

ARIS SUMMARY SHEET

District Geologist, Smithers

Off Confidential: 94.10.14

ASSESSMENT REPORT 23102

MINING DIVISION: Skeena

PROPERTY: Summit  
LOCATION: LAT 56 12 00 LONG 130 05 00  
UTM 09 6228653 432783  
NTS 104B01E

CAMP: 050 Stewart Camp

CLAIM(S): Summit 1-3  
OPERATOR(S): Kikauka, A.  
AUTHOR(S): Kikauka, A.  
REPORT YEAR: 1993, 20 Pages

COMMODITIES

SEARCHED FOR: Copper, Lead, Zinc, Silver, Gold

KEYWORDS: Unuk River Formation, Volcanics, Sediments, Betty Creek Formation  
Volcanics, Sediments, Intrusives, Alteration, Quartz, Pyrite, Galena  
Sphalerite, Chalcopyrite, Tetrahedrite, Gold, Silver

WORK

DONE: Geological, Geochemical  
GEOL 200.0 ha  
Map(s) - 1; Scale(s) - 1:5000  
ROCK 26 sample(s) ;ME  
SILT 32 sample(s) ;ME

MINFILE: 104B

JUL 07 1994

Geological Survey Branch  
MEMPR

NOV 10 1993 RD.

NO:

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

LOG NO: JUL 07 1994 RD.

ACTION: *back from  
amendment*

FILE NO:

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

SKEENA MINING DIVISION

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**23,102**

by

Andris Kikauka, P.Geo.

Nov. 4, 1993

FILMED

TABLE OF CONTENTS

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

LIST OF FIGURES

- FIG. 1 GENERAL LOCATION MAP ✓
- FIG. 2 CLAIM LOCATION MAP ✓
- FIG. 3 GENERAL GEOLOGY ✓
- FIG. 4 PROPERTY GEOLOGY AND MINERALIZATION ✓

APPENDIX

- APPENDIX A GEOCHEMICAL ANALYSIS (STREAM SEDIMENT, SOIL, ROCK) ✓

## 1.0 INTRODUCTION

This report describes and evaluates the mineral potential on the Summit 1-3 claims. Field work consisted of geological mapping, stream sediment, and soil geochemistry carried out on August 13 and 20-23, 1993 by Andrie Kikauka (geologist), Jim Burdett, Marc Bombois, and Tom Bell (geotechnicians).

## 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. During periods of low water (Aug.-Dec.), the gravel flats along the 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 5-10 years), the Salmon Glacier will have receded enough to eliminate Summit Lake entirely. An alternate access is the Salmon Glacier where roads have been constructed using ice as roadbed material to get to the Outland Silver Bar property (adjacent to the Summit claims).

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, 95
Summit 2	18	314297	Oct.14, 92	Oct.14, 95
Summit 3	16	320143	Aug.12, 93	Aug.12, 95

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 original location of the crown granted claims.

## 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. 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 500 gamma 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.

#### 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

The shoreline of Summit Lake and edge of Salmon Glacier was surveyed over a distance of 5 kilometers to located outcrops and drainages. Geological mapping was performed at a scale 1: 5,000 and hip chains and compasses were used to survey outcrop and sample locations.

Rock chip samples were taken with hammer and moil across true width of exposed mineralization. Samples were shipped to Acme Labs, Vancouver for analysis.

25 stream sediment samples were taken with a shovel from a depth of 5-20 cm. from the active channel of streams that range from 0.1-50 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 and Pioneer Labs, Vancouver for analysis.

6 soil samples were taken at 50 meters intervals along a talus slope below mineralized cliffs. Samples were collected with grubhoes from a depth of 25-25 cm., placed in marked kraft envelopes, and dried. Samples were shipped to Pioneer Labs 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 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. Sample AK-8 assayed 0.2% Cu, 3.3% Pb, 0.1% Zn, 8.88 oz/t Ag, and 0.002 oz/t Au across a width of 22 cm. Samples AK-7, 9, and 10 were also taken along this mineralized quartz vein trend and gave good Pb-Zn-Ag values.

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% chalcopyrite 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. Quartz vein mineralization occurs within this major 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.

### 7.3 STREAM SEDIMENT GEOCHEMISTRY

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.

#### 7.4 SOIL GEOCHEMISTRY

Six soil samples were taken below rusty, iron stained cliffs 800 meters north of August Jack glacier along Summit Lake. Significant results are listed below:

SAMPLE NO.	PPM Cu	PPM Pb	PPM Zn	PPM Ag	PPB Au	PPM As	PPM Sb
SS-1	196	12	121	1.5	205	129	16
SS-2	162	15	116	6.7	240	912	91

These 2 samples were taken below a silicified zone that contains disseminated and fracture filling pyrite with traces of chalcopyrite.

