BRITISH COLUMBIA

PROSPECTORS ASSISTANCE PROGRAM

MINISTRY OF ENERGY AND MINES

GEOLOGICAL SURVEY BRANCH

PROGRAM YEAR:	1998/99
REPORT #:	PAP 98-25
NAME:	DAN BLOWER

RECEIVED
JAN 04 1999
PROSPECTORS PROGRAM
MEMPR

BRITISH COLUMBIA
PROSPECTORS ASSISTANCE PROGRAM
PROSPECTING REPORT FORM (continued)

B. TECHNICAL REPORT

- One technical report to be completed for each project area.
- **Refer to Program Requirements/Regulations 15 to 17, page 6.**
- If work was performed on claims a copy of the applicable assessment report may be submitted in lieu of the supporting data (see section 16) required with this TECHNICAL REPORT.

Name DAN BLOWER Reference Number 97/98 P54

LOCATION/COMMODITIES

Project Area (as listed in Part A) CASSIAR NORTH MINFILE No. if applicable N/A

Location of Project Area NTS 104 P-12 Lat 129° 49' Long 59°24'

Description of Location and Access A SMALL VALLEY BETWEEN STEEP MOUNTAIN SLOPES CONTAINING A CREEK THAT FLOWS NORTHWEST INTO THE BLUE RIVER. ACCESS IS FROM THE SOUTH APPROX. 8 KM AWAY VIA AN ABANDONED ROAD EXTENDING NORTH FROM THE CASSIAR MINE.

Main Commodities Searched For ZINC, SILVER, LEAD

Known Mineral Occurrences in Project Area CASSIAR ASBESTOS MINE 8KM SOUTH - ASBESTOS DIABLO OCCURRENCE 2 KMS NORTHEAST - Ag, Cu, Zn.

WORK PERFORMED

1. Conventional Prospecting (area) 2.75 HECTARES
2. Geological Mapping (hectares/scale) —
3. Geochemical (type and no. of samples) —
4. Geophysical (type and line km) —
5. Physical Work (type and amount) —
6. Drilling (no. holes, size, depth in m, total m) —
7. Other (specify) —

SIGNIFICANT RESULTS

Commodities ZN, AG Claim Name N/A

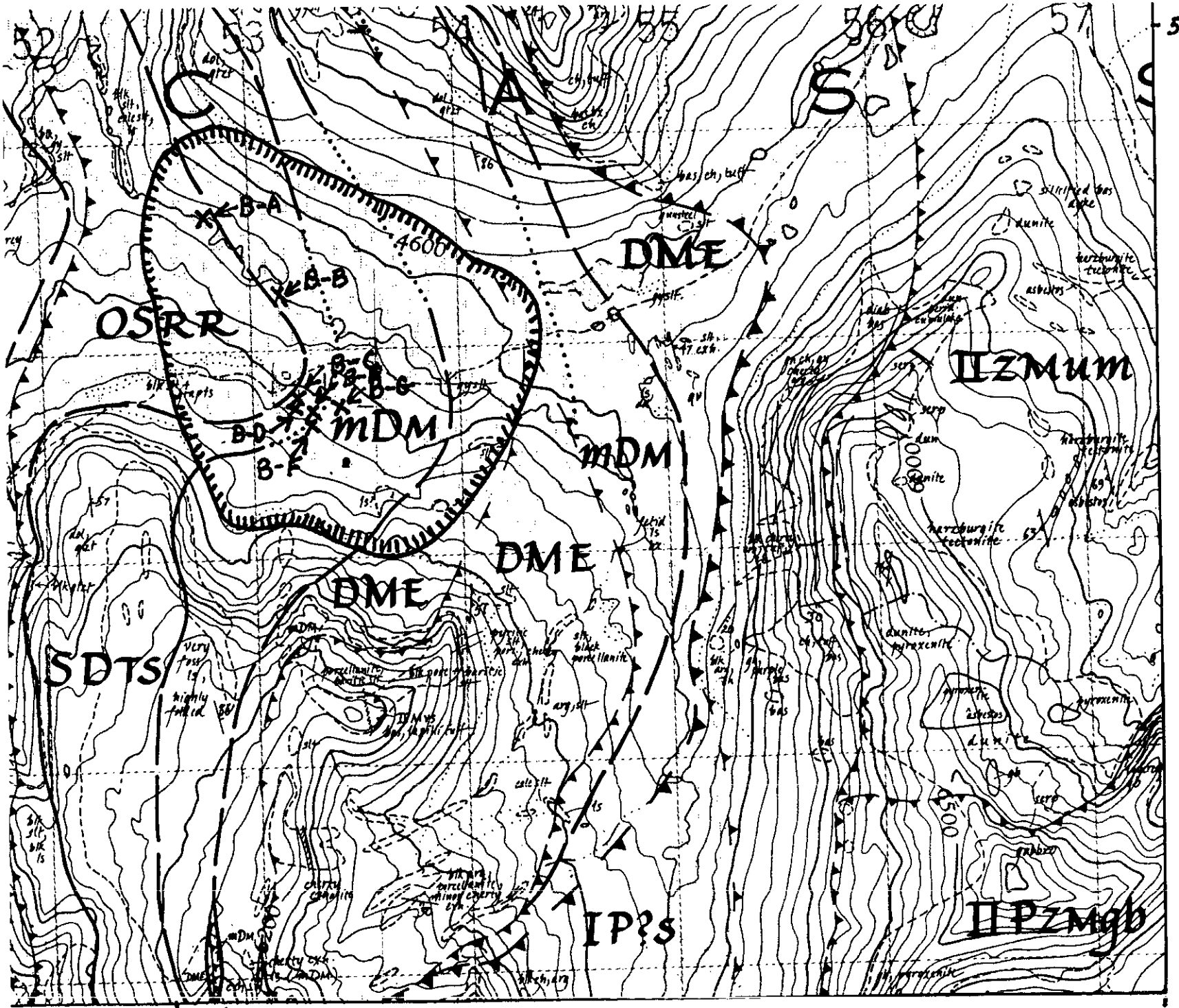
Location (show on map) Lat 129°49' Long 59° 24' Elevation 4500'

Best assay/sample type SAMPLE B-B - ZN 813 PPM; Ag 1.2 PPM.

Description of mineralization, host rocks, anomalies THE PROSPECTING AREA IS IN A LOCATION OF MIXED ROCK TYPES. THE MAIN ROCK TYPES ARE SLATES AND LIMESTONES FROM THE EARN, MCDAME, TAPIOCA SANDSTONE AND ROAD RIVER GROUPS (GEOLOGY AND METALLOGENY OF THE CASSIAR AND MCDAME MAP AREAS, B.C. MINISTRY OF MINES AND PETROLEUM RESOURCES, OPEN FILE 1988-19, J. NELSON ET AL.). WIDESPREAD OCCURRENCES OF OXIDIZED MINERALIZATION IN SLATE ROCKS WERE ENCOUNTERED IN THE PROSPECTING AREA. ASSAY RESULTS OF ROCK SPECIMENS ARE ATTACHED.

