GEOLOGICAL & PHOTOGEOLOGICAL REPORT

ON THE

CHAT AND SKUHUN CLAIM GROUPS
HIGHLAND VALLEY AREA, BRITISH COLUMBIA

[ASSESSMENT REPORT]

Latitude 50°19' N; Longitude 120°50' W

NTS Map Designation: 02I036 (Chataway Lake 1:20,000 Sheet)

PREPARED FOR GARY ROBERT BROWN

By

William R. Bergey, P.Eng.
Consulting Geologist

March 15, 2007

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GEOLOGICAL & PHOTOGEOLOGICAL REPORT
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[ASSESSMENT REPORT]

INTRODUCTION

The present report describes the assessment work that was carried out on the Chat and Skuhun claim groups, collectively the Copper Hill Property (termed "the Property" herein) owned by Gary Brown. The report is based to a considerable extent on a detailed review and reinterpretation of the very large amount of information on mineral exploration in the area that is contained in government and company reports and maps. Geological mapping and a photo-geological interpretation were carried out by the writer in conjunction with the data compilation. The work covered an area considerably larger than that occupied by the Property in order to permit an interpretation of the data in a regional context.

Although the claim groups are not contiguous, they are covered by a single report since the regional coverage of the work encompasses both properties. I believe that this broad-scale treatment will enhance its usefulness to other exploration groups in this part of the region.

PROPERTY DESCRIPTION & LOCATION

The Property comprises seven tenures in two groups covering 3587.6 hectares. The six-tenure Chat Group includes 3071.8 hectares. The Skuhun Group consists of a single tenure of 515.8 hectares.

The NTS designation of the area is 02I036 (Chataway Lake 1:20,000 Sheet). The intersection of UTM coordinates 5580000N and.650000E lies close to the centre of the Chataway Group. The Skuhun tenure lies about four kilometres southwest of the south-western boundary of the Chataway Group.

The Chataway Group includes contiguous tenures numbered 513249, 513152, 513247, 513248, 312250 and 514482. The Skuhun tenure is numbered 513242. All of the tenures that comprise the Property are unpatented. The tenures and their areas are illustrated on Figure 1. Due date on all of the tenures is March 1 2008.

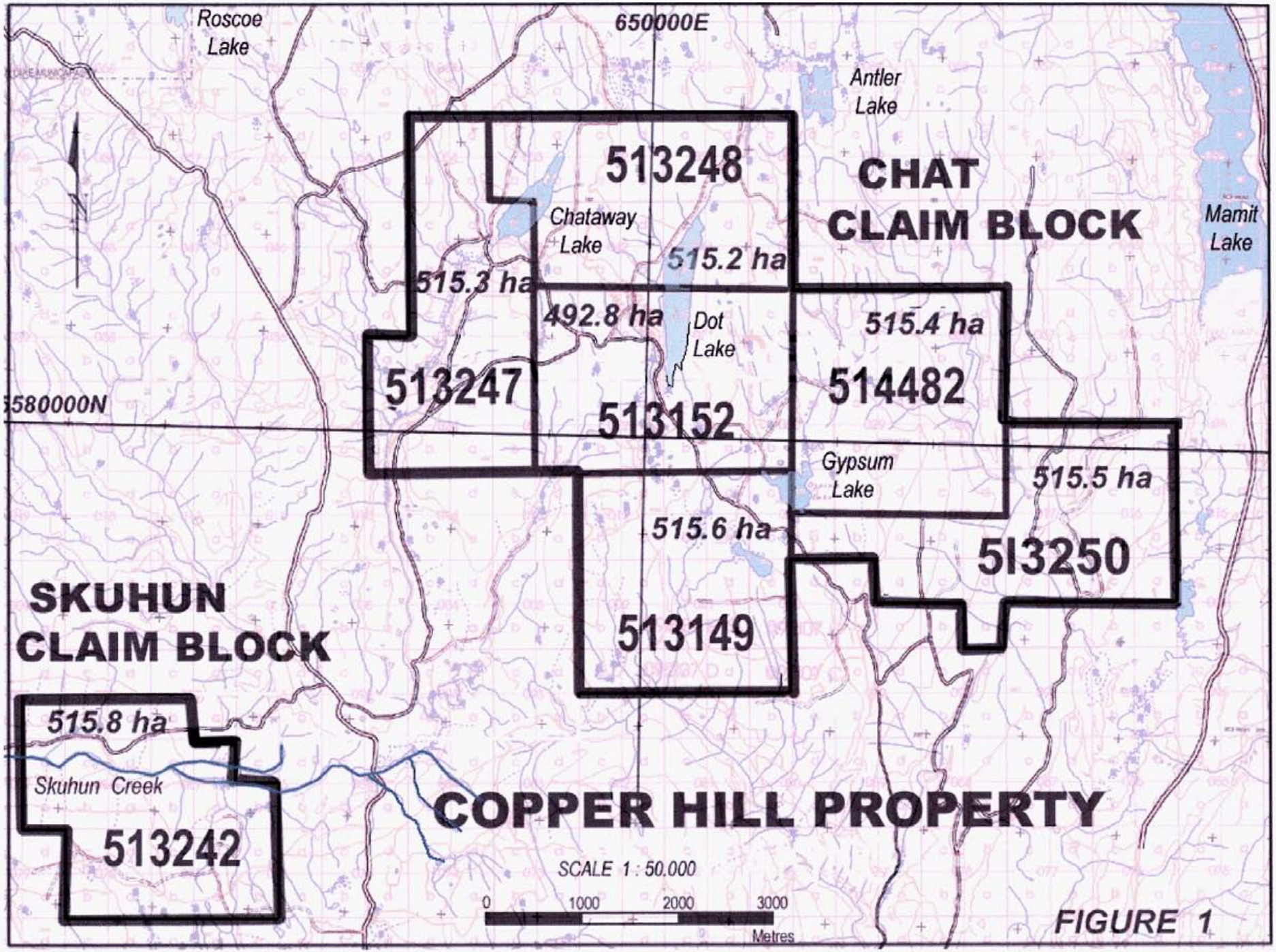

Roscoe Lake
650000E
Antler Lake
513248
CHAT CLAIM BLOCK
Chataway Lake
515.2 ha
515.3 ha
492.8 ha
Dot Lake
515.4 ha
Mamit Lake
513247
514482
580000N
513152
Gypsum Lake
515.5 ha
515.6 ha
513250
SKUHUN CLAIM BLOCK
513149
515.8 ha
Skuhun Creek
513242
COPPER HILL PROPERTY
SCALE 1 : 50,000
0 1000 2000 3000
Metres

FIGURE 1

LOCATION, ACCESS & CHARACTER OF THE REGION

The Property lies within the north-eastern portion of a high plateau that drops off abruptly toward the Guichon Creek valley in the eastern part of the Property. The topography on the plateau is characterized by moderately steep-sided hills with local relief of less than 100 metres except along the western part of the valley of Skuhun Creek which lies more than 200 metres below the average surface of the plateau. Elevations are highest in the north-western part of the area, averaging more than 1500 metres north and west of Chataway Lake. Mamit Lake, close to the eastern edge of the Property, lies below 1000 metres.

The north-western portion of the map area falls within the biogeoclimatic zone.classified as *Sub-Boreal Spruce*. To the south and east this is replaced by the *Interior Douglas-Fir* zone. In local terms, Lodgepole Pine is supplanted as the predominant tree species by Ponderosa Pine along the more arid lower slopes of the Guichon Creek valley. This transition is apparent in the patchwork of clear-cut logging on the plateau — the result of pine beetle infestation of the locally favoured Lodgepole Pine.

The area is accessible by road from the town of Merritt, which lies 180 kilometres east of Vancouver by freeway, and also from the city of Kamloops via Logan Lake townsite and the Highland Valley mining district. The access route from Merritt follows a paved highway for 20 kilometres via Lower Nicola, thence along a network of gravel roads for an additional 8 to 10 kilometres to the southern parts of the Property. The local road network is shown on Figure 1. (The road to Chataway Lake in the north-western part Property is maintained throughout the year).

The map area has a cool-temperate to sub-boreal climate with fairly hot summers and cold winters. Rainfall and snowfall are moderate. Mineral exploration commonly is carried out throughout the year. Open-pit mining in the Highland Valley copper district is not unduly hindered by the climatic conditions.

HISTORY

Intensive prospecting was carried out in the late 1800's within a mineralized belt, that I have termed the "Southeast Belt." It extends for about five kilometres south-southeast from Twilight Lake, in the central part of the Property. Early in the following century attempts were made to mine high-grade copper veins that were emplaced along northeast-trending faults and shears at several localities, including the Aberdeen, Vimy and Wiz Mines (see Figures 4 & 8). More recent exploration work has expanded some of the vein deposits and there is evidence that porphyry-copper type mineralization is present in association with the veins.

Intensive modern prospecting activity in the vicinity of the Property commenced after the recognition that the Bethlehem prospect, located 13 kilometres north of Chataway Lake, contained a porphyry copper deposit that could be mined in a large-scale, low-cost operation. Following the opening of this mine in 1962, major porphyry-copper discoveries were made south of Bethlehem at Lornex, Valley Copper, Highmont and JA. Although cyclic in nature, in tune with metal-price cycles, exploration in the region has been intense since the 1960's.

Chataway Exploration Co. held all of the western and central parts of the Property during the 1960's and early 1970's. In addition to carrying out a good deal of work on its own account, this company farmed out portions of its holdings to a succession of mining companies during this period. The results of their combined efforts provided me with a great deal of the raw data for this report. The acquisition, plotting to a common base and evaluation of the very considerable amount of exploration data in the vicinity of the property proved to be a major undertaking.

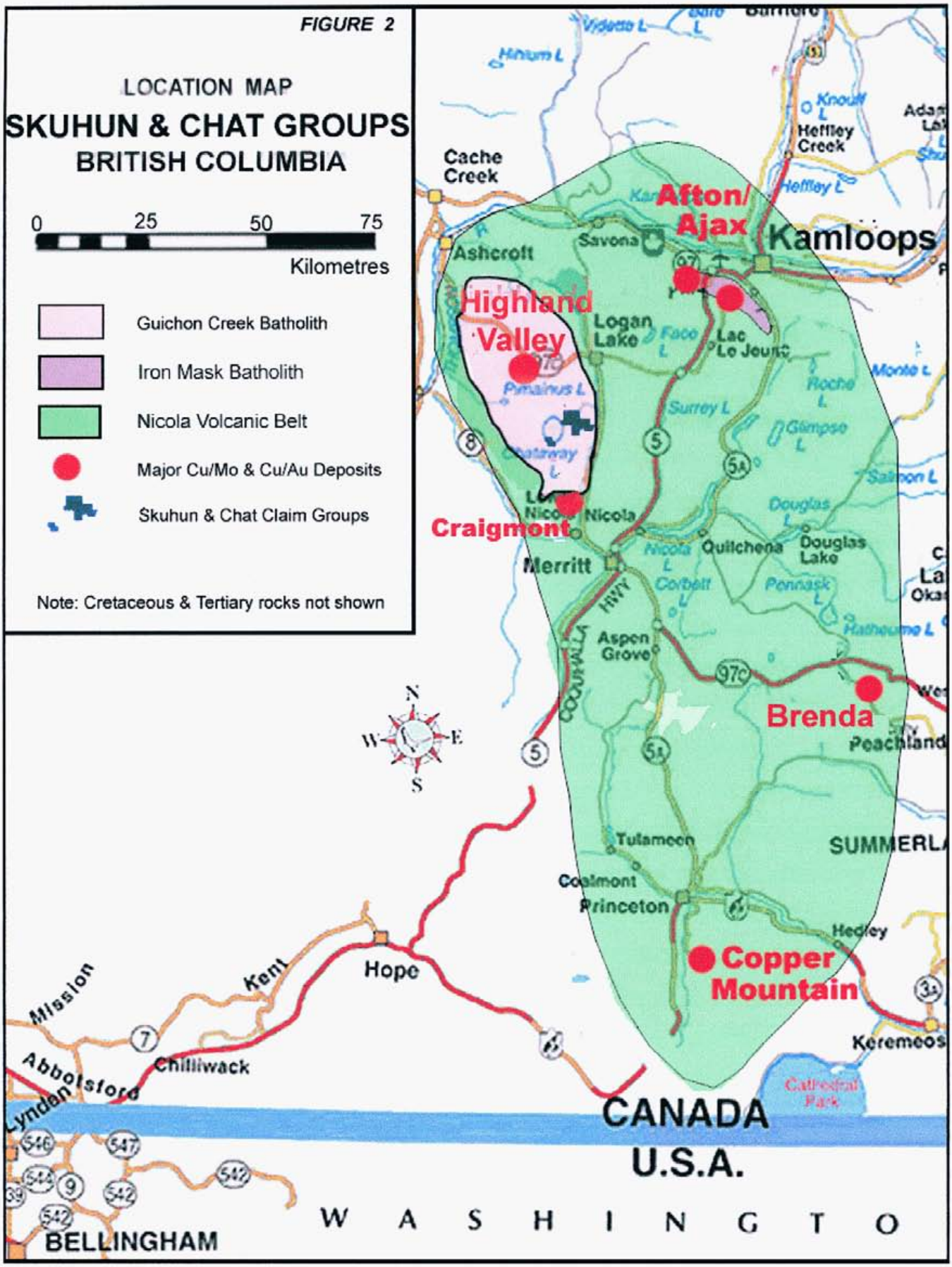


FIGURE 2
LOCATION MAP
SKUHUN & CHAT GROUPS
BRITISH COLUMBIA
0 25 50 75
Kilometres
Guichon Creek Batholith
Iron Mask Batholith
Nicola Volcanic Belt
Major Cu/Mo & Cu/Au Deposits
Skuhun & Chat Claim Groups
Note: Cretaceous & Tertiary rocks not shown
Afton/
Ajax
Kamloops
Highland
Valley
Craigmont
Brenda
Copper
Mountain
Cache
Creek
Ashcroft
Savona
Logan
Lake
Merritt
Nicola
Quilchena
Douglas
Lake
Aspen
Grove
Tulameen
Coalmont
Princeton
Hedley
Keremeos
Peachland
Hope
Kent
Mission
Abbotsford
Chilliwack
Lynden
BELLINGHAM
CANADA
U.S.A.
W A S H I N G T O
N
W
E
S

The following summary lists various exploration programs that have been carried out within and adjacent to the Property. Details of some of the early work by Chataway Exploration Co. are lacking but summaries are included in later reports.

