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**EXPLORE B.C. PROGRAM  
GRANT 94/95A-3**

**Report on 1994 Diamond Drill  
Programs on the Alabama and  
Ingerbelle East Deposits,  
Copper Mountain Camp,  
Princeton, B.C.**

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**GEOLOGICAL SURVEY BRANCH  
ASSESSMENT REPORT**

by 24,620

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## EXECUTIVE SUMMARY

The Copper Mountain Camp encompasses all of the deposits and showings in and around Similco Mines' Ltd. land holdings in the Copper Mountain area of southwestern British Columbia. Copper Mountain is located 15 km south of the town of Princeton and 180 km east of Vancouver, B.C. Similco Mines Ltd. currently holds just under 12.5 thousand hectares of mineral claims and leases covering much of the Copper Mountain area. The Copper Mountain camp is divided into two sides by the north flowing Similkameen River.

Copper Mountain has a long history of exploration and development going back to the turn of the century. Early attempts at commercial production failed until 1925, when Granby Consolidated Mining, Smelting and Power Company commenced underground mining on the Contact ore deposit. Over the next thirty-two years, with an eight year closure between 1930 and 1937, Granby produced an estimated 35 million tons with an average grade of 1.08% copper. Newmont Mining Corporation of Canada, at first optioned part of the property, and later on purchased all of Granby's Copper Mountain holdings in 1967. Newmont discovered and put the Ingerbelle deposit into production in 1972. Additionally, they also delineated two other bulk tonnage, open-pit able deposits on the east side of the Similkameen River. In 1981, Newmont completed its mine plan in the Ingerbelle deposit and began mining in the Pit 2 and Pit 3 areas on Copper Mountain. Ore was crushed and transported by a conveyor system across the Similkameen River to the concentrator located on the west side of the River near the Ingerbelle deposit. In June of 1988, Newmont sold all of its Copper Mountain assets to Cassiar Mining Corporation, which later became Princeton Mining Corporation. Princeton initiated an exploration program which resulted in the development of the Virginia deposit in 1990. From 1988 to 1993, Princeton mined from the Pit 1, Pit 3 and Virginia deposit areas. Low copper prices forced the suspension of mining operations in November of 1993. A significant increase in the price of copper and the drop in the value of the Canadian dollar against its U.S. counterpart allowed the mine the restart in August, 1994. Ore from the Ingerbelle low-grade stockpile is currently being processed.

In the spring of 1993, Princeton began a new exploration program which has the short term goal of the definition of sufficient low-cost reserves for five years production, and the long term goal of systematically exploring the property to discover and develop economic reserves sufficient for the next twenty years. Results, to date, have been significant. Development of reserves is underway in two areas: the Alabama and Ingerbelle east deposits which could contain an aggregate mineable tonnage in excess of 50 million tons (at least under current economic conditions). Past and present exploration and geological data has been compiled, and ground evaluations carried out for seven "mine-site" target areas within reasonable haulage distance of current mine facilities. Phase 1 drill- exploration programs are proposed for the three highest priority target areas. Additionally, through the use of a helicopter-borne, multi-parameter geophysical survey eight regional target areas have been identified. A long term exploration program is required to systematically explore and advance these "grass-roots" target areas. It is proposed that exploration programs be conducted on three of these regional targets.

A 16,105 foot Phase 1 diamond drilling program was completed on the Alabama area in June, 1994. This program outlined potentially economic mineralization within an elliptically shaped area with surface dimensions of 2,400 feet by 1,100 feet (750 by 350 m). In-situ geological reserves for the Alabama are 21.6 million tons grading 0.312% copper and 0.16 g/tonne gold. The deposit is open to the southeast, west and to depth. The deposit is located near the Copper Mountain crusher and has favourable mining and metallurgical characteristics. A development target of mineable reserves of 30 million tons grading 0.35% Cu and 0.18 g/t Au is reasonable and would require a 44,800 foot Phase II diamond drill program consisting of 64 holes with an average length of 700'. Metallurgical testing, engineering and waste dump sterilization would also be required to bring the Alabama deposit to feasibility.

A reserve estimate on previous drilling in the Ingerbelle East area indicates 21.1 million tons grading 0.35% copper is present within a preliminary pit shell at a strip ratio of 1.66. Installation of a new crusher near the Ingerbelle pit, and a recently completed 15,000 foot Phase II drill program on the east extension of the Ingerbelle deposit has resulted in the

addition of new reserves to the property. Ore reserve estimation, pit optimization and mine planning are currently underway.

The recommended exploration program incorporating all of the above proposals is estimated to cost \$2.2 million as set out below.

A) Alabama Deposit: Phase II to feasibility.

(\$000's)

Phase II drilling: 44,800'	1,210
Sterilization drilling: 8,000'	176
Metallurgical testing	34
Geology and Engineering	80
	-----
Subtotal	1,500

B) Property Target Exploration

Compilation, geology supervision	90
Diamond drilling: 3 targets 14,600'	400

C) Regional Target Exploration

Geology, Geochemistry, Geophysics	110
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D) Contingency

<b>Grand Total</b>	<b>2,200</b>
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## **1. INTRODUCTION**

### **1.1 Location and Access**

The mineral deposits of the Copper Mountain Camp are located 15 km south of the town of Princeton, B.C., 30 km north of the Canada-U.S.A. border and 180 km east of Vancouver (Fig. 1.1). The Similkameen River flows northerly through the camp, separating the Copper Mountain side, to the west, from the Ingerbelle side, to the east. Highway #3 from Vancouver passes immediately to the north of, and provides access to, the Ingerbelle deposits and the concentrator. The Copper Mountain side is accessed by the paved Copper Mountain Road which runs south from Princeton. The property is located in NTS map sheets 92H/8E and 92H/7W.

### **1.2 Physiography**

Copper Mountain is located in a region of gentle to moderate topography with locally rugged relief adjacent to the Similkameen River canyon. Elevations range from a high of 1500 m near the summit of Copper Mountain to a low of 750 m in the Similkameen River. Most of the past mineral production has come from the areas adjacent to both sides of the Similkameen River and therefore a number of waste dumps are located on moderate to steep slopes above the river.

The predominant drainage pattern on Copper Mountain is rectilinear with intersecting north-south and east-west aligned valleys. The northerly trending drainage include the Similkameen River and Wolf Creek, whereas the easterly drainage consist of Lost Horse gulch and Smelter Lake. Both of the

# SIMILCO MINE Location Map



Vancouver



PRINCETON MINING CORPORATION

Figure 1.1

easterly trending drainages were originally cut by the Similkameen River as it successively cut its way downwards, and northwards, into its existing canyon.

Climate of the area is typical of the southern interior of British Columbia with hot dry summers and cool winters. A majority of the average annual precipitation of 50 cm falls during the spring and fall. Vegetation consists of grass lands and ponderosa pine in valleys and lower elevations with dense forests of lodgepole pine, Engelmann spruce and some Douglas fir at higher elevations.

### **1.3 Property and Claim Status**

Similco's Copper Mountain property consists of 127 Crown Granted mineral claims, 155 located mineral claims, and 15 mining leases (derived from 52 original claims) covering an area of 12,409 hectares. Claims are all owned or under option to Similco Mines Ltd. Additionally, approximately 3,000 hectares of surface rights are owned by Similco. Approximately 20% of the claims have some form of Royalty agreement. Claims and land status is shown in Figure 1.2.

### **1.4 Production and Exploration History**

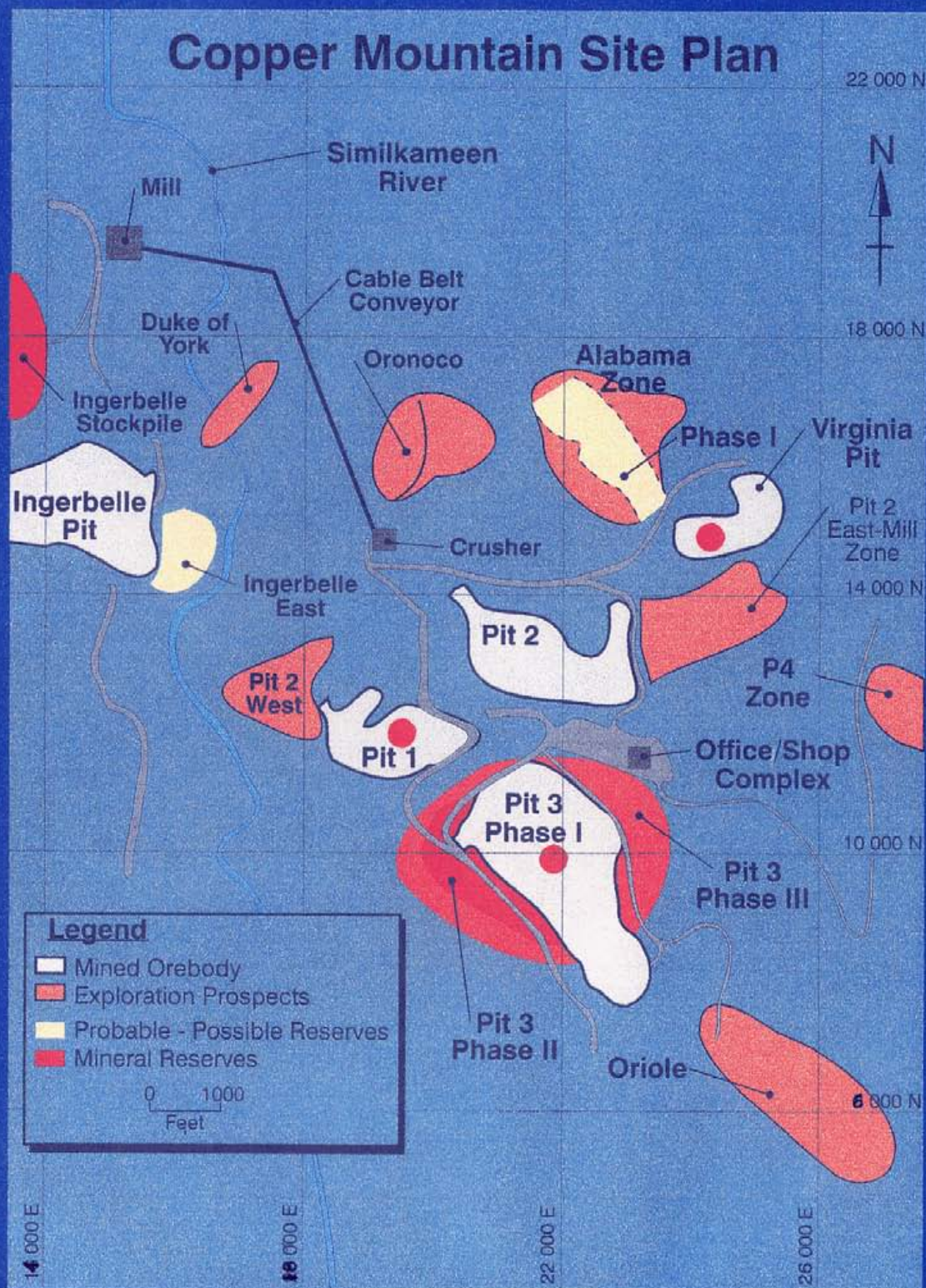
The first mineral claims in the Copper Mountain area were staked in 1892 by R.A. ("Volcanic") Brown. During the next thirty years several attempts were made to achieve commercial production. A branch line of the Kettle Valley railway was extended from Princeton up along the Similkameen River and the Sunset Copper Company drove a haulage tunnel from the rail terminus into Copper Mountain to intersect the ore zone 1000' below the main showings. Milling difficulties and a drop in the price of copper forced the operation to close before any copper had been produced (Fahrni, 1950). Exploration during this period likely consisted of extensive prospecting and small physical workings by numerous



individuals as evidenced by claim staking and the small pits, trenches and adits that are widespread over the area. It appears that much of the exploration was near to the Similkameen River where outcrop was in relative abundance.

In 1923, the Granby Consolidated Mining, Smelting and Power Company took over the property and commenced production in 1925. The mine operated continuously until 1957, except for the period between 1930 and 1937. A majority of the production came from underground workings on the Contact deposit, where up until 1949 a little over 21 million short tons grading 1.23% copper had been extracted (Fahrni, 1950). During the later years of operation, ore was also mined from a number of small open pits. Total production is estimated at 35 million tons with an average grade of 1.08% copper (Macauley, 1970). Most of the exploration during the "underground era" took place adjacent to the mine, particularly along the northwest-trending main fault. However, a minor amount of work, including some diamond drilling was conducted in a few outlying areas.

Very little exploration or development work was carried out during the years between 1957 and 1965. However, in 1966, exploration was being conducted by Granby, Cumont Mines Limited, and Newmont Mining Corporation of Canada. Granby explored adjacent to the underground workings and tested within an area that would latter become Pit 2 (Figure 1.3). Cumont conducted geological mapping, geophysical and geochemical surveys, trenching and diamond drilling on its ground located peripheral to Granby's claims. Newmont optioned a block of Granby claims on the west side of the Similkameen River and carried out extensive geological, geophysical, trenching and diamond drill programs which resulted in the discovery and, ultimately, the delineation of the Ingerbelle deposit in 1969. Newmont purchased all of Granby's claims in late 1967, which allowed a unified, large-scale exploration program to be carried out. In addition to the Ingerbelle deposit, Newmont continued drilling where Granby had left off, and defined two, large "bulk-tonnage", open-pitabale zones of mineralization surrounding the previous workings on Copper Mountain. Mill and concentrator facilities were constructed and production commenced from the Ingerbelle deposit in 1972 at the rate of



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FIGURE 1.3

15,000 tons/day. Total drilling within the Ingerbelle area amounted to 243,140 feet (74,109 m) in 542 holes. Following start-up at Ingerbelle, exploration was again curtailed.

In 1980 Newmont carried out a fourteen hole diamond drill program on the area immediately to the east of the Ingerbelle deposit, where earlier drilling (during the Ingerbelle exploration) had identified mineralization. In spite of reasonably positive drill results, no further work was performed and in 1980, when the Ingerbelle pit was completed, Newmont dismantled the crusher adjacent to the concentrator and completed construction of a new crusher and conveying system in order to bring ore from Copper Mountain across the Similkameen River to the mill complex. Mining of Pit 2 commenced in early 1980 and was completed in 1985. Production from Pit 3 began in the spring of 1983. In 1986, Newmont carried out an exploration program, which consisted of geochemical and geophysical surveys, to the north and east of Pit 2. A rising gold price and the attractive gold grades led to a detailed mapping and diamond drill program being carried out on the Voigt Zone, a narrow east-trending zone of mineralization located 1.5 km northeast of Pit 2. Similco Mines Ltd. and the entire Copper Mountain Property was sold to Cassiar Mining Corporation (later to become Princeton Mining Corp.) by Newmont in June of 1988.

Princeton initiated a property scale exploration program which soon became focused in the Lost Horse Gulch area (immediately north of Pit 2) and culminated in the discovery and delineation of the Virginia Deposit in 1990, after which exploration was curtailed. Production during this time came from Pit 3 and Pit 1. Mining of Pit 1 was completed at the end of 1992 and was subsequently backfilled with waste from Pit 3. Limited mining from the Virginia Pit was carried out in 1991 and 1993. Due to low copper prices, mining operations were suspended in November, 1993.



### 1.5 Current Mine Status and Exploration Program

At the end of 1993, low strip-ratio reserves remaining at Copper Mountain totalled just over three million tons, including salvage from mined pits, and were located in Virginia and Pit 3 (Fig. 1.3). Approximately 10 million tons of low-grade (0.244% copper) material is located in the Ingerbelle stockpile and became available for processing with the installation of a new crusher, adjacent to the concentrator, in October, 1993. A significant tonnage of high strip-ratio reserves are available in the Pit 3 expansion (see below). A large tonnage low-grade, high strip-ratio resource is located along the south wall and at depth in Pit 2.

Location	Ore (tons)	Grade	Strip Ratio
<u>Low Strip</u>	<u>(000's)</u>	<u>%Cu</u>	<u>W:O</u>
Pit 3	261	0.455	0.41
Virginia	1,439	0.420	1.37
Stockpiles	10,366	0.267	0 (includes salvage)
<u>High Strip</u>			
Pit 2	39,000	0.330	1.78
Pit 3 Phase 2	10,534	0.462	1.91
Pit 3 Phase 3	41,888	0.479	2.80

On the advice of its consultants, who recognized significant exploration potential but a lack of systematic property-wide exploration (Burgoyne, 1992), Princeton Mining Corp. initiated a long-term exploration program in the spring of 1993. The exploration program has a short term goal of the discovery and delineation of sufficient "low-cost" reserves for five years mine production and a long term goal of systematically exploring the property to discover high quality reserves sufficient for twenty years of mine life.

The current exploration program is based on three key components:

- 1) a multi-parameter helicopter-borne geophysical survey covering a 175 square kilometre area around the mine-site;
- 2) a thorough compilation of all geological and exploration data from the past 70 years;
- 3) and a detailed documentation of the controls and characteristics of mineralization at Copper Mountain.

The latter component was carried out in conjunction with the Mineral Deposits Research Unit at The University of British Columbia. While all of these components are still ongoing in some form, initial results have identified eight "grass-roots" regional target areas, and allowed the prioritization and design of exploration programs for property target areas. First phase ground evaluation of a number of target areas has been completed as well as a 16,105 foot (4,909m) diamond drill program on the Alabama deposit and a phase II 15,000 foot (4,572m) diamond drill program on the Ingerbelle East deposit. The two drill programs were partially funded by an Explore B.C. grant of \$143,000.

## 2 GEOLOGY

### 2.1 Regional Geological Setting

Copper-gold deposits of the Copper Mountain area are hosted by volcanic, and related intrusive rocks, of the Late Triassic Nicola Group (Dolmage, 1934; Preto, 1972). The Nicola Group consists primarily of a submarine island-arc assemblage of andesitic volcanic rocks and derived sedimentary rocks which are exposed in a 40 km wide north-trending belt that extends from the Canada-U.S.A. border in the south, to Kamloops Lake in the north (Fig. 2.0). Age correlative and compositionally similar belts of volcanic rocks extend along the length of British Columbia and into the Yukon Territory. The Nicola Group, with a stratigraphic thickness of up to 7.5 km is the main unit within Quesnellia, a northerly trending allocthonous tectonostratigraphic terrane in central British Columbia (Monger, et al., 1992). Quesnellia was likely accreted onto North America in mid-Mesozoic time.

The Nicola Group is divided into three, compositionally distinct, linear belts (referred to as the 'western, central and eastern volcanic belts') by north-trending fault systems; a fourth grouping, referred to as the eastern sedimentary assemblage is also recognized (Monger et.al., 1992). Copper Mountain occurs in the 'eastern volcanic belt'. Nicola Group rocks are intruded by Late Triassic to Early Jurassic alkalic and calc-alkalic plutonic rocks, some of which are demonstrably co-magmatic with their host volcanic rocks. In general, the alkalic intrusions are small and restricted to the eastern and central volcanic belts, whereas the calc-alkalic intrusions are larger plutons and are evenly spread throughout the Nicola Group (Preto, 1979).

The origin of the Nicola Group is somewhat controversial. Preto (1977) relates Nicola volcanism to rifting due to the alkaline nature of the rocks and their spatial relationship to long-lived fault structures. However, on the basis of petrographic and trace-element geochemical data and that the volcanic belts young to the east, Mortimer (1987) suggests that the Nicola volcanics formed over an east-dipping subduction zone.

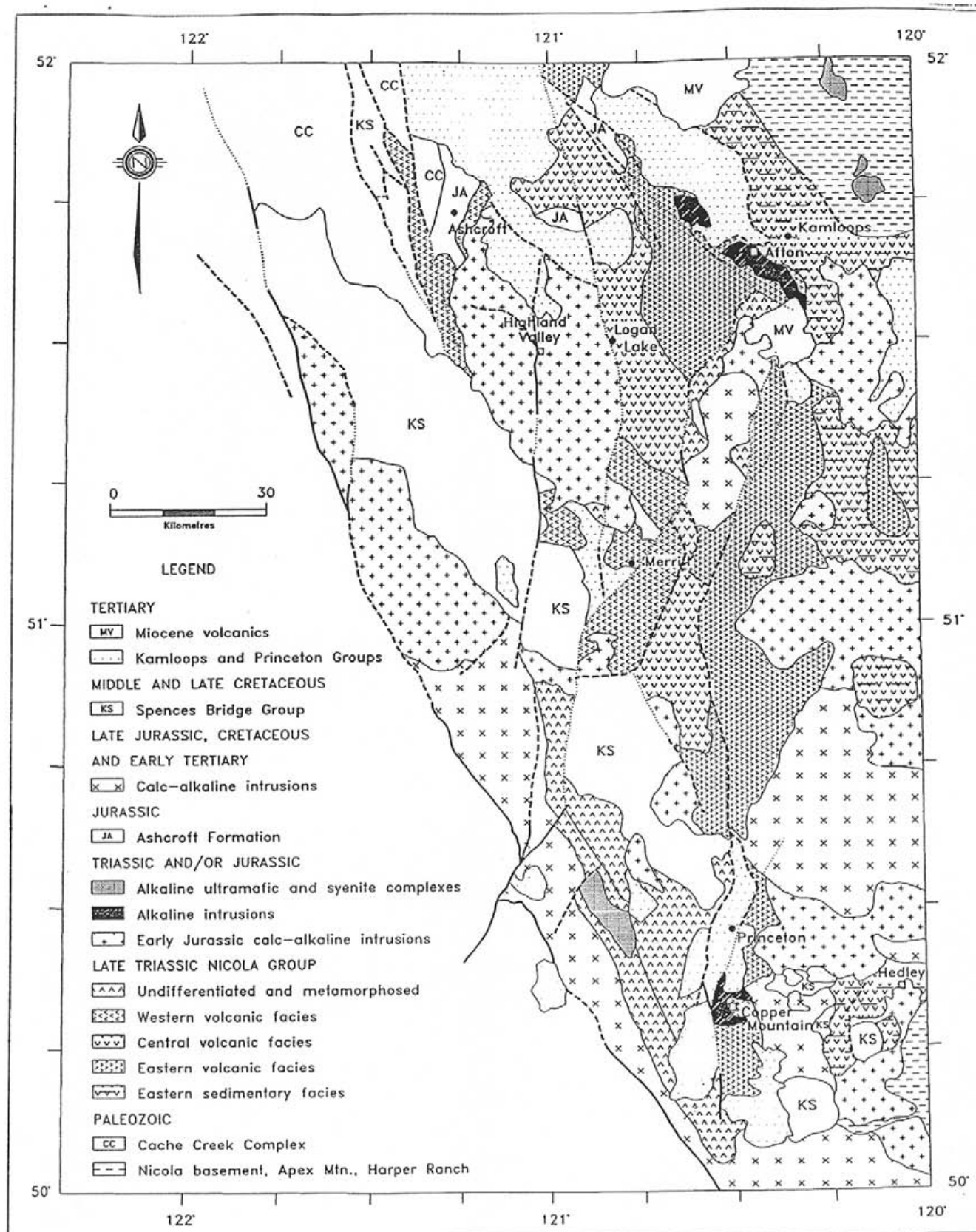


Figure 2.0 Regional Geology

## 2.2 Property Geology

Geology of the Copper Mountain area is dominated by the Copper Mountain stock, an elliptical shaped, compositionally zoned intrusion covering approximately 20 square kilometres. All significant mineralization discovered to date on the property lies to the north of this intrusion. Two smaller and not distinctly zoned but somewhat circular intrusions, the Smelter Lake stock and the Voigt stock are located approximately two kilometres to the north of the Copper Mountain stock (Fig. 2.1). The Lost Horse Intrusive Complex, which consists of a variety of cross-cutting dykes and irregularly shaped stocks and plugs, is located about 1 km north of the Copper Mountain Stock and between the Smelter Lake stock, to the east, and the Voigt stock, to the west. Hosting these intrusions, and forming a one to two km wide northwest trending belt, are Nicola Group volcanic rocks. Within the mineralized area identification of rock types can be exceedingly difficult largely due to gradational (?) intrusive contacts and the effects of contact metasomatism and hydrothermal alteration. Nomenclature between past workers at the outcrop scale is inconsistent, particularly with respect to alteration.

The eastern edge of the Copper Mountain camp is defined by the post-mineralization, Cretaceous Verde Creek pluton of quartz monzonite. The western edge of the camp is the Boundary fault (Preto, 1972; Montgomery, 1967), a north-south trending, west-dipping fault system with some right-lateral (?) and normal motion (Preto, 1972). The Boundary fault truncates both the Copper Mountain stock and the Nicola volcanic rocks, juxtaposing volcanic and sedimentary rocks from higher in the Nicola stratigraphy (Preto, 1972). Montgomery (1967) postulates reverse movement on the Boundary fault system but the degree of east-west extension during the Tertiary, as indicated by the Mine dykes, would favour normal movement. The Copper Mountain camp is limited in its northerly extent by overlying volcanic and sedimentary rocks of the Eocene Princeton Group.



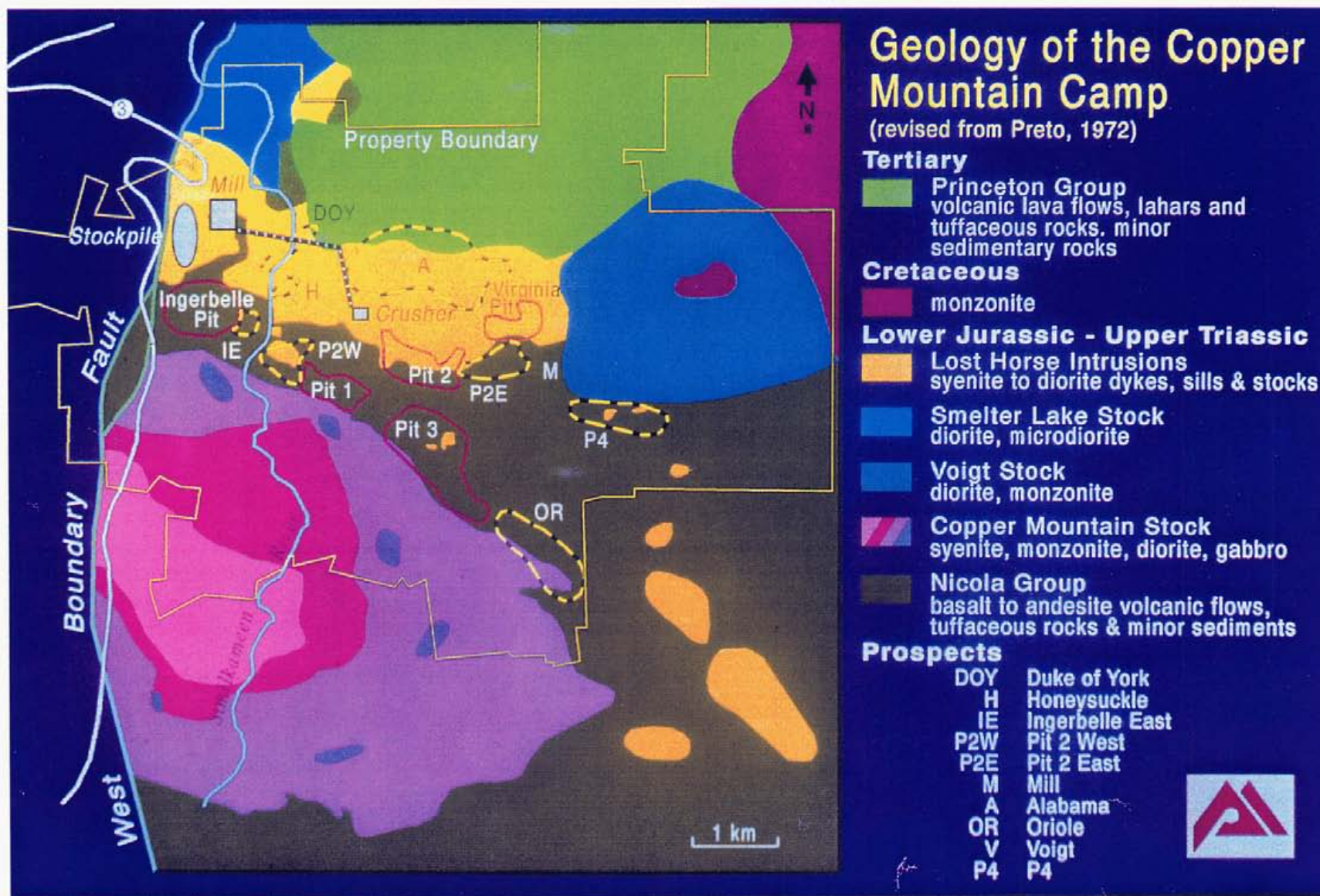


Figure 2.1

## **2.2.1 Stratified Rocks**

### **2.2.1.1 Wolf Creek Formation**

Volcanic rocks and derived sediments of the Nicola Group at Copper Mountain are referred to as the Wolf Creek Formation (Preto, 1972; Dolmage, 1934). All workers at Copper Mountain have recognized that the Wolf Creek Formation consists of a sequence of well-bedded, fine-grained, well-indurated tuffaceous rocks or volcanic siltstones, turbidites and "cherts"; fine to coarse grained lapilli tuffs, breccias and agglomerates; feldspar phyric tuffs and/or flows; and fine-grained (pillowed) flows. What most workers can't seem to agree on is the overall structure and stratigraphy of these rock units and the relative significance of structure and lithology to mineralization.

Fahrni (1951) proposed a stratigraphy based on volcanic cycles consisting of coarse grained pyroclastic rocks at the base, followed by finer-grained fragmental rocks, flows and finally ash tuffs, greywackes and chert. Three such cycles were proposed for the mine area, occurring in simple fold structures with northwest trending, gently plunging fold axes (Fahrni, 1951). Fahrni (1951) was also a strong proponent of lithological control on the distribution of sulphide mineralization.

Recent work at the property, which consists of geological mapping of all five pit areas and much of the intervening ground has found no evidence of folding and only a limited amount of flat lying stratigraphy. It would appear that the Wolf Creek Formation has been broken into a myriad of fault blocks with highly variable displacements and rotation. Typically, bedding displays moderate to steep dips. Additionally, although locally some lithologies appear to be selectively well mineralized, there is no particular lithology that consistently carries better grade than average on the pit scale or camp scale; and grade distribution is mostly controlled by fault and fracture density. The degree of movement along fault structures, numerous cross-cutting dykes and irregularly shaped intrusions, plus the effects of

intrusion and hydrothermal alteration make it nearly impossible to correlate lithologic units for any great distance. Even discerning volcanic rocks from intrusive rocks in well-exposed pit walls is problematical. Thus, the best description of the Wolf Creek Formation is likely to be found in Preto (1972) where detailed mapping was also conducted well away from the mineralized areas.

#### 2.2.1.2 Princeton Group

The Eocene Princeton Group contains a variety of volcanic and sedimentary rocks. These rocks have only been examined in outcrop and drill core in the area between Lost Horse Gulch and Smelter Lake. In general, the rocks exhibit flat to shallow dips. The lower part of the sequence is composed of poorly consolidated volcanic sandstones and wackes with lenses of mudstone and occasional coal seams. Large pieces of charcoal wood (*Sequoia* ?) are locally abundant. Overlying these sedimentary layers are monomictic to polymictic volcanic conglomerates with maroon coloured hematitic matrices. These rocks are in turn overlain, probably unconformably, by fine-grained to aphanitic, medium green, amygdaloidal basalt flows. These flows are also juxtaposed against mineralized Nicola and Lost Horse intrusive rocks by graben-type structures within the Virginia and Alabama deposit areas.

It was initially thought that there was a possibility that a supergene copper enrichment zone might be preserved under the disconformably overlying Princeton Group volcanic rocks in the Alabama area. High resolution Induced Polarization (IP) surveys using the MIDAAS System suggested a shallow dipping unconformity. However, magnetic data from the airborne geophysical survey suggested relatively steep contacts and this has been confirmed by diamond drilling which invariably demonstrates a moderate to steep, north-dipping fault between the Princeton Group and underlying rocks. This east-west trending, north dipping fault is broken and staggered by numerous, small-displacement north-south trending faults.

A large elliptical body, with surface dimensions of about 700 by 500 m, of dark grey

hornblende phyric andesite is located on the western end of Lost Horse Gulch, immediately east of the angle station on the cable belt. Trachytic alignment of the phenocrysts in a circular pattern, no textural or compositional change over the 100 m vertical cliff face, and flanking deposits of coarse volcanic breccias indicate this body to be a preserved volcanic neck (Preto, 1972). This volcanic neck limits the northeastward potential of the Duke of York Zone of mineralization.

A large quartz porphyry rhyolite body is located approximately 1,500m north of the mill complex, on the east side of the Similkameen River. The rhyolite, which is either unconformably overlain by, or intrusive into, basalt flows of the Princeton Group, is pervasively argillically altered and is interpreted to be a flow-dome complex. Rock sampling indicates elevated but sub-economic gold values. The mineralogical and compositional similarities of the dome to the mine dykes suggest that the two units are correlative. However, the mine dykes are not observed cutting the stratified rocks of the Princeton Group and therefore if the dome and dykes are the same age, both must be slightly older than most of the Princeton Group.

### **2.2.2 Intrusive Rocks**

Distribution of intrusive rocks on the property is best revealed by the airborne magnetometer map of total field magnetics (Fig. 2.2) which shows the high magnetite, commonly intrusive, rocks as red and the low magnetite (volcanic) rocks as blue. The intrusive-volcanic contacts, as revealed by the airborne data, correspond very well with geological mapping by Montgomery (1967) and Preto (1972). The magnetic data provides better definition than field mapping in areas of limited outcrop. For example, it reveals significantly more intrusive rocks in the Ingerbelle deposit area than surface mapping had indicated. Additionally, the magnetic data indicates that the Voigt Stock is circular in plan with a small non-magnetic core, which suggests a strong similarity to the Copper Mountain Stock. These changes have been incorporated into the revised geological map (Fig. 2.1).



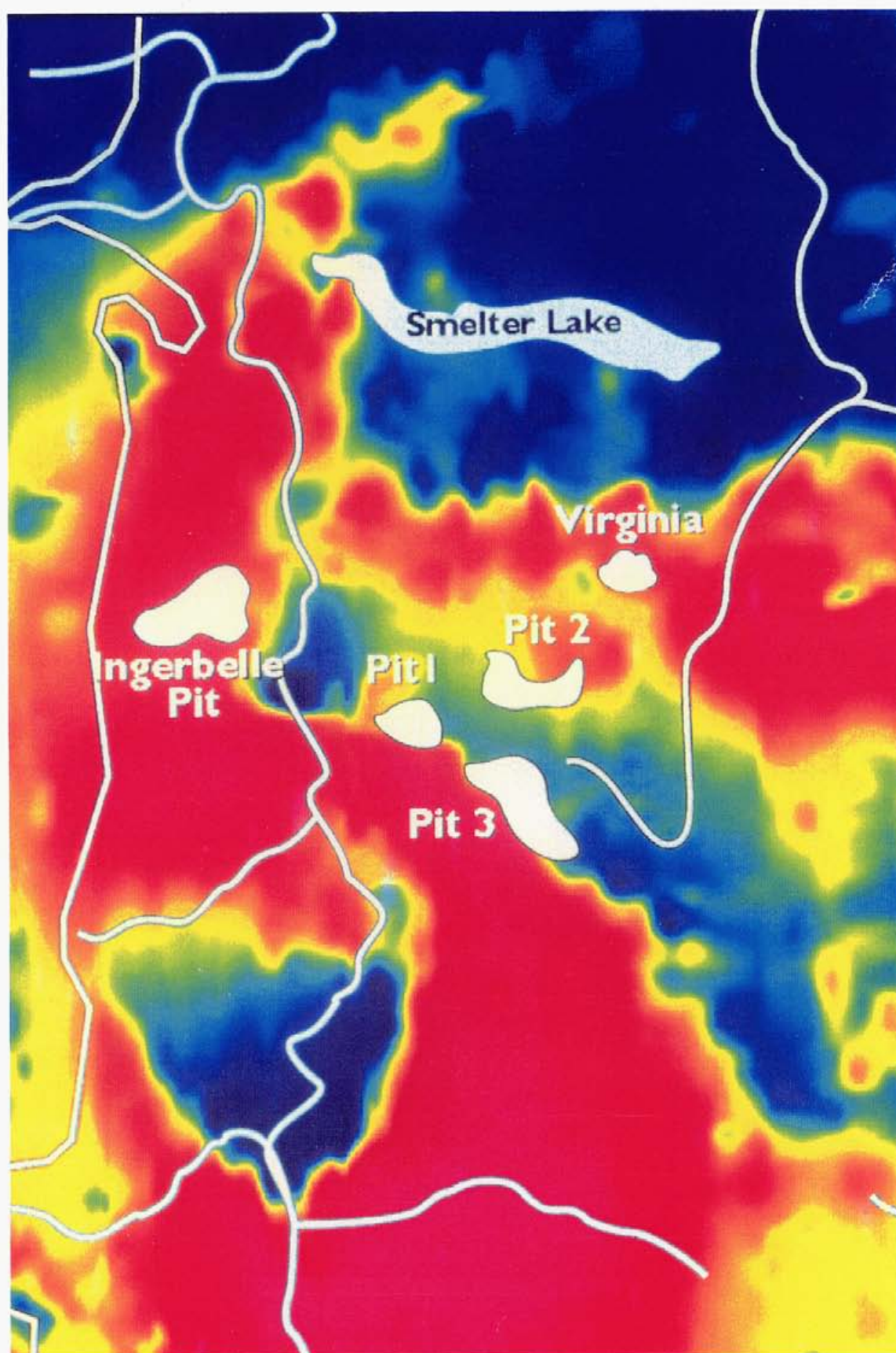


Figure 2.2 Total Field Magnetic Map of the Copper Mountain Area.

Jurassic intrusive rocks in the Copper Mountain camp have a silica-saturated alkalic affinity (Lang, 1993) resulting in the lack of either quartz or feldspathoid minerals. Texturally, the intrusive rocks range from medium-grained equigranular to fine to coarse-grained porphyritic. The intrusions can be subdivided into two groups on the basis of occurrence, mineralogy and texture. The first group consists of the Copper Mountain, Voigt and Smelter Lake stocks; the second group comprises the suite of the Lost Horse Intrusive Complex. All of the Copper Mountain intrusions carry rare phenocrysts of clear to pale grey apatite, which can be used to distinguish them from compositionally and texturally similar volcanic rocks of the Wolf Creek Formation (Preto, pers.comm., 1994).

#### 2.2.2.1 Copper Mountain Stock

The Copper Mountain Stock is a compositionally zoned, elliptically shaped intrusion located in the southeastern part of the map area. The outer margin of the stock is weakly to strongly foliated parallel to the outer contact and consists of medium-grained diorite to monzodiorite. Small bodies of gabbro and pyroxenite are reported to occur in the border phase (Montgomery (1967). The border phase is gradational into a middle zone of monzonite. The monzonite is visually distinct from the border phase because of its higher potassium feldspar content, lower mafic content and coarser grain size (Lang, 1993). The core zone of the Copper Mountain stock is a coarse-grained (pegmatoid texture) leucocratic perthitic syenite. This core phase is non-magnetic and has a fairly sharp outer contact with the intermediate phase. A minor amount of mineralization is reported from the core area, otherwise the Copper Mountain Stock is unmineralized. The concentric compositional zonation of the stock is attributed to in-situ fractionation processes rather than multiple intrusion due to the lack of cross-cutting phases (Montgomery, 1967). The magnetic signature of the Copper Mountain stock suggests a cylindrical intrusion that has been tilted to the northwest about 20 degrees. Although the stock is not mineralized, northeast trending fractures that are mineralized in the volcanic rocks of Pit 3 extend into the Copper Mountain stock and contain potassium feldspar-epidote-biotite alteration envelopes which indicates that emplacement of the stock was pre-mineral.

#### 2.2.2.2 Smelter Lake and Voigt Stocks

The Smelter Lake and Voigt stocks are similar to the border phase of the Copper Mountain stock, consisting of equigranular to sub-porphyrific monzodiorites containing approximately equal amounts of augite and plagioclase, lesser poikilitic potassium feldspar, shreddy biotite that is commonly chloritized, magnetite and accessory minerals (Lang, 1993). These stocks are not noticeably concentrically zoned, however, magnetic data suggests that a small non-magnetic core zone is present in the Voigt stock. The only known mineralization in either of these stocks is the Voigt Zone, an easterly trending vein-like zone of mineralization that lies along strike with the core of the Virginia deposit and extends from the western edge of the Voigt stock for a distance of 2 kms. (see Section 4.4)

#### 2.2.2.3 The Lost Horse Intrusive Complex

The Lost Horse Intrusive Complex (LHIC) is the name given to a confusing suite of dykes, sills and irregular shaped intrusions, primarily located in the Lost Horse Gulch area, but extending across the Similkameen River into the Ingerbelle area. There is a great degree of petrographical and textural variation in the LHIC rocks. This characteristic, together with variable hydrothermal alteration and generally poor surface exposure makes recognition of individual phases in outcrop extremely difficult. Exposure in open pits and drill core is somewhat better but even so recognition of, and correlation of, distinct phases is difficult.

Lang (1992, 1993) conducted a petrographic study of the LHIC, focusing primarily in the Virginia deposit, and described three main intrusive types based on petrographic characteristics and cross-cutting relationships. Lang's classification scheme and nomenclature has been adopted with some significant simplifications and modifications in order to obtain improved consistency among field workers. Three primary groupings (LH1, LH2 and LH3) are recognized on the basis of mineralogy, texture and age relative to mineralization. The LH1 category consists of dykes and irregular shaped plugs or stocks of equigranular, pyroxene

diorite that is very similar in appearance to the Voigt stock. LH1 rocks appear to be pre-mineralization and are commonly weakly mineralized in the Lost Horse Gulch area; alteration is more commonly vein and fracture controlled than pervasive. Fine grained versions of the LH1 are easily mistaken for recrystallized, magnetite enriched, Wolf Creek volcanic rocks (and vice-versa) within mineralized areas. LH2 rocks are typically feldspar porphyritic, of monzonitic composition and spatially and temporally associated with mineralization. A pervasive potassium feldspar (+/- biotite, epidote and magnetite) alteration is common. A subtype, LH2f, is a commonly trachytic, feldspar megacrystic porphyry which is syn- to postmineralization. Pink, potassium feldspar altered LH2 rocks comprise the dominant fragment type in the magnetite breccia "pipes" occurring in the Pit 2 and Ingerbelle deposits. LH3 rocks range in composition from monzodiorite to syenite, are weakly porphyritic and cross-cut or are clearly post-mineralization. Within deposit areas LH3 rocks may display the effects of hydrothermal alteration. LH1 and LH2 dykes generally exhibit east-west to northeast trends, whereas the LH3 intrusions more commonly have northerly trends and form sills, which suggests emplacement at lower confining pressure.

### 2.3 Structure

Stratified rocks on the property do not display any significant folds and any discussion of structure on the property will concern itself entirely with faults and fractures. The orientation, amount of displacement and timing of moment of the faults on the property are important because faults have either localized mineralization or displaced it. The more significant faults have been well documented by previous workers (Preto, 1972; Macauley, 1970; Montgomery, 1967) however magnetic data from the recent airborne survey and recent exploration and compilation has revealed numerous other structures. Figure 2.3 illustrates the major known and inferred structures.

Fahrni et al. (1976) and Macauley (1973) recognize four main sets of faults in the deposit area. The first set consists of large-displacement, regional, northerly trending faults, of which



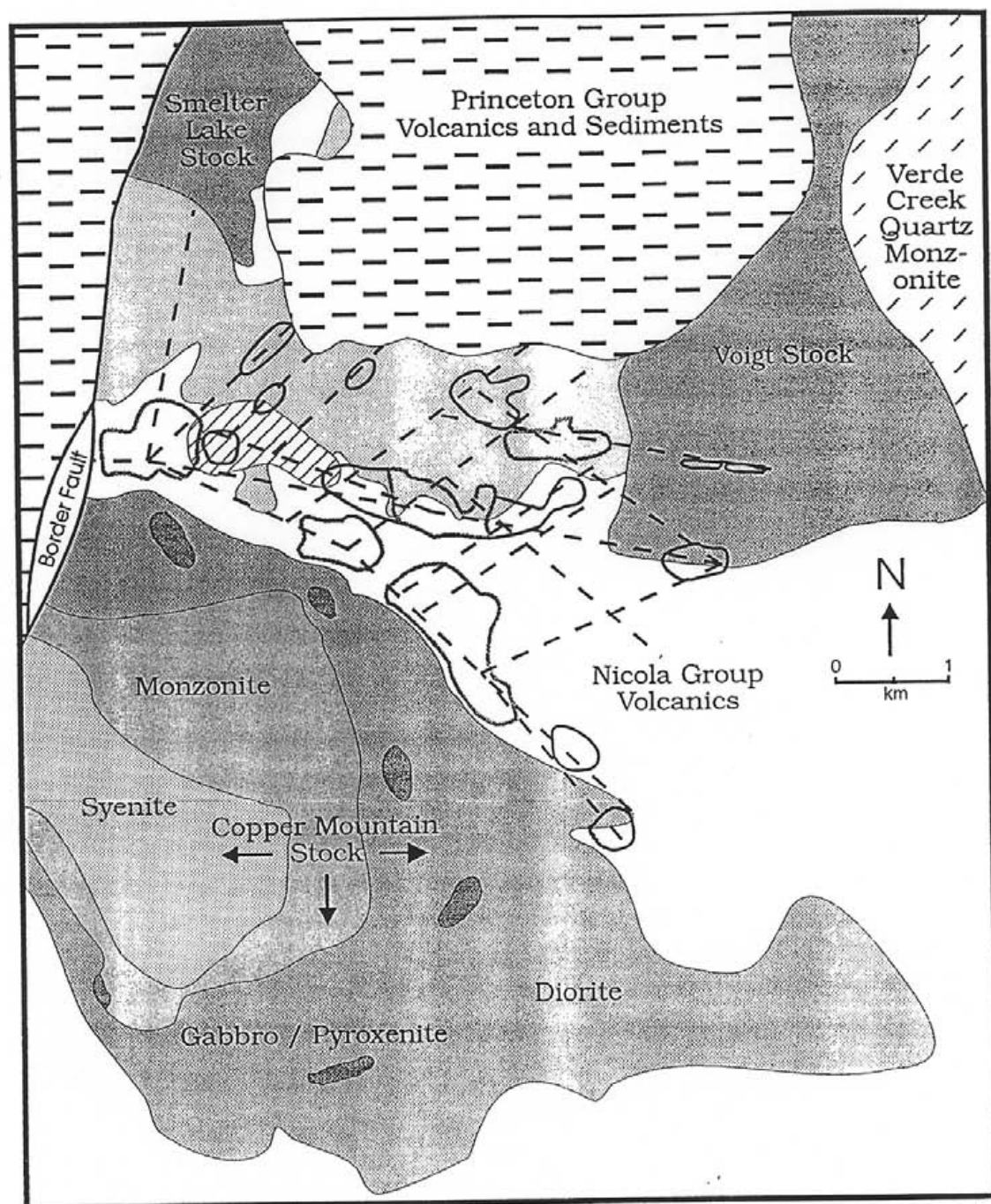


Figure 2.3 Major Structures of the Copper Mountain Camp.

the Boundary fault on the west side of the property is the best example (Fig. 2.1). The boundary fault dips moderately to west and has dip-slip movement that post-dates the eocene Princeton Group. Movement on the Boundary fault is likely related to east-west extension during the eocene, as indicated by the northerly trending mine dykes which have a collective thickness of nearly one kilometre in the property area.

The second set of structures consists of east-west trending, steeply south-dipping faults such as the Gully fault which appears to be the locus for much of the mineralization in the Ingerbelle and Ingerbelle East deposits. Other faults of this group would include the Pit fault in Pit 2 and the structure which hosts the Virginia and Voigt Zone mineralization. Macauley (1973) suggests 700 feet of normal displacement on the Gully fault. Displacement along the Pit fault and Voigt structure are not known.

The third set of faults trend northwest and includes the Main fault, which runs parallel to the north contact of the Copper Mountain stock and extends through the Oriole area, Pits 3 and 1 and the Ingerbelle East and Ingerbelle deposits, and the Alabama structure which parallels the southeast contact of the Voigt stock and hosts much of the Alabama mineralization. Although there is some post-mineral movement along the main fault, it was likely in existence for a long period of time as this structure would seem to be one of the dominant controls of mineralization in the camp.

The fourth set of structures trend northeast to east-northeast and appear to have localized mineralization in all of the mineralized areas except for the Virginia deposit and Voigt Zone mineralization. The mine breaks, recognized in the underground mine and belonging to this group, have some post-mineral movement resulting in minor offsets of mineralization.

The third and fourth sets of structures appear to be genetically related by having similar controls on mineralization and a geometric relationship that is typical of dextral simple shear (Blower, 1991). The north-northeast trending Tremblay and Honeysuckle faults (Preto, 1972) have Eocene movement and are likely related to movement along the Boundary fault and are not part of the mineralizing fracture system.

### 3. ALTERATION AND MINERALIZATION

#### 3.1 General Description of Mineralization

The Copper Mountain area does not display a typical style and distribution of alteration and mineralization as can be observed in many porphyry copper deposits (eg: Lowell and Guilbert, 1970). The alteration and mineralization does, however, share some common features of alkalic style porphyry deposits, notably those in similar rocks such as the Afton and Ajax deposits near Kamloops (Kwong, 1987). The most conspicuous feature of the alteration and mineralization at Copper Mountain is the strong structural control. In many respects, the exploration and economic evaluation of the Copper Mountain deposits is more like that of vein and stockwork hosted precious metal deposits than conventional porphyry deposits.

Mineralization at Copper Mountain is widespread; to date ore has been extracted from five pit areas (Pits 1,2 and 3 and Ingerbelle and Virginia Pits) and an additional two areas (Ingerbelle east and Alabama) are currently being evaluated or prepared for production. A number of other mineralized areas are known and are listed as future exploration targets including: Mill Zone, the P4 Area, Oronoco/Diamond Dot, Pit 1 West, Duke of York, Oriole and Voigt Zone.

The structural control over the distribution of mineralization is operative from the camp scale down to the outcrop and even microscopic scale. Three dominant structural orientations exert control on the distribution of deposits within the camp as well as the mineralization within the deposits: northwest, northeast, and east-west (90-110°). A fourth direction, north-south, exerts control not because of mineralization (although some north-south sulphide veins are observed in Pits 1 and 2) but rather because this is the orientation of minor faults and barren mine dykes which cause significant disruption of mineralization in all of the deposits except Ingerbelle. The prominent camp-scale structures, as determined from mapping and interpretation of the vertical magnetic gradient maps, are shown in relation to existing pits and exploration targets in Figure 2.3.

The effects of structural control are evident on the distribution of ore within the pits. Figure 3.1 shows the kriged grade distribution of 6m spaced blast holes on the 3700 bench within Pit 1. The strong northwest, northeast, and lesser east-west and north-south, trends of mineralization are evident. Excellent vertical continuity of these structures and mineralization results in a cluster of pipe-like ore zones. Manually contoured, higher copper grades of 6m spaced blast holes on bench 2970 in the Ingerbelle Pit (Fig. 3.2) demonstrate strong northwest and northeast controls on the mineralization. This level of structural control is not as evident at lower grades (0.2 to 0.4% Cu).

Mineralization ranges from massive to semi-massive sulphide (+/- magnetite) veins and vein stockworks to microveins and fracture fillings to disseminated. All mineralization types occur in all pits but the relative proportions of mineralization type varies from pit to pit. For instance, in Pit 2, massive sulphide veins and vein stockworks predominate with only minor disseminated sulphides, whereas in Pit 3 the dominant sulphide habit is microveins and fracture fill. The Ingerbelle, Ingerbelle East and Alabama deposits are characterized by structurally controlled bands of disseminated mineralization with only minor, semi-massive sulphide veins. The structures which control the distribution of disseminated sulphides are not commonly visually apparent in drill core. Although, in the Alabama deposit it seems that the structure which initially controlled sulphide deposition later controlled the emplacement of dyke-like Lost Horse Intrusions thereby marking its existence. Three types of intrusive-mineralization relationships have been observed: when the mineralization and intrusion were temporally proximal, then the intrusive rock and the volcanic host are both mineralized; however, when the intrusion preceded mineralization then the contact area is mineralized, commonly with a majority of mineralization within the volcanic rock; and when the intrusion post-dated the mineralization then the volcanic rock on each side of the intrusive rock is mineralized.



# Copper Mountain

## Pit 01 - 3700 Bench

Based on Blast Hole Assays - 20' centers

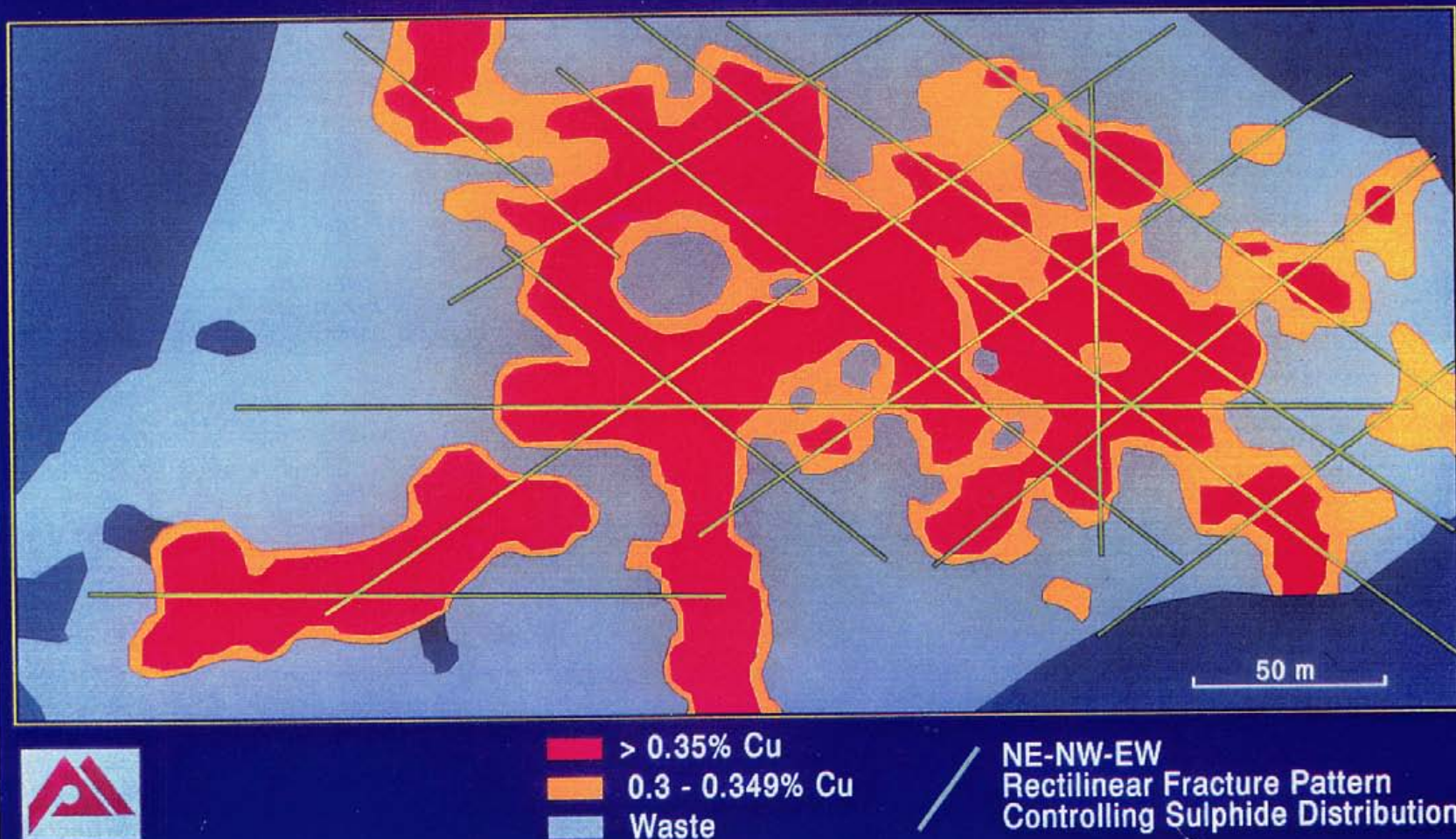


Figure 3.1 Kriged Grade Distribution from Blast Hole Data:  
Bench 3700, Pit 1 Deposit, Similco Mines,  
Copper Mountain.



