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MAC CLAIMS  
1989 DIAMOND DRILLING

NTS: 93K/13  
OMINECA MINING DIVISION

Latitude 54° 52'N  
Longitude 125° 35'W

RIO ALGOM EXPLORATION INC

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

19,451

1989  
1989  
VANCOUVER, B.C.

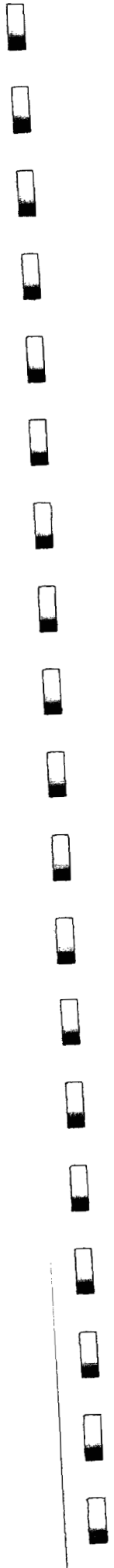


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## SUMMARY

The MAC Claims are located 100km east of the town of Smithers in central British Columbia on NTS map sheet 93K/13E. At present, the only direct access to the property is by helicopter, although logging roads provide access to within 5km of the claims. The property consists of the MAC 4-8 and MAC 11-13 modified grid claims, a total of 160 units, and are wholly owned by Rio Algom Exploration Inc. MAC 4, 6, 11-13 are currently grouped as the MAC 89-1 group.

Previous work on the claims by Rio Algom outlined three significant zones which warrant follow-up exploration. In the Camp zone, stockwork quartz-molybdenite mineralization occurs in a 500m x 300m porphyritic quartz monzonite stock, intruded into Cache Creek Group volcanic rocks. Distinct molybdenum and fluorine anomalies in rock coincide with a magnetic low reflecting the monzonite and extend into the surrounding volcanics. The 1989 drilling programme, described in section 5.0 of this report, established the limits of the mineralized stock in the Camp zone and discovered a higher grade mineralized halo in the volcanics surrounding the stock. Grades in the Camp zone range from trace amounts to 1.61% Mo for individual samples with an overall average grade in the order of 0.050% Mo.

Rock, soil and magnetic surveys conducted in the Pond and Peak zones in 1983 and 1984 outlined coincident anomalies similar to those found in the Camp zone. Although the Pond and Peak zones are underlain by hornfelsed volcanics, the coincident molybdenum, fluorine and magnetic anomalies are interpreted as reflecting buried porphyry systems. It is proposed that the Pond and Peak zones be drilled to establish the presence of buried intrusions and to test for associated molybdenite mineralization.

## 1 INTRODUCTION

This report summarizes the 1989 exploration programme on the MAC Claims.

Initial interest in the area of the claims was prompted by the discovery of molybdenite-bearing float during prospecting in a follow-up to a 1982 regional lake sediment sampling programme in which anomalous molybdenum was found in three adjacent lakes.

The claims were staked in 1982 and reconnaissance geological mapping and grid soil sampling were carried out in 1983 with encouraging results, including the discovery of a molybdenite-bearing quartz monzonite stock, the Camp zone, on MAC 6.

In 1984 soil sampling, geological mapping, magnetic surveys and rock sampling were carried out to explore the Camp zone and surrounding anomalous areas and trenching was done in the Camp zone. This work established the Pond zone to the north and the Peak zone to the south of the Camp zone as targets, though without outcrop or direct evidence of intrusions.

The 1989 exploration programme focussed on the Camp zone and consisted solely of diamond drilling. The objectives of the programme were to define the contacts of the quartz monzonite stock and to test the distribution of molybdenum within the stock.

## 2 PROPERTY

### 2.1 Location

The claims are situated in the Babine Lake area of central British Columbia on NTS mapsheet 93K/13, approximately 100km east of the town of Smithers. The property lies on the western margin of the Hogem Range at the northern tip of the Nechako Plateau. The centre of the claim block lies at 54° 52'N latitude and 125° 35'W longitude.

Topographically, the claims are characterized by gently rolling hills ranging in elevation from 900m to 1500m. Slopes are forested with tall conifers and minimal underbrush. Flat lying areas are swampy with tall grasses and scrub brush.

### 2.2 Access

The property is presently accessed only by helicopter. The nearest permanent helicopter bases are located in Smithers and Fort St James.

Recent road construction by the B C Forest Service has brought road access from Burns Lake to within 5km due south of the centre of the claims. It is expected that in the near future, roads will be advanced into the claim area to facilitate logging of mature timber.

### 2.3 Title

The MAC property consists of eight contiguous, twenty unit modified grid claims wholly owned by Rio Algom Exploration Inc (Figure 1).

Details of the claims are set out below on the following page.

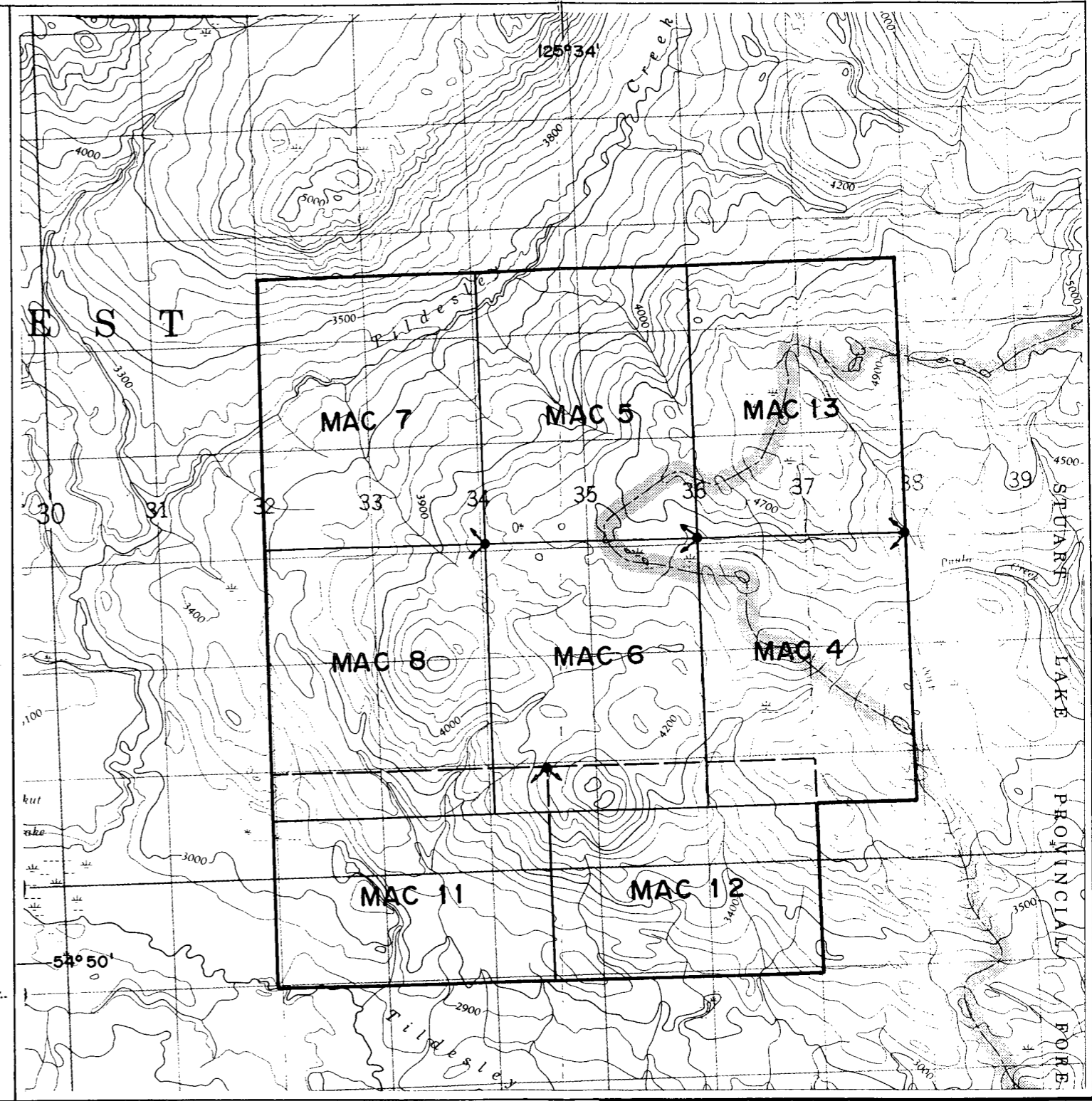
<u>Claim</u>	<u>Record No</u>	<u>Units</u>	<u>Record Date</u>	<u>Expiry Date</u>
MAC 4	4756	20	Sept 13 1982	Sept 13 1999 *
MAC 5	4757	20	Sept 13 1982	Sept 13 1994
MAC 6	4758	20	Sept 13 1982	Sept 13 1999 *
MAC 7	5575	20	July 25 1983	July 25 1993
MAC 8	5576	20	July 25 1983	July 25 1993
MAC 11	6019	20	Dec 22 1983	Dec 22 1999 *
MAC 12	6020	20	Dec 22 1983	Dec 22 1999 *
MAC 13	10962	20	Aug 5 1989	Aug 5 1999 *

All in the Omineca Mining Division.

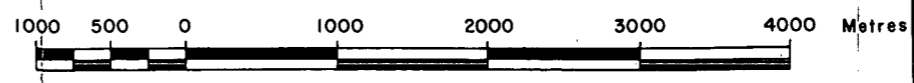
\* Pending approval of this report.

On August 31 1989, MAC 4, 6, 11-13 were grouped as the MAC 89-1 group (Notice to Group No: 138).





N.T.S. 93K/13  
SCALE 1:50,000



**Rio Algom Exploration Inc.**

MAC CLAIMS

LOCATION MAP

DATE DEC. 1989	DRAWN BY G.R.C./Chong	DWG. 1
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3 HISTORY

Government geological mapping in the Fort St. James map area dates back to the late 1800's with the work of A. R. C. Selwyn and G. M. Dawson. The most recent published work is that of J. E. Armstrong conducted over the period 1936 to 1944.

There is no record of mineral exploration in the immediate vicinity of the MAC property prior to 1982 when Rio Algom Exploration Inc. (then Riocanex Inc.) staked the claims. Sporadic exploration for chromium within the Trembleau Intrusions has taken place to the north of the MAC claims.

In 1982, Riocanex Inc conducted a regional lake sediment sampling programme in central British Columbia in an effort to identify potential silver prospects. In the course of this programme, anomalous Mo-Cu-Ag values were detected in the sediments of three adjacent lakes in an area covered by the present claims (Figure 2). Subsequent reconnaissance soil and silt sampling identified widespread anomalous molybdenum values in the vicinity of the lakes. Glacial float consisting of molybdenite-bearing quartz stockwork in a sericitized leucocratic quartz monzonite was also discovered and prompted the staking of the original claims.

The follow-up programme in 1983 consisted of reconnaissance geological mapping and grid soil sampling and was directed at locating the source of the mineralized float, (McClintock 1983). A stock-like body of quartz monzonite was discovered underlying what is now known as the Camp zone. Grab samples taken from the intrusive yielded analyses of between 0.034% Mo and 0.250% Mo. The soil survey outlined three large zones of >15ppm Mo, one of which is centred over the intrusive body. The remaining two anomalous zones, the northern Pond and the southern Peak, were found to be underlain by hornfelsed volcanic rocks.

The 1984 programme consisted of soil sampling to close off anomalies in the Peak, Pond and Camp zones, magnetic surveys over all three zones, trenching in the Camp zone and continued geological mapping and sampling (Holmgren, Cann, Spence, 1984).

Distinct molybdenum and fluorine lithochemical anomalies were outlined in each of the zones. Coincident with these anomalies are broad magnetic lows. Trenching confirmed the presence of widespread mineralization in the Camp zone stock. Molybdenum grades of up to 0.166% over 3m were obtained from the trenches.

4 REGIONAL GEOLOGY

The most recently published geological work in the area is that by J. E. Armstrong, (GSC Memoir 252, Fort St. James map area, Cassiar and Coast District). Map 907A and a subsequent compilation (GSC Map 1424A Parsnip River) show the MAC property to be underlain by Carboniferous and Permian greenstones, argillites and cherts of the Cache Creek Group with general NNW trend. These, near the property, are intruded by peridotites and gabbros of the Mesozoic Trembleur Intrusions and large and small bodies of Upper Jurassic to Lower Cretaceous granodiorites, etc. of the Omineca intrusions.

Map 1424A shows some early Cretaceous granodiorite intrusions intruding Cache Creek Group and other rocks to the southeast of the property.

No mineralization is noted on the property in any published reports or maps.

GSC Geophysics Paper 5316, 1:63,360 Tildesley Creek, displays strong north-northwesterly trends with local changes in the area of the property.

## 5 PROPERTY GEOLOGY

### 5.1 Introduction

The geology of the property, as set out below, is based on previous mapping and the results of work, particularly that of drilling in 1989.

### 5.2 General

The property is predominantly underlain by intermediate to basic volcanoclastic rocks which are correlative with the Mississippian-Triassic Cache Creek Group, (Unit 1, Figures 2 and 3). These rocks are pale to dark green where massive, mottled pale green and dark green where fragmental and brownish green where hornfelsed. The volcanoclastic rocks are composed of intercalated massive fine tuff and fine to coarse lapilli tuff. Angular lapilli up to 2cm across, comprise up to 80% of the fragmental layers and are surrounded by a fine matrix. The lapilli generally consist of fine tuff with lesser cherty tuff.

A moderate to intense regional foliation, trending 130° to 160°, overprints the volcanic rocks. Where most intense, the resultant rock type is a pale green to grey-green chloritic phyllite with no evidence of original textures.

Light to dark grey, massive limestone is exposed in a 500m x 100m area in the northeast corner of the claim block (Unit 2, Figure 2). As no contacts are exposed between the limestone and the volcanic rocks, their stratigraphic relationship is uncertain. It is reasonable to assume that the limestone represents a hiatus in volcanic activity and hence it is tentatively assigned to the Cache Creek Group.

Numerous intrusions invade the layered rocks. The oldest intrusion is a dark green serpentinite exposed in northwest trending linear ribs in the south-central portion of the property (Unit 3, Figures 2 and 3). The serpentinite is composed predominantly of radiating laths of tremolite and fibrous talc and weathers to a distinctive orange-buff colour. A fault contact with quartz monzonite was intersected in drillhole 89-6. Above the fault contact, mineralized quartz veins are present, suggesting the serpentinite predates the mineralizing event related to the acid intrusions. The serpentinite is assumed to be related to the Trembleur Intrusions of Upper Palaeozoic age, a large body of which lies immediately east of the property on Mount Sidney Williams.

A 2.5km x 3km stock of biotite-hornblende granodiorite is exposed in the south-central portion of the claims (Unit 4, Figures 2 and 3). It is composed of pale yellow-white euhedral 1-3mm feldspar phenocrysts, 1-2mm quartz grains, 1-2mm biotite books and subhedral black hornblende crystals. Quartz eyes to 8mm are common. Regionally, this stock is assigned an Early Jurassic age. Age relationships with other intrusive bodies have not been observed on the property.

In the centre of the claim block, a 500m x 300m stock of porphyritic quartz monzonite has been outlined (Unit 5, Figures 2 and 3). This intrusive is typically medium crystalline, pale green-yellow to pale grey-green in colour and is composed of 30% anhedral to subhedral quartz phenocrysts (2-7mm), 20% sericitized feldspar phenocrysts and up to 10% biotite in books to 2mm, all in a phaneritic ground mass. Xenoliths of volcanic rock, a few centimetres to several metres in size, are found near the margins of the stock. Dykes of fine-grained quartz porphyritic monzonite emanate from the main stock cutting volcanic lithologies. The quartz monzonite is host to stock-work quartz-molybdenite mineralization as discussed in section 5.4.

Dykes of biotite-feldspar porphyry cut both the quartz monzonite stock and the host volcanic rocks (Unit 5b, Figure 3). Generally, these dykes are pale grey to tan, medium crystalline with conspicuous 1-2mm biotite books. Locally, the dykes are pegmatitic with perthitic feldspar phenocrysts to 1cm. These dykes tend to occur near the margins of the quartz monzonite stock, though not exclusively, and are less altered and weakly mineralized.

The youngest intrusive on the property occurs as dykes of dark green, fine-grained amygdaloidal andesite (Unit AN, Figure 4). Calcite-filled amygdules, 1-4mm in diameter comprise 5%.

### 5.3 Structure

As noted in section 5.2, a regional schistosity, trending 1300-1600 overprints the volcanic lithologies. Where schistosity is most intense, the volcanic rocks are altered to chloritic phyllites. The attitude of the volcanic rocks has not been determined due to masking of original textures in outcrop by the regional fabric. A realignment of the schistosity is apparent around the northern margin of the monzonite stock as evidenced by sub-parallel schistosity to core axis intersections in DDH89-12.

A major through-going fault, trending 1450, was intersected in DDH89-6 in the south-central portion of the claims (Figures 2, 3 and 4). This fault is expressed on surface as a strong topographic lineament. It is proposed that rocks to the southwest of the fault are down-dropped. This is based on the supposition that the Peak zone represents the preserved cap of an intrusive mass similar to the quartz monzonite stock in the Camp zone.

This fault lies along the contact between serpentinite and the more competent surrounding lithologies.

Abrupt changes in total field magnetic data suggest that intrusive volcanic contacts are steeply dipping to vertical.

#### 5.4 Alteration

Regional greenschist grade metamorphism of the volcanic rocks has resulted in a dark green schistose rock with abundant chlorite and minor amounts of fine disseminated pyrite.

Hornfelsing along the contact of the acid intrusions has further altered the volcanic rocks to a dark, brownish-green massive rock with abundant biotite, amphibole and up to 5% fine pyrite. Where carbonate was present, lime silicates including epidote, garnet and possibly diopside, were formed.

Hydrothermal alteration associated with the intrusion of the quartz monzonite stock includes the development of a quartz stockwork and pervasive sericitization of feldspar in the intrusive and the development of lenses of quartz in the surrounding hornfelsed volcanics.

The quartz stockwork is characterized by steeply dipping multi-directional quartz veinlets comprising up to 15% of the quartz monzonite stock. Vein widths are typically between 1mm and 5mm but range up to 2.5 cm.

Intense sericitization of feldspar has occurred within the quartz monzonite stock, imparting a green tinge to the rock. This alteration appears to decrease in intensity with depth. Potassium feldspar alteration is limited in distribution and largely restricted to vein selvages in the quartz stockwork. Kaolinization has occurred along certain post-mineralization faults.



In the hornfelsed volcanics, lense-like quartz sweats occur up to several metres thick. These sweats have sharp contacts and appear to pinch and swell. Alteration selvages, 2-3cm on either side of the sweats, may contain wispy hydrothermal biotite.

#### 5.5 Mineralization

Molybdenite occurs principally in association with stockwork quartz veining in the quartz monzonite stock and with quartz sweats in the proximal volcanics.

Coarse flaky molybdenite and molybdenite paint occur along fractures and as vein selvages in the quartz stockwork. Molybdenite also occurs to a minor extent as fine disseminations and sparse, 1mm, rosettes. Fine disseminations impart a blue colour to the quartz veins. Total contained molybdenite in the quartz monzonite rarely exceeds 0.2%. Molybdenum grades in drill core range from a low of 0.011% over 31.4m in DDH89-6 to a high of 0.062% over 120.4m in DDH89-1. Molybdenum grades within the stock generally decrease with depth. The average grade of all drill core samples from within the quartz monzonite is 0.045% Mo.

Quartz sweats and crosscutting quartz veinlets in the volcanic rocks surrounding the quartz monzonite stock carry fine disseminated molybdenite. Molybdenite mineralization extends outward at least 50m from the stock. Grades within the proximal volcanics range from a low of 0.024% Mo, 0.04% Cu over 94.4m in DDH89-5 to a high of 0.102% Mo, 0.13% Cu over 187.7m including 0.201% Mo, 0.21% Cu over 72.2m in DDH89-12. The average grade of all drill core samples from within the proximal volcanics is 0.079% Mo with 0.13% Cu.

Chalcopyrite occurs primarily as disseminations within the quartz sweats in the proximal volcanics. Individual sweats contain up to 1% chalcopyrite. Traces of fine disseminated chalcopyrite also occur within the quartz monzonite and in the quartz stockwork. Copper grades, however, rarely exceed 0.05%.

Pyrite, as disseminations and fracture fillings, generally exceeds 5% in the proximal volcanics. Background level for pyrite in the more distal volcanics is 2-3%. Disseminated pyrite within the quartz monzonite typically comprises less than 1%.

## 6 1989 EXPLORATION PROGRAMME

### 6.1 Introduction

The 1989 exploration programme on the MAC Claims consisted of the drilling of 1488.4m of BGM (thinwall BQ) diamond core in twelve holes (DDH89-1 to DDH89-12) from 11 setups. Drilling was done using a JT600 drill operated by J. T. Thomas Drilling of Smithers, British Columbia.

Drill collars were spotted using a Brunton compass and fiberglass tape along section lines bearing 115° (Figure 4). This orientation was selected to optimize vein/core axis intersections based on the observed predominant vein trend of 025°. Elevations were established by altimeter. Drill core was transported by helicopter to the camp where it was logged, split, sampled and placed in racks where it is presently stored.

A total of 612 core samples were collected by splitting the core with a jaw-type splitter. One half of the core was shipped for analysis. All holes with the exception of 89-6, 7 and 8, were split for assay for their entire length.

Analytical work was carried out by Chemex Labs of North Vancouver, British Columbia. All samples were assayed for molybdenum and further analyzed by various combinations of copper assay, gold assay and 32 element inductively coupled plasma (ICP). Analytical results are recorded on certificates included in Appendix III to this report.

### 6.2 Results of Drilling

Drill logs and drill sections are found in Appendices IV and V respectively. Individual drill holes are summarized below:

DDH89-1 (Figures 4 and 6)

Latitude: 200m N                      Azimuth: 2950                      Depth 121.9m  
Departure: 000                      Dip:        -530

Objective: Test mineralization at depth below Trench D.

Result: Drillhole 89-1 was drilled entirely within the quartz monzonite stock. Alteration intensity decreases down hole with an attendant decrease in molybdenum grade. An amygdaloidal andesite dyke cuts the monzonite at 95.6 to 96.9m

Analyses:	<u>From (m)</u>	<u>To (m)</u>	<u>Length (m)</u>	<u>Mo (%)</u>	<u>Cu (ppm)</u>	<u>Ag (ppm)</u>
	1.5	121.9	120.4	0.062	496	0.9
	including					
	1.5	72.0	70.5	0.073	537	0.9
	72.0	121.9	49.9	0.048	439	0.8

DDH89-2 (Figures 4 and 6)

Latitude: 200m N                      Azimuth: 2950                      Depth: 61.0m  
Departure: 200m W                      Dip:        -510

Objective: Test western contact of the quartz monzonite stock.

Result: Drillhole 89-2 was drilled predominantly within schistose volcanics. The top 11m of the hole intersected numerous biotite-feldspar porphyry dykes. These dykes may represent a marginal phase of the main stock.

Analyses:	<u>From (m)</u>	<u>To (m)</u>	<u>Length (m)</u>	<u>Mo (%)</u>	<u>Cu (%)</u>	<u>Ag (ppm)</u>
	13.4	61.0	47.6	0.059	0.09	1.1

DDH89-3 (Figures 4 and 6)

Latitude: 200m N                      Azimuth: 1150                      Depth: 121.9m  
Departure: 198m W                      Dip:        -510

Objective: Test western contact of the quartz monzonite stock.

Result: From 6.1m to 26.4m, drillhole 89-3 intersected a chaotic assimilation zone adjacent to the stock. Rock types include partially absorbed schistose volcanic, biotite-feldspar porphyry and quartz monzonite. The remainder of the hole was entirely within quartz monzonite.

Analyses:	<u>From (m)</u>	<u>To (m)</u>	<u>Length (m)</u>	<u>Mo (%)</u>	<u>Cu (ppm)</u>	<u>Ag (ppm)</u>
	6.1	121.9	115.8	0.054	469	0.4
including	6.1	27.0	20.9	0.045	661	0.7
	27.0	81.0	54.0	0.070	409	0.3
	81.0	121.9	40.9	0.044	450	0.4

DDH89-4 (Figures 4 and 6)

Latitude: 200m N                      Azimuth: 2950                      Depth: 139.6m  
Departure: 200m E                      Dip:        -510

Objective: Test eastern contact of the quartz monzonite stock.

Result: Schistose to phyllitic volcanics were intersected from the base of the casing at 11.3m to 114.4m. Alteration intensifies with depth and includes abundant quartz veining and flooding, chloritization, epidotization and intense sericitization near the intrusive contact. Between 114.4m and 129.5m, a contact zone was encountered consisting of mixed volcanic, biotite feldspar porphyry

and quartz monzonite. Dykes of aplitic monzonite (?) and pegmatitic feldspar porphyry are present in the contact zone. From 129.5m to the end of the hole at 139.6m, quartz monzonite was intersected. Molybdenite and chalcocopyrite mineralization is strongest in the volcanic near the intrusive contact.

Analyses:	<u>From (m)</u>	<u>To (m)</u>	<u>Length (m)</u>	<u>Mo (%)</u>	<u>Cu (%)</u>
	11.3	139.6	128.3	0.086	0.16
including	11.3	52.0	40.7	0.083	0.09
	52.0	72.0	20.0	0.090	0.18
	72.0	114.0	42.0	0.101	0.23
	114.0	130.0	16.0	0.077	0.17
	130.0	139.6	9.6	0.051	0.04

DDH89-5 (Figures 4 and 5)

Latitude: 400m N                      Azimuth: 298°                      Depth: 164.6m  
Departure: 000                      Dip: -51°

Objective: Test northern contact of the quartz monzonite stock.

Result: The intrusive contact was intersected at a depth of 97.4m. Volcanic rocks between 3.0m and 97.4m consist of intercalated massive and fragmental andesites with an increase in schistosity approaching the intrusive contact. An andesite dyke cuts the volcanics between 27.4m and 28.4m and quartz porphyritic dykes were intersected from 81.3m to 83.3m and from 94.1m to 95.4m. Quartz monzonite was intersected from 97.4m to the end of the hole at 164.6m. Silicification and attendant molybdenite mineralization are weak in the volcanics and moderate in the quartz monzonite.

Analyses:	<u>From (m)</u>	<u>To (m)</u>	<u>Length (m)</u>	<u>Mo (%)</u>	<u>Cu (%)</u>
	3.0	164.6	161.6	0.028	0.03
including	3.0	97.4	94.4	0.024	0.04
	97.4	164.6	67.2	0.034	0.02

DDH89-6 (Figures 4 and 9)

Latitude: 050m S                      Azimuth: 115°                      Depth: 169.2m  
Departure: 200m W                      Dip:        -50°

Objective: Test the western contact of the quartz monzonite stock.

Result: Drillhole 89-6 intersected alternating zones of intercalated massive and fragmental andesite to schistose andesite and serpentized mafic intrusives from 7.6m to 137.8m. Extensive faulting is present throughout this interval and may represent movement along the less competent mafic intrusive bodies. Minor molybdenite occurs as coatings on slip planes and in sparse quartz veins. Numerous andesite dykes intrude the fault zones. Weakly mineralized quartz monzonite was intersected between 137.8m and the bottom of the hole at 169.2m. Selected analyses include the following:

Analyses:	<u>From (m)</u>	<u>To (m)</u>	<u>Length (m)</u>	<u>Mo (%)</u>	<u>Cu (%)</u>	<u>Ag (ppm)</u>
	43.0	61.0	18.0	0.048	0.02	0.2
	115.0	126.4	11.4	0.029	n/a	n/a
	137.8	169.2	31.4	0.011	n/a	n/a

DDH89-7 (Figure 4)

Latitude: 050m N                      Azimuth: 295°                      Depth: 27.4  
Departure: 000                      Dip:        -50°

Objective: Test the molybdenite mineralization at depth in the centre of the stock.