#### 8.0 DISCUSSION OF RESULTS

The Unuk River Formation volcanics and sediments host most of the major mineral deposits in the Stewart mining district. Widespread mineralization and alteration are usually associated with these deposits. The geological setting and presence of widespread mineralization throughout the Summit claim group suggests there is potential for a major deposit.

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 rock chip and stream sediment sample results.

Geochemical anomalies are widespread whereas geophysical responses appear localized in distinct zones. This may reflect a considerable volume of base and precious metals are present throughout the widespread mineral zones. The geophysical anomalies may reflect massive to semi-massive sulphides and/or shear zones which are related to deposits of precious metals.

#### 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, EM 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

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.
- 3) Cliffs 800 meters north of August Jack glacier on the shoreline of Summit Lake.
- 4) Northeast trending quartz veins on the old Grey Copper crown grant claim.
- 5) Northwest trending quartz veins on the northeast portion of Summit 3.

REFERENCES

Alldrick, 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

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

ITEMIZED COST STATEMENT, SUMMIT CLAIMS  
August 13, 20-23, 1993, Skeena M.D.

FIELD CREW:

Andris Kikauka (Geologist)	\$	1,875.00
Jim Burdett, Marc Bombois (Geotechnicians)		1,750.00
Tom Bell (Geotechnician)		175.00

FIELD COSTS:

Meals and accommodation	960.00
Assays (20 rock, 24 silt, 6 soil)	1,000.00
Truck rental	580.00
Survey equipment, supplies	485.00
Mob/Demob	1,200.00
Communication	125.00
Report	700.00

Total= \$ 8,850.00

CERTIFICATE

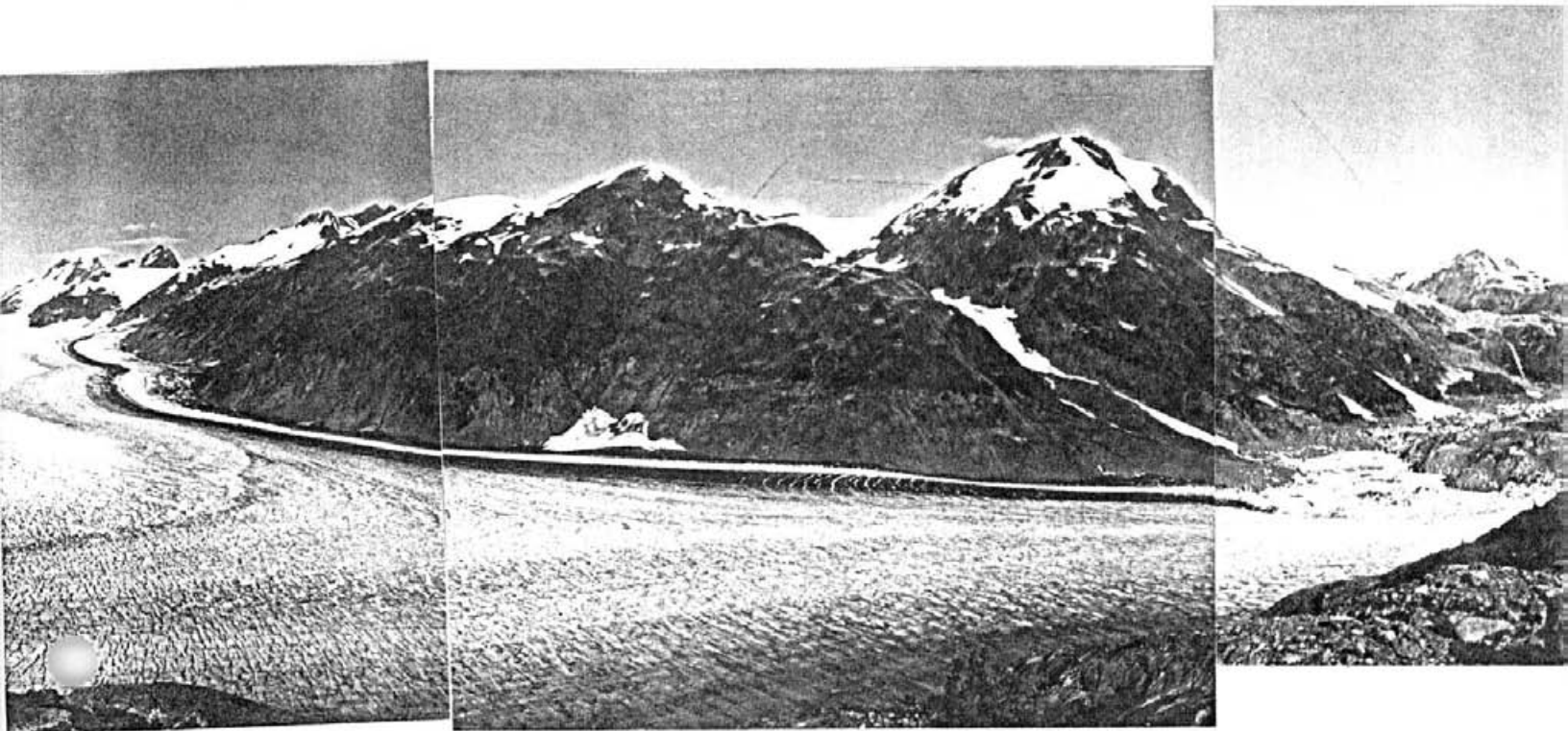
I, Andris Kikauka, of Box 370, Brackendale, B.C., hereby certify that;

