1985 PROGRAM REPORT
on the
LATER CLAIMS

Whitehorse Mining Division, Y.T.
N.T.S. 105 D 5
60°22'N  135°30'W

For:
Kerr Addison Mines Limited
703 - 1112 W. Pender Street
Vancouver, B.C. V6E 2S1

Program:
21 July to 21 August and
13 to 27 September 1985

By:
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Report:
10 December 1985
This report has been examined by the Geological Exploration Unit under Section 51 (4) of the Quartz Mining Act and is allowed as representation work in the amount of $14,800.00.

Regional Manager, Exploration and Geological Services, Commissioner of Yukon Territory.
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Summary and Recommendations

This property, comprising 35 claims 45 km SW of Whitehorse, is one of those optioned from AGIP Canada Ltd. in the Fall of 1984.

The central portion of the property is underlain by Eocene Mt. Skukum volcanics - an older rhyolitic pyroclastic suite and a younger intermediate pyroclastic suite. To the N these volcanics are intruded by a large possibly hypabyssal rhyolite porphyry body; to the S they overlie a Cretaceous granodiorite. Also exposed are patches of metamorphosed Palaeozoic sediments. The overall picture is of a volcanic-subvolcanic complex emplaced at the edge of an older (Cretaceous) intrusive event.

Detailed geological mapping, detailed rock and soil sampling, VLF-EM surveying and some trenching have amplified the results of prior reconnaissance work by AGIP Canada. The 1985 program comprised 121 field man days at a total cost of approximately $79,000, most of the work being concentrated on a 17.5 line km grid covering the central portion of the claims.

Our analysis of what appears to be a rather complex block-faulted regime indicates that mineralization occurred in two distinct phases. These are represented by:

1. Skarn Zone

Ag dominant, metasediment-hosted, and skarn related. Exposures are lacking but intensive soil and rock float sampling suggests locally high grade, erratically distributed Ag associated with geochemically enhanced levels of Sb, As and base metals. In the principal skarn zone, equivalent to some 100m x 100m in areal extent, the best 20% of 93 rock samples average 39.8 ppm Ag, and the best single sample, a float grab of skarn yielded 164.7 ppm, or roughly 5 oz/t.
2. **Rhyolite Zone**

Au dominant, pervasively mineralized, rhyolite tuff hosted, sericitic, somewhat silicified, very As rich, weakly pyritic. The best grades correlate with sparse quartz veinlet stock-works and stronger silicification. The core zone here is exposed in the bottom of a deeply incised creek over a minimum area of 50m x 150m. The 73 representative rock samples have an overall average of 480 ppb Au and 1590 ppm As, within a relatively narrow range, the best individual sample yielded 1600 ppb Au.

A third area, known as the Creek Zone, has some features in common with both of the others, as well as limonitic quartz breccia textures reminiscent of a hot spring environment. One assay from this zone is 0.3 oz/t Au, representative of a 30 cm thick boulder of silicified schist. The zone also produced the property's highest assay, namely 93 oz/t Ag in a silicified rhyolite.

With the exception of localized "leakage" anomalies proximal to young felsic dykes, all the interesting responses are from basement metasediments and from the youngest of two Tertiary volcanic episodes. We hypothesize that the mineralization occurred in conjunction with a period of graben formation associated with the first volcanic episode.

One consequence of this distribution is that mineralization is exposed at lower elevations in terrain that mitigates against open-pit potential. The locally high grades however, along with the hypothesized major faulting, allow for the possibility of underground-mineable precious metals.
In general, favourable economic factors include the high proportion of anomalous samples collected from the property, the favourable structural/volcanic regime, and the proximity to the Mount Skukum Au deposit and mill (17 km to the south).

A $160,000 program, comprising diamond drilling at 4 sites, is recommended for 1986. The tentative choices for these sites are as shown on Figure 3b. Holes at three of the sites would attempt to intersect faults on the upslope side of collections of strongly anomalous float. The fourth location would permit an undercutting of the central RHYOLITE ZONE.
Location and Access

The Alligator Lake property (LATER 1-35 Claims) is located on NTS map sheet 105 D/5, 45 kilometers southwest of Whitehorse and 18 kilometers north of Mt. Skukum, at 60°22'N latitude and 135°30'W longitude. The claims are 8 kilometers west of Alligator Lake and 5 kilometers north of the Watson River. (See Figure 1).

