



B.C. Geological Survey Branch
Open File 2000-25
(Sheet 1 of 9)



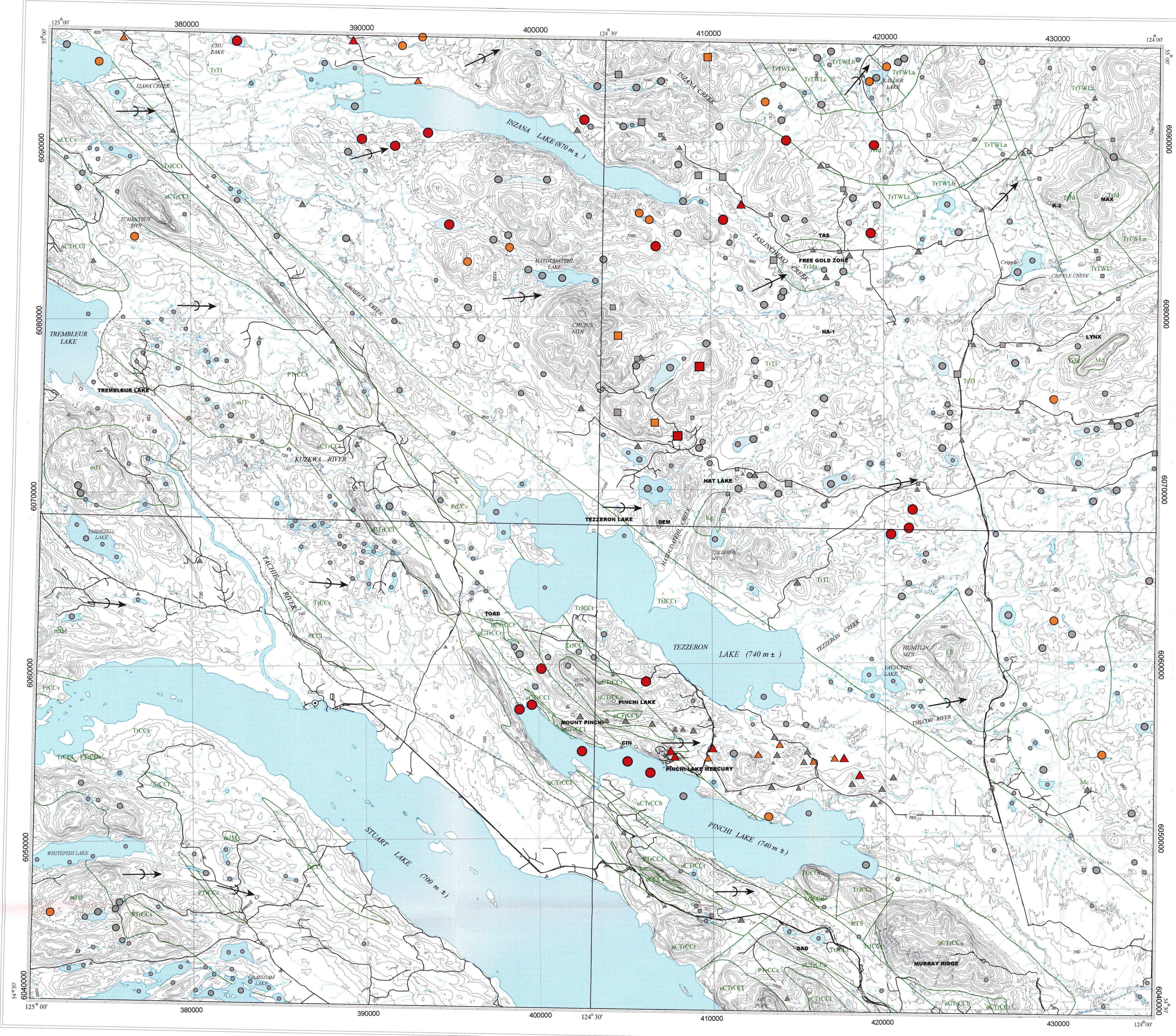
REGIONAL GEOCHEMICAL COMPILATION: Tezzeron-Pinch Fault Zone Area

(NTS 93K/09, 10, 15, 16)

By Stephen Cook, Wayne Jackaman, Alain Plouffe,
Joanne Nelson and Michelle Douville

Scale 1:100,000
UTM Zone 10
NAD 83

Mercury



Lake Sediment (ppb) CV-AAS

Concentration	Percentiles
331 - 4150	> 95th
271 - 330	90th - 95th
171 - 270	70th - 90th
131 - 170	50th - 70th
10 - 130	0 - 50th

413 Sites

Stream Sediment (ppb) CV-AAS

Concentration	Percentiles
211 - 240	> 95th
151 - 210	90th - 95th
121 - 150	70th - 90th
101 - 120	50th - 70th
40 - 100	0 - 50th

45 Sites

Till (ppb) CV-AAS

Concentration	Percentiles
824 - 11500	> 95th
601 - 823	90th - 95th
314 - 600	70th - 90th
261 - 313	50th - 70th
30 - 260	0 - 50th

135 Sites

MINFILE Occurrences (Metallic)

- Showing
- Prospect
- Developed Prospect
- ✗ Past Producer

Base Information

mJ	Geological Units
—	Road (gravel)
—	Rail Road
—	River
...	Swamp
○	Community
→	Ice Flow Direction

SOURCES OF INFORMATION

Lake Sediment: Cook et al. (1997)
Till: Plouffe (1995)
Stream Sediment: Nelson et al. (1991)
Ice Flow: Plouffe (1994)
Cartographic Presentation: M. Douville

REFERENCES

Bellefontaine, K.A., Legun, A., Massey, N., and Desjardins, P. (1995): Digital Geological Compilation of Northeast British Columbia - Southern Half (NTS 83D, E: 93F, G, H, I, J, K, N, O, P); B.C. Ministry of Energy and Petroleum Resources, Open File 1995-24.

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Struk, L.C. (1998): Bedrock Geology of the Tezzeron Map Area, British Columbia, scale 1:100,000, Geological Survey of Canada, Open File 3624.

NATMAP

CARTNAT

Canada's National Geoscience Mapping Program
Le Programme national de cartographie géoscientifique du Canada

SUMMARY TABLE OF SAMPLE PREPARATION AND ANALYTICAL METHODS

Sample Preparation and Size Fraction Used

Lake Sediment: entire sample disaggregated in ceramic ring mill; screened through <177 micron (80 mesh) sieve

Au, As, Ba, Sb: instrumental neutron activation analysis (INAA)
Hg: aqua regia digestion/cold vapour-atomic absorption spectrometry (CV-AAS)
Cu, Zn, Mo, Ni: aqua regia digestion/atomic absorption spectroscopy (AAS)

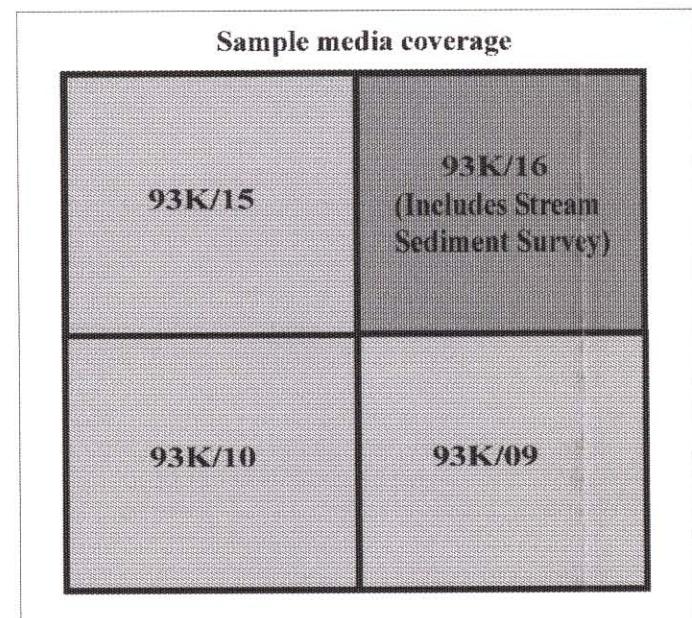
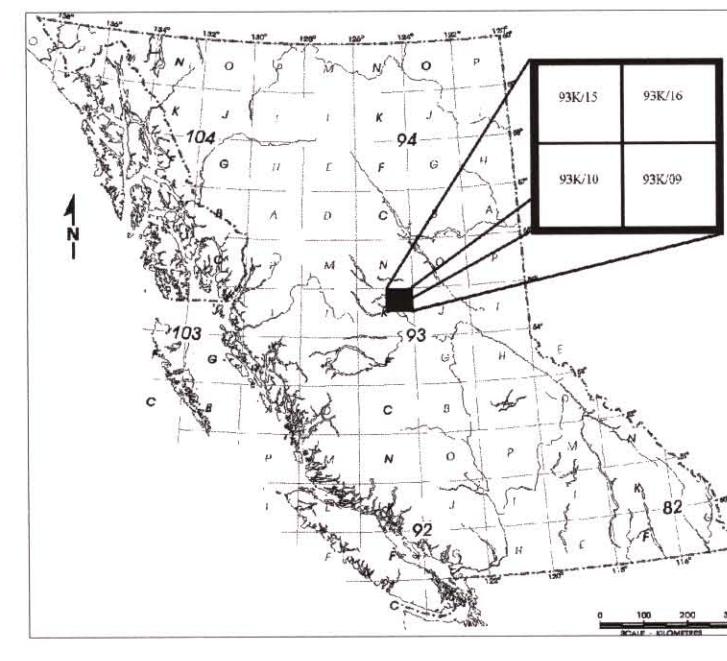
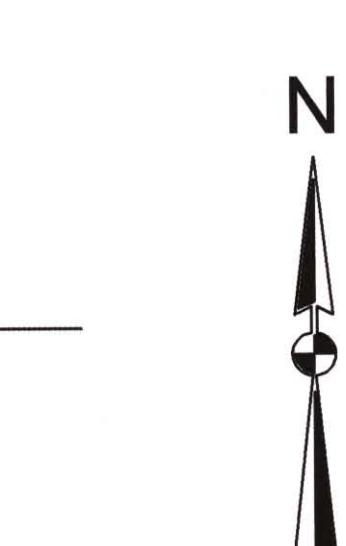
Stream Sediment: sample screened to < 177 microns (-80 mesh)

Au: fire assay/atomic absorption spectrometry (FA-AAS)
Hg: aqua regia digestion/cold vapour-atomic absorption spectrometry (CV-AAS)
Other elements: aqua regia digestion/atomic absorption spectroscopy (AAS)

Till: sample screened to < 63 micron (-250 mesh) silt & clay-size fraction; separation of < 2 micron clay-sized fraction by centrifuge for Hg analysis

Au, As, Ba, Sb: instrumental neutron activation analysis (INAA)
Cu, Zn, Mo, Ni: aqua regia/inductively-coupled plasma-emission spectroscopy (ICP-AES)
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Consult original Open File references for more detailed information on sample preparation and analytical procedures



**REGIONAL GEOCHEMICAL COMPILATION:
Tezzeron-Pinch Fault Zone Area**

(NTS 93K/09, 10, 15, 16)