Result: Hole was abandoned in overburden. No core was recovered.

DDH89-8 (Figures 4 and 10)

Latitude: 200m S                      Azimuth: 114°                      Depth: 121.9  
Departure: 000                      Dip: -53.50

Objective: Test the southern contact of the quartz monzonite stock.

Result: The quartz monzonite was not intersected. The entire drillhole consists of alternating 10m-50m intervals of intercalated massive and fragmental andesite and serpentinized mafic intrusives. Faulting is present throughout the hole. Alteration is generally weak with sparse quartz veins and local epidotization. These rocks closely resemble the volcanic-serpentinite sequence encountered in drillhole 89-6.

Analyses:	<u>From (m)</u>	<u>To (m)</u>	<u>Length (m)</u>	<u>Mo (%)</u>
	110.0	119.0	9.0	0.026

DDH89-9 (Figures 4 and 7)

Latitude: 100m N                      Azimuth: 295°                      Depth: 112.8m  
Departure: 000                      Dip: -52°

Objective: Test mineralization at depth in the central portion of the quartz monzonite stock.



Result: Drillhole 89-9 was drilled predominantly within quartz monzonite. An andesite dyke cuts the monzonite between 82.2m and 84.1m. Alteration is characterized by strong sericitization, moderate K-feldspar metasomatism and weak silicification.

Analyses:	<u>From (m)</u>	<u>To (m)</u>	<u>Length (m)</u>	<u>Mo (%)</u>
	7.6	112.8	105.2	0.027

DDH89-10 (Figures 4 and 7)

Latitude: 100m N                      Azimuth: 294°                      Depth: 115.8m  
Departure: 200m E                      Dip: -50°

Objective: Test mineralization at depth in the central portion of the quartz monzonite stock.

Result: Drillhole 89-10 was drilled entirely within quartz monzonite. Silicification is more intense than in hole 89-9 and hence, molybdenum grades are higher. Quartz veinlets with molybdenite selvages comprise up to 20% of the core.

Analyses:	<u>From (m)</u>	<u>To (m)</u>	<u>Length (m)</u>	<u>Mo (%)</u>	<u>Cu (%)</u>
	3.0	115.8	112.8	0.045	0.05
including	3.0	54.0	51.0	0.057	0.06
	54.0	115.8	61.8	0.036	0.04

DDH89-11 (Figures 4 and 8)

Latitude: 100m N                      Azimuth: 295°                      Depth: 106.7  
Departure: 400m E                      Dip: -52°

Objective: Test the eastern contact of the quartz monzonite stock.

Result: This hole was drilled predominantly within schistose intercalated massive and fragmental volcanics. Alteration is characterized by strong to intense sericitization, weak epidotization and strong silicification. Numerous biotite-feldspar porphyry dykes invade the volcanic rocks between 87.8m and 99.6m. Alteration increases downhole. The quartz monzonite contact was intersected at 106.0m. The monzonite is strongly sericitized.

Molybdenite mineralization tends to increase downhole in association with quartz veins.

Analyses:	<u>From (m)</u>	<u>To (m)</u>	<u>Length (m)</u>	<u>Mo (%)</u>	<u>Cu (%)</u>
	11.3	106.7	95.4	0.085	0.14
including	11.3	56.0	44.7	0.030	0.08
	56.0	106.0	50.0	0.135	0.19
	106.0	106.7	0.7	0.038	0.04

DDH89-12 (Figures 4 and 5)

Latitude: 400m N                      Azimuth: 115°                      Depth: 225.6m  
Departure: 250m W                      Dip:        -53.50

Objective: Test the northwestern contact of the quartz monzonite stock.

Result: Based on foliation to core axis angles, it is possible that drillhole 89-12 was drilled sub-parallel to the intrusive contact. Schistose volcanics were intersected from 3.7m to 191.4m. Silicification within this interval varies from moderate near the top of the hole, to

pervasive between 97.8m and 118.7m. Virtually all of the quartz veins and quartz-flooded intervals contain disseminated molybdenite which locally comprises 1% over sections of 2m.

Numerous 1-2m biotite porphyry dykes invade the volcanics within 20m of the quartz monzonite contact at 191.4m. The quartz monzonite is moderately sericitized and silicified with 0.1% molybdenite throughout.

Analyses:	<u>From (m)</u>	<u>To (m)</u>	<u>Length (m)</u>	<u>Mo (%)</u>	<u>Cu (%)</u>
	3.7	225.6	221.9	0.093	0.12
including	3.7	64.1	60.4	0.014	0.04
	64.1	97.8	33.7	0.066	0.11
	97.8	170.0	72.2	0.201	0.21
	170.0	191.4	21.4	0.069	0.18
	191.4	225.6	34.2	0.047	0.02

7 DISCUSSION

Molybdenite within the Camp zone stock occurs primarily within a quartz stockwork. Molybdenum grade is therefore dependent upon the intensity of silicification. A direct relationship is also apparent between molybdenum grade and intensity of sericitization. Both silicification and sericitization decrease in intensity with depth within the stock. Molybdenite-bearing quartz sweats in the volcanic rocks peripheral to the stock, form a 50m wide halo of high grade molybdenum mineralization.

Coincident molybdenum and fluorine in rock anomalies and a distinct magnetic low coincide with the Camp zone stock. Similar patterns and features are present in the Pond and Peak zones which are known to be underlain by hornfelsed volcanic rocks. Quartz veins in the Pond and Peak zones strongly resemble the quartz sweats surrounding the Camp zone stock. It is therefore probable that the features in the Pond and Peak zones reflect buried intrusives with preserved cap rocks. Given that molybdenum grades increase towards the margins of the Camp zone stock and are higher in adjacent wall rocks, it is reasonable to expect that molybdenum grades in the Pond and Peak zones, with their margins fully preserved, may be significantly better.

8 RECOMMENDATION

The 1989 drilling programme has defined the limits of the Camp zone stock and tested the mineralization at depth. A geological reserve of the order of 70 million tonnes grading 0.050% Mo is suggested by the results to date. The discovery of a halo of high grade molybdenite mineralization around the Camp zone stock bodes well for exploration in the Pond and Peak zones.

A programme of diamond drilling is recommended to test the Pond and Peak zones for mineralized buried intrusives. This programme would consist of one drillhole in each of the zones with follow-up drilling contingent upon results in the initial holes.

REFERENCES

- ARMSTRONG, J E; 1948: Fort St. James Map Area, GSC Map 907A.
- ARMSTRONG, J E; 1949: Fort St. James Map Area, Cassiar and Coast Districts, British Columbia, GSC Memoir 252.
- McCLINTOCK, J A; 1983 MAC Claims, Geology and Geochemistry, August 1983 (EMPR Assessment Report 11861).
- HOLMGREN, L; CANN, R M; SPENCE, C D; 1984 MAC Claims, Geology, Geochemistry and Geophysics. September 1984 (EMPR Assessment Report 12881).

APPENDIX I

CERTIFICATE

I, Graham R Cope do hereby certify that:

- 1 I am a graduate of the University of British Columbia with a Bachelor of Science degree (1985) in geology.
- 2 I have been involved in mineral exploration for the past nine years and have practiced my profession as a geologist continually since graduation.
- 3 I presently hold the position of Geologist with Rio Algom Exploration Inc with offices at 1650, 609 Granville Street, Vancouver, British Columbia.
- 4 I am an associate of the Geological Association of Canada and a member of the Canadian Institute of Mining, Metallurgy and Petroleum.
- 5 I personally supervised the diamond drilling programme conducted on the MAC property in July and August 1989.



Graham R Cope

Vancouver, December 1989



APPENDIX II

COST STATEMENT

FIELDWORK

Salaries - Permanent:

G R Cope - Jul-Aug: 35 days @ \$101.60/manday \$ 3,556.00

J A McClintock - Jun-Aug: 9 days @ \$170/manday \$ 1,530.00

Salaries - Temporary:

G Innis Jul-Aug, 28 days @ \$100/manday \$ 2,800.00

\$ 7,886.00

Benefits: (25% of \$7,886.00)

\$ 1,971.50

Drilling:

J T Thomas Diamond Drilling, Jul-Aug

4,883 feet @ \$26.70/ft \$130,376.10

Helicopter:

Canadian Helicopters, Jun-Aug

Tariff - 62.8 hours @ \$550.00/hour \$34,540.00

Oil - 62.8 hours @ \$3.00/hour \$ 188.40

Fuel - 645.4 gal @ \$2.00/gal \$ 1,291.00

- 4400 l @ \$0.7656/l \$ 3,368.64

\$ 39,388.04

Analyses:

Chemex Labs:

Sample Preparation - 612 @ \$3.75/sample \$ 2,295.00

Mo assays - 612 @ \$6.50/sample \$ 3,978.00

Cu Assays - 350 @ \$6.50/sample \$ 2,275.00

Au Assays - 14 @ \$8.50/sample \$ 119.00

ICP Analyses - 248 @ \$6.75/sample \$ 1,674.00

\$ 10,341.00

Line-cutting:

Hobson Contracting, August - 3 days @ \$25/day \$ 675.00

Ground Transportation:

Tilden Rentals, Jul-Aug \$ 336.98

Esso, Jul-Aug \$ 33.66

\$ 370.64

Air Transportation:

Canadian Airlines International, Jun-Aug \$ 1,744.05

Field Supplies: \$ 1,543.24

Freight:

Bandstra Transport	\$ 415.26	
Greyhound Express	<u>\$ 732.15</u>	
		\$ 1,147.41

Radio Rental:

Traeger Distributors	\$ 728.64	
Canadian Helicopters	<u>\$ 180.00</u>	
		\$ 908.64

Telephone, Courier:

FIELDWORK TOTAL		<u>\$ 104.00</u>
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\$196,455.62

REPORT

Salaries:

J A McClintock, 1 day @ \$170.00/manday	\$ 170.00	
G R Cope, 20 days @ \$101.60/manday	<u>\$ 2,032.00</u>	
		\$ 2,202.00

Benefits: (25% of \$2,202.00)		\$ 550.50
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Drafting: F Chong, 27 hours @ \$20.00/hour		\$ 540.00
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Typing, supplies:		\$ 200.00
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Reproduction: Vancal Reproduction		<u>\$ 375.98</u>
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REPORT TOTAL		<u>\$ 3,868.48</u>
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Fieldwork Total		\$196,455.62
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Report Total		<u>\$ 3,868.48</u>
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TOTAL COST		<u>\$200,324.10</u>
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APPENDIX III





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BRITISH COLUMBIA, CANADA V7J-2C1

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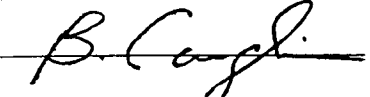
To RIO ALGOM EXPLORATION INC.  
P.O. BOX 10335, PACIFIC CENTRE  
1650 - 609 GRANVILLE ST.  
VANCOUVER, BC  
V7Y 1G5

Project : MAC  
Comments: CC: G R COPE

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Tot. Pages: 3  
Date 20-AUG-89  
Invoice # I-8922723  
P.O. # 8920

## CERTIFICATE OF ANALYSIS A8922723

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447502	208 238	694	0.02	6	10	2	5	< 1	3	< 0.01	< 10	< 10	< 1	< 10	4
447503	208 238	941	0.02	3	10	4	< 5	< 1	1	< 0.01	< 10	< 10	< 1	< 10	2
447504	208 238	783	0.02	4	10	6	5	< 1	3	< 0.01	< 10	< 10	< 1	< 10	8
47505	208 238	1365	0.06	4	10	< 2	< 5	1	4	< 0.01	< 10	< 10	< 1	< 10	6
447506	208 238	502	0.03	4	< 10	4	< 5	1	2	< 0.01	< 10	< 10	< 1	< 10	6
447507	208 238	676	0.01	15	30	6	5	1	3	< 0.01	< 10	< 10	< 1	100	10
447508	208 238	1275	0.01	8	20	6	10	1	3	< 0.01	< 10	< 10	< 1	< 10	6
447509	208 238	584	0.02	8	10	2	< 5	1	3	< 0.01	< 10	< 10	< 1	< 10	6
447510	208 238	678	0.03	3	10	2	< 5	1	3	< 0.01	< 10	< 10	< 1	< 10	10
447511	208 238	696	0.07	5	10	4	< 5	1	5	< 0.01	< 10	< 10	< 1	< 10	8
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447513	208 238	991	0.07	3	< 10	2	< 5	1	4	< 0.01	< 10	< 10	< 1	< 10	10
447514	208 238	448	0.03	3	10	6	< 5	1	3	< 0.01	< 10	< 10	< 1	< 10	14
447515	208 238	957	0.07	2	10	< 2	< 5	1	4	< 0.01	< 10	< 10	< 1	< 10	10
447516	208 238	1940	0.07	7	< 10	< 2	< 5	2	4	< 0.01	< 10	< 10	< 1	< 10	14
447517	208 238	1215	0.04	5	10	4	< 5	1	1	< 0.01	< 10	< 10	< 1	< 10	24
447518	208 238	1840	0.06	3	10	< 2	< 5	1	2	< 0.01	< 10	< 10	< 1	< 10	16
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447520	208 238	638	0.03	2	< 10	4	< 5	2	1	< 0.01	< 10	< 10	< 1	< 10	22
447521	208 238	777	0.05	6	10	< 2	< 5	1	2	< 0.01	< 10	< 10	< 1	< 10	10
447522	208 238	487	0.06	4	10	< 2	< 5	1	3	< 0.01	< 10	< 10	< 1	< 10	8
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447528	208 238	348	0.07	5	30	2	10	1	4	< 0.01	< 10	< 10	2	< 10	16
447529	208 238	692	0.02	8	20	2	< 5	2	9	< 0.01	< 10	< 10	< 1	< 10	20
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447531	208 238	935	0.07	9	20	10	< 5	2	3	< 0.01	< 10	< 10	< 1	< 10	24
447532	208 238	747	0.08	7	10	2	< 5	2	4	< 0.01	< 10	< 10	< 1	< 10	24
447533	208 238	377	0.08	2	10	8	< 5	2	4	< 0.01	< 10	< 10	1	< 10	20
447534	208 238	578	0.06	4	10	2	< 5	2	4	< 0.01	< 10	< 10	< 1	< 10	24
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447540	208 238	726	< 0.01	1	20	10	5	1	8	< 0.01	< 10	< 10	< 1	< 10	14

CERTIFICATION : 





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 212 BROOKSBANK AVE., NORTH VANCOUVER,  
 BRITISH COLUMBIA, CANADA V7J-2C1  
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 P.O. BOX 10335, PACIFIC CENTRE  
 1650 - 609 GRANVILLE ST.  
 VANCOUVER, BC  
 V7Y 1G5

Project: MAC  
 Comments: CC: G. R. COPE

Page No: 2-B  
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 Date: 20-AUG-89  
 Invoice #: I-8922723  
 P.O. #: 8920

## CERTIFICATE OF ANALYSIS A8922723

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447543	208	238	566	0.04	7	30	12	10	1	7	< 0.01	< 10	< 10	< 1	< 10	24
447544	208	238	672	0.03	4	10	10	10	< 1	4	< 0.01	10	< 10	< 1	< 10	26
7545	208	238	712	0.06	4	20	2	10	1	5	< 0.01	< 10	< 10	< 1	< 10	26
447546	208	238	486	0.01	3	20	4	5	1	9	< 0.01	< 10	< 10	< 1	< 10	20
447547	208	238	621	0.06	4	30	2	< 5	1	8	< 0.01	< 10	< 10	< 1	< 10	10
447548	208	238	46	0.19	59	1720	< 2	5	12	160	0.17	< 10	< 10	129	< 10	76
447549	208	238	525	0.01	7	100	16	30	1	36	< 0.01	< 10	< 10	< 1	< 10	34
447550	208	238	775	0.01	4	160	8	35	1	15	< 0.01	< 10	< 10	< 1	< 10	26
447551	208	238	420	0.02	7	20	2	20	1	7	< 0.01	< 10	< 10	< 1	< 10	26
447552	208	238	452	< 0.01	6	20	< 2	15	1	5	< 0.01	< 10	< 10	< 1	< 10	20
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447569	208	238	577	0.07	121	770	< 2	35	21	28	0.26	< 10	< 10	139	10	132
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447571	208	238	870	0.29	196	650	< 2	10	19	92	0.27	< 10	< 10	155	10	112
447572	208	238	959	0.10	263	540	< 2	< 5	16	19	0.24	< 10	< 10	124	10	94
447573	208	238	386	0.09	179	1370	< 2	< 5	20	22	0.32	< 10	< 10	131	< 10	116
447574	208	238	458	0.07	142	1490	< 2	< 5	28	16	0.35	< 10	< 10	145	< 10	146
447575	208	238	957	0.10	260	1370	< 2	5	15	31	0.27	< 10	< 10	101	10	106
447576	208	238	376	0.12	154	750	< 2	< 5	13	38	0.24	< 10	< 10	124	< 10	84
447577	208	238	847	0.10	178	580	< 2	< 5	16	28	0.25	< 10	< 10	107	< 10	96
447578	208	238	467	0.09	453	580	< 2	< 5	10	17	0.25	< 10	< 10	116	10	86
447579	208	238	219	0.12	293	960	< 2	< 5	9	20	0.23	< 10	< 10	97	< 10	68
447580	208	238	353	0.18	316	880	< 2	5	17	22	0.32	< 10	< 10	112	10	98

CERTIFICATION: *B. Coughlin*





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BRITISH COLUMBIA, CANADA V7J-2C1

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P.O. BOX 10335, PACIFIC CENTRE  
1650 - 609 GRANVILLE ST.  
VANCOUVER, BC  
V7Y 1G5

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Tot. Pages: 3  
Date: 20-AUG-89  
Invoice #: I-8922723  
P.O. #: 8920

## CERTIFICATE OF ANALYSIS A8922723

SAMPLE DESCRIPTION	PREP CODE		Mo	Al	Ag	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	La	Mg	Mn
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447581	208	238	0.044	4.83	1.0	< 5	630	< 0.5	< 2	1.94	0.5	48	713	637	5.99	< 10	1	3.00	< 10	3.63	1165
447582	208	238	0.127	0.55	1.2	60	80	< 0.5	< 2	0.85	< 0.5	12	136	818	1.76	< 10	< 1	0.29	< 10	0.46	310
447583	208	238	0.029	4.16	1.2	10	220	< 0.5	2	3.08	< 0.5	46	204	1185	5.20	< 10	< 1	1.19	< 10	1.83	820
447584	208	238	0.026	3.62	1.4	25	130	< 0.5	2	2.78	< 0.5	39	155	1235	4.33	< 10	5	0.78	< 10	1.48	675

CERTIFICATION : B. Coughlin



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Date: 20-AUG-89  
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P.O. # 18920

## CERTIFICATE OF ANALYSIS A8922723

SAMPLE DESCRIPTION	PREP CODE		Mo	Na	Ni	P	Pb	Sb	Sc	Sr	Ti	Tl	U	V	W	Zn
			ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
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447582	208	238	1305	0.01	38	130	< 2	< 5	4	6	0.03	< 10	< 10	17	< 10	36
447583	208	238	305	0.37	125	830	< 2	< 5	15	83	0.34	< 10	< 10	131	< 10	88
447584	208	238	269	0.37	123	1010	< 2	10	13	75	0.51	< 10	< 10	106	< 10	86

CERTIFICATION :

*B. Coughlin*



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112 BROOKSBANK AVE. NORTH VANCOUVER,  
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V7Y 1G5

Project: MAC  
Comments: CC: G COPE

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P.O. #: 8920

## CERTIFICATE OF ANALYSIS A8922799

SAMPLE DESCRIPTION	PREP CODE	Mo %	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
447585	208 238	0.039	0.82	2.0	60	40	< 0.5	< 2	0.57	< 0.5	3	142	468	1.07	< 10	< 1	0.22	10	0.12	140
447586	208 238	0.031	0.85	2.2	30	60	< 0.5	< 2	0.72	< 0.5	4	175	671	1.23	< 10	< 1	0.27	10	0.25	205
447587	208 238	0.053	1.84	0.6	20	120	< 0.5	< 2	0.40	0.5	13	291	1320	3.16	< 10	< 1	0.58	< 10	0.72	390
447588	208 238	0.050	1.02	0.8	45	70	< 0.5	< 2	0.33	< 0.5	5	132	981	1.99	< 10	2	0.27	10	0.29	275
447589	208 238	0.017	0.81	0.2	20	60	< 0.5	< 2	0.16	0.5	4	124	675	1.64	< 10	< 1	0.17	20	0.19	125
447590	208 238	0.058	0.98	0.2	70	30	< 0.5	< 2	0.04	1.5	3	111	705	0.79	< 10	2	0.12	< 10	0.03	25
447591	208 238	0.043	0.79	< 0.2	55	40	< 0.5	< 2	0.01	0.5	1	184	520	0.90	< 10	2	0.19	< 10	0.02	30
447592	208 238	0.097	0.98	0.4	70	30	< 0.5	< 2	0.02	0.5	1	152	519	0.69	< 10	3	0.13	10	0.01	125
447593	208 238	0.038	0.75	< 0.2	25	30	< 0.5	< 2	0.01	< 0.5	< 1	179	493	0.54	< 10	1	0.19	< 10	0.01	15
447594	208 238	0.030	0.38	0.2	< 5	20	< 0.5	< 2	0.03	< 0.5	2	132	339	0.65	< 10	< 1	0.19	< 10	0.03	65
447595	208 238	0.060	0.36	0.2	15	20	< 0.5	< 2	0.02	< 0.5	3	142	345	0.53	< 10	< 1	0.21	< 10	0.02	70
447596	208 238	0.035	0.44	0.4	< 5	20	< 0.5	2	0.09	0.5	3	111	519	0.52	< 10	< 1	0.21	< 10	0.03	60
447597	208 238	0.034	0.46	0.2	5	20	< 0.5	< 2	0.10	< 0.5	2	151	174	0.52	< 10	< 1	0.19	< 10	0.04	65
447598	208 238	0.106	0.36	0.4	< 5	20	< 0.5	< 2	0.08	< 0.5	3	139	478	0.49	< 10	< 1	0.21	< 10	0.03	40
447599	208 238	0.104	0.32	0.4	5	30	< 0.5	4	0.17	< 0.5	2	120	420	0.43	< 10	< 1	0.21	< 10	0.03	40
447600	208 238	0.069	0.36	0.6	10	20	< 0.5	2	0.10	< 0.5	3	143	520	0.49	< 10	< 1	0.19	< 10	0.05	30
447601	208 238	0.044	0.33	0.2	< 5	30	< 0.5	< 2	0.04	< 0.5	2	122	341	0.49	< 10	< 1	0.20	< 10	0.04	30
447602	208 238	0.060	0.46	0.4	< 5	20	< 0.5	< 2	0.05	< 0.5	4	163	508	0.86	< 10	< 1	0.21	< 10	0.04	35
447603	208 238	0.088	0.35	0.2	5	30	< 0.5	< 2	0.03	< 0.5	2	146	320	0.53	< 10	< 1	0.23	< 10	0.03	25
447604	208 238	0.100	0.38	1.0	10	30	< 0.5	< 2	0.04	< 0.5	4	175	945	0.80	< 10	1	0.21	< 10	0.04	35
447605	208 238	0.056	0.39	0.2	< 5	20	< 0.5	< 2	0.03	0.5	3	152	242	0.48	< 10	< 1	0.23	< 10	0.03	25
447606	208 238	0.054	0.34	0.2	< 5	30	< 0.5	< 2	0.03	0.5	2	165	523	0.60	< 10	< 1	0.22	< 10	0.03	30
447607	208 238	0.042	0.29	< 0.2	25	20	< 0.5	< 2	0.47	< 0.5	3	144	161	0.45	< 10	1	0.17	< 10	0.22	80
447608	208 238	0.082	0.34	0.4	< 5	30	< 0.5	2	0.05	< 0.5	2	137	523	0.54	< 10	< 1	0.24	< 10	0.04	30
447609	208 238	0.044	0.47	< 0.2	< 5	20	< 0.5	< 2	0.08	0.5	2	122	165	0.44	< 10	3	0.22	< 10	0.08	45
447610	208 238	0.084	0.35	0.2	< 5	20	< 0.5	< 2	0.03	0.5	2	147	372	0.45	< 10	< 1	0.20	< 10	0.03	20

CERTIFICATION :

*B. Coughlin*



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212 BROOKSBANK AVE. NORTH VANCOUVER,  
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10: RIO ALGOM EXPLORATION INC.  
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Project : MAC  
Comments: CC: G COPE

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Invoice #: I-8922799  
P.O. # : 8920

## CERTIFICATE OF ANALYSIS A8922799

SAMPLE DESCRIPTION	PREP CODE		Mo	Na	Ni	P	Pb	Sb	Sc	Sr	Ti	Tl	U	V	W	Zn
			ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
447585	208	238	431	0.04	9	60	16	5	1	12	< 0.01	< 10	< 10	7	< 10	18
447586	208	238	329	0.08	13	120	176	10	3	9	0.02	< 10	< 10	10	< 10	22
447587	208	238	561	0.05	44	270	16	5	10	11	0.04	< 10	< 10	72	< 10	66
447588	208	238	517	0.06	17	170	16	15	3	11	0.01	< 10	< 10	16	< 10	42
447589	208	238	192	0.08	6	200	2	5	2	11	0.01	< 10	< 10	15	< 10	28
447590	208	238	662	< 0.01	5	40	28	85	1	32	< 0.01	< 10	< 10	1	< 10	28
447591	208	238	517	0.01	3	10	4	25	< 1	13	< 0.01	< 10	< 10	< 1	< 10	12
447592	208	238	1025	< 0.01	3	40	24	85	< 1	31	< 0.01	< 10	< 10	< 1	< 10	16
447593	208	238	442	0.03	2	10	< 2	5	< 1	6	< 0.01	< 10	< 10	< 1	< 10	10
447594	208	238	316	0.05	2	20	10	< 5	1	3	< 0.01	< 10	< 10	< 1	< 10	14
447595	208	238	629	0.05	3	30	< 2	< 5	1	4	< 0.01	< 10	< 10	< 1	< 10	10
447596	208	238	392	0.04	3	20	6	5	1	6	< 0.01	< 10	< 10	< 1	< 10	16
447597	208	238	379	0.04	4	30	2	< 5	1	4	< 0.01	< 10	< 10	< 1	< 10	12
447598	208	238	1075	0.06	3	20	2	< 5	1	3	< 0.01	< 10	< 10	< 1	< 10	8
447599	208	238	1040	0.06	3	20	< 2	< 5	1	3	< 0.01	< 10	< 10	< 1	< 10	8
447600	208	238	712	0.06	3	30	4	< 5	1	3	< 0.01	< 10	< 10	< 1	< 10	10
447601	208	238	443	0.06	2	10	< 2	< 5	1	2	< 0.01	< 10	< 10	< 1	< 10	8
447602	208	238	594	0.04	3	20	< 2	< 5	1	3	< 0.01	< 10	< 10	< 1	< 10	10
447603	208	238	973	0.06	2	20	< 2	< 5	1	3	< 0.01	< 10	< 10	< 1	< 10	8
447604	208	238	1080	0.05	3	20	2	< 5	1	3	< 0.01	< 10	< 10	< 1	< 10	18
447605	208	238	609	0.08	3	< 10	4	< 5	1	4	< 0.01	< 10	< 10	< 1	< 10	6
447606	208	238	551	0.07	3	< 10	2	< 5	1	3	< 0.01	< 10	< 10	< 1	< 10	10
447607	208	238	432	0.06	4	< 10	8	< 5	2	7	< 0.01	< 10	< 10	< 1	< 10	8
447608	208	238	914	0.08	3	< 10	6	< 5	1	3	< 0.01	< 10	< 10	< 1	< 10	12
447609	208	238	468	0.04	3	< 10	4	< 5	2	5	< 0.01	< 10	< 10	< 1	< 10	10
447610	208	238	841	0.08	3	10	8	< 5	1	4	< 0.01	< 10	< 10	< 1	< 10	10