Access to the property is by helicopter; a rough 4-wheel drive road east of Alligator Lake passes within 17 kilometers and a bush road follows the Watson River to within 5 kilometers of the claims.

Legal Description

The Later property consists of a group of 35 contiguous claims with record numbers YA 75682 to YA 75716. (See Figure 2)

All claims were recorded May 30, 1983 and are located in the Whitehorse Mining Division.

No other claims lie within 10 kilometer radius of the property.

The registered owner of the later Property is AGIP Canada Limited of Calgary, Alberta. Work was undertaken in 1985 by Kerr Addison Mines Limited, Vancouver, B.C. under an option with AGIP.

Topography and Vegetation

The property is in subdued alpine terrain, with relief varying from 1250 meters to over 1900 meters. The entire area is above treeline and is completely accessible by foot, although stream valleys deeply incise the terrain. The main creeks on the property flow throughout the field season, whereas some side creeks are dry. Vegetation is limited to alpine grasses and shrubs, and sparse dwarf birch and willow in the stream valleys.
History

Prior to 1980, exploration by various companies working in the area was concentrated southeast of Alligator Lake. Several polymetallic showings of Cu, Mo, Pb, Ag, Sb and Fe, which occur between the Wheaton and Watson Rivers, were prospected and partially developed. In other areas, east of Mt. Skukum and to the south near Bennett Lake, a number of base and precious metal occurrences were investigated. To date, most occurrences have proved uneconomic. The only deposit ever to have reached production was the Venus Mine, which operated intermittently from the early 1900's until 1981, when it was closed by the present owners, United Keno Hill Mines Ltd., due to low metal prices.

Following the 1980 discovery of precious metal anomalies at Mt. Skukum, AGIP Canada Ltd. carried out general reconnaissance in the area west of Alligator Lake. During 1981 and early 1982 regional mapping, prospecting and geochemistry led to the discovery of Au-Ag anomalies at the south end of the Skukum Group outlier. Additional sampling and mapping later in 1982 more accurately located the anomalies and added detail to the geological information.

In May, 1983 the LATER 1-35 Claims were staked over the south end of the Skukum outlier (See Figure 2). In early June, a small fly camp was installed and a crew of three geologists carried out mapping, soil sampling and rock ship sampling for five days. In mid-July encouraging geochemical results prompted additional soil sampling and excavation and sampling of two small hand trenches.
1985 Program

During the 1985 field season work on the LATER Claims was carried out from July 21 to August 21 and from September 13 to September 27. In total, 121 man days were spent on the property. Included in this work was the establishment of a grid over the central portion of the property consisting of approximately 17.5 kilometers of line (See Figure 2). All lines were placed by compass and 50 meter nylon chain with slope corrections and each station was marked with a wooden picket or fluorescent flagging bearing the grid coordinates. Geological mapping, detailed prospecting and rock sampling was carried out over the grid and surrounding areas on a 1:5000 scale. In selected areas, 1:500 detailed mapping accompanied by chip sampling and hand drilled and blasted trenches was completed. Mapping was aided by the use of a portable rock saw and K-feldspar staining kit as well as selected thin sections. Soil geochemistry and a VLF Survey were also carried out on the grid. In total, 318 rock samples and 687 soil samples were taken from the LATER Claim group.
Regional Geology

The LATER Claims lie in an area predominately underlain by Coast Intrusions of the Coast Crystalline Belt. These intrusions are Cretaceous in age and range in composition from granite to quartz diorite. Metamorphic basement rocks from the precambrian Yukon Group have been cut by these widespread intrusions. Volcanics of Tertiary age, belonging to the Skukum Group, overlie the older intrusives and metasedimentary rocks. These volcanics are exposed as a complex in the vicinity of Mt. Skukum and as isolated outliers, as on the LATER Claims.

Crosscutting all units in the region are Tertiary granite bodies and dykes. The regional geology is discussed in more detail in J.O. Wheeler (1961).

