GEOLOGICAL, GEOCHEMICAL AND GEOPHYSICAL REPORT

on the

TAS 1 and 2 CLAIMS

Copper Mountain Area
Similkameen Mining Division

92H-8W
(49°18' N. Lat., 120°28' W. Long.)

for

GRANT F. CROOKER
Box 404
Keremeos, B.C.
V0X 1N0
(Owner and Operator)

by

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May, 1992

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SUMMARY AND RECOMMENDATIONS

The Tas claims are located approximately 17 kilometers south of Princeton and 3 kilometers east of Copper Mountain in southern British Columbia. The property consists of 2 modified grid claims covering 40 units in the Similkameen Mining Division and is owned by Grant Crooker of P.O. Box 404, Keremeos, B.C., V0X 1N0.

The Copper Mountain area has been the scene of copper exploration since the 1880's and has been a significant producer of copper. Copper Mountain was operated as an underground mine by the Granby Consolidated Mining, Smelting and Power Company Limited during two periods of time, from 1926 to 1930, amd from 1937 to 1957. During this time 34,775,101 tons of ore were processed producing 613,139,846 tons of copper, 187,294 ounces of gold and 4,384,097 ounces of silver.

The camp lay dormant until 1966 when Granby resumed exploration at Copper Mountain and Newmont Mining Corporation initiated exploration at the Ingerbelle Property on the west side of the Similkameen River. In 1967 Newmont purchased Copper Mountain from Granby and by 1969 had outlined two ore bodies at Copper Mountain as well as the Ingerbelle orebody. The mine commenced production by open pit methods in 1972 and has been in continuous production since that time. At present approximately 23,000 tons of ore is being milled per day at a grade of 0.44% copper with recoverable values in gold.

The most important ore deposits at Copper Mountain and Ingerbelle are spatially and, it is believed genetically associated with late phases of the Copper Mountain intrusions, the most productive of which are the Lost Horse suite. The ore deposits, whether in volcanic or intrusive rocks are associated with zones of extensive and locally intense wallrock alteration which includes development of biotite, albite, epidote, pyroxene, actinolite, potash feldspar and scapolite.

Numerous faults cut intrusive and volcanic rocks at Copper Mountain. It is believed these faults originated before the main period of mineralization and played an important part as ore controls, probably acting as avenues along which much of the ore bearing solutions moved.

A considerable amount of work has been carried out on the area covered by the Tas claims by previous operators. During the early 1970's two grids were established and geological mapping, prospecting, soil geochemical sampling and magnetometer and Induced Polarization surveying carried out.

These programs outlined a number of soil geochemical anomalies, Induced Polarization chargeability anomalies and sulphide showings. Minor amounts of chalcopyrite were found at several locations. The geological mapping indicated a large portion of the area is underlain by diorite of the Copper Mountain intrusive complex. This intrusive complex is a favourable environment for copper mineralization.

The present owner staked the Tas claims in May of 1991 and carried out silt sampling over all drainages on the property. A small grid was also established and geological mapping, prospecting and magnetometer and VLF-EM surveying were carried out over the grid.

The 1991-1992 program gave a number of positive results. The silt sampling program gave seven samples that were anomalous in copper (≥90 ppm). These samples all drain from the north-central portion of the Tas-1 claim.

The geological mapping on the four grid lines showed the area to be underlain by rocks of the Copper Mountain intrusions. The rocks are mainly diorite of the Copper Mountain stock, although several outcrops appear to belong to the Lost Horse Group.

The magnetometer survey indicated a number of magnetic highs and lows. The most significant of these appears to be an oval shaped magnetic high feature approximately 200 meters by 300 meters in size. This magnetic high may be caused by magnetic minerals such as magnetite or pyrrhotite, possibly occurring in a breccia pipe. Copper minerals such as chalcopyrite may occur with these magnetic minerals.

A number of north trending, weak to strong VLF-EM conductors were delineated, but no cause is apparent for most of them.

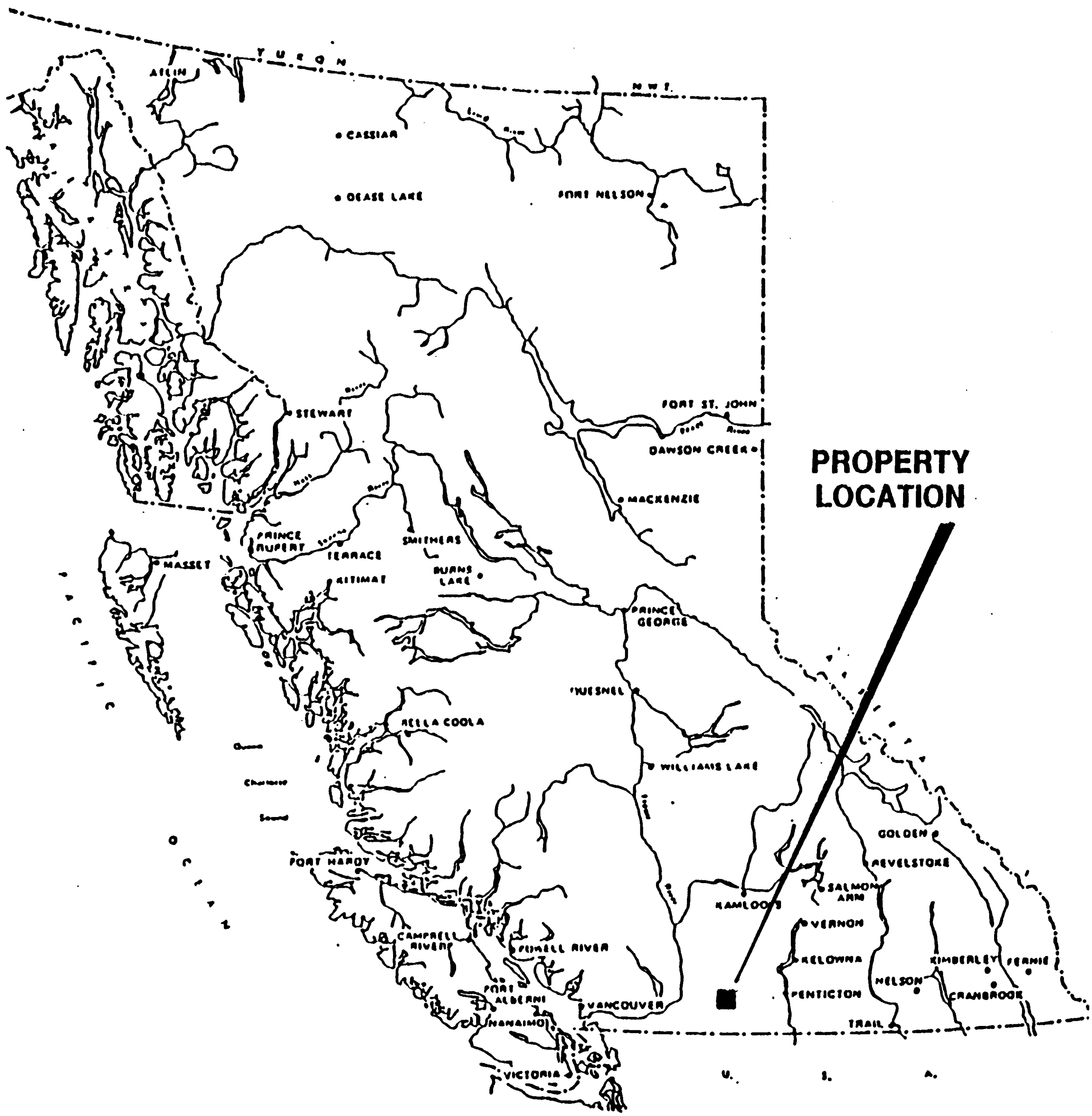
Recommendations are as follows:

1) The grid should be expanded over the property, initially in areas believed to be underlain by Copper Mountain intrusives or in areas with anomalous copper soil geochemical values from the 1970's surveys.

2) The expanded grid should be soil sampled, geologically mapped, prospected and geophysically surveyed by magnetometer and VLF-EM.

Respectfully submitted,

Grant Crooker, B.Sc., P.Geo.
Consulting Geologist



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TAS CLAIMS

LOCATION MAP

N.T.S. 92H-8W SIMILKAMEEN M.D., B.C.

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SCALE:	PROJECT:	FIGURE NO.: 1

1.0 INTRODUCTION

1.1 GENERAL

Work was carried out on the Tas claims from June 3, 1991 to May 23, 1992 by Grant Crooker, geologist and Lee Mollison, field assistant.

This program consisted of silt sampling the major drainages, chain and compass surveying of new roads, establishing four grid lines and carrying out geological mapping, prospecting, magnetometer and VLF-EM surveying on the grid lines.

1.2 LOCATION AND ACCESS

The property (Figure 1) is located approximately 17 kilometers south of Princeton and 3 kilometers east of Copper Mountain in southern British Columbia. The property lies between 49° 16' 45" and 49° 18' 55' north latitude and 120° 27' 30" and 120° 29' 35" west longitude (NTS 92H-8W).

Access to the property is via the paved Copper Mountain road, turning south off Highway 3 at Princeton. From the Copper Mountain road one turns onto the Wolfe Creek logging road which is a good gravel road. Branches of the Wolfe Creek road give good access to all areas of the peoperty.

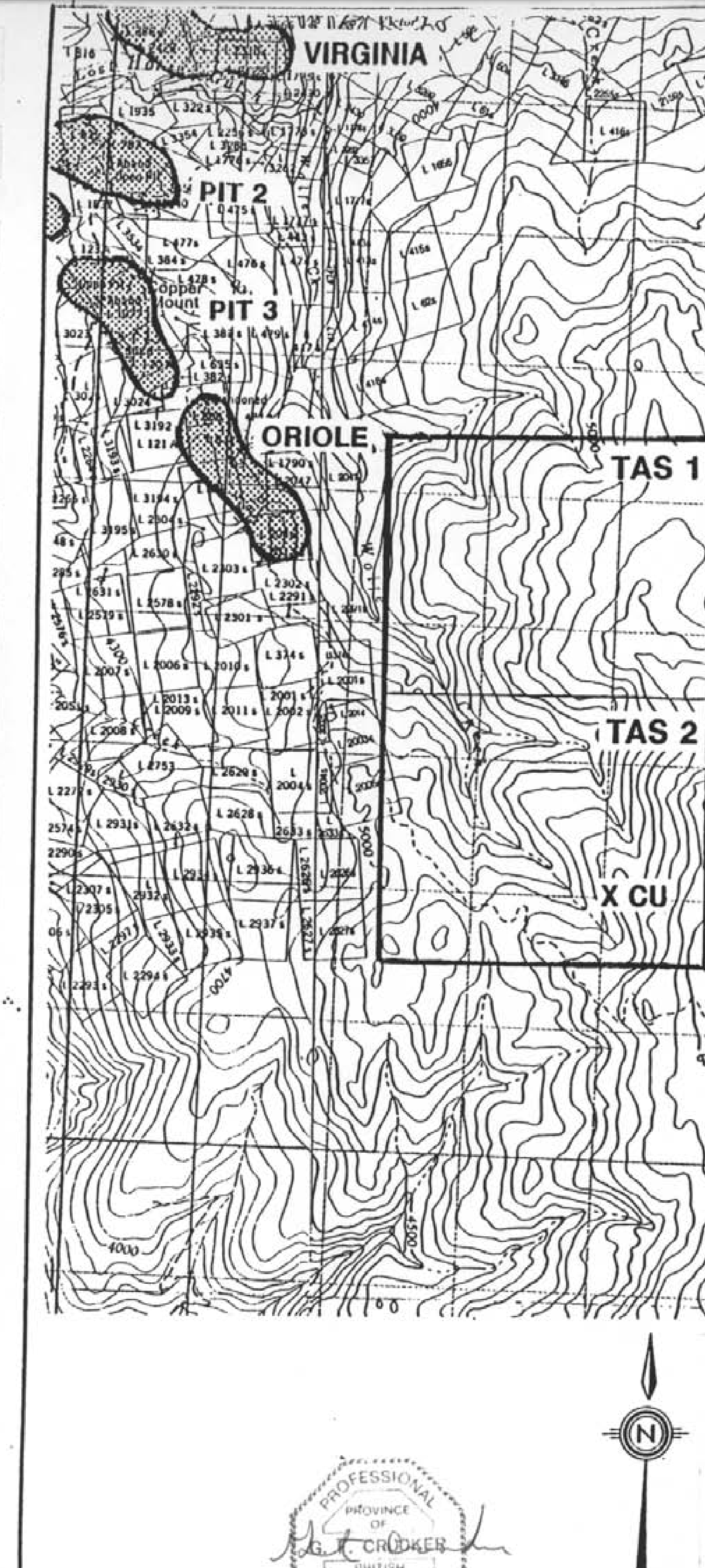
1.3 PHYSIOGRAPHY

The Tas claims lie within the Thompson Plateau. Elevation is quite high, varying from 1220 to 1830 meters above sea level. Topography is generally moderate to steep although it becomes gently rolling along the ridges.

