002452

Subject: Fw: Ashton Copper-Gold Project - Figure 1, and Report
From: "Jack Ashton" <jmaconsultyvr@telus.net>
Date: Fri, 5 Mar 2004 17:10:12 -0800
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Rod

For your confidential use only.

Attached is my latest write up on my Ashton Copper-Gold along with a "Scale" Model.

If you find an interested party you get 10% of the first two tranches and a 6% interest on my side thereafter to production.

This is a pet project of mine which I have had for several years.

Jack

ASHTON Copper-Gold

COPPER-GOLD PORPHYRY PROSPECT, and: VOLCANIC ASSOCIATED MASSIVE SULPHIDE PROSPECT

February 2004

Project Fundamentals

Privileged and Confidential

Part of a large **extremely anomalous copper-in-soils anomaly** within an alteration zone at least 2.0 miles north-south, by 1.4 miles east-west was probed by a reconnaissance two-line dipole-dipole, **deep-probe induced-polarization (IP) survey** in 1999. Each survey line, more than 1 mile in length, crossed the anomaly at right angles with a penetration depth estimated at 1,400 feet below surface. The survey was successful in defining a **large disseminated suphide** body that extends to more than 1,400 feet depth with its top located less than 200 feet below surface. A wide, high amplitude, 300 milli-Volt (negative), Self Potential (SP) anomaly coincident with the surface projection of the disseminated sulphide body **confirms the presence of a strong concentration of subcropping sulphides** in the vicinity of the SP anomaly.

There appears to be room in this single geophysical structure, as presently identified, **to contain a geological mineral resource of 400 million tonnes of disseminated sulphides;** yet this anomaly is still open into the large alteration zone extensions to the northwest and southeast. See **Figure 1 for "Model to Scale".**

Along the eastern contact zone of the disseminated sulphide body at about 400 feet below surface is a large zone of extremely low resistivity, or conductivity-thickness, which represents a **large conductive body** interpreted to be **massive sulphides**. This body is stratabound as it dips conformably at -40° east within an altered sedimentary-volcanic monoclinic structure. As a speculation only this body could be distinct and separate metallogenic event unrelated to the disseminated sulphide body, possibly a volcanic associated massive sulphide deposit having formed subsea in mid-Permian or alternatively formed as a zoned replacement deposit (skarn?) to the disseminated sulphide body. It could also have originated as a volcanogenic massive sulphide deposit which was later overprinted by metal bearing fluids from the porphyry which could have led to recrystallization of the deposit resulting in the extremely low resistivities measured in the deep-probe IP survey. Often extremely low resistivity sulphide structures as this is do not respond to the IP chargeability effect. This region of British Columbia is known for its many mineralizing episodes from mid-Permian to Tertiary.

The large **conductive body** has a dip length of more than 1,100 feet and is open to depth beyond 1,400 feet below surface. It has an interpreted strike length of about 2,400 feet and is open to the south. It is estimated to be about 250 feet thick. It coincides along strike with an extremely anomalous copper-in-soils anomaly which is a distinctly separate anomaly from the copper anomaly above the disseminated sulphides. It also coincides with a strong VLF-EM geophysical conductor. It has an estimated

conductivity-thickness of 12.2 mhos which in all probability represents highly conductive massive sulphides. Based upon the present data there appears to be **room enough in this geophysical structure to contain a geological mineral resource of more than 100 million tonnes of massive sulphides.**

Geological logging by R. E. Gale, Ph.D., P.Eng., consulting geological engineer, and petrological examination by P. B. Read, Ph.D., consulting geologist, of drill chips from the percussion drilling program within the propylitic zone that envelopes the disseminated sulphide body shows the likelihood that these disseminated sulphides were deposited from a buried porphyry phase of this episodic composite intrusive stock.

A small drilling program in 1994 followed a shallow-probe induced polarization survey over the large copper-in-soils anomaly. Unfortunately the drilling sampled only a small part of the propylitic zone and did not penetrate the main disseminated sulphide body. The igneous rocks hosting the main mineralized porphyry consists of altered and mineralized gabbro, diorite, quartz-diorite, tonalite, quartz-diorite porphyry and albitite (albite porphyry). This composite stock may be principally tonalite. It is a large system and is ideally situated from a large mineral deposit perspective because the local region is highly prospective for large copper and gold deposits of the porphyritic style and related types. The modal composition appears to fall into the general compositional field of rocks associated with other copper and copper-gold porphyry deposits throughout the world.