Chat Group

1958: Craigmont Mines Ltd. carried out a magnetometer survey in the vicinity of the Buck showings (Rennie, 1958). The prospect is located close to the margin of the Guichon batholith in a similar geological setting to the Craigmont mine, a recent discovery at the time.

1963: Geological mapping was undertaken to aid in the interpretation of physical work previously carried out by Chataway Exploration in the south-eastern part of their property (McTaggart, 1963).

1964: Induced polarization and electromagnetic surveys were carried out within two small areas for Chataway Exploration Co. (Selmser, 1964). Drilling south of Chataway Lake based on these surveys was done later, but no details have been uncovered on the results of this work – although an ore resource was announced by the company.

1966-67: A joint exploration program was carried out by Chataway Exploration and Bralorne Pioneer Mines. Most of the work was carried south of the eastern part of the Property but an IP survey extended into Chat Group near Twilight Lake, where a substantial anomaly was detected. The work included 25 percussion drill holes, mainly in the area designated as the No.4 Zone, a part of the Southeast mineralized trend (see Figure 8).

1968: Geological mapping of the entire Chataway Explorations property was carried out (Meyer, 1969).. This work provided a sound geological base for later exploration in the area and was particularly important to my photo-geological study since it accurately located most of the outcrops in the western three-quarters of the Property.

1969: Chisholm Prospection Ltd. carried out geochemical, magnetometer and IP surveys over the area surrounding the Buck prospect, close to the margin of the Guichon batholith (Chisholm, 1969: Prendergast, 1969).

1970: Asarco carried out a systematic program of percussion drilling on a 1500-foot grid that included 56 shallow holes. In addition, they drilled 9 follow-up holes to somewhat greater depths (Bayley, 1970). Nearly one-half of this drilling was located within the Property.

1971: Much of the information on exploration work carried out on the Chataway Exploration property is contained in Sanguinetti (1971.)

1972: Canadian Superior Exploration carried out induced polarization surveys and diamond drilling on parts of the Chataway Exploration property (Brace & Murphy, 1972; Murphy, 1972). Mamit Lake Mines Ltd. carried out magnetometer and geochemical surveys on the Buck prospect (Hings, 1972).

1975: Yukonadian Mineral Exploration Ltd. carried out a geochemical survey over the Buck prospect-area (McBean, (1975).

1979: An induced polarization survey was completed west of Chataway Lake for Lawrence Mining Corp.(Mullan & Hallof, 1979).

1980-82. Cominco Ltd. carried out magnetic and induced polarization surveys covering Mamit Lake and a large area to the west. The surveying included the western portion of the Chataway Group (Scott, 1980; Stewart, 1981a,b).

1986: John Lepinski carried out geological mapping and geochemical rock sampling in an area bordering the Chat Group south of Gypsum Lake (Gower, 1986).

1 991: Aucumo Resources carried out stream-sediment sampling and a minor amount of soil geochemical sampling on the CVS Property. This property included the western and central portions of the present Chat Group (Troup, 1992a,b).

1992: Hudson Bay Exploration carried out an extensive induced polarization survey of the CVS Property. This work is particularly relevant to the present report since it gave blanket coverage to the western part of the Property, and utilized more sophisticated geophysical equipment, to areas that had been surveyed previously in piecemeal fashion (Walcott, 1992).

Skuhun Group

1968: Northwest Syndicate carried out an induced polarization survey within an area along the Skuhun Creek valley that included the present Skuhun Group (Chaplin, 1968).

1969: Tyner Lake Mines Ltd. carried out magnetometer and induced polarization surveys over a large block of claims that covered a large area north and south of Skuhun Creek (Cannon, 1969). Canex Placer (Ruck, 1981) tested an induced polarization anomaly located a short distance east of the Skuhun Group. I have been unable to locate detailed information on this work.

1980: Pearl Resources Ltd. drilled eight shallow percussion holes within the area of the present Skuhun Group. (DeLeen, 1980).

1981. Pearl Resources Ltd. drilled eight percussion holes within and east of the present Shuhun Group (Ruck, 1981).

1982. SMD Mining drilled 7 diamond drill holes on the property to test portions of the Skuhun fault within the Skuhun Group (Chan, 1982).

SCOPE OF THE RECENT WORK

Field mapping was carried out by the writer between June and November, 2006, mainly in conjunction with a photo-geological study. A total of 48 rock specimens were collected. These were sawed and examined under the binocular microscope. In addition, a limited amount of prospecting and stream-sediment sampling was undertaken by G. Lovang. Nine silt samples were collected.

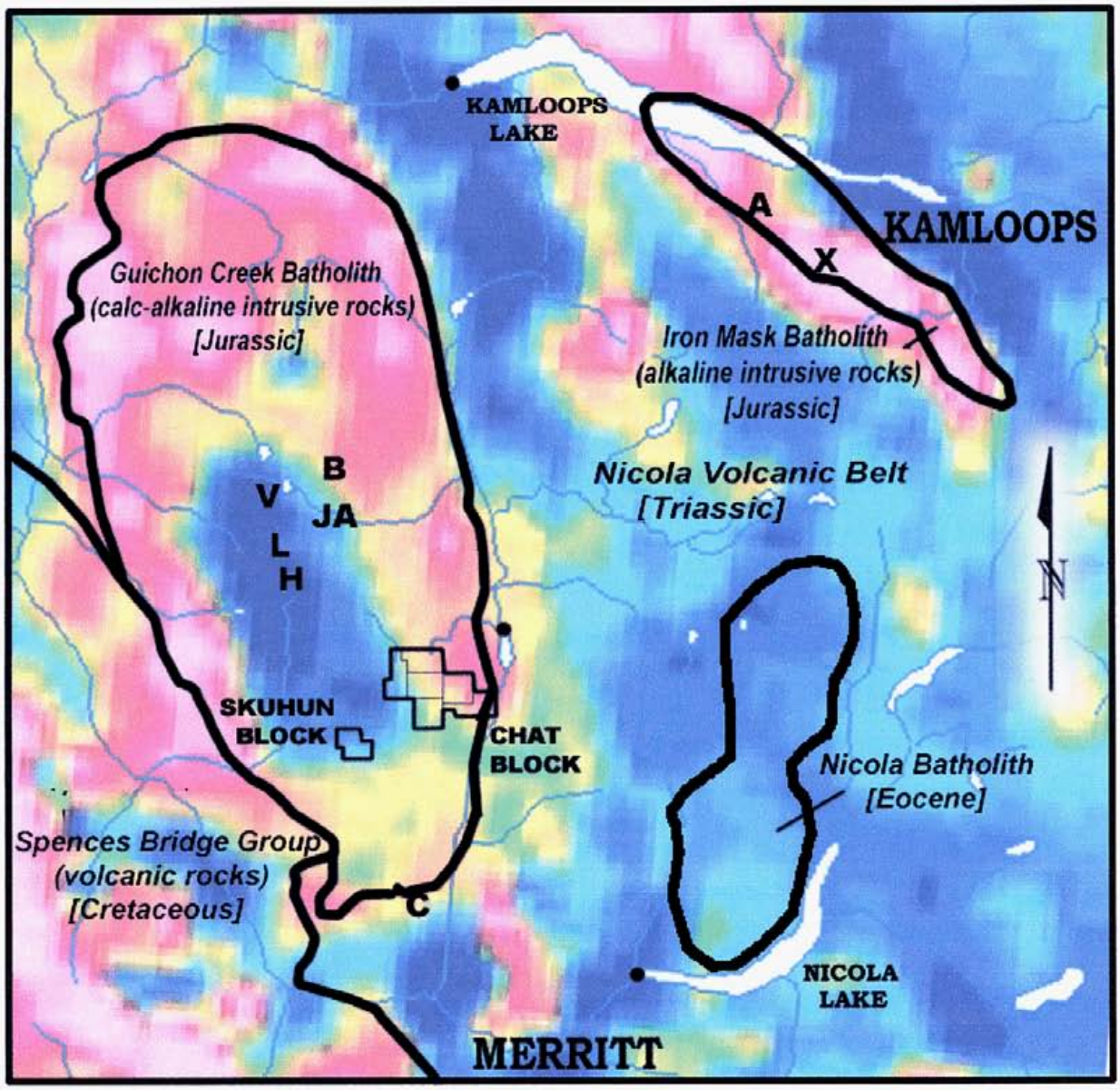
The voluminous information from previous work that was carried out in the area during the past 50 years was scrutinized and compiled. The raw data included more than 30 assessment reports, a variety of published technical maps and reports, and a number of private reports by Chataway Exploration Co. and their exploration partners. The descriptions of the exploration work described later in this report were based on my appraisal of the previous work in the light of the geological insights provided by the photo-geological interpretation and by my recent and earlier field work in the region.

Photo-geological Interpretation

The initial regional interpretation was carried out using 1987 black-and-white air photos at a scale of 1:75,000 followed by the detailed interpretation on 2006 colour photos at 1:20,000 scale of the area adjacent to the Property. The interpretation was carried out in conjunction with ongoing field mapping and was revised several times. The results of the photo-geology were layered on the computer with the data compiled from the previous exploration work. The final geological map of the Property and its environs was plotted at 1:20,000 and reduced to 1:40,000 for inclusion in this report (Figures 5b, 5c). The regional photo-geological results for the central portion of the Guichon batholith are shown in simplified form on Figure 3.

Interpretation of air photos is an extremely valuable -- and vastly underused -- exploration tool in appropriate circumstances. In the present case, it was not possible to distinguish between varieties of the Guichon Creek intrusions due to their overall homogeneity. (The published maps are generally accurate and provide sufficient detail.) The air photo study was most useful in outlining the fault pattern in the area enclosing the Property, including the identification and projection of faults in the vicinity of the major mines of the Highland Valley. (This exercise should not be confused with plotting of linears as has been done on some of the published geological maps.) The interpretation also detected and delineated a previously unidentified (or, at least, unreported) sedimentary rock unit and it defined the distribution of thick late-glacial and post-glacial deposits more clearly. The resulting geological map proved to be a valuable asset in interpreting the results of previous work and in planning future exploration.

FIGURE 3



GEOLOGICAL & AEROMAGNETIC MAP

KAMLOOPS - MERRITT REGION, BRITISH COLUMBIA

SHOWING CLAIM BLOCKS & HIGHLAND VALLEY MINES

Scale 1 : 500,000

0 10 20 30 40 50 60

Kilometres

Note: Higher magnetic values are shown in red

V = Valley; **L** = Lornex; **H** = Highmont; **B** = Bethlehem;

JA = JA; **C** = Craigmont; **A** = Afton; **X** = Ajax.

GEOLOGICAL SETTING

Regional Geology

In terms of metal mining, the geological setting in the region between Kamloops and the U.S. border is framed by the Nicola Volcanic Belt (Figure 2). This belt, along with its sedimentary counterpart to the east, is the southern portion of the Quesnellia Terrane, one of the slices of exotic rocks that were accreted to the North American continent during the Mesozoic. The volcanic rocks of the Nicola group apparently contain above average amounts of copper -- and I do not believe that it is coincidental that most of the major copper deposits of British Columbia are found within this terrane and in equivalent exotic terranes to the north.

The Nicola volcanic rocks have been dated as Late Triassic in age. Not long afterward (in geological terms) a large number of bodies of intrusive rock were emplaced in the volcanic pile. The emplacement of these intrusions took place over a rather short time period -- from latest Triassic to earliest Jurassic. The intrusive rocks fall into two groups, based on their chemical compositions, each containing a distinctive type of porphyry copper mineralization.

The largest intrusions, typified by the Guichon batholith, host to the major copper deposits of the Highland Valley, are composed of quartz-rich granitic rocks of the "calc-alkaline" type. The copper deposits associated with this type of intrusion may contain molybdenum, but they are deficient in gold. Molybdenum commonly is an important by-product and may be a co-product, as at Brenda and Highmont.

Intrusive plutons of the "alkaline type" are much smaller on average than the calc-alkaline ones. They are deficient in quartz and appear to be more closely related in time to the Nicola volcanic rocks, which they resemble in composition. Copper deposits of this association contain significant amounts of gold. Depending on comparative metal prices, gold may be the more important product in some of the deposits.

A number of volcanic and sedimentary units overlie the Nicola group and the associated calc-alkaline and alkaline intrusive rocks. The Ashcroft Formation of Early Jurassic age laps onto the northern and north-western flanks of the Guichon Creek batholith. A northwest–trending belt of moderately folded volcanic rocks of the Spences Bridge group of Early Cretaceous age rests unconformably on the south-western margin of the Guichon Creek batholith and on the adjacent volcanic rocks of the Nicola Group. The volcanic-dominated Kamloops group of Eocene age once covered much of the northern part of the region. Remaining remnants overlie the rocks of the Nicola group and the associated intrusions, including portions of the Guichon Creek batholith.

Geology of the Guichon Creek Batholith

The Property is located entirely within the Guichon Creek batholith. This very large igneous intrusion is an elliptical body approximately 60 kilometres north-south by 30 kilometres east-west. It was emplaced in several stages, with the oldest intrusive phase located around the periphery and the youngest at the centre of the mass. The following account is based mainly on McMillan (1978) and Casselman et al. (1995).

