM North	Form	Rating	0 10 20 30 40	Au	Sb	As	Ba	Ce	Cr	Co	Fe	Mo	Ni	Th	W	U	Cu	Pb	Zn
771077	82K08	565992	5578035	PCmn	3	**						3										
771085	82K01	564675	5553826	PCc	5	***			2							1					2	
771087	82K07	529214	5581033	PCh	3	**			1												2	
771088	82K07	527914	5582584	PCh	4	**							2							1	1	
771095 1	82K08	537481	5578486	PCd	6	***	3		3													
771097	82K08	538693	5580448	PCmn	18	*********		3	1	3			3	1						1	3	3
771100	82K08	536699	5579418	PCd	7	****						1	2			2				2		
771102	82K08	541034	5578865	PCmn	12	******		1	3				1	1			3		1		1	1
771103	82K08	553758	5588705	PCh	3	**	3															
771123	82K08	569563	5566394	PCk	7	****														3	2	2
773125 1	82K02	506815	5538611	Cbmh	11	******		3	3			1	1	1		1				1		
773126 2	82K02	506815	5538611	Cbmh	13	*******		3	3	2		1	1	1		1				1		
773128	82K02	506460	5542024	Cbmh	15	********		3	3	2		1								3	3	
773129	82K02	505365	5546891	Cbmh	9	*****				1		2	1			2				3		
773130	82K02	501336	5548770	Pl	8	****			1		3		2				2					
773131	82K02	504578	5548090	Cbmh	7	****						3	1			3						
773132	82K02	503126	5554007	Cbmh	5	***	3	1												1		
773133	82K02	509299	5546257	Cbmh	3	**												2	1			
773135	82K02	508391	5548467	Cbmh	3	**				3												
773136	82K02	507404	5550106	Cbmh	6	***	1			2												3
773137	82K02	506891	5552631	Pl	3	**	3															
773209 1	82K02	504287	5549368	Cbmh	3	**			1											1	1	
773210 2	82K02	504287	5549368	Cbmh	3	**			1											1	1	
773232	82K08	548400	5593500	PCh	7	****		2		1											3	1
773249	82K08	540977	5592886	PCmn	31	**********		3	3	3		1	3	3		3	3			3	3	3
773256	82K07	527799	5592171	PCh	12	******		1	2			2	2	2		1					1	1
773257	82K07	527695	5591765	PCd	24	**********	2		3		3	3	3	3		3	3			1		
773258	82K07	529868	5592972	PCd	7	****						2	2	1		2						
773259	82K07	535825	5586215	PCh	22	**********		3	2	3			3	1		2				3	2	3
773260	82K07	534535	5588382	PCd	7	****		2		1	1		2			1						
773263	82K07	534275	5588416	PCd	4	**							1					3				
773265	82K07	533552	5590733	PCd	16	********					1	1	2	3	3	1		3				2
773270	82K07	527327	5590808	PCd	5	***	1									1		2	1			
773271	82K07	526853	5591173	PCd	18	*********			1		1	3	3	3		3	2			2		
775006	82K02	516629	5549383	Cbmh	8	****	3				1						1	3				
775008	82K02	511518	5547718	Pl	8	****	2				1							3	2			
775258	82K08	545751	5591294	PCd	5	***		2													2	1
775259	82K07	525493	5588805	PCh	17	*********	2		3				3	3		3				2		1
775271	82K07	517293	5593270	PCh	4	**							1	2						1		
775272	82K07	517782	5593172	PCh	4	**			3					1								

Sample Evaluation Chart

Sample	Map	UTM East	UTM North	Form	Rating	0 10 20 30 40	Au	Sb	As	Ba	Ce	Cr	Co	Fe	Mo	Ni	Th	W	U	Cu	Pb	Zn
775358	82K07	535116	5569378	PCd	4	**						2		2								
775359	82K08	540351	5572898	PCd	6	***	2		1					1			2					
775360	82K08	539651	5569325	PCk	4	**			2					1						1		
775364	82K08	539844	5574178	PCd	9	*****	3				2	1					3					
775365	82K08	542782	5571517	PCk	6	***			3				1								1	1
775366	82K08	546915	5575387	PCd	4	**				3											1	
775368	82K08	550941	5578539	PCd	3	**					3											
775369	82K08	551515	5578942	PCd	3	**		1		2												
775375	82K01	540154	5558739	PCk	8	****	1			3	1		2				1					
775386	82K01	549862	5559138	PCc	24	**********	3	3	3						3			2	3	1	3	3
775388	82K01	547579	5565237	PCc	8	****	1	2	2												1	2
775389	82K01	545719	5561087	PCc	5	***		2	1					1				1				
775391	82K01	541668	5563519	PCk	3	**	1						2									
775392	82K01	541551	5563063	PCk	3	**	3															
775393	82K08	548872	5567987	PCk	6	***		1					2			3						
775397	82K08	552694	5567589	PCk	7	****		2					3	1		1						
775399	82K08	562837	5577215	PCmn	4	**						3		1								
775407	82K01	551918	5560974	PCk	27	**********	2	1	3			3	3	3		3				3	3	3
775408	82K01	553279	5564510	PCk	3	**			2												1	
775409	82K01	556157	5564709	PCk	3	**	3															
775412	82K08	560327	5568438	PCk	7	****				3		3	1									
775414 1	82K01	570042	5546311	PCau	8	****	1				1						3		3			
775415 2	82K01	570042	5546311	PCau	6	***					1						2		3			
775418	82K01	551566	5538989	PCau	4	**							1					3				
775422	82K01	552305	5545757	PCau	3	**	2	1														
775424	82K01	555233	5546762	PCau	12	******							3	3		2				3	1	
775430	82K01	554573	5555558	PCc	6	***			2		1								1			2
775432	82K01	551408	5556416	Kmg	11	******	1	3	3				1							1		2
775434	82K01	557701	5553907	PCc	9	*****							3			3			1		1	1
775435	82K01	560448	5551139	PCau	6	***			3												3	
775436	82K01	558733	5547961	PCau	8	****			1				2	2						2	1	
775440	82K01	560700	5557300	PCc	4	**	1				2						1					
775444 1	82K01	539243	5547443	PCc	11	******				3	3						3		2			
775445 2	82K01	539243	5547443	PCc	14	*******				2	3			2			3	1	3			
775446	82K01	542620	5549373	PCau	3	**				1	1						1					
775447	82K01	542199	5548943	PCau	13	*******	1			3	3						3		3			
775450	82K01	544750	5541038	PCau	9	*****				3	3						2		1			
775451	82K01	545372	5541015	PCau	6	***					2	1					1	2				
775453	82K01	545947	5542650	PCau	3	**												3				
775454	82K01	547381	5540101	PCau	3	**	3															

Sample Evaluation Chart

Sample	Map	UTM East	UTM North	Form	Rating	0 10 20 30 40	Au	Sb	As	Ba	Ce	Cr	Co	Fe	Mo	Ni	Th	W	U	Cu	Pb	Zn
775457	82K02	533326	5549105	Kmg	3	**				3												
775466	82K02	530971	5555802	PCmn	7	****					1	1		1		3	1					
775473	82K02	520191	5552525	PCh	9	*****						3				3		3				
775476	82K02	532393	5543895	Kmg	5	***				2					3							
775478	82K02	528369	5538887	Kmg	7	****			1		1		3								1	1
775484	82K02	521553	5539977	Kmg	10	*****	3				3						3		1			
775492	82K07	508808	5572903	Pl	6	***					3						3					
775504	82K07	509124	5593205	PCh	8	****					2	3				1	2					
775505	82K07	512038	5591904	PCh	15	********					3	3	2			2	3			2		
775508	82K07	529178	5569642	PCh	7	****			1		1		2	3								
775510	82K07	527156	5570334	Cbmh	3	**	1				2											
775516	82K02	521444	5564658	PCh	3	**														3		
775518	82K02	511912	5564918	Pl	13	*******		1	3	3					3					3		
775524	82K02	511719	5557087	Cbmh	4	**					3						1					
775526	82K01	542065	5540336	PCc	7	****				2	3						2					
775527	82K01	542137	5540710	PCc	10	*****				3	3						3		1			
777059	82K07	503556	5590284	Cbmh	5	***	2	2													1	
777060	82K07	503075	5586412	Cbmh	7	****					1										3	3
777062	82K07	501797	5583891	Pl	19	**********		3	3	1		3	3			3					3	
777063	82K07	500962	5582429	Pl	7	****	1							1						3	2	
779122	82K07	502353	5569455	Pl	3	**	3															
779126	82K07	520899	5578847	PCh	7	****					1						2	3	1			
779127	82K07	516393	5578531	Kmg	14	*******		2	2			3	2	1		3				1		
779129	82K07	519697	5585054	PCh	5	***					2	1					1			1		
779132	82K07	521792	5581605	PCh	3	**	1		1										1			
779134 1	82K07	510958	5576613	Cbmh	9	*****						3	3	1		1	1					
779135 2	82K07	510958	5576613	Cbmh	5	***						2	1	1		1						
779136	82K07	510514	5575707	Cbmh	10	*****		1	1			1	3	3					1			
779143	82K02	511548	5565797	Pl	3	**				3												
779144	82K02	509899	5565032	Pl	11	******		2		3					3					2		1
779146	82K02	507313	5563930	Pl	6	***															3	3
779148	82K02	503612	5541546	Pl	5	***							3	1						1		
779149	82K02	503608	5541883	Pl	5	***		3	2													
779151	82K08	554206	5590335	PCh	11	******		3	1					1							3	3
779155	82K08	544286	5578725	PCd	10	*****		3											1		3	3
779162	82K08	552542	5588299	PCh	7	****	3	1		3												
779163	82K08	540612	5584782	PCmn	5	***							1	3		1						
779166	82K08	544768	5585113	PCd	3	**				2											1	
779170	82K08	552165	5592202	PCh	3	**	1	2														
890006	82F16	541859	5515959	PCc	3	**						2									1	