Gale summarized the geological logging of the percussion drill chips as follows:

> *" It is apparent from the occurrence of at least 3-types of mineralized intrusives, diorite, gabbro and quartz-diorite that there are multiple intrusive phases present in the altered and mineralized system on the property. Mineralization occurs both as disseminated zones and as mineralized vein systems, probably along the predominant northerly trend of structure noted in the area. Alteration in the form of calcite flooding and quartz and calcite veining was noted in all of the southernmost holes, RC 93-1 through RC 93-5 and therefore is widespread throughout the latter area."*

Perhaps one of Gale's most important observations made was in logging the bottom of hole RC 93-3 following the abandonment of the property by the previous Optionor who unfortunately did not log the holes drilled. Gale observed that the bottom 70 feet, between 430 feet and 500 feet depth of hole RC 93-3 contained:

> ***" several quartz-calcite pyrite- chalcopyrite veinlets."***

Essentially this section of drilling represents a network of stockwork veins which is part of the roof-shatter zone which forms around the outer margins of a porphyry deposit. The shattering occurs at the time of formation of a porphyry copper-gold deposit characteristically as a result of the explosive exsolution of mineral rich volatiles and fluids at the time of crystallization which results in catastrophic overpressuring and shattering of the carapace or roof and side zones. These enormous forces result in extensive stockwork development which also controls the depositing of copper and gold

mineralization and the zoned alteration features. The stockworks merge with increasing metal content towards the crystallized magma chamber which is now the mineral bearing host porphyry.

It was this "stockworks zone" discovery by Gale that motivated the deep-probe IP survey which resulted in the discovery of the large disseminated sulphide deposit which in all probability could be a large copper or copper-gold orebody.

Hydrothermal alteration in the intrusive suite to the west and north and in the volcanic-sedimentary succession to the east and south is widespread. This indicates that a significant porphyry style mineralized intrusive system underlies the area. J. W. Antal, Ph.D., consulting geologist, after examining the property following the discovery of the large copper-in-soils anomaly in 1969 concluded that ***"the claim area had the potential for hosting a large low-grade copper deposit."***

About 1,000 feet north of the large disseminated sulphide body is an intensely altered diorite which was described petrographically by P. B. Read, Ph.D.:

> ***"The original rock may have been a fine grained (1 mm) pyroxence diorite but this rock has been nearly obliterated by an alteration assemblage of tourmaline-epidote-calcite-sphene-pyrite which is cut by a few albite-calcite veinlets. The tourmaline is major part of the alteration assemblage and indicates the presence of significant volatiles in the solutions causing the alteration"***

Read's observation provides additionally substantive evidence of the scope of this large system.

About 2,000 feet east of this intensely altered diorite, Hole RC 97-7 entered a hydrothermally altered **tonalite** (quartz diorite) buried below a succession of overburden and recent (Kingsvale?) volcanics overlying the tonalite. The tonalite sample studied consists of about 40% quartz, and 47% albite which is heavily sericitized and saussuritized and contains disseminated pyrite. The tonalite is overprinted with epidote, chlorite, calcite and opaque minerals, and is geochemically anomalous in copper (106 ppm), and arsenic (12 ppm), and extremely anomalous in antimony (16 ppm) and bismuth (7 ppm). The **anomalous As-Sb-Bi** combination is of great interest here as it suggests a low temperature zoning feature of a precious metals phase of mineralization within this large hydrothermal system.

Geologically the mineralized intrusive complex zone is located at the northeast edge of the Mount Lytton Batholithic Complex close to the intersection of two major basement fault structures. The north-south fault structures separate the Upper Triassic/Lower Jurassic Mount Lytton Complex (granodiorite, quartz diorite, and diorite), the root zone of the Nicola Volcanic Arc, from the neighboring Quesnellia Terrane. J.W. Monger, Ph.D., Emeritus Geoscientist (Geological Survey of Canada, 1989) has postulated that the Mount Lytton Complex, originated in the same subducted upper plate that produced the Guichon Batholith and the giant copper deposits of the Highland Valley found within it.

It is speculated that the disseminated mineralization at Ashton Copper-Gold is the main stage mineralizing event and is associated with either a quartz-diorite porphyry or a porphyritc tonalite phase of Jurassic age either of which could be the **"ore bringer".**

Core drilling is required to determine the geometry of the multi-phased intrusives, including the structural, alteration, and mineralogical features and other relationships.

Similar lithologies are responsible for many of the large copper, and copper-gold porphyry deposits found in the Chilean Cordillera. There, plutonic intrusives of Jurassic age consisting of gabbros, gabbro-diorite, diorite, diorite porphyry, tonalite, tonalite porphyry, and granodiorite where the felsic stages are the "**ore-bringers**".

