86-645-15218
08/07

1986 ASSESSMENT AND RECOMMENDED WORK PROGRAM

COBBLE GROUP (SIL 3, 4 CLAIMS)

48° ~~41.3'~~ 40.8' N Lat., 123° ~~40'~~ 39.7' W Long.
Victoria Mining Division
British Columbia
N.T.S. 92B/12E
for
Owner/Operator: **HOLLYCROFT RESOURCE CORPORATION**

November 6, 1986

J.S. Getsinger, Ph.D.

SUMMARY

The Cobble Group (Sil 3, 4 claims) is underlain by Paleozoic Sicker Group sedimentary and volcaniclastic rocks, including parts mapped as Sediment-Sill Unit and Buttle Lake Formation limestone, overlain by Triassic Karmutsen Formation volcanics, all of which are intruded by Jurassic granodiorite to quartz diorite of the Koksilah Stock, and overlain unconformably by nearshore clastic sedimentary rocks of the Cretaceous Nanaimo Group.

The rocks on the Cobble Group property are a direct extension of the sequence on the adjacent King Solomon property, where several zones of Cu-Ag-bearing skarn mineralization are located.

A zone of discontinuously mineralized, interlayered, dark-coloured sedimentary and volcaniclastic rocks containing pods of semi-massive to massive pyrite $\pm$ pyrrhotite and minor chalcopyrite ($\pm$ magnetite) up to 3 m wide, previously noted to the west of the Sil 4 claim, has been traced onto the Sil 4 claim in the Koksilah River Canyon.

Best lithogeochemical results from grab samples are 70 ppb Au, 4.0% Cu, and 30.9 g/t (0.9 oz/ton) Ag (sample 1285) and 10 ppb Au, 4852 ppm Cu, and 2.2 ppm Ag (samples 1288, 1289) from rocks outcropping in the Koksilah River canyon; and 6396 ppm Cu, 7.0 ppm Ag, 440 ppm As, and 2.0 ppm Cd from outcrop on Riverside Road near Monastery Road.

The area on the Cobble Group with the most economic potential is therefore near the western boundary of the Sil 4 claim where massive sulphide pods occur near contacts with intrusive rocks, although further geological exploration of both the Sil 3 and 4 claims may reveal other mineralized areas.

Further Phase I geological mapping, preliminary soil sampling, and prospecting is recommended at an estimated cost of $25,000. Contingent on favourable results from Phase I exploration and encouraging developments on adjacent properties, Phase II exploration, consisting of detailed geological mapping and sampling, soil sampling, and geophysical surveys including magnetometer and VLF-EM, is recommended at an estimated cost of $50,000.

Phase III IP surveys and diamond drilling may then be recommended at an estimated cost of $150,000.

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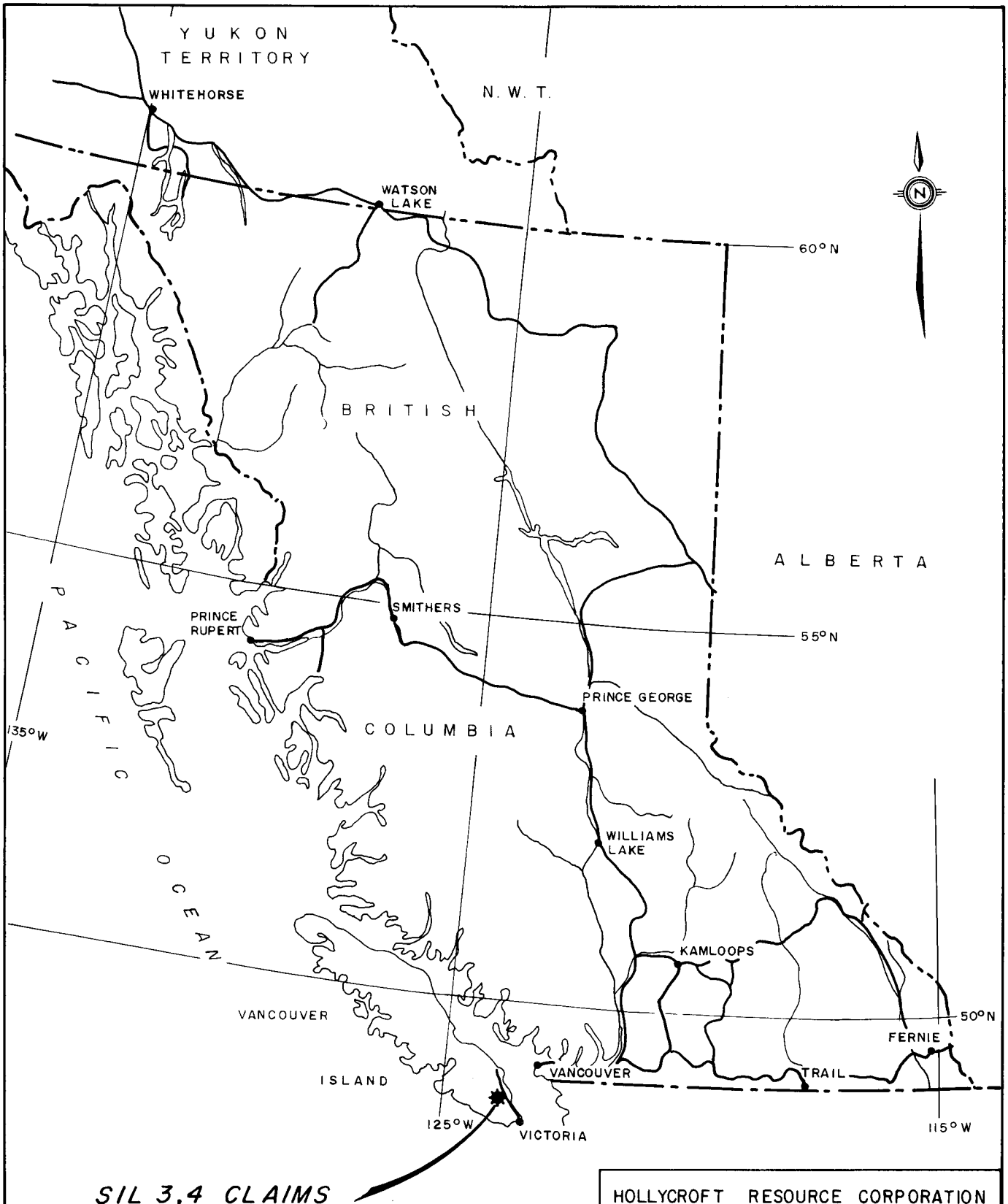


HOLLYCROFT RESOURCE CORPORATION

GENERAL LOCATION MAP
COBBLE GROUP
SIL 3,4 CLAIMS
VICTORIA MINING DIVISION

Project No:	V 159	By:	T. N.
Scale:	1 : 8 000 000	Drawn:	J. S.
Drawing No:	1	Date:	NOV. 1986

MPH Consulting Limited

1.0 INTRODUCTION

This assessment report on the Cobble Group (Sil 3, 4 claims) has been prepared by MPH Consulting Limited in the name of Hollycroft Resources Corporation at the request of Mr. Leon Nowek. It provides a summary of regional geology and mining exploration activity in the area, a description of property geology, and a discussion of the economic setting of the property. A recommended exploration program designed to explore the economic potential of the property is included.

2.0 PROPERTY LOCATION, ACCESS, TITLE

The Cobble Group (Sil 3, 4 claims) are located on the Koksilah River about 10 km south of Duncan, on NTS mapsheet 92B/12 centred at about 48°41.3'N latitude, 123°40'W longitude in the Victoria Mining Division of British Columbia (Figures 1 and 2).

Access to the property is via paved and all-weather gravel roads (Riverside Road) from Duncan and from the Shawnigan Lake area. Numerous old logging roads provide access to all portions of the property.

Claim information is summarized below:

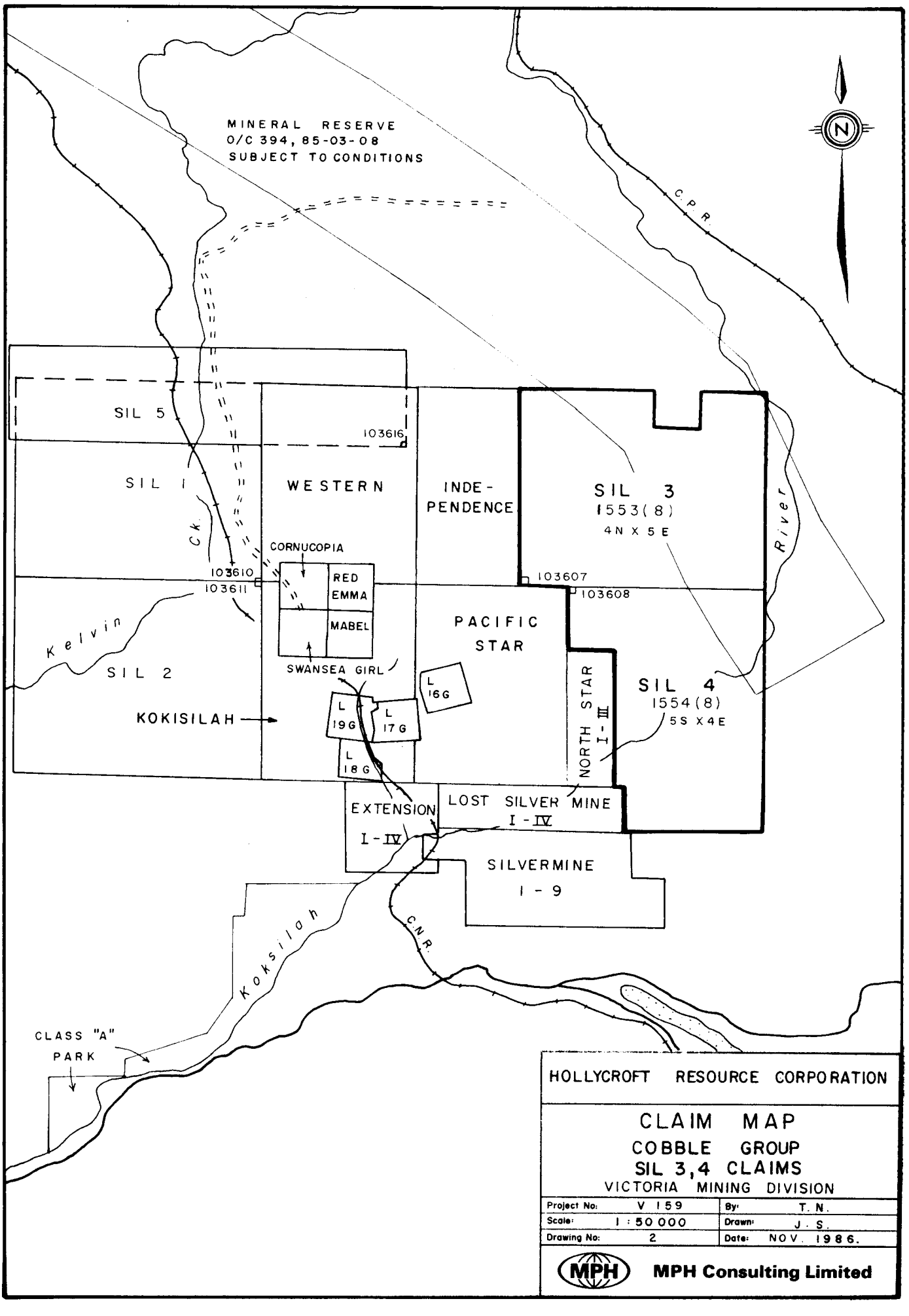
Claim	Record No.	Units	Anniversary Date	Year Registered
Sil 3	1553(8)	20	August 8, 1987	1985
Sil 4	1554(8)	20	August 8, 1987	1985
	Total	**40**		

The Sil 3 and 4 claims were grouped as the Cobble Group on August 8, 1986.

Both claims are owned by Hollycroft Resources Corporation.

Mineral Reserve O/C 394 (a major powerline right-of-way) crosses the northeastern portions of the claims, imposing certain conditions upon the claim holder but not precluding exploration or mining activities.

The southwestern portion of the Sil 4 claim overstakes the previously staked Northstar I-III and Lost Silver Mine III and IV claims (Figure 2).


MINERAL RESERVE
O/C 394, 85-03-08
SUBJECT TO CONDITIONS
C.P.R.
N
SIL 5
103616
SIL 1
WESTERN
INDE-
PENDENCE
SIL 3
1553(8)
4N X 5E
Ck.
CORNUCOPIA
RED
EMMA
MABEL
103610
103611
103607
103608
River
Kelvin
SIL 2
PACIFIC
STAR
SWANSEA GIRL
L
16G
L
19G
L
17G
L
18G
KOKISILAH
NORTH STAR
I - III
SIL 4
1554(8)
5S X4E
EXTENSION
I - IV
LOST SILVER MINE
I - IV
SILVERMINE
1 - 9
Koksilah
C.N.R.
CLASS "A"
PARK
HOLLYCROFT RESOURCE CORPORATION
CLAIM MAP
COBBLE GROUP
SIL 3,4 CLAIMS
VICTORIA MINING DIVISION
Project No: V 159
By: T. N.
Scale: 1 : 50 000
Drawn: J. S.
Drawing No: 2
Date: NOV. 1986.
MPH
MPH Consulting Limited

3.0 HISTORY

Government geological work in the area of the Cobble Group (Sil 3, 4 claims) includes mapping by C.H. Clapp (1912 and 1914) and J.E. Muller (1977, 1980a, and 1980b).

No previous exploration work on the ground covered by the Cobble Group (Sil 3, 4 Claims) was recorded before 1985, when MPH Consulting carried out preliminary assessment work on the Sil 3 and 4 Claims. However, the nearby deposits 2 km to the west on the King Solomon property have been explored since 1886 and have produced minor amounts of ore. The King Solomon Mine, Blue Bell Mine, and Viva Mine produced a recorded total of 901 tonnes (993 tons) of ore yielding 46,498.5 kg (102,510 lb) Cu (5.16%), and 10,948 g Ag at 17.49 g/t (352 oz Ag at 0.51 oz/ton) between 1903 and 1916. In the late 1950's, at least 1524 m (5,000 feet) of diamond drilling was carried out on the King Solomon Mine, intersecting numerous mineralized zones including 3.6 m (11.9 feet) of 7.83% Cu, 16.8 g/t Ag (0.49 oz/ton Ag); 11.3 m (37 feet) of 1.44% Cu; 15.7 m (51.5 feet) of 0.97% Cu; and 3.7 m (12 feet) of 4.1% Zn, 10.29 g/t Ag (0.3 oz/ton Ag) and 0.25% Cu.

Recent work on the King Solomon property has included geological mapping, geophysical IP surveys, and diamond drilling commencing in 1985. Over $500,000 has been spent in 1986 on further detailed exploration and diamond drilling of the King Solomon property by Nexus Resources Corporation.

Mineralization on the King Solomon property is contained in apparent skarn deposits consisting of fracture and fault controlled, massive to semi-massive pyrrhotite, magnetite, pyrite, chalcopyrite, and

minor sphalerite in widely varying proportions. At least 8 showings/deposits occur over a strike length of about 3 km. The deposits appear to occur at, or near, the top and base of the Buttle Lake Formation, localized within areas of the formation that contain limestone interbeds and are cut by dykes and bodies of feldspar porphyritic dacite and pyritic rhyolite. It has been suggested that the deposits represent skarnified ± remobilized equivalents of pre-existing volcanogenic massive sulphide deposits.