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 and 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 and on published and unpublished literature and maps.
6. I have a direct interest with the ownership of the subject property.

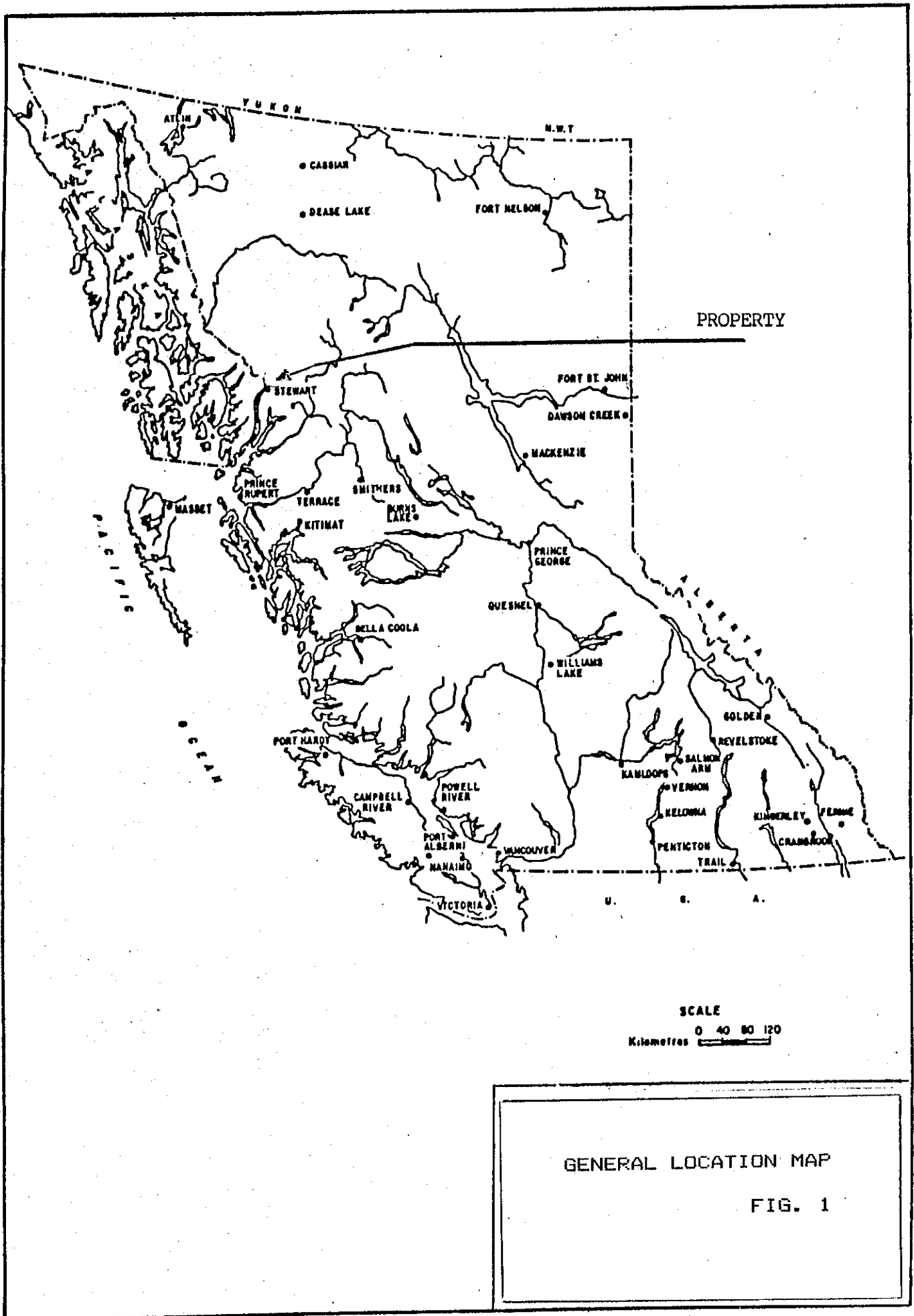
Andris Kikauka, P. Geo.,



