

**GEOPHYSICAL
ASSESSMENT REPORT
COPPER KEG CLAIM GROUP
KAMLOOPS MINING DIVISION**

August 9, 1996

M. S. Morrison, B.Sc.

24506

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORTS

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GEOPHYSICAL
ASSESSMENT REPORT

on the

COPPER KEG CLAIM GROUP
ASHCROFT AREA
KAMLOOPS MINING DIVISION

by

MURRAY S. MORRISON, B.Sc.

CLAIMS:

Copper Keg 1-14 (14 units)

LOCATION:

The Copper Keg Claim Group is situated on the south side of the Thompson River Valley, 9 km northeast of Ashcroft, B.C.

Lat. 50°45'; Long. 121°10';

N.T.S.: 92-I-11 & 14E

OWNER:

M. Morrison

OPERATOR:

M. Morrison

DATE STARTED:

May 7, 1996

DATE COMPLETED:

May 8, 1996

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

Kelowna, B.C.

August 9, 1996

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SUMMARY

The Copper Keg Claim Group, comprised of 14, 2-post mineral claims, covers a spectacular gossan on the southern side of the Thompson River Valley 9 km northeast of Ashcroft, B.C. The property is owned by the writer, M. Morrison, of Kelowna, B.C., who staked the mineral claims in May, 1995.

The property is located at the northern edge of the Early Jurassic Guichon Creek Batholith and it is dissected by a northwest-striking regional fault, the Barnes Creek Fault, which crosses the northern portion of the batholith. The fault separates andesitic rocks of the Upper Triassic Nicola Group on the southwest from a quartz diorite intrusive on the northeast. The intrusive is believed to be a hybrid phase of the Guichon Creek Batholith.

The gossan, comprised of pyritic, limonitic and clay-altered decomposed rock, overlies the quartz diorite-andesite contact zone. The bright-coloured altered zone is well exposed in a steep-sided ravine at the northern end of the property, but the southern extent of the zone is unknown. Deep Pleistocene drift and thin flows of the Kamloops Group volcanics cover the southern portion of the property.

It is thought the intense alteration and pyritization on the Copper Keg property postdates the intrusion of the Guichon Creek Batholith and that the hydrothermal solutions that brought about the alteration and mineralization have emanated from a later cooling intrusive of possible Early Tertiary Age that is associated with the Barnes Creek Fault.

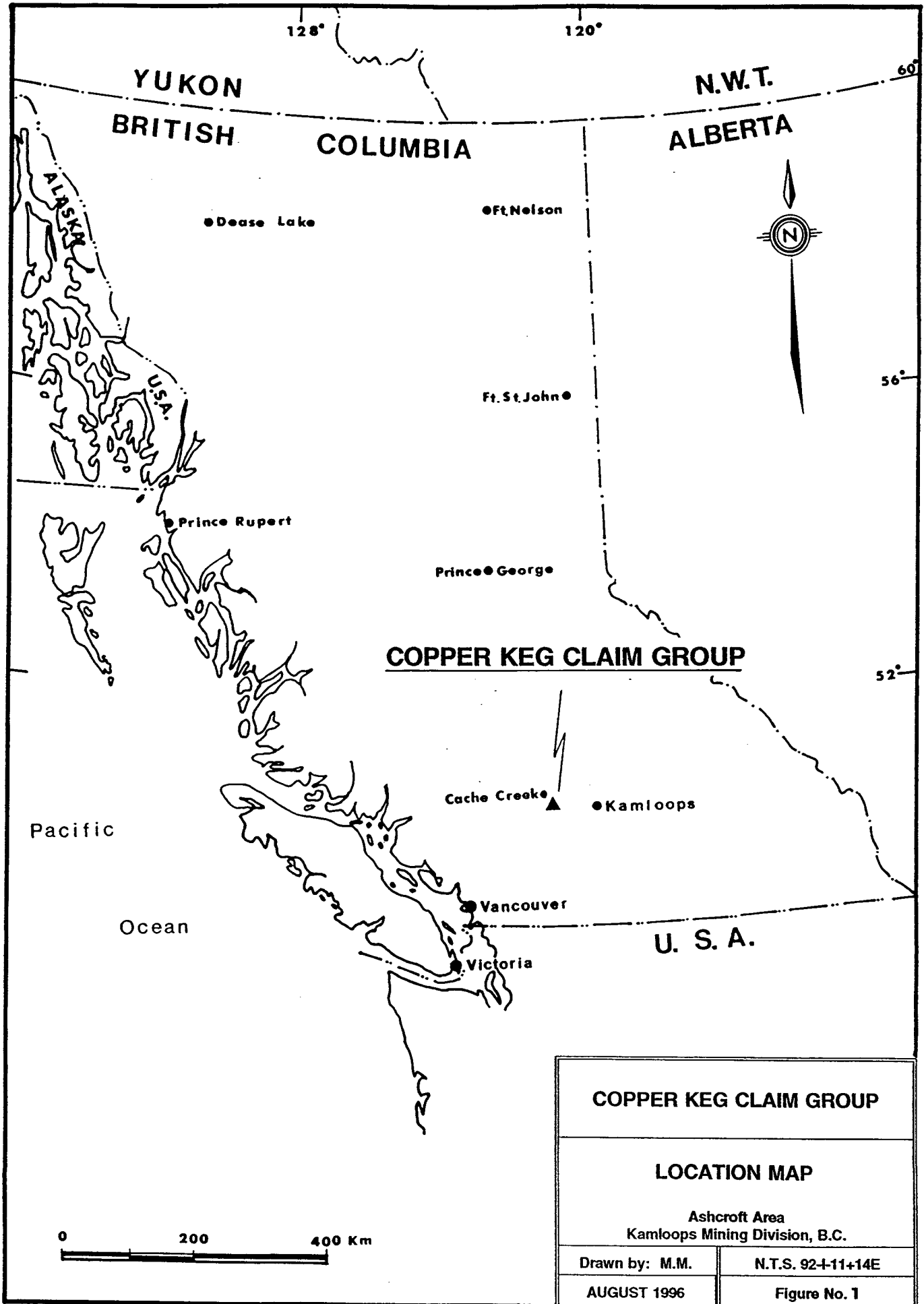
It is suggested that the spectacular gossan on the property could mark just the edge (i.e. halo) of a very large hydrothermal system that could have deposited concentrations of copper or molybdenum at any point along the Barnes Creek Fault. It is believed that there is potential for finding both primary and supergene ore along the Barnes Creek Fault.