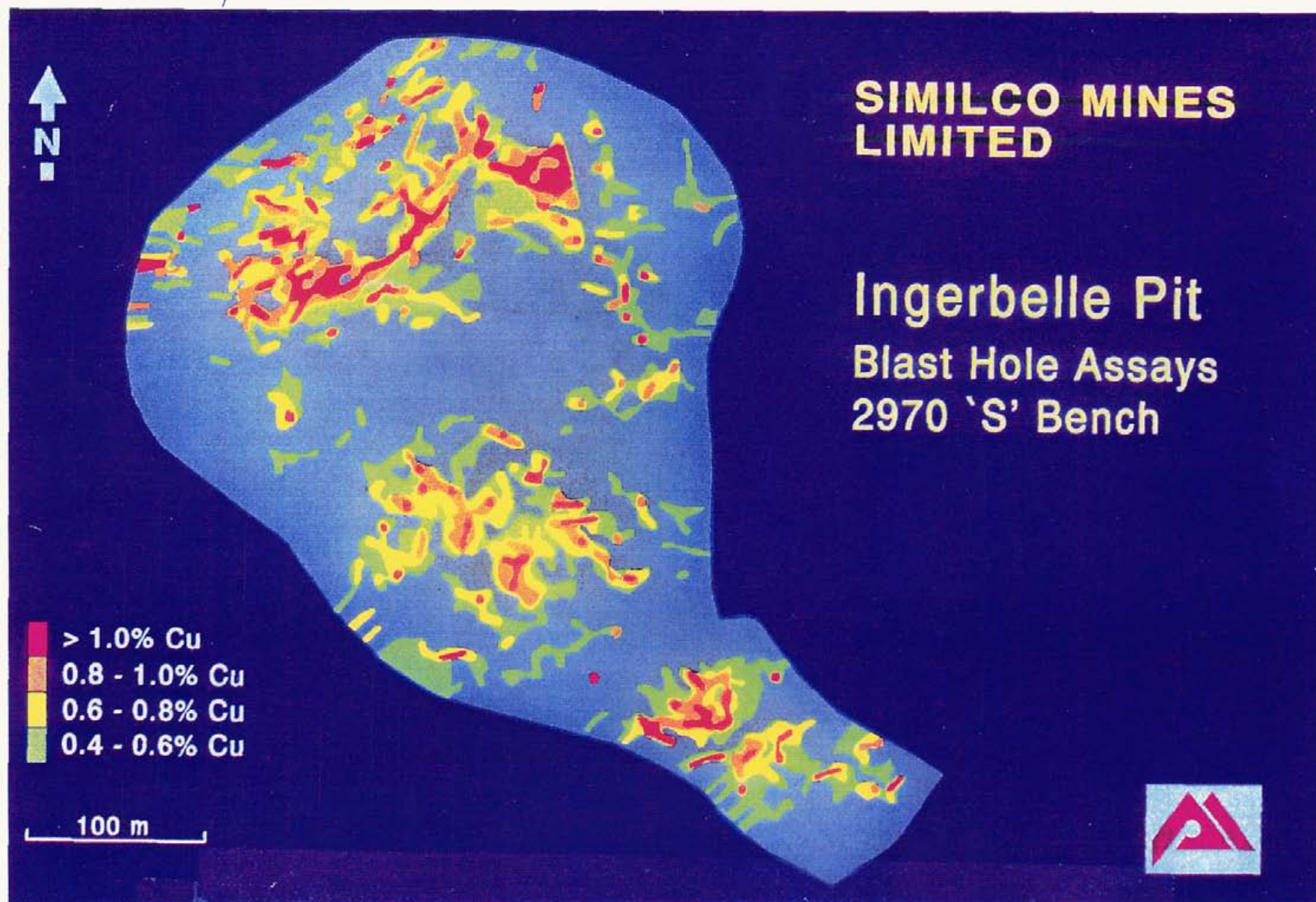
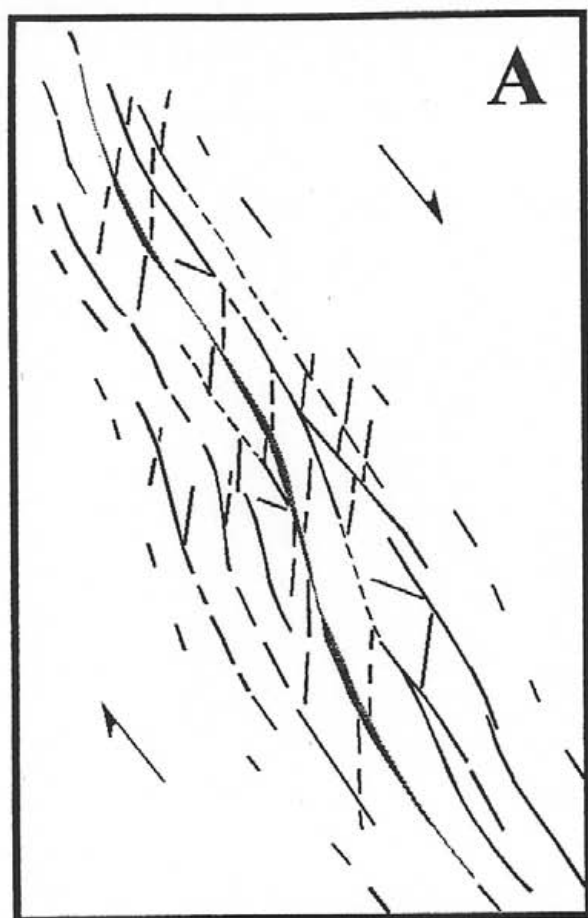


Figure 3.2 Contoured Grade Distribution from Blast Hole Data:  
Bench 2970, Ingerbelle Deposit, Similco Mines,  
Copper Mountain.

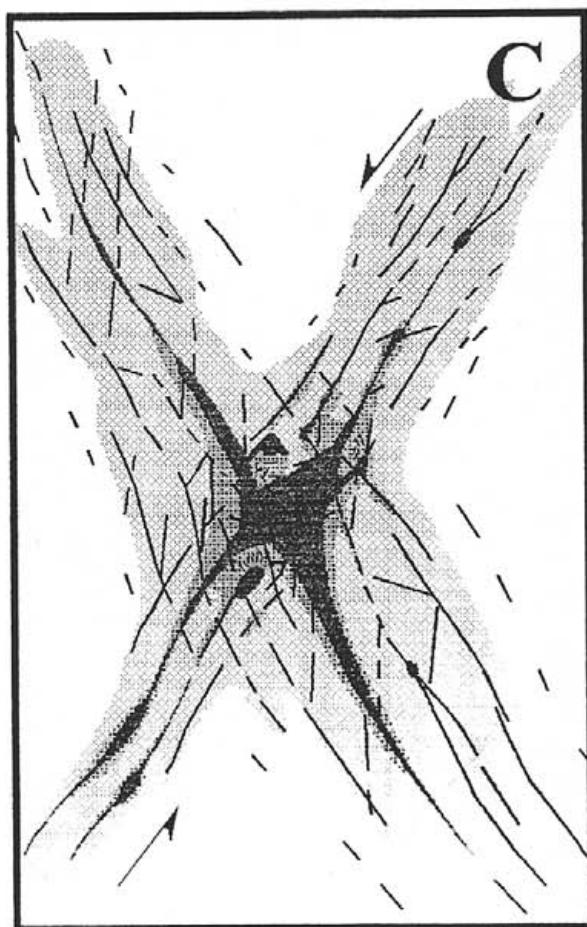
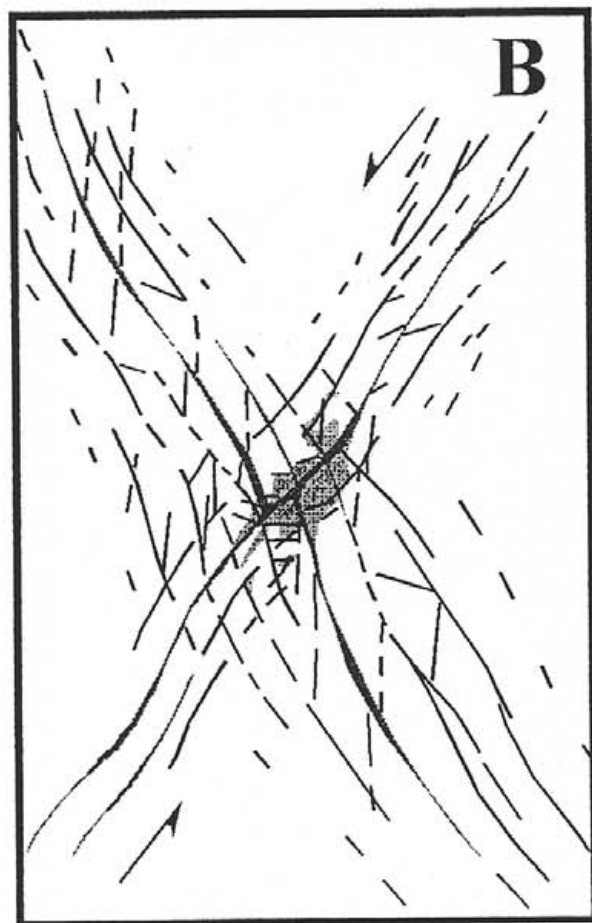
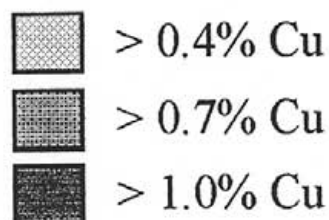
A generalized model illustrating the relationship of structures to sulphide habit and grade distribution is shown in Figure 3.3. Early vein and vein stockwork or fracture fill development is shown in Box A. Massive or semi-massive sulphide veins may form in vein openings on the main structure while smaller veins will form in adjacent fractures. Depending upon hydrothermal fluid flow, confining pressure, host rock rheology, fluid and host rock chemistry, disseminated mineralization will be weakly to well developed in a zone parallel to the main fracture. Box B illustrates intersecting structures where each structure will be mineralized as described above with the possible addition of a breccia forming at the structural intersection. Increased fluid flow could lead to the type of grade distribution shown in Box C. Almost all of the sulphide controlling structures at Copper Mountain are steeply dipping to vertical and therefore, it is difficult to evaluate mineralization (such as illustrated in Box C) with widely spaced vertical drill holes and inclined holes are far preferable.

Sulphide mineralogy of the camp is relatively simple, consisting of pyrite, chalcopyrite and bornite with other sulphide minerals only occurring in trace amounts. Gangue minerals include, in order of abundance: magnetite, calcite, potassium feldspar, albite, epidote and chlorite. The Copper Mountain camp is a low sulphide system with total sulphides ranging from 0.5 to a maximum of 10% with an overall average of about 2 to 3%. Ratio of iron to copper sulphides varies considerably with location. Bornite:chalcopyrite, silver:gold and copper:gold ratios are zoned from north to south, with higher ratios in the south which decrease northwards. Thus, bornite and silver contents are highest in Pit 3 and the Oriole area and decrease in Pits 1 and 2. Bornite is exceedingly rare in the Virginia, Alabama, Ingerbelle and Ingerbelle East deposits. Conversely, gold grades are higher in the reverse sequence (Fig. 3.4). A possible explanation for this zonation is related to thermal gradients around the Copper Mountain Stock. Although the Copper Mountain stock most likely predates mineralization the thermal regime caused by the emplacement and cooling of this large intrusive body would likely have dominated the area, thereby creating a mineralogical zoning pattern that is similar to porphyry systems where bornite is concentrated in the core zone, chalcopyrite dominates in the intermediate zone and pyrite is concentrated in the outer



# Schematic Plan View showing Structural Control on Sulphide Distribution, Copper Mountain Camp

field of view is appropriate for the  
microscopic to megascopic scale



see text for description

Figure 3.3



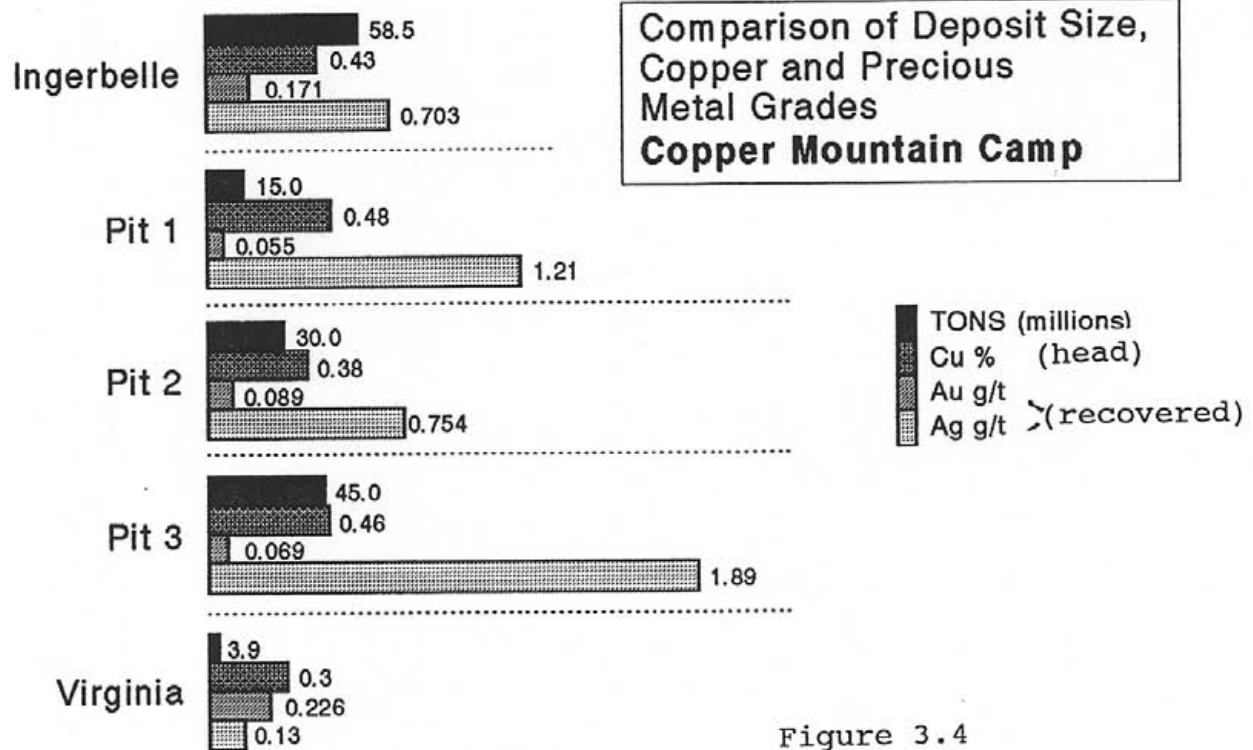


Figure 3.4

shell (Jones, 1992; Kesler, 1973; Jerome, 1966 and others). However, in a geologically complex area numerous other possible explanations exist, and would include depth zonation. That is, based on the inferred northwestward tilt of the Copper Mountain stock, the entire area may have been tilted in the same fashion so that deposits to the northwest are exposed at progressively deeper levels.

Gangue mineralogy and sulphide grain size have significant implications for exploration. The low amount of sulphides and high amount of calcite within the mineralization results in rocks that are acid consuming and consequently exposed mineralization is seldom gossanous. Additionally, the very slow oxidation of sulphides results in a negligible amount of chemical transport of metals within the surficial environment, limiting the effectiveness of soil geochemistry to areas of thin overburden or steep terrain where mechanical transport is more significant. Sulphide grain size is commonly so fine that sulphides cannot be seen without a fresh surface and a hand lens, consequently prospecting and mapping has to be carried out with considerable care.

### **3.2 General Description of Alteration**

Hydrothermal alteration within the mine area consists of both pervasive alteration (metasomatism) and structurally controlled (vein type) alteration. The variety of volcanic and intrusive lithologies, the overprinting of alteration assemblages, and the poor exposure between pit areas makes the recognition of property scale alteration zonation difficult. At the deposit scale, there does not appear to be any correlation between grade and alteration type or intensity (with the exception of a possible gold in copper correlation to potassic alteration).

The earliest alteration appears to have been a biotite-magnetite hornfelsing of the mafic volcanic rocks. This alteration typically produces a fine grained, hard, highly magnetic, black rock. In many places the resultant rock appears to be composed entirely of magnetite and biotite. This type of alteration occurs in all mineralized areas but is most strongly developed

peripheral to the Copper Mountain stock in the area of the Pit 1, Pit 3 and Ingerbelle deposits (Fig. 3.5). There are a number of locations where either the matrix or the fragments of fragmental volcanic rocks were selectively hornfelsed (altered) producing some visually enhanced fragmental textures. Empirical observation indicates that hornfelsed volcanic rocks commonly host the best grades of mineralization, particularly in the Pit 2, Pit 3 and the Alabama

deposits. Within these rocks very finely disseminated chalcopyrite forms at the expense of magnetite. It could be this feature that caused some of the early workers to refer to favourably mineralized horizons. Two types of pervasive alteration are named for their dominant feldspar mineral: sodic alteration or albitization (Na metasomatism), and potassic alteration (K metasomatism). Both types affect large volumes of rock, do not appear to be structurally controlled, at least on the outcrop scale, and can vary in intensity. Both alteration types do have structurally controlled counterparts that occur peripheral to the pervasive style and as later overprints on the pervasive style. Relative timing of the two alteration types, as indicated by cross-cutting relationships, is not consistent throughout the camp, but in general, the sodic alteration appears to have been slightly earlier than the potassic alteration.

Sodic alteration is conspicuous by its texturally destructive bleaching of darkly coloured rocks. Referred to as albite-epidote hornfels by Macauley (1970, 1973), sodic alteration changes grey plutonic rocks and black or green volcanic rocks to white, light grey and pale green, and is commonly accompanied by a reduction in grain size. Alteration mineralogy consists of albite with minor epidote, diopside and calcite. Sulphides associated with the alteration process generally occur in low concentrations, are very fine grained and pyrite content is greater than chalcopyrite. Sodic altered zones that make ore are frequently sulphide vein stockwork zones, which is probably a result of the more brittle nature of altered rock. It is typical of these zones to have less favourable metallurgical characteristics because of high work indices and lower recoveries.

Commonly, sodic alteration zones will have contacts that are gradational over 20 to 200 cm, and typically contain faint outlines of 2 to 3 mm euhedral feldspar grains, which are

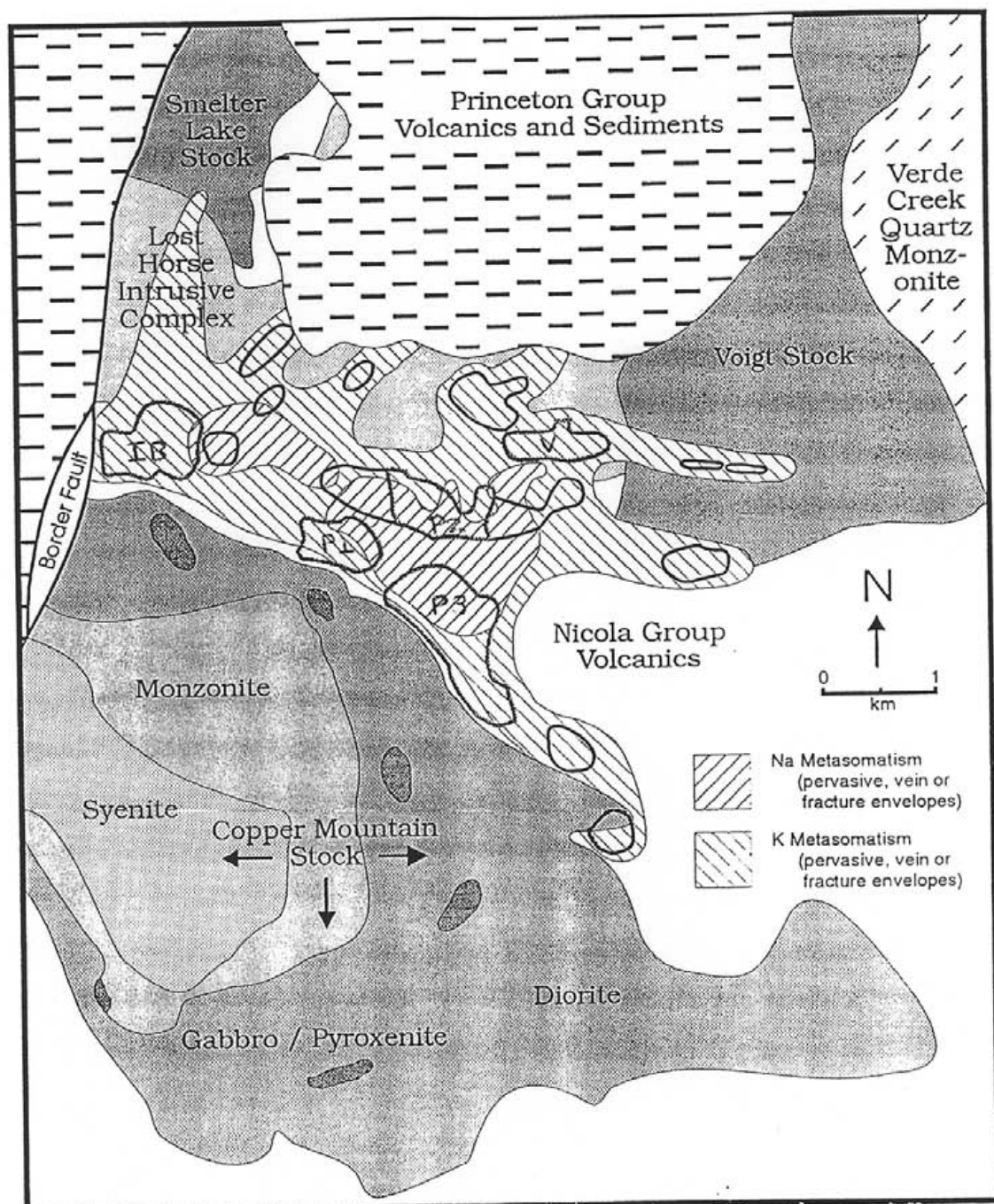


Figure 3.5 Distribution of Pervasive Alteration Types at Copper Mountain.

suggestive of intrusive protoliths. A spatial association of sodic alteration with hornfelsed volcanic rocks and the segregation of Na and Ca in one and K, Fe and Mg in the other suggests that there may be a genetic relationship between the two alteration types. Large zones of pervasive sodic alteration are constrained to the central part of the mine area occurring in the western ends of Pits 2 and 3, all of Pit 1 and the eastern part of the Ingerbelle Pit.

Structurally controlled sodic alteration is similar to pervasive alteration except that the alteration is restricted to narrow envelopes along "dry" fractures. In highly fractured rocks where the alteration envelopes merge, structurally controlled alteration becomes indistinguishable from pervasive alteration.

Potassic alteration is widespread, generally occurring outboard of the sodic alteration, but also within, and is quite variable in intensity. It is typically not texturally destructive, producing a pink wash (potassium feldspar) through the matrix, orthoclase replacement of, or overgrowths, on plagioclase phenocrysts and conversion of mafic minerals to biotite and magnetite (+/- chlorite). Potassic alteration is mostly associated with intrusive rocks of the Lost Horse Complex. Where this alteration is intense it is difficult to determine an altered rock from a fine-grained syenite. Disseminated epidote and chalcopyrite are commonly associated with potassic alteration. With the exception of albite veins, most of the veins, both sulphide bearing and non-sulphide bearing are likely associated with the late stages of potassic alteration.

A plethora of vein mineralogies and textures occur at Copper Mountain and are the major source of sulphide mineralization. Most of the vein types post-date the pervasive alteration. Classification of veins on the basis of mineralogy, texture, envelope and selvage assemblage has been attempted by Stanley et. al. (1994) and results in a considerable number of vein classes with a complex paragenesis. Only a brief generalized description will be given here.

The dominant silicate minerals occurring in veins, envelopes and selvages includes, in

approximate order of total abundance, orthoclase, epidote, magnetite, calcite, biotite, chlorite and scapolite. Albite veins, which are usually a salmon orange colour are only significant in the Ingerbelle deposit and the Oronoco exploration area. Similarly, late-stage scapolite veins have only been observed in the Ingerbelle Pit. Sulphide minerals consist of chalcopyrite, bornite and pyrite. Magnetite (+/- biotite and chlorite) - chalcopyrite - pyrite veins are ubiquitous but comprise a significant part of the mineralization in the northeastern mine area (east side of Pit 2, Virginia and Alabama deposits and Voigt Zone mineralization). Bornite - chalcopyrite veins (fracture fillings) with or without silicate envelopes and selvages are the main source of sulphides within Pit 3. Pegmatite textured veins composed of orthoclase, biotite, calcite, epidote (and in two locations, garnet) occur with or without sulphides and are generally restricted to the "core" of the mine area (Pit 1, Pit 3 and Pit 2).

## **4. DIAMOND DRILL PROGRAMS**

### **4.1 Alabama Diamond Drill Program**

#### **4.1.1 Overview**

This section presents a summary of the Phase I diamond drill program on the Alabama copper-gold deposit. The Alabama area was selected as the most likely target area that could produce a large economic deposit within a relatively short time-frame and limited exploration budget. The Alabama Zone was deemed the best target for a variety of reasons including: geology and alteration, geophysical signature, previous drill results, proximity to the crusher and topographic setting.

The Alabama Zone is situated 1km east of the Copper Mountain crusher (Figure 1.3) on the Lost Horse Gulch Ridge. Elevation at the top of the ridge is 4,050 feet but drops to 3,700 feet at the Virginia deposit.

The objective of the Phase I drill program was to define a deposit with the potential to host at least 30 million tons of ore at a low strip ratio. It was originally anticipated that 18,000 to 22,000 feet of diamond drilling in holes spaced 400 to 600 feet apart would be required to achieve this objective. Extensively faulted and fractured ground resulted in higher drilling costs and consequently only 16,105 feet were drilled on the proposed budget.



#### **4.1.2 Geology and Mineralization of the Alabama Deposit**

Geology of the Alabama area is characterized by a complex of tabular dyke-like intrusive rocks cutting the Nicola volcanic rocks of the Wolf Creek formation. These rocks are overlain to the north by a thin to thick cover of Tertiary volcanic flows and sedimentary rocks. Where the Tertiary-Mesozoic contact is intersected by drilling it appears to be faulted. Pronounced east-west structural extension during Tertiary time has resulted in abundant north-south trending felsite and basalt dykes cutting the rocks of interest. Total volume of the dykes is in the order of 10% of the Alabama ridge area. Ground conditions on the Alabama ridge are poor due to extensive faulting and fracturing.

Nicola volcanic rocks consist predominately of fine-grained augite-phyric andesite to basalt flows and coarse fragmental rocks with minor fine-grained pyroclastics. The coarse fragmental volcanics, locally referred to as lapilli tuffs are commonly hornfelsed to a biotite-magnetite rich assemblage. It is believed that it is this unit that the "old-timers" referred to as the favourable horizon. However, in the Alabama area this fragmental unit appears to be vertical and although it is commonly well-mineralized it is not necessarily so and does not seem to carry grades in excess of the surrounding Lost Horse intrusive rocks.

The intrusive rocks at Alabama are part of the Lost Horse intrusive complex, an appropriate name for a confusing variety of intrusive compositions and textures. The Lost Horse intrusions have been subdivided into three sets based on age relative to mineralization: LH1, which is predominantly a pyroxene diorite appears to be pre-mineralization; LH2, which consists of a variety of feldspar phyric phases is syn-mineralization and believed to be intimately related to the source of mineralization; and LH3, which consists of post-mineral monzonite and syenite.

Alteration is pervasive in the Alabama area and makes it difficult to, not only, distinguish

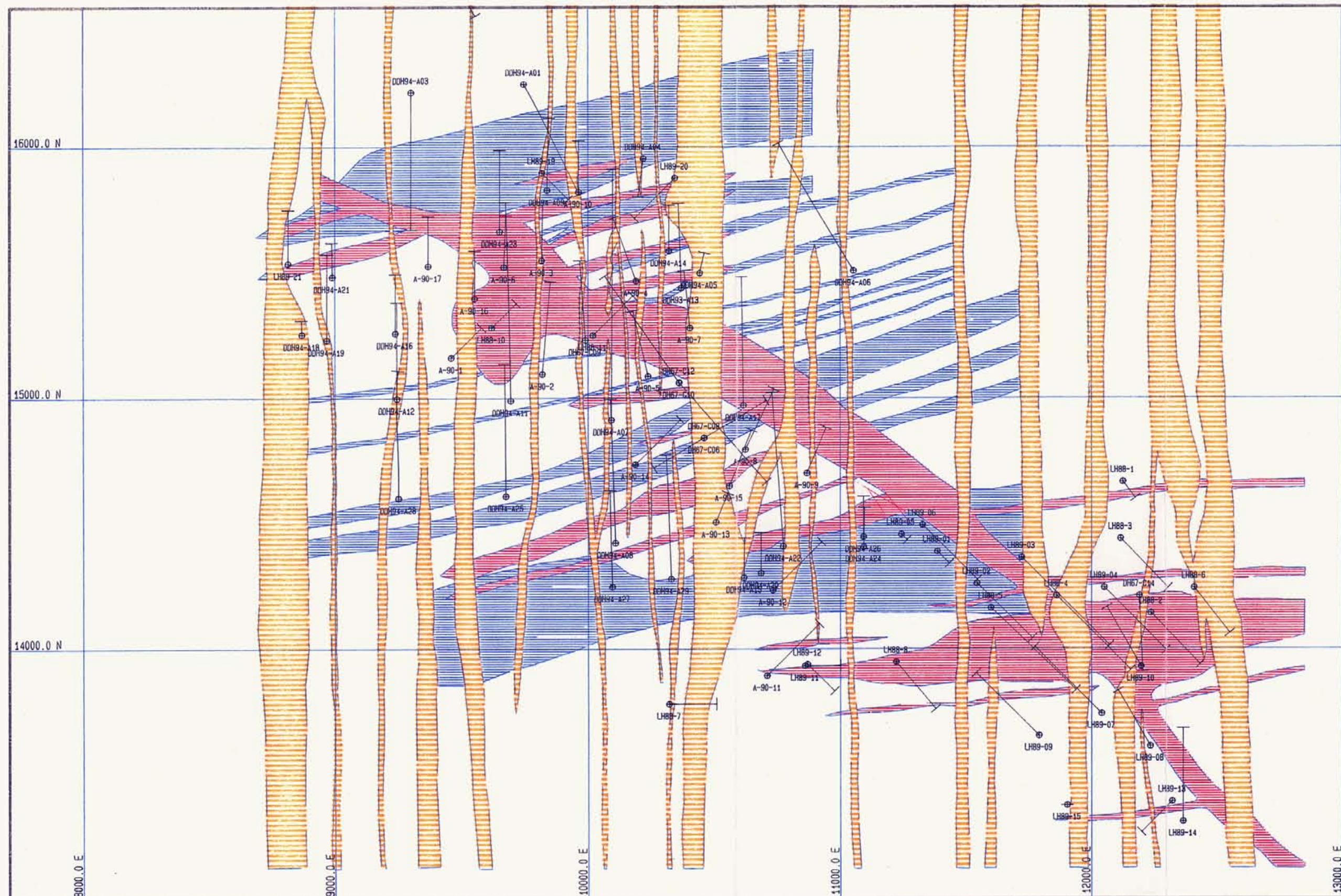
between individual intrusive phases but also to distinguish between intrusive and some volcanic units. The most conspicuous alteration is pervasive potassium feldspar alteration which results in a pink wash throughout the rock, which, for example, results in a diorite protolith having the appearance and composition of a syenite. Potassic alteration is also manifested by potash rich veins and fracture fillings as well as by biotization. Sodic alteration or albitization (albite + epidote) which is common in Pits 1 and 3 is only locally present in the Alabama area. Propylitic alteration as defined by a chlorite + calcite + pyrite +/- epidote assemblage is observed in drill core on the north side of the Alabama deposit. An alteration zonation scheme and the relation of alteration to mineralization in the Alabama area has not yet been determined. The difficulty in defining specific zones of alteration can be appreciated if one considers the vast number of individual intrusive events, each with its own alteration halo, followed by movement along numerous faults, juxtaposing unrelated rocks and events.

Examination of historical data shows that vertical drill holes within Copper Mountain mineralization usually produces a seemingly erratic distribution of grades within the deposit areas. It is common to obtain wildly different grades and mineralized-intersection thicknesses over relatively short distances between holes (including some spectacular high-grade intersections). This, in turn, led to difficulties in making reserve estimations, particularly in smaller deposits such as the Virginia. It is felt that inclined (-45 degree) holes on the Alabama Zone would produce better geological and grade distribution information. Previous delineation and definition drilling at Copper Mountain was done with close-spaced vertical holes and therefore it is difficult to make direct comparisons between this program and early stage results obtained during the definition of other deposits. It is reasonable to assume that assay results within inclined holes will be less consistent (narrow intersections) than vertically drilled holes. However, assays between proximal holes should be more consistent among the inclined than the vertical holes. Inclined holes will more precisely define the lateral limits of mineralization than will the vertical holes and will reduce the risk of extrapolating high-grade intersections into areas of waste. Figure 4.1 is a conceptual plan of the Alabama-Virginia areas showing drill hole location, the main zones of mineralization (red), Lost Horse diorite

dykes (blue) and barren Tertiary dykes (yellow).

Mineralization at Alabama is more similar to the Ingerbelle deposit than any of the other known mineralization in the camp. Like Ingerbelle, all of the copper at Alabama occurs as chalcopyrite and is usually associated with pyrite and magnetite. The sulphides occur as disseminations and to a lesser extent as fracture and vein fillings within tabular, structurally controlled zones. The orientation of the main mineralized zone(s) at Alabama is 100 to 110 degrees with subordinate zones at 060 and 330; very similar to Ingerbelle. The Alabama and Ingerbelle deposits also share the same Cu: Au ratio of approximately 16,000. It is worth noting that the average length of above cut-off drill intersections in drill holes in the Ingerbelle deposit was 70 feet (Macauley, 1970) and that the deposit was drilled off with 542 holes totalling 243,139 feet.





Princeton Mining Corp.  
P.O. Box 520  
Princeton, BC  
VOX 1W0

DATE: 07/21/94 TIME: 12:05:13

SCALE (HOR) 1" = 400' SCALE (VERT) 1" = 400'

Software by GEMCOM Services Inc.

ALABAMA-VIRGINIA ZONE GEOLOGY  
RED=>0.20% CU, BLUE=LH DIOR, YELLOW=TERT DYKE

FIGURE 4.1



#### **4.1.3 Alabama Drill Program Results**

A total of 16,105 feet of HQ and NQ diamond drilling has been completed in 29 holes. Drilling from the current program together with the previous drilling have defined a copper - gold deposit that is elliptical in plan with surface dimensions of 2,400' by 1,100'. A preliminary sectional-type reserve estimate has identified an in-situ resource of 21.6 million tons grading 0.312% copper and 0.16 g/t gold.

Drilling was hampered by excessively broken ground which resulted in slower drilling, higher costs and a significant number of abandoned holes or holes which did not reach target depth. It is clear that both the drill orientation (north) and the shallow dip (-45) exacerbate the ground problems, however, steeper holes at different azimuths would produce both lower quality and quantity of geological data.

Figures 4.2, 4.3 and 4.4, show the location of pre-1994 drill holes, 1994 drill holes and an assay histogram plan of all Alabama drilling, respectively. Drill hole location co-ordinates are given in Table 4.1a for pre-1994 drilling and on Table 4.1b for 1994 Phase 1 drilling. A summary of 1994 Phase 1 drill results is given in Table 4.2. A more detailed list of composited drill hole intersections using two methods of compositing is given in Appendix II, following the drill logs.

The most recent drilling, holes 21 through 29, has extended the mineralized area to the southeast and it now appears that mineralization will extend to the southeast into the Virginia Zone (Figure 2.1). Holes that were drilled along the southern margin of the deposit encountered weak mineralization and, with the exception of the southeastern area, it does not appear likely that a significant volume of potential ore mineralization is likely to be present. Results of the westernmost holes are slightly more encouraging. Although the assay results are not high they are sufficient to indicate that the mineralization is still present and may

improve to the west, allowing the potential to expand the deposit in this direction.

The area of the potential ore deposit as indicated by drilling to date is contained within an elliptical shaped area with maximum dimensions of 2,400 by 1,100'. The deposit is partially closed to the north and south but remains open to the northwest and southeast. The dimensions of the mineralized area are similar to those of Pit 2 which hosted 29 million tons of ore grading 0.38% Cu with a 0.8:1 strip ratio. The Alabama deposit appears to be formed from a 200 to 400' thick band of relatively high grade mineralization (0.3 to 0.6% Cu) which trends approximately 110 degrees and flanked on both sides by lower grade, narrower zones. It is possible that the narrow peripheral zones are northeast or northwest trending structures.

A number of mineralization types have been recognized and preliminary metallurgical testing has been completed. A deep-penetration-high resolution IP survey (MIDAAS System) has been completed over the Alabama and Mill Zone areas, from the Cable belt in the west to Virginia Pit in the East. The survey indicates that the Alabama chargeability anomaly gets progressively deeper in the westerly direction until the cable belt area where a new strong anomaly occurs near surface. Additionally, the Mill Zone has a chargeability anomaly that is in the same order and size as the Alabama anomaly. The Midaas survey did not provide sufficient data to assist with the three dimensional interpretation of mineralized structures, nor did it demonstrate an ability to map out dykes at the reconnaissance scale (400 to 600' spaced lines).



**TABLE 4.1a**  
**PRE - 1994 DRILL HOLE**  
**LOCATION AND GRADE STATISTICS**  
**SUMMARY**

HOLE #	COLLAR NORTHING	COLLAR EASTING	COLLAR ELEV. (FT)	AZM	DIP	LENGTH (FT)	RECOVERY (%)	LENGTH > 0.20% (%)	CU WAG > 0.20% CU (%CU)	AU WAG 0.20% (PPB AU)
C67-6	14840.00	10460.00	3903.00	59.00	-47.00	422	NA	7.1	0.42	NA
C67-8	14840.00	10460.00	3903.00	239.00	-46.00	336	NA	9.2	0.27	NA
C67-9	15230.00	9990.00	4078.00	356.00	-60.00	640	NA	32.3	0.38	NA
C67-10	15060.00	10360.00	3972.00	325.33	-45.00	748	NA	20.9	0.30	NA
C67-12	15060.00	10360.00	3972.00	138.67	-46.00	792	NA	16.8	0.55	NA
LH88-10	15280.00	9620.00	4083.00	45.00	-45.00	194	NA	74.0	0.39	NA
LH88-11	15250.00	10020.00	4073.00	45.00	-45.00	314	NA	44.6	0.43	NA
LH89-19	15896.59	9817.90	4044.01	135.00	-55.00	262	NA	4.2	0.29	NA
LH89-20	15875.13	10342.91	3954.98	225.00	-55.00	393	NA	29.0	0.48	NA
LH89-21	15535.32	8816.05	4028.25	360.00	-55.00	374	NA	15.5	0.37	NA
A90-1	15160.00	9460.00	4077.00	45.00	-45.00	240	NA	NSA	NSA	NA
A90-2	15093.92	9820.58	4085.55	5.00	-45.00	525	NA	33.5	0.34	263
A90-3	15546.92	9818.10	4050.07	1.00	-45.00	315	NA	32.7	0.29	156
A90-4	15465.69	10189.95	4011.25	340.00	-55.00	467	NA	32.3	0.35	260
A90-5	15085.57	10237.13	3988.88	347.00	-55.00	467	NA	51.4	0.46	223
A90-6	15520.12	9667.87	4067.05	2.00	-55.00	360	NA	65.3	0.32	296
A90-7	15279.05	10402.92	3977.92	354.00	-55.00	400	NA	17.0	0.39	245
A90-8	14792.71	10624.75	3907.91	25.00	-55.00	465	NA	58.3	0.43	212
A90-9	14698.26	10867.52	3816.31	22.50	-55.00	345	NA	21.7	0.44	247
A90-10	15820.23	9963.39	4020.91	360.00	-55.00	357	NA	28.0	0.27	NA
A90-11	13890.81	10710.38	3582.52	45.00	-55.00	510	NA	19.6	0.36	NA
A90-12	14232.23	10733.52	3764.49	45.00	-55.00	474	NA	8.4	0.63	NA
A90-13	14502.46	10506.39	3838.60	22.00	-55.00	220	NA	NSA	NSA	NA
A90-14	14733.78	10186.69	3908.19	45.00	-60.00	505	NA	19.8	0.34	NA
A90-15	14647.96	10558.98	3880.36	22.00	-60.00	480	NA	14.6	0.32	NA
A90-16	15396.02	9552.24	4069.91	360.00	-70.00	558	NA	16.7	0.31	NA
A90-17	15524.56	9368.52	4067.60	360.00	-60.00	400	NA	12.5	0.27	NA
TOTAL:						11563			0.38	238

**TABLE 4.1b**  
**1994 DRILL HOLE**  
**LOCATION AND GRADE STATISTICS**  
**SUMMARY**

HOLE #	COLLAR NORTHING	COLLAR EASTING	COLLAR ELEVATION (FT)	AZM	DIP	LENGT (FT)	RECOVERY (%)	LENGTH >0.20% CU (%)	CU WAG >0.20% CU (%)	AU WAG >0.20% CU PPB
94-A01	16248.89	9745.28	4047.19	149.00	-45.00	683	88	2.2	0.36	250
94-A02	16753.23	9418.92	3889.58	150.00	-45.00	379	90	NSA	NSA	NSA
94-A03	16216.82	9300.53	4061.12	180.00	-45.00	773	73	11.4	0.37	118
94-A04	15959.99	10218.19	3978.00	187.63	-48.42	230	26	8.8	0.37	102
94-A05	15497.21	10442.11	3961.82	12.99	-54.01	140	100	NSA	NSA	NSA
94-A06	15505.90	11051.23	3852.16	328.42	-43.55	845	92	4.3	0.32	237
94-A07	14911.05	10092.36	4003.89	359.65	-44.17	1396	98	28.1	0.39	153
94-A08	14420.56	10108.09	3828.66	1.87	-43.20	836	95	17.2	0.36	214
94-A09	15827.47	9838.94	4035.12	1.35	-48.54	435	93	NSA	NSA	NSA
94-A10	15409.02	7629.48	4046.51	0.36	-42.68	1179	96	NSA	NSA	NSA
94-A11	14988.47	9694.76	4071.68	359.19	-46.38	1169	98	50.0	0.38	201
94-A12	14996.19	9245.48	4054.51	359.82	-44.14	537	95	4.8	0.35	164
94-A13	15437.56	10368.58	3980.37	357.94	-44.00	469	95	16.4	0.36	131
94-A14	15585.31	10319.55	3986.08	359.99	-43.93	254	95	11.8	0.47	102
94-A15	14281.51	10619.30	3784.94	0.57	-46.39	229	78	6.1	0.27	110
94-A16	15257.80	9239.54	4074.90	359.86	-42.79	321	97	10.6	0.29	146
94-A17	14969.05	10616.73	3952.76	359.04	-45.24	729	97	36.7	0.31	102
94-A18	15253.08	8870.68	4049.45	357.78	-46.02	81	100	NSA	NSA	NSA
94-A19	15230.50	8968.36	4055.05	0.08	-40.53	451	97	36.4	0.30	78
94-A20	14298.90	10686.15	3783.92	359.99	-46.54	236	83	33.9	0.30	148
94-A21	15482.25	8990.26	4064.17	359.02	-45.64	195	66	26.2	0.34	121
94-A22	14406.78	10774.30	3791.05	355.79	-45.78	882	89	23.4	0.39	191
94-A23	15662.24	9650.85	4073.67	358.81	-45.90	460	88	4.3	0.21	138
94-A24	14404.75	11091.71	3766.00	1.25	-46.54	229	89	12.7	0.37	148
94-A25	14607.21	9675.21	3933.57	359.51	-44.34	703	98	15.1	0.34	179
94-A26	14444.00	11091.00	3766.00	1.25	-45.00	229	85	30.6	0.76	332
94-A27	14245.67	10095.54	3778.51	357.91	-48.62	554	100	6.5	0.36	184
94-A28	14598.82	9251.73	3898.61	0.65	-43.03	732	100	3.3	0.28	143
94-A29	14276.92	10328.80	3785.21	357.67	-47.70	749	91	17.4	0.49	204
TOTAL:						16105			0.36	162

**TABLE 4.2 - SUMMARY OF  
ALABAMA PHASE I**

Hole #	From	To	Thickness	% Cu	Au g/t	CuEq
DH94-A01	630	645*	15	0.36	0.25	0.50
DH94-A02	hole	abandoned				
DH94-A03	635	773	138	0.28	0.09	0.33
DH94-A04	221	230*	9	0.38	0.1	0.44
94-A05	hole	abandoned				
94-A06	464	500	36	0.28	0.14	0.36
94-A07	32	151	119	0.19	0.07	0.23
	214	313	99	0.19	0.06	0.22
	366	643	269	0.42	0.15	0.50
	452	575	123	0.59	0.18	0.69
	717	763	46	0.26	0.13	0.33
DH94A08	35	66	31	0.22	0.09	0.27
	116	160	44	0.25	0.12	0.32
	272	360	88	0.16	0.18	0.26
	496	508	12	0.66	0.61	1.00
	598	620	22	0.22	0.10	0.28
	794	821	27	0.61	0.34	0.80
DH94AO9	no	significant	intersections			
DH94A10	no	significant	intersections			
DH94A11	60	981	921	0.28	0.16	0.37
	incl 248	300	52	0.42	0.14	0.50
	350	399	49	0.46	0.20	0.57
	530	747	217	0.46	0.28	0.62
	845	900	55	0.34	0.15	0.42
DH94A12	397	412	15	0.43	0.23	0.56
DH94A13	39	109	70	0.30	0.12	0.37
	184	204	20	0.29	0.09	0.34
	242	266	24	0.30	0.07	0.34
DH94A14	44	194	150	0.20	0.07	0.24
	incl 154	184	30	0.47	0.10	0.53
DH94A15	215	229*	14	0.23	0.009	0.24

Copper equivalent (CuEq) based on \$385/oz Au and \$1.00/lbCu  
 \* Hole abandoned prior to target depth

**DRILL RESULTS**

Hole #	From	To	Thickness	% Cu	Au g/t	CuEq
DH94A16	60	284*	224	0.15	0.09	0.20
include. 240	265	25	0.26	0.16	0.35	
DH94A17	14	409	395	0.25	0.09	0.30
incl. 122	260	138	0.31	0.12	0.38	
DH94A19	174	360	186	0.24	0.07	0.28
	420	451*	31	0.35	0.08	0.39
DH94A20	140	230*	90	0.29	0.16	0.38
DH94A21	53	150*	97	0.23	0.10	0.29
DH94A22	70	270	200	0.30	0.17	0.40
	514	564	50	0.38	0.17	0.48
DH94A24	197	229*	32	0.26	0.09	0.31
DH94A25	589	693	104	0.24	0.20	0.35
DH94A26	104	199*	95	0.56	0.27	0.71
DH94A27	268	322	54	0.17	0.13	0.24
	472	499	27	0.30	0.15	0.38
DH94A28	No	significant	intersections			
DH94A29	221	279	58	0.25	0.13	0.32
	684	741	57	0.24	0.28	0.40

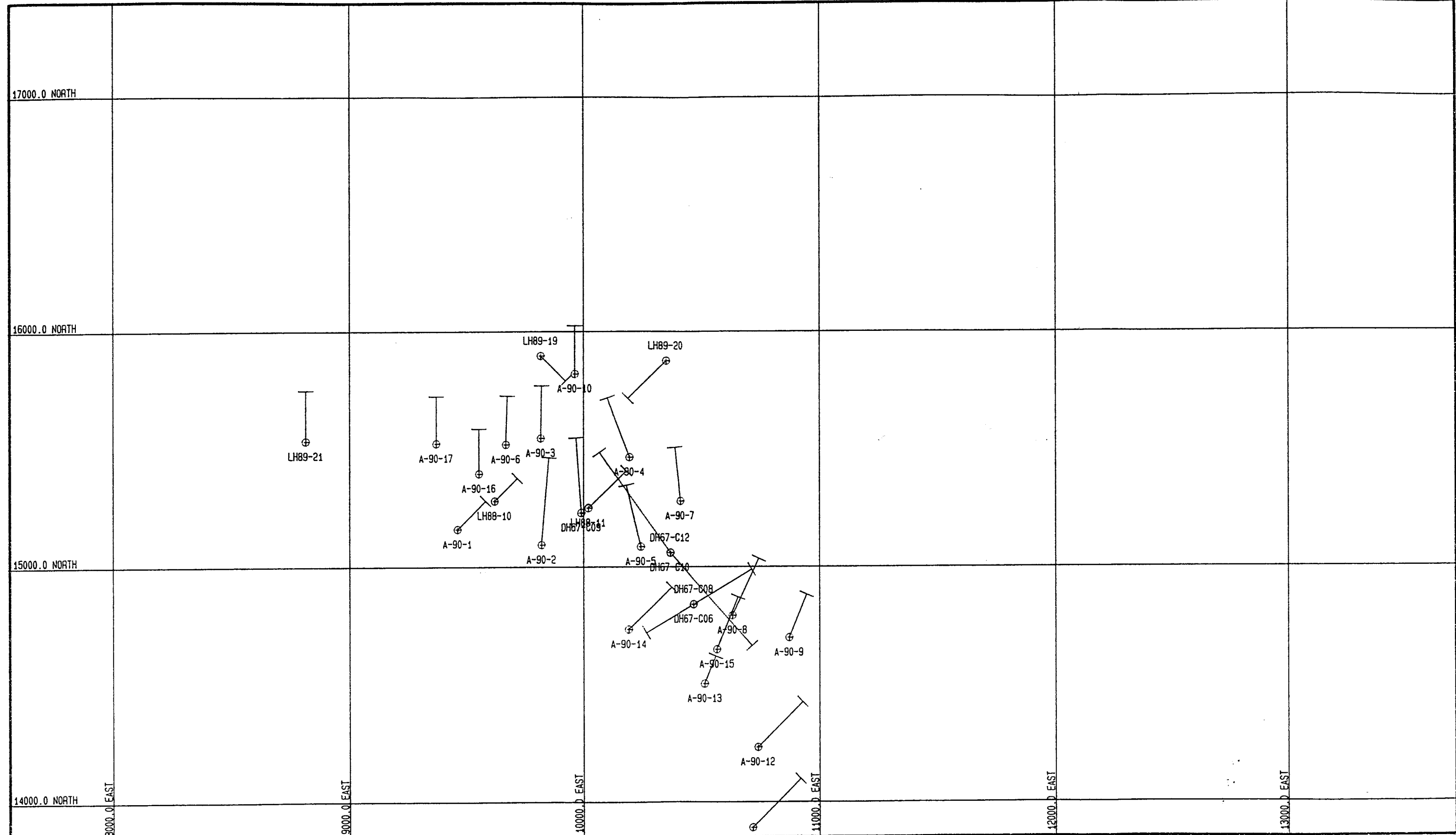


FIGURE 4.2  
PRE-1994 ALABAMA DIAMOND DRILLING

Princeton Mining Corp.  
P.O. Box 520  
Princeton, BC  
VOX 1W0

DATE: 06/24/94 TIME: 12:16:06

SCALE (HOR) 1" = 400' SCALE (VERT) 1" = 400'

Software by GEMCOM Services Inc.

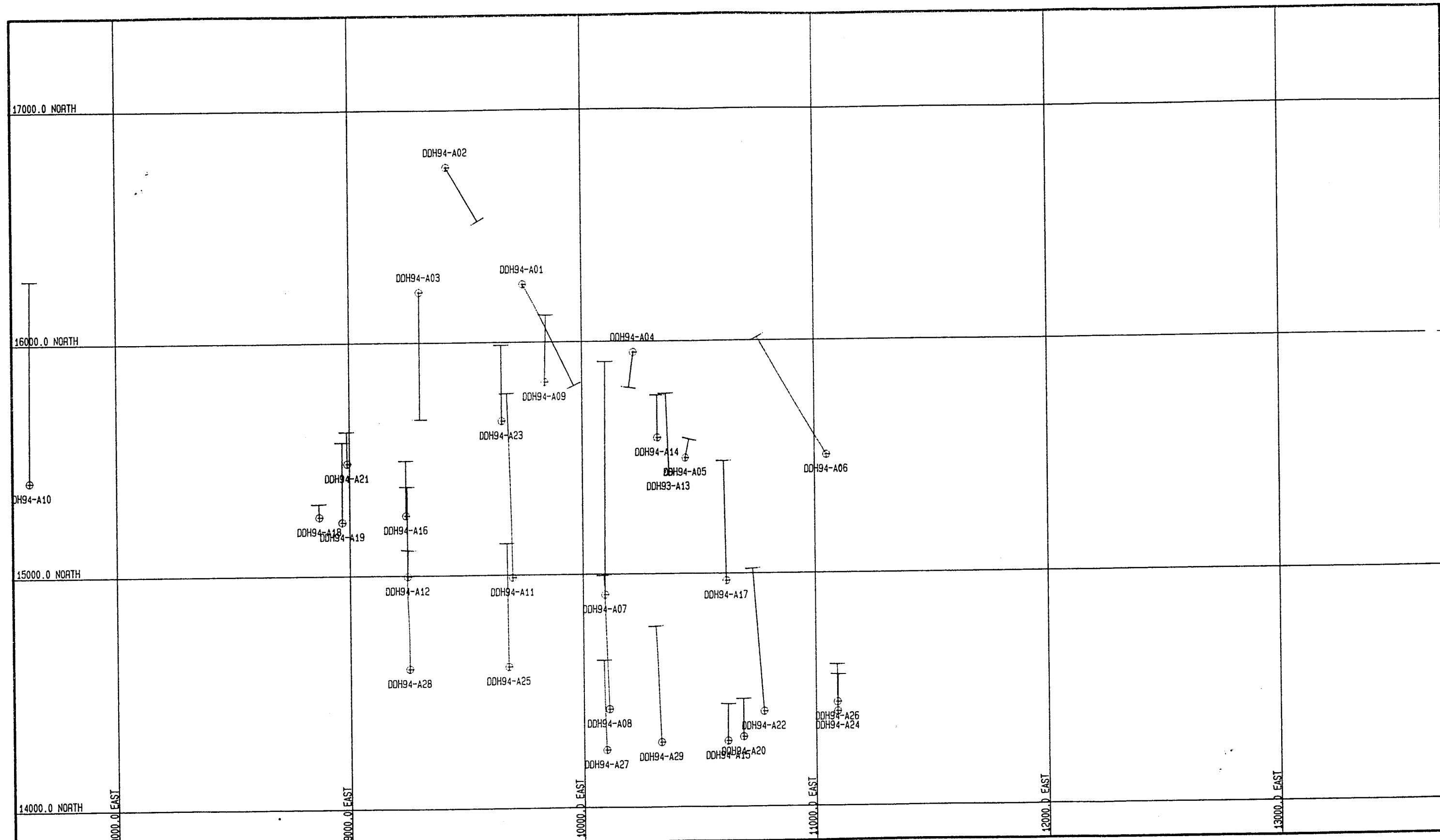


FIGURE 4.3  
1994 ALABAMA DIAMOND DRILLING

Princeton Mining Corp.  
P.O. Box 520  
Princeton, BC  
VOX 1W0

DATE: 06/24/94 TIME: 13:32:37

SCALE (HOR) 1" = 400' SCALE (VERT) 1" = 400'

Software by GEMCON Services Inc.

