

**RECEIVED**  
OCT 21 1994  
Gold Commissioner's Office  
VANCOUVER, B.C.

LOG NO: OCT 25 1994	RD.
ACTION.	
FILE NO:	

NTS 104 B/1 E  
Lat. 56 12' N  
Long. 130 05' W

GEOLOGICAL, GEOPHYSICAL, AND GEOCHEMICAL  
REPORT ON THE SUMMIT CLAIMS,  
STEWART, B.C.

SKEENA MINING DIVISION

by

Andris Kikauka, **GEOLOGICAL BRANCH**  
**ASSESSMENT REPORT**

Oct. 20, 1994

23,553

## TABLE OF CONTENTS

	PAGE NO.
1.0 INTRODUCTION	1
2.0 LOCATION, ACCESS, TOPOGRAPHY	1
3.0 PROPERTY STATUS	1
4.0 AREA HISTORY	2
5.0 PROPERTY HISTORY	3
6.0 GENERAL GEOLOGY	4
7.0 1993 FIELD PROGRAM	5
7.1 METHODS AND PROCEDURES	5
7.2 GEOLOGY AND MINERALIZATION	6
7.3 SOIL AND STREAM SEDIMENT GEOCHEMISTRY	7
7.4 GEOPHYSICS, MAG VLF-EM	7
8.0 DISCUSSION OF RESULTS	8
9.0 CONCLUSION AND RECOMMENDATIONS	8
REFERENCES	9

## LIST OF FIGURES

FIG. 1	GENERAL LOCATION MAP
FIG. 2	CLAIM LOCATION MAP
FIG. 3	GENERAL GEOLOGY
FIG. 4	PROPERTY GEOLOGY AND MINERALIZATION
FIG. 5	VLF-EM PROFILES, IN PHASE & QUADRATURE

## APPENDIX

APPENDIX A	GEOCHEMICAL ANALYSIS (STREAM SEDIMENT & SOIL)
APPENDIX B	VLF-EM AND MAGNETOMETER DATA

## 1.0 INTRODUCTION

This report describes and evaluates the mineral potential on the Summit 1-4 claims. Field work consisted of geological mapping, stream sediment, and soil geochemistry carried out on August 7-11, 1994 by Andris Kikauka (geologist) and P. Matson (geotechnician).

## 2.0 LOCATION, ACCESS, TOPOGRAPHY

The property is located on the west side of Summit Lake about 27 kilometers northwest of Stewart, B.C. Elevations on the claims range from 2,600-6,900 feet (790-2,100 meters).

The claims can be accessed by the Granduc road to the lower portal at Scottie Gold. Between the months of July-Sept. the Salmon Glacier ice is exposed and crampon and ice axe assisted crossings can be made with relative ease avoiding "gapers" (i.e. large cracks). During periods of low water (Aug.-Dec.), the gravel flats along the base of Summit Lake can be crossed to access the north portion of the claims. During high water, when the Salmon Glacier dams Summit Lake, a boat can be used to access the east portion of the claims. In the near future (possibly 5-20 years), the Salmon Glacier will have receded enough to eliminate Summit Lake entirely.

There are moderate to steep slopes on the west portion of the claims which is contrasted by a glacial scoured, U-shaped valley bottom along Summit Lake.

## 3.0 PROPERTY STATUS

The Summit 1-3 claims consist of a contiguous 52 unit block that covers 1,200 hectares (2,900 acres).

CLAIM NAME	UNITS	RECORD NO.	RECORD DATE	EXPIRY DATE
Summit 1	18	314296	Oct.14, 92	Oct.14, 96
Summit 2	18	314297	Oct.14, 92	Oct.14, 96
Summit 3	16	320143	Aug.12, 93	Aug.12, 96
Summit 4	6	321561	Oct.20, 93	Oct.20, 96

The St.Eugene crown grant, L 4502, is maintained in good standing and lies within the Summit 1 claim. The Grey Copper reverted crown grant (L 4503) is shown as being in good standing, however the recently staked claim posts were located and do not correspond to the provincial govt. claim map, but rather the federal govt. claim location of the crown granted claims. The difference in locations for both of the above mentioned crown grants between federal and provincial maps in the order of 0.7 km. and about 2,000 feet in elevation.

#### 4.0 AREA HISTORY

The well mineralized Stewart Complex extends from Alice Arm to the Iskut River. Exploration and development of major mines in the Stewart area, including Silbak-Premier, Snip, Johnny Mountain, Anyox, Alice Arm, Granduc, Scottie, Big Missouri, Porter-Idaho, Tenajon SB, and Maple Bay, and new reserves outlined at Eskay Creek, Red Mountain, Willoughby, and Sulpherets are the main reason why this area is one of Canada's most active mining camps.

The Stewart area has been exploited for minerals since 1900 when the Red Cliff deposit on Lydden Creek was mined. Since then, approximately 100 base and precious metal deposits within the Stewart Mining District have been developed.

Total recorded production from the Stewart area is 1,900,000 ounces gold, 40,000,000 ounces silver, and 100,000,000 pounds copper-lead-zinc. Most of this production comes from the famous Silbak-Premier mine which operated from 1918 to 1968. This mine was reactivated in 1987 by Westmin Resources to recover near surface bulk tonnage, low-grade gold and silver. Presently the surface reserves are exhausted and Westmin is extracting ore from various underground levels. Additional ore has also been produced from the Big Missouri and Tenajon SB deposits.

The Eskay Creek deposit contains an estimated 4,000,000 ounces gold, 45,000,000 ounces silver, and 120,000,000 ounces copper-lead-zinc. This deposit is buried and eluded discovery for some 50 years of exploration on the claims. The unique high-grade, stratiform 2-60 meter wide massive sulphide is outstanding in terms of predicability of its geology and tenor, and its relatively well defined, contact controlled assay boundary.

Scottie Gold Mine is located 1.5 kilometers north of the Summit property and produced 96,544 ounces of gold from 182,185 tons of ore. The mineralization consists of fine-grained pyrrhotite, pyrite, arsenopyrite, and chalcopyrite within silicified zones that are controlled by composite shear planes (i.e. en echelon spaced ore lenses). Scottie Gold has published reserves of 120,000 tons of 0.561 oz/t Au.

Other prospects in the Summit Lake area include Shough, Josephine, Hollywood, Troy, Outland Silver Bar, and East Gold. These base and precious metal occurrences have been periodically explored and developed over the past fifty years: East Gold produced a shipment of 44 tons of 35.244 oz/t Au and 96.74 oz/t Ag.

## 5.0 PROPERTY HISTORY

The Summit 1,2 claims cover old workings of the St. Eugene crown grants. Four parallel northeast striking quartz veins occur on the southern portion of Summit 2 at an elevation of approximately 4,200 feet. Mineralization consists of pyrite, galena, sphalerite, and tetrahedrite. Three of the veins are 25 feet apart and the fourth is 150 feet east. The veins are 5 feet or less wide. Trenches and open cuts have been performed on these showings. A short adit and several trenches were located on the south portion of Summit 1. Three parallel northwest trending quartz-carbonate veins contain 1-15% galena, sphalerite, pyrite, and trace amounts of tetrahedrite.

Directly adjacent to the August Mountain Glacier, on the northwest portion of Summit 2 @ 4,600 foot elevation, is a 500 meter wide gossan zone consisting of quartz-sericite-pyrite alteration. This zone was scanned by airborne EM and mag geophysics flown in 1984 by Apex Airborne Surveys Ltd. and gave a significant total field magnetometer anomaly as well as identifying numerous EM conductors in the vicinity of the gossan. A follow up diamond drill hole was collared near the magnetometer anomaly and yielded several hundred feet of massive and semi-massive pyrrhotite with low gold values. This gossan is surrounded by the August Jack Glacier at 1,500-1,700 meters elevation.

A fieldwork program consisting of geological mapping and soil, stream sediment, and rock sampling were carried out in Aug., 93 by the author and are summarized as follows:

Quartz vein mineralization occurs within a major quartz-sericite-pyrite alteration zone. Sample AK-6 assayed 1.3% Cu, 2.3% Pb, 9.5% Zn, 6.8 oz/t Ag, and 0.017 oz/t Au across a width of 40 cm. This sample is located at an elevation of 1,050 meters (3,500 feet) where there is a natural bench in the slope with old workings present.

Quartz-carbonate veins with sphalerite, galena, and tetrahedrite mineralization were located near the northeast portion of Summit 3 at an elevation of 1,000 meters (3,280 feet). Sample AK-12 assayed 1.1% Cu, 2.2% Pb, 8.6% Zn, 8.23 oz/t Ag, 0.119 oz/t Au across a width of 10 cm. This quartz vein varies in width from 0.5-1.1 meters, is traced for over 100 meters, and trends northwest with a 60 degree northeast dip.

Reddish brown to yellow coloured stain on cliffs located on the shore of Summit Lake (about 800 meters north of August Jack glacier) were investigated by detailed soil and rock chip sampling. Observed mineralization includes 1-10% disseminated and fracture filling pyrite, pyrrhotite, and traces amounts of chalcopyrite. Mineralization in this cliff area trends north

and dips steeply west. Ubiquitous quartz-sericite surrounds the mineral zone.

Stream sediment samples ST-14 to ST-25 are located south of August Jack glacier and contain higher mean values in Cu-Pb-Zn-Ag-As-Sb than do the samples ST-1 to ST-13 taken north of the glacier. Mean Au values are also higher from streams south of the glacier, but the highest value (800 ppb Au) came from a creek north of the glacier where rusty, iron stained cliffs were surveyed and sampled.