The property is partly underlain by rocks of the Sicker Group. Since the announcement in 1979 of the discovery of Westmin Resources Ltd.'s new H-W deposit at Buttle Lake, the Sicker Group has become an extremely active exploration target.

Westmin Resources Ltd.'s Buttle Lake mines contain total reserves of 14.75 million tonnes grading 5.43% Zn, 2.12% Cu, 2.40 g/t Au, 41.1 g/t Ag, and 0.34% Pb (Walker 1983). A past-producing mine hosted by the Sicker Group in the Duncan area is the Twin J Mine, a volcanogenic massive sulphide deposit presently being explored by Corporation Falconbridge Copper, 20 km NNW of the property. Recorded production totalled 277,395 tonnes grading 7.5% Zn, 3.4% Cu, 5.14 g/t Au, 105 g/t Ag, and minor Pb. Reserves are reported as 317,520 tonnes grading 1.6% Cu, 0.65% Pb, 6.6% Zn, 4.11 g/t Au, and 140.6 g/t Ag as of 1971.

A significant recent development in the Sicker Group is the delineation of a large polymetallic massive sulphide zone on the Lara property, 25 km NW of the property. On the Lara property, Abermin Corporation has completed at least 80 diamond drill holes, tracing the Coronation Zone and Coronation Extension over a strike length of 1500 m, to depths averaging 150 m, and over widths averaging 6.2 m. The average grade of 17 of the drillholes is 4.54% Zn, 4.11 g/t Au, 92.6 g/t Ag, 0.79% Cu, and 0.83% Pb. Surface trenching of the Coronation Zone

has yielded results of up to 24.58 g/t Au, 513.6 g/t Ag, 43.01% Zn, 8.30% Pb and 3.04% Cu over 3.5 m. The Coronation Zone is open along strike on both ends.

Further to the northwest, Westmin Resources Ltd. is exploring Nexus Resources Corporation's Thistle property, 20 km southeast of Port Alberni. A total of 16 significant Cu and/or Au mineralization occurrences have been located on the property, 15 of which are located within a 225 m thick unit of mainly basaltic flows which are believed to be correlative with Muller's Sediment-Sill Unit and/or Myra Formation. Surface assays reported range from 7.75 to 41.83 g/t Au (0.226 to 1.22 oz/ton) 5.14 to 45.60 g/t Ag (0.15 to 1.33 oz/ton) and 2.71 to 10.2% Cu over apparent true thicknesses of 15 cm to 4 m. The best assay from 1984 diamond drilling was 17.62 g/t Au (0.514 oz/ton) over 20 cm. Westmin has spent approximately $406,000 on the property to 1984. A further $400,000 was spent in 1985. The Thistle Mine produced 6276 t (6920 tons) of ore yielding 85,844 g (2760 oz) Au, 65,938 g (2120 oz) Ag, and (275,773 kg) (681,425 lb) Cu in the period from 1938 to 1942. A news release in October 1985 states that the exploration target on the Thistle property is a volcanogenic deposit of at least 3 million tons grading 6.86 g/t Au and 2% Cu.

Significant gold, base metal, and other occurrences and deposits of the Sicker Group in the Duncan-Cowichan Lake area and summarized in the Mineral Occurrences section.

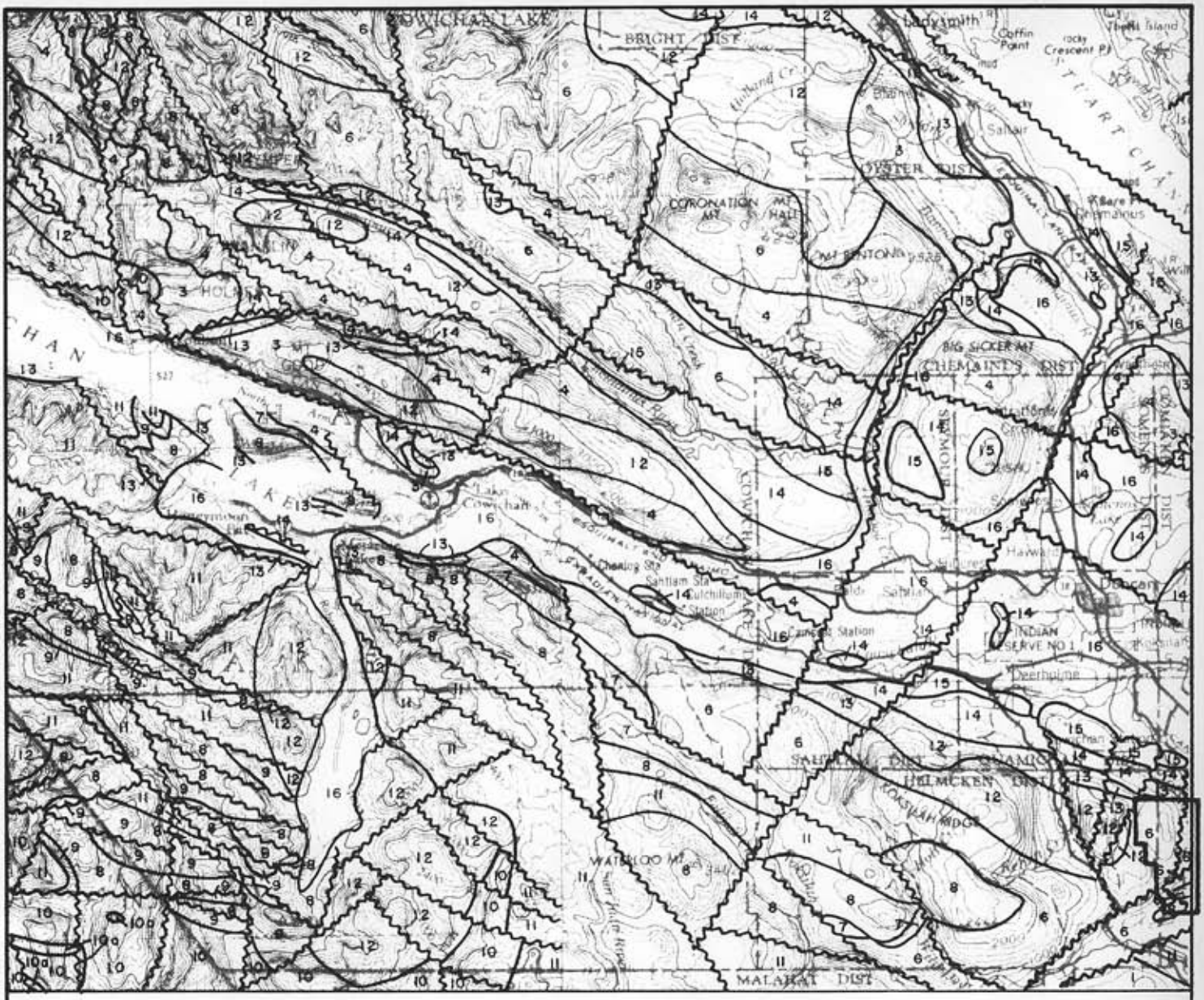
4.0 REGIONAL GEOLOGY

The Duncan to Cowichan Lake area is underlain by a west-northwest trending belt of Paleozoic Sicker Group rocks intruded by various bodies of Jurassic Island Intrusions and overlain by Triassic Karmutsen Formation basalts and Cretaceous Nanaimo Group sediments. South of Cowichan Lake extensive exposures of Bonanza Group volcanics are found, along with Karmutsen Formation, Quatsino Formation, and Island Intrusions rocks (Figure 3).

4.1 Wark-Colquitz Gneiss Complex

Wark Gneiss consists of irregularly foliated to massive biotite-hornblende diorite and quartz diorite, while Colquitz Gneiss consists of well foliated biotite-hornblende quartz diorite to granodiorite. The dark, mafic Wark and light, felsic Colquitz gneisses may be intimately interlayered locally. The Colquitz Gneiss was originally thought to intrude the Wark Gneiss, but is now considered to be a paragneiss derived from volcaniclastics. Migmatization of the gneisses, as interpreted from K-Ar dating, occurred during Early Jurassic plutonism that produced the Island Intrusions. It may be that the Paleozoic Sicker Group is the protolith of the Wark and Colquitz Gneisses, but zircon dating appears to indicate older Paleozoic or even Precambrian material (Miller, 1981).

The Wark-Colquitz Gneiss Complex is exposed in the vicinity of Victoria, where is forms the basement of the Insular Belt.



QUATERNARY

16 Glacial and alluvial deposits

UPPER CRETACEOUS

Nanaimo Group

15 Extension - Protection Fm : sandstone, conglomerate, minor siltstone, shale, coal

14 Haslam Fm : shale, siltstone, minor sandstone

13 Comox Fm : sandstone, conglomerate, minor siltstone, shale, coal

JURASSIC

Lower to Middle Jurassic

12 Island Intrusions: granodiorite, quartz diorite

Lower Jurassic

11 Bonanza Group: basaltic to rhyolitic tuff, breccia, flows, sills, and dykes; minor argillite, greywacke

UPPER PALEOZOIC AND ? OR TRIASSIC AND JURASSIC

10 Westcoast Complex : quartz diorite, diorite, tonalite, amphibolite, agmatite, minor metavolcanic and metasedimentary rocks 10a : recrystallized limestone, skarn.

TRIASSIC

Middle ? and Upper Triassic

Vancouver Group

9 Quatsino Fm : limestone

8 Karmutsen Fm : pillow basalt, breccia, tuff; minor flows.

PALEOZOIC

Sicker Group

PENNSYLVANIAN AND PERMIAN

7 Buttle Lake Fm : limestone, chert, greywacke, argillite

PENNSYLVANIAN AND MISSISSIPPIAN

6 Sediment – Sill Unit : argillite, greywacke, chert, diabase sills

LOWER DEVONIAN AND OLDER

5 Saltspring Intrusions : meta-granodiorite, meta-quartz porphyry, quartz-sericite schist

4 Myra Fm : well bedded felsic tuff and breccia, argillite, rhyodacite in flows and sills, minor basic tuff, quartz-sericite schist, phyllite, massive sulphides

3 Nitinat Fm : pillow lava and breccia of augite (uralite) porphyry, basic tuff, minor chlorite - actinolite schist

LOWER PALEOZOIC (OR YOUNGER ?)

2 Colquitz gneiss : quartz-feldspar gneiss

1 Wark gneiss : massive and gneissic metadiorite, metagabbro, amphibolite

0 5 10km

N

HOLLYCROFT RESOURCE CORPORATION

REGIONAL GEOLOGY MAP
COBBLE GROUP
SIL 3,4 CLAIMS
VICTORIA MINING DIVISION

Project No:	V 159	By:	T. N.
Scale:	1 : 250 000	Drawn:	J. S.
Drawing No:	3	Date:	NOV. 1986.

MPH **MPH Consulting Limited**

4.2 Sicker Group

Muller (1980a) proposed the following subdivision of the Sicker Group, from oldest to youngest: Nitinat Formation, Myra Formation, Sediment-Sill Unit, and Buttle Lake Formation.

The **Nitinat Formation** consists predominantly of mafic volcanic rocks, most commonly flow-breccias or agglomerates including some massive flows, and rare pillow basalts. Locally, medium-grained, generally massive basaltic tuff is interbedded with the flows. The flow-breccia is composed of fragments of basalt up to 30 cm in length containing phenocrysts of uralitized pyroxene as well as amygdules, both from 1 mm to more than 1 cm in size, in a matrix of finer grained, similar basalt(?). Thin sections show pale green amphibole (uralite) is replacing clinopyroxene. Uralitized gabbroic to dioritic rocks underlie and intrude the volcanics and are believed to represent feeder dykes, sills, and magma chambers to the volcanics. The Nitinat Formation may be distinguished from the similar Karmutsen Formation by the abundance of uralite phenocrysts, a usual lack of pillow basalts, lack of dallasite alteration between pillows (characteristic of the Karmutsen) locally pervasive foliation, and lower greenschist or higher metamorphic grade. However, in some areas the distinction is still difficult, in which case whole rock analyses may be useful.

The **Myra Formation** overlies the Nitinat Formation, possibly with minor unconformity. In the Nitinat-Cameron River area the Myra Formation is made up of a lower massive to widely banded basaltic tuff and breccia unit, a middle thinly banded albite-trachyte tuff and argillite unit, and an upper thick bedded, medium-grained albite-trachyte tuff and breccia unit. In the lower unit, crudely layered

mottled maroon and green volcaniclastic greywacke, grit and breccia are succeeded by beds of massive, medium-grained dark tuff up to 20 m thick interlayered with thin bands of alternating light and dark, fine-grained tuff with local fine to coarse breccias containing fragments of Nitinat Formation volcanics. The middle unit comprises a sequence of thinly interbedded, light feldspathic tuff (albite trachyte or keratophyre composition) and dark marine argillite which has the appearance of a graded greywacke argillite turbidite sequence. In the upper part of the middle unit, sections of thickly bedded to massive black argillite occur. The upper unit contains fine and coarse crystal tuffs in layers up to 10 m thick with local rip-up clasts and slabs of argillite up to 1 m in length as well as synsedimentary breccias of light coloured volcanic and chert fragments in a matrix of black argillite.

Mapping by Fyles (1955) in the area north of Cowichan Lake located a thick sequence of mainly massive green volcanics (Nitinat Formation), overlain by a "marker" unit consisting of a sequence of thin bedded, cherty tuffs with several metres of coarse breccia containing fragments of amygdaloidal volcanics between it and the Nitinat Formation. Overlying the marker unit are grey to black feldspathic tuffs and argillaceous sediments and minor breccias. Muller (1980a) considers the marker unit to correspond to the lower unit of the Myra Formation, while the overlying unit of tuffs and sediments is correlated with the middle unit "and probably contains the upper ... unit as well."

In the Sicker Mountain area, the Myra Formation is more pervasively deformed and consists of well bedded, mainly felsic tuff and breccia interbedded with black agrillite and some greywacke. The rocks have been converted to quartz-chlorite-sericite schist in steep and overturned isoclinal folds. Breccia fragments are commonly

epidotized. The "Tyee Quartz Porphyry" is a porphyritic rhyolite containing quartz eyes to 5 mm that occurs partly as cross cutting sills and partly as flows(?) within the Myra Formation. Tyee Quartz Porphyry is related to the Saltspring Intrusions.

The type locality of the Myra Formation is Myra Creek, at the south end of Buttle Lake, about 160 km northwest of Duncan. Volcaniclasitc rocks consisting dominantly of rhyodacitic or rhyolitic tuff, lapilli tuff, breccia, and some quartz porphyry and minor mafic flows and argillite (Upper Myra Formation) are host to Westmin Resources Ltd.'s Myra, Lynx, Price, and H-W massive sulphide (Cu-Zn-Pb-Au-Ag-Cd) deposits.

Muller (1980a) estimated the thickness of the Nitinat Formation at about 2000 m and that of the Myra Formation at 750 to 1000 m. Fyles' (1955) work indicates a thickness of at least 1500 m for the Nitinat Formation, and at least 1000 m for the Myra Formation in the Cowichan Lake area. Both the Nitinat and Myra Formations were dated as Devonian and/or older by Muller (1980a).

The **Saltspring Intrusions** are fine to medium grained, light coloured metamorphosed granite or granodiorite which lacks the speckled appearances of most other intrusive rocks on Vancouver Island. Indistinct gneissic foliation and agmatitic structures occur pervasively. The Saltspring Intrusions have gradational contacts with the Tyee Quartz Porphyry of the Myra Formation and are considered to be comagmatic with it. Dating of the Saltspring Intrusions reveals an initial age of latest Silurian.