Supporting data must be submitted with this TECHNICAL REPORT

Information on this form is confidential for one year from the date of receipt subject to the provisions of the *Freedom of Information Act*.



LEGEND

- PROSPECTING AREA

X LOCATION OF ROCK SAMPLE

SCALE

1:25,000

BASE MAP + GEOLOGY FROM

PROSPECTING AREA - CASSIAR NORTH

ACME ANALYTICAL LABORATORIES LTD. (ISO 9002 Accredited Co.)
852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Blower, Dan File # 9804055

585 Nora Place, Victoria BC V8Z 2M2 Submitted by: Dan Blower

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
B-A	16	27	8	111	.8	59	10	42	2.12	14	<8	<2	12	29	1.6	11	<3	504	.73	.045	5	120	1.56	49	.13	6	2.93	.10	1.00	<2
B-B	21	50	11	813	1.2	98	8	313	3.03	13	<8	<2	8	108	10.2	9	<3	482	6.95	.057	7	79	1.35	68	.08	7	1.49	.01	1.03	<2
B-C	2	28	9	71	.8	30	10	152	2.96	<2	<8	<2	10	101	.4	3	4	149	2.05	.028	4	70	2.59	471	.13	5	5.27	.41	1.87	<2
B-D	4	78	9	179	.7	37	11	134	2.66	<2	<8	<2	9	223	1.8	<3	<3	416	4.72	.070	4	80	1.89	385	.13	<3	5.67	.63	1.50	<2
B-E	<1	103	<3	97	1.5	342	60	380	8.82	4	<8	<2	2	66	1.3	<3	<3	291	2.59	.144	3	508	6.28	136	.24	<3	7.52	.16	3.63	<2
RE B-E	<1	105	<3	100	1.1	349	61	385	8.99	8	<8	<2	<2	66	1.5	<3	<3	296	2.62	.146	2	518	6.35	138	.25	<3	7.66	.16	3.69	<2
B-F	1	36	6	48	1.0	36	14	119	2.53	5	<8	<2	10	120	.5	<3	<3	81	2.37	.041	5	78	2.23	214	.12	<3	5.75	.75	1.51	<2
B-G	5	19	5	6	1.1	26	1	27	.90	4	<8	<2	3	34	<.2	<3	<3	16	.03	.006	7	20	.04	228	<.01	6	.20	.01	.14	<2
STANDARD C3	25	66	34	161	5.7	37	12	734	3.24	59	17	2	21	27	23.7	22	23	78	.52	.090	17	162	.59	147	.08	18	1.84	.04	.17	16

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND MASSIVE SULFIDE AND LIMITED FOR NA K AND AL.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: SEP 14 1998 **DATE REPORT MAILED:** Sept 18/98 **SIGNED BY:** D. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

Data FA

BRITISH COLUMBIA
PROSPECTORS ASSISTANCE PROGRAM
PROSPECTING REPORT FORM (continued)

B. TECHNICAL REPORT

- One technical report to be completed for each project area.
- **Refer to Program Requirements/Regulations 15 to 17, page 6.**
- If work was performed on claims a copy of the applicable assessment report may be submitted in lieu of the supporting data *(see section 16) required with this* TECHNICAL REPORT.

Name DAN BLOWER Reference Number 97/98 P54

LOCATION/COMMODITIES

Project Area (as listed in Part A) CENTRAL BLUE RIVER MINFILE No. if applicable

Location of Project Area NTS 104 P-14 Lat 129°12' Long 59°48'

Description of Location and Access THE APPROX. 1 KM WIDE PROSPECTING AREA IS AN 800 METRE ELEVATION PLATEAU ON THE NORTH SIDE OF THE BLUE RIVER VALLEY. THE AREA EXTENDS FROM THE STEWART-CASSIAR HIGHWAY WEST FOR APPROX. 6 KM ACCESS ON FOOT. SEE ATTACHED MAP.

Main Commodities Searched For SILVER, ZINC, LEAD

Known Mineral Occurrences in Project Area ACE SHOWING 25 KM TO THE NORTHWEST - CAL AXE PROSPECT 35 KM TO THE SOUTHWEST - Pb, Cu, Zn.

WORK PERFORMED

1. Conventional Prospecting (area) 6 HECTARES
2. Geological Mapping (hectares/scale) —
3. Geochemical (type and no. of samples) —
4. Geophysical (type and line km) —
5. Physical Work (type and amount) —
6. Drilling (no. holes, size, depth in m, total m) —
7. Other (specify) —