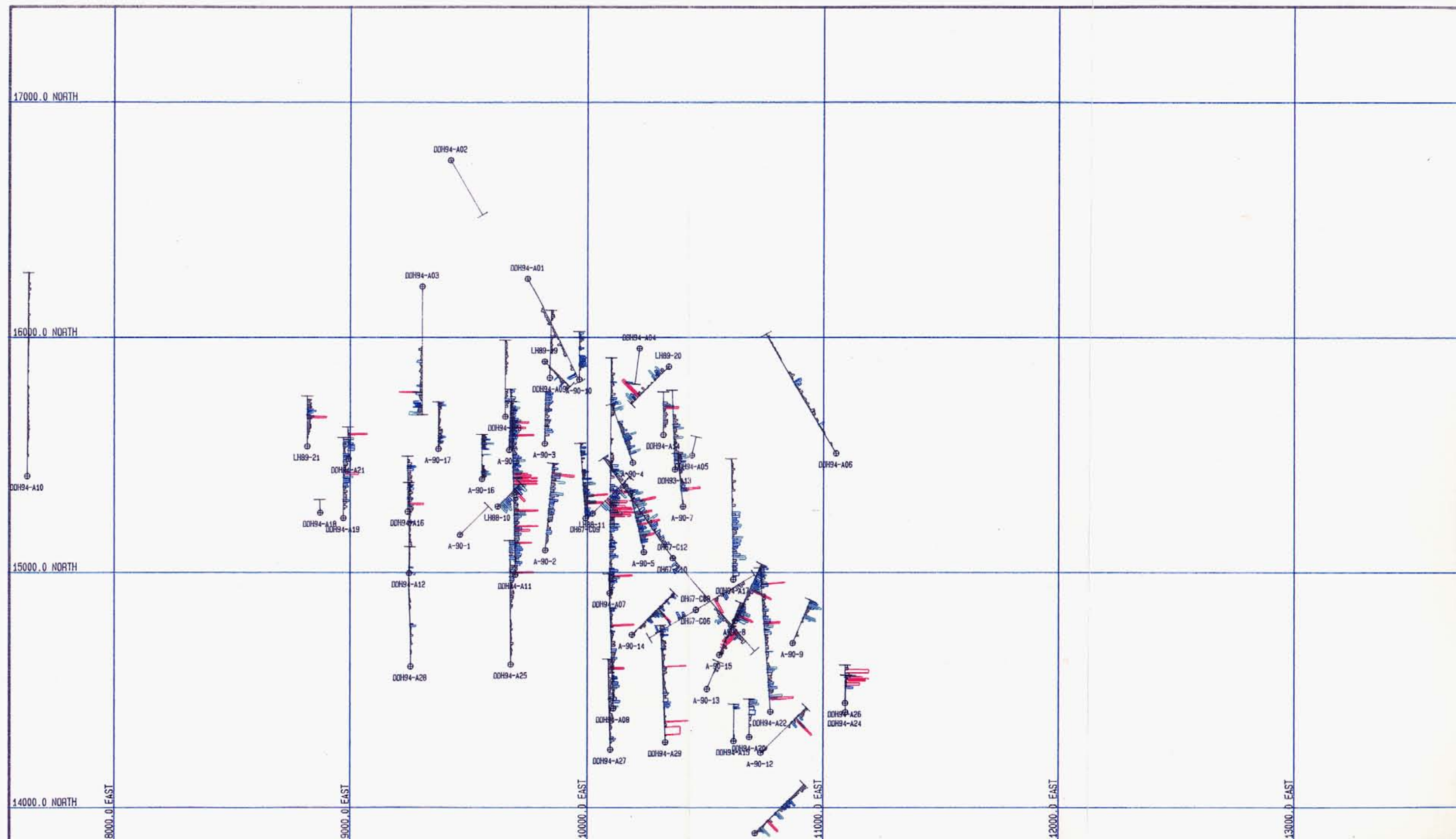


FIGURE 4.4 - ALABAMA ASSAY HISTOGRAM PLAN  
 BLUE: 0.2-0.4% CU, GREEN: 0.4-0.6, RED: >0.6

Princeton Mining Corp.  
 P.O. Box 520  
 Princeton, BC  
 VOX 1W0

DATE: 06/27/94 TIME: 15:50:44

SCALE (HOR) 1" = 400' SCALE (VERT) 1" = 400'

Software by GEMCON Services Inc.



#### **4.1.4 Resource Estimation**

In order to evaluate the drill results to date an estimation of the indicated resource has been made. Spacing of drill holes and the nature of the mineralization is such that the reserve estimate must be considered preliminary until additional drilling is completed. The resource estimation should be kept in its proper context; it is not a reserve calculation with implied positive economics, but merely an indicated resource based on the drill results together with experience gained from historical production.

A key aspect to bear in mind is that most of the past drilling on the property was done with vertical holes, consequently comparisons with drill results from previous exploration is difficult. The methodology and assumptions required to estimate the resource are described below.

##### Methodology.

The method used to estimate the Alabama deposit resource is commonly known as the "sectional method" where geological interpretations of the mineralized zones are drawn on sections and plans and the sectional area of mineralization is assigned a grade on the basis of the grade of the drill holes within the area. Volume is calculated based on sectional area times a projected distance determined from the level plan. Tonnage is calculated using a tonnage factor of 11.5 cubic feet/ton, which is based on a specific gravity of 2.76. For most sections the projected distance totals 200 feet. While this distance does not fill all of the distance between sections it allows for dykes, which generally run parallel to the sections, and prevents data from being projected to distances beyond which they are reasonable. In most cases sectional blocks were simple parallelograms which was in keeping with the assumptions about mineralization and the limited amount of data. A side benefit of this was that it kept the volume calculations relatively simple. In general, preliminary geological interpretation of the mineralization on cross sections is consistent with the assumptions listed below.

Assumptions:

- a) Mineralization is planer or sheet like with excellent vertical continuity.
- b) Mineralization continuity is minimal in a north-south orientation (ie: has sharp contacts) and has moderate continuity in an east-west orientation (able to project for distances of up to 200'). In reality, the north-south mineralization boundaries will be defined by assay cut-offs and could be curvilinear.
- c) Mineralization extends to the 3500' elevation unless it is terminated at a higher elevation by drill data. This is based on an assumed pit depth of 500'. In reality, mineralization likely extends to considerable depths, but at the present time, drill data for the area below 3500' is limited.
- d) Mineralization extends to bedrock surface: the degree of oxidation was not considered.

Results:

Tabulation of the sectional blocks yields an indicated resource of 21.6 million tons grading 0.312% copper. Block dimensions, grades and calculated tonnages are listed in Appendix III. Only half of the gold assays had been completed at the time of the estimate, so gold was not used in the resource estimation. However, an average of all gold grades received to date associated with copper greater than or equal to 0.2% is 0.168 ppm. Because some of the copper grades included in greater than 0.2% intersections are below 0.2% copper it is likely that the average gold grade of the deposit will be lower than 0.168ppm, consequently 0.16 grams per tonne (0.0047 oz/T) was the number assigned to the indicated resource. Based on US \$1.00/lb Cu and US \$385/oz Au this would give a copper equivalent grade of 0.402% Cu. A hypothetical pit outline around the indicated mineralization has a contained tonnage of 38 million tons. This would suggest a strip ratio of 0.76, however, until an actual pit plan is completed to match the mineralization, this strip ratio should be considered as a rough "ball-park" estimate.

### Discussion

At this point in time, the above indicated resource is still on track to achieve the targeted objective of 30 million tons grading  $>0.35\%$  copper with a strip ratio of  $< 1.0$ . The deposit is still open in some areas, particularly to the southeast and will probably extend to depths well below the 3500' elevation. Additionally, there are some sections where drill holes intersected dykes and therefore mineralized zones were under-represented on those sections. (Conversely, only the major dykes were eliminated from the resource estimate and in-fill drilling could reveal a higher dilution factor, due to dykes, than anticipated.) With completion of Phase 2 drilling, pit optimization will eliminate some of the peripheral lower grade areas which will likely result in an overall higher average grade but will also result in lower tonnage. Although it is possible that in-fill drilling will lead to a reduction in tonnage and/or grade, it is considered less likely than an increase in tonnage/grade due to the reasonably good morphological and grade continuity between drill sections.

## **4.2 Ingerbelle East Diamond Drill Program**

### **4.2.1 Overview**

The Ingerbelle East deposit is situated immediately east of the Ingerbelle pit, and approximately 4,000 feet south of the new primary crusher. A 15,000 foot diamond drill program on the Ingerbelle East deposit commenced on June 29 and was completed on September 27, 1994. The objective of this program was to provide sufficient information in order to define mineable reserves, perform a pit optimization and develop a mine plan. The exploration target was a deposit containing approximately 30 million tons grading  $> 0.4\%$  copper with a waste to ore ratio of 1.2:1. More specifically, the drill program was designed to: 1) verify the location, shape and grade of mineralization indicated by past drilling and; 2) extend known mineralization and/or delineate new mineralization within undrilled areas of the proposed pit area, thereby lowering the waste to ore ratio.

The Ingerbelle East area was first drilled in the late 1960's by Newmont during the exploration of the Ingerbelle deposit. Much of this early drilling was in vertical percussion holes with a few inclined diamond drill holes. Drill results were favourable but were not included in the Ingerbelle mine plan, possibly due to the difficult topography adjacent to the river. The area was further tested by a 12 hole 7,680 foot drill program in 1980. This drilling, which was all in angle holes, defined an easterly trending, well-mineralized zone at least 1000 feet long by 450 feet wide and 400 feet deep (Burgoyne, 1992). The mineralized zone appears to have a fairly sharp northern boundary but is open to depth. The southern boundary is only partially defined as steep topography has limited the amount of drilling.

A geostatistical reserve estimate was made prior to the current drill program. The estimate, which used a 0.2% cutoff grade, 40 foot bench composites, and a defined (preliminary) pit shell, indicated a within pit reserve of 21.1 million tons grading 0.35% copper at a 1.66 waste to ore ratio. This estimate does not incorporate geological controls on mineralization nor does

it include pit access, haulage ramps or detailed wall angle adjustments, and therefore should be considered as preliminary. A plan view showing exploration drill hole locations, relative to the previous Ingerbelle drilling and generalized results is given in Figure 4.5.

#### 4.2.2 Geology of the Ingerbelle East Deposit

The geology and mineralization of the Ingerbelle East deposit compare very well with that of the Ingerbelle deposit, which is not remarkable since one is an extension of the other.

Review of the blast hole assay plans from the Ingerbelle deposit reveals a strong structural control on mineralization with multiple, parallel, vertically dipping, northwest (340 degrees) and northeast (070 degrees) trending zones predominating (see Section 3.1). Sulphide minerals within these zones occur as disseminations, veins and fracture fillings. The structural zones appear to have gradational contacts and are better defined by copper grade than by any recognizable geological feature.

The geology of the Ingerbelle East area consists of a sequence of andesite flows, coarse pyroclastic rocks and derived sediments that have been intruded and altered by a numerous dykes of irregular shape and variable composition belonging to the Lost Horse Intrusive Complex. The volcanic rocks are commonly altered to a fine grained mass of albite, epidote and other minor minerals. Primary textures are all but obliterated. Bedding to core axis angles indicate variable, but usually steep dips, in marked contrast to the flat-lying stratigraphy described in older reports on the Ingerbelle and Copper Mountain deposits. The intrusive rocks host mineralization approximately 50% of the time but hornfelsed or albitized volcanic rocks appear to be the best ore hosts. Most of the area has been "washed" with later pervasive and fracture controlled potassic alteration.

The Ingerbelle deposit produced 59 million tons of ore grading 0.43% copper and 10 million tons grading 0.24% copper (low grade stockpile) with an overall waste to ore ratio of 1.42. The recovered gold grade is reported as 0.173 g/t. The gold head grades are not known but on the basis of 1,252 blast holes from benches 2930, 2970 and 3010 which have both copper

and gold assays the copper/gold ratio is 15,900 (Stanley, pers.comm., 1994). Using this ratio and an average copper grade of 0.43% gives an average gold grade of 0.27 g/t for the Ingerbelle deposit. Not surprisingly, this matches fairly closely the gold assays currently being obtained from the Ingerbelle East drilling.

#### 4.2.3 Drill Program Results

Current drill results have confirmed the interpreted trends of mineralization and extended mineralization into areas previously classified as waste. In general, the Ingerbelle East drill results consist of discrete, moderate to high grade (0.3 to 1.0%Cu) intersections within larger areas of little or no grade. At first glance the distribution of grade appears to be erratic, however, closer examination reveals that the higher grade intersections occur along predictable structural trends, albeit commonly disrupted by barren, northerly trending vertical to flat, narrow zones of post-mineral (?) intrusive rock. Lower grade mineralization is also controlled by structure although the orientations are difficult to determine because the number of possible correlations between intersections is so much higher. In order to develop appropriate kriging parameters for reserve estimation, an investigation into the variography of historical Ingerbelle drill results and blast hole drill results from the Ingerbelle Pit was carried out by Giroux (1995 in prep.) Preliminary results indicate that different grade ranges have differing structural controls and that certain structural directions exert different degrees of control in different areas. It also appears that mineralization in the Ingerbelle East deposit is more-or-less continuous with mineralization below the Ingerbelle pit and that the possibility exists to mine both deposits simultaneously. A new reserve estimate is currently being prepared. Preliminary estimates indicate that mineable reserves will be in the 40 to 50 million ton range grading better than 0.32% copper and 0.2 g/t gold. The strip ratio will be dependant upon whether an in-pit ramp is required but will be in the order of 2:1 because of the necessity of pushing back the existing pit walls.



## 5. GEOPHYSICS

A deep-penetration, high-resolution induced polarization and resistivity survey using the MIDAAS system was carried out over twelve lines, totaling 13.6 kms, between May 18 and May 25. The survey area covered the Alabama Ridge, from the Virginia deposit in the east, to the crusher and ore conveyor system in the west. The eastern lines were extended to the south in order to cover the Mill Zone area. A technical summary and instrument specifications are located within Appendix IV. The MIDAAS system is different from other IP systems in that the pole-dipole array for the entire line is laid out such that  $n=12$ . Additionally, the data, including the wave forms, are stored digitally allowing better error analysis and noise corrections.

The purpose of the geophysical survey was two-fold: it was hoped that complete coverage of the Alabama ridge area might reveal the direction of the primary mineralized structures so that drill orientation and spacing could be matched to intersect mineralization in the most cost-effective manner, and that changes in mineralization with depth could also be determined as was the case with the initial test lines carried out previously. (Lines 6600W and 8800W).

Results of the survey are shown in psuedo sections (Appendix III). In general the survey suffered from site difficulties related to topography, waste dumps and cultural noise (power lines, conveyor belts, roads etc.). The psuedo sections confirm that the mineralized area is comprised of subordinate semi-discrete zones of higher chargeability but line spacing is not dense enough to interpret the orientation of specific chargeability highs. The chargeability highs are closest to the surface in the area of 6600W and appear to become deeper towards the west, until line 8800W and 10400 where a chargeability highs appear near surface on the south end of the lines. The westernmost line, 10800 records the largest and most intense chargeability anomaly in the survey. This line is on the slope at the western end of the Alabama ridge more than 100m lower elevation than the other lines. Cultural noise from the conveyor belt and power lines make these results somewhat difficult to interpret but surface

outcrops do support the presence of a mineralized area. Strong to moderate chargeability anomalies were also detected in the Mill Zone area, upgrading this target. An improved interpretation of the MIDAAS data will be possible following comparisons of the geophysical data with drill results.

## 6. Conclusions and Recommendations

### 6.1 Conclusions

In spite of a long history of exploration, development and mining, the Copper Mountain property still has excellent exploration potential. Historically, exploration and mining have gone in cycles with new reserves being discovered and developed following most major exploration programs. Property wide, systematic exploration using modern methods has not been undertaken in recent time and initial results indicate that long term exploration has a good probability for success. To date, the deposits of Copper Mountain have produced approximately 1.7 billion pounds of copper. There is a reasonable likelihood that the ultimate production of the district could exceed 3 billion pounds.

Mineralization in the Copper Mountain area is hosted by Nicola Group volcanic rocks and intrusive rocks of the Lost Horse Intrusive Complex. Mineralization which occurs as veins, vein stockworks, fracture filling and zones of disseminated sulphides is controlled by northwest, northeast and east-west trending structures. Alteration styles within the camp are divided into hornfels, sodic and potassic assemblages and occur in early pervasive forms and later structurally controlled forms. A model for mineralization and alteration that accounts for the alteration and metal zoning in the camp would consist of:

- emplacement of the Copper Mountain, Smelter Lake and Voigt Stocks followed closely by intrusion of initial Lost Horse Intrusive phases (LH1),
- intrusion of LH2 and evolution of hydrothermal fluids,
- migration of hydrothermal fluids outwards from the margin of the Copper Mountain stock, initially along the strongest northwest trending structures (Main Fault) towards Ingerbelle and then along northeast structures.

Additional source areas for hydrothermal fluids, both within the above model and elsewhere in the Copper Mountain area, are probable which bodes well for future exploration.

Two deposits are currently undergoing development or feasibility studies: the Alabama and the Ingerbelle East. Phase 1 drilling on the Alabama deposit defined an *in-situ* resource of 21.6 million tons grading 0.312% copper and 0.16 g/t gold. At metal prices of US\$1/lb for copper and US\$385/oz for gold, the copper equivalent grade for Alabama is 0.402%, assuming gold recoveries similar to copper. The Alabama deposit is open to the west, southeast and to depth and additional drilling is likely to increase size, and possibly the grade of the deposit. It appears that Alabama mineralization is continuous into the Virginia deposit. An open pit on the southern part of the Alabama would likely be able to access about 3 million tons at 0.4% copper in and around the scheduled Virginia reserves. Proximity to the Copper Mountain crusher, favourable metallurgy (from initial testwork), and a favourable topographic setting to reduce both pre-stripping and the ultimate strip ratio, suggest that the Alabama deposit contains an economic resource in spite of relatively low copper grades. A phase II drill program consisting of 44,800 feet in 64 inclined holes is required to establish proven reserves and allow a feasibility study.

A diamond drill program to bring the Alabama resource to a stage where pit design and full economic studies could be conducted would consist of 64 drill holes with an average length of 700' for a total of 44,800 feet. In spite of the difficulties of drilling holes with northerly azimuths and -45 degree dips, this would be the recommended format, primarily because this orientation of drilling gives the most reliable information from which to calculate ore reserves. Four fences of drill holes on 240 to 270 degree azimuths would be required to verify the location and thicknesses of the north-south trending Tertiary mine dykes. The locations of the recommended holes are given in Table 6.1 and shown on plan in Figure 6.1.

Phase II diamond drilling on the Ingerbelle East deposit has confirmed the presence of a potentially economic body of copper-gold mineralization. The discovery of high grade mineralization (<0.6% Cu) along the Main fault at the south edge of the Ingerbelle East deposit, which appears to be continuous with high grade mineralization below the old Ingerbelle Pit, and has resulted in the possibility of mining the Ingerbelle East deposit in conjunction with an Ingerbelle expansion. Possible mining scenerios and pit designs are

currently being investigated.

A full program to bring the Alabama deposit to the feasibility stage would cost \$1.5 million as outlined below.

	\$(000's)
Definition drilling: 44,800' @ \$27./ft.	1,210
Sterilization drilling 8,000' @ \$22./ft.	176
Metallurgical testing	44
Engineering/geotechnical studies	70
<b>Total</b>	<b>1,500</b>

## 5.2 Recommendations

A three tiered or level exploration program is proposed consisting of: development drilling through to feasibility on the Alabama deposit, property scale or exploration drilling on the Mill Zone, Oronoco and P4 areas, and regional grass-roots exploration on three of the regional target areas. Details and costs of the proposed exploration are outlined below.

### Proposed Exploration Budget:

#### A) Alabama Phase II Exploration Drilling to Feasibility

	\$(000's)
Definition drilling: 44,800' @ \$27./ft.	1,210
Sterilization drilling: 8,000' @ \$22/ft.	176
Metallurgical testing	34
Geology and Engineering	<u>80</u>
Subtotal	1,500

#### B) Property Exploration

Compilation and Base Map Preparation	30
Geology and Supervision	60
Mill Zone Phase 1 Drilling 8,000' @ \$27/ft.	215
Oronoco Phase 1 Drilling 3,000' @ \$27/ft.	81
P4 Zone Phase 1 Drilling 3,600' @ \$27/ft.	<u>97</u>
Subtotal	483

#### C) Regional Exploration

Geological mapping and Supervision	15
Grid establishment (50 line km)	10
Geochemistry (gridded soils and streams)	45
IP surveys (40 line km)	40

#### D) Contingency

=====

**Grand Total** **2,200**



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**SIMILCO MINES LTD.**  
**EXPLORE B.C. GRANT 94/95A - 3**  
**STATEMENT OF COSTS**  
**ALABAMA & INGERBELLE EAST DRILL PROGRAMS**  
**MARCH - SEPTEMBER 1, 1994**

---

**DIAMOND DRILLING**

Drill Contractor 8,000m @ 91.69/m	\$733,559.60	
Fuel	17,775.53	
Core Boxes (Robertson MFG.)	2,527.88	
Core Racks	7,707.85	
Survey Instrument (Pother Ent.)	3,852.00	
Core Splitters & Gopher	<u>12,743.84</u>	
Subtotal		\$778,166.34

**GEOLOGY & ENGINEERING**

Geology (S. Blower, P. Thiersch)	42,290.40	
Engineering (J. Marlow)	14,504.00	
Surveying & Helpers	12,205.13	
Supervision (P. Holbek)	<u>21,070.11</u>	
Software & Computing, Secretarial	6,700	
Drafting Services	<u>1,050.00</u>	
Subtotal		97,819.64

**ANALYTICAL & METALLURGICAL**

Pioneer Labs (Au + RCP)	12,807.12	
Minesite (Cu Analysis & Met Testing)	<u>11,915.15</u>	
Subtotal		24,722.28

**GEOPHYSICS**

Grid Layout & Line Costing	4,445.00	
Midaas Survey	<u>14,750.00</u>	
Subtotal		19,195.00

**SUPPLIES & EQUIPMENT & TRANSPORT**

Deakin Equip	877.94	
Sample Bags	350.96	
Lumber	1,279.72	
Transport	11,140.00	
Accommodation	5,651.70	
Warehouse Supplies	<u>1,225.87</u>	
Subtotal	20,526.19	

<b>Grand Total</b>		<b><u>\$940,429.45</u></b>
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## **APPENDIX I**

### **DRILL LOGS**

Princeton Mining Corp.  
SIMILCO MINES LIMITED  
DRILL HOLE LOG  
PROJECT ID : ALABAMA

HOLE / TRAVERSE ID : DDH94\_A01  
CORE HOLE SIZE : NQ  
DATE STARTED : 94/ 5/ 3  
DATE COMPLETED : 94/ 5/ 9  
GEOLOGGED BY : PMH  
PLOT DATE : 94/NOV/ 6  
PROJECT LEADER : PMH  
LOCATION :

COLLAR AZIMUTH : 149.00  
COLLAR DIP : -45.00  
COLLAR ELEVATION : 4047.19  
COLLAR NORTHING : 16248.88  
COLLAR EASTING : 9745.28  
COLLAR OFFSET :  
COLLAR STATION :  
TOTAL LENGTH : 683.0

NTS: 92H MINING DIV.: SIMILKAMEEN  
PURPOSE: TEST NORTHWEST EXTENT OF ZONE

COMMENTS: BROKEN GROUND: HOLE LOST AT 683 FEET.

KEY INTERSECTIONS: FROM 630 TO 645; 15 FT. OF 0.36% CU, 0.25 G/T AU

SURVEY DATA		
DEPTH	DIP	AZIMUTH
0	-45.0	149.0
205	-44.0	154.0

### SUMMARY REMARKS

Hole was collared on northern edge of known mineralization to test: a) northern extent of mineralization, b) depth of the Tertiary cover and possible supergene zone, and c) mineralization below the 400' vertical depth. The hole intersected 195' (135' vertical) of Tertiary volcanic and sedimentary rocks. Contact between the Lost Horse rocks and the Tertiary cover is a fault. The top of the mineralization is unweathered. Most of the hole intersected weakly mineralized, propylitically altered diorite. Mineralization and potassic alteration increased at bottom of hole.

### LEGEND

ECON. MINERAL:  
D = DISSEMINATED MV = MICROVEIN/FRACT.FILL  
// = VEINS AND PATCHES  
D-V = DISS. < VEINS/FRACTURE FILL

### STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN  
M. = MAGNETITE VEIN FL = FAULT  
IC = INTRUSIVE CONTACT

### DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY	Cu%
			0 0.2 0.4 0.6 0.8 1.0
10.00	93.00	Basalt	
93.00	124.00	Lahar	
124.00	150.00	Greywacke	
150.00	166.00	Debris Flow/Lahar	
166.00	195.00	Fault Zone	
195.00	230.00	Diorite (Unspecified)	
244.00	271.00	Lapilli Tuff	
271.00	297.00	Diorite	
297.00	315.00	Fault Zone	
323.00	350.00	Diorite	
350.00	403.00	Diorite (Unspecified)	
427.00	511.00	Diorite (Unspecified)	
511.00	572.00	Mine Dyke	
572.00	603.00	Diorite	
603.00	625.00	Mine Dyke	
625.00	641.00	Diorite	
641.00	683.00	Fault Zone	

0 0.2 0.4 0.6 0.8 1.0

DRILL HOLE: DDH94\_A01  
PAGE 2

REMARKS	TEXTURE 2	TEXTURE 1	COLOR	MINOR LITH.	LITHOLOGY	TD	FRDM	RECOVERY PPT	RQD PPT	FEET
					Casing	0.00	10.00			0.0
Grey-green, with pink-brown hematitic intervals. F.g. porphyritic basalt flow. In pink intervals phenos are rusty (some specularite). In grey rock phenos appear to be olivine + pyroxene(?). Both units are weakly magnetic. Extensively fractured. Rare vesicles and foreign lithic fragments. Aligned phenocrysts.	PORPHYRITIC	FINE GRAINED			Basalt	93.00	10.00	980	50	50.0
Reddish, poorly sorted, coarse grained polyhedral fragmental - lahar or debris flow.	FRAGMENTAL	COARSE GRAINED	REDDISH H-BROWN		Lahar	124.00	93.00	1000	500	100.0
Interbedded greywacke, mudstone and volcanic breccia. Minor coal seams to 1cm. Rare disseminated pyrite, probably from organic sulphur.	INTERBEDDED	FLATTENED	DARK GREY		Greywacke	150.00	124.00	1000	400	
Very much related to above unit, but with 40% lithic frags which are rounded to angular. 10% rhyolite frags.	FRAGMENTAL	COARSE GRAINED	DARK GREY		Debris Flow/Lahar	166.00	150.00	990	600	150.0
Derived mostly from hanging wall with a minor amount from the lower unit. Rubble, sand and breccia.					Fault Zone	195.00	166.00	100	750	



## ASSAYS

LENGTH Ft/10	SAMPLE NUMBER	TO	FROM
--------------	---------------	----	------

GOLD g/t  
Copper %

- 0.0

- 50.0

- 100.0

- 150.0

[illegible]

FEET	RECOVERY PPT RQD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
180.0	750 100	166.00	195.00	Fault Zone		VERY DARK GREY	BRECCIA TED		Derived mostly from hanging wall with a minor amount from the lower unit. Rubble, sand and breccia.
250	980	195.00	230.00	Diorite (Unspecified)		MIXED GREY AND	FINE GRAINED	MOTTLED	Quite altered, fine grained intrusive. Fs + Pyx therefore LHL. Pyx altered to Bi + CL. Rock appears to have been weakly albized then potassically altered. Alteration and mineralization - variable on a small scale but consistent over the interval.
230.0	600 1000	230.00	244.00	Diorite (Unspecified)		GREY GREEN	FINE GRAINED	VEINED	Like previous interval. Mafic mins altered to mag + chl. Rock commonly has a streaky appearance due to chlorite +/- mag fracture fillings with bleached or potassic haloes. These fractures are cut by EP(+/-SX) filled fractures. Py. He veins and calcite fractures are also
200	990	244.00	271.00	Lapilli Tuff	Diorite (Unspecified)	GREY GREEN	FRAGMENTAL	SHEARED	Reasonably well sorted rounded fragments, polymictic lapilli tuff. Xtal fragments are common (>10%). Rock is low in magnetite. Variably mineralized, rock is intermixed with diorite(?). 7 foot gouge zone in lower part of interval.
				Fault Zone					
280.0	400 1000	271.00	297.00	Diorite (Unspecified)		GREY GREEN	FINE GRAINED	MOTTLED	Dark grey-green, fine grained rock. Fine grained equigranular intrusive texture is visible but quite altered. Quite magnetic, chloritized and cut by a myriad of calcite +/- mag. hem. Ep + Sxs veinlets and fracture fill. Veinlets cover all angles but shallower ones dominate. Lower part of interval may be volcanic but becomes extensively bleached approaching fault zone.
00	450	297.00	315.00	Fault Zone					Gouge till 305 ft - good recovery. 305-315 ft 5% recovery - basalt dyke fragments.
600	900	315.00	323.00	Mine Dyke		DARK GREEN	FINE GRAINED	PORPHYRITIC	
330.0	150 980	323.00	350.00	Diorite (Unspecified)		GREY GREEN	FINE GRAINED		Shattered but otherwise like previous intervals. Sulphides extremely fine grained. Low angle chl env. on fractures. f
700	1000	350.00	403.00	Diorite (Unspecified)		GREY GREEN	FINE GRAINED		Overall a fairly homogeneous unit. Locally can be well endowed with v. fine CP (to 2%) but usually approx. <1%. Fractures commonly have chloritic envelopes and can be cored by calcite.

## STRUCTURE

## ALTERATION

## ASSAYS

STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% Calcite	% Biotite	% K-SPAR	% Chlorite	% EPIDOTE	ALT. FACIES	% MAGNETITE	PYRITE HABIT	% Pyrite	CHALCOPYRITE HABIT	% Chalcopyrite	FROM	TO	SAMPLE NUMBER	LENGTH Ft/10	Copper %	GOLD g/t
EV 45	SV 45				20.0	20.0	10.0	2.5		5.0	1.0	1.0	0.3		0.00	195.0		100	0.090	
															195.0	205.0		100	0.150	
															205.0	215.0		100	0.090	0.550
															215.0	225.0		100	0.060	0.024
															225.0	235.0		100	0.090	0.580
															235.0	244.0			0.110	0.090
															244.0	254.0			0.050	0.011
															254.0	262.0			0.100	0.023
															262.0	271.0			0.090	0.049
															271.0	280.0			0.070	0.021
															280.0	290.0			0.140	0.046
															290.0	297.0			0.100	0.029
															297.0	305.0			0.020	0.009
															305.0	323.0			0.040	0.062
															323.0	333.0			0.050	0.020
															333.0	343.0			0.070	0.027
															343.0	353.0			0.140	0.010
															353.0	363.0				

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINDR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
360.0	700	1000	350.00	403.00	Diorite (Unspecified)	GREY GREEN	FINE GRAINED		Overall a fairly homogeneous unit. Locally can be well endowed with v. fine CP (to 2%) but usually approx. 1%. Fractures commonly have chloritic envelopes and can be cored by calcite. K-spar is pervasive but patchy. Sulphide filled fractures at 40 degrees are compatible with E-W strikes and vertical dips. Locally (very small areas) rock approaches f.g. Fs in black matrix.
410.0	400	950	403.00	414.00	Mine Dyke	VERY DARK GREY	FINE GRAINED	PORPHYR ITIC	Lower contact of 40 degrees corresponds with a N-S structure with vertical dip. Locally shattered.
	200	980	414.00	427.00	Fine-grained Feldspar Porphyry	MEDIUM GREY	FINE GRAINED	PORPHYR ITIC	I don't think this is Lost Horse. Appears to be a Fs dacite, but it does have dissen. Py + magnetite.
460.0	500	990	427.00	511.00	Diorite (Unspecified)	GREY GREEN	FINE GRAINED	VEINED	Similar to previous intervals. Locally more intense sulphidation (mostly Py). Some Mag. veinlets. Potassic alteration picks up towards bottom of interval with modest increase in Cp.
510.0	700	990	511.00	572.00	Mine Dyke	VERY DARK GREY	FINE GRAINED	PORPHYR ITIC	Typical Qtz Px porphyry basalt dyke. A 5 ft section between 555 + 560 ft is 1/2 dior (CT at 0 degrees) indicating that hole is drilling sub-parallel to the dyke. Because dykes are N-S (commonly), hole may be deflected.

## STRUCTURE

## ALTERATION

## ASSAYS

ANGLE TO CORE  
STRUCTURE ID  
ANGLE TO CORE  
STRUCTURE ID

% Calcite

% Biotite

% K-SPAR

% Chlorite

% EPIDOTE

ALT. FACIES

% MAGNETITE

PYRITE HABIT

% Pyrite

CHALCOPYRITE HABIT

% Chalcopyrite

FROM

TO

SAMPLE NUMBER

LENGTH Ft./10

Copper %

GOLD g/t

360.0

410.0

460.0

510.0

SV	40	CV	40	5.0	10.0	10.0	1.0	10.0	1.0	0.3
LC	40							1.0	1.0	
MV	10	SV	45	2.5	1.0	30.0		10.0	2.5	0.1
CV	45	CV	0	2.5						

353.0	363.0			0.040	0.020
363.0	373.0			0.090	0.032
373.0	383.0			0.080	0.041
383.0	393.0			0.040	0.023
393.0	403.0			0.040	0.019
417.0	427.0			0.010	0.002
427.0	437.0			0.160	0.115
437.0	447.0			0.050	0.025
457.0	466.0			0.060	0.012
473.0	483.0			0.060	0.038
483.0	493.0			0.060	0.025
493.0	503.0			0.110	0.034
503.0	511.0			0.100	0.022

PAGE 8

[illegible]



## ALTERATION

## ASSAYS

[illegible]

Princeton Mining Corp.  
SIMILCO MINES LIMITED  
DRILL HOLE LOG  
PROJECT ID : ALABAMA

HOLE / TRAVERSE ID : DDH94\_A02  
CORE HOLE SIZE : NQ  
DATE STARTED : 94/ 3/10  
DATE COMPLETED : 94/ 3/12  
GEOLOGGED BY : PMH  
PLOT DATE : 94/NOV/ 6  
PROJECT LEADER : PMH  
LOCATION :

COLLAR AZIMUTH : 150.00  
COLLAR DIP : -45.00  
COLLAR ELEVATION : 3889.58  
COLLAR NORTHING : 16753.23  
COLLAR EASTING : 9418.92  
COLLAR OFFSET :  
COLLAR STATION :  
TOTAL LENGTH : 379.0

NTS: 92H MINING DIV.: SIMILKAMEEN  
PURPOSE: TEST NORTHWEST EXTENT OF ZONE  
COMMENTS: VOID IN TERT. VOLCANICS - HOLE LOST.  
KEY INTERSECTIONS:

SURVEY DATA

DEPTH	DIP	AZIMUTH
0	-45.0	150.0

SUMMARY REMARKS

Hole intersected 379' of Tertiary volcanic and sedimentary rocks. A felsite dyke was also cut indicating that the dykes are younger than some of the Princeton Group volcanics. Lower part of the hole is poorly consolidated, which together with the fault gouge contributed to the loss of the hole. Core tube assembly including the overshoot and many drill rods were lost in the hole.

LEGEND

ECON. MINERAL:

D = DISSEMINATED MV = MICROVEIN/FRACT.FILL

// = VEINS AND PATCHES

DKV= DISS. < VEINS/FRACTURE FILL

STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN

MV = MAGNETITE VEIN FL = FAULT

IC = INTRUSIVE CONTACT

DRILL HOLE SUMMARY

FROM TO LITHOLOGY

Cu%  
0 0.2 0.4 0.6 0.8 1.0

0.00	50.00	Casing	
50.00	103.00	Basalt	
103.00	154.00	Lahar	
154.00	243.00	CRYSTAL LITHIC TUFF	
243.00	293.00	Lahar	
293.00	305.00	Basalt	
305.00	346.00	Mixed Sedimentary Rocks	
350.00	379.00	Debris Flow/Lahar	

0.0 0.2 0.4 0.6 0.8 1.0

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
0.0									
		0.00	50.00	Casing					
50.0									
	200 940	50.00	103.00	Basalt		MEDIUM GREY	FINE GRAINED	PORPHYR ITIC	Med. grey on outside surface but dark green-black on fracture surface. Shattered atop but increasingly more competent with depth.
100.0									
	750 1000	103.00	154.00	Lahar		REDDIS H-BROW N	FRAGMEN TAL	POORLY SORTED	Red brown to dark grey polymictic lahar. Frags from small to big usually rounded but not flattened.
150.0									
	200 1000	154.00	243.00	CRYSTAL LITHIC TUFF		DARK GREY	FRAGMEN TAL		Fine grained, grey crystal - lithic ash tuff. Completely gradational with overlying and underlying units. Very similar in appearance to the BASL. Could be very hard to tell the two apart in outcrop. Lower 10 ft of interval is a crackle Bx with black devitrified volc. glass forming Bx-matrix. Locally shattered core.

## ALTERATION

## STRUCTURE

	0.0	50.0	100.0	150.0
GOLD g/t				
Copper %				
LENGTH Ft/10				
SAMPLE NUMBER				
TO				
FROM				
% Chalcopyrite				
OPYRITE HABIT				
% Pyrite				
PYRITE HABIT				
% MAGNETITE				
ALT. FACIES				
% EPIDOTE				
% Chlorite				
% K-SPAR				
% Biotite				
% Calcite				
ANGLE TO CORE				
STRUCTURE ID				
ANGLE TO CORE				
STRUCTURE ID				

PAGE 4

[illegible]

## ALTERATION

## STRUCTURE

		180.0		230.0		280.0		330.0		380.0	
GOLD g/t											
Copper %											
LENGTH Ft/10											
SAMPLE NUMBER											
TO											
FROM											
% Chalcopyrite											
% Pyrite											
PYRITE HABIT											
% MAGNETITE											
ALT. FACIES											
% EPIDOTE											
% Chlorite											
% K-SPAR											
% Biotite											
% Calcite											
ANGLE TO CORE											
STRUCTURE ID											
ANGLE TO CORE											
STRUCTURE ID											



# Princeton Mining Corp. SIMILCO MINES LIMITED DRILL HOLE LOG PROJECT ID : ALABAMA

HOLE / TRAVERSE ID : DDH94\_A03  
CORE HOLE SIZE : NQ  
DATE STARTED : 93/ 3/12  
DATE COMPLETED : 94/ 3/19  
GEOLOGGED BY : PMH  
PLOT DATE : 94/NOV/ 8  
PROJECT LEADER : PMH  
LOCATION :

COLLAR AZIMUTH : 180.00  
COLLAR DIP : -45.00  
COLLAR ELEVATION : 4061.12  
COLLAR NORTHING : 16216.82  
COLLAR EASTING : 9300.53  
COLLAR OFFSET :  
COLLAR STATION :  
TOTAL LENGTH : 773.0

NTS: 92H MINING DIV.: SIMILKAMEEN  
PURPOSE: TEST NORTHWEST EXTENT OF ZONE

COMMENTS: BROKEN GROUND: HOLE LOST AT 683 FEET.

KEY INTERSECTIONS: FROM 630 TO 645; 15 FT. OF 0.36% CU, 0.25 G/T AU

DEPTH	SURVEY DATA DIP	AZIMUTH
0	-45.0	149.0
205	-44.0	154.0

## SUMMARY REMARKS

Hole was collared on northern edge of known mineralization to test: a) northern extent of mineralization, b) depth of the Tertiary cover and possible superegene zone, and c) mineralization below the 400' vertical depth. The hole intersected 195' (135' vertical) of Tertiary volcanic and sedimentary rocks. Contact between the Lost Horse rocks and the Tertiary cover is a fault. The top of the mineralization is unweathered. Most of the hole intersected weakly mineralized, propylitically altered diorite. Mineralization and potassic alteration increased at bottom of hole.

## LEGEND

ECON. MINERAL:  
D = DISSEMINATED MV = MICROVEIN FRACT FILL  
// = VEINS AND PATCHES  
DKV= DISS. < VEINS/FRACTURE FILL

## STRUCTURE ID:

CV = CALCITE VEIN OV = OPAQUE V.D.  
MV = MAGNETITE VEIN FL = FILL  
IC = INTRUSIVE CONTACT

## DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY	Cu% 0.0 0.2 0.4 0.6 0.8 1.0
0.00	50.00	Casing	
50.00	96.00	Lahar	
150.00	185.00	Mudstone	
185.00	226.00	Debris Flow/Lahar	
240.00	364.00	Debris Flow/Lahar	
364.00	426.00	Diorite	
426.00	479.00	Monzonite	
479.00	521.00	Monzonite	
521.00	590.00	Monzonite (Undifferentiated)	
714.00	763.00	CRYSTAL LITHIC TUFF	

DRILL HOLE: DDH94\_A03  
PAGE 2

REMARKS	TEXTURE 2	TEXTURE 1	COLOR	MINOR LITH.	LITHOLOGY	TO	FROM	RECOVERY PPT	ROD PPT	FEET
					Casing	50.00	0.00			0.0
Pink coarse grained lahar. Box 2 & 15 ft of core missing - possibly drillers screwed up footage.	FRAGMENTAL	COARSE GRAINED	REDDISH-BROWN		Lahar	96.00	50.00	750	500	50.0
			MEDIUM TAN		Lahar	125.00	96.00			100.0
					Casing	150.00	125.00		00	
Varved mudstone, some thin sandy intervals. Tops up. Core crumbles as it dries out, therefore poorly consolidated.	BEDDED	FINE GRAINED	VERY DARK BROWN		Mudstone	185.00	150.00			150.0

## STRUCTURE

## ALTERATION

## ASSAYS

GOLD g/t		0.0		50.0		100.0		150.0	
Copper %									
LENGTH Ft/10									
SAMPLE NUMBER									
TO									
FROM									
% Chalcopyrite									
% Pyrite									
% Magnetite									
ALT. FACIES									
% Epidote									
% Chlorite									
% K-SPAR									
% Biotite									
% Calcite									
ANGLE TO CORE									
STRUCTURE ID									
ANGLE TO CORE									
STRUCTURE ID									

FEET	RECOVERY PPT	ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
180.0			150.00	185.00	Mudstone		VERY DARK	FINE GRAINED	BEDDED	Varved mudstone, some thin sandy intervals. Tops up. Core crumbles as it
	300	650	185.00	226.00	Debris Flow/Lahar		GREYISH BROWN	COARSE GRAINED	POLYMICTIC	Polymictic angular fragments in a gritty matrix.
						Fault Zone				
230.0										
	250	1000	226.00	240.00	Greywacke		LIGHT GREY	FINE GRAINED	BEDDED	Bedded sandstone.
280.0										
	100	900	240.00	364.00	Debris Flow/Lahar			COARSE GRAINED	POLYMICTIC	Contains narrow intervals (4 ft) of MUDS. One large frag. mineralized diorite.
330.0										
						Fault Zone				

## ASSAYS

TO  
FROM

GOLD g/t  
Copper %

180.0

- 230.0

- 280.0

- 330.0

[illegible]

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
360.0	100 900	240.00	364.00	Debris	Fault Zone		COARSE GRAINED	POLYMIC TIC	Contains narrow intervals (4 ft) of MUDDS. One large frag. mineralized
	900 1000	364.00	426.00	Diorite (Unspecified)		GREY GREEN	FINE GRAINED		Grey-green diorite with poorly defined or fuzzy xtal boundaries. Possibly some small xenoliths. Narrow 1/2" scapolite-epidote veinlets. Trace dissen. CP. 4" Kspar/epidote vein contains 5% PY, 2% CP at 380 ft (35 deg. to CA)
410.0									
	750 1000	426.00	479.00	Monzonite (Undifferentiated)		MEDIUM GREY	FINE GRAINED	PORPHYRITIC	The most distinguishing feature of this altered intrusive is the amount of textural variability without losing its basic white Fx phenos in a dark matrix. Cut by a plethora of veinlets therefore EP, KF (+/-AB), SX, CL (+/-BI) and CB. Form a stockwork with most veinlets in a combination of phases. Pseudo veinlets are defined by a lightening of matrix - albitization? Dominant vein orientation is 25 deg. but 45 deg. and 05's also occur. CP very fine grained
460.0					Hornfels				
	850 1000	479.00	521.00	Monzonite (Undifferentiated)	Fault Zone	ORANGE-GREY	FINE GRAINED	CROWDED PHENOCRYSTS	Subhedral, fine grained crowded Fs phenos in dark grey matrix. Cut by a myriad of salmon FS, EP, MG +/- SX and BI or CL veins, stringers and fracture fill. Top 5 ft of interval has salmon porphyroblasts and coarse speckles of PY. Well mineralized, locally up to 2% CP. Calcite veinlets cut all other veins. Salmon feldspar, epidote, mag (+/- CL, BI) and SXs are all synchronous. Photo of mag spray in PY.
510.0									
	950 1000	521.00	590.00	Monzonite (Undifferentiated)		MEDIUM GREY	FINE GRAINED	PORPHYRITIC	Fine grained crowded Fs porphyry. Locally partly aligned phenos. Very fine dissen. SXs. Minor SF-EP veining.

## STRUCTURE

## ALTERATION

## ASSAYS

GOLD g/t	Copper %	LENGTH Ft/10	SAMPLE NUMBER	TO	FROM
0.015	0.050			374.0	364.0
0.057	0.150			384.0	374.0
0.011	0.050			394.0	384.0
0.017	0.050			404.0	394.0
0.013	0.030			414.0	404.0
0.037	0.070			426.0	414.0
0.020	0.050			436.0	426.0
0.022	0.080			446.0	436.0
0.040	0.210			456.0	446.0
0.014	0.060			464.0	456.0
0.016	0.100			474.0	464.0
0.016	0.070			479.0	474.0
0.018	0.050			485.0	479.0
0.010	0.040			495.0	485.0
0.025	0.080			505.0	495.0
0.054	0.120			515.0	505.0
0.093	0.070			521.0	515.0
0.023	0.050			531.0	521.0
0.015	0.040			541.0	531.0



FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
540.0	950 1000	521.00	590.00	Monzonite (Undifferentiated)		MEDIUM GREY	FINE GRAINED	PORPHYRITIC	Fine grained crowded Fs porphyry. Locally partly aligned phenos. Very fine dissem. SXs. Minor SF-EP veining.
590.0	900 1000	590.00	593.00	Diorite		MEDIUM	FINE		Really quite similar to above except
	1000 1000	593.00	607.00	CRYSTAL LITHIC TUFF		VERY DARK GREY	PORPHYRITIC	FRAGMENTAL	This is the enigmatic unit from Pit Z. Depending upon where one looks it appears to be a feldspar micro porphyry in a black matrix, but elsewhere it appears fragmental. Overall it must be a crystal-lithic tuff which has been partially hornfelsed (BI + mag) in
	700 1000	607.00	625.00	Monzonite (Undifferentiated)		MEDIUM GREY	FINE GRAINED	CROWDED PHENOCRYSTS	Fine grained crowded euhedral feldspar porphyry. Very fine sulphides disseminated peripheral to salmon veinlets. Black chlorite or BI(?) occurs in vein envelopes. Mafic grains appear to be completely converted to lucoxene, therefore might be LH1-DIOR??
640.0	00 750	625.00	642.00	Diorite (Unspecified)	Fault Zone	LIGHT GREY	SHEARED	CONVERTED TO FAULT	Completely shattered, so difficult to see what it is but presence of mafic phenos suggest LH1. Fault zone.
	950 1000	642.00	659.00	CRYSTAL LITHIC TUFF	Magnetite	BLACK	FRAGMENTAL	PORPHYRITIC	Very subtle fragmental texture. Almost gradational into LH2. I'm not sure that this couldn't be an intrusion Bx. Cp may be more abundant than apparent as it occurs along micro-fractures.
	950 1000	659.00	690.00	Monzonite (Undifferentiated)		MEDIUM GREY	FINE GRAINED	PORPHYRITIC	Looks like a hybrid between LH2 and LH1 due to presence of some mafic phenos. Some HBL (?) porphyry xenoliths. It may be possible that this is a contact zone between LH1 and LH2 and they are co-mingled.
690.0	600 1000	690.00	700.00	Diorite (Unspecified)		ORANGE-GREY	FINE GRAINED	WEAKLY PORPHYRITIC	May be same as above interval, but with more intense potassic alteration. Then again could be different unit - resembles the HBL porphyry.
		700.00	714.00	Fault Zone					Mostly gouge and rubble. Host rock is a grey-green HBL porphyry. Locally high (approx. 40%) PY concentrations.
	250 980	714.00	763.00	CRYSTAL LITHIC TUFF		VERY DARK GREY	FRAGMENTAL	PORPHYRITIC	Similar to previous interval, but with more clearly volcanic. Locally some creamy green sulphide veins.

## STRUCTURE

## ALTERATION

## ASSAYS

ANGLE TO CORE  
STRUCTURE ID  
ANGLE TO CORE  
STRUCTURE ID

% Calcite

% Biotite

% K-SPAR

% Chlorite

% EPIDOTE

ALT. FACIES

% MAGNETITE

PYRITE HABIT

% Pyrite

CHALCOPYRITE HABIT

% Chalcopryrite

SAMPLE NUMBER

LENGTH Ft./10

Copper %

GOLD g/t

540.0

590.0

640.0

690.0

				2.5				10.0	2.5	10.0	0.3	0.1
UC	20	VN	25	5.0		0.0		2.5		10.0	0.3	0.1
SV	45	SV	25	1.0		10.0	10.0	2.5		5.0	2.5	2.5
FV	15	VN	25	1.0			2.5	1.0		10.0	0.3	0.1
FT	0	CV	10	10.0			5.0	1.0			2.5	0.1
SV	20	KV	25	1.0	10.0	5.0	1.0	2.5		20.0	2.5	1.0
				2.5	2.5	2.5	1.0	5.0		5.0	2.5	0.3
VN	25	VN	10	1.0	5.0	20.0	2.5	2.5		10.0	1.0	1.0
CV	70										5.0	
M	20	VN	25								2.5	1.0

541.0	551.0			0.080	0.021
551.0	561.0			0.050	0.012
561.0	571.0			0.080	0.027
571.0	581.0			0.070	0.034
581.0	590.0			0.100	0.044
590.0	593.0			0.080	0.026
593.0	600.0			0.220	0.160
600.0	607.0			0.090	0.037
607.0	617.0			0.090	0.040
617.0	625.0			0.080	0.030
625.0	635.0			0.090	0.024
635.0	638.0			0.380	0.092
638.0	641.0			1.140	0.465
641.0	651.0			0.250	0.105
651.0	659.0			0.140	0.043
659.0	669.0			0.120	0.028
669.0	679.0			0.100	0.045
679.0	690.0			0.050	0.048
690.0	700.0			0.360	0.108
700.0	707.0			0.360	0.120
707.0	714.0			0.290	0.055
714.0	716.0			0.140	0.067
716.0	720.0			0.250	0.064

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[illegible]

## ALTERATION

## ASSAYS

[illegible]

# Princeton Mining Corp. SIMILCO MINES LIMITED DRILL HOLE LOG PROJECT ID : ALABAMA

HOLE / TRAVERSE ID : DDH94\_A04  
CORE HOLE SIZE : NQ  
DATE STARTED : 94/ 3/28  
DATE COMPLETED :  
GEOLOGGED BY : SJB  
PLOT DATE : 94/NOV/ 6  
PROJECT LEADER : PMH  
LOCATION :

COLLAR AZIMUTH : 187.60  
COLLAR DIP : -48.40  
COLLAR ELEVATION : 3968.64  
COLLAR NORTHING : 15952.71  
COLLAR EASTING : 10217.89  
COLLAR OFFSET :  
COLLAR STATION :  
TOTAL LENGTH : 230.0

NTS: 92H MINING DIV.: SIMILKAMEEN  
PURPOSE: TEST MAGNETITE BRECCIA NE END OF ZONE

COMMENTS: HOLE ABANDONED IN RHYOLITE DYKE

KEY INTERSECTIONS: FROM 221 TO 230; 9 FT. OF 0.38% CU, 0.10 G/T AU

SURVEY DATA

DEPTH	DIP	AZIMUTH
0	-48.4	187.6

## SUMMARY REMARKS

Hole was collared in dyke and was supposed to cross the contact at about 50' near the bottom of casing. Intended azimuth was 200 but compass distortion due to nearby magnetite concentrations resulted in an azimuth of 188. This azimuth resulted in a long intersection through a strong fault along the western margin of the dyke. The hole was abandoned when it could not be kept open.

## LEGEND

ECON. MINERAL:  
D = DISSEMINATED MV = MICROVEIN/FRACT.FILL  
// = VEINS AND PATCHES  
DKV= DISS. < VEINS/FRACTURE FILL

## STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN  
MV = MAGNETITE VEIN FL = FAULT  
IC = INTRUSIVE CONTACT

## DRILL HOLE SUMMARY

FROM TO		LITHOLOGY	Cu%
			0.0 0.2 0.4 0.6 0.8 1.0
0.00	90.00	Casing	
90.00	140.00	Mine Dyke	
140.00	221.00	Casing	
221.00	230.00	Monzonite	

PAGE 2

RECOVERY PPT	ROD PPT	FEET	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
		0.0								
			0.00	90.00	Casing					
		50.0								Rubby core, looks like int. contact zone because of abundant xenoliths. Otherwise rock looks augpheric but intense K-F alt'n may obscure Fx. Py as coarse agglomerations and fracture
						Felsite Mine Dyke				Orange-pink bladed megaporphyry. Sulphides have same occurrence as above. Dissem. Ep assoc. with Sx.
		100.0								
	00 950		90.00	140.00	Mine Dyke		GREENISH-GREY	PORPHYRITIC		Green to light grey Tertiary intermediate dyke with 5% white, medium-grained plagioclase phenocrysts. Very broken.
		150.0								
			140.00	221.00	Casing					Pink to brick red intrusive. Med. grained mafic phenos (converted to mag + biotite?). Nicely juiced up with sulphides - both disseminated and fracture controlled. EP is assoc. with Sx +/- MG +/- KF in veinlets. Locally Fx are coarser, making rock look like LH2F. J. Lang took geochem sample here. Texture + pheno. pop have subtle variations throughout the interval. Lowest 10 ft intense fracture controlled alt'n and oxidized adjacent
										Continued casing due to poor ground conditions.