Nov. 4, 1993



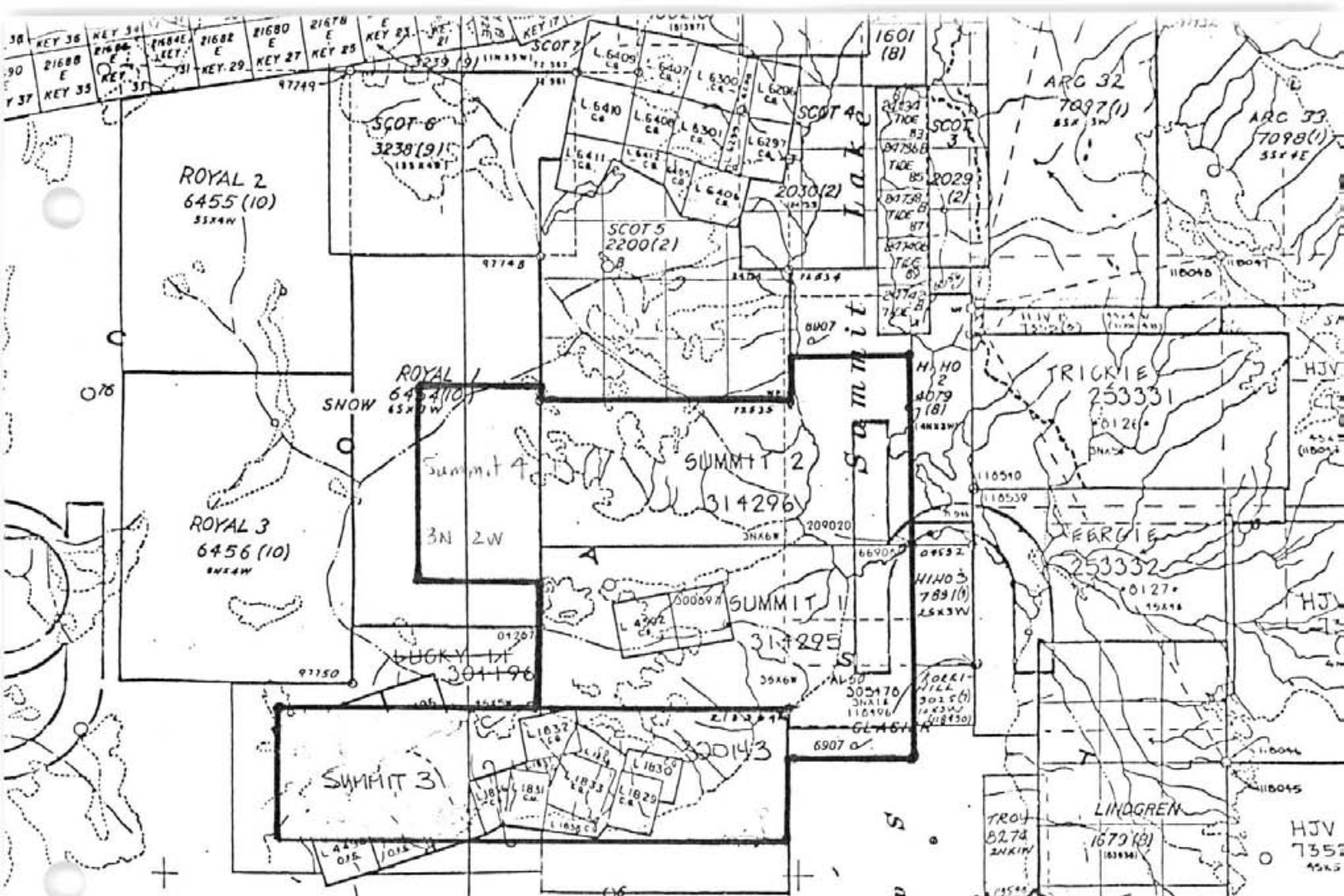
Summit claims looking northwest, Salmon Glacier in foreground, August Mountain to the left of and Summit Mountain to the right of August Jack Glacier, Scottie Gold Mine and Summit Lake (dry) in far right portion of photo.