Property Geology

The LATER property is underlain by four rock suites. Metasedimentary rocks of the Yukon Metamorphic Complex are exposed in the central portion of the property, mainly on the east side of Later Creek. Intruded into the metamorphic basement rocks is a porphyritic granodiorite belonging to the Coast Intrusions of Cretaceous age. This unit covers most of the southern region of the property. A package of Tertiary volcanics from the Skukum Group can be found as the predominant rock type underlying the northeast and west central areas of the property. These volcanics are rhyolites and they range texturally from flow banded and uncommonly porphyritic through to massive volcanic breccia. These volcanics can generally be divided into two distinct groups.
Lower in the stratigraphy and outcropping along the central section of L.C. is a rhyolite lapilli tuff with mainly ash, quartz and altered feldspar clasts. The second group (intermediate volcanics) is believed to be later and makes up much of the ridge to the west of Later Creek and the mountain to the east of this creek. (See Figure 3a).

Late dykes and intrusive bodies crosscut all other rock types on the property. Most abundant are granite porphyry and rhyolite dykes. A large granite porphyry body underlies the northwest portion of the property. Other intrusives on the property include dacite and andesite dykes with the andesite dykes occurring over much of the property as the youngest rock type. Spatial relationships of all units is shown on Figure 3a.

**Rhyolite Lapilli Tuff/Volcanic Breccia** ($R_{2t1}, R_{2f1}, R_{2bv}$)

This unit occurs primarily at higher elevations on the property, making up much of the mountain to the east of Later Creek and a portion of the ridge to the south of N.W. Creek. It is generally light to dark grey with multicoloured clasts. On the weathered surface the unit is generally lighter in colour and is often gossanous. The groundmass is fine grained and ranges from rhyolitic to slightly more intermediate in composition. Clasts are primarily subrounded to subangular rhyolitic (often flowbanded) with fewer metamorphic and intrusive clasts. The clast size is variable but generally is between 0.5 and 3.0 cm. comprising up to 70% of the total rock. Locally, the clast have undergone plastic deformation to give a welded to flowbanded texture ($R_{2f1}$). Towards its base this unit grades into a volcanic breccia ($R_{2bv}$), primarily where it is in contact with metamorphic rocks and intrusives.
Here, there is a marked increase in clast size (up to 1m), clast abundance (up to 90% of the total rock), as well as in the relative number of metamorphic and intrusive clasts. Locally the unit is pyritic (5%), pyrrhotitic, argillic, sericitized, propylitized, silicified, and highly fractured, or any combination of the above.

**Rhyolite Tuff, Lapilli Tuff (R.it.,R.ifl.,R.itl.,R.ibv.)**

This unit is generally light to medium grey, weathering to light grey or buff. Much of the unit exhibits distinct flow banding, often with feldspar phenocrysts (R.ifl.). Phenocrysts average 1 to 2mm in size and comprise between 0 and 10% of the rock. In other parts of the unit subrounded to subangular clasts can be found ranging from lithic (R.it) through lapilli (R.itl.) to breccia in size (R.ibv.) Primarily the clasts are 5cm and are typically rhyolitic, comprising up to 60% of the rock. In some areas along the base of the unit, clasts are larger and are composed of metamorphic rocks as well as flow banded rhyolite. These clasts can comprise up to 80% of the total rock. Pyritic, gossanous, altered and/or highly fractured zones are present locally in this unit. It occurs only on the ridge to the west of Later Creek.

**Rhyolite Lapilli Tuff (R.tl)**

Typically this unit is light brown or grey to dark grey on fresh and most weathered surfaces. Where the unit has undergone alteration and mineralization it exhibits a distinctive red to yellow stain. The matrix is primarily composed of a mixture of fine ash containing K-feldspar and quartz as evidence from staining and thin section study. The clasts include angular to subangular quartz, ash and other volcanic
fragments while subhedral K-feldspar phenocrysts are often present. All clasts and phenocrysts are generally 1 cm, averaging 1-3 mm, and comprise between 20 and 50% of the total rock. In many locations this unit is highly altered and fractured, frequently containing pervasive and blebby pyrite. Exposure of the unit is primarily along Later Creek in the central portion of the property and is thought to be the youngest volcanic extrusive on the property.