SUMMARY continued

This year's ground VLF-EM survey suggests that an east-west fault may define the southern edge of the quartz diorite plug on the Copper Keg 9 mineral claim and that this fault may also have highly altered and pyritized rock associated with it.

Two targets for further exploration have been selected on the Copper Keg 9 mineral claim based on the results of this year's VLF-EM survey. The first target is a VLF-EM conductor that is coincident with the east-west valley (inferred fault), and the second target is located where the east-west inferred fault intersects the Barnes Creek Fault. Each target is expected to represent faulted, altered and mineralized rock.

A program of biogeochemical surveying, using sagebrush as a medium, is recommended for each drift covered target area. A follow-up, low-cost, Percussion Drilling Program is then recommended to test any biogeochemical copper and/or molybdenum anomalies that may be found.



INTRODUCTION

This report, written for government assessment work requirements, discusses the results of a ground VLF-EM Survey carried out over portions of the Copper Keg 9-11 mineral claims by the writer during early May, 1996.

The Copper Keg Group, comprised of 14 contiguous 2-post mineral claims, was staked by the writer in May, 1995, to cover a spectacular gossan located on the southern side of the Thompson River, 9 km northeast of Ashcroft, B.C.

The gossan, located immediately south of the Canadian Pacific Railway tracks, is coincident with a zone of highly fractured, altered and pyritized rock that is well exposed in a steep-sided ravine. The ravine marks the northwestern end of the Barnes Creek Fault - a late fault that cuts diagonally across the northeast corner of the Guichon Creek Batholith (McMillan, 1976). The fault separates a quartz diorite hybrid phase of the Early Jurassic Guichon Creek Batholith on the northeast from the Upper Triassic Nicola Group rocks that lie to the southwest on the Copper Keg property.

Although the Barnes Creek Fault is very well exposed in the ravine on the northern half of the Copper Keg property glacial drift and Tertiary Age volcanics cover all pre-Jurassic Age rocks to the southeast, and the fault cannot be traced on surface across the southern half of the property. Over a period of years the writer has conducted several surveys (VLF-EM, magnetometer and geological mapping) in an attempt to trace the fault from the ravine to the southern half of the property (Morrison, 1984, 91 & 92).

A VLF-EM survey conducted during 1984 discovered a strong conductor coincident with an east-west valley that runs obliquely into the Barnes Creek Fault in an area now covered by the Copper Keg 9-11 mineral claims. The lay-out of the 1984 survey grid was not well suited to accentuate an east-west conductor, so it was decided to resurvey the valley this year with a series of grid lines running perpendicular across the valley.

INTRODUCTION (continued)

The results of this year's VLF-EM survey are displayed on Figures 4 & 5. Figure 4 shows the Dip Angle and Field Strength data measured during the survey, while Figure 5 represents the VLF-EM data in a Fraser Filtered contour form.

LOCATION AND ACCESS

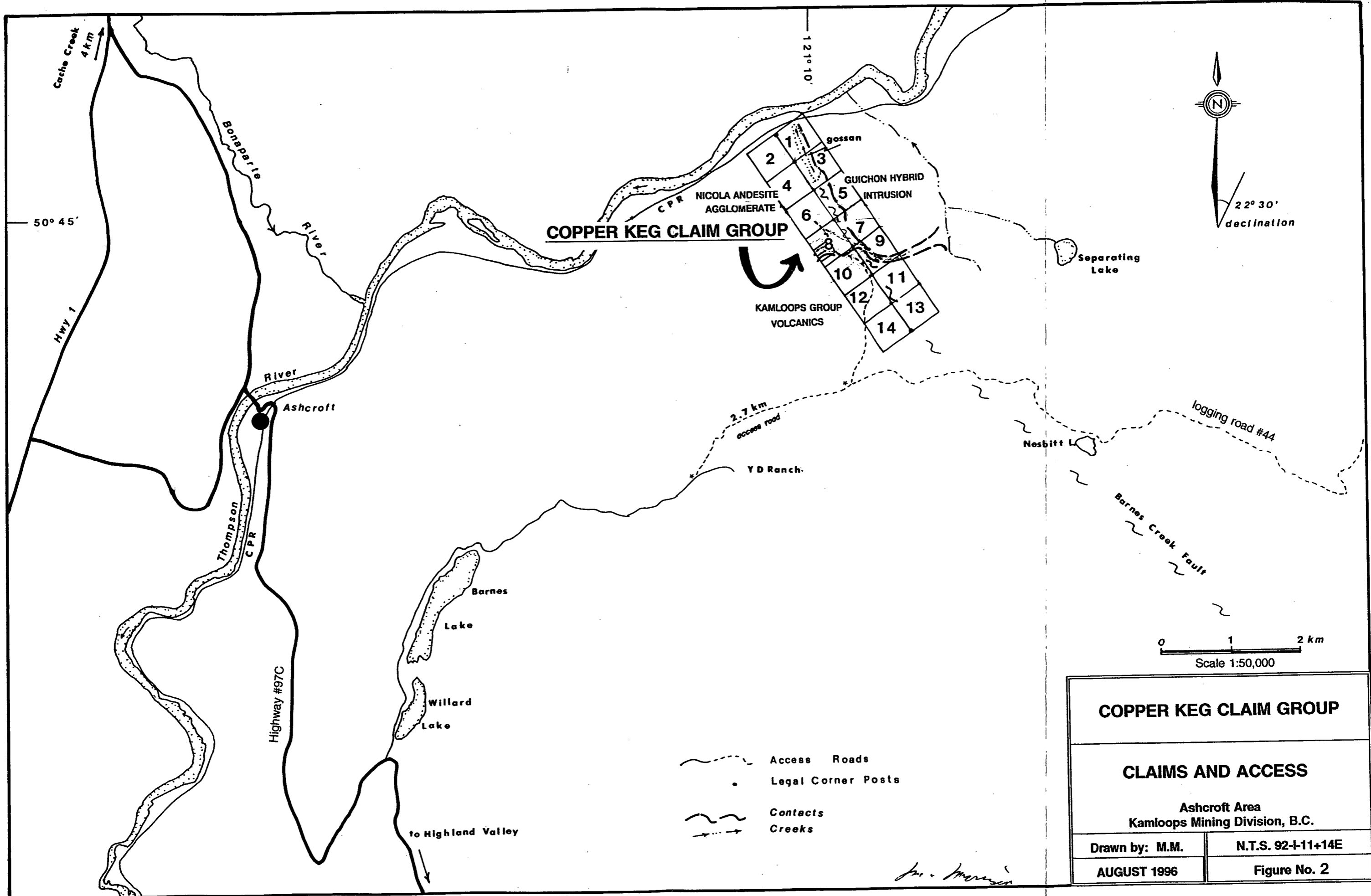
The Copper Keg Claim group is situated immediately south of the Thompson River, 9 km northeast of Ashcroft, B.C. (Lat. 50°45'; Long. 121°10'; N.T.S. Maps 92-I-11 & 14E). The property is reached from Ashcroft via the Highland Valley Highway (#97C) and the Barnes Lake Road (which is also known as logging road #44). A dirt road branches north from logging road #44 at the 10 km sign, and this road gives access to the central portion of the property as illustrated on Figure 2.