CERTIFICATION :

*B. Coughlin*





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Project: MAC

Comments: CC: G R COPE

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Invoice # : I-8922809  
P.O. # : 8920

## CERTIFICATE OF ANALYSIS A8922809

SAMPLE DESCRIPTION	PREP CODE	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
447611	208 238	536	0.03	3	20	12	< 5	1	4	< 0.01	< 10	< 10	< 1	< 10	6
447612	208 238	427	0.02	2	20	14	10	1	6	< 0.01	< 10	< 10	< 1	< 10	12
447613	208 238	1165	0.02	2	20	2	10	1	7	< 0.01	< 10	< 10	< 1	< 10	10
447614	208 238	1570	0.01	1	40	10	25	1	19	< 0.01	< 10	< 10	< 1	< 10	14
447615	208 238	575	0.02	2	20	6	30	1	14	< 0.01	< 10	< 10	< 1	< 10	14
447616	208 238	626	0.01	2	10	6	35	1	13	< 0.01	< 10	< 10	< 1	< 10	12
447617	208 238	1220	0.03	2	20	< 2	10	1	4	< 0.01	< 10	< 10	< 1	< 10	10
447618	208 238	833	0.03	2	20	2	5	1	5	< 0.01	< 10	< 10	< 1	< 10	8
447619	208 238	797	0.03	1	30	< 2	5	2	5	< 0.01	< 10	< 10	< 1	< 10	8
447620	208 238	516	0.02	1	20	4	5	1	5	< 0.01	< 10	< 10	< 1	< 10	8
447621	208 238	618	0.03	3	20	4	5	1	4	< 0.01	< 10	< 10	< 1	< 10	6
447622	208 238	485	0.04	2	10	2	5	1	7	< 0.01	< 10	< 10	< 1	< 10	4
447623	208 238	517	< 0.01	2	30	2	70	1	20	< 0.01	10	10	< 1	< 10	12
447624	208 238	380	0.01	2	20	2	5	1	10	< 0.01	< 10	< 10	< 1	< 10	8
447625	208 238	311	0.02	2	20	< 2	5	1	6	< 0.01	< 10	< 10	< 1	< 10	8
447626	208 238	511	0.03	2	20	< 2	< 5	1	5	< 0.01	< 10	< 10	< 1	< 10	6
447627	208 238	342	0.03	2	20	< 2	5	1	4	< 0.01	< 10	< 10	< 1	< 10	8
447628	208 238	451	0.02	1	30	< 2	5	1	5	< 0.01	10	< 10	< 1	< 10	10
447629	208 238	1010	0.02	2	30	4	10	1	8	< 0.01	< 10	< 10	< 1	< 10	28
447630	208 238	366	0.03	2	10	< 2	< 5	1	3	< 0.01	< 10	< 10	< 1	< 10	8
447631	208 238	350	0.03	4	20	< 2	< 5	1	4	< 0.01	< 10	10	< 1	< 10	8
447632	208 238	428	0.02	4	30	< 2	5	1	8	< 0.01	< 10	< 10	< 1	< 10	6
447633	208 238	353	0.03	3	10	4	5	1	6	< 0.01	< 10	< 10	< 1	< 10	6
447634	208 238	483	0.04	2	20	4	5	2	7	< 0.01	< 10	< 10	< 1	< 10	6
447635	208 238	525	0.02	2	20	< 2	10	2	9	< 0.01	< 10	< 10	< 1	< 10	8
447636	208 238	418	< 0.01	1	40	10	35	1	44	< 0.01	< 10	< 10	< 1	< 10	10
447637	208 238	324	< 0.01	2	20	4	50	< 1	23	< 0.01	< 10	< 10	< 1	< 10	10
447638	208 238	377	< 0.01	3	20	8	55	< 1	26	< 0.01	< 10	< 10	< 1	< 10	8
447639	208 238	425	< 0.01	2	10	2	95	1	20	< 0.01	< 10	< 10	< 1	< 10	16
447640	208 238	456	< 0.01	4	10	2	30	1	17	< 0.01	< 10	< 10	< 1	< 10	6
447641	208 238	627	< 0.01	3	10	4	25	1	18	< 0.01	< 10	< 10	< 1	< 10	8
447642	208 238	758	0.29	194	360	< 2	15	13	32	0.30	< 10	< 10	117	< 10	70
447643	208 238	129	0.33	143	300	< 2	10	11	57	0.27	< 10	< 10	104	< 10	84
447644	208 238	928	0.33	194	1280	< 2	15	15	185	0.35	< 10	< 10	100	< 10	70
447645	208 238	>10000	0.05	89	110	< 2	90	5	16	0.08	30	< 10	< 1	20	110
447646	208 238	956	0.39	108	210	< 2	10	12	76	0.22	< 10	< 10	95	< 10	82
447647	208 238	355	0.30	117	500	< 2	10	12	91	0.21	< 10	< 10	116	< 10	112
447648	208 238	155	0.33	42	440	2	10	16	84	0.35	< 10	< 10	170	< 10	86
447649	208 238	2030	0.25	60	410	< 2	20	15	164	0.36	< 10	< 10	155	< 10	104
447650	208 238	1195	0.25	101	390	< 2	20	14	76	0.28	< 10	< 10	145	< 10	88

CERTIFICATION :

*B. Coughlin*



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Project: MAC  
Comments: CC: G R COPE

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## CERTIFICATE OF ANALYSIS A8922809

SAMPLE DESCRIPTION	PREP CODE	Mo %	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
447651	208 238	0.100	3.77	0.4	20	120	< 0.5	< 2	2.30	< 0.5	32	363	1605	4.02	< 10	< 1	1.40	< 10	2.26	670
447652	208 238	0.288	3.84	0.8	40	90	< 0.5	< 2	2.42	< 0.5	33	379	2140	3.86	< 10	< 1	0.73	< 10	1.59	510
447653	208 238	0.096	3.44	1.0	35	80	< 0.5	< 2	3.10	< 0.5	33	337	2830	5.05	< 10	< 1	0.61	< 10	1.25	670
447654	208 238	0.126	3.87	0.4	25	100	< 0.5	< 2	3.32	< 0.5	33	142	1410	4.98	< 10	< 1	0.90	< 10	1.68	820
447655	208 238	0.158	2.70	1.0	5	80	< 0.5	< 2	3.19	< 0.5	34	197	2890	4.76	< 10	< 1	0.51	< 10	1.22	1110
447656	208 238	0.113	2.82	0.8	45	40	< 0.5	< 2	5.48	0.5	41	313	2890	4.91	< 10	< 1	0.28	< 10	1.10	1330
447657	208 238	0.038	3.34	0.8	35	270	< 0.5	< 2	3.51	< 0.5	44	777	1220	5.29	< 10	< 1	2.12	< 10	3.88	1430
447658	208 238	0.095	2.34	0.6	45	180	0.5	< 2	2.20	< 0.5	34	448	2120	4.56	10	1	1.17	10	2.08	1195
447659	208 238	0.083	2.43	1.4	20	210	< 0.5	< 2	1.28	< 0.5	46	408	4260	6.64	< 10	2	1.55	10	2.21	1095
447660	208 238	0.106	2.03	0.6	10	250	< 0.5	< 2	0.98	< 0.5	31	351	1835	4.30	< 10	< 1	1.37	10	1.94	825
447661	208 238	0.112	3.17	0.8	40	330	< 0.5	< 2	1.50	< 0.5	37	674	1350	5.05	< 10	2	2.17	10	3.43	1060
447662	208 238	0.062	3.26	0.4	100	270	< 0.5	< 2	2.60	4.5	45	571	2090	6.08	10	< 1	1.83	< 10	3.29	1185
447663	208 238	0.114	3.00	1.4	85	330	< 0.5	< 2	1.42	< 0.5	46	772	3180	5.52	< 10	< 1	1.81	10	2.69	1015
447664	208 238	0.048	4.18	0.6	45	390	0.5	< 2	1.16	< 0.5	47	815	1870	5.97	< 10	< 1	2.78	10	4.13	965
447665	208 238	0.148	3.89	< 0.2	20	240	< 0.5	< 2	1.97	< 0.5	38	793	629	4.82	< 10	< 1	2.86	10	4.69	1425
447666	208 238	0.124	3.53	1.0	150	240	< 0.5	< 2	1.12	2.0	34	504	2740	4.45	< 10	< 1	1.89	10	3.06	850
447667	208 238	0.141	3.91	0.8	125	220	0.5	< 2	0.85	3.5	47	843	1960	4.79	10	< 1	2.02	10	3.33	810
447668	208 238	0.177	3.44	1.0	70	300	< 0.5	< 2	0.70	2.5	32	508	2130	5.07	10	< 1	2.12	10	2.97	865

CERTIFICATION :

*B. Coughlin*



# Chemex Labs Ltd.

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Project: MAC  
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## CERTIFICATE OF ANALYSIS A8922809

SAMPLE DESCRIPTION	PREP CODE	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
447651	208 238	1145	0.28	126	400	< 2	10	9	42	0.28	< 10	< 10	96	< 10	86
447652	208 238	3050	0.28	201	690	< 2	25	10	44	0.29	< 10	< 10	60	< 10	94
447653	208 238	1085	0.28	137	600	< 2	10	10	57	0.24	< 10	< 10	86	< 10	92
447654	208 238	1505	0.25	61	350	< 2	20	17	58	0.30	< 10	< 10	147	< 10	86
447655	208 238	1760	0.24	76	280	< 2	10	12	36	0.26	< 10	< 10	181	< 10	114
447656	208 238	1275	0.25	156	290	< 2	10	12	50	0.19	< 10	< 10	105	< 10	104
447657	208 238	389	0.03	447	690	< 2	15	16	29	0.31	< 10	< 10	120	< 10	128
447658	208 238	1060	0.04	209	690	< 2	10	12	21	0.28	< 10	< 10	109	< 10	98
447659	208 238	858	0.08	182	990	< 2	10	16	15	0.40	< 10	< 10	121	< 10	130
447660	208 238	1120	0.07	79	520	< 2	10	15	14	0.26	< 10	< 10	95	< 10	84
447661	208 238	1145	0.12	227	600	< 2	10	21	31	0.33	< 10	< 10	141	< 10	114
447662	208 238	662	0.19	209	780	56	15	22	68	0.29	< 10	< 10	165	< 10	120
447663	208 238	1265	0.12	204	750	< 2	15	25	27	0.33	< 10	< 10	143	< 10	130
447664	208 238	583	0.07	306	630	< 2	25	26	33	0.34	< 10	< 10	157	< 10	140
447665	208 238	1580	0.07	399	610	< 2	15	13	20	0.37	< 10	< 10	114	< 10	116
447666	208 238	1335	0.05	258	850	< 2	20	13	20	0.30	< 10	< 10	110	< 10	158
447667	208 238	1525	0.04	452	770	10	25	17	17	0.24	< 10	< 10	109	< 10	230
447668	208 238	1995	0.04	188	810	< 2	25	18	13	0.30	< 10	< 10	106	< 10	210

CERTIFICATION : B. Coughlin





# Chemex Labs Ltd.

Analytical Chemists • Geochemists • Registered Assayers

212 BROOKSBANK AVE., NORTH VANCOUVER,  
BRITISH COLUMBIA, CANADA V7J-2C1

PHONE (604) 984-0221

To: RIO ALGOM EXPLORATION INC.  
P.O. BOX 10335, PACIFIC CENTRE  
1650 - 609 GRANVILLE ST.  
VANCOUVER, BC  
V7Y 1G5

Project: MAC  
Comments: CC: G COPE

Page No.: 1-A  
Tot. Pages: 1  
Date: 20-AUG-89  
Invoice #: I-8922930  
P.O. #: 8920

## CERTIFICATE OF ANALYSIS A8922930

SAMPLE DESCRIPTION	PREP CODE	Mb %	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
447669	208 238	0.078	2.55	4.0	30	230	2.0	< 2	0.36	3.0	26	308	3740	4.39	10	< 1	1.49	10	1.89	670
447670	208 238	0.136	1.32	5.0	30	80	0.5	4	0.57	4.5	20	330	3690	2.78	< 10	< 1	0.49	< 10	0.82	360
447671	208 238	0.099	2.48	3.8	70	180	2.5	< 2	0.55	7.0	22	250	3090	4.14	10	< 1	1.08	10	1.35	500
447672	208 238	0.138	0.42	3.4	40	20	< 0.5	< 2	0.13	4.5	5	297	2570	1.34	< 10	< 1	0.17	< 10	0.13	95
447673	208 238	0.110	0.60	4.2	25	30	1.0	< 2	0.23	5.0	9	273	3810	1.95	< 10	< 1	0.23	< 10	0.32	205
447674	208 238	0.052	1.55	3.4	180	90	1.0	2	0.26	8.0	15	256	2850	2.60	< 10	< 1	0.65	< 10	0.80	320
447675	208 238	0.054	0.41	0.8	20	20	0.5	< 2	0.14	0.5	2	159	539	0.88	< 10	< 1	0.26	< 10	0.11	80
447676	208 238	0.076	0.46	1.4	45	20	0.5	< 2	0.18	2.5	4	155	808	1.39	< 10	< 1	0.22	10	0.11	95
447677	208 238	0.049	0.64	2.6	40	20	0.5	< 2	0.18	1.5	4	165	1300	1.71	< 10	< 1	0.21	20	0.11	125
447678	208 238	0.038	0.36	0.8	25	20	< 0.5	< 2	0.23	0.5	1	117	233	0.54	< 10	< 1	0.27	< 10	0.09	105
447679	208 238	0.068	0.35	1.4	60	20	< 0.5	2	0.10	8.5	2	155	315	0.63	< 10	< 1	0.17	< 10	0.04	60
447680	208 238	0.045	0.44	1.6	85	20	< 0.5	< 2	0.19	8.5	4	134	714	1.21	< 10	< 1	0.15	20	0.07	105
447681	208 238	0.030	0.33	1.0	15	20	< 0.5	< 2	0.10	2.0	1	136	339	0.49	< 10	< 1	0.18	< 10	0.03	105
447682	208 238	0.069	0.40	1.8	10	10	< 0.5	2	0.09	2.0	2	125	592	0.63	< 10	< 1	0.15	< 10	0.04	65
447683	208 238	0.042	0.46	1.2	55	20	< 0.5	2	0.07	6.5	1	146	338	0.66	< 10	< 1	0.19	< 10	0.06	25
447684	208 238	0.010	4.10	0.6	20	50	< 0.5	< 2	2.82	< 0.5	43	69	622	6.51	10	< 1	0.60	< 10	1.62	450
447685	208 238	0.006	2.01	0.2	25	10	0.5	< 2	3.39	< 0.5	38	49	479	5.53	< 10	< 1	0.03	< 10	1.00	1105
447686	208 238	0.002	1.60	< 0.2	55	10	0.5	< 2	5.21	< 0.5	34	48	116	7.08	< 10	< 1	0.31	< 10	2.68	1000
447687	208 238	0.048	3.55	< 0.2	< 5	80	< 0.5	< 2	3.69	0.5	32	121	375	3.42	< 10	< 1	0.44	< 10	1.28	605
447688	208 238	0.410	3.67	< 0.2	25	40	< 0.5	< 2	4.52	< 0.5	37	129	574	4.14	< 10	< 1	0.23	< 10	1.20	995
447689	208 238	0.053	3.36	< 0.2	30	140	0.5	< 2	3.51	< 0.5	30	82	411	3.41	< 10	< 1	0.34	< 10	1.03	755
447690	208 238	0.026	3.31	< 0.2	15	160	< 0.5	< 2	3.12	< 0.5	34	161	492	4.03	< 10	< 1	0.44	< 10	1.42	630
447691	208 238	0.028	2.62	< 0.2	25	80	< 0.5	< 2	3.51	< 0.5	31	167	442	5.00	< 10	< 1	0.60	< 10	1.59	1455
447692	208 238	0.064	1.83	0.6	15	30	< 0.5	< 2	2.42	< 0.5	30	38	1080	5.09	< 10	< 1	0.21	< 10	0.73	530
447693	208 238	0.024	0.36	0.4	15	10	< 0.5	< 2	0.20	< 0.5	4	135	191	1.09	< 10	< 1	0.19	< 10	0.07	90
447694	208 238	0.005	1.92	0.6	25	40	< 0.5	< 2	2.40	< 0.5	43	98	1115	5.72	< 10	< 1	0.38	< 10	1.04	720
447695	208 238	0.010	5.08	< 0.2	35	60	< 0.5	< 2	2.64	< 0.5	56	928	124	5.99	10	< 1	2.43	10	7.16	1035
447696	208 238	0.017	0.59	0.4	5	10	< 0.5	2	0.33	< 0.5	2	151	45	0.59	< 10	< 1	0.22	< 10	0.29	100
447697	208 238	0.019	1.26	< 0.2	70	10	0.5	< 2	3.90	< 0.5	30	723	146	2.86	< 10	< 1	0.84	< 10	3.35	1100

CERTIFICATION :

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 VANCOUVER, BC  
 V7Y 1G5

Project: MAC  
 Comments: CC: G COPF

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 Date: 20-AUG-89  
 Invoice #: I-8922930  
 P.O. #: 8920

## CERTIFICATE OF ANALYSIS A8922930

SAMPLE DESCRIPTION	PREP CODE	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
447669	208 238	803	0.02	84	570	< 2	20	15	10	0.24	< 10	< 10	106	< 10	158
447670	208 238	1535	< 0.01	59	400	52	35	8	10	0.06	< 10	< 10	40	< 10	144
447671	208 238	1075	0.01	62	1230	8	35	15	24	0.15	< 10	< 10	79	< 10	260
447672	208 238	1530	0.04	15	50	16	15	2	5	< 0.01	< 10	< 10	< 1	< 10	186
447673	208 238	1155	0.01	23	120	8	10	4	6	0.03	< 10	< 10	17	< 10	162
447674	208 238	594	0.03	43	250	32	10	9	14	0.07	10	10	50	< 10	316
447675	208 238	561	0.05	9	20	4	5	2	5	< 0.01	< 10	< 10	3	< 10	20
447676	208 238	811	0.05	3	40	14	15	4	7	< 0.01	10	< 10	3	< 10	70
447677	208 238	519	0.04	4	60	32	25	4	19	< 0.01	10	< 10	7	< 10	62
447678	208 238	436	0.04	3	20	8	5	2	11	< 0.01	10	< 10	< 1	< 10	44
447679	208 238	691	0.06	6	40	42	20	1	12	< 0.01	10	10	< 1	< 10	680
447680	208 238	480	0.03	6	40	54	40	3	10	< 0.01	< 10	< 10	2	< 10	258
447681	208 238	310	0.07	4	20	6	5	2	6	< 0.01	< 10	< 10	< 1	< 10	64
447682	208 238	733	0.05	3	30	8	5	1	10	< 0.01	< 10	< 10	< 1	< 10	58
447683	208 238	462	0.04	4	20	12	5	1	10	< 0.01	< 10	< 10	< 1	< 10	314
447684	208 238	106	0.46	50	460	< 2	5	17	76	0.26	< 10	< 10	176	< 10	60
447685	208 238	56	0.20	32	400	< 2	5	17	49	0.30	< 10	< 10	131	< 10	152
447686	208 238	12	0.02	34	210	< 2	10	27	37	0.05	< 10	< 10	121	< 10	104
447687	208 238	484	0.38	60	140	< 2	5	13	72	0.14	< 10	< 10	84	< 10	58
447688	208 238	4100	0.42	82	260	< 2	20	15	60	0.10	< 10	< 10	160	10	74
447689	208 238	575	0.41	81	170	< 2	10	9	67	0.12	< 10	< 10	110	< 10	64
447690	208 238	291	0.34	72	180	< 2	10	15	66	0.23	< 10	< 10	108	< 10	66
447691	208 238	301	0.29	87	480	< 2	5	18	46	0.17	< 10	< 10	121	< 10	100
447692	208 238	643	0.22	32	560	< 2	10	14	66	0.39	< 10	< 10	155	< 10	60
447693	208 238	240	0.07	14	10	< 2	< 5	1	2	< 0.01	< 10	10	1	< 10	6
447694	208 238	38	0.21	53	470	< 2	5	15	30	0.36	< 10	< 10	140	< 10	76
447695	208 238	99	0.03	594	510	< 2	15	22	38	0.13	< 10	< 10	129	< 10	110
447696	208 238	192	0.07	29	30	< 2	< 5	2	6	< 0.01	< 10	< 10	2	< 10	6
447697	208 238	218	0.01	600	60	< 2	10	8	21	0.02	< 10	< 10	27	< 10	72

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Project : MAC  
 Comments: CC: G COPE

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 Date : 29-AUG-89  
 Invoice # : I-8923352  
 P.O. # : 8920

## CERTIFICATE OF ANALYSIS A8923352

SAMPLE DESCRIPTION	PREP CODE	Mb %	Al %	Ag ppm	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm
447698	208 238	0.036	0.41	1.0	10	20	< 0.5	2	0.21	0.5	4	151	362	1.23	< 10	< 1	0.18	10	0.14	95
447699	208 238	0.029	0.43	1.2	10	10	< 0.5	< 2	0.26	0.5	2	106	309	0.93	< 10	< 1	0.12	10	0.14	60
447700	208 238	0.033	0.32	0.8	20	10	< 0.5	2	0.15	< 0.5	2	147	221	0.70	< 10	< 1	0.10	< 10	0.08	45
447701	208 238	0.020	0.52	0.6	20	10	< 0.5	< 2	0.23	< 0.5	1	159	197	0.59	< 10	< 1	0.16	< 10	0.12	65
447702	208 238	0.022	0.21	0.4	10	10	< 0.5	< 2	0.13	< 0.5	< 1	140	177	0.57	< 10	< 1	0.10	< 10	0.06	45
447703	208 238	0.009	0.53	0.4	30	20	< 0.5	< 2	0.26	< 0.5	1	147	186	0.73	< 10	< 1	0.17	10	0.13	70
447704	208 238	0.029	0.27	0.8	15	20	< 0.5	4	0.25	< 0.5	3	97	348	1.32	< 10	< 1	0.12	10	0.14	75
447705	208 238	0.046	4.24	< 0.2	35	120	2.5	2	2.11	< 0.5	36	528	670	3.88	< 10	4	1.99	< 10	3.70	880
447706	208 238	0.030	0.25	0.6	10	10	< 0.5	< 2	0.29	< 0.5	2	109	154	0.86	< 10	< 1	0.11	< 10	0.15	125
447707	208 238	0.027	0.41	0.6	15	10	< 0.5	< 2	0.39	< 0.5	1	151	147	0.75	< 10	1	0.24	< 10	0.15	395
447708	208 238	0.027	0.77	1.2	25	20	0.5	8	0.74	< 0.5	4	120	255	1.20	< 10	< 1	0.26	10	0.35	305
447709	208 238	0.019	0.84	0.6	45	20	1.0	2	0.84	< 0.5	6	124	198	1.03	< 10	< 1	0.21	10	0.32	330
447710	208 238	0.019	0.38	0.6	45	10	0.5	< 2	0.37	< 0.5	2	64	126	0.93	< 10	< 1	0.13	10	0.12	200
447711	208 238	0.009	0.89	0.2	10	130	0.5	< 2	0.45	< 0.5	6	168	136	1.84	< 10	< 1	0.38	10	0.30	385

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SAMPLE DESCRIPTION	PREP CODE	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Si ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
447698	208 238	445	0.04	30	60	10	< 5	1	5	< 0.01	< 10	< 10	2	< 10	12
447699	208 238	339	0.02	14	40	< 2	10	< 1	10	< 0.01	< 10	< 10	< 1	< 10	14
447700	208 238	421	0.03	5	30	20	< 5	< 1	6	< 0.01	< 10	< 10	< 1	< 10	6
447701	208 238	251	0.04	4	30	4	< 5	< 1	6	< 0.01	< 10	< 10	< 1	< 10	< 2
447702	208 238	260	0.04	3	40	< 2	< 5	< 1	3	< 0.01	< 10	< 10	< 1	< 10	< 2
7703	208 238	107	0.05	5	20	< 2	< 5	1	10	< 0.01	< 10	< 10	< 1	< 10	6
447704	208 238	359	0.03	14	50	< 2	< 5	1	3	< 0.01	< 10	< 10	1	< 10	4
447705	208 238	582	0.15	277	220	2	15	15	33	0.15	< 10	< 10	105	< 10	76
447706	208 238	370	0.03	10	40	< 2	< 5	1	3	< 0.01	< 10	< 10	1	< 10	< 2
447707	208 238	319	0.06	5	40	2	10	2	4	< 0.01	< 10	< 10	1	< 10	< 2
447708	208 238	372	0.03	13	40	12	15	3	10	< 0.01	< 10	< 10	12	< 10	6
447709	208 238	239	0.02	13	90	8	10	4	20	< 0.01	< 10	< 10	11	< 10	6
447710	208 238	260	< 0.01	< 1	90	10	15	1	15	< 0.01	< 10	< 10	1	< 10	< 2
447711	208 238	129	0.07	4	280	< 2	< 5	3	11	0.04	< 10	< 10	18	< 10	14

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## CERTIFICATE OF ANALYSIS A8923411