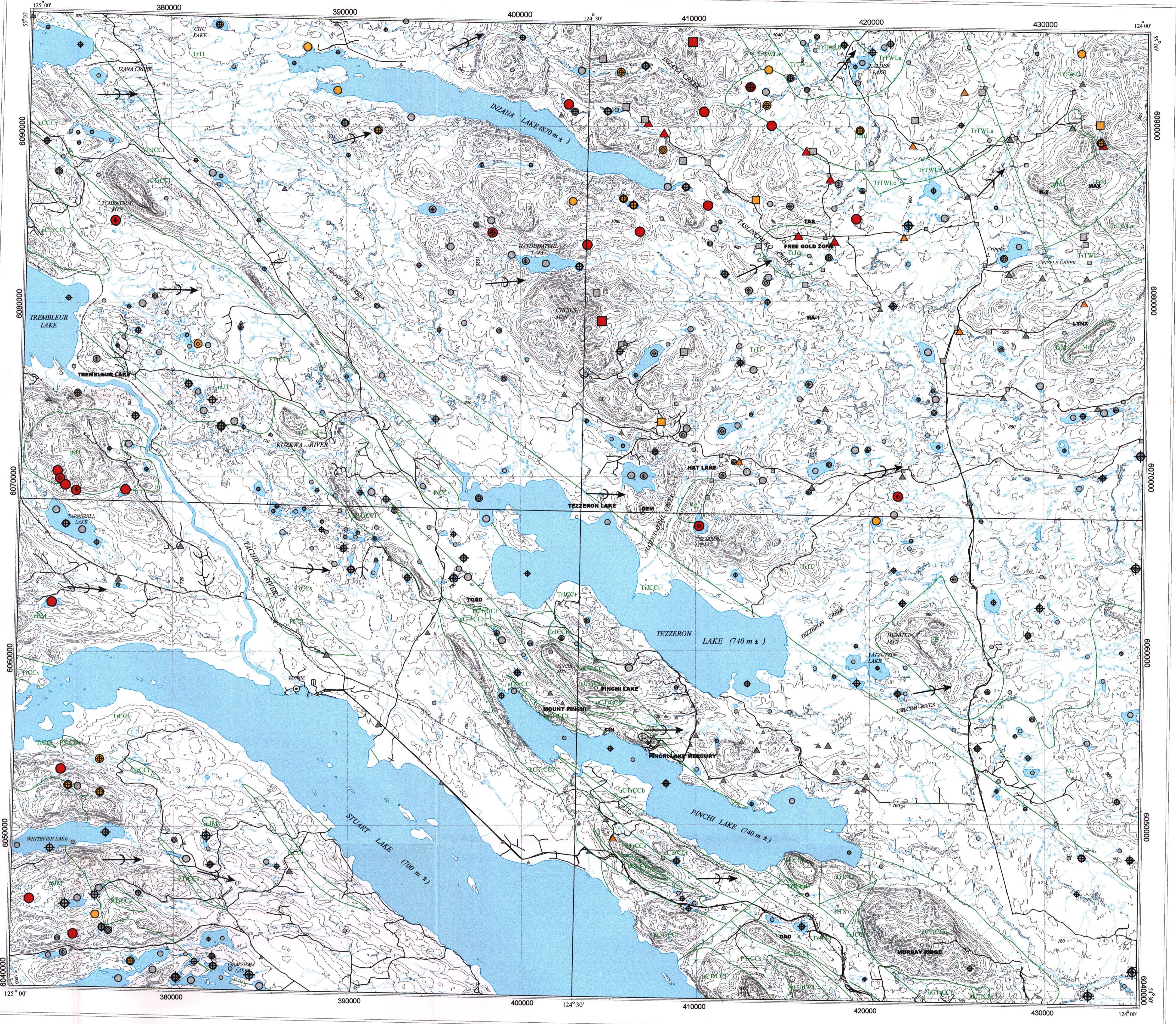
By Stephen Cook, Wayne Jackaman, Alain Plouffe,
Joanne Nelson and Michelle Douville

Scale 1:100,000

4 0 4 8 km

UTM Zone 10

NAD 1983



Copper

Lake Sediment (ppm) AAS

Concentration	Percentiles
100 - 250	> 95th
89 - 99	90th - 95th
65 - 88	70th - 90th
51 - 64	50th - 70th
5 - 50	0 - 50th

413 Sites

Lake Water (ppb) ICP-MS

Concentration	Percentiles
4.009 - 12.223	> 95th
3.047 - 4.008	90th - 95th
1.822 - 3.046	70th - 90th
1.337 - 1.821	50th - 70th
0.413 - 1.336	0 - 50th

217 Sites

Stream Sediment (ppm) AAS

Concentration	Percentiles
81 - 126	> 95th
75 - 80	90th - 95th
61 - 74	70th - 90th
51 - 60	50th - 70th
24 - 50	0 - 50th

48 Sites

Till (ppm) ICP-AES

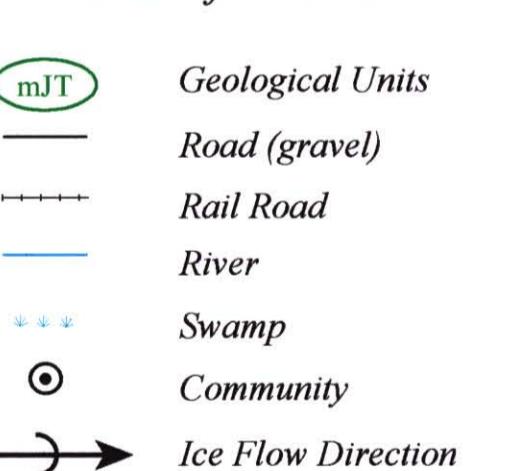
Concentration	Percentiles
97 - 224	> 95th
92 - 96	90th - 95th
67 - 91	70th - 90th
55 - 66	50th - 70th
18 - 54	0 - 50th

135 Sites

MINFILE Occurrences (Metallic)

- Showing
- Prospect
- Developed Prospect
- ✖ Past Producer

Base Information



SOURCES OF INFORMATION

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Lake Sediment: Cook et al. (1997)
Till: Plouffe (1995)
Stream Sediment: Nelson et al. (1991)
Ice Flow: Plouffe (1994)
Cartographic Presentation: M. Douville

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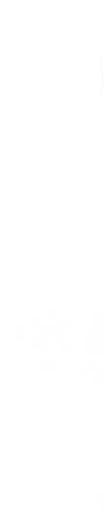
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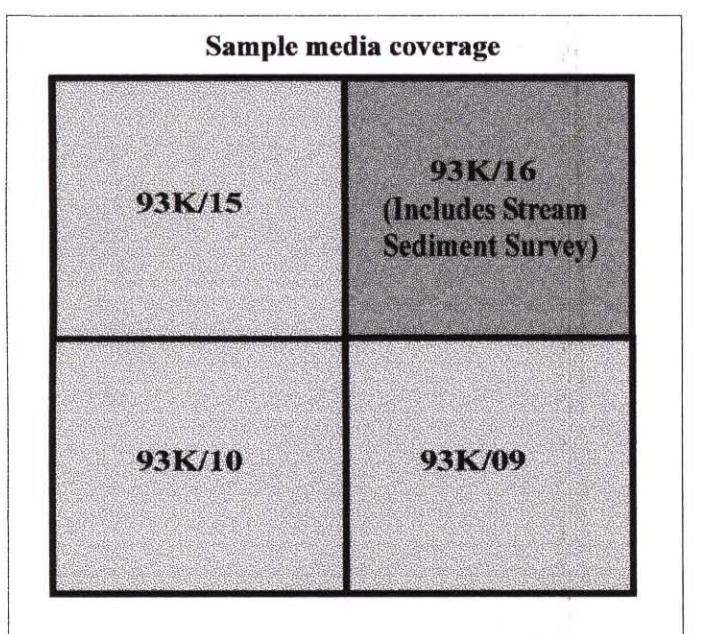
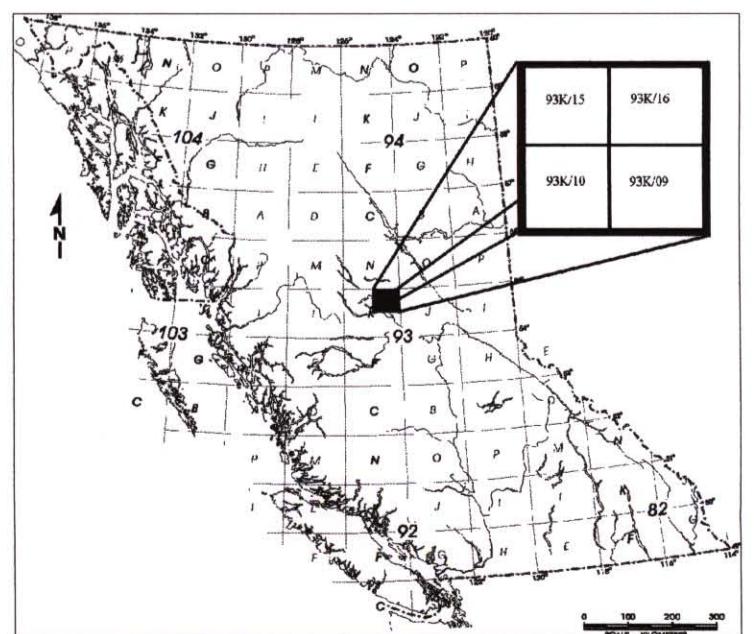
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Till	sample screened to < 63 micron (-250 mesh) silt & clay-size fraction; separation of < 2 micron clay-size fraction by centrifuge for Hg analysis



CONTOUR INTERVAL 20 METRES
Elevation in Metres above Mean Sea Level
North American Datum 1983
Transverse Mercator Projection

CAUTION: This map has been plotted using a HP 650 inkjet plotter.
The ink used is not waterproof and will deteriorate if exposed to bright light.

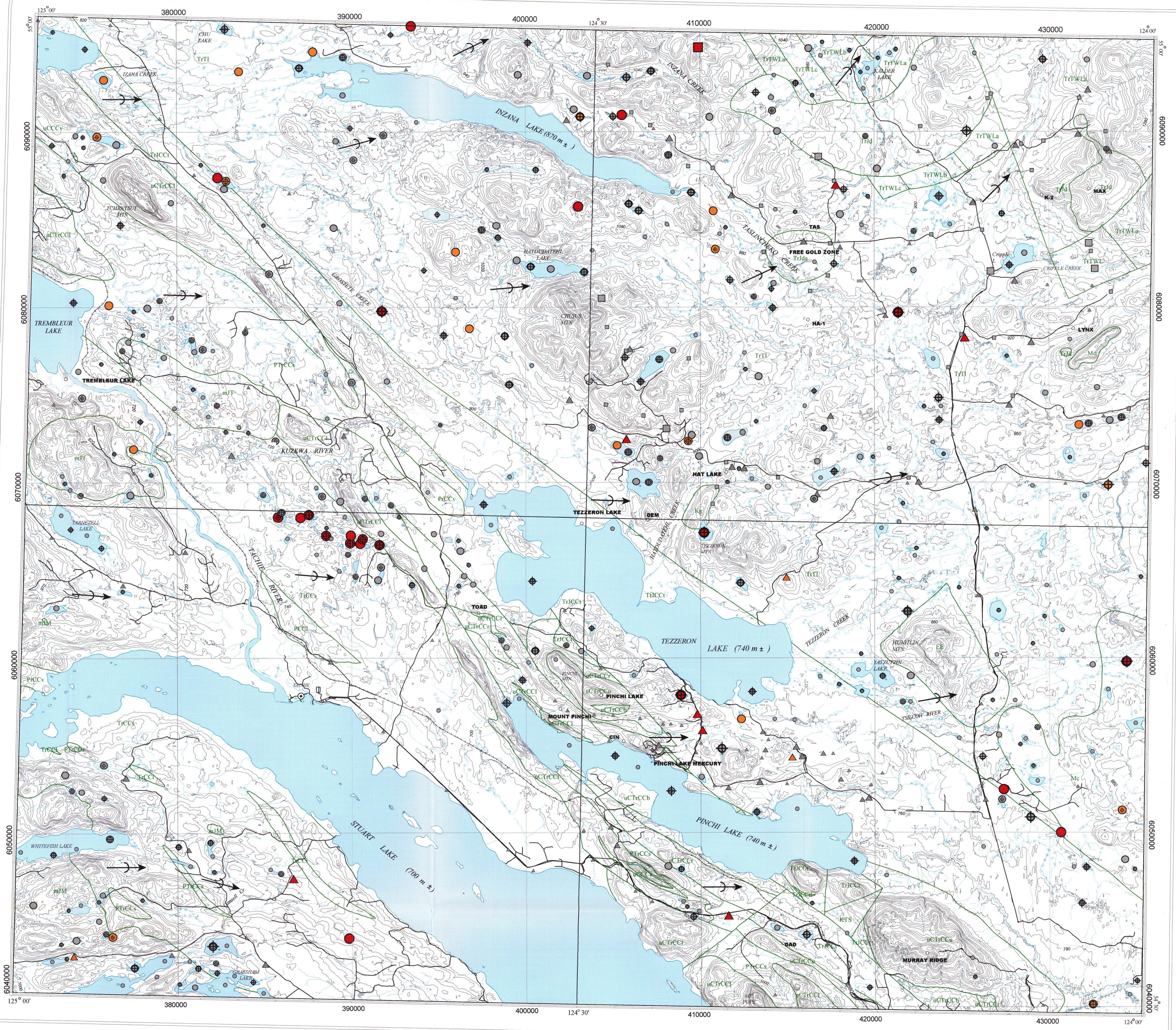


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Tezzeron-Pinch Fault Zone Area**
(NTS 93K/09, 10, 15, 16)