The dirt road requires a four-wheel-drive vehicle during the wet Spring and Autumn seasons.

PHYSICAL FEATURES AND CLIMATE

The first four Copper Keg mineral claims (Copper Keg 1-4) cover a steep, rocky slope immediately south of the Canadian Pacific Railway tracks on the south side of the Thompson River. The slope rises from the 350 metre elevation at the tracks to the 670 metre elevation over a distance of just 0.5 km. The slope continues at a more moderate grade to the 760 metre elevation across the Copper Keg 5-8 mineral claims, and then levels out over the southern half of the property (Copper Keg 9-14 mineral claims) with an average elevation of 820 metres above sea level.

Precipitous bluffs on the eastern side of the Copper Keg 1 & 3 mineral claims are coincident with outcrop of intrusive rock.



COPPER KEG CLAIM GROUP	
CLAIMS AND ACCESS	
Ashcroft Area Kamloops Mining Division, B.C.	
Drawn by: M.M.	N.T.S. 92-11+14E
AUGUST 1996	Figure No. 2

John Morrison

PHYSICAL FEATURES AND CLIMATE (continued)

A light, patchy forest of Ponderosa pine, Douglas fir, and juniper occurs on northern slopes and in ravines. Elsewhere, sagebrush is widespread across the property.

The Thompson River Valley at Ashcroft has a desert climate with less than 25 cm of precipitation annually and summer temperatures often greater than 30°C. The lower slopes on the Copper Keg property have the same desert climate as Ashcroft, but there is a marked increase in precipitation and vegetation with each 100 metre increase in elevation above the river. Much of the upland portion of the property receives enough precipitation to support summer range land for cattle. A creek lying just to the east of the property provides drinking water for the livestock.

The winter snow pack seldom exceeds 30 cm on the Copper Keg property and the snow lasts only from November until early March.

CLAIM STATUS

The mineral claim, making up the Copper Keg Group are 100% owned by the writer, M. Morrison of Kelowna, B.C. Specifics related to the 14, 2-post mineral claims located within the Kamloops Mining Division are given below:

<u>CLAIM NAME</u>	<u>UNITS</u>	<u>DATE OF RECORD</u>	<u>TENURE NUMBER</u>	<u>EXPIRY DATE*</u>
Copper Keg 1	1	May 15, 1995	336345	May 15, 1997
Copper Keg 2	1	May 15, 1995	336346	May 15, 1997
Copper Keg 3	1	May 15, 1995	336347	May 15, 1997
Copper Keg 4	1	May 15, 1995	336348	May 15, 1997
Copper Keg 5	1	May 14, 1995	336349	May 14, 1997
Copper Keg 6	1	May 14, 1995	336350	May 14, 1997
Copper Keg 7	1	May 14, 1995	336351	May 14, 1997
Copper Keg 8	1	May 14, 1995	336352	May 14, 1997
Copper Keg 9	1	May 14, 1995	336353	May 14, 1997
Copper Keg 10	1	May 14, 1995	336354	May 14, 1997
Copper Keg 11	1	May 14, 1995	336355	May 14, 1997
Copper Keg 12	1	May 14, 1995	336356	May 14, 1997
Copper Keg 13	1	May 14, 1995	336357	May 14, 1997
Copper Keg 14	1	May 14, 1995	336358	May 14, 1997

Note: The new Expiry Date is based on the acceptance of this report for Assessment Work Credits.

HISTORY

The large gossan located immediately south of the Canadian Pacific Railway Tracks, and now covered by the Copper Keg Claim Group, was one of British Columbia's early prospects. It was known as the Burr property and it was first described in the Minister of Mines Annual Report for 1898, p. 1107 as follows:

"The Burr group of eight claims is situated about 5.5 miles east of Ashcroft, on the C.P. Railway, which runs through the property. It has a large body of ore, carrying gold and silver, but principally copper, and lies between diorite and granite. The country rock is diorite.

About 80 feet of tunnelling has been run in on the claims which are most favourably situated for working, as the ore can be dumped into the cars without extra handling."

It wasn't until the late 1960's that the prospect was recorded again in the Minister of Mines Annual Reports (1969, p. 263; 1970, p. 348; and 1971, p. 362). It was called the Pyrite property. Soil geochemical and Induced Polarization surveys were conducted on the Pyrite property and this work was followed-up with the drilling of three diamond drill holes in 1970.

The exact locations of the three drill holes are unknown to the writer, but drill core lying on the ground at two sites well to the west of the gossan zone suggests that at least two of the drill holes were drilled to test targets other than the gossan zone.

The Burr 1 mineral claim was staked by the writer in 1982 to cover the main gossan zone. The gossan and surrounding region were prospected late in 1982 (Morrison, 1983). In 1984, the Burr 2 mineral claim of 20 units was added to the south side of the Burr 1 mineral claim and a ground VLF-EM survey was conducted over ground lying to the southeast of the gossan zone (Morrison, 1984).