The Saltspring Intrusions are exposed maily on Saltspring Island, and do not extend westward into the regional geology map area.

The **Sediment-Sill Unit** is transitional between the Myra and Buttle Lake Formations. The upper and lower contacts are poorly defined. Thin bedded, turbidite-like, much silicified or cherty massive argillite and siltstone are interlayered with diabasic sills. The sediments show conspicuous dark and light banding on joint surfaces. The sills consists of a fine-grained, greenish black matrix containing feldspar phenocrysts up to more than 1 cm, commonly clustered in rosettes up to few centimetres in diameter, producing a very distinctive "flower porphyry" appearance. Subophitic texture may also be visible in hand specimen. The sediments are dated as Mississippian in age whereas the sills are believed to represent feeders to Triassic Karmutsen volcanics.

The **Buttle Lake Formation** consists of a basal green and maroon tuff and/or breccia overlain by coarse-grained crinoidal and calcarenitic limestone, fine-grained limestone with chert nodules and some dolomitic limestone. Lesser amounts of argillite, siltstone, greywacke, or chert may also be present.

In the area southeast of Cowichan Lake, the Buttle Lake Formation consists of laminated, calcareous grey siltstone and black argillite containing lenses of coarse-grained calcarenite, minor massive beds or crinoidal limestone about 1 m thick, and lenses and nodules of chert. The section was described by an earlier worker as mainly interbedded chert and limestone (Yole in Muller, 1980a).

The Buttle Lake Formation is up to 466 m thick (approximately 300 m thick southeast of Cowichan Lake). The age of the formation, on the basis of fossil dating, appears to be Middle Pennsylvanian, but could possibly be as young as Early Permian (Muller, 1980a) This has been confirmed by recent dating work by Brandon and others (1986),

including isotopic as well as conodont ages, which indicates that rocks of the Buttle Lake Formation are early Middle Pennsylvanian (Atokan) through Early Permian (probably Sakmarian) in age.

4.3 Vancouver Group

The **Karmutsen Formation** volcanic rocks unconformably to paraconformably overlie the Buttle Lake Formation limestone to form the base of the Vancouver Group. They are the thickest and most widespread rocks on Vancouver Island. The formation, which is well exposed in the area of El Capitan Mountain, consists mainly of dark grey to black, or dark green, tholeiitic pillow basalt, massive basalt, and pillow breccia. Flows are commonly aphanitic, feldspar porphyritic, and amygdaloidal. Pillow lavas generally occur toward the base of the section.

Conglomerate containing clasts of Sicker Group rocks and jasperoid tuff forms basal sections in the Nitinat-Horne Lake area to the northwest.

Karmutsen Formation rocks are generally relatively undeformed compared to Sicker Group rocks and are dated Upper Triassic and older.

Massive to thick bedded limestone of the **Quatsino Formation** is widespread in the area south of Cowichan Lake. The limestone is black to dark grey and fine-grained to microcrystalline. Coarse-grained marble occurs in the vicinity of intrusive rocks. Most of the economic skarn deposits on Vancouver Island are hosted by Quatsino limestone. Thin bedded limestone also occurs in the formation. Fossils indicate an age of Upper Triassic (Muller and Carson, 1969).

The **Parsons Bay Formation** overlies Quatsino limestone, or locally, Karmutsen volcanics. It is composed of interbedded calcareous black argillite, calcareous greywacke and sandy to shaly limestone. It is included within the Quatsino Formation within the report map area. The Quatsino and Parsons Bay Formations are considered to represent near and offshore basin facies, respectively, in the quiescent Karmutsen rift archipelago (Muller, 1981).

4.4 Westcoast Complex

The **Westcoast Complex** comprises a variety of plutonic and metamorphic mafic crystalline rocks, including amphibolite, diorite, and quartz diorite with homogeneous, agmatitic or gneissic textures. Dioritic or agmatitic bodies underlying or intruding the Nitinat Formation are included. Metamorphosed Karmutsen Formation and/or Sicker Group rocks grade locally into the complex and are believed to be its protolith, having been migmatized in Early Jurassic time. The mobilized granitoid portion of the complex is believed to be the source of the Island intrusions and, indirectly, the Bonanza Group volcanics (Muller, 1981, 1982). Small bodies of recrystallized limestone found within the complex are believed to be derived mainly from the Quatsino Formation, and to a lesser extent from the Buttle Lake Formation.

4.5 Bonanza Group

The **Bonanza Group** stratigraphy varies considerably from place to place, as it represents parts of several different eruptive centres of a volcanic arc. Basaltic, rhyolitic, and lesser andesitic and

dacitic lava, tuff, and breccia with intercalated beds and sequences of marine argillite and greywacke make up the Bonanza Group. In the area south of Cowichan Lake, the volcanics are described as dark brown, maroon, and yellow grey massive tuff, volcanic breccia, and massive or plagiophyric flows (Muller, 1982). The Bonanza volcanics are considered to be extrusive equivalents of the Island intrusions and to be of Early Jurassic age.

4.6 Island Intrusions

Exposures of **Island Intrusions** consisting mainly of quartz diorite and lesser biotite-hornblende granodiorite occur throughout the area and are assigned an age of Middle to Upper Jurassic. Intrusive contacts with Sicker and Bonanza Group volcanic rocks are characterized by transitional zones of gneissic rocks and migmatite although contacts with Karmutsen Formation volcanic rocks are sharp and well defined. Skarn zones are reported at the contact of Island Intrusion rocks with Quatsino Formation limestone and less abundantly with Buttle Lake Formation limestone.

4.7 Nanaimo Group

Upper Cretaceous Nanaimo Group sedimentary rocks occurring throughout the area overlie Paleozoic Sicker Group rocks with profound unconformity. Extensive exposures occur in the Chemainus and Cowichan River valleys. The formations present comprise the basal portions of the Nanaimo Group.

The **Comox Formation** consists mainly of quartzofeldspathic, cross-bedded beach facies sandstone and lesser conglomerate. Numerous

intercalations of carbonaceous and fossiliferous shale and coal are characteristic.

The **Haslam Formation** is a nearshore littoral depositional facies unit characterized by massive bedded fossiliferous sandy shale, siltstone and shaly sandstone.

Interbedded coarse clastic conglomerate, pebbly sandstone and arkosic sandstone of the **Extension-Protection Formation** are beach and deltaic sands. Minor shale and coal are reported.

4.8 Structure

The Buttle Lake Arch, Cowichan-Horne Lake Arch and Nanoose Uplift are north-northwesterly trending axial uplifts and are believed to be among the oldest structural elements in south central Vancouver Island. Folding and uplift occurred before the late Cretaceous, and possibly before the Mesozoic (Muller and Carons, 1969), and more tilting, folding, and uplift occurred after the late Cretaceous. Sicker Group volcanic and sedimentary rocks occur at the cores of these uplifts.

Asymmetric southwest-verging, northwest-trending antiformal fold structures characterized by subvertical southwest limbs and moderately dipping northeast limbs are reported at Buttle Lake, in the Cameron-Nitinat River area, and north of Cowichan Lake. Well-developed foliation developed during metamorphism to chlorite-actinolite and chlorite-sericite schist in steep and overturned limbs of folds. Folding may have occurred prior to intrusion of Triassic(?) mafic sills along axial planar surfaces in folded

Sediment-Sill unit rocks. Evidence from K-Ar dating also suggests Jurassic folding. Buttle Lake Formation limestones are relatively undeformed in some places, although in others, as in the Chemainus River Canyon, they are highly deformed, along with other Sicker Group rocks (Brandon and others, 1986). Vancouver Group units are not as intensely folded; gentle monoclinal and domal structures have been mapped. However, Karmutsen Formation volcanic rocks locally conform to the attitude of underlying Myra and Buttle Lake Formations (Muller, 1980a).

Some early Mesozoic faulting occurred in the area prior to emplacement of Island Intrusions. Middle to Upper Jurassic intrusive activity (Island Intrusions) occurred along northwesterly trends.

Extensive west-northwest trending faulting occurred during the Tertiary and is best illustrated by large displacements of Nanaimo Group sediments in some areas, such as the north side of the Chemainus River valley, placing Sicker Group rocks above Nanaimo Group rocks. These faults have been traced for up to 100 km. Such structures may represent large scale underthrusting from the southwest, in a regime of long-term semi-continual northeast-southwest compression. Nanaimo Group sediments are tilted up to at least 60^{o} from paleohorizontal where they are overlying folded Sicker Group rocks with angular unconformity such as on the south side of the Chemainus River Valley. Minor late northeasterly trending tear-faults and block faults offset northwest-trending faults in the Cowichan Valley and Saltspring Island areas.

4.9 Mineral Occurrences and Deposits

4.9.1 Gold Occurrences

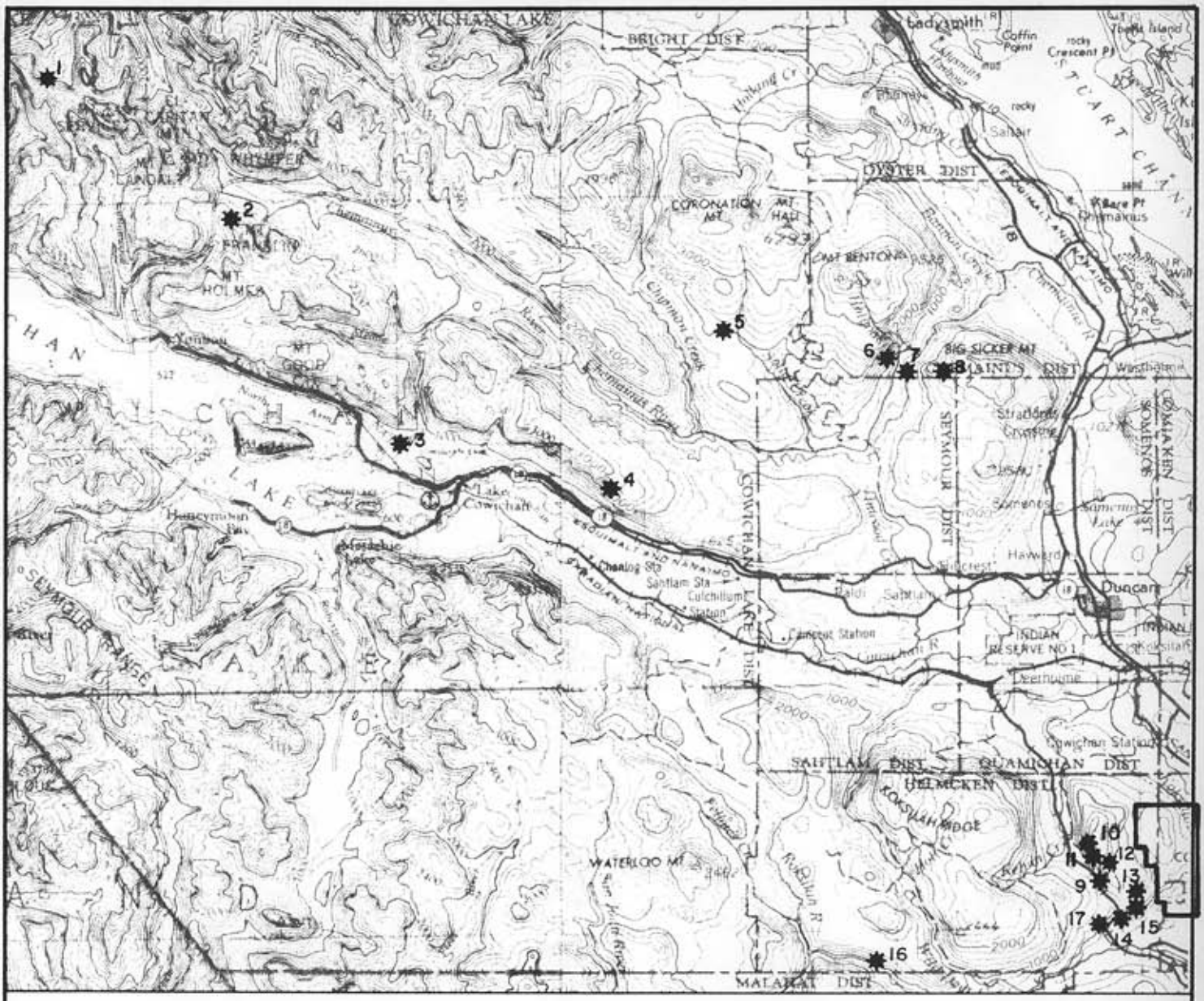
2. Comego (Cascade, Kitchener, Widow Group, Anne)
Au Cu Mo W Ag Zn Fe

Geology:

The area is underlain by Sicker Group bedded cherts, cherty tuffs, agglomerates, and andesites intruded by a gabbro-diorite sill, a quartz diorite stock, and feldspar porphyry dykes. Three types of mineralization are found in the Sicker rocks: 1) garnet-actinolite-quartz-calcite-epidote-chlorite skarn often containing magnetite, chalcopyrite, pyrite, pyrrhotite, local molybdenite, scheelite, sphalerite, tetrahedrite, rare bornite and arsenopyrite occurring in cherty tuff near the contact of the gabbro-diorite sill; 2) rusty weathering quartz-carbonate stringers in a shear zone containing finely disseminated molybdenite, pyrite, chalcopyrite, tennantite, local bornite and magnetite; and 3) quartz veins associated with the skarn zones containing masses of chalcopyrite, pyrite, and molybdenite.

Mineralization Features:

The main skarn zone is 30 m wide by 90 m high by possibly 500 m long. Best assays are 14.1 g/t Au over 1 m, 27.4 g/t Ag over 4.6 m, 8.3% Cu over 6 m, 1.3% Mo over 4.6 m, 0.32% WO_3 over 1 m. The best DDH intersection was 0.69 g/t Au, 10.3 g/t Ag, 0.5% Cu over 7.3 m. Assays from the quartz-carbonate zones are all very low. The quartz-molybdenite vein(s) are 1.5 m wide, 15 m long. Samples over 1.5 m



GOLD OCCURRENCES

1. Amore *
2. Comego
3. Meade Ck *

BASE METAL OCCURRENCES, DEPOSITS

5. Lara
6. Pauper *
7. Copper Canyon *
8. Twin J
9. King Solomon
10. Dora - Mabel
11. Blue Bell
12. Viva
13. Finlay
14. W.A.E.
15. Fallside
16. Robertson

OTHER OCCURRENCES

4. Hill 60 *
17. Humes Arsenic

* not described in Mineral Occurrences Section.

HOLLYCROFT RESOURCE CORPORATION

MINERAL OCCURRENCES LOCATION MAP
COBBLE GROUP
SIL 3,4 CLAIMS

Project No.	V 159	By	T. N.
Scale:	1:250 000	Drawn:	J. S.
Drawing No.	4	Date	NOV. 1986.

MPH Consulting Limited

averaged 1.3% Cu, 4.6% Mo, while a 2 m sample assayed 1.20 g/t Au, 21.3 g/t Ag, 2.2% Cu, 0.28% Mo, 0.32% WO3.

