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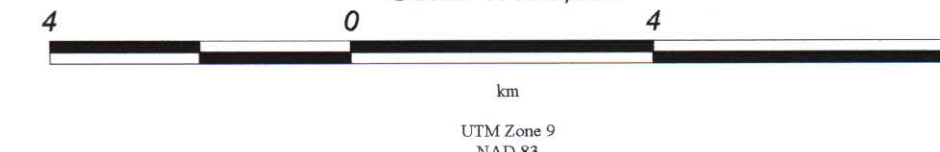
B.C. Geological Survey Branch

Open File 2000-24
(Sheet 1 of 9)**REGIONAL GEOCHEMICAL COMPILATION:
Babine Porphyry Belt**

(NTS 93L/9, 16; 93M/12,7,8)

By Stephen Cook, Vic Levson, Wayne Jackaman,
Derek Law and Michelle Douville

Scale 1:100,000



Copper

**Lake Water (ppb)
ICP-MS**

Concentration	Percentiles
1.830 - 3.867	⊕ > 95th
1.475 - 1.829	⊕ 90 - 95th
1.012 - 1.474	⊕ 70 - 90th
0.812 - 1.011	⊕ 50 - 70th
0.043 - 0.811	⊕ 0 - 50th

176 sites

**Lake Sediment (ppm)
AAS**

Concentration	Percentiles
76 - 230	● > 95th
66 - 75	● 90 - 95th
51 - 65	● 70 - 90th
41 - 50	● 50 - 70th
9 - 40	● 0 - 50th

332 sites

**Stream Sediment (ppm)
AAS**

Concentration	Percentiles
46 - 1170	■ > 95th
38 - 45	■ 90 - 95th
26 - 37	■ 70 - 90th
22 - 25	■ 50 - 70th
6 - 21	■ 0 - 50th

258 sites

**Till (ppm)
ICP-AES**

Concentration	Percentiles
73 - 1550	▲ > 95th
63 - 72	▲ 90 - 95th
49 - 62	▲ 70 - 90th
42 - 48	▲ 50 - 70th
9 - 41	▲ 0 - 50th

937 sites

**MINFILE Occurrences
(Metallic)**

- Showing
- Prospect
- Developed Prospect
- ✕ Past Producer

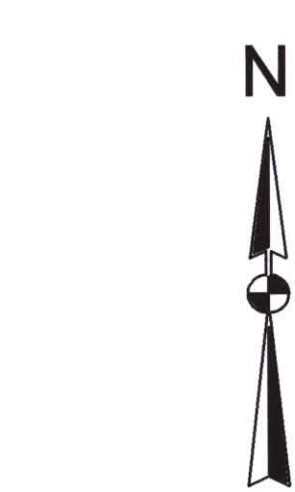
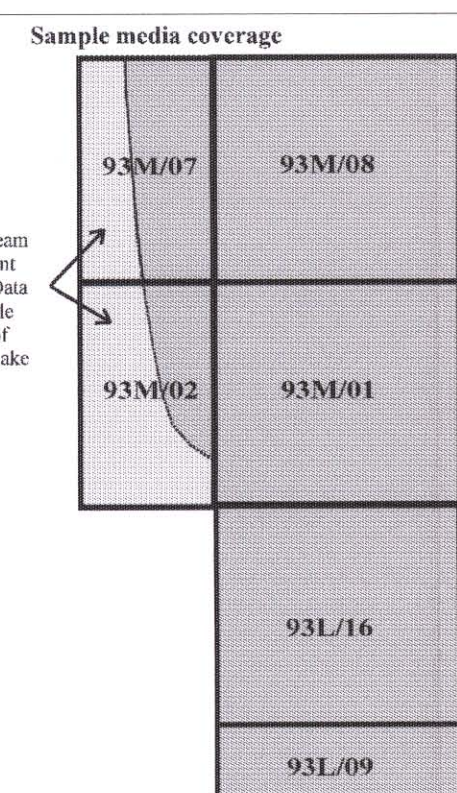
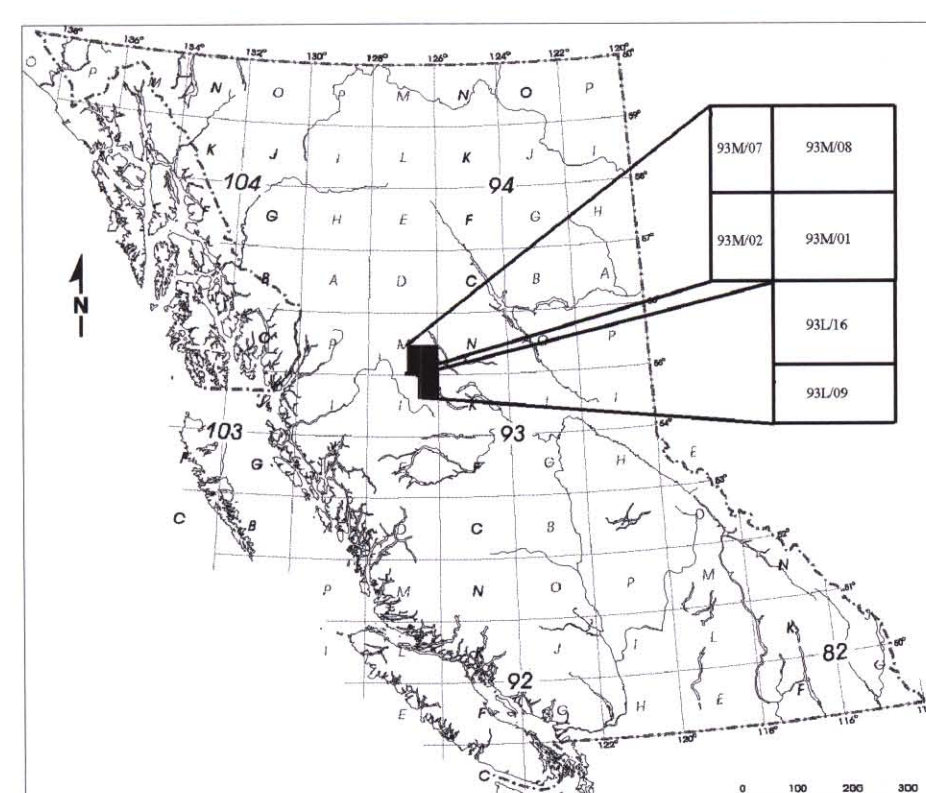
Base Information