Wolfe Creek flows in a northerly direction through the claims and has a good flow of water all year round. Several branches of Wolfe Creek drain the property from the east. Vegetation consists of mainly mature jack pine with some spruce in the wetter areas. Heavy deadfall is prevalent in many areas and a significant portion of the area has been logged.

1.4 PROPERTY AND CLAIM STATUS

The Tas claims (Figure 2) are owned by Grant Crooker of Keremeos, B.C.. The property consists of two modified grid claims covering 40 units located in the Similkameen Mining Division.



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TAS CLAIMS

CLAIM MAP

N.T.S. 92H-8W SIMILKAMEEN M.D., B.C.

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SCALE:	PROJECT:	FIGURE NO.: 2

Claim	Units	Mining Division	Tenure No.	Record Date	Expiry Date
Tas-1	20	Princeton	250128	05/24/91	05/24/95*
Tas-2	20	Princeton	250129	05/25/91	05/25/95*

*Upon acceptance of this report.

1.5 AREA AND PROPERTY HISTORY

The Tas claims are located approximately 3 kilometers southeast of Copper Mountain. Copper Mountain has had a long history of mining and has been a major producer of copper. Over 500,000 ounces of gold have also been produced.

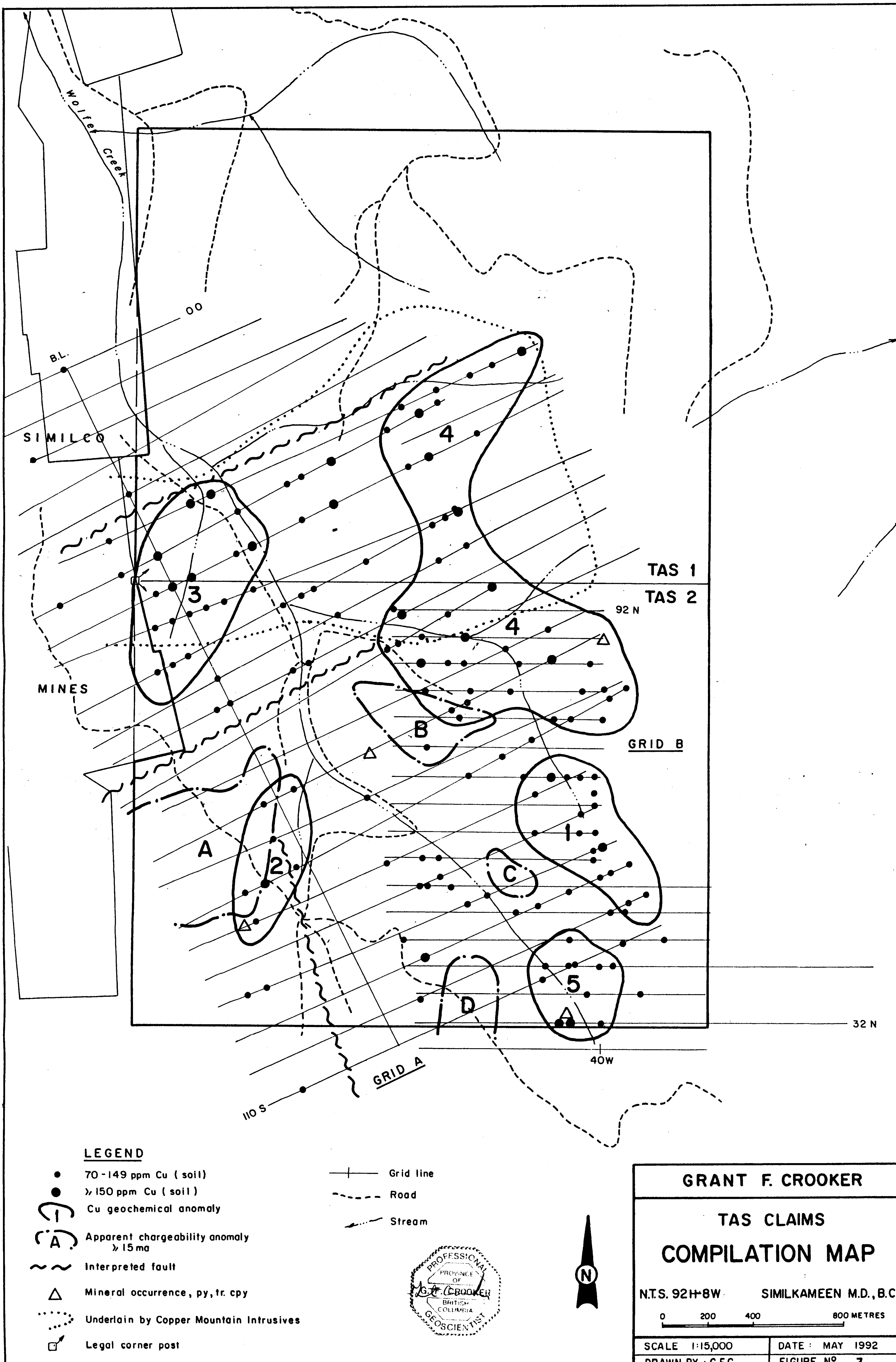
Copper was apparently first discovered at Copper Mountain in 1884 by a trapper named Jameson. However little work was carried out in the area until Volcanic Brown located the Sunset claim in 1892. From 1892 until 1923 exploration was carried out in many areas of the Camp. During the latter stages of World War I a concentrator was built at Allenby and a railline was built from Princeton to Allenby and thence to Copper Mountain. However no copper was produced during this time.

In 1923 The Granby Consolidated Mining, Smelting and Power Company Limited acquired the property and re-organized the concentrator and mine plants. Production did not begin until early in 1926 and continued until 1930. The mine was shut down until 1937 when production resumed and continued until 1957 when the mine was again closed. To the end of 1957 the concentrator treated 34,775,101 tons of ore producing 613,139,846 pounds of copper, 187,294 ounces of gold and 4,384,097 ounces of silver. Most of this production was from underground operations.

Little work was carried out in the area from 1957 to 1965. However in 1966, extensive trenching and drilling was carried out by The Granby Mining Company Limited at Copper Mountain, Newmont Mining Corporation of Canada Limited on the Ingerbelle property west of the Similkameen River and Cumont Mines Limited on its holdings in the vicinity of Copper Mountain.

In December 1967, Newmont purchased all of the Granby holdings in the Copper Mountain area and carried out large scale exloration on both properties. By the end of 1969, one large scale zone of low grade copper mineralization was outlined on the Ingerbelle property and two zones on Copper Mountain. In June 1970 Newmont gave official notice of its intention to put the properties into production.

The property entered production by open pit methods in 1972 and has been in continuous production since that time. The present owner


Wolfe Creek
00
B.L.
SIMILCO
MINES
TAS 1
TAS 2
92 N
GRID B
GRID A
110 S
32 N
40W
A
B
C
D
1
2
3
4
4
5
LEGEND
70 - 149 ppm Cu (soil)
≥ 150 ppm Cu (soil)
Cu geochemical anomaly
Apparent chargeability anomaly ≥ 15 ma
Interpreted fault
Mineral occurrence, py, tr. cpy
Underlain by Copper Mountain Intrusives
Legal corner post
Grid line
Road
Stream
PROFESSIONAL
PROVINCE OF
G.F. CROOKER
BRITISH COLUMBIA
GEOSCIENTIST
N
GRANT F. CROOKER
TAS CLAIMS
COMPILATION MAP
N.T.S. 92H-8W
SIMILKAMEEN M.D., B.C.
0 200 400 800 METRES
SCALE 1:15,000
DATE : MAY 1992
DRAWN BY : G.F.C.
FIGURE No. 3
CHONG

is Similco Mines Limited and production is in the order of 20,000 tons per day with a mill head grade of 0.44% copper and recoverable gold values. Efforts are currently underway to extend the mine life past the year 2000.

A considerable amount of work was carried out in the area covered by the Tas claims during the early 1970's. This work consisted of geological mapping, prospecting, geochemical soil sampling and geophysical surveying (magnetometer and Induced Polarization). Bulldozer trenching by previous operators is mentioned in the assessment reports from the early 1970's but no information is available on that work.

During 1971 Coin Canyon Mines Ltd. carried out soil geochemical sampling and magnetometer and Induced Polarization geophysical surveying on the "Y" claims. The work was carried out over the area indicated by grid A on figure 3. Approximately 149,000 feet of grid was blazed and surveyed. The baseline runs in a north northwesterly direction with 23 crosslines at right angles to the baseline. Lines are 500 feet apart with stations marked every 100 feet along the lines.

Soil samples were collected every 250 feet along the lines and the samples were analyzed for copper. The frequency distribution indicated background to be 50 ppm copper and values 75 ppm and greater were considered anomalous. Four general copper anomalies were outlined by the survey (Figure 3, Anomalies #1 to #4).

It should be pointed out at this time that most of the property is overlain by a mantle of glacial drift. Preto examined 26 drill holes from the Copper Mountain area and found the glacial drift to have an average thickness of 14.5 feet with a maximum of 33 feet. Clay layers several feet in thickness are often intercalated with various other types of drift.

Anomaly #1 is 2500 feet long by 1000 feet wide and values range from 70 ppm to 315 ppm copper. The Phelps Dodge geochemical survey also confirms this anomaly. Follow up prospecting found the anomaly coincidental with a swampy area and no outcrop was found in the area.

Anomaly #2 is a linear shaped anomaly 2000 feet long by 800 feet wide with values ranging from 70 ppm to 190 ppm copper. The western portion of the geochemical anomaly overlaps Induced Polarization chargeability anomaly A. Old bulldozer trenches at the south end of the anomaly exposed outcrop of bedded andesite volcanics composed of massive fragmentals, crystal tuffs and tuffaceous argillites. A large portion of the volcanics have been silicified and chloritized. From 2% to 5% finely disseminated pyrrhotite and pyrite with trace amounts of chalcopyrite is found throughout this altered zone.

Anomaly #3 is some 2500 feet long by 1500 feet wide with values ranging from 70 ppm to 275 ppm copper. Outcrop exposed along the baseline is altered diorite related to the Copper Mountain intrusives. The intrusive is only weakly mineralized with less than 1% pyrite.

Anomaly #4 is a large anomaly 5500 feet long and up to 3000 feet wide with values ranging from 70 ppm to 850 ppm copper. The southern portion of this anomaly is also outlined by the Phelps Dodge geochemical survey. Trace amounts of chalcopyrite along with 1% to 2% pyrite were found associated with chloritic and feldspathic alteration at the southeastern corner of the anomaly and west of the anomaly. A large portion of this anomaly appears to be underlain by diorite of the Copper Mountain intrusive complex.

Magnetometer and Induced Polarization surveys were also carried out over portions of the grid. The magnetometer survey was carried out over 16 line miles of the grid with readings taken every 100 feet on every second line (1000 feet spacing). A number of magnetic highs and lows were outlined and further information can be obtained from the pertinent assessment report.