Samples listed below require detailed follow up mapping and sampling:

SAMPLE NO.	PPM Cu	PPM Pb	PPM Zn	PPM Ag	PPB Au	PPM As	PPM Sb
ST-6	96	48	144	1.0	800	72	3
ST-14	160	57	142	2.1	420	201	10
ST-15	343	329	546	9.1	260	1264	32
ST-16	377	77	356	3.7	295	531	26
ST-17	302	122	220	3.2	195	298	24
ST-18	362	350	555	11.3	490	1607	35
ST-19	723	77	159	3.7	610	568	36
ST-20	517	302	374	11.6	490	2389	65
ST-21	253	285	638	5.8	205	1493	38
ST-22	287	311	526	8.8	280	1259	31
ST-23	225	389	697	3.7	190	1033	22
ST-24	235	199	297	4.9	58	572	12
ST-25	163	135	262	5.6	180	631	14

All of the above samples (with the exception of ST-6) are taken from drainages south of August Jack glacier where an extensive northwest trending quartz-pyrite-sericite alteration zone occurs. Geochemical values of above average Cu-Pb-Zn-Ag-Au-As-Sb indicate potential ore zones exist within and adjacent to this widespread alteration.

## 6.0 GENERAL GEOLOGY (FIG. 3)

The Stewart Complex includes a thick sequence of Late Triassic to Middle Jurassic volcanic, sedimentary, and metamorphic rocks. These have been intruded and cut by a mainly granitic to syenitic suite of Lower Jurassic through Tertiary plutons which together form part of the Coast Plutonic Complex. Deformation, in part related to intrusive activity, has produced complex fold structures along the main intrusive contacts with simple open folds and warps dominant along the east side of the complex. Cataclasis, marked by strong north-south structures, are prominent features that cut this sequence.

Country rocks in the Stewart area comprise mainly Hazleton Group strata which includes the Lower Jurassic Unuk River Formation,

and the Middle Jurassic Betty Creek (and Mt. Dillworth) Formations. This sequence is unconformably overlain by Salmon River Formation, and the Nass River Formation (Grove, 1971, 1986). Unuk River strata includes mainly fragmental andesitic volcanics, epiclastic volcanics, and minor volcanic flows. Widespread Aalenian uplift and erosion was followed by deposition of the partly marine volcanoclastic Betty Creek Formation, the mixed Salmon River Formation, and the dominantly shallow marine Nass River Formation.

Intrusive activity in the Stewart area has been marked by the Lower and Middle Jurassic Texas Creek granodiorite with which the Big Missouri, Silbak Premier, SB, and many other mineral deposits in the district are associated. Younger intrusions include the Hyder Quartz Monzonite and many Tertiary stocks, dykes, and sills which form a large part of the Coast Range Plutonic Complex. Mineral deposits such as B.C. Molybdenum at Alice Arm, Porter-Idaho near Stewart, and a host of other deposits are related to 48 to 52 Ma (Eocene) plutons. These intrusives also form the regionally extensive Portland Canal Dyke Swarm.

More than 700 mineral deposits and showings have been discovered in a large variety of rocks and structures in the Stewart Complex. The Silbak-Premier represents a telescoped (transitional), epithermal gold-silver base metal deposit localized along complex, steep fracture systems, in Lower Jurassic volcanoclastics unconformably overlain by shallow dipping Middle Jurassic Salmon River Formation sedimentary rocks. In this example, the overlying sedimentary units form a barrier or dam, trapping bonanza type gold-silver mineralization at a relatively shallow depth. Metallogeny of the Silbak-Premier, Big Missouri, SB, and a number of other deposits in the Stewart area is related to early Middle Jurassic plutonic-volcanic events. Overall, at least four major episodes of mineralization involving gold-silver, base metals, molybdenum, and tungsten dating from early Lower Middle Jurassic through to Tertiary have been recorded throughout the Stewart Complex.

## 7.0 1993 FIELD PROGRAM

### 7.1 METHODS AND PROCEDURES

A 0.3 km., 120 trending baseline, with four 0.4 km. long cross lines, was established to explore geochemical anomalies outlined by 1993 sampling. Hip chains and compasses were used to survey grid area, outcrop, and sample locations. Geological mapping of the central portion of Summit 1 & 2 were carried out at a scale of 1:5,000.

28 soil samples were taken with grubhoes at a depth of 30 cm., placed into marked kraft envelopes and dried. Samples were

shipped to Acme Labs, Vancouver for analysis.

13 stream sediment samples were taken with a shovel from a depth of 5-20 cm. from the active channel of streams that range from 0.1-10.0 litres/sec. flow rate. Stream bed material was sifted through -80 mesh sieves, placed into marked kraft envelopes and dried. Samples were shipped to Acme Labs, Vancouver for analysis.

## 7.2 GEOLOGY AND MINERALIZATION (Figure 4)

Property bedrock geology consists mainly of three distinct rock units summarized as follows:

### INTRUSIVE ROCKS

- Tertiary and Older
- 3 Quartz monzonite dykes
- Early Middle Jurassic (Texas Creek granodiorite suite)
- 2 Orthoclase porphyry, granodiorite groundmass, 1-8 mm euhedral K-spar phenocrysts

### VOLCANIC AND SEDIMENTARY ROCKS

- Lower Jurassic (Unuk River Formation)
- 1 Lithic and crystal tuff, dacitic composition, minor conglomerate, sandstone, siltstone, tuff breccia

The above rock units have been mapped in the east portion of the Summit claims. In the west portion of the claims, Middle Jurassic Betty Creek and Mount Dillworth Formation felsic to intermediate pyroclastic and epiclastic volcanics unconformably overlie the Lower Jurassic Unuk River Formation. This contact is located at elevations above 1,400 meters.

Approximately 90% of the bedrock mapped on the east portion of the Summit claims consists of Unuk River Formation dacitic volcanics with minor intercalations and screens of clastic sediments and limestone. Alkaline early middle Jurassic intrusive rocks cut the Unuk River Fm. and appear as a 250 meter wide stock within the south portion of the Grey Copper crown grant. Northeast trending quartz veins occur immediately north of this alkaline stock and contain sphalerite, galena, and tetrahedrite mineralization.

1-20 meter wide Tertiary intermediate-felsic dykes trend northwest and are clustered along the lower portion of August Jack Glacier. These dykes contain 1-20% pyrite and quartz along and near their contacts with the country rock. Trace to 1% chalcopryrite and tetrahedrite occur in the quartz-pyrite zones.

There is a 200-600 meter wide, northwest trending quartz-pyrite-sericite alteration zone hosted by the Unuk River dacitic volcanics which is located in the southeast portion of Summit 1 and extends 2 kilometers northwest through to the upper August



Jack glacier. Grove (1986), identifies this as a cataclasite (i.e. deformation zone) from well established fabric observed in thin section. Northwest and northeast trending quartz-carbonate vein mineralization occurs within this alteration zone. The grid area covers 0.3 X 0.4 km. area of the east portion of this regional alteration/cataclasite zone (Fig.4).

### 7.3 STREAM SEDIMENT & SOIL GEOCHEMISTRY

Sample ST-26 returned above average Cu-Ag-Au-Mo-As-Sb values. This sample is located immediately adjacent to the north end of the soil grid where several samples gave similar anomalous values, e.g.:

SAMPLE NO.	PPM Cu	PPM Pb	PPM Zn	PPM Ag	PPB Au	PPM As	PPM Mo
ST-26	269	125	363	9.2	1380	1979	24
L 0W,2+50N	2045	92	391	2.2	230	484	453
L 1W,2+50N	385	264	315	13.1	780	2844	102
L 1W,2+75N	315	137	348	5.9	470	1922	79
L 1W,3+00N	391	61	244	5.2	720	623	97

Above average Pb-Zn-Ag-Au-As values in soils were obtained from the southern portion of the grid area, for example:

SAMPLE NO.	PPM Cu	PPM Pb	PPM Zn	PPM Ag	PPB Au	PPM As	PPM Sb
L 1W,0+75S	221	1069	610	11.7	230	1828	39
L 1W,1+00S	200	347	495	5.5	180	2079	15

An third area of the soil grid that gave above average multi-element values is located near station 0+50 N on both cross lines:

SAMPLE NO.	PPM Cu	PPM Pb	PPM Zn	PPM Ag	PPB Au	PPM As	PPM Sb
L 0W,0+50N	196	433	153	5.9	600	2726	31
L 1W,0+50N	305	113	214	3.1	360	1714	21

Stream sediment samples taken from the west portion of Summit 2 claim at approximately 4,200' elev. require further exploration:

SAMPLE NO.	PPM Cu	PPM Pb	PPM Zn	PPM Ag	PPB Au	PPM As	PPM Sb
ST-27	170	38	138	0.7	420	185	11
ST-28	226	142	391	3.3	620	146	15
ST-29	251	43	203	1.0	240	178	13
ST-33	204	100	203	1.4	570	300	22
ST-36	136	37	152	1.3	360	205	10
ST-37	160	53	164	1.1	240	280	8

### 7.4 GEOPHYSICS

VLF-EM (Geonic's Model EM-16) and Magnetometer (Geometric's Unimag Model G-836) were used to take a total of 60 readings, @ 25 meter spacing, over the grid area.