Sample Evaluation Chart

Sample	Map	UTM East	UTM North	Form	Rating	0 10 20 30 40	Au	Sb	As	Ba	Ce	Cr	Co	Fe	Mo	Ni	Th	W	U	Cu	Pb	Zn
890008	82F16	539421	5515559	PCc	5	***						2	1	2								
890009	82F16	539677	5515546	PCc	3	**														3		
890013	82F16	539524	5519105	PCc	6	***							2	3		1						
890014	82F16	539388	5517877	PCc	8	****						1	2	3						2		
890020	82F16	539705	5521257	PCc	10	*****						3	1	1		3		2				
890025	82F16	538554	5525778	PCc	3	**															1	2
890029 1	82F16	552317	5535694	PCal	5	***							1	3						1		
890030 2	82F16	552317	5535694	PCal	6	***	1							3		1				1		
890033	82F16	552097	5537283	PCau	17	*********	1		1			3	3	3				3		2		1
890034	82F16	552319	5536997	PCau	8	****							3	3		1				1		
890036	82F16	552377	5536572	PCau	10	*****							2	2		2				3		1
890037	82F16	555611	5537703	PCal	3	**						3										
890038	82F16	555207	5537409	PCal	15	********	3	1		1		3			3	1				3		
890041	82F16	554938	5536894	PCal	3	**							1	1		1						
890042	82F16	557448	5537536	PCal	3	**																3
890043	82F16	558737	5537591	PCal	4	**								1				3				
890046	82F16	559854	5536876	Kmg	7	****						1		1				3			2	
890047	82F16	556373	5534924	PCal	15	********					3	1	3			3		1		1		3
890048	82F16	556354	5534502	Kmg	16	********			3			1	3	1		1				3	1	3
890049	82F16	554849	5532348	PCal	7	****				3	1						3					
890051	82F16	549484	5532772	PCal	3	**				3												
890052	82F16	549528	5532850	PCal	6	***	3		3													
890054	82F16	549315	5534193	PCal	3	**								3								
890056 1	82F16	551241	5531011	Kmg	5	***				1	2						2					
890057 2	82F16	551241	5531011	Kmg	6	***				1	1	1	1				1	1				
890061	82F16	547345	5535295	PCau	4	**				1		1						1				1
890069	82K01	545049	5541392	PCau	11	******				3	3						3		2			
890072	82F16	543472	5534653	PCau	3	**														3		
890073	82F16	543520	5534814	PCau	8	****						3		1			1	2	1			
890074	82K01	542137	5540531	PCc	7	****				3	2						2					
890078	82K01	547286	5549919	PCau	3	**	3															
890082	82K01	544940	5548516	PCau	6	***				3	2						1					
890083	82K01	542581	5549664	PCau	7	****				2	2						2		1			
890086	82F16	551766	5538362	PCau	5	***						2										3
890094	82K01	552220	5545737	PCau	3	**		2						1								
890097	82K01	549638	5556312	PCc	3	**							2			1						
890098	82K01	549124	5555666	PCc	5	***							2	1						2		
890101	82K01	548832	5555287	PCc	8	****							2			1				2	1	2
890104	82K01	552771	5553760	PCc	5	***				2	2						1					
890106	82K01	554167	5554686	PCc	11	******				2	3			1			3	2				

Sample Evaluation Chart

Sample	Map	UTM East	UTM North	Form	Rating	0 10 20 30 40	Au	Sb	As	Ba	Ce	Cr	Co	Fe	Mo	Ni	Th	W	U	Cu	Pb	Zn
890113	82K01	561627	5556713	PCc	12	******		1	3										2	1	2	3
890115	82K01	549766	5559434	PCc	23	**********	3	3	3						3			3	2		3	3
890116	82K01	548246	5564399	PCk	5	***															2	3
890118	82K01	545263	5561529	PCc	4	**		2	2													
890119	82K01	548155	5555463	PCc	4	**														1	2	1
890123	82K01	546348	5557057	PCc	4	**			1			1				2						
890127	82K01	543272	5559848	PCc	5	***	3							2								
890132	82K01	554069	5573629	PCd	6	***		1		1										3	1	
890134	82K01	554561	5573765	PCd	12	******	1	3		3										3	2	
890135	82K01	555315	5573412	PCd	3	**	1												2			
890137	82K01	557348	5574110	PCmn	12	******		1	1	1	3						1		1	3	1	
890138	82K01	557648	5574062	PCmn	6	***					3								3			
890150	82K01	555560	5541338	PCau	6	***			2							1			2		1	
890151	82K01	557660	5541966	PCau	15	********		3								3			3	1	2	3
890154	82K01	559122	5542128	PCal	7	****		3											1		3	
890156	82K01	559780	5542572	Kmg	8	****		3				1							3		1	
890157	82K01	561245	5543376	Kmg	4	**		2											2			
890161 1	82K01	562110	5546007	PCau	10	*****			3			1				3					3	
890162 2	82K01	562110	5546007	PCau	5	***			2												3	
890164	82K01	555489	5541107	PCau	7	****		.1	1												2	3
890167	82K01	558360	5572390	PCd	6	***															3	3
890176	82K01	549828	5568939	PCk	4	**		3		1												
890178	82K01	545421	5564809	PCc	4	**		3			1											
890179	82K01	556323	5564329	PCk	4	**		2													1	1
890181	82K01	544459	5564533	PCc	7	****		2	1	1			1							2		
890182	82K01	543971	5564050	PCc	3	**				1							1			1		
890184	82K01	541684	5563449	PCk	3	**	1									2						
890187	82K01	537595	5561390	PCk	3	**										2						1
890190	82K01	537272	5564969	PCk	12	******		1	1	1		2	2	3						2		
890194	82K01	545021	5569255	PCk	3	**		1					1							1		
890195	82K01	547220	5568990	PCk	7	****		3					2	1		1						
890197 1	82F16	565301	5528032	PCk	4	**												1	3			
890202	82F16	565793	5529560	PCc	7	****				2							1	1	3			
890203	82F16	565564	5528781	PCk	4	**					1							2	1			
890204	82F16	565279	5527622	PCk	4	**												1	3			
890206	82F16	565349	5526408	PCk	9	*****					3						2	2	2			
890208	82F16	568002	5535028	Kmg	8	****														2	3	3
890209	82F16	564720	5535014	Kmg	3	**													3			
890210	82F16	563582	5535182	Kmg	3	**											1		2			
890211	82F16	562346	5534937	Kmg	8	****						1				2				3		2
890213	82F16	552710	5535490	PCal	13	*******					3		3			3				3		1

STREAM SEDIMENT GEOCHEMISTRY OF THE PURCELL WILDERNESS STUDY AREA

OPEN FILE 1990-11

SYMBOL AND VALUE MAPS

Notes:

1) Sample locations were digitized and verified from the sample collection field maps.

2) On the sample location maps field duplicates are represented by the following system; 1st sample number of field duplicate pair / 2nd sample number of field duplicate pair.

3) Symbol and value maps were produced for a selected number of elements (Au, Sb, As, Ba, Ce, Co, Cr, Cu, Fe, Pb, Ni, Mo, Th, U, W, and Zn) which are of economic significance and display strong regional trends.

4) Percentiles were calculated on the raw data. Symbol sizes on the maps are proportionately scaled to the 50^{th}, 75^{th}, 90^{th} and 95^{th} percentile. Analytical determinations are listed adjacent to symbols for samples exceeding the 95^{th} percentile.

5) Cu, Pb, and Zn data obtained from the analyses of the 1989 infill sediment sampling program have been merged with the original 1977 analytical results.

6) Elemental concentrations for field duplicates are averaged.

GOLD (ppb)
SEDIMENTS

OPEN FILE 1990-11

STREAM SEDIMENT GEOCHEMISTRY OF THE
PURCELL WILDERNESS CONSERVANCY STUDY AREA

SCALE 1 : 250 000

5 0 5 10 15 20

KILOMETRES

LEGEND

STRATIFIED ROCKS

MESOZOIC

TRIASSIC

Tsk — SLOCAN AND KASLO GROUPS: VOLCANIC ROCKS

PALEOZOIC

CARBONIFEROUS AND PERMIAN

Pm — MILFORD GROUP: SLATE AND SILTY SLATE; LIMESTONE AND CHERT

PRE-MISSISSIPPIAN

Pl — LARDEAU GROUP: CHLORITE-MUSCOVITE-QUARTZ SCHIST, BIOTITE-MUSCOVITE SCHIST; MICACEOUS QUARTZITE, AND TREMOLITE MARBLE

CAMBRIAN

Cbmh — BADSHOT-MOHICAN FORMATION AND HAMILL GROUP: MARBLE, PHYLLITE, MUSCOVITE-QUARTZ SCHIST; QUARTZITE AND MICACEOUS QUARTZITE, DARK SLATE AND MICA SCHIST

PROTEROZOIC

WINDERMERE SUPERGROUP (HADRYNIAN)

PCh — HORSETHIEF CREEK GROUP: PEBBLE CONGLOMERATE, GRITS, QUARTZITE AND SLATE

PURCELL SUPERGROUP (HELIKIAN)

PCmn — MOUNT NELSON FORMATION: WHITE QUARTZ ARENITE, GREEN SILTSTONE, DOLOMITIC QUARTZ WACKE AND SILTSTONE, MAROON ARGILLITE, BUFF DOLOMITE AND GREY LIMESTONE

PCd — DUTCH CREEK FORMATION: GREEN SILTSTONE, BROWN DOLOMITIC SILTSTONE, GREY ARGILLITE, BUFF WEATHERING, ALGAL DOLOMITE, MINOR QUARTZ WACKE

PCk — KITCHENER FORMATION: BUFF-WEATHERING, DOLOMITIC SILTSTONE AND DOLOMITE, GREY AND GREEN ARGILLITE AND SILTSTONE, MINOR LIMESTONE

PCc — CRESTON FORMATION: GREY AND GREEN QUARTZ SILTSTONE AND ARGILLITE, GREEN OR GREY-WHITE QUARTZITE, MINOR GREEN QUARTZ WACKE, MINOR DOLOMITIC SILTSTONE

ALDRIDGE FORMATION

PCau — UPPER DIVISION: MASSIVE GREY QUARTZ ARENITE AND QUARTZ WACKE INTERBEDDED WITH THIN ARGILLITE; GREY ARGILLITE AND SILTSTONE

PCal — LOWER DIVISION: THIN-BEDDED, RUSTY WEATHERING, QUARTZ WACKE, QUARTZ ARENITE, SILTSTONE AND ARGILLITE

INTRUSIVE ROCKS

MESOZOIC

CRETACEOUS

Kmg — QUARTZ MONZONITE, GRANODIORITE

Geological base and legend derived from:
Reesor, J.E. (1973): Geology of the Lardeau Map-area, East-Half, British Columbia; Geological Survey of Canada, Memoir 369, 129 pages.

STREAM SEDIMENTS			
CONCENTRATION		FREQUENCY	
22 – 413	◇	N = 27	(4.7%)
12 – 21	◇	N = 28	(4.9%)
5 – 11	◆	N = 80	(13.9%)
2 – 4	◆	N = 133	(23.1%)
1 – 1	+	N = 309	(53.6%)

ANTIMONY (ppm)
SEDIMENTS

OPEN FILE 1990-11

STREAM SEDIMENT GEOCHEMISTRY OF THE
PURCELL WILDERNESS CONSERVANCY STUDY AREA

SCALE 1 : 250 000

5 0 5 10 15 20

KILOMETRES

LEGEND

STRATIFIED ROCKS

MESOZOIC

TRIASSIC

Tsk — SLOCAN AND KASLO GROUPS: VOLCANIC ROCKS

PALEOZOIC

CARBONIFEROUS AND PERMIAN

Pm — MILFORD GROUP: SLATE AND SILTY SLATE; LIMESTONE AND CHERT

PRE-MISSISSIPPIAN

Pl — LARDEAU GROUP: CHLORITE-MUSCOVITE-QUARTZ SCHIST, BIOTITE-MUSCOVITE SCHIST, MICACEOUS QUARTZITE, AND TREMOLITE MARBLE

CAMBRIAN

Cbmh — BADSHOT-MOHICAN FORMATION AND HAMILL GROUP: MARBLE, PHYLLITE, MUSCOVITE-QUARTZ SCHIST; QUARTZITE AND MICACEOUS QUARTZITE, DARK SLATE AND MICA SCHIST

PROTEROZOIC

WINDERMERE SUPERGROUP (HADRYNIAN)