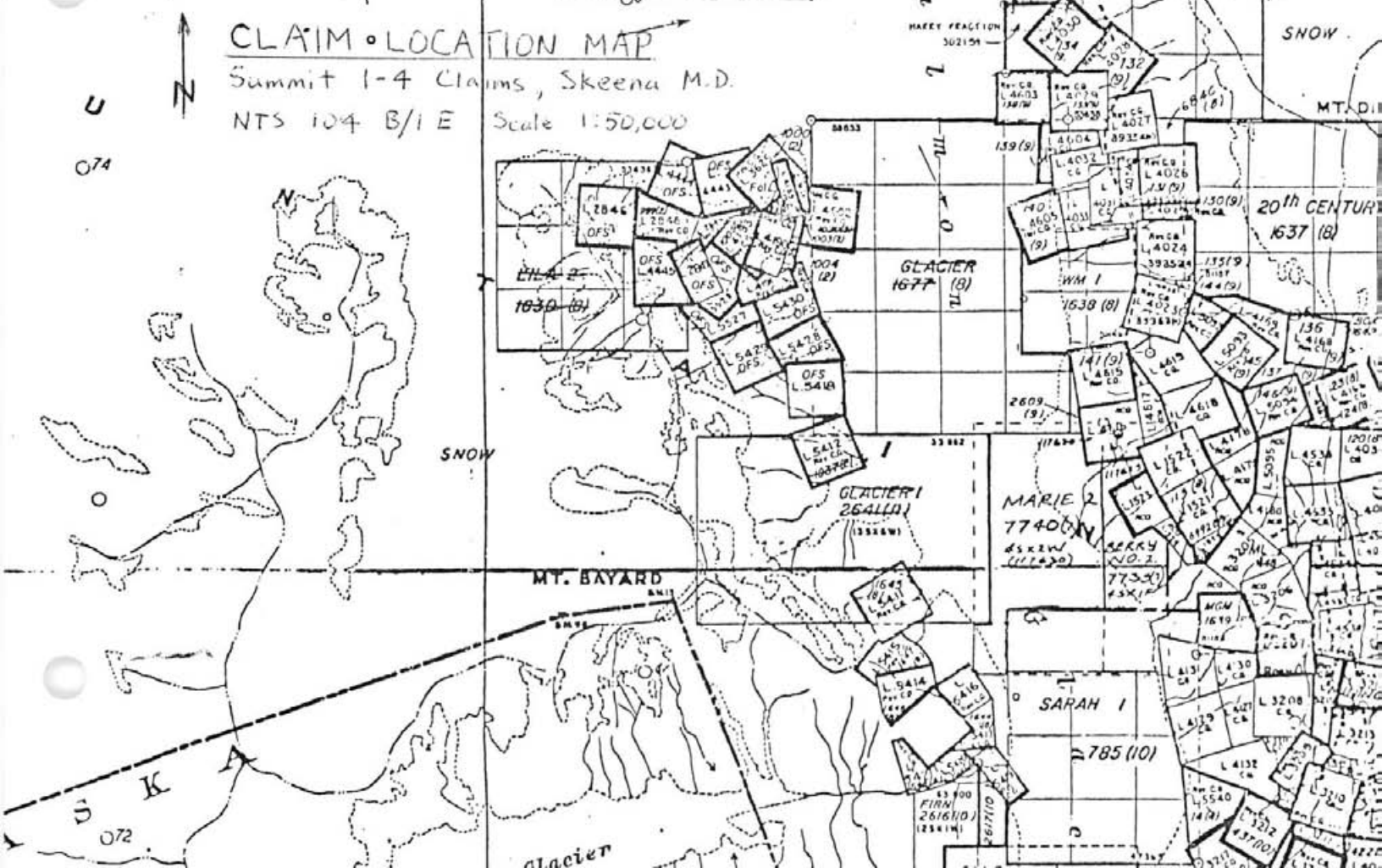
GENERAL LOCATION MAP

FIG. 1





**CLAIM • LOCATION MAP**  
 Summit 1-4 Claims, Skeena M.D.  
 NTS 104 B/1 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
- 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
- 2b 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