The Induced Polarization survey was carried out over 6.7 line miles of the grid with the lines spaced 1000 feet apart. The survey was only carried out over the southern portion of the grid and not over the northern portions which are underlain by the Copper Mountain intrusions. Four areas (Figure 3, A, B, C, D) showed chargeability responses greater than 15 milliseconds.

Anomaly A is a broad anomaly showing peak responses of 36 and 35 milliseconds and overlaps the western section of geochemical anomaly #2. The apparent resistivity values range from 175 to 1000 ohms meters with the largest portion lying within the 400 to 600 ohm meter range.

Anomaly B is partially outlined by the 15 millisecond contour and was not closed off to the north and east. It occurs along the southern portion of geochemical anomaly #4 and appears to be striking in a northerly direction into the geochemical anomaly. Disseminated pyrite was observed in an outcrop west of the anomaly. A low to intermediate range of apparent resistivity values correlate with the chargeability anomaly.

Anomaly C is a small three station anomaly occurring west of geochemical anomaly #1. No further information is available on this anomaly.

Anomaly D is also a small anomaly occurring along the most southerly line surveyed and open to the south. This anomaly was confirmed by the limited amount of Induced Polarization survey carried out by Phelps Dodge. Resistivity values are in the order of 500 to 1350 ohm meters. Bulldozer trenching has been carried out in this area by previous operators. The trenching exposed highly fractured, broken and bleached andesite. Approximately 1000 feet east of the anomaly two soil samples gave 340 and 440 ppm copper, and subsequent prospecting located an outcrop with finely disseminated chalcopyrite. An assay of this material gave 697 ppm copper.

During 1973 Phelps Dodge Canada Ltd. carried out geological mapping, prospecting, soil geochemical sampling and a limited amount of magnetometer and induced polarization surveying on the "Rb, Tas and Tat" claims. The soil smpling and geophysics was carried out over the area indicated by Grid B while the geological mapping was carried out over both Grid A and Grid B.

Approximately 19.5 miles of grid were cut and flagged on grid B. The baseline runs north-south and 16 crosslines were ran at right angles to the baseline. Lines are 400 feet apart with stations marked at 200 feet intervals.

Soil samples were collected at 200 feet intervals along the lines and analyzed for copper. The most highly anomalous values from the soil geochemical survey came from the area of anomaly #5 with values of 340 ppm and 414 ppm copper. This anomaly is about 1500 feet long by 1500 feet wide. Copper mineralization consisting of finely disseminated chalcopyrite (697 ppm copper) was found in this area.

Only 1.3 miles of Induced Polarization survey was carried out over the grid. A small chargeability high was located at Anomaly D. This anomaly was found by both of the Induced Polarization surveys.

Geological mapping was carried out over both grids by Phelps Dodge. This mapping indicated an area 8000 feet long by 4500 feet wide is underlain by diorite of the Copper Mountain intrusions. A number of areas as shown on figure 3 show varying degrees of alteration and pyrite with minor amounts of chalcopyrite.

2.0 EXPLORATION PROCEDURE

Grid co-ordinate 10000N and 10000E was established where B Creek, a westerly flowing tributary of Wolfe Creek confluences Wolfe Creek. A baseline was then established 1000 meters north and south of this point. Lines 10000N through 10300N were then established off the baseline.

GRID PARAMETERS

-baseline direction N-S
-survey lines perpendicular to baseline
-survey line separation 100 meters
-survey station spacing 25 meters, slope corrected
-survey total - 11.7 kilometers
-declination 21°

GEOCHEMICAL SURVEY PARAMETERS

-survey totals - 31 silt samples
- 4 pan concentrate samples
-all samples analyzed by 31 element ICP and Au
-silt samples sieved to minus 20 mesh in the field

All samples were sent to Mineral-Environments Laboratories, 705 West Fifteenth Street, North Vancouver, B.C., V7M 1T2, for analysis. Laboratory technique for silt samples consists of preparing samples by drying at 95° C and sieving to minus 80 mesh.

A 31 element ICP analysis and gold analysis were carried out on all samples. The gold analysis consists of aqua-regia digestion, atomic adsorption finish. Sensitivity for gold is to 5 ppb.

The silt geochemical data was plotted on figure 5 at a scale of 1:5000.

GEOPHYSICAL SURVEY PARAMETERS

TOTAL FIELD MAGNETIC SURVEY

-survey line spacing 100 meters
-survey station spacing 25 meters
-survey total - 10.7 kilometers
-instrument - Scintrex MP-2 magnetometer
-measured total magnetic field in nanoteslas (gammas)
-instrument accuracy ± 1 nanotesla

Readings were taken along the baseline to obtain standard readings for all baseline stations. All loops ran off the baseline were then corrected to these standard values by the straight line method. The operator faced north for all readings.

The total field magnetic data was plotted on figure 6 at a scale of 1:5000 and the data listed in Appendix III.

VLF-EM SURVEY

-survey line spacing 100 meters
-survey station spacing 25 meters
-survey totals - 9.7 kilometers
-instrument - Geonics EM-16
-transmitting station - Seattle - 24.8 Hhz.
-direction faced - southeasterly
-in-phase (dip angle) and out-of-phase (quadrature) components measured in percent at each station.

The VLF-EM profiles were plotted on figure 7 at a scale of 1:5000 and the data listed in Appendix III.

3.0 GEOLOGY AND MINERALIZATION

3.1 REGIONAL GEOLOGY

The Tas claims are located within the Intermontane Belt of southern British Columbia, immediately southwest of Copper Mountain (figure 4).

The oldest rocks in the area are Upper Triassic Nicola Group volcanic and sedimentary rocks. These rocks are composed mainly of basaltic andesite flows and pyroclastic rocks with greywacke and argillite.

The central portion of the area is underlain by intrusive rocks of the Copper Mountain intrusions. These intrusions consist of the Copper Mountain, Smelter Lake and Voigt stocks. The Copper Mountain stock covers approximately 6.5 square miles and is a concentrically differentiated intrusion, elliptical in plan, the long axis of which strikes north 60° west and is approximately 4 miles long. The Smelter Lake stock occupies less than 1 square mile while the Voigt stock occupies approximately 3.2 square miles.

The Lost Horse complex is also part of the Copper Mountain intrusions and consists of intrusive rocks ranging in composition from diorite to syenite and generally having a porphyritic texture. They are believed to be later phases of the Copper Mountain stock and occur as a complex of dykes, sills and irregular bodies.

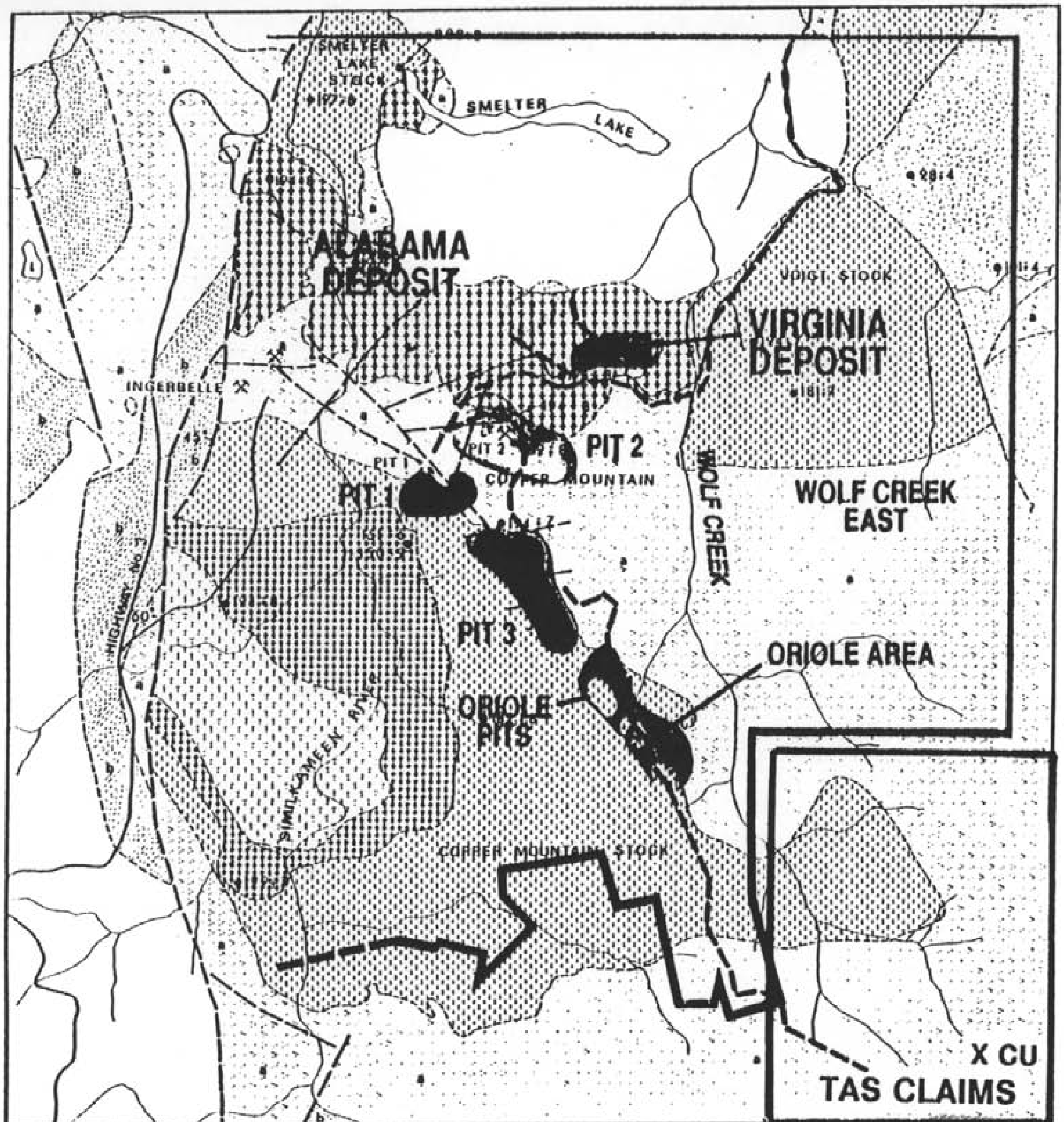
The northeastern portion of the area is underlain by a body of Lower Cretaceous biotite-hornblende quartz monzonite called the Verde Creek quartz monzonite.

All of the above intrusive, volcanic and sedimentary rocks are cut and unconformably overlain by intrusive, volcanic and sedimentary rocks of the Middle Eocene Princeton Group.

A large number of faults occur in the map area, most in the Copper Mountain-Ingerbelle area. They have been divided into the east-west faults, the "Mine breaks", northwest faults, northeast faults, and Boundary fault.

The east-west faults, which dip steeply north appear to be relatively old, and to have originated in pre-mineralization time. Later dilation in tertiary time is indicated, as some of the faults are followed by Tertiary dykes. These faults may have acted as channelways for mineralizing solutions as they are centrally located to some of the ore bodies at Copper Mountain and Ingerbelle.

The "Mine breaks" are a system of faults which trend slightly north of east with northerly dips of 60° and occur near the old Copper



GENERALIZED GEOLOGY OF THE COPPER MOUNTAIN AREA

0 — 1 Mile
0 — 2 Km

MIDDLE EOCENE
PRINCETON GROUP
ANDESITIC VOLCANIC ROCKS
LOWER CRETACEOUS
VERDE CREEK QUARTZ MONZONITE
UPPER TRIASSIC
COPPER MOUNTAIN INTRUSIONS
LOST HORSE COMPLEX
PORPHYRITIC MICRODIORITE TO MICROSYENITE AND PORPHYRY BRECCIA
COPPER MOUNTAIN, VOIGT AND SMELTER LAKE STOCKS
PERTHOSITE PEGMATITE
MONZONITE
DIORITE
NICOLA GROUP
(a) ANDESITIC VOLCANIC ROCKS
(b) SEDIMENTARY ROCKS
SAMPLE LOCATION AND AGE IN M.Y. ...... ●101±4

PROFESSIONAL GEOSCIENTIST, PROVINCE OF BRITISH COLUMBIA, G. F. CROOKER

GRANT F. CROOKER

TAS CLAIMS

AREA GEOLOGY

N.T.S. 92H-8W SIMILKAMEEN M.D., B.C.