History

1902-06:	G. Lawrence; (Cascade) open cut, stripping, 2 pits
1919:	L.A. Sherk; (Kitchener Group) several open cuts and 4 short adits existed on the property
1920's:	The consolidated Mining and Smelting Co. of Canada Ltd.; test work, drove a short adit
1948-55:	Duncan Powell and others; unspecified work
1964:	O.G. MacDonald; blasted 5 pits, soil sampling, mag survey
1969-70:	Hibernia Mining Co. Ltd.; (Anne) soil sampling, mapping, JEM survey
1971:	Tagus Syndicate; mapping 7 DDH for 500 m
1980-81:	DRC Resources Corp.; mapping, soil, and rock sampling

References:

MMAR	1906-211, 1919-239, 1931-163, 1948-158-161
GEM	1969-223, 1970-290, 1971-230
AR	641, 1949, 2167, 2869, 8283, 10102
BCDM	Bull 37, p57
Carson	1968, ppl28-130
Minfile	92C018

5. Lara Au Zn Ag Cu Pb

Geology:

The property is underlain mainly by Myra Formation intermediate to felsic volcanics and pyroclastics on the south limb of a gently westerly plunging anticline. Argillite units, locally graphitic, are associated with felsic tuffs. Three tuffaceous-sedimentary intervals containing pyrite and lesser amounts of sphalerite, chalcopyrite, and galena have been traced for up to 6.3 km along strike. The two northern horizons contain only minor base metals, but the southern horizon contains the Coronation Zone, Coronation Extension, and Road Showing. The Coronation Zone as outlined by drilling is stratiform and dips 60-65^{o} to the north. The Coronation Extension is believed to occur at a higher stratigraphic level than the Coronation Zone.

Mineralization Features

The pyritic horizons range from 25 cm to 10 m in thickness and are traceable by IP, VLF-EM, and soil geochemistry. The Coronation Zone and Coronation Extension together have been outlined for a total of about 1500 m along strike and to depths averaging about 150 m. The width varies from about 1.5 to 8.2 m, averaging about 6.2 m. The Coronation Zone is open along strike on both ends. Average grades of 4.54% Zn, 4.11 g/t Au, 92.6 g/t Ag, 0.79% Cu, and 0.83% Pb have been announced from 17 of the 80 or more drill holes on the property. Individual intersections include: 3.6% of 7.30 g/t Au, 275 g/t Ag, 9.22% Zn, 1.16% Cu, 2.53% Pb; 2.99 m of 4.53 g/t Au, 108.7 g/t Ag, 5.87% Zn, 1.26% Cu, 2.48% Pb. A trench on the Coronation Zone above the discovery

drill hole exposed massive sulphides grading 24.58 g/t Au, 513.6 g/t Au, 43.01% Zn, 8.30% Pb, 3.04% Cu over 3.51 m. A feasibility study on the establishment of a 300-500 ton-per-day milling operation is planned for early 1987. Little information is available on the Road Showing area. Six 1984 diamond drill holes intersected "weak" polymetallic mineralization in the area.

History:

1966-67: Cominco Ltd.; (Tot/Rum property) IP, resistivity, soil sampling

1978: UMEX Inc.; (Elk, Mouse groups) soil sampling, mapping, mag, EM16, shootback EM

1981-82: Laramide Resources Ltd.; (Silver 2 claim) soil sampling, IP, VLF-EM

1983-86: Aberford Resources Ltd.; (Lara) extensive geophysics, geological mapping geochemical surveys, trenching, EM survey, at least 80 DDH, prospecting.

References:

EBCR 1978-E124

AR 7384, 10116, 11123

MER 1983, p30

NM Feb 7, Aug 8, 1985; June 2, Aug 18, 1986.

Abermin Corporation - Information Booklet; Dec 30, 1985

VS 1986: Jan 24, Jan 28, May 26, Aug 5, Aug 13.

8. Twin J (Lenora, Tyee, Richard III)
Zn Cu Au Ag Pb Cd Ba

Geology:

The area is underlain by Sicker Group andesitic flows and cherty tuffs with minor sediments, metamorphosed to quartz-sericite, quartz-chlorite, and chlorite schists which are intruded by sills, dykes, and irregular masses of gabbro-diorite. The two main orebodies occur 46 m apart in strongly dragfolded parts of a schist "panel", often close to the contact of a band of graphitic schist and bounded by an intrusive sodic rhyolite porphyry. Within the orebodies, two types of ore are found. Barite ore is a fine-grained mixture of pyrite, chalcopyrite, sphalerite, and minor galena in a barite-quartz-calcite gangue. It is frequently banded, with chalcopyrite-pyrite and sphalerite layers. Quartz ore consists mainly of quartz and chalcopyrite and occurs in long lenticular masses within barite ore and the host schists.

Mineralization Features:

The North orebody is 520 m long by 0.3 to 3 m wide by 37 m downdip. The South orebody is 640 m long by 6 m or more wide by 46 m downdip. Total recorded production from 1898 to 1964 amounts to 276,831 tonnes ore containing 1,244,555 g Au, 26,141,200 g Ag, 9,681,576 kg Cu, 20,803,748 kg Zn, 189,925 kg Pb, and 1179 kg Cd. Reserves are reported as 317,520 tonnes grading 1.6% Pb, 6.6% Zn, 4.11 g/t Au, and 140.6 g/t Ag as of 1971.

History:

1897-1927	Operated as three separate mines: **Lenora**, (Lenora - Mt. Sicker Mining Co.), **Tyee** (Tyee Copper Mining Co.) and **Richard III** (Richard III Development Co. Ltd.). Most of the production came in the period from 1900 to 1907.
1928-29:	Pacific Tidewater Mines Ltd.; joined the three mines underground (**Lenora, Tyee, Richard III**)
1939-40:	Sheep Creek Gold Mines Ltd.; DD'g, trenching, underground development
1942-47:	Twin J Mines Ltd.; 125 tpd concentrator, mining from 1943 to May 1944 and mid-1946 to September 1947 (mainly from Lenora)
1949-52:	Vancouver Island Base Metals Ltd.; mining 1951 to January 1952 (mainly from Lenora)
1964:	W. Howden; mined 151.5 tonnes from **Lenora**, grade not reported
1967-70:	Mt. Sicker Mines Ltd.; 7 DDH for 123 m, mapping, trenching
1972:	Ducanex Resources Ltd.; 5 DDH for 914 m, mapping, shootback EM
1973-74:	Dresser Industries Inc.; 8 DDH for 1676 m, IP, soils
1978-80:	SEREM Ltd.; 7 DDH for 1236 m, mapping, soils, mag, EM
1983-86:	Corporation Falconbridge Copper/Peppa Resources Ltd.; geological mapping, DDH's, sampling, mag, EM 37, IP

References:

MMAR	1928-365, 1931-164, 1935-G46, 1936-F63, 1939-90, 1940-74, 1942-70, 1943-69, 1944-67, 1946-191, 1947-183, 1949-224, 1950-180, 1951-199, 1952-214, 1964-168, 1967-79, 1968-107
GEM	1969-224, 1970-291, 1972-240, 1974-163
EBC	1978-E119
AR	1104, 1714, 3741, 3950, 3951, 4904, 5164, 6996, 7714, 7814, 7875, 8168, 8264
CIMM	Structural Geology of Canadian Ore Deposits, 1948, p48
CMH	1972/73
TML	1984, #042, 064, 136, 192, 195
Minfile	92B001, 002, 003

4.9.2 Base Metal and Other Occurrences

9. King Solomon (L.17G, L. 152, L. 157; Kokisilah)
Cu Ag Zn Pb Fe (Au)

Geology:

The main deposit consists of a 6.1 m thick body of massive pyrrhotite-pyrite(-chalcopyrite), oriented 030/35° southeast and hosted by intensely shattered, highly epidote-altered cherty tuff to basaltic chert at or near the base of the Buttle Lake Formation. The tuff contains pyrrhotite disseminated, in fracture fillings, and in massive pods or lenses to at least 12 cm by 20 cm. A strongly altered rhyolite dyke(?) intrudes the tuff about 7 m from the massive orebody. An adit was driven approximately along the dyke contact. A second orebody occurs above the main one (King Solomon upper workings; Limestone orebody). It consists of complexly interlayered chert and epidote skarn with 15% pyrite and chalcopyrite disseminations and fracture fillings, in complex contact with a porphyritic dacite intrusive and trends about 135/45-50° northeast.

Mineralization Features

The first 6.1 m to 9.1 m (20' to 30') of the main orebody away from the dyke is richer, averaging 4% to 5% Cu, while the outer 4.6 to 6.1 m (15' to 20') of the deposit is lower grade, averaging about 2% Cu. The main orebody is 91.4 m long by 6.1 to 21.3 wide (300' long by 20' to 70' wide). A 29.0 m (95') crosscut intersected ore averaging 5% Cu for the first 12.2 m (40') while the last 16.8 m (55') contained heavy Fe, Cu mineralization. A 7.6 m (25')

shaft connected to a 21.3 m (70') drift and a 6.1 m (20') open cut on the "limestone orebody" were all in ore, averaging 5% Cu in the shaft and 4% Cu elsewhere. The limestone orebody is generally lower grade than the main orebody. Au + Ag contents averaged $1.50 ton in both deposits (1938) prices.

The main crosscut tunnel was driven 45.7 m (150') below and subparallel to the main orebody, never interesecting ore; a zone from 45.7 m to 207.3 m (150' to 680') runs 0.5-2.5% Cu, trace Au (stringer zone below massive sulphides?). Geophysical surveys located weak, short coincident magnetic and VLF-EM anomalies over the old workings. Reserves were estimated at 226,750 t (250,000 tons) of 1.4% Cu or 286,612 t (316,000 tons) of 0.83% Cu in the late 1950's and early 1960's.

Production

1904-05,07: 245 t (270 T) ore; 6376 g (205 oz) Ag, 17,974 kg (39,626 lb) Cu (25.71 g/t (0.75 oz/T) Ag, 7.34% Cu).

1912: 274.8 t (303 T) picked ore averaged over 5% Cu.

History:

1903-07: Maclay, Ryan; Mining

1909: James Humes; granted Crown Grant L. 17G

1913-14: King Solomon Copper Mining Co.; drove lower adit 167.6 m (550')

1956-60: Cellardor Mines Ltd.; (King Solomon, Blue Bell-#11, and other claims), surface work, SP, dewatered old workings, 13 DDH for 640 m (2100'), enlarged lower adit for more than 121.9 m (400').

1983-85: Reward Resources Ltd.; geological mapping (1:2000, 1:5000), magnetometer surveys, rock sampling, VLF-EM soil sampling.

1986: Reward Resources Ltd; geological mapping (1:2500), IP surveys, diamond drilling.

References:

MMAR 1903-210, 1904-253, 1905-216, 1907-155, 1908-164, 1909-278, 1913-290, 1914-386, 1916-312, 1923-272, 1928-363, 1959-140, 1960-116

GEM Mem. 96, pp371-377

Minfile 92B015

10. Dora-Mabel (L.35G, "4-Adits" Showing) Cu Fe

Geology:

Very strongly fractured gossanous intrusive rocks, including rhyolite and dacite dykes (Jurassic?) and Jurassic granodiorite, contain shear-bounded inclusions 2-7 m wide of chert, skarn, and marble. Both the skarn and intrusives contain abundant fracture pyrite. The rhyolite commonly contains 3-5% disseminated pyrite and local zones, to 40 cm wide, of strong epidote alteration with 5-15% pyrite. A lens of massive magnetite containing about 1-2% chalcopyrite is exposed in a road cut. The showing occurs near the top of the Buttle Lake Formation.

Mineralization Features

Assays of up to 12.32% Cu are reported from 1903-07. The magnetite lens is 50 cm wide; a chip sample across 50 cm returned 9700 ppm Cu and 4.0 ppm Ag. A grab sample from an outcrop of epidote-altered rhyolite yielded 40,000 ppm Cu and 3.4 ppm Ag in 1985.

History

1903: A small open cut existed on Mabel.
1907: Koksilah Mining Co. Ltd. (NPL); granted Crown Grants L. 35G (Dora) and L. 36G (Mabel).
1985: W.J.H. Fleetwood.

11. Blue Bell Cu Ag Fe

Geology:

Massive magnetite-pyrrhotite-pyrite-chalcopyrite occurs as fault-bounded wedges within a stratabound unit of garnetite, at and near the basal contact of garnetite with underlying bedded, graded, pyritic chert and cherty argillite. The garnetite is overlain by bedded pyritic chert and occurs near the top(?) of the Buttle Lake Formation. In the south wall of the pit, pyritic quartz-rich rock (rhyolite?) intrudes the garnetite. All rock types are gossanous to deeply weathered and intensely shattered.

A 1984 report mentions rhyolitic to dacitic flows (± bedded cherts?) with associated massive sulphide and pyrite-quartz pods in the area.

Mineralization Features

Assays of up to 29% Cu are reported. Ore was proved to 18.3 m (60') below surface by prospect shafts and was apparently indicated to over 30.5 m (100') deep by diamond drilling. The mineralized zone is up to 15.2 m (50') wide by over 61.0 m (200') long. Diamond drill hole intersections of 6.1 m (20') of ore averaging 9.75% Cu at 39.0 m (128'), and 5.8 m (19') of ore averaging 4.5% Cu at 51.2 m (168') are reported (1938) from two of four holes. Samples from massive sulphide pods ran up to 646 ppm Cu, 1.4 ppm Ag, 25 ppb Au over 1 m (1984). 1985 sampling yielded results of up to 3.66% Cu, (0.74 oz/ton Ag 280 ppm Zn, 303 ppm Co, 10 ppb Au over 2.0 m. A strong magnetic anomaly and coincident VLF-Em conductor occur over the old workings, extending 120 m northwest and 200 m southeast to **Viva** (12). A strong west-northwest trending Cu soil anomaly occurs 50 m to 100 m north of the workings.

Production

1907: 172.3 t (190 T) ore; 360 g (116 oz) Ag, 18,407 kg (20,294 lb) Cu 20.9 g/t (0.61 oz/T) Ag 5.35% Cu.

History

1903: Maclay, Ryan 18.3 m (60') tunnel.

1905-07: Vancouver Island Mining & Development Co. Ltd.; shipped ore, sunk several prospect shafts, a series of DDH's to about 45.7 m (150') each 33.5 m (110') incline shaft. Abandoned due to high transportation costs.

1957-60: Cellardor Mines Ltd.; (**King Solomon** property-#9) self-potential, dewatering old workings, 13 DDH for 640 m (2100') on **King Solomon** and **Blue Bell.**

1983-85: Reward Resources Ltd.; included in King Solomon property geological mapping (1:2000, 1:5000), rock sampling, map surveys, VLF-EM, soil sampling.

References

MMAR 1903-210, 1905-216, 1906-207, 1907-155, 1908-164, 1916-312, 1923-272, 1928-363, 1959-140, 1960-116
GSC Mem 96 p377
Minfile 92B080

12. Viva (Eva, Elsie, Comet) Cu Ag Fe

Geology:

Pyrrhotite, occurring in pods up to at least 60 cm by 70 cm by 80 cm in size, is irregularly distributed within fractures in chert. The chert is rusty weathering, intensely shattered, variably basaltic(?), and is cut by abundant epidote-filled fractures to 1 mm.

Mineralization Features

A 2.3 m chip sample of chert with 5-10% pyrrhotite returned 0.34% 2.1 g/t Cu, (0.06)- oz/t) Ag, 0.01% Zn. A strong magnetic anomaly and coincident VLF-EM conductor occur over the old workings, extending 330 m to the northwest beyond **Blue Bell** (11).

Production

1916: 209 t (230 T); 964 g (31 oz) Ag, 5575 kg (12.290 lb) Cu (4.46 g/t (0.13 oz/T) Ag, 2.67% Cu).

History

1916: Joe Gallo, shipped ore but transporation costs too high.
1925: James Boal; a 10.7 m (35') shaft with a 14.6 m (48') incline drift at the bottom existed from the 1916 work.