More than half a century of detailed geological study has resulted in a generally accepted classification of the various phases and phase-varieties of intrusive rocks. Except for the Border Phase, which possibly incorporated variable amounts of the adjacent Nicola volcanic rocks, almost all of the rocks in

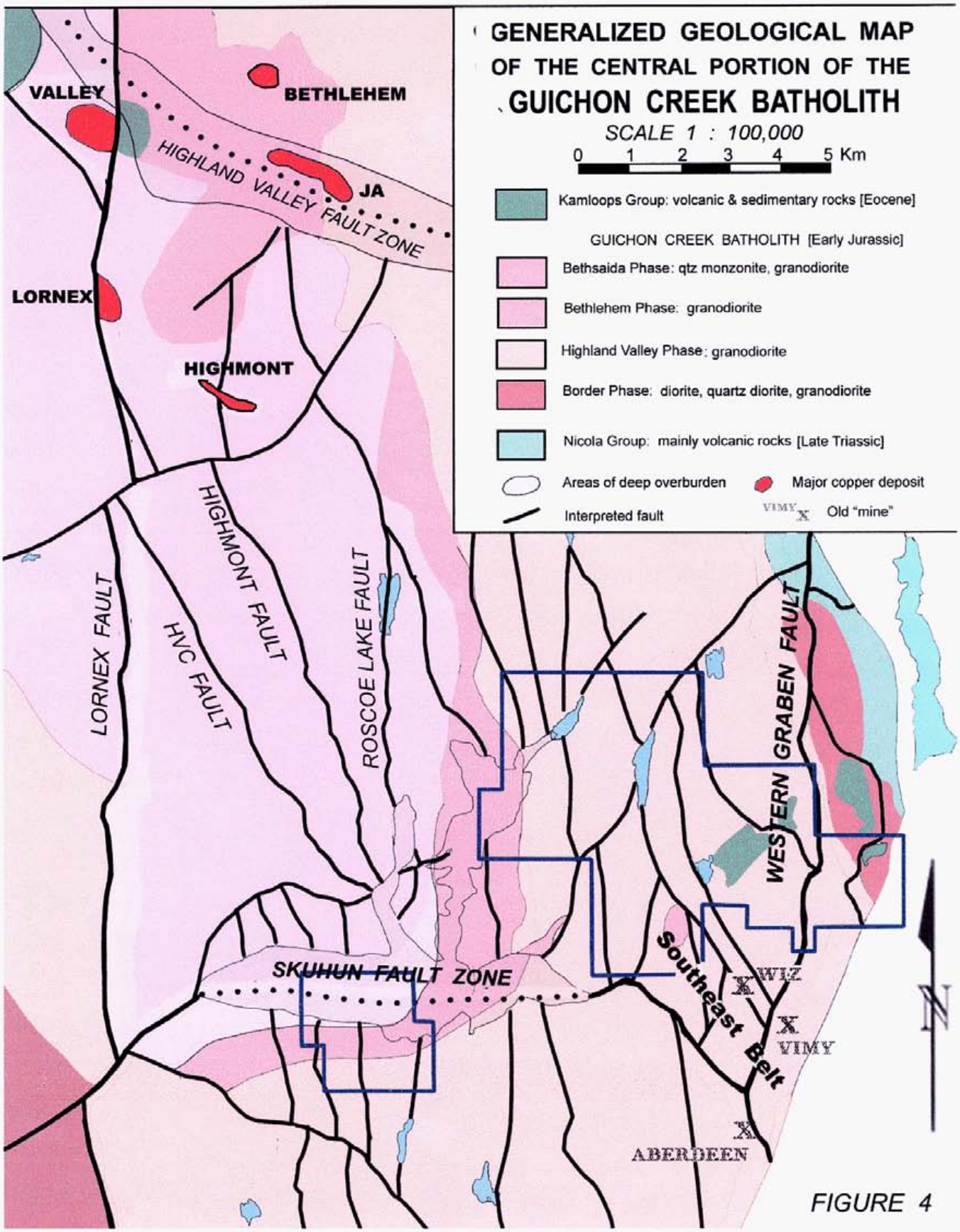

GENERALIZED GEOLOGICAL MAP
OF THE CENTRAL PORTION OF THE
GUICHON CREEK BATHOLITH
SCALE 1 : 100,000
0 1 2 3 4 5 Km
Kamloops Group: volcanic & sedimentary rocks [Eocene]
GUICHON CREEK BATHOLITH [Early Jurassic]
Bethsaida Phase: qtz monzonite, granodiorite
Bethlehem Phase: granodiorite
Highland Valley Phase: granodiorite
Border Phase: diorite, quartz diorite, granodiorite
Nicola Group: mainly volcanic rocks [Late Triassic]
Areas of deep overburden
Major copper deposit
Interpreted fault
VIMY
Old "mine"
VALLEY
BETHLEHEM
HIGHLAND VALLEY FAULT ZONE
JA
LORNEX
HIGHMONT
LORNEX FAULT
HVC FAULT
HIGHMONT FAULT
ROSCOE LAKE FAULT
WESTERN GRABEN FAULT
SKUHUN FAULT ZONE
Southeast Belt
WIZ
VIMY
ABERDEEN
N

FIGURE 4

the batholith are mapped as granodiorite along with lesser amounts of quartz monzonite. Although important variations in chemical composition are apparent in the laboratory, textural differences play the most significant role in distinguishing phases and varieties in the field. In general, the rocks tend to be porphyritic to some extent; the larger crystals are hornblende, biotite and magnetite. Dike rocks related to the younger phases of the batholith are common and these may extend for considerable distances into the older adjoining rocks.

The Border Phase is nearly continuous around the periphery of the batholith. It is darker in colour than the later intrusive phases and includes a considerable amount of quartz diorite as well as granodiorite. A zone along the margin of the intrusion is composed mainly of quartz diorite and diorite; it is considered by some to be a hybrid rock that has consumed quantities of the adjacent Nicola volcanic rock. The Border Phase is much wider along the western border of the batholith than elsewhere. The Border Phase crops out in the extreme eastern part of the Chat claim block.

The Highland Valley Phase underlies more than half of the exposed area of the Guichon Creek batholith. This phase includes the Guichon variety and the younger Chataway variety as well as various intermediate and more localized varieties. The western part of the Chat Group is underlain mainly by the Chataway variety. Varieties intermediate between Chataway and Guichon occur in the eastern portion.

The Bethlehem Phase of the intrusive sequence is believed to have been coincident with the earliest period of porphyry copper mineralization in the Highland Valley district (Casselman et al., 1995). The outcrop area is confined mainly to a rather narrow strip east of the Bethsaida Phase. However, field and aeromagnetic evidence suggest that rocks of the Bethlehem phase may be present at depth beneath a large area that extends to the east across the Chat Group and along the Southeast Belt, a zone that encloses several mineralized zones that trend northwest.

The Bethsaida Phase comprised the final major intrusion that formed part of the central core of the Guichon Creek Batholith. The very large copper and copper-molybdeum deposits are enclosed within this core and in the adjacent rocks. The Bethsaida Phase terminates a short distance to the north of the major deposits that it encloses. The Skuhun claim block is located astride the southern border of the Bethsaida Phase.

The geochemistry of the rocks in the batholith tends to vary systematically with relative age. For example, silica is lowest in the Border Phase at about 55% (lower where volcanic rocks have been assimilated [?]) to more than 70% in rocks of the Bethsaida Phase. The reverse is true for copper which decreases dramatically from nearly 100 parts per million in the border phase to less than 10 ppm in some of the Bethsaida Phase rocks (Casselman et al., 1995). This has important implications in the interpretation of geochemical surveys.

The magnetite content of the batholithic rocks varies considerably, even on a local scale. However, there is a systematic variation in the average values of magnetic intensity from high at the margin to much lower in the core rocks. Airborne magnetometer surveys smooth out the local variations and the contour maps suggest a consistent decline in intensity toward the centre of the intrusion, with steeper gradients at some of the phase boundaries. In contrast, ground magnetic surveys show unusually large variations between adjacent measurements and contouring of the data can be relatively difficult without applying smoothing techniques.

The Guichon Creek batholith is bisected from by a major north-south fault designated as the Lornex fault. Apparent horizontal movement along this fault is indicated to be 5 to 6 kilometres in a dextral (east-side-south) sense This movement has effectively separated the Lornex and Valley orebodies

although the relationship between the fault and the orebodies is not simple (Casselman et al., 1995). Certainly, there has been a significant amount of vertical movement along the fault as well, as attested by the down-dropping of volcanic and sedimentary rocks of the Eocene Kamloops Group along the eastern margin of the Valley orebody. McMillan (1976a) argued that the Valley deposit formed at a deeper level under higher temperature conditions than the Lornex deposit.

Two other regional faults have been documented in the literature within the central portion of the batholith prior to the present study. The Highland Valley fault is an east-west structure that follows its eponymous landform east from the vicinity of the Valley Copper deposit for a distance of at least 15 kilometres. The JA zone, a major porphyry copper deposit, is elongated parallel to this fault beneath a thick cover of surficial material in the Highland Valley. The Skuhun fault lies 17 kilometres south of the Highland Valley fault. Like the latter, the Skuhun fault trends east-west and is obscured in part by deep over burden within a broad, steep-sided valley. The Skuhun Group of claims follows this valley for a length of nearly three kilometres.

My recent photo-geological interpretation outlined a large number of faults within the portion of the Guichon Creek batholith that surrounds the Property, most of which apparently were not recognized previously (Figures 3, 5b, 5c, 10).

Property Geology

The following account is not limited to the Property. It includes descriptions of geological features in the surrounding area that are relevant to an understanding of the property geology. Since the two claim groups that comprise the Property occupy somewhat different geological settings within the Guichon Creek batholith, they are treated separately in this account.

Skuhun Claim Group

Portions of the southern margins of the Bethsaida and Bethlehem Phases, the younger units that compose the core of the composite intrusion, underlie the Skuhun claims. Rock outcrops are very scarce on this claim group which overlaps the widest section of the valley of Skuhun Creek. The north slope of the valley is occupied by thick glacial deposits of the type referred to as "ice-contact features" that were formed as the glaciers melted and retreated. The land forms include eskers, kames and kame terraces. This unit is indicated to be more than 100 metres in thickness in a drill hole put down west of the Skuhun Group. The deepest part of the valley is floored by alluvium, including glacial outwash, and by landslide deposits derived from collapse of the unstable sand and gravel that compose the ice-contact features. A drill holes in this material failed to reach bedrock at 50 metres.

The southern contact of the Bethsaida Phase is poorly defined by geological mapping in this part of the area due to lack of outcrops, particularly in the broad valley. This was remedied to some extent by my re-interpretation of the ground magnetic survey (Cannon, 1969). It appears that the south contact extends farther south and east than shown on McMillan (1978). Rocks of the Bethlehem Phase are exposed in outcrops and in drill holes across the central portion of the claims. The Chataway variety of the Highland Valley Phase crops out in the south-eastern corner of the claim group.

The Skuhun Creek fault follows the deep valley of Skuhun Creek in the north-central part of the claims. This is conventionally assumed to be a major fault on the basis of a strong lineament that extends across the entire southern portion of the Guichon Creek batholith. Its age and economic significance are undetermined. However, it parallels the Highland Valley fault, another major structural feature and one that is closely associated (in space) with the major copper deposits of the Highland Valley, particularly the JA deposit..

LEGEND FOR GEOLOGICAL MAPS (Figures 5b and 5c)

QUATERNARY

ls	Landslide deposits
afls	Alluvial & colluvial deposits of Skuhun Creek valley
ic	Ice-contact deposits: eskers, kames, etc.

TERTIARY

Rs	"Roscoe Creek Formation": sandstone; basal conglomerate [Late Tertiary(?)]
Kv	Kamloops Group: mainly volcanic rocks [Eocene]

LATE TRIASSIC AND/OR EARLY JURASSIC

INTRUSIVE ROCKS OF THE GUICCHON CREEK BATHOLITH

Gbs	Bethsaida Phase: granodiorite, quartz monzonite
Gbt	Bethlehem Phase: granodiorite
Gc	Highland Valley Phase: mainly Chataway variety granodiorite
Gg	Highland Valley Phase: mainly Guichon Variety granodiorite
Gb	Border Phase: quartz diorite, diorite, gabbro

LATE TRIASSIC

Nv	Nicola Group: mainly volcanic rocks

Fault from photo-geological interpretation

- ● Percussion drill hole
- ○ Diamond drill hole
- tr Trenching area

- H-48 X Rock outcrop
- * "Outcrop" of unconsolidated or weakly indurated material
- S-8 + Stream-sediment sample
- TDM + Copper showing