- Road
- River
- ⊙ Community

SUMMARY TABLE OF SAMPLE PREPARATION AND ANALYTICAL METHODS

Sample Preparation and Size Fraction Used	Sample Digestion and/or Analytical Method
Lake Sediment entire sample disaggregated in ceramic ring mill screened through +177 micron (80 mesh) sieve	Au, As, Sb, Bi: instrumental neutron activation analysis (INAA) Cu, Zn, Mn, Co: aqua regia digestion/atomic absorption spectroscopy (AAS) Hg: aqua regia digestion/oxidative vapour atomic absorption spectroscopy (CV-AAS)
Lake Water 250 ml surface water sample filtered to 0.45 microns acidified to approx. pH=2 with concentrated nitric acid	inductively-coupled plasma-mass spectrometry (ICP-MS); no data reported for Au, Hg
Stream Sediment sample screened to < 177 microns (80 mesh) and ball milled	Au (NTS 93L): fire assay/instrumental neutron activation analysis (FA-INAA) Au (NTS 93M): instrumental neutron activation analysis (INAA) Ba (NTS 93M only): instrumental neutron activation analysis (INAA) Hg: aqua regia digestion/oxidative vapour atomic absorption spectroscopy (CV-AAS) Other elements: aqua regia digestion/atomic absorption spectroscopy (AAS)
Till sample screened to < 63 micron (230 mesh) silt & clay-sized fraction	Au, As, Sb, Bi: instrumental neutron activation analysis (INAA) Cu, Zn, Mn, Co: aqua regia digestion/inductively-coupled plasma emission spectroscopy (ICP-AES) Hg: aqua regia digestion/oxidative vapour atomic absorption spectroscopy (CV-AAS)

Consult original RDS or Open File references for more detailed information on sample preparation and analytical procedures

CONTOUR INTERVAL 100 METRES
Elevation in Metres above Mean Sea Level
North American Datum 1983
Transverse Mercator ProjectionCAUTION: This map has been plotted using a HP 650 plotter.
The ink used is not waterproof and will also fade if exposed to bright light.**NATMAP
CARTNAT**Canada's National Geoscience Mapping Program
La Programme national de cartographie géoscientifique du Canada**SOURCES OF INFORMATION**

Lake Water: Cook *et al.* (1999)
 Lake Sediment: Cook *et al.* (1998)
 Till: Levson *et al.* (2000)
 Stream Sediment:
 NTS 93L (Smithers) - Johnson *et al.* (1987);
 NTS 93M (Hazelton) - Jackaman (1998)
 Cartographic Presentation: M. Douville

REFERENCES

Cook, S.J., Jackaman, W., Lett, R.E.W., McCurdy, M.W. and S.J. Day (1999): Regional Lake Water Geochemistry of Parts of the Nechako Plateau, Central British Columbia; B.C. Ministry of Energy and Mines, Open File 1999-5.

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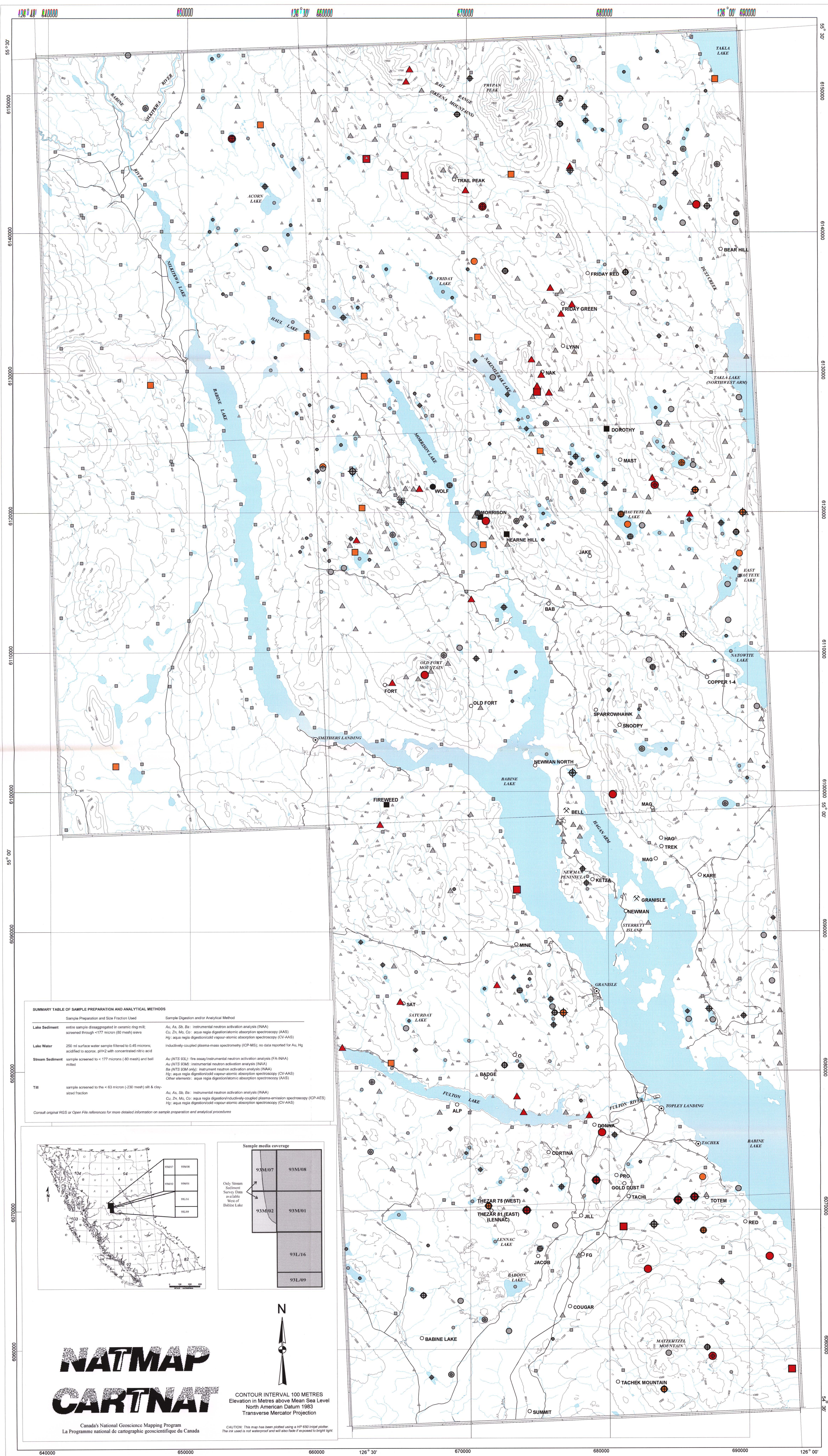
Jackaman, W. (1998): British Columbia Regional Geochemical Survey: NTS 93M - Hazelton; B.C. Ministry of Energy and Mines, RGS 48.

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MINFILE 93L, Duffet, L.L. and G. Owsiki (1995): Smithers Mineral Occurrence Map; B.C. Ministry of Energy, Mines and Petroleum Resources, MINFILE, released March 1995.