By Stephen Cook, Wayne Jackaman, Alain Plouffe,
Joanne Nelson and Michelle Douville

Scale 1:100,000

4 km
UTM Zone 10
NAD 83



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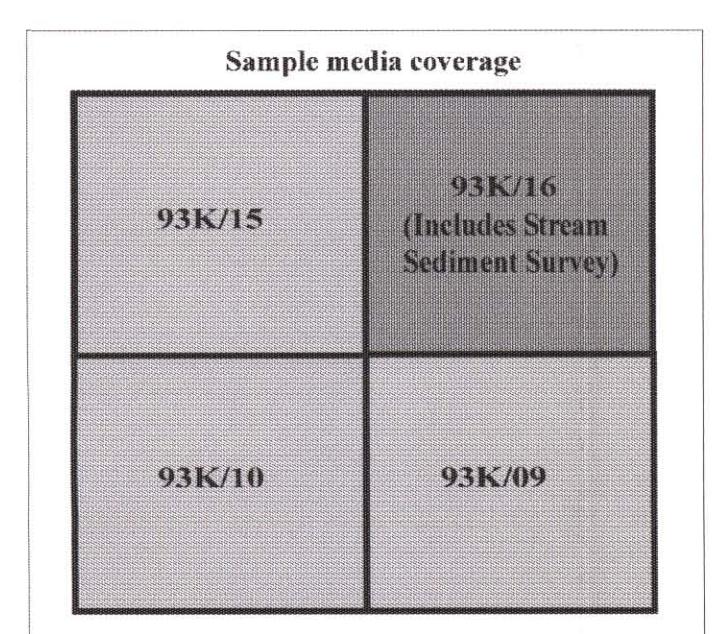
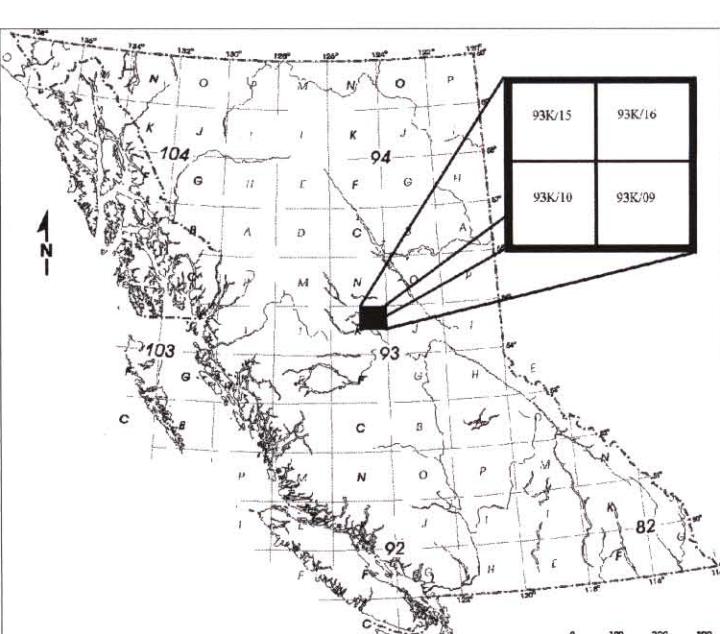
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**MINFILE Occurrences
(Metallic)**

- Showing
- Prospect
- Developed Prospect
- ✖ Past Producer

Base Information

- mJ/T Geological Units
- Road (gravel)
- - Rail Road
- River
- *** Swamp
- Community
- Ice Flow Direction

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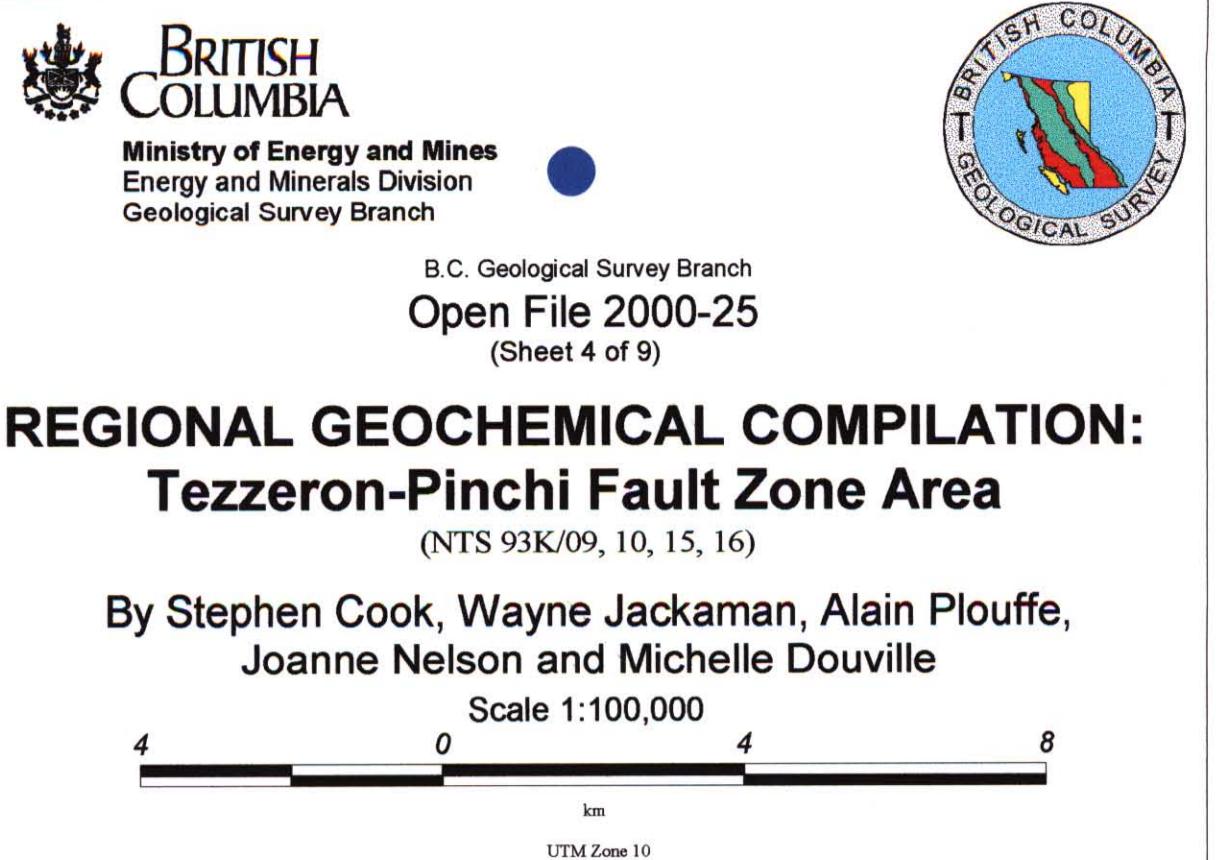
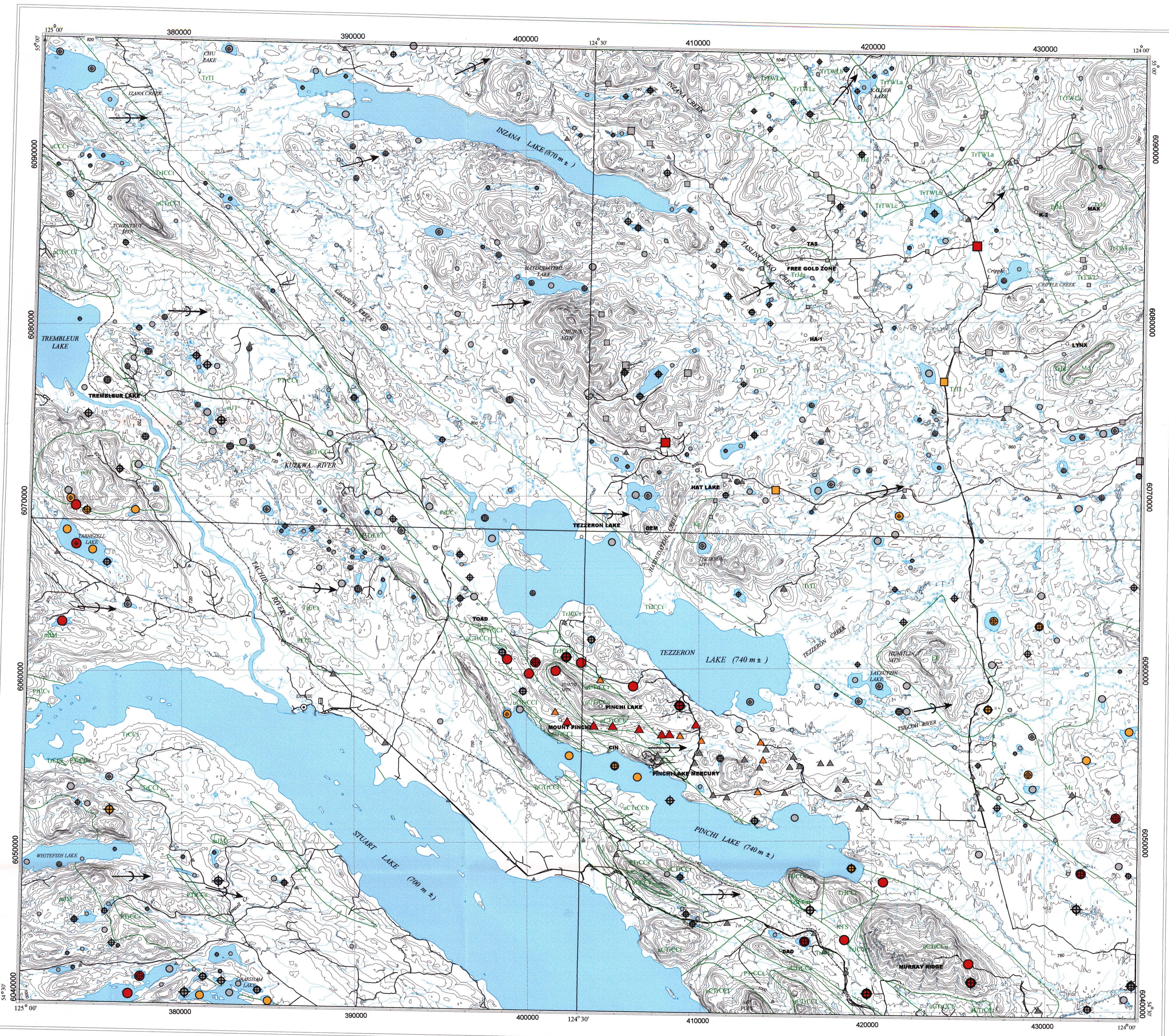
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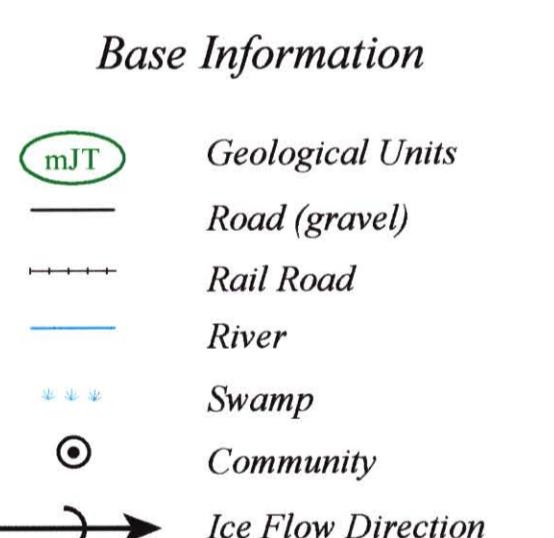
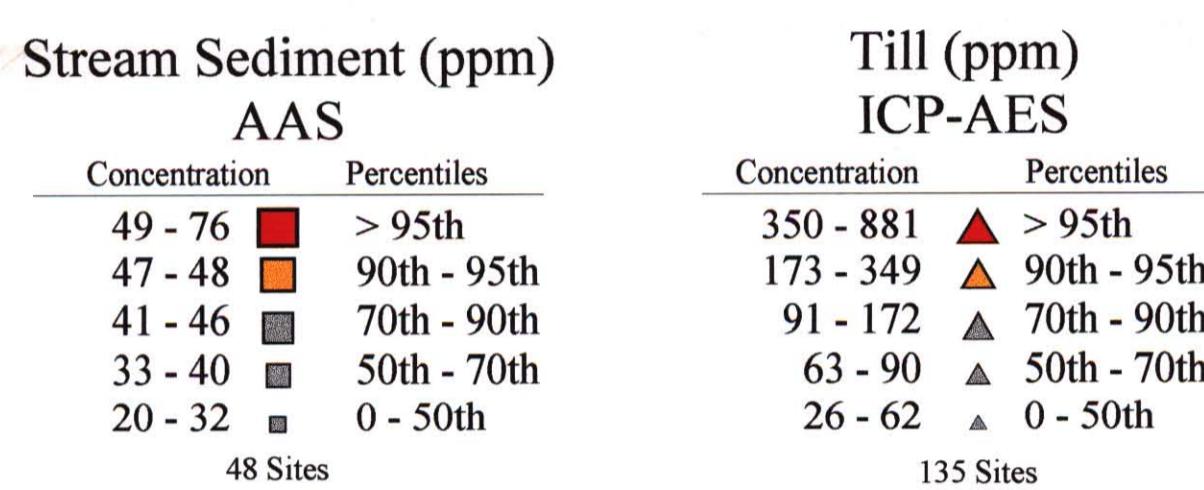
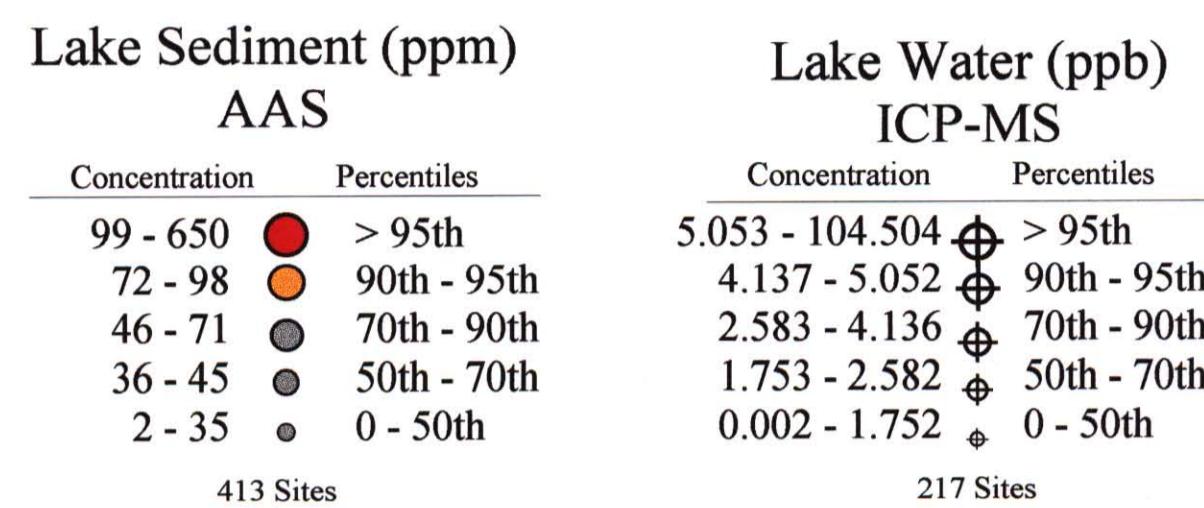
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Struik, L.C. (1998): Bedrock Geology of the Tezzeron Map Area, British Columbia, scale 1:100,000; Geological Survey of Canada, Open File 3624.