SIGNIFICANT RESULTS

Commodities N/A Claim Name N/A

Location (show on map) Lat Long Elevation

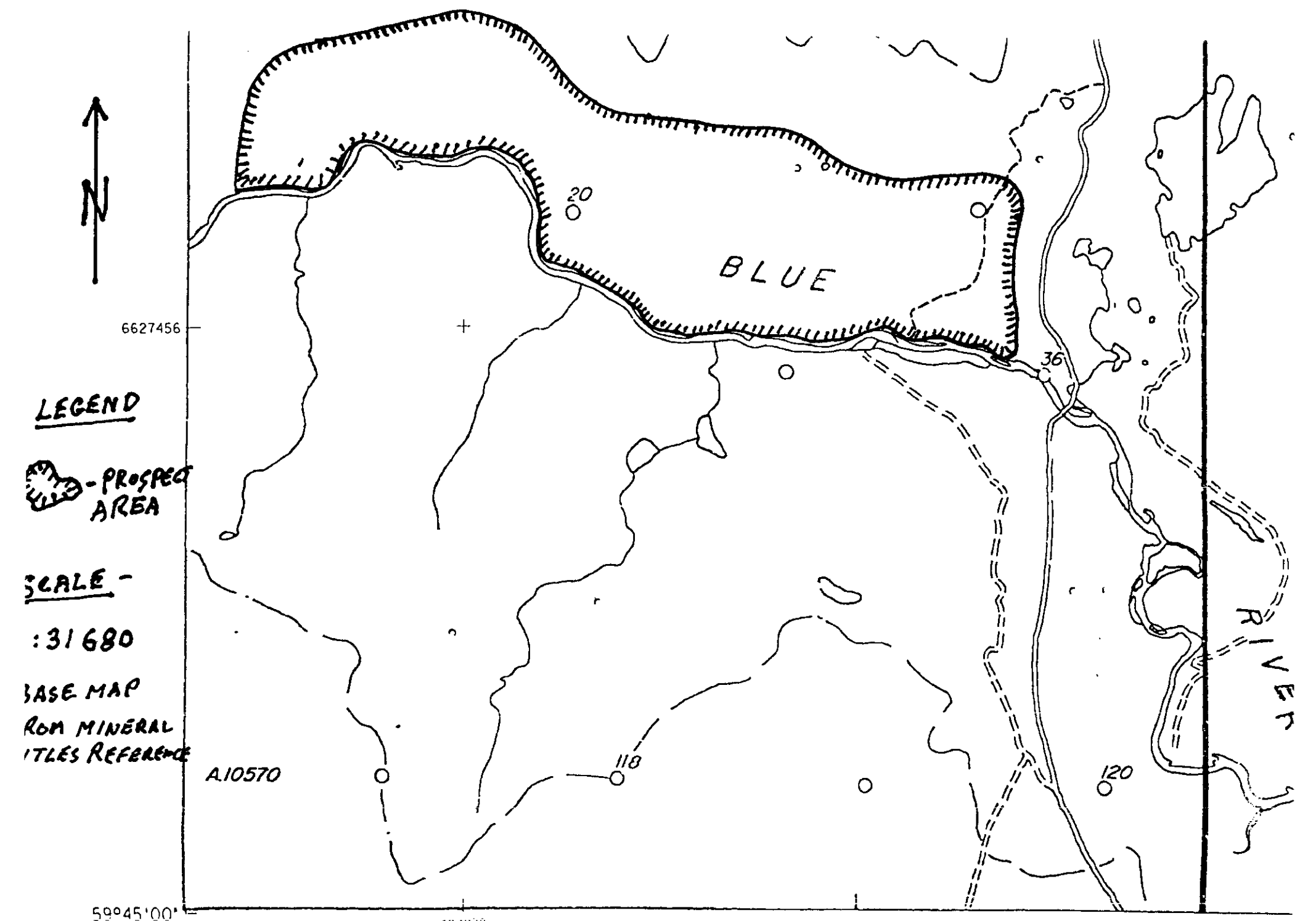
Best assay/sample type

Description of mineralization, host rocks, anomalies THE PROSPECT AREA IS LOCATED IN AN AREA OF PRIMARILY GLACIEL AND GLACIO-FLUVIAL DEPOSITS, BUT WITH UNDIVIDED DOLOMITE AND LIMESTONE ALONG THE BLUE RIVER (REFERENCE - McDAME MAP AREA CASSIAR DISTRICT BRITISH COLUMBIA, GEOLOGICAL SURVEY OF CANADA, MEMOIR 319, H. GABRIELSE, 1963).

ROCK OUTCROPS WERE RARE AND NO SIGNIFICANT MINERALIZATION WAS ENCOUNTERED. ALSO, DIFFICULT ACCESS AND TIME CONSTRAINTS DID NOT PERMIT THE PROSPECTING OF AN AREA ADJACENT TO THE WEST AS ORIGINALLY PLANNED.

Supporting data must be submitted with this TECHNICAL REPORT

Information on this form is confidential for one year from the date of receipt subject to the provisions of the *Freedom of Information Act.*



PROSPECTING AREA - CENTRAL BLUE RIVER

BRITISH COLUMBIA
PROSPECTORS ASSISTANCE PROGRAM
PROSPECTING REPORT FORM (continued)

B. TECHNICAL REPORT

- One technical report to be completed for each project area.
- **Refer to Program Requirements/Regulations 15 to 17, page 6.**
- If work was performed on claims a copy of the applicable assessment report may be submitted in lieu of the supporting data (see section 16) required with this TECHNICAL REPORT.

Name DAN BLOWER Reference Number 97/98 P54

LOCATION/COMMODITIES

Project Area (as listed in Part A) Cottonwood Area MINFILE No. if applicable N/A

Location of Project Area NTS _____ Lat 59°-25' Long 130°-20' W

Description of Location and Access See attached Report

Main Commodities Searched For Base metals & precious metals

Known Mineral Occurrences in Project Area None

WORK PERFORMED

1. Conventional Prospecting (area) Yes - 40 Km²
2. Geological Mapping (hectares/scale) 40 Km² +/-
3. Geochemical (type and no. of samples) Rock = 19 Silt = 25
4. Geophysical (type and line km) VLF - 3 Km - random - see report
5. Physical Work (type and amount) None
6. Drilling (no. holes, size, depth in m, total m) None
7. Other (specify) Pan concentrates - No record Kept

SIGNIFICANT RESULTS

Commodities None Claim Name —

Location (show on map) Lat — Long — Elevation —

Best assay/sample type Copper 3301 ppm - selected (high graded)

Description of mineralization, host rocks, anomalies See attached Report

Supporting data must be submitted with this TECHNICAL REPORT

Information on this form is confidential for one year from the date of receipt subject to the provisions of the *Freedom of Information Act*.

BRITISH COLUMBIA
PROSPECTORS ASSISTANCE PROGRAM
PROSPECTING REPORT FORM (continued)

B. TECHNICAL REPORT

- One technical report to be completed for each project area.
- **Refer to Program Requirements/Regulations 15 to 17, page 6.**
- If work was performed on claims a copy of the applicable assessment report may be submitted in lieu of the supporting data (see section 16) required with this TECHNICAL REPORT.

Name DAN BLOWER Reference Number 97/98 P54

LOCATION/COMMODITIES

Project Area (as listed in Part A) Upper Blue River MINFILE No. if applicable N/A

Location of Project Area NTS _____ Lat 59°-30' Long 130-02' W

Description of Location and Access See attached Report

Main Commodities Searched For Base metals, Precious metals

Known Mineral Occurrences in Project Area None

WORK PERFORMED

1. Conventional Prospecting (area) 20 km²
2. Geological Mapping (hectares/scale) None
3. Geochemical (type and no. of samples) Silt Samples = 8 Rock Samples = 7
4. Geophysical (type and line km) None
5. Physical Work (type and amount) None
6. Drilling (no. holes, size, depth in m, total m) None
7. Other (specify) Pan concentrate - Visual - See Report

SIGNIFICANT RESULTS

Commodities Copper Claim Name _____

Location (show on map) Lat See Report Long _____ Elevation _____

Best assay/sample type 7601 PPM - Copper - Rock Sample

Description of mineralization, host rocks, anomalies See attached Report.

Supporting data must be submitted with this TECHNICAL REPORT

Information on this form is confidential for one year from the date of receipt subject to the provisions of the *Freedom of Information Act*.