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



B.C. Geological Survey Branch
Open File 2000-24
(Sheet 2 of 9)

**REGIONAL GEOCHEMICAL COMPILATION:
Babine Porphyry Belt**

(NTS 93L/9, 16, 93M/1,2,7,8)

By Stephen Cook, Vic Levson, Wayne Jackaman,
Derek Law and Michelle Douville

Scale 1:100,000

UTM Zone 9
50 00 00 N

Molybdenum

Lake Water (ppb) ICP-MS		
Concentration		Percentiles
0.35 - 1.26	⊕	> 95th
0.25 - 0.34	⊕	90 - 95th
0.12 - 0.24	⊕	70 - 90th
0.09 - 0.11	⊕	50 - 70th
0.02 - 0.08	⊕	0 - 50th
176 sites		
Lake Sediment (ppm) AAS		
Concentration		Percentiles
7 - 16	●	> 95th
6	●	90 - 95th
4 - 5	●	70 - 90th
-	●	-
1 - 3	●	0 - 70th
332 sites		
Stream Sediment (ppm) AAS		
Concentration		Percentiles
3 - 5	■	> 95th
2	■	90 - 95th
-	■	-
1	■	0 - 90th
258 sites		
Till (ppm) ICP-AES		
Concentration		Percentiles
3 - 38	▲	> 97th
-	▲	-
2	▲	85 - 97th
-	▲	-
1	▲	0 - 85th
937 sites		

MINFILE Occurrences (Metallic)

- Showing
- Prospect
- Developed Prospect
- ✕ Past Producer

Base Information

- Road
- River
- ⊙ Community

SOURCES OF INFORMATION

Lake Water: Cook *et al.* (1999)
Lake Sediment: Cook *et al.* (1998)
Till: Levson *et al.* (2000)
Stream Sediment:
NTS 93L (Smithers) - Johnson *et al.* (1987);
NTS 93M (Hazelton) - Jackaman (1998)
Cartographic Presentation: M. Douville

REFERENCES

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MINFILE 93L, Duffell, L.L. and G. Owsiki (1995): Smithers Mineral Occurrence Map, B.C. Ministry of Energy, Mines and Petroleum Resources, MINFILE, released March 1995.

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Cobalt

Lake Water (ppb)
ICP-MS

Concentration	Percentiles
0.087 - 0.155	> 95th
0.073 - 0.086	90 - 95th
0.055 - 0.072	70 - 90th
0.041 - 0.054	50 - 70th
0.002 - 0.040	0 - 50th

176 sites

Lake Sediment (ppm)
AAS

Concentration	Percentiles
16 - 85	> 95th
14 - 15	90 - 95th
9 - 13	70 - 90th
8	50 - 70th
1 - 7	0 - 50th

332 sites

Stream Sediment (ppm)
AAS

Concentration	Percentiles
17 - 26	> 95th
16	90 - 95th
13 - 15	70 - 90th
12	50 - 70th
2 - 11	0 - 50th

258 sites

Till (ppm)
ICP-AES

Concentration	Percentiles
21 - 37	> 95th
19 - 20	90 - 95th
15 - 18	70 - 90th
12 - 14	50 - 70th
3 - 11	0 - 50th

937 sites

MINFILE Occurrences (Metallic)

- Showing
- Prospect
- Developed Prospect
- Past Producer

Base Information

- Road
- River
- Community

SOURCES OF INFORMATION

Lake Water: Cook *et al.* (1999)
Lake Sediment: Cook *et al.* (1998)
Till: Levson *et al.* (2000)
Stream Sediment:
NTS 93L (Smithers) - Johnson *et al.* (1987);
NTS 93M (Hazelton) - Jackaman (1998)
Cartographic Presentation: M. Douville

REFERENCES

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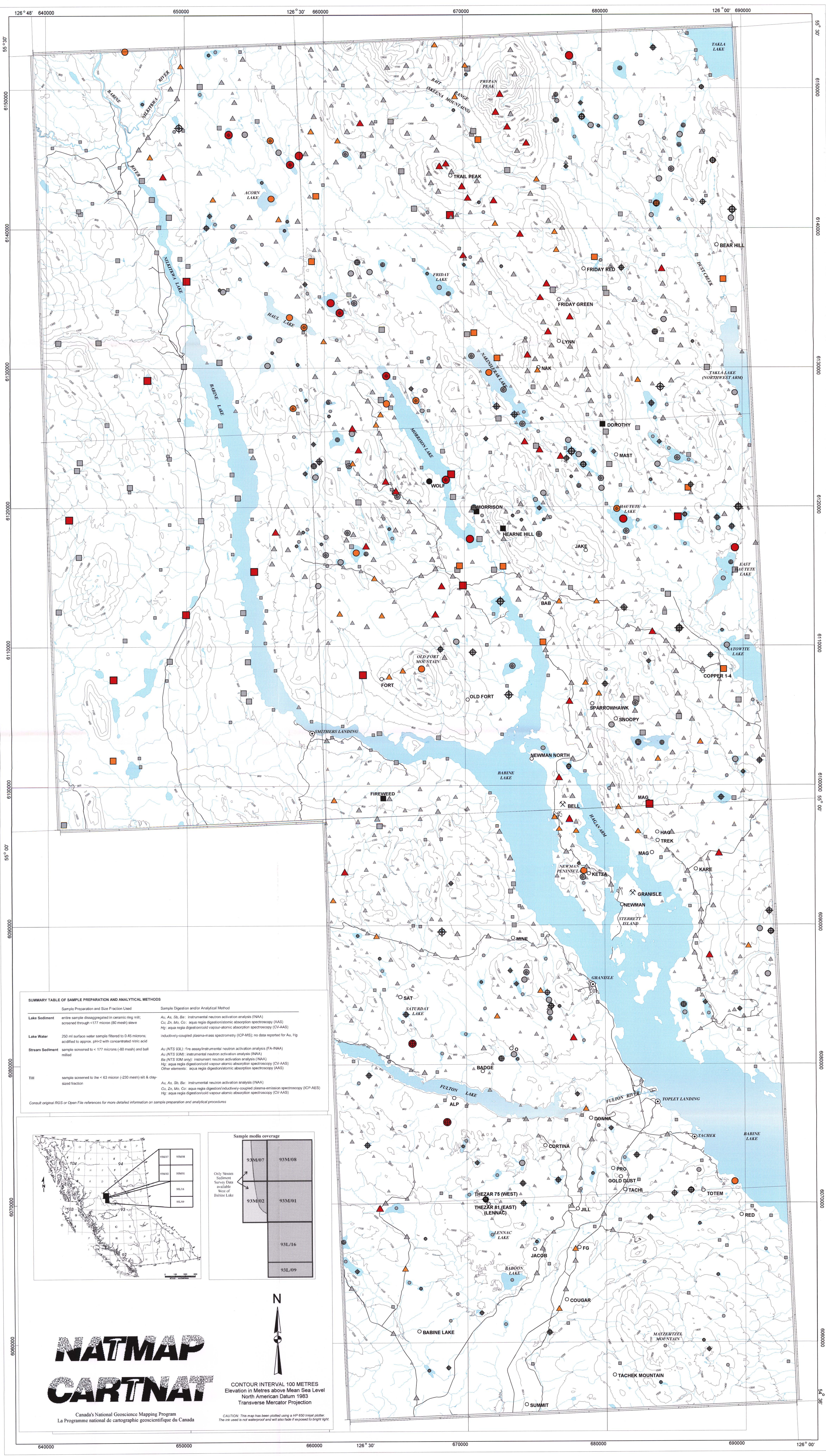
Jackaman, W. (1998): British Columbia Regional Geochemical Survey: NTS 93M - Hazelton, B.C. Ministry of Energy and Mines, RGS 48.

Johnson, W.M., Hornbrook, E.H.W. and Friske, P.W.B. (1987): National Geochemical Reconnaissance 1:250,000 Map Series - Smithers, British Columbia (NTS 93L); B.C. Ministry of Energy, Mines and Petroleum Resources, RGS 17.

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MINFILE 93L, Duffet, L.L. and G. Owsiaki (1995): Smithers Mineral Occurrence Map, B.C. Ministry of Energy, Mines and Petroleum Resources, MINFILE, released March 1995.