## ASSAYS

GOLD g/t		0.0	50.0	100.0	150.0
Copper %					
LENGTH Ft./10					
SAMPLE NUMBER					
TO	FROM	221.0	0.00		
% Chalcopyrite					
% Pyrite					
% Magnetite					
AL T. FACIES					
% Epidote					
% Chlorite					
% K-SPAR					
% Biotite					
% Calcite					
ANGLE TO CORE					
STRUCTURE ID					
ANGLE TO CORE					
STRUCTURE ID					

FEET	RECOVERY PPT	RQD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
180.0			140.00	221.00	Casing					Continued casing due to poor ground conditions.
230.0	00	1000	221.00	230.00	Monzonite (Undifferentiated)			FINE GRAINED	VEINED	Looks like a fine grained Fs-microporphyry with numerous phases Two feldspar, fine grained, equigranular Lost Horse monzonite with



## STRUCTURE

## ALTERATION

## ASSAYS

GOLD g/t		180.0	230.0
	0.102		
Copper %	0.370		
LENGTH Ft/10	90		
SAMPLE NUMBER	1		
TO	221.0	230.0	
FROM	0.00	221.0	

% Chalcopyrite	1.0
OPYRITE HABIT	<>
% Pyrite	1.0
PYRITE HABIT	<>
% MAGNETITE	
ALT. FACIES	
% EPIDOTE	
% Chlorite	
% K-SPAR	2.5
% Biotite	
% Calcite	2.5
ANGLE TO CORE	
STRUCTURE ID	
ANGLE TO CORE	
STRUCTURE ID	VN 50

Princeton Mining Corp.  
SIMILCO MINES LIMITED  
DRILL HOLE LOG  
PROJECT ID : ALABAMA

HOLE / TRAVERSE ID : DDH94\_A05  
CORE HOLE SIZE : HQ  
DATE STARTED : 94/ 3/28  
DATE COMPLETED :  
GEOLOGGED BY : SJB  
PLOT DATE : 94/NOV/ 6  
PROJECT LEADER : PMH  
LOCATION :

COLLAR AZIMUTH : 12.99  
COLLAR DIP : -54.01  
COLLAR ELEVATION : 3961.82  
COLLAR NORTHING : 15497.21  
COLLAR EASTING : 10442.11  
COLLAR OFFSET :  
COLLAR STATION :  
TOTAL LENGTH : 140.0

NTS: 92H MINING DIV.: SIMILKAMEEN  
PURPOSE: TEST MAGNETITE BRECCIA NE END OF ZONE  
COMMENTS: HOLE ABANDONED IN RHYOLITE DYKE  
KEY INTERSECTIONS:

SURVEY DATA  
DEPTH DIP AZIMUTH  
0 -54.01 12.99

SUMMARY REMARKS

This hole was located to test a magnetite breccia zone exposed in a trench on the JuneBug claim. The hole was Hcollared in a dyke and due to hole and dyke orientation the hole was abandoned.

LEGEND

ECON. MINERAL:  
D = DISSEMINATED MV = MICROVEIN/FRACT.FILL  
// = VEINS AND PATCHES  
DKV= DISS. < VEINS/FRACTURE FILL

STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN  
MV = MAGNETITE VEIN FL = FAULT  
IC = INTRUSIVE CONTACT

DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY	Cu%
			0.0 0.2 0.4 0.6 0.8 1.0
0.00	28.00	Casing	
28.00	86.00	Mine Dyke	
86.00	140.00	Mine Dyke	
			0.0 0.2 0.4 0.6 0.8 1.0

PAGE 2

REMARKS	TEXTURE 2	TEXTURE 1	COLOR	MINOR LITH.	LITHOLOGY	TO	FROM	RECOVERY PPT	ROD PPT	FEET
					Casing	28.00	0.00			0.0
Rusty, oxidized tertiary porphyry dyke.					Mine Dyke	86.00	28.00			50.0
	PORPHYRITIC	COARSE GRAINED	GREENISH-GRAY	Mine Dyke						
Clay altered dyke (supergene), often crumbly textured.					Mine Dyke	140.00	86.00			100.0
	PORPHYRITIC	COARSE GRAINED	MEDIUM GREEN	Mine Dyke						

	0.0	50.0	100.0
GOLD g/t			
Copper %			
LENGTH Ft/10			
SAMPLE NUMBER			
TO			
FROM			
% Chalcopyrite			
ALCOPYRITE HABIT			
% Pyrite			
PYRITE HABIT			
% MAGNETITE			
ALT. FACIES			
% EPIDOTE			
% Chlorite			
% K-SPAR			
% Biotite			
% Calcite			
ANGLE TO CORE			
STRUCTURE ID			
ANGLE TO CORE			
STRUCTURE ID			

Princeton Mining Corp.  
SIMILCO MINES LIMITED  
DRILL HOLE LOG  
PROJECT ID : ALABAMA

HOLE / TRAVERSE ID : DDH94\_A06  
CORE HOLE SIZE : HQ  
DATE STARTED : 94/ 4/ 3  
DATE COMPLETED :  
GEOLOGGED BY : SJB  
PLOT DATE : 94/NOV/ 8  
PROJECT LEADER : PMH  
LOCATION :

COLLAR AZIMUTH : 328.42  
COLLAR DIP : -43.55  
COLLAR ELEVATION : 3852.16  
COLLAR NORTHING : 15505.90  
COLLAR EASTING : 11051.23  
COLLAR OFFSET :  
COLLAR STATION :  
TOTAL LENGTH : 845.0

NTS: 92H MINING DIV.: SIMILKAMEEN  
PURPOSE: TEST JUNE BUG IP CHARGEABILITY ANOMALY

COMMENTS: STRONG POTASSIC ALTERATION. HIGH PYRITE CONT-

ENT BUT WEAK COPPER MINERALIZATION  
KEY INTERSECTIONS: FROM 464 TO 500; 36 FT. OF 0.28% CU, 0.14 G/T AU

SURVEY DATA		
DEPTH	DIP	AZIMUTH
0	-43.55	328.42
830	-42.0	331.00

### SUMMARY REMARKS

### LEGEND

ECON. MINERAL:  
D = DISSEMINATED MV = MICROVEIN/FRACT.FILL  
// = VEINS AND PATCHES  
DKV= DISS. < VEINS/FRACTURE FILL

### STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN  
MV = MAGNETITE VEIN FL = FAULT  
IC = INTRUSIVE CONTACT

### DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY	Cu%
------	----	-----------	-----

0.00	50.00	Casing	
50.00	72.00	Diorite	
72.00	130.00	Mine Dyke	
130.00	150.00	CRYSTAL LITHIC TUFF	
199.00	220.00	Diorite	
228.00	261.00	Diorite	
288.00	309.00	Lapilli Tuff	
309.00	327.00	Lapilli Tuff	
327.00	359.00	Lapilli Tuff	
359.00	445.00	Lapilli Tuff	
445.00	464.00	Lapilli Tuff	
473.00	500.00	Monzonite	
500.00	524.00	Monzonite	
524.00	554.00	Lapilli Tuff	
569.00	660.00	Mine Dyke	
687.00	710.00	Diorite	
710.00	750.00	CRYSTAL LITHIC TUFF	
765.00	787.00	Lapilli Tuff	
787.00	830.00	Diorite	

FEET	RECOVERY PPT	ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
0.0			0.00	50.00	Casing					
50.0	10	750	50.00	72.00	Diorite (Unspecified)		MAROON AND GRAY	FINE GRAINED		Equigranular, fine grained Lost Horse diorite that has undergone intense potassic alteration. 1% Cpy as n.g. disseminations in the diorite and within common 2-5mm magnetite veins.
100.0	00	400	72.00	130.00	Mine Dyke		PALE GREY			
150.0		1000	130.00	150.00	CRYSTAL LITHIC TUFF	Fault Zone	GREY GREEN	FRAGMENTAL		Andesitic crystal tuff with 19 deg. lithic fragments. Fault.
	200	1000	150.00	161.00	Diorite (Unspecified)	Fault Zone	MEDIUM MAROON	FINE GRAINED	EQUIGRA NULAR	Equigranular, fine grained Lost Horse diorite with intense potassic alteration and 0.5% Cpy as disseminations in the diorite and within magnetite veins. Upper contact is gradational. Lower contact is a
	800	1000	161.00	165.00	Diorite			COARSE GRAINED	POPHYRIC	Porphyritic diorite/monzonite intense potassic with 0.5% Cpy as fine
	400	1000	165.00	168.00	Mine Dyke		PALE	BANDED		Banded tertiary dyke containing 20%
	100	1000	168.00	178.00	Andesite Flow		GREEN CH-GRAY	FINE GRAINED	MATERIAL	Andesite flow with intense potassic alteration. 1% Cpy as n.g. disseminations in the andesite and within common 2-5mm magnetite veins.
	700	1000	178.00	189.00			MEDIUM	COARSE		Andesite flow with intense potassic alteration. 1% Cpy as n.g. disseminations in the andesite and within common 2-5mm magnetite veins.

## STRUCTURE

## ALTERATION

## ASSAYS

ANGLE TO CORE  
STRUCTURE ID  
ANGLE TO CORE  
STRUCTURE ID

% Calcite

% Biotite

% K-SPAR

% Chlorite

% EPIDOTE

ALT. FACIES

% MAGNETITE

# PYRITE HABIT

% Pyrite

% Chlcopyrite

CHALCOPYRITE HABIT

FROM

To

SAMPLE NUMBER

LENGTH Ft/10

Copper %

GOLD 9/4

0.0

- 50.0

100.0

- 150.0

[illegible]

FEET	RECOVERY PPT	ROD PPT	FROM	TO	LITHOLOGY	MINDR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
180.0	700	1000	178.00	189.00	Diorite (Unspecified)		MEDIUM MAROON	COARSE GRAINED	PORPHYRITIC	Coarsely porphyritic diorite with trace Cpy, intense potassic alteration.
	500	1000	189.00	199.00	Lapilli Tuff		GREY GREEN	FRAGMENTAL	VEINED	Lithic lapilli (ghosts) tuff with a weak pervasive potassic alt'n. 1% Cpy as fine dissem. and occasional clusters or stringers.
	300	1000	199.00	220.00	Diorite (Unspecified)	Diorite (Unspecified)	MEDIUM MAROON	MEDIUM GRAINED	PORPHYRITIC	Porphyritic Lost Horse diorite with intense potassic alt'n and trace Cpy.
	100	1000	220.00	228.00	Monzonite (Undifferentiated)	Fault Zone	GREY GREEN	FINE GRAINED	MATRIX SUPPORTED	Equigranular, fine grained, two feldspar intrusive with trace Cpy. Possibly a XLTF (?). Fault zone.
230.0	00	1000	228.00	261.00	Diorite (Unspecified)		MEDIUM MAROON	FINE GRAINED	EQUIGRANULAR	Very rubbly and broken zone of potassically altered, equigranular diorite with 3% fine pyrite and trace Cpy.
	00	1000	261.00	270.00	Mine Dyke		PALE GREY			Probable tertiary dyke, most textures wiped out by intense clay alteration. 2% Py as bands + dissem. Totally broken.
	400	1000	270.00	285.00	Lapilli Tuff	Magnetite	LIGHT GREY	FINE GRAINED	FRAGMENTAL	Andesite lapilli tuff with a fine to medium matrix containing two feldspars; moderate potassic alteration. Trace Cpy. In magnetite veins at 270-272 ft).
280.0	1000	1000	285.00	288.00	Monzonite		VERY	MEDIUM	PORPHYR	Black, porphyritic monzonite,
	900	1000	288.00	309.00	Lapilli Tuff		GREY GREEN	FINE GRAINED	FRAGMENTAL	Lithic lapilli tuff with two feldspars in the matrix, contains 2-3% Py + trace Cp. Weak potassic and moderate epidote alt'n.
	1000	1000	309.00	327.00	Lapilli Tuff		GRAY AND MAROON	FINE GRAINED	FRAGMENTAL	Lithic lapilli tuff with moderate potassic and epidote alt'n. Trace Cp.
330.0	900	1000	327.00	359.00	Lapilli Tuff		GREY GREEN	FINE GRAINED	FRAGMENTAL	Lithic lapilli tuff with traces of potassic and epidote alteration, common calcite veins 2-20mm thick with trace Cpy.



## STRUCTURE

## ALTERATION

## ASSAYS

STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% Calcite	% Biotite	% K-SPAR	% Chlorite	% EPIDOTE	ALT. FACIES	% MAGNETITE	PYRITE HABIT	% Pyrite	CHALCOPYRITE HABIT	% Chalcopyrite	FROM	TO	SAMPLE NUMBER	LENGTH Ft/10	Copper %	GOLD g/t
CV 60	LC 45					30.0				I 5.0	0.0	2.5	0.0	0.1	178.0	189.0		11	0.020	0.007
CV 60	HV 60			10.0		10.0				W	0.0	1.0	0.0	1.0	189.0	199.0		10	0.280	0.430
CV 20					10.0	20.0				I 5.0	0.0	2.5	0.0	0.1	199.0	209.0		10	0.010	0.008
LC 45						5.0				W	0.0	2.5	0.0	0.1	209.0	220.0		11	0.010	0.004
FT					20.0	30.0				I 2.5	0.0	2.5	0.0	0.1	220.0	228.0		08	0.070	0.071
BN 75	FT										0.0	2.5	0.0		228.0	238.0		10	0.070	0.084
CV 55	LC 75			5.0		20.0				M 1.0	0.0	2.5	0.0	0.1	238.0	248.0		10	0.000	0.008
FD 70				1.0		5.0					0.0	2.5	0.0		248.0	258.0		10	0.000	0.002
CV 50				1.0		5.0				W	0.0	2.5	0.0	0.1	258.0	261.0		13	0.000	0.001
					2.5	10.0				M 5.0	0.0	5.0	0.0	2.5	261.0	270.0		09	0.100	0.012
CV 50				2.5		1.0					0.0	2.5	0.0	0.1	270.0	280.0		10	0.120	0.042
											0.0	2.5	0.0		280.0	285.0		05	0.150	0.120
											0.0	2.5	0.0		285.0	288.0		03	0.020	0.010
											0.0	2.5	0.0		288.0	298.0		10	0.170	0.110
											0.0	2.5	0.0		298.0	309.0		11	0.040	0.024
											0.0	5.0	0.0	2.5	309.0	319.0		10	0.018	0.090
											0.0	2.5	0.0		319.0	327.0		08	0.040	0.024
											0.0	2.5	0.0		327.0	337.0		10	0.030	0.014
											0.0	2.5	0.0		337.0	347.0		10	0.110	0.026
											0.0	2.5	0.0		347.0	359.0		12	0.050	0.018

REMARKS	TEXTURE 2	TEXTURE 1	COLOR	MINOR LITH.	LITHOLOGY	TO	FROM	RECOVERY PPT	ROD PPT	FEET
Lithic lapilli tuff with hornblende phytic lapilli displaying moderate potassic and epidote alteration. 1% Cpy throughout, 5% pyrite. Common magnetite veins 1-5mm thick.	FRAGMENTAL	FINE GRAINED	GRAY AND MAROON		Lapilli Tuff	445.00	359.00	1000	900	360.0
Lithic lapilli tuff with weak potassic alt'n (veins) and trace Cpy.	FRAGMENTAL	FINE GRAINED	GREY GREEN		Lapilli Tuff	464.00	445.00	1000	850	410.0
Lithic lapilli tuff with moderate potassic alt'n (usually as 2cm envelopes around calcite/sulphide veins) with 5% pyrite and 0.5% Cpy.	FRAGMENTAL	FINE GRAINED	GREY GREEN		Lapilli Tuff	473.00	464.00	1000	850	460.0
Equigranular MONZ (rare, small xenoliths may be lithic lapilli) with moderate pervasive potassic alteration and 0.5% Cpy. This unit may be a tuff.		MOTTLED	GRAY AND MAROON	Lapilli	Monzonite (Undifferentiated)	500.00	473.00	1000	700	
Equigranular MONZ (rare, small (1-2cm) xenoliths may be lithic lapilli) with weak pervasive potassic alt'n and trace Cpy.			GREY GREEN	Lapilli	Monzonite (Undifferentiated)	524.00	500.00	1000	800	510.0
Lithic lapilli tuff, moderate K alt'n, mod. epidote alt'n, with 4% pyrite and 0.5% Cpy.	MOTTLED	FINE GRAINED	GRAY AND MAROON		Lapilli Tuff	554.00	524.00	1000	750	

## STRUCTURE

## ALTERATION

## ASSAYS

ANGLE TO CORE  
STRUCTURE ID  
ANGLE TO CORE  
STRUCTURE ID

% Calcite

% Biotite

% K-SPAR

% Chlorite

% EPIDOTE

ALT. FACIES

% MAGNETITE

PYRITE HABIT

% Pyrite

CHALCOPYRITE HABIT

% Chalcopyrite

FROM

TO

SAMPLE NUMBER

LENGTH Ft/10

Copper %

GOLD g/t

CV 40	MV 60	5.0	10.0	10.0	M 2.5	5.0	1.0	359.0	369.0	10	0.060	0.054	360.0
								369.0	379.0	10	0.090	0.027	
								379.0	389.0	10	0.070	0.022	
								389.0	399.0	10	0.050	0.027	
								399.0	409.0	10	0.040	0.007	
								409.0	419.0	10	0.050	0.021	410.0
								419.0	429.0	10	0.130	0.051	
								429.0	439.0	10	0.030	0.013	
								439.0	445.0	06	0.100	0.031	
CV 60		2.5	1.0	1.0	W	2.5	0.1	445.0	455.0	10	0.040	0.017	
CV 60		2.5	10.0	5.0	M	5.0	1.0	455.0	464.0	09	0.040	0.014	460.0
								464.0	473.0	09	0.270	0.064	
								473.0	483.0	10	0.130	0.068	
		2.5	10.0	5.0	M	5.0	1.0	483.0	493.0	10	0.360	0.240	
								493.0	500.0	07	0.390	0.180	
CV 20		1.0	5.0	5.0	W	5.0	0.1	500.0	510.0	10	0.010	0.005	510.0
								510.0	520.0	10	0.010	0.004	
								520.0	524.0	04	0.050	0.017	
								524.0	534.0	10	0.050	0.019	
MV 75	CV 40	5.0	10.0	5.0		5.0		534.0	544.0	10	0.180	0.160	

RECOVERY PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS	
FEET	RED PPT								
540.0	730	1000	524.00	554.00	Lapilli Tuff	GRAY AND MARDON	FINE GRAINED	MOTTLED	Lithic lapilli tuff, moderate K alt'n, mod. epidote alt'n, with 4% pyrite and 0.5% Cpy.
	500	1000	554.00	569.00	Monzonite (Undifferentiated)	GREY GREEN	FINE GRAINED	EQUIGRANULAR	Fine equigranular monzonite with weak potassic and epidote alt'n, 2% pyrite (one 3cm vein of Py) at 565 ft and trace Cpy.
					Fault				
590.0									
	100	1000	569.00	660.00	Mine Dyke	PALE GREY	BANDED		Broken, clay rich felsic dyke.
640.0									
	600	1000	660.00	673.00	Lapilli Tuff	GREY GREEN	FRAGMENTAL	MOTTLED	Lithic lapilli tuff with weak potassic and epidote alteration, 3% pyrite.
	00	1000	673.00	675.00		PALE	BANDED		Felsic dyke, banded.
	200	1000	675.00	682.00	Monzonite (Undifferentiated)	LIGHT GREY	FINE GRAINED	EQUIGRANULAR	Equigranular monzonite with weak albite and scapolite alteration + weak potassic alt'n.
	850	1000	682.00	687.00	Mine Dyke	PALE GREY	BANDED		Felsic dyke.
690.0									
	200	1000	687.00	710.00	Diorite (Unspecified)	MEDIUM MARDON	PORPHYRITIC	MEDIUM GRAINED	Porphyritic Lost Horse diorite with intense potassic and weak epidote alteration. 3% pyrite.
	400	1000	710.00	750.00	CRYSTAL LITHIC TUFF	VERY DARK GREY			Dark grey/black crystal tuff with rare lithic lapilli, 2% pyrite and trace Cpy.

## STRUCTURE

## ALTERATION

## ASSAYS

ANGLE TO CORE  
STRUCTURE ID  
ANGLE TO CORE  
STRUCTURE ID

% Calcite

% Biotite

% K-SPAR

% Chlorite

% EPIDOTE

ALT. FACIES

% MAGNETITE

PYRITE HABIT

% Pyrite

CHALCOPYRITE HABIT

% Chalcopyrite

SAMPLE NUMBER

LENGTH Ft/10

Copper %

GOLD g/t

MV 75 CV 40

5.0

10.0

5.0

5.0

0.1

2.5

O-V  
O-V  
O-V  
O-V

BN 60

CV 45

5.0

5.0

5.0

W

2.5

O-V  
O-V  
O-V

5.0

BN 70

BN 70

O-V  
O-V  
O-V  
O-V

5.0

534.0	544.0	10
544.0	554.0	10
554.0	562.0	08
562.0	569.0	07
660.0	667.0	07
667.0	673.0	07
673.0	675.0	02
682.0	687.0	05
687.0	697.0	10
697.0	705.0	08
705.0	710.0	05
710.0	720.0	10

0.180	0.160
0.110	0.022
0.090	0.021
0.070	0.012
0.040	0.013
0.020	0.008
0.030	0.014
0.040	0.013
0.020	0.005
0.020	0.006
0.040	0.072
0.030	0.016

540.0

590.0

640.0

690.0

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
720.0									
	400	1000	710.00	750.00	CRYSTAL LITHIC TUFF	VERY DARK GREY			
	250	1000	750.00	765.00	Diorite (Unspecified)	GREEN AND MAROON	PORPHYR ITIC	MOTTLED	Porphyritic LH2 diorite with moderate potassic alt'n + 4% pyrite.
770.0									
	700	1000	765.00	787.00	Lapilli Tuff	GREY GREEN	BANDED	FINE GRAINED	Lithic lapilli tuff with local layers <3 ft thick of cherty (?) ash tuff (reddish coloured). Weak potassic alt'n, 2% pyrite, commonly in epidote veins.
					Lapilli				
	750	1000	787.00	830.00	Diorite (Unspecified)	LIGHT MAROON			Generally equigranular diorite with local porphyritic zones and common xenoliths up to 2 ft thick of ash and lapilli tuff. Moderate potassic alt'n, 0.5% pyrite. Lower contact is an intense fault.
820.0									
	00	1000	830.00	845.00	Mine Dyke	MEDIUM GREY			Med. grey felsite dyke. Intensely broken, brecciated at the top.

STRUCTURE							ALTERATION					
							% Chalcopyrite					
							ALCOPYRITE HABIT					
							% Pyrite					
							PYRITE HABIT					
							% MAGNETITE					
							ALT. FACIES					
							% EPIDOTE					
							% Chlorite					
							% K-SPAR					
							% Biotite					
							% Calcite					
							ANGLE TD CORE STRUCTURE ID					
							ANGLE TD CORE STRUCTURE ID					
							STRUCTURE ID					

ASSAYS					
	LENGTH Ft/10		SAMPLE NUMBER	Copper %	GOLD g/t
	TD	FROM			
720.0	730.0		10	0.020	0.009
730.0	740.0		10	0.030	0.033
740.0	750.0		10	0.030	0.016
750.0	760.0		10	0.000	0.003
760.0	765.0		05	0.010	0.004
765.0	776.0		09	0.030	0.012
776.0	787.0		11	0.040	0.014
787.0	797.0		10	0.010	0.004
797.0	807.0		10	0.020	0.010
807.0	817.0		10	0.010	0.004
817.0	827.0		10	0.070	
827.0	830.0		03	0.080	0.033





FEET	RECOVERY PPT RQD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
0.0		0.00	8.00	Casing					
50	750	8.00	32.00	Diorite (Unspecified)		GREY GREEN	FINE GRAINED	EQUIGRA NULAR	Equigranular, weakly magnetic Lost Horse diorite, weak epidote alt'n, 0.5% pyrite, 0.1% Cpy.
60	1000	32.00	36.00	Diorite		MEDIUM RED	PORPHYR ITIC		Brick red, porphyritic diorite with 0.2% malachite, 0.1% Cpy, trace Py.
50.0	100	36.00	72.00	Diorite (Unspecified)			FINE GRAINED	EQUIGRA NULAR	Fine, equigranular diorite (monz?) with weak epidote veining surrounded by Kspar envelopes. Ubiquitous (0.2%) malachite on fractures, with 0.2% fine dissem. Cpy.
100.0	350	72.00	141.00	Diorite (Unspecified)			FINE GRAINED	EQUIGRA NULAR	Continued LHI diorite, but below oxidation. No malachite. 0.5% fine, dissem. Cpy.
					FAULT				
150.0	800	141.00	146.00	Mine Dyke		LIGHT BROWN			Rusty felsite dyke, with faults at both contacts.
	900	146.00	151.00	Diorite (Unspecified)		LIGHT BROWN	FINE GRAINED	EQUIGRA NULAR	Rusty, strongly broken and faulted LHI diorite.
	300	151.00	177.00	Diorite (Unspecified)		GRAY AND MAROON	MEDIUM GRAINED	PORPHYR ITIC	Weakly potassic altered diorite containing 3% coarse phenocrysts (plag) in a med. matrix with 0.2% pyrite and 0.2% chalcopyrite.
		177.00	184.00	Mine Dyke			FINE	PORPHYR	Broken and banded felsic dyke, with

## STRUCTURE

## ALTERATION

## ASSAYS

GOLD g/t		Copper %		LENGTH Ft/10	SAMPLE NUMBER	TO	FROM
0.030	0.090	08		8.00	0.00		
0.023	0.090	10		18.00	8.00		
0.060	0.230	14		32.00	18.00		
0.052	0.130	04		36.00	32.00		
0.046	0.140	10		46.00	36.00		
0.092	0.230	10		66.00	46.00		
0.100	0.340	06		72.00	66.00		
0.049	0.150	10		82.00	72.00		
0.030	0.110	10		92.00	82.00		
0.047	0.180	10		102.0	92.00		
0.076	0.210	10		112.0	102.0		
0.078	0.210	10		122.0	112.0		
0.052	0.120	10		132.0	122.0		
0.180	0.370	09		141.0	132.0		
0.068	0.220	05		151.0	141.0		
0.043	0.080	10		161.0	151.0		
0.047	0.070	10		171.0	161.0		
0.060	0.100						
0.002	0.000						

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINDR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
180.0		177.00	184.00	Mine Dyke			FINE GRAINED	PORPHYRITIC	Broken and banded felsic dyke, with occasional bands 5mm wide containing
600	1000	184.00	214.00	Diorite (Unspecified)		GRAY AND MAROON	MEDIUM GRAINED	PORPHYRITIC	LH2 diorite with 4% coarse feldspar phenos, moderate pervasive potassic alteration and 0.4% Cpy as fine disseminations and coarse clusters within magnetite/epidote veins.
230.0	850	214.00	251.00	Diorite (Unspecified)		GREY GREEN	FINE GRAINED	PORPHYRITIC	Mixed fine grained (local, coarse grained) LH2 and ash tuffs (in layers 1-2 ft thick); contacts at 50 deg. TCA. 1% Cpy as fine dissens. and with pyrite in epidote/magnetite veins 1/4-2' wide, approx. 1 per ft.
800	1000	251.00	282.00	Lapilli Tuff		GREY GREEN	FINE GRAINED	FRAGMENTAL	Lithic lapilli tuff (local ash beds) with epidote, Kspar, calcite, magnetite, sulphide veins 1/2-2' wide, approx. 1 per 2 feet at 45-80 deg. TCA. 1.5% Cpy throughout as dissens, but primarily as coarse clusters within the veins.
280.0	700	282.00	291.00	Diorite (Unspecified)		GRAY AND MAROON	MEDIUM GRAINED	PORPHYRITIC	Porphyritic LH2 with moderate potassic alteration, 0.5% pyrite, and 0.5% Cpy in one magnetite vein 1/2' thick at 289 ft at 65 deg. TCA (Cpy makes up 15% of the vein).
950	1000	291.00	299.00	Lapilli Tuff		GREY GREEN	FINE GRAINED	FRAGMENTAL	Lithic lapilli tuff with minor patchy potassic alt'n, 0.5% Cpy as very fine disseminations.
800	1000	299.00	303.00	Diorite		GRAY AND			Light to salmon pink LH2 with stringers of pyrite and 2% disseminated (in
700	1000	303.00	325.00	Lapilli Tuff		GREY GREEN	FINE GRAINED	FRAGMENTAL	Lithic lapilli tuff with occasional Kspar or epidote veins, 0.5% Cpy as very fine dissens + occasional clusters.
330.0	150	325.00	349.00	CRYSTAL LITHIC TUFF		GRAY AND MAROON	FINE GRAINED	MOTTLED	Feldspar crystal tuff (generally non-magnetic, rare lapilli) with moderate potassic alt'n (as veins with magnetite + fine Cpy) Cpy 0.5% overall.
100	600	349.00	366.00	Mine Dyke		PALE GREY	FINE GRAINED	PORPHYRITIC	Felsic intrusion dyke

## STRUCTURE

## ALTERATION

## ASSAYS

[illegible]

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
360.0	100 600	349.00	366.00	Mine Dyke		PALE GREY	FINE GRAINED	PORPHYRITIC	Felsic intrusive dyke.
	500 1000	366.00	399.00	Diorite (Unspecified)		GRAY AND MAROON	FINE GRAINED	EQUIGRANULAR	Fine LHI (textures almost obliterated by alteration; could be an andesite tuff or flow) with moderate potassic and epidote alt'n (commonly Kspar envelopes around epidote veins) and 1.5% Cpy as fine clusters.
410.0	250 1000	399.00	413.00	CRYSTAL LITHIC TUFF		GREY GREEN	FINE GRAINED	EQUIGRANULAR	Fine crystal tuff (local lapilli) with weak potassic alt'n and 0.1% Cpy.
	700 1000	413.00	439.00	Diorite (Unspecified)		GREY GREEN	FINE GRAINED	PORPHYRITIC	Fine, porphyritic LH2 with weak potassic + moderate epidote alt'n and 0.2% Cpy mostly in epidote/magnetite veins 1/8-1" wide, approx. 1 per 2 feet.
	350 1000	439.00	447.00	Diorite (Unspecified)		GRAY AND MAROON	COARSE GRAINED	PORPHYRITIC	Coarse, crowded porphyritic diorite, with intense potassic alt'n, moderate epidote veining + 0.5% Cpy as fine clusters, dissemi + in epidote veins.
460.0	600 1000	447.00	482.00	Diorite (Unspecified)		VERY DARK GREEN	VEINED	FINE GRAINED	Textures almost obliterated by alt'n/min'n, with weak patchy Kspar alt'n, intense epidote veining (1/2-1" wide, approx. 1 per 4' at 60 deg. TCA), magnetite occurs as concentrated disseminations + occasionally as a breccia matrix. Cpy is present as 2% fine dissemi + clusters + veins with epidote.
	100 700	482.00	494.00	Diorite (Unspecified)		GREY GREEN			Intensely broken fault zone, poor recovery and some possible narrow zones of tertiary dyke. 0.5% Cpy, weak potassic alt'n.
510.0	600 1000	494.00	526.00	Diorite (Unspecified)		VERY DARK GREEN	VEINED	FINE GRAINED	Intense epidote veining, weak potassic alt'n, 2% Cpy as fine dissemi, clusters, + in epidote veins.
						GREY GREEN	VEINED	FINE GRAINED	Fine Lost Horse diorite? (textures obliterated by alteration) with patchy potassic alt'n. Moderate epidote veining (1/8-1" wide, approx. 1 per 2 feet) and 1% Cpy as dissemi, + epidote veins.

## STRUCTURE

## ALTERATION

## ASSAYS

ANGLE TO CORE  
STRUCTURE ID  
ANGLE TO CORE  
STRUCTURE ID

% Calcite

% Bio tite

% K-SPAR

% Chlorite

% EPIDOTE

AL.T. FACIES

% MAGNETITE

PYRITE HABIT

% Pyrite

COPYRITE HABIT

% Chlcopyrite

FROM

和

JMBEK

LENGTH FT/100

Copper 2

9/4

BN	50	LC	50
EV	30	CV	40
CV	70		
EV	60	MV	60
EV	45		
EV	60		
FT	60		
EV	60		
EV	70		

BN	50	LC	50
EV	30	CV	40
CV	70		
EV	60	MV	60
EV	45		
EV	60		
FT	60		
EV	60		
EV	70		

BN	50	LC	50
EV	30	CV	40
CV	70		
EV	60	MV	60
EV	45		
EV	60		
FT	60		
EV	60		
EV	70		

BN	50	LC	50
EV	30	CV	40
CV	70		
EV	60	MV	60
EV	45		
EV	60		
FT	60		
EV	60		
EV	70		

BN	50	LC	50
EV	30	CV	40
CV	70		
EV	60	MV	60
EV	45		
EV	60		
FT	60		
EV	60		
EV	70		

BN	50	LC	50
EV	30	CV	40
CV	70		
EV	60	MV	60
EV	45		
EV	60		
FT	60		
EV	60		
EV	70		

BN	50	LC	50
EV	30	CV	40
CV	70		
EV	60	MV	60
EV	45		
EV	60		
FT	60		
EV	60		
EV	70		

BN	50	LC	50
EV	30	CV	40
CV	70		
EV	60	MV	60
EV	45		
EV	60		
FT	60		
EV	60		
EV	70		

BN	50	LC	50
EV	30	CV	40
CV	70		
EV	60	MV	60
EV	45		
EV	60		
FT	60		
EV	60		
EV	70		

BN	50	LC	50
EV	30	CV	40
CV	70		
EV	60	MV	60
EV	45		
EV	60		
FT	60		
EV	60		
EV	70		

BN	50	LC	50
EV	30	CV	40
CV	70		
EV	60	MV	60
EV	45		
EV	60		
FT	60		
EV	60		
EV	70		

BN	50	LC	50
EV	30	CV	40
CV	70		
EV	60	MV	60
EV	45		
EV	60		
FT	60		
EV	60		
EV	70		

BN	50	LC	50
EV	30	CV	40
CV	70		
EV	60	MV	60
EV	45		
EV	60		
FT	60		
EV	60		
EV	70		

BN	50	LC	50
EV	30	CV	40
CV	70		
EV	60	MV	60
EV	45		
EV	60		
FT	60		
EV	60		
EV	70		

BN	50	LC	50
EV	30	CV	40
CV	70		

RECOVERY PPT	ROD PPT	FEET	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
		540.0								
	400	1000	526.00	575.00	Diorite (Unspecified)		GREY GREEN	VEINED	FINE GRAINED	Fine Lost Horse diorite? (textures obliterated by alteration) with patchy potassic alt'n. Moderate epidote veining (1/8-1" wide, approx. 1 per 2 feet) and 1% Cpy as dissens. + epidote veins.
	400	1000	575.00	593.00	Mine Dyke		PALE GREY	BANDED		Banded rhyolite dyke with occasional bright red (henatite or cinnabar (?) mineral along grey siliceous bands with 0.5% dark grey, very fine grained metallic mineral.
		590.0								
	100	1000	593.00	643.00	Monzonite (Undifferentiated)		GREY GREEN	FINE GRAINED	EQUIGRA NULAR	Fine, equigranular monzonite with epidote veins 1/8-1/2" wide, approx. 1 per 2.5 feet, often containing Cpy; 0.5% Cpy overall, mostly in epidote veins. Very broken core, numerous 1-2 foot faults.
		640.0								
	50	750	643.00	682.00	Mine Dyke		PALE GREY	PORPHYR ITIC	BANDED	Tertiary rhyolite dyke.
	850	850	682.00	698.00	Monzonite (Undifferentiated)		GRAY AND MAROON	MEDIUM GRAINED	PORPHYR ITIC	Med. grained porphyritic monzonite with 0.2% Cpy, weak pervasive potassic alt'n.
	850	1000	698.00	717.00	Basalt		GREY GREEN	AMYGDUL ES		Late dyke cut by numerous calcite veins (pre-felsite). Lower contact at 60 deg. TCA.
			717.00	725.00	Monzonite		GREY	FINE	EQUIGRA	Fine, equigranular monzonite with



## STRUCTURE

## ALTERATION

## ASSAYS

[illegible]



FEET	RECOVERY PPT	ROD PPT	FROM	TO	LITHOLOGY	MINDR LTH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
720.0	800	1000	717.00	725.00	Monzonite (Undifferentiated)		GREY GREEN	FINE GRAINED	EQUIGRANULAR	Fine, equigranular monzonite with epidote veins 1/8-1' thick, approx. 1
	800	1000	725.00	729.00	Lapilli		GREY GREEN			Lithic lapilli tuff, very little alt'n, 0.2% Cpy as fine dissens.
	800	1000	729.00	733.00	Diorite		GREY GREEN	FINE GRAINED	EQUIGRANULAR	Fine, equigranular LH1 diorite with weak patchy F-alt'n and 0.1% Cpy; lower
	850	1000	733.00	737.00	Diorite		DARK GREY	MEDIUM GRAINED	PORPHYRITIC	Porphyritic LH2, sharp intrusive contacts, pink Kspar alt'n at the core
	800	950	737.00	747.00	Lapilli Tuff		GREY GREEN	FINE GRAINED	FRAGMENTAL	Lithic lapilli tuff, 3% pyrite, no chalcocopyrite. Weak fault at upper contact.
	650	1000	747.00	753.00	Diorite (Unspecified)		MEDIUM RED	PORPHYRITIC	MEDIUM GRAINED	Porphyritic, red LH2 with patchy magnetite and rare epidote veins 1/16" wide. 0.1% Cpy as disseminations within
	800	1000	753.00	779.00	Diorite (Unspecified)		GRAY AND MAROON	PORPHYRITIC	FINE GRAINED	Porphyritic, patchy red LH2 with common magnetite veins/concentrations. 0.5% Cpy associated with magnetite and epidote veins.
770.0	950	1000	779.00	790.00	Lapilli Tuff		GRAY AND MAROON	FINE GRAINED	FRAGMENTAL	Lithic lapilli tuff with moderate patchy potassic alt'n + epidote veins 1/4-1/2" wide, approx. 1 per 2 feet. 0.5% Cpy, usually assoc. with epidote veins and magnetite.
	800	1000	790.00	828.00	Diorite (Unspecified)		GRAY AND MAROON	FINE GRAINED	EQUIGRANULAR	Fine, equigranular diorite with moderate patchy Kspar alt'n, common banded calcite veins up to 1" wide with Cpy clusters. 0.5% Cpy overall within the calcite veins and associated with magnetite concentrations and veins.
820.0	850	1000	828.00	832.00	Lapilli		GREY GREEN			Lithic lapilli tuff containing 1 foot of tent. dyke at 830-831 ft. One Py/Cpy
	200	1000	832.00	885.00	Rhyolite Mine Dyke		PALE GREY	FINE GRAINED	PORPHYRITIC	Tertiary porphyritic rhyolite dyke with local flow banding parallel to the upper contact.
870.0	700	1000	885.00	917.00	Diorite (Unspecified)		GRAY AND MAROON	FINE GRAINED	EQUIGRANULAR	Fine, equigranular diorite with moderate patchy potassic alt'n + patchy epidote alt'n with 0.1% Cpy assoc. with magnetite. Possible trace honey coloured sphalerite and some calcite vein at 912 ft.

## STRUCTURE

## ALTERATION

% Chalcopyrite  
CHALCOPYRITE HABIT

## ASSAYS

ANGLE TO CORE  
STRUCTURE ID  
ANGLE TO CORE  
STRUCTURE ID

% Calcite

% Biotite

% K-SPAR

% Chlorite

% EPIDOTE

ALT. FACIES

% MAGNETITE

PYRITE HABIT

% Pyrite

% Chalcopyrite

CHALCOPYRITE HABIT

FROM

TO

SAMPLE NUMBER

LENGTH Ft./10

Copper %

GOLD g/t

CV	45	EV	50	5.0	2.5	2.5	W	2.5	1.0	717.0	725.0	08	0.260	0.140	720.0
CV				2.5		1.0		2.5	0.3	725.0	729.0	04	0.500	0.280	
EV	60	LC	50		5.0	2.5	W	5.0	0.1	729.0	737.0	08	0.380	0.205	
EV	60				2.5	2.5		2.5	0.1						
CV	35	LC	60	2.5				5.0		737.0	747.0	10	0.080	0.042	770.0
LC	20	FD	65	0.1	30.0		I	5.0	0.1	747.0	753.0	06	0.100	0.025	
										753.0	763.0	10	0.340	0.160	
EV	70	MV	60	2.5	10.0	2.5	M	5.0	1.0	763.0	773.0	10	0.060	0.019	
										773.0	779.0	06	0.080	0.038	820.0
EV	50	EV	50		10.0	5.0	M	2.5	1.0	779.0	785.0	06	0.100	0.037	
										785.0	790.0	05	0.070	0.036	
										790.0	800.0	10	0.130	0.059	
CV	35	MV	70	5.0	10.0		M	5.0	1.0						870.0
										810.0	820.0	10	0.120	0.160	
UC	85	LC	60					2.5	1.0	820.0	828.0	08	0.050	0.480	
										828.0	832.0	04	0.100	0.120	
BN	60									832.0	885.0	53			870.0
CV	45									885.0	895.0	10	0.040	0.105	
										895.0	905.0	10	0.030	0.061	

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
900.0	700 1000	885.00	917.00	Diorite (Unspecified)		GRAY AND MAROON	FINE GRAINED	EQUIGRA NULAR	Fine, equigranular diorite with moderate patchy potassic alt'n (+ patchy epidote alt'n) with 0.1% Cpy assoc. with magnetite. Possible trace honey coloured sphalerite in a 1mm wide calcite vein at 912 ft.
950.0									
	300 1000	917.00	1049.0	Rhyolite Mine Dyke		PALE GREY	FINE GRAINED	PORPHYR ITIC	
1000.0									
					FAULT				Fault at lower contact.
1050.0	500 1000	1049.0	1061.0	Diorite (Unspecified)		GRAY AND MAROON	FINE GRAINED	EQUIGRA NULAR	Equigranular diorite, containing 10% pervasive Kspar + 0.25% Cpy as very fine disseminations, usually with magnetite patches 1/8-1/2" in dia.
	700 1000	1061.0	1108.0	Lapilli Tuff		GREY GREEN	FINE GRAINED	FRAGMEN TAL	Alligator skin textured fragmental (fine, black monolithic clasts 1/8-1/2" in dia. in a lighter matrix), clasts are angular + matrix supported Qtz is present in 1/2" wide veins with Py, Cpy + magnetite. Cpy is 0.5% within Qtz/mag veins + as fine dissens.

STRUCTURE

ALTERATION

ASSAYS

ANGLE TO CORE  
STRUCTURE ID  
ANGLE TO CORE  
STRUCTURE ID

% Calcite

% Biotite

% K-SPAR

% Chlorite

% EPIDOTE

ALT. FACIES

% MAGNETITE

PYRITE HABIT

% Pyrite

CHALCOPYRITE HABIT

% Chalcopyrite

ASSAYS

LENGTH Ft/10

Copper %

GOLD g/t

900.0

950.0

1000.0

1050.0

CV 45		2.5	10.0	2.5	M 5.0	5.0	0.1	895.0	905.0	10	0.030	0.061
								905.0	911.0	06	0.060	0.061
								911.0	917.0	06	0.100	0.040
UC 5								917.0	1049.	132		
FD 60	KV 60	2.5	10.0		M 2.5		0.3	1049.	1055.	06	0.050	0.051
CV 60	QV 60	2.5	2.5		W			1055.	1061.	06	0.120	0.047
								1061.	1071.	10	0.110	0.045
								1071.	1081.	10	0.160	0.105

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS	
1080.0										
	700	1000	1061.0	1108.0	Lapilli Tuff		GREY GREEN	FINE GRAINED	FRAGMEN TAL	Alligator skin textured fragmental (fine, black monolithic clasts 1/8-1/2" in dia. in a lighter matrix), clasts are angular + matrix supported Qtz is present in 1/2" wide veins with Py, Cpy + magnetite. Cpy is 0.5% within Qtz/mag veins + as fine dissem.
					FAULT					
	200	1000	1108.0	1122.0	Diorite (Unspecified )		MEDIUM GREEN	FINE GRAINED	EQUIGRA NULAR	Fine, equigranular diorite with 0.1% Cpy in one magnetite vein 1/2" thick at 1118 ft.
					FAULT					
1130.0	650	1000	1122.0	1141.0	CRYSTAL LITHIC TUFF		GREY GREEN	MOTTLED	ALIGNED PHENOCR YSTS	Very fine crystal tuff, locally dust (cherty) tuff with common magnetite veins 1/4-3" thick, approx. 5/10 feet. 0.5% Cpy as fine disseminations and within the magnetite veins.
	650	1000	1141.0	1186.0	Diorite (Unspecified )		GRAY AND MAROON	MEDIUM GRAINED	PORPHYR ITIC	Porphyritic Lost Horse diorite with moderate pervasive potassic alt'n and 0.5% Cpy in magnetite veins + some dissem + clusters.
1180.0										
	500	1000	1186.0	1231.0	Lapilli Tuff		GREY GREEN			Pyritic lithic lapilli tuff with traces of patchy potassic alt'n and no cpy.
1230.0										
	650	1000	1231.0	1256.0	Diorite (Unspecified )		GRAY AND MAROON	FINE GRAINED	EQUIGRA NULAR	Fine, equigranular diorite with rare magnetite and fluorite stringers and trace Cpy.
	700	900	1256.0	1317.0	Lapilli		GREY GREEN	FINE GRAINED	FRAGMEN TAL	Lithic lapilli tuff with thick (2-6") epidote veins approx. 2/10 ft at 60

## STRUCTURE

## ALTERATION

## ASSAYS

ANGLE TO CORE  
STRUCTURE ID  
ANGLE TO CORE  
STRUCTURE ID

% Calcite

% Biotite

% K-SPAR

% Chlorite

% EPIDOTE

% MAGNETITE

ALT. FACIES

PYRITE HABIT

% Pyrite

CHALCOPYRITE HABIT

% Chalcopyrite

SAMPLE NUMBER

LENGTH Ft/10

Copper %

GOLD g/t

FROM	TO	LENGTH Ft/10	Copper %	GOLD g/t
1081.	1091.	10	0.080	0.064
1091.	1101.	10	0.110	0.045
1101.	1108.	07	0.130	0.024
1108.	1115.	07	0.090	0.009
1115.	1122.	07	0.200	0.100
1122.	1132.	10	0.430	0.120
1132.	1141.	09	0.220	0.240
1141.	1151.	10	0.090	0.037
1151.	1161.	10	0.260	0.100
1161.	1171.	10	0.050	0.027
1171.	1176.	05	0.040	0.043
1176.	1186.	10	0.170	0.070
1186.	1196.	10	0.030	0.011
1196.	1206.	10	0.060	0.056
1206.	1216.	10	0.030	0.017
1216.	1226.	10	0.030	0.015
1226.	1231.	05	0.040	0.029
1231.	1241.	10	0.120	0.031
1241.	1251.	10	0.050	0.195
1251.	1261.	10	0.040	0.780
1261.	1271.	10	0.030	0.030

1080.0

1130.0

1180.0

1230.0

FEET	RECOVERY PPT	ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
1260.0										
	700	900	1256.0	1317.0	Lapilli Tuff		GREY GREEN	FINE GRAINED	FRAGMENTAL	Lithic lapilli tuff with thick (2-6') epidote veins approx. 2/10 ft at 60 deg. TCA. 0.1% Cpy as clusters within the epidote veins.
1310.0										
	750	1000	1317.0	1323.0	Basalt		VERY DARK GREY			
						FAULT				
	700	1000	1323.0	1345.0	Diorite (Unspecified)		MAROON AND GRAY	PORPHYRITIC	MEDIUM GRAINED	Porphyritic diorite with moderate pervasive potassic alt'n + 0.1% disseminated Cpy. Fault at upper contact.
	800	1000	1345.0	1351.0	Lapilli Tuff		DARK GREY	FINE GRAINED	FRAGMENTAL	Lithic lapilli tuff with 2% pyrite.
1360.0										
	800	950	1351.0	1372.0	Diorite (Unspecified)		GRAY AND MAROON	MEDIUM GRAINED	PORPHYRITIC	Porphyritic L.H. diorite with 1/4-1/2' wide magnetite/Sx veins approx. 5/10 ft at 60 deg. TCA. 0.1% Cpy as clusters within the magnetite veins.
	400	1000	1372.0	1381.0	Lapilli Tuff		GREY GREEN	FINE GRAINED	FRAGMENTAL	Lithic lapilli tuff with epidote veins + patches 1/2-3' thick approx. 2 per 10 ft. at 70 deg. TCA. 0.1% Cpy assoc. with magnetite + epidote.
	100	800	1381.0	1388.0	Basalt					Basalt dyke.
	100	1000	1388.0	1396.0	Lapilli Tuff		GREY GREEN	FINE GRAINED	FRAGMENTAL	Lithic lapilli tuff with local epidote veins + 2% Py.







# Princeton Mining Corp. SIMILCO MINES LIMITED DRILL HOLE LOG PROJECT ID : ALABAMA

HOLE / TRAVERSE ID : DDH94\_A08  
CORE HOLE SIZE : HQNQ  
DATE STARTED : 94/ 4/15  
DATE COMPLETED : 94/ 4/24  
GEOLOGGED BY : SJB  
PLOT DATE : 94/NOV/ 6  
PROJECT LEADER : PMH  
LOCATION :

COLLAR AZIMUTH : 1.87  
COLLAR DIP : -43.20  
COLLAR ELEVATION : 3828.66  
COLLAR NORTHING : 14420.56  
COLLAR EASTING : 10108.09  
COLLAR OFFSET :  
COLLAR STATION :  
TOTAL LENGTH : 836.0

NTS: 92H MINING DIV.: SIMILKAMEEN  
PURPOSE: TEST SOUTHEASTERN EDGE OF ZONE

COMMENTS: WEAK MINERALIZATION. RESULTS DISSAPPOINTING  
RELATIVE TO SURFACE MINERALIZATION

KEY INTERSECTIONS: FROM 116 TO 160; 44 FT. OF 0.25% CU, 0.12 G/T AU  
FROM 272 TO 360; 88 FT. OF 0.16% CU, 0.18 G/T AU

SURVEY DATA

DEPTH	DIP	AZIMUTH
0	-43.20	1.87

## SUMMARY REMARKS

## LEGEND

ECON. MINERAL:  
D = DISSEMINATED MV = MICROVEIN/FRACT.FILL  
// = VEINS AND PATCHES  
DKV= DISS. < VEINS/FRACTURE FILL

## STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN  
MV = MAGNETITE VEIN FL = FAULT  
IC = INTRUSIVE CONTACT

## DRILL HOLE SUMMARY

FROM TO LITHOLOGY Cu%  
0 20 40 60 80 100

0.00	35.00	Casing	
47.00	66.00	Diorite	
66.00	160.00	CRYSTAL LITHIC TUFF	
176.00	197.00	Andesite Flow	
230.00	256.00	Andesite Flow	
256.00	278.00	Diorite	
297.00	349.00	Andesite Flow	
376.00	467.00	Lapilli Tuff	
478.00	496.00	Rhyolite Mine Dyke	
516.00	558.00	Diorite (Unspecified)	
558.00	605.00	Diorite (Unspecified)	
620.00	677.00	Rhyolite Mine Dyke	
677.00	699.00	Diorite	
709.00	738.00	Diorite	
738.00	767.00	Diorite	
784.00	821.00	Lapilli Tuff	

0.0 0.2 0.4 0.6 0.8 1.0

FEET	RECOVERY PPT	ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
0.0			0.00	35.00	Casing					
	00	660	35.00	47.00	Andesite Flow		MEDIUM GREEN	BRECCIATED	FINE GRAINED	Rusty andesite (?) brecciated with ANDS clasts 1/8-1' in dia. Supported by a linonite and calcite matrix. Very broken, 0.1% chalcopryite as fine dissens.
50.0	00	500	47.00	66.00	Diorite (Unspecified)		MAROON AND GRAY	PORPHYRITIC	MEDIUM GRAINED	Red porphyritic, intense potassic alt'n, with 0.1% Cpy as fine disseminations. Very broken.
100.0	300	800	66.00	160.00	CRYSTAL LITHIC TUFF		GREY GREEN	FINE GRAINED	EQUIGRA NULAR	Fine grained two feldspar Xtal ash tuff (could be a fine LH or flow). Common Kspar (+/- Qtz?) veins 1/4-1/2' thick, approx. 15/10 Ft; 0.1% Cpy as fine dissens. within or without Kspar veins. Intensely broken.
150.0					Diorite (Unspecified)		GREY GREEN	MEDIUM GRAINED	EQUIGRA NULAR	Equigranular, med. grained diorite with a weak pervasive potassic alt'n and weak epidote veining (veins 1/8-1/2' thick, approx. 4/10 Ft. 0.1% Cpy as fine dissens. + within epidote veins. Large fault at upper contact.
					Andesite		GREY GREEN	FINE GRAINED		Fine andesite with 10% white calcite veins that locally contain Cpy.

## STRUCTURE

## ALTERATION

## ASSAYS

GOLD g/t	Copper %	LENGTH Ft./10	SAMPLE NUMBER	FROM	TO
0.120	0.320	35		0.00	35.00
0.079	0.150	12		35.00	47.00
0.026	0.040	19		47.00	66.00
0.028	0.060	10		66.00	76.00
0.020	0.040	10		76.00	86.00
0.027	0.070	10		86.00	96.00
0.032	0.060	10		96.00	106.0
0.105	0.190	10		106.0	116.0
0.160	0.310	10		116.0	126.0
0.110	0.230	10		126.0	136.0
0.105	0.260	10		136.0	146.0
0.110	0.230	04		146.0	156.0
0.025	0.080	08		156.0	168.0
0.032	0.080	08		168.0	176.0
0.110	0.230	07		176.0	183.0
% Chalcopyrite					
% Pyrite					
% Magnetite					
ALT. FACIES					
% EPIDOTE					
% Chlorite					
% K-SPAR					
% Biotite					
% Calcite					
ANGLE TO CORE					
STRUCTURE ID					
ANGLE TO CORE					
STRUCTURE ID					
CV					
CV 0					
KV 50					
CV 60					
EV 35					
CV 50					

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
180.0	400	1000	176.00	197.00	Andesite Flow	GREY GREEN	FINE GRAINED		Fine andesite with 10% white calcite veins that locally contain Cpy. Overall, Cpy 0.1%.
	550	1000	197.00	210.00	Basalt				Basalt dyke.
	650	1000	210.00	216.00	Monzonite (Undifferent)	MEDIUM GREEN			Porphyritic monzonite with minor pyrite + no Cpy.
	550	1000	216.00	230.00	Basalt				Basalt dyke.
230.0	650	900	230.00	256.00	Andesite Flow	GREY GREEN	VEINED	MATRIX SUPPORT ED	Fine andesite (could be ash tuff?) with weak potassic veining + trace disseminated chalcopyrite.
	350	900	256.00	278.00	Diorite (Unspecified)	MAROON AND GRAY	MEDIUM GRAINED	EQUIGRANULAR	Intense potassic alt'n in a med. grained, equigranular diorite. 0.2% Cpy as fine clusters + dissens. assoc. with magnetite veins.
280.0	800	1000	278.00	287.00	Andesite Flow	GREY GREEN	FINE GRAINED	MATRIX SUPPORT ED	Andesite with a subtle upper contact (appears gradational), Kspar veins (dykes?) (deins), approx. 3 per 10 ft at 20-60 deg. TCA. Trace chalcopyrite with the epidote/Kspar veins.
	200	1000	287.00	297.00	Diorite (Unspecified)	GRAY AND MAROON	PORPHYRITIC	MEDIUM GRAINED	Porphyritic, coarse to med. grained diorite with intense potassic alt'n + 0.1% chalcopyrite assoc. with magnetite veins 1/8-1' wide, approx. 3 per 10 ft. at 50 deg. TCA.
	400	900	297.00	349.00	Andesite Flow	GREY GREEN	FINE GRAINED	MATRIX SUPPORT ED	Fine andesite, locally med. grained (maybe LH1 dykes?) containing numerous Kspar + epidote veins (approx. 10/10 feet, 1/4-1/2' wide at 60 deg. TCA). One 2" Mag vein at 300 ft at 60 deg. TCA contains 2% Cpy. Overall, Cpy is <0.1%.
330.0	00	1000	349.00	360.00	Diorite (Unspecified)				Intensely broken and faulted LH2 diorite with weak potassic alt'n + 0.1% Cpy as fine dissens.