PCh — HORSETHIEF CREEK GROUP: PEBBLE CONGLOMERATE, GRITS, QUARTZITE AND SLATE

PURCELL SUPERGROUP (HELIKIAN)

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PCd — DUTCH CREEK FORMATION: GREEN SILTSTONE, BROWN DOLOMITIC SILTSTONE, GREY ARGILLITE, BUFF WEATHERING, ALGAL DOLOMITE, MINOR QUARTZ WACKE

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PCc — CRESTON FORMATION: GREY AND GREEN QUARTZ SILTSTONE AND ARGILLITE, GREEN OR GREY-WHITE QUARTZITE, MINOR GREEN QUARTZ WACKE, MINOR DOLOMITIC SILTSTONE

ALDRIDGE FORMATION

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PCal — LOWER DIVISION: THIN-BEDDED, RUSTY WEATHERING, QUARTZ WACKE, QUARTZ ARENITE, SILTSTONE AND ARGILLITE

INTRUSIVE ROCKS

MESOZOIC

CRETACEOUS

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STREAM SEDIMENTS		
CONCENTRATION		FREQUENCY
4.6 – 26.1	◇	N = 29 (5.0%)
3.1 – 4.5	◇	N = 24 (4.2%)
1.4 – 3.0	◆	N = 84 (14.6%)
0.7 – 1.3	◆	N = 124 (21.5%)
0.1 – 0.6	+	N = 316 (54.8%)

ARSENIC (ppm)
SEDIMENTS

OPEN FILE 1990-11

STREAM SEDIMENT GEOCHEMISTRY OF THE
PURCELL WILDERNESS CONSERVANCY STUDY AREA

SCALE 1 : 250 000

5 0 5 10 15 20

KILOMETRES

LEGEND

STRATIFIED ROCKS

MESOZOIC

TRIASSIC

Tsk SLOCAN AND KASLO GROUPS: VOLCANIC ROCKS

PALEOZOIC

CARBONIFEROUS AND PERMIAN

Pm MILFORD GROUP: SLATE AND SILTY SLATE; LIMESTONE AND CHERT

PRE-MISSISSIPPIAN

Pl LARDEAU GROUP: CHLORITE-MUSCOVITE-QUARTZ SCHIST, BIOTITE-MUSCOVITE SCHIST, MICACEOUS QUARTZITE, AND TREMOLITE MARBLE

CAMBRIAN

Cbmh BADSHOT-MOHICAN FORMATION AND HAMILL GROUP: MARBLE, PHYLLITE, MUSCOVITE-QUARTZ SCHIST; QUARTZITE AND MICACEOUS QUARTZITE, DARK SLATE AND MICA SCHIST

PROTEROZOIC

WINDERMERE SUPERGROUP (HADRYNIAN)

PCh HORSETHIEF CREEK GROUP: PEBBLE CONGLOMERATE, GRITS, QUARTZITE AND SLATE

PURCELL SUPERGROUP (HELIKIAN)

PCmn MOUNT NELSON FORMATION: WHITE QUARTZ ARENITE, GREEN SILTSTONE, DOLOMITIC QUARTZ WACKE AND SILTSTONE, MAROON ARGILLITE, BUFF DOLOMITE AND GREY LIMESTONE

PCd DUTCH CREEK FORMATION: GREEN SILTSTONE, BROWN DOLOMITIC SILTSTONE, GREY ARGILLITE, BUFF WEATHERING, ALGAL DOLOMITE, MINOR QUARTZ WACKE

PCk KITCHENER FORMATION: BUFF-WEATHERING, DOLOMITIC SILTSTONE AND DOLOMITE, GREY AND GREEN ARGILLITE AND SILTSTONE, MINOR LIMESTONE

PCc CRESTON FORMATION: GREY AND GREEN QUARTZ SILTSTONE AND ARGILLITE, GREEN OR GREY-WHITE QUARTZITE, MINOR GREEN QUARTZ WACKE, MINOR DOLOMITIC SILTSTONE

ALDRIDGE FORMATION

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PCal LOWER DIVISION: THIN-BEDDED, RUSTY WEATHERING, QUARTZ WACKE, QUARTZ ARENITE, SILTSTONE AND ARGILLITE

INTRUSIVE ROCKS

MESOZOIC

CRETACEOUS

Kmg QUARTZ MONZONITE, GRANODIORITE

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STREAM SEDIMENTS			
CONCENTRATION		FREQUENCY	
64 – 575	◇	N = 28	(4.9%)
39 – 63	◇	N = 28	(4.9%)
22 – 38	◆	N = 80	(13.9%)
9 – 21	◆	N = 149	(25.8%)
1 – 8	+	N = 292	(50.6%)

BARIUM (ppm)
SEDIMENTS

OPEN FILE 1990-11

STREAM SEDIMENT GEOCHEMISTRY OF THE
PURCELL WILDERNESS CONSERVANCY STUDY AREA

SCALE 1 : 250 000

5 0 5 10 15 20

KILOMETRES

LEGEND

STRATIFIED ROCKS

MESOZOIC

TRIASSIC

Tsk — SLOCAN AND KASLO GROUPS: VOLCANIC ROCKS

PALEOZOIC

CARBONIFEROUS AND PERMIAN

Pm — MILFORD GROUP: SLATE AND SILTY SLATE; LIMESTONE AND CHERT

PRE-MISSISSIPPIAN

Pl — LARDEAU GROUP: CHLORITE-MUSCOVITE-QUARTZ SCHIST, BIOTITE-MUSCOVITE SCHIST, MICACEOUS QUARTZITE, AND TREMOLITE MARBLE

CAMBRIAN

Cbmh — BADSHOT-MOHICAN FORMATION AND HAMILL GROUP: MARBLE, PHYLLITE, MUSCOVITE-QUARTZ SCHIST; QUARTZITE AND MICACEOUS QUARTZITE, DARK SLATE AND MICA SCHIST

PROTEROZOIC

WINDERMERE SUPERGROUP (HADRYNIAN)

PCh — HORSETHIEF CREEK GROUP: PEBBLE CONGLOMERATE, GRITS, QUARTZITE AND SLATE

PURCELL SUPERGROUP (HELIKIAN)

PCmn — MOUNT NELSON FORMATION: WHITE QUARTZ ARENITE, GREEN SILTSTONE, DOLOMITIC QUARTZ WACKE AND SILTSTONE, MAROON ARGILLITE, BUFF DOLOMITE AND GREY LIMESTONE

PCd — DUTCH CREEK FORMATION: GREEN SILTSTONE, BROWN DOLOMITIC SILTSTONE, GREY ARGILLITE, BUFF WEATHERING, ALGAL DOLOMITE, MINOR QUARTZ WACKE

PCk — KITCHENER FORMATION: BUFF-WEATHERING, DOLOMITIC SILTSTONE AND DOLOMITE, GREY AND GREEN ARGILLITE AND SILTSTONE, MINOR LIMESTONE

PCc — CRESTON FORMATION: GREY AND GREEN QUARTZ SILTSTONE AND ARGILLITE, GREEN OR GREY-WHITE QUARTZITE, MINOR GREEN QUARTZ WACKE, MINOR DOLOMITIC SILTSTONE

ALDRIDGE FORMATION

PCau — UPPER DIVISION: MASSIVE GREY QUARTZ ARENITE AND QUARTZ WACKE INTERBEDDED WITH THIN ARGILLITE; GREY ARGILLITE AND SILTSTONE

PCal — LOWER DIVISION: THIN-BEDDED, RUSTY WEATHERING, QUARTZ WACKE, QUARTZ ARENITE, SILTSTONE AND ARGILLITE

INTRUSIVE ROCKS

MESOZOIC

CRETACEOUS

Kmg — QUARTZ MONZONITE, GRANODIORITE

Geological base and legend derived from:
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STREAM SEDIMENTS		
CONCENTRATION		FREQUENCY
1401 – 6120	◇	N = 29 (5.0%)
1001 – 1400	◇	N = 23 (4.0%)
671 – 1000	◆	N = 93 (16.1%)
471 – 670	◆	N = 149 (25.8%)
50 – 470	+	N = 283 (49.0%)

CESIUM (ppm)
SEDIMENTS

OPEN FILE 1990-11

STREAM SEDIMENT GEOCHEMISTRY OF THE
PURCELL WILDERNESS CONSERVANCY STUDY AREA

SCALE 1 : 250 000

5 0 5 10 15 20

KILOMETRES

LEGEND

STRATIFIED ROCKS

MESOZOIC

TRIASSIC

Tsk SLOCAN AND KASLO GROUPS: VOLCANIC ROCKS

PALEOZOIC

CARBONIFEROUS AND PERMIAN

Pm MILFORD GROUP: SLATE AND SILTY SLATE; LIMESTONE AND CHERT

PRE-MISSISSIPPIAN

Pl LARDEAU GROUP: CHLORITE-MUSCOVITE-QUARTZ SCHIST, BIOTITE-MUSCOVITE SCHIST, MICACEOUS QUARTZITE, AND TREMOLITE MARBLE

CAMBRIAN

Cbmh BADSHOT-MOHICAN FORMATION AND HAMILL GROUP: MARBLE, PHYLLITE, MUSCOVITE-QUARTZ SCHIST; QUARTZITE AND MICACEOUS QUARTZITE, DARK SLATE AND MICA SCHIST

PROTEROZOIC

WINDERMERE SUPERGROUP (HADRYNIAN)

PCh HORSETHIEF CREEK GROUP: PEBBLE CONGLOMERATE, GRITS, QUARTZITE AND SLATE

PURCELL SUPERGROUP (HELIKIAN)

PCmn MOUNT NELSON FORMATION: WHITE QUARTZ ARENITE, GREEN SILTSTONE, DOLOMITIC QUARTZ WACKE AND SILTSTONE, MAROON ARGILLITE, BUFF DOLOMITE AND GREY LIMESTONE

PCd DUTCH CREEK FORMATION: GREEN SILTSTONE, BROWN DOLOMITIC SILTSTONE, GREY ARGILLITE, BUFF WEATHERING, ALGAL DOLOMITE, MINOR QUARTZ WACKE

PCk KITCHENER FORMATION: BUFF-WEATHERING, DOLOMITIC SILTSTONE AND DOLOMITE, GREY AND GREEN ARGILLITE AND SILTSTONE, MINOR LIMESTONE

PCc CRESTON FORMATION: GREY AND GREEN QUARTZ SILTSTONE AND ARGILLITE, GREEN OR GREY-WHITE QUARTZITE, MINOR GREEN QUARTZ WACKE, MINOR DOLOMITIC SILTSTONE

ALDRIDGE FORMATION

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PCal LOWER DIVISION: THIN-BEDDED, RUSTY WEATHERING, QUARTZ WACKE, QUARTZ ARENITE, SILTSTONE AND ARGILLITE

INTRUSIVE ROCKS

MESOZOIC

CRETACEOUS

Kmg QUARTZ MONZONITE, GRANODIORITE

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STREAM SEDIMENTS			
CONCENTRATION		FREQUENCY	
18 – 47	◇	N = 28	(4.9%)
13 – 17	◇	N = 30	(5.2%)
9 – 12	◆	N = 81	(14.0%)
6 – 8	◆	N = 138	(23.9%)
1 – 5	+	N = 300	(52.0%)