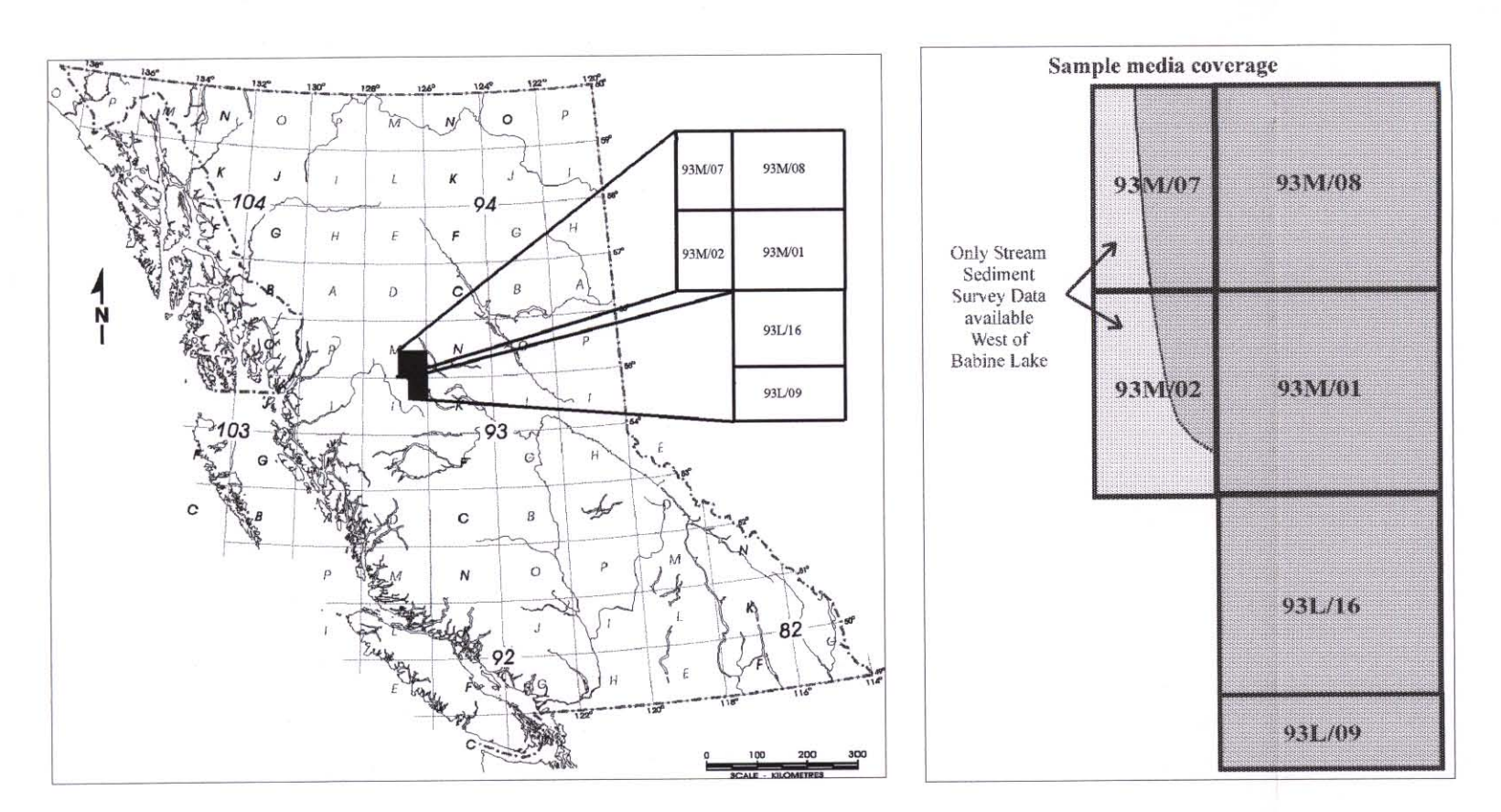
MINFILE 93M, McMillan, R.H. (1992): Hazelton Mineral Occurrence Map, B.C. Ministry of Energy, Mines and Petroleum Resources, MINFILE, released March 1992.