GEOCHEMICAL ANALYSIS CERTIFICATE



Navarre Resource Corp. PROJECT SUMMIT File # 93-2134

501-905 W Pender St., Vancouver BC V6C 1E6 Submitted by: Ardis Kikauka

SAMPLE#	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*
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	ppm	ppb
TB-1	3	79	121	173	1.1	21	18	703	8.33	31	<5	<2	<2	176	1.4	6	<2	21	4.94	.076	4	13	.75	40	.01	<2	1.09	.01	.11	<1	9
TB-2	11	22	140	219	6.5	5	3	56	16.03	768	<5	<2	<2	11	1.7	76	<2	<2	.15	.002	<2	5	.01	4<.01	<2	.03	.01	.02	1	1430	
TB-3	2	32	77	160	.4	9	12	625	3.68	10	<5	<2	<2	201	1.3	<2	<2	52	5.97	.052	2	22	.99	12	.14	<2	1.28	.02	.01	2	8
TB-4	1	31	55	91	2.0	10	9	74	5.04	110	<5	<2	<2	11	.7	31	<2	27	.25	.046	2	16	.04	31	.10	<2	.13	.02	.08	1	6
TB-5	6	86	434	254	7.2	13	10	198	4.33	643	<5	<2	<2	11	3.6	128	<2	63	.18	.051	2	50	.54	33	.06	2	.62	.01	.04	7	15
TB-6	1	40	46	63	.5	5	5	74	4.15	21	<5	<2	<2	14	.4	14	<2	13	.21	.120	4	8	.09	89<.01	3	.50	.01	.25	<1	11	
AK-1	2	802	9897	1681	68.8	6	44	87	18.54	671	<5	<2	<2	17	12.5	34	67	2	.02	.005	<2	6	.05	7<.01	2	.15	.01	.08	<1	70	
AK-2	1	1116	55	955	7.2	133	153	328	19.63	51	<5	<2	<2	51	10.8	45	<2	19	2.73	.003	<2	9	.53	7	.01	2	.52	.01	.01	<1	13
AK-3	2	78	35	75	.4	12	10	158	1.63	43	<5	<2	<2	8	.5	5	<2	39	.22	.043	2	43	.36	19	.10	<2	.40	.01	.03	2	3
AK-4	7	2366	950	681	18.8	13	35	2046	14.58	1776	<5	<2	<2	58	5.9	5	<2	36	1.98	.029	3	46	1.24	23	.05	<2	1.67	.01	.07	<1	400
AK-5	39	849	22908	31793	236.0	3	2	61	.72	119	<5	<2	<2	17	516.7	1565	<2	3	.05	.005	<2	8	.02	5<.01	<2	.04<.01	.02	2	67		
AK-6	8	13253	23073	95663	232.1	21	27	784	9.72	2297	<5	<2	<2	58	1467.4	3422	12	9	.09	.034	2	7	.04	19<.01	<2	.29	.01	.16	1	570	
AK-7	3	79	22050	740	36.5	14	14	2844	5.83	23	5	<2	<2	748	12.7	59	<2	42	7.16	.079	5	8	1.32	34<.01	<2	.09	.02	.07	<1	10	
AK-8	7	2124	32616	679	304.1	9	3	52	.66	<2	<5	<2	2	15	51.6	504	3	3	.09	.008	3	9	.02	14<.01	<2	.04<.01	.03	<1	22		
RE AK-8	7	2007	30642	650	282.6	9	2	48	.62	<2	<5	<2	<2	12	47.9	467	3	3	.07	.008	2	8	.01	12<.01	<2	.04<.01	.02	1	20		
AK-9	6	868	21331	27138	237.5	5	5	350	1.29	25	<5	<2	<2	80	491.4	382	2	10	.38	.019	2	6	.34	12<.01	<2	.29<.01	.01	2	290		
AK-10	11	284	9562	43835	19.3	9	8	869	2.44	39	<5	<2	<2	82	748.3	22	<2	27	.90	.023	4	13	.90	24<.01	<2	.61	.01	.05	2	83	
AK-11	2	2983	4084	7852	60.4	8	10	845	4.04	1294	<5	<2	<2	55	57.7	27	4	14	2.03	.010	<2	10	.17	11<.01	<2	.34<.01	.05	<1	98		
AK-12	5	11133	22330	86448	281.8	2	8	57	1.43	1178	<5	4	<2	32	1462.5	11816	12	3	.14	.022	2	8	.02	28<.01	<2	.06	.01	.03	1	4060	
AK-13	4	6501	18572	99999	179.9	5	14	106	3.73	904	<5	<2	<2	38	2441.8	6778	3	6	.26	.008	<2	5	.10	8<.01	<2	.08<.01	.02	1	500		
AK-14	4	57	324	234	5.0	19	14	121	18.73	152	<5	<2	<2	9	2.6	67	<2	39	.19	.032	<2	26	.17	5	.05	<2	.19	.01	.07	2	41
STANDARD C/AU-R	17	56	38	122	6.8	66	31	1053	3.96	37	20	7	35	52	18.6	13	17	54	.49	.086	39	60	.92	183	.09	32	1.88	.06	.14	11	470

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.

ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB

- SAMPLE TYPE: ROCK AU\* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE. Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: AUG 25 1993 DATE REPORT MAILED: Aug 30/93 SIGNED BY: C. Leong, J. Wang; CERTIFIED B.C. ASSAYERS

*Suggest Five Assay Ag Au for all high Pb*



GEOCHEMICAL ANALYSIS CERTIFICATE



Navarre Resource Corp. PROJECT SUMMIT File # 93-3799 Page 1  
 626 - 744 W. Hastings St., Vancouver BC V6C 1A5

AMPLE#	Ko	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	H	Au*
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	ppm	ppb	
ST-1	3	149	56	168	2.1	20	39	1218	7.23	125	5	ND	1	24	1.9	2	2	107	.57	.087	6	37	1.84	37	.12	2	2.35	.01	.05	1	120
ST-2	2	106	49	163	1.9	24	27	1193	4.94	79	5	ND	1	32	2.1	4	2	91	.68	.100	8	37	1.60	55	.11	2	1.99	.01	.05	1	130
ST-3	3	110	58	188	1.3	29	31	1415	5.81	81	5	ND	1	48	1.3	2	5	100	.73	.092	8	40	1.64	84	.11	3	2.52	.01	.07	1	75
ST-4	2	120	38	168	1.1	24	37	1288	6.62	75	5	ND	1	25	1.2	2	3	111	.63	.096	7	47	2.09	45	.12	2	2.60	.01	.06	1	80
RE ST-9	2	85	37	137	.9	23	18	908	4.37	61	5	ND	1	28	1.7	2	2	87	.63	.100	7	41	1.59	43	.11	2	1.87	.01	.05	1	240
ST-5	2	119	61	183	1.2	36	32	1290	5.52	94	5	ND	1	32	2.9	4	2	92	.61	.104	9	44	1.69	70	.10	2	2.27	.01	.07	1	63
ST-6	2	96	48	144	1.0	28	25	1129	4.82	72	5	ND	1	31	2.2	3	2	91	.62	.102	8	41	1.62	55	.11	2	1.99	.01	.05	1	800
ST-7	2	86	34	143	.7	31	26	1155	4.81	55	5	ND	1	24	2.1	2	2	87	.51	.089	7	47	1.73	37	.08	2	2.08	.01	.04	1	160
ST-8	2	75	38	135	.7	28	24	1075	4.83	64	5	ND	1	22	1.9	2	4	83	.51	.089	6	45	1.68	35	.09	2	2.06	.01	.04	1	97
ST-9	1	75	39	134	.8	25	20	893	4.28	57	5	ND	1	29	1.1	2	2	86	.64	.099	7	37	1.57	50	.11	2	1.87	.01	.05	1	110
ST-10	1	56	19	114	.6	16	18	767	4.28	36	5	ND	1	21	.4	2	2	76	.56	.092	6	33	1.48	31	.09	2	1.82	.01	.03	1	36
ST-11	1	96	19	131	.8	15	30	986	6.26	92	5	ND	1	31	1.4	3	5	112	.63	.130	7	41	2.10	30	.13	2	2.38	.01	.05	1	60
STANDARD C/AU-S	18	58	39	131	7.6	71	31	1053	3.96	42	22	7	36	52	18.6	14	21	56	.50	.087	39	60	.94	182	.09	35	1.88	.06	.14	11	49

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 IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM. ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB. - SAMPLE TYPE: P1 SILT P2 ROCK AU\* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE. Samples beginning 'RE' are duplicate samples.

DATE REPORT MAILED: *Nov 2, 93* SIGNED BY *[Signature]* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

ACME ANALYTICAL TD 684-5135 P.002/003

GEOCHEMICAL ANALYSIS CERTIFICATE

Multi-element ICP Analysis - .500 gram sample is digested with 3 ml of aqua regia, diluted to 10 ml with Water. This leach is partial for Mn, Fe, Ca, P, La, Cr, Mg, Ba, Ti, B, W and limited for Na, K and Al. Detection limit for Au is 3 ppm.  
 \*Au Analysis- 10 gram sample is digested with aqua regia, MIBK extracted, graphite furnace AA finished to 1 ppb detection.