HISTORY (continued)

The Burr property was allowed to lapse, but in May, 1990, the writer staked the Key 1-18, 2-post mineral claims to cover the gossan and territory lying to the southeast.

During April, 1991, a ground magnetometer survey was conducted over portions of the Key 3-10 mineral claims (Morrison, 1991) and in 1992 a geological mapping program was carried out on the Key 5-8 mineral claims (Morrison, 1992).

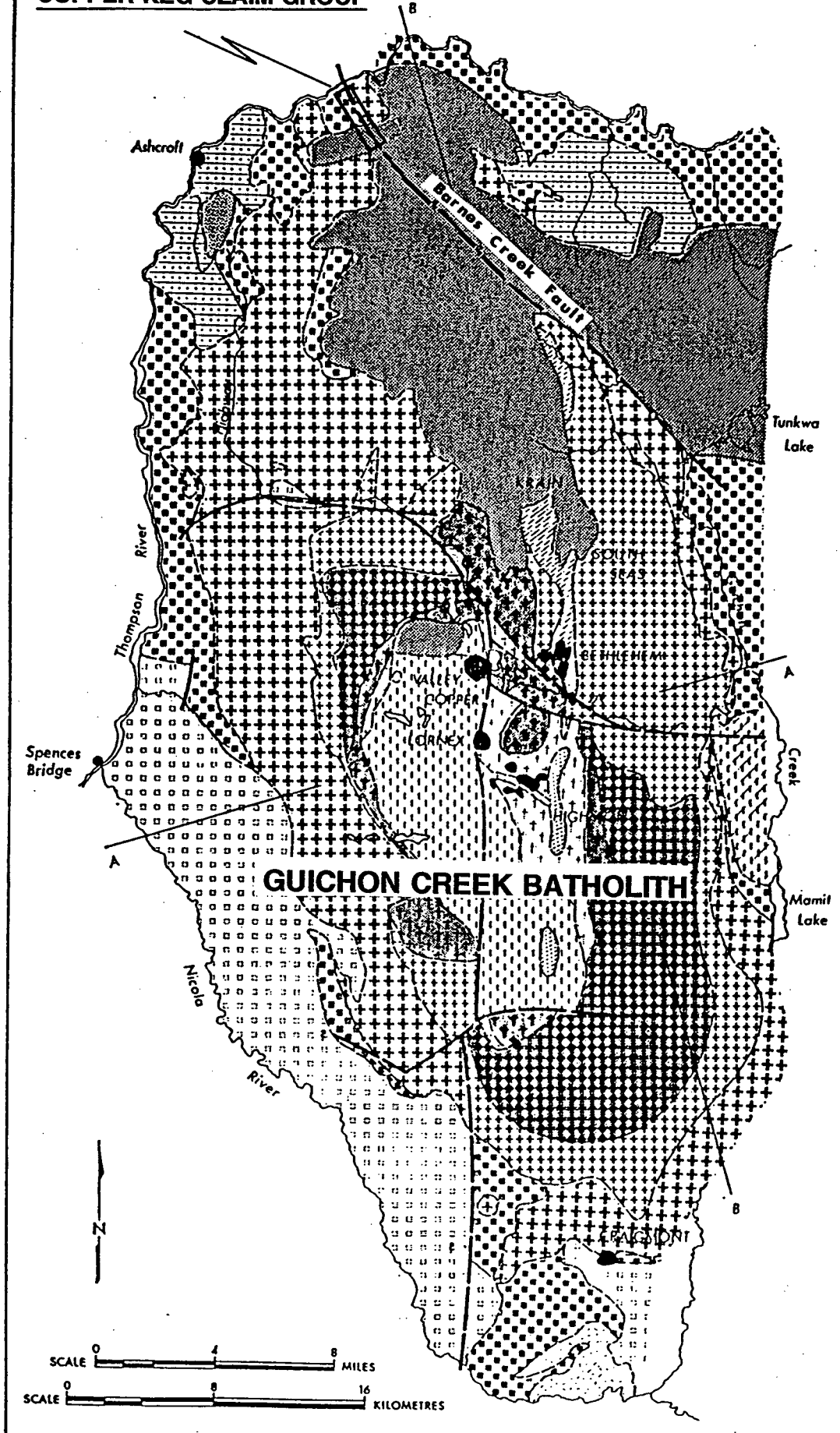
The property was restaked for a second party as the Copper Key 1-18 mineral claims in 1994 and then partially restaked again by the writer in 1995 as the Copper Keg 1-14 mineral claims that now make up the Copper Keg Claim Group.

REGIONAL GEOLOGY

The regional geology of the Highland Valley Copper-Molybdenum District which extends from Ashcroft on the northwest to the old Craigmont Mine (near Merritt) on the southeast is illustrated on Figure 3 accompanying this report. The map which is centered over the Guichon Creek Batholith has been reproduced from a map appearing in C.I.M. Special Volume 15 titled "Porphyry Deposits of the Canadian Cordillera." The map by W.J. McMillan accompanies a paper in Volume 15 entitled "Geology and Genesis of the Highland Valley Ore Deposits and the Guichon Creek Batholith."

The outline of the Copper Keg property, situated northeast of Ashcroft, has been added to the regional map to illustrate the location of the property with respect to: the Barnes Creek Fault; the hybrid phase of the Guichon Creek Batholith; and the world class copper-molybdenum mines (Valley Copper, Lornex and Bethlehem) that lie 30 to 35 km to the southeast.