Using Seattle @ 24.8 kHz, a weak, poorly defined conductive zone was identified by in phase and quadrature crossovers in the north portion of the grid (Fig.5).

Total field mag readings range from 56,750 to 57,620 gammas. Relatively low values were encountered on all 4 cross lines near station 2+50 N (Fig.6).

## 8.0 DISCUSSION OF RESULTS

The receding glacial ice on the higher portions of the claims are exposing new mineral zones. The geophysical (EM and Magnetometer) anomaly discovered by Apex Airborne Surveys (1984) may be a major metallic deposit with potential to contain high grade gold and silver values. This zone located at 1,500 meters elevation within the August Jack icefield is hosted by Unuk River Formation and is immediately below the projected unconformable contact with Betty Creek Formation. This northwest trending zone continues through the claims and has resulted in widespread base and precious metal mineralization as demonstrated by elevated Cu-Pb-Zn-Ag-Au-Mo-As-Sb in soil and stream sediment samples. There appears to be a geochemical assemblage of elevated Cu-Mo-Ag-Au-As-Sb in the north portion of the grid area that is a first order follow-up target. Weak, poorly defined VLF-EM conductive zones and mag total field lows coincide with the north grid target.

The widespread nature of base and precious metal values in soil and stream sediment values suggest the property has good potential for economic concentrations of minerals.

## 9.0 CONCLUSION AND RECOMMENDATIONS

The Summit property has potential to contain precious metal deposits based on the presence of documented precious metal mineral occurrences, anomalous gold geochemistry in stream sediments, and broad alteration zones. A program of detailed mapping, IP and magnetometer geophysics, and trenching, with follow-up diamond drilling is recommended. Initial work should consist of a 4-man field crew for 20 days as detailed below:

### FIELD CREW:

Geologist, 3 geotechnicians \$ 15,000

### FIELD COSTS:

Mob/demob	1,500
Meals and accommodations	4,800
Assays	3,600
IP Equipment and supplies	2,200
Truck	1,200
Helicopter charters	2,000
Report	700

Total= \$ 31,000

The proposed program of mapping, trenching, and geophysics should follow up on geophysical and geochemical anomalies that are listed below:

- 1) Apex Airborne magnetometer and EM anomaly on upper August Jack glacier.
- 2) Broad quartz-pyrite-sericite alteration zone located on middle and eastern portion of Summit 1 (concentrating on specific targets outline in the north, middle, and south portion of the grid area).
- 3) Cliffs 800 meters north of August Jack glacier on the shoreline of Summit Lake at 3,000' elev. and stream sediment anomaly zone at 4,200 elev. directly above.
- 4) Northeast trending quartz veins on the old Grey Copper crown grant claim (location according to the provincial govt.map).
- 5) Northwest trending quartz veins on the northeast portion of Summit 3.

#### REFERENCES

Aldrick, D.J., (1983), Geological Setting of Precious Metal Deposits, Stewart, B.C., B.C. Min. of E.M. & P. Res., Geological Fieldwork.

Grove, E.W., (1971), Geology and Mineral Deposits of the Stewart Area, BCDM Bulletin No. 58.

Grove, E.W., (1986), Geology and Mineral Deposits of the Unuk River-Salmon River-Anyox Area, Min. of E.M. & P. Res. Bulletin No. 63.

Hanson, G., (1935), GSC Memoir # 175, Portland Canal Area, B.C., Can. Dept. of Mines

Kikauka, A., (1993): Geological and geochemical Report on the Summit Claims, Stewart, B.C., B.C. Min. of E.M. & P. Res. Assessment Report.

Apex Airborne Surveys Ltd., Assessment Report # 12,345, B.C. Govt. File.

ITEMIZED COST STATEMENT- SUMMIT CLAIMS, August 7-11, 94

FIELD CREW:

A. Kikauka (Geologist) 5 days	\$ 1,625.00
P. Matson (geotechnician) 5 days	1,125.00

FIELD COSTS:

Assays, 41 soil/silt	675.00
Geophysical equipment rental, VLF-EM	250.00
Magnetometer	200.00
Equipment and supplies	375.00
Food and accommodation	610.00
Mob/Demob (truck rental, fuel, meals, wages)	1,275.00
Report	800.00

---

Total \$ 6,935.00

CERTIFICATE

I, Andris Kikauka, of Box 370, Brackendale, B.C., hereby certify that;

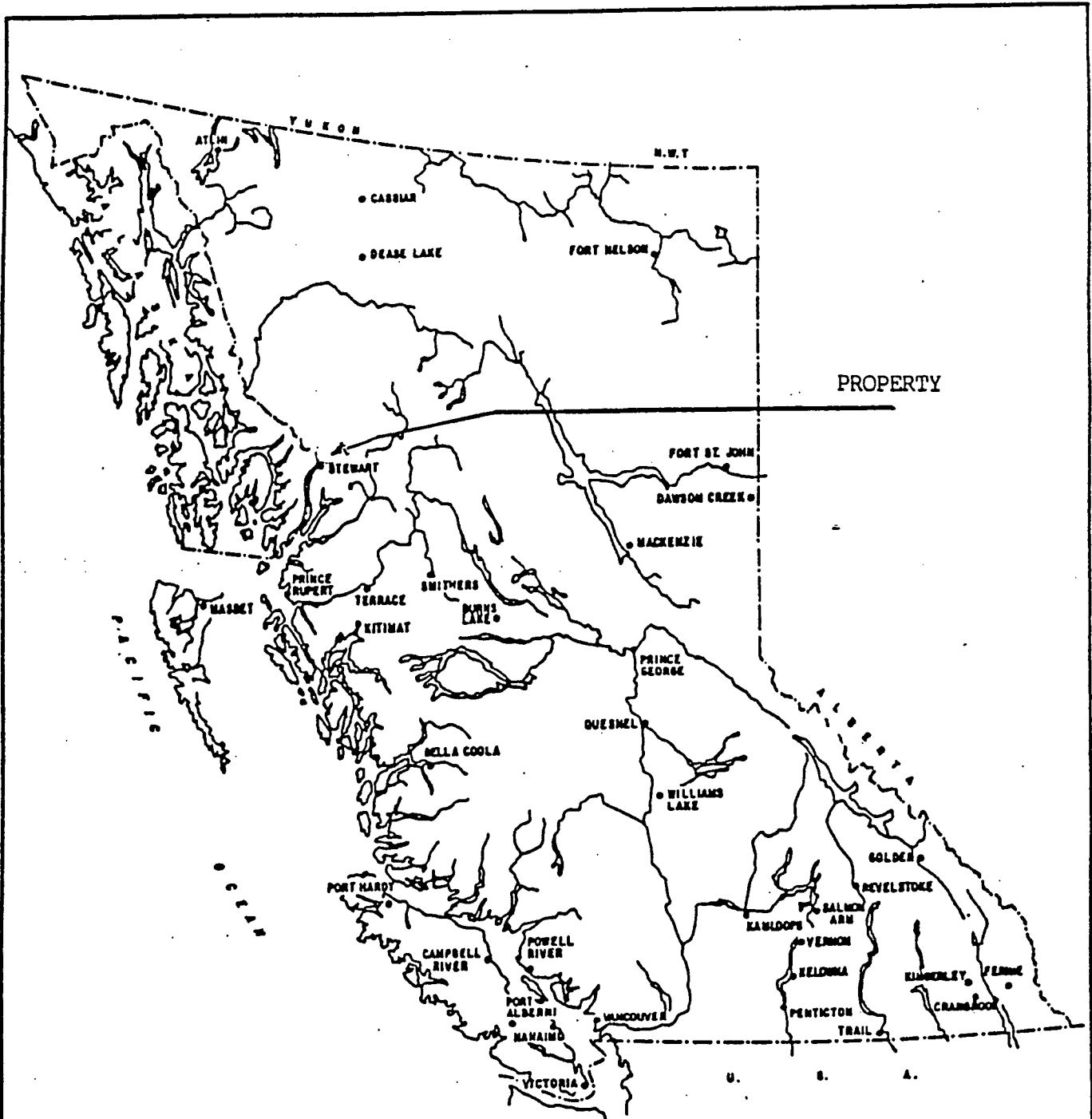
1. I am a graduate of Brock University, St. Catharines, Ont., with an Honours Bachelor of Science Degree in Geological Sciences, 1980.
2. I am a Fellow in good standing with the Geological Association of Canada.
3. I am registered in the Province of British Columbia as a Professional Geoscientist.
4. I have practised my profession for fifteen years in precious and base metal exploration in the Cordillera of Western Canada, U.S.A., South America, and for three years in uranium exploration in the Canadian Shield.
5. The information, opinions, and recommendations in this report are based on fieldwork carried out in my presence on the subject properties.
6. I have a direct interest in the subject claims.