Nickel



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Till: Plouffe (1995)
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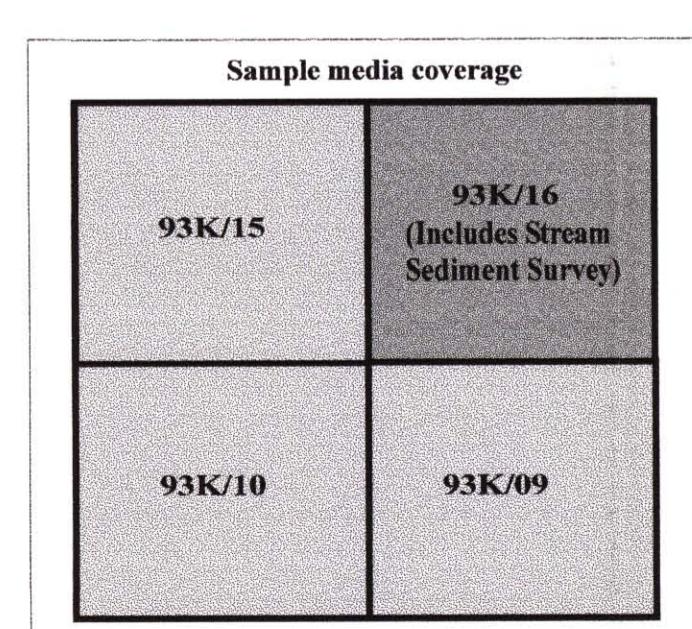
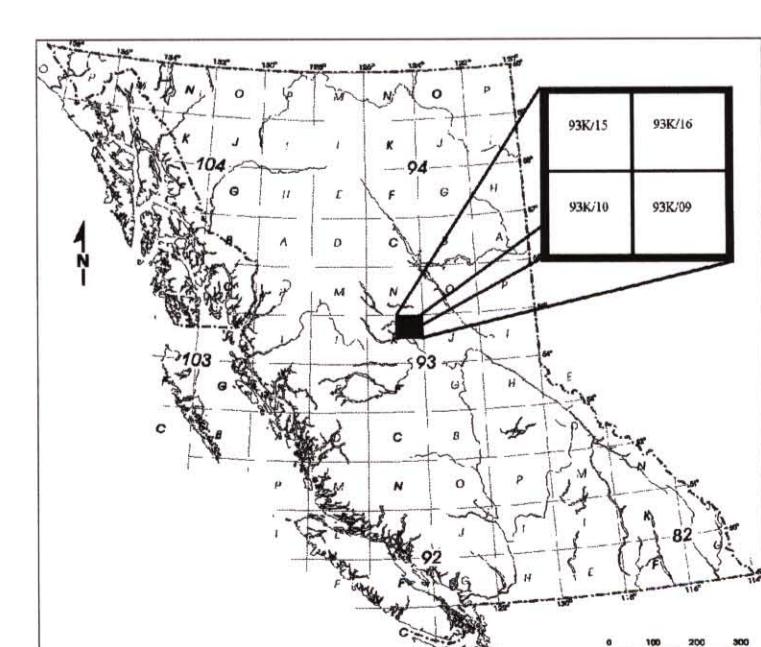
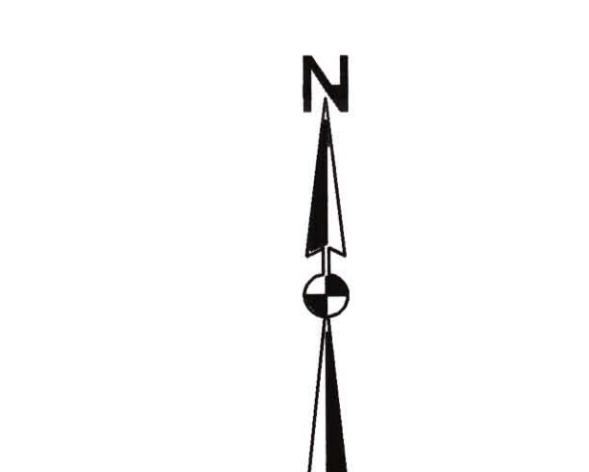
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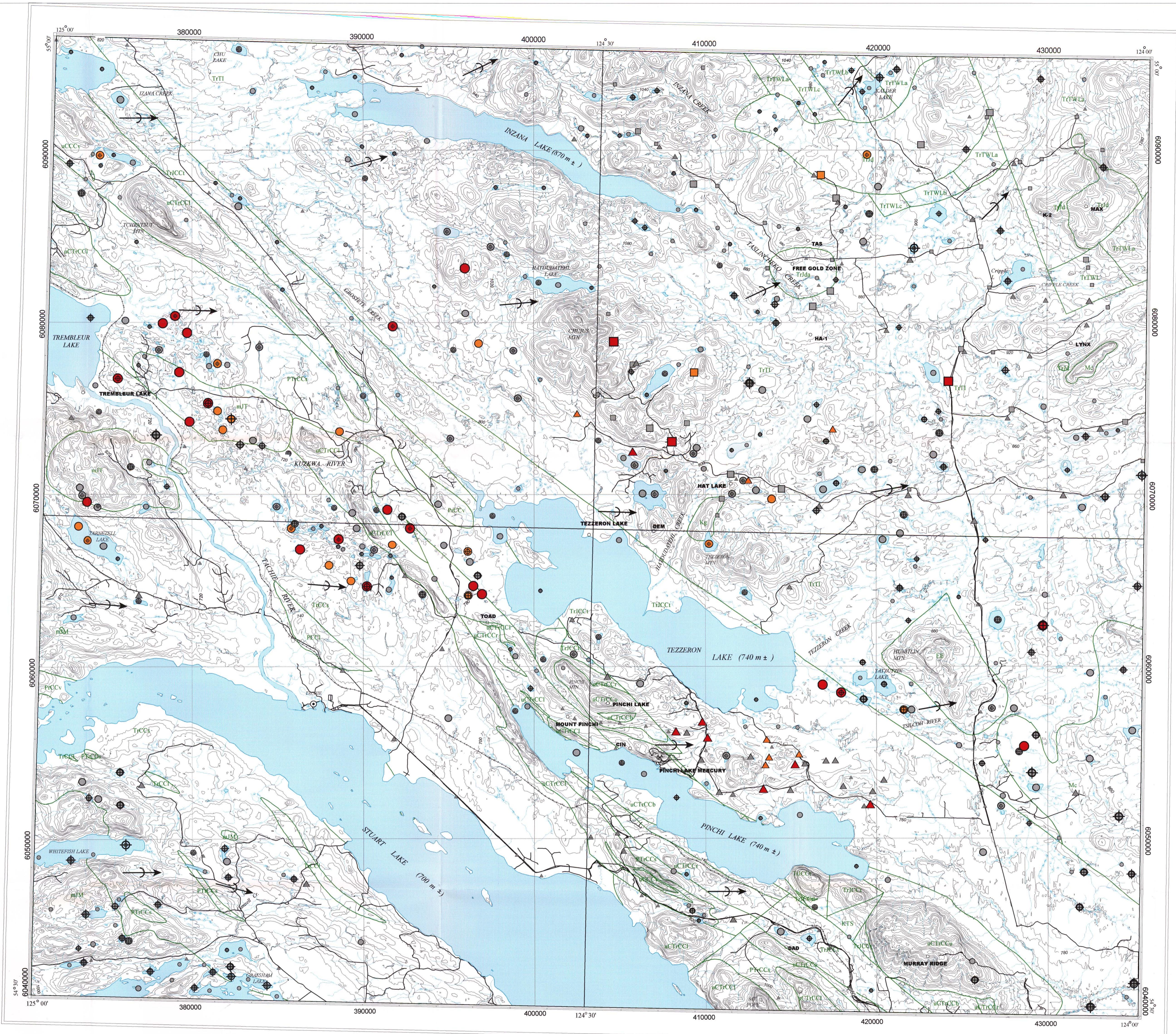
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BRITISH COLUMBIA
Ministry of Energy and Mines
Energy and Minerals Division
Geological Survey Branch

B.C. Geological Survey Branch
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(Sheet 5 of 9)



REGIONAL GEOCHEMICAL COMPILATION: Tezzeron-Pinch Fault Zone Area

(NTS 93K/09, 10, 15, 16)