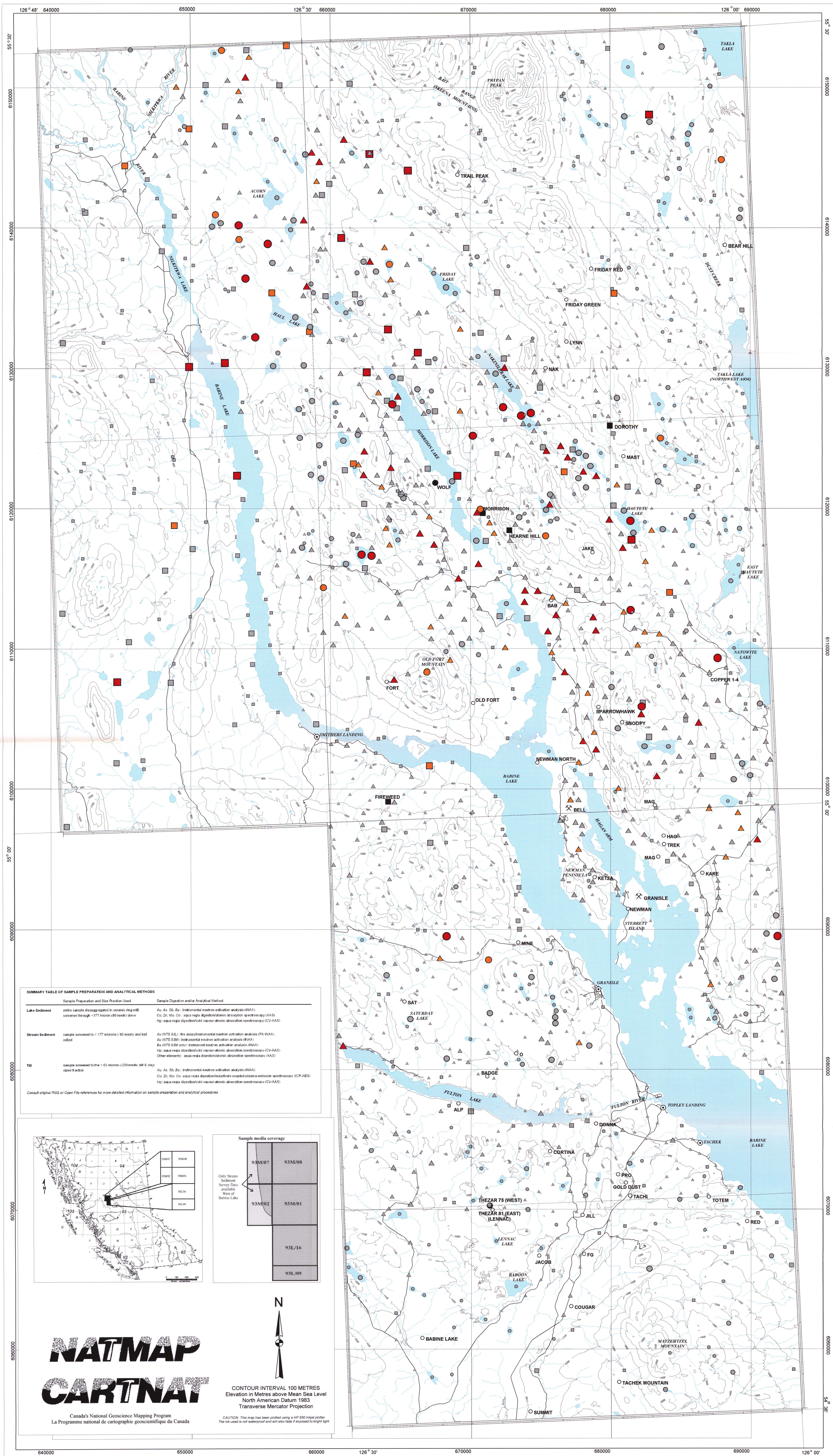


SUMMARY TABLE OF SAMPLE PREPARATION AND ANALYTICAL METHODS

Sample Preparation and Size Fraction Used	Sample Preparation and Size Fraction Used
Lake Sediment entire sample disaggregated in ceramic (mg ml); screened through <17 microns (60 mesh) sieve	Au, Ag, Sb, Bi: instrumental neutron activation analysis (INAA) Cu, Zn, Mn, Co: aqua regia digestion/inductively coupled plasma atomic emission spectroscopy (ICP-AES) Hg: aqua regia digestion/cold vapour atomic absorption spectroscopy (CV-AAS)
Lake Water 250 ml surface water sample filtered to 0.45 microns; acidified to approx. pH 2 with concentrated nitric acid	Au (NTS 93L): fire assay/instrumental neutron activation analysis (F-A-INAA) Au (NTS 93M): instrumental neutron activation analysis (INAA) Bi (NTS 93M): instrumental neutron activation analysis (INAA) Hg: aqua regia digestion/cold vapour atomic absorption spectroscopy (CV-AAS) Other elements: aqua regia digestion/inductively coupled plasma atomic emission spectroscopy (ICP-AES)
Stream Sediment sample screened to < 177 microns (60 mesh) and ball milled	
Till sample screened to the < 63 micron (<250 mesh) air & clay sized fraction	

Consult original RGS or 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 2000-24
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**REGIONAL GEOCHEMICAL COMPILATION:
Babine Porphyry Belt**
(NTS 93L/9, 16, 93M/1, 2, 7, 8)

By Stephen Cook, Vic Levson, Wayne Jackaman,
Derek Law and Michelle Douville

Scale 1:100,000

4 0 4 8
km
UTM Zone 9
NAD 83

Mercury

Lake Sediment (ppb) CV-AAS		
Concentration		Percentiles
311 - 500	●	> 95th
271 - 310	●	90 - 95th
191 - 270	●	70 - 90th
141 - 190	●	50 - 70th
5 - 140	●	0 - 50th
332 sites		

Stream Sediment (ppb) CV-AAS		
Concentration		Percentiles
241 - 1100	■	> 95th
131 - 240	■	90 - 95th
81 - 130	■	70 - 90th
71 - 80	■	50 - 70th
10 - 70	■	0 - 50th
258 sites		

Till (ppb) CV-AAS		
Concentration		Percentiles
231 - 950	▲	> 95th
191 - 230	▲	90 - 95th
126 - 190	▲	70 - 90th
91 - 125	▲	50 - 70th
10 - 90	▲	0 - 50th
932 sites		

MINFILE Occurrences (Metallic)

- Showing
- Prospect
- Developed Prospect
- ✕ Past Producer

Base Information

- Road
- River
- Community

SOURCES OF INFORMATION

Lake Sediment: Cook *et al.* (1998)
Stream Sediment:
NTS 93L (Smithers) - Johnson *et al.* (1987);
NTS 93M (Hazelton) - Jackaman (1998)
Cartographic Presentation: M. Douville

REFERENCES

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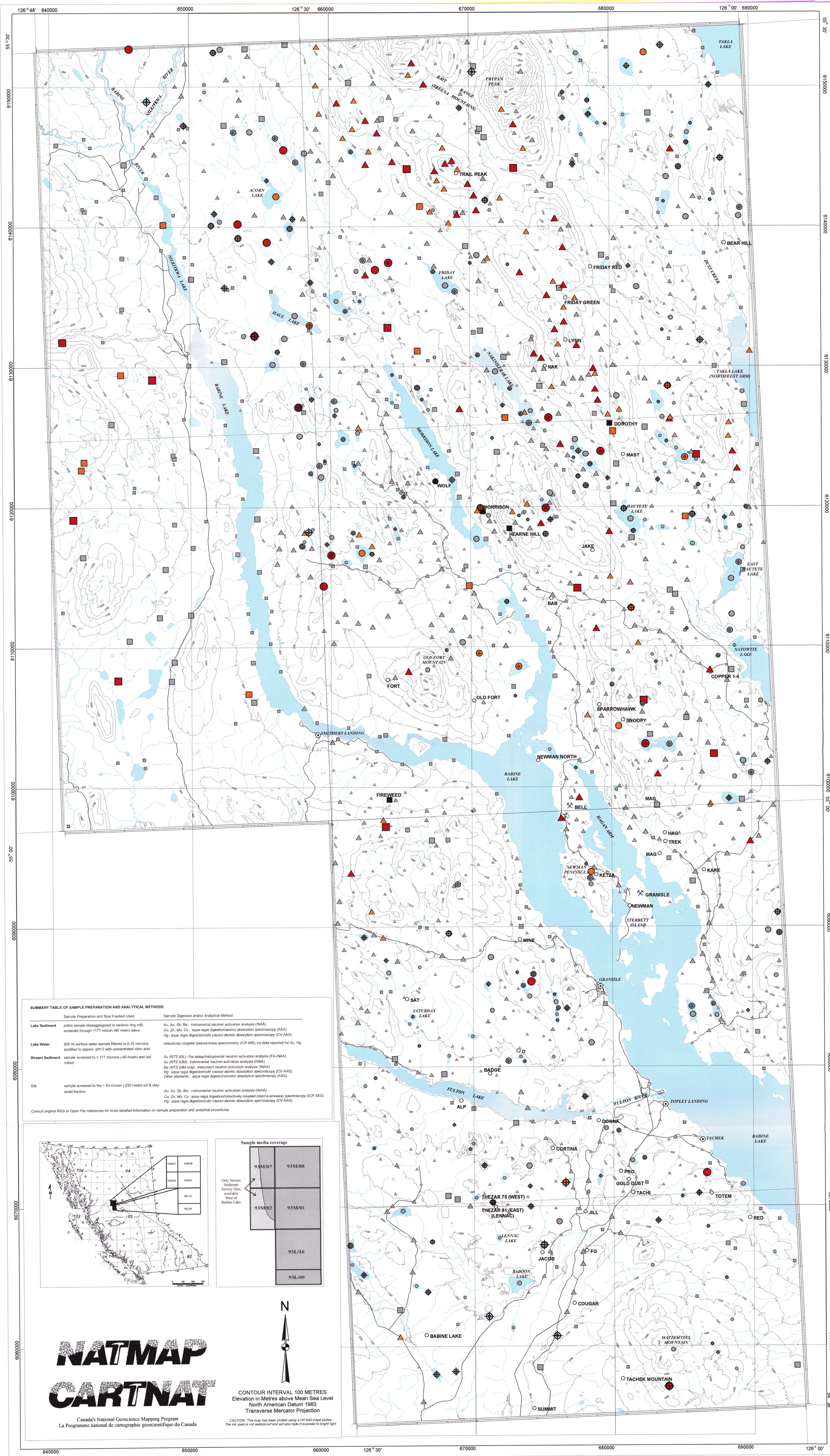
Jackaman, W. (1998): British Columbia Regional Geochemical Survey: NTS 93M - Hazelton; B.C. Ministry of Energy and Mines, RGS 48.