Analyst \_\_\_\_\_  
 Report No. 9360562  
 Date: August 31, 1993

NAVARRE RESOURCES CORP.  
 Project: Summit Project  
 Sample Type: Soils/Stream Seds.

ELEMENT SAMPLE	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*
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppb
ST-12	1	51	15	105	.4	16	10	695	3.37	64	5	ND	2	42	.8	3	5	89	1.20	.081	6	31	1.52	18	.07	2	1.53	.01	.04	1	15
ST-13	1	69	19	87	.4	18	14	639	3.88	48	5	ND	2	42	.7	2	2	74	1.25	.088	6	24	1.28	43	.14	2	1.54	.01	.03	1	25
ST-14	14	160	57	142	2.1	15	21	911	6.22	201	5	ND	2	23	1.1	10	2	89	.51	.089	7	44	1.57	38	.10	2	1.84	.01	.04	1	420
ST-15	49	343	329	546	9.1	21	40	1442	10.91	1264	5	ND	2	17	5.2	32	3	70	.36	.095	12	41	1.39	64	.04	2	1.69	.01	.07	2	260
ST-16	49	377	77	356	3.7	18	33	1284	9.94	531	5	ND	2	23	3.9	26	3	86	.37	.091	8	39	1.45	60	.09	2	1.88	.01	.05	5	295
ST-17	19	302	122	220	3.2	31	68	1981	9.08	298	9	ND	2	19	1.6	24	2	105	.34	.118	11	46	1.38	45	.12	2	1.98	.02	.07	2	195
ST-18	40	362	350	555	11.3	19	38	1613	9.70	1607	10	ND	2	14	4.6	35	4	69	.34	.091	14	40	1.16	61	.03	2	1.45	.01	.08	7	490
ST-19	62	723	77	159	3.7	9	66	2027	11.61	568	10	ND	2	26	.4	36	2	93	.21	.138	37	18	1.18	44	.08	2	2.21	.01	.07	4	610
ST-20	89	517	302	374	11.6	14	51	2883	21.31	2389	8	ND	2	26	.5	65	2	60	.55	.087	15	13	1.38	82	.01	2	2.17	.01	.07	1	490
ST-21	15	253	285	638	5.8	19	53	4568	13.66	1493	5	ND	2	16	7.0	38	15	71	.35	.107	15	23	1.52	109	.04	2	2.28	.01	.07	2	205
ST-22	14	287	311	526	8.8	17	46	2470	11.72	1259	5	ND	2	17	5.3	31	6	68	.30	.097	12	19	1.19	76	.04	2	1.86	.01	.08	4	280
ST-23	14	225	389	697	3.7	14	70	3917	12.98	1033	8	ND	2	12	4.2	22	5	83	.12	.105	11	21	.82	44	.05	2	2.63	.01	.08	1	190
ST-24	9	235	199	297	4.9	17	32	1644	9.34	572	5	ND	2	26	2.2	12	2	122	.42	.123	11	17	1.57	34	.02	2	1.97	.01	.05	1	58
ST-25	4	163	135	262	5.6	23	30	1251	8.59	631	5	ND	2	27	2.0	14	2	96	.45	.096	10	27	1.67	37	.06	2	1.98	.02	.06	1	180
SS-1	1	196	12	121	1.5	25	52	2465	8.29	129	5	ND	2	24	.7	16	2	70	.33	.101	11	55	1.66	87	.01	2	2.82	.01	.08	1	205
SS-2	3	162	15	116	6.7	17	67	1588	13.10	912	5	ND	2	12	.3	91	2	186	.13	.165	8	71	1.27	88	.03	2	2.64	.01	.09	37	240
SS-3	2	76	9	64	1.7	9	23	1340	5.35	50	5	ND	2	13	.2	10	2	131	.20	.151	6	66	1.05	51	.03	2	1.75	.01	.04	3	16
SS-4	1	97	9	87	.8	14	42	1706	6.47	130	5	ND	2	62	.3	10	2	155	.97	.100	10	69	1.25	55	.04	2	2.53	.01	.03	12	40
SS-5	2	105	6	33	.2	7	9	103	3.37	29	5	ND	2	18	.2	6	2	42	.27	.133	5	28	.16	65	.02	3	.87	.01	.04	2	1
SS-6	5	128	17	74	1.4	12	21	1443	9.47	125	5	ND	2	9	.2	17	3	141	.09	.142	16	70	1.01	48	.04	2	2.58	.01	.03	3	45