Report on the

Cassiar Region Prospecting Programme

Summer 1998

Prepared By

A. J. Audet P.Eng.

December, 1998

Table of Contents

1. INTRODUCTION 1

2. SCOPE OF WORK 1

3. LOCATION AND ACCESS 1

3.1 COTTONWOOD AREA 1
3.2 UPPER BLUE RIVER AREA 1

4. TOPOGRAPHY, VEGETATION AND CLIMATE 1

5. GEOLOGICAL ENVIRONMENT 3

5.1 COTTONWOOD AREA 3
5.1.1 Lithology 3
5.1.2 Structure 3
5.2 UPPER BLUE RIVER AREA 3
5.2.1 Lithology 3
5.2.2 Structure 3

6. PREVIOUS WORK 4

6.1 COTTONWOOD AREA 4
6.2 UPPER BLUE RIVER AREA 4

7. PROGRAMME AND RESULTS 4

7.1 COTTONWOOD AREA 4
7.1.1 Visual Prospecting 4
7.1.2 Stream Sediment Sampling 7
7.1.3 Rock Geochemistry 7
7.1.4 Geophysics 8
7.1.5 Landsat Image Analysis 8
7.2 UPPER BLUE RIVER AREA 8
7.2.1 Prospecting 8

8. SUMMARY OF CONCLUSIONS 9

Appendix I Geochemical Results: Tables 1, 2, 3, 4 and 5

List of Figures

Figure 1	**Location of This Project**	**Page 2**
Figure 2	**Map of the Cottonwood Prospecting Area**	**Page 5**
Figure 3	**Map of theUpper Blue River Prospecting Area**	**Page 6**

1. Introduction

The following report covers the results of prospecting activities conducted between July 14 and July 28, 1998. The target areas (figure 1) were chosen because records show that there has been little of no mineral exploration conducted in the region and virtually none conducted on the specific areas selected.

2. Scope of Work

Both of the target areas were investigated by conducting random traverses based on accessibility and the appeal of visual indications of anomalous geological or topographic conditions. Drainage systems served as a primary focus of investigation. Stream beds were examined for evidence of mineralization or unusual lithologies both megascopically and from pan concentrates. Silt samples were taken regularly for testing on site using a THM field kit and a full suite of samples was retained for testing at a commercial laboratory.

All rock outcroppings encountered were inspected under hand-lens. Evidence of mineralization was recorded and where deemed appropriate, samples were taken for analysis.

An EM-16 was used to test for evidence of bedrock conductors by conducting short traverses over areas specific of interest.

A lineament analysis of the Cottonwood areas was undertaken from a Landsat image.

3. Location and Access

3.1 Cottonwood Area

The Cottonwood Area is located 30 km northwest of Cassiar B.C. at the headwaters of the Cottonwood River. It is centered roughly on 59° - 25' North Latitude and 130° - 20' West Longitude. Access is gained primarily by either float plane or by helicopter from bases located in Watson Lake, YT and from Dease Lake. Guided hunting parties gain access using pack horses via a well-developed system of trails.

3.2 Upper Blue River Area

This prospecting target focused on elevated and steep terrain centered roughly on 59° - 30' North Latitude and 130° - 02' West Longitude. Access is by helicopter.

4. Topography, Vegetation and Climate

The two areas range in elevation from base levels of 1400m to a maximum of 2000m. Topography is generally rugged but reasonably accessible on foot. Valley bottoms tend to be dominated by irregular late glacial land-forms thickly overgrown by either low tangled shrubs or thick scrub spruce. Except for game trails, these areas are difficult to penetrate. Intermediate elevations are covered with low alpine vegetation and the summits are essentially barren.

Climate is sub-alpine to alpine. Summer weather is unpredictable but apt to be cool and rainy.

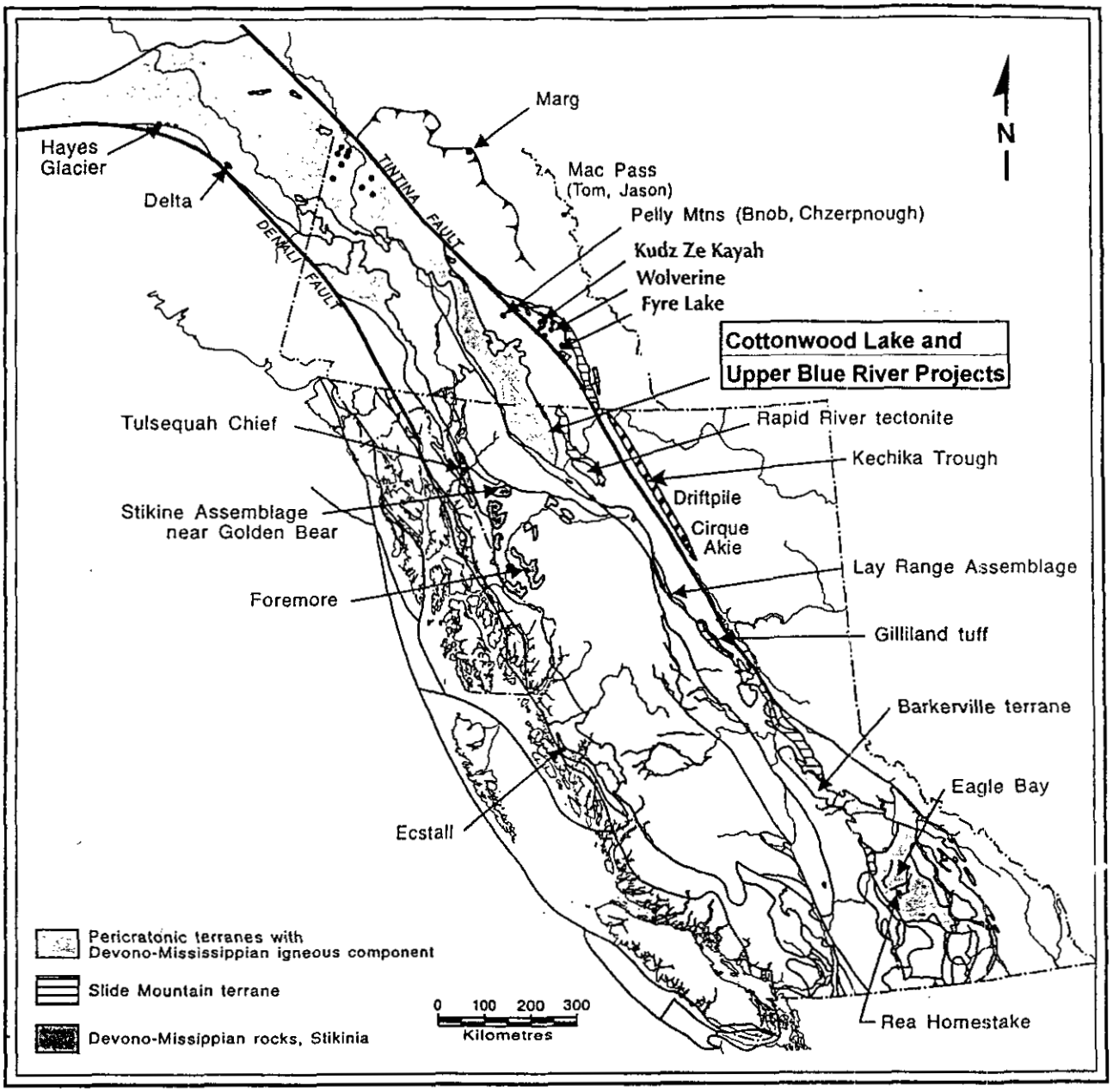
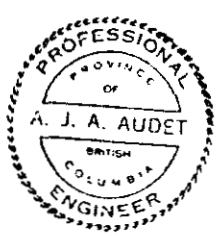


Figure 1. Location of this project



5. Geological Environment

5.1 Cottonwood Area

The project area, located immediately west of Cottonwood Lake and the upper Cottonwood river is incorporated in what is now referred to as the Dorsey Terrain. The manner by which this newer nomenclature can be correlated with units of the Oblique Creek Formation as defined by Watson and Mathews is not completely clear. In any event, descriptions of the area made by Watson and Mathews and later adopted by Gabrieles are more or less consistent with the observed geology. The complexity of structure seen in the region is not addressed in currently available literature.