References

MMAR 1916-312,366, 1925-303, 1928-363
Minfile 92B035

Comments:

A 1916 report states that about 227 t (250 T) of Cu ore was shipped grading about 4% (9072 kg) 20,000 lb) Cu). Another 1916 report states that 217 t (239 T) of ore was shipped averaging about 2.5% Cu 5420.5 kg (11,950 lb) Cu). A 1925 report states that about 453.5 (500 T) of ore was shipped.

13. Finlay Cu Ag (Au)

Geology

The shafts were driven through epidote-diopside (-chlorite-actinolite-garnet) skarn which contains 2-10% magnetite, 2-10% pyrrhotite, and 1% chalcopyrite. The mineralized zone is thought to occur near the base of the Buttle Lake Formations; however, no bedrock is exposed near the shafts.

Mineralization Features

A 0.9 m (3') sample assayed at trace Au, 6.9 g/t (0.2 oz/ton) Ag, 2% Cu. 1985 grab sampling returned values of up to 0.56% Cu, 0.01% Zn, 6.9 g/t (0.02 oz/T) Ag (different samples). A Cu soil anomaly located over the **Finlay** shafts is likely caused by contamination from the dump. A Zn soil anomaly occurs to the east of the workings and may reflect underlying mineralization. No mag or VLF-Em anomalies were recorded near the workings.

History

1919: Three shafts existed on the property, one of which was 4.9 m (16') deep.

1985: Reward Resources Ltd.; included in King Solomon property, geological mapping, rock sampling, soil sampling, mag and VLF-EM surveys.

References

MMAR 1919-240, 1928-363
Minfile 92B034

14. W.A.E. Cu Au Zn

Geology

The #1 cut exposes a quartz vein carrying Zn and Cu along the contact of chert and limestone. The #2 cut, about 182.9 m (600') away, exposes a weathered volcanic dyke parallel and close to a body of garnet-

actinolite-epidote skarn containing Cu. Occurs in an area mapped as the Sediment-Sill unit of the Sicker Group.

Mineralization Features

An assay of the skarn mineralization returned values of 26% Cu and $1 Au/T (about 1.65 g/t (0.048 oz/T) Au) in 1903. A 1985 sample from a showing which could be the W.A.E. returned 15,000 ppm Cu, 2.0 ppm Ag, 7157 ppm Zn, 89 ppm Cd.

History

1903: Two large open cuts existed on the property.
1985: C.A. Latter (Silver 1-9 property).

References

MMAR 1903-209
Minfile 92B082

15. Fallside Zn Cu

Geology

The western part of the property is underlain by Sicker Group greenstone. Marble underlies most of the rest of the property. Both rock types are cut by "Saanich" granodiorite and by bodies of feldspar-hornblende porphyry. The greenstone has been irregulary and variably converted to garnet-epidote-diopside skarn containing pyrite and pyrrhotite, while the marble is veined with skarn minerals

and contains skarn masses believed to be altered interbedded volcanics. The skarn areas contain northeast trending zones weakly mineralized with sphalerite and chalcopyrite along which quartz with manganese stain has been introduced. Magnetite associated with garnet is common in the grandiorite, generally in minor amounts but locally in streaks up to several centimetres thick.

Mineralization Features

One of the sphalerite/chalcopyrite-bearing zones is 2 m (6.5') wide; the others are narrower. Six samples taken across widths of up to "several" feet assayed nil Au, nil Ag, and "small amounts" of Zn, Cu, except one with 1.9% Zn. No scheelite was detected with an ultraviolet lamp.

History

1946-52: P.R. Horton; an old adit caved at the mouth and several recent bulldozer open cuts exist on the property.

References

MMAR 1952-215
Minfile 92B048

Comments

The **Fallside** may cover the old **W.A.E.** (14) and/or **Finlay** (13) properties.

16. Robertson (L. 48G; Stirling, Sterling, Metal Group)
Pb Ag Zn Au Cu

Geology

Sicker Group andesitic volcanics north of the Koksilah River are in fault contact with Bonanza Group (Karmutsen?) andesitic volcanics south of the river. A shear and breccia zone in Sicker Group volcanics has been partly replaced by garnet and veined with quartz, calcite, and dolomite which in turn contain seams of galena, pyrite, sphalerite, molybdenite, and chalcopyrite.

Mineralization Features

The mineralized zone is 2 m (9') wide and at least 9.1 m (30') long. Quartz veins up to 1.2 m (4') wide occur. An assay from 1880 is $6.20 Au/T, $69.43 Ag/T, 28.3% Pb (about 10.3 g/t (0.30 oz/T) Au, 3990.9 (116.4 oz) Ag). A sample of best ore from the dump in 1928 ran 13.7 g/t (0.4 oz/T) Ag, 2.6% Pb, 7% Zn, while an earlier grab sample from the dump assayed at 0.69 g/t (0.02 oz/T) Au, 206 g/t (6 oz/T) Ag, trace Cu. Soil sampling by UMEX located seven anomalies. Anomaly E (Zn-Pb) is 1500 m long and occurs about 1 km west of **Robertson.**

History

1865-1917: W.A. Robertson; Ag-bearing float discovered 1865, mineralization in place in 1880. Working in 1917 consisted of 38.1 m (125') adit; 38.1 m (125') adit with 9.1 m (30') open cut and a 6.1 m (20') winze; a large open cut.

1928: Robertson Mining Property Ltd.; driving a third adit.

1978-79 UMEX Inc.; (Metal Group) 3500 samples (Cu Pb Zn), mag, EM, shootback EM, IP, 9 DDH for 770 m.

References

MMAR	1880-431, 1915-451, 1917-269, 1928-363
EBC	1978-E119, 1979-120
AR	6810
GSC	Mem 96, pp371-377
Minfile	92B036

Comments

Muller (1980) has mapped the rocks north of Koksilah river as Karmutsen Formation volcanics in fault contact with the Sicker Group Sediment-Sill unit. UMEX's work was done mainly to the west of the **Robertson** showing.

17. Humes Arsenic As

Geology

Arsenopyrite and native arsenic are reported to occur in a small deposit "presumably not of the contact (skarn) type". Located in an area mapped as Sicker Group Sediment-Sill unit.

Mineralization Features

No results reported.

History

Mentioned in a 1917 GSC report.

References

GSC	Mem 96, p372
Minfile	92B081

5.0 PROPERTY GEOLOGY

The most recent published geological mapping of the Cobble Group (Sil 3, 4 claims) area was carried out by Muller (1980c). Muller's mapping indicates that almost all of the claim block is underlain by the Sediment-Sill Unit of the Paleozoic Sicker Group. However, recent mapping by MPH Consulting Ltd. indicates that the local stratigraphy also includes Buttle Lake Formation limestone and interbedded cherty, volcaniclastic, and clastic sedimentary rocks; mafic flows(?) or intrusive sills(?) and possible Karmutsen Formation mafic volcanics.

Although much of the outcrop area on the Sil 3 and 4 claims is in layered volcaniclastic and sedimentary rocks, it is apparent from a traverse down the Koksilah River canyon that these represent only a thin cover of a large quartz dioritic pluton, probably continuous at depth with the Koksilah stock.

Buttle Lake limestone is well exposed in the Koksilah River canyon at the Solo Deo Monastery, where is is a coarse, crystalline sparry calcite marble with relict fragments of crinoid columnals. Buttle Lake limestone is a known host of skarn mineralization on the King Solomon property, adjacent to the Sil 3 and 4 claims to the west. It is also exposed in a gully near the northwest corner of the Sil 3 claim, interlayered with argillitic rocks, and reportedly in a quarry a few hundred metres east of the southeast corner of the Sil 4 claim. It is possible that much of the sedimentary section of the Sil 3 and 4 claims is part of the Buttle Lake Formation rather than the Sediment-Sill Unit.

The overlying rocks (here assigned to the Karmutsen Formation) form similar resistant, poorly vegetated hills on both sides of the

Koksilah River, and include mafic volcanics and possible pillow lavas. Although the rocks on these two hills have previously been mapped as separate units, they are very similar. Interstices in possible pillow lavas are filled with quartz and epidote in some places in radiating crystal form, in breccia-like texture; this kind of alteration is more characteristic of the Karmutsen Formation than of Sicker Group volcanics (Nick Massey, pers. comm. 1986).

Along the northern edge of the property, sedimentary rocks of the Cretaceous Nanaimo Group unconformably overlie hornfelsed Sicker Group rocks and Island Intrusions quartz diorite to granodiorite.

Although Muller (1980c) shows a major northeast trending fault occupying the bed of the Koksilah River, mapping for this report found no evidence for such a major structure. Local faults and shear zones are common within rocks exposed in the riverbed, but displacement was nowhere more than a few metres. Local structural complexity is common, but the general distribution of rocks on the Sil 3 and 4 claims is a simple doming pattern of a Jurassic pluton having pushed up and contact metamorphosed a relatively upright (although somewhat folded) sequence of Paleozoic to Triassic layered rocks. Uplift and erosion were followed by deposition of the Nanaimo Group sediments in the late Cretaceous. Subsequent uplift, faulting, and differential erosion has exposed the rocks as they are now.

5.1 Mineralization

The "mineralized zone" mentioned by Neale and Hawkins (1985) west of the Sil 4 claim, and exposed along the Koksilah River, was traced into the Sil 4 Claim. It consists of a section of Buttle Lake Formation

carbonate and interbedded pelitic and/or tuffaceous rocks with local sulphide-rich shear zones and skarn mineralization, probably related to intrusion of the Koksilah Stock. Buttle Lake Formation limestone (marble) is exposed intermittently from the old railway trestle to the Solo Deo Monastery, just west of Sil 4 claim boundary. For a few hundred metres east of the Sil 4 boundary and with the Sil 4 claim, the rocks exposed along the river are mixed sediments and volcaniclastics intruded by feldspar hornblende porphyry. Within these rocks is a highly mineralized section containing local pods of massive sulphide $\pm$ magnetite, and pyritic garnetite.

However, most of the Koksilah River canyon, including the "Marble Falls" fish ladder area, is in relatively fresh unmineralized quartz diorite of the Koksilah stock.

5.2 Lithogeochemistry

A total of 33 rock samples was collected and analysed for Au and by 30-element ICP. Five of the samples were chosen for whole rock analysis (see section on Whole Rock Geochemistry).

A gold values of 70 ppb was obtained from a chalcopyrite-bearing vein (sample 1285) in feldspar hornblende porphyry on the Koksilah River, on the western boundary of the Sil 4 claim.

Sample 1285 also contains 36 ppm Ag, greater than 1% Cu, and 3 ppm Mo, all the highest values for this group of samples. Near this area, also on the Koksilah River, samples of massive sulphides ($\pm$ magnetite) gave values of up to 4852 ppm Cu (sample 1289), 22.35% Fe (sample 4805), and 2.2 ppm Ag (sample 1289).

Associated pyritic andraditic garnetite was also high in iron (12.80% in sample 1288 to 15.76% in sample 4806), but poor in copper (31 ppm in sample 1288, 268 ppm in sample 4806). However, sample 1288 contains 10 ppb Au, slightly above background of 5 ppb.

About 600 m north of the Koksilah River sulphide showing is another interesting area on Riverside Road near Monastery Road, also near a contact with the same feldspar-hornblende porphyry. A volcanic-derived sediment or tuff (sample 1273) containing finely disseminated sulphides gave results of 7.0 ppm Ag, 440 ppm As, 2.0 ppm Cd, 369 ppm Co, 6396 ppm Cu, and 200 ppm Zn.

5.3 Whole Rock Geochemistry

Five samples from the Cobble Group property were selected for whole rock analyses as an aid to identification and correlation.

Sample 1288, which contains a trace amount of gold (10 ppb Au), was identified on outcrop as pyrite-bearing garnetite. Whole rock analysis shows it to be very close to end-member andradite garnet ($Ca_3Fe_2(SiO_4)_3$) in composition and supports an interpretation of skarn type mineralization.

Sample 4807 is a felsic to intermediate volcanic or volcaniclastic sedimentary rock and the host rock to massive sulphide pods such as those from which samples 1289 and 4805 were taken. Sample 4808 is from an intrusive quartz diorite outcrop within a few metres of sample 4807.

These two rocks are quite close in composition, with similar silica content (65.09% for 4807, 64.5% for 4808). The intrusive,

granodiorite to quartz diorite, is somewhat higher in alumina, iron, and potassium, whereas the volcaniclastic(?) is higher in calcium and sodium. It is possible that sample 4807 is lower in iron due to remobilization and concentration during mineralization.

Samples 4813 and 4815, similar-appearing volcanic(?) greenstone, were chosen for whole rock analysis in order to help resolve map unit correlation difficulties. Sample 4815 was taken from an area mapped as Karmutsen Formation (Muller 1980b) on a hill south of the Koksilah River, whereas sample 4813 was taken from an area mapped as the "Flow-Sediment" unit of the Sicker Group on a hill north of the Koksilah River.

Field and geochemical evidence from the present study supports a lithologic correlation between these two areas.

Whole rock analyses of samples 4813 and 4815 are remarkably similar, consistent with a composition of relatively high iron basalt, both with elevated titanium levels of 1.1%. It is tentatively suggested that these rocks may be related to the Karmutsen Formation. A more extensive whole rock study, such as that conducted on the adjacent King Solomon property by MPH Consulting, would provide more useful information for resolution of this problem.

6.0 RECOMMENDED WORK PROGRAM

6.1 Plan

The Cobble Group (Sil 3, 4 claims) are partly underlain by rocks of the Sicker Group, a well-known host for both volcanogenic massive sulphide and precious/base metal-bearing quartz vein deposits and occurrences. Furthermore, in the immediate vicinity of the property the Sicker Group rocks host eight Cu-Ag "skarn" deposits/showings on the adjacent King Solomon property. Little previous mineral exploration work has been recorded on the ground covered by the Cobble Group (Sil 3, 4 claims); in 1985 MPH Consulting carried out a preliminary assessment program (Neale & Hawkins 1985). Local but less extensive mineralized zones such as those on the King Solomon property have been traced onto the Sil 4 claim, and there is potential for locating other mineralized zones on the property.

The western half of the Sil 4 claim shows the most promise for future exploration. Further Phase I prospecting, preliminary soil sampling, and detailed geological mapping, with particular emphasis on locating additional showings and delineating stratigraphy on both Sil 3 and 4 claims is recommended before Phase II follow-up work. The Sil 3 claim and the portion of Sil 4 claim south of the Koksilah River require more work in order to assess the mineral potential of these areas. It is possible that the Buttle Lake Formation extends beneath surface rocks in the southern half of the Sil 4 claim, providing a potential host of skarn mineralization.

Phase II is to be a follow-up program to Phase I, consisting of detailed geological mapping and sampling, soil sampling, and VLF-EM and magnetometer surveys on grids over target areas located during Phase I.

Magnetometer surveys should detect buried skarn deposits easily, as they may contain a high proportion of magnetite. VLF-EM is useful in locating and tracing structural features such as faults, which may be mineralized, or may control mineralization.

Phase II is to be contingent upon favourable results from Phase I.

Phase III work, if warranted by the results of Phase II, will consist of detailed IP and/or EM surveys and trenching, rock sampling, and geological mapping over anomalous areas defined by Phase II, followed by diamond drilling.

The following cost estimates are the Phase I and Phase II geological, geochemical, and geophysical work on the Cobble Group (Sil 3, 4 claims). A general cost estimate for Phase III is also provided; the detailed Phase III budget and schedule will be contingent upon Phases I and II.