COBALT (ppm)
SEDIMENTS

OPEN FILE 1990-11

STREAM SEDIMENT GEOCHEMISTRY OF THE PURCELL WILDERNESS CONSERVANCY STUDY AREA

SCALE 1 : 250 000

5 0 5 10 15 20

KILOMETRES

LEGEND

STRATIFIED ROCKS

MESOZOIC

TRIASSIC

Tsk — SLOCAN AND KASLO GROUPS: VOLCANIC ROCKS

PALEOZOIC

CARBONIFEROUS AND PERMIAN

Pm — MILFORD GROUP: SLATE AND SILTY SLATE; LIMESTONE AND CHERT

PRE-MISSISSIPPIAN

Pl — LARDEAU GROUP: CHLORITE-MUSCOVITE-QUARTZ SCHIST, BIOTITE-MUSCOVITE SCHIST, MICACEOUS QUARTZITE, AND TREMOLITE MARBLE

CAMBRIAN

Cbmh — BADSHOT-MOHICAN FORMATION AND HAMILL GROUP: MARBLE, PHYLLITE, MUSCOVITE-QUARTZ SCHIST; QUARTZITE AND MICACEOUS QUARTZITE, DARK SLATE AND MICA SCHIST

PROTEROZOIC

WINDERMERE SUPERGROUP (HADRYNIAN)

PCh — HORSETHIEF CREEK GROUP: PEBBLE CONGLOMERATE, GRITS, QUARTZITE AND SLATE

PURCELL SUPERGROUP (HELIKIAN)

PCmn — MOUNT NELSON FORMATION: WHITE QUARTZ ARENITE, GREEN SILTSTONE, DOLOMITIC QUARTZ WACKE AND SILTSTONE, MAROON ARGILLITE, BUFF DOLOMITE AND GREY LIMESTONE

PCd — DUTCH CREEK FORMATION: GREEN SILTSTONE, BROWN DOLOMITIC SILTSTONE, GREY ARGILLITE, BUFF WEATHERING, ALGAL DOLOMITE, MINOR QUARTZ WACKE

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PCc — CRESTON FORMATION: GREY AND GREEN QUARTZ SILTSTONE AND ARGILLITE, GREEN OR GREY-WHITE QUARTZITE, MINOR GREEN QUARTZ WACKE, MINOR DOLOMITIC SILTSTONE

ALDRIDGE FORMATION

PCau — UPPER DIVISION: MASSIVE GREY QUARTZ ARENITE AND QUARTZ WACKE INTERBEDDED WITH THIN ARGILLITE; GREY ARGILLITE AND SILTSTONE

PCal — LOWER DIVISION: THIN-BEDDED, RUSTY WEATHERING, QUARTZ WACKE, QUARTZ ARENITE, SILTSTONE AND ARGILLITE

INTRUSIVE ROCKS

MESOZOIC

CRETACEOUS

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STREAM SEDIMENTS			
CONCENTRATION		FREQUENCY	
35 – 160	◇	N = 27	(4.7%)
28 – 34	◇	N = 30	(5.2%)
20 – 27	◆	N = 71	(12.3%)
14 – 19	◆	N = 157	(27.2%)
5 – 13	+	N = 292	(50.6%)

COPPER (ppm)
SEDIMENTS

OPEN FILE 1990-11

STREAM SEDIMENT GEOCHEMISTRY OF THE PURCELL WILDERNESS CONSERVANCY STUDY AREA

SCALE 1 : 250 000

5 0 5 10 15 20

KILOMETRES

LEGEND

STRATIFIED ROCKS

MESOZOIC

TRIASSIC

Tsk — SLOCAN AND KASLO GROUPS: VOLCANIC ROCKS

PALEOZOIC

CARBONIFEROUS AND PERMIAN

Pm — MILFORD GROUP: SLATE AND SILTY SLATE; LIMESTONE AND CHERT

PRE-MISSISSIPPIAN

Pl — LARDEAU GROUP: CHLORITE-MUSCOVITE-QUARTZ SCHIST, BIOTITE-MUSCOVITE SCHIST, MICACEOUS QUARTZITE, AND TREMOLITE MARBLE

CAMBRIAN

Cbmh — BADSHOT-MOHICAN FORMATION AND HAMILL GROUP: MARBLE, PHYLLITE, MUSCOVITE-QUARTZ SCHIST; QUARTZITE AND MICACEOUS QUARTZITE, DARK SLATE AND MICA SCHIST

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ALDRIDGE FORMATION

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INTRUSIVE ROCKS

MESOZOIC

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STREAM SEDIMENTS			
CONCENTRATION		FREQUENCY	
63 – 1200	◇	N = 30	(5.0%)
49 – 62	◇	N = 30	(5.0%)
33 – 48	◆	N = 81	(13.4%)
23 – 32	◆	N = 147	(24.3%)
2 – 22	+	N = 317	(52.4%)

CHROMIUM (ppm)
SEDIMENTS

OPEN FILE 1990-11

STREAM SEDIMENT GEOCHEMISTRY OF THE
PURCELL WILDERNESS CONSERVANCY STUDY AREA

SCALE 1 : 250 000

5 0 5 10 15 20

KILOMETRES

LEGEND

STRATIFIED ROCKS

MESOZOIC

TRIASSIC

Tsk — SLOCAN AND KASLO GROUPS: VOLCANIC ROCKS

PALEOZOIC

CARBONIFEROUS AND PERMIAN

Pm — MILFORD GROUP: SLATE AND SILTY SLATE; LIMESTONE AND CHERT

PRE-MISSISSIPPIAN

Pl — LARDEAU GROUP: CHLORITE-MUSCOVITE-QUARTZ SCHIST, BIOTITE-MUSCOVITE SCHIST, MICACEOUS QUARTZITE, AND TREMOLITE MARBLE

CAMBRIAN

Cbmh — BADSHOT-MOHICAN FORMATION AND HAMILL GROUP: MARBLE, PHYLLITE MUSCOVITE-QUARTZ SCHIST; QUARTZITE AND MICACEOUS QUARTZITE, DARK SLATE AND MICA SCHIST

PROTEROZOIC

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PCau — UPPER DIVISION: MASSIVE GREY QUARTZ ARENITE AND QUARTZ WACKE INTERBEDDED WITH THIN ARGILLITE; GREY ARGILLITE AND SILTSTONE

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INTRUSIVE ROCKS

MESOZOIC

CRETACEOUS

Kmg — QUARTZ MONZONITE, GRANODIORITE

Geological base and legend derived from:
Reesor, J.E. (1973): Geology of the Lardeau Map-area, East-Half, British Columbia; Geological Survey of Canada, Memoir 369, 129 pages.

STREAM SEDIMENTS			
CONCENTRATION		FREQUENCY	
121 – 666	◇	N = 27	(4.7%)
89 – 120	◇	N = 30	(5.2%)
60 – 88	◆	N = 86	(14.9%)
43 – 59	◆	N = 133	(23.1%)
20 – 42	+	N = 301	(52.2%)

IRON (pct)
SEDIMENTS

OPEN FILE 1990-11

STREAM SEDIMENT GEOCHEMISTRY OF THE
PURCELL WILDERNESS CONSERVANCY STUDY AREA

SCALE 1 : 250 000

5 0 5 10 15 20

KILOMETRES

LEGEND

STRATIFIED ROCKS

MESOZOIC

TRIASSIC

Tsk SLOCAN AND KASLO GROUPS: VOLCANIC ROCKS

PALEOZOIC

CARBONIFEROUS AND PERMIAN

Pm MILFORD GROUP: SLATE AND SILTY SLATE; LIMESTONE AND CHERT

PRE-MISSISSIPPIAN

Pl LARDEAU GROUP: CHLORITE-MUSCOVITE-QUARTZ SCHIST, BIOTITE-MUSCOVITE SCHIST, MICACEOUS QUARTZITE, AND TREMOLITE MARBLE

CAMBRIAN

Cbmh BADSHOT-MOHICAN FORMATION AND HAMILL GROUP: MARBLE, PHYLLITE, MUSCOVITE-QUARTZ SCHIST; QUARTZITE AND MICACEOUS QUARTZITE, DARK SLATE AND MICA SCHIST

PROTEROZOIC

WINDERMERE SUPERGROUP (HADRYNIAN)

PCh HORSETHIEF CREEK GROUP: PEBBLE CONGLOMERATE, GRITS, QUARTZITE AND SLATE

PURCELL SUPERGROUP (HELIKIAN)

PCmn MOUNT NELSON FORMATION: WHITE QUARTZ ARENITE, GREEN SILTSTONE, DOLOMITIC QUARTZ WACKE AND SILTSTONE, MAROON ARGILLITE, BUFF DOLOMITE AND GREY LIMESTONE

PCd DUTCH CREEK FORMATION: GREEN SILTSTONE, BROWN DOLOMITIC SILTSTONE, GREY ARGILLITE, BUFF WEATHERING, ALGAL DOLOMITE, MINOR QUARTZ WACKE

PCk KITCHENER FORMATION: BUFF-WEATHERING, DOLOMITIC SILTSTONE AND DOLOMITE, GREY AND GREEN ARGILLITE AND SILTSTONE, MINOR LIMESTONE

PCc CRESTON FORMATION: GREY AND GREEN QUARTZ SILTSTONE AND ARGILLITE, GREEN OR GREY-WHITE QUARTZITE, MINOR GREEN QUARTZ WACKE, MINOR DOLOMITIC SILTSTONE

ALDRIDGE FORMATION

PCau UPPER DIVISION: MASSIVE GREY QUARTZ ARENITE AND QUARTZ WACKE INTERBEDDED WITH THIN ARGILLITE; GREY ARGILLITE AND SILTSTONE

PCal LOWER DIVISION: THIN-BEDDED, RUSTY WEATHERING, QUARTZ WACKE, QUARTZ ARENITE, SILTSTONE AND ARGILLITE

INTRUSIVE ROCKS

MESOZOIC

CRETACEOUS

Kmg QUARTZ MONZONITE, GRANODIORITE

Geological base and legend derived from:
Reesor, J.E. (1973): Geology of the Lardeau Map-area, East-Half, British Columbia; Geological Survey of Canada, Memoir 369, 129 pages.