By Stephen Cook, Wayne Jackaman, Alain Plouffe,
Joanne Nelson and Michelle Douville

Scale 1:100,000

4 0 4 8
km
UTM Zone 10
NAD 83

Zinc

Lake Sediment (ppm) AAS

Concentration	Percentiles	Concentration	Percentiles
266 - 2600	> 95th	10.366 - 18.488	> 95th
207 - 265	90th - 95th	8.453 - 10.365	90th - 95th
155 - 206	70th - 90th	4.692 - 8.452	70th - 90th
132 - 154	50th - 70th	2.705 - 4.691	50th - 70th
18 - 131	0 - 50th	0.002 - 2.704	0 - 50th

413 Sites

Lake Water (ppb) ICP-MS

Concentration	Percentiles	Concentration	Percentiles
10.366 - 18.488	> 95th	10.366 - 18.488	> 95th
8.453 - 10.365	90th - 95th	8.453 - 10.365	90th - 95th
4.692 - 8.452	70th - 90th	4.692 - 8.452	70th - 90th
2.705 - 4.691	50th - 70th	2.705 - 4.691	50th - 70th
0.002 - 2.704	0 - 50th	0.002 - 2.704	0 - 50th

217 Sites

Stream Sediment (ppm) AAS

Concentration	Percentiles	Concentration	Percentiles
111 - 136	> 95th	162 - 238	> 95th
105 - 110	90th - 95th	145 - 161	90th - 95th
87 - 104	70th - 90th	117 - 144	70th - 90th
81 - 86	50th - 70th	103 - 116	50th - 70th
44 - 80	0 - 50th	44 - 102	0 - 50th

48 Sites

Till (ppm) ICP-AES

Concentration	Percentiles	Concentration	Percentiles
111 - 136	> 95th	162 - 238	> 95th
105 - 110	90th - 95th	145 - 161	90th - 95th
87 - 104	70th - 90th	117 - 144	70th - 90th
81 - 86	50th - 70th	103 - 116	50th - 70th
44 - 80	0 - 50th	44 - 102	0 - 50th

135 Sites

MINFILE Occurrences (Metallic)

- Showing
- Prospect
- Developed Prospect
- ✗ Past Producer

Base Information

	Geological Units
	Road (gravel)
	Rail Road
	River
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	Community
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Lake Sediment	entire sample disaggregated in ceramic ring mill; screened through <177 micron (80 mesh) sieve
Lake Water	250 ml surface water sample filtered to 0.45 microns; acidified to approx. pH=2 with concentrated nitric acid
Stream Sediment	sample screened to <177 microns (<80 mesh)
Till	sample screened to <63 micron (<250 mesh) silt & clay-sized fraction; separation of <2 micron clay-sized fraction by centrifuge for Hg analysis

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Au, As, Ba, Sb: instrumental neutron activation analysis (INAA)
Hg: aqua regia digestion/cold vapour-atomic absorption spectroscopy (CV-AAS)
Cu, Zn, Mo, Ni: aqua regia digestion/atomic absorption spectroscopy (AAS)

inductively-coupled plasma-mass spectrometry (ICP-MS); Hg not determined

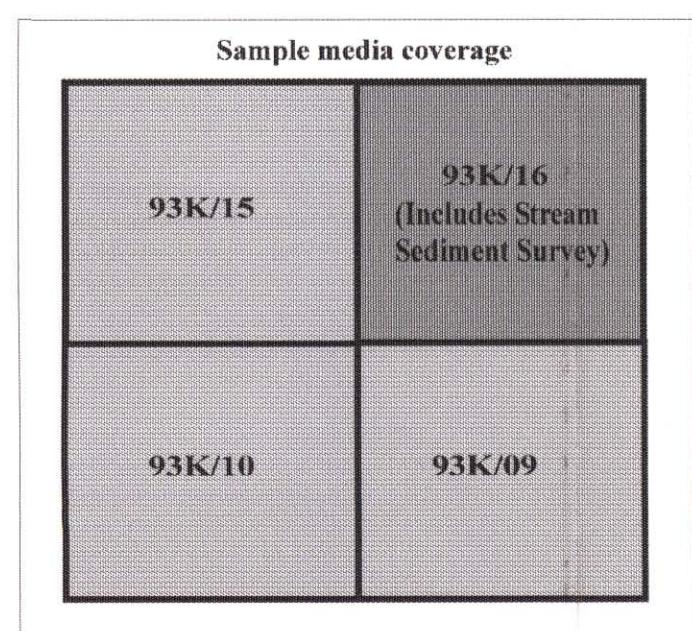
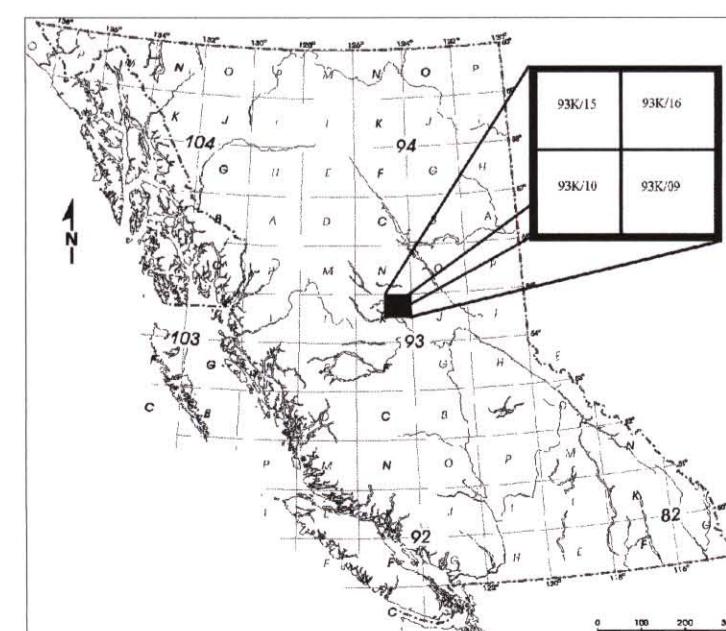
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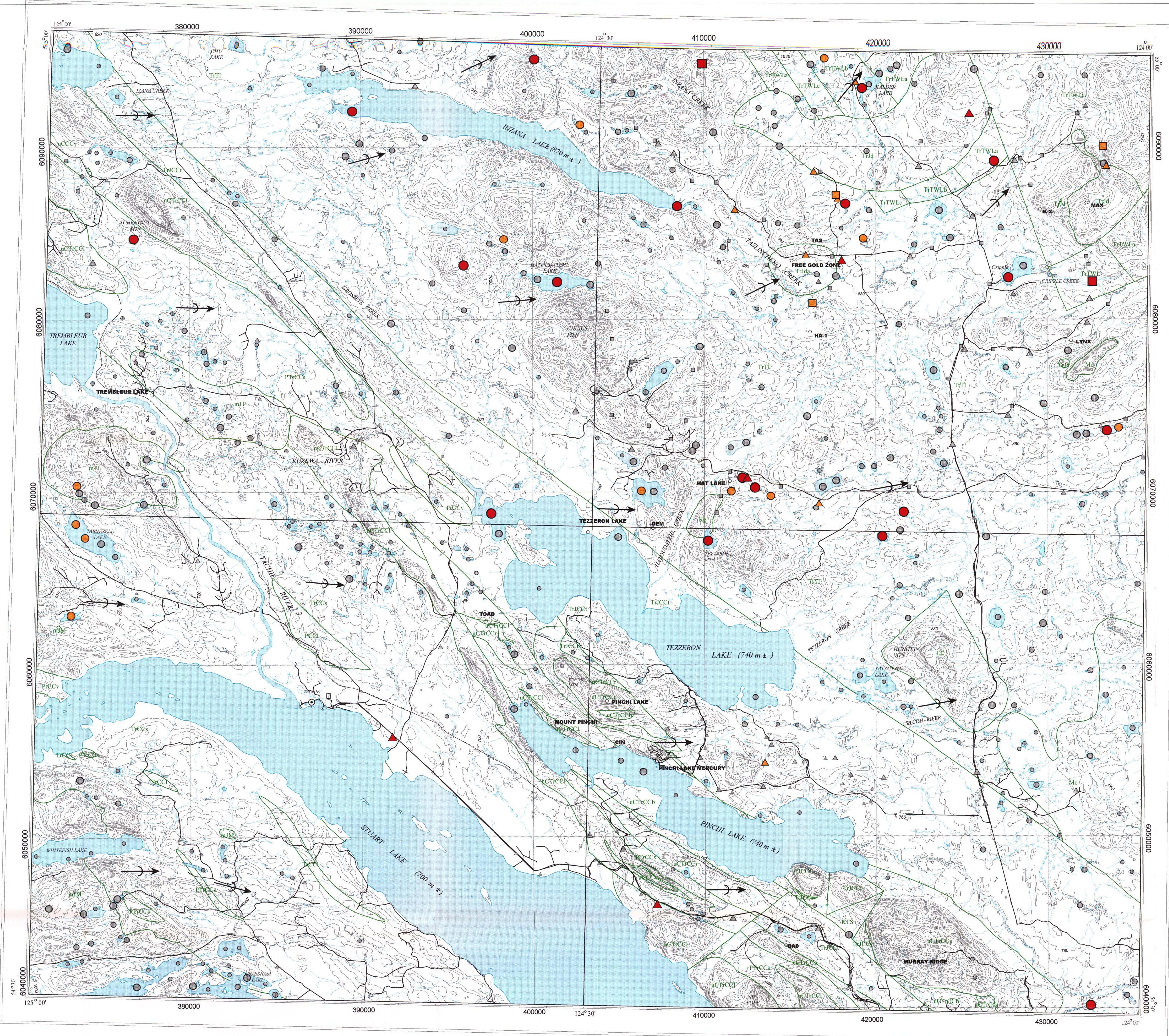
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Other elements: aqua regia digestion/atomic absorption spectrometry (AAS)

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Cu, Zn, Mo, Ni: aqua regia/inductively-coupled plasma-emission spectroscopy (ICP-AES)
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Consult original Open File references for more detailed information on sample preparation and analytical procedures





BRITISH COLUMBIA
Ministry of Energy and Mines
Energy and Minerals Division
Geological Survey Branch

B.C. Geological Survey Branch
Open File 2000-25
(Sheet 6 of 9)



REGIONAL GEOCHEMICAL COMPILATION: Tezzeron-Pinch Fault Zone Area

(NTS 93K09, 10, 15, 16)

By Stephen Cook, Wayne Jackaman, Alain Plouffe,
Joanne Nelson and Michelle Douville

Scale 1:100,000
4 km
UTM Zone 10
NAD 83

Gold

Lake Sediment (ppb) INAA

Concentration	Percentiles	Concentration	Percentiles
8 - 17	> 95th	21 - 115	> 95th
7	90th - 95th	6 - 20	90th - 95th
5 - 6	70th - 90th	-	-
3 - 4	50th - 70th	-	-
1 - 2	0 - 50th	≤ 5	0 - 90th

413 Sites

Stream Sediment (ppb) FA - AAS

Concentration	Percentiles
21 - 115	> 95th
6 - 20	90th - 95th
-	-
-	-
≤ 5	0 - 90th

48 Sites

Till (ppm) INAA

Concentration	Percentiles
19 - 32	> 95th
13 - 18	90th - 95th
8 - 12	70th - 90th
6 - 7	50th - 70th
1 - 5	0 - 50th

136 Sites

MINFILE Occurrences (Metallic)

- Showing
- Prospect
- Developed Prospect
- ✗ Past Producer

Base Information

	Geological Units
	Road (gravel)
	Rail Road
	River
	Swamp
	Community
	Ice Flow Direction

SOURCES OF INFORMATION

Lake Sediment: Cook et al. (1997)
Till: Planfile (1995)
Stream Sediment: Nelson et al. (1991)
Ice Flow: Plouffe (1994)
Cartographic Presentation: M. Douville

REFERENCES

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Au: fire assay/atomic absorption spectrometry (FA-AAS)

Hg: aqua regia digestion/cold vapour-atomic absorption spectroscopy (CV-AAS)

Other elements: aqua regia digestion/atomic absorption spectroscopy (AAS)