5.1.1 Lithology

Above the valley bottoms outcroppings are virtually continuous. The structurally continuous units that make-up the bulk of visible strata consists of two principal groups: an upper hornfelsic meta- , sandstones (tremolite and pyrrohotite) and a lower chloritic to sericitic schist probably of volcano-sedimentary origin. The lower unit contains significant bands of sub-massive dacitic flows or tuffs and within the project area, several relatively small outcroppings of quartz-sericite schist. These strata are intruded by massive dioritic granitoid units (no significant deformation observed) and small pods of leuco-granitoids spatially associated with poorly exposed sulphide-bearing hornbledites.

Valley bottoms are filled with very recent basaltic flows. Basalt filled vents or cones bounded by scoria and vesicular bombs are present at higher elevations.

5.1.2 Structure

Bedding(?) or compositional layering, and parallel well developed schistosities dip moderately to the southwest in all the thrust blocks examined in the area. The pattern and distribution of allochthonous blocks combined with the resulting drainage patterns suggests a complex structural history.

5.2 Upper Blue River Area

5.2.1 Lithology

The prospected area is underlain by early Cambian meta-sediments of the Atan and Kechika Groups. At this location these are either intruded by or juxtaposed against the eastern edge of the Cassiar Batholith. Cliff-forming quartzites and hornfelsic sediments occupy the precipitous highlands while shales grading to massive limestones underlie the poorly exposed valley area.

5.2.2 Structure

Recent mapping by the Provincial government of the area immediately to the east has interpreted the region to be the product of broad-scale overthrusting involving a continuous suite of rocks that ranges from Cambrian to Triassic. Locally, compositional layering is sub-vertical.

6. Previous Work

6.1 Cottonwood Area

The writer is aware of only two significant exploration project in proximity of the target area. The first was carried out between 1983 and 1984 as a joint venture between Canamax Resources and Dupont of Canada Exploration. The area covered extended along the Cottonwood River watershed from about 50° - 10' to 59° - 40' Longitude and extended over both sides of the valley. The principal target was stratiform sphalerite-galena mineralization exposed as massive sulphides in a series of north trending trenches and outcroppings. This mineralization is located about nine kilometres south-southeast of Cottonwood Lake. Airborne surveys and extensive geochemical work were carried out to investigate the potential for massive sulphide mineralization along the Cottonwood Valley. Results were not encouraging.

The second programme was undertaken by Rio Algom Exploration to further test the massive sulphide target to the southeast of Cottonwood Lake. A programme of drilling and trenching was completed in 1992. Claims covering these showings remain in good-standing as of this date.

6.2 Upper Blue River Area

There is no record of exploration having been conducted on the subject terrain.

7. Programme and Results

7.1 Cottonwood Area

7.1.1 Visual Prospecting

The Cottonwood prospecting area covers roughly 40 square kilometres. Over the period of 8 days, the area was systematically prospected by conducting primary traverses along valley margins, drainage systems and high ridges. All reddish to brownish stained rock faces and unusual morphological features visible from traverse lines were examined and sampled where considered appropriate.

The yellowish-red bluffs located west of the north end of Cottonwood Lake were examined in detail. These appear to be rhyolitic in composition and carrying roughly 10% pyrite overall. No evidence of other sulphides was noted in any of the samples taken with the possible exception of minor arsenopyrite. Technically, this unit resembles a quartz-sericite schist resulting from the deformation of a rhyolitic tuff. The very strong penetrative foliation conforms with the southwest dipping general trend of the thrust blocks. Closer examination reveals that the unit strikes roughly due west with a sub-vertical dip oriented at nearly right-angles to the apparent composition layering. The contacts are gradational and are consistent with those seen in strongly transposed stratigraphy.

Other isolated outcroppings of felsic schist investigated were relatively small or poorly exposed. A few of these were weakly mineralized with pyrite.

Cliff forming strata located at highest elevations on the western portion of the area display a deep brown to reddish brown staining. These rocks are remarkably uniform in composition and texture, consisting of medium fine grained quartz-actinolite/tremolite schists carrying from 5 to 10%