STREAM SEDIMENTS			
CONCENTRATION		FREQUENCY	
5.61 – 8.80	◇	N = 22	(3.8%)
4.81 – 5.60	◇	N = 33	(5.7%)
3.81 – 4.80	◆	N = 84	(14.6%)
3.01 – 3.80	◆	N = 137	(23.7%)
0.20 – 3.00	+	N = 301	(52.2%)

LEAD (ppm)
SEDIMENTS

OPEN FILE 1990-11

STREAM SEDIMENT GEOCHEMISTRY OF THE
PURCELL WILDERNESS CONSERVANCY STUDY AREA

SCALE 1 : 250 000

5 0 5 10 15 20

KILOMETRES

LEGEND

STRATIFIED ROCKS

MESOZOIC

TRIASSIC

Tsk SLOCAN AND KASLO GROUPS: VOLCANIC ROCKS

PALEOZOIC

CARBONIFEROUS AND PERMIAN

Pm MILFORD GROUP: SLATE AND SILTY SLATE; LIMESTONE AND CHERT

PRE-MISSISSIPPIAN

Pl LARDEAU GROUP: CHLORITE-MUSCOVITE-QUARTZ SCHIST, BIOTITE-MUSCOVITE SCHIST, MICACEOUS QUARTZITE, AND TREMOLITE MARBLE

CAMBRIAN

Cbmh BADSHOT-MOHICAN FORMATION AND HAMILL GROUP: MARBLE, PHYLLITE MUSCOVITE-QUARTZ SCHIST; QUARTZITE AND MICACEOUS QUARTZITE, DARK SLATE AND MICA SCHIST

PROTEROZOIC

WINDERMERE SUPERGROUP (HADRYNIAN)

PCh HORSETHIEF CREEK GROUP: PEBBLE CONGLOMERATE, GRITS, QUARTZITE AND SLATE

PURCELL SUPERGROUP (HELIKIAN)

PCmn MOUNT NELSON FORMATION: WHITE QUARTZ ARENITE, GREEN SILTSTONE, DOLOMITIC QUARTZ WACKE AND SILTSTONE, MAROON ARGILLITE, BUFF DOLOMITE AND GREY LIMESTONE

PCd DUTCH CREEK FORMATION: GREEN SILTSTONE, BROWN DOLOMITIC SILTSTONE, GREY ARGILLITE, BUFF WEATHERING, ALGAL DOLOMITE, MINOR QUARTZ WACKE

PCk KITCHENER FORMATION: BUFF-WEATHERING, DOLOMITIC SILTSTONE AND DOLOMITE, GREY AND GREEN ARGILLITE AND SILTSTONE, MINOR LIMESTONE

PCc CRESTON FORMATION: GREY AND GREEN QUARTZ SILTSTONE AND ARGILLITE, GREEN OR GREY-WHITE QUARTZITE, MINOR GREEN QUARTZ WACKE, MINOR DOLOMITIC SILTSTONE

ALDRIDGE FORMATION

PCau UPPER DIVISION: MASSIVE GREY QUARTZ ARENITE AND QUARTZ WACKE INTERBEDDED WITH THIN ARGILLITE; GREY ARGILLITE AND SILTSTONE

PCal LOWER DIVISION: THIN-BEDDED, RUSTY WEATHERING, QUARTZ WACKE, QUARTZ ARENITE, SILTSTONE AND ARGILLITE

INTRUSIVE ROCKS

MESOZOIC

CRETACEOUS

Kmg QUARTZ MONZONITE, GRANODIORITE

Geological base and legend derived from:
Reesor, J.E. (1973): Geology of the Lardeau Map-area, East-Half, British Columbia; Geological Survey of Canada, Memoir 369, 129 pages.

STREAM SEDIMENTS			
CONCENTRATION		FREQUENCY	
57 – 1450	◇	N = 30	(5.0%)
37 – 56	◇	N = 25	(4.1%)
22 – 36	◆	N = 96	(15.9%)
14 – 21	◆	N = 139	(23.0%)
1 – 13	+	N = 315	(52.1%)

MOLYBDENUM (ppm)
SEDIMENTS

OPEN FILE 1990-11

STREAM SEDIMENT GEOCHEMISTRY OF THE PURCELL WILDERNESS CONSERVANCY STUDY AREA

SCALE 1 : 250 000

5 0 5 10 15 20

KILOMETRES

LEGEND

STRATIFIED ROCKS

MESOZOIC

TRIASSIC

Tsk SLOCAN AND KASLO GROUPS: VOLCANIC ROCKS

PALEOZOIC

CARBONIFEROUS AND PERMIAN

Pm MILFORD GROUP: SLATE AND SILTY SLATE; LIMESTONE AND CHERT

PRE-MISSISSIPPIAN

Pl LARDEAU GROUP: CHLORITE-MUSCOVITE-QUARTZ SCHIST, BIOTITE-MUSCOVITE SCHIST, MICACEOUS QUARTZITE, AND TREMOLITE MARBLE

CAMBRIAN

Cbmh BADSHOT-MOHICAN FORMATION AND HAMILL GROUP: MARBLE, PHYLLITE, MUSCOVITE-QUARTZ SCHIST; QUARTZITE AND MICACEOUS QUARTZITE, DARK SLATE AND MICA SCHIST

PROTEROZOIC

WINDERMERE SUPERGROUP (HADRYNIAN)

PCh HORSETHIEF CREEK GROUP: PEBBLE CONGLOMERATE, GRITS, QUARTZITE AND SLATE

PURCELL SUPERGROUP (HELIKIAN)

PCmn MOUNT NELSON FORMATION: WHITE QUARTZ ARENITE, GREEN SILTSTONE, DOLOMITIC QUARTZ WACKE AND SILTSTONE, MAROON ARGILLITE, BUFF DOLOMITE AND GREY LIMESTONE

PCd DUTCH CREEK FORMATION: GREEN SILTSTONE, BROWN DOLOMITIC SILTSTONE, GREY ARGILLITE, BUFF WEATHERING, ALGAL DOLOMITE, MINOR QUARTZ WACKE

PCk KITCHENER FORMATION: BUFF-WEATHERING, DOLOMITIC SILTSTONE AND DOLOMITE, GREY AND GREEN ARGILLITE AND SILTSTONE, MINOR LIMESTONE

PCc CRESTON FORMATION: GREY AND GREEN QUARTZ SILTSTONE AND ARGILLITE, GREEN OR GREY-WHITE QUARTZITE, MINOR GREEN QUARTZ WACKE, MINOR DOLOMITIC SILTSTONE

ALDRIDGE FORMATION

PCau UPPER DIVISION: MASSIVE GREY QUARTZ ARENITE AND QUARTZ WACKE INTERBEDDED WITH THIN ARGILLITE; GREY ARGILLITE AND SILTSTONE

PCal LOWER DIVISION: THIN-BEDDED, RUSTY WEATHERING, QUARTZ WACKE, QUARTZ ARENITE, SILTSTONE AND ARGILLITE

INTRUSIVE ROCKS

MESOZOIC

CRETACEOUS

Kmg QUARTZ MONZONITE, GRANODIORITE

Geological base and legend derived from:
Reesor, J.E. (1973): Geology of the Lardeau Map-area, East-Half, British Columbia; Geological Survey of Canada, Memoir 369, 129 pages.

STREAM SEDIMENTS			
CONCENTRATION		FREQUENCY	
6 – 54	◇	N = 19	(3.3%)
4 – 5	◈	N = 16	(2.8%)
3 – 3	◆	N = 20	(3.5%)
2 – 2	•	N = 40	(6.9%)
1 – 1	+	N = 482	(83.5%)

NICKEL (ppm)
SEDIMENTS

OPEN FILE 1990-11

STREAM SEDIMENT GEOCHEMISTRY OF THE PURCELL WILDERNESS CONSERVANCY STUDY AREA

SCALE 1 : 250 000

5 0 5 10 15 20

KILOMETRES

LEGEND

STRATIFIED ROCKS

MESOZOIC

TRIASSIC

Tsk SLOCAN AND KASLO GROUPS: VOLCANIC ROCKS

PALEOZOIC

CARBONIFEROUS AND PERMIAN

Pm MILFORD GROUP: SLATE AND SILTY SLATE; LIMESTONE AND CHERT

PRE-MISSISSIPPIAN

Pl LARDEAU GROUP: CHLORITE-MUSCOVITE-QUARTZ SCHIST, BIOTITE-MUSCOVITE SCHIST, MICACEOUS QUARTZITE, AND TREMOLITE MARBLE

CAMBRIAN

Cbmh BADSHOT-MOHICAN FORMATION AND HAMILL GROUP: MARBLE, PHYLLITE, MUSCOVITE-QUARTZ SCHIST; QUARTZITE AND MICACEOUS QUARTZITE, DARK SLATE AND MICA SCHIST

PROTEROZOIC

WINDERMERE SUPERGROUP (HADRYNIAN)

PCh HORSETHIEF CREEK GROUP: PEBBLE CONGLOMERATE, GRITS, QUARTZITE AND SLATE

PURCELL SUPERGROUP (HELIKIAN)

PCmn MOUNT NELSON FORMATION: WHITE QUARTZ ARENITE, GREEN SILTSTONE, DOLOMITIC QUARTZ WACKE AND SILTSTONE, MAROON ARGILLITE, BUFF DOLOMITE AND GREY LIMESTONE

PCd DUTCH CREEK FORMATION: GREEN SILTSTONE, BROWN DOLOMITIC SILTSTONE, GREY ARGILLITE, BUFF WEATHERING, ALGAL DOLOMITE, MINOR QUARTZ WACKE

PCk KITCHENER FORMATION: BUFF-WEATHERING, DOLOMITIC SILTSTONE AND DOLOMITE, GREY AND GREEN ARGILLITE AND SILTSTONE, MINOR LIMESTONE

PCc CRESTON FORMATION: GREY AND GREEN QUARTZ SILTSTONE AND ARGILLITE, GREEN OR GREY-WHITE QUARTZITE, MINOR GREEN QUARTZ WACKE, MINOR DOLOMITIC SILTSTONE

ALDRIDGE FORMATION

PCau UPPER DIVISION: MASSIVE GREY QUARTZ ARENITE AND QUARTZ WACKE INTERBEDDED WITH THIN ARGILLITE; GREY ARGILLITE AND SILTSTONE

PCal LOWER DIVISION: THIN-BEDDED, RUSTY WEATHERING, QUARTZ WACKE, QUARTZ ARENITE, SILTSTONE AND ARGILLITE

INTRUSIVE ROCKS

MESOZOIC

CRETACEOUS

Kmg QUARTZ MONZONITE, GRANODIORITE

Geological base and legend derived from:
Reesor, J.E. (1973): Geology of the Lardeau Map-area, East-Half, British Columbia; Geological Survey of Canada, Memoir 369, 129 pages.