SAMPLE DESCRIPTION	PREP CODE		Mo	Al	Ag	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	La	Mg	Mn
			%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
447712	208	238	0.019	0.60	0.2	35	80	0.5	< 2	0.14	1.0	3	91	341	1.55	< 10	< 1	0.19	< 10	0.18	120
447713	208	238	0.045	0.60	0.4	45	40	0.5	< 2	0.41	0.5	4	74	390	2.05	< 10	< 1	0.14	10	0.21	275
447714	208	238	0.017	0.23	0.2	5	30	< 0.5	< 2	0.05	0.5	< 1	86	154	0.70	< 10	< 1	0.08	< 10	0.04	40
447715	208	238	0.039	0.22	0.6	5	20	< 0.5	< 2	0.03	< 0.5	3	92	236	1.10	< 10	< 1	0.11	< 10	0.02	95
47716	208	238	0.031	0.40	0.6	20	10	< 0.5	< 2	0.03	< 0.5	2	170	154	0.63	< 10	< 1	0.23	< 10	0.02	35
447717	208	238	0.035	0.20	0.8	30	10	< 0.5	< 2	0.02	< 0.5	2	81	194	0.74	< 10	< 1	0.09	< 10	0.02	55
447718	208	238	0.027	0.39	0.6	< 5	10	< 0.5	< 2	0.03	< 0.5	2	163	102	0.66	< 10	< 1	0.22	< 10	0.02	45
447719	208	238	0.036	0.22	0.6	10	10	< 0.5	< 2	0.04	< 0.5	2	94	156	0.55	< 10	< 1	0.11	< 10	0.02	20
447720	208	238	0.050	0.20	0.6	30	10	< 0.5	< 2	0.02	< 0.5	2	94	285	0.98	< 10	< 1	0.11	< 10	0.01	15
447721	208	238	0.044	0.23	0.4	30	10	< 0.5	< 2	0.03	< 0.5	2	113	193	0.68	< 10	< 1	0.11	< 10	0.01	25
447722	208	238	0.091	0.41	0.6	35	10	< 0.5	< 2	0.03	< 0.5	2	140	294	0.87	< 10	< 1	0.20	< 10	0.02	60
447723	208	238	0.041	0.25	0.6	25	10	< 0.5	< 2	0.03	< 0.5	2	111	187	0.60	< 10	< 1	0.09	< 10	0.01	25
447724	208	238	0.052	0.33	0.4	< 5	10	< 0.5	< 2	0.04	< 0.5	2	157	152	0.50	< 10	< 1	0.16	< 10	0.02	30
447725	208	238	0.020	0.37	0.4	20	10	< 0.5	< 2	0.10	< 0.5	2	177	127	0.58	< 10	< 1	0.16	< 10	0.04	25
447726	208	238	0.061	0.15	0.6	15	10	< 0.5	< 2	0.09	< 0.5	2	88	137	0.65	< 10	< 1	0.08	< 10	0.03	40
447727	208	238	0.060	0.17	0.2	20	10	< 0.5	< 2	0.03	< 0.5	< 1	97	161	0.52	< 10	< 1	0.09	< 10	0.02	40
447728	208	238	0.032	0.38	0.2	30	20	< 0.5	< 2	0.05	< 0.5	2	177	304	1.04	< 10	< 1	0.19	10	0.05	135
447729	208	238	0.032	0.23	0.2	25	10	< 0.5	< 2	0.02	< 0.5	< 1	133	219	0.71	< 10	< 1	0.13	< 10	0.01	55
447730	208	238	0.049	0.22	0.4	40	10	< 0.5	< 2	0.03	< 0.5	2	128	430	0.81	< 10	< 1	0.11	< 10	0.02	50
447731	208	238	0.030	0.45	0.4	20	20	< 0.5	< 2	0.04	< 0.5	< 1	190	111	0.61	< 10	< 1	0.25	< 10	0.02	35
447732	208	238	0.020	0.03	0.2	40	< 10	< 0.5	< 2	0.01	< 0.5	4	40	5	0.20	< 10	< 1	0.02	< 10	0.78	30
447733	208	238	0.007	1.08	< 0.2	< 5	10	1.0	< 2	0.47	< 0.5	35	1075	60	2.91	< 10	< 1	1.12	< 10	6.79	680
447734	208	238	0.046	0.79	< 0.2	20	20	0.5	< 2	0.42	< 0.5	55	808	77	3.96	< 10	< 1	0.28	< 10	13.50	740
447735	208	238	0.042	0.62	< 0.2	10	< 10	0.5	< 2	0.55	< 0.5	53	1000	112	3.36	< 10	< 1	0.42	< 10	7.06	730
17736	208	238	0.102	1.09	< 0.2	10	10	1.0	< 2	0.62	< 0.5	63	1095	168	4.44	< 10	< 1	0.87	< 10	14.00	945
447737	208	238	0.004	0.91	< 0.2	90	< 10	0.5	< 2	0.11	< 0.5	66	905	176	4.56	< 10	< 1	0.68	< 10	> 15.00	700
447738	208	238	0.060	1.12	< 0.2	< 5	10	< 0.5	< 2	0.11	< 0.5	53	842	78	2.90	< 10	< 1	1.27	< 10	9.11	650
447739	208	238	0.044	1.64	< 0.2	< 5	10	< 0.5	< 2	0.13	< 0.5	66	1075	160	3.64	< 10	< 1	1.66	< 10	10.40	530
447740	208	238	0.088	0.96	< 0.2	< 5	10	< 0.5	< 2	0.33	< 0.5	48	956	74	2.72	< 10	< 1	1.04	< 10	7.51	760
447741	208	238	0.024	1.01	< 0.2	< 5	< 10	< 0.5	< 2	0.23	< 0.5	74	996	188	3.92	< 10	< 1	0.94	< 10	12.15	750
447742	208	238	0.036	0.85	< 0.2	< 5	< 10	< 0.5	< 2	0.41	< 0.5	67	778	187	3.33	< 10	< 1	0.82	< 10	10.50	785
447743	208	238	0.040	0.83	< 0.2	< 5	< 10	< 0.5	< 2	0.14	< 0.5	68	789	191	3.61	< 10	< 1	0.80	< 10	11.00	685
447744	208	238	0.032	1.76	0.2	< 5	< 10	0.5	< 2	0.07	< 0.5	71	1285	256	3.68	< 10	< 1	1.69	< 10	10.60	585
447745	208	238	0.007	3.48	0.2	15	< 10	0.5	< 2	0.33	< 0.5	56	670	638	3.54	< 10	< 1	2.62	< 10	7.77	190
447746	208	238	0.006	1.53	< 0.2	10	< 10	< 0.5	< 2	0.90	< 0.5	71	990	149	3.50	< 10	< 1	1.23	< 10	13.20	665
447747	208	238	0.015	2.59	< 0.2	40	30	< 0.5	< 2	0.37	< 0.5	38	707	182	2.29	< 10	< 1	2.47	< 10	5.47	190
447748	208	238	0.014	2.33	< 0.2	10	20	1.0	< 2	1.89	< 0.5	53	1060	143	2.86	< 10	< 1	2.50	< 10	9.08	655

CERTIFICATION :

*B. Coughlin*



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
 212 BROOKSBANK AVE., NORTH VANCOUVER,  
 BRITISH COLUMBIA, CANADA V7J-2C1  
 PHONE (604) 984-0221

To: RIO ALGOM EXPLORATION INC.  
 P.O. BOX 10335, PACIFIC CENTRE  
 1650 - 609 GRANVILLE ST.  
 VANCOUVER, BC  
 V7Y 1G5  
 Project: MAC  
 Comments: CC: GRAHAM COPE - RIO ALGOM

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 Date : 6-SEP-89  
 Invoice #: I-8923411  
 P.O. #: 8920

## CERTIFICATE OF ANALYSIS A8923411

SAMPLE DESCRIPTION	PREP CODE		Mo	Na	Ni	P	Pb	Sb	Sc	Sr	Ti	Tl	U	V	W	Zn
			ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
447712	208	238	196	0.02	4	180	2	< 5	2	8	0.02	< 10	< 10	7	< 10	52
447713	208	238	451	0.01	4	440	12	< 5	2	11	0.01	< 10	< 10	8	< 10	36
447714	208	238	169	0.02	3	10	6	< 5	< 1	3	< 0.01	< 10	< 10	< 1	< 10	20
447715	208	238	397	0.02	< 1	10	< 2	< 5	< 1	2	< 0.01	< 10	< 10	< 1	< 10	12
447716	208	238	308	0.05	1	10	< 2	< 5	< 1	2	< 0.01	< 10	< 10	< 1	< 10	6
447717	208	238	343	0.02	3	10	< 2	< 5	< 1	2	< 0.01	< 10	< 10	< 1	< 10	8
447718	208	238	259	0.05	1	30	6	< 5	< 1	3	< 0.01	< 10	< 10	< 1	< 10	8
447719	208	238	354	0.03	4	< 10	2	< 5	< 1	3	< 0.01	< 10	< 10	< 1	< 10	10
447720	208	238	482	0.03	1	< 10	< 2	< 5	< 1	2	< 0.01	< 10	< 10	< 1	< 10	6
447721	208	238	417	0.03	< 1	< 10	12	< 5	< 1	4	< 0.01	< 10	< 10	< 1	< 10	26
447722	208	238	865	0.04	1	< 10	< 2	< 5	< 1	3	< 0.01	< 10	< 10	< 1	< 10	12
447723	208	238	395	0.01	< 1	10	2	< 5	< 1	4	< 0.01	< 10	< 10	< 1	< 10	10
447724	208	238	504	0.06	< 1	10	12	< 5	< 1	3	< 0.01	< 10	< 10	< 1	< 10	8
447725	208	238	184	0.06	< 1	< 10	2	< 5	< 1	4	< 0.01	< 10	< 10	< 1	< 10	6
447726	208	238	542	0.02	2	< 10	< 2	< 5	< 1	2	< 0.01	< 10	< 10	< 1	< 10	8
447727	208	238	659	0.04	< 1	30	< 2	5	1	1	< 0.01	< 10	< 10	< 1	< 10	8
447728	208	238	333	0.10	< 1	40	< 2	5	2	2	< 0.01	< 10	< 10	2	< 10	12
447729	208	238	357	0.05	< 1	10	< 2	5	1	2	< 0.01	< 10	< 10	< 1	< 10	10
447730	208	238	496	0.04	< 1	< 10	4	5	< 1	3	< 0.01	< 10	< 10	< 1	< 10	10
447731	208	238	306	0.07	< 1	20	4	5	1	3	< 0.01	< 10	< 10	2	< 10	< 2
447732	208	238	1	< 0.01	77	80	< 2	< 5	< 1	< 1	< 0.01	< 10	< 10	2	< 10	2
447733	208	238	56	0.02	691	90	< 2	5	5	4	0.01	10	< 10	31	< 10	52
447734	208	238	356	0.01	1255	< 10	< 2	< 5	8	10	< 0.01	10	< 10	22	< 10	44
447735	208	238	351	0.01	1195	90	< 2	< 5	7	10	< 0.01	< 10	< 10	29	< 10	28
447736	208	238	847	0.02	1465	< 10	< 2	5	8	11	0.01	< 10	< 10	35	< 10	54
447737	208	238	27	0.02	1665	< 10	< 2	< 5	7	3	0.01	< 10	< 10	25	< 10	50
447738	208	238	462	0.03	989	< 10	< 2	< 5	5	3	0.02	< 10	< 10	24	10	58
447739	208	238	336	0.04	1170	60	< 2	< 5	8	4	0.05	< 10	< 10	57	10	56
447740	208	238	724	0.03	904	< 10	< 2	< 5	5	5	0.01	< 10	< 10	22	10	54
447741	208	238	194	0.02	1410	10	< 2	< 5	8	4	0.02	< 10	< 10	36	10	56
447742	208	238	287	0.02	1380	< 10	< 2	< 5	6	9	0.01	< 10	< 10	23	10	52
447743	208	238	328	0.02	1365	< 10	< 2	< 5	7	5	< 0.01	< 10	< 10	23	10	52
447744	208	238	242	0.04	1335	30	< 2	< 5	7	8	0.04	< 10	< 10	57	10	52
447745	208	238	51	0.07	611	270	< 2	< 5	13	3	0.15	< 10	< 10	137	10	68
447746	208	238	37	0.05	1315	10	< 2	< 5	10	25	0.06	< 10	< 10	51	20	54
447747	208	238	129	0.07	658	140	< 2	< 5	11	9	0.12	< 10	< 10	94	< 10	34
447748	208	238	101	0.08	955	130	< 2	< 5	9	34	0.08	< 10	< 10	60	20	74

CERTIFICATION :

*B. Coughlin*



# Chemex Labs Ltd.

Analytical Chemists • Geochemists • Registered Assayers

212 BROOKSBANK AVE., NORTH VANCOUVER,  
BRITISH COLUMBIA, CANADA V7J-2C1

PHONE (604) 984-0221

To: RIO ALGOM EXPLORATION INC.  
P.O. BOX 10335, PACIFIC CENTRE  
1650 - 609 GRANVILLE ST.  
VANCOUVER, BC  
V7Y 1G5

Project: MAC

Comments:

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Date : 6-SEP-89  
Invoice #: I-8923634  
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## CERTIFICATE OF ANALYSIS A8923634

SAMPLE DESCRIPTION	PREP CODE	Mb %									
447749	208	---	0.032								
447750	208	---	0.060								
447751	208	---	0.016								
447752	208	---	0.036								
447753	208	---	0.008								
447754	208	---	0.001								
447755	208	---	0.001								
447756	208	---	0.010								
447757	208	---	0.005								
447758	208	---	0.001								
447759	208	---	0.003								
447760	208	---	0.007								
447761	208	---	0.008								
447762	208	---	0.026								
447763	208	---	0.018								
447764	208	---	0.009								
447765	208	---	0.020								
447766	208	---	0.006								
447767	208	---	0.012								
447768	208	---	0.008								
447769	208	---	0.010								
447770	208	---	0.013								
447771	208	---	0.006								
447772	208	---	0.016								
447773	208	---	0.005								
447774	208	---	0.006								
447775	208	---	0.005								
447776	208	---	0.041								
447777	208	---	0.006								
447778	208	---	0.011								
447779	208	---	0.003								
447780	208	---	0.024								
447781	208	---	0.069								
447782	208	---	0.011								
447783	208	---	0.009								
447784	208	---	0.052								
447785	208	---	0.015								
447786	208	---	0.014								
447787	208	---	0.010								
447788	208	---	0.019								

CERTIFICATION : *W. Sturges*



# Chemex Labs Ltd.

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BRITISH COLUMBIA, CANADA V7J-2C1

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To: RIO ALGOM EXPLORATION INC.  
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1650 - 609 GRANVILLE ST.  
VANCOUVER, BC  
V7Y 1G5

Project: MAC  
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## CERTIFICATE OF ANALYSIS A8923634

SAMPLE DESCRIPTION	PREP CODE	Mo %										
447789	208	---	0.020									
447790	208	---	0.010									
447791	208	---	0.042									
447792	208	---	0.031									
447793	208	---	0.041									
447794	208	---	0.046									
447795	208	---	0.022									
447796	208	---	0.018									
447797	208	---	0.021									
447798	208	---	0.047									
447799	208	---	0.027									
447800	208	---	0.022									
447801	208	---	0.022									
447802	208	---	0.019									
447803	208	---	0.027									
447804	208	---	0.028									
447805	208	---	0.022									
447806	208	---	0.011									
447807	208	---	0.021									
447808	208	---	0.053									
447809	208	---	0.026									
447810	208	---	0.011									
447811	208	---	0.040									
447812	208	---	0.025									
447813	208	---	0.018									
447814	208	---	0.034									
447815	208	---	0.015									
447816	208	---	0.017									
447817	208	---	0.050									
447818	208	---	0.031									
447819	208	---	0.020									
447820	208	---	0.032									
447821	208	---	0.025									
447822	208	---	0.039									
447823	208	---	0.003									
447824	208	---	0.056									
447825	208	---	0.030									
447826	208	---	0.020									
447827	208	---	0.022									

CERTIFICATION : *W. Santonini*





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To: RIO ALGOM EXPLORATION INC.  
 P.O. BOX 10335, PACIFIC CENTRE  
 1650 - 609 GRANVILLE ST.  
 VANCOUVER, BC  
 V7Y 1G5

Project : MAC  
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## CERTIFICATE OF ANALYSIS A8924672

SAMPLE DESCRIPTION	PREP CODE	Cu %	Mb %								
447828	208 ---	0.02	0.030								
447829	208 ---	0.04	0.016								
447830	208 ---	0.02	0.025								
447831	208 ---	0.03	0.058								
447832	208 ---	0.02	0.030								
447833	208 ---	0.01	0.019								
447834	208 ---	0.02	0.051								
447835	208 ---	0.02	0.009								
447836	208 ---	0.02	0.032								
447837	208 ---	0.02	0.032								
447838	208 ---	0.03	0.020								
447839	208 ---	0.02	0.022								
447840	208 ---	0.02	0.074								
447841	208 ---	0.04	0.059								
447842	208 ---	0.03	0.023								
447843	208 ---	0.11	0.029								
447844	208 ---	0.11	0.067								
447845	208 ---	0.10	0.046								
447846	208 ---	0.11	0.075								
447847	208 ---	0.04	0.037								
447848	208 ---	0.11	0.089								
447849	208 ---	0.04	0.046								
447850	208 ---	0.05	0.069								
447851	208 ---	0.04	0.051								
447852	208 ---	0.04	0.063								
447853	208 ---	0.05	0.045								
447854	208 ---	0.09	0.136								
447855	208 ---	0.02	0.075								
447856	208 ---	0.08	0.124								
447857	208 ---	0.04	0.053								
447858	208 ---	0.04	0.040								
447859	208 ---	0.04	0.037								
447860	208 ---	0.03	0.038								
447861	208 ---	0.09	0.046								
447862	208 ---	0.03	0.072								
447863	208 ---	0.03	0.018								
447864	208 ---	0.02	0.030								
447865	208 ---	0.02	0.025								
447866	208 ---	0.03	0.050								
447867	208 ---	0.02	0.047								

CERTIFICATION :

*W. St. Amant*



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212 BROOKSBANK AVE., NORTH VANCOUVER,  
BRITISH COLUMBIA, CANADA V7J-2C1

PHONE (604) 984-0221

To: RIO ALGOM EXPLORATION INC.  
P.O. BOX 10335, PACIFIC CENTRE  
1650 - 609 GRANVILLE ST.  
VANCOUVER, BC  
V7Y 1G5

Project: MAC  
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## CERTIFICATE OF ANALYSIS A8924672

SAMPLE DESCRIPTION	PREP CODE	Cu %	Mo %								
447868	208 ---	0.04	0.027								
447869	208 ---	0.02	0.042								
447870	208 ---	0.02	0.031								
447871	208 ---	0.02	0.065								
447872	208 ---	0.08	0.040								
447873	208 ---	0.05	0.025								
447874	208 ---	0.06	0.051								
447875	208 ---	0.04	0.054								
447876	208 ---	0.04	0.047								
447877	208 ---	0.05	0.050								
447878	208 ---	0.04	0.034								
447879	208 ---	0.02	0.028								
447880	208 ---	0.05	0.045								
447881	208 ---	0.05	0.029								
447882	208 ---	0.05	0.054								
447883	208 ---	0.04	0.035								
447884	208 ---	0.09	0.025								
447885	208 ---	0.04	0.037								
447886	208 ---	0.04	0.037								
447887	208 ---	0.01	0.026								
447888	208 ---	0.02	0.022								
447889	208 ---	0.01	0.018								
447890	208 ---	0.08	0.028								
447891	208 ---	0.03	0.016								
447892	208 ---	0.04	0.030								
447893	208 ---	0.03	0.036								
447894	208 ---	0.19	0.560								
447895	208 ---	0.06	0.028								
447896	208 ---	0.10	0.020								
447897	208 ---	0.11	0.004								
447898	208 ---	0.09	0.019								
447899	208 ---	0.06	0.026								
447900	208 ---	0.10	0.052								
447901	208 ---	0.10	0.026								
447902	208 ---	0.06	0.008								
447903	208 ---	0.12	0.028								
447904	208 ---	0.06	0.020								
447905	208 ---	0.08	0.011								
447906	208 ---	0.09	0.015								
447907	208 ---	0.07	0.120								

CERTIFICATION : *W. Steiner*



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 212 BROOKSBANK AVE., NORTH VANCOUVER,  
 BRITISH COLUMBIA, CANADA V7J-2C1  
 PHONE (604) 984-0221

To: RIO ALGOM EXPLORATION INC.  
 P.O. BOX 10335, PACIFIC CENTRE  
 1650 - 609 GRANVILLE ST.  
 VANCOUVER, BC  
 V7Y 1G5  
 Project: MAC  
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## CERTIFICATE OF ANALYSIS A8924672

SAMPLE DESCRIPTION	PREP CODE		Cu %	Mo %						
447908	208	---	0.08	0.086						
447909	208	---	0.11	0.036						
447910	208	---	0.23	0.227						
447911	208	---	0.38	0.131						
447912	208	---	0.16	0.056						
447913	208	---	0.24	0.160						
447914	208	---	0.27	0.088						
447915	208	---	0.28	0.216						
447916	208	---	0.23	0.240						
447917	208	---	0.23	0.130						
447918	208	---	0.30	0.196						
447919	208	---	0.39	0.424						
447920	208	---	0.21	0.091						
447921	208	---	0.29	0.228						
447922	208	---	0.16	0.154						
447923	208	---	0.07	0.060						
447924	208	---	0.17	0.078						
447925	208	---	0.01	0.002						
447926	208	---	0.01	0.002						
447927	208	---	0.19	0.210						
447928	208	---	0.01	0.004						
447929	208	---	0.20	0.082						
447930	208	---	0.20	0.172						
447931	208	---	0.17	0.276						
447932	208	---	0.04	0.038						
447933	208	---	0.02	0.006						
447934	208	---	0.02	0.007						
447935	208	---	0.05	0.005						
447936	208	---	0.03	0.003						
447937	208	---	0.02	0.005						
447938	208	---	0.02	0.004						
447939	208	---	0.03	0.006						
447940	208	---	0.01	0.008						
447941	208	---	0.02	0.009						
447942	208	---	0.05	0.041						
447943	208	---	0.02	0.011						
447944	208	---	0.02	0.027						
447945	208	---	0.01	0.004						
447946	208	---	0.06	0.024						
447947	208	---	0.04	0.002						

CERTIFICATION : *W. St. Martin*



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
450 Matheson Blvd., E., Unit 54, Mississauga,  
Ontario, Canada L4Z 1R5  
PHONE: 416-890-0310

To: RIO ALGOM EXPLORATION INC.  
P.O. BOX 10335, PACIFIC CENTRE  
1650 - 609 GRANVILLE ST.  
VANCOUVER, BC  
V7Y 1G5

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Invoice Date : 13-SEP-89  
Invoice No. : I-8924680  
P.O. Number : 8920

Project : **MBC**  
Comments :

*MAC*

## CERTIFICATE OF ANALYSIS

**A8924680**

SAMPLE DESCRIPTION	PREP CODE	Cu %	Mo %								
447948	208 208	0.01	0.028								
447949	208 208	< 0.01	0.008								
447950	208 208	< 0.01	0.011								
447951	208 208	0.05	0.076								
447952	208 208	0.02	0.020								
447953	208 208	0.06	0.018								
447954	208 208	0.08	0.004								
447955	208 208	0.05	0.004								
447956	208 208	0.05	0.005								
447957	208 208	0.05	0.003								
447958	208 208	0.07	0.012								
447959	208 208	0.11	0.016								
447960	208 208	0.12	0.030								
447961	208 208	0.13	0.046								
447962	208 208	0.03	0.006								
447963	208 208	< 0.01	0.022								
447964	208 208	0.11	0.034								
447965	208 208	0.04	0.039								
447966	208 208	0.04	0.015								
447967	208 208	0.02	0.010								
447968	208 208	0.06	0.008								
447969	208 208	0.19	0.070								
447970	208 208	0.19	0.057								
447971	208 208	0.09	0.042								
447972	208 208	0.13	0.081								
447973	208 208	0.12	0.046								
447974	208 208	0.09	0.052								
447975	208 208	0.12	0.192								
447976	208 208	0.14	0.196								
447977	208 208	0.15	0.142								
447978	208 208	0.12	0.077								
447979	208 208	0.05	0.007								
447980	208 208	0.20	0.051								
447981	208 208	0.19	0.304								
447982	208 208	0.09	0.666								
447983	208 208	0.08	0.268								
447984	208 208	0.05	0.077								
447985	208 208	0.05	0.109								
447986	208 208	0.04	0.072								
447987	208 208	0.11	0.122								

CERTIFICATION

*W. De Manini*



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
450 Matheson Blvd., E., Unit 54, Mississauga,  
Ontario, Canada L4Z 1R5  
PHONE: 416-890-0310

To: RIO ALGOM EXPLORATION INC.  
P.O. BOX 10335, PACIFIC CENTRE  
1650 - 609 GRANVILLE ST.  
VANCOUVER, BC  
V7Y 1G5

Page Number : 2  
Total Pages : 3  
Invoice Date: 13-SEP-89  
Invoice No. : I-8924680  
P.O. Number : 8920

Project : **MPC**  
Comments:

## CERTIFICATE OF ANALYSIS A8924680

SAMPLE DESCRIPTION	PREP CODE	Cu %	Mo %									
447988	208 208	0.02	0.016									
447989	208 208	0.12	0.430									
447990	208 208	0.20	0.450									
447991	208 208	0.23	0.435									
447992	208 208	0.23	0.170									
447993	208 208	0.23	0.027									
447994	208 208	0.11	0.096									
447995	208 208	0.14	0.182									
447996	208 208	0.14	0.026									
447997	208 208	0.28	0.020									
447998	208 208	0.43	0.270									
447999	208 208	0.14	0.080									
448000	208 208	0.13	0.098									
448001	208 208	0.13	0.064									
448002	208 208	0.23	0.268									
448003	208 208	0.30	0.240									
448004	208 208	0.10	0.105									
448005	208 208	0.32	0.248									
448006	208 208	0.18	0.034									
448007	208 208	0.44	0.368									
448008	208 208	0.44	0.298									
448009	208 208	0.18	0.110									
448010	208 208	0.35	0.152									
448011	208 208	0.52	0.510									
448012	208 208	0.30	0.284									
448013	208 208	0.13	0.022									
448014	208 208	0.25	0.230									
448015	208 208	0.17	0.077									
448016	208 208	0.50	0.378									
448017	208 208	0.28	0.142									
448018	208 208	0.19	0.090									
448019	208 208	0.10	0.080									
448020	208 208	0.10	0.032									
448021	208 208	0.19	0.030									
448022	208 208	0.10	0.050									
448023	208 208	0.14	0.068									
448024	208 208	0.18	0.056									
448025	208 208	0.26	0.114									
448026	208 208	0.29	0.042									
448027	208 208	0.20	0.050									

CERTIFICATION W. S. Spasmanini



# Chemex Labs Ltd.

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To: RIO ALGOM EXPLORATION INC.  
P.O. BOX 10335, PACIFIC CENTRE  
1650 - 609 GRANVILLE ST.  
VANCOUVER, BC  
V7Y 1G5

Page Number : 3  
Total Pages : 3  
Invoice Date: 13-SEP-89  
Invoice No. : I-8924680  
P.O. Number : 8920

Project : MOC  
Comments :

## CERTIFICATE OF ANALYSIS

### A8924680

SAMPLE DESCRIPTION	PREP CODE	Cu %	Mo %								
448028	208 208	0.13	0.060								
448029	208 208	0.02	0.065								
448030	208 208	0.04	0.027								
448031	208 208	0.01	0.025								
448032	208 208	0.02	0.066								
448033	208 208	< 0.02	0.052								
448034	208 208	< 0.01	0.036								
448035	208 208	0.01	0.083								
448036	208 208	0.01	0.054								
448037	208 208	0.01	0.050								
448038	208 208	< 0.01	0.035								
448039	208 208	< 0.01	0.046								
448040	208 208	0.02	0.061								
448041	208 208	< 0.01	0.027								
448042	208 208	0.02	0.043								
448043	208 208	< 0.01	0.021								
448044	208 208	0.02	0.039								

CERTIFICATION : *W. J. ...*



# Chemex Labs Ltd.

Analytical Chemists • Geochemists • Registered Assayers

212 BROOKSBANK AVE. NORTH VANCOUVER,  
BRITISH COLUMBIA, CANADA V7J-2C1

PHONE (604) 984-0221

To: RIO ALGOM EXPLORATION INC.  
P.O. BOX 10335, PACIFIC CENTRE  
1650 - 609 GRANVILLE ST.  
VANCOUVER, BC  
V7Y 1G5

Project: MAC

Comments:

Page no. : 1  
Tot. Pages: 2  
Date : 16-OCT-89  
Invoice # : I-8927528  
P.O. # : 8920

## CERTIFICATE OF ANALYSIS A8927528

SAMPLE DESCRIPTION	PREP CODE	Cu %	Mb %								
448045	208 ---	0.02	0.005								
448046	208 ---	0.03	0.027								
448047	208 ---	0.05	0.089								
448048	208 ---	0.01	0.014								
448049	208 ---	0.10	0.062								
448050	208 ---	0.15	0.146								
448051	208 ---	0.10	0.070								
448052	208 ---	0.14	0.026								
448053	208 ---	0.04	0.015								
448054	208 ---	0.05	0.048								
448055	208 ---	0.11	0.096								
448056	208 ---	0.05	0.020								
448057	208 ---	0.11	0.076								
448058	208 ---	0.09	0.079								
448059	208 ---	0.09	0.145								
448060	208 ---	0.09	0.045								
448061	208 ---	0.14	0.028								
448062	208 ---	0.14	0.062								
448063	208 ---	0.20	0.024								
448064	208 ---	0.17	0.024								
448065	208 ---	0.11	0.080								
448066	208 ---	0.12	0.047								
448067	208 ---	0.25	0.038								
448068	208 ---	0.06	0.012								
448069	208 ---	0.06	0.018								
448070	208 ---	0.10	0.019								
448071	208 ---	0.04	0.004								
448072	208 ---	0.11	0.006								
448073	208 ---	0.09	0.010								
448074	208 ---	0.05	0.018								
448075	208 ---	0.03	0.012								
448076	208 ---	0.07	0.020								
448077	208 ---	0.05	0.008								
448078	208 ---	0.04	0.003								
448079	208 ---	0.04	0.004								
448080	208 ---	0.04	0.006								
448081	208 ---	0.04	0.007								
448082	208 ---	0.04	0.001								
448083	208 ---	0.02	0.002								
448084	208 ---	0.02	0.007								

CERTIFICATION :