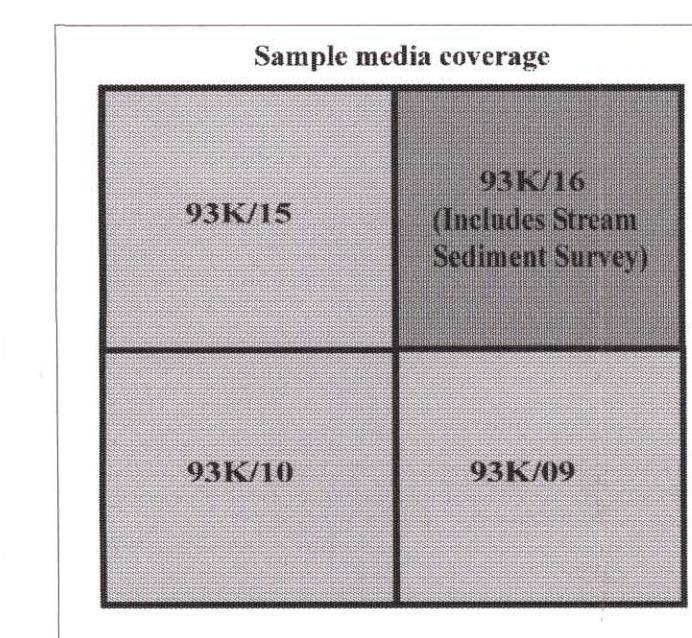
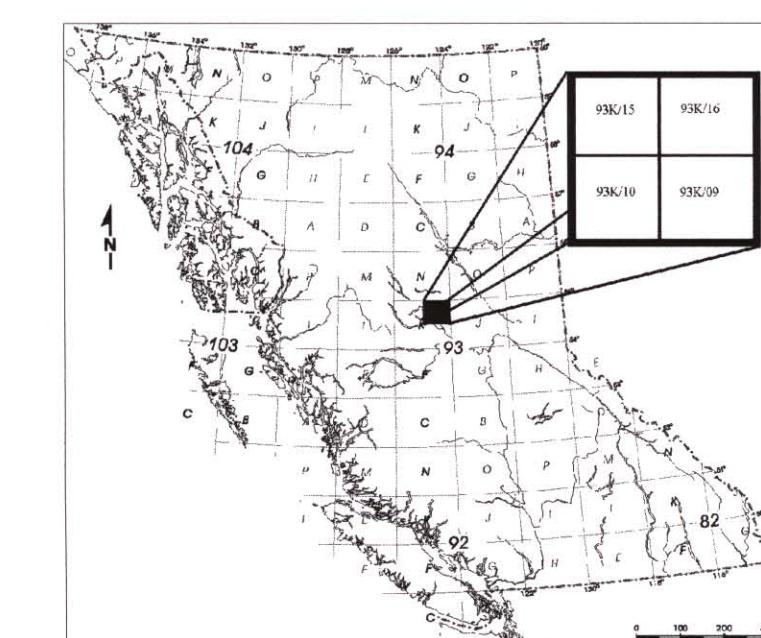
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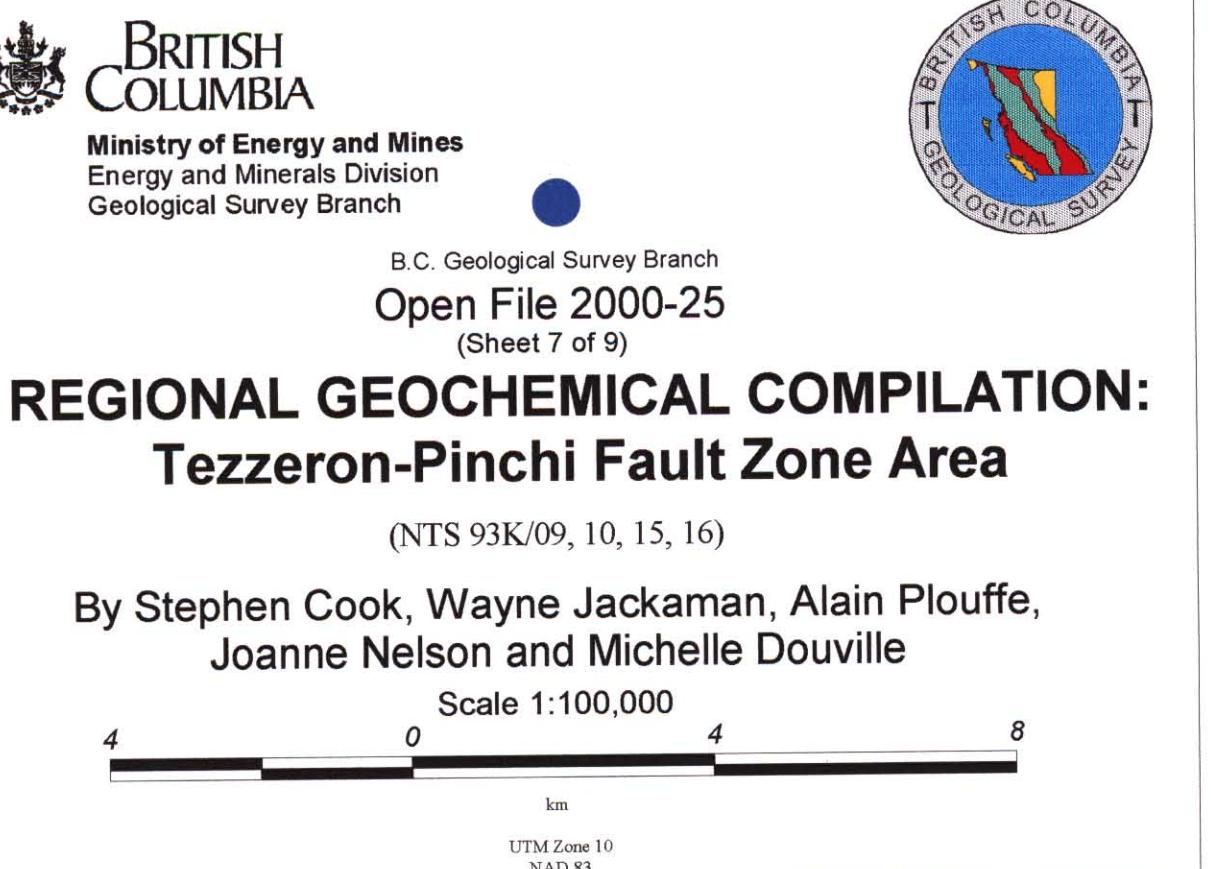
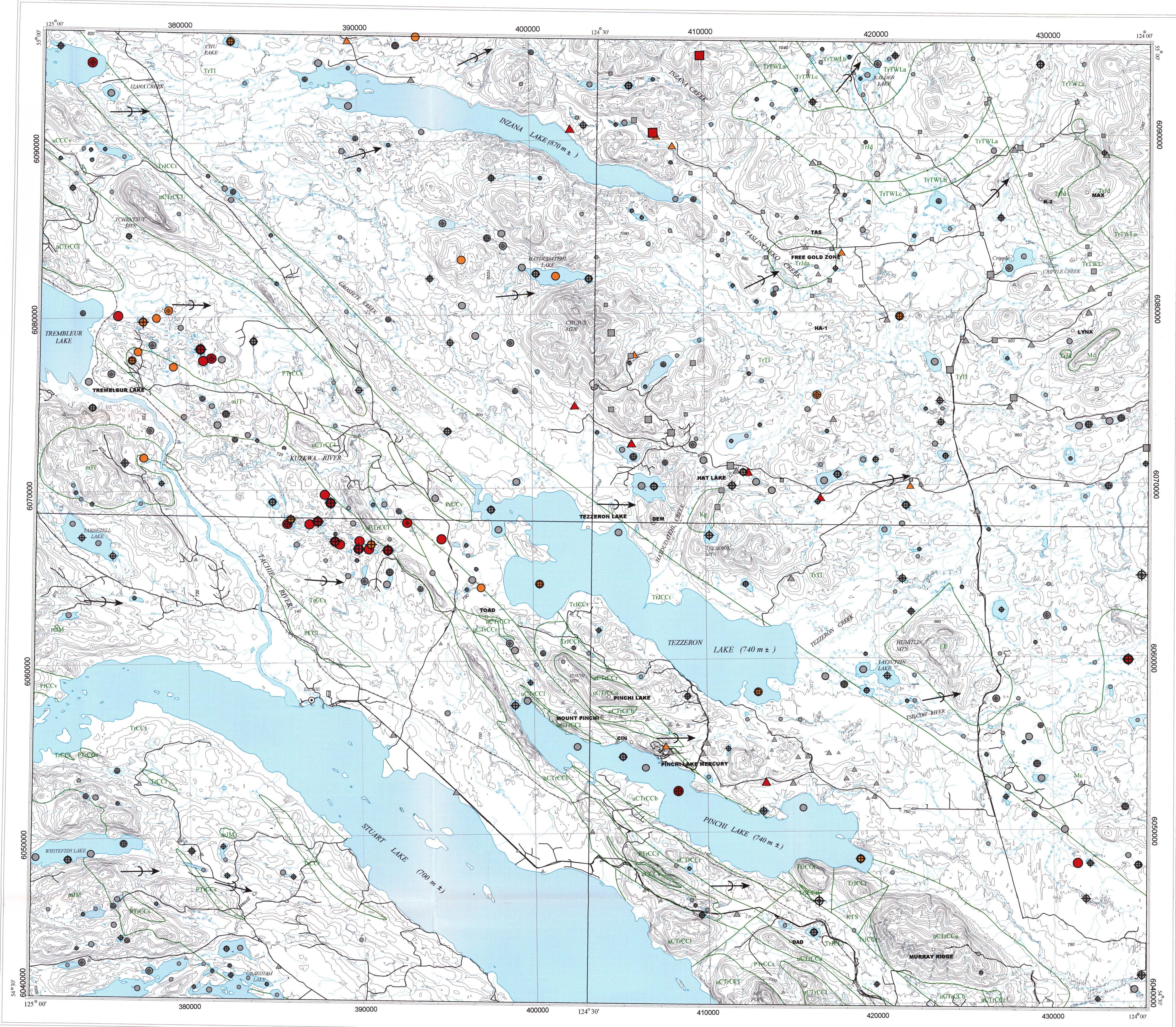
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Hg: aqua regia digestion/cold vapour-atomic absorption spectroscopy (CV-AAS)