The rocks are dark green on fresh and weathered surfaces and occur as dykes and sills cutting all other units on the property. Often, these dykes and sills are porphyritic (A.p.) containing 2-6 mm euhedral to subhedral plagioclase phenocrysts. The groundmass is generally fine grained and contains little to no K-feldspar as seen from staining. In some locations these dykes contain pyrite and pyrrhotite with associated iron staining.

Felspar porphyritic Rhyolite (R.p)

This unit is grey to light green often being weathered and/or altered to light orangy-brown or buff. Phenocrysts of euhedral to subhedral albite after K-feldspar and chloritized and epidotized mafics comprise from 1-10% of the rock, generally all being less than 0.5 cm in size. The groundmass is fine grained and composed primarily of K-feldspar and quartz as evidenced from staining. This unit occurs to the north of N.W. Creek as part of a massive plutonic body and over the remainder of the property as dykes and sills. Pyrite is common in this rock type as is a variety of alteration types including silicic, propylitic and sericitic.
Quartz-feldspar porphyritic Rhyolite (R.q.f.p.)

This unit occurs commonly as dykes and is typically light grey to light green and weathers orangy-brown to buff. Subrounded quartz-eye phenocrysts up to 3 mm in size and comprising from 1-5% distinguish it from R.p. However, there are dykes and bodies that grade in composition from quartz-feldspar to felspar rhyolite porphyry. Other phenocrysts include euhedral to subhedral K-feldspar with less plagioclase from 1-4 mm in size and comprise 1-10% of the total rock. Mafic phenocrysts are usually chloritized and are less common than in R.p. The matrix is predominantly fine-grained K-feldspar and quartz. To the north of N.W. Creek this unit outcrops as a more extensive intrusive body adjacent to, or gradational to the R.p. intrusive in this area. The intrusive is a medium to coarse grained granite with 5-10% microlitic cavities.

Rhyolite Dykes (R.dy.)

These are generally light grey to off-white, weathering to similar colours and frequently gossanous. Phenocrysts are common but are often masked by alteration. These phenocrysts are primarily subhedral feldspars of microscopic size to 2 mm comprising 10% of the rock. Most feldspars are K-feldspar with some of these being altered to albite. Biotite and hornblende were present in small amounts before being altered to chlorite and epidote.

The groundmass is mainly K-feldspar and quartz as distinguished by staining, and often is disseminated with pyrite. This unit is most often seen on the property in its altered state, having been subject to propylitic, chloritic and silicic alteration of varying intensity and extent. Strongly pyritic and silicified dykes of this type were mapped in the Creek Zone. (See Figure 7a). Most of the dykes are narrow (2-10 m width) and they too may range in
composition of phenocrysts and matrix and be in fact mineralogical equivalent of earlier described units Rp and R.q.f.p.

**Feldspar porphyritic Dacite** (D.F.p.,D.p.)

This unit is medium grey on fresh unaltered surfaces and light grey to off-white on weathered or altered surfaces. Phenocrysts are primarily subhedral plagioclase up to 5 mm in size and comprising 5-10% of the rock. The matrix is fine to very fine grained and due to alteration in most outcrops the exact composition is unclear but thought to be a mixture of plagioclase, K-feldspar and quartz. Occurrence of this rock type is limited to a few dykes, most of which have undergone strong propylitic and moderate silicic alteration. Many of the plagioclase phenocrysts have been altered predominantly to epidote through saussuritization.

**Granodiorite** (GDi):

This unit is generally grey on fresh and weathered surfaces with characteristic pink phenocrysts. These phenocrysts are typically euhedral to subhedral K-feldspar up to 4-5 cm in length and comprising up to 15% of the total rock. The matrix is composed of medium to coarse grained plagioclase, biotite, and hornblende with little to no K-feldspar. Most of the unit mafic constituents have been altered to chlorite and/or epidote. Locally this unit exhibits a gneissic texture often making the boundary with the metamorphic complex uncertain.

This granodiorite intrusive occurs as the predominant rock type underlying the southern portion of the LATER Claims.
Yukon Metamorphic Complex (Sch., Gn., Qte., Ma., L., Sk., Msd.)