*W. San Martin*



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 212 BROOKSBANK AVE. NORTH VANCOUVER,  
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To: RIO ALGOM EXPLORATION INC.  
 P.O. BOX 10335, PACIFIC CENTRE  
 1650 - 609 GRANVILLE ST.  
 VANCOUVER, BC  
 V7Y 1G5

Project: MAC  
 Comments:

Page No. : 2  
 Tot. Pages: 2  
 Date : 16-OCT-89  
 Invoice # : I-8927528  
 P.O. # : 8920

## CERTIFICATE OF ANALYSIS A8927528

SAMPLE DESCRIPTION	PREP CODE	Cu %	Mb %							
448085	208 ---	< 0.02	0.004							
448086	208 ---	< 0.01	0.004							
448087	208 ---	0.03	0.007							
448088	208 ---	0.02	0.025							
448089	208 ---	0.02	0.012							
448090	208 ---	0.02	0.003							
448091	208 ---	0.01	0.006							
448092	208 ---	0.04	0.020							
448093	208 ---	0.04	0.005							
448094	208 ---	0.04	0.042							
448095	208 ---	0.06	0.028							
448096	208 ---	0.03	0.008							
448097	208 ---	0.04	0.005							
448098	208 ---	0.06	0.002							
448099	208 ---	0.04	0.004							
448100	208 ---	0.06	0.012							
448101	208 ---	0.03	0.020							
448102	208 ---	0.02	0.004							
448103	208 ---	0.02	0.053							
448104	208 ---	0.02	0.005							
448105	208 ---	0.05	0.015							
448106	208 ---	0.03	0.045							
448107	208 ---	0.02	0.007							
448108	208 ---	0.03	0.004							
448109	208 ---	0.04	0.005							
448110	208 ---	< 0.05	0.005							
448111	208 ---	< 0.01	0.005							
448112	208 ---	0.03	0.022							

CERTIFICATION : W. San Martin





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212 BROOKSBANK AVE. NORTH VANCOUVER,  
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PHONE (604) 984-0221

TO: RIO ALGUM EXPLORATION INC.  
P.O. BOX 10335, PACIFIC CENTRE  
1650 - 609 GRANVILLE ST.  
VANCOUVER, BC  
V7Y 1G5

Project : MAC  
Comments :

Page No. : 1  
Tot. Pages: 2  
Date : 25-OCT-89  
Invoice # : I-8928194  
P.O. # : 8920

## CERTIFICATE OF ANALYSIS A8928194

SAMPLE DESCRIPTION	PREP CODE	Au g/tonne	Cu %						
447562	214 ---	-----	0.10						
447563	214 ---	-----	0.09						
447564	214 ---	-----	0.06						
447565	214 ---	-----	0.04						
447566	214 ---	-----	0.05						
447567	214 ---	-----	0.05						
447568	214 ---	-----	0.06						
447569	214 ---	-----	0.08						
447570	214 ---	-----	0.11						
447571	214 ---	-----	0.16						
447572	214 ---	-----	0.09						
447573	214 ---	-----	0.08						
447574	214 ---	-----	0.12						
447575	214 ---	-----	0.16						
447576	214 ---	-----	0.11						
447577	214 ---	-----	0.20						
447578	214 ---	-----	0.07						
447579	214 ---	-----	0.03						
447580	214 ---	-----	0.04						
447581	214 ---	-----	0.06						
447582	214 ---	-----	0.08						
447583	214 ---	-----	0.10						
447584	214 ---	-----	0.11						
447642	214 ---	-----	0.06						
447643	214 ---	-----	0.05						
447644	214 ---	-----	0.16						
447645	214 ---	< 0.07	0.52						
447646	214 ---	-----	0.07						
447647	214 ---	-----	0.11						
447648	214 ---	-----	0.12						
447649	214 ---	-----	0.29						
447650	214 ---	-----	0.23						
447651	214 ---	-----	0.15						
447652	214 ---	-----	0.20						
447653	214 ---	-----	0.27						
447654	214 ---	-----	0.13						
447655	214 ---	-----	0.28						
447656	214 ---	-----	0.26						
447657	214 ---	-----	0.11						
447658	214 ---	-----	0.19						

CERTIFICATION : *W. Santomasi*



# Chemex Labs Ltd.

Analytical Chemists • Geochemists • Registered Assayers

212 BROOKSHANK AVE. NORTH VANCOUVER,  
BRITISH COLUMBIA, CANADA V7J-2C1

PHONE (604) 984-0221

PORTO ALGUM EXPLORATION INC.  
P.O. BOX 10335, PACIFIC CENTRE  
1650 - 609 GRANVILLE ST.  
VANCOUVER, BC  
V7Y 1G5

Project : MAC  
Comments :

Page no. : 2  
Tot. Pages: 2  
Date : 25-OCT-89  
Invoice # : I-8928194  
P.O. # : 8920

## CERTIFICATE OF ANALYSIS A8928194

SAMPLE DESCRIPTION	PREP CODE	Au g/tonne	Cu %						
447659	214 ---	-----	0.42						
447660	214 ---	-----	0.18						
447661	214 ---	-----	0.14						
447662	214 ---	-----	0.20						
447663	214 ---	-----	0.30						
447664	214 ---	-----	0.17						
447665	214 ---	-----	0.06						
447666	214 ---	-----	0.27						
447667	214 ---	-----	0.20						
447668	214 ---	-----	0.20						
447669	214 ---	< 0.07	0.36						
447670	214 ---	< 0.07	0.32						
447671	214 ---	< 0.07	0.29						
447672	214 ---	< 0.07	0.23						
447673	214 ---	< 0.07	0.35						
447674	214 ---	< 0.07	0.25						
447675	214 ---	-----	0.05						
447676	214 ---	-----	0.07						
447677	214 ---	-----	0.11						
447678	214 ---	-----	0.02						
447679	214 ---	-----	0.03						
447680	214 ---	-----	0.06						
447681	214 ---	-----	0.03						
447682	214 ---	-----	0.05						
447683	214 ---	-----	0.03						
448010	214 ---	< 0.07	-----						
448011	214 ---	< 0.07	-----						
448012	214 ---	< 0.07	-----						
448013	214 ---	< 0.07	-----						
448014	214 ---	< 0.07	-----						
448015	214 ---	< 0.07	-----						
448016	214 ---	< 0.07	-----						

CERTIFICATION :

*W. San Amador*

APPENDIX IV





## LORNEX MINING CORPORATION LTD.

## DIAMOND DRILL LOG

Page 2 of 8

Project: 8920

Property: MAC

Logged by: G.R. COPE

Date: JULY 25/89

Hole No.: DDH-89-1

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu % ppm	Zn % ppm	Mo %	
						No.	Interval							Lgth.
							m	m						
			(1.5-7.7) 25 quartz veinlets/m, 1-8mm wide.	Oxidized, sericitized	Veins @ 25° & 45° to core axis. 2-3% Py, T-Mo.	447501	1.5	4.0	2.5		1.4	279		0.045
						502	4.0	6.0	2.0		1.0	229		0.062
						503	6.0	7.7	1.7		0.6	129		0.086
			(7.7-9.9) 27 quartz veinlets/m, most < 1mm but up to 7mm	Sericitized, oxidation along fractures	Veins @ 25° to core axis, few @ 80° 2% Py, T-Mo, T-Cp	447504	7.7	9.9	2.2		1.0	505		0.070
			(9.9-10.3) Quartz vein milky white, finely crystalline. Upper contact is faulted so vein appears wider than its true 20 cm width. Wallrock is well- mineralized (10% Py, 0.5% Mo) within 30 cm of vein contact		Vein @ 35° to core axis. 1% Py, T-Mo	447505	9.9	12.0	2.1		1.0	603		0.118
						447506	12.0	13.7	1.7		0.6	529		0.042

## LORNEX MINING CORPORATION LTD.

## DIAMOND DRILL LOG

Page 3 of 8

Project: 8920

Property: MAC

Logged by: G.A. COPE

Date: JULY 25/89

Hole No.: DDH 89-1

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu % ppm	Zn % ppm	Mo %	
						No.	Interval							Lgth.
							m	m						
			(10.3-13.7), 27 quartz veinlets 1m, 2-3mm wide few to 9mm	Sericitized	Veins @ 35-45° to core axis 1-2% PY, Tr Mo									
			(13.7-17.4), Fault zone @ 16.7, 7cm milky white quartz vein @ 60° to core axis	Strong seric- itization, oxidized	Broken core, gouge-filled fractures up to 3mm wide	447507	13.7	15.7	2.0	1.0	217	277	0.060	
			@ 17.0-17.4 Vuggy quartz vein @ 10° to core axis with 5% PY, 0.5% Mo		1% PY, Tr Mo	447508	15.7	17.4	1.7	1.6	223	227	0.114	
			(17.4-53.7), 30 quartz veinlets 1m, most 2mm wide, numerous veins to 2cm wide. At least 3 vein orientations	Sericitized 1% biotite (possibly secondary)	Veins @ 30, 35° 70° to core axis 1% PY, 0.1% Mo, Tr CP	447509	17.4	20.0	2.6	0.6	484		0.054	
			@ 28.2-29.8,	Strong sericitization		510	20.0	22.0	2.0	0.8	380		0.064	
			@ 36.7-37.2,	Strong sericitization		511	22.0	24.0	2.0	0.8	704		0.062	
						512	24.0	26.0	2.0	0.8	477		0.054	
						513	26.0	28.0	2.0	1.0	894		0.086	
						514	28.0	30.0	2.0	0.8	647		0.040	
						515	30.0	32.0	2.0	1.0	695		0.080	
						516	32.0	34.0	2.0	1.4	771		0.164	
						517	34.0	36.0	2.0	0.8	611		0.110	
						447518	36.0	38.0	2.0	1.2	954		0.160	





## LORNE MINING CORPORATION LTD.

## DIAMOND DRILL LOG

Page 5 of 8

Project: 8920

Property: MAC

Logged by: GRC

Date: 7/28/89

Hole No.: 89-1

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu % ppm	Zn % ppm	Mo %	
						No.	Interval							Lgth.
							m	m						
			shear faces (70.1-79.2), <i>Mottled</i>											
			dark green and green, strongly quartz veined to quartz-flooded.	Strong quartz, moderate sericite and K-feldspar	0.5% Py, 0.2% Mo Tr Cp.	447535	70.0	72.0	2.0		1.4	649	0.096	
			30% quartz, veins up to 6cm wide.		Veins dominant @ 40° to core axis	536	72.0	74.0	2.0		0.6	376	0.045	
			Minor sulphidic fractures, < 1mm.			537	74.0	76.0	2.0		1.0	519	0.054	
			@ 78.6, 6cm of sulphidic gouge			538	76.0	78.0	2.0		0.6	478	0.044	
			(79.2-95.6), pale yellow-green.	Moderate K-feldspar	0.2% Mo, 0.2% Py Tr Cp. Veins @	447540	80.0	82.0	2.0		0.6	439	0.067	
			20 quartz veinlets/ m, 2-5mm wide.	and sericite Plagioclase	25, 40, & 80° to core axis	541	82.0	84.0	2.0		0.6	423	0.062	
			Numerous sulphidic fractures (1-2/m), < 1mm.	completely altered to sericite		542	84.0	86.0	2.0		0.8	478	0.051	
			@ 87.6-90.0, Abundant sulphidic fractures,		Fractures @ 30 & 60° to core axis	447543	86.0	88.0	2.0		0.4	320	0.053	
						447544	88.0	90.0	2.0		0.4	260	0.057	

## LORNE MINING CORPORATION LTD.

## DIAMOND DRILL LOG

Page 6 of 8

Project: 8920

Property: MAC

Logged by: GRC

Date: 7/28/89

Hole No.: 89-1

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu % ppm	Zn % ppm	Mo %	
						No.	Interval							Lgth.
							m	m						
			2-3 mm wide, 10 fractures/m. Fractures are slip planes. (79.2-95.6 cont), Sulphides are dominantly associated with quartz veinlets, minor disseminations.											
						447545	90.0	92.0	2.0	0.8	641		0.062	
						546	92.0	94.0	2.0	0.4	373		0.042	
						447547	74.0	95.6	1.6	0.8	438		0.060	
95.6	96.9		ANDESITE DYKE Dark green, fine- grained. Calcite- filled amygdules, 1-4 mm in diameter, comprise 5% lower contact is cut by later quartz veinlet, bases, 2 mm wide		5% v.f.g. Py, 1% Hm, 2% Mt. Upper and lower contacts sharp @ 60° to core axis.  water veinlet @ 20° to core axis	447548	95.6	96.9	1.3	0.4	36		0.004	

LORNEX MINING CORPORATION LTD.

DIAMOND DRILL LOG

Project: 8920 Property: MAC Logged by: GRC Date: 7/28/89 Hole No.: 89-1

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu % ppm	Zn % ppm	Mo %	
						No.	Interval							Lgth.
							m	m						
96.9	121.9		QUARTZ MONZONITE (96.9-105.7) Pale yellow green, strongly altered, pitted outer surface. Numerous (1/m) sulphidic fractures up to 1cm wide. Fractures contain fragments (<1cm) of host monzonite in matrix of black massive sulphide. Milky white-gray quartz veins, 6cm wide @ 101.6m and 104.3m. 15 quartz veinlets/ m, 2-5mm wide. Veins locally exhibit multiple	Strong sericite, moderate K-feldspar	0.2% Mo, 0.5% Py, Tr cp  Sulphidic fractures @ 25° to core axis  Veins @ 40° to core axis	447549	96.9	98.0	1.1		2.4	129	0.042	
						550	98.0	100.0	2.0		1.4	329	0.062	
						551	100.0	102.0	2.0		1.2	746	0.038	
						552	102.0	104.0	2.0		0.8	405	0.038	
						447553	104.0	106.0	2.0		0.6	401	0.043	





## LORNEX MINING CORPORATION LTD.

## DIAMOND DRILL LOG

Page 2 of 4

Project: 8920 Property: MAC Logged by: GRC Date: 7/29/89 Hole No.: 89-2

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu % ppm	Zn % ppm	Mo %	
						No.	Interval							Lgth.
							m	m						
			plane of foliation. Minor molybdenite is associated with quartz veins.											
			(13.4-18.5), weakly magnetic, sparse quartz veins (2-3/m), veins 2-5 mm wide but up to 7 cm. Rusty fractures, non-calcareous.	Chlorite, biotite.	0.5% Py, 0.2% Cp, Tr Mo, Tr Mr, Tr Hm	447562	13.4	16.5	3.1	1.2	1090	0.10	0.073	
					Foliation @ 55° to core axis. Veins parallel the foliation Broken core.	447563	16.5	18.5	2.0	1.0	991	0.09	0.022	
			(18.5-20.5), strong quartz-flooding, quartz comprises 50% of interval. Striped appearance due to alternating 1 cm bands of quartz and volcanic.	Silica	5% Py, 1% Cp Broken core	447564	18.5	20.5	2.0	0.8	577	0.06	0.060	

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LORNEX MINING CORPORATION LTD.

DIAMOND DRILL LOG

Project: 8920 Property: MAC Logged by: GRC Date: 7/29/89 Hole No.: 89-2

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu % ppm	Zn % ppm	Mo %	
						No.	Interval							Lgth.
							m	m						
			(20.5-27.5), pervasive silicification, host rock textures obliterated, 80-90% quartz, Pyrite and chloropyrite finely disseminated throughout, molybdenite in hairline fractures.	Silica	2% Py, 0.5% Cp, 0.2% Mo.	447565	20.5	22.5	2.0	0.6	380	0.04	0.076	
						566	22.5	24.5	2.0	0.8	470	0.05	0.136	
					Broken core	447567	24.5	27.5	3.0	0.6	461	0.05	0.053	
			(27.5-46.0), dark green, fine-grained, interbedded quartz veins, 2mm-9cm wide, locally, veins contain up to 50% sulphides and hematite. Veins comprise 10-15% of interval. Weakly magnetic, non-calcareous.	Chlorite, biotite, silica	0.1% Mo, 0.5% Cp, 5% Py, Tr-Hm, Tr-Mt Foliation @ 60° to core axis Veins parallel the foliation	447568	27.5	30.0	2.5	1.0	693	0.06	0.032	
						569	30.0	32.0	2.0	3.8	812	0.08	0.056	
						570	32.0	34.0	2.0	1.2	1165	0.11	0.053	
						571	34.0	36.0	2.0	1.2	1775	0.16	0.088	
						572	36.0	38.0	2.0	1.2	975	0.09	0.094	
						573	38.0	40.0	2.0	1.2	906	0.08	0.038	
						574	40.0	42.0	2.0	1.0	1220	0.12	0.047	
						575	42.0	44.0	2.0	1.6	1910	0.16	0.092	
						447576	44.0	46.0	2.0	1.0	1200	0.11	0.035	





## LORNEX MINING CORPORATION LTD.

## DIAMOND DRILL LOG

Page 1 of 6

Project: 8920 Length (m): 121.9 Grid: DB166 Drilled: 7/27/89-7/28/89 Objective: TEST Hole No.: DDH-89-3  
 Property: MAC Dip: -51° Latitude: 200N Contractor: J. T. THOMAS WESTERN CONTACT Hole Survey Type: ACID  
 NTS: 93K/13E Azimuth: 115 Departure: 198W Logged by: G. R. COPE OF QUARTZ Depth: 121.9 Dip: -51° Azi:   
 Core Size: BQTW Collar elev: 1250m Date Logged: 7/30/89 MONZONITE  
 Casing: OUT Remarks: SAMPLE No. 5 447585-  
447641.

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu % ppm	Zn % ppm	Mo % ppm	
						No.	Interval							Lgth.
							m	m						
0	6.1		OVERBURDEN											
6.1	16.8		SCHISTOSE VOLCANICS. Mottled green and pale green, fine-grained. Numerous pale grey-green biotite feldspar porphyry dykes, 2-10 cm wide. Dyke margins are bleached, dykes comprise ~ 50% of interval. Numerous quartz veins, 1 mm - 2 cm wide, (5-10/m). (6.1-12.9) strong oxidation, especially along fractures	Strong biotite, locally strong chlorite, silicified	5% Py, 0.1% Cp, < 0.1% Mo (Cp associated with veins, Py dis- seminated throughout.)  Veins @ 75 and 45° to core axis	447585	6.1	9.0	2.9	2.0	468	0.039		
						586	9.0	11.0	2.0	2.2	671	0.031		
						587	11.0	13.0	2.0	0.6	1320	0.053		
						588	13.0	15.0	2.0	0.8	981	0.050		
						447599	15.0	17.0	2.0	0.2	675	0.017		





## LORNEX MINING CORPORATION LTD.

## DIAMOND DRILL LOG

Page 4 of 6

Project: 8920

Property: MAC

Logged by: GRC

Date: 7/31/89

Hole No.: 89-3

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu % ppm	Zn % ppm	Mo %	
						No.	Interval							Lgth.
							m	m						
			2mm-1cm wide veins comprise 10% of interval. (43.1-46.5) quartz veins comprise 20% of interval, 1mm-2cm wide (46.5-47.0) white mica flakes, <<1mm, associated with quartz veinlet, 1cm wide @ 57.1, 9cm quartz vein, molybdenum paint on 1cm spaced fractures gives vein laminated appearance. (62.2-62.3) fault gone		≤ 0.2% Mo, 0.2% Cp 1% Py, mainly in veins. veins at 10° 45° to core axis ≤ 0.5% Mo, ≤ 0.2% Cp, 0.5% Py Quartz veinlet @ 10° to core axis, 0.5% Py, ≤ 0.5% Cp, 0.05% Mo. Quartz vein @ 30° to core axis 2% Mo, 1% Cp Broken core	447602	41.0	43.0	2.0	0.4	508	0.060		
						603	43.0	45.0	2.0	0.2	320	0.088		
						447604	45.0	47.0	2.0	1.0	945	0.100		
						447605	47.0	49.0	2.0	0.2	242	0.056		
						606	49.0	51.0	2.0	0.2	523	0.054		
						607	51.0	53.0	2.0	<0.2	161	0.042		
						608	53.0	55.0	2.0	0.4	523	0.082		
						609	55.0	57.0	2.0	<0.2	165	0.044		
						447610	57.0	59.0	2.0	0.2	372	0.084		
						447611	59.0	61.0	2.0	<0.2	253	0.046		
						447612	61.0	63.0	2.0	0.4	307	0.040		
						613	63.0	65.0	2.0	0.2	481	0.110		
						614	65.0	67.0	2.0	0.4	715	0.144		
						447615	67.0	69.0	2.0	1.0	282	0.055		

## LORNE MINING CORPORATION LTD.

## DIAMOND DRILL LOG

Page 5 of 6

Project: 8920

Property: MAC

Logged by: GRC

Date: 8/1/89

Hole No.: 89-3

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu % ppm	Zn % ppm	Mo % /	
						No.	Interval							Lgth.
							m	m						
			(65.1-66.1) 3mm-1cm quartz veinlet.		quartz veinlet	447616	69.0	71.0	2.0		0.4	377		0.058
			quartz veinlet.		@ 5° to core axis	617	71.0	73.0	2.0		<0.2	656		0.114
			molybdenite selvages		10% Mo, 2% Cp, 2% Py	618	73.0	75.0	2.0		<0.2	420		0.082
					in veinlet	619	75.0	77.0	2.0		<0.2	393		0.080
			@ 67.6 3cm quartz vein		Vein @ 10° to core axis	620	77.0	79.0	2.0		<0.2	270		0.052
			@ 67.9, minor fault		Broken core	621	79.0	81.0	2.0		<0.2	327		0.059
			@ 75.4, 4cm quartz vein		Vein @ 10° to core axis	622	81.0	83.0	2.0		<0.2	262		0.046
			(104.6-105.1) 3-4 cm quartz vein		Vein @ 10° to core axis	623	83.0	85.0	2.0		1.0	576		0.050
					Vein contains	624	85.0	87.0	2.0		<0.2	524		0.035
					5% Mo selvages,	625	87.0	89.0	2.0		<0.2	517		0.030
					2% disseminated	626	89.0	91.0	2.0		<0.2	427		0.048
					Cp, 1% Py.	627	91.0	93.0	2.0		<0.2	302		0.031
			@ 110.9, 112.3, 113.8, minor gouge filled faults		Broken core over 10cm intervals	628	93.0	95.0	2.0		<0.2	403		0.043
						629	95.0	97.0	2.0		1.0	699		0.098
						630	97.0	99.0	2.0		<0.2	526		0.038
						631	99.0	101.0	2.0		<0.2	332		0.032
						632	101.0	103.0	2.0		<0.2	<del>282</del> 282		0.039
						633	103.0	105.0	2.0		<0.2	367		0.034
						634	105.0	107.0	2.0		<0.2	342		0.041
			(115.0-121.9), core appears much fresher.	Weak silicite		635	107.0	109.0	2.0		<0.2	549		0.048
						636	109.0	111.0	2.0		0.8	262		0.035
						447637	111.0	113.0	2.0		0.4	377		0.031



## LORNX MINING CORPORATION LTD.

## DIAMOND DRILL LOG

Page 1 of 10

Project: 8720 Length (m): 139.6 Grid: DRILL Drilled: 7/28/89-7/30/89 Objective: TEST Hole No.: JDH 89-4  
 Property: MAC Dip: -51° Latitude: 200N Contractor: J.T. THOMAS EASTERN CONTACT Hole Survey Type: ACID  
 NTS: 93K/13E Azimuth: 295 Departure: 200E Logged by: G.R. COPE OF QUARTZ Depth: 136.2 Dip: NO Azi: ETCH  
 Core Size: BQTW Collar elev: 1250 m Date Logged: 8/2/89 MONZONITE  
 Casing: OUT Remarks: SAMPLE No.s 447642 - 447683

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu % ppm	Zn % ppm	Mo %	
						No.	Interval							Lgth.
							m	m						
0	11.3		OVERBURDEN, MIXED BEDROCK AND SOIL											
11.3	52.0		SCHISTOSE VOLCANIC Green to dark green, fine-grained, and Moderately foliated. Numerous quartz-calcite veinlets (2-3/m), 2mm-1cm wide. Minor epidote associated with quartz veinlets.	Moderate chlorite biotite. Weak epidote	5-10% finely disseminated Py, trace Cp. Foliation @ 30° to core axis. Quartz- calcite veinlets both parallel to and cross-cutting the foliation									
	45		@ 13.6, quartz vein, 10cm wide, fine black sulphide laminae in vein.		Vein @ 75° to core axis, 10%. Py, 0.5% Cp, 0.1% Mo	448045	11.3	13.6	2.3		402	0.02	0.005	
						447642	13.6	15.6	2.0		40.2	665	0.06	0.070

LORNEX MINING CORPORATION LTD.

DIAMOND DRILL LOG

Project: 8920

Property: MAC

Logged by: GRL

Date: 8/3/81

Hole No.: 89-4

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu % ppm	Zn % ppm	Mo %	
						No.	Interval							Lgth.
							m	m						
			@ 15.4, 2cm quartz vein		Vein @ 5° to core axis, 15% Py, Tr, Sp, Tr Mo									
			@ 17.1, minor silici- fication, pale pink mineral associated with silicification, (garnet)											
			@ 17.6, quartz vein, 1cm wide,		Vein @ 15° to core axis, 1% Py, Tr, Sp									
			@ 18.3, quartz vein, 1.5cm wide, 2% epidote		Vein @ 15° to core axis, 20% Py, Tr, Sp, Tr Mo	448046	15.6	17.6	2.0		0.03	0.03	0.027	
						448047	17.6	19.6	2.0		0.05	0.05	0.089	
						448048	19.6	21.2	1.6		0.01	0.01	0.014	
			@ 21.5, quartz-carbonate breccia vein, 10% angular fragments of volcanic rock, to 1cm. Vein 13cm wide, shaggy.		Vein @ 60° to core axis, Tr Py	447643	21.2	23.2	2.0	<0.2	520	0.05	0.012	



LORNEX MINING CORPORATION LTD.