DRAWN BY: GC	DATE: MAY 92	DRAWING No.:
SCALE:	PROJECT:	FIGURE No.: 4

Mountain mine area. Though unmineralized themselves they have been condidered to be ore controls by mine staff and are probably related to old structures as suggested by their relation to mineralization. These faults may be related to the east-west faults, although they are of slightly different attitude.

The main Copper Mountain fault is the most important structure of the northwest trending faults. The history of the Main fault is probably long and complex. It closely parallels the long axis of the Copper Mountain stock and the trend of the major regional faults in the Princeton area. In 1951 Fahrni stated that " one half of the known orebodies in the mines are grouped along the Main fault or its branches ".

The northeast trending faults consist of a number of major structures, as well as a number of smaller ones. Some of them occur in the area of the orebodies and the history of these faults is probably also long and complex. Several of these faults show appreciable post mineral movement.

The Boundary fault system consists of a major structure, the Boundary fault, and several similiar but smaller faults that are found in the western part of the map area. The Boundary fault strikes northerly and dips approximately 65° to the west. These faults are interpreted to be normal faults, and that the western block was dropped down.

3.2 CLAIM GEOLOGY

All rock units (Figure 5) which are believed to underlie the Tas claims are described below, although many of them have not been located as yet due to the limited amount of geological mapping that has been carried out. Outcrop is scarce over much of the property. The classification of the units is taken from Preto (1972) to provide continuity with known geological information on the Copper Mountain area.

The oldest rocks underlying the claims are Upper Triassic Wolfe Creek Formation of the Nicola Group. They are primarily volcanic in origin and deposition and have been divided into four units. These include massive andesite (Unit 2a), volcanic breccia and agglomerate (Unit 2c), and tuff and tuff breccia (Unit 2d). Unit 2e consists of undifferentiated material.

Unit 2a is generally a massive, fine to medium grained porphyritic pyroxene-hornblende-plagioclase andesite, in part agglomeratic. The rock is in places extensively saussuritized, with replacement of plagioclase phenocrysts by epidote and sericite, and strong replacement of pyroxene by a light green amphibole.

Rocks of unit 2c are coarse fragmental volcanic volcanic rocks that may be described as volcanic breccia and/or agglomerate. All rocks are dense, massive and, dark green or brownish in color. The fragments in the breccia vary from andesitic volcanic rocks to fine grained tuff and, locally limestone. Fragments generally vary in size from 1 to 10 centimeters, although occasionally blocks of 25 centimeters or more occur. In the area of the Tas claims the rocks are irregularily distributed in the volcanic succession of unit 2 as relatively small lenses associated with tuff or massive andesite.

Unit 2d is mainly greenish grey and green crystal tuff and lithic crystal tuff and, locally volcanic siltstone. These rocks are generally well and thinly bedded and at several locations show graded bedding and poorly developed crossbedding. They are characterized by beds of very fine grained silt alternating with beds of slightly coarser, sand sized material consisting of mainly broken plagioclase and some pyroxene crystals. Most rocks are of andesitic composition and the amount of quartz present varies from nil to a significant constituent.

The Upper Triassic Copper Mountain intrusions have intruded the Wolfe Creek Formation. The term Copper Mountain intrusions refer to four main bodies of intrusive rocks which are known as the Copper Mountain stock, Voigt stock, Smelter Lake stock and Lost Horse intrusions. Rocks of the Copper Mountain stock and Lost Horse intrusions underlie the Tas claims.

Two rock types of the Copper Mountain stock underlie the claims, diorite (Unit 6) and microdiorite and latite porphyry dykes (Unit 10).

Unit 6 is a fine to medium grained, light to dark green, massive augite diorite. This unit has been found to outcrop from baseline 10000E to at least 11200E on lines 10000N to 10300N. The diorite forms the outer phase of the Copper Mountain stock.

Unit 10 consists of dykes that range in composition from andesite to acid basalt and range in texture from dark grey, fine grained, trachyoid, latite porphyry with phenocrysts of plagioclase and pyroxene to massive fine to medium grained pyroxene microdiorite. The dykes range in width from one meter to 100 meters, cut all Nicola volcanic rocks and generally trend north-northeast.

The Lost Horse intrusions have been divided into units 11 and 12. Unit 11 includes all rocks which do not form obvious dykes while unit 12 consists of well defined dykes up to 30 meters wide which cut unit 11 and rocks of the Nicola Group. Most rocks of the Lost Horse intrusions have a porphyritic texture and contain disseminated apatite crystals.

Rocks of unit 11 are fine to medium grained, almost invariably porphyritic and range in composition from diorite to monzonite or syenite. They are light grey green in color and are composed of intermediate plagioclase, clinopyroxene and varying amounts of potash feldspar. A few scattered outcrops of what is believed to be unit 11 (monzonite?) were found along the baseline from 10350N to 10650N.

Unit 12 consists of latite and trachyte in approximately equal amounts and is invariably porphyritic. Texturally they range from latite or trachyte porphyry to porphyritic micromonzonite or microsyenite. They are mainly composed of plagioclase, pyroxene, biotite and potash feldspar.

The Upper Lower Cretaceous Verde Creek quartz monzonite (Unit 13) occurs along the eastern boundary of the Tas claims. It is usually medium grained, grey to pinkish grey and porphyritc. White plagioclase phenocrysts up to 5 millimeters long occur within a matrix of plagioclase, grey quartz and interstitial potash feldspar. Brown biotite forms up to 10% of the rock while lesser dark green or black hornblende is found in phases which contain less biotite.

Two types of post Lower Cretaceous dykes (Units 14 and 15) occur within the area. The Mine dykes (Unit 14) are a swarm of northerly trending, very steep to vertically dipping, buff to cream colored dykes of felsite, quartz porphyry and feldspar porphyry. The dykes range in composition from trachyte to rhyolite and vary in width from less than one meter to more than sixty meters. One rusty felsite dyke with 1 to 3 millimeter quartz eyes was mapped along the baseline from 10500N to 10600N.

Unit 15 consists of fine grained grey andesite dykes up to a few meters wide or larger dykes of grey plagioclase, hornblende or pyroxene andesite porphyry. These dykes cut the mine dykes and their texture and composition suggest they are related to the Tertiary rocks of the Princeton Group.

The youngest rocks in the area belong to the Lower Volcanic Formation of the Middle Eocene Princeton Group (Unit 17). This unit (17d) occurs as sparse, isolated, generally small dykes of fine grained, grey, flaggy andesite. The texture, composition and field relationships of these dykes strongly suggest that they are part of the Princeton Group.

3.3 MINERALIZATION

The copper deposits of the Copper Mountain area can be divided into four main subdivisions of copper deposits based on mineral composition, genesis and geographic position. The subdivisions are as follows: Group A - disseminations and stockworks mostly of chalcopyrite and pyrite in altered Nicola volcanic and/or Lost Horse intrusive rocks, Group B - hematite-chalcopyrite and magnetite-chalcopyrite replacements in rocks of the Voigt stock, Group C - bornite-chalcopyrite concentrations associated with pegmatite veins in rocks of the Copper Mountain stock, and Group D - magnetite breccias and replacements in Lost Horse intrusive rocks.

The Group A deposits, which are by far the most important in the Copper Mountain area, include the Ingerbelle and Copper mountain deposits, as well as several smaller occurrences. All deposits in this group are spatially and, it is believed genetically associated with the late phases of the Copper Mountain intrusions, the most productive of which are those of the Lost Horse suite. The sulphide deposits, whether in volcanic or intrusive rocks, are associated with zones of extensive and locally intense wallrock alteration which include development of biotite, albite, epidote, pyroxene, actinolite, potash feldspar and scaploite.

A great number of faults cut intrusive and volcanic rocks. It is believed the major faults and, to a lesser extent subsidiary structures parallel to them originated before the main period of mineralization and played an important part as ore controls, probably acting as avenues along which much of the ore-bearing solutions moved.

Pyrite and chalcopyrite are the dominant sulphide minerals, although bornite, pyrrhotite and magnetite occur sporadically.

The Group B deposits are distinctive both in mineralogy and association with diorite of the Voigt stock. Although the mineralization is locally of higher grade than the Group A deposits, no commercial concentrations of this group have been discovered. This mineralization is confined to narrow zones of shearing and brecciation, and is generally irregularly distributed and variable.

This type of mineralization varies from coarse hematite, magnetite, pyrite, red potash feldspar, calcite and epidote in brecciated and bleached pyroxene diorite of the Voight stock at the Frisco and No. 14 claims to magnetite-epidote veinlets with some chalcopyrite in massive, dioritic looking Nicola andesite and breccia at the Azurite and Copper Glance showings.

Group C deposits are found at several locations within the Copper Mountain stock. Bornite, chalcopyrite and pyrite mineralization is always associated with or occurs in veins and dykes of red potash feldspar pegmatite. No orebodies have been developed in this type of mineralization and it is thought the potential of doing so is low.

Group D deposits are found at a number of locations in Lost Horse intrusive rocks. Magnetite breccias are usually brecciated monzonite or syenite porphyry that show a considerable degree of pink feldspar metasomatism and have been healed by interlacing veins of coarse magnetite. Copper sulphides are not found in any abundance with the magnetite breccias.

Only a limited amount of prospecting has been carried out on the Tas claims. Pyrite was noted at several locations (figure 5) asociated with the diorite (unit 6) of the Copper Mountain intrusions. Epidote occurs along fractures at 10000E & 10600N.

4.0 GEOCHEMISTRY

4.1 SILT GEOCHEMISTRY

Thirty-one silt samples (Figure 5) were collected at 250 to 350 meter intervals along the major drainages on the property. Four pan concentrate samples were also collected at the confluences of the major drainages. Thirty-one element ICP and gold analyses were carried out on all samples.

Gold

Only three samples gave more than 5 ppb gold, and these were only 10 ppb. None of the samples were considered anomalous.

Copper

Copper values ranged from 47 to 148 ppm. Background was determined to be 81 ppm and values 90 ppm and greater were considered anomalous. The value of 81 ppm copper is much higher than normal for a background value.

Seven of the values were anomalous. Two of the anomalous samples came from "A" Creek and three of the samples from "B" Creek. Both of these creeks drain the northern portion of the Tas-1 claim. This area appears to be underlain by diorite of the Copper Mountain intrusives.

One anomalous sample came from a south draining branch of "C" Creek and one sample from the main branch of "C" Creek.

5.0 GEOPHYSICS

5.1 MAGNETOMETER SURVEY

A total field magnetic survey was carried out on lines 10000N to 10300N (Figure 6). The magnetic response was moderate to strong with values ranging from 56050 to 61622 nT. Less magnetic rocks generally underlie the western 300 meters and the eastern 600 meters of the grid with the central portion of the grid underlain by more magnetic rocks.

A number of prominent magnetic features were outlined by the survey. The most prominent magnetic high is an oval shaped feature centered at approximately 10200N & 10100E. This feature is some 200 meters by 300 meters in size and has the appearance of a pipe like structure. It may be caused by concentrations of magnetic minerals such as magnetite or pyrrhotite, possibly occurring in some type of a breccia pipe.

A number of narrow, linear, north-south trending magnetic highs occur between 10900E & 11400E on all four grid lines. Several magnetic lows occur between the magnetic highs. These features may be caused by dykes or concentrations of magnetic minerals such as magnetite or pyrrhotite.

Two narrow, linear, northerly trending magnetic lows were delineated by the survey. The first trends from line 10300N & 11050E to line 10000N & 11025E, while the second trends from line 10300N & 11450E to line 10000N & 11525E. These narrow, linear magnetic lows may be defining fault zones.

5.2 VLF-EM SURVEY

The VLF-EM survey was carried out on lines 10000N to 10300N (Figure 7). The lines do not generally appear to have been influenced by topography.

A number of weak to moderate to strong VLF-EM conductors were outlined by the survey. They are northerly trending and exhibit short wavelengths. A number of the conductors are associated with magnetic features, indicating they are related to bedrock structures.