FIGURE 5a

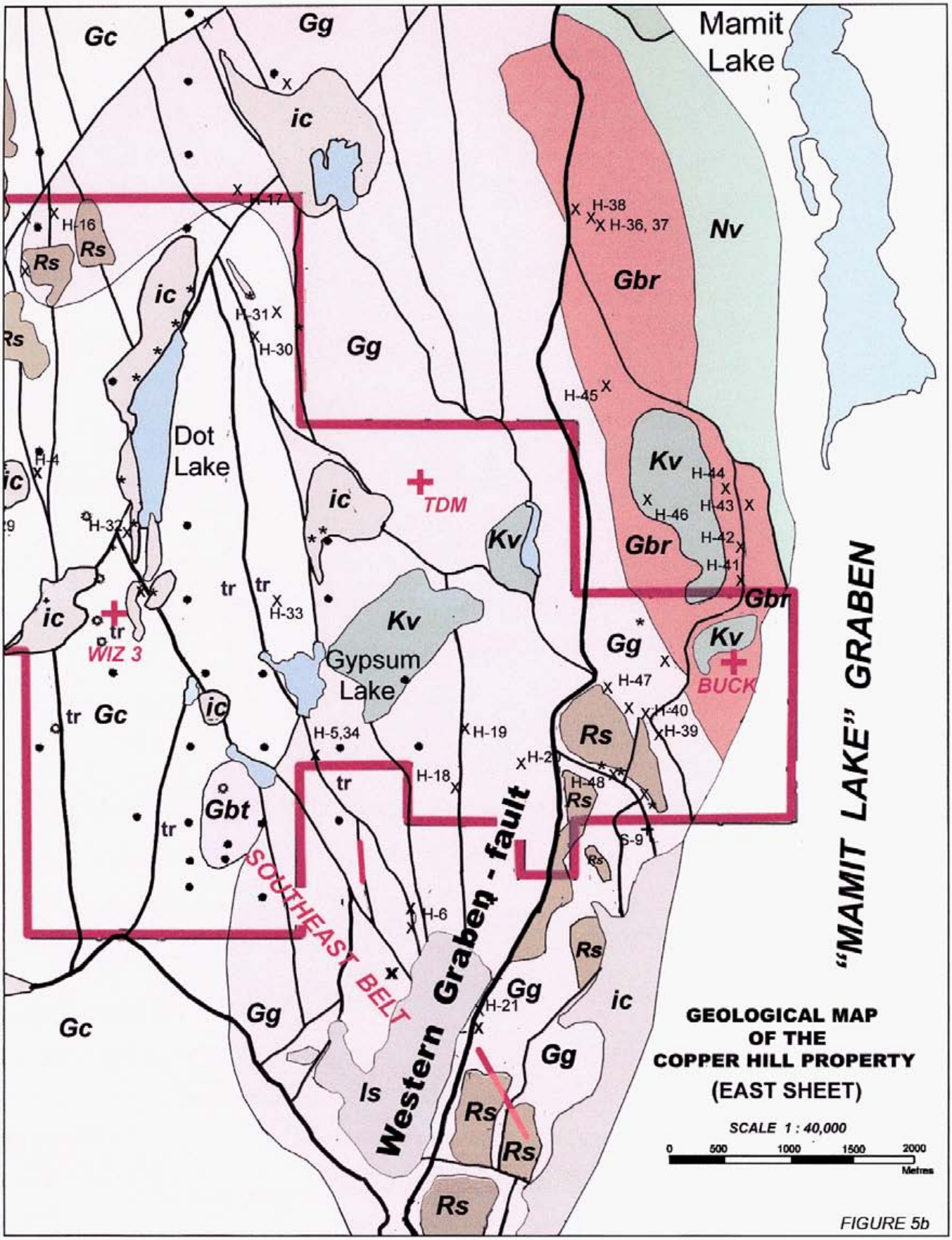

Mamit Lake
Gc
Gg
ic
Rs
Nv
Gbr
Kv
Gbt
Dot Lake
Gypsum Lake
TDM
WIZ 3
BUCK
tr
Is
Western Graben - fault
SOUTHEAST BELT
"MAMIT LAKE" GRABEN
H-16
H-17
H-30
H-31
H-32
H-33
H-34
H-36, 37
H-38
H-39
H-40
H-41
H-42
H-43
H-44
H-45
H-46
H-47
H-48
H-5
H-6
H-18
H-19
H-20
H-21
S-9
GEOLOGICAL MAP
OF THE
COPPER HILL PROPERTY
(EAST SHEET)
SCALE 1 : 40,000
0 500 1000 1500 2000
Metres

FIGURE 5b

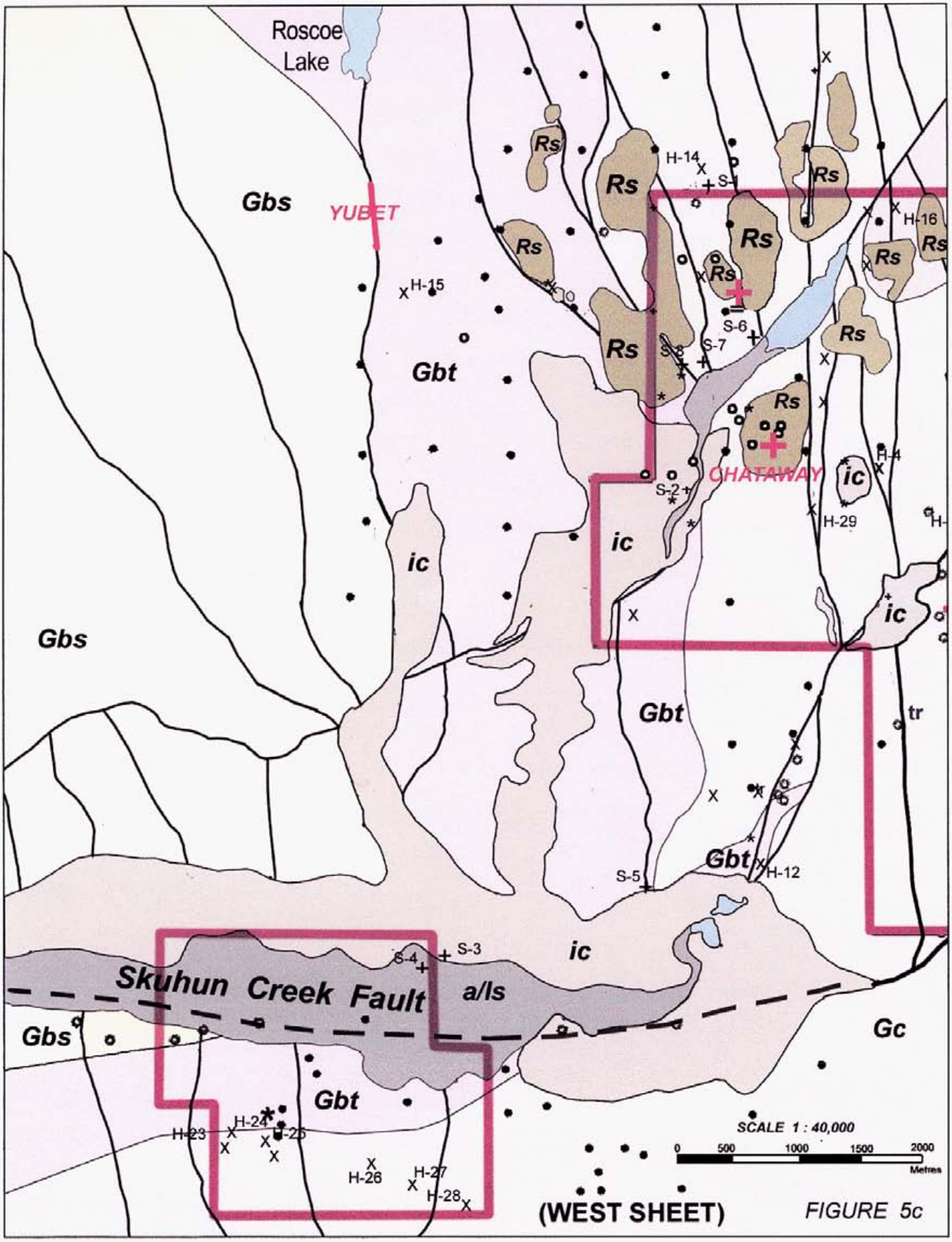

Roscoe Lake
Gbs
YUBET
Rs
H-14
S-1
H-16
H-15
S-6
S-7
S-8
Gbt
ic
CHATAWAY
S-2
H-29
H-4
tr
S-5
H-12
S-4
S-3
Skuhun Creek Fault
a/ls
Gc
H-24
H-23
H-25
H-26
H-27
H-28
SCALE 1 : 40,000
0 500 1000 1500 2000
Metres
(WEST SHEET)

FIGURE 5c

Air-photo interpretation has identified a pair of regional faults that trend south-southeast from the Lornex /Valley mineralized zone and the Highmont deposit. I have termed these faults HVC fault and Highmont fault respectively. They appear to extend into the vicinity of the northeast corner of the Skuhun Group, but their definition in this area is obscured by deep overburden. The offset of these faults by the Skuhun Creek fault is uncertain, but the indicated offset of the Lornex fault (i.e., south side west) would correlate them with faults shown in the southern part of the claim group (Figure 4). A third fault extending south from the Highland Valley is located east of the Highmont fault. This structure was traced from just south of the JA deposi to the north end of Roscoe Lake where it splits. The western branch (herein designated the Roscoe Lake fault) extends to the south and appears to coalesce with the Highmont fault a short distance north of the Skuhun Group. The eastern branch extends southeast into the western part of the Chat Group.

McMillan (1976b) stated, "***By inference they*** [north- and northwest-trending faults] ***are assumed to have existed prior to mineralization and to have played a role in initiating the many fractures which were subsequently mineralized to form the*** [JA] ***deposit***."

Chat Claim Group

Volcanic rocks of the Late Triassic Nicola group are indicated on government geological maps to be present in the western part of the Chat Group. My recent field mapping suggested that the contact of the Nicola volcanic rocks with the Border Phase lies east of thr contact shown on the earlier maps.. The rocks in the easternmost part of the Chat Group are gabbro, diorite and quartz diorite of the Border Phase overlain locally by volcanic rocks of the Kamloops group of Eocene age,

Rocks of the Chataway variety of the Highland Valley Phase of the Guichon Creek batholith underlie the western two-thirds of the Chat Group. Various subdivisions of the Highland Valley Phase to the east have been proposed. Essentially, they constitute various intermediate sub-varieties between the Guichon variety and the adjacent phases and are lumped as Guichon variety on the accompanying geological maps of the Property (Figures 5b, 5c). I was unable to distinguish any features of the intrusive rocks on the air photos that would serve to identify individual units. Accordingly, the contacts of the units shown on Figure 5b and 5c were taken almost entirely from McMillan (1978) except in the extreme eastern part of the property where my field mapping indicated significant differenced from the published map.

Several younger volcanic and sedimentary units are more readily identifiable on the air photos than are the various units of the batholithic sequence. These include the Kamloops group, an uncorrelated late Tertiary(?) clastic sedimentary unit and ice-contact deposits associated with Pleistocene glaciation.

Gently dipping intermediate to mafic volcanic rocks of the Kamloops group of Eocene age were previously mapped on Gypsum Mountain. The photo-geologic study, supported by field observations, indicated that the unit also crops out on several flat-topped ridges within the down-dropped block occupied by Guichon Creek (herein termed the "Mamit Lake" graben). The rocks in this area were mapped previously as Nicola group except for one small outcrop area of Kamloops group volcanic rocks..

The late Tertiary(?) sedimentary unit (I have given it the informal name of "Roscoe Lake" formation) was first identified on air photos and later substantiated by field mapping. The unit consists of a thin basal conglomerate composed of crudely sorted, rounded clasts of granodiorite overlain by quartz-rich sandstone and grit. The rock is weakly indurated; in surface expoures the boulders in the conglomerate lack cementing material and the sandstone is friable. All of the sandstone "outcrops" of this unit that I noted were exposed by digging through till with a mattock. Granodiorite bedrock immediately underlying the conglomerate was highly fractured and weathered.

The "Roscor Lake" sediments shown on Figures 5b and 5c are confined to a number of rather small remnants of what was once a much more extensive sedimentary deposit. (No doubt many others have not been identified since these remnants may be thin and very difficult to interpret on the air photos.) On present knowledge, the "Roscoe Lake" formation is confined mainly to the upland surrounding Chataway Lake at an elevation of about 1500 metres and in fault blocks in the "Mamit Lake graben." The exposures of this unit in the two areas cannot be correlated with certainty.

The particular relevance of the "Roscoe Lake formation" to the present discussion is that geochemical soil sampling is not meaningful in areas largely covered by these sediments, even though the unit may be very thin. In addition, the distribution of these deposits confirms that the intrusive rocks in this part of the region were not exposed to erosion during a long time period. The significance is expanded upon later in the present report.

Ice-contact deposits, mainly eskers, kames, and kame terraces, comprise the thickest overburden in the map area. The cover is particularly deep along Chataway Creek south of the lake – several drill holes failed to reach bedrock at depths of greater than 100 metres. (The overburden in this area probably includes till and older sedimentary deposits below the sand and gravel of the ice-contact features.)

Glacial till forms a relatively thin blanket that covers the entire area except for the ice-contact deposits and the scarce, mainly small, rock outcrops. The distribution of till is not indicated on the geological maps.

The faults shown within the Chat Group were interpreted from photo-geology in the absence of any dependable information on fault distribution in the literature. The dominant trend of the regional faults is north to north-northwest. (These will be referred to as "the north-south regional faults" for brevity.)

The age relationships of the various faults are unclear, in part because many of the faults have a long and complex history. In general, the north-south regional faults are older than the late Tertiary(?) "Roscoe Lake" sediments. However, both the Lornex fault and another major north-trending fault located in the eastern part of the Chat Group, the "Western Graben-fault", clearly offset Tertiary rocks. The latter appears to define the western boundary of the "Mamit Lake" graben. East of the Western Graben-fault a number of minor faults have been interpreted to offset both the "Roscoe Lake" sediments and the volcanic rocks of the Eocene Kamloops group. These faults are presumed to be related to the extensional regime that created the "Mamit Lake" graben. No pre-Tertiary regional faults have been identified within the graben, probably due to the younger faulting and the considerable amount of cover.

DEPOSIT TYPES

The mines of the Highland Valley Copper complex, which lie between 8 and 14 kilometres northeast of the Chat Group, are obvious target models. These are the largest producers of copper in Canada, and they generate a substantial tonnage of molybdenum as well. The Highland Valley mines are classified as porphyry copper and copper-molybdenum deposits of the calc-alkaline type. They are very large (150 million- to one billion-tonne) bodies that are associated with faulting but are not obviously aligned along faults except for the JA deposit, which is elongated parallel to the Highland Valley fault zone. Almost all of the mineralization occurs along fractures, and fracture density is the most important single factor influencing ore grade (Casselman et al. (1995). The copper minerals are bornite and chalcopyrite. Pyrite is present but is not abundant within the ore. Average ore grade depends to some extent on copper price but generally falls within the range of 0.40 to 0.45%. The total sulphide content of an orebody may be less than 2% and magnetite is not closely associated with the mineralized zones. Consequently, geophysical techniques other than induced polarization (IP) are ineffective and even the IP response over a major deposit may be fairly weak.

The classic types of porphyry-copper-related hydrothermal alteration – potassic, phyllic, argillic, propylitic -- are present in the Highland Valley deposits. However, the proportions vary considerably between deposits. Potassic alteration is most pronounced in the core of the Valley deposit. This probably is a basis for the suggestion by McMillan (1976a) that the ore at Valley formed at a greater depth than at Lornex. The potassic alteration zone at Lornex is accompanied by hydrothermal magnetite that apparently was partially destroyed during subsequent overprinting by phyllic and argillic alteration along the flanks of the potassic zone.

The major copper deposits of the Highland Valley area are found mainly within the Bethsaida and Bethlehem phases of the Guichon Creek batholith. However, ore-grade mineralization extends into the adjacent, somewhat older, intrusive rocks, particularly in association with dikes and faults. This is not to say that the remainder of the batholith lacks widespread indications of copper mineralization. The large, higher grade orebody at the Craigmont Mine was deposited in volcanic and sedimentary rocks adjacent to intrusive rocks of the Border Phase at the southern margin of the batholith. Vein-type deposits have been explored and mined on a very small scale for more than a century within an area southeast the Property. Of particular relevance is the north to northwest-trending structural zone that include the former Aberdeen, Vimy and Wiz "mines" that I have termed the Southeast Belt. There is some evidence of porphyry-copper style of mineralization associated with some of the fault-related vein-zones. This mineralized area, which extends into the south-central part of the Property, is discussed in the later sections of this report.