## STRUCTURE

## ALTERATION

## ASSAYS

ANGLE TO CORE  
STRUCTURE ID  
ANGLE TO CORE  
STRUCTURE ID

% Calcite

% Biotite

% K-SPAR

% Chlorite

% EPIDOTE

### ALT. FACIES

% MAGNETITE

PYRITE HABIT

% Pyrite

CHALCOPYRITE HABIT

% Chlcopyrite

FROM

To

JMBER

LENGTH Ft/10

Copper %

GOLD 9/4

[illegible]

FEET	RECOVERY PPT R&D PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
360.0	150	1000	360.00	376.00	Basalt	Diorite			LH2 xenolith.
410.0	650	1000	376.00	467.00	Lapilli Tuff	GREY GREEN			30% lithic lapilli in an aphanitic (locally 'cherty') matrix with occasional 2-3' magnetite veins (approx. 1 per 10 ft.) at 60 deg. TCA containing 2% Cpy. Minor Kspar + epidote veins. 0.1% Cpy overall within magnetite veins.
460.0	500	1000	467.00	478.00	Diorite (Unspecified)	GRAY AND MAROON	PORPHYRITIC	MEDIUM GRAINED	Porphyritic LH2 with a 2' calcite/qtz (?) vein at 60 deg. TCA at 468 ft with 3% Cpy. Overall, Cpy is 0.1%.
			478.00	496.00	Rhyolite Mine Dyke	PALE GREY	BANDED	PORPHYRITIC	Tertiary rhyolite dyke.
	00	1000	496.00	508.00	Diorite (Unspecified)	MEDIUM GREEN	FINE GRAINED	EQUIGRANULAR	Crumbly and broken, faulted LH(?) with patches of 5% magnetite, 0.2% Cpy associated with the magnetite; 6' of gouge at 506 ft contains 2% Cpy.
510.0	50	1000	508.00	516.00	Rhyolite Mine Dyke	PALE GREY			Tertiary rhyolite dyke.
	200	1000	516.00	558.00	Diorite (Unspecified)	GREY GREEN	PORPHYRITIC	MEDIUM GRAINED	Porphyritic LH1 with local zones of Kspar veining (approx. 4/10 ft, 1/2-1' thick). 0.1% Cpy as very fine disseminations. Fault.





FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
540.0	200	1000	516.00	558.00	Diorite (Unspecified)	GREY GREEN	PORPHYR ITIC	MEDIUM GRAINED	Porphyritic LHI with local zones of Kspar veining (approx. 4/10 ft, 1/2-1' thick). 0.1% Cpy as very fine disseminations. Fault.
					Basalt				
600	1000	558.00	605.00	Diorite (Unspecified)		GRAY AND MAROON	PORPHYR ITIC	MEDIUM GRAINED	Porphyritic diorite with a weak, patchy potassic alt'n; hematite stringers (purplish) 1/16-1/8' thick, approx. 4 per 10 ft, trace dissem. Cpy. Basalt dyke.
590.0									
	500	1000	605.00	620.00	Diorite	DARK GREEN	ALIGNED PHENOCR YSTS	CRACKLE BX	Aphanitic dust tuff with a weak chloritic crackle breccia and trace Cpy.
640.0	400	1000	620.00	677.00	Rhyolite Mine Dyke	PALE GREEN	PORPHYR ITIC	BANDED	Rhyolite dyke.
	650	1000	677.00	699.00	Diorite (Unspecified)	GRAY AND MAROON	PORPHYR ITIC	MEDIUM GRAINED	Moderately potassic altered LH2 diorite with 0.1% Cpy as blebs/clusters up to 1/4' in dia. assoc. with potassic zones. Fault at upper contact.
690.0	750	1000	699.00	709.00	Diorite (Unspecified)	PALE GREEN	FINE GRAINED	PORPHYR ITIC	Albite/sericite (?) altered LH2 with clusters of Cpy (0.2% overall).
	600	1000	709.00	738.00	Diorite (Unspecified)	PALE AND MAROON	MEDIUM GRAINED	PORPHYR ITIC	Moderately potassic altered diorite with 1.5% Cpy in magnetite/calcite veins 1/8-4' thick, approx. 3/10 ft at 20-40 deg. TCA.



## STRUCTURE

## ALTERATION

## ASSAYS

STRUCTURE ID	ANGLE TO CORE STRUCTURE ID	% Calcite	% Biotite	% K-SPAR	% Chlorite	% EPIDOTE	ALT. FACIES	% MAGNETITE	PYRITE HABIT	% Pyrite	CHALCOPYRITE HABIT	% Chalcopyrite	FROM	TO	LENGTH Ft/10	ASSAY NUMBER	Copper %	GOLD g/t
KV 60		2.5		5.0					W	0.3	0.1		536.0	546.0	10		0.050	0.019
													546.0	552.0	06		0.070	0.038
													552.0	558.0	06		0.000	0.021
													558.0	568.0	10		0.060	0.024
													568.0	578.0	10		0.100	0.052
													578.0	588.0	10		0.070	0.032
													588.0	598.0	10		0.060	0.024
													598.0	605.0	07		0.220	0.125
													605.0	615.0	10		0.180	0.075
													615.0	620.0	05		0.310	0.095
													620.0	644.0	24			
													644.0	647.0	03		0.000	0.020
BN 55													647.0	677.0	30			
													677.0	687.0	10		0.070	0.027
													687.0	693.0	06		0.030	0.011
CV 30		2.5		10.0					M	1.0	0.1		693.0	699.0	06		0.020	0.010
													699.0	709.0	10		0.060	0.022
CV 50													709.0	719.0	10		0.040	0.008
MV 30				10.0					M	2.5	2.5	1.0						

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
720.0	600	1000	709.00	738.00	Diorite (Unspecified)	GRAY AND MAROON	MEDIUM GRAINED	PORPHYR ITIC	Moderately potassic altered diorite with 1.5% Cpy in magnetite/calcite veins 1/8-4" thick, approx. 3/10 ft at 20-40 deg. TCA.
			738.00	767.00	Diorite (Unspecified)	GRAY AND MAROON	MEDIUM GRAINED	PORPHYR ITIC	Moderately potassic altered diorite with <1% magnetite veins and <1% Cpy.
770.0	300	1000	767.00	780.00	Diorite (Unspecified)	PALE GREEN	FINE GRAINED	PORPHYR ITIC	Moderate albite/sericite (?) alteration with common calcite veins containing fluorite (?), trace Cpy.
			780.00	784.00	Diorite	PALE GREEN	FINE GRAINED	PORPHYR ITIC	Moderate potassically altered porph. diorite.
	450	1000	784.00	821.00	Lapilli Tuff	GREY GREEN	FINE GRAINED	FRAGMEN TAL	Lithic lapilli tuff with 20% beds of 'cherty' dust tuff; 0.5% Cpy in magnetite/calcite veins (1/4-1" thick, approx. 3/10 ft) or in their Kspar envelopes or as fine dissens. with fine epidote.
820.0			821.00	836.00	Lapilli Tuff	GREY GREEN	FINE GRAINED	FRAGMEN TAL	Lithic lapilli tuff with trace Cpy.

## STRUCTURE

## ALTERATION

## ASSAYS

[illegible]

Princeton Mining Corp.  
SIMILCO MINES LIMITED  
DRILL HOLE LOG  
PROJECT ID : ALABAMA

HOLE / TRAVERSE ID : DDH94\_A09  
CORE HOLE SIZE :  
DATE STARTED : 94/ 5/ 9  
DATE COMPLETED :  
GEOLOGGED BY : SJB  
PLOT DATE : 94/NOV/ 8  
PROJECT LEADER : PMH  
LOCATION :

COLLAR AZIMUTH : 0.00  
COLLAR DIP : -45.00  
COLLAR ELEVATION : 4035.12  
COLLAR NORTHING : 15827.47  
COLLAR EASTING : 9838.94  
COLLAR OFFSET :  
COLLAR STATION :  
TOTAL LENGTH : 434.0

NTS: 92H MINING DIV.: SIMILKAMEEN  
PURPOSE: TEST DEEP NORTHERN IP ANOMALIES

COMMENTS: HOLE FAILED TO REACH TARGET DEPTH DUE TO BADLY  
KEY INTERSECTIONS: BROKEN GROUND.

SURVEY DATA  
DEPTH DIP AZIMUTH  
0 -45.0 0.00

SUMMARY REMARKS

Hole was abandoned short of the target when casing unscrewed and fell down the hole.

LEGEND

ECON MINERAL  
D = DISSEMINATED MIN. MICROLEIN FRACTURE  
// = VEIN AND FILL  
DIV = DISS. VEIN FRACTURE FILL

STRUCTURE ID

CV = CRACK VEIN  
M = MARGINAL  
D = DISS. FRACTURE FILL

DRILL HOLE SUMMARY

FROM TO LITHOLOGY Cu% 0.0 2.0 4.0 6.0 8.0 10.0

0.00	22.00	Casing	
22.00	49.00	Rhyolite Mine Dyke	
49.00	74.00	Diorite (Unspecified)	
74.00	181.00	LH2 Diorite	
181.00	235.00	Andesite Flow	
243.00	298.00	Andesite Flow	
298.00	330.00	Andesite Flow	
330.00	451.00	Diorite (Unspecified)	

0.0 2.0 4.0 6.0 8.0 10.0

PAGE 2

RECOVERY PPT	ROD PPT	FEET	TO	FROM	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
		0.0			Casing					
			18.00	0.00						
										Limnetic oxidation.
		50.0			Conglomerate		TANNED -GREY	POLYMIC TIC		
			62.00	18.00						
					Greywacke/Ep ivolcaniclas tic		PALE GREY			Bedded, fine to coarse tertiary wacke.
			77.00	62.00						
		100.0			Conglomerate		DARK GREY	POLYMIC TIC		Polymict tertiary conglomerate with common rhyolite clasts.
			162.00	77.00						
		150.0			Isorite (Unspecified)					
			169.00	162.00						
					CRYSTALLINE LITHIC TUFF					
			186.00	169.00						

FEET	RECOVERY PPT	ROD PPT	FROM	TO	LITHOLOGY	MINDR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
10										
400	1000		176.00	197.00	Andesite Flow		GREY GREEN	FINE GRAINED		Fine andesite with 10% white calcite veins that locally contain Cpy. Overall, Cpy 0.1%.
550	1000		197.00	210.00	Basalt					Basalt dyke.
650	1000		210.00	216.00	Monzonite (Undifferent)		MEDIUM GREEN			Porphyritic monzonite with minor pyrite + no Cpy.
550	1000		216.00	230.00	Basalt					Basalt dyke.
230.0										
650	900		230.00	256.00	Andesite Flow		GREY GREEN	VEINED	MATRIX SUPPORTED	Fine andesite (could be ash tuff?) with weak potassic veining + trace disseminated chalcopyrite.
350	900		256.00	278.00	Diorite (Unspecified)		MAROON AND GRAY	MEDIUM GRAINED	EQUIGRA NULAR	Intense potassic alt'n in a med. grained, equigranular diorite. 0.2% Cpy as fine clusters + dissem. assoc. with magnetite veins.
280.0										
800	1000		278.00	287.00	Andesite Flow		GREY GREEN	FINE GRAINED	MATRIX SUPPORTED	Andesite with a subtle upper contact (appears gradational), Kspar veins (dykes?) (deins), approx. 3 per 10 ft at 20-60 deg. TCA. Trace chalcopyrite with the epidote/Kspar veins.
200	1000		287.00	297.00	Diorite (Unspecified)		GRAY AND MAROON	PORPHYR ITIC	MEDIUM GRAINED	Porphyritic, coarse to med. grained diorite with intense potassic alt'n + 0.1% chalcopyrite assoc. with magnetite veins 1/8-1" wide, approx. 3 per 10 ft. at 50 deg. TCA.
400	900		297.00	349.00	Andesite Flow		GREY GREEN	FINE GRAINED	MATRIX SUPPORTED	Fine andesite, locally med. grained (maybe LH1 dykes?) containing numerous Kspar + epidote veins (approx. 10/10 feet, 1/4-1/2" wide at 60 deg. TCA). One 2" Mag vein at 300 ft at 60 deg. TCA contains 2% Cpy. Overall, Cpy is <0.1%.
					Diorite (Unspecified)					Intensely broken and faulted LH2 diorite with weak potassic alt'n + 0.1% Cpy as fine dissem.

## STRUCTURE

## ALTERATION

## ASSAYS

[illegible]

## STRUCTURE

## ALTERATION

## ASSAYS

STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% CALCITE	% BIODITE	% K-SPAR	% CHLORITE	% EPIDOTE	ALT. FACIES	% MAGNETITE	PYRITE HABIT	% PYRITE	CHALCOPYRITE HABIT	% CHALCOPYRITE	FROM	TO	SAMPLE NUMBER	LENGTH Ft./10	Copper %	GOLD g/t
EV 30		KV 50				1.0		5.0	W			5.0	0.0	0.0	179.0	186.0		07	0.130	0.043
															186.0	196.0		10	0.060	0.033
															196.0	206.0		10	0.050	0.013
												2.5	0.0	0.0	206.0	216.0		10	0.080	0.037
															216.0	226.0		10	0.050	0.011
															226.0	230.0		04		0.013
															230.0	240.0		10	0.050	0.016
EV 50						1.0	1.0	1.0	W			2.5	0.0	0.0	240.0	250.0		10	0.040	0.021
															250.0	260.0		10	0.070	0.047
FT				1.0					W			2.5	0.1	0.1	260.0	272.0		12	0.170	0.016
FT																				
															272.0	373.0		101		
LC 30																				

180.0

230.0

280.0

330.0



FEET	RECOVERY PPT	ROD PPT	FROM	TO	LITHOLOGY	MINDR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
360.0										
50	1000		287.00	373.00	Basalt		VERY DARK GREEN			Tertiary basalt dyke.
200	1000		373.00	387.00	Lapilli Tuff		GREY GREEN	FRAGMENTAL	MEDIUM GRAINED	Lithic lapilli tuff with indistinct 1/2"-2" thick diorite lapilli in a med. grained Feldspar rich matrix. Trace Cpy. Rare magnetite veins 1/4" wide at 15 deg. TCA.
400	1000		387.00	412.00	Diorite (Unspecified)		GRAY AND MAROON	MEDIUM GRAINED	EQUIGRANULAR	Moderate potassic alt'n in a fine to medium grained, equigranular diorite with indistinct contacts. 0-2% very fine chalcopyrite as disseminations associated with magnetite.
410.0										
100	1000		412.00	434.00	Lapilli Tuff		GREY GREEN	FINE GRAINED	FRAGMENTAL	Lithic lapilli tuff, intensely broken, with occasional magnetite/carbonate veins (2/10 ft) at 65 deg. TCA containing coarse Cpy + pyrite (0.1% Cpy overall).

## STRUCTURE

## ALTERATION

## ASSAYS

CHALCOPYRITE		0.0	0.3	0.1
PYRITE HABIT		O O O C C O O O O O O O		V V V V V V V V
% PYRITE		1.0	2.5	2.5
PYRITE HABIT		O-O-V O-O-V O-O-V		O-V O-V O-V O-V O-V O-V
% MAGNETITE	0.1		M 2.5	1.0
ALT. FACIES				
% EPIDOTE	0.1			
% CHLORITE				
% K-SPAR	0.1		5.0	0.1
% Biotite				
% Calcite			2.5	2.5
ANGLE TO CORE				
STRUCTURE ID	30			65
ANGLE TO CORE				
STRUCTURE ID	LC			MV

SAMPLE NUMBER		LENGTH Ft/10	Copper %	GOLD g/t	
FROM	TO				
272.0	373.0	101			360.0
373.0	380.0	07	0.060	0.016	
380.0	387.0	07	0.060	0.036	
387.0	397.0	10	0.140	0.056	
397.0	407.0	10	0.120	0.093	
407.0	412.0	05	0.090	0.058	410.0
412.0	422.0	10	0.060	0.160	
422.0	434.0	12	0.090	0.105	

# Princeton Mining Corp. SIMILCO MINES LIMITED DRILL HOLE LOG PROJECT ID : ALABAMA

HOLE / TRAVERSE ID : DDH94\_A10  
CORE HOLE SIZE : HQNQ  
DATE STARTED : 94/ 4/24  
DATE COMPLETED : 94/ 5/ 2  
GEOLOGGED BY : SJB  
PLOT DATE : 94/NOV/ 8  
PROJECT LEADER : PMH  
LOCATION :

COLLAR AZIMUTH : 0.36  
COLLAR DIP : -42.68  
COLLAR ELEVATION : 4046.51  
COLLAR NORTHING : 15409.01  
COLLAR EASTING : 7629.48  
COLLAR OFFSET :  
COLLAR STATION :  
TOTAL LENGTH : 1179.0

NTS: 92H MINING DIV.: SIMILKAMEEN  
PURPOSE: TEST IP ANOMALIES IN ORONOCO AREA

COMMENTS: STRONG ALTERATION COMPARES FAVOURABLY WITH THE  
NORTH SIDE OF INGERBELLE BUT WEAK MINERALIZATION  
KEY INTERSECTIONS:

SURVEY DATA

DEPTH	DIP	AZIMUTH
0	-42.68	0.36

## SUMMARY REMARKS

## LEGEND

ECON. MINERAL:  
D = DISSEMINATED MV = MICROVEIN/FRACT.FILL  
= VEINS AND PATCHES  
D = DIS. = VEINS/FRACTURE FILL

FRACTURE ID:

Q = QUARTZ VEIN QV = QUARTZ VEIN  
M = MAGNETITE VEIN FL = FAULT  
C = CONTACT

## DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY	Cu%
			0.0 0.2 0.4 0.6 0.8 1.0
0.00	55.00	Casing	
63.00	114.00	Conglomerate	
156.00	201.00	Monzonite	
201.00	248.00	Diorite	
248.00	284.00	Diorite	
284.00	387.00	Diorite (Unspecified)	
398.00	470.00	Diorite (Unspecified)	
478.00	525.00	Diorite	
525.00	605.00	Syenite (Undifferentiated)	
605.00	674.00	Diorite (Unspecified)	
686.00	824.00	Diorite (Unspecified)	
828.00	908.00	Diorite (Unspecified)	
912.00	956.00	Diorite	
1038.0	1179.0	Diorite (Unspecified)	

0.0 0.2 0.4 0.6 0.8 1.0

[illegible]

## STRUCTURE

## ALTERATION

## ASSAYS

[illegible]

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
180.0	300	900	156.00	201.00	Monzonite (Undifferentiated)	DARK BROWN	MEDIUM GRAINED	EQUIGRANULAR	Brownish-maroon, fine grained monzonite, trace pyrite, moderately magnetic.
230.0	200	1000	201.00	248.00	Diorite (Unspecified)	GRAY AND MAROON	COARSE GRAINED	EQUIGRANULAR	Coarse LHI with weak patchy potassic alt'n and occasional epidote veins 1/4-1/2" thick in 2/10 ft at 55 deg. TCA.
280.0	250	650	248.00	284.00	Diorite (Unspecified)				Diorite (maybe LH2 or even andesite flow) with moderate sericite and clay alteration and local talc alt'n 39 deg. dissem. hematite. Strong fault zone.
330.0	650	1000	284.00	387.00	Diorite (Unspecified)	GRAY AND MAROON	COARSE GRAINED	EQUIGRANULAR	Coarse grained, slightly porphyritic diorite with common epidote + Kspar veins/envelopes approx. 7/10 ft, 1-4" thick at 0-80 deg. (commonly 50 deg.); trace Cpy is associated with minor pyrite within epidote veins.

## STRUCTURE

## ALTERATION

## ASSAYS

ANGLE TO CORE  
STRUCTURE ID  
ANGLE TO CORE  
STRUCTURE ID

% CALCITE

% Biotite

% K-SPAR

% CHLORITE

% EPIDOTE

## ALT. FACIES

% MAGNETITE

PYRITE HABIT

% PYRITE

CHALCOPYRITE HABIT

% CHALCOPYRITE

SAMPLE NUMBER

LENGTH Ft/10

Copper %

3/8 GOLD 9/4

- 180.0

[illegible]

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
360.0									
650	1000	284.00	387.00	Diorite (Unspecified)		GRAY AND MAROON	COARSE GRAINED	EQUIGRANULAR	Coarse grained, slightly porphyritic diorite with common epidote + Kspar veins/envelopes approx. 7/10 ft, 1-4' thick at 0-80 deg. (commonly 50 deg.); trace Cpy is associated with minor pyrite within epidote veins.
700	1000	387.00	398.00	Diorite (Unspecified)		MAROON AND GREEN	COARSE GRAINED	EQUIGRANULAR	Coarse grained, slightly porphyritic diorite with Kspar + epidote veins 1-4' thick in 15/10 ft, occasionally coalescing to form massive bands. 0.1% pyrite + trace Cpy in the epidote veins.
410.0									
800	1000	398.00	470.00	Diorite (Unspecified)		GRAY AND MAROON	COARSE GRAINED	EQUIGRANULAR	Coarse grained, slightly porphyritic diorite with Kspar + epidote veins/envelopes approx. 7/10 ft, 1-4' thick at 0-80 deg. (commonly 50 deg.); trace Cpy is associated with minor pyrite within epidote veins and as fine disseminations.
460.0									
500	1000	470.00	478.00	Diorite (Unspecified)		MAROON AND GREEN	COARSE GRAINED	EQUIGRANULAR	Coarse, almost porphyritic diorite with intense potassic and epidote alt'n in veins, envelopes and patches (Kspar veins 1-3' thick approx. 10/10 ft at 50
900	1000	478.00	525.00	Diorite (Unspecified)		LIGHT GREY	COARSE GRAINED	EQUIGRANULAR	Coarse, magnetic (fine disseminated magnetite) diorite with occasional (2/10 ft) Kspar + epidote veins 1-4' thick at approx. 40-50 deg. TCA. Cpy is trace as very fine disseminations.
510.0									
850	1000	525.00	605.00	Syenite (Undifferentiated)		MEDIUM RED	FINE GRAINED	EQUIGRANULAR	Red, fine equigranular syenite (?) with trace Cpy. Chilled margins + lack of alt'n indicate that it is post-(coarse, altered diorite above and below).



## STRUCTURE

## ALTERATION

## ASSAYS

GOLD g/t	Copper %	LENGTH ft/10	SAMPLE NUMBER	TO	FROM
0.087	0.010	10			354.0
0.042	0.040	10			364.0
0.001	0.010	07			374.0
0.003	0.020	06			381.0
0.004	0.010	11			387.0
0.018	0.040	10			398.0
0.002	0.010	10			408.0
0.017	0.050	10			418.0
0.012	0.020	10			428.0
0.037	0.030	10			438.0
0.010	0.010	10			448.0
0.012	0.050	12			458.0
0.008	0.020	08			470.0
0.032	0.010	10			478.0
0.004	0.010	10			488.0
0.006	0.010	10			498.0
0.048	0.050	10			508.0
0.003	0.010	07			518.0
0.010		10			525.0
		50			535.0

% PYRITE	PYRITE HABIT	% MAGNETITE	ALT. FACIES	% EPIDOTE	% CHLORITE	% K-SPAR	% Biotite	% CALCITE	ANGLE TO CORE	STRUCTURE ID
0.0	O=V	M		10.0		10.0			50	KV
0.0	O=V	I		20.0		20.0			40	KV
0.0	O=V	M		10.0		10.0			50	KV
0.0	O=V	I		20.0	2.5	20.0			50	KV
0.0	O=V	W		5.0		5.0			40	KV
0.0	O=V			0.1					LC	UC

FEET	RECOVERY PPT RCD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
540.0	850	1000	525.00	605.00	Syenite (Undifferentiated)	MEDIUM RED	FINE GRAINED	EQUIGRANULAR	Red, fine equigranular syenite (?) with trace Cpy. Chilled margins + lack of alt'n indicate that it is post- (coarse, altered diorite above and below).
590.0									
640.0	800	1000	605.00	674.00	Diorite (Unspecified)	GRAY AND MAROON	COARSE GRAINED	EQUIGRANULAR	Coarse, equigranular diorite that is moderately magnetic (especially where unaltered) and contains 1-2' Ksp/epidote veins, approx. 4/10 ft at 50 deg. TCA, and trace, finely disseminated Cpy.
	700	1000	674.00	686.00	Diorite (Unspecified)	MEDIUM MAROON	COARSE GRAINED	POPHYRIC ITIC	Coarse porphyritic, pink diorite with pervasive, intense potassic alt'n. Epidote occurs as rare stringers 1/4" thick and cores altered plagiophen. Trace Cpy.
690.0									
	600	1000	686.00	824.00	Diorite (Unspecified)		COARSE GRAINED	POPHYRIC ITIC	Coarse, equigranular diorite with Ksp/epidote veins and envelopes 1/4"-1" thick, approx. 5/10 ft at 50 deg. TCA. Trace Cpy. No plagiophen.



## STRUCTURE

## ALTERATION

## ASSAYS

ANGLE TO CORE  
STRUCTURE ID  
ANGLE TO CORE  
STRUCTURE ID

% Calcite

% Biotite

% K-SPAR

% Chlorite

% EPIDOTE

ALT. FACIES

% MAGNETITE

PYRITE HABIT

% Pyrite

CHALCOPYRITE HABIT

% Chalcopyrite

FROM

TO

SAMPLE NUMBER

LENGTH Ft/10

Copper %

GOLD g/t

EV	60		
UC	60	LC	70
EV	60		
EV	60	FD	20
UC	5		
EV	60	FD	20
EV	50	MV	60
EV	45	LC	75
CV	50	KV	50
KV	70		

5.0	2.5	2.5
2.5		
2.5		10.0
2.5		10.0
2.5		10.0
5.0	2.5	5.0
5.0		2.5
10.0	2.5	5.0
10.0	5.0	2.5
5.0	2.5	5.0

M	0.1
W	
W	
W	
M	1.0
M	
M	
M	2.5
M	

898.0	908.0	10
908.0	912.0	04
912.0	922.0	10
922.0	932.0	10
932.0	942.0	10
942.0	949.0	07
949.0	956.0	07
956.0	959.0	03
959.0	963.0	04
963.0	970.0	07
970.0	976.0	06
976.0	986.0	10
986.0	996.0	10
996.0	1001.	05
1001.	1006.	05
1006.	1013.	07
1013.	1020.	07
1020.	1029.	09
1029.	1038.	09
1038.	1049.	11
1049.	1059.	10
1059.	1069.	10
1069.	1079.	10

0.020	0.004
0.020	0.001
0.020	0.006
0.070	0.012
0.010	0.002
0.010	0.007
0.010	0.022
0.010	0.005
0.010	0.005
0.010	0.015
0.020	0.001
0.010	0.003
	0.008
	0.015
	0.001
0.030	0.040
0.030	0.008
0.040	0.007
0.050	0.047
0.010	0.006
0.010	0.006

900.0

950.0

1000.0

1050.0

REMARKS	TEXTURE 2	TEXTURE 1	COLOR	MINOR LITH.	LITHOLOGY	TO	FROM	RECOVERY PPT	RDD PPT	FEET
										1080.0
Moderate fault.				Diorite						
Large, intense fault zone.				Diorite (Unspecified)						
	EQUIGRANULAR	COARSE GRAINED	GRAY AND MAROON		Diorite (Unspecified)	1179.0	1038.0	1000	500	1130.0

## ALTERATION

## ASSAYS

% Chloropyrite	
0.1	
OPYRITE HABIT	
% Pyrite	0.1
OPYRITE HABIT	
% MAGNETITE	
ALT. FACIES	Σ
% EPIDOTE	5.0
% Chlorite	2.5
% K-SPAR	5.0
% Biotite	
% Calcite	
ANGLE TO CORE	
STRUCTURE ID	
ANGLE TO CORE	
STRUCTURE ID	

FROM	TO	LE NUMBER	GTH Ft/10	Copper %	GOLD g/t
1079.	1089.		10	0.100	0.022
1089.	1099.		10	0.020	0.023
1099.	1109.		10	0.030	0.041
1109.	1119.		10	0.070	0.015
1119.	1129.		10	0.010	0.002
1129.	1139.		10	0.020	0.003
1139.	1149.		10	0.030	0.014
1149.	1159.		10	0.030	0.019
1159.	1169.		10	0.030	0.009
1169.	1179.		10	0.040	0.016

1080.0

- 1130.0

# Princeton Mining Corp. SIMILCO MINES LIMITED DRILL HOLE LOG PROJECT ID : ALABAMA

HOLE / TRAVERSE ID : DDH94\_A11  
CORE HOLE SIZE : HQNQ  
DATE STARTED : 94/ 4/26  
DATE COMPLETED :  
GEOLOGGED BY : PMH  
PLOT DATE : 94/NOV/ 8  
PROJECT LEADER : PMH  
LOCATION :

COLLAR AZIMUTH : 359.19  
COLLAR DIP : -46.38  
COLLAR ELEVATION : 4071.68  
COLLAR NORTHING : 14988.47  
COLLAR EASTING : 9694.76  
COLLAR OFFSET :  
COLLAR STATION :  
TOTAL LENGTH : 1169.0

NTS: 92H MINING DIV.: SIMILKAMEEN

PURPOSE: TEST SW END OF MINERALIZED ZONE (DEEP)

COMMENTS: MODERATE TO STRONG MINERALIZATION OVER MOST OF

KEY INTERSECTIONS: <sup>THE HOLE.</sup> FROM 60 TO 981; 921 FT. OF 0.28% CU, 0.16 G/T AU  
FROM 530 TO 747; 217 FT. OF 0.46% CU, 0.28 G/T AU

SURVEY DATA

DEPTH	DIP	AZIMUTH
0	-46.38	359.19

## SUMMARY REMARKS

Hole was targeted to test western edge of previously drilled area. Fairly continuous mineralization from 60 to 647 ft. After 647 ft only patches of good grade mineralization (fault zones could conceal some grade). Best mineralization appears to be in the volcanics; LLTF and ANDS with the LLTF looking like the classic EU found in Pit2 and Ingerbelle. The LH2D - barley porphyry is also commonly well mineralized. There appears to be an association between Cp and Ep veins. Dominant vein orientations are relatively consistent but do vary with depth down the hole. Vein angles are typically less than fault and fracture angles. Veins are commonly perpendicular suggesting both NE and NW trends (although the 45 deg. trends could E-W).

## LEGEND

ECON. MINERAL:

D = DISSEMINATED MV = MICROVEIN/FRACT.FILL

// = VEINS AND PATCHES

DKV= DISS. < VEINS/FRACTURE FILL

STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN

MV = MAGNETITE VEIN FL = FAULT

IC = INTRUSIVE CONTACT

## DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY	Cu%
			00 20 40 60 80 100
10.00	82.00	LH2 Diorite	
122.00	153.00	Fault Zone	
153.00	238.00	Lapilli Tuff	
238.00	297.00	Feldspar Porphyry (Unspec.)	
297.00	383.00	Lapilli Tuff	
399.00	442.00	Andesite Flow	
467.00	510.00	Lapilli Tuff	
549.00	580.00	LH2 Diorite	
580.00	657.00	Andesite Flow	
657.00	684.00		
752.00	866.00	LH1 Diorite	
866.00	900.00	LH2 Diorite	
900.00	981.00	Andesite Flow	
1033.0	1059.0	Andesite Flow	
1087.0	1169.0	Fault Zone	

00 20 40 60 80 100

PAGE 2

RECOVERY PPT		FEET											
ROD PPT		FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS				
		0.00	10.00	Casing									
200	900	10.00	82.00	LH2 Diorite	Fault Zone	MEDIUM GREY	PORPHYRITIC	SERIATE	Rubble, tectonic breccia and bleached rock.				
50	1000	82.00	102.00	LH2 Megacrystic Porphyry		PALE RED	MASSIVE	ALIGNED PHENOCRYSTS	Degree of variability in Fx size and abundance. Mafic phenos (PyX?) to Chl + Ep. Cp grains replace mag. and commonly have He or Mag rim (or does Mag coat Cp?). Rock is shattered with rusty fractures.				
150	1000	102.00	122.00	Andesite Flow		VERY DARK GREY	FINE GRAINED	VEINED	Dark grey to black rock composed of Fx, Cl after Mx and Mag. Could be int. but I called it Volc based on its similarity to the matrix of fragmental unit lower down. Does not appear to be well mineralized but this could be deceptive due to fine grnd Cp + assoc. of Cp with Mag.				
00	960	122.00	153.00	Fault Zone		PALE GREEN			Rusty to pale green to tan gouge. Looks more like highly altered volc. than dyke. Should be assayed.				
300	1000	153.00	238.00	Lapilli Tuff		VERY DARK GREY	FRAGMENTAL	VEINED	The enigmatic unit. Coarse fragmental?? Frags are irregular in shape, block Fs porphyry. Set in a grey fs porphyry. Frags do have the appearance of being alt'n. Very fine dissem. Py + Cp to 5% in darker areas. Abundant diss. Ep + Cl (after mafics?) and vein and fracture fill Ep. Narrow Mag + Ep vein starts interval. Upper part of interval quite broken. Salmon + Sx vein 194-196ft.				





[illegible]

## STRUCTURE

## ALTERATION

## ASSAYS

% CHALCOPYRITE  
 CHALCOPYRITE HABIT  
 % PYRITE  
 PYRITE HABIT  
 % MAGNETITE  
 ALT. FACIES  
 % EPIDOTE  
 % CHLORITE  
 % K-SPAR  
 % BIODITE  
 % CALCITE  
 ANGLE TO CORE  
 STRUCTURE ID  
 ANGLE TO CORE  
 STRUCTURE ID

LENGTH Ft/10  
 SAMPLE NUMBER  
 FROM TO  
 GOLD g/t  
 Copper %

MV	85	KV	35	1.0		2.5	5.0	1.0		10.0	2.5	2.5
EV	80	IC	30	1.0			5.0	10.0		5.0	1.0	1.0
EV	75	KV	25	1.0		10.0		10.0		10.0	1.0	1.0

173.0	183.0	10	0.230	0.060	180.0
183.0	192.0	09	0.230	0.044	
192.0	197.0	05	0.710	0.280	
197.0	207.0	10	0.170	0.065	
207.0	217.0	10	0.130	0.045	
217.0	227.0	10	0.220	0.044	
227.0	238.0	11	0.190	0.055	230.0
238.0	248.0	10	0.160	0.050	
248.0	258.0	10	0.300	0.086	
258.0	268.0	10	0.170	0.074	
268.0	278.0	10	0.640	0.180	
278.0	288.0	10	0.330	0.117	280.0
288.0	295.0	07	0.330	0.117	
295.0	300.0	05	0.990	0.360	
300.0	310.0	10	0.070	0.036	
310.0	320.0	10	0.130	0.041	
320.0	330.0	10	0.220	0.095	330.0
330.0	340.0	10	0.140	0.081	
340.0	350.0	10	0.150	0.063	
350.0	360.0	10	0.240	0.130	

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
360.0									
500	1000	297.00	383.00	Lapilli Tuff		VERY DARK GREY	FRAGMENTAL	PORPHYRITIC	I think this was originally a Volc but top 40 ft of interval resembles an intrusive Bx(?), mostly composed of fine grained, black matrix-Feldspar porphyry. Approx. 2 ft of intensely mineralized (Cp approx. 15%) rock at upper contact. 1ft of FLT gouge at 328ft. Narrow zone 2 ft of weakly mineralized MBx at 344 ft.
150	1000	383.00	399.00	Feldspar Porphyry (Unspec.)	Fault Zone	PALE RED	PORPHYRITIC	VEINED	Healed, brecciated, re-activated FLTZ intruded by LH2D. Locally sulphide to 10%.
410.0									
200	1000	399.00	442.00	Andesite Flow		GREY GREEN	WEAKLY PORPHYRITIC	VEINED	Typical (?) augite porphyry Nicola volcanic. Less magnetite than normal. Strongly hematized and weakly magnetite, chlorite + sulphide veinlets have narrow KF (SF) envelopes and are cored by later calcite.
250	1000	442.00	467.00	LH2 Megacrystic Porphyry		PALE RED	MASSIVE	ALIGNED PHENOCRYSTS	Classic LH2F. Pink with med. grained pink phenos and aligned megacrystic white phenos. Sparse med. grained diss. Cp. Drusy calcite infills, fractures.
460.0									
500	1000	467.00	510.00	Lapilli Tuff	LH2 Diorite	GREY GREEN	FRAGMENTAL		Not particularly well mineralized for this unit. Strong Ep veining. Grey-green LH2D dykes to 3 ft thickness.
510.0									
800	1000	510.00	531.00	LH2 Diorite		PALE GREY	PORPHYRITIC	XENOLITHS	Crowded Fx porphyry. Light grey but patchy pink matrix. Mafic minerals gone to Cl + Ep xenoliths of LH1.
800	1000	531.00	549.00	Lapilli Tuff		VERY DARK GREY	FRAGMENTAL	BRECCIATED	Fairly typical EU. Fairly well mineralized. Bottom part of interval is a crackle Bx with pink LH2D forming the matrix. 4' of fault gouge with a 2' Mag-Hen-Sx vein on lower margin at 541

## STRUCTURE

## ALTERATION

## ASSAYS

GOLD g/t		Copper %	LENGTH Ft/10	SAMPLE NUMBER	TO	FROM	CHALCOPYRITE	OPYRITE HABIT	% PYRITE	PYRITE HABIT	% MAGNETITE	ALT. FACIES	% EPIDOTE	% CHLORITE	% K-SPAR	% BIDIOTITE	% CALCITE	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID
0.121	0.320		10		370.0	360.0	1.0	1.0	1.0	10.0			10.0		10.0		1.0	25	EV		25
0.220	0.520		06		376.0	370.0	5.0	2.5	1.0	10.0				2.5	20.0		10.0	75	CV		75
0.069	0.160		07		383.0	376.0	1.0	1.0	1.0	2.5				10.0				45	KV		45
0.240	0.480		08		391.0	383.0	1.0	1.0	1.0	2.5				10.0				75	CV		75
0.460	1.130		08		399.0	391.0	1.0	1.0	1.0	2.5				10.0				45	KV		45
0.062	0.190		10		409.0	399.0	1.0	1.0	1.0	2.5				10.0				45	KV		45
0.020	0.080		10		419.0	409.0	1.0	1.0	1.0	2.5				10.0				45	KV		45
0.120	0.150		11		430.0	419.0	0.3	0.3	0.3	5.0			1.0	10.0	20.0		1.0	45	SH		45
0.048	0.160		12		442.0	430.0	0.3	0.3	0.3	5.0			1.0	10.0	20.0		1.0	45	SH		45
0.037	0.070		10		452.0	442.0	0.3	0.3	0.3	5.0			1.0	10.0	20.0		1.0	45	SH		45
0.032	0.070		10		462.0	452.0	0.3	0.3	0.3	5.0			1.0	10.0	20.0		1.0	45	SH		45
0.130	0.150		07		469.0	462.0	0.3	0.3	0.3	5.0			1.0	10.0	20.0		1.0	45	SH		45
0.059	0.200		10		479.0	469.0	0.3	0.3	0.3	5.0			1.0	10.0	20.0		1.0	45	SH		45
0.079	0.170		05		484.0	479.0	0.3	0.3	0.3	5.0			1.0	10.0	20.0		1.0	45	SH		45
0.055	0.130		15		499.0	484.0	0.1	0.1	0.1	5.0			1.0	10.0	20.0		1.0	45	SH		45
0.065	0.210		11		510.0	499.0	0.1	0.1	0.1	5.0			1.0	10.0	20.0		1.0	45	SH		45
0.033	0.100		10		520.0	510.0	0.1	0.1	0.1	5.0			1.0	10.0	20.0		1.0	45	SH		45
0.038	0.120		10		530.0	520.0	0.1	0.1	0.1	5.0			1.0	10.0	20.0		1.0	45	SH		45
0.128	0.300		10		540.0	530.0	2.5	2.5	2.5	5.0			5.0	10.0	10.0		2.5	45	EV		45

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
540.0	800 1000	531.00	549.00	Lapilli Tuff		VERY DARK GREY	FRAGMEN TAL	BRECCIA TED	Fairly typical EU. Fairly well mineralized. Bottom part of interval is a crackle Bx with pink LH2D forming the matrix. 4' of fault gouge with a 2' Mag-Hen-Sx vein on lower margin at 541
700	1000	549.00	580.00	LH2 Diorite	Fault Zone Mine Dyke Fault Zone	MIXED GREY AND	CROWDED PORPHYR Y	XENOLIT HS	Variable from bleached gray to strongly 'pinked'. Approx. 5% xenoliths of Volc. rock. 10 ft thick mine dyke in lower part of interval. On each margin of dyke rock is shattered, faulted and locally intensely mineralized over 2-3 ft. Xenolith abundance in lower 4 ft is so great as to form a breccia.
590.0	650 1000	580.00	657.00	Andesite Flow		VERY DARK GREY	FINE GRAINED		Interval is cut by numerous faults (602, 611, 619, 629, 638, 645, 654 ft) and dykes to dykelets of LH2 (600-606 ft). 3 ft of 10% Cp 596-599 ft. Otherwise pretty typical E.U. Locally albitic fractures become dense enough to cause a pseudo Bx texture and to classify the albitization as pervasive. Cp is more visible after splitting.
640.0	400 1000	657.00	684.00		Andesite Flow	PALE RED	MEDIUM GRAINED	EQUIGRA NULAR	Texturally quite variable. Pink-red Felspathic matrix (hard to see individual Fx) with 20% mafic phenos (Hbl?) that are a mix of Cl and Ep. Also some 'pure' Ep phenos. Locally abundant 'fresh' biotite. Bi-rich areas have more Sx which occur as coarse blebs. Resembles epidote bearing intrusive in Ingerbelle pit. Approx. 4% apatite.
690.0	300 980	684.00	707.00	Diorite (Unspecified)	Lapilli Tuff	DARK GREY	PORPHYR ITIC	ALIGNED PHENOCR YSTS	Dark grey Fs porphyry. Two types of Fx: white, subround, med. grained and pink, fine grnd, euhedral and aligned. Cut by 1cm Py - pink (SF) feldspar veins. Locally well mineralized.
	00 900	707.00	727.00	Fault Zone					Mostly gouge that goes to a powder when dry. Derived from LH2. The 2 SH directions are perpendicular.

## STRUCTURE

## ALTERATION

## ASSAYS

GOLD g/t		Copper %	LENGTH Ft/10	SAMPLE NUMBER	TO	FROM
0.150	0.310	09	540.0	549.0	540.0	549.0
0.260	0.540	11	549.0	560.0	549.0	560.0
0.910	1.370	05	560.0	565.0	560.0	565.0
		10	565.0	575.0	565.0	575.0
1.650	1.610	05	575.0	580.0	575.0	580.0
0.260	0.740	05	580.0	585.0	580.0	585.0
0.290	0.620	10	585.0	595.0	585.0	595.0
0.960	1.880	05	595.0	600.0	595.0	600.0
0.320	0.390	08	600.0	608.0	600.0	608.0
0.440	0.750	10	608.0	618.0	608.0	618.0
0.380	0.600	10	618.0	628.0	618.0	628.0
0.250	0.370	10	628.0	638.0	628.0	638.0
0.270	0.420	10	638.0	648.0	638.0	648.0
0.210	0.260	09	648.0	657.0	648.0	657.0
0.065	0.220	10	657.0	667.0	657.0	667.0
0.040	0.110	08	667.0	675.0	667.0	675.0
0.150	0.350	08	675.0	683.0	675.0	683.0
0.126	0.310	05	683.0	688.0	683.0	688.0
0.076	0.210	09	688.0	697.0	688.0	697.0
0.072	0.260	10	697.0	707.0	697.0	707.0
0.690	0.540	10	707.0	717.0	707.0	717.0
0.160	0.220	10	717.0	727.0	717.0	727.0



[illegible]



## STRUCTURE

## ALTERATION

## ASSAYS

ANGLE TO CORE  
STRUCTURE ID  
ANGLE TO CORE  
STRUCTURE ID

% K-SPAR

PYRITE HABIT  
% MAGNETITE  
ALT. FACIES

Sample	% Chalcopyrite	Chalcopyrite Habit
1	100	100
2	100	100
3	100	100
4	100	100
5	100	100
6	100	100
7	100	100
8	100	100
9	100	100
10	100	100
11	100	100
12	100	100
13	100	100
14	100	100
15	100	100
16	100	100
17	100	100
18	100	100
19	100	100
20	100	100
21	100	100
22	100	100
23	100	100
24	100	100
25	100	100
26	100	100
27	100	100
28	100	100
29	100	100
30	100	100
31	100	100
32	100	100
33	100	100
34	100	100
35	100	100
36	100	100
37	100	100
38	100	100
39	100	100
40	100	100
41	100	100
42	100	100
43	100	100
44	100	100
45	100	100
46	100	100
47	100	100
48	100	100
49	100	100
50	100	100
51	100	100
52	100	100
53	100	100
54	100	100
55	100	100
56	100	100
57	100	100
58	100	100
59	100	100
60	100	100
61	100	100
62	100	100
63	100	100
64	100	100
65	100	100
66	100	100
67	100	100
68	100	100
69	100	100
70	100	100
71	100	100
72	100	100
73	100	100
74	100	100
75	100	100
76	100	100
77	100	100
78	100	100
79	100	100
80	100	100
81	100	100
82	100	100
83	100	100
84	100	100
85	100	100
86	100	100
87	100	100
88	100	100
89	100	100
90	100	100
91	100	100
92	100	100
93	100	100
94	100	100
95	100	100
96	100	100
97	100	100
98	100	100
99	100	100
100	100	100

BER  
TO

LENGTH Ft/10

Copper %

4/6 GOLD 9/4

- 900.0

EV	50	CV	70	2.5	1.0	2.5	5.0	2.5	1.0	912.0	923.0	11	0.200	0.080	900.0
										923.0	930.0	07	0.310	0.130	
										930.0	940.0	10	0.150	0.048	
										940.0	947.0	07	0.080	0.021	
										947.0	957.0	10	0.060	0.033	950.0
										957.0	963.0	06	0.230	0.109	
										963.0	971.0	08	0.410	0.160	
										971.0	981.0	10	0.310	0.105	
CV	45			1.0	1.0	10.0	5.0	2.5	0.1	981.0	992.0	11	0.110	0.036	
										992.0	1001.	09			1000.0
					10.0	30.0		2.5		1001.	1017.	16	0.110	0.049	
ZV	45	ZV	5	2.5	20.0	2.5	5.0	2.5	0.3	1017.	1023.	06		0.038	
										1023.	1033.	10		0.029	
										1033.	1039.	06	0.290	0.156	
										1039.	1049.	10	0.160	0.072	
										1049.	1059.	10	0.050	0.013	1050.0
										1059.	1066.	07			
										1066.	1077.	11	0.050	0.019	
										1077.	1087.	10	0.030	0.016	

FEET	RECOVERY PPT	ROD PPT	FROM	TO	LITHOLOGY	MINDR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
1080.0	600	1000	1066.0	1087.0	LH2 Diorite		MIXED GREY AND	CROWDED PORPHYR Y	WEAKLY PORPHYR ITIC	Very crowded, fine grained Fs porphyry. Patchy to vein to pervasive pinkish giving unit a mottled appearance. Last
1130.0	50	900	1087.0	1169.0	Fault Zone					Rubbly gouge from 1087-1122 ft, could be derived from anything; greenish to 1101 ft and then highly K-spar(?) altered to 1122 ft. From 1122 to 1143 ft rock is altered, pale green to tan and locally forms a silicified fault Bx. From 1143 to 1160 ft rock is altered, shattered locally with 10% Py. From 1160 to 1169 ft core is gouge + mud. Hole stopped because beyond target depth.
						Andesite Flow				

## STRUCTURE

## ALTERATION

## ASSAYS

STRUCTURE ID	ANGLE TO CORE	% Calcite	% Biotite	% K-SPAR	% Chlorite	% EPIDOTE	ALT. FACIES	% MAGNETITE	PYRITE HABIT	% Pyrite	CHALCOPYRITE HABIT	% Chalcopyrite
KV 35		1.0		20.0	10.0	2.5				2.5		0.1
QV 45												

FROM	TO	SAMPLE NUMBER	LENGTH Ft/10	Copper %	GOLD g/t
1077.	1087.		10	0.030	0.016
1087.	1097.		10	0.050	0.008
1097.	1107.		10	0.160	0.008
1107.	1120.		13	0.230	0.015
1120.	1130.		10	0.050	0.026
1130.	1140.		10	0.010	0.005
1140.	1150.		10	0.060	0.044
1150.	1160.		10	0.200	1.260
1160.	1169.		09	0.070	0.109

1080.0

1130.0

Princeton Mining Corp.  
SIMILCO MINES LIMITED  
DRILL HOLE LOG  
PROJECT ID : ALABAMA

HOLE / TRAVERSE ID : DDH94\_A12  
CORE HOLE SIZE : HQ  
DATE STARTED : 94/ 5/ 3  
DATE COMPLETED : 94/ 5/ 7  
GEOLOGGED BY : SJB  
PLOT DATE : 94/NOV/ 8  
PROJECT LEADER : PMH  
LOCATION :

COLLAR AZIMUTH : 359.82  
COLLAR DIP : -44.14  
COLLAR ELEVATION : 4054.51  
COLLAR NORTHING : 14996.19  
COLLAR EASTING : 9245.48  
COLLAR OFFSET :  
COLLAR STATION :  
TOTAL LENGTH : 537.0

NTS: 92H MINING DIV.: SIMILKAMEEN  
PURPOSE: TEST AREA 400 FT. WEST OF DH94-A11

COMMENTS: SAME LITHOLOGIES AS A11 BUT WEAK MINERALIZATION

KEY INTERSECTIONS: IT APPEARS THAT MINERALIZATION TRENDS NW.  
FROM 397 TO 412; 15 FT. OF 0.43% CU, 0.23 G/T AU

SURVEY DATA  
DEPTH DIP AZIMUTH  
0 -44.14 359.82

SUMMARY REMARKS

LEGEND  
ECON. MINERAL:  
D = DISSEMINATED MV = MICROVEIN/FRACT.FILL  
// = VEINS AND PATCHES  
D.V. = DISS. VEIN/FRACTURE FILL

STRUCTURE ID

CU = CALCITE VED. (V. D. 100%)  
MV = MAGNETITE VED. (V. D. 100%)  
IC = IRON ORE (V. D. 100%)

DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY	Cu%
			0.0 0.2 0.4 0.6 0.8 1.0
0.00	46.00	Casing	
46.00	112.00	Basalt	
112.00	157.00	Rhyolite Mine Dyke	
179.00	192.00	Andesite Flow	
192.00	213.00	Diorite	
213.00	232.00	Andesite Flow	
241.00	263.00	Diorite	
263.00	307.00	Diorite (Unspecified)	
307.00	331.00	Diorite (Unspecified)	

FEET	RECOVERY PPT	ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
0.0			0.00	46.00	Casing					
50.0										
	300	900	46.00	112.00	Basalt		DARK GREY	FINE GRAINED		Late basalt dyke. Intense fault at 60-85 degrees.
100.0										
	400	1000	112.00	157.00	Rhyolite Mine Dyke		LIGHT TAN	MEDIUM GRAINED	PORPHYRITIC	Rhyolite mine dyke with Fs and Hb phenocrysts. Contacts are not visible.
150.0										
					Andesite	Diorite (Unspecified)	GREY GREEN	FINE GRAINED		Andesite with about 20% of interval made up of lost horse dykes from .5 to 3' thick at a wide range of orientations. Magnetite veins up to 1" thick. Cp occurs as fine disseminations and as clusters within the mag. veins.
							LIGHT MAROON	MEDIUM GRAINED	PORPHYRITIC	Red-pink slightly porphyritic diorite which is intensely K-spar altered. 0.2% Cp as fine grained disseminations and as clusters within veins. Mineralization increases towards bottom of interval.

REMARKS	TEXTURE 2	TEXTURE 1	COLOR	MINOR LITH.	LITHOLOGY	TO	FROM	RECOVERY PPT	ROD PPT	FEET
					Casing	46.00	0.00			0
Late basalt dyke. Intense fault at 60-85 degrees.		FINE GRAINED	DARK GREY		Basalt	112.00	46.00	900	300	50.0
Rhyolite mine dyke with Fs and Hb phenocrysts. Contacts are not visible.	PORPHYRITIC	MEDIUM GRAINED	LIGHT TAN		Rhyolite Mine Dyke	157.00	112.00	1000	400	100.0
Andesite with about 20% of interval made up of lost horse dykes from 5 to 3' thick at a wide range of orientations. Magnetite veins up to 1' thick. Cp occurs as fine disseminations and as clusters within the mag. veins.		FINE GRAINED	GREY GREEN		Andesite	168.00	157.00	1200	650	30.0
Red-pink slightly porphyritic diorite which is intensely K-spar altered. 0.2% to as fine grained disseminations and as clusters within veins. Mineralization increases towards bottom of interval.		FINE GRAINED	WHITE		Diorite	175.00	168.00	1200	250	

## PROJECT ID : ALABAMA

COLLAR AZIMUTH	:359.82
COLLAR DIP	:-44.14
COLLAR ELEVATION	:4054.51
COLLAR NORTHING	:14996.19
COLLAR EASTING	:9245.48
COLLAR OFFSET	:
COLLAR STATION	:
TOTAL LENGTH	:537.0

COMMENTS: SAME LITHOLOGIES AS A11 BUT WEAK MINERALIZATION  
IT APPEARS THAT MINERALIZATION TRENDS NW.  
KEY INTERSECTIONS: FROM 397 TO 412; 15 FT. OF 0.43% CU, 0.23 G/T AU

DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY	Cu%
			0.0
			0.03
			0.04
			0.6
			0.8
			1.0

0.00	46.00	Casing	
46.00	112.00	Basalt	
112.00	157.00	Rhyolite Mine Dyke	
179.00	192.00	Andesite Flow	
192.00	213.00	Diorite	
213.00	232.00	Andesite Flow	
241.00	263.00	Diorite	
263.00	307.00	Diorite (Unspecified)	
307.00	331.00	Diorite (Unspecified)	

ECON. MINERAL:  
D = DISSEMINATED MV = MICROVEIN/FRACT FILL  
// = VEINS AND PATCHES  
D&V = DISS. & VEINS/FRACTURE FILL

STRUCTURE ID:  
 CV = CALCITE VEIN (W) (100% CaCO<sub>3</sub>)  
 MV = MAGNETITE VEIN (W) (100% Fe<sub>3</sub>O<sub>4</sub>)  
 IC = INTRUSIVE GRANITE

RECOVERY PPT		FROM		TO		LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
ROD PPT	FEET										
	30.0	750	1000	179.00	192.00	Andesite Flow		GREY GREEN	FINE GRAINED		Fine-grained andesite (possibly a crystal tuff) with epidote and K-Spar veins. 0.5% Cp disseminated and in veins.
		300	1000	192.00	213.00	Diorite (Unspecified)		MAROON AND GRAY	MEDIUM GRAINED	PORPHYRITIC	Reddish LH2 with K-Spar and epidote veins. 0.1% very fine-grained disseminated Cp.
		500	1000	213.00	232.00	Andesite Flow		GREY GREEN	FINE GRAINED	PORPHYRITIC	Speckled augite phyric andesite with 15% reddish Lost Horse intrusive as dykes up to 3 feet thick. 0.2% Cp.
	230.0	00	500	232.00	241.00	Basalt		PALE GREEN	CONVERTED TO FAULT		Clay-rich, (Fault gouge) basalt dyke.
		00	500	241.00	263.00	Diorite (Unspecified)		MEDIUM RED	MEDIUM GRAINED	PORPHYRITIC	Strongly shattered and intensely altered LH2 with local magnetite veins and hematite-calcite lenses. 0.1% Cp.
	280.0	700	1000	263.00	307.00	Diorite (Unspecified)		MEDIUM RED	MEDIUM GRAINED	PORPHYRITIC	Weakly potassically altered, porphyritic diorite with a trace of Cp.
		400	700	307.00	331.00	Diorite (Unspecified)		LIGHT GREEN	MEDIUM GRAINED	PORPHYRITIC	Broken and moderately sericitically altered porphyritic diorite. Runs along a fault zone (??).
	330.0		1000	331.00	340.00	Diorite (Unspecified)		GREEN AND MAROON	MEDIUM GRAINED	PORPHYRITIC	Porphyritic diorite which grades from strong to weak sericite-potassic alteration down the interval.