STREAM SEDIMENTS			
CONCENTRATION		FREQUENCY	
69 – 300	◇	N = 27	(4.7%)
51 – 68	◈	N = 29	(5.0%)
28 – 50	◆	N = 87	(15.1%)
18 – 27	•	N = 133	(23.1%)
10 – 17	+	N = 301	(52.2%)

THORIUM (ppm)
SEDIMENTS

OPEN FILE 1990-11

STREAM SEDIMENT GEOCHEMISTRY OF THE
PURCELL WILDERNESS CONSERVANCY STUDY AREA

SCALE 1 : 250 000

5 0 5 10 15 20

KILOMETRES

LEGEND

STRATIFIED ROCKS

MESOZOIC

TRIASSIC

Tsk — SLOCAN AND KASLO GROUPS: VOLCANIC ROCKS

PALEOZOIC

CARBONIFEROUS AND PERMIAN

Pm — MILFORD GROUP: SLATE AND SILTY SLATE; LIMESTONE AND CHERT

PRE-MISSISSIPPIAN

Pl — LARDEAU GROUP: CHLORITE-MUSCOVITE-QUARTZ SCHIST, BIOTITE-MUSCOVITE SCHIST, MICACEOUS QUARTZITE, AND TREMOLITE MARBLE

CAMBRIAN

Cbmh — BADSHOT-MOHICAN FORMATION AND HAMILL GROUP: MARBLE, PHYLLITE, MUSCOVITE-QUARTZ SCHIST; QUARTZITE AND MICACEOUS QUARTZITE, DARK SLATE AND MICA SCHIST

PROTEROZOIC

WINDERMERE SUPERGROUP (HADRYNIAN)

PCh — HORSETHIEF CREEK GROUP: PEBBLE CONGLOMERATE, GRITS, QUARTZITE AND SLATE

PURCELL SUPERGROUP (HELIKIAN)

PCmn — MOUNT NELSON FORMATION: WHITE QUARTZ ARENITE, GREEN SILTSTONE, DOLOMITIC QUARTZ WACKE AND SILTSTONE, MAROON ARGILLITE, BUFF DOLOMITE AND GREY LIMESTONE

PCd — DUTCH CREEK FORMATION: GREEN SILTSTONE, BROWN DOLOMITIC SILTSTONE, GREY ARGILLITE, BUFF WEATHERING, ALGAL DOLOMITE, MINOR QUARTZ WACKE

PCk — KITCHENER FORMATION: BUFF-WEATHERING, DOLOMITIC SILTSTONE AND DOLOMITE, GREY AND GREEN ARGILLITE AND SILTSTONE, MINOR LIMESTONE

PCc — CRESTON FORMATION: GREY AND GREEN QUARTZ SILTSTONE AND ARGILLITE, GREEN OR GREY-WHITE QUARTZITE, MINOR GREEN QUARTZ WACKE, MINOR DOLOMITIC SILTSTONE

ALDRIDGE FORMATION

PCau — UPPER DIVISION: MASSIVE GREY QUARTZ ARENITE AND QUARTZ WACKE INTERBEDDED WITH THIN ARGILLITE; GREY ARGILLITE AND SILTSTONE

PCal — LOWER DIVISION: THIN-BEDDED, RUSTY WEATHERING, QUARTZ WACKE, QUARTZ ARENITE, SILTSTONE AND ARGILLITE

INTRUSIVE ROCKS

MESOZOIC

CRETACEOUS

Kmg — QUARTZ MONZONITE, GRANODIORITE

Geological base and legend derived from:
Reesor, J.E. (1973): Geology of the Lardeau Map-area, East-Half, British Columbia; Geological Survey of Canada, Memoir 369, 129 pages.

STREAM SEDIMENTS			
CONCENTRATION		FREQUENCY	
49.6 – 308.0	◇	N = 26	(4.5%)
35.4 – 49.5	◇	N = 29	(5.0%)
19.1 – 35.3	◆	N = 81	(14.0%)
15.1 – 19.0	◆	N = 114	(19.8%)
0.2 – 15.0	+	N = 327	(56.7%)

TUNGSTEN (ppm)
SEDIMENTS

OPEN FILE 1990-11

STREAM SEDIMENT GEOCHEMISTRY OF THE
PURCELL WILDERNESS CONSERVANCY STUDY AREA

SCALE 1 : 250 000

5 0 5 10 15 20

KILOMETRES

LEGEND

STRATIFIED ROCKS

MESOZOIC

TRIASSIC

- **Tsk** — SLOCAN AND KASLO GROUPS: VOLCANIC ROCKS

PALEOZOIC

CARBONIFEROUS AND PERMIAN

- **Pm** — MILFORD GROUP: SLATE AND SILTY SLATE; LIMESTONE AND CHERT

PRE-MISSISSIPPIAN

- **Pl** — LARDEAU GROUP: CHLORITE-MUSCOVITE-QUARTZ SCHIST, BIOTITE-MUSCOVITE SCHIST, MICACEOUS QUARTZITE, AND TREMOLITE MARBLE

CAMBRIAN

- **Cbmh** — BADSHOT-MOHICAN FORMATION AND HAMILL GROUP: MARBLE, PHYLLITE, MUSCOVITE-QUARTZ SCHIST; QUARTZITE AND MICACEOUS QUARTZITE, DARK SLATE AND MICA SCHIST

PROTEROZOIC

WINDERMERE SUPERGROUP (HADRYNIAN)

- **PCh** — HORSETHIEF CREEK GROUP: PEBBLE CONGLOMERATE, GRITS, QUARTZITE AND SLATE

PURCELL SUPERGROUP (HELIKIAN)

- **PCmn** — MOUNT NELSON FORMATION: WHITE QUARTZ ARENITE, GREEN SILTSTONE, DOLOMITIC QUARTZ WACKE AND SILTSTONE, MAROON ARGILLITE, BUFF DOLOMITE AND GREY LIMESTONE
- **PCd** — DUTCH CREEK FORMATION: GREEN SILTSTONE, BROWN DOLOMITIC SILTSTONE, GREY ARGILLITE, BUFF WEATHERING, ALGAL DOLOMITE, MINOR QUARTZ WACKE
- **PCk** — KITCHENER FORMATION: BUFF-WEATHERING, DOLOMITIC SILTSTONE AND DOLOMITE, GREY AND GREEN ARGILLITE AND SILTSTONE, MINOR LIMESTONE
- **PCc** — CRESTON FORMATION: GREY AND GREEN QUARTZ SILTSTONE AND ARGILLITE, GREEN OR GREY-WHITE QUARTZITE, MINOR GREEN QUARTZ WACKE, MINOR DOLOMITIC SILTSTONE

ALDRIDGE FORMATION

- **PCau** — UPPER DIVISION: MASSIVE GREY QUARTZ ARENITE AND QUARTZ WACKE INTERBEDDED WITH THIN ARGILLITE; GREY ARGILLITE AND SILTSTONE
- **PCal** — LOWER DIVISION: THIN-BEDDED, RUSTY WEATHERING, QUARTZ WACKE, QUARTZ ARENITE, SILTSTONE AND ARGILLITE

INTRUSIVE ROCKS

MESOZOIC

CRETACEOUS

- **Kmg** — QUARTZ MONZONITE, GRANODIORITE

Geological base and legend derived from:
Reesor, J.E. (1973): Geology of the Lardeau Map-area, East-Half, British Columbia; Geological Survey of Canada, Memoir 369, 129 pages.

STREAM SEDIMENTS			
CONCENTRATION		FREQUENCY	
33 – 130	◇	N = 28	(4.9%)
17 – 32	◇	N = 28	(4.9%)
7 – 16	◆	N = 79	(13.7%)
3 – 6	•	N = 129	(22.4%)
1 – 2	+	N = 313	(54.2%)

URANIUM (ppm)
SEDIMENTS

OPEN FILE 1990-11

STREAM SEDIMENT GEOCHEMISTRY OF THE
PURCELL WILDERNESS CONSERVANCY STUDY AREA

SCALE 1 : 250 000

5 0 5 10 15 20

KILOMETRES

LEGEND

STRATIFIED ROCKS

MESOZOIC

TRIASSIC

- **Tsk** — SLOCAN AND KASLO GROUPS: VOLCANIC ROCKS

PALEOZOIC

CARBONIFEROUS AND PERMIAN

- **Pm** — MILFORD GROUP: SLATE AND SILTY SLATE; LIMESTONE AND CHERT

PRE-MISSISSIPPIAN

- **Pl** — LARDEAU GROUP: CHLORITE-MUSCOVITE-QUARTZ SCHIST, BIOTITE-MUSCOVITE SCHIST, MICACEOUS QUARTZITE, AND TREMOLITE MARBLE

CAMBRIAN

- **Cbmh** — BADSHOT-MOHICAN FORMATION AND HAMILL GROUP: MARBLE, PHYLLITE, MUSCOVITE-QUARTZ SCHIST; QUARTZITE AND MICACEOUS QUARTZITE, DARK SLATE AND MICA SCHIST

PROTEROZOIC

WINDERMERE SUPERGROUP (HADRYNIAN)

- **PCh** — HORSETHIEF CREEK GROUP: PEBBLE CONGLOMERATE, GRITS, QUARTZITE AND SLATE

PURCELL SUPERGROUP (HELIKIAN)

- **PCmn** — MOUNT NELSON FORMATION: WHITE QUARTZ ARENITE, GREEN SILTSTONE, DOLOMITIC QUARTZ WACKE AND SILTSTONE, MAROON ARGILLITE, BUFF DOLOMITE AND GREY LIMESTONE
- **PCd** — DUTCH CREEK FORMATION: GREEN SILTSTONE, BROWN DOLOMITIC SILTSTONE, GREY ARGILLITE, BUFF WEATHERING, ALGAL DOLOMITE, MINOR QUARTZ WACKE
- **PCk** — KITCHENER FORMATION: BUFF-WEATHERING, DOLOMITIC SILTSTONE AND DOLOMITE, GREY AND GREEN ARGILLITE AND SILTSTONE, MINOR LIMESTONE
- **PCc** — CRESTON FORMATION: GREY AND GREEN QUARTZ SILTSTONE AND ARGILLITE, GREEN OR GREY-WHITE QUARTZITE, MINOR GREEN QUARTZ WACKE, MINOR DOLOMITIC SILTSTONE

ALDRIDGE FORMATION

- **PCau** — UPPER DIVISION: MASSIVE GREY QUARTZ ARENITE AND QUARTZ WACKE INTERBEDDED WITH THIN ARGILLITE; GREY ARGILLITE AND SILTSTONE
- **PCal** — LOWER DIVISION: THIN-BEDDED, RUSTY WEATHERING, QUARTZ WACKE, QUARTZ ARENITE, SILTSTONE AND ARGILLITE

INTRUSIVE ROCKS

MESOZOIC

CRETACEOUS

- **Kmg** — QUARTZ MONZONITE, GRANODIORITE

Geological base and legend derived from:
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STREAM SEDIMENTS			
CONCENTRATION		FREQUENCY	
45.9 – 283.0	◇	N = 29	(5.0%)
29.5 – 45.8	◇	N = 28	(4.9%)
10.1 – 29.4	◆	N = 84	(14.6%)
5.6 – 10.0	◆	N = 144	(25.0%)
0.2 – 5.5	+	N = 292	(50.6%)

ZINC (ppm)
SEDIMENTS

OPEN FILE 1990-11

STREAM SEDIMENT GEOCHEMISTRY OF THE
PURCELL WILDERNESS CONSERVANCY STUDY AREA

SCALE 1 : 250 000

0 5 10 15 20

KILOMETRES

LEGEND

STRATIFIED ROCKS

MESOZOIC

TRIASSIC

Tsk SLOCAN AND KASLO GROUPS: VOLCANIC ROCKS

PALEOZOIC

CARBONIFEROUS AND PERMIAN

Pm MILFORD GROUP: SLATE AND SILTY SLATE; LIMESTONE AND CHERT

PRE-MISSISSIPPIAN

Pl LARDEAU GROUP: CHLORITE-MUSCOVITE-QUARTZ SCHIST, BIOTITE-MUSCOVITE SCHIST, MICACEOUS QUARTZITE, AND TREMOLITE MARBLE

CAMBRIAN

Cbmh BADSHOT-MOHICAN FORMATION AND HAMILL GROUP: MARBLE, PHYLLITE, MUSCOVITE-QUARTZ SCHIST; QUARTZITE AND MICACEOUS QUARTZITE, DARK SLATE AND MICA SCHIST

PROTEROZOIC

WINDERMERE SUPERGROUP (HADRYNIAN)

PCh HORSETHIEF CREEK GROUP: PEBBLE CONGLOMERATE, GRITS, QUARTZITE AND SLATE

PURCELL SUPERGROUP (HELIKIAN)