COPPER KEG CLAIM GROUP

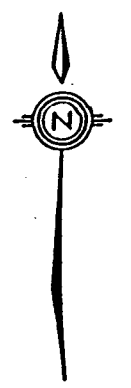


- TERTIARY**
- VOLCANIC AND SEDIMENTARY ROCKS CRETACEOUS (?)
 - VOLCANIC AND SEDIMENTARY ROCKS JURASSIC
 - SEDIMENTARY ROCKS
- INTRUSIVE ROCKS OF THE BATHOLITH**
- POST-BETHSAIDA DYKES
 - BETHSAIDA PHASE
 - POST-SKEENA DYKES AND PLUGS
 - SKEENA VARIETY
 - POST-BETHLEHEM DYKES AND PLUGS
 - BETHLEHEM PHASE *
 - HIGHLAND VALLEY PHASE
 - CHATAWAY VARIETY
 - GUICHON VARIETY
 - HYBRID PHASE
- INTRUSIVE ROCKS OF UNCERTAIN AFFILIATION**
- GUMP LAKE PHASE
 - COYLE "GRANITE"
- UPPER TRIASSIC**
- VOLCANIC AND SEDIMENTARY ROCKS
- SYMBOLS**
- BRECCIA BODIES ▲▲ OR ○
 - ORE DEPOSITS, IMPORTANT PROSPECTS ●
 - AREAS WITH SWARMS OF PORPHYRY DYKES ○
 - FAULTS, MAPPED, INFERRED —
 - SECTION LINES FOR GRAVITY PROFILES A—A

* DESIGNATION OF GRANITIC UNITS AS PHASES OR VARIETIES FOLLOWS THE USAGE OF NORTHCOTE, 1969.

from CIM Special Volume No. 15

J.M. Morrison



COPPER KEG CLAIM GROUP	
REGIONAL GEOLOGY	
GUICHON CREEK BATHOLITH	
Ashcroft Area Kamloops Mining Division, B.C.	
AUGUST 1996	N.T.S. 92-11+14E Figure No. 3

Geology of the Guichon Creek batholith.

REGIONAL GEOLOGY (continued)

Several excellent geological papers have been written about the Guichon Creek Batholith and the large mines located near the centre of the batholith and the reader is referred to the paper cited above for further details.

In the vicinity of the Copper Keg Claim Group, Figure 3 shows that the Barnes Creek Fault dissects the property, separating a hybrid phase of the Guichon Creek Batholith on the northeast side of the property from Upper Triassic Nicola Group rocks on the southwest. Movement on the fault is believed to be left-lateral.

Tertiary volcanics unconformably overlie pre-Tertiary rocks on the southern half of the Copper Keg property.

A mantle of Pleistocene drift covers three-fourths of the property.

PROPERTY GEOLOGY

The geology of the Copper Keg property is relatively simple. A wide fracture zone (Barnes Creek Fault) is coincident with the contact of a quartz diorite plug that is intrusive into an andesite agglomerate. The quartz diorite lying to the northeast of the fracture zone is a medium grained hybrid phase of the Guichon Creek Batholith, while the andesite lying to the southwest is part of the Upper Triassic Nicola Group.

The fracture zone is pyritized, hydrothermally altered and bleached over a width of up to 200 metres. The fracturing, pyritization and clay alteration are particularly well exposed in the steep sided ravine on the Copper Keg 1 & 3 mineral claims, but less well exposed to the southeast where a creek has just begun to cut through the deep drift to bedrock. Further south, on the Copper Keg 9-14 mineral claims, the southeast projection of the Barnes Creek Fault is entirely concealed by Tertiary Kamloops Group volcanics up to 30 metres thick.

PROPERTY GEOLOGY (continued)

Geological mapping in 1992 confirmed that the alteration and pyritization of the quartz diorite and andesite agglomerate postdates the Guichon Creek Intrusion. Both the quartz diorite and andesite have been altered by late hydrothermal solutions that have percolated through the Barnes Creek Fault Zone. It is thought that the hydrothermal solutions have emanated from a late-cooling magma that lies at some shallow depth below surface. Although the mineralization exposed in the ravine is pyrite it is thought that copper or molybdenum may have been deposited by these same hydrothermal solutions at some point along the Barnes Creek Fault.

An east-west valley that is coincident with the southern edge of the quartz diorite intrusive may represent another fault that could be mineralized with pyrite and/or copper and molybdenum. This fault (inferred) which runs into the Barnes Creek Fault at an oblique angle from the east was the focus of this year's VLF-EM survey.

During the course of this year's survey it was noted that some of the volcanics making up the Kamloops Group are rhyolites. Some of the rhyolites contain pyrite and they have been moderately altered by very late hydrothermal solutions.

VLF-EM SURVEY - 1996

Grid

A flagged 700 metre Baseline was established across the east-west valley centred over the Copper Keg 9 mineral claim at 095 degrees azimuth. Fifteen grid lines were then run perpendicular to the Baseline for distances averaging 75 metres to the north and south. In all, 2300 metres of grid line were flagged for the VLF-EM survey with stations measured at 25 metre intervals along each line. A Topolite belt chain and a Silva Ranger compass were used to establish the grid lines in conjunction with the survey.

Program

The VLF (very low frequency) exploration method makes use of high-powered electromagnetic transmissions broadcast by naval radio communication stations distributed around the world. These transmissions induce electric currents in conductive bodies. The induced current produces secondary magnetic fields which can be detected by measuring deviations in the normal VLF fields. VLF-EM instruments are designed to detect these deviations.

A Sabre, Model 27, VLF-EM instrument made by Scintrex was used to conduct the survey over 2.3 km of grid on the Copper Keg property. The Annapolis, Maryland, VLF signal (21.4kHz) was received from a direction of 125 degrees, azimuth, and was used for the entire survey.

In-Phase Tilt Angle readings were taken facing a direction of 125 degrees at each survey station. Northeast tilts were recorded as positive (+) and southwest tilts were recorded as negative (-). Field Strength readings were also recorded at each survey station with the instrument facing 035 degrees, azimuth, perpendicular to the Signal Station.

VLF-EM SURVEY - 1996 continued**Program** continued

Field Strength readings were taken along the Baseline and all grid station readings were then corrected for diurnal variation using the Base Stations along the Baseline in much the same manner as is used for magnetometer surveys. The corrected Field Strength values have been contoured on Figure 4, which also displays the In-Phase Tilt Angles.

The In-Phase Tilt Angle values have been Fraser Filtered and contoured on Figure 5. The Fraser Filtering of VLF-EM data has had widespread use for several years, and a full explanation of the technique is given in the geophysical papers by Fraser, Peterson and Ronka that are listed with references at the end of this report.

The Fraser filtering technique may be briefly summarized as follows: by means of simple mathematical operations the tilt data can be transformed into contourable form, and the effects of noise and topography can be filtered from data. By averaging pairs of stations and taking differences between pairs separated by the appropriate distance, values may be plotted and contoured in plan that transform cross-overs into peaks, and a low-pass smoothing mathematical operator reduces noise.