## ASSAYS

0.0

15



## STRUCTURE

## ALTERATION

## ASSAYS

GOLD g/t		Copper %	LENGTH Ft/10	SAMPLE NUMBER	TO	FROM	CHALCOPYRITE HABIT	% PYRITE	PYRITE HABIT	% MAGNETITE	ALT. FACIES	% EPIDOTE	% CHLORITE	% K-SPAR	% BIODITE	% CALCITE	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID
0.044	0.100	07			186.0	179.0	O=V O=V O=V	0.3	O=V O=V O=V	1.0	W	1.0		2.5			40	KV		EV
0.027	0.060	06			192.0	186.0	O O O O O	0.1	O O O O O	0.1	W	1.0		10.0			50	EV		KV
0.028	0.070	10			202.0	192.0	O=V O=V O=V O=V O=V	0.3	O=V O=V O=V O=V O=V	2.5	M	0.1		5.0			45	EV		KV
0.008	0.030	11			213.0	202.0	O=V O=V O=V O=V O=V	0.1	O=V O=V O=V O=V O=V	2.5	I	1.0		20.0						MV
0.025	0.050	10			223.0	213.0	O=V O=V O=V O=V O=V	0.0	O=V O=V O=V O=V O=V	2.5	W			2.5						MV
0.026	0.060	09			232.0	223.0	O O O O O	0.0	O O O O O	0.0				1.0						FT
0.014	0.050	11			241.0	232.0	O=V O=V O=V O=V O=V	0.0	O=V O=V O=V O=V O=V	0.0				2.5						FT
0.011	0.060	11			252.0	241.0	O=V O=V O=V O=V O=V	0.0	O=V O=V O=V O=V O=V	0.0				5.0						KV
0.023	0.050	10			263.0	252.0	O O O O O	0.0	O O O O O	0.0				1.0						
0.030	0.050	10			273.0	263.0	O=V O=V O=V O=V O=V	0.0	O=V O=V O=V O=V O=V	0.0				2.5						
0.037	0.080	10			283.0	273.0	O O O O O	0.0	O O O O O	0.0				5.0						
0.057	0.120	10			293.0	283.0	O=V O=V O=V O=V O=V	0.0	O=V O=V O=V O=V O=V	0.0				1.0						
0.109	0.290	04			303.0	293.0	O O O O O	0.0	O O O O O	0.0				5.0						
0.020	0.080	10			307.0	303.0	O=V O=V O=V O=V O=V	0.0	O=V O=V O=V O=V O=V	0.0				1.0						
0.018	0.020	07			317.0	307.0	O O O O O	0.0	O O O O O	0.0				5.0						
0.006	0.030	07			324.0	317.0	O=V O=V O=V O=V O=V	0.0	O=V O=V O=V O=V O=V	0.0				1.0						
	0.040	09			331.0	324.0	O O O O O	0.0	O O O O O	0.0	W			5.0						
	0.070	10			340.0	331.0	O O O O O	0.0	O O O O O	0.0				1.0						
	0.050	10			350.0	340.0	O O O O O	0.0	O O O O O	0.0				5.0						

180.0

230.0

280.0

330.0

## STRUCTURE

## ALTERATION

## ASSAYS

ANGLE TO CORE  
STRUCTURE ID  
ANGLE TO CORE  
STRUCTURE ID

% CALCITE

% BIDTITE

% K-SPAR

% CHLDRITE

% EPIDOTE

### ALT. FACIES

% MAGNETITE

PYRITE HABIT

% PYRITE

CHALCOPYRITE HABIT

% CHALCOPYRITE

SAMPLE NUMBER

LENGTH Ft/10

Copper %

4/6 GOLD g/t

FROM

TO

360.0	370.0		10	0.110		360.0
370.0	380.0		10	0.160		
380.0	390.0		10	0.190		
390.0	397.0		07	0.130		
397.0	404.0		07	0.210		410.0
404.0	412.0		08	0.630		
412.0	422.0		10	0.010		
422.0	433.0		11	0.030		
433.0	439.0		06	0.010		460.0
439.0	459.0		20			
459.0	471.0		12	0.020		
471.0	481.0		10	0.160		
481.0	491.0		10	0.100		510.0
491.0	501.0		10	0.060		
501.0	511.0		10	0.060		
511.0	518.0		07	0.130		
518.0	525.0		07	0.220		510.0
525.0	530.0		05	0.070		
530.0	537.0		07	0.070		

# Princeton Mining Corp. SIMILCO MINES LIMITED DRILL HOLE LOG PROJECT ID : ALABAMA

HOLE / TRAVERSE ID : DDH94\_A13  
CORE HOLE SIZE : HQ  
DATE STARTED : 94/ 6/ 8  
DATE COMPLETED :  
GEOLOGGED BY : PMH  
PLOT DATE : 94/NOV/ 8  
PROJECT LEADER : PMH  
LOCATION :

COLLAR AZIMUTH : 357.94  
COLLAR DIP : -44.00  
COLLAR ELEVATION : 3980.37  
COLLAR NORTHING : 15437.56  
COLLAR EASTING : 10368.58  
COLLAR OFFSET :  
COLLAR STATION :  
TOTAL LENGTH : 469.0

NTS: 92H MINING DIV.: SIMILKAMEEN  
PURPOSE: TEST EASTERN EDGE OF MINERALIZATION

COMMENTS: HIGH MAGNETITE MINERALIZATION UNTIL 324 FT. AT

KEY INTERSECTIONS: WHICH POINT HOLE HITS FELS. DYKE  
FROM 39 TO 109; 70 FT. OF 0.30% CU, 0.12 G/T AU  
FROM 242 TO 246; 24 FT. OF 0.30% CU, 0.07 G/T AU

SURVEY DATA

DEPTH	DIP	AZIMUTH
0	-44.00	357.94

## SUMMARY REMARKS

An interesting hole. Difficult to tell if the upper part of the hole is LH1D or LLTF due to intense Mag stockworking. What I originally thought was a psuedo Bx caused by stockworking. I now think is in fact lapilli tuff. This is a more logical fit with style of mineralization. Locally mineralization is strong but overall the grades will probably turn out fair to middling. However, a good possibility of reasonable grade right at surface. The relatively steep angles of Mag veins to core suggest an E-W strike with a steep southerly dip or a moderate dip (45 deg.) and a NW or NE trend. The 45 deg. intrusive contacts suggest E-W striking vertical dykes.

## LEGEND

SDM MINERAL  
D = DISSEMINATED MV = MICROVEIN/FRACT.FILL  
V = VEIN AND PATCHES  
B = BULKY VEIN/FRACTURE FILL  
Q = QUARTZ VEIN  
F = FAULT

## DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY	Cu%
0.00	29.00	Casing	0.00
38.00	61.00	LH1 Diorite	0.00
61.00	135.00	Diorite (Unspecified)	0.00
135.00	157.00	LH2 Monzonite	0.00
157.00	179.00	LH1 Syenite	0.00
184.00	222.00	LH1 Diorite	0.00
222.00	324.00	Lapilli Tuff	0.00
324.00	469.00	Mine <sup>r</sup> Dyke	0.00

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
0.0		0.00	29.00	Casing					
		29.00	38.00	Overburden					Fragments of TPG in clay rich till.
50.0	00 700	38.00	61.00	LH1 Diorite		LIGHT GREY	FINE GRAINED	EQUIGRA NULAR	Very broken, partially oxidized. Some exotic fragments; possible fallen in from above. Based on similarity to next interval, this interval is probably bedrock.
100.0	950 1000	61.00	135.00	Diorite (Unspecified)	LH2 Diorite	VERY DARK GREY	MOTTLED	VEINED	An unusual rock. Appears to be mostly LH1 but locally resembles LH2 (some Fx-Bi porphyry LH2 'veins'). Rock is strongly pervasively Mag and chlorite or biotite altered and cut by an intense stockwork of magnetite (+/- Sx) veins, commonly with K-spar envelopes and epidote (+/- Sx's) veins. Vein angles are dominantly 70 degrees but range to 45 deg. In places, rock is a Bx or pseudo Bx - but not the classic MBx. 1-2% v.fine grnd Cp. At least part
150.0	800 1000	135.00	157.00	LH2 Monzonite		MIXED GREY AND	FINE GRAINED	CROWDED PORPHYRY	Grey pink, fine grained, 2-size, crowded feldspar porphyry. Fine, fresh dissem. biotite, matrix is pink. Fs phenos are white. All mafics other than Bi are gone to chlorite (+/- Ep +/- Ms?). Rare dissem. and vein form pyrite.
	650 1000	157.00	179.00	LH1 Syenite		MEDIUM RED	EQUIGRA NULAR		Rock is superficially and Ep porphyry syenite. Pink to brick red matrix with Pyx, Chl, Mag, Bx, Ep and epidote grains. Weakly mineralized. Upper part cut by numerous magnetite veins.

## STRUCTURE

## ALTERATION

## ASSAYS

[illegible]

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
180.0	400 1000	179.00	184.00	LH2		MIXED GREY	MEGACRY STIC	ALIGNED PHENOCR	Fairly typical for megacrystic porphyry. Pinkish matrix and more
					LH2				
	650 950	184.00	222.00	LH1 Diorite		DARK GREY	FINE GRAINED	EQUIGRA NULAR	Similar to the 61-135 ft interval, only not as well mineralized. 2.5 ft inclusion of LH2M.
					Fault Zone				
230.0									
	750 1000	222.00	324.00	Lapilli Tuff		DARK GREY	FRAGMEN TAL	WEAKLY PORPHYR ITIC	Dark matrix fragmental with lighter fragments. Still weakly porphyritic (some of the upper intervals logged as LH1D may be this unit with fragments obscured by alteration. Med. grained dissem. Py and lesser v.fine grnd Cp. 2 narrow intrusive dykes (to 1 ft) in lower half of interval. Fault gouge at 293-294 ft.
280.0					LH2 Syenite				
330.0						PALE TAN	PORPHYR ITIC		Typical non-banded, pale cream fine dyke with <10% Fs phenocrysts. Hole terminated.



## STRUCTURE

## ALTERATION

## ASSAYS

STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% CALCITE	% BICHITE	% K-SPAR	% CHLORITE	% EPIDOTE	ALT. FACIES	% MAGNETITE	PYRITE HABIT	% PYRITE	CHALCOPYRITE HABIT	% CHALCOPYRITE	FROM	TO	SAMPLE NUMBER	LENGTH Ft./10	Copper %	GOLD g/t	
IC 35					10.0	20.0	5.0	2.5		10.0	D	1.0	D	0.1	179.0	184.0		05	0.020	0.007	180.0
CV 40				5.0			20.0			20.0	D-V	1.0	D-V	0.1	184.0	194.0		10	0.400	0.155	
											D-V		D-V		194.0	204.0		10	0.180	0.033	
											D-V		D-V		204.0	212.0		08	0.090	0.009	
											D-V		D-V		212.0	222.0		10	0.060	0.010	
											D-V		D-V		222.0	232.0		10	0.130	0.023	230.0
											D-V		D-V		232.0	242.0		10	0.130	0.021	
											D-V		D-V		242.0	249.0		07	0.440	0.125	
											D-V		D-V		249.0	256.0		07	0.170	0.039	
											D-V		D-V		256.0	266.0		10	0.300	0.042	
IC 45	MV 40						20.0	2.5		10.0	D	2.5	D	1.0	266.0	276.0		10	0.190	0.028	
											D		D		276.0	287.0		11	0.100	0.017	280.0
											D		D		287.0	297.0		10	0.190	0.029	
											D		D		297.0	305.0		08	0.050	0.006	
											D		D		305.0	315.0		10	0.110	0.023	
											D		D		315.0	324.0		09	0.100	0.010	
											D		D								330.0

PAGE 6

[illegible]



Princeton Mining Corp.  
SIMILCO MINES LIMITED  
DRILL HOLE LOG  
PROJECT ID : ALABAMA

HOLE / TRAVERSE ID : DDH94\_A14  
CORE HOLE SIZE : HQ  
DATE STARTED : 94/ 5/ 6  
DATE COMPLETED : 94/ 5/ 7  
GEOLOGGED BY : PMH  
PLOT DATE : 94/NOV/11  
PROJECT LEADER : PMH  
LOCATION :

COLLAR AZIMUTH : 359.99  
COLLAR DIP : -43.93  
COLLAR ELEVATION : 3986.08  
COLLAR NORTHING : 15585.31  
COLLAR EASTING : 10319.55  
COLLAR OFFSET :  
COLLAR STATION :  
TOTAL LENGTH : 254.0

NTS: 92H MINING DIV.: SIMILKAMEEN

PURPOSE: TEST MAG-RICH MINERALIZATION NW OF A13

COMMENTS: MODERATE TO WEAK MINERALIZATION. HOLE WAS TERM-

KEY INTERSECTIONS: INATED IN FELSITE DYKE.  
FROM 14 TO 194; 150 FT. OF 0.20% CU, 0.07 G/T AU  
INCL 154 TO 184; 30 FT. OF 0.47% CU, 0.10 G/T AU

SURVEY DATA  
DEPTH DIP AZIMUTH  
0 -43.93 359.99

SUMMARY REMARKS

This hole was stepped north and slightly west of DDH94-A13 in order to try and finish the section. Unfortunately this hole also encountered the dyke at 194' and was terminated. Top of the hole is similar to A13 but not as well mineralized. Both holes contain enough magnetite to cause the problems encountered with compass readings in this area.

LEGEND

ECON. MINERAL:  
D = DISSEMINATED MV = MICROVEIN/FRACT.FILL  
// = VEINS AND PATCHES  
DKV= DISS. < VEINS/FRACTURE FILL

STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN  
MV = MAGNETITE VEIN FL = FAULT  
IC = INTRUSIVE CONTACT

DRILL HOLE SUMMARY

FROM TO LITHOLOGY Cu%  
0 20 40 60 80 100

0.00	39.00	Casing	
44.00	64.00	LH2 Diorite	
69.00	141.00	Lapilli Tuff	
141.00	150.00	Fault Zone	
150.00	194.00	LH1 Diorite	
194.00	254.00	Main Dyke	

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
0.0		0.00	39.00	Casing					
		39.00	44.00	Overburden					
50.0	400 900	44.00	64.00	LH2 Diorite		DARK GREY	PORPHYR ITIC	SERIAL	Texturally variable. May be two or more phases of LH2, but all phases are porphyritic and variation may be due to alteration. Locally pervasive pinking of matrix, destruction of mafic minerals except biotite which is fine grained, shiny black - not chloritized. 'Altered' areas are more sulphide rich. Pyrite fracture fill cuts across alteration or intrusive contact.
	00 950	64.00	69.00	Fault Zone					
100.0	800 1000	69.00	141.00	Lapilli Tuff		VERY DARK GREY	FRAGMENTAL	VEINED	Very similar to DDH94-A13. Coarse fragmental which has been hornfelsed (Bi+Mg). Mag. >> pyrite in top half of interval whereas rock is lighter grey (albitized??) and Mg Py in lower half of interval. Mag.+specularite near top of interval. Calcite veining much more prevalent in lower part.
	00 950	141.00	150.00	Fault Zone		PALE GREEN			Rock is bleached a pale mucus green. Fragmental texture still visible but this could be tectonic in origin. 10% dykelets of flowbanded felsite.
150.0	300 1000	150.00	194.00	LH1 Diorite	Fault Zone	MEDIUM GREY	FINE GRAINED	EQUIGRA NULAR	A speckled, more or less equigranular grey rock. The mottled texture hints at a fragmental past but this could be due to alteration and the abundance of mafic grains (now chlorite and epidote) is suggestive of an LH1 texture. However no apatite was observed and therefore the jury is hung on this one. Very fine grained sulphides.

## STRUCTURE

## ALTERATION

## ASSAYS

GOLD g/t		Copper %		LENGTH Ft/10	SAMPLE NUMBER		TO	FROM
		0.110		10			54.00	44.00
		0.100		10			64.00	54.00
		0.180		10			74.00	64.00
		0.180		10			84.00	74.00
		0.180		10			94.00	84.00
		0.080		10			104.0	94.00
		0.120		10			114.0	104.0
		0.170		10			124.0	114.0
		0.130		10			134.0	124.0
		0.040		10			144.0	134.0
		0.090		10			154.0	144.0
		0.650		10			164.0	154.0
		0.460		10			174.0	164.0
		0.310		10				174.0

CHALCOPYRITE	OPYRITE HABIT	% PYRITE	PYRITE HABIT	% MAGNETITE	ALT. FACIES	% EPIDOTE	% CHLORITE	% K-SPAR	% BIODITE	% CALCITE	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID
		1.0				2.5	5.0	10.0	20.0			SV 1		
												IC		
												SH	20	
												SV	70	
												MV	45	
												IC	20	
												MV	50	
												CV	45	

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RECOVERY PPT		TO		LITHOLOGY	MINOR LITH.	COLOUR		TEXTURE 1	TEXTURE 2	REMARKS
ROD PPT	FEET	FROM				MEDIUM GREY	FINE GRAINED			
300	1000	150.00	194.00	LHI Diorite	Fault Zone					A speckled, more or less equigranular grey rock. The mottled texture hints at a fragmental past but this could be due to alteration and the abundance of mafic grains (now chlorite and epidote) is suggestive of an LHI texture. However no apatite was observed and
200	1000	194.00	254.00	Mine Dyke			WHITE			The eneyll, white massive with rare feldspar grains wrecking havoc on our carefully orchestrated drill program. Foiled again, hole shut down.

## ALTERATION

## ASSAYS

GOLD g/t		180.0		230.0	
Copper %	0.310	0.170			
LENGTH Ft/10	10	10			
SAMPLE NUMBER					
TO	184.0	194.0			
FROM	174.0	184.0			

CHALCOPYRITE	0.1	
OPYRITE HABIT	0000	
% PYRITE	1.0	
PYRITE HABIT	0000	
% MAGNETITE	5.0	
ALT. FACIES		
% EPIDOTE	5.0	
% CHLORITE	10.0	
% K-SPAR	20.0	
% BIODITE		
% CALCITE	1.0	
ANGLE TO CORE	45	
STRUCTURE ID	CV	
ANGLE TO CORE	50	40
STRUCTURE ID	MV	FR



Princeton Mining Corp.  
SIMILCO MINES LIMITED  
DRILL HOLE LOG  
PROJECT ID : ALABAMA

HOLE / TRAVERSE ID : DDH94\_A15  
CORE HOLE SIZE : HQ  
DATE STARTED : 94/ 6/ 7  
DATE COMPLETED :  
GEOLOGGED BY : PMH  
PLOT DATE : 94/NOV/ 9  
PROJECT LEADER : PMH  
LOCATION :

COLLAR AZIMUTH : 0.57  
COLLAR DIP : -46.39  
COLLAR ELEVATION : 3784.94  
COLLAR NORTHING : 14281.51  
COLLAR EASTING : 10619.30  
COLLAR OFFSET :  
COLLAR STATION :  
TOTAL LENGTH : 229.0

NTS: 92H MINING DIV.: SIMILKAMEEN  
PURPOSE: TEST SOUTHWARD EXTENSION FROM DH90-A09

COMMENTS: SQUEEZING GROUND FORCED ABANDONEMENT OF HOLE

KEY INTERSECTIONS: FROM 215 TO 229; 14 FT. OF 0.23% CU, 0.09 G/T AU

SURVEY DATA  
DEPTH DIP AZIMUTH  
0 -46.39 00.57

SUMMARY REMARKS

Hole was drilled to test southward extension of good grade mineralization interspersed by 1990 holes A-9 and A-15. Although hole was collared on a trench with no dyke, the dyke must dip underneath the trench. The presence of mineralized LLTF in the bottom of the hole warrants another attempt to drill this area. Hole was drilled to test southward extension of good grade mineralization interspersed by 1990 holes A-9 and A-15. Although hole was collared on a trench with no dyke, the dyke must dip underneath the trench. The presence of mineralized LLTF in the bottom of the hole warrants another attempt to drill this area.

LEGEND

ECON. MINERAL:  
D = DISSEMINATED MV = MICROVEIN/FRACT.FILL  
V = VEINS AND PATCHES  
DFV = DIS. < VEINS/FRACTURE FILL

STRUCTURE ID:

QV = QUARTZ VEIN  
FL = FAULT  
C = CONTACT

DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY	Cu%
			0.0 0.2 0.4 0.6 0.8 1.0
0.00	19.00	Casing	
19.00	39.00	LH1 Diorite	
39.00	154.00	Mine Dyke	
154.00	200.00	Mine Dyke	
209.00	215.00	Missing Core	
215.00	229.00	Lapilli Tuff	

0.0 0.2 0.4 0.6 0.8 1.0

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
0.0		0.00	19.00	Casing					
50	850	19.00	39.00	LHI Diorite		GREY GREEN	EQUIGRA NULAR	MEDIUM GRAINED	Core is very broken and oxidized. Standard LHI diorite. Completely chloritized with all mafics gone to chlorite (+/- epidote). Unusual in that there are a few chlorite + Kspar (?) stringers and albite (?) veins parallel to core axis. Weakly pyritic and magnetic; no Cp observed. Core is very broken and oxidized. Standard LHI diorite. Completely chloritized with all mafics gone to chlorite (+/-
50.0									
100.0	00	39.00	154.00	Mine Dyke		LIGHT TAN			Fine grained feldspar porphyry rhyolite. Highly fractured, oxidized and incompetent. Fine grained feldspar porphyry rhyolite. Highly fractured, oxidized and incompetent.
150.0									
	00	154.00	200.00	Mine Dyke		PALE GREEN			Same as above, but with a greenish hue, possibly because most of this interval is sheared. Same as above, but with a greenish hue, possibly because most of this interval is sheared.
					Fault Zone Fault				

## ASSAYS

GOLD g/t		Copper %		LENGTH Ft/10	SAMPLE NUMBER	TO	FROM
		0.030	0.030	10	83830	19.00	0.00
				10	83831	39.00	19.00
						200.0	39.00
CHALCOPYRITE							
PYRITE HABIT							
% PYRITE		0.0					
PYRITE HABIT							
% MAGNETITE		2.5					
ALT. FACIES							
% EPIDOTE		5.0					
% CHLORITE		30.0					
% K-SPAR		2.5					
% BIOTITE							
% CALCITE							
ANGLE TD CORE							
STRUCTURE ID		AV 0					
ANGLE TD CORE							
STRUCTURE ID		LV 10					
STRUCTURE ID							

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
180.0									
00	700	154.00	200.00	Mine Dyke	Fault Zone Fault	PALE GREEN			Same as above, but with a greenish hue, possibly because most of this interval is sheared. Same as above, but with a greenish hue, possibly because most of this interval is sheared.
		200.00	204.00	Fault Zone			CONVERTED TO	BRECCIA	Clay fault gouge/fault breccia. Mostly derived from mineralized intrusive
00	1000	204.00	209.00	LH2 Monzonite		PALE RED	FINE GRAINED		Rock is fine grained and completely pinked, obliterating most primary
	00	209.00	215.00	Missing Core					Triconed through rubble. Triconed through rubble.
00	550	215.00	229.00	Lapilli Tuff		VERY DARK GREEN	FRAGMENTAL		Rubbly core but some pieces big enough to recognise fragmental texture. Strongly pyritized; minor chalcopyrite. Weakly veined (Kspat envelopes on sulphide fractures). Rubbly core but some pieces big enough to recognise fragmental texture. Strongly pyritized;

## STRUCTURE

## ALTERATION

## ASSAYS

ANGLE TO CORE  
STRUCTURE ID  
ANGLE TO CORE  
STRUCTURE ID

SH	10		
KV	40	CV	80

% CALCITE% Biotite% K-SPAR% CHLORITE% EPIDOTE

### ALT. FACIES

% MAGNETITE

PYRITE HABIT% PYRITECHALCOPYRITE HABIT% CHALCOPYRITEFROM

39.00	200.0		
200.0	204.0	83827	04
204.0	215.0	83828	11
215.0	229.0	83829	14

Copper %GOLD g/t

0.110	
0.290	
0.230	

- 180.0

Princeton Mining Corp.  
SIMILCO MINES LIMITED  
DRILL HOLE LOG  
PROJECT ID : ALABAMA

HOLE / TRAVERSE ID : DDH94\_A16  
CORE HOLE SIZE : HQ  
DATE STARTED : 94/ 6/ 8  
DATE COMPLETED :  
GEOLOGGED BY : PMH  
PLOT DATE : 94/NOV/ 9  
PROJECT LEADER : PMH  
LOCATION :

COLLAR AZIMUTH : 359.86  
COLLAR DIP : -42.80  
COLLAR ELEVATION : 4074.90  
COLLAR NORTHING : 15257.80  
COLLAR EASTING : 9239.54  
COLLAR OFFSET :  
COLLAR STATION :  
TOTAL LENGTH : 321.0

NTS: 92H MINING DIV.: SIMILKAMEEN  
PURPOSE: TEST NORTHWEST TREND OF MINERALIZATION

COMMENTS: MINERALIZATION PRESENT BUT LOW GRADE. HOLE MAY  
HAVE BEEN STOPPED PREMATURELY IN BASALT DYKE.  
KEY INTERSECTIONS: FROM 60 TO 284; 224 FT. OF 0.15% CU, 0.09 G/T AU  
INCL 240 TO 265; 25 FT. OF 0.26% CU, 0.13 G/T AU

SURVEY DATA  
DEPTH DIP AZIMUTH  
0 -42.80 359.86

SUMMARY REMARKS

Hole is predominately fragmental volcanic with LH2 intrusive at the top and tertiary basalt dyke at the bottom. The LLTF is weakly mineralized - less than normal - and may indicate that hole is on edge of system. However, the 40 ft hybrid zone at the top of the LLTF is quite well mineralized.

LEGEND

ECON MINERAL:  
D = DISSEMINATED MV = MICROVEIN/FRACT.FILL  
V = VEIN AND PATCHES  
V-F = VEIN/FRACTURE FILL

QV = QUARTZ VEIN  
FL = FAULT  
C = CONTACT

DRILL HOLE SUMMARY

FROM TO LITHOLOGY Cu%  
0.0 0.2 0.4 0.6 0.8 1.0

0.00	40.00	Casing	
40.00	73.00	Unknown Rock Type	
73.00	81.00	Andesite Flow	
81.00	119.00	LH2 Monzonite	
119.00	170.00	Lapilli Tuff	
170.00	284.00	Lapilli Tuff	
284.00	321.00	Mine Dyke	

0.0 0.2 0.4 0.6 0.8 1.0

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
0.0		0.00	40.00	Casing					
50.0	150	40.00	73.00	Unknown Rock Type		MIXED GREY AND	PORPHYR ITIC	FRAGMEN TAL	2 boxes of core which were accidentally tipped over and therefore core is jumbled. Oxidized to approx. 55 ft. Rock consists of an unusual Hbl (?) porphyry like the Volc. fragments in Pit 3. A fragmental texture is locally visible but might be caused by alteration (psuedo Bx) and xenoliths. Overall the rock has an intrusive character but is both texturally and compositionally variable over the interval.
	250	73.00	81.00	Andesite Flow		MEDIUM GREY	FINE GRAINED	EQUIGRA NULAR	Medium grey andesite with equal proportions of fine feldspar and mafic grains. Cut by Fine Mag stringers and Kspar + calcite + epidote + biotite +
100.0	650	81.00	119.00	LH2 Monzonite		MIXED GREY AND	WEAKLY PORPHYR ITIC	CROWDED PORPHYR Y	Fine grained version of the barley porphyry. Weakly mineralized. Intense pink envelopes on epidote veinlets.
150.0	400	119.00	170.00	Lopilli Tuff		MIXED GREY AND	FRAGMEN TAL	BRECCIA TED	A very unusual alteration/lithology interval. Rock appears to have been a fragmental or breccia (either intrusive or extrusive) with Hb porphyry, andesite and LH2 (?) fragments. Rock is cut by numerous veins and patches of K-spar and/or Salmon feldspar. From 131-134 ft rock appears to be a well mineralized K-spar + carbonate healed fault Bx which cuts CAxis at 20 deg. Overall quite well mineralized.
	800	170.00	284.00						Reasonably well preserved LLTF, limited hornfelsing and only weakly mineralized. Cut by K-spar to LH2 veinlets. Lower part of interval has a network of fractures with fuzzy albite

## STRUCTURE

## ALTERATION

## ASSAYS

GOLD g/t		Copper %	LENGTH Ft/10	SAMPLE NUMBER	FROM	TO
		0.090	10		40.00	50.00
		0.040	10		50.00	60.00
		0.180	13		60.00	73.00
		0.250	08		73.00	81.00
		0.120	10		81.00	91.00
		0.120	10		91.00	101.0
		0.060	10		101.0	111.0
		0.050	08		111.0	119.0
		0.130	10		119.0	129.0
		0.280	10		129.0	139.0
		0.160	10		139.0	149.0
		0.080	10		149.0	159.0
		0.110	11		159.0	170.0
		0.180	10		170.0	180.0



FEET	RECOVERY PPT	ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
180.0										
230.0	800	1000	170.00	284.00	Lapilli Tuff		VERY DARK GREY	FRAGMENTAL		Reasonably well preserved LLTF, limited hornfelsing and only weakly mineralized. Cut by K-spar to LH2 veinlets. Lower part of interval has a network of fractures with fuzzy albitic envelopes; this area is also better mineralized but it's not clear whether these two features are associated.
280.0			284.00	321.00	Mine Dyke	Lapilli Tuff	VERY DARK GREEN			Mafic dyke. Looks like flow with calcite amygdules but intrusive contact + chill margin dyke.

## STRUCTURE

## ALTERATION

## ASSAYS

CHALCOPYRITE	0.3	
PYRITE HABIT		
% PYRITE	1.0	
PYRITE HABIT		
% MAGNETITE	2.5	
ALT. FACIES		
% EPIDOTE		
% CHLORITE	20.0	
% K-SPAR	2.5	
% BIDIITE	10.0	
% CALCITE	1.0	
ANGLE TO CORE	45	45
STRUCTURE ID	KF	FL
ANGLE TO CORE	30	90
STRUCTURE ID	KF	IC

SAMPLE NUMBER		LENGTH Ft/10	Copper %	GOLD g/t	
FROM	TO				
180.0	190.0	10	0.050		180.0
190.0	200.0	10	0.160		
200.0	210.0	10	0.180		
210.0	220.0	10	0.090		
220.0	230.0	10	0.130		
230.0	240.0	10	0.110		230.0
240.0	250.0	10	0.270		
250.0	259.0	09	0.120		
259.0	265.0	06	0.390		
265.0	274.0	09	0.140		
274.0	284.0	10	0.170		280.0
284.0	288.0	04			
288.0	301.0	13	0.070		

Princeton Mining Corp.  
SIMILCO MINES LIMITED  
DRILL HOLE LOG  
PROJECT ID : ALABAMA

HOLE / TRAVERSE ID : DDH94\_A17  
CORE HOLE SIZE : HQ  
DATE STARTED : 94/ 6/ 8  
DATE COMPLETED :  
GEOLOGGED BY : PMH  
PLOT DATE : 94/NOV/ 9  
PROJECT LEADER : PMH  
LOCATION :

COLLAR AZIMUTH : 359.04  
COLLAR DIP : -45.24  
COLLAR ELEVATION : 3952.76  
COLLAR NORTHING : 14969.05  
COLLAR EASTING : 10616.73  
COLLAR OFFSET :  
COLLAR STATION :  
TOTAL LENGTH : 729.0

NTS: 92H MINING DIV.: SIMILKAMEEN  
PURPOSE: TEST MINERALIZATION NORTH OF DDH94-A15

COMMENTS: STRONG TO MODERATE MINERALIZATION IN UPPER PART

KEY INTERSECTIONS: ~~OF HOLE, WEAKENS TO THE NORTH.~~  
FROM 14 TO 409; 395 FT. OF 0.25% CU, 0.09 G/T AU  
INCL 122 TO 260; 138 FT. OF 0.31% CU, 0.12 G/T AU

SURVEY DATA

DEPTH	DIP	AZIMUTH
0	-45.24	359.04

### SUMMARY REMARKS

Drill hole was collared on top of the connector zone and drilled to the north. The core is heavily fractured and oxidized to 134'. Most of the hole is variably altered feldspar porphyry intrusive (LH2) with minor andesite and possibly diorite (LH1). Quite intensely altered overall with mineralization moderate to locally strong in the upper half of the hole and visibly weaker in the lower half. Some very strong magnetite alteration near the top of the hole.

### LEGEND

ECON. MINERAL:

D = DISSEMINATED MV = MICROVEIN/FRACT.FILL  
// = VEINS AND PATCHES  
DKV = DISS. < VEINS/FRACTURE FILL

STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN  
MV = MAGNETITE VEIN FL = FAULT  
IC = INTRUSIVE CONTACT

### DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY	Cu% 0 0.5 1 2 3 4 5 6 7 8 9 10
10.00	44.00	LH2 Diorite	
44.00	68.00	Lapilli Tuff	
68.00	122.00	LH2 Diorite	
134.00	157.00	Andesite Flow	
157.00	228.00	LH2 Monzonite	
228.00	314.00	Diorite (Unspecified)	
314.00	346.00	LH1 Diorite	
346.00	409.00	LH2 Diorite	
409.00	442.00	Mine Dyke	
442.00	489.00	LH2 Diorite	
489.00	534.00	Amygdalesoidal Basalt Dyke	
534.00	608.00	LH2 Diorite	
608.00	642.00	LH2 Monzonite	
642.00	707.00	LH1 Diorite	

FEET	RECOVERY PPT	ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
0.0			0.00	10.00	Casing					
	20	900	10.00	44.00	LH2 Diorite		PALE RED	MEDIUM GRAINED	WEAKLY PORPHYRITIC	'Rubblized' orange-pink diorite. Sulphides are 75% gone to limonite + malachite. Mag. only partially gone to hematite.
50.0	30	1000	44.00	68.00	Lapilli Tuff		BLACK			Intensely magnetite impregnated rock (+/- Bi and Chl). Moderately well mineralized with fine Cp in fracture veinlets and disseminations. Core is mostly rubble with limonitic +/- malachite on fracture faces.
	240	850	68.00	122.00	LH2 Diorite	Magnetite Vein	PALE RED			Most of core is rubble. Could be highly altered LH1. Coarse aggregates of mafic minerals give rock a spotted appearance. Locally porphyritic feldspars typical of LH2. Thick Mag + Ep + Kspar + Py + Cp vein from 90 to 95 ft. Rock is still very limonitic.
100.0	250	970	122.00	134.00	Andesite Flow		VERY DARK GREY	VEINED	FINE GRAINED	Quite broken and limonitic. 3' of gouge (fault) at bottom of interval marks bottom of oxidation. Intense magnetite veining with or without salmon feldspar envelopes.
	50	960	134.00	157.00	Andesite Flow		MEDIUM GREY	FINE GRAINED		Core is mostly rubble. Could have been a fragmental but too altered to tell. Possible early albitization followed by a pervasive wash of chlorite, magnetite and sulphides.
150.0	100	910	157.00	228.00	LH2 Monzonite	Fault Zone	PALE RED	PORPHYRITIC		Shattered zone of rubble, mostly Kspar altered LH2 porphyry but minor volcanic material and fault gouge.

## STRUCTURE

## ALTERATION

## ASSAYS

ANGLE TO CORE  
STRUCTURE ID  
ANGLE TO CORE  
STRUCTURE ID

% CALCITE

% BIDIITE

% K-SPAR

% CHLORITE

% EPIDOTE

ALT. FACIES

% MAGNETITE

PYRITE HABIT

% PYRITE

CHALCOPYRITE HABIT

% CHALCOPYRITE

SAMPLE NUMBER

LENGTH Ft./10

Copper %

GOLD g/t

FROM	TO	77501	14	0.140	
0.00	14.00				
14.00	24.00			0.290	
24.00	44.00			0.200	
44.00	54.00			0.150	
54.00	64.00			0.200	
64.00	74.00			0.120	
74.00	84.00			0.210	
84.00	99.00			0.110	
99.00	109.0			0.150	
109.0	122.0			0.580	
122.0	134.0			0.550	
134.0	144.0			0.340	
144.0	157.0			0.200	
157.0	169.0			0.150	
169.0	179.0				

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINDR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
180.0					Andesite Flow				
	100 910	157.00	228.00	LH2 Monzonite		PALE RED	PORPHYRITIC		Shattered zone of rubble, mostly Kspar altered LH2 porphyry but minor volcanic material and fault gouge.
230.0									
	900 1000	228.00	314.00	Diorite (Unspecified)	LH2 Diorite	MIXED GREY AND	EQUIGRANULAR	VEINED	Unusual rock, not porphyritic but too altered to clearly distinguish between intrusive and volcanic. Patchy to pervasive pinking, commonly with abundant black clots of very fine grained biotite or chlorite. Strong dissen. magnetite + Mag veins, well mineralized.
280.0									
	450 1000	314.00	346.00	LH1 Diorite		GREY GREEN	MEDIUM GRAINED	EQUIGRANULAR	Gray green diorite. Pervasive propylitic alteration with patchy weak Kspar flooding. High sulphide.
330.0									
	400 1000	346.00	409.00	LH2 Diorite		PALE RED	PORPHYRITIC	MEDIUM GRAINED	Quite variable texture. Barley porphyry. Interval may include up to 50% intensely potassic altered LH1D.

## STRUCTURE

## ALTERATION

## ASSAYS

GOLD g/t		Copper %	LENGTH F+/-10	SAMPLE NUMBER	TO	FROM
180.0	0.060	0.230	0.260	0.340	0.220	0.390
230.0	0.230	0.260	0.260	0.340	0.220	0.390
280.0	0.230	0.260	0.260	0.340	0.220	0.390
330.0	0.230	0.260	0.260	0.340	0.220	0.390
380.0	0.230	0.260	0.260	0.340	0.220	0.390
430.0	0.230	0.260	0.260	0.340	0.220	0.390
480.0	0.230	0.260	0.260	0.340	0.220	0.390
530.0	0.230	0.260	0.260	0.340	0.220	0.390
580.0	0.230	0.260	0.260	0.340	0.220	0.390
630.0	0.230	0.260	0.260	0.340	0.220	0.390
680.0	0.230	0.260	0.260	0.340	0.220	0.390
730.0	0.230	0.260	0.260	0.340	0.220	0.390
780.0	0.230	0.260	0.260	0.340	0.220	0.390
830.0	0.230	0.260	0.260	0.340	0.220	0.390
880.0	0.230	0.260	0.260	0.340	0.220	0.390
930.0	0.230	0.260	0.260	0.340	0.220	0.390
980.0	0.230	0.260	0.260	0.340	0.220	0.390
1030.0	0.230	0.260	0.260	0.340	0.220	0.390
1080.0	0.230	0.260	0.260	0.340	0.220	0.390
1130.0	0.230	0.260	0.260	0.340	0.220	0.390
1180.0	0.230	0.260	0.260	0.340	0.220	0.390
1230.0	0.230	0.260	0.260	0.340	0.220	0.390
1280.0	0.230	0.260	0.260	0.340	0.220	0.390
1330.0	0.230	0.260	0.260	0.340	0.220	0.390
1380.0	0.230	0.260	0.260	0.340	0.220	0.390
1430.0	0.230	0.260	0.260	0.340	0.220	0.390
1480.0	0.230	0.260	0.260	0.340	0.220	0.390
1530.0	0.230	0.260	0.260	0.340	0.220	0.390
1580.0	0.230	0.260	0.260	0.340	0.220	0.390
1630.0	0.230	0.260	0.260	0.340	0.220	0.390
1680.0	0.230	0.260	0.260	0.340	0.220	0.390
1730.0	0.230	0.260	0.260	0.340	0.220	0.390
1780.0	0.230	0.260	0.260	0.340	0.220	0.390
1830.0	0.230	0.260	0.260	0.340	0.220	0.390
1880.0	0.230	0.260	0.260	0.340	0.220	0.390
1930.0	0.230	0.260	0.260	0.340	0.220	0.390
1980.0	0.230	0.260	0.260	0.340	0.220	0.390
2030.0	0.230	0.260	0.260	0.340	0.220	0.390
2080.0	0.230	0.260	0.260	0.340	0.220	0.390
2130.0	0.230	0.260	0.260	0.340	0.220	0.390
2180.0	0.230	0.260	0.260	0.340	0.220	0.390
2230.0	0.230	0.260	0.260	0.340	0.220	0.390
2280.0	0.230	0.260	0.260	0.340	0.220	0.390
2330.0	0.230	0.260	0.260	0.340	0.220	0.390
2380.0	0.230	0.260	0.260	0.340	0.220	0.390
2430.0	0.230	0.260	0.260	0.340	0.220	0.390
2480.0	0.230	0.260	0.260	0.340	0.220	0.390
2530.0	0.230	0.260	0			

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINDR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
360.0	400	1000	346.00	409.00	LH2 Diorite	PALE RED	PORPHYRITIC	MEDIUM GRAINED	Quite variable texture. Barley porphyry. Interval may include up to 50% intensely potassic altered LH1D.
410.0	100	900	409.00	442.00	Mine Dyke	LIGHT TAN	WEAKLY PORPHYRITIC		Both contacts are faulted.
460.0	200	1000	442.00	489.00	LH2 Diorite	Amygdaloidal Basalt	MIXED GREY AND	CROWDED PORPHYRY	Unusual interval, highly fractured LH2 with 14 ft of nested dyke. Lower part of interval grades into grey LH2 becoming more and more like dark grey LH1, which is cut by albite veins with 1' bleached (albitized envelopes).
510.0	950	1000	489.00	534.00	Amygdaloidal Basalt Dyke		FINE GRAINED	AMYGDUL ES	Amygdaloidal (?) basalt dyke.
	900	1000	534.00	608.00	LH2 Diorite	LIGHT GREY	WEAKLY PORPHYRITIC	SERIATE	Highly variable interval, appears to be a mix of Int. Fs porphyry rocks with possible volc. and/or LH1 inclusions.



## STRUCTURE

## ALTERATION

## ASSAYS

ANGLE TO CORE  
STRUCTURE ID  
ANGLE TO CORE  
STRUCTURE ID

% CALCITE

% BIOTITE

% K-SPAR

% CHLDRITE

% EPIDOTE

ALT. FACIES

% MAGNETITE

PYRITE HABIT

% PYRITE

CHALCOPYRITE HABIT

% CHALCOPYRITE

SAMPLE NUMBER

LENGTH Ft./10

Copper %

GOLD g/t

FROM

TO

AB	45	EV	25	2.5	2.5	30.0	5.0	2.5	5.0	2.5	1.0	356.0	366.0	0.200		360.0
												366.0	377.0	0.200		
												377.0	388.0	0.350		
												388.0	399.0	0.140		
												399.0	409.0	0.370		
												409.0	443.0			410.0
												443.0	454.0	0.140		
AV	30	CV	45	1.0		20.0		2.5	2.5	2.5	0.3	454.0	468.0			460.0
												468.0	478.0	0.040		
												478.0	488.0	0.040		
IC	40											488.0	534.0			510.0
IC	40	CV	20	5.0	10.0	10.0	5.0		2.5	5.0	0.3	534.0	544.0	0.130		

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
540.0									
900	1000	534.00	608.00	LH2 Diorite		LIGHT GREY	WEAKLY PORPHYR ITIC	SERIATE	Highly variable interval, appears to be a mix of Int. Fs porphyry rocks with possible volc. and/or LHJ inclusions. Predominately fine grained weakly porphyritic rock with abundant f.g. pyrite. Later Fx porphyries with white Fx in dark grey matrix. A strong IP response is anticipated from this rock type.
590.0									
700	1000	608.00	642.00	LH2 Monzonite		PALE RED	PORPHYR ITIC	XENOLIT HS	White and pink Fx in a pink matrix. Could be fine grained version of LH2F.
640.0									
760	1000	642.00	707.00	LH1 Diorite		MEDIUM GREY	MEDIUM GRAINED	VEINED	Appears equigranular but locally can be micro porphyry. Cut by Mag +/- Chl +/- Bt +/- Ep stockwork. Locally an intrusive Bx. Patchy pervasive Kspar alteration.
690.0									
500	1000	707.00	721.00	LH2 Megacrystic Porphyry		PALE RED	MAFIC PHENOCR YSTS	ALIGNED PHENOCR YSTS	Quite broken. Feldspar phenos to 1". Weakly mineralized.
						LIGHT GREEN			

## STRUCTURE

## ALTERATION

## ASSAYS

GOLD g/t		Copper %	LENGTH Ft/10	SAMPLE NUMBER	TO	FROM
540.0	0.130				544.0	534.0
	0.060				554.0	544.0
	0.040				564.0	554.0
	0.030				574.0	564.0
	0.040				582.0	574.0
	0.040				589.0	582.0
590.0	0.160				599.0	589.0
	0.030				609.0	599.0
	0.010				619.0	609.0
	0.030				630.0	619.0
	0.030				642.0	630.0
640.0	0.070				652.0	642.0
	0.050				662.0	652.0
	0.130				672.0	662.0
	0.060				682.0	672.0
	0.050				690.0	682.0
690.0	0.070				700.0	690.0
	0.040				707.0	700.0
	0.010				721.0	707.0
					729.0	721.0

CHALCOPYRITE	OPYRITE HABIT	% PYRITE	PYRITE HABIT	% MAGNETITE	ALT. FACIES	% EPIDOTE	% CHLORITE	% K-SPAR	% BIODITE	% CALCITE	ANGLE TO CORE	STRUCTURE ID
0.3		5.0		2.5			5.0	10.0	10.0	5.0	20	IC
0.0		1.0		5.0			10.0	20.0	20.0	1.0	45	EV
0.1		2.5		10.0			20.0	20.0	2.5		70	KV
0.1		10					100	100	100	2.5		

Princeton Mining Corp.  
SIMILCO MINES LIMITED  
DRILL HOLE LOG  
PROJECT ID : ALABAMA

HOLE / TRAVERSE ID : DDH94\_A18  
CORE HOLE SIZE : HQ  
DATE STARTED : 94/ 5/15  
DATE COMPLETED : 94/ 5/15  
GEOLOGGED BY : PMH  
PLOT DATE : 94/NOV/ 9  
PROJECT LEADER : PMH  
LOCATION :

COLLAR AZIMUTH : 357.78  
COLLAR DIP : -46.02  
COLLAR ELEVATION : 4049.45  
COLLAR NORTHING : 15253.08  
COLLAR EASTING : 8870.68  
COLLAR OFFSET :  
COLLAR STATION :  
TOTAL LENGTH : 81.0

NTS: 92H MINING DIV.: SIMILKAMEEN  
PURPOSE: TEST MINERALIZATION ON WEST END OF ZONE  
COMMENTS: HOLE COLLARED IN DYKE (SURPRISE!) AND TERMINATED  
AT 81 FEET.

SURVEY DATA  
DEPTH DIP AZIMUTH  
0 -46.02 357.78

SUMMARY REMARKS

Hole was located to the east of felsite dyke outcrop and directly to the north of volcanic and/or LHI outcrop. Intersecting dyke in this hole was a surprise and indicates that dykes can have other trends besides north-south, or alternatively, indicates that dykes can pinch and swell dramatically.

LEGEND

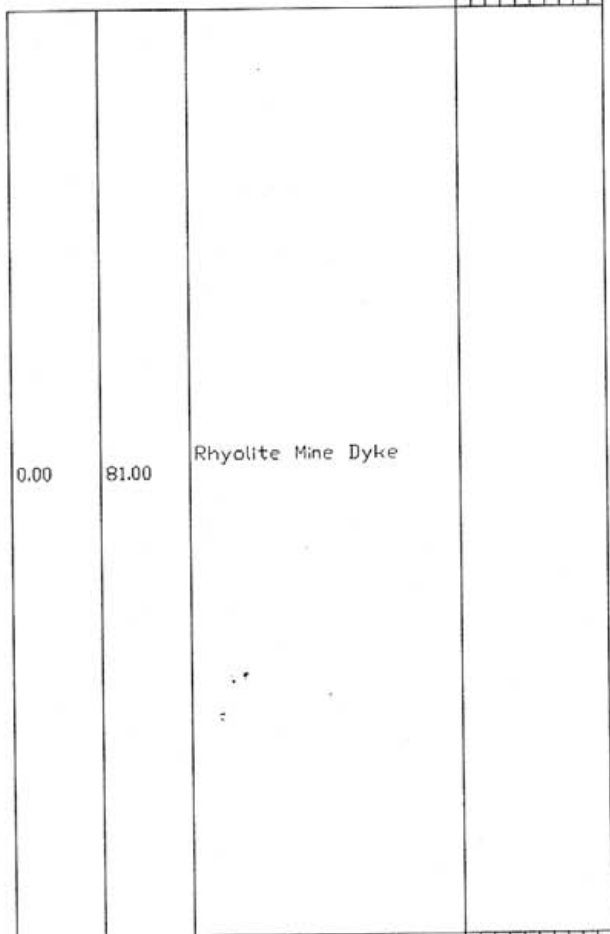
ECON. MINERAL:  
D = DISSEMINATED MV = MICROVEIN/FRACT.FILL  
// = VEINS AND PATCHES  
D.V. = DIS. < VEINS/FRACTURE FILL

STRUCTURE ID:

QV = QUARTZ VEIN QV = QUARTZ VEIN  
M.V. = MAGNETITE VEIN FL = FAULT  
S.C. = SILICATE CONTACT

DRILL HOLE SUMMARY

FROM TO LITHOLOGY Cu%  
0.0 0.2 0.4 0.6 0.8 1.0



0.0 0.2 0.4 0.6 0.8 1.0

Princeton Mining Corp.  
SIMILCO MINES LIMITED  
DRILL HOLE LOG  
PROJECT ID : ALABAMA

HOLE / TRAVERSE ID : DDH94\_A19  
CORE HOLE SIZE : HQ  
DATE STARTED : 94/ 5/24  
DATE COMPLETED :  
GEOLOGGED BY : SJB  
PLOT DATE : 94/NOV/ 9  
PROJECT LEADER : PMH  
LOCATION :

COLLAR AZIMUTH : 0.08  
COLLAR DIP : -40.53  
COLLAR ELEVATION : 4055.05  
COLLAR NORTHING : 15230.50  
COLLAR EASTING : 8968.36  
COLLAR OFFSET :  
COLLAR STATION :  
TOTAL LENGTH : 451.0

NTS: 92H MINING DIV.: SIMILKAMEEN

PURPOSE: TEST MINERALIZATION ON WEST END OF ZONE

COMMENTS: HOLE IS LOCATED JUST NE OF A18. HOLE ENCOUNTERED

MODERATE MINERALIZATION. HOLE LOST AT 451 FT.  
KEY INTERSECTIONS: FROM 174 TO 360; 186 FT. OF 0.24% CU, 0.07 G/T AU  
INCL 420 TO 451; 31 FT. OF 0.35% CU, 0.08 G/T AU

SURVEY DATA

DEPTH	DIP	AZIMUTH
0	-40.53	000.08

SUMMARY REMARKS

This hole was drilled to test the west margin of the Alabama mineralized area. Despite the presence of diorite both to the north and south of the collar location, the hole started in felsite dyke. The hole is weakly and sporadically mineralized over most of its length, suggesting some potential for ore in this area.

LEGEND

ECON. MINERAL:

D = DISSEMINATED MV = MICROVEIN/FRACT.FILL

// = VEINS AND PATCHES

DKV= DISS. < VEINS/FRACTURE FILL

STRUCTURE ID:

CV = CALCITE VEIN OV = QUARTZ VEIN

MV = MAGNETITE VEIN FL = FAULT

IC = INTRUSIVE CONTACT

DRILL HOLE SUMMARY

FROM TO LITHOLOGY Cu%  
0.0 2.0 4.0 6.0 8.0 10.0

0.00	22.00	Casing	
22.00	49.00	Rhyolite Mine Dyke	
49.00	74.00	Diorite (Unspecified)	
74.00	181.00	LH2 Diorite	
181.00	235.00	Andesite Flow	
243.00	298.00	Andesite Flow	
298.00	330.00	Andesite Flow	
330.00	451.00	Diorite (Unspecified)	

0.0 2.0 4.0 6.0 8.0 10.0

Princeton Mining Corp.  
SIMILCO MINES LIMITED  
DRILL HOLE LOG  
PROJECT ID : ALABAMA

HOLE / TRAVERSE ID : DDH94\_A20  
CORE HOLE SIZE : HQ  
DATE STARTED : 94/ 5/27  
DATE COMPLETED :  
GEOLOGGED BY :  
PLOT DATE : 94/NOV/11  
PROJECT LEADER : PMH  
LOCATION :

COLLAR AZIMUTH : 359.99  
COLLAR DIP : -46.54  
COLLAR ELEVATION : 3785.00  
COLLAR NORTHING : 14290.00  
COLLAR EASTING : 10700.00  
COLLAR OFFSET :  
COLLAR STATION :  
TOTAL LENGTH : 236.0

NTS: 92H MINING DIV.: SIMILKAMEEN  
PURPOSE: TEST CONNECTOR ZONE MINERALIZATION

COMMENTS: HOLE WAS DRILLED ADJACENT TO DDH94-A15 AND SUR-  
FERED A SIMILAR FATE: ABANDONED IN FAULT ZONE.  
KEY INTERSECTIONS: FROM 140 TO 230; 90 FT. OF 0.29% CU, 0.16 G/T AU  
INCL 200 TO 230; 30 FT. OF 0.37% CU, 0.15 G/T AU

SURVEY DATA  
DEPTH DIP AZIMUTH  
0 -46.54 359.99

SUMMARY REMARKS

LEGEND

ECON. MINERAL:  
D = DISSEMINATED MV = MICROVEIN/FRACT.FILL  
// = VEINS AND PATCHES  
DKV= DISS. < VEINS/FRACTURE FILL

STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN  
MV = MAGNETITE VEIN FL = FAULT  
IC = INTRUSIVE CONTACT

DRILL HOLE SUMMARY

FROM TO LITHOLOGY Cu%  
0 20 40 60 80 100

0.00	65.00	Casing	
65.00	94.00	Diorite (Unspecified)	
94.00	124.00	Diorite (Unspecified)	
124.00	140.00	Andesite Flow	
140.00	192.00	Diorite (Unspecified)	
192.00	235.00	Andesite Flow	

0 0.2 0.4 0.6 0.8 1.0

RECOVERY PPT	ROD PPT	FEET	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
		0.0								
	00		0.00	65.00	Casing					
	00	600	65.00	94.00	Diorite (Unspecified)		MEDIUM YELLOW	CONVERTED TO FAULT	BRECCIA TED	Intensely weathered and decomposed diorite (?) with 20% clay and 10% limonite. Some of the unit could be poorly consolidated alluvium. There is also some small pieces of fine-grained rock that might be andesite.
	600		94.00	124.00	Diorite (Unspecified)		MEDIUM YELLOW	CONVERTED TO FAULT	BRECCIA TED	Intensely broken and gougey diorite (?) with traces of limonite.
	100	600	124.00	140.00	Andesite Flow		DARK GREEN	FINE GRAINED	EQUIGRA NULAR	Dark green, fine-grained, equigranular andesite (?) with possible local lapilli. The unit is moderately to strongly broken and is difficult to identify.
	00	500	140.00	192.00	Diorite (Unspecified)	Fault Zone	PALE GREY	CONVERTED TO FAULT	BRECCIA TED	Intensely clay altered white to light grey fault gouge zone. Possibly some surface weathering as well. 1% visible pyrite, no visible Cp. Primary textures are obliterated.