Six conductor systems were outlined by the survey. There is little outcrop exposure and no causes are evident for most of the conductors.

Conductor "D" is of moderate strength and occurs coincidentally with a magnetic low. It is probably represents a fault zone.

Conductor "F" is a moderate to strong conductor occurring along the eastern boundary of the claims and may represent the contact of the Verde Creek stock with the Nicola volcanic rocks.

6.0 CONCLUSIONS AND RECOMMENDATIONS

The 1991-1992 program gave a number of positive results. The silt sampling program gave seven samples that were anomalous in copper (≥90 ppm). These samples all drain from the north-central portion of the Tas-1 claim.

The geological mapping on the four grid lines showed the area to be underlain by rocks of the Copper Mountain intrusions. The rocks are mainly diorite of the Copper Mountain stock, although several outcrops appear to belong to the Lost Horse Group.

The magnetometer survey indicated a number of magnetic highs and lows. The most significant of these appears to be an oval shaped magnetic high feature approximately 200 meters by 300 meters in size. This magnetic high may be caused by magnetic minerals such as magnetite or pyrrhotite, possibly occurring in a breccia pipe. Copper minerals such as chalcopyrite may occur with these magnetic minerals.

A number of north trending, weak to strong VLF-EM conductors were delineated, but no cause is apparent for most of them.

Recommendations are as follows:

1) The grid should be expanded over the property, initially in areas believed to be underlain by Copper Mountain intrusives or in areas with anomalous copper soil geochemical values from the 1970's surveys.

2) The expanded grid should be soil sampled, geologically mapped, prospected and geophysically surveyed by magnetometer and VLF-EM.

Respectively submitted,

Grant Crooker, B.Sc., P.Geo.,
Consulting Geologist

7.0 REFERENCES

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8.0 CERTIFICATE OF QUALIFICATIONS

I, Grant F. Crooker, of Upper Bench Road, Keremeos, in the Province of British Columbia, hereby certify as follows:

1. That I graduated from the University of British Columbia in 1972 with a Bachelor of Science Degree in Geology.

2. That I have prospected and actively pursued geology prior to my graduation and have practised my profession since 1972.

3. That I am a member of the Canadian Institute of Mining and Metallurgy.

4. That I am a Fellow of the Geological Association of Canada.

5. That I am a Professional Geoscientist registered with the Association of Professional Engineers and Geoscientists of the Province of British Columbia (No. 18,961).

6. That I am the owner of the Tas 1 and 2 mineral claims.

Dated this 14th day of July, 1992, at Keremeos, in the Province of British Columbia.

PROFESSIONAL PROVINCE OF G. F. CROOKER BRITISH COLUMBIA GEOSCIENTIST

Grant Crooker, B.Sc., P.Geo.,
Consulting Geologist

APPENDIX I

CERTIFICATES OF ANALYSIS

COMP: GRANT CROOKER
PROJ: TAS CLAIMS
ATTN: GRANT CROOKER/L.W.SALEKEN

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 1V-1122-SD2
DATE: 91/09/28
● SOIL ● (ACT:F31)

SAMPLE NUMBER	AG PPM	AL PPM	AS PPM	B PPM	BA PPM	BE PPM	BI PPM	CA PPM	CD PPM	CO PPM	CU PPM	FE PPM	K PPM	LI PPM	MG PPM	MN PPM	MO PPM	NA PPM	NI PPM	P PPM	PB PPM	SB PPM	SR PPM	TH PPM	TI PPM	V PPM	ZN PPM	GA PPM	SN PPM	W PPM	CR PPM	AU-WET PPB
E00205420001	.5	9950	2	8	25	.2	6	9250	.1	8	70	21560	690	11	4340	452	1	130	1	940	13	1	42	1	1063	70.6	82	1	1	2	7	5
E00205420003	.7	13070	1	6	31	.1	7	11570	.1	9	84	23420	900	14	5310	553	1	170	1	850	14	1	53	1	1348	80.5	85	1	1	2	10	5
E00205420005	1.0	12870	1	4	28	.1	8	11770	.1	9	69	24490	1040	13	5850	579	1	170	1	870	15	1	61	1	1400	85.0	80	1	1	2	9	5
E00205420006	1.0	14690	1	4	29	.1	9	13530	.1	9	70	25770	880	13	5140	570	1	230	1	880	16	1	72	1	1629	98.2	67	1	1	2	11	5
E00205420007	1.2	15740	4	3	36	.2	8	10420	.1	8	107	22030	670	20	4260	450	1	290	3	510	15	2	53	1	1368	74.5	140	1	1	2	8	5
E00205420008	.9	15000	1	4	31	.1	8	13550	.1	10	76	27130	1060	16	5830	583	1	850	1	930	20	1	70	1	1664	100.5	81	1	1	2	11	5
E00205420010	.8	14530	1	4	25	.1	9	15180	.1	12	72	31890	1180	14	6450	650	1	200	1	990	17	1	75	1	1948	122.6	72	1	1	2	13	5
E00205420011	.9	14370	1	3	25	.1	10	14340	.1	11	80	33620	990	15	6080	588	1	690	1	840	22	1	63	1	2036	130.9	82	1	1	2	20	5
E00205420012	.9	10770	1	2	18	.1	6	12810	.1	7	61	20080	530	13	3760	380	1	710	1	630	15	1	47	1	1285	73.7	59	1	1	1	6	10
E00205420013	1.0	12340	1	2	23	.1	8	12810	.1	9	58	26200	620	12	4870	448	1	1060	1	750	18	1	50	1	1700	102.9	62	1	1	2	15	5
E00205420014	1.0	16690	1	2	45	.3	8	11490	.1	10	110	29750	760	17	4950	551	1	610	2	920	16	2	56	1	1549	92.8	68	1	1	2	14	5
E00205420015	.9	13130	1	2	34	.1	7	11620	.1	9	75	23360	820	13	4790	547	1	590	1	1000	15	1	56	1	1306	79.1	51	1	1	2	10	5
E00205420016	.6	14530	1	2	38	.1	8	12710	.1	11	73	31110	1030	15	5340	589	1	150	1	1020	14	1	65	1	1573	104.7	56	1	1	2	13	5
E00205420017	.9	13630	1	2	26	.2	8	12660	.1	10	68	28140	890	13	5630	428	1	570	1	1010	16	1	65	1	1459	99.4	53	1	1	2	12	5
E00205420018	.8	15570	1	3	34	.3	7	12800	.1	12	88	31350	1160	17	6830	590	1	800	2	1150	21	1	66	1	1516	102.9	70	1	1	2	11	5
E00205420019	.7	14970	1	3	37	.2	7	11660	.1	11	81	29680	1110	16	5470	516	1	570	3	1040	17	1	60	1	1380	97.1	59	1	1	2	14	5
E00205420020	.8	12630	7	2	28	.1	7	11740	.1	11	83	29390	1160	9	5460	577	1	560	1	1090	16	1	66	1	1394	101.5	42	1	1	2	14	5
E00205420021	.7	15900	1	3	37	.3	7	12830	.1	11	82	29690	870	15	5660	749	1	750	3	1120	16	1	65	1	1491	101.8	68	1	1	2	15	5
E00205420023	1.1	13620	3	1	35	.1	6	12010	.1	9	63	22780	640	14	5860	551	1	560	5	1240	17	1	48	1	1196	73.8	66	1	1	2	11	10
E00205420024	.7	12200	1	2	24	.2	8	12240	.1	10	58	28450	710	11	4820	694	1	160	1	1120	14	1	58	1	1563	102.4	87	1	1	2	10	5
E00205420025	1.0	13780	2	2	31	.2	6	13830	.1	10	70	25780	570	14	5250	541	1	200	2	1110	17	1	58	1	1365	88.0	71	1	1	2	13	5
E00205420026	1.1	12910	3	2	25	.1	8	12210	.1	9	59	25330	660	14	4830	484	1	170	1	1010	17	1	58	1	1380	88.6	80	1	1	1	10	5
E00205420027	.9	11690	1	1	33	.1	6	10180	.1	9	74	25170	490	12	3610	985	1	610	1	630	18	1	49	1	1221	87.1	50	1	1	2	12	5
E00205420028	.9	14380	1	1	37	.3	8	9410	.1	9	123	28790	750	12	4270	402	1	260	1	630	15	1	39	1	1422	100.5	75	1	1	2	15	5
E00205420029	1.0	14030	1	2	30	.1	7	11980	.1	9	83	25030	830	13	5070	546	1	620	1	940	15	1	60	1	1344	88.4	79	1	1	2	11	5
E00205420030	.9	13080	1	1	42	.2	7	9910	.1	9	60	24190	770	9	4240	514	1	260	1	920	14	1	41	1	1273	84.2	35	1	1	2	11	5
E00205420031	.7	22670	1	2	53	.4	8	10020	.1	11	128	32770	1110	22	5970	593	1	280	2	540	20	5	42	1	1545	99.4	162	1	1	2	13	5
E00205420032	.7	15670	1	2	40	.2	10	10010	.1	11	148	35900	770	13	4550	537	1	270	1	640	14	1	41	1	1830	131.5	97	1	1	2	15	5
E00205420033	.9	13020	1	1	37	.2	8	8400	.1	9	64	28660	660	10	3340	398	1	540	1	530	18	1	35	1	1447	101.0	49	1	1	2	14	10
E00205420034	.6	12830	1	1	33	.2	7	8830	.1	12	94	34310	710	11	4580	409	1	520	5	720	16	1	33	1	1334	124.2	63	1	1	2	22	5

COMP: GRANT CROOKER
PROJ: TAS CLAIMS
ATTN: GRANT CROOKER/L.W.SALEKEN

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 1V-1122-SJ3
DATE: 91/09/28
* SOIL * (ACT:F31)

SAMPLE NUMBER	AG PPM	AL PPM	AS PPM	B PPM	BA PPM	BE PPM	BI PPM	CA PPM	CD PPM	CO PPM	CU PPM	FE PPM	K PPM	LI PPM	MG PPM	MN PPM	MO PPM	NA PPM	NI PPM	P PPM	PB PPM	SB PPM	SR PPM	TH PPM	TI PPM	V PPM	ZN PPM	GA PPM	SN PPM	W PPM	CR PPM	AU-WET PPB
E00205420035	.7	14960	4	1	40	.1	6	8850	.1	11	109	31800	780	12	4190	397	1	260	4	660	14	1	35	1	1249	103.0	58	2	1	3	15	5

COMP: GRANT CROOKER
PROJ: TAS CLAIMS
ATTN: GRANT CROOKER/L.W.SALEKEN

MIN-EN LABS — ICP REPORT

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
(604)980-5814 OR (604)988-4524

FILE NO: 1V-1122-SJ1
DATE: 91/09/28
• PANNED CONCENTRATE • (ACT:F31)

SAMPLE NUMBER	AG PPM	AL PPM	AS PPM	B PPM	BA PPM	BE PPM	BI PPM	CA PPM	CD PPM	CO PPM	CU PPM	FE PPM	K PPM	LI PPM	MG PPM	MN PPM	MO PPM	NA PPM	NI PPM	P PPM	PB PPM	SB PPM	SR PPM	TH PPM	TI PPM	V PPM	ZN PPM	GA PPM	SN PPM	W PPM	CR PPM	AU-WET PPB	WT-GM
E00205470002	.8	9390	22	6	17	.1	13	10590	.1	9	60	24100	660	13	4290	370	1	120	1	1000	10	1	50	1	1255	86.9	75	3	3	2	15	5	26.13
E00205470004	.8	10130	4	1	17	.1	13	12610	.1	9	47	27520	770	10	4390	408	1	140	1	1030	12	1	62	1	1651	106.8	69	2	1	2	15	5	22.65
E00205470009	.8	12650	1	1	22	.1	10	14310	.1	11	51	32000	1030	13	5500	527	1	180	1	1040	13	1	74	1	1878	124.3	67	3	1	3	14	5	26.01
E00205470022	1.0	15010	1	1	28	.1	9	15310	.1	11	49	33060	890	13	5580	563	1	180	1	1060	13	1	89	1	1798	125.8	55	3	1	3	15	5	10.06