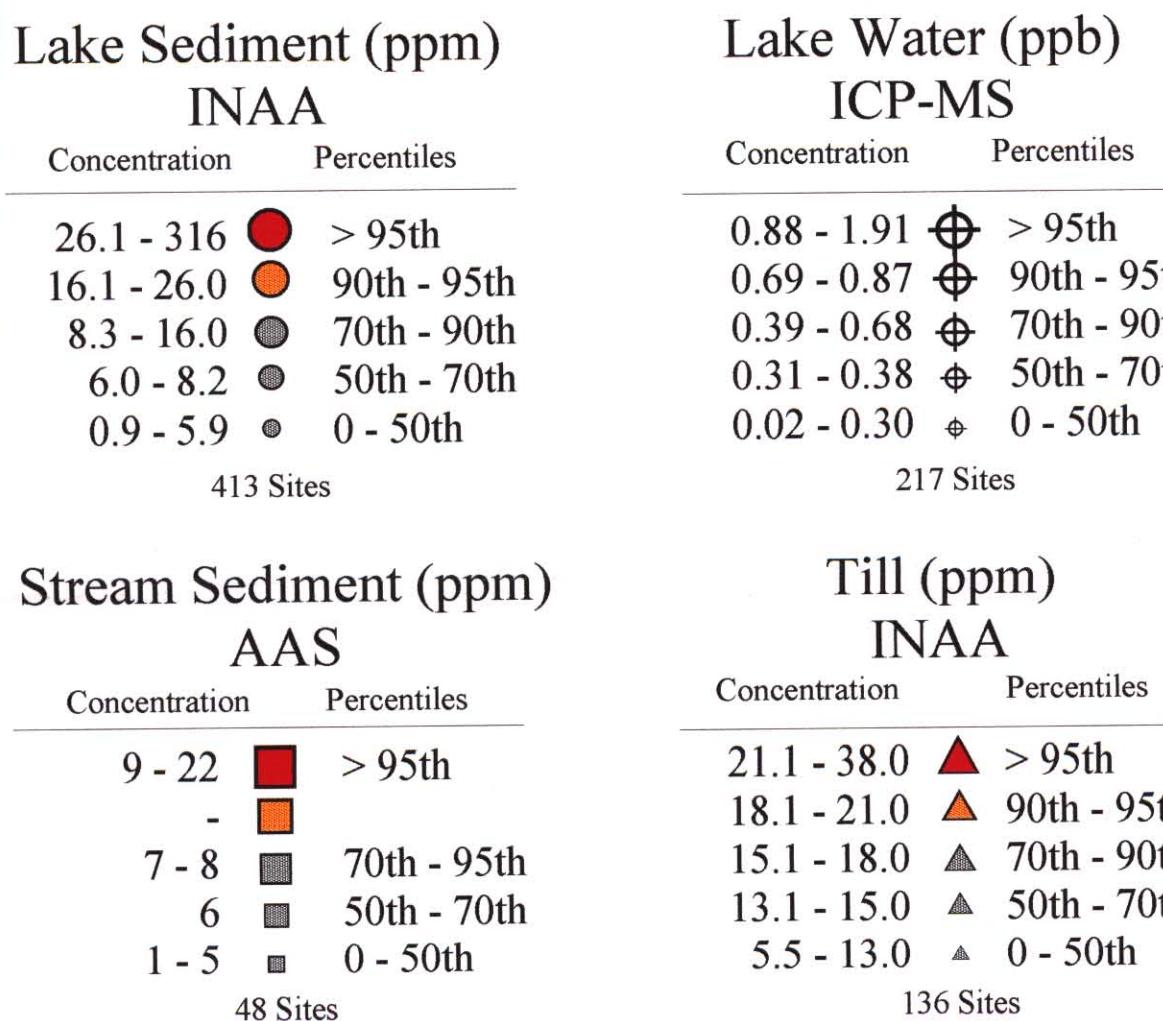
CONTOUR INTERVAL 20 METRES
Elevation in Metres above Mean Sea Level
North American Datum 1983
Transverse Mercator Projection

CAUTION: This map has been plotted using a HP 450 inkjet printer.
The ink used is waterproof and will also fade if exposed to bright light.





Arsenic



MINFILE Occurrences (Metallic)

- Showing
- Prospect
- Developed Prospect
- ✖ Past Producer

Base Information

mT	Geological Units
—	Road (gravel)
—	Rail Road
—	River
***	Swamp
○	Community
→	Ice Flow Direction

SOURCES OF INFORMATION

Lake Water: Cook *et al.* (1999)
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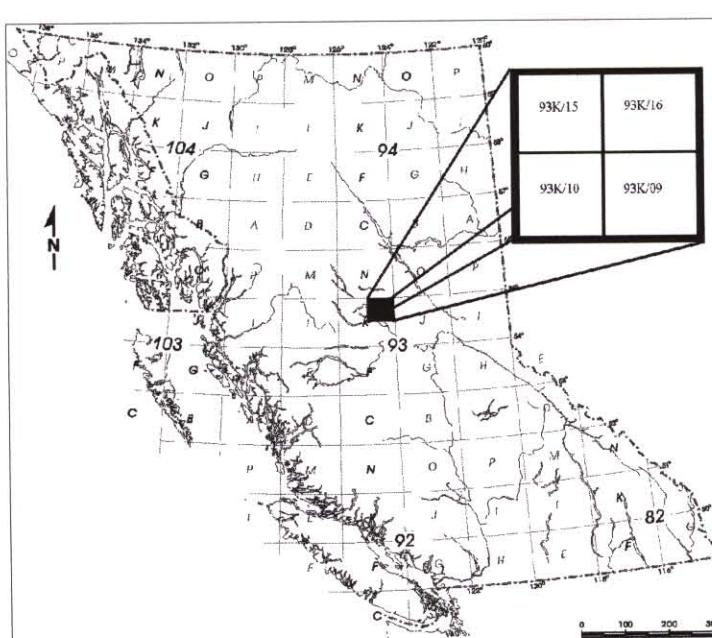
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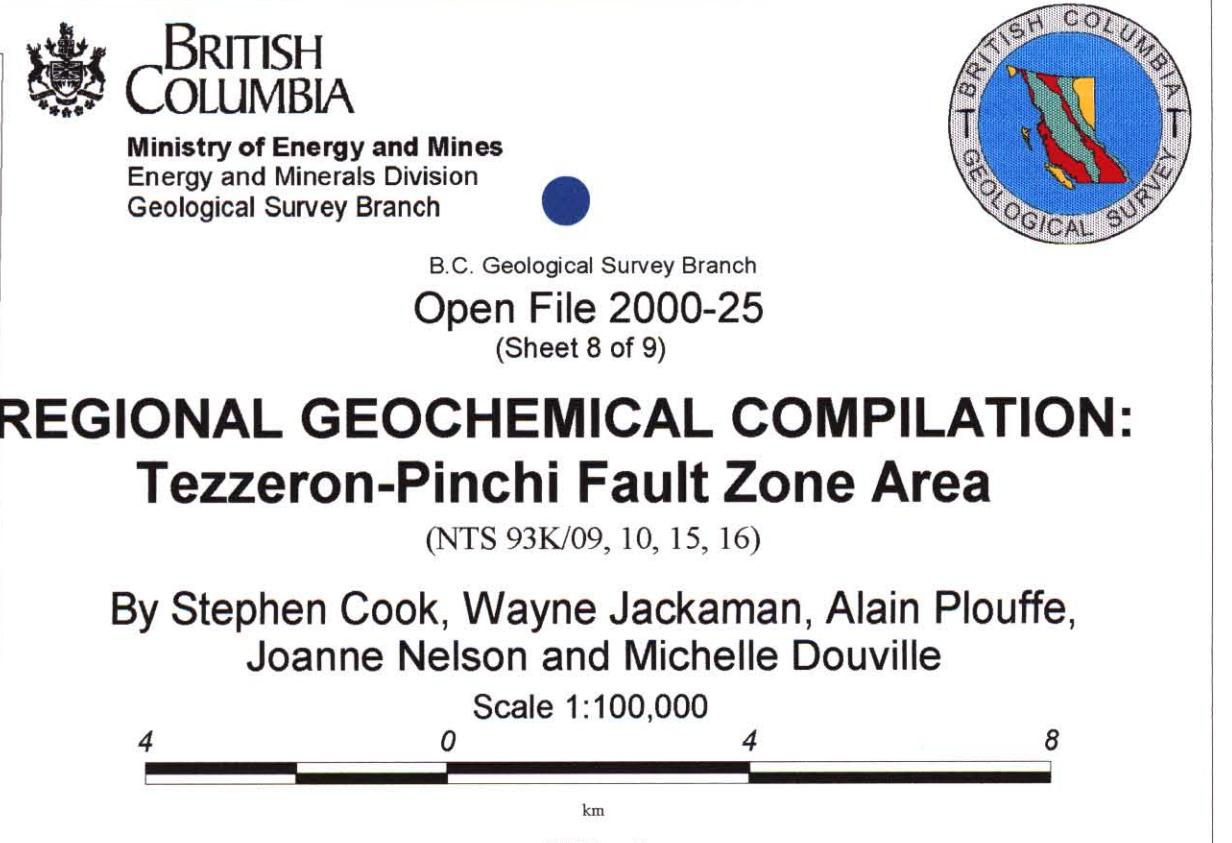
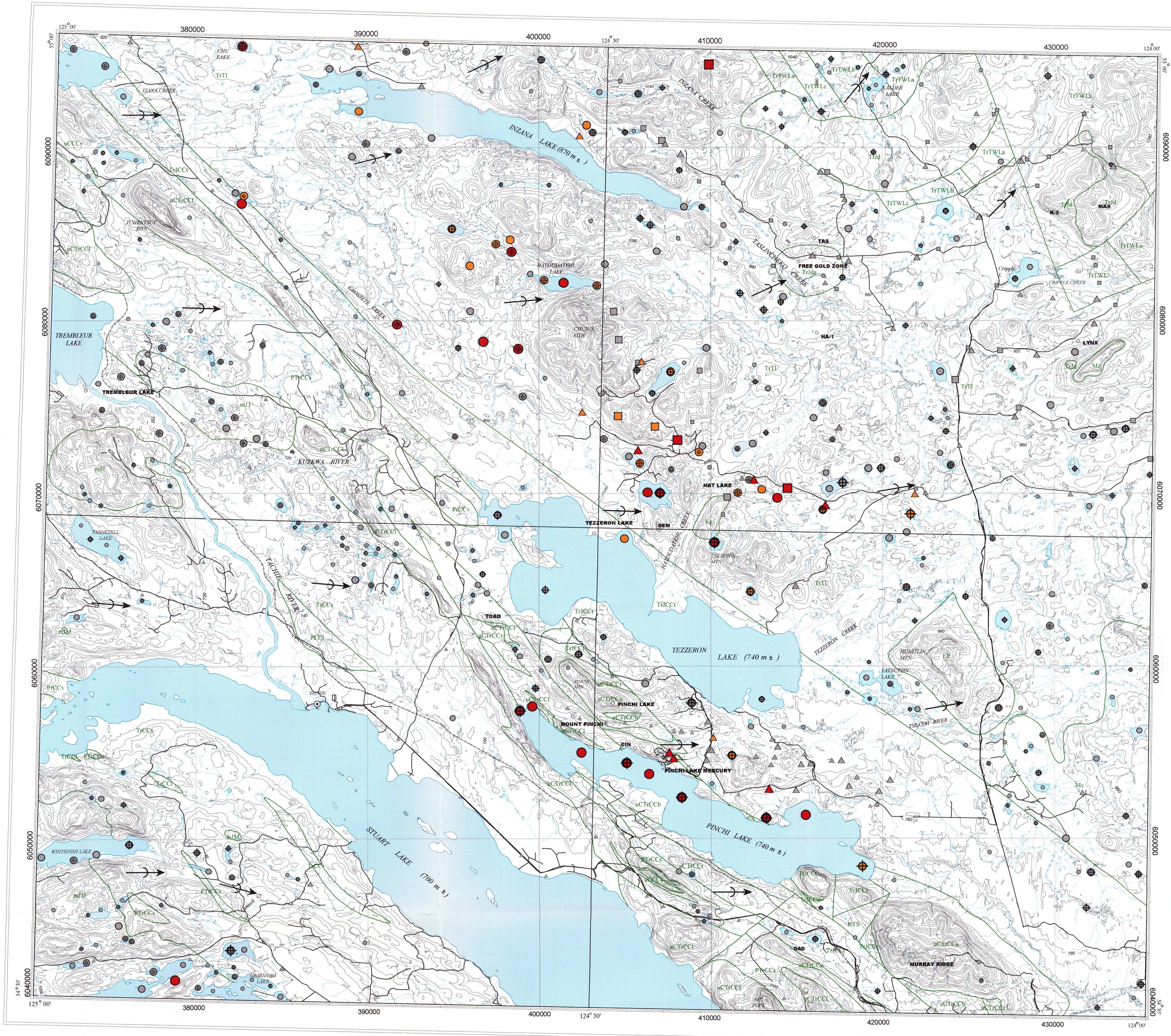
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Sample media coverage



CONTOUR INTERVAL 20 METRES
Elevation in Metres above Mean Sea Level
North American Datum 1983
Transverse Mercator Projection
CAUTION: This map has been plotted using a HP 650 inkjet plotter.
The ink used is not waterproof and will also fade if exposed to bright light.