Metamorphic rocks occur predominantly in the central portion of the LATER Claims on the east side of Later Creek. These rocks include quartzite, quartz-biotite schist, gneiss, marble, phyllite, limestone and skarn. Other outcrops of metamorphic rocks are exposed near the headwaters of Later Creek and a large area off the claim block to the west.

Structural Geology

Regionally, the LATER Claim group lies to the north of a major NE-SW fault that generally strikes along the Watson River valley to the southern end of Rose Lake. No prominent faulting was found on the LATER Claims although zones of weakness, as evidenced by intense fracturing and shearing, are present with a similar NE-SW strike direction. (See Figure 3a). The dip of these structures is generally N.W. Other shear and fracture zones on the property are typically perpendicular at NW-SE. Tectonic breccias were not often found in these zones but some movement was implied locally by the presence of slickensides. Hydrothermal fluid movement was at least partially controlled by these structurally weakened areas as there is localized alteration and mineralization associated with these zones. Intruded into many of these intense fracture and shear zones are late dykes.

We hypothesize that the central portion of the property represents a "ragged-edged" down-dropped fault block, the faulting having occurred prior to the deposition of the youngest volcanics. (See Figure 3b).
FIG. 7b

(0.07, 2.40) - Au gm/t, Ag gm/t
30, 2.0 - Au ppb, Ag ppm

Grab sample in outcrop.

△ Float sample.

KERR ADDISON MINES LTD
LATER PROPERTY
CREEK ZONE
GEOCHEMISTRY
Au, Ag

SCALE - 1:500
DATE - NOVEMBER, 1985
DRAWN BY - P.H.
DATA - L.G., C.B.
NTS - I05 D 5
REVISED -
(40, 10) - As gm/t, Sb gm/t
210, 5.0 - As ppm, Sb ppm
○ Grab sample in outcrop.
△ Float sample

FIG. 7c

LATER PROPERTY
CREEK ZONE GEOCHEMISTRY
As, Sb

KERR ADDISON MINES LTD
SCALE - 1:500
DATE - NOVEMBER, 1985
DRAWN BY - P.H.
DATA - L.G., C.B.
NTS - 10S D 5

09:18:37
Mineralization and Alteration

There were two events of precious metals mineralization on the LATER property. One, that took place in limestones during the process of skarn development, and the second, epithermal, which occurred in shear controlled zones and was restricted to certain areas of volcanics and metasediments.

Ag dominant mineralization of the SKARN ZONE is close to the zones of epithermal type alteration but is spacially related to the granodiorite which is a part of the Coast Intrusive Complex (See Figure 3a,3c). This would implie that the age of the skarn mineralization is Cretaceous.

The epithermal Au, Ag mineralization and alteration affected the rocks of the Skukum Volcanics and adjacent metasediments during Tertiary volcanic activity. The oldest unit of the Skukum Volcanics - rhyolite lapilli tuff appears to be the most susceptible to mineralization and is overlain by the younger either less permeable or post-mineralization units (R,t1,R2t1).

Large volumes of rhyolite tuff lapilli and metasediment were strongly altered and mineralized in more or less continuous zones between Anomaly Creek and NW Creek in the central part of the property. Due to some differences in mineralization and alteration these zones have been distinguished as RHYOLITE ZONE and CREEK ZONE. (See Figure 3a,3c). Generally they correspond to the zones outlined during AGIP's 1983 program.
SKARN ZONE

The SKARN ZONE occurs above the RHYOLITE ZONE along Anomaly Creek in limestones of the Yukon Group. The skarnified rocks occur in three major areas 25m x 50m, 25m x 50m and 50m x 100m respectively. (See Figures 8a,b;9a,b). Mineral assemblages include tremolite, wollastonite, garnet, diopside epidote, calcite, quartz, minor amounts of galena and sphalerite (max 1-2%) in Upper Skarn Zone. Malachite and chalcopyrite occur sparsely in the lower SKARN ZONE.

The best 20% of 93 rock samples average 39.8 ppm Ag, and the best sample, a float grab sample of skarn yielded 164.7 ppm, or roughly 5 oz/t Ag (See Figure 3b) mineralization occurs in the form of disseminated crystals of argentite-acanthite in the Upper Skarn Zone and often accompanies galena and sphalerite.