Andris Kikauka, P. Geo.,

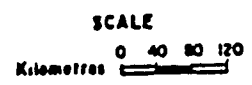


October 18, 1994'

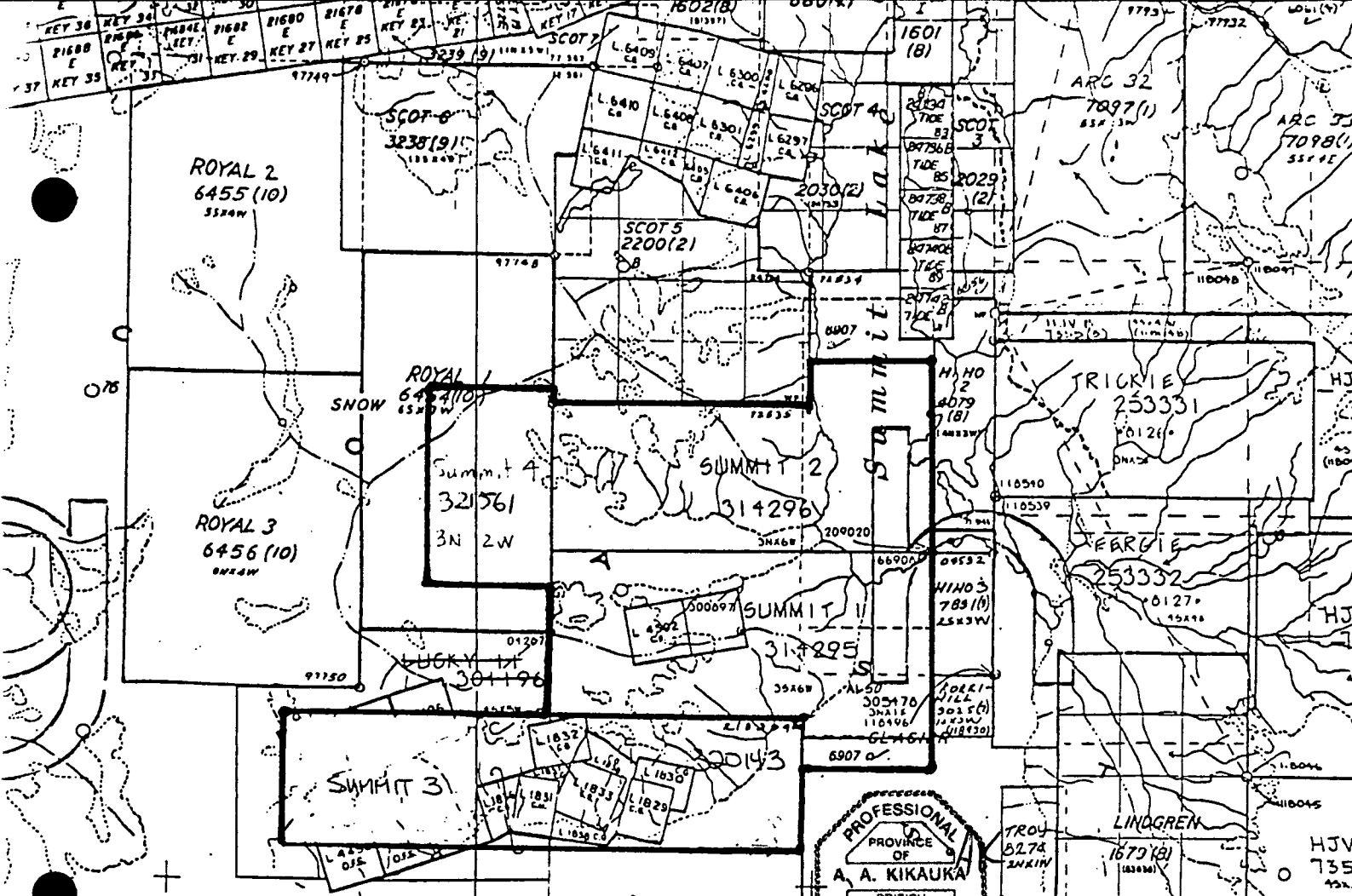




PROPERTY

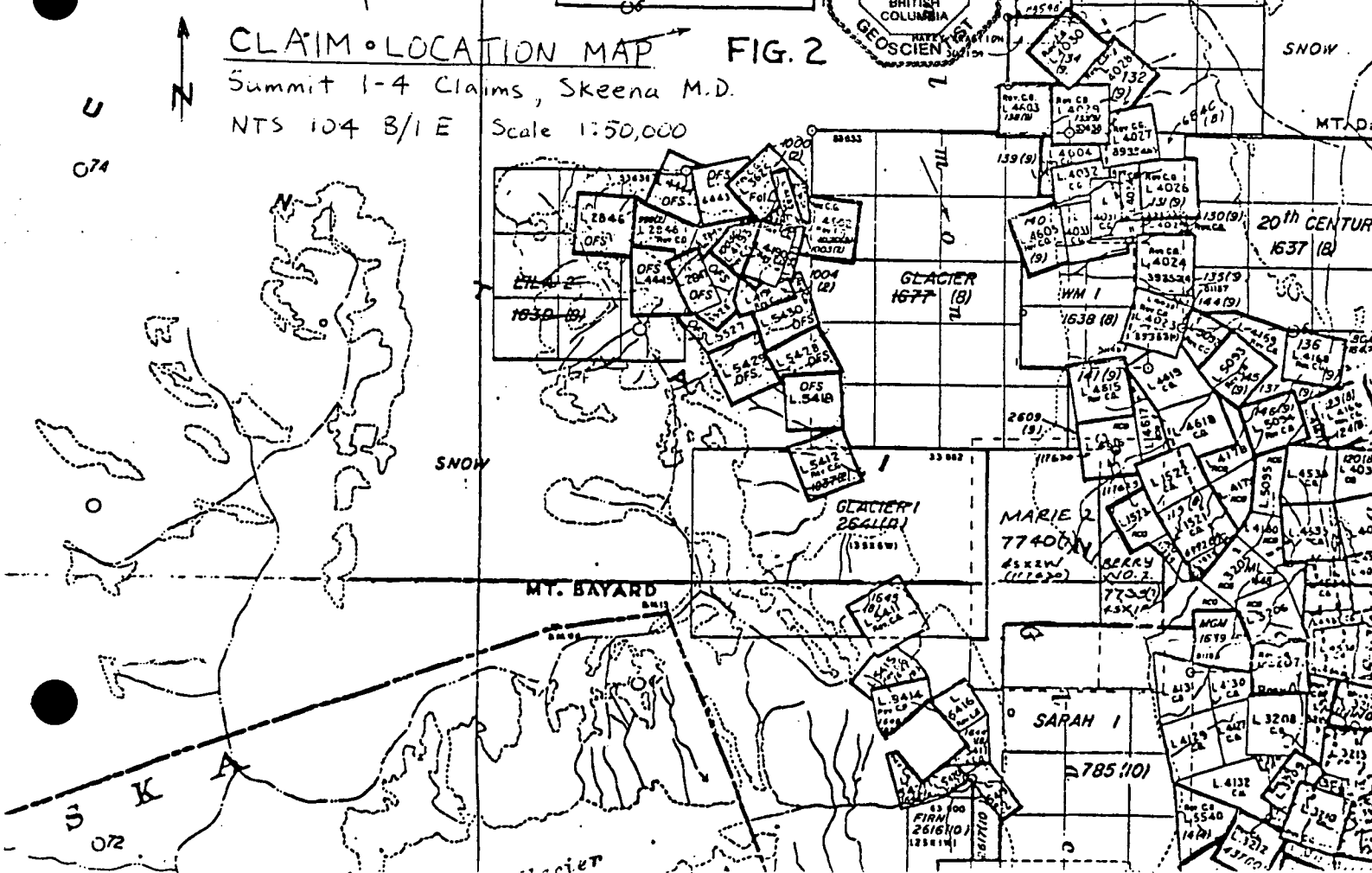


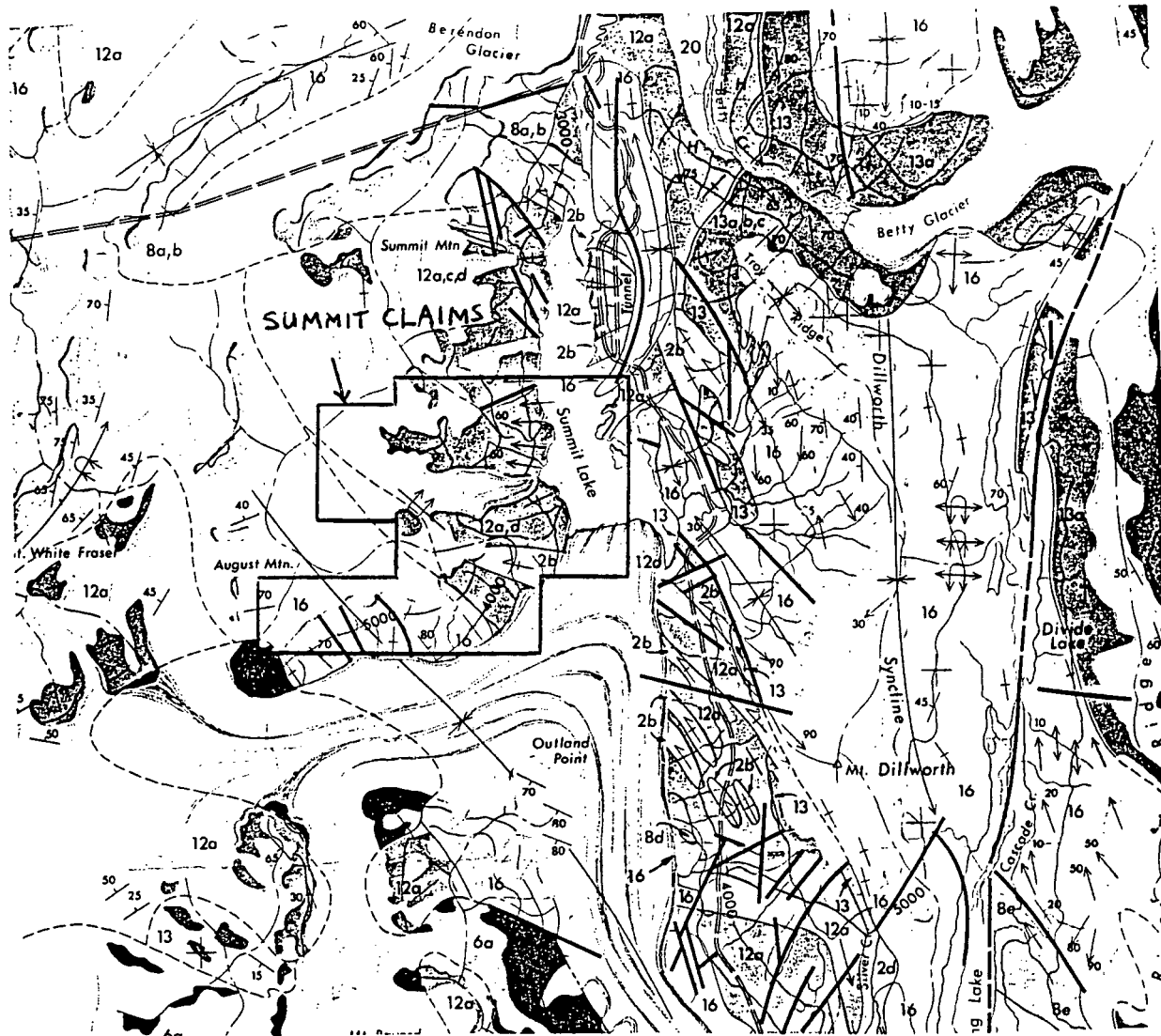
GENERAL LOCATION MAP  
 FIG. 1



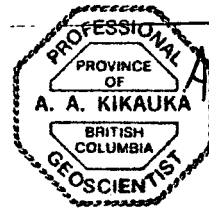
**CLAIM LOCATION MAP FIG. 2**

Summit 1-4 Claims, Skeena M.D.  
NTS 104 B/E Scale 1:50,000





GENERAL GEOLOGY - SUMMIT CLAIM GROUP  
 NTS 104 B/1 E, SKEENA MINING DIVISION  
 INTRUSIVE ROCKS (TERTIARY AND OLDER)  
 8a,b Hyder quartz monzonite and equivalent  
 (EARLY MIDDLE JURASSIC)  
 6a Texas Creek granodiorite  
 VOLCANIC AND SEDIMENTARY ROCKS  