DIAMOND DRILL LOG

Page 3 of 10

Project: 8920 Property: MAC Logged by: GRC Date: 8/3/89 Hole No.: 89-A

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au g/t ppb	Ag oz/t ppm	Cu % ppm	Zn % ppm	Mo %	
						No.	Interval							Lgth.
							m	m						
			@ 23.0, quartz vein 2 cm wide.		Vein @ 50° to core axis, 1% Py, Tr Cp, Tr Mo									
			@ 25.0, quartz vein 1.2 cm wide, minor epidote		Vein @ 15° to core axis, 5% Cp, 1% Py, Tr Mo	448049	23.2	26.2	3.0		0.10	0.062		
			@ 28.2, quartz vein blue-grey, weakly laminated (28.8-33.9)		Vein @ 40° to core axis, 5% Mo, 0.5% Cp, Tr Py	447644	26.2	28.2	2.0	<0.2	1655	0.16	0.086	
			(36.2-36.8) quartz vein, ~ 5 cm wide Mo occurs as 3-4 mm stringers and vein selvages, Cp occurs as stringers, Py is disseminated. (36.8-41.3) fault, numerous 2-3 cm gouge intervals		Broken core Vein @ 10° to core axis. 15% Mo, 10% Cp, 5% Py	448050	28.2	30.2	2.0		0.15	0.146		
					Broken core	448051	30.2	32.2	2.0		0.10	0.070		
						448052	32.2	34.2	2.0		0.14	0.026		
						448053	34.2	36.2	2.0		0.04	0.015		
						447645	36.2	36.8	0.6	<0.07	4.0	5420	0.52	1610
						448054	36.8	38.8	2.0		0.05	0.05	0.048	
						448055	38.8	40.8	2.0		0.11	0.096		
						448056	40.8	42.8	2.0		0.05	0.05	0.020	
						448057	42.8	44.7	1.9		0.11	0.076		





## LORNEX MINING CORPORATION LTD.

## DIAMOND DRILL LOG

Page 6 of 10

Project: 8920

Property: MAC

Logged by: GRC

Date: 8/2/89

Hole No.: 89-4

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu % ppm	Zn % ppm	Mo % ppm	
						No.	Interval							Lgth.
							m	m						
			@ 57.6, quartz veins ~ 10 cm wide.		Broken core 5% Mo, 3% Cp, 10% Py									
			@ 58.2, quartz vein 5 cm wide		Vein @ 30° to core axis 5% Mo, 2% Cp, 5% Py									
			@ 58.8, quartz vein 5 cm wide		Vein @ 30° to core axis									
			(58.0-60.0) blue clay coating on fractures.		10% Py, 1% Cp, Tr Mo									
			@ 62.3, quartz vein 7 cm wide. Cp in stringers, Mo, Py finely disseminated		Vein @ 40° to core axis 5% Mo, 6% Cp, 4% Py	448061	60.0	62.0	2.0		0.14	0.14	0.028	
						448062	62.0	65.0	3.0		0.14	0.14	0.062	
						448063	65.0	67.0	2.0		0.20	0.20	0.024	
			(67.4-67.9) quartz vein, 5 cm wide		Vein @ 10° to core axis	447651	67.0	69.0	2.0	0.4	1605	0.15	0.100	
					2% Mo, 1% Cp, 5% Py	448064	69.0	70.0	1.0		0.17	0.17	0.024	
			@ 70.2, quartz vein, 3 cm wide, Mo as fine laminae and vein selvages		Vein @ 45° to core axis. 5% Mo, 3% Cp, 1% Py	447652	70.0	72.0	2.0	0.8	2140	0.20	0.288	

## LORNE MINING CORPORATION LTD.

## DIAMOND DRILL LOG

Page 7 of 10

Project: 8920

Property: MAC

Logged by: GRC

Date: 8/3/87

Hole No.: 89-4

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu % ppm	Zn % ppm	Mo % ppm	
						No.	Interval							Lgth. m
							m	m						
72.0	114.4		SCHISTOSE VOLCANIC Dark and light chlorite, green, fine-grained biotite, strong to intense moderate foliation, bordering epidote on phyllitic schist. Abundant quartz veins, 5mm- 2cm wide, 5-6/m.	Strong chlorite, pyrite, 0.1% Cp T-Mo Moderately calcareous	15% fine pyrite, 0.1% Cp T-Mo Foliation @ 30° to core axis.									
			(74.0-76.0) 30% quartz veins, 3cm-9cm wide	Moderate epidote; garnet associated with quartz	Veins @ 45° & 75° to core axis. 5% Mo; 5% Cp in veins 5-10% Py dissemin- ated throughout	448065	72.0	74.0	2.0		0.44	0.11	0.090	
						447653	74.0	76.0	2.0	1.0	2830	0.27	0.096	
						448066	76.0	78.0	2.0		0.12	0.12	0.043	
						448067	78.0	80.0	2.0		0.25	0.25	0.038	
			(80.0-82.0) as (74.0-76.0)			447654	80.0	82.0	2.0	0.4	1410	0.13	0.126	
			(82.0-86.0), some 10 cm wide quartz veins 1/2m	Strong garnet and epidote	Up to 50% com- bined Py & Cp over 10-20 cm intervals, 20% combined	655	82.0	84.0	2.0	1.0	2890	0.28	0.158	
						447656	84.0	86.0	2.0	0.8	2890	0.26	0.113	
						447657	86.0	88.0	2.0	0.8	1220	0.11	0.038	

## LORNEX MINING CORPORATION LTD.

## DIAMOND DRILL LOG

Page 8 of 10

Project: 8920

Property: MAC

Logged by: GRC

Date: 8/3/89

Hole No.: 89-4

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu % ppm	Zn % ppm	Mo %	
						No.	Interval							Lgth.
							m	m						
					overall.									
					Veins @ 15° to core axis Veins contain 5% Mo.									
			@ 86.6 quartz veins, 5 cm wide		Vein @ 45° to core axis. 1% Mo, 0.5% Cp, 1% Py									
			(88.0-89.6), quartz- flooded to 40%.	silicification, moderate epidote and garnet.	0.1% Mo, 0.5% Cp, 5% Py, finely disseminated	447658	88.0	89.6	1.6	0.6	2120	0.19	0.095	
			(89.6-92.0)	strong epidolization,	15% Cp, 35% Py disseminated along foliation,	447659	89.6	92.0	2.4	1.4	4260	0.42	0.083	
			@ 90.3, 40 cm interval of semi-massive sulphides, 91.0-92.0 quartz- flooding.	moderate garnet, strong silicification										
			(92.0-96.0), 30% quartz veins to 10 cm wide		Veins @ 45° to core axis 2% Mo, 5% Cp, 2% Py	447660	92.0	94.0	2.0	0.6	1935	0.18	0.106	
						447661	94.0	96.0	2.0	0.8	1350	0.14	0.112	







## LORNE MINING CORPORATION LTD.

## DIAMOND DRILL LOG

Page 1 of 12

Project: 8920 Length (m): 164.6 Grid: DRILL Drilled: 7/31/89-8/2/89 Objective: TEST Hole No.: 89-5  
 Property: MAC Dip: -51° Latitude: 400 N Contractor: J.T. THOMAS NORTHERN VOLCANIC Hole Survey Type: ACID  
 NTS: 93K/13E Azimuth: 298 Departure: 000 Logged by: G.R. COPE QUARTZ MONZONITE Depth: 158.2 Dip: -53 Azi:   
 Core Size: BQTW Collar elev: 1272 m Date Logged: 8/4/89- CONTACT  
 Casing: OUT Remarks:

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu % ppm	Zn % ppm	Mo %
						No.	Interval						
							m	m					
0	3.0		OVERBURDEN										
3.0	14.6		MASSIVE ANDESITE Dark green, fine-grained. 5-6 quartz veinlets/m. 1-2mm wide. Minor epidote associated with veinlets (3.0-14.9) Oxidized fracture coatings.	Weak silica	1% Py, Tr-Cp finely disseminated and associated with veinlets, local blebs to 8mm. Quartz veinlets @ 45° to core axis	448078 079 080 448081 447684 448082	3.0 6.0 8.0 10.0 12.0 14.0	6.0 8.0 10.0 12.0 14.0 14.6	3.0 2.0 2.0 2.0 2.0 0.6		0.04 0.04 0.04 0.04 0.04 0.04	0.04 0.04 0.04 0.04 0.04 0.04	0.003 0.004 0.006 0.007 0.010 0.001
14.6	17.5		FRAGMENTAL ANDESITE Mottled dark green and black, fine-grained, sharpened. Clasts are some- what stretched, up to 1cm long	Strong epidote (20%) garnet (20%)	5% disseminated pyrite, also fracture coatings. Tr Cp, 1% Mt, Tr-Mo	447685 448083	14.6 16.6	16.6 18.6	2.0 2.0	0.2	479 0.02		0.006 0.002

## LORNEX MINING CORPORATION LTD.

## DIAMOND DRILL LOG

Page 2 of 12

Project: 8920

Property: MAC

Logged by: GRC

Date: 8/4/89

Hole No.: 89-5

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu (%) ppm	Zn % ppm	Mo %	
						No.	Interval							Lgth.
							m	m						
			and consist of very fine-grained andesite (?) and augite porphyry. Clasts comprise 70% in a fine matrix. Mottled appearance due to selective alteration of clasts to garnet and epidote. Weakly magnetic											
17.5	27.4		INTERCALATED MASSIVE AND FRAGMENTAL ANDESITE. Layers 1-3m thick; gradational changes in clast size		5-10% Py, Tr, Cp, Tr-Mo	448084	18.6	20.6	2.0		0.02	0.007		
						085	20.6	22.6	2.0		0.02	0.004		
						086	22.6	24.6	2.0		<0.01	0.004		
						448087	24.6	26.6	2.0		0.03	0.007		







LORNEX MINING CORPORATION LTD.

DIAMOND DRILL LOG

Project: 8920

Property: MAC

Logged by: GRC

Date: 8/5/89

Hole No.: 89-5

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppb	Cu % ppm	Zn % ppm	Mo %	
						No.	Interval							Lgth.
							m	m						
			Abundant quartz- epidote ± calcite stringers throughout (5%).											
			(56.6-57.1) Quartz- carbonate breccia vein, 1-2 cm wide		Vein @ 5° to core axis	447687	56.0	58.0	2.0	<0.2	375		0.048	
			(57.9-62.8) skarnified, Mo is intergrown with garnet	string epidote, garnet	5% Py 0.02% Mo, 0.2% Cp 5% Py	688	58.0	60.0	2.0	<0.2	574		0.410	
			(67.0-67.6) quartz- epidote-garnet vein, 40 cm wide		Vein @ 65° to core axis	699	60.0	62.0	2.0	<0.2	411		0.053	
			@ 68.8, 2 cm quartz vein		Vein @ 35° to core axis, 10% Py, Tr-Mo, Tr-Cp	447690	62.0	64.0	2.0	<0.2	492		0.026	
			@ 70.4, 2 cm quartz vein		Vein @ 25° to core axis, 5% Py, Tr-Cp	448103	64.0	67.0	3.0	0.2	0.02	0.02	0.053	
						447691	67.0	68.0	1.0	<0.2	442		0.028	

## LORNEX MINING CORPORATION LTD.

## DIAMOND DRILL LOG

Page 7 of 12

Project: 8920

Property: MAC

Logged by: GRC

Date: 8/5/89

Hole No.: 89-5

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t (ppm)	Cu % (ppm)	Zn % (ppm)	Mo % /	
						No.	Interval							Lgth.
							m	m						
			@ 75.8 quartz veins, 3 cm wide		Vein @ 45° to core axis, 5% Py, Tr, Mo	448104	68.0	69.0	1.0			0.02	0.02	0.005
						105	69.0	71.0	2.0			0.05	0.05	0.015
						106	71.0	73.0	2.0			0.03	0.03	0.045
			@ 78.7 quartz veins, 3 cm wide		Vein @ 45° to core axis, 5% Py, Tr, Sp, Mo	107	73.0	75.0	2.0			0.02	0.02	0.008
						108	75.0	77.0	2.0			0.03	0.03	0.004
						448109	77.0	79.0	2.0			0.04	0.04	0.005
						447692	79.0	81.3	2.3	0.6	1080			0.064
81.3	83.3		QUARTZ PORPHYRYTIC INTRUSIVE. Pale green-grey, fine- grained. 2 cm quartz phenocrysts comprise 5%. Quartz inlets, 1mm-1cm, comprise 10%.		Fracture and disseminated Py to 10%, 0.05% Mo 0.1% Sp	693	81.3	83.3	2.0	0.4	191			0.024
						447694	83.3	85.0	1.7	0.6	1115			0.005
83.3	94.1		SCHISTOSE VOLCANIC Dark green to green, fine-grained, moderately foliated.	Strong biotite, chlorite Weak epidote	Foliation @ 30° to core axis. 2% Py, Tr, Sp, Mo	448110	85.0	87.0	2.0			0.05	0.05	0.005
						111	87.0	89.0	2.0			0.01	0.01	0.005
						448112	89.0	92.0	3.0			0.03	0.03	0.022







## LORNEX MINING CORPORATION LTD.

## DIAMOND DRILL LOG

Page 10 of 12

Project: 8920

Property: MAC

Logged by: GRC

Date: 8/5/89

Hole No.: 89-5

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu % ppm	Zn % ppm	Mo % %	
						No.	Interval							Lgth.
							m	m						
			1-2 mm wide			447706	113.1	115.0	1.9		0.6	154		0.030
			@ 119.9, minor fault			707	115.0	117.0	2.0		0.6	147		0.027
			(119.9-122.0) mottled	Strong	0.04% Mo, 0.5% Py	708	117.0	119.0	2.0		1.2	255		0.027
			green and pale	K-feldspar,	Tr Cp.	709	119.0	121.0	2.0		0.6	198		0.019
			salmon pink,	sericite		710	121.0	123.0	2.0		0.6	126		0.019
			medium crystalline			711	123.0	125.0	2.0		0.2	136		0.009
			7-8 quartz veinlets/ m, 2-5 mm wide.			712	125.0	127.0	2.0		0.2	341		0.019
			(122.0-128.0) quartz-	Moderate		713	127.0	129.0	2.0		0.4	390		0.045
			biotite porphyritic,	K-feldspar,	Flow bands @	714	129.0	131.0	2.0		0.2	154		0.017
			flow bands 5-10 cm	sericite	~45° to core axis	715	131.0	133.0	2.0		0.6	236		0.037
			thick. 5 quartz		1% Py, <0.01% Mo	716	133.0	135.0	2.0		0.6	154		0.031
			veins/m, 1-4 cm			717	135.0	137.0	2.0		0.8	194		0.035
			wides.			718	137.0	139.0	2.0		0.6	102		0.027
			@ 127.2, minor fault			719	139.0	141.0	2.0		0.6	156		0.036
			(128.0-137.8) pale	Strong	Veinlets @	720	141.0	143.0	2.0		0.6	285		0.050
			green-grey, fine-	sericite	45° ± 20° to core	721	143.0	145.0	2.0		0.4	193		0.044
			grained to	Moderate	axis. 0.03% Mo,	722	145.0	147.0	2.0		0.6	294		0.091
			aphanitic, locally	K-feldspar,	4% Py	723	147.0	149.0	2.0		0.6	187		0.041
			quartz porphyritic	White mica		724	149.0	151.0	2.0		0.4	152		0.052
			15 quartz veinlets/ m, 2-3 mm wide			725	151.0	153.0	2.0		0.4	127		0.020
						726	153.0	155.0	2.0		0.6	137		0.061
						447727	155.0	157.0	2.0		0.2	161		0.060





LORNEX MINING CORPORATION LTD.

DIAMOND DRILL LOG

Project: 8920 Length (m): 169.2 Grid: DRILL Drilled: \_\_\_\_\_ Objective: TEST Hole No.: DDH 89-6  
 Property: MAC Dip: -50 Latitude: 0505 Contractor: J.T. THOMAS WESTERN VOLCANIC Hole Survey Type: ACID  
 NTS: 93K/13E Azimuth: 115 Departure: 200W Logged by: G.R. COPE INTRUSIVE CONTACT Depth: 164.6 Dip: -50 Azi: N/A  
 Core Size: BQTW Collar elev: 1240 m Date Logged: 9/6/89  
 Casing: OUT Remarks: SAMPLE No. 3 44732-

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu % ppm	Zn % ppm
						No.	Interval					
							m	m				
0	7.6		OVERBURDEN									
7.6	60.7		SERPENTINITE Mottled dark and pale green. Radiating pale grey-green, fibrous masses of actinolite, 7 mm wide, comprise 30-40%, fine compact chlorite comprises 40-50%, 5-10% very finely disseminated spite, moderately to strongly magnetic.	Intense chlorite and actinolite	5-10% Py, 3-5% Mt or Il							

## LORNEX MINING CORPORATION LTD.

## DIAMOND DRILL LOG

Page 2 of 4

Project: 8920

Property: MAC

Logged by: GRC

Date: 8/7/89

Hole No.: 99-6

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu % ppm	Zn % ppm	Mo %	
						No.	Interval							Lgth.
							m	m						
			(21.0-21.7) pale green, 80% fibrous actinolite, 10-15% biotite	Intense actinolite, strong biotite	0.02% Mo - as fracture coatings, 2-3% fine Py.	447732	19.0	21.0	2.0		0.2	5		0.020
			(24.9-25.2) as (21.0-21.7)			447733	21.0	22.0	1.0		<0.2	60		0.007
			(27.4-27.6), minor fault	Intense actinolite, talc										
			(33.5-33.6), pale brown quartz vein	0.5% very fine Mo	Vein @ 45° to core axis	447734	33.0	34.0	1.0		<0.2	77		0.046
			(34.0-35.3) as (21.0-21.7)			447735	34.0	35.3	1.3		<0.2	112		0.042
			(43.6-44.9) fault zone	Intense talc	1% (?) Mo paint	447736	43.0	45.0	2.0		<0.2	168		0.102
			(47.0-52.8) fault zone 1-2 m intervals of intense talc alteration and fault gouge		1% (?) Mo paint associated with talc rich intervals	737	45.0	47.0	2.0		<0.2	176		0.004
						738	47.0	49.0	2.0		<0.2	78		0.060
						739	49.0	51.0	2.0		<0.2	160		0.044
						447740	51.0	53.0	2.0		<0.2	74		0.088
						447741	53.0	55.0	2.0		<0.2	188		0.024



LORNEX MINING CORPORATION LTD.

DIAMOND DRILL LOG

Project: 8920

Property: MAC

Logged by: GAC

Date: 8/7/89

Hole No.: 89-6

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu % ppm	Zn % ppm	Mo %	
						No.	Interval							Lgth.
							m	m						
			(72.0-73.0) fine-grained massive volcanic	strong biotite	3% Cp, 4% Py stringers	447745	72.0	73.0	1.0		0.2	638		0.007
			(73.9-75.5) strong brecciation and faulting											
79.6	97.9		SERPENTINITE mottled dark and light green, dominantly actinolite and biotite/chlorite, moderately magnetic. Numerous 20-30 cm intervals of intense actinolite alteration surrounding fractures.		1% fine Py, 1% Mc, minor. No associated with actinolitic fractures	447746	90.0	92.0	2.0		<0.2	149		0.006







## LORNE MINING CORPORATION LTD.

## DIAMOND DRILL LOG

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Project: 8920 Property: MAC Logged by: GRG Date: 8/8/89 Hole No.: 89-6

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu % ppm	Zn % ppm	Mo % %	
						No.	Interval							Lgth.
							m	m						
132.2	133.0		ANDESITE DYKE <i>Green, fine-grained, biotite porphyritic</i>		<i>0.5% fine Py</i>	447757	132.2	133.0	0.8				<del>0.004</del> 0.005	
133.0	135.3		FRAGMENTAL VOLCANIC <i>Mottled dark and pale green, sclerensides and hematite coatings on fractures (133.0-133.1) fault gouge.</i>	<i>Strong biotite/ chlorite</i>	<i>1% Hm, 0.5% Py Broken core</i>	447758	133.0	135.3	2.3				0.001	
135.3	137.8		ANDESITE DYKE <i>Green, fine-grained biotite porphyritic, sparse, 1mm calcite- hematite filled mygdaloides, sclerensides and hematite coatings on fractures</i>		<i>Lower contact at 65° to core axis 0.5% Py, Tr Hm Broken core</i>	447759	135.3	137.8	2.5				0.003	





LORNEX MINING CORPORATION LTD.

DIAMOND DRILL LOG

Project: 8920 Length (m): 121.9 Grid: DR114 Drilled: 8/05/89-8/06/89 Objective: TEST Hole No.: DDH 89-8  
 Property: MAC Dip: -53.5 Latitude: 2005 Contractor: J.T. THOMAS MAGNETIC LOW Hole Survey Type: ACID  
 NTS: 93K/13E Azimuth: 114 Departure: 000 Logged by: G.R. COPE FEATURE TO Depth Dip Azi  
 Core Size: BQTW Collar elev: 1245 Date Logged: 8/09/89 SOUTH OF 115.5 -53° N/A  
 Casing: OUT Remarks: SAMPLE No. 5 CAMP,

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu % ppm	Zn % ppm	
						No.	Interval						Lgth.
							m	m					
0	12.8		OVERBURDEN										
12.8	24.4		FRAGMENTAL VOLCANIC(?) Dark green to black, intense biotite alteration over 2-3m intervals with pale green intense actinolite alteration over 1-2m intervals essentially a fault zone with extensive clay gouge. (12.8-21.3)	Intense oxidation of fractures and gouge	Broken and ground core.  Possible fault orientation 45° to core axis								









LORNEX MINING CORPORATION LTD.

DIAMOND DRILL LOG

Project: 8920 Property: MAC Logged by: GRC Date: 8/9/89 Hole No.: 89-8

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu % ppm	Zn % ppm	Mo %	
						No.	Interval							Lgth.
							m	m						
			serpentinite appears minor to favor fragmental epidote intervals (73.2-74.2)	Strong actinolite, sericite										
			(86.8-89.4) (100.4-100.6) biotite- rich fault gouge @101.9		Broken core									
					Foliation @ 35° to core axis									
112.8	121.9		MASSIVE VOLCANIC Dark green, fine- grained	Biotite/ chlorite epidotization along fractures	2-5% fine disseminated Py, local stringers									
			@112.8 5cm quartz carbonate vein		50% Py, 0.5% Mo minor K <sub>2</sub> Si wallrock within 1m	447780	110.0	112.0	2.0				0.012	0.024
						781	112.0	113.0	1.0				0.069	
						447782	113.0	115.0	2.0				0.009	0.011



LORNE MINING CORPORATION LTD.

DIAMOND DRILL LOG

Project: 8920 Length (m): 112.8 Grid: DRILL Drilled: 8/6/89-8/10/89 Objective: TEST Hole No.: DDH 89-9  
 Property: MAC Dip: -52 Latitude: 100N Contractor: J.T. THOMAS CENTRAL PORTION Hole Survey Type: ACID  
 NTS: 93K/13E Azimuth: 295 Departure: 000 Logged by: G.R. COPE OF QUARTZ Depth: 106.4 Dip: -51° Azi: NA  
 Core Size: BQTW Collar elev: 1215 Date Logged: 9/10/89 MONZONITE  
 Casing: QVT Remarks: SAMPLE No.s 447786-447837

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu % ppm	Zn % ppm	Mo %	
						No.	Interval							Lgth.
							m	m						
0	7.6		OVERBURDEN											
7.6	82.2		QUARTZ MONZONITE Stream grey to pink grey fine to medium crystalline, quartz and quartz biotite porphyritic, lathedral quartz phenocrysts to 3mm comprise up to 40%. 1-2mm biotite laths comprise 10%.	Strong K-feldspar	Broken sericitized core throughout ≤ 0.2% Mo, 0.02% Cp 0.1% Py									
			(7.6-22.5) rusty fractures, 10 quartz veinlets 1m, 1-6mm wide.	Near surface oxidation	Veinlets @ 45-60° to core axis 0.2% Mo, 1% Py Tr Cp	447786	7.6	10.0	2.4				0.014	
						787	10.0	12.0	2.0				0.010	
						788	12.0	14.0	2.0				0.019 0.019	
						789	14.0	16.0	2.0				0.020	
						790	16.0	18.0	2.0				0.010	
						447791	18.0	20.0	2.0				0.042	

## LORNEX MINING CORPORATION LTD.

## DIAMOND DRILL LOG

Page 2 of 5

Project: 8920

Property: MAC

Logged by: GRC

Date: 8/10/89

Hole No.: 89-9

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu % ppm	Zn % ppm	Mo % f.	
						No.	Interval							Lgth.
							m	m						
			(23.5-33.0) strong brecciation, crumbling rock	intense sericite, clay, K-feld	80% ground core.	447792	20.0	22.0	2.0				0.031	
			1-2 quartz veinlets/ m, 1-2mm wide	spar	0.05% Mo, Tr Cp 0.1% Py	793	22.0	24.0	2.0				0.041	
			@ 30.1, 2 cm quartz vein		Tr Mo, vein @ 35° to core axis	794	24.0	26.0	2.0				0.046	
			(34.1-34.9)		broken core	795	26.0	28.0	2.0				0.022	
			(35.5-36.0) minor fault gouge, brecciated		broken core	796	28.0	30.0	2.0				0.018	
			(36.6-37.3) minor fault		broken core	797	30.0	32.0	2.0				0.021	
			(37.3-50.1) 5-10 quartz veinlets/m, 1mm-4mm wide, sparse veins to 1cm.	intense K-feldspar locally, strong sericite	0.2% Mo, Tr Py, Tr Cp	447798	32.0	34.0	2.0				0.047	
						799	34.0	36.0	2.0				0.027	
						800	36.0	38.0	2.0				0.022	
						801	38.0	40.0	2.0				0.022	
						802	40.0	42.0	2.0				0.019	
						803	42.0	44.0	2.0				0.027	
						804	44.0	46.0	2.0				0.028	
						805	46.0	48.0	2.0				0.022	
						447806	48.0	50.0	2.0				0.011	
						807	50.0	52.0	2.0				0.021	
						808	52.0	54.0	2.0				0.053	
						809	54.0	56.0	2.0				0.026	
			(50.1-57.0) breccia precipitation related to fault		broken and ground core	447810	56.0	58.0	2.0				0.011	
						811	58.0	60.0	2.0				0.040	
						812	60.0	62.0	2.0				0.025	
						447813	62.0	64.0	2.0				0.018	

## LORNEX MINING CORPORATION LTD.

## DIAMOND DRILL LOG

Page 3 of 5

Project: 8920

Property: MAC

Logged by: GRC

Date: 8/10/89

Hole No.: 89-9

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu % ppm	Zn % ppm	Mo % %	
						No.	Interval							Lgth.
							m	m						
			(57.0-56.3) 5 quartz veinlets /m 2-4mm wide		0.3% Mo, Tr Py, Cp. Veinlets @ 45° to core axis									
			(66.3-68.0)		broken, ground core									
			(68.0-69.9) Feldspar completely altered to light green sericite. 12 quartz veinlets /m, 2-4mm wide	Intense sericite	0.1% Mo, veinlets 2-10° to core axis	447814	64.0	66.0	2.0				0.034	
						815	66.0	68.0	2.0				0.015	
						816	68.0	70.0	2.0				0.017	
						817	70.0	72.0	2.0				0.050	
			(69.9-82.2) 4-5 quartz veinlets /m, 1-2mm wide	Strong chlorite,	Badly broken core	818	72.0	74.0	2.0				0.031	
				K-feldspar	0.1% Py, 0.05% Mo Tr Cp.	819	74.0	76.0	2.0				0.020	
						820	76.0	78.0	2.0				0.032	
						821	78.0	80.0	2.0				0.025	
						822	80.0	82.2	2.2				0.039	
82.2	84.1		ANDESITE DYKE Dark green to black, fine grained, calcite- filled amygdalae to 3mm comprise	chlorite	lower contact at 45° to core axis. Tr Py, Hm	447823	82.2	84.1	1.9				0.003	

## LORNEX MINING CORPORATION LTD.

## DIAMOND DRILL LOG

Page 4 of 5

Project: 8920

Property: MAC

Logged by: GRC

Date: 8/10/87

Hole No.: 89-9

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu % ppm	Zn % ppm	Mo %	
						No.	Interval							Lgth.
							m	m						
			5%. Numerous 1-3mm calcite veinlets, chlorite sclerites on fractures.											
84.1	112.8		QUARTZ MONZONITE pale green-grey to pink grey fine to medium crystalline quartz-biotite porphyritic 5-6 quartz veinlets/ m, 1cm-1cm wide. (84.1-84.4)	Strong K-feldspar	0.1% Py, 0.05% Mo Tr Cr.	447824	84.1	86.0	1.9				0.056	
						825	86.0	88.0	2.0				0.030	
						826	88.0	90.0	2.0				0.020	
						827	90.0	92.0	2.0				0.022	
						828	92.0	94.0	2.0		0.02		0.030	
						829	94.0	96.0	2.0		0.04		0.016	
						830	96.0	98.0	2.0		0.02		0.025	
						831	98.0	100.0	2.0		0.03		0.058	
				Intense K-feldspar		832	100.0	102.0	2.0		0.02		0.030	
					Broken core	833	102.0	104.0	2.0		0.01		0.019	
			(91.9-94.9) fault zone, minor goose.			834	104.0	106.0	2.0		0.02		0.051	
						835	106.0	108.0	2.0		0.02		0.009	
			(92.5-97.8) minor fault			836	108.0	110.0	2.0		0.02		0.032	
					Broken core	447837	110.0	112.5	2.8		0.02		0.032	





## LORNEX MINING CORPORATION LTD.

## DIAMOND DRILL LOG

Page 1 of 4

Project: 8920 Length (m): 115.8 Grid: DRILL Drilled: 8/28/89-8/10/89 Objective: TEST Hole No.: DDH 89-10  
 Property: MAC Dip: -50 Latitude: 100N Contractor: J.T. THOMAS CENTRAL PORTION Hole Survey Type: ACID  
 NTS: 73K/13E Azimuth: 294 Departure: 200E Logged by: G.R. COPE OF QUARTZ Depth Dip Azi  
 Core Size: BGTW Collar elev: 1255 Date Logged: 8/12/89 MONZONITE 109.4  
 Casing: QWT Remarks: SAMPLE Nos 447838-  
447893

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu (%) ppm	Zn % ppm	Mo % /	
						No.	Interval							Lgth.
							m	m						
0	3.0		OVERBURDEN											
3.0	115.8		QUARTZ MONZONITE <i>light green-grey, medium crystalline, weak quartz porphyritic K-feldspar</i>	<i>Moderate sericite,</i>	<i>0.3% Mo, 0.02% Cp 0.1% Py</i>									
			<i>(3.0-15.5) near surface oxidation, rusty fractures</i>											
			<i>(3.0-26.0) fine-grained to aphanitic</i>	<i>Barrosive silicification</i>	<i>Veins @ 40° to core axis.</i>	447838	3.0	6.0	3.0		0.03		0.020	
			<i>10 quartz veins/m, 2mm-2cm wide, aphanitic veins to 10mm</i>		<i>0.3% Mo, 0.5% Py, 0.05% Cp</i>	839	6.0	8.0	2.0		0.02		0.022	
			<i>(11.9-14.7) minor fault gouge</i>			940	8.0	10.0	2.0		0.02		0.074	
						841	10.0	12.0	2.0		0.04		0.059	
						842	12.0	14.0	2.0		0.03		0.023	
					<i>Broken core</i>	843	14.0	16.0	2.0		0.11		0.029	
						844	16.0	18.0	2.0		0.11		0.067	
						845	18.0	20.0	2.0		0.10		0.046	
						846	20.0	22.0	2.0		0.11		0.075	
						447847	22.0	24.0	2.0		0.04		0.037	

## LORNE MINING CORPORATION LTD.

## DIAMOND DRILL LOG

Page 2 of 4

 Project: 8920 Property: MAC Logged by: GRC Date: 8/12/89 Hole No.: 89-10

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu % ppm	Zn % ppm	Mo %	
						No.	Interval							Lgth.
							m	m						
						447848	24.0	26.0	2.0			0.11	0.089	
			(26.0-5.8) 20-25 quartz veinlets/m, 2mm -	Moderate sericite	0.4% Mo, 0.1% Py, Tr Cp. Veinlets	849	26.0	28.0	2.0			0.04	0.046	
			2cm wide sparse siliceous cavities 1-2mm	weak K-feld spars	e. 40° to core axis sparse veinlets @ 60° to core axis.	850	28.0	30.0	2.0			0.05	0.069	
						851	30.0	32.0	2.0			0.04	0.051	
						852	32.0	34.0	2.0			0.04	0.063	
						853	34.0	36.0	2.0			0.05	0.045	
						854	36.0	38.0	2.0			0.09	0.136	
			(33.5-45.5) minor fault gouge.		broken core	855	38.0	40.0	2.0			0.02	0.075	
			@ 49.3 fault gouge (10 cm)			856	40.0	42.0	2.0			0.08	0.124	
			(63.5-70.0)	Moderate sericite and K-feldspar		857	42.0	44.0	2.0			0.04	0.053	
						858	44.0	46.0	2.0			0.04	0.040	
						859	46.0	48.0	2.0			0.04	0.037	
						860	48.0	50.0	2.0			0.03	0.038	
						861	50.0	52.0	2.0			0.09	0.046	
			3.6-4.4 minor fault gouge			447862	52.0	54.0	2.0			0.03	0.072	
						863	54.0	56.0	2.0			0.03	0.018	
						864	56.0	58.0	2.0			0.02	0.030	
			@ 132.6 minor sulphidic fault gouge			865	58.0	60.0	2.0			0.02	0.025	
						866	60.0	62.0	2.0			0.03	0.050	
						867	62.0	64.0	2.0			0.02	0.047	
						868	64.0	66.0	2.0			0.04	0.027	
						447869	66.0	68.0	2.0			0.02	0.042	

LORNEX MINING CORPORATION LTD.