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MINFILE 93L, Duffet, L.L. and G. Owsiake (1995): Smithers Mineral Occurrence Map; B.C. Ministry of Energy, Mines and Petroleum Resources, MINFILE, released March 1995.

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Energy and Minerals Division
Geological Survey Branch

B.C. Geological Survey Branch
Open File 2000-24
(Sheet 5 of 9)

**REGIONAL GEOCHEMICAL COMPILATION:
Babine Porphyry Belt**
(NTS 93L/9, 16; 93M/1,2,7,8)

By Stephen Cook, Vic Levson, Wayne Jackaman,
Derek Law and Michelle Douville
Scale 1:100,000

4 0 4 8
km
UTM Zone 9
NAD 83

Zinc

Lake Water (ppb) ICP-MS		
Concentration		Percentiles
2.600 - 20.505	⊕	> 95th
2.092 - 2.599	⊕	90 - 95th
1.178 - 2.091	⊕	70 - 90th
0.697 - 1.177	⊕	50 - 70th
0.002 - 0.696	⊕	0 - 50th
176 sites		
Lake Sediment (ppm) AAS		
Concentration		Percentiles
221 - 500	●	> 95th
211 - 220	●	90 - 95th
176 - 210	●	70 - 90th
155 - 175	●	50 - 70th
13 - 154	●	0 - 50th
332 sites		
Stream Sediment (ppm) AAS		
Concentration		Percentiles
139 - 240	■	> 95th
117 - 138	■	90 - 95th
97 - 116	■	70 - 90th
85 - 96	■	50 - 70th
13 - 84	■	0 - 50th
258 sites		
Till (ppm) ICP-AES		
Concentration		Percentiles
169 - 5067	▲	> 95th
142 - 168	▲	90 - 95th
113 - 141	▲	70 - 90th
98 - 112	▲	50 - 70th
37 - 97	▲	0 - 50th
937 sites		

MINFILE Occurrences (Metallic)

- Showing
- Prospect
- Developed Prospect
- ✕ Past Producer

Base Information

- Road
- River
- Community

SOURCES OF INFORMATION

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Till: Levson *et al.* (2000)
Stream Sediment:
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Cartographic Presentation: M. Douville

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



Geological Survey Branch

B.C. Geological Survey Branch

Open File 2000-24

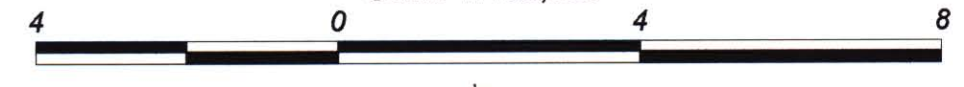
(Sheet 6 of 9)

REGIONAL GEOCHEMICAL COMPILATION:
Babine Porphyry Belt

(NTS 93L/9, 16, 93M/1, 2, 7, 8)

By Stephen Cook, Vic Levson, Wayne Jackaman,
Derek Law and Michelle Douville

Scale 1:100,000



UTM Zone 9
NAD 83

Gold

Lake Sediment (ppb)		
INAA		
Concentration		Percentiles
9 - 21	●	> 95th
7 - 8	●	90 - 95th
4 - 6	●	70 - 90th
2 - 3	●	50 - 70th
1	●	0 - 50th
331 sites		
Stream Sediment (ppb)		
93L - FA-INAA (52 sites)		
93M - INAA (201 sites)		
Concentration		Percentiles
13 - 325	■	> 95th
9 - 12	■	90 - 95th
5 - 8	■	70 - 90th
4	■	50 - 70th
1 - 3	■	0 - 50th
258 sites		
Till (ppb)		
INAA		
Concentration		Percentiles
18 - 140	▲	> 95th
13 - 17	▲	90 - 95th
7 - 12	▲	70 - 90th
3 - 6	▲	50 - 70th
1 - 2	▲	0 - 50th
937 sites		

MINFILE Occurrences (Metallic)

- Showing
- Prospect
- Developed Prospect
- ✕ Past Producer

Base Information

- Road
- River
- Community

SOURCES OF INFORMATION

Lake Sediment: Cook *et al.* (1998)
Till: Levson *et al.* (2000)
Stream Sediment:
NTS 93L (Smithers) - Johnson *et al.* (1987);
NTS 93M (Hazelton) - Jackaman (1998)
Cartographic Presentation: M. Douville