One notable **world-giant copper deposit** formed in **tonalite** lithology, yet is "recent in age" is **Los Pelambres** in Chile. It is located in a composite stock which intruded andesitic flows and an older un-mineralized quartz-feldspar porphyry. The composite stock consists principally of tonalite and porphyritic tonalite with smaller dykes of quartz diorite porphyry, quartz monzodiorite porphyry, and quartz monzonite porphyry. This deposit contains in excess of 3.3 billion tonnes of 0.63 weight-percent copper which translates to a copper content of 45 billion pounds.

Although the **tonalite** at Ashton Copper-Gold may have similar comparative significance to the Los Pelambres deposit, it also has similar quartz-diorite porphyry lithology to the Afton Mine copper-gold porphyry deposit. In further support of a large copper and/or copper-gold mineralized porphyry system underlying the Ashton Copper-Gold property is the genetic relationship with the world-giant Valley Copper copper deposit located 25 miles to the north-northeast which originally contained a copper inventory of close to 12 billion pounds.

The shallow penetrating pole-dipole IP survey conducted over the large copper-in-soils geochemical anomaly in 1993 formed the basis for the relatively unsuccessful percussion drilling program in 1994 which in retrospeet penetrated only the propylitic zone. The large disseminated sulphide body was missed by both survey and drilling as also was the large massive-sulphide body. It was the results of the detailed logging and petrological examination of the percussion drill chips in 1997 by Gale and Read respectively, that led to the design and completion of the subsequent deep-probe IP survey. The deep-probe survey explained why the shallow probe survey and percussion drilling were unsuccessful.

These two large geophysical structures and their probable extensions are located within an intensely hydrothermally altered area that measures at 2.0 miles south-north, by 1.4 miles east-west which has been intruded by a mineralized and altered complex stock. The host rocks include a meta-volcanic and meta-sedimentary pile in which there is considerable skarnification and which may be mid-Permian in age. The complex stoek includes gabbro, diorite, diorite porphyry, quartz diorite and tonalite. Leucocratic felsic rocks and albitite (albite porphyry) are observed in thin section from selected drill chips.

The main intrusive member could be the altered **tonalite** with both quartz-diorite porphyry and porphyritic tonalite phases which are significant in the production of copper and copper-gold mineral deposits.

Alteration identified through thin section petrography includes but is not limited to albitization, saussuritization, carbonatization, sericitization, pyritization, silicification. tourmalinization and skarnification. Alteration also includes significant hematite and magnetite. **Carbonitization is intensive and widespread and represents catastrophic removal of calcium** due to chemical replacement reactions having occurred at depth during the mineral depositing stage. Both sodic and sodic-calcic alteration are common features in alkaline Cu-Au deposits peripheral to the central core of potassic alteration (Jensen & Barton, 2000)

The albitization with low-grade copper in the propylitic zone could be indicative of a spatial relationship with intermediate and high grade albitization in the intrusive phase hosting the disseminated sulphide body where the IP pseudosections show high-chargeability (disseminated sulphides) in direct association with high resistivity (silicification). Albitization zones at Ajax-Afton, and Mount Milligan contained high-grade copper and gold mineralization.

Assays from drill chips from Holes RC 93-1 to RC 93-5 in the propylitic zone, in addition to containing both very and extremely-anomalous copper, show abundant **anomalous gold pathfinder elements**. **Au** is slightly above threshold to very anomalous. **As** is very anomalous to extremely anomalous. **Sb** is extremely anomalous. The system also contains very anomalous **V** and extremely anomalous **B**. In all probability the disseminated sulphide body has an associated gold resource. However in the collection of drill chips for assay the sludges were not collected which makes the gold assay results incomplete.

According to Hodgson, C.J. (1993) quoting Burrows and Spooner (1987), gold bearing magmatic fluids responsible for mesothermal lode gold deposits have been linked to large **tonalite**-trondhjemite-granodiorite complexes that surround and intrude greenstone belts. Hence the same mineralizing mechanism with the felsic tonalites acting as the "gold bringers" could also be at work here in combination with a copper-gold producing magma. In that section of stream which passes through the claims the source of coarse placer gold, discovered in 1857, has yet to be found.