6.2 Budget

Phase I: Further geological mapping, prospecting, preliminary soil sampling

Fieldwork

Mobilization/Demobilization				$ 500
Personnel:				
Geologist	7 days @ $350		$2,450	
Field Technicians (2)	7 days @ 250		3,500	
				5,950
Equipment Rental:				
4WD Truck	7 days @	90	630	
Rocksaw	1 day @	20	20	
				650
Disbursements:				
Accom./Food	21 person days @	45	945	
Topographic Base Map and aerial photographs			2,000	
Transportation (gas, oil, repairs)	7 days @	20	140	
Miscellaneous			250	
Analyses-				
100 rocks (Au, ICP)	@	12.20	1,220	
10 rocks (Whole Rock)	@	32.00	320	
200 soils (Au, ICP)	@	10.60	2,120	
5 rocks (Thin Sections)	@	50.00	250	
				7,245
				14,345
Administration @ 15% (on $7,245)				1,087
				15,432
Contingency @ 15%				2,315
Fieldwork Subtotal				$17,747

Consulting			
Personnel	3 days @ $475		$ 1,425
4WD Truck	3 days @ 90		270
Disbursements-			
Accommodation/Food	3 days @ 50	150	
Gas, Oil, Repairs	3 days @ 20	60	
Miscellaneous		150	
		360	
Administration @ 15%		54	
			414
			2,109
Contingency @ 15%			316
	Consulting Subtotal		$ 2,425
Report			
Geologist	7 days @ 350		2,450
Drafting	35 hrs @ 20	700	
Copying/repro		245	
Typing		315	
Report Charges		175	
Miscellaneous		70	
		1,505	
Administration @ 15%		226	
			1,731
			4,181
Contingency @ 15%			627
	Report Subtotal		$ 4,808
	PHASE I TOTAL	say	$25,000

Phase II: Geological mapping, soil sampling, magnetometer, VLF-EM surveys

Mobilization/Demobilization			$ 750
Personnel:			
Geologist	15 days @ $350	$ 5,250	
Field Technicians (3)	15 days @ 250	11,250	
			16,500
Equipment Rental:			
4WD Truck (2)	15 days @ 90	2,700	
Magnetometer	15 days @ 75	1,125	
VLF-EM Receiver	15 days @ 25	375	
Rocksaw	2 days @ 20	40	
			4,240

Disbursements:				
Accom./Food	60 person days @ $ 45		$ 2,700	
Gas, Oils, Repairs	30 days @ 20		600	
Miscellaneous			500	
Analyses (related)-				
100 rocks (Au, ICP)		@ 12.20	1,220	
10 rocks (Whole Rock)		@ 32.00	320	
10 rocks (Thin Section)		@ 50.00	500	
450 soils (Au, ICP)		@ 10.60	4,770	
			10,610	
Administration @ 15% (on $10,610)			1,592	
				12,202
				33,692
Contingency @ 15%				5,054
	Fieldwork Subtotal			$38,746
Consulting				
Geologist	4 days @ $475			$ 1,900
4WD Truck	4 days @ 90			360
Disbursements				
Accom./Food	4 days @ 50		200	
Gas, Oil, Repairs	4 days @ 20		80	
Miscellaneous			200	
			480	
Administration @ 15%			72	
				552
				2,812
Contingency @ 15%				422
	Consulting Subtotal			$ 3,234
Report				
Geologist	10 days @ $350		$ 3,500	
Geophysicist	4 days @ 450		1,800	
				$ 5,300
Disbursements-				
Drafting	35 hrs @ 20		700	
Copying, repro			250	
Typing			500	
Report charges			200	
Miscellaneous			150	
			1,800	
Administration @ 15%			270	
				2,070
Contingency @ 15%				7,370
				1,106
	Report Subtotal			8,476
	PHASE II TOTAL			$50,000

6.3 Schedule

The following tables are summaries of the projected time requirements and work sequences for Phases I and II. Phase III is estimated to take six weeks to complete.

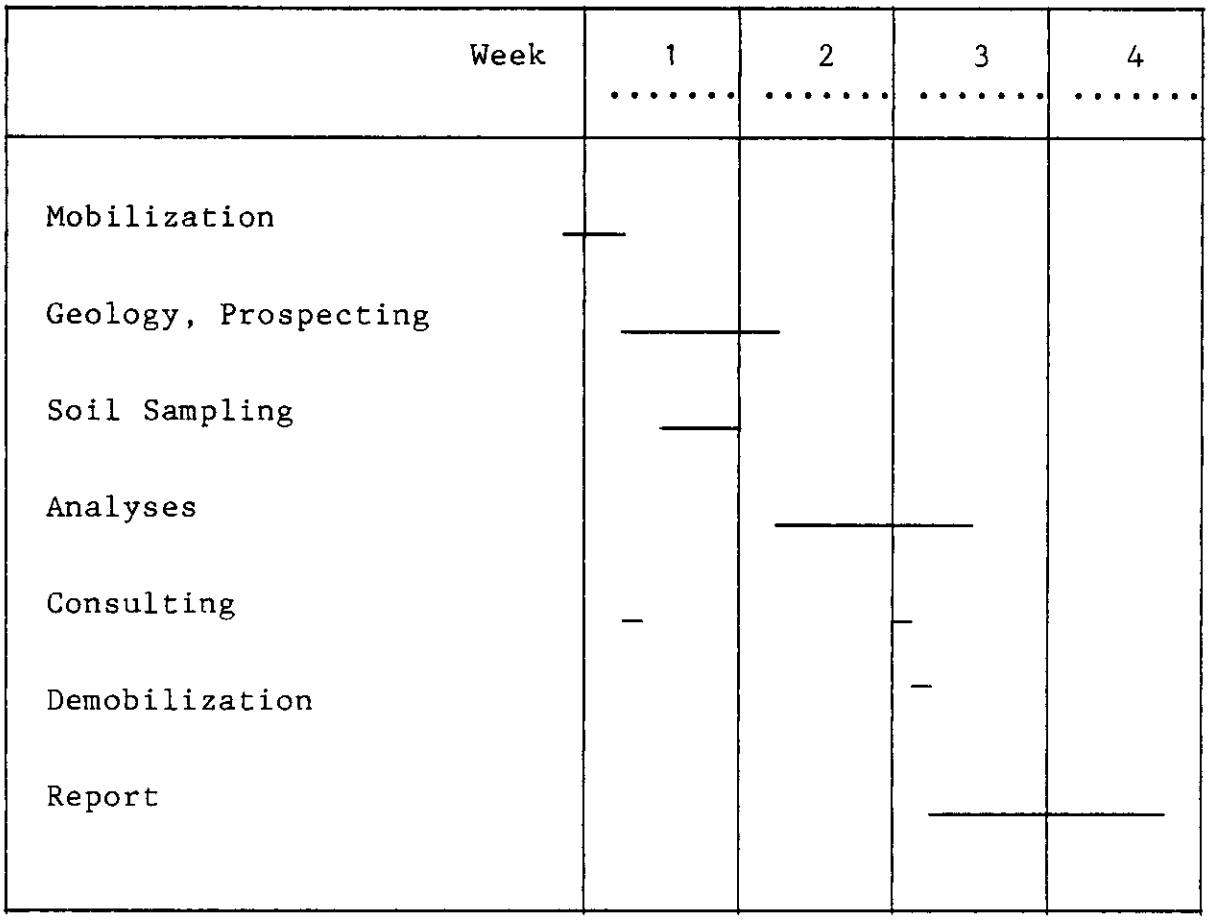


TABLE 1

PHASE I PROJECT SCHEDULE

Week	1	2	3	4
Mobilization	—			
Geology, Prospecting	—	—	—	
Soil Sampling	—	—	—	
Geophysics	—	—	—	
Analyses		—	—	—
Consulting	–		—	
Demobilization			–	
Report			—	—

TABLE II

PHASE II PROJECT SCHEDULE

Phase III, including IP surveys, linecutting, trenching, and diamond drilling, is estimated to cost approximately $150,000 and take six weeks to complete.

7.0 CONCLUSIONS

1. The Cobble Group (Sil 3, 4 claims) is underlain by Paleozoic Sicker Group sedimentary and volcaniclastic rocks, including parts mapped as Sediment-Sill Unit and Buttle Lake Formation limestone, overlain by Triassic Karmutsen Formation(?) volcanics, all of which are intruded by Jurassic granodiorite to quartz diorite of the Koksilah Stock, and overlain unconformably by nearshore clastic sedimentary rocks of the Cretaceous Nanaimo Group.

2. The rocks on the Cobble Group property are a direct extension of the sequence on the adjacent King Solomon property, where several zones of Cu-Ag-bearing skarn mineralization, possibly overprinting minor earlier-formed stratiform massive sulphides, are located near the contacts of the Buttle Lake Formation limestone with granitoid intrusive rocks.

3. A zone of discontinuously mineralized, interlayered, dark-coloured sedimentary and volcaniclastic rocks containing pods of semi-massive to massive pyrite $\pm$ pyrrhotite and minor chalcopyrite ($\pm$ magnetite) up to 3 m wide, previously noted to the west of the Sil 4 claim, has been traced onto the Sil 4 claim in the Koksilah River canyon. Grab samples from outcrop returned values of up to 70 ppb Au, 4.0% Cu, and 30.9 g/t (0.90 oz/ton) Ag (sample 1285) within 50 m of the western boundary of the Sil 4 claim, and up to 10 ppb Au, 4852 ppm Cu, and 2.2 ppm Ag (samples 1288, 1289) from rocks outcropping in the Koksilah River canyon several hundred metres within the Sil 4 claim boundary.

4. Lithogeochemical values from a volcaniclastic rock from near a contact with feldspar-hornblende porphyry on Riverside Road near Monastery Road are 6396 ppm Cu, 7.0 ppm Ag, 440 ppm As, and 2.0 ppm Cd.

5. The area on the Cobble Group with the most economic potential is therefore near the western boundary of the Sil 4 claim where massive sulphide pods occur near contacts with intrusive rocks, although further geological exploration of both the Sil 3 and 4 claims may reveal other mineralized areas.

8.0 RECOMMENDATIONS

1. Further Phase I exploration program consisting of geological mapping on a new and more accurate base map, rock sampling, preliminary soil sampling, and prospecting covering the entire property is recommended at an estimated cost of $25,000.

2. It is recommended that skarn deposits similar to those on the adjacent King Solomon property be considered the primary exploration target on the Cobble Group (Sil 3, 4 claims). To this end, it is recommended that the upper and lower contacts of any Buttle Lake Formation layers present on the property be traced, mapped and prospected in detail.

3. It is recommended that the Legal Corner Posts for the Sil 3 and 4, claims as well as those for the surrounding claims, be accurately located on a new and more accurate base map, in order to determine exact claim boundaries.

4. Whole rock geochemistry is recommended on volcanic rock samples as an aid in classifying rock types and to locate alteration haloes surrounding mineralized zones.

5. Contingent upon favourable Phase I results, a Phase II exploration program consisting of detailed geological mapping and sampling, soil sampling, and magnetometer and VLF-EM surveys on grids over target areas outlined by Phase I is recommended at an estimated cost of $50,000.

6. Phase III geological and geophysical exploration including diamond drilling may be recommended following Phase I and II programs, at an estimated cost of approximately $150,000.

Respectfully submitted,

MPH Consulting Limited

J.S. Getsinger, Ph.D.

November 6, 1986

CERTIFICATE

I, J.S. Getsinger, do hereby certify:

1. That I have studied geology at Harvard University (B.A. 1974), and have graduate degrees in geology from the University of Washington, Seattle (M.S. 1978), and from the University of British Columbia, Vancouver (Ph.D. 1985).

2. That I have practised within the geological profession for the past twelve years.

3. That the opinions, conclusions, and recommendations contained herein are based on geological research and my own observations in the field.

4. That I own no direct, indirect, or contingent interest in the subject property, or shares or securities of Hollycroft Resource Corporation or associated companies.

J. S. Getsinger

J.S. Getsinger, Ph.D.

November 6, 1986
Vancouver, B.C.

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LIST OF PERSONNEL AND EXPENDITURES

The following expenses have been incurred on the Cobble Group (Sil 3, 4 claims) for the purposes of mineral exploration carried out between the dates of July 29 to August 6, 1986.

Professional Services:		
T.G. Hawkins, P.Geol.		
2 hours @ $ 80	$ 160	
J.S. Getsinger, PhD.		
5.5 days @ 350	1,925	
		$2,085
Equipment Rental:		375
Disbursements:		
Food and Accommodation	160.00	
Analyses-		
33 rocks (Au, ICP) @ $11.95	394.35	
5 rocks (Whole Rock) @ 20.00	100.00	
1 rock (Cu,Ag Assay)	11.50	
Report Costs (typing, copying, drafting)	750.00	
Miscellaneous	9.41	
	1,425.26	
Administration @ 15%	213.79	
		1,639.05
TOTAL		$4,099.05

Appendix I

ROCK SAMPLE DESCRIPTIONS

and

LITHOGEOCHEMICAL RESULTS

SAMPLE DESCRIPTIONS

Sample No		Description	Cu ppm	Zn ppm	Other ppm
1267A	Location:	Sil 3 claim: NW corner Sil 3, about 200 m E of Mines Road	48	124	214 Cr 20 Pb
	Collected:	July 29, 1986			
	Rock Type:	Diorite			
	From outcrop in new clearcut, visible from Mines Rd. to E. Weathers white and mottled like diorite, but looks dark green on fresh surfaces. Grain size 1-3 mm, granular. Feldspar (plagioclase?), 50-60%, hornblende (± pyroxene?), in part altered to biotite, chlorite, and/or epidote, biotite about 5%; magnetite(?).				
1267B	Location:	Sil 3 Claim: NW corner of Sil 3, about 200 m E of Mines Road in new clearcut. Same area as 1267A.	129	64	
	Collected:	July 29, 1986			
	Rock Type:	Diabase or mafic volcaniclastic			
	From outcrop on hill in new clearcut, visible from road. Dark green, intrusive-looking rock. Altered feldspar is green, about 50%. Altered (chlorite?) mafic minerals (hornblende, pyroxene?) are grey (40-50%). Black grains may be magnetite(less than 5%). Minor pyrite. Grain size is mainly 0.5 to 3 mm.				
1268	Location:	Sil 3 Claim: NW corner of Sil 3, about 200 m E of Mines Road in new clearcut. Same area as 1267.	126	48	
	Collected:	July 29, 1986.			
	Rock Type:	Mafic volcaniclastic or altered intrusive.			
	Dark green, rusty-weathering, crystalline rock, grain size 0.5 to 3 mm. Finely disseminated pyrite, 1%. Mafic minerals (hornblende or pyroxene altered to biotite?) are apparently subhedral, whereas quartz(?) and feldspar look more fragmental. Could be crystal tuff or volcaniclastic.				

Sample No		Description	Cu ppm	Zn ppm	Other ppm
1269	Location:	Sil 4 Claim: Intersection of Riverside Rd. and Monastery Rd.	77	132	28 Pb
	Collected:	July 29, 1986			
	Rock Type:	Feldspar hornblende porphyry			
	From outcrop. Rusty-weathering, greenish-grey porphyritic intrusive. Hornblende is subhedral, 1x3 mm, 25-30%. Feldspar (50-60%) is slightly smaller grained, with some subhedral, phenocrystic grains, but also makes up most of groundmass, which is altered to epidote. Striations and lath shape of plagoiclase is best seen on broken rather than cut surface. Rest of rock is biotite, epidote.				
1270	Location:	Sil 4 claim. On Riverside Road, about 40 m SW of Monastery Rd.	23	64	12 Pb
	Collected:	July 29, 1986			
	Rock Type:	Feldspar-hornblende porphyry with potassic alteration.			
	From outcrop about 40 m west of sample 1269. Granodioritic(?) feldspar hornblende porphyry similar to sample 1269 shows various pink potassium feldspar alteration especially near fractures. Feldspar is zoned with whiter cores, pink K-feldspar altered rims.				
1271	Location:	Sil 4 claim. 40 m SW of Monastery Rd. on Riverside Rd.	29	52	100 Ba
	Collected:	July 29, 1986			
	Rock Type:	Finely layered volcaniclastic and/or crystal tuff.			
	From outcrop beneath K-altered porhyry (sample 1270), under moss. Grey crystal tuff(?) with thin jasper layer, in contact with laminated fine-grained light and dark grey volcaniclastic exhibiting convolute bedding and/or local soft-sediment type deformation.				