Only a few samples are geochemically anomalous in gold. The highest yielded 680 ppm Au and 50.7 ppm Ag. These were found in rocks affected by a low temperature (skarn?) event following a high temperature skarn event (thin section study). Since the highest gold sample taken during AGIP's 1983 program comes from the skarn zone and yields 2430 ppb Au there is a possibility that skarnified rocks have a potential gold mineralization. The observed Au enrichment in skarns is either due to postvolcanic epithermal processes or Au mineralization that occurred during skarn development in Cretaceous time.

Skarnified rocks were also found in north central portion of the grid amid metasedimentary limestones. Although soils are slightly enriched in silver there is no significant rock anomaly.
△ Float sample

<(0.07, 74.0) - Au gm/t, Ag gm/t
<5, 1.8 - Au ppm, Ag ppm

FIG. 8b

KERR ADDISON MINES LTD
LATER PROPERTY
UPPER SKARN ZONE
GEOCHEMISTRY
Au, Ag

SCALE - 1 : 500  DATE - NOVEMBER, 1985
DRAWN BY - P.H.  DATA - L.G., C.B.
NTS - 105 D 5  REVISED -
FIG. 8c

KERR ADDISON MINES LTD
LATER PROPERTY
UPPER SKARN ZONE
GEOCHEMISTRY
As, Sb

SCALE - 1:500    DATE - NOVEMBER, 1985
DRAWN BY - P.H.    DATA - L.G., C.B.
NTS - 105 D 5    REVISED -
Lower Skarn Zone Geochemistry

- Au, Ag

- Grab sample
- Chip sample
- Float sample

(<0.07, 16.11) - Au gm/t, Ag gm/t
<5, 3.2 - Au ppb, Ag ppm

Kerr Addison Mines Ltd

Scale - 1:500
Date - November, 1985
Drawn By - P.H.
Data - L.G., C.B.
NTS - 105 D 5
Revised -
RHYOLITE ZONE

Mineralized rocks of RHYOLITE ZONE occur near the junction of Later and Anomaly Creeks over 150 meters east to west and over 200 meters north to south. The altered Rhyolite Lapilli Tuff outcrops in the bottom of a deeply incised creek over a minimum area of 50m x 150m. (See Figure 6a). This rock is characterized by bright rusty-yellowish stain (limonite, jarosite) and strong pervasive sericitization and silicification. Small to moderate amounts of clay minerals as well as occurrences of clinzoisite and gypsum were recorded in thin section specimens.

It was determined from thin section studies that pervasive and fracture controlled silicification took place at the late stage of hydrothermal penetration. Fracture controlled silica is sparse however, occurring as fine grained quartz in the form of stockworks. Veinlets range from 1 to 50 mm in width. Nests of cavitious, coarse quartz (5-20 mm diam) pervasively silicified matrix are common textural features in the RHYOLITE ZONE.

The best grades correlate with stronger silicification and also to the presence of thin sulphide stringers (1-5 mm). Pyrite and arsenopyrite are the main constituents of sulphide mineralization and comprise maximum 5% of the rock volume. Many clasts in rhyolite tuff lapilli are replaced by the sulphides resulting in blebs as well as in fine disseminations.

Sericitic alteration affected the felsic clasts and matrix at the early stage along with fine disseminated pyrite and arsenopyrite. Pervasive and fracture controlled silicification has probably partly replaced sericite and contributed to the enrichment of precious metals.
The 73 representative rock samples from the zone have an overall average of 480 ppb Au and 1590 ppm As within a relatively narrow range, the best individual sample carrying 1600 ppb Au. (See Figure 6b). The least weathered sections of mineralized rocks occur in the TRENCH A from which the best sample yielded 1550 ppb Au and 4800 ppb As over the width of 1.7 m. Silver assays average 4.4 ppm with the highest 58.0 ppm.

The micaceous quartz schists that lie south of the RHYOLITE ZONE are also altered and mineralized. The highest assayed sample ran 600 ppb Au. It was strongly sericitized schist that has features of brecciation and secondary silicification. Undoubtedly, the adjacent metasediments were the subject to the same hydrothermal mineralization event and the soil anomalies in the area show potential, extension of the mineralization southwards from the RHYOLITE ZONE. (See Figure 5a).