To the northeast, east, and southeast, there is intense skarnification and **marbleization** development probably to a great depth along the contact zone within the sedimentary-volcanic succession which hosts the complex intrusive system. This marbleization adds another dimension to the possibilities for ore body formation in this system. Notwithstanding the interpreted volcanic associated massive sulphide body, the disseminated sulphide bearing porphyritic system along the contact zone has been emplaced into rocks that probably have low permeabilities especially the marbleized-

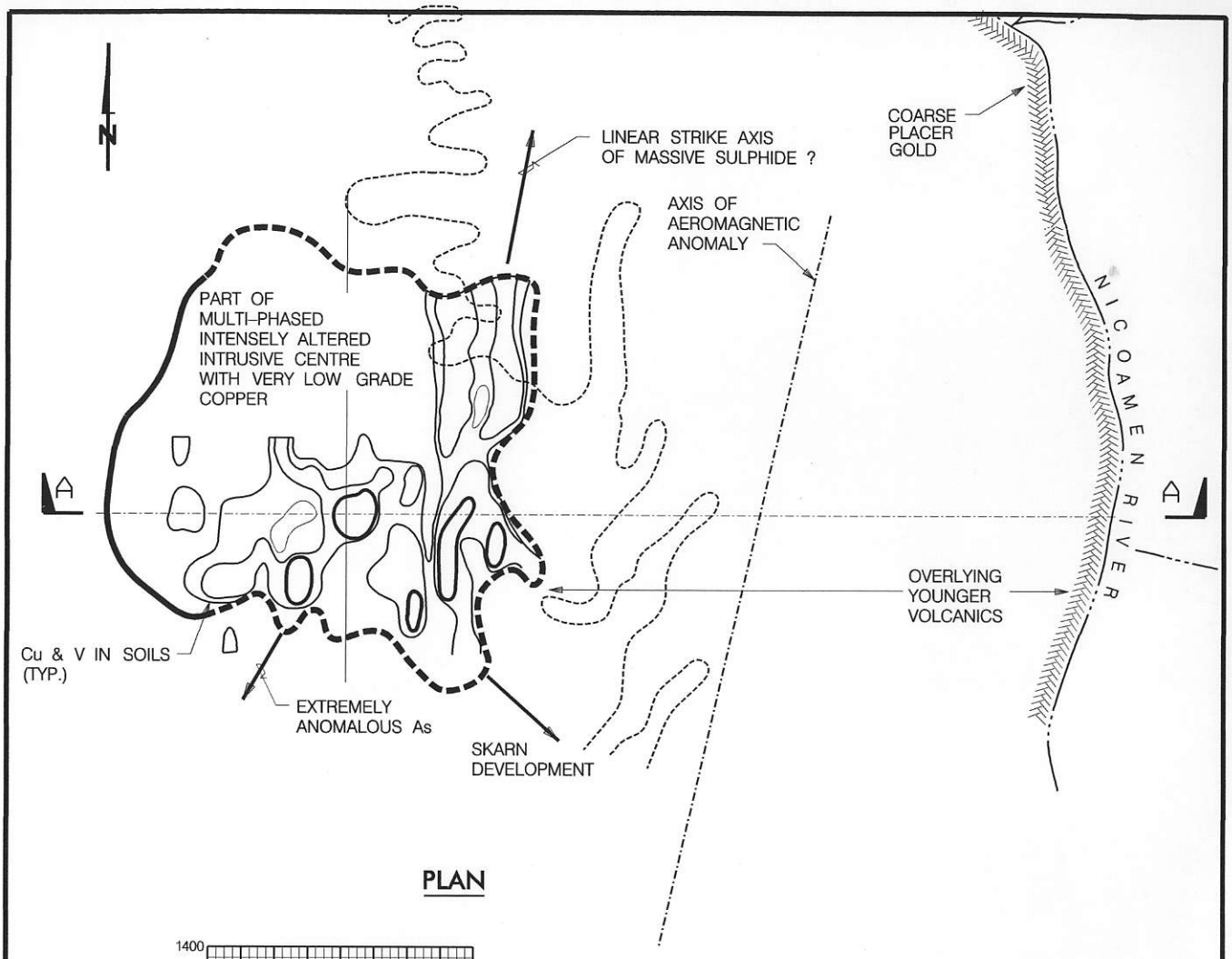
limestone. **According to R. Sillitoe (2000) this part of the intrusive environment is a particularly favourable target area for a high-grade gold-rich porphyry deposit** because of the impermeable marbleized limestone's capacity (located east and south of the intrusive stock) to prevent lateral and in some cases also vertical dissipation of metalliferous fluid. Gold and copper grades also seem likely to be higher in deposits generated beneath rather than within volcanic edifices because of more efficient retention of mineralized magmatic fluid. Therefore this concept could also be responsible as an alternative mineralizing mechanism for producing the massive sulphides.