Sample No		Description	Cu ppm	Zn ppm	Other ppm
1272	Location:	Sil 4 claim, on Riverside Road, 40 m SW of intersection with Monastery Road.	56	54	150 Ba 201 V
	Collected:	July 29, 1986			
	Rock Type:	Rust-stained volcaniclastic			
	From below outcrops of potassic-altered porphyry (sample 1270) and volcaniclastic (1271). Red-rusty altered fine-grained tuffaceous rocks in red-rusty soil.				
1273	Location:	Sil 4 claim, on Riverside Road, about 55 m SW of Monastery Road.	6396	200	7.0 Ag 440 As 2.0 Cd 369 Co 16 Pb
	Collected:	July 29, 1986			
	Rock Type:	Fine-grained volcaniclastic (sediment?)			
	From outcrop of highly fractured, rusty-weathering mafic greenstone(?). Fine-grained green crystalline(?) rock with finely disseminated pyrite (2%). Cut surface reveals convolutely bedded light grey and dark grey finely laminated volcaniclastic or turbiditic siltstone. Pyrite blebs (and possible pyrrhotite?) are associated with layering.				
1274	Was basaltic greenstone from hill above Riverside Road on Pacific Star Claim.		-	-	
1275	Location	Sil 4 Claim, near Sil 3 boundary up Schultz Road loop, on cliff overlooking man-made lake.	264	50	high Ti
	Collected:	July 29, 1986			
	Rock Type:	Volcanic breccia			
	Brecciated fine-grained grey volcanic or volcaniclastic with epidote $\pm$ quartz infilling spaces. Radiating acicular epidote crystals are up to 1.5 cm long. Clasts are angular up to 4 cm, matrix is epidote $\pm$ quartz and smaller fragments.				

Sample No		Description	Cu ppm	Zn ppm	Other ppm
1276	Location:	Sil 3 Claim, on Riverside Road about 200 m S of Colvin Road	125	96	130 Ba 200 V
	Collected:	July 29, 1986			
	Rock Type:	Rusty - fractured quartz diorite			
	From outcrop of quartz dioritic intrusive toward contact with volcaniclastic. Irregular rusty fractures and open spaces are common. Sampled is weathered, medium-grained intrusive.				
1277	Location:	Sil 3 Claim on Riverside Road, 1.2 km N of intersection with powerline.	62	54	190 Ba
	Collected:	July 29, 1986			
	Rock Type:	Hornfelsed volcanic/volcaniclastic			
	From outcrop in area previously mapped as intrusive. Fine-grained layered siltstone or felsic to intermediate volcanic or volcaniclastic, purplish-brown to light green; hard, with angular, rusty fractures; finely disseminated and fracture pyrite, 1%.				
1284	Location:	Koksilah River below Monastery, near Sil 4 claim.	74	54	150 Ba 347 Cr 154 Ni
	Collected:	July 31, 1986			
	Rock Type:	Altered intermediate volcanic or volcaniclastic			
	From outcrop of dark rusty layer in mostly calcite marble (coarse crystalline sparite with recrystallized crinoid columnals). Sample is layered, finely laminated to thin bedded, fine to medium-grained, pale green to purplish volcaniclastic or crystal tuff with euhedral hornblende (up to 3 mm) in one layer. Finely disseminated pyrite (2-3%). It could also be an altered intrusive dykelet.				

Sample No		Description	Cu ppm	Zn ppm	Other ppm
1285	Location:	Koksilah River, about 130 m below Monastery, near or on Sil 4 claim	4.0%	90	70 ppb Au
	Collected:	July 31, 1986			36.0 Ag
	Rock Type:	Chalcopyrite-bearing vein in porphyritic granodioritic intrusive			3 Mo 14 Pb (also 0.90 oz/ton Ag)
	From outcrop of altered, sheared fault zone bearing 177/51E in host rock of feldspar hornblende porphyry intrusive. Zone varies from 0.05 to 0.5 m wide. Vein in zone is mainly quartz with 1-2 cm zone of chalcopyrite and limonite; clay alteration occurs at contacts with host intrusive.				
1286A	Location:	Koksilah River, 274 m downstream from Monastery, on Sil 4 Claim	82	74	160 Ba 20 Pb
	Collected:	July 31, 1986			
	Rock Type:	Pyritic, silicified porphyry			
	Rusty and white-weathering, silicified, feldspar (± quartz?) porphyritic volcanic or intrusive with finely disseminated pyrite (1%).				
1286B	Location:	Koksilah River, 274 m downstream from Monastery, on Sil 4 Claim	71	12	
	Collected:	July 31, 1986			
	Rock Type:	Pyritic quartz vein or chert or cherty tuff			
	Rusty-weathering, hard white rock with yellow, vuggy, pyritic areas and rust-stained fractures; cut face shows fractured grey quartz or chert tuff.				
1287	Location:	Sil 4 claim, on Koksilah River, about 435 m downstream from Monastery	26	8	30 As 13.68% Fe
	Collected:	July 31, 1986			
	Rock Type:	Pyritic garnetite			
	Rusty, heavy, hard pink rock with blebs and stringers of pyrite (up to 5%) in limonite-stained mass of pinkish brown anhedral garnet(?) and quartz.				

Sample No		Description	Cu ppm	Zn ppm	Other ppm
1288	Location:	Sil 4 claim, on Koksilah River, about 450 m downstream from Monastery; river trends - EW.	31	8	10 ppb Au 40 As 12.8% Fe
	Collected:	July 31, 1986			
	Rock Type:	Pyritic garnetite			
	From outcrop of 1 m wide, resistant rusty rock, heavy, pink and orange, with pyrite. Garnet is about 90% of rock; scratches quartz crystal.				
1289	Location:	Sil 4 claim, on Koksilah River, about 450 m downstream from Monastery; river trends about EW.	4852	62	2.2 Ag 30 As 22.22% Fe
	Collected:	July 31, 1986			
	Rock Type:	Massive sulphide			
	Pods of massive pyrite, chalcopyrite(?) and magnetite occur in outcrop with pyritic garnetite. Trend of mineralized zone is 167/63E Mineralized area = less than 5m x 5m.				
1290	Location:	Sil 3 Claim, on Riverside Road near Fleming Driveway about 250 m S of Colvin Road.	71	32	470 Ba
	Collected:	July 31, 1986			
	Rock Type:	Hornfelsed(?) volcaniclastic			
	From outcrop within view of intrusive where sample 1276 was taken. Similar rock to sample 1277. Hard, fine-grained volcanic siltstone or volcaniclastic, brownish, with finely disseminated pyrite (less than 1%). Sand-sized grains are maroon-coloured lithic fragments and grey quartz or chert.				

Sample No		Description	Cu ppm	Zn ppm	Other ppm
4803	Location:	Sil 4 Claim, on Koksilah River about 500 m downstream from Monastery.	64	30	
	Collected:	August 3, 1986			
	Rock Type:	Pyritic felsic volcanic/-volcaniclastic			
	From rusty boulder downstream from outcrop. White to light grey layered felsic volcanic and/or volcaniclastic, hard and very fine grained. Fracture surfaces are rusty; finely disseminated pyrite less than 1%.				
4804	Location:	Sil 4 Claim, on Koksilah River about 500 m downstream from Monastery.	78	16	
	Collected:	August 3, 1986			
	Rock Type:	Pryitic garnetite			
	From rusty boulder downstream from outcrop. Rusty, dark red-brown, hefty garnet rock is mixed with light grey green, felsic volcanic/-volcaniclastic. Blebs of pyrite (less than 2 mm) are less than 1-2% of rock.				
4805	Location:	Sil 4 Claim, on Koksilah River about 460 m downstream from Monastery.	297	12	22.35%Fe
	Collected:	August 3, 1986			
	Rock Type:	Massive sulphide pod			
	From outcrop of rusty massive sulphide pod in host of volcaniclastic rock near intrusive porphyry. Granular pyrite is about 50% of rock; epidote and quartz make up the rest.				

Sample No		Description	Cu ppm	Zn ppm	Other ppm
4806	Location:	Sil 4 claim, on Koksilah River about 460 m downstream from Monastery	268	12	15.76%Fe 12 Pb
	Collected:	August 3, 1986			
	Rock Type:	Pyritic garnetite			
	From outcrop near 4805. 85% massive garnet aggregate; 5% pyrite; 15% quartz.				
4807	Location:	Sil 4 Claim, on Koksilah River River about 460 m downstream from Monastery.	31	18	see Whole Rock Analysis
	Collected:	August 3, 1986			
	Rock Type:	Hornfelsed felsic volcanic or volcaniclastic.			
	From outcrop between sample locations 4805 and 4806, supposed to represent host rock. Apparently altered, hornfelsed, fine-grained, white to pale green, layered felsic volcanic or volcaniclastic with vein and disseminated pyrite (less than 1%).				
4808	Location:	Sil 4 claim, on Koksilah River about 460 m downstream from Monastery.	72	36	100 Ba see Whole Rock Analysis
	Collected:	August 3, 1986.			
	Rock Type:	Quartz diorite			
	From outcrop within 2-5 m of samples 4805 to 4807 in apparent fault contact (095/61N) with layered volcaniclastic rock which hosts sulphide pods. Sample is evenly granular, crystalline, with 35-40% hornblende + biotite, 15-20% quartz, 40-50% feldspar. Grain size 1-4 mm.				

Sample No		Description	Cu ppm	Zn ppm	Other ppm
4809	Location:	Sil 3, on Riverside Road across from Red Barn, 1.9 km from intersection with Mines Road	84	64	100 Ba
	Collected:	August 5, 1986			
	Rock Type:	Volcaniclastic			
	From outcrop of rusty-weathering, layered, angular fractured, fine-grained, brown volcaniclastic siltstone to sandstone, possibly hornfelsed, with finely disseminated and fracture-controlled pyrite (less than 1%).				
4810	Location:	Near Sil 3, 4 boundary, on hill about 500 m on Schultz/Wenberg loop from Riverside Road.	26	36	high Ti
	Collected:	August 5, 1986			
	Rock Type:	Altered mafic volcaniclastic(?) with epidote veins			
	From orange-brown weathered outcrop. Epidote-altered mafic volcanic or volcaniclastic with relict feldspar grains. Highly fractured; dark green host crosscut by network of lighter green veinlets.				
4811	Location:	Near Sil 3, 4 boundary on hill above Riverside Road, about 500 m up Wenbert/Schultz loop road.	36	22	
	Collected:	August 5, 1986			
	Rock Type:	Green volcanic with quartz veins			
	From rusty-red-brown weathering outcrop. Fine-grained, light green volcanic or volcaniclastic is crosscut by irregular quartz veins and epidote alteration.				

Sample No		Description	Cu ppm	Zn ppm	Other ppm
4812	Location:	Near Sil 3, 4 boundary, on hill above Riverside Road, about 500 m up Wenberg/Schultz loop road.	231	60	
	Collected:	August 5, 1986			
	Rock Type:	Porphyritic intrusive			
	From outcrop in vicinity of samples 4810 and 4811, probably a dyke or offshoot of intrusive body. Fine to medium-grained, greenish-grey intrusive with somewhat phenocrystic hornblende and feldspar. Appears bluish-green on outcrop where broken; may contain celadonitic alteration.				
4813	Location:	Sil 3, on western flank of hill above Schultz/Wenberg loop, about 1.2 km from Riverside Road.	336	60	see Whole Rock Analysis
	Collected:	August 5, 1986			
	Rock Type:	Altered mafic volcaniclastic or intrusive			
	From outcrop of buff to orange-brown weathering mafic greenstone. Green, medium-grained volcaniclastic or intrusive rock with relict feldspar grains is chloritized and crosscut by epidote and quartz veinlets. Possible rare pyrrhotite(?).				
4814	Location:	NW corner Sil 4 claim, on road 550 m from Riverside Road.	117	40	
	Collected:	August 5, 1986			
	Rock Type:	Mafic greenstone			
	From outcrop. Broken surfaces are dark green, medium crystalline, resembling diabase, but could be volcaniclastic.				

Sample No		Description	Cu ppm	Zn ppm	Other ppm
4815	Location:	Sil 4 claim, south of Koksilah River, 350 on N of Silvermine Road, about 700 m SE of Monastery	84 see Whole Rock Analysis	42	high Ti
	Collected:	August 5, 1986			
	Rock Type:	Altered porphyritic greenstone			
	From outcrop on hill on S side Koksilah River. Rocks weather orangy-brown exactly like those N of river. Fractured and chloritized mafic rock may have relict feldspar grains. Abundant rusty fractures and quartz veins crosscut sample.				
4816	Location:	Sil 4 Claim, south of Koksilah River, 550 m N of Silvermine Road near Bonanza Ranch back gate.	73	94	256 Cr 196 Ni
	Collected:	August 5, 1986			
	Rock Type:	Chloritized mafic greenstone.			
	From outcrop of rusty-weathering, chloritic greenstone. Dark grains may have been phenocrysts. Epidote veinlets crosscut rock; sample is sheared, with chlorite.				

Appendix II

CERTIFICATES OF ANALYSIS

ROSSBACHER LABORATORY LTD.

2225 S. SPRINGER AVENUE
BURNABY, B.C. V5B 3N1
TEL : (604) 299 - 6910

CERTIFICATE OF ANALYSIS

TO : MPH CONSULTING LTD.
301-409 GRANVILLE STREET
VANCOUVER B.C.

PROJECT: V 159
TYPE OF ANALYSIS: GEOCHEMICAL

CERTIFICATE#: 86346
INVOICE#: 6624
DATE ENTERED: 86-08-21
FILE NAME: MPH86346
PAGE # : 1

PRE FIX	SAMPLE NAME	PPB Au
A	1267A	5
A	1267B	5
A	1268	5
A	1269	5
A	1270	5
A	1271	5
A	1272	5
A	1273	5
A	1275	5
A	1276	5
A	1277	5
A	1284	5
A	1285	70
A	1286A	5
A	1286B	5
A	1287	5
A	1288	10
A	1289	5
A	1290	5
A	4803	5
A	4804	5
A	4805	5
A	4806	5
A	4807	5
A	4808	5
A	4809	5
A	4810	5
A	4811	5
A	4812	5
A	4813	5
A	4814	5
A	4815	5
A	4816	5

CERTIFIED BY : J. Rossbach

ROSSBACHER LABORATORY LTD.

2225 S. SPRINGER AVENUE
BURNABY, B.C. V5B 3N1
TEL : (604) 299 - 6910

CERTIFICATE OF ANALYSIS

TO : MPH CONSULTING LTD.
301-409 GRANVILLE STREET
VANCOUVER B.C.
PROJECT: V 159
TYPE OF ANALYSIS: ASSAY

CERTIFICATE#: 86346.A
INVOICE#: 6803
DATE ENTERED: 86.09.10
FILE NAME: MPH86346.A
PAGE # : 1

PRE FIX	SAMPLE NAME	oz/t Ag	% Cu
A	1285	0.90	4.00

RECEIVED OCT 1 1986

CERTIFIED BY : F. Rossbach

Chemex Labs Ltd.