CREEK ZONE

The CREEK ZONE is hosted by the same altered rhyolite as the RHYOLITE ZONE. However, intensely mineralized metasedimentary float was found approximately 300 m NE of RHYOLITE ZONE. (See Figure 6). Between there and original CREEK ZONE outlined by AGIP geologists there are frequent anomalous values in rocks that sometimes do not coincide with soil anomalies, probably in consequence of poorly developed soils in this area.
The altered and mineralized Rhyolite lapilli tuff is characterized by the same alteration assemblages except that the textures of the most silicified rocks suggest hydrothermal breccias in hot spring environment. The area in question is 5 x 10 m approximately 250 m north of RHYOLITE ZONE (See Figures 1a, 7b). The three highest samples of strongly silicified limonitic breccia (clasts surrounded by comb quartz and silicified rhyolite lapilli tuff with irregular quartz veins of 0.5-3 cm) yielded 1700, 2190 and 2700 ppb Au together with 2.1, 4.7 and 8.9 ppm Ag. Moreover, intensely sulphide mineralized float of rhyolite tuff lapilli was found close to the above mentioned samples and it produced 2390 ppb Au and 92.83 oz of silver - an extreme high for the property.

Thirty-two anomalous rock samples of Rt1 from the CREEK ZONE average 642 ppb Au. The average value for silver is 7.2 ppm excluding the highest sample mentioned above. The values seem to be related to better developed shear and fractured controlled zones, but lack of the outcrop has hindered the search for the source of the best mineralized float.

The highest samples of the CREEK ZONE are from isolated patches of metasedimentary float of higher elevations between Anomaly Creek and Later Creek. Selective float samples of quartz-biotite schists run from 150 ppb to 0.3 oz/ton Au. (See Figures 5a, 3b, 3c). The predominant alteration here is silicification as stringers, druses and stockwork veinlets and argillization. The rock is intensely limonitic and sometimes yellowish stained. A thirty centimeter diameter boulder of strongly silicified and sulphide mineralized schist that ran 0.3 oz/t Au and 6.51 ppm Ag has 90% silica, 5% sericite, 3-4% pyrite and a minor amount of white mica. The rock is very hard and competent and only weakly limonitic on fractures.
The presence of white mica indicates a higher temperature regime (250°C) compared to the zones in the rhyolite lapilli tuff.

The RHYOLITE and the CREEK ZONE mineralization originates from post early-volcanic hydrothermal fluids that had found their channel ways in underlying block faulted metasediments and sheared and fractured clastic volcanics. The mineralizing fluids were either confined beneath the later volcanics, or the major event pre-dated them.

The locally high grades but generally depleted precious metals content in most limonitic and yellow stained rocks may be due to weathering, allowing for the possibility of greater underlying continuity of the values.

Rock Geochemistry

A total of 317 rock samples were taken from the LATER property. All samples were analyzed for Au, Ag, As and Sb with selected samples being analyzed for Cu, Pb, Zn, Hg and W. Samples were sent to Chemex Labs Ltd., North Vancouver, B.C. for preparation and analysis using standard Atomic Absorption techniques with gold being Fire Assay preconcentrated. Selected samples were analyzed or re-analyzed using total Fire Assay.

Of the 317 rock samples collected 152 proved anomalous in Au (>30 ppb) with 18 of these samples >10000 ppb. (See Figures 4a, 4b, 4c, 4d, 4e) 54 samples were anomalous in Ag, (>5ppm), with 14 yielding >30 ppm, 154 anomalous in As (>100 ppm) and 147 in Sb (>10 ppm). Of the 172 samples analyzed for Hg, 7 were anomalous (>100 ppb).
Soil Geochemistry

A total of 687 grid soil samples were taken from the LATER Claims during 1985. These samples were collected from the "B" horizon wherever possible. The same analytical techniques for Au, Ag, As and Sb were used as for trace level analysis of rock samples.