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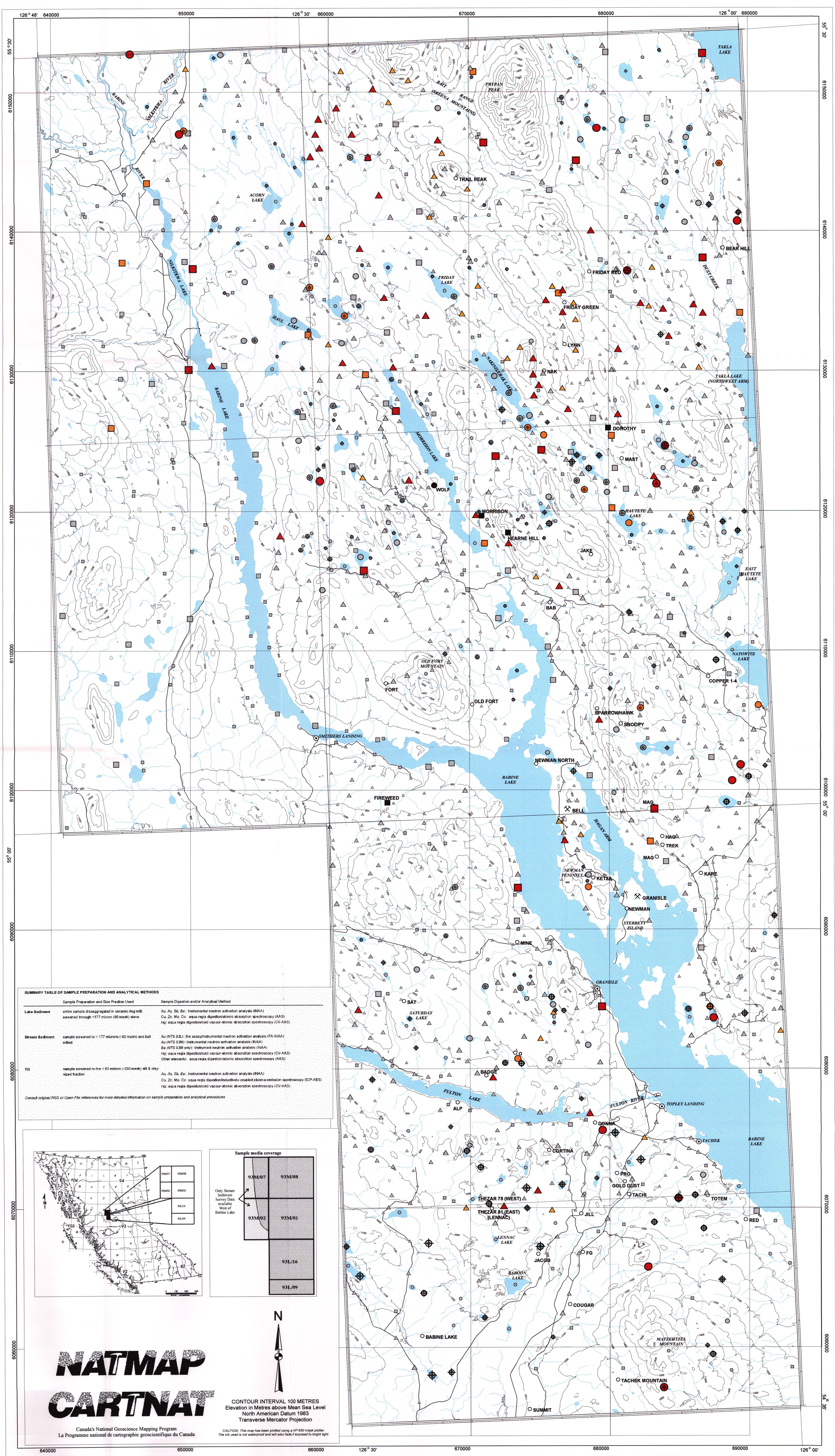
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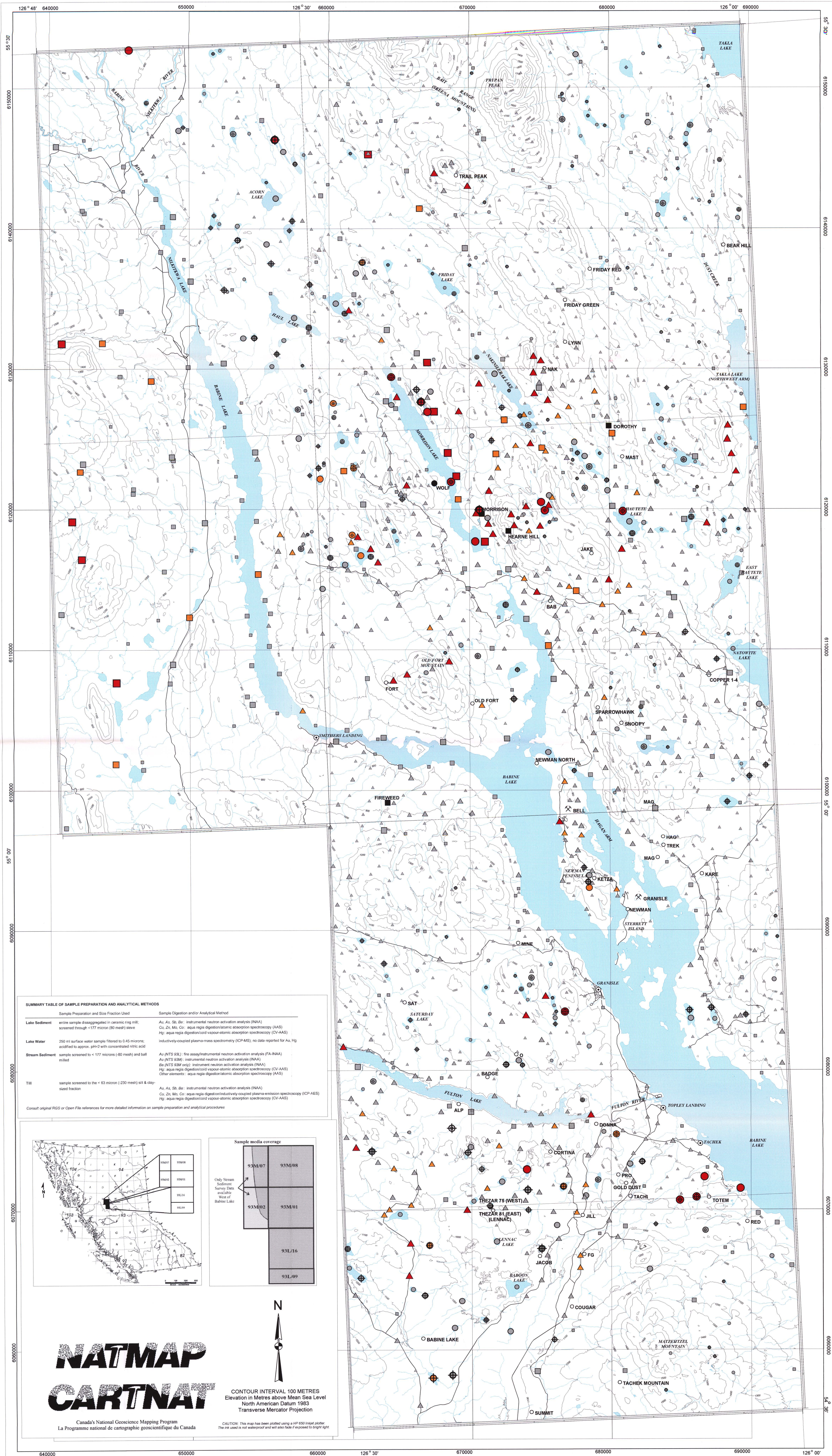
Johnson, W.M., Hornbrook, E.H.W. and Friske, P.W.B. (1987): National Geochemical Reconnaissance 1:250,000 Map Series - Smithers, British Columbia (NTS 93L); B.C. Ministry of Energy, Mines and Petroleum Resources, RGS 17.

Levson, V.M., Stumpf, A.J., Cook, S.J., O'Brien, E.K., Weary, G.F., Meldrum, D.G., Hobday, J., Churchill, C., Huntley, D.H., Ferbey, T., Lett, R., Cleary, K.E. and Rocha, C. (2000): Till Geochemistry of the Babine Copper Porphyry Belt (NTS 93L/16, M/1, M/2, M/7, M/8); B.C. Ministry of Energy and Mines, Open File 2000-27.

MINFILE 93L, Duffet, L.L. and G. Owsiki (1995): Smithers Mineral Occurrence Map; B.C. Ministry of Energy, Mines and Petroleum Resources, MINFILE, released March 1995.

MINFILE 93M, McMillan, R.H. (1992): Hazelton Mineral Occurrence Map; B.C. Ministry of Energy, Mines and Petroleum Resources, MINFILE, released March 1992.