 16 SALMON RIVER FM. (MIDDLE JURASSIC)  
 Siltstone, greywacke, argillite, chert  
 pebble conglomerate, limestone  
 13abc BETTY CREEK FM. (MIDDLE JURASSIC)  
 Sandstone, siltstone, chert, crystal &  
 lithic tuff, rhyolite, volcanic breccia  
 12ad UNUK RIVER FM. (LOWER JURASSIC)  
 Crystal & lithic tuff, sandstone, siltstone  
 volcanic breccia, conglomerate  
 Cataclasite, metamorphic equivalent of 12ad



SYMBOLS

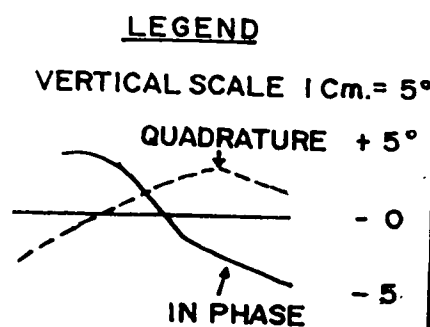
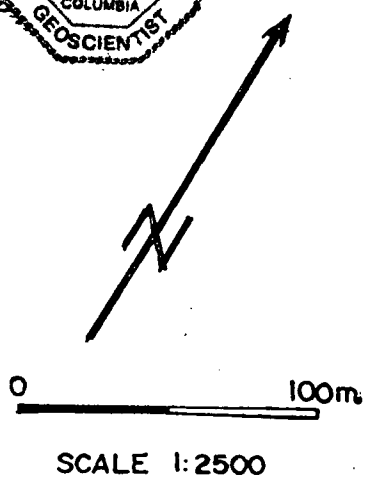
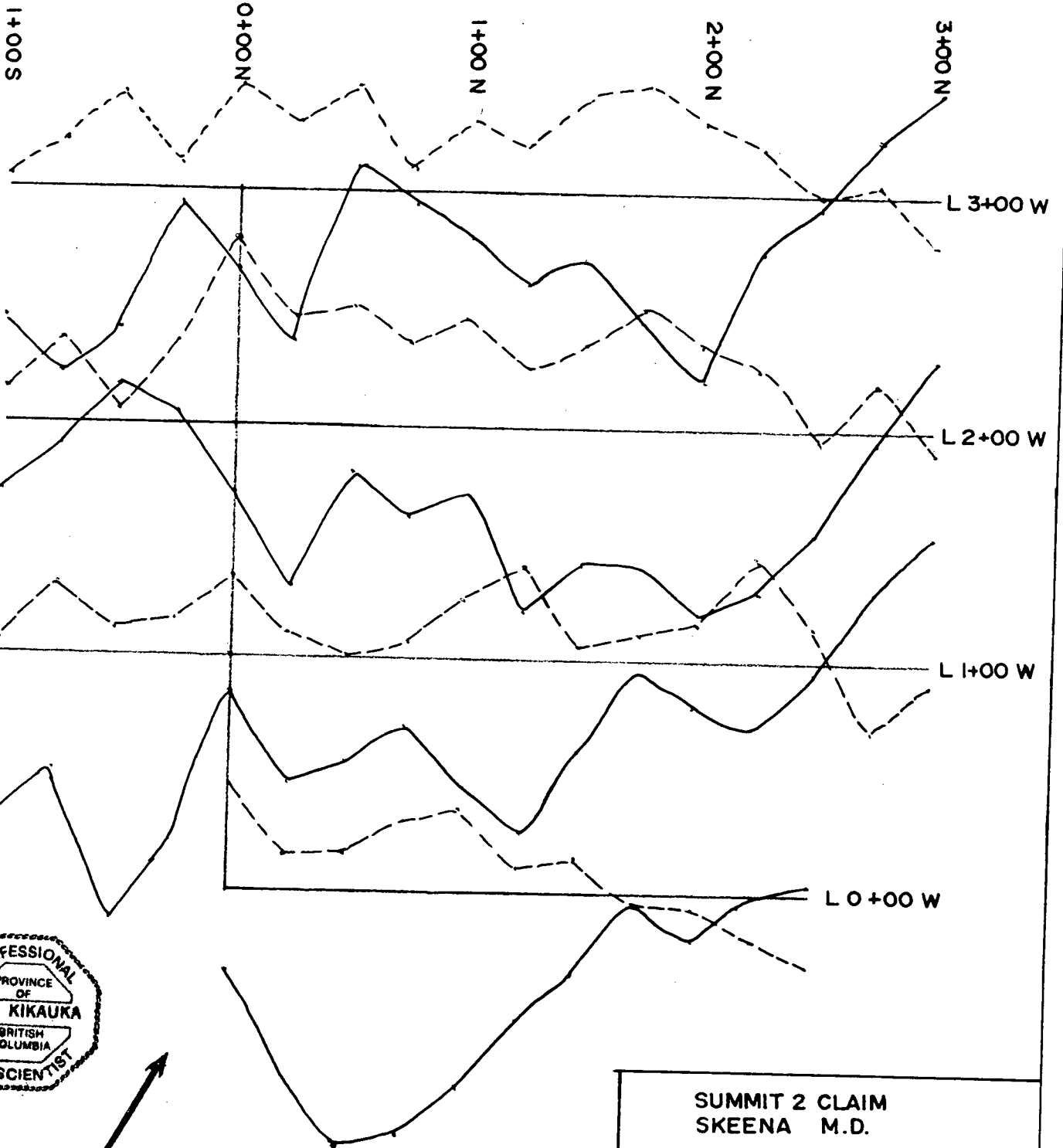
- Bedding
- Schistosity
- Joint System
- Fault
- Lineament
- Anticline
- Syncline
- Fold Axes

SCALE 1:100,000

(After Grove, 1986)