MINERALIZATION

The zones of known mineralization on the Property are shown on the accompanying property geological map (Figures 5b,5c).

The Sku showing in the Skuhun claim block is located near the south margin of the younger intrusive phases (Bethsaida and Bethlehem) that comprise the core of the Guichon Creek batholith. The Skuhun Creek fault lies a short distance north of the showing under a thick cover of glacial and post-glacial sediments. The mineralization consists of bornite . magnetite and hematite within quartz veinlets in fractures that are widely distributed in the area (MINFILE). Weak to moderate alteration (sericitization, kaolinization, propylitization) accompanies the mineralization. A diamond drill hole along the southern edge of the Shuhun Creek valley intersected a zone containing 0.184% copper across 10 metres.

A showing in Roscoe Creek, situated a short distance from Chataway Lake in the north-western part of the Chat claim block, lies close to one of the regional faults that extend south from the Highland Valley area. Mineralization consists mainly of malachite and iron oxides in highly fractured rock. Two adits, now collapsed, were driven into a nearby slope. No assays are available from this showing.

The Chataway Zone is located south of Chataway Lake. Photo-geological interpretation suggests that the granitic rocks in the immediate area are overlain by a thin layer of younger sedimentary rock of the "Roscoe Creek" formation. A news release in the George Cross News Letter of February 8, 1967 (reported in Troup, 1992b) stated that copper mineralization was intersected in four diamond drill holes and gave an inferred resource of 544,320 tonnes grading 1.58% copper. I have been unable to obtain any information on the nature of the mineralization or to verify the assay results. Accordingly, I have classified the resource as hypothetical. A more detailed account of the exploration in this area is given later in the present report.

The Wiz 3 showing is located along the north-eastern extension of the "Southeast Belt" , a zone that that includes a number of prospects related to north-to northwest-trending faults. Trenching and a nearby drill hole are reported to have encountered disseminated bornite, but no assays are available (MINFILE).

The TDM showing lies in the north-eastern part of the Chat block. MINFILE reports that fine disseminated native copper occurs in one of the varieties of the Highland Valley Phase of the batholith.

The Buck showing is located in the easternmost portion of the Chat block, close to the eastern margin of the Guichon Creek batholith. The showing occurs in east-trending shear zones in gabbro of the Border Phase of the intrusion. The mineralization consists of chalcopyrite, malachite and pyrite (MINFILE). Early exploration of the showing included extensive "Cat" trenching and an adit. Geophysical and geochemical surveys have been carried out.

PREVIOUS EXPLORATION

This section of the report describes some of the previous exploration results that appear to the writer to be particularly significant. They have been enlarged upon and reinterpreted in some cases in the light of the recent field work and photo-geological interpretation.

Geophysical Surveys

The early discoveries in the region were mainly of the vein-type – i.e., elongated zones occupying faults and shears. These sometimes contained sufficiently large concentrations of sulphide minerals to be conductive bodies that could be detected by electrical geophysical techniques. The first major discovery related to the Guichon Creek batholith, the Craigmont Mine, also contained fairly large amounts of sulphides. In addition, it had a significant magnetite content. Accordingly, the earliest geophysical surveyors in the vicinity of the present Property elected to utilize magnetic and electromagnetic methods. These were ineffective in detecting the more recently discovered porphyry copper deposits of the Highland Valley. However, they proved to be useful in assisting geological interpretation within the largely overburden-covered region.

Induced Polarization

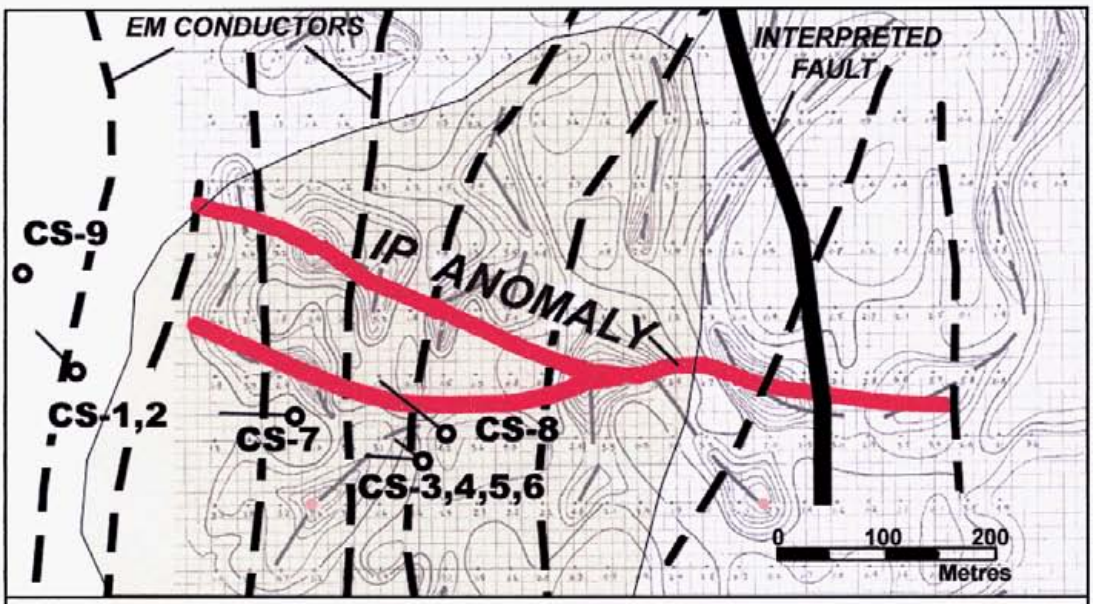
Fortuitously, the discovery period of the mines in the Highland Valley -- Bethlehem in the mid 1950's, followed by Highmont, Lornex and Valley during the next decade -- was coincident with the early development of induced polarization (IP). These deposits are extremely low grade and their total sulphide content is not sufficient to impart a detectable conductivity to the enclosing rocks. Since the IP method does not rely on gross conductivity, and can detect mineralized bodies that contain relatively small percentages of sulphide minerals, it quickly became the geophysical method of choice in the Highland Valley region.

Oxidation of sulphide minerals extends to a considerable depth, possibly as much as 150 metres, in the uplands surrounding the Property. (The presence of the late Tertiary(?) "Roscoe Lake" formation sedimentary remnants shown on Figures 5b & 5c suggests that the rocks in this part of the region were protected from erosion for a very long period of time prior to the last glaciation.) Because the mineralization in the area contains relatively little pyrite for the production of sulphuric acid, the oxidation was not accompanied by leaching and removal of the metals to a significant extent. Instead the mineralogy of the deposits has been altered – i.e., iron from pyrite was incorporated in various poorly conductive iron oxides, and the copper from chalcopyrite and bornite went into native copper and chalcocite that are conductive but are lower in volume. The significance of these transformations is that the copper content was not diminished, but the volume of conductive minerals was greatly reduced.

Contemporary IP equipment is capable of detecting minor amounts of sulphides at depths of more than 200 metres. However, deep exploration of the type utilized in the more recent IP surveys in the area requires a wide electrode spacing, a configuration that is less effective in resolving the responses of smaller, higher grade deposits associated with faults and dikes – i.e., targets of the type that I believe are

the most likely to occur in the vicinity of the Chat Group. The following discussion concerns the results of several of the more relevant IP surveys.

Chataway Zone. One of the earliest geophysical surveys of record in the vicinity of the Property was an electromagnetic (EM) survey carried out by Chataway Exploration in 1964 (Selmser, 1964). The interpretation indicated a number of north-trending conductors, with a particularly dense concentration south of Chataway Lake. An IP survey was conducted in this portion of the area. Subsequently, the survey results were tested by 9 diamond drill holes. The mineralization encountered in this drilling is discussed as the "Chataway Lake Zone" in the present report under "Mineralization."

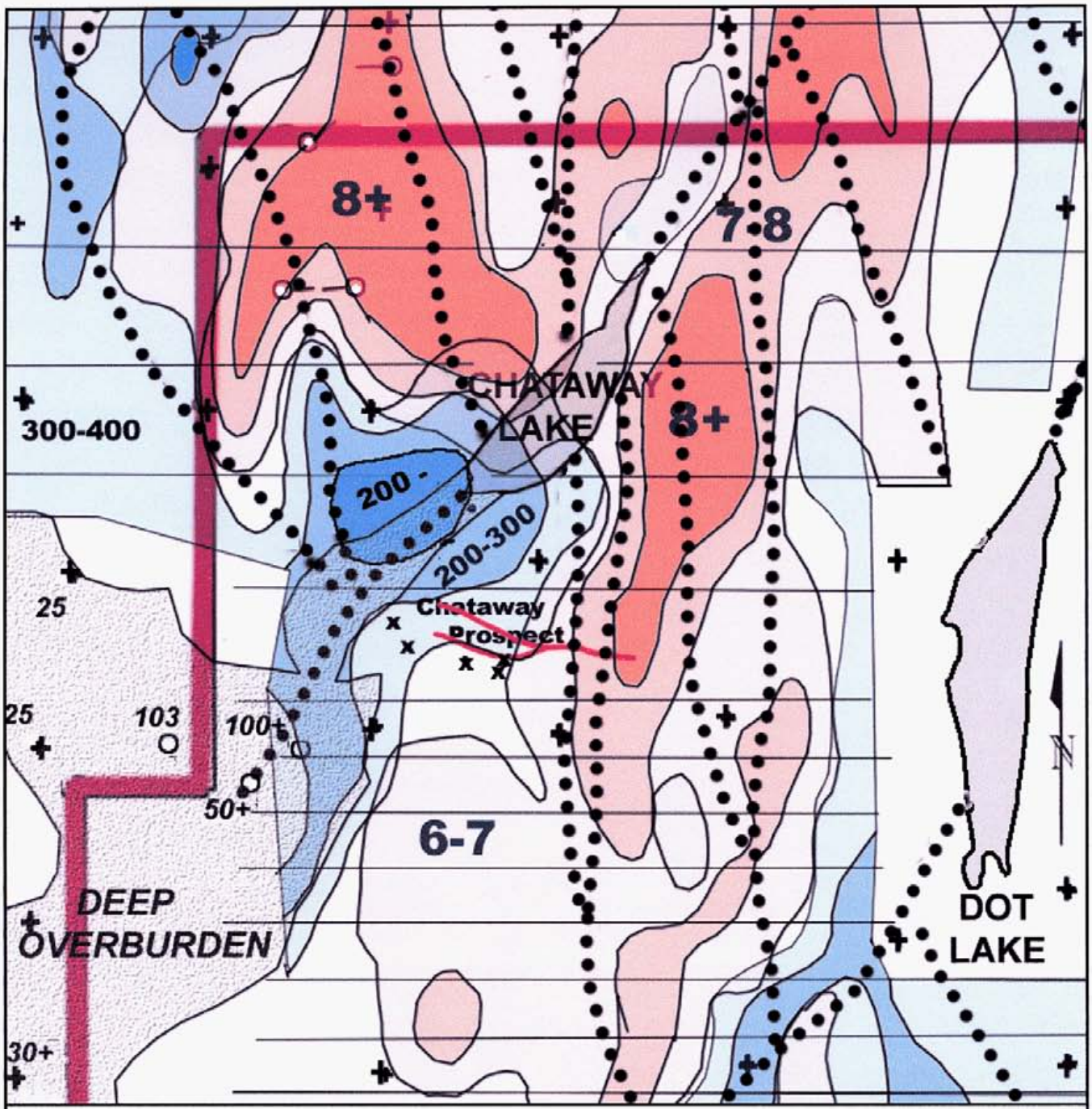


INTERPRETATION OF GEOPHYSICAL SURVEYS -- CHATAWAY ZONE

Note: The original IP interpretation is illustrated by the contours in the background. The yellow-coloured area outlines the interpreted "Roscoe Lake" formation sedimentary rocks. The reported mineralization was found in diamond drill holes CS-3,4,5,6.
The actual location of the IP data may not be precisely as shown.

The contoured IP data were distributed in an apparently meaningless pattern that believe was due to the use of an unsatisfactory electrode configuration for this particular situation. My interpretation is that the direction of the mineralization was nearly parallel to the survey lines. An alternate interpretation of the data, using only the strongest responses is shown above. It suggests that the drilling was directed nearly parallel to the zone.