DIAMOND DRILL LOG

Project: 8920

Property: MAC

Logged by: GRC

Date: 8/12/89

Hole No.: 89-10

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu % ppm	Zn % ppm	Mo %	
						No.	Interval							Lgth.
							m	m						
			(103.4-103.7), breccias, fault zones, somewhat sulphidic			447870	68.0	70.0	2.0			0.02	0.031	
						871	70.0	72.0	2.0			0.02	0.065	
						872	72.0	74.0	2.0			0.08	0.040	
						873	74.0	76.0	2.0			0.05	0.025	
			(105.0-108.6)		broken core	874	76.0	78.0	2.0			0.06	0.051	
			(111.5-113.4)		broken core	875	78.0	80.0	2.0			0.04	0.054	
						876	80.0	82.0	2.0			0.04	0.047	
						877	82.0	84.0	2.0			0.05	0.050	
						878	84.0	86.0	2.0			0.04	0.034	
						879	86.0	88.0	2.0			0.02	0.028	
						880	88.0	90.0	2.0			0.05	0.045	
						881	90.0	92.0	2.0			0.05	0.029	
						882	92.0	94.0	2.0			0.05	0.054	
						883	94.0	96.0	2.0			0.04	0.035	
						884	96.0	98.0	2.0			0.04	0.025	
						885	98.0	100.0	2.0			0.04	0.037	
						886	100.0	102.0	2.0			0.04	0.037	
						887	102.0	104.0	2.0			0.01	0.026	
						888	104.0	106.0	2.0			0.02	0.022	
						889	106.0	108.0	2.0			0.01	0.018	
						890	108.0	110.0	2.0			0.08	0.028	
						447891	110.0	112.0	2.0			0.03	0.016	



## LORNEX MINING CORPORATION LTD.

## DIAMOND DRILL LOG

Page 1 of 7

Project: 8920 Length (m): 106.7 Grid: DRILL Drilled: 8/10/89 - 8/11/89 Objective: TEST Hole No.: JDH 89-11  
 Property: 19AC Dip: -52 Latitude: 000 Contractor: J.T. THOMAS EASTERN QUARTZ Hole Survey Type: ACID  
 NTS: 93K/13E Azimuth: 295 Departure: 400E Logged by: G.R. COPE MONZONITE- Depth: 100.3 Dip: -51.5 Azi:   
 Core Size: BQTW Collar elev: 1230 Date Logged: 8/13/89 Volcanic Contact:   
 Casing: OUT Remarks: SAMPLE Nos

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu (%) ppm	Zn % ppm	Mo %	
						No.	Interval							Lgth.
							m	m						
0	11.3		OVERBURDEN	slite										
11.3	21.3		INTERCALATED MASSIVE AND FRAGMENTAL VOLCANIC			448068	11.3	13.0	1.7		0.06		0.012	
			Dark green, fine- grained where massive, mottled dark green and green where fragmental. Vague boundaries in fragments to 2cm.			069	13.0	15.0	2.0		0.06		0.018	
						448070	15.0	16.6	1.6		0.10		0.019	
			(11.3-25.3) - cavity fractures	Thin surface oxidation	Broken con. 5% dissemination Pv									
			(16.6-17.5) pale green- tan, bleached biotite porphyritic intensive.	sericitization		448071	16.6	18.5	1.9		0.04		0.004	
						448072	18.5	21.0	2.5		0.11		0.006	

LORNEX MINING CORPORATION LTD.

DIAMOND DRILL LOG

Project: 8920 Property: MAC Logged by: GRC Date: 9/13/89 Hole No.: 89-11

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu % ppm	Zn % ppm	Mo %
						No.	Interval						
							m	m					
21.3	87.8		SCHEMATIC FRAGMENTAL VORTEXED, mottled dark green and green, green stretched fragments 3mm-2cm, in darker green chloritic matrix. Nod. int. sig depleted. (27.4-40.0)	chlorite to strong chlorite. Localized epidote about structures, increasing downhole.	5% by volume silica silica silica to 65° to core axis. 2-0.5% sp. 5% H <sub>2</sub> associated with quartz veins Broken core Banded 5° to core axis 3-4% Mo, 1-2% Py	448073	21.0	23.0	2.0			0.09	0.010
			(31.1-31.6) Banded blue-grey quartz matrix (31.6-32.5) Fault gouge (32.5-34.5) Pale green silica-quartz (42.1-42.3) quartz matrix at banded			448074	23.0	25.0	2.0			0.05	0.018
						448075	25.0	27.0	2.0			0.03	0.012
						448076	27.0	29.0	2.0			0.07	0.020
						448077	29.0	31.0	2.0			0.05	0.008
						447874	31.0	32.0	1.0			0.19	0.560
						895	32.0	34.0	2.0			0.06	0.029
						896	34.0	36.0	2.0			0.10	0.020
						897	36.0	38.0	2.0			0.11	0.004
						898	38.0	40.0	2.0			0.09	0.019
						899	40.0	42.0	2.0			0.06	0.026
						900	42.0	44.0	2.0			0.10	0.052
						901	44.0	46.0	2.0			0.10	0.026
						902	46.0	48.0	2.0			0.06	0.008
						903	48.0	50.0	2.0			0.12	0.023
						904	50.0	52.0	2.0			0.06	0.020
						447905	52.0	54.0	2.0			0.08	0.011

LORNEX MINING CORPORATION LTD.

DIAMOND DRILL LOG

Project: 8920 Property: MAC Logged by: GRC Date: 8/13/89 Hole No.: 19-11

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu (%) ppm	Zn % ppm	Mo %	
						No.	Interval							Lgth.
							m	m						
			(46.4-47.3) pale green, fine-grained	lt. gray calcite.		447906	54.0	56.0	2.0			0.09		0.015
			(50.8-51.1) quartz vein		5% P, 0.5% Mo N. vein 50° to core axis.	707	52.0	53.0	2.0			0.07		0.120
						903	58.0	63.0	2.0			0.08		0.086
						909	60.0	62.0	2.0			0.11		0.036
						447910	62.0	64.0	2.0			0.23		0.227
			(51.0-60.2)		Broken core									
			(56.4-56.5) quartz vein sericite - gouge (3cm) along upper contact		10% Py, 3% Sp, 0.5% Mo. Vein 30° to core axis									
			(64.0-64.0)											
			(64.0-87.0) leucitization increasing, basic gouge to base sericite - leucitization V. fine scale at above level 67.4 - 100% calcite and 50% Sp.			447911	64.0	66.0	2.0			0.38		0.131
						912	66.0	68.0	2.0			0.16		0.056
						913	68.0	70.0	2.0			0.24		0.160
						914	70.0	72.0	2.0			0.27		0.088
						915	72.0	74.0	2.0			0.28		0.216
						916	74.0	76.0	2.0			0.23		0.240
						917	76.0	78.0	2.0			0.23		0.130
						918	78.0	80.0	2.0			0.30		0.196
						919	80.0	82.0	2.0			0.39		0.424
						447920	82.0	84.0	2.0			0.21		0.091





LORNEX MINING CORPORATION LTD.

DIAMOND DRILL LOG

Project: 8920

Property: MAC

Logged by: GRC

Date: 8/13/89

Hole No.: 89-11

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu % ppm	Zn % ppm	Mo %	
						No.	Interval							Lgth.
							m	m						
			(79.0-87.2) Strong foliation	Strong biotite / chlorite	Foliation 65-70° to core axis									
			(82.9-83.2) Banded quartz vein, 15cm wide		vein @ 45° to core axis 5% Mo, 3% Py, 3% Cp									
			(84.2-84.5) quartz vein		vein @ 30° to core axis. 4% Cp, 1% Mo, 2% Py									
			(85.6-86.1) Strong carbonate breccia vein	Strong vesicite	4% Mo, 1% Cp, 2% Py									
			(86.8-86.9) Banded quartz vein, 10cm wide		vein @ 65° to core axis. 5% Cp, 1% Mo									
87.8	89.5		BIOTITE-FELDSPAR PORPHYRY light green-grey fine-medium grained.	Strong sericite moderate K-feldspar	0.5% Py, 0.10% Mo 7-Cp. however contact is 40° to core axis	147923	87.8	89.5	1.7		0.07		0.060	

## LORNEX MINING CORPORATION LTD.

## DIAMOND DRILL LOG

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Project: 8920 Property: MAC Logged by: GRC Date: 8/13/89 Hole No.: 89-11

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu (%) ppm	Zn % ppm	Mo %	
						No.	Interval							Lgth.
							m	m						
89.5	92.5		SCHISTOSE FRAGMENTAL VOLCANIC	Strong Biotite chlorite	10% Py, Tr Mo, Cp	447924	89.5	92.5	3.0			0.17		0.078
92.5	97.5		FELDSPAR PORPHYRY pale green, feldspar porphyritic, pervasive sericitization, abundant fractures, sulphidic coatings on fractures	Intense sericite	5% Leucite Py(?)	447925	92.5	95.5	3.0			0.01		0.002
						447926	95.5	97.5	2.0			0.01		0.002
97.5	98.3		SCHISTOSE VOLCANIC	Intense Biotite	10% Py	447927	97.5	98.3	0.8			0.19		0.210
98.3	99.6		FELDSPAR PORPHYRY at (92.5-97.5)			447928	98.3	99.6	1.3			0.01		0.004
99.6	106.0		SCHISTOSE VOLCANIC 50% quartz veins, 2-3cm wide	Intense Biotite, chlorite	10% Py, 0.05% Mo Veins @ 45-70° to core axis	447929	99.6	102.0	2.4			0.20		0.082
						930	102.0	104.0	2.0			0.20		0.172
						447931	104.0	106.0	2.0			0.17		0.276



LORNEX MINING CORPORATION LTD.

DIAMOND DRILL LOG

Project: 8920 Length (m): 228.6 Grid: DRILL Drilled: 8/11/89-8/14/89 Objective: TEST Hole No.: DDH 89-12  
 Property: MAC Dip: -53.5° Latitude: 400N Contractor: J.T. THOMAS WESTERN QUARTZ Hole Survey Type: ACID  
 NTS: 93K/13E Azimuth: 115 Departure: 250W Logged by: G.R. COPE MONZONITE Depth: 222.2 Dip: NA  
 Core Size: BQTW Collar elev: 1275 Date Logged: 8/15/89 CONTACT AT  
 Casing: OUT Remarks: SAMPLE No.s 447933- NORTH END OF  
CAMP ZONE.

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu (%) ppm	Zn % ppm	Mo %
						No.	Interval						
							m	m					
0	3.7		OVERBURDEN										
3.7	62.7		SCHISTOSE VOLCANIC Dark green to green, medium- calent. to coarse and medium-fine grained crystalline to strong foliation	Thickens to strong biotite									
			(3.7-7.3) massive surface oxidation quartz fractures.		Broken core Foliation @ 30° to core axis. 5% Py V. 3-10° to core axis. 5% Py	447933	3.7	7.0	3.3		0.02		0.006
			(5.8-6.0) quartz vein										
			(7.0-15.0)	Strong silicification (30-40%)	10% Py disseminated along foliation planes.	447934	7.0	9.0	2.0		0.02		0.007
						935	9.0	11.0	2.0		0.05		0.005
						447936	11.0	13.0	2.0		0.03		0.003

LORNEX MINING CORPORATION LTD.

DIAMOND DRILL LOG

Project: 8920 Property: MAC Logged by: GRC Date: 8/15/89 Hole No.: 59-12

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu (%) ppm	Zn % ppm	Mo %	
						No.	Interval							Lgth.
							m	m						
					Foliation E 0-20° to core axis. Tr 0.1% sp.									
			9.4-9.7) quartz vein		0.5% Cp, 1-2% Py Vein @ 30° to core axis									
			(11.1-12.5)	Moderate sericitization associated with quartz										
			(11.6-12.2) quartz vein		0.2% Cp, 1-2% Py Vein @ 30° to core axis									
			(13.0-13.4) quartz vein		5% Py, vein @ 15° to core axis	447937	13.0	15.0	2.0		0.02		0.005	
						938	15.0	17.0	2.0		0.02		0.004	
			(15.0-24.1) massive foliation	Moderate sericitization	5% Py, Tr Cp Foliation @ 30° to core axis	939	17.0	19.0	2.0		0.03		0.006	
						940	19.0	21.0	2.0		0.01		0.008	
						941	21.0	23.0	2.0		0.02		0.009	
						447942	23.0	24.1	1.1		0.05		0.041	



## LORNEX MINING CORPORATION LTD.

## DIAMOND DRILL LOG

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Project: 8920

Property: MAC

Logged by: GRC

Date: 8/15/89

Hole No.: 89-12

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu (%) ppm	Zn % ppm	Mo % ppm	
						No.	Interval							Lgth.
							m	m						
			(43.8-55.2) weak to moderate foliation	Weak silica (5%) Trace epidote	5% Py, Tr Cp, Mo Foliation @ 30-45° to core axis.	447953	43.0	45.0	2.0			0.06		0.018
						954	45.0	47.0	2.0			0.08		0.004
						955	47.0	49.0	2.0			0.05		0.004
						956	49.0	51.0	2.0			0.05		0.005
						957	51.0	53.0	2.0			0.05		0.003
						447958	53.0	55.0	2.0			0.07		0.012
			(55.2-62.7) 2-3 quartz veins, 1-2 cm wide.	Moderate silicification (10-15%) epidote with quartz.	Veins @ 10-30° to core axis. 5% Py, Cu, Mo, 0.1% Cp.	959	55.0	57.0	2.0			0.11		0.016
						960	57.0	59.0	2.0			0.12		0.030
						961	59.0	61.0	2.0			0.13		0.046
						447962	61.0	62.7	1.7			0.03		0.006
62.7	64.1		QUARTZ PORPHYRITIC INTRUSIVE pink, finely crystalline, quartz phenocrysts to 3mm comprise 5%. Sparse quartz veinlets, 1-2mm wide	Intense K-feldspar	Upper and lower contacts @ 40° to core axis. 0.5% Py, 0.05% Mo, Tr Cp.	447963	62.7	64.1	1.4			0.01		0.022

## LORNEX MINING CORPORATION LTD.

## DIAMOND DRILL LOG

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Project: 4920

Property: MAC

Logged by: GRC

Date: 8/15/89

Hole No.: 89-12

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu % ppm	Zn % ppm	Mo % ppm	
						No.	Interval							Lgth.
							m	m						
64.1	97.2		SCHISTOSE VOLCANIC Dark green to green, intercalated and massive and fragmental volcanics Moderately to strongly foliated	Strong chlorite	5-10% Py disseminated along foliation planes @ 20-40° to core axis									
			(64.1-75.3) 5-10 quartz veinlets /m, 1mm-1cm wide	Weakly silicified (5%)	5-10% Py, Tr, Mo, Cp veinlets @ 35-60° to core axis.	447964	64.1	66.0	1.9			0.11	0.034	
						965	66.0	68.0	2.0			0.04	0.039	
						966	68.0	70.0	2.0			0.04	0.015	
						967	70.0	72.0	2.0			0.02	0.010	
						447968	72.0	74.0	2.0			0.06	0.008	
			(75.3-97.8) 20-30% quartz veins, 1cm-10cm wide generally imbedded, blue-gray later stage, bluish milky-white quartz veinlets, 1-3mm wide, and also older veins	Strong silicification (20-30%)	10% Py in schistose volcanics; 5% Py, 5% Mo, 2% Cp in veins veins @ 45-60° to core axis	69	74.0	76.0	2.0			0.19	0.070	
						770	76.0	78.0	2.0			0.19	0.057	
						971	78.0	80.0	2.0			0.09	0.042	
						972	80.0	82.0	2.0			0.13	0.081	
						973	82.0	84.0	2.0			0.12	0.046	
						974	84.0	86.0	2.0			0.09	0.052	
						975	86.0	88.0	2.0			0.12	0.192	
						976	88.0	90.0	2.0			0.14	0.196	
						447977	90.0	92.0	2.0			0.15	0.142	





LORNEX MINING CORPORATION LTD.

DIAMOND DRILL LOG

Project: 8720

Property: MAC

Logged by: GRC

Date: 8/15/89

Hole No.: 89-12

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu (%) ppm	Zn % ppm	Mo %	
						No.	Interval							Lgth.
							m	m						
			(89-12) 30.0 to 32.0 volcanic interbedded with of a green field.											
			(32.0-33.0) 12.0 to 13.0 volcanic interbedded with at depth within 1m.		45° to contact 2 to 3 core minerals pinched out along minor fault, however contact @ 70° to core axis.									
97.3	113.7		Volcanic interbedded with fine-grained to sugary textured basaltic supersaturated up to 95% Vague outlines of host volcanic	Perovskite alteration 2-5% Py.	3-5% K <sub>2</sub> O, 0.5-2% Cp.	447981	97.8	100.0	2.2			0.19	0.304	
						982	100.0	102.0	2.0			0.09	0.666	
						983	102.0	104.0	2.0			0.08	0.268	
						984	104.0	106.0	2.0			0.05	0.077	
						985	106.0	108.0	2.0			0.05	0.109	
						986	108.0	110.0	2.0			0.04	0.072	
						987	110.0	112.8	2.8			0.11	0.122	
						447988	112.8	114.6	1.8			0.02	0.016	

LORNEX MINING CORPORATION LTD.

DIAMOND DRILL LOG

Project: 2720

Property: NAC

Logged by: GRC

Date: 8/15/89

Hole No.: 89-12

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu % ppm	Zn % ppm	Mo % ppm	
						No.	Interval							Lgth.
							m	m						
			are locally visible banding present locally, intersected by a vein cut by later stage, Mo-rich banded veins which are oriented sub-parallel to the core axis.			447989	114.6	116.0	1.4			0.12	0.130	
						447990	116.0	118.7	2.7			0.20	0.450	
		15	(112.5-114.6)		Missmatch									
118.7	140.6		ECHISTOSE VOLCANIC Dark green, fine- grained, moderately foliated.	Strong biotite and chlorite. Weak to moderate silicification (5-15%)	Foliation @ 40-50° to core axis. 5-10% Py, Tr Cp. 0.05% Mo associated with quartz veins.	447991	118.7	120.0	1.3			0.23	0.435	
						992	120.0	122.0	2.0			0.23	0.170	
						993	122.0	124.0	2.0			0.23	0.027	
						994	124.0	126.0	2.0			0.11	0.096	
						995	126.0	128.0	2.0			0.14	0.182	
						996	128.0	130.0	2.0			0.14	0.026	
						997	130.0	132.0	2.0			0.28	0.020	
			(119.4-120.4) quartz vein banded white and blue- grey.		banding @ 0° to core axis. 5% Mo, 2% Cp, 2% Py Vein @ 0-20°	998	132.0	134.0	2.0			0.43	0.270	
						999	134.0	136.0	2.0			0.14	0.080	
						448000	136.0	138.0	2.0			0.13	0.098	
						448001	138.0	140.0	2.0			0.13	0.064	





## LORNEX MINING CORPORATION LTD.

## DIAMOND DRILL LOG

Page 11 of 16

Project: 8920

Property: MAC

Logged by: GRC

Date: 8/16/89

Hole No.: 89-12

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu (%) ppm	Zn % ppm	Mo %	
						No.	Interval							Lgth.
							m	m						
			(150.3-151.2) Banded S. to core axis		2% Hg, 2% Sp, 2% S. to core axis									
			(152.0-154.2) Banded S. to core axis		30° to core axis 2% Hg, 2% Sp, 2% Py									
155.1	168.9		SCHISTOSE VOLCANIC Dark green, fine grained, micaceous foliated. Quartz interbedded and bedded to 60°	Strong fracture and shear alteration. Strong silicification (50-60%)	Quartz veins parallel to core axis. Foliation @ 0-45° to core axis. Sulphides occure mainly within veins. 1% Hg, 0.5% Sp, 5% Py	448009	154.0	156.0	2.0	<0.07	0.18	0.110		
						010	156.0	158.0	2.0	<0.07	0.35	0.152		
						011	158.0	160.0	2.0	<0.07	0.52	0.510		
						012	160.0	162.0	2.0	<0.07	0.30	0.284		
						013	162.0	164.0	2.0	<0.07	0.13	0.022		
						014	164.0	166.0	2.0	<0.07	0.25	0.230		
						448015	166.0	168.0	2.0	<0.07	0.17	0.077		







## LORNEX MINING CORPORATION LTD.

## DIAMOND DRILL LOG

Page 14 of 16

Project: \_\_\_\_\_ Property: \_\_\_\_\_ Logged by: \_\_\_\_\_ Date: \_\_\_\_\_ Hole No.: 99-12

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu % ppm	Zn % ppm	
						No.	Interval						Lgth.
							m	m					
			(181.4-182.0) <i>Medium medium-grained quartz veins</i>		<i>1.5% Fe, 1.5% Mo Iron-sulphide contacts</i>								
			(182.0-182.9) <i>Qtz (182.6-181.4) (182.9-183.7) Two 1cm blue-grey quartz veins</i>		<i>Veins 10° to core axis, 5% Py, 0.02% Mo, Fe, P</i>								
			(183.8-184.2) <i>fine grained, medium crystalline biotite, oligoclase type</i>										
			(184.3-185.1) <i>Granite blocky ground</i>		<i>5% Py, 0.1% Cp, 0.05% Mo</i>								