FIG. 3



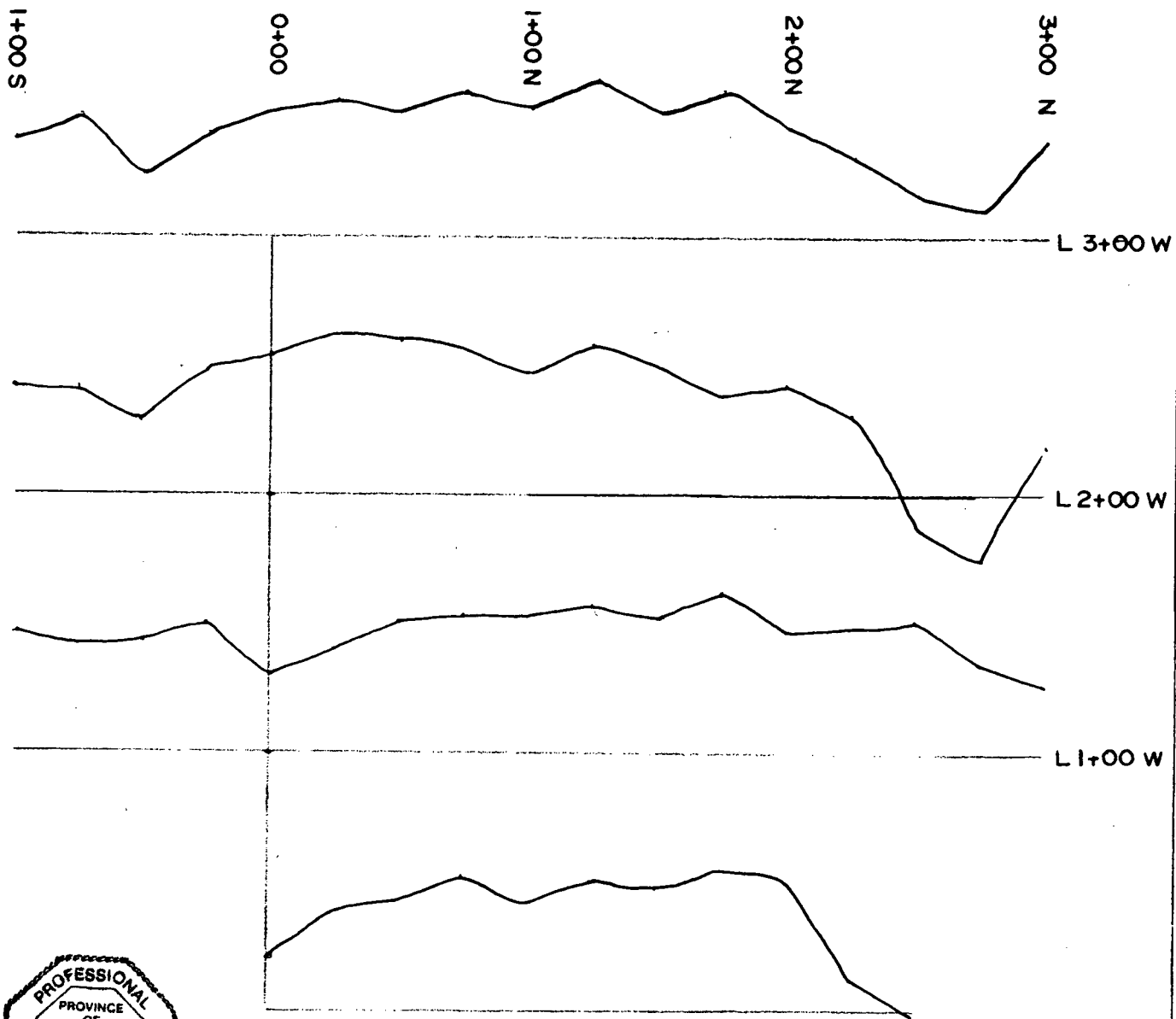


SUMMIT 2 CLAIM  
SKEENA M.D.

VLF-EM (IN PHASE, QUADRATURE)

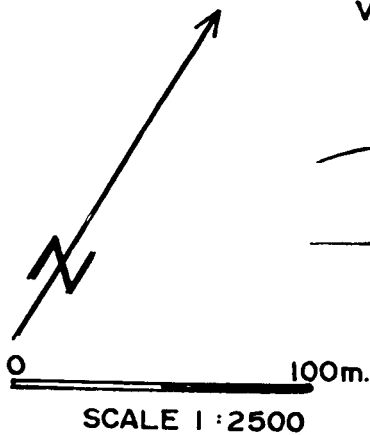
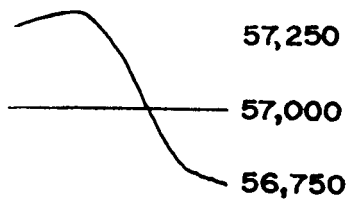
GEONICS EM-16  
AUG. 94, FIG. 5

TRANSMITTER  
SEATTLE  
24.8 kHz



**LEGEND**

VERTICAL SCALE  
1 Cm. = 250 gammas



**SUMMIT 2 CLAIM, SKEENA M.D.  
MAGNETOMETER PROFILES**

GEOMETRICS UNIMAG G-836

AUG., 94 FIG. 6

READINGS AT 25 METER SPACING

READINGS CORRECTED BY LOOPING



GEOCHEMICAL ANALYSIS CERTIFICATE



Navarre Resource Corp. PROJECT SUMMIT File # 94-3186 Page 1
310 - 1959 - 152nd St., Surrey BC V4A 9E3 Submitted by: A. Kikauka

Table with columns for SAMPLE#, element symbols (Mo, Cu, Pb, Zn, Ag, Ni, Co, Mn, Fe, As, U, Au, Th, Sr, Cd, Sb, Bi, V, Ca, P, La, Cr, Mg, Ba, Ti, B, Al, Na, K, W, Au\*), and corresponding values in ppm or %.

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 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 LIMITED FOR NA K AND AL.

- SAMPLE TYPE: P1 SOIL P2 SILT AU\* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: SEP 15 1994

DATE REPORT MAILED:

Sept 27/94

SIGNED BY: D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS



ACME ANALYTICAL

## Navarre Resource Corp. PROJECT SUMMIT FILE # 94-3186

Page 2



ACME ANALYTICAL

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	Au* ppb
ST-26	24	269	125	363	9.2	29	51	1777	12.58	1979	<5	3	<2	23	4.4	44	2	91	.61	.127	14	38	1.25	78	.05	<2	1.83	.01	.10	21	1380
ST-27	4	170	38	138	.7	24	40	1334	8.76	185	<5	<2	<2	26	1.7	11	4	149	.61	.120	9	31	2.02	33	.14	<2	2.67	.01	.06	<1	420
ST-28	8	226	142	391	3.3	24	47	1997	9.26	146	<5	<2	<2	25	4.6	15	<2	155	.56	.112	13	32	2.05	47	.10	<2	2.77	.01	.07	<1	620
ST-29	13	251	43	203	1.0	23	46	2649	9.64	178	<5	<2	<2	31	2.7	13	<2	151	.57	.103	12	27	1.88	54	.13	<2	2.92	.01	.07	<1	240
ST-30	8	394	44	310	.9	40	120	2703	13.15	327	<5	<2	<2	21	3.1	6	<2	117	.57	.099	13	22	2.32	60	.12	<2	3.12	.01	.07	<1	130
ST-31	2	201	21	162	.5	59	60	2074	10.90	140	<5	<2	<2	22	1.6	13	<2	195	.56	.113	7	158	2.88	54	.13	<2	3.19	.01	.08	<1	48
ST-32	2	191	38	222	.7	47	58	2090	10.34	190	<5	<2	<2	20	2.0	15	2	195	.68	.132	8	101	2.97	49	.13	<2	3.57	.01	.08	<1	62
ST-33	1	204	100	203	1.4	36	55	1761	11.46	300	<5	<2	<2	20	2.1	22	<2	166	.85	.114	3	64	2.71	36	.18	<2	3.04	.01	.07	<1	570
ST-34	1	146	29	167	.4	32	45	2274	9.74	160	<5	<2	<2	26	1.6	17	<2	166	.56	.130	11	61	2.07	61	.10	<2	3.25	.01	.10	<1	46
ST-35	2	98	25	109	.5	18	21	1018	8.73	138	<5	<2	<2	27	.7	12	<2	137	.56	.148	8	30	1.79	40	.13	<2	2.18	.01	.06	<1	27
ST-36	3	136	37	152	1.3	20	32	1524	6.87	205	<5	<2	<2	26	1.1	10	<2	146	.62	.109	9	30	1.67	39	.14	<2	2.59	.02	.07	<1	360
ST-37	2	160	53	164	1.1	30	30	1263	7.89	280	<5	<2	<2	33	1.0	8	<2	150	.67	.178	11	24	2.06	38	.12	<2	2.55	.01	.08	<1	240
RE ST-38	4	208	57	177	1.5	22	29	1382	8.02	323	<5	<2	<2	53	1.1	13	<2	171	.64	.207	16	16	1.82	33	.08	<2	2.30	.01	.07	3	78
ST-38	5	214	53	176	1.7	21	28	1366	7.96	323	<5	<2	2	55	1.5	15	<2	170	.63	.207	16	16	1.79	33	.08	<2	2.30	.01	.07	<1	92
STANDARD C/AU-S	18	56	39	130	6.8	72	31	1035	3.96	42	17	7	35	50	17.7	15	19	61	.51	.091	40	60	.90	182	.08	35	1.88	.06	.15	12	50

Sample type: SILT. Samples beginning 'RE' are duplicate samples.