PCmn MOUNT NELSON FORMATION: WHITE QUARTZ ARENITE, GREEN SILTSTONE, DOLOMITIC QUARTZ WACKE AND SILTSTONE, MAROON ARGILLITE, BUFF DOLOMITE AND GREY LIMESTONE

PCd DUTCH CREEK FORMATION: GREEN SILTSTONE, BROWN DOLOMITIC SILTSTONE, GREY ARGILLITE, BUFF WEATHERING, ALGAL DOLOMITE, MINOR QUARTZ WACKE

PCk KITCHENER FORMATION: BUFF-WEATHERING, DOLOMITIC SILTSTONE AND DOLOMITE, GREY AND GREEN ARGILLITE AND SILTSTONE, MINOR LIMESTONE

PCc CRESTON FORMATION: GREY AND GREEN QUARTZ SILTSTONE AND ARGILLITE, GREEN OR GREY-WHITE QUARTZITE, MINOR GREEN QUARTZ WACKE, MINOR DOLOMITIC SILTSTONE

ALDRIDGE FORMATION

PCau UPPER DIVISION: MASSIVE GREY QUARTZ ARENITE AND QUARTZ WACKE INTERBEDDED WITH THIN ARGILLITE; GREY ARGILLITE AND SILTSTONE

PCal LOWER DIVISION: THIN-BEDDED, RUSTY WEATHERING, QUARTZ WACKE, QUARTZ ARENITE, SILTSTONE AND ARGILLITE

INTRUSIVE ROCKS

MESOZOIC

CRETACEOUS

Kmg QUARTZ MONZONITE, GRANODIORITE

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STREAM SEDIMENTS			
CONCENTRATION		FREQUENCY	
179 – 6000	◇	N = 31	(5.1%)
133 – 178	◇	N = 31	(5.1%)
81 – 132	◆	N = 90	(14.9%)
53 – 80	◆	N = 135	(22.3%)
8 – 52	+	N = 318	(52.6%)

SAMPLE LOCATION

OPEN FILE 1990-11

STREAM SEDIMENT GEOCHEMISTRY OF THE
PURCELL WILDERNESS CONSERVANCY STUDY AREA

SCALE 1 : 250 000

5 0 5 10 15 20

KILOMETRES

LEGEND

STRATIFIED ROCKS

MESOZOIC

TRIASSIC

Tsk — SLOCAN AND KASLO GROUPS: VOLCANIC ROCKS

PALEOZOIC

CARBONIFEROUS AND PERMIAN

Pm — MILFORD GROUP: SLATE AND SILTY SLATE; LIMESTONE AND CHERT

PRE-MISSISSIPPIAN

Pl — LARDEAU GROUP: CHLORITE-MUSCOVITE-QUARTZ SCHIST, BIOTITE-MUSCOVITE SCHIST, MICACEOUS QUARTZITE, AND TREMOLITE MARBLE

CAMBRIAN

Cbmh — BADSHOT-MOHICAN FORMATION AND HAMILL GROUP: MARBLE, PHYLLITE, MUSCOVITE-QUARTZ SCHIST; QUARTZITE AND MICACEOUS QUARTZITE, DARK SLATE AND MICA SCHIST

PROTEROZOIC

WINDERMERE SUPERGROUP (HADRYNIAN)

PCh — HORSETHIEF CREEK GROUP: PEBBLE CONGLOMERATE, GRITS, QUARTZITE AND SLATE

PURCELL SUPERGROUP (HELIKIAN)

PCmn — MOUNT NELSON FORMATION: WHITE QUARTZ ARENITE, GREEN SILTSTONE, DOLOMITIC QUARTZ WACKE AND SILTSTONE, MAROON ARGILLITE, BUFF DOLOMITE AND GREY LIMESTONE

PCd — DUTCH CREEK FORMATION: GREEN SILTSTONE, BROWN DOLOMITIC SILTSTONE, GREY ARGILLITE, BUFF WEATHERING, ALGAL DOLOMITE, MINOR QUARTZ WACKE

PCk — KITCHENER FORMATION: BUFF-WEATHERING, DOLOMITIC SILTSTONE AND DOLOMITE, GREY AND GREEN ARGILLITE AND SILTSTONE, MINOR LIMESTONE

PCc — CRESTON FORMATION: GREY AND GREEN QUARTZ SILTSTONE AND ARGILLITE, GREEN OR GREY-WHITE QUARTZITE, MINOR GREEN QUARTZ WACKE, MINOR DOLOMITIC SILTSTONE

ALDRIDGE FORMATION

PCau — UPPER DIVISION: MASSIVE GREY QUARTZ ARENITE AND QUARTZ WACKE INTERBEDDED WITH THIN ARGILLITE; GREY ARGILLITE AND SILTSTONE

PCal — LOWER DIVISION: THIN-BEDDED, RUSTY WEATHERING, QUARTZ WACKE, QUARTZ ARENITE, SILTSTONE AND ARGILLITE

INTRUSIVE ROCKS

MESOZOIC

CRETACEOUS

Kmg — QUARTZ MONZONITE, GRANODIORITE

Geological base and legend derived from:
Reesor, J.E. (1973): Geology of the Lardeau Map-area, East-Half, British Columbia; Geological Survey of Canada, Memoir 369, 129 pages.

MINERAL OCCURRENCE MAP

OPEN FILE 1990-11

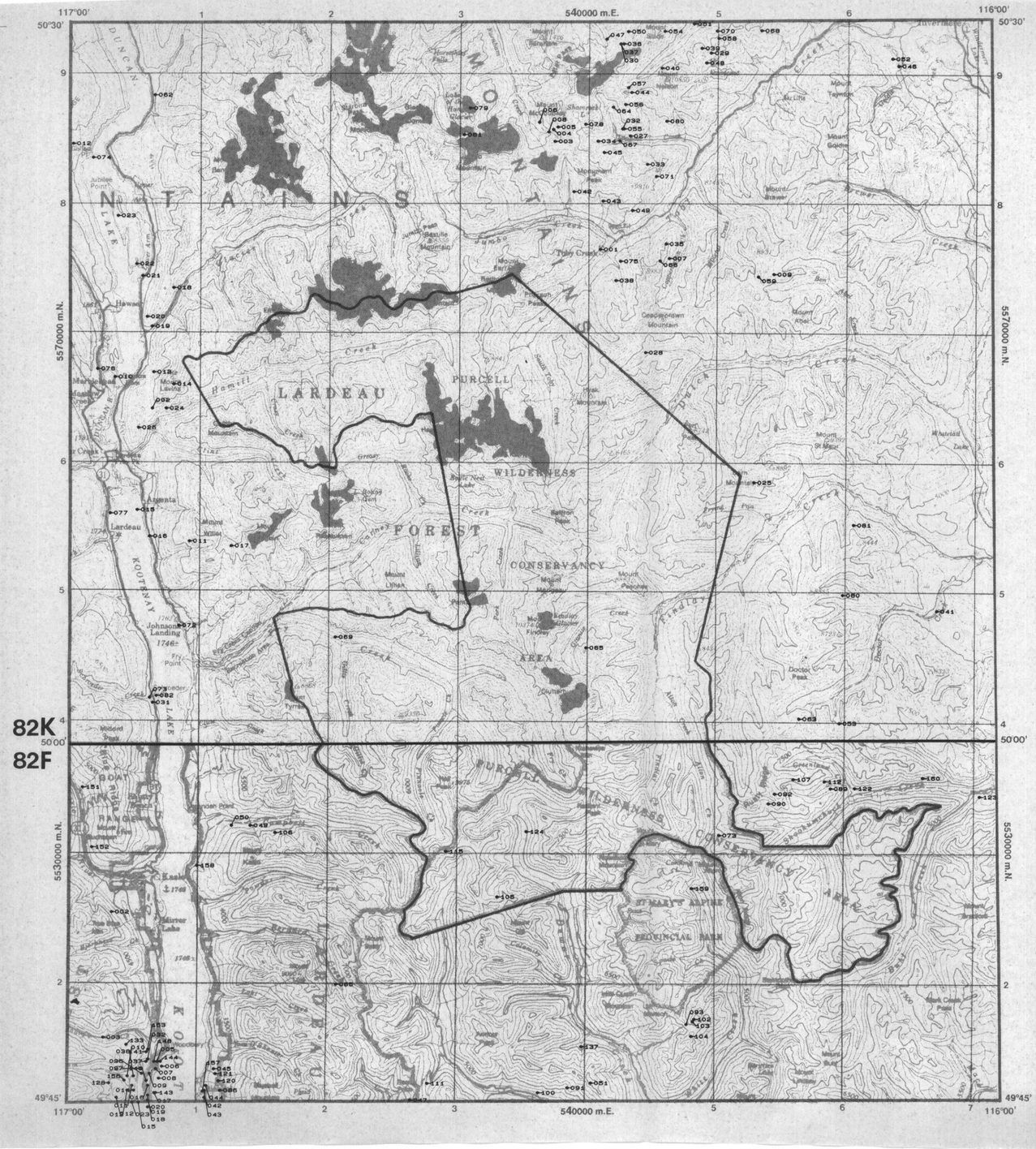
STREAM SEDIMENT GEOCHEMISTRY OF THE
PURCELL WILDERNESS CONSERVANCY STUDY AREA

SCALE 1 : 250 000

5 0 5 10 15 20

KILOMETRES

Last revision, July 1985. Location certainty, within 2 km.