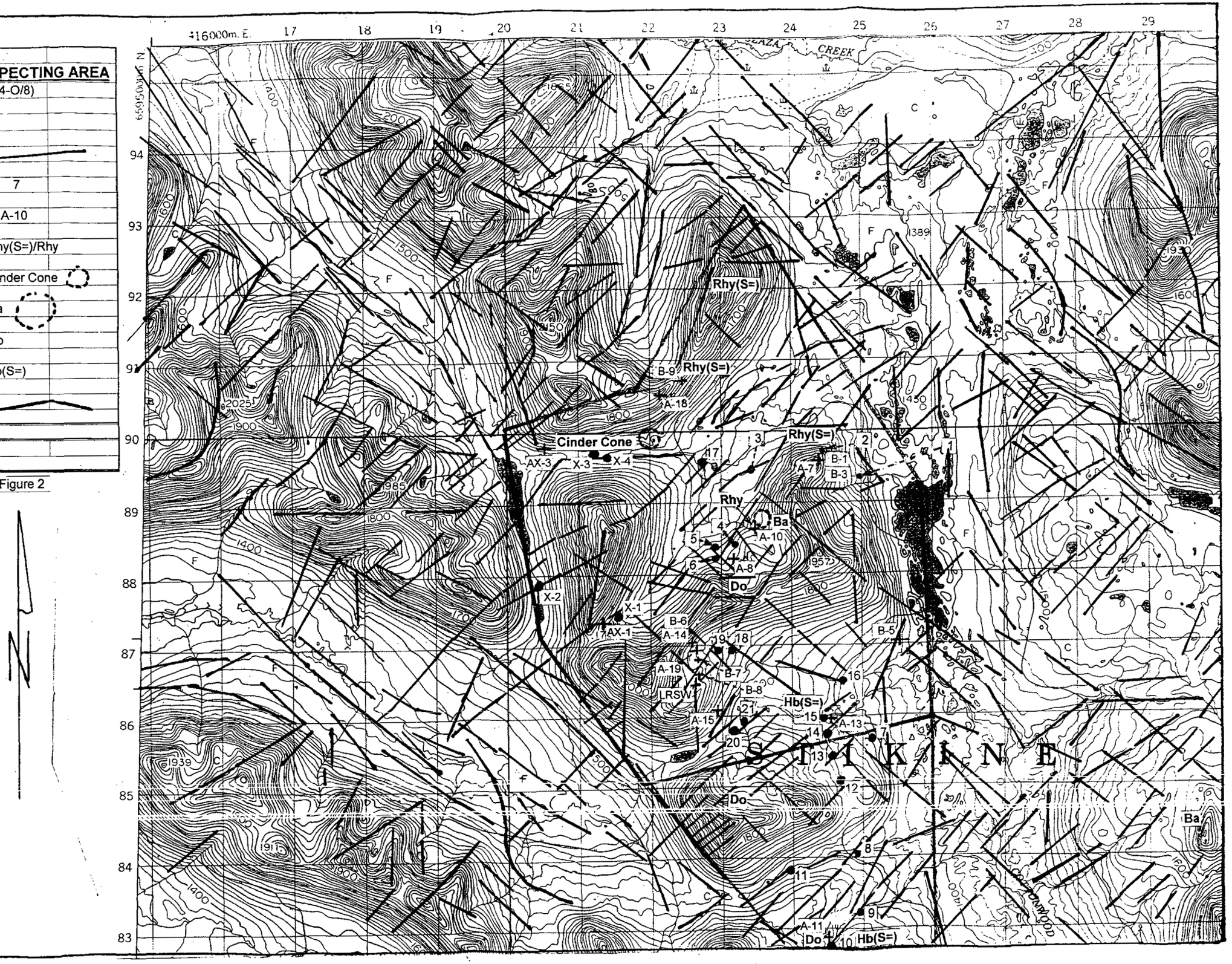
MAP OF THE COTTONWOOD PROSPECTING AREA

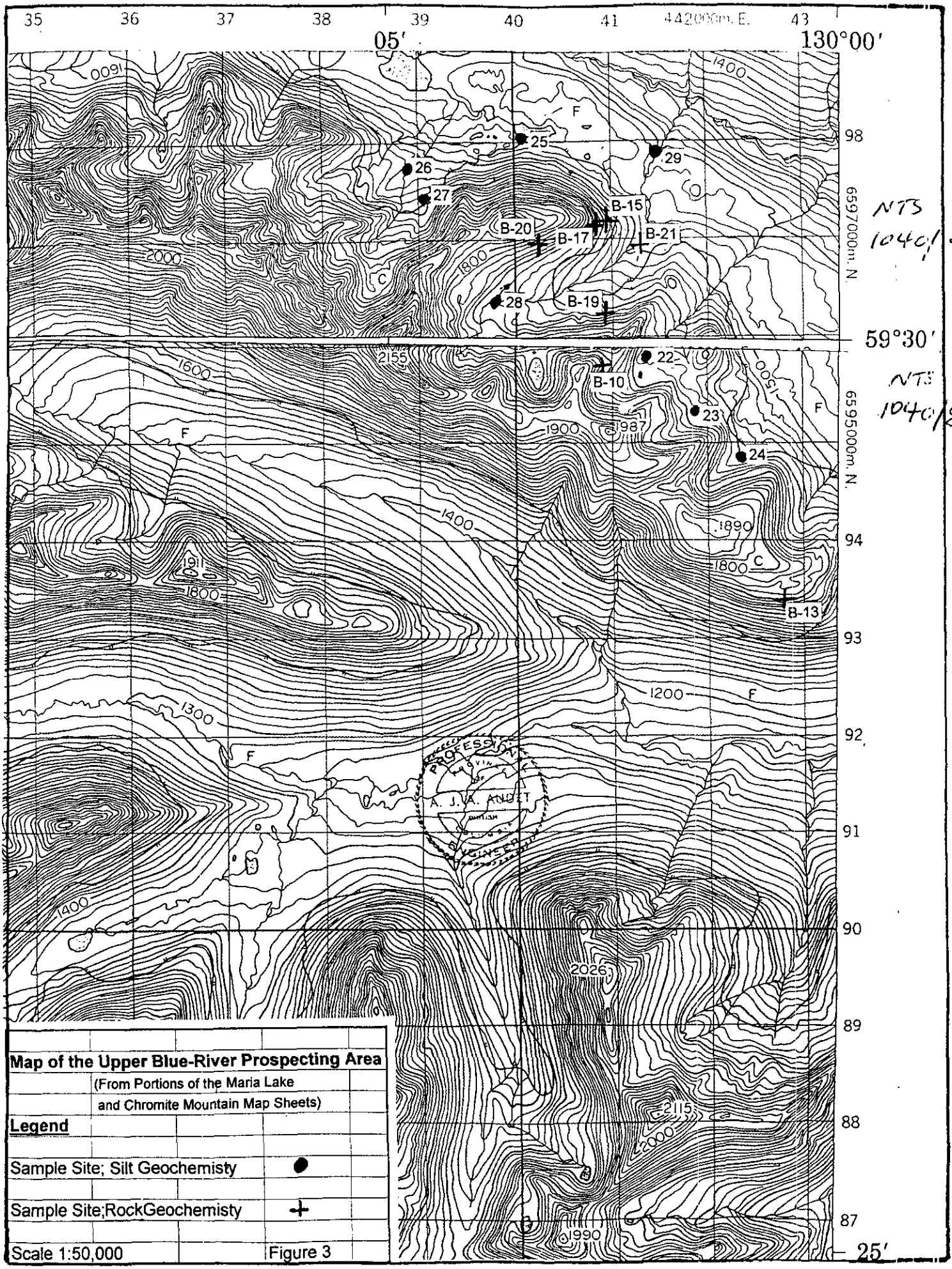
(From NW portion of map 104-O/8)

Legend

Lineament (from Landsat interpretation)	
Sample Site; silt geochemistry	● 7
Sample Site; rock geochemistry	+ A-10
Rhyolite Outcropping; with/without pyrite	Rhy(S=)/Rhy
Recent volcanic cinder cone	Cinder Cone
Recent basaltic vent (edifice)	Ba
Diorite outcropping	Do
Hornblendite intrusive(?) (with sulphides)	hb(S=)
Limits of primary investigation (approximate)	
Scale; 1:50,000	
December, 1998	

Figure 2





Map of the Upper Blue-River Prospecting Area	
(From Portions of the Maria Lake and Chromite Mountain Map Sheets)	
Legend	
Sample Site; Silt Geochemisty	●
Sample Site;RockGeochemisty	+
Scale 1:50,000	Figure 3

NTS 1040/9

NTS 1040/8

pyrrhotite. Foliation dips moderately to the southwest, roughly parallel with the lower contacts of the overall lithological unit.