## STRUCTURE

## ALTERATION

## ASSAYS

[illegible]

SAMPLE NUMBER		LENGTH Ft./10	Copper %	GOLD g/t
FROM	TO			
0.00	65.00			
65.00	80.00	150	0.070	0.040
80.00	100.0	200	0.060	0.040
100.0	120.0	200	0.070	0.020
120.0	124.0	40	0.060	0.040
124.0	140.0	160	0.090	0.050
140.0	170.0	300	0.280	0.120
170.0	190.0	200	0.230	0.100



[illegible]

## STRUCTURE

## ALTERATION

## ASSAYS

ANGLE TO CORE  
STRUCTURE ID  
ANGLE TO CORE  
STRUCTURE ID

% CALCITE

% Biotite

% K-SPAR

% CHLORITE

% EPIDOTE

### ALT. FACIES

% MAGNETITE

PYRITE HABIT

%. PYRITE

CHALCOPYRITE HABIT

% CHALCOPYRITE

To

FROM

LENGTH Ft/10

SAMPLE NUMBER

Copper %

GOLD 9/4

FT			
KV 60		EV 60	

		10.0
		5.0

	1.0
--	-----

M		D D D	1.0		
		O=V O=V O=V O=V O=V O=V			O=V O=V O=V O=V O=V O=V
M	1.0	O=V O=V O=V O=V O=V O=V O=V O=V O=V O=V	2.5		O=V O=V O=V O=V O=V O=V O=V O=V O=V O=V

170.0	190.0		200	0.230	0.100	180.0
190.0	200.0		100	0.170	0.100	
200.0	210.0		100	0.420	0.290	
210.0	220.0		100	0.340	0.180	
220.0	230.0		100	0.350	0.160	
230.0	236.0		60	0.150	0.060	230.0

Princeton Mining Corp.  
SIMILCO MINES LIMITED  
DRILL HOLE LOG  
PROJECT ID : ALABAMA

HOLE / TRAVERSE ID :DDH94\_A21  
CORE HOLE SIZE :HQ  
DATE STARTED :94/ 5/30  
DATE COMPLETED :  
GEOLOGGED BY :SJB  
PLOT DATE :94/NOV/11  
PROJECT LEADER :PMH  
LOCATION :

COLLAR AZIMUTH :359.02  
COLLAR DIP :-45.64  
COLLAR ELEVATION :4064.17  
COLLAR NORTHING :15482.25  
COLLAR EASTING :8990.26  
COLLAR OFFSET :  
COLLAR STATION :  
TOTAL LENGTH :195.0

NTS: 92H MINING DIV.: SIMILKAMEEN  
PURPOSE: TEST WEST END OF ZONE; NORTH OF A19

COMMENTS: HOLE WAS COLLARED IN SOLID OUTCROP BUT ROCK QUI-

CKLY DEGENERATED INTO RUBBLE. HOLE ABANDONED.  
KEY INTERSECTIONS: FROM 53 TO 150; 97 FT. OF 0.23% CU, 0.10 G/T AU

SURVEY DATA  
DEPTH DIP AZIMUTH  
0 -45.64 359.02

SUMMARY REMARKS

This hole was located to test the Northwest extension of the Alabama zone but was abandoned at 195' when it could not be kept open. Although the rock is highly fractured and gougey the original rock is a moderately well mineralized Lapilli tuff.

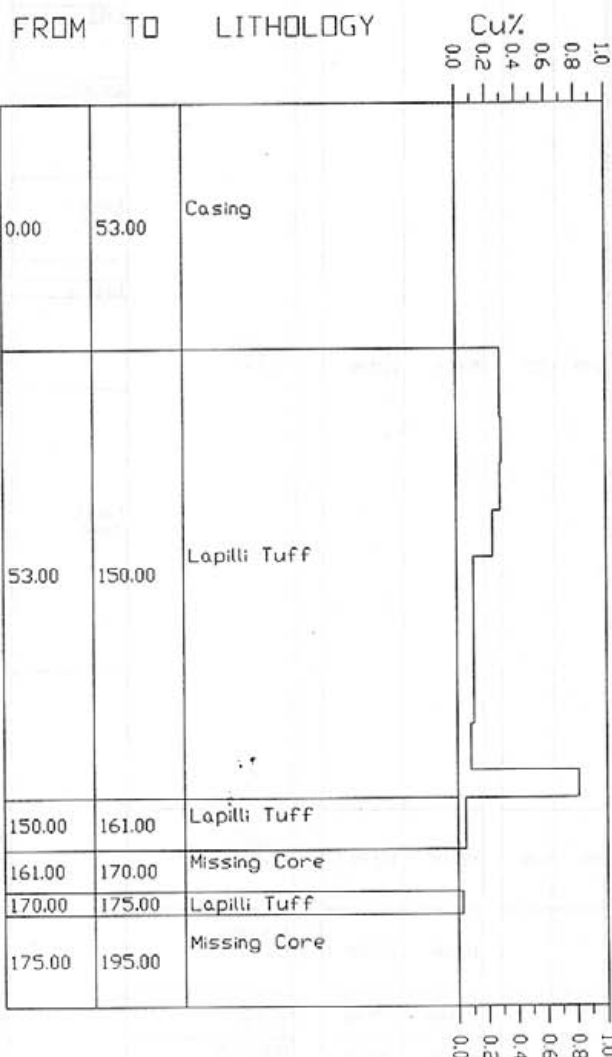
LEGEND

ECON. MINERAL:  
D = DISSEMINATED MV = MICROVEIN/FRACT.FILL  
// = VEINS AND PATCHES  
DKV = DISS. < VEINS/FRACTURE FILL

STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN  
MV = MARINETITE VEIN FL = FAULT  
IC = INTERFACIAL CONTACT

DRILL HOLE SUMMARY



FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
0.0									
		0.00	53.00	Casing					
50.0									
					LH2				Narrow interval of porphyritic diorite.
					Lapilli				
					Lapilli Tuff				
					Lapilli				
100.0	200 700	53.00	150.00	Lapilli Tuff		GREY GREEN	MEDIUM GRAINED	FRAGMENTAL	
					Fault Zone				
150.0	00 600	150.00	161.00	Lapilli Tuff		PALE GREY	CONVERTED TO FAULT		Intensely broken, sheared and gougy. May be partly Lost Horse but textures are destroyed. 0.5% dissem. Cp.
		161.00	170.00	Missing Core					Triconed.
	00 700	170.00	175.00	Lapilli Tuff		PALE GREY	CONVERTED TO		
		175.00	195.00	Missing Core					Triconed. Hole abandoned.

## STRUCTURE

## ALTERATION

## ASSAYS

ANGLE TO CORE  
STRUCTURE ID  
ANGLE TO CORE  
STRUCTURE ID

% CALCITE  
% BIDIITE  
% K-SPAR  
% CHLORITE  
% EPIDOTE  
ALT. FACIES  
% MAGNETITE  
PYRITE HABIT  
% PYRITE  
CHALCOPYRITE HABIT  
% CHALCOPYRITE

LENGTH Ft/10  
SAMPLE NUMBER  
Copper %  
GOLD g/t

FROM	TO	LENGTH Ft/10	SAMPLE NUMBER	Copper %	GOLD g/t
0.00	53.00				
53.00	68.00	15	77559	0.290	
68.00	78.00	10	77560	0.300	
78.00	88.00	10	77561	0.290	
88.00	98.00	10	77562	0.240	
98.00	134.0	36	77563	0.110	
134.0	144.0	10	77564	0.090	
144.0	150.0	06	77565	0.810	
150.0	161.0	11	77566	0.050	
161.0	170.0				
170.0	175.0	05	77567	0.030	

RECOVERY PPT	ROD PPT	FEET	FROM	TO	LITHOLOGY	MINDR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
		180.0	175.00	195.00	Missing Core					Triconed, Hole abandoned.

STRUCTURE

ANGLE TO CORE  
STRUCTURE ID  
ANGLE TO CORE  
STRUCTURE ID


ALTERATION

% CHALCOPYRITE  
% PYRITE  
PYRITE HABIT  
% MAGNETITE  
ALT. FACIES  
% EPIDOTE  
% CHLDRITE  
% K-SPAR  
% BIOTITE  
% CALCITE


ASSAYS

LENGTH Ft/10  
SAMPLE NUMBER  
TO  
FROM  
GOLD g/t  
Copper %


180.0

Princeton Mining Corp.  
SIMILCO MINES LIMITED  
DRILL HOLE LOG  
PROJECT ID : ALABAMA

HOLE / TRAVERSE ID : DDH94\_A22  
CORE HOLE SIZE : HQ  
DATE STARTED : 94/ 5/29  
DATE COMPLETED :  
GEOLOGGED BY : SJB  
PLOT DATE : 94/NOV/11  
PROJECT LEADER : PMH  
LOCATION :

COLLAR AZIMUTH : 355.79  
COLLAR DIP : -45.78  
COLLAR ELEVATION : 3791.05  
COLLAR NORTHING : 14406.78  
COLLAR EASTING : 10774.30  
COLLAR OFFSET :  
COLLAR STATION :  
TOTAL LENGTH : 882.0

NTS: 92H MINING DIV.: SIMILKAMEEN  
PURPOSE: TEST CONNECTOR ZONE (ADJACENT TO A20)

COMMENTS: THIRD ATTEMPT TO TEST THE SOUTHERN CONNECTOR

KEY INTERSECTIONS: ZONE MOD. TO STRONG MINERALIZATION IN UPPER  
FROM 70 TO 270; 200 FT. OF 0.30% CU, 0.17 G/T AU  
FROM 514 TO 564; 50 FT. OF 0.38% CU, 0.17 G/T AU

SURVEY DATA  
DEPTH DIP AZIMUTH  
0 -45.78 355.79

SUMMARY REMARKS

Highly fractured throughout. Mixed Nicola volcanics and Lost Horse intrusives about 50/50. Some moderate mineralization from 70 to 150' and sparse mag-sulphide veins between 404 and 625' but most intense alteration and mineralization towards bottom of hole.

LEGEND

ECON. MINERAL:

D = DISSEMINATED MV = MICROVEIN/FRACT.FILL  
// = VEINS AND PATCHES  
DKV= DISS. < VEINS/FRACTURE FILL

STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN  
MV = MAGNETITE VEIN FL = FAULT  
IC = INTRUSIVE CONTACT

DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY	Cu% 0.0 0.2 0.4 0.6 0.8 1.0
0.00	70.00	Casing	
70.00	150.00	CRYSTAL LITHIC TUFF	
150.00	274.00	Lapilli Tuff	
274.00	297.00	Lapilli Tuff	
313.00	404.00	CRYSTAL LITHIC TUFF	
404.00	625.00	Lapilli Tuff	
625.00	719.00	LH2 Diorite	
719.00	742.00	RHYOLITE MINE DYKE	
756.00	784.00	LH1 Diorite	
800.00	882.00	LH1 Diorite	

0.0 0.2 0.4 0.6 0.8 1.0



FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
0.0									
		0.00	70.00	Casing					Lost Horse Intrusive rubble.
50.0									
100.0									
	50	70.00	150.00	CRYSTAL LITHIC TUFF		VERY DARK GREY	FINE GRAINED		Highly fractured, rubbly section of fine-grained plug-phryic tuff or flow with roughly 30% Lost Horse dykes. 2-3% pyrite throughout the interval. Abundant epidote veinlets with KF envelopes carry Py + Cp. Between 80 and 110', this unit not obviously fragmental and could be an andesite flow.
					Fault Zone				
150.0									
	100	150.00	274.00	Lapilli Tuff	Fault Zone	DARK GREY	FRAGMEN TAL	MOTTLED	Highly fractured zone comprised of up to 20% fault gouge. Lapilli not abundant but more obvious than the overlying unit. Mineralization mainly disseminated. Patchy fracture controlled KF alteration. Approximately 50% of interval is gouge and/or rubble.

## ASSAYS

0.0

GOLD g/4

0.0

- 50.0

- 100.0

- 150.0

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
180.0									
230.0	100	750	150.00	274.00	Lapilli Tuff	Fault Zone	DARK GREY	FRAGMEN TAL	MOTTLED
									Possible Lost Horse 2 dyke, or just coarse grained tuff ??
280.0	1000	900	274.00	297.00	Lapilli Tuff		VERY DARK GREY	MEDIUM GRAINED	FRAGMEN TAL
	900	1000	297.00	313.00	RHYOLITE MINE DYKE		WHITE	PORPHYR ITIC	FLOW BANDED
330.0	800	1000	313.00	404.00	CRYSTAL LITHIC TUFF		DARK GREEN	MEDIUM GRAINED	LENSOID BANDED
									Plain jane, garden variety crystal tuff. Strong chloritic (propylitic ??) alteration with weak patchy KF alteration. Quite pyritic throughout but no Cp observed.

## STRUCTURE

## ALTERATION

## ASSAYS

STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% CALCITE	% BIDIITE	% K-SPAR	% CHLORITE	% EPIDOTE	ALT. FACIES	% MAGNETITE	PYRITE HABIT	% PYRITE	CHALCOPYRITE HABIT	% CHALCOPYRITE	FROM	TO	SAMPLE NUMBER	LENGTH Ft/10	Copper %	GOLD g/t
FT 30	CV 45			1.0		2.5	5.0	0.0		2.5		5.0	0.0		180.0	190.0			0.160	
															190.0	200.0			0.060	
															200.0	210.0			0.160	
															210.0	220.0			0.140	
															220.0	240.0				
															240.0	250.0			0.250	
															250.0	260.0			0.320	
															260.0	270.0			0.430	
															270.0	280.0			0.120	
BD 45	CV 30			5.0		5.0		10.0		5.0		2.5	0.0		280.0	297.0			0.070	
															297.0	313.0				
UC 80															313.0	323.0			0.010	
															323.0	333.0			0.050	
				2.5		10.0	10.0	2.5		0.0		2.5			333.0	349.0			0.090	
															349.0	364.0			0.100	

					LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
FEET	ROD PPT	RECOVERY PPT	TO	FROM						
360.0										Albitized zone within crystal tuff.
						Basalt				Amygdaloidal mafic dyke.
	800	1000	404.00	313.00	CRYSTAL LITHIC TUFF		DARK GREEN	MEDIUM GRAINED	LENSOID BANDED	
410.0										
						LH2 Diorite				
460.0										
	450	900	625.00	404.00	Lapilli TuFF			INTERBEDDED	FRAGMENTAL	A mixed interval of interbedded lapilli tuff and crystal tuff with variable alteration. Upper third of interval is Chl+Py altered and weakly bleached. Middle third has patchy K-spar veining and is cut by late mafic dykes. Magnetite forms veinlets and locally a breccia zone. Lower third of interval is like the upper third with strong Chl-Py alteration (prop ?). Cp only occurs in association with mag veinlets.
						LH2 Diorite				
						Mine Dyke				
						Magnetite				
510.0						Mine Dyke				

## STRUCTURE

## ALTERATION

## ASSAYS

ANGLE TO CORE  
STRUCTURE ID  
ANGLE TO CORE  
STRUCTURE ID

% CALCITE

% BIDTITE

% K-SPAR

% CHLORITE

% EPIDOTE

ALT. FACIES

% MAGNETITE

PYRITE HABIT

% PYRITE

CHALCOPYRITE HABIT

% CHALCOPYRITE

SAMPLE NUMBER

LENGTH Ft/10

Copper %

GOLD 9/4

- 360.0

— 410.0

— 460.0

— 510.0

[illegible]

349.0	364.0			0.100		360.0
364.0	368.0			0.320		
368.0	379.0					
379.0	389.0			0.110		
389.0	404.0			0.110		
404.0	414.0			0.060		410.0
414.0	424.0			0.080		
424.0	434.0			0.110		
434.0	444.0			0.060		
444.0	454.0			0.120		
454.0	464.0			0.030		460.0
464.0	472.0			0.120		
472.0	487.0			0.300		
487.0	495.0					
495.0	499.0			0.130		
499.0	502.0			0.240		
502.0	506.0			0.060		
506.0	514.0					510.0
514.0	524.0			0.400		
524.0	534.0			0.210		
534.0	542.0			0.670		

[illegible]

## STRUCTURE

## ALTERATION

## ASSAYS

ANGLE TO CORE STRUCTURE ID	ANGLE TO CORE STRUCTURE ID	ANGLE TO CORE STRUCTURE ID	% CALCITE	% BIDIITE	% K-SPAR	% CHLORITE	% EPIDOTE	% MAGNETITE	ALT. FACIES	PYRITE HABIT	% PYRITE	CHALCOPYRITE HABIT	% CHALCOPYRITE
BD	45				10.0	20.0	2.5	2.5		5.0			
CV	45	FT 45	5.0		50.0	10.0	5.0			2.5			0.0

FROM	TO	SAMPLE NUMBER	LENGTH Ft/10	Copper %	GOLD g/t
534.0	542.0			0.670	540.0
542.0	554.0			0.300	
554.0	564.0			0.310	
564.0	574.0			0.080	
574.0	584.0			0.220	
584.0	594.0			0.090	590.0
594.0	604.0			0.110	
604.0	614.0			0.110	
614.0	625.0			0.250	
625.0	635.0			0.050	
635.0	645.0			0.150	640.0
645.0	655.0			0.050	
655.0	665.0			0.100	
665.0	684.0			0.070	
684.0	695.0			0.140	690.0
695.0	705.0			0.050	
705.0	756.0			0.150	



ALABAMA ZONE DIAMOND DRILLING PROGRAM							
HOLE-ID	COLLAR LOCATION			DISTANCE	AZIMUTH	DIP	DTH LENGTH
	EAST	NORTH	ELEV				
DDH94-A23	9650.9	15,662.2	4073.7	0	0.0	-45.0	461
START DATE	COMP. DATE	GRADE % Cu	HOLE LENGTH	PERCENT HOLE LENGTH	PERCENT CORE RECOVERY	DRILL ROD SIZE	
		>0.20%	>0.20 %Cu	>0.20 %Cu			
34474	34477	0.21	20	4		HQ	
EQUIVALENTS							
ASSAY RESULTS				\$385.00	US\$/OZ		
				\$1.00	US\$/LB		
FROM	TO	Cu %	Au g/t	Cu equiv. %	Notes		
0	56	ns	ns	ns			
56	69	0.11	0.05	0.14			
69	79	0.08	0.06	0.11			
79	89	0.16	0.09	0.21			
89	99	0.21	0.14	0.29			
99	109	0.20	0.14	0.28			
109	119	0.05	0.04	0.07			
119	129	0.10	0.10	0.15			
129	139	0.06	0.09	0.11			
139	149	0.11	0.09	0.16			
149	159	0.08	0.03	0.10			
159	165	0.11	0.06	0.14			
165	265	ns	ns	ns			
265	275	0.05	0.07	0.09			
275	285	0.07	0.03	0.08			
285	295	0.03	0.02	0.04			
295	305	0.08	0.03	0.10			
305	318	0.05	0.05	0.08			
318	328	0.11	0.02	0.12			
328	338	0.04	0.15	0.12			
338	348	0.03	0.01	0.04			
348	358	0.06	0.02	0.07			
358	368	0.12	0.13	0.19			
368	378	0.08	0.07	0.12			
378	388	0.08	0.09	0.13			
388	398	0.07	0.06	0.10			
398	408	0.03	0.02	0.04			
408	418	0.08	0.03	0.10			
418	428	0.07	0.03	0.08			
428	438	0.08	0.05	0.11			
438	448	0.07	0.04	0.09			
448	455	0.05	0.03	0.06			
455	461	0.07	0.03	0.09	EOH		

ALABAMA ZONE DIAMOND DRILLING PROGRAM							
HOLE ID	COLLAR LOCATION			DISTANCE	AZIMUTH	DIP	DTH
	EAST	NORTH	ELEV				LENGTH
DDH94-A24	11091.7	14404.8	3766.0	0	1.3	-46.5	229
START	COMP.	GRADE	HOLE	PERCENT	PERCENT	DRILL	
DATE	DATE	% Cu	LENGTH	HOLE	CORE	ROD	
		>0.20%	>0.20 %Cu	>0.20 %Cu	RECOVERY	SIZE	
25-May-94	26-May-94	0.37	29	13		HQ	
EQUIVALENTS							
ASSAY RESULTS				\$385.00	US\$/OZ		
				\$1.00	US\$/LB		
FROM	TO	Cu	Au	Cu equiv.	Notes		
		%	g/t	%			
0	148	ns	ns	ns			
148	158	0.33	0.18	0.43			
158	168	0.04	0.01	0.05			
168	178	0.02	0.04	0.04			
178	188	0.02	0.01	0.03			
188	197	0.01	0.02	0.02			
197	202	0.77	0.17	0.87			
202	215	0.07	0.04	0.09			
215	226	0.21	0.09	0.26			
226	229	0.46	0.21	0.58			
EOH							

ALABAMA ZONE DIAMOND DRILLING PROGRAM							
HOLE-ID	COLLAR LOCATION			DISTANCE	AZIMUTH	DIP	DTH
	EAST	NORTH	ELEV				LENGTH
DDH94-A25	9675.2	14607.2	3933.6	0	359.5	-44.3	705
START	COMP.	GRADE	HOLE	PERCENT		DRILL	
DATE	DATE	% Cu	LENGTH	HOLE	PERCENT	ROD	
		>0.20%	>0.20 %Cu	LENGTH	CORE	SIZE	
26-May-94	30-May-94	0.34	106	15		HQ to 451'	
						NQ to EOH	
				EQUIVALENTS			
		ASSAY RESULTS		\$385.00	US\$/OZ		
				\$1.00	US\$/LB		
FROM	TO	Cu	Au	Cu equiv.	Notes		
		%	g/t	%			
0	48	ns	ns	ns			
48	58	0.03	0.01	0.04			
58	68	0.05	0.03	0.06			
68	78	0.04	0.03	0.06			
78	88	0.07	0.04	0.09			
88	98	0.05	0.03	0.07			
98	108	0.01	0.01	0.02			
108	110	0.05	0.05	0.08			
110	130	0.12	0.08	0.16			
130	140	0.02	0.01	0.03			
140	150	0.04	0.04	0.06			
150	161	0.05	0.04	0.07			
161	171	0.03	0.02	0.04			
171	181	0.03	0.02	0.04			
181	191	0.01	0.01	0.01			
191	201	0.01	0.00	0.01			
201	211	0.08	0.03	0.10			
211	221	0.02	0.01	0.03			
221	231	0.04	0.01	0.05			
231	241	0.06	0.03	0.08			
241	251	0.03	0.02	0.04			
251	261	0.02	0.03	0.04			
261	306	ns	ns	ns			
306	316	0.01	0.01	0.01			
316	326	0.01	0.01	0.01			
326	336	0.07	0.03	0.09			
336	346	0.10	0.04	0.12			
346	356	0.02	0.02	0.03			
356	366	0.07	0.05	0.10			
366	376	0.07	0.05	0.10			
376	386	0.13	0.06	0.17			
386	396	0.14	0.10	0.20			

		ASSAY RESULTS		DDH94-A25 page 2				
FROM	TO	Cu	Au	Cu equiv.	Notes			
		%	g/t	%				
396	406	0.06	0.04	0.08				
406	416	0.17	0.07	0.21				
416	426	0.15	0.06	0.18				
426	436	0.02	0.01	0.03				
436	441	0.14	0.05	0.17				
441	445	0.04	0.02	0.05				
445	451	ns	ns	ns				
451	461	0.05	0.04	0.07				
461	471	0.06	0.04	0.08				
471	481	0.14	0.09	0.19				
481	491	0.21	0.12	0.28				
491	501	0.20	0.13	0.27				
501	511	0.16	0.10	0.22				
511	521	0.19	0.09	0.24				
521	526	1.60	1.32	2.34				
526	535	0.05	0.12	0.11				
535	545	0.24	0.20	0.35				
545	555	0.13	0.08	0.17				
555	565	0.19	0.11	0.25				
565	577	0.02	0.03	0.04				
577	589	0.02	0.01	0.03				
589	599	0.40	0.16	0.49				
599	609	0.30	0.12	0.36				
609	619	0.22	0.11	0.28				
619	629	0.09	0.10	0.14				
629	639	0.14	0.06	0.17				
639	650	0.26	0.08	0.31				
650	663	0.10	0.12	0.17				
663	673	0.29	0.07	0.33				
673	683	0.30	0.16	0.39				
683	693	0.39	0.09	0.44				
693	703	0.15	0.15	0.23				
703	705	ns	ns	ns				
EOH								

ALABAMA ZONE DIAMOND DRILLING PROGRAM							
HOLE-ID	COLLAR LOCATION			DISTANCE	AZIMUTH	DIP	DTH
	EAST	NORTH	ELEV				LENGTH
DDH94-A26	11091.0	14444.0	3766.0	0	359.5	-43.0	229
START	COMP.	GRADE	HOLE	PERCENT	PERCENT	DRILL	
DATE	DATE	% Cu	LENGTH	HOLE	CORE	ROD	
		>0.20%	>0.20 %Cu	LENGTH	RECOVERY	SIZE	
27-May-94	28-May-94	0.76	70	31		HQ to 75'	
						NQ to EOH	
				EQUIVALENTS			
		ASSAY RESULTS		\$385.00	US\$/OZ		
				\$1.00	US\$/LB		
FROM	TO	Cu	Au	Cu equiv.	Notes		
		%	g/t	%			
0	94	ns	ns	ns			
94	104	0.04	0.03	0.06			
104	119	0.61	0.68	0.99			
119	130	0.07	0.09	0.12			
130	142	0.86	0.38	1.07			
142	145	1.24	0.52	1.53			
145	155	0.71	0.27	0.86			
155	165	0.20	0.09	0.25			
165	179	0.18	0.09	0.23			
179	199	1.06	0.17	1.16			
199	213	0.14	0.06	0.18			
213	229	0.10	0.04	0.12			
EOH							

ALABAMA ZONE DIAMOND DRILLING PROGRAM							
HOLE-ID	COLLAR LOCATION			DISTANCE	AZIMUTH	DIP	DTH
	EAST	NORTH	ELEV				LENGTH
DDH94-A27	10095.5	14245.7	3778.5	0	358.0	-46.0	554
START	COMP.	GRADE	HOLE	PERCENT	PERCENT	DRILL	
DATE	DATE	% Cu	LENGTH	LENGTH	CORE	ROD	
		>0.20%	>0.20 %Cu	>0.20 %Cu	RECOVERY	SIZE	
34483	34486	0.15	88	16		HQ	
EQUIVALENTS							
ASSAY RESULTS				\$385.00	US\$/OZ		
				\$1.00	US\$/LB		
FROM	TO	Cu	Au	Cu equiv.	Notes		
		%	g/t	%			
0	42	ns	ns	ns			
42	52	0.07	0.05	0.10			
52	62	0.18	0.12	0.25			
62	72	0.27	0.14	0.35			
72	82	0.16	0.10	0.21			
82	89	0.03	0.02	0.04			
89	99	ns	0.02	0.01			
99	109	0.05	0.02	0.06			
109	119	0.02	0.01	0.02			
119	129	0.01	0.01	0.01			
129	139	0.08	0.05	0.11			
139	149	0.10	0.06	0.13			
149	159	0.06	0.04	0.08			
159	168	0.04	0.01	0.04			
168	178	0.14	0.04	0.16			
178	188	0.05	0.00	0.05			
188	198	0.12	0.09	0.17			
198	208	0.15	0.12	0.22			
208	218	0.15	0.10	0.21			
218	228	0.12	0.06	0.15			
228	237	0.04	0.02	0.05			
237	241	0.03	0.01	0.03			
241	251	0.05	0.01	0.05			
251	261	0.05	0.02	0.06			
261	268	0.04	0.01	0.05			
268	275	0.41	0.21	0.53			
275	285	0.11	0.14	0.19			
285	295	0.14	0.10	0.20			
295	305	0.05	0.05	0.08			
305	315	0.18	0.12	0.25			
315	322	0.25	0.17	0.35			
322	332	0.08	0.07	0.12			

		ASSAY RESULTS		DDH94-A27 page 2				
FROM	TO	Cu %	Au g/t	Cu equiv. %	Notes			
332	342	0.19	0.16	0.28				
342	352	0.18	0.12	0.25				
352	362	0.07	0.09	0.12				
362	372	0.08	0.06	0.12				
372	382	0.12	0.10	0.17				
382	392	0.10	0.05	0.13				
392	402	0.09	0.06	0.13				
402	412	0.13	0.12	0.20				
412	422	0.14	0.08	0.19				
422	432	0.08	0.15	0.16				
432	442	0.15	0.16	0.24				
442	452	0.03	0.04	0.05				
452	462	0.01	0.06	0.05				
462	472	0.01	0.01	0.02				
472	482	0.19	0.10	0.24				
482	492	0.15	0.11	0.21				
492	499	0.67	0.26	0.82				
499	509	0.12	0.12	0.19				
509	519	0.11	0.06	0.14				
519	529	0.08	0.10	0.13				
529	539	0.11	0.11	0.17				
539	549	0.18	0.10	0.23				
549	554	0.20	0.16	0.29				
EOH								

ALABAMA ZONE DIAMOND DRILLING PROGRAM							
HOLE-ID	COLLAR LOCATION			DISTANCE	AZIMUTH	DIP	DTH LENGTH
	EAST	NORTH	ELEV				
DDH94-A28	9251.7	14598.8	3898.6	0	0.0	-46.0	732
START DATE	COMP. DATE	GRADE % Cu	HOLE LENGTH	HOLE LENGTH	PERCENT CORE RECOVERY	PERCENT	DRILL ROD SIZE
31-May-94	6-Jun-94	0.28	24	3			HQ
EQUIVALENTS							
ASSAY RESULTS				\$385.00	US\$/OZ		
				\$1.00	US\$/LB		
FROM	TO	Cu %	Au g/t	Cu equiv. %	Notes		
0	73	ns	ns	ns			
73	83	0.04	0.02	0.05			
83	93	0.01	0.01	0.01			
93	128	0.01	0.01	0.02			
128	138	0.09	0.06	0.12			
138	148	0.03	0.26	0.18			
148	158	0.03	0.00	0.03			
158	168	0.02	0.01	0.02			
168	178	0.02	0.01	0.02			
178	188	0.11	0.05	0.14			
188	198	0.04	0.05	0.07			
198	208	0.02	0.02	0.03			
208	218	0.02	0.00	0.02			
218	228	0.04	0.01	0.05			
228	238	0.04	0.03	0.05			
238	248	0.28	0.16	0.37			
248	255	0.13	0.08	0.17			
255	332	ns	ns	ns			
332	342	0.00	0.01	0.00			
342	349	0.01	0.01	0.01			
349	362	0.05	0.02	0.06			
362	372	0.03	0.02	0.04			
372	382	0.05	0.02	0.06			
382	386	0.02	0.01	0.03			
386	396	0.07	0.04	0.09			
396	406	0.05	0.05	0.08			
406	416	0.04	0.05	0.07			
416	426	0.01	0.00	0.01			
426	432	0.01	0.00	0.01			
432	438	0.02	0.02	0.03			
438	448	0.01	0.00	0.01			
448	458	0.01	0.00	0.01			



		ASSAY RESULTS			DDH94-A28 page 2		
FROM	TO	Cu %	Au g/t	Cu equiv. %	Notes		
458	468	0.01	0.00	0.01			
468	478	0.00	0.00	0.00			
478	488	0.01	0.00	0.01			
488	498	0.00	0.11	0.06			
498	508	0.01	0.00	0.01			
508	514	0.01	0.00	0.01			
514	528	0.01	0.00	0.01			
528	538	0.01	0.00	0.01			
538	548	0.00	0.00	0.00			
548	558	0.01	0.01	0.01			
558	563	0.01	0.00	0.01			
563	573	0.30	0.14	0.38			
573	583	0.02	0.04	0.04			
583	593	0.02	0.01	0.02			
593	604	0.03	0.01	0.04			
604	608	0.22	0.11	0.28			
608	618	0.02	0.01	0.02			
618	628	0.02	0.01	0.03			
628	638	0.02	0.01	0.02			
638	648	0.01	0.01	0.01			
648	658	0.02	0.14	0.10			
658	668	0.02	0.00	0.02			
668	678	0.01	0.03	0.03			
678	688	0.02	0.05	0.05			
688	698	0.00	0.01	0.00			
698	708	0.00	0.00	0.00			
708	718	0.00	0.00	0.00			
718	728	0.00	0.01	0.00			
728	732	ns	ns	ns			
EOH							

ALABAMA ZONE DIAMOND DRILLING PROGRAM							
HOLE-ID	COLLAR LOCATION			DISTANCE	AZIMUTH	DIP	DTH LENGTH
	EAST	NORTH	ELEV				
DDH94-A29	10382.8	14276.9	3785.2	0	357.0	-48.0	749
START DATE	COMP. DATE	GRADE % Cu	HOLE LENGTH	PERCENT HOLE LENGTH	PERCENT CORE RECOVERY	DRILL ROD SIZE	
1-Jun-94	7-Jun-94	0.49	129	17		HQ to 441'	
						NQ to eoh	
				EQUIVALENTS			
				\$385.00	US\$/OZ		
				\$1.00	US\$/LB		
FROM	TO	Cu %	Au g/t	Cu equiv. %	Notes		
0	41	ns	ns				
41	45	0.07	0.01	0.07			
45	94	0.65	0.08	0.69			
94	104	0.05	0.10	0.11			
104	117	0.09	0.06	0.13			
117	127	0.04	0.03	0.06			
127	129	1.13	0.88	1.62			
129	139	0.04	0.01	0.05			
139	149	0.03	0.01	0.03			
149	159	0.02	0.02	0.03			
159	169	0.07	0.04	0.09			
169	179	0.01	0.00	0.01			
179	221	0.03	0.02	0.04			
221	229	0.24	0.12	0.30			
229	239	0.30	0.17	0.40			
239	249	0.26	0.13	0.33			
249	259	0.32	0.16	0.41			
259	279	0.19	0.10	0.24			
279	289	0.10	0.03	0.12			
289	299	0.10	0.03	0.11			
299	312	0.19	0.08	0.23			
312	315	0.27	0.12	0.34			
315	325	0.15	0.11	0.21			
325	338	0.12	0.08	0.16			
338	349	0.10	0.06	0.13			
349	353	0.08	0.05	0.11			
353	363	0.06	0.04	0.08			
363	373	0.08	0.06	0.12			
373	382	0.10	0.04	0.12			
382	392	0.08	0.04	0.10			
392	402	0.05	0.04	0.07			
402	412	0.05	0.03	0.07			

		ASSAY RESULTS			DDH94-A29 page 2		
FROM	TO	Cu %	Au g/t	Cu equiv. %	Notes		
412	423	0.04	0.03	0.06			
423	432	0.04	0.02	0.05			
432	441	0.08	0.04	0.10			
441	451	0.17	0.08	0.21			
451	461	0.09	0.04	0.11			
461	471	0.16	0.09	0.21			
471	480	0.18	0.11	0.24			
480	482	3.71	2.15	4.92			
482	492	0.08	0.04	0.10			
492	500	0.03	0.02	0.04			
500	509	0.05	0.04	0.07			
509	518	0.05	0.05	0.08			
518	528	0.05	0.04	0.07			
528	538	0.06	0.06	0.09			
538	548	0.11	0.04	0.13			
548	558	0.09	0.12	0.15			
558	561	0.10	0.04	0.12			
561	571	0.16	0.03	0.18			
571	581	0.07	0.04	0.09			
581	591	0.04	0.06	0.07			
591	595	0.05	0.11	0.11			
595	600	0.09	0.11	0.15			
600	610	0.21	0.12	0.28			
610	619	0.15	0.13	0.22			
619	629	0.18	0.16	0.27			
629	639	0.13	0.12	0.20			
639	648	0.19	0.18	0.29			
648	655	0.17	0.30	0.34			
655	663	0.10	1.68	1.04			
663	674	0.04	0.05	0.07			
674	684	0.03	0.16	0.12			
684	690	0.10	0.65	0.47			
690	696	0.08	0.17	0.18			
696	706	0.12	0.23	0.25			
706	711	0.23	0.21	0.35			
711	721	0.33	0.31	0.50			
721	731	0.35	0.21	0.47			
731	741	0.18	0.11	0.24			
741	749	0.13	0.08	0.17			
eah							

# **APPENDIX I b**

## **Composited Intersections**

ALABAMA

# INPUT CONTROL PARAMETERS :

RACE VALUE = .000  
 ASSIGNED VALUE FOR TRACE = .000  
 MISSING VALUES TREATED AS ZERO

UTOFF GRADE = .200 HIGH CUTOFF GRADE = 1000.000  
 GRADE UNITS CONVERSION FACTOR = 1.000  
 MINIMUM INTERCEPT LENGTH = 20.00  
 MAXIMUM ALLOWABLE INTERNAL WASTE = 20.00

DOWNWARD INTERCEPTS CALCULATED (BIASED TOWARDS GRADE).

INTERCEPT ASSAY DATA WITHIN FILE: AD01

INTERCEPTS FILED UNDER FLAG: DICU

ASSAY DATA WITHIN COLUMN CU1

OF THE ABOVE FILE WILL BE USED

LYNX GEOSYSTEMS INC - RESCAL

INTCPT - PAGE: 1

## O R E I N T E R S E C T I O N S

I N T E R S E C T I O N		LENGTH	GRADE	GRADE x THICKNESS	INTERSECTION MID-POINT LOCATION		
FROM	TO				NORTHING	EASTING	ELEVATION
DRILLHOLE: DDH67_C06							
195.00	215.00	20.00	.280	5.600	14912.01	10579.82	3753.07
DRILLHOLE: DDH67_C08							
DRILLHOLE: DDH67_C09							
18.00	87.00	69.00	.221	15.220	15256.18	9988.21	4032.53
117.00	149.00	32.00	.539	17.250	15296.34	9985.48	3962.82
180.00	245.00	65.00	.387	25.130	15336.00	9982.78	3893.97
275.00	304.50	29.50	.330	9.725	15374.53	9980.15	3827.07
DRILLHOLE: DDH67_C10							
216.00	236.00	20.00	.330	6.600	15191.23	10268.78	3812.19
450.00	530.00	80.00	.237	19.000	15344.52	10162.24	3625.52
DRILLHOLE: DDH67_C12							
60.00	83.00	23.00	.337	7.750	15023.53	10392.37	3919.71
467.00	497.00	30.00	.323	9.700	14814.19	10578.25	3619.49
567.00	647.00	80.00	.690	55.200	14750.43	10634.86	3528.07
DRILLHOLE: DDH88_A10							
10.00	100.00	90.00	.397	35.700	15307.49	9647.50	4044.11
130.00	194.00	64.00	.355	22.700	15360.99	9701.00	3968.45
DRILLHOLE: DDH88_A11							
75.00	215.00	140.00	.428	59.900	15322.41	10092.35	3970.50
DRILLHOLE: DDH89_A19							
DRILLHOLE: DDH89_A20							
64.00	138.00	74.00	.291	21.510	15834.34	10302.12	3872.28
306.00	376.00	70.00	.549	38.400	15736.87	10204.65	3675.66
DRILLHOLE: DDH89_A21							
210.00	278.00	68.00	.336	22.820	15675.19	8816.05	3828.38
DRILLHOLE: DDH89_A22							
359.00	399.00	40.00	.465	18.600	15790.24	7002.49	3829.06

390.78

## O R E I N T E R S E C T I O N S

I N T E R S E C T I O N			GRADE	CLAVE X THICKNESS	INTERSECTION		MID-POINT EASTING	LOCATION ELEVATION
FROM	TO	LENGTH			NORTHING	EASTING		
DRILLHOLE: DDH90_A02								
100.00	120.00	20.00	.215	4.300	15171.55	9827.36	4007.71	
270.00	380.00	110.00	.245	27.000	15322.92	9840.60	3855.72	
408.00	525.00	117.00	.291	34.050	15422.54	9849.32	3755.68	
DRILLHOLE: DDH90_A03								
70.00	110.00	40.00	.241	9.640	15611.07	9819.24	3986.50	
240.00	312.00	72.00	.269	19.400	15742.13	9821.53	3854.92	
DRILLHOLE: DDH90_A04								
150.00	250.00	100.00	.269	26.900	15571.06	10177.31	3845.01	
400.00	425.00	25.00	.448	11.200	15690.61	10156.04	3670.99	
DRILLHOLE: DDH90_A05								
85.00	308.00	223.00	.355	79.200	15195.72	10211.60	3827.85	
340.00	400.00	60.00	.480	28.800	15292.46	10189.31	3685.77	
430.00	460.00	30.00	.323	9.700	15334.27	10179.68	3624.35	
DRILLHOLE: DDH90_A06								
25.00	360.00	335.00	.264	88.350	15630.46	9671.73	3909.40	
DRILLHOLE: DDH90_A07								
112.00	160.00	48.00	.333	15.980	15356.70	10394.79	3866.48	
330.00	370.00	40.00	.293	11.700	15478.70	10381.93	3691.21	
DRILLHOLE: DDH90_A08								
10.00	120.00	110.00	.377	41.480	14825.86	10640.50	3854.72	
240.00	460.00	220.00	.369	81.100	14974.47	10709.60	3621.22	
DRILLHOLE: DDH90_A09								
200.00	230.00	30.00	.477	14.300	14811.92	10914.78	3640.19	
290.00	345.00	55.00	.354	19.450	14866.44	10937.23	3556.23	
DRILLHOLE: DDH90_A10								
100.00	180.00	80.00	.274	21.900	15900.26	9963.39	3906.16	
DRILLHOLE: DDH90_A11								
50.00	70.00	20.00	.405	8.100	13915.55	10735.12	3533.33	
210.00	230.00	20.00	.390	7.800	13980.29	10799.86	3402.28	
280.00	360.00	80.00	.235	18.800	14020.76	10840.33	3320.38	
DRILLHOLE: DDH90_A12								
350.00	400.00	50.00	.452	22.600	14384.36	10885.62	3457.31	
DRILLHOLE: DDH90_A13								
DRILLHOLE: DDH90_A14								
190.00	210.00	20.00	.255	5.100	14804.32	10257.23	3735.02	
270.00	350.00	80.00	.319	25.500	14843.28	10296.19	3639.75	
DRILLHOLE: DDH90_A15								
330.00	430.00	100.00	.268	26.800	14824.25	10630.15	3551.26	
DRILLHOLE: DDH90_A16								
60.00	100.00	40.00	.257	10.300	15423.34	9552.24	3994.66	
430.00	460.00	30.00	.320	9.600	15548.21	9552.24	3651.73	
DRILLHOLE: DDH90_A17								
90.00	110.00	20.00	.265	5.300	15574.26	9368.52	3981.02	
370.00	400.00	30.00	.240	7.200	15717.04	9368.52	3734.18	

## O R E I N T E R S E C T I O N S

I N T E R S E C T I O N			GRADE	GRADE x THICKNESS	INTERSECTION MID-POINT LOCATION		
FROM	TO	LENGTH			NORTHING	EASTING	ELEVATION
DRILLHOLE: DDH94_A01							
DRILLHOLE: DDH94_A03							
690.00	727.00	37.00	.315	11.640	15719.97	9300.53	3556.06
753.00	773.00	20.00	.512	10.240	15682.09	9300.53	3516.86
DRILLHOLE: DDH94_A04							
DRILLHOLE: DDH94_A06							
DRILLHOLE: DDH94_A07							
102.00	122.00	20.00	.210	4.200	15011.90	10109.31	3945.51
214.00	234.00	20.00	.310	6.200	15088.25	10105.39	3863.60
261.00	282.00	21.00	.234	4.920	15120.63	10103.73	3828.87
291.00	313.00	22.00	.240	5.280	15141.42	10102.66	3806.56
366.00	643.00	277.00	.396	109.760	15279.45	10095.58	3658.47
717.00	763.00	46.00	.259	11.920	15439.97	10087.34	3486.24
115.00	1161.00	46.00	.243	11.180	15711.27	10073.41	3195.17
DRILLHOLE: DDH94_A08							
126.00	190.00	64.00	.208	13.280	14535.37	10111.43	3720.47
337.00	360.00	23.00	.224	5.160	14674.25	10116.08	3590.07
794.00	821.00	27.00	.608	16.420	15008.88	10127.27	3275.88
DRILLHOLE: DDH94_A09							
DRILLHOLE: DDH94_A11							
60.00	82.00	22.00	.272	5.980	15037.35	9693.92	4020.22
112.00	227.00	115.00	.262	30.170	15105.30	9692.97	3948.92
248.00	399.00	151.00	.341	51.480	15211.54	9691.49	3837.44
530.00	747.00	217.00	.455	98.810	15428.85	9688.46	3609.42
845.00	930.00	85.00	.273	23.190	15600.63	9686.06	3429.17
957.00	981.00	24.00	.323	7.760	15656.86	9685.28	3370.18
DRILLHOLE: DDH94_A12							
DRILLHOLE: DDH94_A13							
39.00	99.00	60.00	.320	19.200	15487.14	10366.67	3932.47
242.00	266.00	24.00	.303	7.270	15620.14	10361.95	3803.94
DRILLHOLE: DDH94_A14							
154.00	184.00	30.00	.473	14.200	15707.21	10319.51	3868.81
DRILLHOLE: DDH94_A15							
204.00	229.00	25.00	.256	6.410	14430.80	10620.73	3628.18
DRILLHOLE: DDH94_A16							
DRILLHOLE: DDH94_A17							
24.00	99.00	75.00	.209	15.650	15011.98	10615.86	3909.17
122.00	260.00	138.00	.313	43.140	15103.22	10614.36	3817.20
304.00	409.00	105.00	.277	29.110	15219.83	10612.44	3699.66
DRILLHOLE: DDH94_A19							
<del>4.01</del>	<del>104.00</del>	<del>99.99</del>	<del>.889</del>	<del>88.848</del>	15271.13	8968.42	4020.04
174.00	263.00	89.00	.286	25.450	15396.32	8968.59	3913.11
318.00	360.00	42.00	.288	12.080	15488.03	8968.71	3834.78
420.00	451.00	31.00	.347	10.750	15561.47	8968.81	3772.05
DRILLHOLE: DDH94_A21							
53.00	98.00	45.00	.281	12.650	15535.48	8989.42	4010.14
DRILLHOLE: DDH94_A22							
70.00	180.00	110.00	.374	41.100	14493.93	10768.26	3701.51
240.00	270.00	30.00	.333	10.000	14584.32	10761.54	3608.33
514.00	584.00	70.00	.302	21.160	14788.73	10746.35	3397.62
DRILLHOLE: DDH94_A24							
197.00	229.00	32.00	.264	8.450	14551.22	11094.89	3611.39
DRILLHOLE: DDH94_A26							
104.00	199.00	95.00	.598	56.780	14551.02	11093.28	3658.86

5438' 0.34%

INPUT CONTROL PARAMETERS :

RACE VALUE = .000  
 ASSIGNED VALUE FOR TRACE = .000  
 MISSING VALUES TREATED AS ZERO  
 UTOFF GRADE = .200 HIGH CUTOFF GRADE = 1000.000  
 GRADE UNITS CONVERSION FACTOR = 1.000  
 MINIMUM INTERCEPT LENGTH = 20.00  
 MAXIMUM ALLOWABLE INTERNAL WASTE = 30.00  
 "CENTERED" INTERCEPTS CALCULATED (BIASED TOWARDS INTERSECTION LENGTH)  
 INTERCEPT ASSAY DATA WITHIN FILE: AD01  
 INTERCEPTS FILED UNDER FLAG: DICO  
 ASSAY DATA WITHIN COLUMN CUI OF THE ABOVE FILE WILL BE USED

O R E I N T E R S E C T I O N S							
I N T E R S E C T I O N			I N T E R S E C T I O N S				
FROM	TO	LENGTH	GRADE	THICKNESS	NORTHING	EASTING	ELEVATION
DRILLHOLE : DDH67_C06							
126.00	162.00	36.00	.266	9.565	14890.58	10544.17	3797.68
190.00	215.00	25.00	.240	6.000	14911.13	10578.36	3754.90
DRILLHOLE : DDH67_C08							
92.00	112.00	20.00	.200	4.000	14803.51	10399.26	3829.63
DRILLHOLE : DDH67_C09							
18.00	87.00	69.00	.221	15.220	15256.18	9988.21	4032.53
87.00	144.00	57.00	.353	20.100	15287.62	9986.07	3977.97
160.00	224.00	64.00	.390	24.980	15325.77	9983.47	3911.72
234.00	255.00	21.00	.207	4.350	15351.96	9981.69	3866.26
275.00	304.50	29.50	.330	9.725	15374.53	9980.15	3827.07
380.00	400.00	20.00	.220	4.400	15424.54	9976.74	3740.25
DRILLHOLE : DDH67_C10							
85.00	105.00	20.00	.215	4.300	15115.16	10321.65	3904.83
125.00	145.00	20.00	.215	4.300	15138.39	10305.51	3876.54
165.00	187.00	22.00	.210	4.620	15162.19	10288.96	3847.55
216.00	256.00	40.00	.215	8.600	15197.04	10264.75	3805.12
256.00	296.00	40.00	.245	9.800	15220.26	10248.61	3776.84
440.00	510.00	70.00	.236	16.500	15335.82	10168.30	3636.12
DRILLHOLE : DDH67_C12							
50.00	83.00	33.00	.265	8.750	15026.08	10390.11	3923.37
437.00	477.00	40.00	.205	8.200	14826.93	10566.93	3637.77
477.00	507.00	30.00	.230	6.900	14809.09	10582.78	3612.18
557.00	657.00	100.00	.582	58.200	14750.43	10634.86	3528.07
677.00	701.00	24.00	.209	5.020	14708.61	10671.99	3468.10
DRILLHOLE : DDH88_A10							
.00	120.00	120.00	.314	37.700	15309.99	9650.00	4040.57
120.00	194.00	74.00	.332	24.600	15358.49	9698.50	3971.99
DRILLHOLE : DDH88_A11							
75.00	245.00	170.00	.378	64.200	15329.92	10099.86	3959.89
DRILLHOLE : DDH89_A19							
DRILLHOLE : DDH89_A20							
44.00	109.00	65.00	.252	16.350	15844.29	10312.07	3892.35
109.00	146.00	37.00	.249	9.200	15823.58	10291.35	3850.57
276.00	346.00	70.00	.443	31.000	15749.05	10216.83	3700.23
346.00	393.00	47.00	.252	11.850	15725.29	10193.07	3652.31
DRILLHOLE : DDH89_A21							
187.00	230.00	43.00	.334	14.370	15654.80	8816.05	3857.46
240.00	295.00	55.00	.241	13.250	15688.68	8816.05	3809.13
DRILLHOLE : DDH89_A22							
330.00	369.00	39.00	.250	9.740	15773.28	7002.49	3853.22
369.00	419.00	50.00	.284	14.200	15798.87	7002.49	3816.77



DRILLHOLE : DDH90_A02							
100.00	120.00	20.00	.215	4.300	15171.55	9827.36	4007.71
200.00	230.00	30.00	.200	6.000	15245.47	9833.83	3933.48
240.00	260.00	20.00	.220	4.400	15270.12	9835.98	3908.74
270.00	350.00	80.00	.278	22.200	15312.36	9839.68	3866.32
380.00	420.00	40.00	.275	10.980	15375.72	9845.22	3802.69
420.00	480.00	60.00	.354	21.270	15410.92	9848.30	3767.34
DRILLHOLE : DDH90_A03							
67.00	110.00	43.00	.226	9.700	15610.01	9819.23	3987.56
120.00	148.00	28.00	.203	5.680	15642.07	9819.79	3955.38
190.00	210.00	20.00	.220	4.400	15688.58	9820.59	3908.69
230.00	312.00	82.00	.259	21.200	15738.61	9821.47	3858.46
DRILLHOLE : DDH90_A04							
65.00	120.00	55.00	.234	12.870	15510.58	10188.08	3933.05
140.00	160.00	20.00	.200	4.000	15542.93	10182.32	3885.96
160.00	250.00	90.00	.276	24.800	15573.87	10176.81	3840.92
400.00	467.00	67.00	.259	17.324	15702.42	10153.93	3653.79

## O R E I N T E R S E C T I O N S

DRILLHOLE : DDH90\_A05

I N T E R S E C T I O N					INTERSECTION	MID POINT	LOCATION
FROM	TO	LENGTH	GRADE	THICKNESS	NORTHING	EASTING	ELEVATION
85.00	210.00	125.00	.386	48.200	15168.39	10217.90	3867.98
210.00	240.00	30.00	.237	7.100	15211.61	10207.94	3804.51
250.00	308.00	58.00	.402	23.300	15241.72	10201.00	3760.29
330.00	412.00	82.00	.370	30.300	15293.01	10189.18	3684.95
412.00	440.00	28.00	.205	5.750	15323.68	10182.12	3639.91
440.00	460.00	20.00	.215	4.300	15337.06	10179.03	3620.25

DRILLHOLE : DDH90\_A06

25.00	100.00	75.00	.221	16.550	15555.94	9669.15	4015.91
100.00	230.00	130.00	.337	43.800	15614.70	9671.18	3931.93
240.00	260.00	20.00	.235	4.700	15663.42	9672.87	3862.28
280.00	360.00	80.00	.229	18.300	15703.55	9674.26	3804.93

DRILLHOLE : DDH90\_A07

112.00	180.00	68.00	.273	18.580	15362.40	10394.18	3858.29
330.00	370.00	40.00	.293	11.700	15478.70	10381.93	3691.21

DRILLHOLE : DDH90\_A08

.00	130.00	130.00	.331	43.080	14825.86	10640.50	3854.72
240.00	410.00	170.00	.418	71.100	14961.43	10703.54	3641.70
420.00	460.00	40.00	.240	9.600	15021.39	10731.42	3547.48

DRILLHOLE : DDH90\_A09

200.00	250.00	50.00	.310	15.500	14817.24	10916.97	3632.00
280.00	345.00	65.00	.322	20.950	14863.78	10936.14	3560.32

DRILLHOLE : DDH90\_A10

80.00	110.00	30.00	.207	6.200	15874.39	9963.39	3943.01
110.00	180.00	70.00	.259	18.100	15903.13	9963.39	3902.07
290.00	320.00	30.00	.203	6.100	15995.10	9963.39	3771.05