212 Brooksbank Ave
North Vancouver, B.C.
Canada V7J 2C1

Phone: (604) 984-0221
Telex: 043-52597

*Analytical Chemists *Geochemists *Registered Assayers

CERTIFICATE OF ANALYSIS

TO : ROSSBACHER LABORATORY LIMITED

2020 SOUTH SPRINGER AVENUE
BURNABY, B.C.
V5B 3M1

CERT. # : A8616845-001-A
INVOICE # : I8616845
DATE : 3-SEP-86
P.O. # : NONE
V159

Semi quantitative multi element ICP analysis

Nitric-Aqua-Regia digestion of 0.5 gm of material followed by ICP analysis. Since this digestion is incomplete for many minerals, values reported for Al, Sb, Ba, Be, Ca, Cr, Ga, La, Mg, K, Na, Sr, Tl, Ti, W and V can only be considered as semi-quantitative.

COMMENTS :

Sample Description	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn %		
4807 A	2.10	0.2	20	40	<0.5	<2	1.72	<0.5	16	214	48	3.70	10	0.03	10	1.41	656	1	0.09	75	540	20	<10	33	0.24	<10	<10	84	<10	124	--	--
4807 B	3.53	0.2	10	30	<0.5	<2	2.00	<0.5	25	105	129	3.64	10	0.05	<10	1.94	426	<1	0.30	86	550	10	<10	77	0.15	<10	<10	85	<10	64	--	--
4808	4.70	0.2	10	20	<0.5	<2	2.65	<0.5	28	110	126	3.47	20	0.01	<10	1.76	254	1	0.65	83	500	9	<10	246	0.20	<10	<10	87	<10	18	--	--
4809	2.11	0.2	20	70	<0.5	<2	1.59	<0.5	16	66	77	3.59	10	0.06	<10	1.59	699	1	0.22	10	660	28	<10	87	0.10	<10	<10	77	<10	122	--	--
4810	1.45	0.2	27	10	<0.5	2	1.28	<0.5	11	43	33	2.78	10	0.15	<10	1.12	595	1	0.03	7	510	12	<10	26	0.07	<10	10	52	<10	64	--	--
4811	3.94	0.2	10	100	<0.5	<2	2.13	<0.5	20	80	29	4.64	10	0.06	<10	1.63	400	<1	0.44	29	630	8	<10	111	0.20	<10	<10	157	<10	52	--	--
4812	6.15	0.2	10	150	<0.5	<2	1.80	<0.5	31	80	56	6.12	10	0.06	<10	2.33	833	<1	0.10	50	670	9	<10	66	0.27	<10	<10	201	<10	54	--	--
4813	1.26	7.0	440	20	<0.5	<2	0.75	2.0	369	26	6396	7.5%	10	<0.01	<10	1.07	326	<1	0.02	50	260	16	<10	67	0.11	<10	<10	45	<10	200	--	--
4815	1.40	0.2	20	<10	<0.5	<2	1.40	<0.5	21	32	264	3.37	10	0.01	<10	1.34	473	<1	0.04	36	400	6	<10	11	0.52	<10	<10	102	<10	52	--	--
4816	3.32	0.2	20	130	<0.5	<2	0.82	<0.5	22	75	125	5.91	10	0.09	10	2.91	952	<1	0.15	21	1030	4	<10	54	0.18	<10	<10	200	<10	96	--	--
4817	1.41	0.2	23	190	<0.5	<2	0.27	<0.5	13	53	62	3.53	<10	0.19	10	1.38	485	<1	0.04	12	760	4	<10	11	0.18	<10	<10	106	<10	54	--	--
4818	3.57	0.2	10	150	<0.5	<2	1.86	<0.5	30	342	74	4.52	10	0.18	<10	3.49	492	<1	0.01	154	1660	6	<10	225	0.26	<10	<10	116	<10	54	--	--
4819	1.63	36.0	20	70	<0.5	<2	0.82	0.5	6	49	>9999	8.22	<10	0.03	<10	0.41	197	3	<0.01	6	590	14	10	76	0.04	<10	<10	19	<10	90	--	--
4820	1.64	0.2	20	160	<0.5	<2	0.88	<0.5	10	25	82	3.78	<10	0.05	<10	0.85	279	<1	0.13	6	740	20	<10	52	0.06	<10	<10	55	<10	74	--	--
4820 B	0.60	0.2	10	70	0.5	<2	0.26	<0.5	7	25	71	1.98	<10	0.01	10	0.45	120	1	0.01	11	230	2	<10	29	0.06	<10	<10	39	<10	12	--	--
4821	0.09	0.2	30	<10	<0.5	<2	0.55	<0.5	15	50	26	17.65	20	0.01	<10	0.02	725	1	<0.01	9	240	14	<10	<1	<0.01	<10	<10	6	<10	8	--	--
4822	0.07	0.2	45	10	<0.5	<2	9.53	<0.5	27	58	31	12.86	20	0.01	<10	0.02	952	1	<0.01	7	190	12	<10	<1	<0.01	<10	<10	11	<10	8	--	--
4823	1.17	2.0	30	<10	<0.5	<2	1.16	<0.5	82	42	4852	22.22	10	<0.01	10	0.99	507	1	<0.01	37	740	6	<10	16	0.03	<10	<10	61	<10	62	--	--
4824	5.30	0.2	10	670	<0.5	<2	2.90	<0.5	14	80	71	2.80	10	0.24	<10	1.24	197	<1	0.94	20	910	4	<10	208	0.20	<10	<10	149	<10	22	--	--
4825	1.26	0.2	10	60	<0.5	<2	0.69	<0.5	12	77	64	3.47	10	0.04	<10	1.29	298	1	0.08	36	340	4	<10	32	0.20	<10	<10	94	<10	20	--	--
4826	0.72	0.2	20	<10	<0.5	<2	7.15	<0.5	5	59	78	3.69	20	<0.01	10	0.29	756	1	0.01	8	600	10	<10	<1	0.04	<10	10	49	<10	16	--	--
4827	0.39	0.2	10	<10	<0.5	<2	0.48	<0.5	18	53	297	22.35	10	0.01	10	0.20	307	<1	<0.01	18	310	8	<10	21	0.01	<10	<10	22	<10	12	--	--
4828	3.45	5.0	80	10	<0.5	<2	6.29	<0.5	13	51	268	15.70	10	<0.01	10	0.12	612	<1	<0.01	11	240	12	<10	<1	<0.01	<10	10	16	<10	12	--	--
4829	0.45	0.2	<10	20	<0.5	<2	0.77	<0.5	5	55	31	0.68	10	0.04	10	0.12	82	<1	0.06	26	1060	2	<10	11	0.08	<10	<10	22	<10	18	--	--
4830	2.27	0.2	10	100	<0.5	<2	1.33	<0.5	10	58	72	3.05	10	0.09	10	0.98	890	<1	0.26	7	600	4	<10	91	0.15	<10	<10	97	<10	36	--	--
4809	3.59	0.2	20	100	<0.5	<2	0.44	<0.5	21	56	84	5.36	10	0.14	10	2.34	682	2	0.02	14	1060	8	<10	9	0.29	<10	<10	193	<10	64	--	--
4810	1.20	0.2	10	10	<0.5	<2	1.68	<0.5	16	73	26	2.53	10	0.02	10	1.11	726	1	0.01	21	460	4	<10	41	0.60	<10	10	78	10	26	--	--
4811	0.59	0.2	<10	20	<0.5	<2	1.01	<0.5	6	99	36	1.41	<10	0.01	<10	0.31	424	1	0.01	12	230	2	<10	22	0.22	<10	10	22	<10	22	--	--
4812	3.05	0.2	10	60	<0.5	<2	1.37	<0.5	20	40	221	3.67	10	0.08	10	1.20	419	1	0.20	9	360	6	<10	68	0.18	10	<10	111	10	60	--	--
4813	2.28	0.2	20	20	<0.5	<2	1.70	<0.5	36	54	336	4.10	10	<0.01	<10	1.51	606	<1	0.02	42	450	4	<10	16	0.21	<10	<10	87	<10	60	--	--
4814	4.76	0.2	10	30	<0.5	<2	2.51	<0.5	27	25	117	3.92	10	0.04	10	1.70	383	<1	0.03	85	490	6	<10	104	0.10	<10	<10	101	<10	42	--	--
4815	2.77	0.2	10	30	0.5	2	4.45	<0.5	19	78	84	2.71	20	0.01	10	0.59	601	<1	0.02	29	410	8	<10	<1	0.43	<10	10	162	10	42	--	--
4816	3.48	0.2	20	40	0.5	2	1.01	<0.5	11	256	73	6.02	10	0.01	10	4.33	1144	1	0.02	176	1220	4	10	10	0.17	10	10	125	10	74	--	--

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CERTIFICATE OF ANALYSIS

TO : MPH CONSULTING LTD.
301-409 GRANVILLE STREET
VANCOUVER B.C.

PROJECT: V 159
TYPE OF ANALYSIS: GEOCHEMICAL

CERTIFICATE#: 86346.B
INVOICE#: 6668
DATE ENTERED: 86-08-27
FILE NAME: MPH86346.B
PAGE # : 1 A

PREFIX	SAMPLE NAME	% SiO2	% Al2O3	% MgO	% Fe2O3	% CaO	% K2O	% Na2O	% TiO2	% MnO
S	1288	36.5	0.9	0.1	31.8	26.8	0.1	0.3	0.1	0.3
S	4807	65.0	14.1	3.1	3.3	7.8	1.2	5.6	0.7	0.2
S	4808	64.5	16.3	2.9	5.7	4.6	2.0	3.7	0.6	0.1
S	4813	54.5	14.2	5.8	9.7	10.6	0.1	2.9	1.1	0.2
S	4815	55.0	11.6	4.6	9.6	15.5	0.1	1.8	1.1	0.2

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CERTIFICATE OF ANALYSIS

TO : MPH CONSULTING LTD.
301-409 GRANVILLE STREET
VANCOUVER B.C.

PROJECT: V 159
TYPE OF ANALYSIS: GEOCHEMICAL

CERTIFICATE#: 86346.B
INVOICE#: 6668
DATE ENTERED: 86-08-27
FILE NAME: MPH86346.B
PAGE # : 1 B

PREFIX	SAMPLE NAME	% LOI	% TOTAL
S	1288	3.4	100.3
S	4807	0.9	102.1
S	4808	1.6	102.0
S	4813	2.9	102.0
S	4815	2.8	102.3

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CERTIFIED BY : F. Rossbach

Appendix III

ABBREVIATIONS USED IN MINERAL OCCURRENCES REFERENCES

ABBREVIATIONS USED IN MINERAL OCCURRENCES SECTION

AR	B.C. Ministry of Energy, Mines, and Petroleum Resources Assessment Report
BCDM	British Columbia Department of Mines
Bull	Bulletin
Carson	Metallogenic Study of Vancouver Island with Emphasis on the Relationships of Mineral Deposits to Plutonic Rocks; D.J.T. Carson, Carleton University Ph.D. Thesis, May, 1968
CIMM	Canadian Institute of Mining and Metallurgy
CMH	Canadian Mines Handbook
EBC	Exploration in British Columbia; B.C. Ministry of Energy, Mines and Petroleum Resources
GEM	Geology, Exploration and Mining in British Columbia; B.C. Department of Mines and Petroleum Resources
GSC	Geological Survey of Canada
Gunnex	Mineral Occurrences, E&N Land Grant, Vancouver Island, B.C.; Gunnex Ltd., 1966
MER	B.C. Mineral Exploration Review; B.C. Ministry of Energy, Mines and Petroleum Resources
Minfile	B.C. Ministry of Energy, Mines and Petroleum Resources Minfile, Feb. 2, 1984
MMAR	B.C. Ministry of Mines Annual Report
NM	Northern Miner
P	Paper
TML	Today's Market Line
VSW	Vancouver Stockwatch

Appendix IV

CONVERSION FACTORS FOR METRIC UNITS

Conversion Factors for Metric Units

1 inch	=	25.4 millimetres	(mm)
		or 2.54 centimetres	(cm)
1 cm	=	0.394 inch	
1 foot	=	0.3048 metre	(m)
1 m	=	3.281 feet	
1 mile	=	1.609 kilometres	(km)
1 km	=	0.621 mile	
1 acre	=	0.4047 hectares	(ha)
1 ha	=	2.471 acres	
1 ha	=	100 m x 100 m = 10,000 m^2	
1 km^2	=	100 ha	
1 troy ounce	=	31.103 grams	(g)
1 g	=	0.032 troy oz	
1 pound (lb)	=	0.454 kilogram	(kg)
1 kg	=	2.20 lb	
1 ton (2000 lb)	=	0.907 tonne	(t)
1 tonne	=	1.102 ton = 2205 lb	
1 troy ounce/ton	=	34.286 g/t	
1 g/tonne	=	0.0292 troy oz/ton	
1 g/t	=	1 part per million	(ppm)
1 ppm	=	1000 parts per billion	(ppb)
10,000 g/t	=	1%	

LOCATION MAP

LEGEND

GEOLOGY

(References : Muller 1980, Neale and Hawkins 1985)

CENOZOIC - QUATERNARY

12 — Unconsolidated sediments : glacial and alluvial deposits

MESOZOIC

UPPER CRETACEOUS

10 — NANAIMO GROUP : deltaic sandstone, conglomerate, siltstone, shale, and coal, undifferentiated.

LOWER TO MIDDLE JURASSIC

9 — ISLAND INTRUSIONS : granodiorite, quartz diorite.

- 9c — Pyritic Rhyolitic Intrusive : possible altered silicic phase of feldspar - hornblende porphyry.
- 9b — Feldspar - Hornblende Porphyry (Dacite) Intrusive : sills and/or dykes <1m to >200 m wide
- 9a — Quartz Diorite ± Granodiorite of the Koksilah Stock : Hornblende - bearing granitoid intrusive.

MIDDLE AND UPPER TRIASSIC

6 — Karmutsen Formation : pillow basalt (tholeiitic ?), breccia, tuff; minor flows, interpillow breccia with quartz - epidote alteration.

PALEOZOIC - DEVONIAN TO PERMIAN

SICKER GROUP

5 — Buttle Lake Formation : fossiliferous (crinoidal) limestone and marble, silicified limestone breccia, chert, argillite, and greywacke, with intervals of cherty tuff.

4 — Sediment - Sill Unit : argillite, greywacke, chert, interbedded volcaniclastic and tuffaceous rocks, and diabase sills.

2 — Myra Formation (?) : well - bedded felsic tuff and breccia, argillite, chert, rhyodacite, minor basic tuff.

SYMBOLS

- Geological contact - approximate, assumed
- Fault - approximate
- Outcrop
- x 1292 / 10ppb Au — Rock sample location / Geochemical results
- Bedding
- Foliation
- Dyke
- Joint
- Vein or mineralized zone
- Showing / deposit
- Approximate claim boundary
- Legal corner post - from previous maps; as located by J.S.

0 500 1000 metres

Topographic contour interval 20 metres. NTS 92B/12E

HOLLYCROFT RESOURCE CORPORATION

PROPERTY PLAN, GEOLOGY AND ROCK SAMPLING

COBBLE GROUP: SIL 3,4

VICTORIA MINING DIVISION

Project No:	V 159	By:	J.S.G.
Scale:	1 : 10 000	Drawn:	J.S.
Drawing No:	5	Date:	NOVEMBER 1986.

MPH Consulting Limited