British Columbia
Ministry of Energy and Mines
Energy and Minerals Division
Geological Survey Branch

B.C. Geological Survey Branch
Open File 2000-24
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**REGIONAL GEOCHEMICAL COMPILATION:
Babine Porphyry Belt**
(NTS 93L/9, 16, 93M/1, 2, 7, 8)

By Stephen Cook, Vic Levson, Wayne Jackaman,
Derek Law and Michelle Douville

Scale 1:100,000

Arsenic

Lake Water (ppb)	
ICP-MS	
Concentration	Percentiles
0.41 - 0.63	⊕ > 95th
0.36 - 0.40	⊕ 90 - 95th
0.27 - 0.35	⊕ 70 - 90th
0.21 - 0.26	⊕ 50 - 70th
0.02 - 0.20	⊕ 0 - 50th
176 sites	

Lake Sediment (ppm)	
INAA	
Concentration	Percentiles
18.1 - 39.0	● > 95th
15.1 - 18.0	● 90 - 95th
9.7 - 15.0	● 70 - 90th
7.4 - 9.6	● 50 - 70th
0.5 - 7.3	● 0 - 50th
331 sites	

Stream Sediment (ppm)	
AAS	
Concentration	Percentiles
14.6 - 40.5	■ > 95th
11.6 - 14.5	■ 90 - 95th
8.1 - 11.5	■ 70 - 90th
5.6 - 8.0	■ 50 - 70th
1.0 - 5.5	■ 0 - 50th
258 sites	

Till (ppm)	
INAA	
Concentration	Percentiles
29.1 - 130.0	▲ > 95th
25.1 - 29.0	▲ 90 - 95th
18.1 - 25.0	▲ 70 - 90th
15.1 - 18.0	▲ 50 - 70th
0.5 - 15.0	▲ 0 - 50th
937 sites	

MINFILE Occurrences (Metallic)

- Showing
- Prospect
- Developed Prospect
- ✕ Past Producer

Base Information

- Road
- River
- Community

SOURCES OF INFORMATION

Lake Water: Cook *et al.* (1999)
Lake Sediment: Cook *et al.* (1998)
Till: Levson *et al.* (2000)
Stream Sediment:
NTS 93L (Smithers) - Johnson *et al.* (1987);
NTS 93M (Hazelton) - Jackaman (1998)
Cartographic Presentation: M. Douville

REFERENCES

Cook, S.J., Jackaman, W., Lett, R.E.W., McCurdy, M.W. and S.J. Day (1999): Regional Lake Water Geochemistry of Parts of the Nechako Plateau, Central British Columbia, B.C. Ministry of Energy and Mines, Open File 1999-5.

Cook, S.J., Lett, R.E.W., Levson, V.M., Jackaman, W., Conays, A.M. and G.J. Wyatt (1998): Regional Lake Sediment and Water Geochemistry of the Babine Porphyry Belt, Central British Columbia, B.C. Ministry of Employment and Investment, Open File 1997-17.

Jackaman, W. (1998): British Columbia Regional Geochemical Survey: NTS 93M - Hazelton, B.C. Ministry of Energy and Mines, RGS 48.

Johnson, W.M., Hornbrook, E.H.W. and Friske, P.W.B. (1987): National Geochemical Reconnaissance 1:250,000 Map Series - Smithers, British Columbia (NTS 93L); B.C. Ministry of Energy, Mines and Petroleum Resources, RGS 17.

Levson, V.M., Stumpf, A.J., Cook, S.J., O'Brien, E.K., Weary, G.F., Meldrum, D.G., Hobday, J., Churchill, C., Huntley, D.H., Ferbey, T., Lett, R., Cleary, K.E. and Rocha, C. (2000): Till Geochemistry of the Babine Copper Porphyry Belt (NTS 93L/16, M/1, M/2, M/7, M/8); B.C. Ministry of Energy and Mines, Open File 2000-27.

MINFILE 93L, Duffet, L.L. and G. Owsiake (1995): Smithers Mineral Occurrence Map, B.C. Ministry of Energy, Mines and Petroleum Resources, MINFILE, released March 1995.

MINFILE 93M, McMillan, R.H. (1992): Hazelton Mineral Occurrence Map, B.C. Ministry of Energy, Mines and Petroleum Resources, MINFILE, released March 1992.

Antimony

Lake Water (ppb) ICP-MS

Concentration	Percentiles
0.08 - 0.18	> 95th
0.06 - 0.07	90 - 95th
0.05	70 - 90th
0.03 - 0.04	50 - 70th
0.02	0 - 50th

176 sites

Lake Sediment (ppm) INAA

Concentration	Percentiles
1.8 - 3.0	> 95th
1.5 - 1.7	90 - 95th
1.0 - 1.4	70 - 90th
0.8 - 0.9	50 - 70th
0.1 - 0.7	0 - 50th

331 sites

Stream Sediment (ppm) AAS

Concentration	Percentiles
1.1 - 2.1	> 95th
0.9 - 1.0	90 - 95th
0.7 - 0.8	70 - 90th
0.5 - 0.6	50 - 70th
0.1 - 0.4	0 - 50th

258 sites

Till (ppm) INAA

Concentration	Percentiles
3.2 - 30.0	> 95th
2.7 - 3.1	90 - 95th
1.8 - 2.6	70 - 90th
1.5 - 1.7	50 - 70th
0.1 - 1.4	0 - 50th

937 sites

MINFILE Occurrences (Metallic)

- Showing
- Prospect
- Developed Prospect
- ✕ Past Producer

Base Information

- Road
- River
- Community

SOURCES OF INFORMATION

Lake Water: Cook *et al.* (1999)
Lake Sediment: Cook *et al.* (1998)
Till: Levson *et al.* (2000)
Stream Sediment:
NTS 93L (Smithers) - Johnson *et al.* (1987);
NTS 93M (Hazelton) - Jackaman (1998)
Cartographic Presentation: M. Douville

REFERENCES

Cook, S.J., Jackaman, W., Lett, R.E.W., McCurdy, M.W. and S.J. Day (1999): Regional Lake Water Geochemistry of Parts of the Nechako Plateau, Central British Columbia, B.C. Ministry of Energy and Mines, Open File 1999-5.

Cook, S.J., Lett, R.E.W., Levson, V.M., Jackaman, W., Coneys, A.M. and G.J. Wyatt (1998): Regional Lake Sediment and Water Geochemistry of the Babine Porphyry Belt, Central British Columbia, B.C. Ministry of Employment and Investment, Open File 1997-17.

Jackaman, W. (1998): British Columbia Regional Geochemical Survey: NTS 93M - Hazelton, B.C. Ministry of Energy and Mines, RGS 48.

Johnson, W.M., Hornbrook, E.H.W. and Friske, P.W.B. (1987): National Geochemical Reconnaissance 1:250,000 Map Series - Smithers, British Columbia (NTS 93L), B.C. Ministry of Energy, Mines and Petroleum Resources, RGS 17.

Levson, V.M., Stumpf, A.J., Cook, S.J., O'Brien, E.K., Weary, G.F., Meldrum, D.G., Hobday, J., Churchill, C., Huntley, D.H., Ferbey, T., Lett, R., Cleary, K.E. and Rocha, C. (2000): Till Geochemistry of the Babine Copper Porphyry Belt (NTS 93L/16, M/1, M/2, M/7, M/8), B.C. Ministry of Energy and Mines, Open File 2000-27.

MINFILE 93L, Duffet, L.L. and G. Owsiki (1995): Smithers Mineral Occurrence Map, B.C. Ministry of Energy, Mines and Petroleum Resources, MINFILE, released March 1995.

MINFILE 93M, McMillan, R.H. (1992): Hazelton Mineral Occurrence Map, B.C. Ministry of Energy, Mines and Petroleum Resources, MINFILE, released March 1992.