Results

Two moderately strong VLF-EM conductors and one lesser conductor have been identified during this year's survey. They have been denoted with the letters A, B and C on both Figures 4 & 5. The contoured Fraser Filtered In-Phase data on Figure 5 defines the conductors distinctly, while the contoured Field Strength data on Figure 4 outlines three anomalies coincident with the three conductors. A description of the conductors is given in the following paragraphs.

VLF-EM SURVEY - 1996 continued**Conductor A**

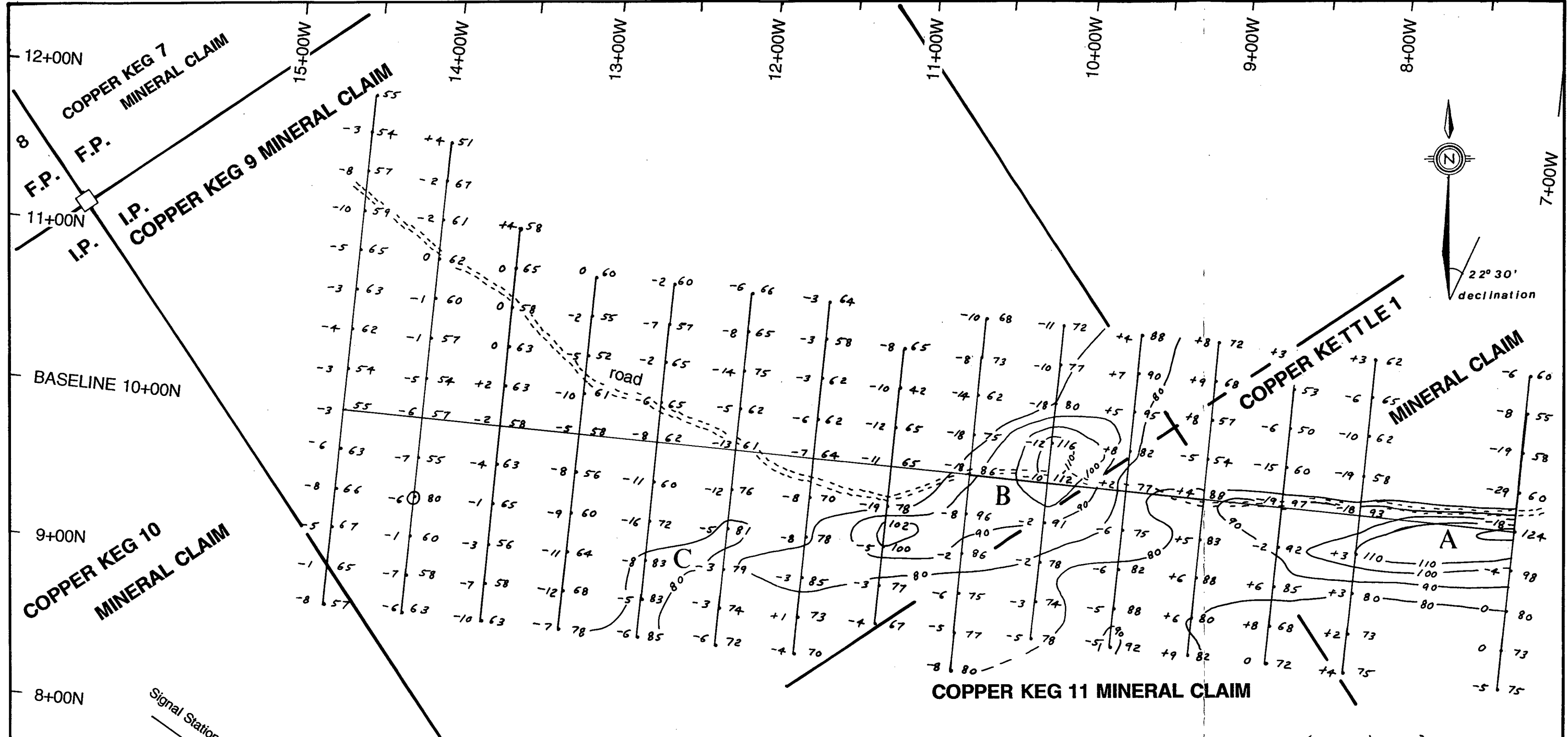
Conductor A is located 15 metres south of Baseline 10+00N and parallels the Baseline for 200 metres from the edge of the survey area on L7+00W to L9+00W. The conductor is strong and located in the middle of a shallow valley. Outcroppings of quartz diorite intrusive lie just 25 metres north of the conductor, and the conductor is interpreted to represent faulted and possibly altered and pyritized rock similar to that found elsewhere on the property (see Discussion).

Conductor B

Conductor B is located just 70 metres west of Conductor A. It strikes at 070 degrees and crosses the valley at an acute angle for 230 metres from 10+25N, 9+70W to 9+35N, 11+50W. The conductor extends from the quartz diorite on the north side of the valley well into the Kamloops Group volcanics on the south side of the valley. Conductor B, like Conductor A, could represent faulted, altered and pyritized rock.

Conductor C

Conductor C is a weak conductor that extends only 50 metres from L12+00W to L12+50W. It is situated entirely on the south side of the valley in an area that is underlain by Kamloops Group volcanics. The most interesting feature of Conductor C is that it parallels Conductor B at 070 degrees.



COPPER KEG 7
MINERAL CLAIM

F.P.
F.P.