The property consists of 7 mineral claims of about 3,000 acres. It is located 25 miles south-southwest from the world-giant Valley Copper deposit close to Trans-Canada Highway 1 and the Canadian Pacific Railroad. The claims are easily accessed by good grade logging road. More than $180,000 has been spent on exploration in the last decade resulting in the definition of 2 major mineral deposit targets which are virtually unexplored.

This property is at that stage which offers the **greatest reward to risk ratio** for the exploration money spent where at least one portended mineral resource has been identified with the possibility of a second mineral resource also being present. In relative "orebody finding" exploration terms only a nominal amount of additional geoscientific work and drilling is required to make a major discovery. The odds here have now shifted such that the task at hand is to prove that a major deposit is **not** there.

J. M. Ashton, P.Eng.

February, 2004
Vancouver, British Columbia



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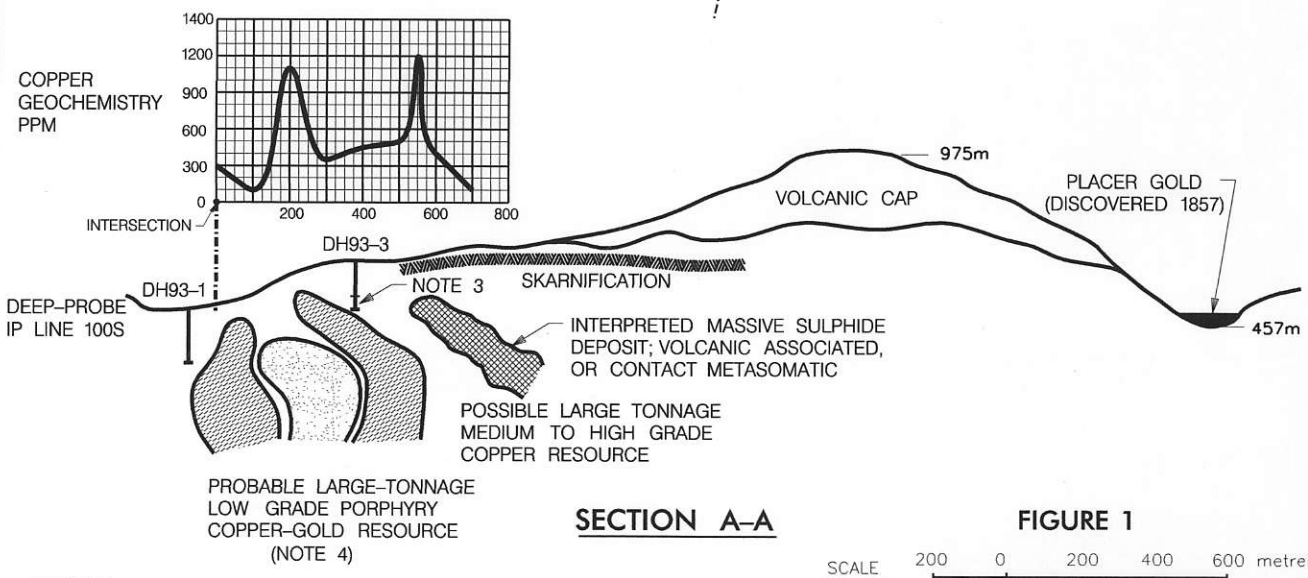

SECTION A-A

FIGURE 1

SCALE 1:20,000

200 0 200 400 600 metres

NOTES

1. Cu GEOCHEMISTRY TERMINATES ABRUPTLY AGAINST YOUNGER VOLCANICS.
2. MODEL IS SCALED FROM GEOLOGICAL, GEOCHEMICAL & GEOPHYSICAL DATA.
3. 100' OF QUARTZ-CARBONATE PYRITE-CHALCOPYRITE STOCKWORKS.
4. ZONES OF DISSEMINATED SULPHIDES SHOWN IDENTIFIED FROM DEEP-PROBE (420m DEPTH) IP SURVEY CHARGEABILITY & RESISTIVITY DATA.
5. DRILL HOLES PENETRATED PROPYLITIC ZONE ONLY. DRILL HOLES CONTAIN ANOMALOUS GOLD & EXTREMELY ANOMALOUS ARSENIC & ANTIMONY.

808 EXPLORATION SERVICES LTD.

ASHTON COPPER-GOLD PROSPECT

COPPER-GOLD PORPHYRY & COPPER RICH MASSIVE SULPHIDE DEPOSIT, MODEL TO SCALE

ENGINEER	JMA	SCALE	AS SHOWN
DRAWN	EBC	DATE	JULY 2003
CHECKED	JMA	REVISED	

PLOTTED: 09 JUL 2003