Out of the 687 soil samples taken on the LATER Claim group, 86 were considered anomalous in Au (>20 ppb), 22 in Ag (>3 ppm), 88 in As (>50 ppm), and 81 anomalous in Sb (>2 ppm). (See Figures 5a, 5b, 5c, 5d). Anomalous gold zones are located in the Rhyolite Zone, Upper zone, and Creek Zone with the largest response (up to 670 ppb) in the Rhyolite Zone. Gold values in the Skarn Zone soils are at background levels. Silver in soil samples outlined a large response in the Skarn Zone (up to 25 ppm) with lesser responses in the Rhyolite and Creek Zones. Arsenic values have a similar distribution to that of gold while Antimony is anomalous in all of the main mineralized areas.

VLF-EM Survey

A VLF-EM Survey totalling 14.9 line kilometers was completed over most of the LATER grid using a Geonics EM 16 VLF receiver and the Lualualei, Hawaiian transmitter. The in phase and quadrature components of the vertical field were noted for each station and the in phase values were Fraser-Filtered and plotted in profile. (See Figure 10).

The plot of EM conductors in many areas coincides with geologically mapped faults and shear zones. Along with aerial photographs it helped to outline other fault structures that either predate the last volcanic event (R1t1, R2t1) or were filled up by porphyry dykes. (See Figure 3b).

Commonly the VLF seems to respond to weak to moderate, deuteric clay occurrences over wide areas.
APPENDIX I

Selected References:

Pride, Monica J., 1985; Preliminary geological map of (Mount Skukum Volcanic Complex) 105 D/2,3,4,5; 1:25,000 scale map: D.I.A.N.D. Open File.

Wheeler, J.O., 1961; Whitehorse Map Area, Yukon Territory, 105 D; G.S.C. Mem. 312.
# APPENDIX II

**STATEMENT OF EXPENSES**

1985 Field Program

**LATER CLAIMS**

<table>
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<tr>
<th>Labour</th>
<th>Office</th>
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<th>Travel</th>
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<td>D. Arscott, Geologist, 2275 W. 20th Ave., Vancouver, B.C.</td>
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<td>L. Lyons, Geologist, 3685 W. 11th Ave., Vancouver, B.C.</td>
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<td>34</td>
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Total Wages (including 10% burden) $17,604.00

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<td>Aug. 23</td>
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<td>Sept. 23</td>
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<td>Sept. 27</td>
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Total 17.4 hours @ $500.00 $8,700.00

### Analysis:

- 687 rocks @ $14.60 each $10,030.20
- Shipping, approximately 1,650.00
- 51 rocks @ $7.50 each Au (Fire Assay) 382.50
- 318 rocks @ $17.32 each Au, As, Sb, Ag 5,507.76
- 17 rocks @ $7.80 each Cu, W, Pb, Zn 132.60

Total $17,570.46
### APPENDIX II

**STATEMENT OF EXPENSES**

1985 Field Program

**LATER CLAIMS**

Continued -

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<th>Category</th>
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<th>Cost</th>
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<td><strong>Truck</strong></td>
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<td><strong>Contractor</strong></td>
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<td>121 days @ $12/man day</td>
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**TOTAL PROGRAM COST**

$74,300.92

$56,273.06
APPENDIX III

QUALIFICATIONS

I, David Philip Arscott, am a Professional Engineer, registered in British Columbia.

I have had 19 years experience in Mineral Exploration, mainly in the Canadian Cordillera. I directed and took part in the 1985 program on the LATER CLAIMS.

David Arscott
David Arscott, P.Eng.
D - Intermediate feldspar porphyry dyke (Dacite).
S - Skarn.

ITR4 - 1.6, 5, 1.8, <5, 295 - Ag ppm, As ppm, Sb ppm, Au ppb, Pb ppm.

SECTION LOOKING 332° - 152°
R. dy. - Rhyolite dyke.

R. lap.t.a. - Rhyolite lapilli tuff, altered.

2TR5 - 2.6, 630, 34, 630 - sample number - Ag ppm, As ppm, Sb ppm, Au ppb

SECTION LOOKING 070°
A - Andesite dyke.
R. dy. - Rhyolite dyke.
R2 tl. - Felsic lapilli tuff (Rhyolite).
bv. - Volcanic breccia with metasediment clasts.

3TR5 - 0.2, 540, 0.4, 10 - Sample number - Ag ppm, As ppm, Sb ppm, Au ppb

SECTION LOOKING 075°