Antimony

Lake Sediment (ppm) INAA		Lake Water (ppb) ICP-MS	
Concentration	Percentiles	Concentration	Percentiles
2.5 - 8.4	> 95th	0.09 - 1.29	> 95th
1.8 - 2.4	90th - 95th	0.08	90th - 95th
1.2 - 1.7	70th - 90th	0.06 - 0.07	70th - 90th
0.9 - 1.1	50th - 70th	0.04 - 0.05	50th - 70th
0.1 - 0.8	0 - 50th	0.02 - 0.03	0 - 50th

413 Sites

Stream Sediment (ppm) AAS		Till (ppm) INAA	
Concentration	Percentiles	Concentration	Percentiles
1.1 - 1.8	> 95th	3.9 - 9.7	> 95th
0.9 - 1.0	90th - 95th	3.0 - 3.8	90th - 95th
0.7 - 0.8	70th - 90th	2.3 - 2.9	70th - 90th
0.5 - 0.6	50th - 70th	2.0 - 2.2	50th - 70th
0.2 - 0.4	0 - 50th	0.8 - 1.9	0 - 50th

45 Sites

136 Sites

MINFILE Occurrences (Metallic)

- Showing
- Prospect
- Developed Prospect
- ✖ Past Producer

Base Information

	Geological Units
	Road (gravel)
	Rail Road
	River
	Swamp
	Community
	Ice Flow Direction

SOURCES OF INFORMATION

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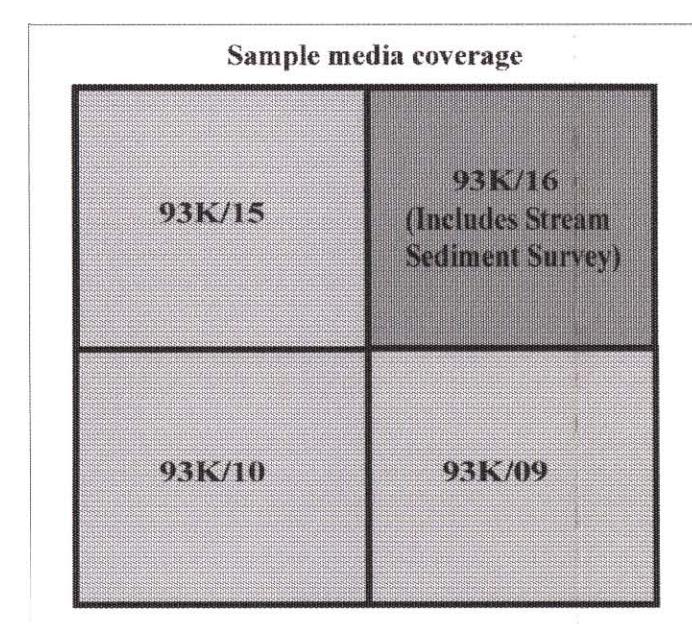
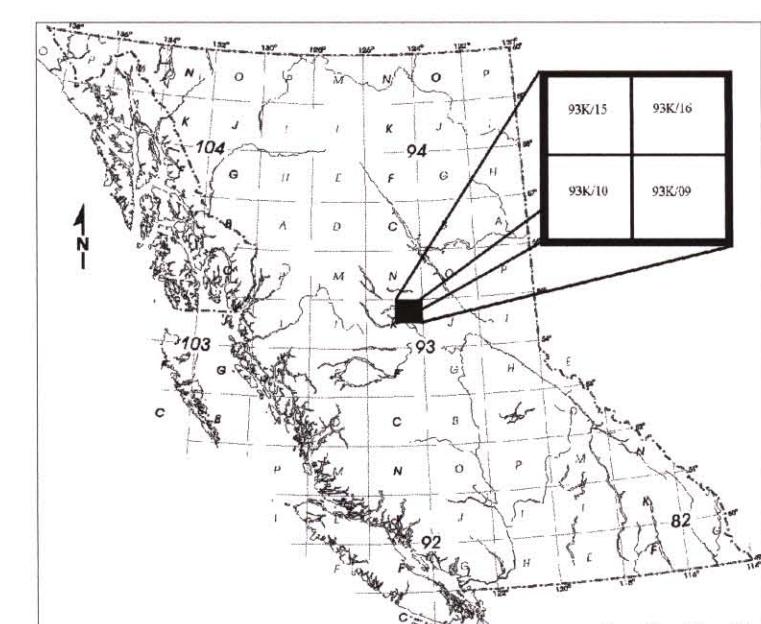
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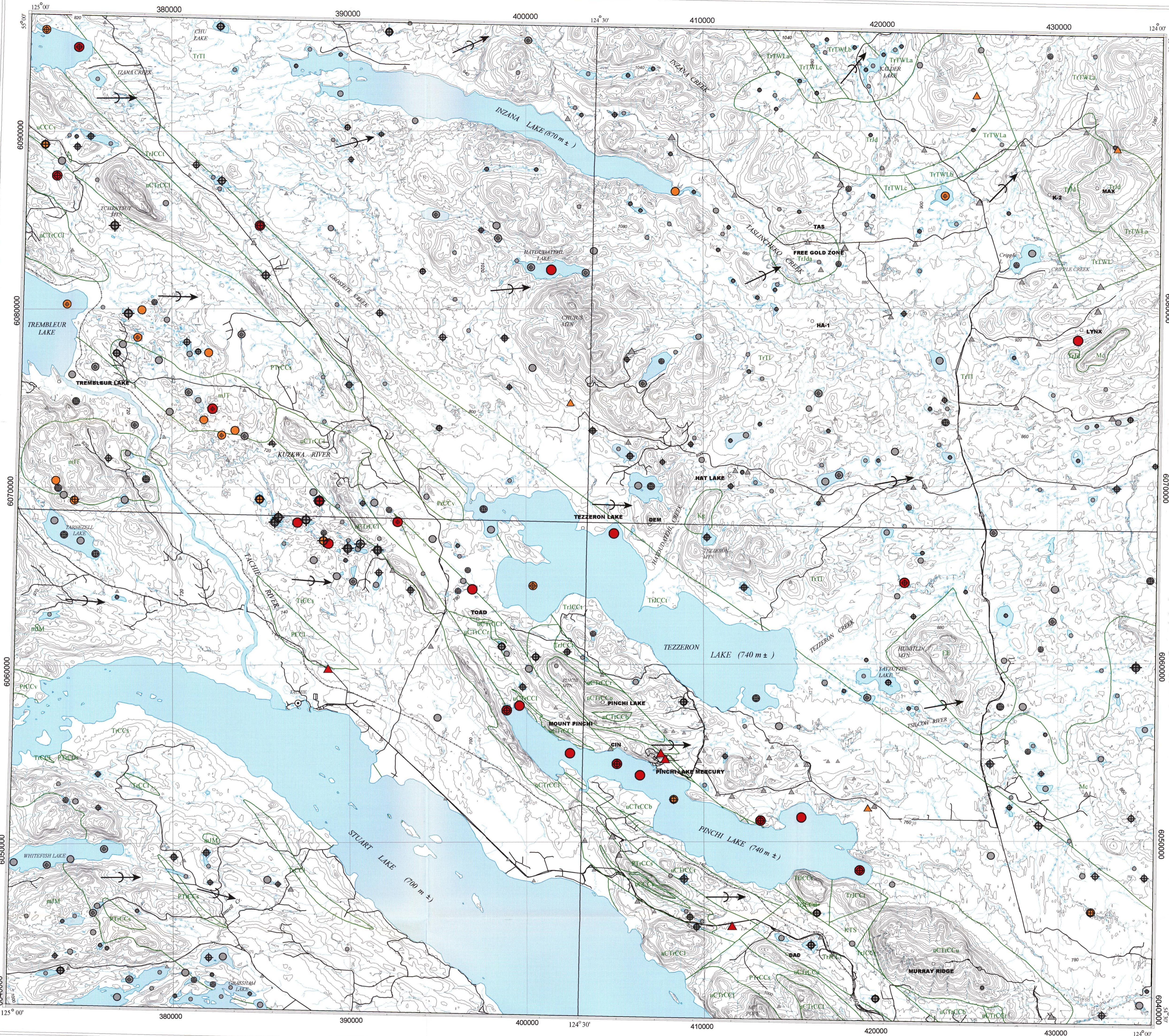


**REGIONAL GEOCHEMICAL COMPILATION:
Tezzeron-Pinchi Fault Zone Area**
(NTS 93K/09, 10, 15, 16)

By Stephen Cook, Wayne Jackaman, Alain Plouffe,
Joanne Nelson and Michelle Douville

Scale 1:100,000

4 0 4 8
km
UTM Zone 10
NAD 83



Barium

Lake Sediment (ppm)
INAA

Concentration	Percentiles	Concentration	Percentiles
971 - 2400	> 95th	110.820 - 388.823	> 95th
851 - 970	90th - 95th	70.565 - 110.819	90th - 95th
581 - 850	70th - 90th	31.135 - 70.564	70th - 90th
401 - 580	50th - 70th	18.378 - 31.134	50th - 70th
50 - 400	0 - 50th	0.227 - 18.377	0 - 50th

413 Sites

Lake Water (ppb)
ICP-MS

Concentration	Percentiles
110.820 - 388.823	> 95th
70.565 - 110.819	90th - 95th
31.135 - 70.564	70th - 90th
18.378 - 31.134	50th - 70th
0.227 - 18.377	0 - 50th

217 Sites

Till (ppm)
INAA

Concentration	Percentiles
1501 - 2600	> 95th
1401 - 1500	90th - 95th
1301 - 1400	70th - 90th
1101 - 1300	50th - 70th
610 - 1100	0 - 50th

136 Sites

MINFILE Occurrences (Metallic)

- Showing
- Prospect
- Developed Prospect
- ✖ Past Producer

Base Information

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	Rail Road
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Cu, Zn, Mo, Ni: aqua regia digestion/atomic absorption spectroscopy (AAS)

Lake Water 250 ml surface water sample filtered to 0.45 microm; acidified to approx. pH=2 with concentrated nitric acid

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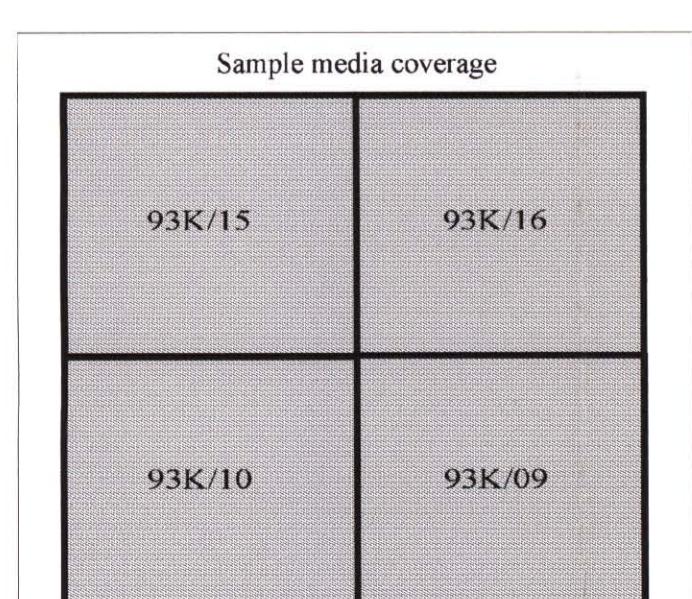
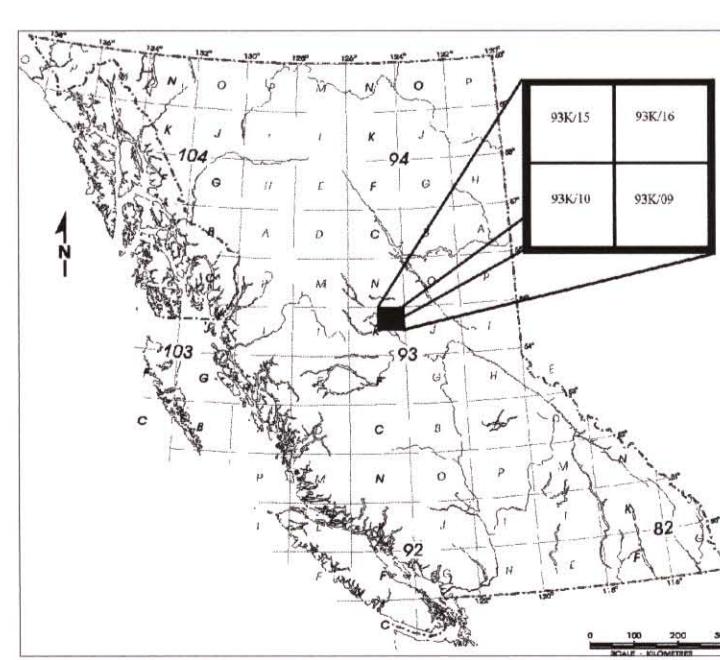
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