Figure 2 shows the location of a 200 metre diameter flat-topped basaltic vent (near sample site A-10) that clearly post-dates the most recent glaciation. Margins of the massive and blocky lava edifice are sprinkled with delicate pumice fragments and undisturbed bombs. The previously mapped recent vent located near sample X-4 lies at 330° from this feature, an alignment that corresponds with the regional fabric. The valleys from which samples X-3 and #17 were taken are flat-bottomed and filled with recent, occasionally vesicular, basaltic flows.

Massive medium grained diorite blocks cover the area around samples sites 4,5,6and A-8. These cover a large talus slope and are mineralized with barren quartz stringers. The extend and shape of the bedrock source was not determined.

7.1.1.1 Conclusion

None of the colour anomalies or unusual land forms investigated proved to contain mineralization of consequence.

7.1.2 Stream Sediment Sampling

The results of stream sediment sampling are presented in table 1 of appendix I. All major drainages and significant tributaries were sampled. THM colourimetry was used throughout the survey to identify the presence of exceptional anomalies should any be present but none of the sites showed indications exceptional metal concentrations. All samples taken were sent to a commercial laboratory for analysis by multispectral ICP. Analytical results do not indicate anomalous metal concentrations.

All streams containing well-developed gravel beds where tested for the presence of placer gold by pan concentration. No gold was seen in at any of the concentrates.

7.1.2.1 Conclusion

Stream sediment sampling does not indicate the presence of significant or potentially economic mineralization in the prospected area.

7.1.3 Rock Geochemistry

Rock-chip samples were taken where evidence of sulphide mineralization could be seen in hand specimen. Where mineralization was ubiquitous, such as in the case of the pyrrhotite bearing upper meta sediments, only a few representative samples were taken. Samples LRSW, B-7 and B-8 show anomalous concentrations of in copper but not for other elements usually expected with copper mineralization. These samples were selected from narrow bands of chloritic skarn carrying isolated minor pods of chalcopyrite. They do not appear to indicate a potential for economic mineralization in the area. None of the other samples submitted yielded anomalous values for the spectrum of elements tested (table 2). Four selected samples tested for gold mineralization revealed very low background levels (Table 5).

7.1.3.1 Conclusion

No significant mineralization is indicated in rock samples selected for analysis.

7.1.4 Geophysics

An EM-16 VLF receiver was used casually on portions of several traverses to test to the presence of large buried conductors. No positive responses were obtained.

7.1.5 Landsat Image Analysis

A Landsat Image covering the Cottonwood Area and the surrounding region was examined and analysed for linear features. The result of this work is presented in figure 2.

The dominant northwest striking regional fabric shows as a family of sub-parallel lineaments forming a more-or-less continuous pattern across a range of physiological features. A second dominant set of lineaments strikes to the northeast. The combination of the two seems to form related patterns of convergence and abutment over the entire area of interest. Specifically, topography is seen to be influenced by the traces of semi-continuous lineaments that cross a variety of land forms over the full frame of the area investigated. Many of these features are offset and perturbed by the orthogonal member set.

Three known recent volcanic vents lie on the trace of a major northwest lineation that that crosses the south end of Cottonwood Lake.

7.1.5.1 Conclusion

High-angle faulting, as interpreted from Landsat imagery, appears to influence land forms, drainage patterns and possibly the distribution of recent volcanic vents.

7.2 Upper Blue River Area (NTS 104O/8, O/9)

7.2.1 Prospecting

The area prospected amounts to 20 square kilometres. The area was systematically prospected over a period of 7 days by traversing the lower slopes, drainage systems and high ridges. Particular attention was paid to iron staining on outcroppings and cliff faces. In total, 7 silt samples and 7 rock samples were collected for analysis at a commercial laboratory. In addition to this, all drainages encountered were tested on site for the presence of anomalous heavy metals by colourimetry. Stream sediments and gravels were pan-concentrated and examined for aluvial gold and anomalous heavy minerals.

The results of geochemical sampling are given in Tables 3 and 4. Except for rock sample B-10, none of the results obtained are amomalous of signifiant. Sample B-10 was taken from a small shear zone that did not seem to be particularly well mineralized or exceptional. The analytical result yielding greater than 7000 ppm copper and anomalous zinc and silver while significant in itself, is representative of only a small zone with little potential for economically interesting volume.

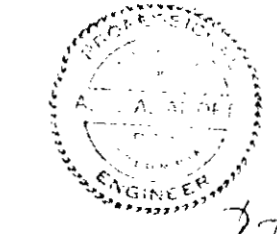
In addition to results obtained analytically, extensive physical examinations found no suggestion of mineralization except for ubiquitous and sometimes elevated pyrrhotite concentrations throughout the hornfelsic sedimentary sequence that makes up a large percentage of outcroppings seen at intermediate elevations.

7.2.1.1 Conclusion

The area shows no evidence of economic mineralization.

8. Summary of Conclusions

- None of the colour anomalies or unusual land forms investigated on either the Cottonwood Area or the Upper Blue River Area proved to contain mineralization of consequence.
- Stream sediment geochemistry failed to indicate the presence of significant mineralization.
- Rock geochemistry confirmed the presence of chalcopyrite in selected specimen taken from localized skarn mineralization.
- There is no evidence of a precious metal component in the limited mineralization encountered.