## LORNEX MINING CORPORATION LTD.

## DIAMOND DRILL LOG

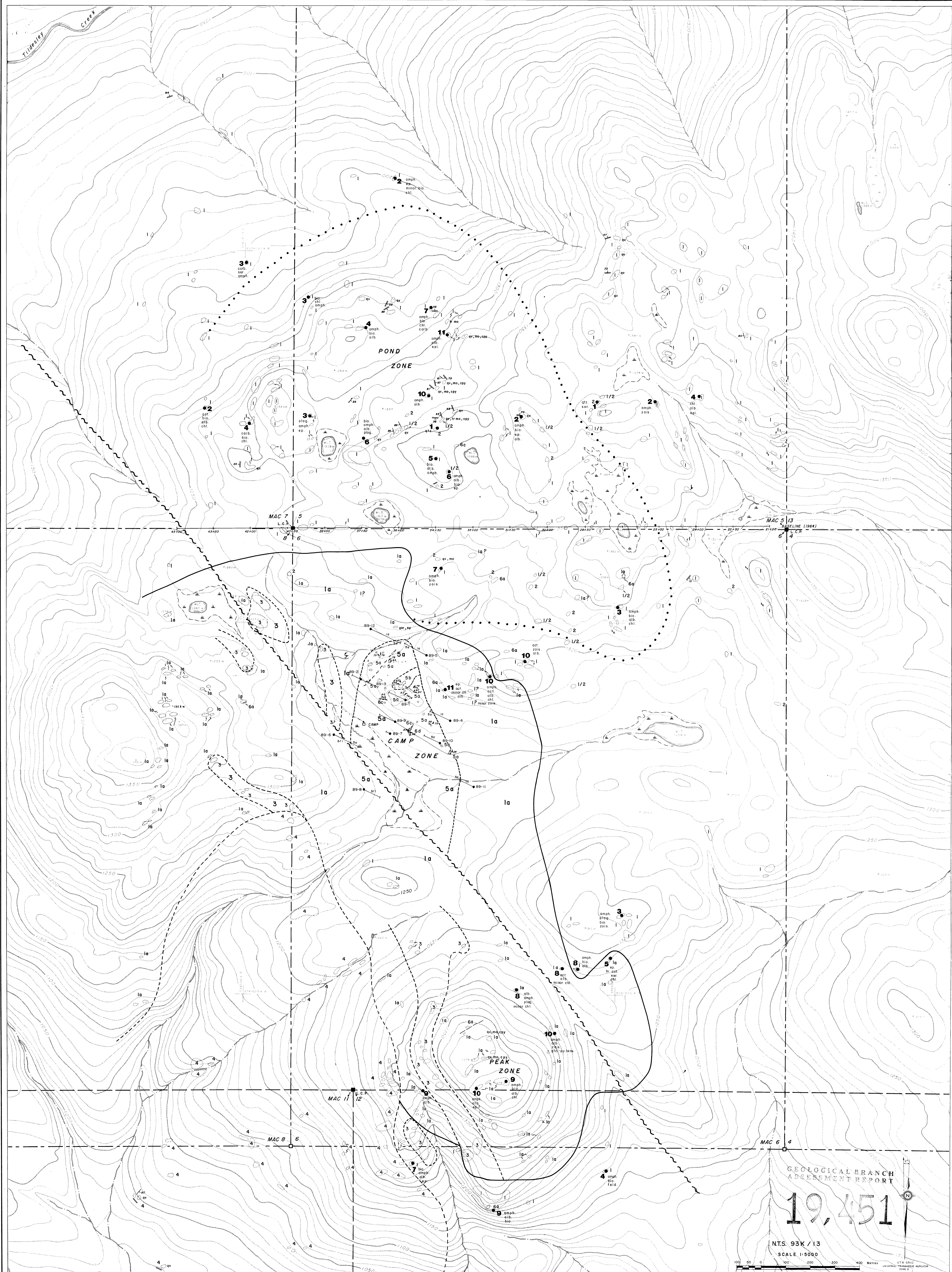
Page 15 of 16

Project: \_\_\_\_\_ Property: MAC Logged by: GRC Date: 4/16/87 Hole No.: 87-12

From m	To m	% Rec	Lithology	Alteration	Mineralization/Sulphides/ Structure/Core Condition	SAMPLE			Au oz/t ppb	Ag oz/t ppm	Cu % ppm	Zn % ppm	Mo %	
						No.	Interval							Lgth.
							m	m						
191.4	225.6		PARTS CLUZONITE Pale green-grey, medium crystalline quartz phenocrysts up to 7mm wide, are spherical and comprise 30-40% of quartz veinlets/ mm 2mm-1cm wide	23% carbonate sericite	0.25% Mo, 0.02% Cp 0.2% Py. veinlets @ 30° (dominant), 15° & 70° to core axis.	442028	191.4	194.0	2.6			0.13	0.060	
						229	194.0	196.0	2.0			0.02	0.065	
						230	196.0	198.0	2.0			0.04	0.027	
						231	198.0	200.0	2.0			0.01	0.025	
						232	200.0	202.0	2.0			0.02	0.066	
						233	202.0	204.0	2.0			0.02	0.052	
						234	204.0	206.0	2.0			0.01	0.036	
						235	206.0	208.0	2.0			0.01	0.083	
						236	208.0	210.0	2.0			0.01	0.054	
						237	210.0	212.0	2.0			0.01	0.050	
						238	212.0	214.0	2.0			0.01	0.035	
			(191.4-191.9) Quartz blooded to 75%		0.05% Mo, 0.5% Py, Tr Cp.	239	214.0	216.0	2.0			0.01	0.046	
						240	216.0	218.0	2.0			0.02	0.061	
						241	218.0	220.0	2.0			0.01	0.027	
			(191.9-197.1) Fine-grained crystalline - an- orthopyroxene matrix mineral margin.			242	220.0	222.0	2.0			0.02	0.043	
						243	222.0	224.0	2.0			0.01	0.021	
			(215.9-217.6) Fine-grained quartz fractured		Sparse sulphide to 5mm.	443044	224.0	225.6	1.6			0.02	0.039	



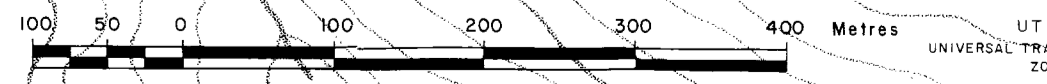
APPENDIX V



GEOLOGICAL BRANCH  
ASSESSMENT REPORT

**19,451**

NTS: 93K / 13  
SCALE 1:5000

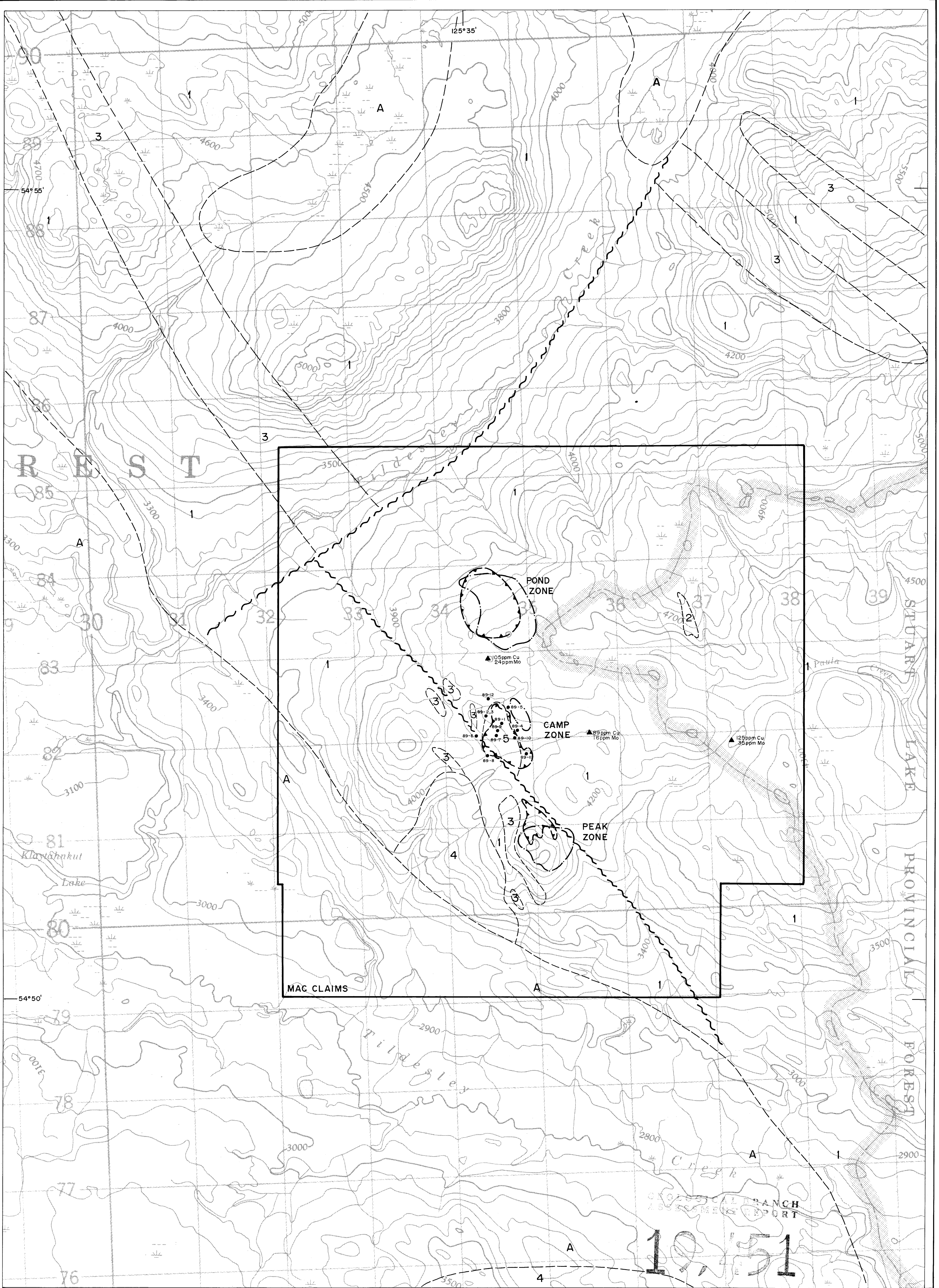


ABBREVIATIONS		THIN SECTION COLOUR	
Class	Description	Class	Description
act.	actinolite	1	green with brown swirls
alb.	albite	7	light greenish brown - even texture
amph.	amphibolite	8	light greenish brown with swirls
bio.	biotite	9	many swirls - some red, brownish green
carb.	carbonite	10	light brown with black spots
chl.	chlorite	11	darkest grass green
epi.	epidote		
plag.	plagioclase		
ser.	sericite		
zois.	zoisite		

6	Dykes a) Quartz feldspar porphyry b) Feldspar quartz porphyry c) Quartz biotite porphyry d) Feldspar porphyry	4	Biotite - hornblende granodiorite
5	a) Leucocratic quartz monzonite b) Porphyritic biotite quartz monzonite	3	Serpentine
		1	Schistose intermediate to basic volcanics and volcanoclastics a) Biotite - chlorite - actinolite hornfels equivalent
		2	Quartz muscovite replacements (?)

SYMBOLS	
Qv	Quartz vein
Mo	Molybdenite
Cpy	Chalcopyrite
Gar	Garnet
Ep	Epidote
—	Vein direction
—	Bedding direction
—	Fractures
—	Foliation
—	Drift hole
—	Limit of hornfels
—	Biotite line
—	Geological contact
—	Fault

**Rio Algom Exploration Inc.**  
MAC CLAIMS  
**GEOLOGY**  
OMINECA M.D., B.C.  
DATE: DECEMBER 1989 DRAWN BY: G.R.C./CHONG DWG. NO: 3

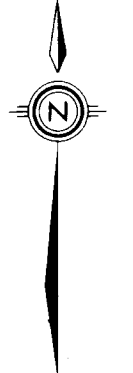


**LITHOLOGIES**

5	Till, alluvium
4	Porphyritic quartz monzonite
3	Biotite-hornblende granodiorite
2	Serpentinite
1	Limestone
1	Intermediate to basic volcanics & volcanoclastics

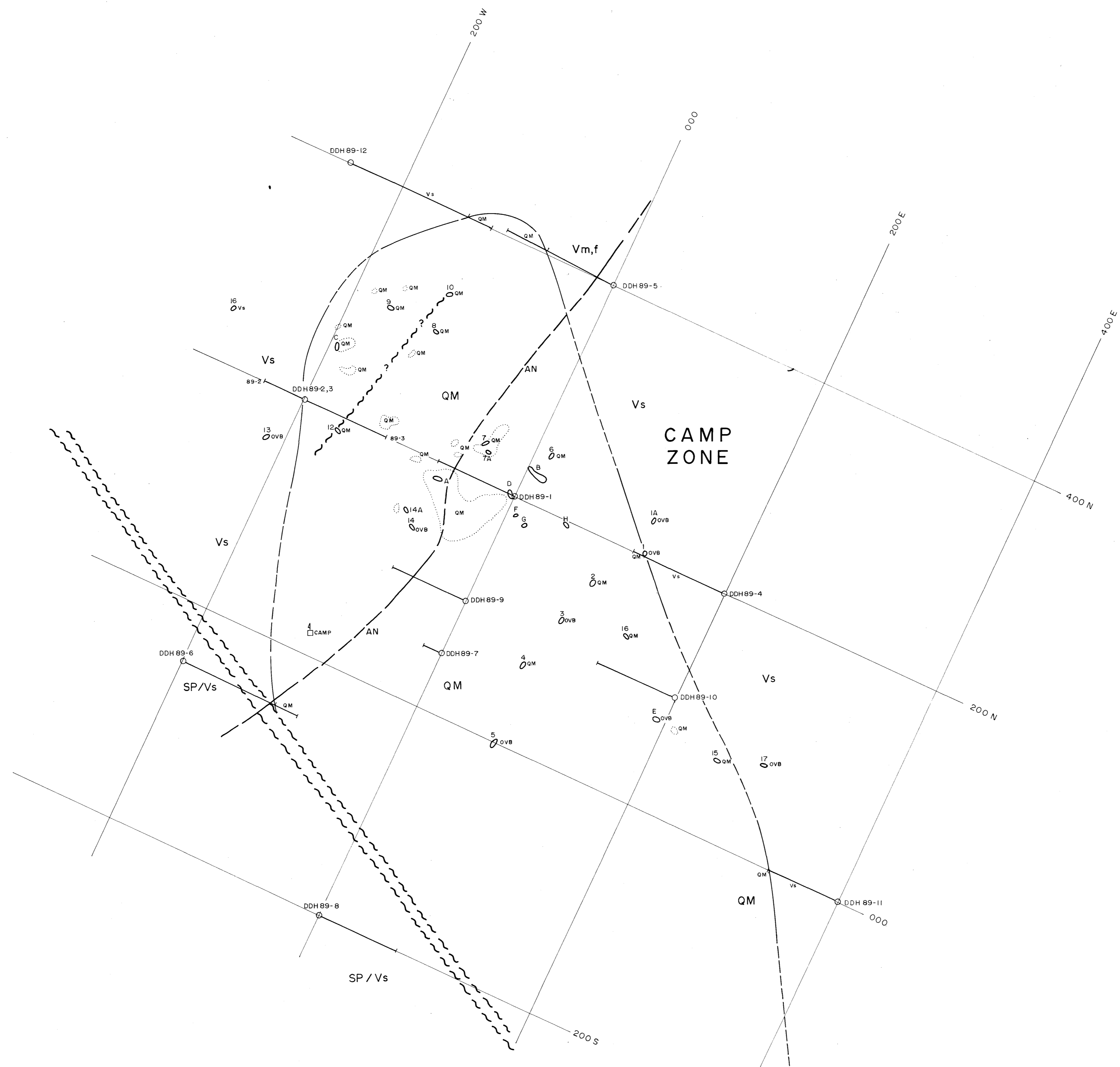
**SYMBOLS**

	Fault
	Contact
	Magnetic low
	Coincident Mo & F in rock anomalies (>5 ppm Mo, >400 ppm F)
	Drill hole collar
	Lake sediment sample

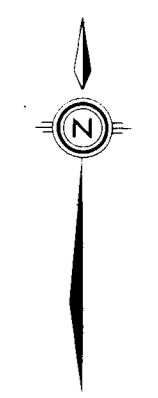


N.T.S. 93 K / 13  
SCALE 1:20,000  
400 200 0 400 800 1200 Metres

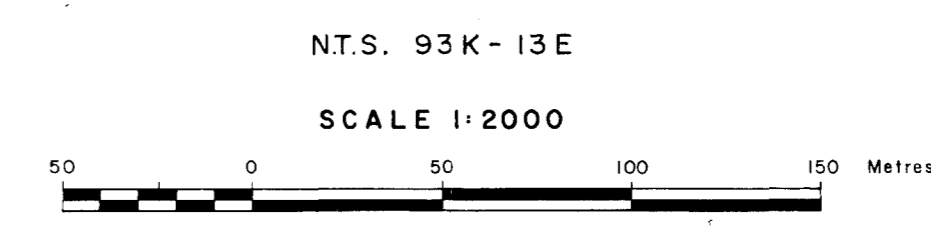
<b>Rio Algom Exploration Inc.</b>		
MAC CLAIMS		
<b>COMPILATION MAP</b>		
<b>GEOLOGY, GEOCHEMISTRY, GEOPHYSICS</b>		
OMINECA M.D., B.C.		
DATE	DRAWN BY	DWG
DECEMBER 1989	G.R.C. / Chong	2



GEOLOGICAL BRANCH  
ASSESSMENT REPORT  
**19,451**



LITHOLOGIES		SYMBOLS	
AN	Andesite, amygdaloidal	○	Trench, label
QM	Quartz monzonite, quartz porphyritic	○	1989 Diamond drill hole, number
SP	Serpentinite	○	Outcrop pattern
Vs	Schistose volcanics, intermediate volcanic rocks, volcaniclastics	---	Geological contact (defined, assumed)
Vmf	Intercalated massive and fragmental, intermediate volcaniclastics	~~~~~	Fault
		---	Dyke



<b>Rio Algom Exploration Inc.</b>		
MAC CLAIMS		
<b>GEOLOGY, TRENCH AND DRILL HOLE PLAN</b>		
OMINECA M.D., B.C.		
DATE	DRAWN BY	DWG.
DECEMBER 1989	G.R.C. / CHONG	4

Elevation, a.s.l.

1300m

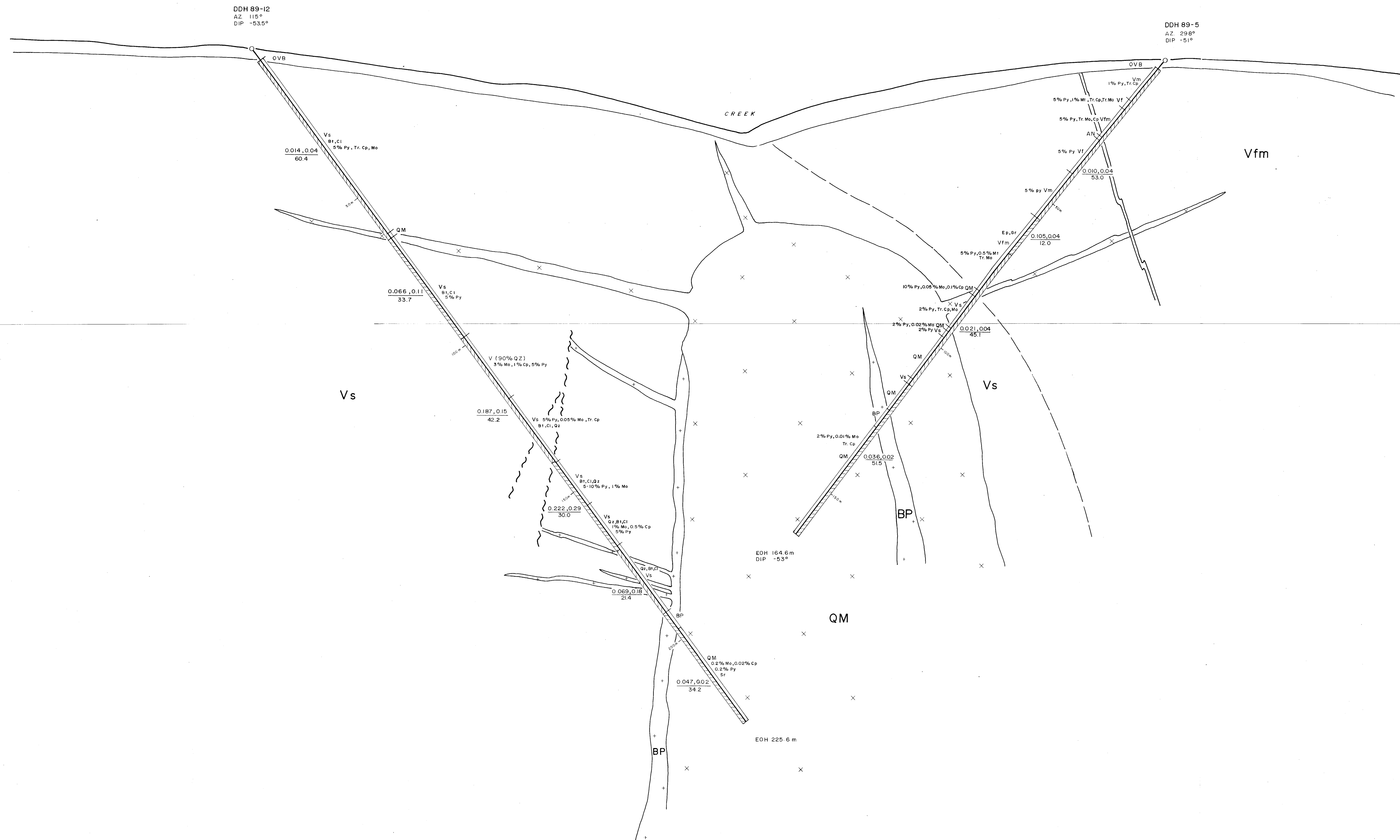
1300m

1200m

1200m

1100m

1100m



GEOLOGICAL BRANCH ASSESSMENT REPORT

19,451

**ABBREVIATIONS**

Mo - Molybdenite, molybdenum	Ep - Epidote
Cp - Chalcopyrite	Gr - Garnet
Py - Pyrite	Bt - Biotite
Hm - Hematite	Cl - Chlorite
Mt - Magnetite	Qz - Quartz
Tr - Trace	Sr - Sericite
	OVB - Overburden

**LITHOLOGIES**

Layered rocks

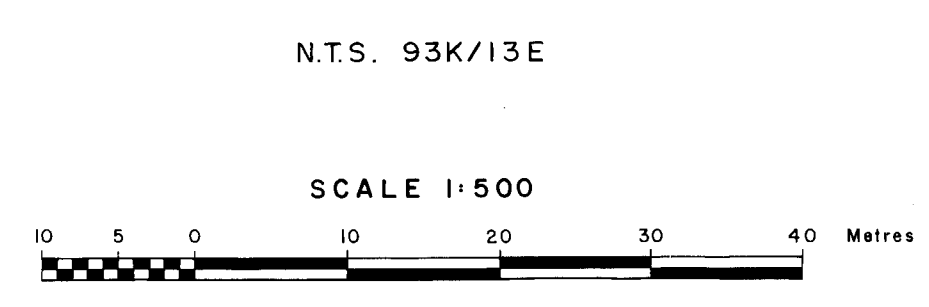
Vm	- Intermediate, fine grained, massive volcanic
Vf	- Intermediate, fine to medium grained, lapilli tuff
Vfm	- Intercalated fragmental and massive volcanic
Vs	- Schistose intermediate volcanic

**Intrusive rocks**

AN	- Andesitic andesite dyke
BP	- Biotite-plagioclase porphyry
QM	- Paraphyritic quartz monzonite

**SYMBOLS**

○ 89-3	- Drill hole (assays)
—	- Geological contact (sharp, gradational)
—	- Fault



**Rio Algom Exploration Inc.**

MAC CLAIMS

**DIAMOND DRILL SECTION 400 N**

OMINECA M.D., B.C.

DATE: DECEMBER 1989  
DRAWN BY: G.R.C./CHONG  
IDWG: 5







295°

300 E

400 E

500 E

115°

Elevation, as.l.  
1300m

1300m

1200m

1200m

1100m

1100m

DDH 89-11  
AZ 295°  
DIP -52°

OVB

5% Py Vfm

0.030, 0.08  
44.7

Cl

5% Py, Tr Cp  
40.5% Mo

Vs

Ep, Gr, Bt  
5% Py, 0.5% Cp  
0.5% Mo

0.135, 0.19  
50.0

Vs

0.5% Py BP

10% Py Vs

5% Py BP

10% Py, Bt, Cl Vs

1% Py, 0.05% Mo QM

EOH 106.7m  
DIP -51.5°

BP

QM

Vs

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

19,451

**ABBREVIATIONS**  
 Mo - Molybdenite, molybdenum  
 Cp - Chalcopyrite  
 Py - Pyrite  
 Hm - Hematite  
 Mt - Magnetite  
 Ep - Epidote  
 Gr - Garnet  
 Bt - Biotite  
 Cl - Chlorite  
 Qz - Quartz  
 Tr - Trace  
 OVB - Overburden

**LITHOLOGIES**  
**Layered rocks**  
 Vm - Intermediate, fine grained massive volcanic  
 Vf - Intermediate, fine to medium grained lapilli tuff  
 Vfm - Intercalated fragmental and massive volcanic  
 Vs - Schistose intermediate volcanic

**Intrusive rocks**  
 AN - Amygdaloidal andesite dyke  
 BP - Biotite-plagioclase porphyry  
 QM - Porphyritic quartz monzonite

**SYMBOLS**  
 89-3 - Drill hole (assays)  
 %Mo, %Cu metres  
 - Fault  
 - Geological contact (sharp, gradational)

N.T.S. 93K / 13E  
 SCALE 1:500  
 10 5 0 10 20 30 40 Metres

**Rio Algom Exploration Inc.**  
 MAC CLAIMS  
 DIAMOND DRILL SECTION  
 000  
 OMINECA M.D., B. C.  
 DATE: DECEMBER 1989 | DRAWN BY: G.R.C. / CHONG | DWG: 8

295°

200 W

100 W

000

115°

Elevation, as.l.  
1300m

1300m

1200m

1200m

1100m

1100m

DDH 89-6  
AZ 115°  
DIP -50°

OVB

SP  
10% Py, 3% Mt  
AC, Cl

0.048, 0.02  
18.0

SP

Vs  
Bt, Ac  
5% Py

SP  
1% Py, 1% Mt

Vm  
5% Py, Bt

SP  
1% Py, 1% Mt,  
0.01% Mo

Vfm  
4% Py, Bt, Ac

AN 0.5% Py

Vf 10% Py, Tr, Mo

AN 0.5% Py

Vf 1% Hm, 0.5% Py

AN

0.011, N.A  
31.4

EOH 169.2m  
DIP -50°

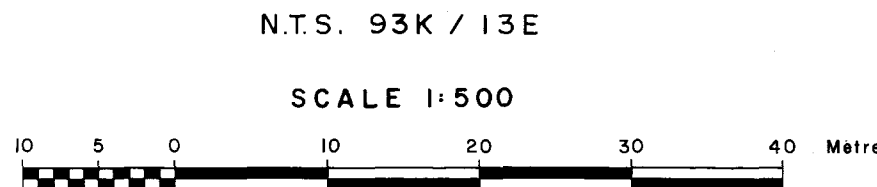
QM

**ABBREVIATIONS**  
 Mo - Molybdenite, molybdenum  
 Cp - Chalcopyrite  
 Py - Pyrite  
 Hm - Hematite  
 Mt - Magnetite  
 Ep - Epidote  
 Gr - Garnet  
 Bt - Biotite  
 Cl - Chlorite  
 Qz - Quartz  
 Tr - Trace  
 OVB - Overburden  
 Ac - Actinolite

**LITHOLOGIES**  
**Layered rocks**  
 Vm - Intermediate, fine grained massive volcanic  
 Vf - Intermediate, fine to medium grained lapilli tuff  
 Vfm - Intercalated fragmental and massive volcanic  
 Vs - Schistose intermediate volcanic

**Intrusive rocks**  
 AN - Amygdaloidal andesite dyke  
 BP - Biotite-plagioclase porphyry  
 QM - Porphyritic quartz monzonite  
 SP - Serpentinite

**SYMBOLS**  
 89-3 - Drill hole (assays)  
 %Mo, %Cu metres  
 - Fault  
 - Geological contact (sharp, gradational)



GEOLOGICAL BRANCH  
ASSESSMENT REPORT

19,451

Rio Algom Exploration Inc.

MAC CLAIMS

DIAMOND DRILL SECTION  
050 S

OMINECA M.D., B. C.

DATE	DRAWN BY	DWG
DECEMBER 1989	G.R.C./CHONG	9

295°

000

1000

2000

115°

Elevation, as.l.  
1300m

1300m

1200m

1200m

1100m

1100m

DDH 89-8  
AZ: 114°  
DIP: -53.5°

OVB

Vf

SP

Tr. Mo, Py

2% Py, 1% Mt

SP

Tr. Py, 1% Mt

Vm 5% Py

SP 1% Mt, Tr. Py

Vfm/SP

1% Py, 1% Mt

0026, N.A.

9.0

Vm 5% Py

EOH 121.9m

DIP -53°

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

19,451

ABBREVIATIONS

Mo - Molybdenite, molybdenum  
Cp - Chalcopyrite  
Py - Pyrite  
Hm - Hematite  
Mt - Magnetite  
Ep - Epidote  
Gr - Garnet  
Bt - Biotite  
Cl - Chlorite  
Qz - Quartz  
Tr - Trace  
OVB - Overburden

LITHOLOGIES

Layered rocks  
Vm - Intermediate, fine grained massive volcanic  
Vf - Intermediate, fine to medium grained lapilli tuff  
Vfm - Intercalated fragmental and massive volcanic  
Vs - Schistose intermediate volcanic

Intrusive rocks

AN - Amygdaloidal andesite dyke  
BP - Biotite-plagioclase porphyry  
QM - Porphyritic quartz monzonite  
SP - Serpentinite

SYMBOLS

89-3 - Drill hole (assays)  
%Mo, %Cu metres  
- Fault  
- Geological contact (sharp, gradational)

N.T.S. 93K / 13E

SCALE 1:500

10 5 0 10 20 30 40 Metres

Rio Algom Exploration Inc.

MAC CLAIMS

DIAMOND DRILL SECTION  
200 S

OMINECA M.D., B.C.

DATE  
DECEMBER 1989

DRAWN BY  
G.R.C. / CHONG

DWG  
10