82KSE

MINFILE NUMBER	NAME	COMMODITIES	STATUS	UTM ZONE	NORTHING	EASTING
001	MINERAL KING (L.15970)	PB ZN AG CU CD BA	PAPR	11	5576557	540679
002	FOG	PB ZN AG CU	PROS	11	5564359	506181
003	COPPER KING (L.9988)	CU AG PB ZN	PROS	11	5584871	537181
004	IMPERIAL (L.9993)	AG CU	PROS	11	5585797	537056
005	BROKEN HILL (L.9992)	AG CU PB BA	SHOW	11	5585984	537410
006	GREAT NORTHERN (L.5358)	CU AG PB ZN	SHOW	11	5586345	535987
007	SILVER SPRAY	AG PB ZN	UNKN	11	5575859	546023
008	BUTLER (L.9989)	AG CU	PROS	11	5585609	536702
009	YORNOC	AG PB ZN CU BA	UNKN	11	5574638	554102
010	EASY M	PB ZN	UNKN	11	5566765	503326
011	MOONSHINE L.1881	AG PB ZN AU CU	PAPR	11	5554170	509051
012	PRESIDENT	AU AG PB ZN	SHOW	11	5584740	500118
013	MAG	AG PB ZN	DEPR	11	5567138	506296
014	LAVINA (L.3784)	AG PB ZN	PAPR	11	5566214	507842
015	SAL C	ZN PB	UNKN	11	5556574	504999
016	SAL B	ZN PB	UNKN	11	5554537	505954
017	SAL A	ZN PB	UNKN	11	5553806	512267
018	SURPRISE (L.6334)	AG PB ZN AU CU	PAPR	11	5573627	507831
019	DUNCAN NO.1 ZONE	ZN PB	UNKN	11	5570659	506173
020	DUNCAN NO.2 ZONE	ZN PB	UNKN	11	5571400	505816
021	DUNCAN NO. 3 ZONE	ZN PB	UNKN	11	5574550	505457
022	DUNCAN NO.4 ZONE	ZN PB	UNKN	11	5575476	504982
023	DUNCAN MINE NO.5,6,7,8 ZONES	ZN PB	UNKN	11	5579182	503556
024	ARGENTA	AG PB ZN	UNKN	11	5564360	507251
025	BARN	CU MO WO	SHOW	11	5558685	552598
026	ST. PATRICK	AG PB ZN	PAPR	11	5562875	505112
027	RAD	AG PB CU ZN	SHOW	11	5585285	542980
028	DUTCHY	CU AU	UNKN	11	5568616	544185
029	PARADISE (L.4341)	PB ZN AG CD AU	PAPR	11	5591641	549197
030	PTARMIGAN	AG PB ZN CU AU	PAPR	11	5592322	542214
031	CUBA	AG PB ZN MO	PROS	11	5541750	506207
032	DELPHINE (L.4334)	AG PB ZN CU	PAPR	11	5585837	542384
033	KOOTENAY QUEEN	AG PB ZN CU	UNKN	11	5583072	544302
034	HOT PUNCH(L.5100)	AG PB ZN AU	PAPR	11	5584895	540497
035	DOMINION	AG PB	UNKN	11	5576969	545776
036	IRON CAP(L.5347)	AG PB ZN	PAPR	11	5592324	542450
037	NIP AND TUCK	AG PB AU CU ZN CD	PAPR	11	5592322	542214
038	RED LEDGE	AG PB ZN	UNKN	11	5574157	541884
039	BALD EAGLE	AG PB ZN	UNKN	11	5592005	548484
040	WHITE CAT	AG PB ZN CU	PAPR	11	5590495	545422
041	ST. ANTHONY	AG PB ZN CU	PAPR	11	5548835	566765
042	LISA	AG PB ZN	UNKN	11	5580989	538631
043	JUMBO	AG PB ZN BA	UNKN	11	5580265	540888
044	EXCELDA	AG PB ZN CU AU	UNKN	11	5588622	543072
045	OUTLET	AG PB ZN AU	UNKN	11	5583972	540978
046	BUNYAN(L.9096)	AU AG CU BA CD	PAPR	11	5590684	563638
047	MAPLE	AG PB ZN	PAPR	11	5592684	541147
048	SILVER BELT	AG PB ZN	PAPR	11	5590897	548849
049	BLACK DIAMOND	AG PB	PAPR	11	5579542	543146
050	MABEL R	AG PB	PAPR	11	5593253	542797
051	SITTING BULL(L.4097)	AG PB	PAPR	11	5593853	547876
052	LARRABEE	BA	UNKN	11	5591234	563159
053	SILVER KEY	AG PB ZN AU CU	PAPR	11	5540221	559229
054	RELIEF	AG PB	UNKN	11	5593277	545635
055	M.T. FRACTION(L.10110)	AG CU PB	PAPR	11	5585838	542502
056	B.C. (L.1732)	AG PB ZN	PAPR	11	5587692	542606
057	BEULAH	AG PB ZN CU	UNKN	11	5588991	542832
058	SHAMROCK (L.4344)	AG PB ZN	UNKN	11	5592759	549778
059	SHELLY	PB CU BA	UNKN	11	5574441	552917
060	DOC	PB	UNKN	11	5550046	559478
061	SEC	WO	PROS	11	5585382	530192
062	DUNCAN ROAD	BS	UNKN	11	5588450	506389
063	ACE	CU PB ZN	PROS	11	5540558	556121
064	ALPHA	AG PB ZN	UNKN	11	5587499	541660
065	IMP	MO	UNKN	11	5545970	539602
066	CHARLEMONT	BA AG PB	PAPR	11	5575668	545313
067	COMSTOCK	PP PB AG CD	PAPR	11	5584908	542155
068	GREEN RIDGE	CU AG	UNKN	11	5593347	553083
069	PEGLEG	FL MO	SHOW	11	5546789	520274
070	HAT	BA	UNKN	11	5593314	549654
071	DRAGON	CU	UNKN	11	5582152	545020
072	DUNCAN	PB ZN	UNKN	11	5547683	508227
073	HI-LO	AG PB ZN	UNKN	11	5542121	505968
074	DUNCAN LAKE	TC	PROS	11	5583628	501658
075	TOBY CREEK BARITE	BA	PAPR	11	5575642	542228
076	MARBLEHEAD MARBLE	MB LS DS	PAPR	11	5567382	501980
077	LARDEAU	LS	PAPR	11	5556325	502936
078	BJ	PB ZN	SHOW	11	5586185	539540
079	HATSOFF	MO	SHOW	11	5587423	530653
080	HIGH EAGLE	AU AG CU PB ZN	SHOW	11	5586421	545812
081	ROCKY TOP	PB ZN AG	SHOW	11	5555431	560331
082	SCHROEDER CREEK	LS	PAPR	11	5542276	506485

82FNE

MINFILE NUMBER	NAME	COMMODITIES	STATUS	UTM ZONE	NORTHING	EASTING
002	TRUE BLUE	CU AG AU	PAPR	11	5525626	503113
003	SILVER COIN	AG PB ZN CU	PAPR	11	5515990	502518
005	VIGILANT	PB AG ZN AU CD	PAPR	11	5514141	506719
006	NAMELESS	PB ZN AG	PAPR	11	5513770	507079
007	AMAZON	PB ZN AG AU CD	PAPR	11	5513585	506600
008	NOAH	PB ZN AG	PAPR	11	5512844	506841
009	WAKEFIELD	PB ZN AG	UNKN	11	5513213	506120
010	SILVER GLANCE	PB ZN AG AU	UNKN	11	5513026	504440
011	SULLIVAN	PB ZN AG AU	UNKN	11	5512286	504801
012	CROWN	AG PB ZN	PAPR	11	5511358	503601
013	LET HER GO GALLAGHER	AG PB ZN	UNKN	11	5511915	504441
014	BUCKEYE	PB ZN AG	PAPR	11	5511915	504921
015	HIGHLAND	PB AG ZN CD AU	PAPR	11	5510989	505282
016	KOOTENAY FLORENCE	PB ZN AG CD AU FL	PAPR	11	5512287	506001
017	EARLY BIRD	PB ZN AG FL	PAPR	11	5511731	506482
018	LAKESHORE	PB ZN AG CU CD	PAPR	11	5511546	506002
019	NICOLET	PB ZN AG	PAPR	11	5511175	506002
020	MANITOBA	PB ZN AG	UNKN	11	5510619	506003
023	AYESHA	PB ZN AG	PAPR	11	5510988	504802
032	SHARON	AG PB ZN	PAPR	11	5514325	505999
037	DAISY BELL	PB ZN AG	PAPR	11	5514140	505879
038	NORANDA	PB ZN AG	UNKN	11	5513027	504920
042	KOOTENAY CHIEF	PB ZN AG CU	PAPR	11	5511367	510324
043	BLUE BELL	PB ZN AG CU CD GY AU	PAPR	11	5511923	510323
044	COMFORT	PB ZN AG CU	PAPR	11	5512293	510442
045	TAM O'SHANTER	PB ZN AG	PAPR	11	5513592	511040
047	HUMBOLT(L.2015)	AG PB ZN CU SN	PAPR	11	5511235	526171
049	LEVIATHAN	FE	UNKN	11	5532314	513752
050	OTTO	PB ZN	UNKN	11	5532310	512317
051	GREAT DANE(L.5285)	AG PB CU CO NI	UNKN	11	5512617	540088
073	MOLLY	WO MO	UNKN	11	5531602	549995
085	LOKI	MO	SHOW	11	5520105	520375
086	HOTSHOT	PB ZN	UNKN	11	5511925	511523
089	PICO	WO PB ZN CU	UNKN	11	5535210	558568
090	VAL	WO SN	UNKN	11	5534048	553798
091	WELCOME & ENTERPRISE	CU PB	UNKN	11	5512234	538290
092	PIMACO	SN WO	UNKN	11	5534794	554268
093	VULCAN	PB ZN	UNKN	11	5517125	547491
096	FERGUS	AG PB ZN	PAPR	11	5513213	505520
097	TAMRAK (L.3341)	AG PB ZN	UNKN	11	5513583	505520
100	BRACEBRIDGE	CU	UNKN	11	5511847	536012
102	HILO 4	PB ZN AG	UNKN	11	5517501	548087
103	HILO #3	PB ZN	UNKN	11	5517314	547969
104	HILO 10	PB ZN WO	UNKN	11	5516202	547859
105	EEL	MO	UNKN	11	5526837	532800
106	ALICE	PB ZN	UNKN	11	5531763	515667
107	MC	PB ZN	UNKN	11	5535921	555691
111	ROSE PASS	SN AG PB ZN CU	UNKN	11	5512539	527485
112	GREENLAND CREEK	BE	UNKN	11	5535761	558084
115	PEGLEG	MO	UNKN	11	5530335	528830
120	JACKPOT	PB ZN	UNKN	11	5512666	511402
121	KIRBY	AG PB ZN	PAPR	11	5513221	511160
122	BURNT	CU	UNKN	11	5535231	560480
123	HOT SPRING	HS	UNKN	11	5534606	570052
124	HOT SPRING 2	HS	UNKN	11	5531855	535042
128	NOR	AG PB ZN AU	PAPR	11	5512470	503000
133	GENERAL-GRANT	AG PB ZN CU	PAPR	11	5515435	504318
137	SERVANT	CU	UNKN	11	5515392	539348
141	AUGUST FRACTION	AG PB ZN	PAPR	11	5514881	505878
143	CAREY	AG PB ZN	PAPR	11	5511732	506602
144	DIXIE FRACTION	AG PB ZN	PAPR	11	5514141	506959
146	LAURA M	AG PB ZN CD	PAPR	11	5512657	505881
148	LULU	ZN AG PB	PAPR	11	5514140	506479
151	MANGANESE	MN	UNKN	11	5535261	500836
152	HARP	RO MN GT	UNKN	11	5530629	501555
153	VERNA	AU AG PB ZN CU	UNKN	11	5515066	505998
156	AINSWORTH LIMESTONE	LS	SHOW	11	5512680	504190
157	RIONDEL	LS	PAPR	11	5511870	510200
158	KASLO MARBLE	MB LS DS	PAPR	11	5529216	509672
159	WHITE CREEK	BY	SHOW	11	5527506	547878
160	SKOOKUMCHUCK	BY	SHOW	11	5536034	565730

For more information please contact:

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Ministry of Energy, Mines and Petroleum Resources
247 - 541 Superior Street
Victoria, BC V8V 1X4

Province of British Columbia
Ministry of Energy, Mines and Petroleum Resources
GEOLOGICAL SURVEY BRANCH

SAMPLE LOCATION

OPEN FILE 1990-11

STREAM SEDIMENT GEOCHEMISTRY OF THE
PURCELL WILDERNESS CONSERVANCY STUDY AREA

SCALE 1:100 000

km 5 0 5 10 km

Contour Interval 100 ft.

Universal Transverse Mercator Projection

Approximate magnetic declination 1984, 20°30' east for centre of mapsheet 82K/SE, decreasing approximately 10' annually; approximate magnetic declination 1973, 21°44' east for bottom centre of mapsheet 82F/NE, decreasing approximately 3' annually.