North-western Sector. An IP survey that covered the north-western portion of the Chat Group was carried out in 1993 on behalf of Hudson Bay Exploration (Walcott, 1993). The survey utilized a three-electrode moving array using a potential-electrode spacing (***a***) of 150 metres. At each station measurements were taken with the separation between the current electrode and the nearest potential electrode of ***a***, 2***a***, 3***a*** and 4***a***. (The layout is illustrated graphically on Figure 7). Walcott (1993) explained that "*the purpose of the survey was to relocate and better define the many weakly anomalous I.P zones located in the late sixties through the early eighties on various grids by different contractors using a variety of instruments. A large dipole was employed to look for subtle anomalies based on the premise of looking for sulphur poor sulphide assemblages with considerable bedrock oxidation and deep overburden cover.*"



INDUCED POLARIZATION SURVEY
OF NORTHWESTERN PORTION OF CHAT GROUP

Showing anomalous chargeability (red) and resistivity (blue) for the third separation

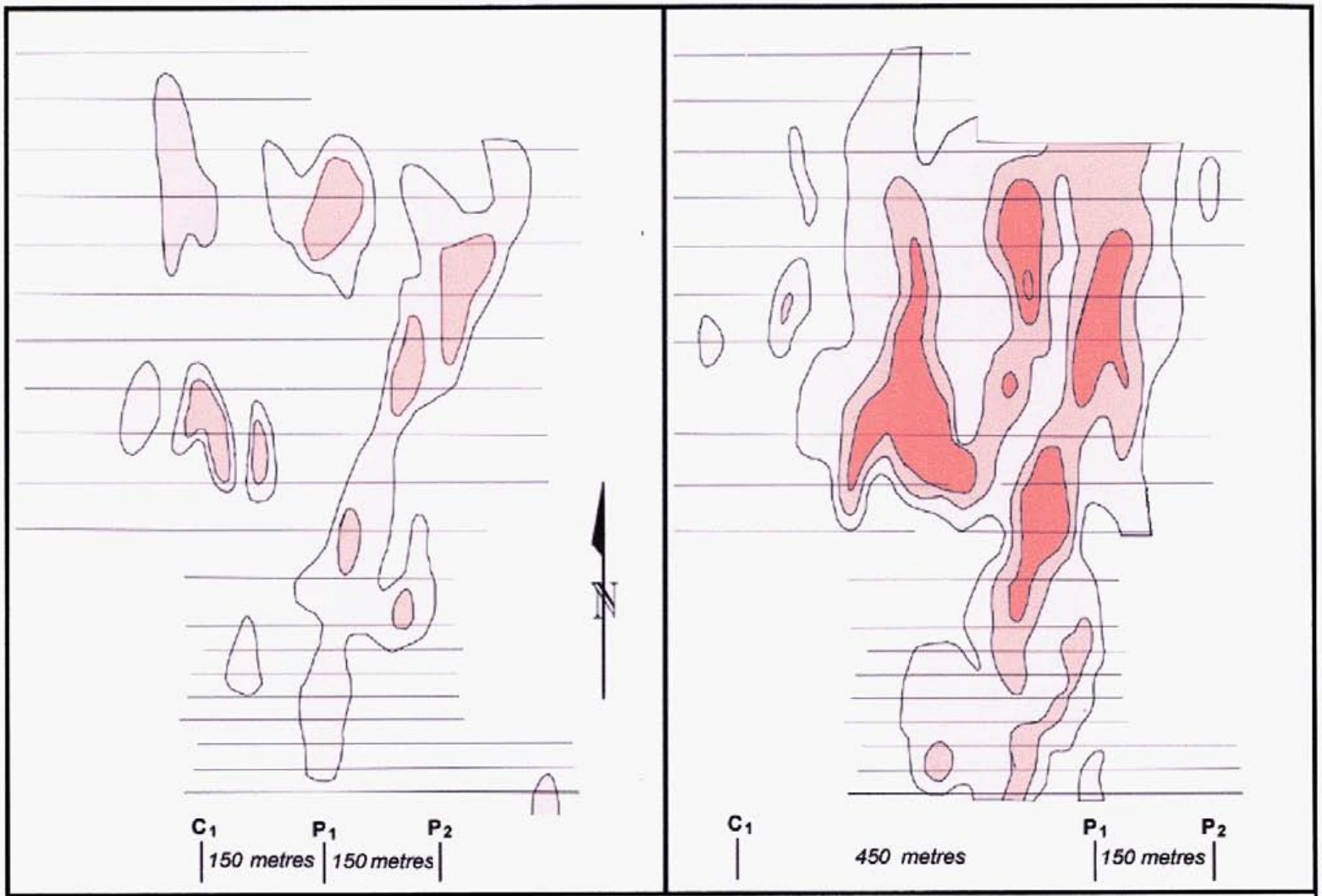
(Dotted lines indicate faults derived from photo-geological interpretation)

SCALE 1 : 20,000

0 500 1000 1500 2000 Metres

(See text for Explanation)

FIGURE 6



COMPARISON OF CHARGEABILITY RESULTS AT FIRST & THIRD SEPARATIONS

SCALE 1 : 50,000

0 1000 2000 3000

Metres

[See text and Figure 6 for explanation]

FIGURE 7

Figure 6 shows contours of chargeability and resistivity in units of millivolts per volt and ohm-metres respectively. "Chargeability", the basic parameter of the induced polarization geophysical method, refers to an electrical effect that may be due in part to grains of sulphides and other conductive minerals. "Resistivity" is the reciprocal of conductivity. Consequently, low values of resistivity are indicative of more conductive rock. The two parameters normally are not plotted on the same map. However, the chargeability and resistivity anomalies are so nearly antipathetic in this case that the combined data are reasonably comprehensible. The highest chargeability values are shown in shades of red and the lowest resistivity values are shown in shades of blue.

Figure 6 illustrates the values derived from the third separation at each station. Figure 7 compares the chargeability data for the first (150-metre) and third (450-metre) separations. [Note that the electrode layouts are not at the scale of the maps.] This figure clearly demonstrates the relative dearth of chargeable material at shallower levels, presumably the result of oxidation of sulphide minerals. As discussed earlier, it does not necessarily imply a concomitant reduction in copper values.

It is obvious that the anomalous chargeability zones are elongated parallel to the dominant north-south trend of the interpreted regional faults in the area. The link between the faults and possible mineralization is a general one due to the poor resolution of the very wide electrode spacing. Accordingly, it is not possible to connect the cause of a chargeability response to a particular fault. Nevertheless, the geophysical evidence suggests that the north-trending regiuonal faults in this area are favourable for mineralization – as has been demonstrated in the Highland Valley area to the northwest and along the Southeast Belt..

The most pronounced resistivity "lows" are located in the valley of Chataway Creek southwest of Chataway Lake. Overburden in this valley, as indicated by diamond drilling, is more than 100 metres in thickness locally. Chargeability anomalies were not detected in this part of the area, possibly due in part to the greater depth to unoxidized sulphides. The pronounced resistivity "low" northwest of the property has no obvious cause since overburden is thin in this area.

Southeast Belt. An induced polarization survey carried out on behalf of Bralorne Pioneer Mines in 1966 is of some interest. The survey covered a large area that lies mainly south of the Property but two of the three anomalies of interest fall within the Chat claim group (Figure 8). The survey area included three small deposits that produced minor amounts of copper early in the last century. The most southerly, the Aberdeen mine, lies close to the junction of the Skuhun fault and the major fault that appears to define the western margin of the "Mamit Lake" graben (i.e., the "Western Graben-fault"). The information at hand incorporates only an interpretation of the chargeability data. I have been unable to obtain a copy of the raw data that also included the resistivity results.

A narrow IP anomaly follows the Western Graben-fault for nearly two kilometres north from the Aberdeen. A small anomaly is indicated in the vicinity of the Vimy and the adjacent Dot Zone, a north-northwest-trending porphyry-copper system. The Wiz "mine" and the No.4 Zone did not have geophysical expression in this survey.

The Twilight Lake anomalous IP area is located in the north-western corner of the survey area, entirely within the Property. Three northwest-trending zones are indicated, more than a kilometre in length and open to the north.

The IP anomaly is partly coincident with a stock of granodiorite of the Bethlehem Phase, one of the younger phases of the Guichon Creek batholith that are suggested to be the source of the Highland Valley copper mineralization.. Extensive concentrations of boulders of quartz porphyry are mentioned

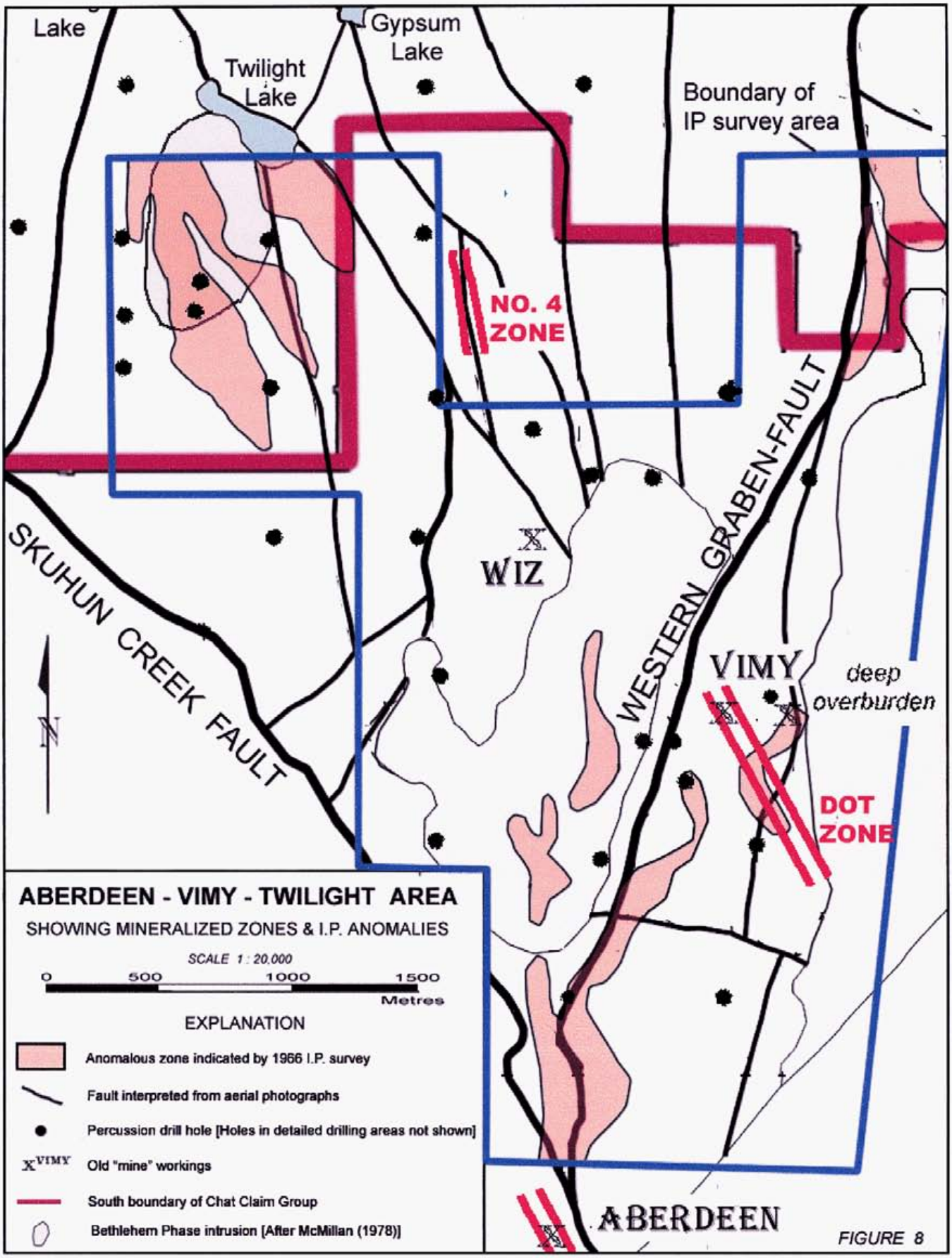

Lake
Twilight Lake
Gypsum Lake
Boundary of IP survey area
NO. 4 ZONE
SKUHUN CREEK FAULT
WESTERN GRABEN-FAULT
WIZ
VIMY
deep overburden
DOT ZONE
ABERDEEN
N
ABERDEEN - VIMY - TWILIGHT AREA
SHOWING MINERALIZED ZONES & I.P. ANOMALIES
SCALE 1 : 20,000
0 500 1000 1500
Metres
EXPLANATION
Anomalous zone indicated by 1966 I.P. survey
Fault interpreted from aerial photographs
Percussion drill hole [Holes in detailed drilling areas not shown]
Old "mine" workings
South boundary of Chat Claim Group
Bethlehem Phase intrusion [After McMillan (1978)]

FIGURE 8

in several accounts of the geology in the area north of Twilight Lake (e.g., McTaggart, 1966). This rock type is commonly associated with the younger phases of the Guichon Creek batholith.

Minor amounts of copper were found in narrow sericitized shears within the anomaly area. Reconnaissance percussion drilling in the Twilight Lake area (Figure 8) encountered anomalous, but sub-economic, copper values. The best hole averaged 650 parts per million (0.065%) copper over its full length. The drill holes apparently were short and vertical.

An IP anomaly follows the Western Graben-fault for at least a kilometre in the northeast corner of the IP survey. Like the Twilight Lake Zone, it lies within the Property and is open to the north. Cominco Ltd. carried out an extensive regional IP survey in 1981 and 1982 in the area surrounding Mamit Lake (Scott, 1981; Klein, 1982). The survey covered part of the Property northeast of the area shown on Figure 8. An IP anomaly similar in shape and extent to the one associated with the Western Graben-fault was outlined. It lies about 500 metres to the east and it appears to follow a parallel fault within the graben. I have been unable to locate any records of follow-up exploration to test these anomalies.

Skuhun. An IP survey carried out on behalf of Northwest Syndicate in 1968 outlined an anomalous zone in the north-eastern corner of the Skuhun claim block (Chaplin, 1968). The chargeability indications were reported to be deep and fairly weak. The anomaly is located in an area that is covered by thick periglacial deposits. It appears to be of particular interest because it lies close to the intersection of the Skuhun fault zone with the interpreted extensions of the HVC and Highmont faults.

Magnetometer

Most of the earliest geophysical surveys in the region were directed toward the discovery of deposits of the Craigmont type. The Craigmont orebody was deposited in volcanic rocks and limestone at the margin of the Border Phase of the Guichon batholith. The alteration of the deposit was of the skarn type in part, and was accompanied by magnetite. Porphyry copper deposits of the Highland Valley type may have an association of hydrothermal magnetite in potassic alteration zones, but the magnetic property commonly is destroyed by the conversion of magnetite to hematite during later overprinting by other types of alteration. In general, ground magnetic surveys of limited areal extent are unsuitable for use in the exploration for calc-alkaline porphyry copper deposits of the Highland Valley type, in contrast to their usefulness with regard to the alkaline porphyry copper-gold deposits.

Regional aeromagnetic surveys are valuable as tools for geological interpretation. The Geological Survey of Canada airborne magnetometer survey carried out in 1967 was extremely useful in the interpretation of the geology of the Guichon Creek batholith at the time of its publication -- and its value has not diminished, in the least. The magnetic intensity reflected in the the aeromagnetic data tends to decrease from the margin of the intrusion toward the core. There is a particularly well defined steeper gradient in the general decline that follows the zone between the Highland Valley Phase and the younger phases of the intrusion. The major copper deposits of the Highland Valley are located along or close to this magnetic feature, and it has been considered to be a favourable area for exploration (e.g., Troup, 1992a,b.) The western portion of the Chat claim group and almost the entire Skuhun group, are located within this zone.