I.P.
COPPER KEG 9 MINERAL CLAIM

BASELINE 10+00N

COPPER KEG 10
MINERAL CLAIM

8+00N

Signal Station: Annapolis, Maryland

COPPER KETTLE 1
MINERAL CLAIM

COPPER KEG 11 MINERAL CLAIM

Instrument: Sabre, Model 27, by Scintrex

Please see Figure 5 for Fraser Filtered Data

Claim Posts tied-in with Compass and Belt Chain

In Phase in degrees -1 65
-8 57 Field Strength

0m 50m 100 metres

Scale 1:2500

COPPER KEG CLAIM GROUP

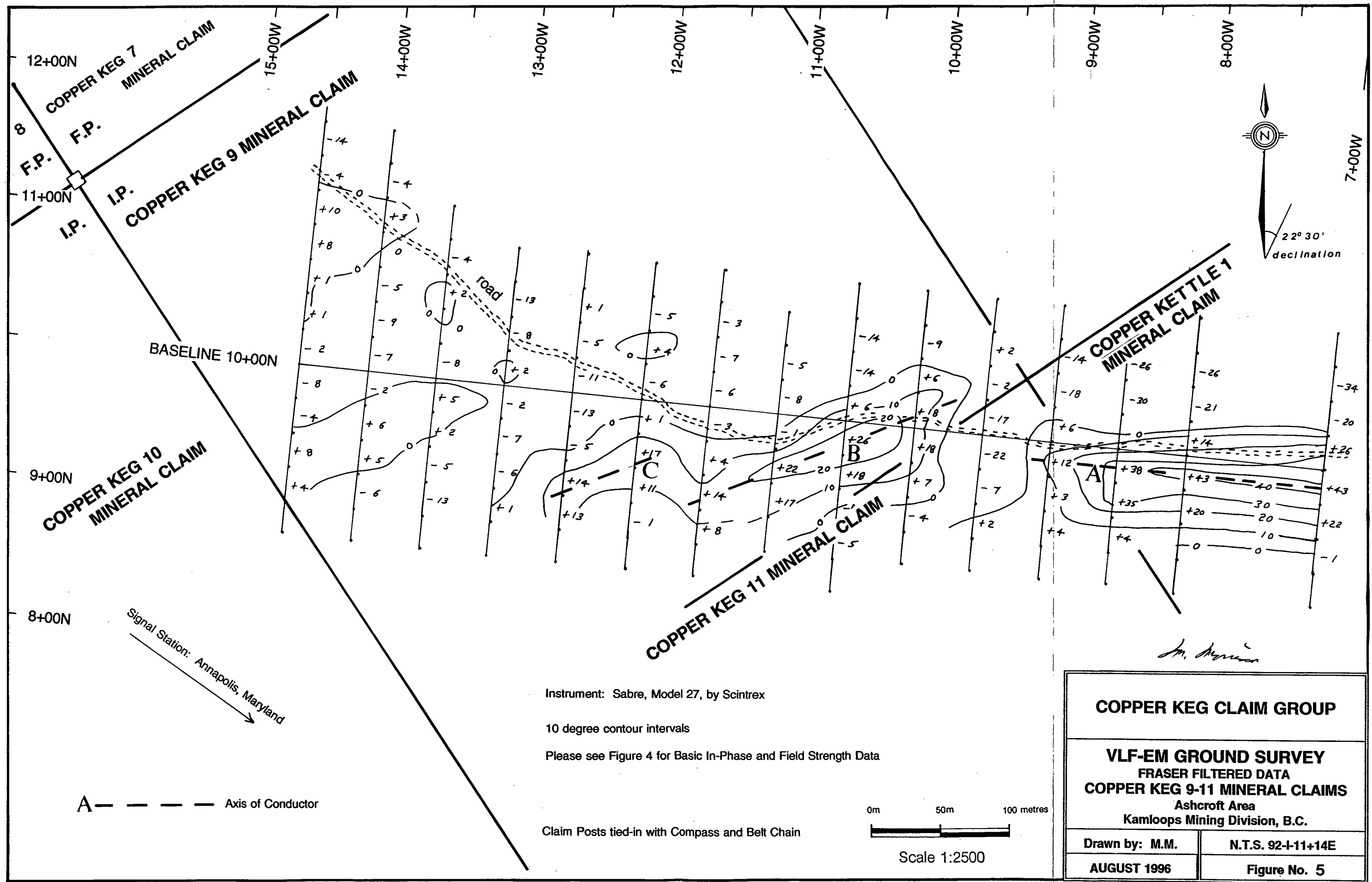
VLF-EM GROUND SURVEY
IN-PHASE & FIELD STRENGTH BASIC DATA
COPPER KEG 9-11 MINERAL CLAIMS
Ashcroft Area
Kamloops Mining Division, B.C.

Drawn by: M.M.

N.T.S. 92-I-11+14E

AUGUST 1996

Figure No. 4



Instrument: Sabre, Model 27, by Scintrex

10 degree contour intervals

Please see Figure 4 for Basic In-Phase and Field Strength Data

Claim Posts tied-in with Compass and Belt Chain

0m 50m 100 metres

Scale 1:2500

COPPER KEG CLAIM GROUP

VLF-EM GROUND SURVEY
FRASER FILTERED DATA
COPPER KEG 9-11 MINERAL CLAIMS
 Ashcroft Area
 Kamloops Mining Division, B.C.

Drawn by: M.M.

N.T.S. 92-I-11+14E

AUGUST 1996

Figure No. 5

DISCUSSION

The three conductors, A, B & C, described under the previous title (Results) would line up as a single conductor, if Conductors B & C were rotated 15 degrees to parallel the Baseline and the valley. It is considered possible that Conductors B & C are segments of a single conductor that has been disrupted by late north-south faulting.

It is possible that the southern side of the quartz diorite is in fault contact with Nicola Group rocks just as the southeast side of the intrusive is coincident with the Barnes Creek Fault. The same intense alteration and pyritization that occurs with the spectacular gossan on the Copper Keg 1 & 3 mineral claims may occur along the south side of the intrusive on the Copper Keg 9 mineral claim. The strong conductors of this year's VLF-EM survey suggest that this could in fact be true.

The projected intersection of the east-west inferred fault with the Barnes Creek Fault would be a very favorable exploration target in theory with intense alteration and mineralization expected. Unfortunately, this intersection occurs on a portion of the Copper Keg 9 mineral claim where the glacial drift is deep and this year's survey identified no VLF-EM conductors in the area.

Pyrite is the only sulphide mineral that occurs in abundance at the spectacular gossan on the Copper Keg 1 & 3 mineral claims, but the intensity of the alteration suggests that a very large hydrothermal system is associated with the Barnes Creek Fault. As stated earlier (see Property Geology) the hydrothermal system postdates the intrusion of the Guichon hybrid quartz diorite, and it is therefore thought to be related to a late-cooling magma that lies at some depth below the present erosion surface.