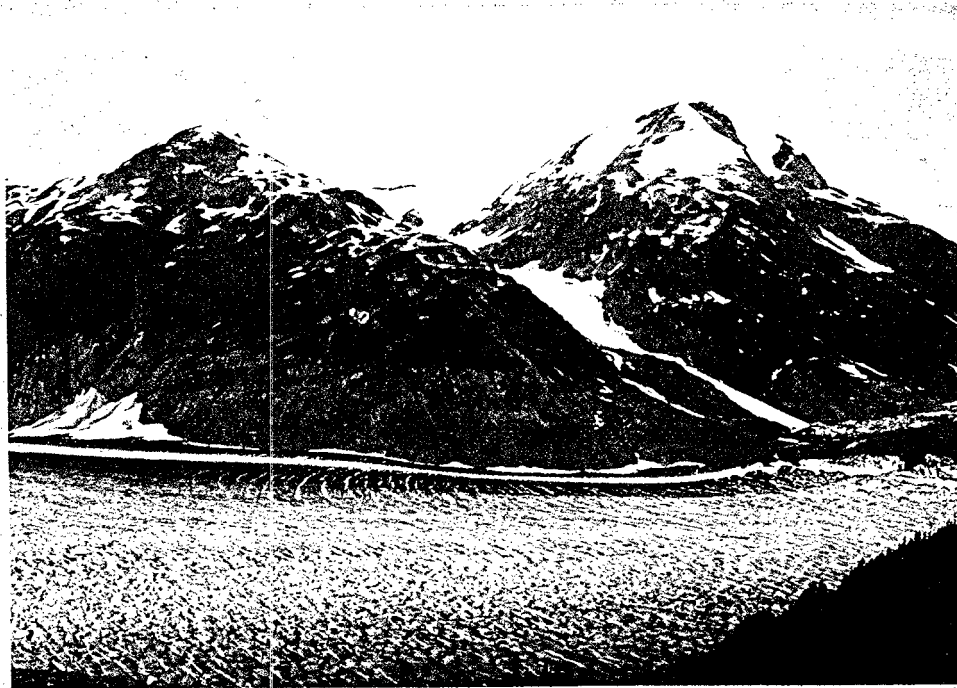
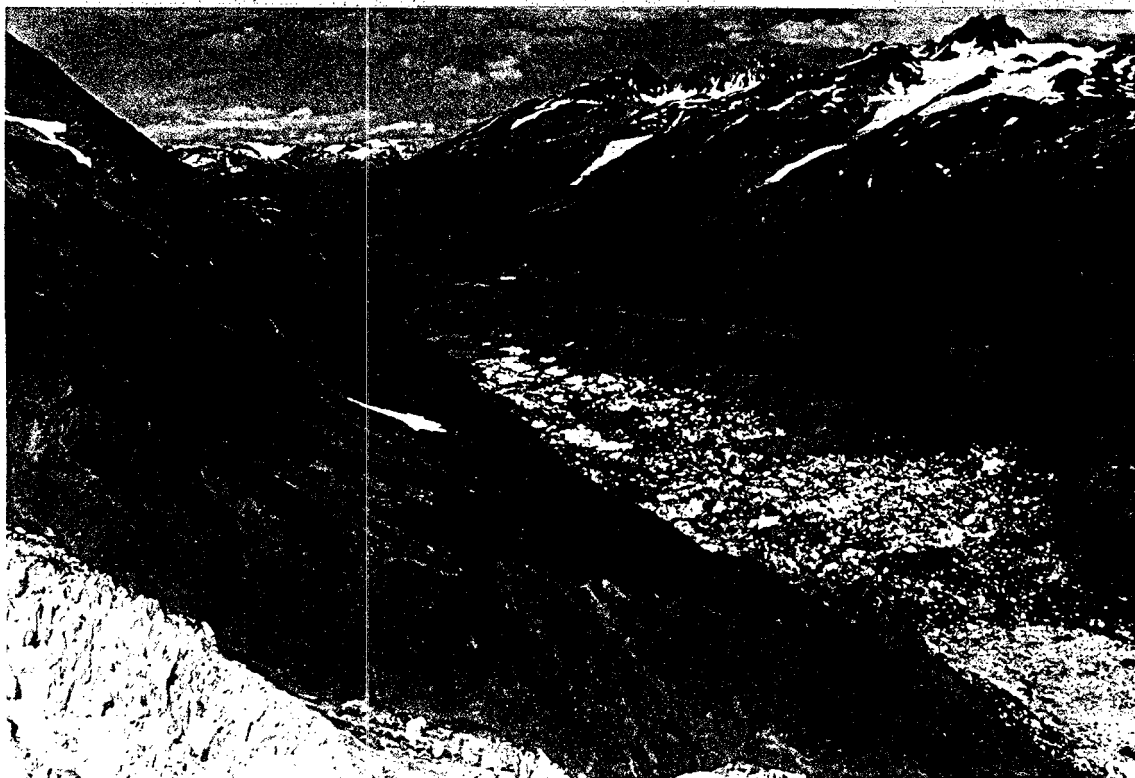


PHOTO TAKEN FROM GRANDUC ROAD LOOKING NORHTWEST AT SOUTH END OF SUMMIT LAKE (TO RIGHT), SALMON GLACIER IN FOREGROUND, AUGUST JACK GLACIER BETWEEN THE TWO MOUNTAINS



LOOKING NORTH AT A DRAINED SUMMIT LAKE, SCOTTIE GOLD MINE IN BACKGROUND, AUGUST JACK GLACIER IN FOREGROUND

VLF-EM DATA, SEATTLE 24.8 kHz- SUMMIT 2 CLAIM, AUGUST, 94  
 IN PHASE                      QUADRATURE

L 0+00 W

0+00 N	-7	+9
0+25 N	-16	+3
0+50 N	-22	+3
0+75 N	-21	+6
1+00 N	-17	+7
1+25 N	-11	+2
1+50 N	-7	+3
1+75 N	-1	-1
2+00 N	-4	-1
2+25 N	-1	-4
2+50 N	+1	-6

L 1+00 W

1+00 S	-14	+1
0+75 S	-10	+6
0+50 S	-23	+2
0+25 S	-16	+3
0+00 N	-3	+7
0+25 N	-11	+2
0+50 N	-9	0
0+75 N	-6	+1
1+00 N	-11	+5
1+25 N	-15	+8
1+50 N	-8	+1
1+75 N	-1	+2
2+00 N	-4	+3
2+25 N	-6	+9
2+50 N	-1	+3
2+75 N	+6	-6
3+00 N	+11	-2

L 2+00 W

1+00 S	-6	+3
0+75 S	-2	+7
0+50 S	+4	+1
0+25 S	+1	+7
0+00 N	-6	+16
0+25 N	-14	+9
0+50 N	-4	+10
0+75 N	-8	+7
1+00 N	-6	+9
1+25 N	-16	+5
1+50 N	-12	+7
1+75 N	-12	+10
2+00 N	-16	+7
2+25 N	-14	+5
2+50 N	-9	-1
2+75 N	-1	+4
3+00 N	+6	-2

VLF-EM DATA, SEATTLE 24.8 kHz- SUMMIT 2 CLAIM, AUGUST, 94  
IN PHASE QUADRATURE

L 3+00. W

1+00 S	-11	+1
0+75 S	-16	+4
0+50 S	-12	+8
0+25 S	-1	+2
0+00 N	-7	+9
0+25 N	-13	+6
0+50 N	+2	+9
0+75 N	-1	+2
1+00 N	-5	+6
1+25 N	-8	+4
1+50 N	-6	+8
1+75 N	-11	+9
2+00 N	-16	+6
2+25 N	-5	+4
2+50 N	-1	0
2+75 N	+5	+1
3+00 N	+9	-4

MAGNETOMETER DATA, SEATTLE 24.8 kHz--SUMMIT 2 CLAIM, AUG., 94  
INSTRUMENT USED- UNIMAG G-836

L 0+00 W

0+00 S	57,210
0+25 N	57,370
0+50 N	57,410
0+75 N	57,510
1+00 N	57,410
1+25 N	57,500
1+50 N	57,480
1+75 N	57,540
2+00 N	57,500
2+25 N	57,120
2+50 N	56,990

L 1+00 W

1+00 S	57,490
0+75 S	57,410
0+50 S	57,430
0+25 S	57,500
0+00 S	57,310
0+25 N	57,400
0+50 N	57,500
0+75 N	57,540
1+00 N	57,530
1+25 N	57,570
1+50 N	57,510
1+75 N	57,620
2+00 N	57,470
2+25 N	57,490
2+50 N	57,510
2+75 N	57,350
3+00 N	57,270



MAGNETOMETER DATA, SEATTLE 24.8 kHz--SUMMIT 2 CLAIM, AUG., 94  
INSTRUMENT USED- UNIMAG G-836

L 2+00 W

1+00 S	57,440
0+75 S	57,420
0+50 S	57,290
0+25 S	57,490
0+00 N	57,530
0+25 N	57,620
0+50 N	57,600
0+75 N	57,560
1+00 N	57,480
1+25 N	57,580
1+50 N	57,500
1+75 N	57,390
2+00 N	57,430
2+25 N	57,310
2+50 N	56,890
2+75 N	56,750
3+00 N	57,200

L 3+00 W

1+00 S	57,390
0+75 S	57,470
0+50 S	57,240
0+25 S	57,400
0+00 S	57,490
0+25 N	57,520
0+50 N	57,490
0+75 N	57,560
1+00 N	57,500
1+25 N	57,610
1+50 N	57,490
1+75 N	57,540
2+00 N	57,440
2+25 N	57,310
2+50 N	57,170
2+75 N	57,110
3+00 N	57,390