The characteristic symmetry of the magnetic pattern –i.e., layers of diminishing magnetic intensity inward from the edge of the batholith – is disrupted within a zone that includes the southern part of the Chat claim block and extends along the Southeast Belt to the eastern margin. This zone of relatively low magnetic intensity that cuts through the higher values that are characteristic of the earlier phases of the intrusion can be seen on Figure 3. The inference, supported by the field evidence cited earlier of local Bethlehem Phase outcrops and widespread quartz porphyry float, is that that younger (less magnetic) rocks are present at shallow depth beneath a cover of older phases of the Guichon batholith.

Geochemical Surveys

Geochemical soil sampling was carried out locally on the Property at various times, generally in the vicinity of known mineralization. For example, several lines were sampled in the vicinity of the Chataway Zone (Troup, 1992b). There were no anomalous indications in this case. My air-photo interpretation suggests that the area is covered by sedimentary rocks of the "Roscoe Lake" formation that would effectively mask the geochemical response from mineralization in the much older rocks of the Guichon Creek batholith.

An extensive soil geochemical survey that impinges on the southern part of the Property south of Twilight Lake was carried out in conjunction with the IP survey of the Southeast Belt described above (Sanguinetti, 1971). The analytical process utilized a cold digestion that apparently was intended to emphasize anomalous copper values relative to the background. Instead, this unfortunate procedure highlighted sinuous zones along creeks that may be the result of seepage of dissolved copper.

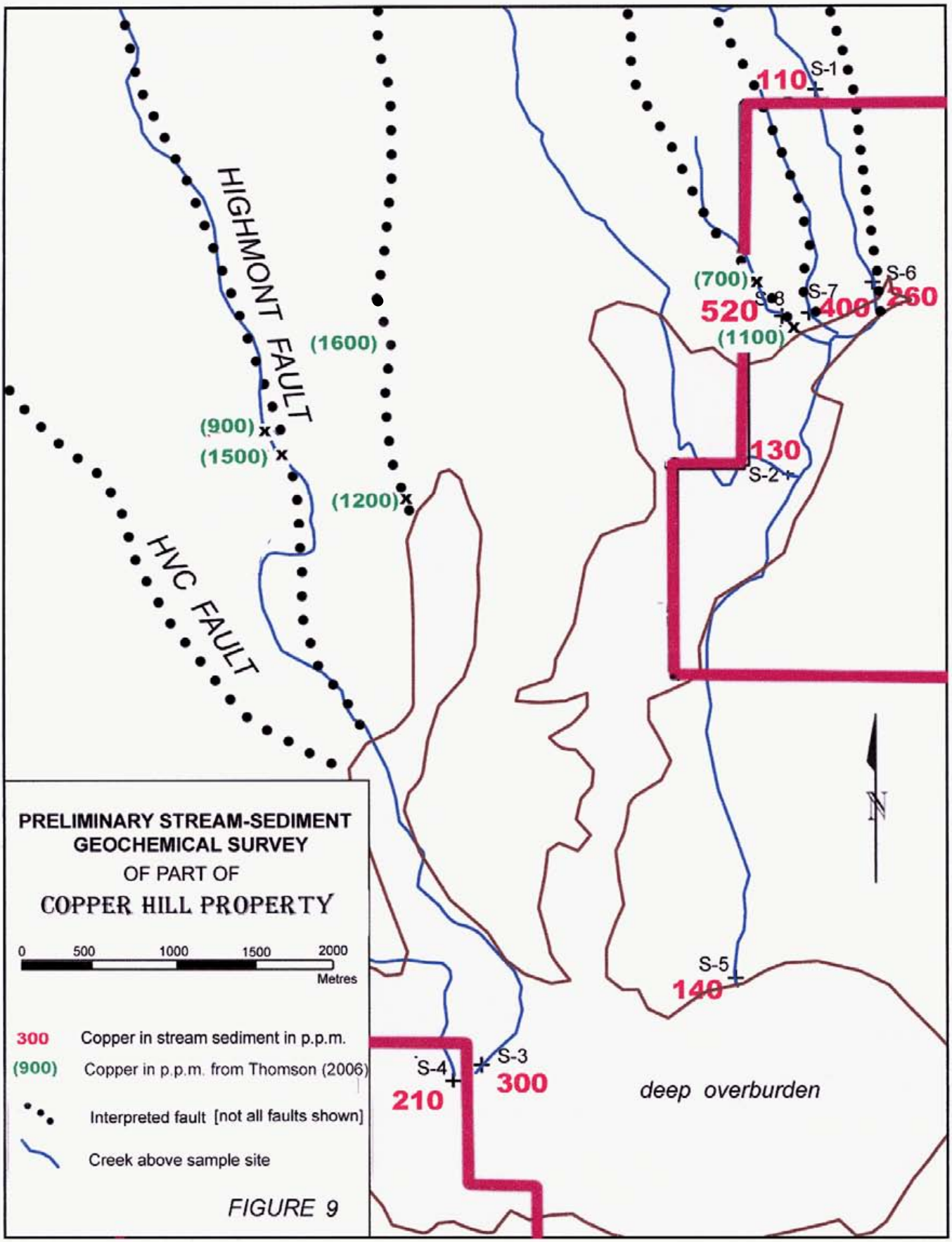
Detailed stream-sediment sampling was carried out in the area surrounding the Skuhun Group and the western part of the Chat Group. Samples of sediment from streams within the Property and its surroundings are unusually high in copper-- in many cases 5 to 10 times higher than the average values found in drill holes in the vicinity of the sample sites. There is no apparent correlation between the copper content of the stream sediment and upstream mineralized areas. This widespread dispersion of copper makes it difficult to justify exploration work to follow up any particular anomalous indication.

It occurred to me that some form of concentration may have taken place in the sampling procedure, possibly due to the analysis of very finely sieved material that represented only a small proportion of the total sample. Accordingly, I collected eight samples within and close to the western part of the Property, ensuring that the source material was deposited in a low- energy environment to avoid "placer" concentration. In previous surveys the stream sediments usually were screened to minus 80 mesh (<0.175 mm). In the present case we analysed samples of both *minus* 100 mesh (<0.15mm) and *minus* 50 *plus* 100 mesh (0.15 to 0.3 mm).

My suspicion that copper had become concentrated to some degree in the fine material turned out to be incorrect. In our analyses the copper values in the coarser fraction were consistently higher than those in the finer material. The test also tended to rule out the possibility that the high values are due to recent deposition of copper on the surface of the grains (seepage anomalies).

The results of the stream-sediment test work are shown on Figure 9. The values are somewhat lower than those from previous sampling efforts but the pattern is identical. (Figure 9 also shows a few copper values from earlier surveys taken in the same drainages as our samples.) There is a possible correlation between higher copper content and interpreted faults. The three samples that were less strongly anomalous (S-1, S-2 and S-5) were taken from streams that do not appear to follow major faults. There does not appear to be a correlation between copper content and the length of the creeks from which the sample was collected. The two highest values in our test were in samples taken from short drainages, indicating that material carried downstream for long distances from the source was not involved.

Regional stream-sediment sampling was carried out over the Guichon Creek batholith and adjacent areas by the B.C. Dept. of Energy Mines and Resources and the results are available online. Contoured values for copper are shown on Figure 10. The sample points are fairly widely spaced but the data are exceptionally useful because the sampling covered a very large area and because the collection and analysis were conducted in a consistent and reliable manner.


HIGHMONT FAULT
HVC FAULT
(1600)
(900)
(1500)
(1200)
110
S-1
(700)
S-8
S-7
S-6
520
400
260
(1100)
130
S-2
S-5
140
S-4
S-3
210
300
deep overburden
N
PRELIMINARY STREAM-SEDIMENT GEOCHEMICAL SURVEY
OF PART OF
COPPER HILL PROPERTY
0 500 1000 1500 2000
Metres
300 Copper in stream sediment in p.p.m.
(900) Copper in p.p.m. from Thomson (2006)
Interpreted fault [not all faults shown]
Creek above sample site
FIGURE 9

It should be pointed out that data points are often rather far apart and the contouring is highly subjective. However, all of the data points fall within their respective fields. No samples were collected in the area surrounding the Highland Valley copper deposits in order to avoid the possibility of contamination. Note that the contour interval on Figure 10 is logarithmic.

The contoured data illustrate several highly interesting features:

1. Uncomplicated contouring of stream-sediment data on a regional scale is extremely unusual.
2. The general distribution pattern of stream-sediment copper values within the batholith resembles the patterns for magnetic intensity and for the copper content in the "fresh" intrusive rocks -- but it is distinctly antithetical to both.
3. The contour enclosing the most strongly anomalous values (> 400 ppm) follows the western side of the younger core of the batholith for a distance of 20 kilometres south of the major deposits of the Highland Valley.
4. The overall anomalous zone follows the trend of the swarm of north-south regional faults that were outlined by the photo-geological interpretation.

The regional data tend to confirm my conclusions concerning the validity of the detailed stream-sediment sampling. They also suggest that copper mineralizing events that formed for the Highland Valley deposits were active along a zone extending south-southeast from the mining area, possibly controlled by regional faults. The former Craigmont mine is located close to the southern terminus of this zone – 30 kilometres south of the Highland Valley.

DRILLING

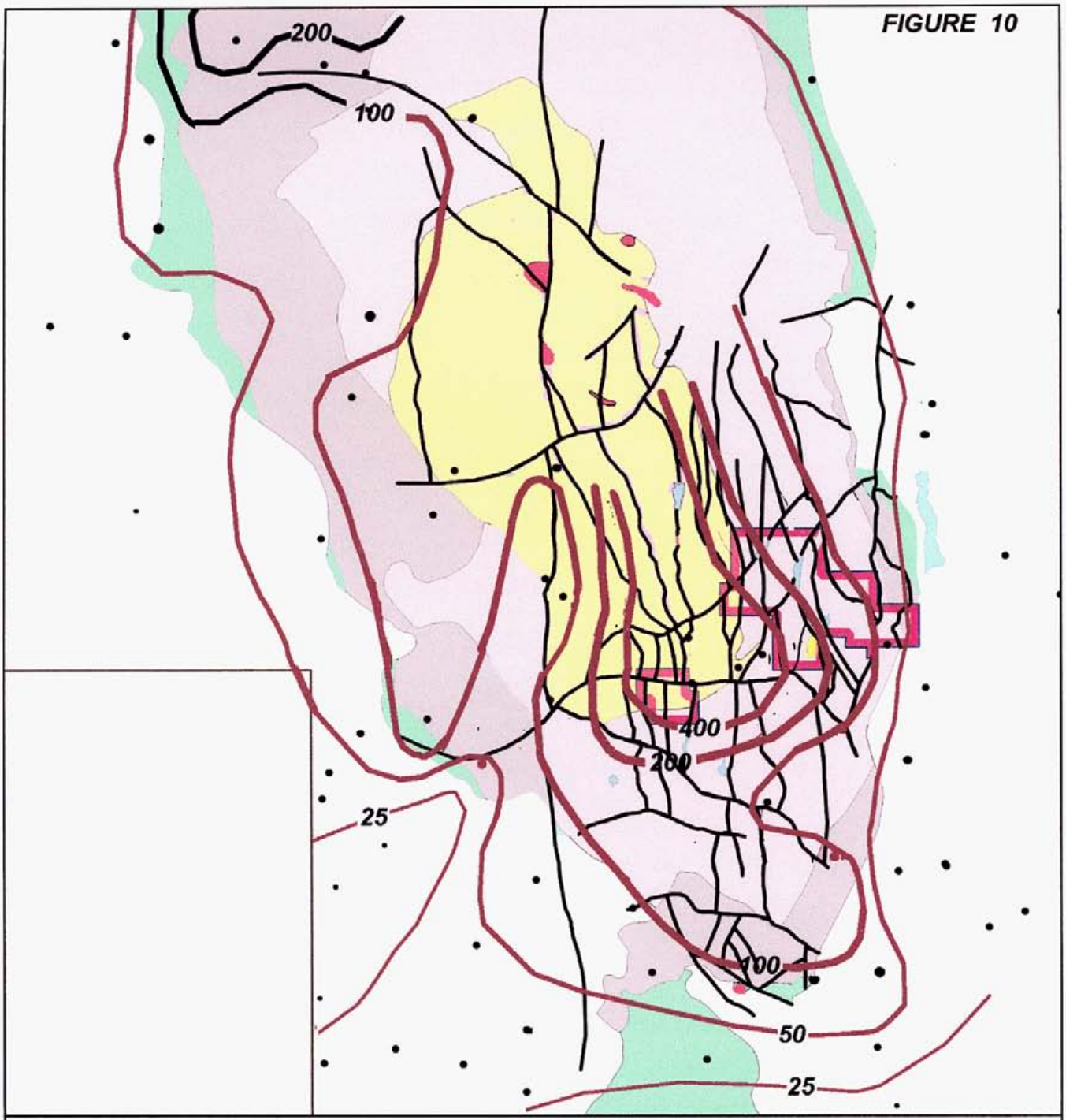
A large number of holes were drilled within and adjacent to the Property. Most of these were shallow percussion holes that were laid out in reconnaissance fashion. Very little information is available in the public domain on the results of the various drilling programs. The assumption is that the results were indifferent, since there is no evidence of sustained drilling anywhere on the Property.

By far the largest drilling program of record was carried out by Asarco in 1970 to test almost the entire Chataway property that covered all but the easternmost portion of the present Chat claim group (Bayley, 1970). The basic layout was a grid of shallow percussion holes at nominal 1500-foot spacing (i.e., one hole per claim). The holes were drilled to a depth of about 30 metres in most cases. However, only the north-western and the south-central part of the Property were tested to this extent.

The nine-hole diamond drilling program by Chataway Exploration Co. to follow up on geophysical surveys is discussed in this report under "Mineralization" and "Geophysical Surveys" as the Chataway Zone. Although a mineral resource is was calculated by the company, no reliable information is available and it should be discounted pending further investigation..

The comprehensive IP survey of the western part of the Property was tested by only three diamond drill holes. Significant mineralization was not encountered in any of the holes.