DISCUSSION (continued)

It is suggested that such a large system could have deposited economic concentrations of copper or molybdenum at any point along the Barnes Creek Fault, and that the pyrite occurring at the spectacular gossan may mark just the outer perimeter of the very large system. (Every experienced explorationist knows that most large mines have a pyrite halo that extends well out from the orebody in one or more directions. The well-known Maggie Gossan located 15 km northwest of Cache Creek, B.C. is just one example).

There is also the possibility that a pre-Tertiary supergene copper deposit could have formed on the property and that it could have been covered by the Kamloops Group volcanics and protected from erosion during the Pleistocene Period. (Similar circumstances resulted in the occurrence of some supergene copper ore at the Afton Mine near Kamloops).

In addition to the potential for finding primary or supergene economic mineralization beneath the thin cover of drift or Tertiary volcanics along the Barnes Creek Fault on the Copper Keg Claim Group the results of this year's VLF-EM survey point out that the east-west inferred fault along the south side of the quartz diorite intrusive is also a valid exploration target.

Two key areas on the Copper Keg Claim Group have been selected for further exploration as a result of this year's survey. The first target is on the Copper Keg 9 mineral claim where the east-west inferred fault is believed to intersect the Barnes Creek Fault and the second target is VLF-EM Conductor A, also located on the Copper Keg 9 mineral claim. The drift cover in both target areas is deep and an experimental biogeochemical survey is recommended using sagebrush as a sample medium. Sagebrush has been used effectively for the location of copper mineralization in the Afton Mine area near Kamloops.

A low-cost Percussion Drilling Program should be used to test any biogeochemical anomalies found in the target area. Both areas are readily accessible.

DISCUSSION (continued)

The Copper Keg Claim Group is situated halfway between the very large copper-molybdenum mines of Highland Valley and the multi-million ton Maggie Deposit of copper-molybdenum mineralization which is located 15 km northwest of Cache Creek, B.C. The Highland Valley mines are related to the Early Jurassic Guichon Creek Batholith, while the Maggie Deposit is related to an Early Tertiary intrusive. Although the Copper Keg gossan occurs in Early Jurassic quartz diorite, a hydrothermal event of possible Early Tertiary age is considered responsible for the pyritization and alteration.

CONCLUSIONS AND RECOMMENDATIONS

The data obtained from this year's VLF-EM survey on the Copper Keg Claim Group, located 9 km northeast of Ashcroft, B.C., supports the hypothesis that an east-west valley coincident with the southern edge of the quartz diorite intrusive on the property represents a fault.

Three weak to strong, subparallel, VLF-EM conductors align with the valley for 600 metres. The magnitude of two of the conductors suggests that they may represent well altered and pyritized rock near the southern contact of the intrusive similar to that which occurs at the spectacular gossan on the Copper Keg 1 & 3 mineral claims coincident with the Barnes Creek Fault (see Property Geology).

The intense alteration and pyritization on the Copper Keg 1 & 3 mineral claims are found in both the hybrid phase quartz diorite plug of the Early Jurassic Guichon Creek Intrusive and the Upper Triassic Nicola Group andesites that have been intruded. It is thought that the hydrothermal event that brought about the alteration and mineralization postdates the Guichon Intrusion and that the hydrothermal solutions have emanated from a later cooling intrusive of possible Early Tertiary Age that is associated with the Barnes Creek Fault, but not yet exposed by erosion.

It is also thought that the intense zone of alteration and pyritization on the Copper Keg 1 & 3 mineral claims may mark just the edge (i.e. halo) of a very large hydrothermal system that could have deposited economic concentrations of copper or molybdenum at any point along the Barnes Creek Fault. It is believed that there is potential for finding both primary and supergene ore on the Copper Keg property, and two areas have been selected for further exploration based on the results of this year's VLF-EM survey (see Discussion).

CONCLUSIONS AND RECOMMENDATIONS (continued)

A program of experimental biogeochemical surveying, using sagebrush as a sample medium, is recommended for the two drift covered exploration targets and a follow-up, low-cost, Percussion Drilling Program is recommended to test any biogeochemical anomalies found (see Discussion).

The two areas recommended for further exploration are readily accessible.

August 9, 1996
Kelowna, B.C.


Murray Morrison, B.Sc.

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APPENDIX A**STATEMENT OF QUALIFICATIONS**

I, Murray Morrison, of the City of Kelowna, in the Province of British Columbia, do hereby state that:

1. I graduated from the University of British Columbia in 1969 with a B.Sc. Degree in Geology.
2. I have been working in all phases of mining exploration in Canada for the past twenty-six years.
3. During the past twenty-six years, I have intermittently held responsible positions as a geologist with various mineral exploration companies in Canada.
4. I have conducted several geological, geochemical, and geophysical surveys on mineral properties in Southern British Columbia during the past twenty-six years.
5. I conducted the Ground VLF-EM Survey outlined in this report.
6. I own a 100% interest in the Copper Keg 1-14 mineral claims.

August 9, 1996
Kelowna, B.C.


Murray Morrison - B.Sc.

APPENDIX B**STATEMENT OF EXPENDITURES - ON THE COPPER KEG CLAIM GROUP**

Statement of Expenditures in connection with a VLF-EM Survey carried out on the Copper Keg Claim Group, located 9 km northeast of Ashcroft, B.C. (N.T.S. Maps 92-I-11&14E) for the year 1996.

VLF-EM SURVEY (2.3 km)

M. Morrison, geologist	2 days @ \$300.00/day	\$ 600
Truck, 4 x 4 (including gasoline and insurance)	2 days @ \$75.00/day	150
Meals and Lodging	2 days @ \$70.00/day	140
Flagging and belt chain thread		20
VLF-EM Instrument rental	2 days @ \$25.00/day	<u>50</u>
	Sub-total:	\$ 960

REPORT PREPARATION COSTS

M. Morrison, geologist	1 day @ \$300.00/day	\$ 300
Drafting		53
Typing		107
Copying reports		<u>20</u>
	Sub-total:	\$ 480
	Grand Total:	\$ <u>1,440</u>

I hereby certify that the preceding statement is a true statement of monies expended in connection with the VLF-EM Survey carried out May 7 & 8, 1996.

August 9, 1996
Kelowna, B.C.


Murray Morrison - Geologist