1993 SOIL & STREAM SEDIMENTS

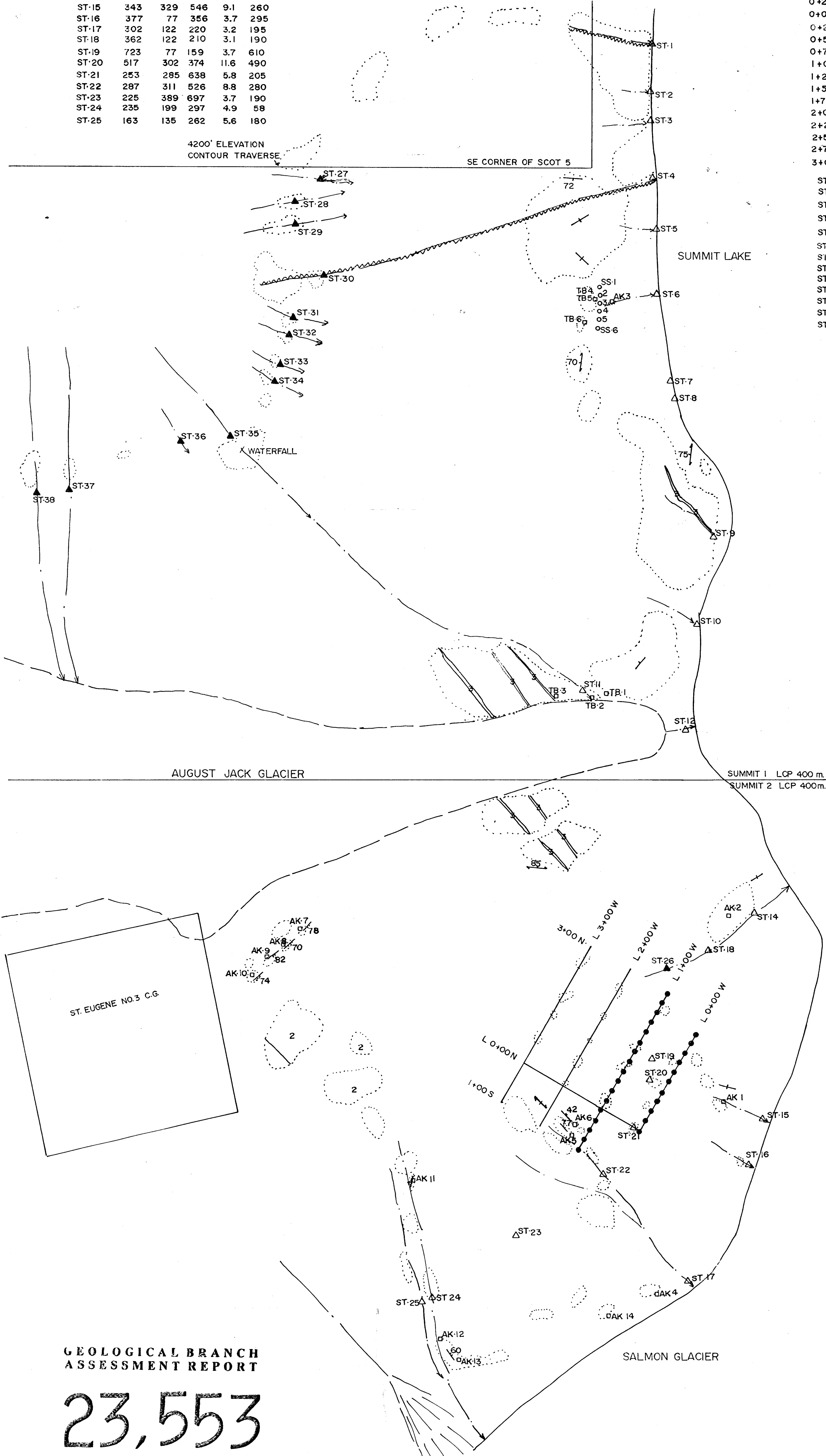
SAMPLE NO.	PPM		Zn	Ag	PPB Au
	Cu	Pb			
SS-1	196	12	121	1.5	205
SS-2	162	15	116	6.7	240
SS-3	76	9	64	1.7	16
SS-4	97	9	87	0.8	40
SS-5	105	6	33	0.2	1
SS-6	128	17	74	1.4	45
ST-1	149	56	168	2.1	120
ST-2	106	49	163	1.9	130
ST-3	110	58	188	1.3	75
ST-4	120	38	168	1.1	80
ST-5	119	61	183	1.2	63
ST-6	96	49	144	1.0	800
ST-7	86	34	143	0.7	160
ST-8	75	30	135	0.7	97
ST-9	75	39	134	0.8	110
ST-10	59	19	114	0.6	36
ST-11	96	19	131	0.8	60
ST-12	51	15	105	0.4	15
ST-13	69	19	87	0.4	25
ST-14	160	57	142	2.1	420
ST-15	343	329	546	9.1	260
ST-16	377	77	356	3.7	295
ST-17	302	122	220	3.2	195
ST-18	362	122	210	3.1	190
ST-19	723	77	159	3.7	610
ST-20	517	302	374	11.6	490
ST-21	253	285	638	5.8	205
ST-22	287	311	526	8.8	280
ST-23	225	389	697	3.7	190
ST-24	235	199	297	4.9	58
ST-25	163	135	262	5.6	180

1993 ROCK CHIP SAMPLES

SAMPLE NO.	WIDTH CM.	PPM				PPB Au
		Cu	Pb	Zn	Ag	
AK-1	FLOAT	802	9897	1681	68.1	70
AK-2	"	1116	55	955	7.2	13
AK-3	30	78	35	75	0.4	3
AK-4	35	2336	950	681	18.8	400
AK-5	38	849	22908	31793	236.0	67
AK-6	40	13253	23073	95663	232.1	570
AK-7	8	79	22050	740	36.5	10
AK-8	22	2124	32616	679	304.1	22
AK-9	20	868	21331	27138	237.5	290
AK-10	25	284	9562	43835	19.3	83
AK-11	20	2993	4084	7852	60.4	98
AK-12	10	11133	22330	86448	281.8	4060
AK-13	15	6501	18572	99999	179.9	500
AK-14	30	57	324	234	5.0	41
TB-1	20	79	121	173	1.1	9
TB-2	FLOAT	22	140	219	6.5	1430
TB-3	"	32	77	160	0.4	8
TB-4	"	31	55	91	2.6	6
TB-5	"	86	434	254	1.2	15
TB-6	50	40	46	63	0.5	11

1994 SOIL & STREAM SEDIMENTS

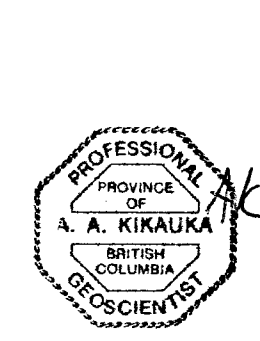
	PPM				PPB Au	PPM Mo	As
	Cu	Pb	Zn	Ag			
L 0+00 W							
0+00 N	201	65	88	4.7	200	20	2716
0+25 N	115	57	79	4.6	27	20	399
0+50 N	196	433	153	5.9	600	36	2726
0+75 N	79	67	85	2.9	27	19	498
1+00 N	276	505	145	6.5	370	35	1343
1+25 N	180	53	79	2.4	18	46	561
1+50 N	317	79	124	3.4	560	75	907
1+75 N	282	49	64	4.2	53	116	274
2+00 N	323	98	105	9.1	110	211	1203
2+25 N	218	49	114	3.3	31	196	454
2+50 N	2045	92	391	2.2	550	453	484
L 1+00 W							
1+00 S	200	347	495	5.5	180	16	2079
0+75 S	221	1069	610	11.7	230	16	1828
0+50 S	164	104	136	2.7	55	17	382
0+25 S	72	62	68	2.2	38	13	335
0+00 N	156	217	214	3.0	220	24	1338
0+25 N	93	72	85	2.8	30	39	665
0+50 N	305	113	214	3.1	360	37	1714
0+75 N	88	38	42	3.7	34	15	368
1+00 N	142	157	114	5.6	110	14	1013
1+25 N	292	139	97	7.2	20	37	240
1+50 N	225	138	90	4.8	38	51	225
1+75 N	128	108	76	2.9	4	57	408
2+00 N	145	58	42	5.3	3	58	908
2+25 N	89	172	80	7.8	230	43	1380
2+50 N	385	264	315	13.1	780	102	2844
2+75 N	315	137	348	5.9	470	79	1922
3+00 N	391	61	244	5.2	720	97	2170
ST-26	269	125	363	9.2	1380	24	1979
ST-27	170	38	138	.7	420	4	185
ST-28	226	142	391	3.3	620	8	146
ST-29	251	43	203	1.0	240	13	178
ST-30	394	44	310	.9	130	8	327
ST-31	201	21	162	.5	48	2	140
ST-32	191	38	222	.7	62	2	190
ST-33	204	100	203	1.4	570	1	300
ST-34	146	29	167	.4	46	1	138
ST-35	98	25	109	.5	27	2	160
ST-36	136	37	152	1.3	360	3	205
ST-37	160	53	164	1.1	240	2	280
ST-38	214	53	176	1.7	92	5	323



GEOLOGICAL BRANCH ASSESSMENT REPORT

23,553

SUMMIT I,2 GEO-COMPILATION LEGEND FIG. 4



- TERTIARY INTRUSIVE ROCK
  - 3 QUARTZ MONZONITE
- JURASSIC INTRUSIVE ROCK
  - 2 GRANODIORITE, K-SPAR PHENO.
- L. JURASSIC VOLCANICS & SEDS.
  - 1 ANDESITE / DACITE LITHIC/XTAL TUFF, MINOR SST,SLT, TUFF BX.

- OUTCROP
- CONTACT
- FAULT
- FOLIATION
- BEDDING
- VEIN
- CREEK

- 1994 SOIL
- ▲ 1994 SILT
- PRE 94 ROCK
- △ " " SILT
- " " SOIL