I was unable to locate any evidence of drilling within the eastern portion of the Property that extends into the "Mamit Lake graben,"



REGIONAL STREAM - SEDIMENT SURVEY

GUICHON CREEK BATHOLITH

SCALE 1 : 250,000

0 2 4 6 8 10

Kilometres

25 Contour of Cu in stream sediment (parts per million)

Major copper deposit

Data point from regional stream-sediment survey by B.C. Dept. of Energy, Mines & Resources

Fault

Skuhun & Chat Claim Groups

GUICHON BATHOLITH

Bethsaida & Bethlehem Phases

Highland Valley Phase

Border Phase

NICOLA GROUP

Volcanic & sedimentary rocks

CONCLUSIONS

The Guichon Creek batholith is the host to the largest copper producer in Canada. The Highland Valley mining district, situated close to the centre of the batholith, includes five major porphyry copper (-molybdenum) deposits. The Craigmont mine, a high-grade deposit of the skarn type, was located about 30 kilometres south of the Highland Valley mines at the southern margin of the batholith. The distribution pattern of copper values in stream sediment (from government surveys) clearly suggests that a regional mineralizing system extended south-southeast from the Highland Valley to Craigmont. A photo-geological interpretation carried out by the writer outlined a concordant regional fault system within this zone. Several of the regional faults are interpreted to extend into the Highland Valley deposits themselves. The Property is located within the indicated zone of faulting and mineralization, midway between the Highland Valley mining district and Craigmont mine. The Skuhun claim group and the western part of the Chat claim group are located within most highly anomalous portion of the regional geochemical zone.

Mineralization in the Highland Valley district is believed to be related to the youngest intrusive phases that form the central core of the Guichon Creek batholith. The major deposits are located in the eastern part of the core and in the adjacent older rocks. The Skuhun claim group and the western portion of the Chat claim group lie within this favourable marginal zone.

The G.S.C. aeromagnetic map (supported by field geological observations) suggests that the younger intrusive phases of the batholith are present at relatively shallow depth within a southeast-trending zone that includes the central parts of the Chat Group. A south-eastern "bulge" in the stream-sediment contours in this part of the area also may reflect the presence of these favourable intrusive rocks at depth. The earliest copper mining in the region was based on vein-type deposits that were emplaced along north- to north-northwest-trending faults within this "Southeast Belt."

Most of the exploration work in the vicinity of the Property was carried out since the discovery of the very large porphyry copper deposits of the Highland Valley. Accordingly, the work was directed toward the search for broad zones of low-grade "stockwork" mineralization. This typically involved the use of low-resolution induced polarization surveys and vertical percussion drill holes. These approaches were cost effective for the intended targets but they were not optimal for a style of mineralization that I believe is more likely to occur in much of the region, including the central and eastern parts of the Chat claim group.

The zone of anomalous stream-sediment copper values that extends south of the Highland Valley mining district is far higher than can be accounted for by known mineralization. It is very unlikely that this is the result of concentration in the sampling process or of seepages of dissolved metal along the drainages. Instead, I propose that the anomalously high values reflect copper deposition along the regional north-south faults. The less resistant zones of faulting were preferentially occupied by the creek valleys from which the stream sediment was collected. The anomaly pattern suggests that the mineralized faults extend as far as the south margin of the Guichon batholith where fractured volcanic rocks and limestone could have provided a favourable environment for high-grade ore deposition from hydrothermal solutions that utilized regional north-south faults as conduits. In much of the region the stockwork fracturing (as in the core of the batholith) or favourable host rocks (as at Craigmont) may not be present However, linear zones of shearing adjacent to north-south faults and dikes have provided conditions for the deposition of relatively high-grade copper mineralization at several sites. Under suitable conditions mineralization of this type might form significant high-grade ore deposits within the zone traversed by the copper-bearing faults.

Exploration in the Property area has been hampered by extensive post-mineral cover and by deep oxidation. Very thick glacial and post-glacial overburden has discouraged drill-testing of the favourable areas along the margin of the younger intrusions. At higher elevations to the north and east, remnants of a previously more extensive sedimentary are widespread. This unit is relatively thin, but it seriously hampers the use of conventional geochemical soil sampling or the discovery of mineralized boulders. In addition, the underlying rocks were protected from erosion for a long period of time and they are oxidized to a depth of 200 metres or more. The oxidation of sulphides in the mineralized zones hinders effective use of geophysics, particularly in the definition of linear deposits that are conjectured to be the ones most likely to occur in a large part of the Chat claim group. It should be noted however, that the deep oxidation was not accompanied by leaching of the metals in the mineralized zones. [A good example of this is the Afton mine in the Iron Mask batholith, where deep oxidation of the copper-gold deposit took place but the copper grade apparently was unchanged in the process.]

I have concluded that the most favourable areas for future exploration are:

1. ***The zone along the margin of the younger intrusive rocks that form the core of the Guichon batholith.*** This zone is covered by deep overburden in part of the Skuhun claim block and in the western part of the Chat claim block.

1a. ***Chataway Creek area in the western part of the Chat Claim block.***. Several regional faults have been interpreted. The highest stream sediment values in our test are located in this area.

1b. ***Skuhun Creek area in the northern part of the Skuhun claim block.*** The interpreted HVC and Highmont regional faults appear to intersect the Skuhun Creek fault in the northeast corner of the Skuhun claim block. There are high stream sediment values in the vicinity.

2. T***he north-western part of the Chat claim block east of 1a.*** There are several broad IP anomaly areas that appear to be related to north-south faulting. These anomalies are poorly resolved due to the large electrode separation used. Transported cover is thin but fairly extensive.

3. ***The extension of the Southeast Belt lying north of Twilight Lake.*** This area appears to be almost entirely covered by basal till. Conventional geochemical soil sampling should be an effective tool for further exploration.

4. ***The "Chataway Zone" south of Chataway Lake.*** Although a mineral resource of approximately half a million tonnes of 1.6% copper has been published, this target is hypothetical since the results of the drilling have not been verified. Nevertheless, the reported occurrence deserves to be followed up. The putative zone appears to be covered by relatively thin sedimentary rocks of the "Roscoe Lake" formation.

Soil geochemical surveys have been hindered by thick overburden, much of which is composed of transported material which precludes the use of conventional analytical techniques. A relatively new method, Mobile Metal Ion (MMI), has proven to be effective in detecting metal anomalies due to a variety of metals even when the source is deeply buried. The MMI exploration approach in areas of thick cover has the advantage over geophysical techniques in that it provides a means of detecting the metals directly rather than through a physical property difference. It appears to be ideally suited to be part of an integrated program along with induced polarization.

Geophysical work should be tailored to the site conditions. The highly favourable zone along the western and southern parts of the Copper Hill Property is mainly covered by deep overburden. This will necessitate deep IP survey techniques that employ a large electrode separation. The overburden is much thinner in the central and eastern part of the Property, and the most likely target-models are elongated bodies associated with the north-south regional faults. Reconnaissance very low frequency electromagnetic (VLF-EM) surveys are a suitable means of defining the regional faults at shallow depth since the method does not rely on metallic conductors for response. VLF-EM surveys may outline areas of strong shearing and fracturing as well. Induced polarization surveys within this part of the Property should be designed to detect relatively weak responses at shallow depth. Interpretation of the results

might be facilitated by the use of self potential (SP) surveying of the anomaly areas. This method responds to oxidizing sulphides and it is less likely to be sidetracked by most other types of conductors.

Additional geological mapping is warranted in the easternmost part of the property. Much of this area is covered by thick overburden. However, there are a number of deep valleys, suggesting that stream sediment sampling along with the geological mapping could be used effectively in the preliminary evaluation of this area.

RECOMMENDATIONS

It is recommended that a two-phase exploration program be carried out on each of the five areas that were designated as the most favourable ones in the previous section of this report, along with a preliminary evaluation of the easternmost part of the Chat claim block. In general, the first phase should consist of reconnaissance Mobile Metal Ion {MMI) geochemical surveys in areas that are indicated to have an extensive cover of transported material (Areas 1a, 1b, 2, 4) and conventional geochemical methods in Area 3 and the easternmost part of the Chat claim block. The MMI surveys should be supplemented by VLF-electromagnetic surveys for more precise definition of faults.

It is recommended that induced polarization surveys be carried out in the second phase of the program. The detail and extent of these surveys will be dependent to some degree on the results of Phase I. Only a minimum program for detailed surveying in areas where broad anomalies were outlined in previous surveys is included in the budget. Similarly, recommendations on detailed fill-in MMI surveys to follow up the geochemical results will be deferred for a later report that also may include recommendations for diamond drilling.

Respectfully submitted

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Consulting Geologist

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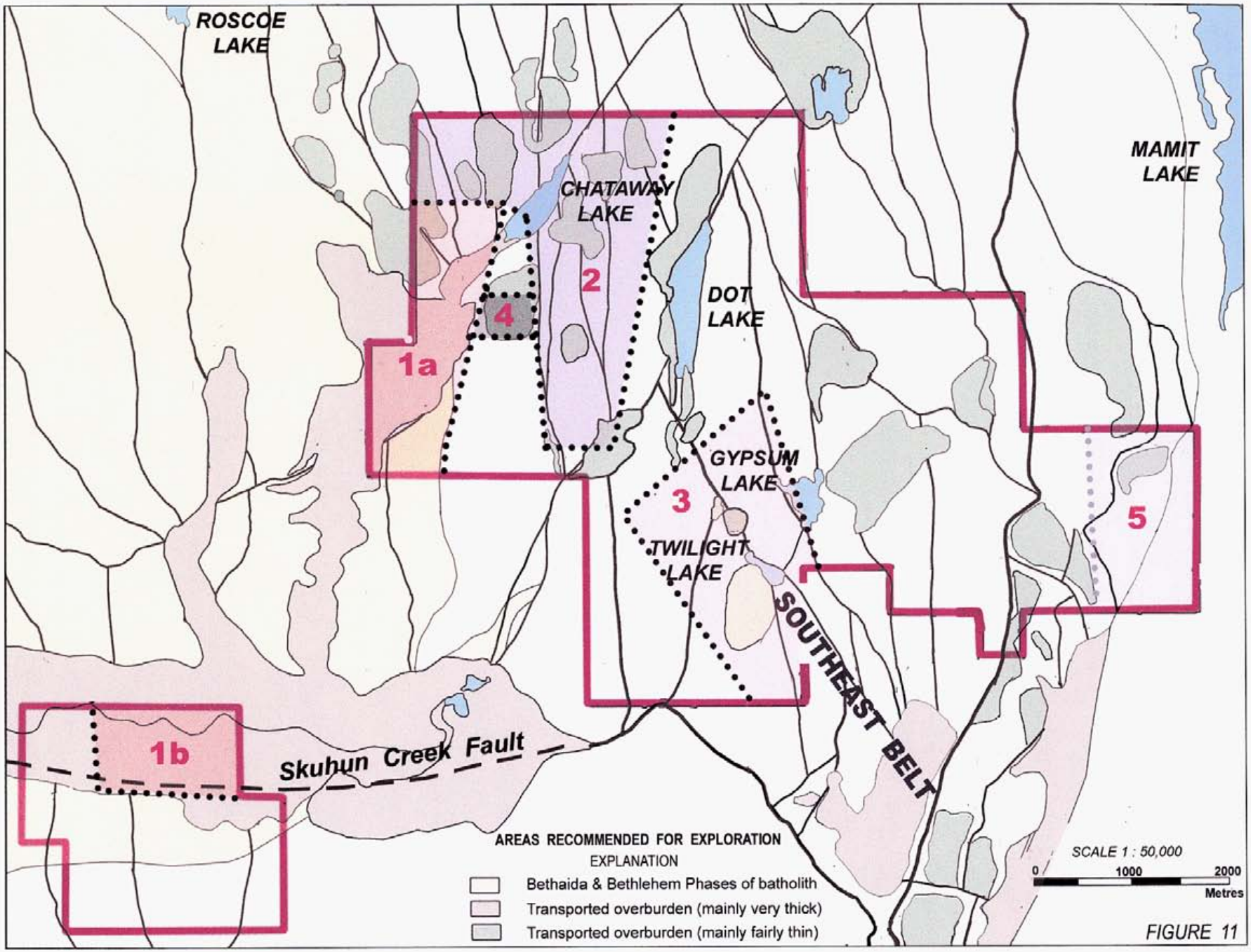
ROSCOE LAKE
CHATAWAY LAKE
MAMIT LAKE
DOT LAKE
GYPSUM LAKE
TWILIGHT LAKE
SOUTHEAST BELT
Skuhun Creek Fault
1a
1b
2
3
4
5
AREAS RECOMMENDED FOR EXPLORATION
EXPLANATION
Bethaida & Bethlehem Phases of batholith
Transported overburden (mainly very thick)
Transported overburden (mainly fairly thin)
SCALE 1 : 50,000
0
1000
2000
Metres

FIGURE 11

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STATEMENT OF COSTS

Type of Work	Dates	Days	Cost/day	Cost
W.R.Bergey, P.Eng.				
Geological mapping	23/08/06 – 25/08/06	3	$500	$1500
	07/09/06 – 10/09/06	4	500	2000
	18/10/06 – 23/10/06	6	500	300
Specimen preparation and examination		2	500	1000
Photo-geological interpretation		12	500	6000
Map & report preparation		8	500	4000
G.Lovang				
Geological assistance, prospecting, sampling		10	150	1500
Field & Office Expenses				
Meals & accommodation		23	100	2300
Vehicle expenses		13	100	1300
Air photographs				520
			TOTAL COST	**$20,420**

STATEMENT OF QUALIFICATIONS

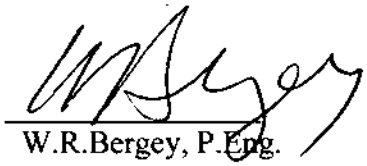
I, William Richard Bergey of 25789 - 8th Ave., Aldergrove , B.C., do hereby certify that:

1. I am a Professional Engineer (Geological) in the Province of British Columbia.

2. I have been employed in mining and mineral exploration for the past 59 years.

3. I have had many years of experience in geological mapping and photo-geological interpretation related to mineral exploration.

4. I personally conducted all of the geological work described in the above report.



W.R.Bergey, P.Eng.