December 20, 1998

Appendix 1

Geochemical Results: Tables 1, 2, 3, 4 and 5

Table 1 Silt Sampling Reults; By ICP: Cottonwood Lake Area

SAMPLE	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Sr	Cd	V	Ca	Mg	Ba	North	East
1	7	81	11	228	0	39	18	995	4.13	8	21	1.6	98	0.31	1.48	204	6589350	424960
2	1	94	11	109	0.3	12	15	761	3.90	6	18	0	60	0.24	1.15	141	6589703	424532
3	1	84	10	219	0	23	21	1307	4.70	2	23	0	107	0.51	1.95	266	6589482	423407
4	1	92	8	142	0	20	22	1145	4.77	3	27	0	117	0.53	2.05	320	6588394	423195
5	1	105	8	202	0	21	24	1224	4.80	0	21	0.2	110	0.41	1.92	250	6588394	422923
6	0	89	5	161	0	17	24	1420	4.46	3	19	0.3	103	0.37	1.90	241	6588248	422953
7	0	105	0	73	0	38	30	642	2.78	0	73	0	97	1.13	1.08	137	6585664	425092
8	0	61	0	37	0	32	19	300	2.65	3	48	0	84	0.81	0.90	104	6584021	424915
9	1	138	3	78	0	61	35	532	4.02	0	50	0	97	0.95	1.18	145	6583233	424965
10	0	96	8	200	0	79	37	1430	4.94	7	41	0.2	122	0.65	1.12	297	6582705	424546
11	0	148	0	51	0	40	24	391	2.73	0	55	0	70	0.91	1.32	94	6583826	423995
12	0	192	0	97	0	26	45	1287	3.61	0	77	0.7	114	1.49	1.13	238	6585089	424688
13	0	155	0	74	0	30	37	711	3.70	0	72	0	122	1.27	1.14	173	6585448	424531
14	0	180	0	58	0	29	23	332	3.23	0	74	0	107	1.49	0.76	97	6585679	424494
15	1	113	0	138	0	69	30	755	3.16	2	58	0.3	77	0.94	1.11	188	6585961	424442
16	1	47	5	75	0	56	20	593	3.09	3	26	0.2	64	0.54	1.26	171	6586500	424711
17	0	48	5	122	0	64	19	712	5.15	6	24	0.2	70	0.50	1.31	181	6589592	422730
18	1	59	4	132	0	42	22	750	3.51	2	21	0	85	0.47	1.90	230	6586936	423097
19	1	56	7	111	0.3	127	36	1139	4.24	13	19	0.3	99	0.52	1.81	195	6586916	422977
20	0	171	6	193	0	69	36	783	3.97	2	98	0.3	115	1.03	1.46	247	6585750	423200
21	1	348	3	108	0	83	41	728	5.08	0	54	0	131	1.00	1.82	400	6585900	423300
X-1	1	103	9	141	0.3	269	44	1210	5.24	28	36	0.2	115	0.68	2.57	333	6587331	421463
X-2	1	39	4	108	0	101	19	606	3.10	5	34	0.4	65	0.64	1.34	130	6587883	420416
X-3	2	106	28	198	0.5	163	37	1381	5.63	13	30	1.1	104	0.46	1.94	182	6589770	421230
X-4	3	89	17	167	0.3	193	35	1192	4.89	25	35	0.7	98	0.52	2.21	211	6589673	421370

Table 2 Rock Sample Results; By ICP: Cottonwood Lake Area

SAMPLE #	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Sr	Cd	V	Ca	Mg	Ba	North	East
A-7	3	24	30	23	0	4	3	144	2.30	8	3	0	13	0.07	0.54	69	6589570	424419
A-8	1	104	7	43	0	4	9	1079	3.79	5	122	0.3	61	5.97	1.98	92	6588204	423150
A-10	1	53	12	33	0	4	2	409	1.65	4	35	0.2	28	4.01	0.76	41	6588614	423453
A-11	8	288	7	17	0.7	72	30	229	3.34	16	9	0	51	0.81	0.57	17	6582705	424546
A-13	0	443	8	41	0.4	79	30	601	6.50	4	60	0.2	236	2.17	2.16	30	6585961	424442
A-14	2	56	7	33	0	95	12	561	2.16	7	76	0.3	39	3.51	0.97	534	6587007	422591
A-15	1	49	8	39	0	226	22	921	2.84	7	172	0.4	37	8.43	3.12	227	6586100	422950
A-18	2	12	10	18	0	8	1	227	0.57	3	8	0.4	2	0.22	0.04	73	6590506	422149
A-19	2	21	12	11	0	11	2	501	1.30	12	26	0	10	1.62	0.54	39	6586901	422645
AX-1	3	454	5	38	0	58	40	477	4.17	2	13	0.2	75	1.60	0.97	15	6587319	421321
AX-3	2	107	9	28	0.3	16	31	286	2.39	11	19	0.2	47	0.85	0.87	79	6589783	420528
LRSW	3	1368	5	39	1.2	29	34	248	5.35	7	6	0.2	89	0.14	0.81	44	6585339	422451
B-1	3	74	25	90	0.4	7	8	633	4.04	6	5	0	58	0.20	1.65	49	6589535	424622
B-3	2	19	9	71	0	8	8	1054	3.04	6	96	0.3	69	4.05	1.82	405	6589535	424622
B-5	3	60	33	62	0.8	25	5	708	2.49	15	15	0.2	36	0.17	1.25	227	6587045	425554
B-6	3	424	3	12	0.8	17	28	71	1.55	4	1	0	12	0.05	0.16	12	6587007	422591
B-7	2	3301	8	153	2	141	110	291	11.09	26	2	0	56	0.01	1.03	20	6586774	422585
B-8	15	872	10	209	0	60	148	449	12.50	0	11	0.3	210	0.20	1.24	83	6586589	422611
B-9	3	31	6	17	0	4	17	132	3.78	2	3	0	8	0.06	0.35	44	6590739	422423

Table 3 Silt Sampling Results; By ICP: Upper Blue River Area

SAMPLE #	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Sr	Cd	V	Ca	Mg	Ba	North	East
22	0	95	22	247	0	122	90	1357	5.31	60	21	0	58	0.10	0.93	76	6595315	441857
23	0	44	22	185	0	92	42	1057	4.73	35	84	0	42	0.48	1.08	77	6595991	441373
24	0	36	26	168	0	69	33	1079	4.81	59	31	0	46	0.35	1.01	77	6594778	442343
25	0	14	5	142	0	14	8	1353	2.47	10	56	0.4	28	9.58	5.45	46	6598076	440045
26	0	31	14	156	0	46	24	755	4.43	5	138	0	54	0.98	1.24	95	6597500	438838
27	0	37	19	160	0.3	65	27	856	5.05	0	356	0	61	1.59	1.39	101	6597412	439067
28	0	51	23	152	0	66	38	1467	5.38	26	79	0	52	0.45	1.13	101	6596359	439780
29	0	22	9	96	0	29	14	398	2.96	5	51	0.2	37	3.92	2.74	70	6597918	441570

Table 4 Rock Sampling Results; By ICP: Upper Blue River Area

SAMPLE #	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Sr	Cd	V	Ca	Mg	Ba	North	East
B-10	2	7601	0	304	1.2	38	107	407	18.05	0	2	0	271	0.06	2.84	43	6595793	440839
B-13	1	30	10	10	0	20	16	837	2.76	6	64	0.2	8	4.77	0.93	24	6593409	442778
B-15	1	78	7	94	0	53	31	196	5.76	3	5	0	92	0.27	1.35	420	6597177	440968
B-17	2	56	8	79	0	68	31	310	5.04	0	5	0.2	63	0.07	1.26	134	6597172	438839
B-19	1	124	5	38	0	36	24	458	4.70	0	242	0.6	84	4.76	1.14	74	6596276	440939
B-20	1	209	29	126	0.9	57	82	443	8.55	12	158	0.9	175	2.19	2.88	50	6596965	441236
B-21	14	242	21	321	2.2	73	13	58	2.36	0	399	4.2	402	8.43	1.14	185	6596962	441231

Table 5 Gold Analyses of Selected Samples; By FA/AA: Cottonwood Lake Area

SAMPLE #	Au ppb
A-15	5
A-19	1
AX-3	1
B-6	12