APPENDIX II

GEOPHYSICAL EQUIPMENT SPECIFICATIONS

GEONICS LIMITED
VLF EM 16

Source of Primary Field	VLF transmitting stations
Transmitting Stations Used:	Any desired station frequency can be supplied with the instrument in the form of plug-in tuning units. Two tuning units can be plugged in at one time. A switch selects either station.
Operating Frequency Range:	About 15-25 Hz.
Parameters Measured:	1- The vertical in-phase component (tangent of the tilt angle of the polarization ellipsoid). 2- The vertical out-of-phase (quad-rature) component (the short axis of the polarization ellipsoid compared to the long axis).
Method of Reading:	In-phase from a mechanical inclinometer and quadrature from a calibrated dial. Nulling by audio tone
Scale Range:	In-phase ± 150%; quadrature ±40%
Readability:	±1%
Operating Temperature Range:	-40 to 50° C.
Operating Controls:	ON-OFF switch, battery testing push button, station selector, switch, volume control, quadrature dial ±40%, inclinometer ± 150%
Power Supply:	6 size AA alkaline cells ≈200 hrs.
Dimensions:	42 x 14 x 9 cm (16 x 5.5 x 3.5 in)
Weight:	1.6 kg. (3.5 lbs)
Instrument Supplied With:	Monotonic speaker, carrying case, manual of operation, 3 station selector plug-in tuning units (additional frequencies are optional) set of batteries.
Manufacturer:	Geonics Limited 1745 Meyerside Drive/Unit 8 Mississauga, Ontatio L5T 1C5

MP-2 PROTON PRECESSION MAGNETOMETER

Resolution:	1 gamma
Total Field Accuracy:	± gamma over full operating range
Range:	20,000 to 100,000 gammas in 25 overlapping steps.
Internal Measuring Program:	A reading appears 1.5 seconds after depression of Operate Switch & remains displayed for 2.2 secs. Recycling feature permits automatic repetitive readings at 3.7 sec. intervals.
External Trigger:	External trigger input permits use of sampling intervals longer than 3.7 seconds.
Display:	5 digit LED readout displaying total magnetic field in gammas or normalized battery voltage.
Data Output:	Multiplied precession frequency and gate time outputs for base station recording using interfacing optionally available from Scintrex.
Gradient Tolerance:	Up to 5,000 gammas/meter.
Power Source:	8 size D cells ≈25,000 readings at 25° C under reasonable conditions.
Sensor:	Omnidirectional, shielded, noise-cancelling dual coil, optimized for high gradient tolerance.
Harness:	Complete for operation with staff or back pack sensor.
Operating Temperature Range:	-35 to +60° C.
Size:	Console, 8 x 16 x 25 cm; Sensor, 8 x 15 cm; Staff 30 x 66 cm;
Weights:	Console, 1.8 kg; Sensor, 1.3 kg; Staff, 0.6 kg;
Manufacturer:	Scintrex 222 Snidercroft Road Concord, Ontario

APPENDIX III

MAGNETOMETER AND VLF-EM DATA

Grant Crooker Data Listing Line & Station + = northing/easting
Area: Tas Claims - = southing/westing
Grid: Tas Creek File Name: tas .xyz
Date: May, 1992 VLF-EM and magnetometer surveys
Instrument Type: Details
Scintrex MP-2: Corrected total field magnetic values
Geonics EM-16: Facing southeasterly, Seattle
Data Types #1 Corrected total field magnetic values
#2 VLF-EM In-Phase Values. Seattle
#3 VLF-EM Quadrature Values, Seattle

E/W Line #	N/S Station	# 1.	# 2.	# 3.	# 4.	# 5.	# 6.
line 10000							
10000	9675	56087	14	1			
10000	9700	56289	9	2			
10000	9725	56311	5	5			
10000	9750	56242	7	4			
10000	9775	56345	10	2			
10000	9800	56229	5	-1			
10000	9825	56100	8	1			
10000	9850	56277	9	2			
10000	9875	56290	8	1			
10000	9900	56155	7	1			
10000	9925	56221	7	2			
10000	9950	56079	11	3			
10000	9975	56050	12	3			
10000	10000	56269	8	2			
10000	10025	56359	5	2			
10000	10050	56473	10	3			
10000	10075	56533	11	7			
10000	10100	56493	5	9			
10000	10125	56857	3	10			
10000	10150	56931	-4	11			
10000	10175	57099	-1	10			
10000	10200	57114	-1	13			
10000	10225	56695	1	13			
10000	10250	56648	13	16			
10000	10275	56617	29	22			
10000	10300	56617	22	13			
10000	10325	56893	24	13			
10000	10350	56626	25	13			
10000	10375	56622	35	11			
10000	10400	56696	38	13			
10000	10425	56666	36	7			
10000	10450	56614	36	3			
10000	10475	56833	35	2			
10000	10500	56630	36	-1			
10000	10525	56576	37	2			
10000	10550	56585	28	4			
10000	10575	56586	24	4			
10000	10600	56594	29	9			
10000	10625	56561	20	11			
10000	10650	56667	16	12			

10000	10675	56670	20	13
10000	10700	56844	25	11
10000	10725	57020	22	10
10000	10750	57179	26	10
10000	10775	57332	20	8
10000	10800	57419	26	9
10000	10825	57312	29	8
10000	10850	56917	24	5
10000	10875	57289	24	6
10000	10900	57219	27	9
10000	10925	57358	21	2
10000	10950	58076	24	6
10000	10975	57984	27	6
10000	11000	57121	19	4
10000	11025	57214	11	2
10000	11050	58299	15	4
10000	11075	58396	19	5
10000	11100	58001	10	0
10000	11125	57767	14	-1
10000	11150	58251	20	3
10000	11175	57545	23	1
10000	11200	57306	23	-3
10000	11225	57877	26	-3
10000	11250	57842	38	2
10000	11275	57141	19	0
10000	11300	58001	16	2
10000	11325	57604	16	6
10000	11350	57278	16	4
10000	11375	57097	18	3
10000	11400	57400	21	3
10000	11425	57655	22	1
10000	11450	57151	25	2
10000	11475	57050	20	0
10000	11500	56986	13	0
10000	11525	56948	10	2
10000	11550	56972	13	3
10000	11575	56945	7	1
10000	11600	56951	4	1
10000	11625	57045	3	0
10000	11650	57058	2	-2
10000	11675	56867	2	-2
10000	11700	57079	3	-2
10000	11725	57020	2	-3
10000	11750	57002	1	-2
10000	11775	56970	0	-3
10000	11800	57129	3	-3
10000	11825	56974	3	-3
10000	11850	57020	4	-6
10000	11875	56963	1	-6
10000	11900	56926	6	-6
10000	11925	56993	8	-6
10000	11950	57066	14	-6
10000	11975	57003	11	-8
10000	12000	56961	-1	-6

10000	12025	56758	-4	-6
10000	12050	56678	8	0
10000	12075	56665	10	2
10000	12100	56737	12	2
line 10100				
10100	9675	56325	1	3
10100	9700	56395	6	4
10100	9725	56722	9	4
10100	9750	56213	10	3
10100	9775	56232	8	3
10100	9800	56216	4	4
10100	9825	56336	6	6
10100	9850	56327	8	6
10100	9875	56473	9	4
10100	9900	56570	6	3
10100	9925	56778	4	2
10100	9950	56809	3	1
10100	9975	56994	4	2
10100	10000	56293	1	2
10100	10025	57011	3	0
10100	10050	57247	3	-2
10100	10075	57620	7	-6
10100	10100	58239	-9	-8
10100	10125	58062	15	-11
10100	10150	57740	6	-10
10100	10175	57483	2	-6
10100	10200	56933	-7	0
10100	10225	56659	-15	2
10100	10250	56783	-10	4
10100	10275	57023	-3	6
10100	10300	56935	0	7
10100	10325	57038	2	6
10100	10350	57075	9	6
10100	10375	56727	15	6
10100	10400	56680	20	8
10100	10425	56725	21	8
10100	10450	56563	22	4
10100	10475	56679	23	4
10100	10500	56639	20	0
10100	10525	56444	19	-1
10100	10550	56661	21	1
10100	10575	56737	19	2
10100	10600	56627	18	4
10100	10625	56631	14	4
10100	10650	56557	9	8
10100	10675	56858	2	7
10100	10700	56539	2	10
10100	10725	56552	6	10
10000	10750	56495	7	9
10000	10775	56873	10	11
10100	10800	56917	14	10
10100	10825	56905	19	8
10100	10850	56636	13	8
10100	10875	56548	22	9

10100	10900	56702	18	8
10100	10925	56977	20	7
10100	10950	57212	19	5
10100	10975	57116	21	6
10100	11000	57510	25	6
10100	11025	58486	29	8
10100	11050	56754	23	6
10100	11075	57505	13	4
10100	11100	56326	12	2
10100	11125	57322	11	0
10100	11150	58126	18	2
10100	11175	57952	20	3
10100	11200	57487	24	2
10100	11225	57083	14	0
10100	11250	57773	14	-2
10100	11275	58270	21	0
10100	11300	58203	28	3
10100	11325	58871	22	2
10100	11350	57533	10	0
10100	11375	56940	7	1
10100	11400	56891	7	4
10100	11425	57058	9	1
10100	11450	56929	12	1
10100	11475	57048	17	2
10100	11500	56929	23	1
10100	11525	56850	27	3
10100	11550	56981	30	3
10100	11575	56976	21	2
10100	11600	56782	10	1
10100	11625	56816	8	5
10100	11650	56876	2	3
10100	11675	57045	5	5
10100	11700	56973	4	5
10100	11725	56943	4	3
10100	11750	57049	0	-1
10100	11775	56927	1	0
10100	11800	57171	-7	-4
10100	11825	56955	-9	-5
10100	11850	56962	-13	-5
10100	11875	56898	-11	-5
10100	11900	56893	-6	-7
10100	11925	56918	-3	-6
10100	11950	56751	-2	-7
10100	11975	56861	1	-7
10100	12000	57277	5	-5
10100	12025	56802	-3	-7
10100	12050	56734	-10	-8
10100	12075	56967	-11	-5
10100	12100	56797	-4	-4
line 10200				
10200	9675	56355	6	-2
10200	9700	56336	10	-3
10200	9725	56448	13	1
10200	9750	56641	10	-1

10200	9775	56643	6	2
10200	9800	56510	8	3
10200	9825	56666	11	0
10200	9850	56683	15	1
10200	9875	56750	15	2
10200	9900	56755	11	2
10200	9925	56844	10	2
10200	9950	56918	8	2
10200	9975	57060	5	1
10200	10000	57135	0	1
10200	10025	57356	-4	1
10200	10050	57471	-6	1
10200	10075	57789	-5	2
10200	10100	58803	-8	-1
10200	10125	58689	-8	-6
10200	10150	58116	-8	-8
10200	10175	57575	-7	-9
10200	10200	57244	-13	-4
10200	10225	57175	-11	0
10200	10250	57249	-8	3
10200	10275	57268	-7	2
10200	10300	57116	-11	0
10200	10325	57399	-11	-1
10200	10350	57303	-8	-3
10200	10375	57073	-2	-4
10200	10400	57228	8	-5
10200	10425	57109	15	-4
10200	10450	57110	17	-6
10200	10475	56901	18	-8
10200	10500	56714	16	-6
10200	10525	56508	12	-3
10200	10550	56671	7	-2
10200	10575	56646	5	-5
10200	10600	56482	11	0
10200	10625	56418	0	7
10200	10650	56505	-5	9
10200	10675	56630	0	9
10200	10700	56928	8	7
10200	10725	56913	7	4
10000	10750	56781	8	6
10000	10775	56961	11	6
10200	10800	57239	11	4
10200	10825	56909	21	8
10200	10850	56658	16	6
10200	10875	56656	20	7
10200	10900	57465	19	6
10200	10925	57413	17	4
10200	10950	56935	12	3
10200	10975	57205	17	3
10200	11000	57702	17	4
10200	11025	56990	13	3
10200	11050	57748	3	4
10200	11075	58006	15	4
10200	11100	57268	15	3

10200	11125	58304	20	4
10200	11150	58066	23	3
10200	11175	57266	26	4
10200	11200	57169	21	2
10200	11225	57778	20	1
10200	11250	57430	20	1
10200	11275	57209	28	3
10200	11300	57942	20	0
10200	11325	57355	-8	-2
10200	11350	57065	6	1
10200	11375	56933	6	2
10200	11400	56862	7	2
10200	11425	56866	11	3
10200	11450	56887	13	2
10200	11475	56972	17	2
10200	11500	56995	17	0
10200	11525	56952	22	2
10200	11550	56800	24	4
10200	11575	56874	18	7
10200	11600	56967	6	5
10200	11625	56779	1	4
10200	11650	56888	2	7
10200	11675	56959	2	5
10200	11700	56979	1	2
10200	11725	56842	1	1
10200	11750	56899	2	2
10200	11775	57052	-5	-3
10200	11800	56958	-7	-4
10200	11825	57029	-6	-5
10200	11850	57224	-5	-6
10200	11875	57434	-3	-7
10200	11900	56861	0	-10
10200	11925	56950	3	-9
10200	11950	57004	5	-9
10200	11975	56973	5	-7
10200	12000	56775	-3	-8
10200	12025	57035	-13	-4
10200	12050	56825	-25	-6
10200	12075	56867	-24	-4
10200	12100	56985	-22	-3
line 10300				
10300	9675	56291	5	-1
10300	9700	56339	9	0
10300	9725	56605	13	-1
10300	9750	56782	9	-2
10300	9775	56901	11	-2
10300	9800	56785	11	0
10300	9825	56746	10	1
10300	9850	56740	13	1
10300	9875	56804	13	1
10300	9900	56874	15	3
10300	9925	56960	15	2
10300	9950	56942	16	4
10300	9975	56929	17	2

10300	10000	56979	19	0
10300	10025	57166	21	0
10300	10050	57668	19	0
10300	10075	58682	9	-1
10300	10100	56703	1	-4
10300	10125	56374	0	-5
10300	10150	57285	-8	-8
10300	10175	57141	-9	-12
10300	10200	57260	-9	-11
10300	10225	57302	-4	-9
10300	10250	57389	1	-5
10300	10275	57314	8	-1
10300	10300	57372	-1	1
10300	10325	57352	-2	1
10300	10350	57361	-1	3
10300	10375	57284	-1	2
10300	10400	57260	-5	2
10300	10425	57184	-4	0
10300	10450	57153	-3	-2
10300	10475	57060	0	-5
10300	10500	57060	4	-5
10300	10525	57057	7	-6
10300	10550	57033	6	-8
10300	10575	57285	7	-4
10300	10600	57402	8	-3
10300	10625	57468	8	-4
10300	10650	57164	9	-2
10300	10675	57395	6	1
10300	10700	57523	12	3
10300	10725	57500	17	3
10300	10750	57451	22	2
10000	10775	57332	25	1
10300	10800	57581	19	-2
10300	10825	57200	16	-2
10300	10850	57319	16	-3
10300	10875	57462	11	-1
10300	10900	57500	14	-4
10300	10925	57512	8	-3
10300	10950	57410	5	-3
10300	10975	57457	6	-4
10300	11000	57289	9	-2
10300	11025	57064	12	-1
10300	11050	56920	12	-2
10300	11075	56967	9	-4
10300	11100	57208	10	-3
10300	11125	57247	15	-2
10300	11150	57277	16	-3
10300	11175	57390	23	-4
10300	11200	57193	18	-3
10300	11225	57622	13	-4
10300	11250	57558	11	-5
10300	11275	58742	16	-3
10300	11300	57900	15	-2
10300	11325	57262	12	-2

10300	11350	57010	10	0
10300	11375	57020	7	2
10300	11400	57098	8	3
10300	11425	56811	12	3
10300	11450	56796	14	4
10300	11475	56670	16	1
10300	11500	56783	19	1
10300	11525	56805	23	3
10300	11550	56800	19	4
10300	11575	56824	12	3
10300	11600	56807	13	7
10300	11625	56958	7	6
10300	11650	56906	1	5
10300	11675	57048	4	7
10300	11700	57034	3	4
10300	11725	56999	3	5
10300	11750	56952	0	1
10300	11775	56868	-3	-3
10300	11800	56906	-4	-2
10300	11825	56888	-4	-5
10300	11850	56828	-3	-5
10300	11875	56880	0	-6
10300	11900	56920	5	-8
10300	11925	57000	7	-9
10300	11950	56819	10	-7
10300	11975	56981	13	-6
10300	12000	56893	-9	-8
10300	12025	56985	-17	-4
10300	12050	57067	-22	-3
10300	12075	57114	-24	-4
10300	12100	57141	-22	-1

tie 10000

10000	10000	56269
10000	10025	56256
10000	10050	56668
10000	10075	56842
10000	10100	56923
10000	10125	56930
10000	10150	57028
10000	10175	57247
10000	10200	57135
10000	10225	57202
10000	10250	57406
10000	10275	57367
10000	10300	56979
10000	10325	56843
10000	10350	56852
10000	10375	56828
10000	10400	56883
10000	10425	56885
10000	10450	58355
10000	10475	57523
10000	10500	58343
10000	10525	58070

10000	10550	61622
10000	10575	59655
10000	10600	60232
10000	10625	58823
10000	10650	57559
10000	10675	57244
10000	10700	56936
10000	10725	57045
10000	10750	57407
10000	10775	57321
10000	10800	57381
10000	10825	57898
10000	10850	57541
10000	10875	57212
10000	10900	57095
10000	10925	57083
10000	10950	57493
10000	10975	57607
10000	11000	57488

APPENDIX IV

COST STATEMENT

COST STATEMENT

SALARIES

- *Grant Crooker, Geologist*
  June 3, 6, 14, 15, Sept. 12-14, 1991
  Jan. 29, 31, May 12-17, 20-23, 1992
  19 days @ $ 400.00/day — $ 7,600.00

- **Lee Mollison, Field Assistant**
  May 13-15, 1992
  3 days @ $ 200.00/day — 600.00

MEALS AND ACCOMODATION

- Grant Crooker - 13 days @ $ 60.00/day — 780.00
- Lee Mollison - 3 days @ $ 60.00/day — 180.00

TRANSPORTATION

- Vehicle Rental (Ford 3/4 ton 4x4)
  June 3, 6, 14, Sept. 12-14, 1991
  May 12-15, 20-22, 1992
  13 days @ $ 60.00/day — 780.00

- Gasoline — 313.00

EQUIPMENT RENTAL

- Magnetometer - Scintrex MP-2
  May 13-15, 19, 29, 1992
  5 days @ $ 25.00/day — 125.00

- VLF-EM - Geonics EM-16
  May 13-15, 20, 21, 1992
  5 days @ $ 25.00/day — 125.00

FREIGHT — 34.81

SUPPLIES

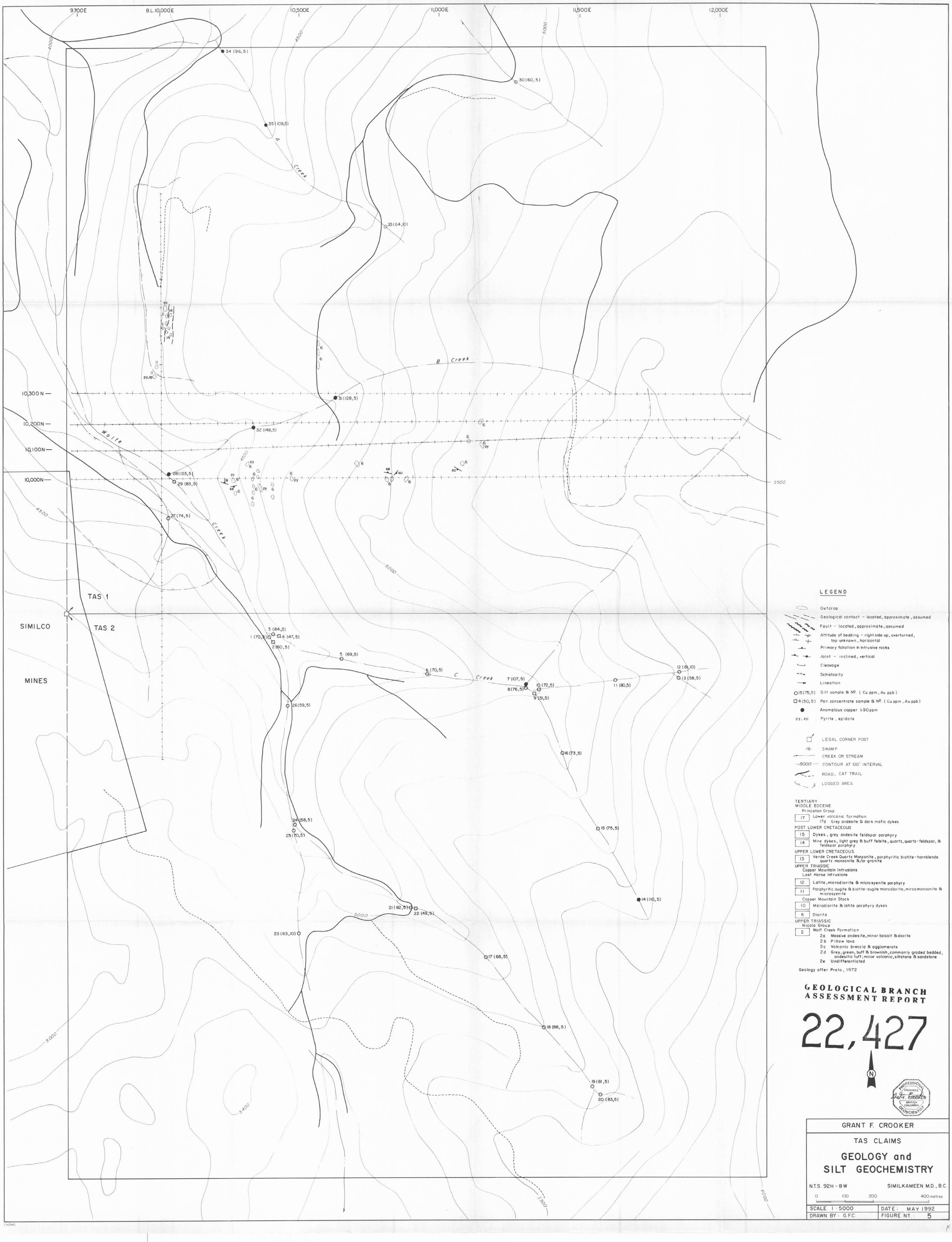
- Hipchain thread, flagging, geochem bags, etc. — 98.25

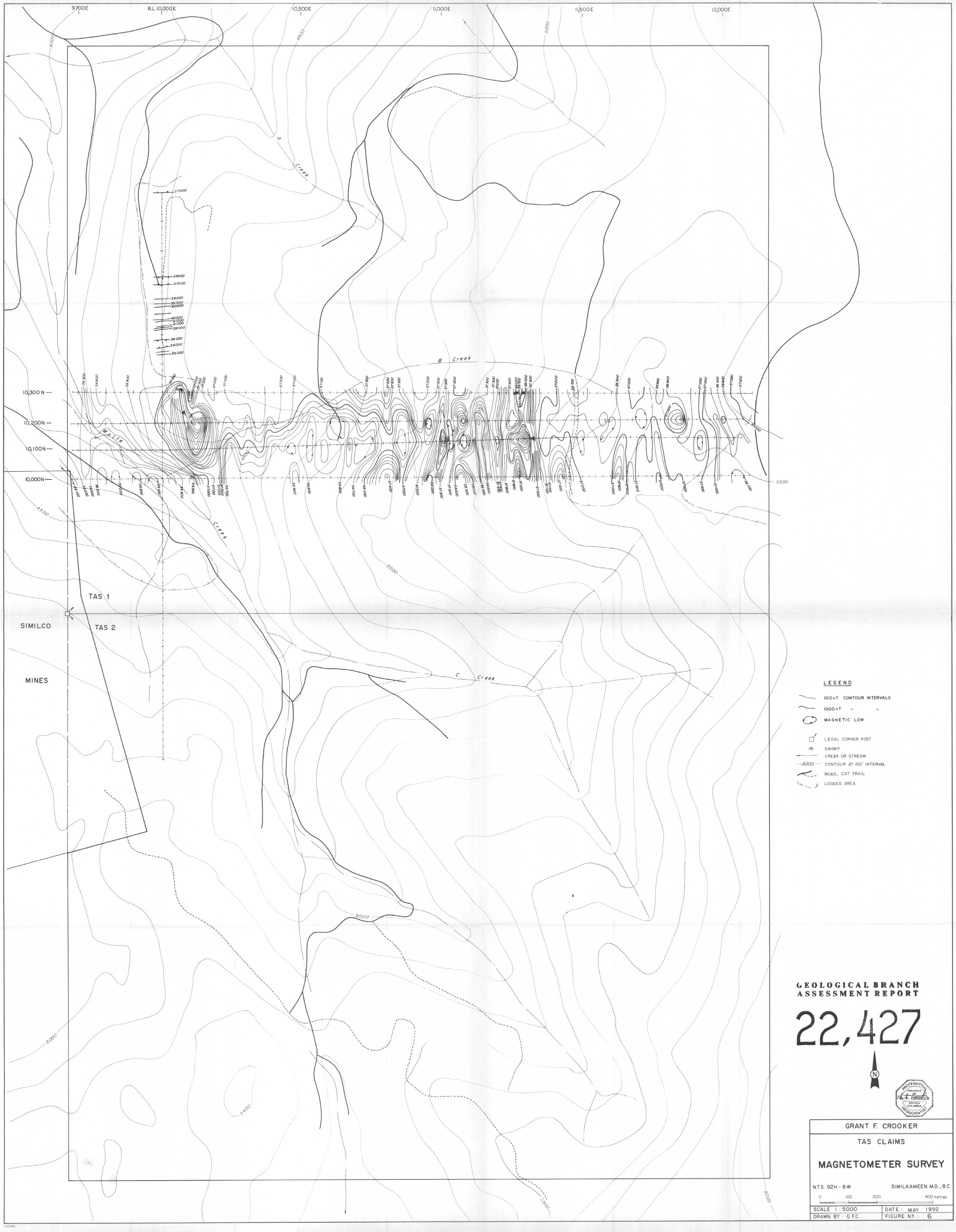
GEOCHEMICAL ANALYSIS

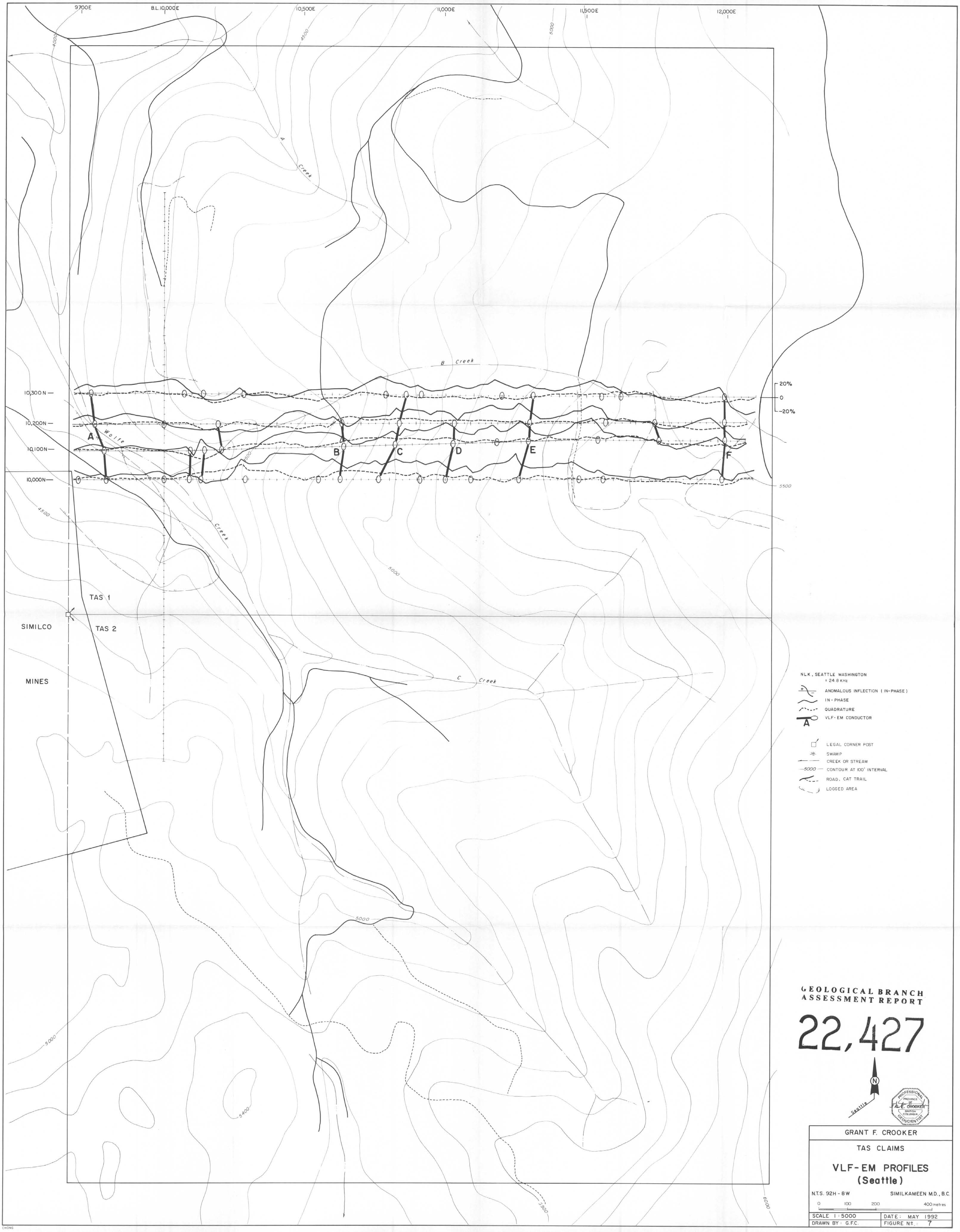
-4 pan concentrates, 31 element ICP, Au,
@ $ 12.84/sample — 51.36

-31 silt samples, 31 element ICP, Au
@ $ 12.84/sample — 398.04

DRAUGHTING	300.00
PREPARATION OF REPORT	
- Secretarial, reproduction, telephone, office overhead etc.	600.00
Total	**$ 11,985.46**


9700E
B.L.10,000E
10,500E
11,000E
11,500E
12,000E
10,300 N
10,200 N
10,100N
10,000N
4500
5000
5500
5400
6000
A Creek
B Creek
C Creek
Wolfe Creek
34 (96,5)
30 (60, 5)
35 (109,5)
33 (64,10)
31 (128,5)
32 (148,5)
28 (123,5)
29 (83,5)
27 (74,5)
3 (84,5)
1 (70,5)
4 (47,5)
2 (60,5)
5 (69,5)
6 (70,5)
7 (107,5)
8 (76,5)
10 (72,5)
9 (51,5)
11 (80,5)
12 (61,10)
13 (58,5)
26 (59,5)
16 (73,5)
24 (58,5)
25 (70,5)
15 (75,5)
14 (110,5)
21 (82,5)
22 (49,5)
23 (63,10)
17 (68,5)
18 (88,5)
19 (81,5)
20 (83,5)
TAS 1
TAS 2
SIMILCO
MINES
LEGEND
Outcrop
Geological contact - located, approximate, assumed
Fault - located, approximate, assumed
Attitude of bedding - right side up, overturned, top unknown, horizontal
Primary foliation in intrusive rocks
Joint - inclined, vertical
Cleavage
Schistosity
Lineation
O15(75,5) Silt sample & Nº. (Cu ppm, Au ppb)
□4(50,5) Pan concentrate sample & Nº. (Cu ppm, Au ppb)
● Anomalous copper ≥90ppm
py, ep Pyrite, epidote
LEGAL CORNER POST
SWAMP
CREEK OR STREAM
-5000- CONTOUR AT 100' INTERVAL
ROAD, CAT TRAIL
LOGGED AREA
TERTIARY
MIDDLE EOCENE
Princeton Group
17 Lower volcanic formation
17d Grey andesite & dark mafic dykes
POST LOWER CRETACEOUS
15 Dykes, grey andesite feldspar porphyry
14 Mine dykes, light grey & buff felsite, quartz, quartz-feldspar, & feldspar porphyry
UPPER LOWER CRETACEOUS
13 Verde Creek Quartz Monzonite, porphyritic biotite-hornblende quartz monzonite &/or granite
UPPER TRIASSIC
Copper Mountain Intrusions
Lost Horse Intrusions
12 Latite, microdiorite & microsyenite porphyry
11 Porphyritic augite & biotite-augite microdiorite, mircomonzonite & microsyenite
Copper Mountain Stock
10 Microdiorite & latite porphyry dykes
6 Diorite
UPPER TRIASSIC
Nicola Group
2 Wolf Creek Formation
2a Massive andesite, minor basalt & dacite
2b Pillow lava
2c Volcanic breccia & agglomerate
2d Grey, green, buff & brownish, commonly graded bedded, andesitic tuff; minor volcanic, siltstone & sandstone
2e Undifferentiated
Geology after Preto, 1972
GEOLOGICAL BRANCH
ASSESSMENT REPORT
22,427
N
PROFESSIONAL GEOSCIENTIST
PROVINCE OF BRITISH COLUMBIA
G. F. CROOKER
GRANT F. CROOKER
TAS CLAIMS
GEOLOGY and
SILT GEOCHEMISTRY
N.T.S. 92H - 8W
SIMILKAMEEN M.D., B.C.
0 100 200 400 metres
SCALE 1:5000
DATE: MAY 1992
DRAWN BY: G.F.C.
FIGURE Nº.: 5


9700E
B.L.10,000E
10,500E
11,000E
11,500E
12,000E
10,300N
10,200N
10,100N
10,000N
B Creek
C Creek
Creek
Wolfe Creek
TAS 1
TAS 2
SIMILCO
MINES
LEGEND
100nT CONTOUR INTERVALS
1000nT " "
MAGNETIC LOW
LEGAL CORNER POST
SWAMP
CREEK OR STREAM
5000 CONTOUR AT 100' INTERVAL
ROAD, CAT TRAIL
LOGGED AREA
GEOLOGICAL BRANCH
ASSESSMENT REPORT
22,427
N
GRANT F. CROOKER
TAS CLAIMS
MAGNETOMETER SURVEY
N.T.S. 92H - 8W
SIMILKAMEEN M.D., B.C.
0 100 200 400 metres
SCALE 1:5000
DATE: MAY 1992
DRAWN BY: G.F.C.
FIGURE No. 6


9700E
B.L.10,000E
10,500E
11,000E
11,500E
12,000E
A Creek
B Creek
C Creek
Wolfe Creek
10,300 N
10,200 N
10,100 N
10,000 N
20%
0
-20%
A
B
C
D
E
F
TAS 1
TAS 2
SIMILCO
MINES
NLK, SEATTLE WASHINGTON
= 24.8 KHz
ANOMALOUS INFLECTION (IN-PHASE)
IN-PHASE
QUADRATURE
VLF-EM CONDUCTOR
LEGAL CORNER POST
SWAMP
CREEK OR STREAM
CONTOUR AT 100' INTERVAL
ROAD, CAT TRAIL
LOGGED AREA
GEOLOGICAL BRANCH
ASSESSMENT REPORT
22,427
N
Seattle
GRANT F. CROOKER
TAS CLAIMS
VLF-EM PROFILES
(Seattle)
N.T.S. 92H-8W
SIMILKAMEEN M.D., B.C.
0
100
200
400 metres
SCALE 1:5000
DATE: MAY 1992
DRAWN BY: G.F.C.
FIGURE No.: 7