DRILLHOLE : DDH90\_A11

40.00	80.00	40.00	.262	10.500	13915.55	10735.12	3533.33
100.00	130.00	30.00	.230	6.900	13937.81	10757.38	3488.28
200.00	240.00	40.00	.220	8.800	13980.29	10799.86	3402.28
280.00	360.00	80.00	.235	18.800	14020.76	10840.33	3320.38

DRILLHOLE : DDH90\_A12

320.00	340.00	20.00	.225	4.500	14366.13	10867.39	3494.18
340.00	400.00	60.00	.392	23.500	14382.33	10883.60	3461.41

DRILLHOLE : DDH90\_A13

DRILLHOLE : DDH90\_A14

190.00	210.00	20.00	.255	5.100	14804.32	10257.23	3735.02
260.00	330.00	70.00	.334	23.400	14837.96	10290.88	3652.74

DRILLHOLE : DDH90\_A15

330.00	400.00	70.00	.294	20.600	14817.31	10627.34	3564.25
410.00	440.00	30.00	.207	6.200	14845.06	10638.59	3512.30

DRILLHOLE : DDH90\_A16

30.00	80.00	50.00	.222	11.100	15414.79	9552.24	4018.15
80.00	100.00	20.00	.205	4.100	15426.76	9552.24	3985.27
372.00	410.00	38.00	.201	7.640	15529.74	9552.24	3702.47
430.00	480.00	50.00	.244	12.200	15551.63	9552.24	3642.34
480.00	520.00	40.00	.208	8.300	15567.03	9552.24	3600.06

DRILLHOLE : DDH90\_A17

50.00	70.00	20.00	.210	4.200	15554.22	9368.52	4015.67
90.00	130.00	40.00	.205	8.200	15579.27	9368.52	3972.36
360.00	400.00	40.00	.213	8.500	15714.54	9368.52	3738.52

INTERSECTION					ORE INTERSECTIONS		
FROM	TO	LENGTH	GRADE	THICKNESS	NORTHING	EASTING	LOCATION ELEVATION
DRILLHOLE : DDH94_A01							
625.00	645.00	20.00	.285	5.700	15842.40	9950.60	3604.80
DRILLHOLE : DDH94_A03							
635.00	669.00	34.00	.276	9.380	15759.24	9300.53	3596.70
690.00	743.00	53.00	.271	14.360	15714.41	9300.53	3550.31
743.00	773.00	30.00	.405	12.140	15685.56	9300.53	3520.45
DRILLHOLE : DDH94_A04							
DRILLHOLE : DDH94_A06							
473.00	510.00	37.00	.209	7.730	15811.91	10865.87	3515.00
DRILLHOLE : DDH94_A07							
56.00	82.00	26.00	.225	5.840	14982.59	10110.82	3976.96
102.00	122.00	20.00	.210	4.200	15011.90	10109.31	3945.51
204.00	244.00	40.00	.217	8.700	15088.25	10105.39	3863.60
251.00	282.00	31.00	.210	6.520	15117.22	10103.91	3832.52
291.00	319.00	28.00	.219	6.120	15143.46	10102.56	3804.37
366.00	413.00	47.00	.297	13.980	15201.06	10099.60	3742.57
433.00	584.00	151.00	.499	75.380	15282.17	10095.44	3655.54
584.00	643.00	59.00	.283	16.700	15353.75	10091.76	3578.75
717.00	763.00	46.00	.259	11.920	15439.97	10087.34	3486.24
115.00	1171.00	56.00	.209	11.680	15714.67	10073.23	3191.52
DRILLHOLE : DDH94_A08							
35.00	66.00	31.00	.216	6.690	14457.00	10108.81	3794.05
116.00	168.00	52.00	.220	11.460	14523.70	10111.04	3731.42
337.00	360.00	23.00	.224	5.160	14674.25	10116.08	3590.07
473.00	508.00	35.00	.233	8.170	14777.77	10119.54	3492.87
780.00	831.00	51.00	.374	19.080	15007.42	10127.23	3277.25
DRILLHOLE : DDH94_A09							
DRILLHOLE : DDH94_A10							
DRILLHOLE : DDH94_A11							
60.00	90.00	30.00	.216	6.480	15040.11	9693.88	4017.33
102.00	207.00	105.00	.270	28.370	15094.96	9693.12	3959.78
217.00	238.00	21.00	.204	4.290	15145.32	9692.42	3906.93
238.00	310.00	72.00	.333	23.960	15177.39	9691.97	3873.27
350.00	409.00	59.00	.417	24.620	15250.18	9690.95	3796.90
520.00	667.00	147.00	.518	76.190	15397.81	9688.89	3641.99
667.00	762.00	95.00	.274	26.070	15481.28	9687.73	3554.40
845.00	930.00	85.00	.273	23.190	15600.63	9686.06	3429.17
957.00	992.00	35.00	.256	8.970	15660.65	9685.23	3366.20
DRILLHOLE : DDH94_A12							
397.00	422.00	25.00	.264	6.610	15290.08	9244.52	3769.34
DRILLHOLE : DDH94_A13							
39.00	119.00	80.00	.275	22.000	15494.33	10366.41	3925.52
179.00	204.00	25.00	.236	5.900	15575.21	10363.54	3847.36
222.00	249.00	27.00	.210	5.680	15606.84	10362.42	3816.80
249.00	276.00	27.00	.226	6.090	15626.25	10361.73	3798.04
DRILLHOLE : DDH94_A14							
124.00	184.00	60.00	.280	16.800	15696.44	10319.51	3879.21
DRILLHOLE : DDH94_A15							
200.00	229.00	29.00	.236	6.850	14429.42	10620.71	3629.63
DRILLHOLE : DDH94_A16							
60.00	81.00	21.00	.207	4.340	15308.85	9239.41	4026.96
119.00	139.00	20.00	.205	4.100	15351.93	9239.30	3987.22
DRILLHOLE : DDH94_A17							
14.00	54.00	40.00	.265	10.600	14992.60	10616.17	3928.70

99.00	169.00	70.00	.319	22.330	15063.06	10615.02	3857.68
89.00	274.00	85.00	.266	22.600	15131.76	10613.89	3788.44
104.00	409.00	105.00	.277	29.110	15219.83	10612.44	3699.66
DRILLHOLE : DDH94_A19							
84.00	104.00	20.00	.220	4.400	15301.57	8968.46	3994.04
174.00	263.00	89.00	.286	25.450	15396.32	8968.59	3913.11
293.00	360.00	67.00	.242	16.230	15478.52	8968.70	3842.90
410.00	451.00	41.00	.289	11.850	15557.67	8968.81	3775.30
DRILLHOLE : DDH94_A20							
120.00	230.00	110.00	.250	27.480	14410.45	10699.96	3657.96
DRILLHOLE : DDH94_A21							
53.00	98.00	45.00	.281	12.650	15535.48	8989.42	4010.14
134.00	161.00	27.00	.234	6.310	15585.54	8988.52	3958.70
DRILLHOLE : DDH94_A22							
70.00	180.00	110.00	.374	41.100	14493.93	10768.26	3701.51
240.00	280.00	40.00	.280	11.200	14587.79	10761.29	3604.75
464.00	487.00	23.00	.237	5.460	14737.63	10750.15	3450.30
506.00	584.00	78.00	.271	21.160	14785.95	10746.56	3400.49
756.00	794.00	38.00	.279	10.620	14945.86	10734.67	3235.64
DRILLHOLE : DDH94_A24							
DRILLHOLE : DDH94_A26							
94.00	165.00	71.00	.471	33.460	14535.45	11092.93	3674.42
165.00	213.00	48.00	.535	25.680	14577.56	11093.88	3632.35

7245

2165 = 0.30

TOTAL INTERSECTION  
LENGTH

AVERAGE GRADE

## ALABAMA.ORE

ALABAMA ZONE						
ORE RESERVE CALCULATIONS						
SECTION	BLOCK SIZE			TONNAGE	AVE GRADE	TONS x GRADE
	thick	deep	strike		% Cu	
		(feet)				
8900E	50	500	200	434,783	0.336	146,087
	15	175	200	45,652	0.234	10,683
	35	175	200	106,522	0.281	29,933
	75	500	200	652,174	0.286	186,522
	25	300	200	130,435	0.347	45,261
9300E	20	500	200	173,913	0.276	48,000
	30	500	200	260,870	0.27	70,435
	20	500	200	173,913	0.309	53,739
	25	250	200	108,696	0.205	22,283
	20	500	200	173,913	0.264	45,913
9700E	75	300	200	391,304	0.231	90,391
	100	300	200	521,739	0.34	177,391
	50	280	200	243,478	0.221	53,809
	110	200	200	382,609	0.332	127,026
	50	200	200	173,913	0.314	54,609
	110	150	200	286,957	0.265	76,043
	100	220	200	382,609	0.27	103,304
	110	300	200	573,913	0.52	298,435
	50	300	200	260,870	0.42	109,565
	50	500	200	434,783	0.333	144,783
	20	500	200	173,913	0.2	34,783
	75	500	200	652,174	0.27	176,087
	15	300	200	78,261	0.22	17,217
9900E	75	500	200	652,174	0.26	169,565
	20	500	200	173,913	0.22	38,261
	70	500	200	608,696	0.22	133,913
	100	500	200	869,565	0.291	253,043
	90	500	200	782,609	0.245	191,739
	15	500	200	130,435	0.215	28,043
10100E	60	500	200	521,739	0.274	142,957
	200	500	200	1,739,130	0.332	577,391
	80	500	200	695,652	0.215	149,565
	50	500	200	434,783	0.215	93,478
	40	450	200	313,043	0.22	68,870
	25	175	200	76,087	0.216	16,435
	50	175	200	152,174	0.2	30,435

## ALABAMA.ORE

SECTION	BLOCK SIZE			TONNAGE	AVE GRADE	TONS x GRADE
	thick	deep	strike		% Cu	
	(feet)					
10300E	25	275	200	119,565	0.549	65,641
	25	500	200	217,391	0.461	100,217
	25	200	200	86,957	0.303	26,348
	75	500	200	652,174	0.269	175,435
	25	300	200	130,435	0.293	38,217
	30	500	200	260,870	0.328	85,565
	50	200	200	173,913	0.32	55,652
	40	500	200	347,826	0.48	166,957
	150	500	200	1,304,348	0.355	463,043
	15	250	200	65,217	0.205	13,370
	35	450	200	273,913	0.319	87,378
	15	450	200	117,391	0.255	29,935
10600E	30	375	200	195,652	0.28	54,783
	90	350	200	547,826	0.374	204,887
	110	250	200	478,261	0.313	149,696
	90	250	200	391,304	0.209	81,783
	150	200	200	521,739	0.369	192,522
	110	225	200	430,435	0.377	162,274
	50	200	200	173,913	0.268	46,609
	50	200	200	173,913	0.582	101,217
11000E	50	400	200	347,826	0.322	112,000
	20	400	200	139,130	0.477	66,365
	75	300	200	391,304	0.481	188,217
	25	300	200	130,435	0.452	58,957
TOTALS				21,639,130		6,743,061
				TONNAGE	AVE GRADE	
				21,639,130	0.312	

Princeton Mining Corp.  
SIMILCO MINES LTD.  
DRILL HOLE LOG  
PROJECT ID : INGERBELLE EAST

HOLE / TRAVERSE ID : DDH94\_IE01  
CORE HOLE SIZE : BDGM  
DATE STARTED : 94/ 6/20  
DATE COMPLETED :  
GEOLOGGED BY :  
PLOT DATE : 94/NOV/13  
PROJECT LEADER : PMH  
LOCATION :

COLLAR AZIMUTH : 355.78  
COLLAR DIP : -45.50  
COLLAR ELEVATION : 3182.08  
COLLAR NORTHING : 14554.26  
COLLAR EASTING : 15600.58  
COLLAR OFFSET :  
COLLAR STATION :  
TOTAL LENGTH : 889.1

NTS: 92H  
PURPOSE:

MINING DIV.: SIMILKAMEEN

COMMENTS:

KEY INTERSECTIONS: FROM TO ; FT. OF . % CU, . G/T AU  
FROM TO ; FT. OF . % CU, . G/T AU

SURVEY DATA  
DEPTH DIP AZIMUTH  
0 - .00

### SUMMARY REMARKS

Intersected mineralization from surface to 145 ft, 60 ft of which averaged 0.39% Cu. All mineralization is blebby Cp, preferentially hosted by volcanics - dioritic intrusives are barren. Hole dominantly crystal tuffs + lapilli tuffs. Diorite intrusives recognized only from 178-281 ft and 559-583 ft and 653-721 ft. Mineralization assoc. with albitic +/- KF alt'n. Strong faulting from 850-878 ft represents most recent movement on Gully Fault, which also hosts Tertiary feldspar porphyry dyke of approx. 20-30 ft width on surface and in 94IE-02. Best mineralization in upper 60 feet.

### LEGEND

ECON. MINERAL:  
D = DISSEMINATED MV = MICROVEIN/FRACT.FILL  
// = VEINS AND PATCHES  
DKV= DISS. < VEINS/FRACTURE FILL

### STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN  
MV = MAGNETITE VEIN FL = FAULT  
IC = INTRUSIVE CONTACT

### DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY	Cu% 0.0 0.2 0.4 0.6 0.8 1.0
0.00	30.00	Casing	
30.00	87.00		
87.00	145.00		
145.00	178.00	Lapilli Tuff	
178.00	281.00	Diorite (Unspecified)	
281.00	342.00	Lapilli Tuff	
342.00	454.00		
454.00	497.00	CRYSTAL LITHIC TUFF	
497.00	559.00	Lapilli Tuff	
559.00	583.00	Diorite	
583.00	653.00	CRYSTAL LITHIC TUFF	
653.00	721.00	Feldspar Porphyry (Unspec.)	
721.00	788.00		
788.00	809.00	Fault Zone	
809.00	827.00		
827.00	878.00	Lapilli Tuff	

0.0 0.2 0.4 0.6 0.8 1.0

FEET	RECOVERY PPT	ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
0.0			0.00	30.00	Casing					
50.0	500	950	30.00	87.00			MEDIUM GREY		FRAGMENTAL	Rich Cpy mineralization assoc. with KF
100.0	950	1000	87.00	145.00			PALE GREY	MOTTLED	SPOTTED	Zone of intense albitization obscures primary textures but ghosts of fragments 1/2-2" suggest lapilli tuff. Zone is Albite flooded and veined, bleached, grey with local pink KF patches, and spotty biotite. Spotty Cp blebs scattered throughout, less than 1%.
150.0	500	1000	145.00	178.00	Lapilli Tuff		DARK GREY	FRAGMENTAL	INTERBEDDED	Relatively fresh black (biotized?) lapilli tuff. Pyritic fractures and disseminated throughout with minor blebs of Cpy, 1-2mm in size.
	500	1000	178.00	201.00			MIXED	EUHEDRAL	MEDIUM	Variably altered LH Intrusive. Patchy



## ASSAYS

SAMPLE NUMBER		LENGTH Ft/10	GOLD g/t		Copper %
FROM	TO				
30.00	45.00		0.280	0.520	
45.00	55.00		0.140	0.270	
55.00	61.00		0.460	0.710	
61.00	64.00		1.210	1.780	
64.00	74.00		0.140	0.170	
74.00	87.00		0.240	0.370	
87.00	97.00		0.031	0.030	
97.00	107.0		0.002	0.010	
107.0	117.0		0.017	0.020	
117.0	119.0		0.760	1.180	
119.0	129.0		0.051	0.050	
129.0	139.0		0.080	0.100	
139.0	145.0		0.060	0.090	
145.0	155.0		0.160	0.250	
155.0	165.0		0.165	0.350	
165.0	178.0		0.120	0.250	
178.0	187.0		0.057	0.080	
CHALCOPYRITE		1.0			
PYRITE HABIT		2.5			
% PYRITE		2.5			
PYRITE HABIT		2.5			
% MAGNETITE		2.5			
ALT. FACIES		2.5			
% EPIDOTE		2.5			
% CHLORITE		2.5			
% K-SPAR		10.0			
% BIODITE		20.0			
% CALCITE		5.0			
ANGLE TO CORE		60			
STRUCTURE ID		FR 30			
ANGLE TO CORE		45			
STRUCTURE ID		FR 35			

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
180.0									
230.0	900 1000	178.00	281.00	Diorite (Unspecified)		MIXED GREY AND	Euhedra (	Medium Grained	Variably altered LH intrusive. Patchy strong albitization overprints primary (?) biotite + magnetite. Local patches of KF(?) pinkish seen to represent strongest alt'n. Pyrite occurs mainly as fracture fill, Cp is spotty and irreg. 1/2" bleb of Cp at 220 ft, otherwise poorly mineralized.
280.0	900 1000	281.00	342.00	Lapilli Tuff	Diorite (Unspecif ied)	MIXED GREY AND	Medium Grained	Fragmen tal	Interval of mixed fs xtal tuff, lapilli tuff and LH dykelets. Variably altered, 60% is pervasive strong albite, 10-20% strong KF, remainder is biotitized. Albitic zones difficult to determine protolith, biotized zones usually obvious volcanics which carry most PY + Cp. Py occurs throughout as micro veins and dissens, Cp more blebby, scattered and irregular. Interval perhaps 20% LH lapilli tuff polynictic with granitic (LH?) and Augite porphyry frags. Also
330.0	950 1000	342.00	454.00			LIGHT GREY	Medium Grained	Porphy ritic	Intensely albitized interval, very difficult to determine protolith. Relict feldspars suggest equigranular, intrusive ie: LH diorite. Interval is qtz and albite flooded, pale grey washed out. Patchy pink (KF?) gives mottled look. Irreg. fracture controlled Py on Cpy occur in upper and lower quarters of interval. Cpy to 1% is assoc. with pyrite and chlorite

STRUCTURE				ALTERATION								ASSAYS									
ANGLE TO CORE STRUCTURE ID	ANGLE TO CORE STRUCTURE ID	ANGLE TO CORE STRUCTURE ID	ANGLE TO CORE STRUCTURE ID	% CALCITE	% BIODITE	% K-SPAR	% CHLORITE	% EPIDOTE	ALT. FACIES	% MAGNETITE	PYRITE HABIT	% PYRITE	ALCOPIRYTE HABIT	% CHALCOPYRITE	LENGTH Ft/10	SAMPLE NUMBER	TO	FROM	Copper %	GOLD g/t	
																			0.080	0.057	180.0
																			0.100	0.045	
																			0.040	0.008	
																			0.360	0.140	
																			0.550	0.290	
																			0.130	0.090	230.0
																			0.080	0.041	
																			0.120	0.080	
																			0.030	0.021	
																			0.040	0.015	
																			0.040	0.011	280.0
																			0.060	0.055	
																			0.040	0.031	
																			0.060	0.065	
																			0.100	0.038	
																			0.090	0.060	330.0
																			0.420	0.195	
																			0.160	0.140	
																			0.460	0.320	

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
360.0									
410.0	950	1000	342.00	454.00		LIGHT GREY	Medium Grained	Porphyritic	
									Similarly mineralized zone, irreg. spotty Cpy to 1%, with 1-2% Py.
460.0									
	900	1000	454.00	497.00	Crystal Lithic Tuff	MEDIUM GREY	Porphyritic	Fragmen tal	Relatively fresh interval of fs xtal tuff. Moderately biotized with 1% magnetite. No sulphides. Contains strange, rounded, frags 1/4 to 1" in size, white albite/pink KF or silicified, may be alt'n spots or altered inclusions of some sort. Regardless they give this tuff a distinctive spotted look.
510.0									
	500	950	497.00	559.00	Lapilli Tuff		Porphyritic	Tuffaceous	Variably altered lapilli tuff, polymictic 1/8" ang frags buff to black f.g. Alteration is patchy; alternates between strong biotization with weak mag; and pervasive strong albization which tends to obscure textures. Biotite zones contain 1-5% pyrite and trace to 1% Cpy.

## STRUCTURE

## ALTERATION

## ASSAYS

STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% CALCITE	% BIODITE	% K-SPAR	% CHLORITE	% EPIDOTE	ALT. FACIES	% MAGNETITE	PYRITE HABIT	% PYRITE	CHALCOPYRITE HABIT	% CHALCOPYRITE	FROM	TO	SAMPLE NUMBER	LENGTH Ft./10	Copper %	GOLD g/t
FR 65	VN 35					5.0	2.5	1.0				2.5	1.0		359.0	369.0			0.060	0.140
															369.0	379.0			0.060	0.056
															379.0	389.0			0.130	0.120
															389.0	399.0			0.030	0.041
															399.0	409.0			0.030	0.024
															409.0	419.0			0.020	0.023
															419.0	429.0			0.040	0.058
															429.0	439.0			0.250	0.140
															439.0	449.0			0.070	0.110
															449.0	454.0			0.140	0.105
															454.0	464.0			0.000	0.002
															464.0	474.0			0.000	0.001
															474.0	484.0			0.000	0.001
															484.0	494.0			0.010	0.006
															494.0	509.0			0.020	0.006
															509.0	521.0			0.180	0.011
															521.0	531.0			0.060	0.090
															531.0	546.0			0.020	0.008

REMARKS	TEXTURE 2	TEXTURE 1	COLOR	MINOR LITH.	LITHOLOGY	TO	FROM	RECOVERY PPT	ROD PPT	FEET
Variably altered lapilli tuff, polynictic 1/8" ang frags buff to black f.g. Alteration is patchy; alternates between strong biotitization with weak mag and pervasive strong albitization which tends to obscure textures. Biotite zones contain 1-5% pyrite and trace to 1% Cpy.	Tuffaceous	Porphyritic			Lapilli Tuff	559.00	497.00	950	500	540.0
Variably altered mg fs porphyry. Lost Horse Diorite? Upper 1/2 is albitized, lower 1/2 is bio + mg altered. Minor Py concentrated in lower 1/2.	Medium Grained	Porphyritic	MEDIUM GREY		Diorite (Unspecified)	583.00	559.00	1000	600	
Relatively fresh but variably altered interval of volcanic siltstone or wacke with interbedded lapilli and crystal tuff. 'Fresh' rock is dark, biotitic and weakly magnetic. Central portion of interval is bleached out by albitic alt'n. Strong KF hornfelsing from 611 to 617 ft. Weak dis. Py in biotitic zones. 2-3% pyrite on chloritic fractures.	Interbedded	Fine Grained	DARK GREY	Diorite (Unspecified)	Crystal Lithic Tuff	653.00	583.00	950	300	590.0
Variably altered Feldspar Porphyry - 1/2 of interval is KF pinked - looks like two feldspar LH - latite or monzonite. Rest of interval is grey-green felted fs porphyry - unknown alt'n syle, maybe some intrusive - different alt'n or 2nd phase of intrusive. Regardless, interval is unmineralized & not even trace Py. KF pinking from 664-684 ft.	Medium Grained	Porphyritic	MIXED GREY AND		Feldspar Porphyry (Unspec.)	721.00	653.00	1000	500	690.0

## STRUCTURE

## ALTERATION

CHALCOPYRITE  
% CHALCOPYRITE

## ASSAYS

ANGLE TO CORE  
STRUCTURE ID  
ANGLE TO CORE  
STRUCTURE ID

% CALCITE

% BIODITE

% K-SPAR

% CHLORITE

% EPIDOTE

ALT. FACIES

% MAGNETITE

PYRITE HABIT

% PYRITE

FROM

TO

SAMPLE NUMBER

LENGTH Ft./10

Copper %

GOLD g/t

540.0

590.0

640.0

690.0

FR	80	FR	45		20.0	5.0		2.5					10.0	1.0	531.0	546.0		0.020	0.008	540.0
															546.0	559.0		0.030	0.004	
															559.0	570.0		0.070	0.063	
															570.0	583.0		0.070	0.010	
															583.0	593.0		0.060	0.009	590.0
															593.0	608.0		0.030	0.023	
															608.0	617.0		0.010	0.001	
															617.0	625.0		0.000	0.001	
															625.0	631.0		0.000	0.001	
															631.0	641.0		0.040	0.013	640.0
															641.0	653.0		0.150	0.096	
															653.0	664.0		0.030	0.030	
															664.0	679.0		0.000	0.001	
															679.0	684.0		0.000	0.001	
															684.0	696.0		0.000	0.001	690.0
															696.0	706.0		0.000	0.001	
															706.0	721.0		0.000	0.001	



FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
720.0									
	700 1000	721.00	788.00			MIXED GREY AND	Medium Grained	Porphyritic	Strongly albitized interval of intrusive rock? Alt'n partially obscures primary textures but rock appears to be LH, possibly multiphase i.e. mg. fg. Patches of dissem. cg PY, trace scattered Cp assoc. with Py microveins. Abundant fractures coated with scapolite? or clay.
770.0									
	500 1000	788.00	809.00	Fault Zone		MEDIUM GREY	Brecciated		Drilled down dip on Gully fault? Strong clay alt'n over albite alt'n of intrusive - volcanic contact. Irreg. dissem Py 2% throughout with trace Cp.
820.0	500 1000	809.00	827.00			LIGHT GREEN	Porphyritic		Albitic halo in foot wall of fault. Rock type mixed LH and tuff? Cg Py veinlets and patches to 5% with rare trace Cp.
	700 950	827.00	878.00	Lapilli Tuff	FAULT	VERY DARK GREY	Tuffaceous	Porphyritic	Black relatively unaltered lapilli and fs xtal tuff. Locally sheared and chloritic. Minor pyrite, trace cp.
870.0					FAULT				
	300 1000	878.00	889.00	Feldspar Porphyry (Unspec.)			Porphyritic	Medium Grained	Soft clay + carb + hem altered feldspar porphyry. Unmineralized. Tertiary dyke in Gully Fault. EDH at 889 ft.



## STRUCTURE

## ALTERATION

## ASSAYS

ANGLE TO CORE  
STRUCTURE ID  
ANGLE TO CORE  
STRUCTURE ID

% CALCITE

% BIDIITE

% K-SPAR

% CHLDRITE

% EPIDOTE

ALT. FACIES

% MAGNETITE

PYRITE HABIT

% PYRITE

CHALCOPYRITE HABIT

% CHALCOPYRITE

SAMPLE NUMBER

LENGTH Ft/10

Copper %

GOLD g/t

540.0

FR 80	FR 45
FR 40	FR 60
FR 55	
FR 65	

20.0	5.0	2.5
5.0	5.0	1.0
2.5	2.5	2.5
2.5	20.0	

10.0	1.0
2.5	1.0
1.0	1.0
0.3	

531.0	546.0
546.0	559.0
559.0	570.0
570.0	583.0
583.0	593.0
593.0	608.0
608.0	617.0
617.0	625.0
625.0	631.0
631.0	641.0
641.0	653.0
653.0	664.0
664.0	679.0
679.0	684.0
684.0	696.0
696.0	706.0
706.0	721.0

0.020	0.008
0.030	0.004
0.070	0.063
0.070	0.010
0.060	0.009
0.030	0.023
0.010	0.001
0.000	0.001
0.000	0.001
0.040	0.013
0.150	0.096
0.030	0.030
0.000	0.001
0.000	0.001
0.000	0.001
0.000	0.001

590.0

640.0

690.0

FEET	RECOVERY PPT RQD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
720.0									
	700 1000	721.00	788.00			MIXED GREY AND	Medium Grained	Porphyritic	Strongly albitized interval of intrusive rock? Alt'n partially obscures primary textures but rock appears to be LH, possibly multiphase lei mg. fg. Patches of dissen cg PY, trace scattered Cp assoc. with Py microveins. Abundant fractures coated with scapolite? or clay.
770.0									
	500 1000	788.00	809.00	Fault Zone		MEDIUM GREY	Brecciated		Drilled down dip on Gully fault? Strong clay alt'n over albite alt'n of intrusive - volcanic contact. Irreg. dissen Py 2% throughout with trace Cp.
820.0	500 1000	809.00	827.00			LIGHT GREEN	Porphyritic		Albitic halo in foot wall of fault. Rock type mixed LH and tuff? Cg Py veinlets and patches to 5% with rare trace Cp.
	700 950	827.00	878.00	Lapilli Tuff	FAULT	VERY DARK GREY	Tuffaceous	Porphyritic	Black relatively unaltered lapilli and fs xtal tuff. Locally sheared and chloritic. Minor pyrite, trace cp.
870.0					FAULT				
	300 1000	878.00	889.00	Feldspar Porphyry (Unspec.)			Porphyritic	Medium Grained	Soft clay + carb + hem altered feldspar porphyry. Unmineralized. Tertiary dyke in Gully Fault. EDH at 889 ft.

## STRUCTURE

## ALTERATION

## ASSAYS

GOLD g/t		Copper %	LENGTH Ft/10	SAMPLE NUMBER	TD	FROM	CHALCOPYRITE	OPYRITE HABIT	% PYRITE	PYRITE HABIT	% MAGNETITE	ALT. FACIES	% EPIDOTE	% CHLORITE	% K-SPAR	% BIDIITE	% CALCITE	ANGLE TD CORE	STRUCTURE ID	ANGLE TD CORE	STRUCTURE ID
0.080	0.140				731.0	721.0	0.3		1.0				0.3	2.5	2.5	2.5			80	FR	
0.120	0.210				741.0	731.0															
0.046	0.050				751.0	741.0															
0.030	0.040				761.0	751.0															
0.063	0.090				771.0	761.0															
0.009	0.030				781.0	771.0															
0.047	0.080				788.0	781.0															
0.055	0.140				799.0	788.0	0.3		2.5				1.0		5.0				5	FT	
0.110	0.250				809.0	799.0															
0.115	0.220				819.0	809.0	0.3		5.0										45	FR	
0.105	0.230				827.0	819.0															
0.044	0.090				837.0	827.0															
0.012	0.040				847.0	837.0															
0.050	0.080				857.0	847.0	0.3		1.0		1.0			10.0					25	FR	
0.031	0.030				869.0	857.0															
0.013	0.030				878.0	869.0															
0.001	0.000				889.0	878.0							5.0				2.5				

COLLAR	AZIMUTH	:181.70
COLLAR	DIP	:-45.70
COLLAR	ELEVATION	:3249.78
COLLAR	NORTHING	:15638.33
COLLAR	EASTING	:15609.76
COLLAR	OFFSET	:
COLLAR	STATION	:
TOTAL	LENGTH	:848.1

KEY INTERSECTIONS:	FROM	TO	; FT. OF	% CU,	G/T AU
	FROM	TO	; FT. OF	% CU,	G/T AU

Cu%

9.00	89.00	Diorite (Unspecified)
89.00	107.00	Fault Zone
107.00	141.00	
141.00	409.00	Diorite (Unspecified)
409.00	517.00	Crystal Lithic Tuff
517.00	696.00	Lapilli Tuff
696.00	729.00	
729.00	755.00	Fault Zone
755.00	800.00	Feldspar Porphyry (Unspec.)
800.00	846.00	Lapilli Tuff

CV = CALCITE VEIN QV = QUARTZ VEIN  
MV = MAGNETITE VEIN FL = FAULT  
IC = INTRUSIVE CONTACT

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
0.0		0.00	9.00	Casing					
50.0	50 950	9.00	89.00	Diorite (Unspecified)			Medium Grained	Porphyritic	Weakly altered feldspar porphyry intrusive, probably Lost Horse. Alt'n is weak patchy pervasive KF with ubiquitous disseminated mag and total Ep+Cl replacement of Fs phenos. Rock is dull green, (soft, no sulphides), very little oxidation. Porphyry is relatively fg. crowded with 2-4mm phenos.
100.0	100 900	89.00	107.00	Fault Zone			Medium Grained	Porphyritic	Strongly fractured and oxidized interval, no sulphides.
	750 1000	107.00	141.00			MIXED GREY AND			Strongly altered fracture zone. Pink KF or albite is pervasive and strong but patchy and fracture controlled. Alteration typical of spotted hornfels. No sulphides.
150.0	550 950	141.00	409.00	Diorite (Unspecified)		LIGHT RED	Medium Grained	Porphyritic	Pale brick red to grey, weakly altered feldspar porphyry intrusive as above. Wide interval of consistent texture and alt'n no sulphides. Alt'n classed as propylitic due to green (Ep+Cl?) feldspars, abundant carbonate as hairline calcite fractures. Local patches of weak KF is incipient "hornfelsing". Interval very broken, highly fractured.

## STRUCTURE

## ALTERATION

## ASSAYS

STRUCTURE ID	ANGLE TO CORE	% CALCITE	% BIOTITE	% K-SPAR	% CHLORITE	% EPIDOTE	ALT. FACIES	% MAGNETITE	PYRITE HABIT	% PYRITE	CHALCOPYRITE HABIT	% CHALCOPYRITE	LENGTH Ft./10	SAMPLE NUMBER	FROM	TO	Copper %	GOLD g/t
FR 55	CV 5	5.0		10.0	2.5	10.0		2.5							23.00	39.00	0.000	0.001
FR 55	CV 5	5.0		10.0	2.5	10.0		2.5							68.00	78.00	0.010	0.001
FR 20		10.0	5.0	20.0				2.5							120.0	130.0	0.000	0.001
FR 50	FR 25	2.5	5.0	5.0	5.0	5.0		2.5							130.0	141.0	0.000	0.001

RECOVERY PPT ROD PPT	FEET	TO	FROM	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
550	950	141.00	409.00	Diorite (Unspecified)		LIGHT RED	Medium Grained	Porphyritic	Pale brick red to grey, weakly altered feldspar porphyry intrusive as above. Wide interval of consistent texture and alt'n, no sulphides. Alt'n classed as propylitic due to green (Ep+Cl?) feldspars, abundant carbonate as hairline calcite fractures. Local patches of weak KF is incipient 'hornfelsing'. Interval very broken, highly fractureed.

## STRUCTURE

## ALTERATION

## ASSAYS

ANGLE TO CORE  
STRUCTURE ID  
ANGLE TO CORE  
STRUCTURE ID

% CALCITE

% BIDDITE

% K-SPAR

% CHLORITE

% EPIDOTE

ALT. FACIES

% MAGNETITE

PYRITE HABIT

% PYRITE

CHALCOPYRITE HABIT

% CHALCOPYRITE

FROM

TO

SAMPLE NUMBER

LENGTH FT/10

Copper %

GOLD g/t

FR 50 FR 25

2.5

5.0

5.0

5.0

5.0

2.5

189.0

199.0

0.000

0.001

180.0

230.0

242.0

252.0

0.020

0.001

280.0

290.0

300.0

0.010

0.001

315.0

325.0

0.010

0.001

325.0

335.0

0.080

0.060

330.0

335.0

345.0

0.290

0.140

345.0

350.0

0.010

0.001



FEET	RECOVERY PPT	ROD PPT	FROM	TO	LITHOLOGY	MINDR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
360.0		550	950	141.00	409.00	Diorite (Unspecified )	LIGHT RED	Medium Grained	Porphyritic	Pale brick red to grey, weakly altered feldspar porphyry intrusive as above. Wide interval of consistent texture and alt'n, no sulphides. Alt'n classed as propylitic due to green (Ep+Cl?) feldspars, abundant carbonate as hairline calcite fractures. Local patches of weak KF is incipient "hornfelsing". Interval very broken, highly fractured.
410.0										
460.0		400	950	409.00	517.00	Crystal Lithic Tuff	VERY DARK GREY	Tuffaceous	PTYGMATIC FOLDED	Relatively unaltered feldspar crystal tuff. White Feldspars 1-2mm in fg black matrix. Ubiquitous biotite and magnetite v.f.g. Minor patchy albitization is Fracture controlled.

## ASSAYS

FROM

- 360.0

[illegible]

[illegible]

## STRUCTURE

## ALTERATION

## ASSAYS

ANGLE TO CORE  
STRUCTURE ID  
ANGLE TO CORE  
STRUCTURE ID

% CALCITE

% BIOTITE

% K-SPAR

% CHLORITE

% EPIDOTE

ALT. FACIES

% MAGNETITE

PYRITE HABIT

% PYRITE

CHALCOPYRITE HABIT

% CHALCOPYRITE

SAMPLE NUMBER

LENGTH Ft/10

Copper %

GOLD g/t

540.0

590.0

640.0

690.0

CV 30	CV 55	2.5	5.0	10.0	5.0	1.0	1.0	2.5	0.0
FR 5									

537.0	547.0		0.600	0.195
547.0	557.0		0.540	0.290
557.0	567.0		0.360	0.360
567.0	577.0		0.320	0.170
577.0	587.0		0.200	0.120
587.0	597.0		0.280	0.140
597.0	607.0		0.180	0.130
607.0	617.0		0.410	0.280
617.0	627.0		0.510	0.390
627.0	637.0		0.920	0.540
637.0	647.0		0.850	0.820
647.0	657.0		0.820	0.370
657.0	667.0		0.530	0.140
667.0	677.0		0.780	0.480
677.0	687.0		0.340	0.210
687.0	696.0		0.100	0.080

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
720.0	500 1000	696.00	729.00			DARK GREY	Medium Grained	Porphyritic	Unaltered mg feldspar porphyry dyke sitting in Gully Fault. Distinctive white fs phenos 2-4mm.
	400 900	729.00	755.00	Fault Zone		MIXED GREY AND	Sheared	Veined	Strongly fractured and sheared fault within lapilli tuffs. Patchy intense KF alteration. No sulphides. 50% of interval is healed tectonic brex. Albite-carb cemented, 50% gouge. This represents the Gully Fault.
770.0	800 1000	755.00	800.00	Feldspar Porphyry (Unspec.)		MIXED GREY AND	Medium Grained	Porphyritic	Relatively unaltered feldspar porphyry, but washed out feldspars, felted look, primary textures partially obscured. Local KF pinking brings out phenos, looks intrusive, no sulphides. Pervasive fizz suggests propylitic alt'n.
820.0	650 950	800.00	846.00	Lapilli Tuff		MIXED GREY AND	Tuffaceous	Fragmental	Variably altered, lapilli tuff. Angular polynictic frags 2-4cm interbedded with feldspar xtal tuffs. Two 3-5 foot zones of KF + Ep alt'n carry significant Cpy to 3%. Albitized volcanics with blebs of Cp to 3% at 807 ft.

## STRUCTURE

## ALTERATION

## ASSAYS

STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% CHLORITE	% EPIDOTE	% K-SPAR	% BIODITE	% CALCITE	ALT. FACIES	% MAGNETITE	PYRITE HABIT	% PYRITE	CHALCOPYRITE HABIT	% CHALCOPYRITE
FR 5										0.0				
FT 40														
FR 40										1.0				
FR 50	FT 30													

FROM	TO	SAMPLE NUMBER	LENGTH Ft/10	Copper %	GOLD g/t
729.0	739.0			0.020	0.014
739.0	744.0			0.040	0.019
744.0	755.0			0.040	0.016
755.0	763.0			0.010	0.007
763.0	773.0			0.000	0.001
773.0	786.0			0.000	0.001
786.0	800.0			0.000	0.001
800.0	809.0			0.170	0.140
809.0	819.0			0.070	0.043
819.0	825.0			0.030	0.003
825.0	831.0			0.340	0.470
831.0	846.0			0.060	0.008

720.0

770.0

820.0

COLLAR AZIMUTH	:174.99
COLLAR DIP	:-45.60
COLLAR ELEVATION	:3133.86
COLLAR NORTHING	:15550.11
COLLAR EASTING	:15801.70
COLLAR OFFSET	:
COLLAR STATION	:
TOTAL LENGTH	:959.0

KEY INTERSECTIONS:	FROM	TO	;	FT. OF	%	CU,	G/T AU
	FROM	TO	;	FT. OF	%	CU,	G/T AU

0 - .00

Hole collared in LH diorite, which is intensely albitized from 168-329 ft. This may be the "spotted hornfels" referred to in previous logs. Fault into lapilli tuffs at 341 ft, which dominate, with crystal and ash tuffs and minor dykes to EOH. Gully Fault dyke from 567-626 ft. A distinctive banded tuff occurs 744-849 ft and is an excellent ore host. Mineralization typically blebby, leading to large "nugget effect". Cpy occurs more often in volcanics and generally in the less altered zones although close to intense alt'n which may be barren. Best mineralization, 228-441 ft, generally weaker and patchy below the gully fault except for intervals 830-849 ft and 883-903 ft which should return consistent ore grades.

QV = CALCITE VEIN    QV = QUARTZ VEIN  
M = MAGNETITE VEIN    FL = FAULT  
I = INTRUSIVE CONTACT

Cu%

8.00	147.00	Manzanite (Undifferentiated)
147.00	168.00	Fault Zone
168.00	253.00	
253.00	329.00	
341.00	411.00	Lapilli Tuff
411.00	431.00	Diorite
431.00	567.00	Lapilli Tuff
567.00	626.00	Feldspar Porphyry (Unspec.)
630.00	743.00	Crystal Lithic Tuff
744.00	849.00	
849.00	903.00	Lapilli Tuff
903.00	959.00	

0 0 0 0 0 5

REMARKS	TEXTURE 2	TEXTURE 1	COLOR	MINOR LITH.	LITHOLOGY	TO	FROM	RECOVERY PPT	ROD PPT	FEET
					Casing	8.00	0.00			0.0
Relatively fresh f.g. feldspar porphyry intrusive. Poss. 2 feldspar is monzonite suggested by 1-3mm fs laths (plog) and rounded + rimmed fs (alkali fs or apatites?). Alteration very minor (calcite/KF), bleaching around some fractures, no assoc. mineralization not even pyrite. Ubiquitous magnetite. Sparse minor veins of calcite. NB: possible flow banding from 112-126 suggests poss. Ande flow!	Porphyritic	Fine Grained	DARK GREY		Monzonite (Undifferentiated)	147.00	8.00	950	150	
Highly fractured dark veined and sheared interval without intrusive rock. Trace Cp at 152 ft. Mod. calcite + F + Ep altin is cut by late conc. stringers and more recent breccia.	Converted to fault	Sheared	LIGHT GREY		Fault Zone	168.00	147.00	1000	300	150.0
Intensely altered and brecciated zone of andesite intruded by felsic dykes. Breccia is composed of andesite and felsic dykes. Breccia is composed of andesite and felsic dykes.	Mottled	Fine Grained	MIXED GREY AND			253.00	168.00	950	850	



## STRUCTURE

## ALTERATION

## ASSAYS

[illegible]

FEET	RECOVERY PPT	RQD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
180.0										
	850	950	168.00	253.00			MIXED GREY AND	Fine Grained	Mottled	Intensely albite +/- KF altered zone of presumed Intrusive. Primary textures all but destroyed, rock now mottled pink, green, spotted white (albite?) and black (bio), also strongly sheared + carb veined. Cpy is spotty, occurs as large (1cm) blebs or dissem. patches to 5% at 177 ft and 192 ft. Trace bornite at 176 ft. Overall probably 1-2% Cpy.
230.0										
	250	950	253.00	329.00		Fault Zone	MIXED GREY AND	Fine Grained	Mottled	Variably altered zone of intrusive? with strong bi + mag overprinted by 30% intense patches of KF + Bi +/- Ep alt'n. Cpy occurs throughout 1-2% as coarse blebs (to 1cm) + fracture fill, but is patchy as well, and seems more abundant in less altered biotite zones. Primary textures rarely visible but appear to be equigranular intrusive ie: Lost Horse diorite. NB: 50% recovery 281-289 ft.
280.0						Fault Zone				
			329.00	341.00	Fault Zone			Brecciated		Badly broken and caved interval within probable Lost Horse as above. Zone represents contact with lapilli tuffs below.
320.0					Lapilli Tuff	Lapilli Tuff	MIXED GREY AND	Tuffaceous	Fragmen tal	Similar to previous interval of alteration, with patches of 5-15 ft of strong KF-albite flooding and fracture filling, but larger windows of less altered (bio+mag) lapilli tuff. Clearly fragmental texture includes small cobbles of Aug porphyry diorite, f.g. tuff etc. Cpy is more abundant in less altered volcanics grading from 1-5% as coarse blebs. Overall, interval prob.
						Lapilli Tuff				

## STRUCTURE

## ALTERATION

## ASSAYS

STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% CALCITE	% BIDIOTE	% K-SPAR	% CHLORITE	% EPIDOTE	ALT. FACIES	% MAGNETITE	PYRITE HABIT	% PYRITE	CHALCOPYRITE HABIT	% CHALCOPYRITE	FROM	TO	SAMPLE NUMBER	LENGTH FT/10	Copper %	GOLD g/t
CV 20	60	CV 60		10.0	10.0	20.0	10.0	2.5				0.0	1.0		178.0	188.0			0.060	0.067
															188.0	198.0			0.240	0.210
															198.0	208.0			0.020	0.021
															208.0	218.0			0.080	0.085
															218.0	228.0			0.070	0.120
															228.0	238.0			0.220	0.240
															238.0	248.0			0.410	0.450
															248.0	253.0			0.570	0.460
															253.0	263.0			0.130	0.065
															263.0	273.0			0.190	0.160
															273.0	281.0			0.430	0.205
															281.0	294.0			0.180	0.160
															294.0	304.0			0.910	0.740
															304.0	314.0			0.510	0.380
															314.0	329.0			0.330	0.320
															329.0	341.0			0.430	0.360
															341.0	356.0			0.020	0.014
															356.0	371.0			0.210	0.150

[illegible]

## STRUCTURE

## ALTERATION

## ASSAYS

[illegible]

[illegible]

[illegible]



FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
720.0	700 1000	630.00	743.00	Crystal Lithic Tuff	Feldspar Porphyry (Unspec.)	MIXED GREY AND	Tuffaceous	Porphyritic	Strongly fractured, locally sheared interval of fg-ng fs xtal tuff with possible Lost Horse intrusive dykes to perhaps 10%. Interval albitized, primary textures almost gone. Coarse blebs of Cp assoc. with albite alt'n occur mainly from 650-678 ft. Interval also cut by felted Fs porphyry dykes comprising 20% of total, prescribed below. Pyrite is generally more abundant than Cp, occurs as veinlets. Dark fg but porphyritic dykes (of
770.0					Feldspar Porphyry (Unspec.)				
	800 1000	744.00	849.00		Diorite (Unspecified)		Aligned Phenocrysts	Fine Grained	Similar to above interval, volcanics are cut by felted Ep altered feldspar-augite? porphyry dykes. The volcanics are different though - now an ophanitic banded ash tuff, without lithic frags or phenos, Cp scattered throughout as cg blebs (3cm ore at 789 ft) and as hairline fracture fill (particularly well mineralized from 830 to 849 ft averaging 2-3%). As above, the volcanics include obvious Lost Horse dyke from 791-816 ft.
820.0									
870.0	700 1000	849.00	903.00	Lapilli Tuff		PALE GREY	Tuffaceous	Fragmen- tal	Dull grey, moderately albitized crystal + lapilli tuffs with abundant Cpy. Possible Lost Horse diorite (or xtal tuff?) 853-861 ft. Cpy occurs as fg. dissens and on hairline fractures and as large 1' blebs at 854 and 879 ft. Best minz. from 885-903 ft.



## STRUCTURE

## ALTERATION

## ASSAYS

STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% CALCITE	% BIOTITE	% K-SPAR	% CHLORITE	% EPIDOTE	% MAGNETITE	ALT. FACIES	PYRITE HABIT	% PYRITE	CHALCOPYRITE HABIT	% CHALCOPYRITE	FROM	TO	SAMPLE NUMBER	LENGTH Ft./10	Copper %	GOLD g/t
FR 50	30	FR 30			10.0	10.0		5.0			W	2.5	B	1.0	713.0	723.0			0.110	0.070
											W		B		723.0	732.0			0.180	0.180
											W		B		732.0	740.0			0.030	0.016
											W		B		740.0	743.0			0.250	0.260
											W		W		743.0	755.0			0.030	0.027
											W		W		755.0	765.0			0.010	0.003
											W		W		765.0	777.0			0.010	0.007
											W		W		777.0	787.0			0.070	0.055
											W		W		787.0	791.0			0.080	0.043
FR 60	60	BD 60			2.5	20.0	1.0				W	1.0	W	2.5	791.0	801.0			0.030	0.018
											W		W		801.0	812.0			0.050	0.050
											W		W		812.0	822.0			1.190	0.960
											W		W		822.0	832.0			0.640	0.410
											W		W		832.0	842.0			1.040	0.670
											W		W		842.0	849.0			0.370	0.260
											W		W		849.0	859.0			0.210	0.105
											W		W		859.0	869.0			0.120	0.120
FR 30	65	FR 65			5.0			2.5			W	1.0	W	2.5	869.0	879.0			0.410	0.310
											W		W		879.0	889.0			0.600	0.420
											W		W		889.0	903.0			0.470	0.410

720.0

770.0

820.0



870.0

RECOVERY PPT		FROM		TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
700	1000	849.00	903.00		Lapilli		PALE	Tufface	Fragmen	Dull grey, moderately albitized crystal
800	1000	903.00	959.00				MIXED GREY AND			Intense but patchy alt'n of xtal/ash tuffs. Unaltered windows (<10%) show black fg volcanic wacke or siltstone. Alt'n is intense white + pink albite (or KF) plus possible silicification. Both are fracture controlled but pervasive in nature. Remnant patches of biotite locally. Cpy is spotty throughout, occurs as fg disseminations in 2-3' patches. Mn mag veinlet at 912 Ft. Possible fault healed by KF-albite at 923 Ft. Unaltered windows at 930-931

## STRUCTURE

## ALTERATION

## ASSAYS

CHALCOPYRITE	25	10
PYRITE HABIT		
% PYRITE	10	0.3
PYRITE HABIT		
% MAGNETITE		0.3
ALT. FACIES		
% EPIDOTE	25	
% CHLORITE		
% K-SPAR		10.0
% BIODITE		10.0
% CALCITE	5.0	
ANGLE TO CORE	65	60
STRUCTURE ID	FR	BD
ANGLE TO CORE	30	30
STRUCTURE ID	FR	FR

FROM	TO	SAMPLE NUMBER	LENGTH Ft/10	Copper %	GOLD g/t
889.0	903.0			0.470	0.410
903.0	913.0			0.020	0.033
913.0	923.0			0.010	0.005
923.0	933.0			0.040	0.054
933.0	943.0			0.120	0.125
943.0	951.0			0.190	0.160
951.0	959.0			0.140	0.065

FROM	TO	SAMPLE NUMBER	LENGTH Ft/10	Copper %	GOLD g/t
889.0	903.0			0.470	0.410
903.0	913.0			0.020	0.033
913.0	923.0			0.010	0.005
923.0	933.0			0.040	0.054
933.0	943.0			0.120	0.125
943.0	951.0			0.190	0.160
951.0	959.0			0.140	0.065

Princeton Mining Corp.  
SIMILCO MINES LTD.  
DRILL HOLE LOG  
PROJECT ID : INGERBELLE\_EAST

HOLE / TRAVERSE ID : DDH94\_IE04  
CORE HOLE SIZE : BDGM  
DATE STARTED : 94/ 6/20  
DATE COMPLETED :  
GEOLOGGED BY :  
PLOT DATE : 94/NOV/14  
PROJECT LEADER : PMH  
LOCATION :

COLLAR AZIMUTH : 360.00  
COLLAR DIP : -45.00  
COLLAR ELEVATION : 3175.52  
COLLAR NORTHING : 14624.92  
COLLAR EASTING : 15735.59  
COLLAR OFFSET :  
COLLAR STATION :  
TOTAL LENGTH : 135.0

NTS: 92H  
PURPOSE:

MINING DIV.: SIMILKAMEEN

COMMENTS: HOLE WAS DRILLING OVERBURDEN DOWN A DIP-SLOPE  
ABANDONED AT 135 FEET.  
KEY INTERSECTIONS:

SURVEY DATA		
DEPTH	DIP	AZIMUTH
0	- .00	.

### SUMMARY REMARKS

Aborted at 135 ft due to occurrence of overburden in core, stuck casing, abraided rods, etc. Trace mineralization above 90 ft. Into volcanics at 104 ft.

### LEGEND

ECON. MINERAL:

D = DISSEMINATED MV = MICROVEIN/FRACT.FILL

// = VEINS AND PATCHES

DKV= DISS. < VEINS/FRACTURE FILL

STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN

MV = MAGNETITE VEIN FL = FAULT

IC = INTRUSIVE CONTACT

### DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY	Cu%
			00 20 40 60 80 100
0.00	65.00	Casing	
65.00	77.00	Diorite (Unspecified)	
77.00	88.00	Overburden	
88.00	104.00	Diorite (Unspecified)	
104.00	135.00	Crystal Lithic Tuff	
			00 20 40 60 80 100

Princeton Mining Corp.  
SIMILCO MINES LTD.  
DRILL HOLE LOG  
PROJECT ID : INGERBELLE\_EAST

HOLE / TRAVERSE ID : DDH94\_1E05  
CORE HOLE SIZE : BDGM  
DATE STARTED : 94/ 6/20  
DATE COMPLETED :  
GEOLOGGED BY :  
PLOT DATE : 94/NOV/14  
PROJECT LEADER : PMH  
LOCATION :

COLLAR AZIMUTH : 182.48  
COLLAR DIP : -46.70  
COLLAR ELEVATION : 3149.32  
COLLAR NORTHING : 15438.36  
COLLAR EASTING : 15687.55  
COLLAR OFFSET :  
COLLAR STATION :  
TOTAL LENGTH : 1159.0

NTS: 92H  
PURPOSE:

MINING DIV.: SIMILKAMEEN

COMMENTS:

KEY INTERSECTIONS: FROM TO ; FT. OF . % CU, . G/T AU  
FROM TO ; FT. OF . % CU, . G/T AU

SURVEY DATA  
DEPTH DIP AZIMUTH  
0 - .00

SUMMARY REMARKS

LEGEND

ECON. MINERAL:  
D = DISSEMINATED MV = MICROVEIN/FRACT.FILL  
// = VEINS AND PATCHES  
DKV= DISS. < VEINS/FRACTURE FILL

STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN  
MV = MAGNETITE VEIN FL = FAULT  
IC = INTRUSIVE CONTACT

DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY	Cu% 0 20 40 60 80 100
15.00	89.00	Crystal Lithic Tuff	
89.00	127.00		
127.00	199.00	Fault Zone	
199.00	255.00	Lapilli Tuff	
255.00	281.00	Diorite	
281.00	380.00	Lapilli Tuff	
380.00	448.00		
448.00	490.00	Feldspar Porphyry	
494.00	554.00	Lithic Ash Tuff	
554.00	594.00		
601.00	696.00	Lithic Ash Tuff	
696.00	785.00	Diorite (Unspecified)	
785.00	817.00	Lapilli Tuff	
817.00	956.00	Lapilli Tuff	
957.00	986.00		
986.00	1011.0	Diorite	
1011.0	1070.0	Feldspar Porphyry (Unspec)	
1070.0	1107.0	Diorite	
1107.0	1159.0	Lithic Ash Tuff	

0 20 40 60 80 100

FEET	RECOVERY PPT	ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
0.0			0.00	15.00	Casing					
50.0	700		15.00	89.00	Crystal Lithic Tuff		LIGHT GREY	Porphyritic	Mottled	Extremely broken, strongly altered volcanics. Alteration almost destroys primary textures, but is patchy. Where clearly visible - textures appear tuffaceous ie: broken crystals. Minor lithics. Where altered, rock seems more equigranular. May be intermixed LH dykes or just crystal tuffs. Scattered dissem. blebby Cpy throughout 1%, 2-3% from 20-40 ft.
100.0	500	900	89.00	127.00			LIGHT GREY	Fine Grained		As above, but more intensely altered, primary textures completely gone. Cpy scattered throughout to 1%.
150.0	800		127.00	199.00	Fault Zone		MEDIUM GREY	Brecciated	Tuffaceous	Extremely broken interval, similar to previous but extensively oxidized fractures coated with limonite + traces of malachite. Unaltered windows clearly volcanic-lapilli tuff. Albitized intervals are xtal tuff or possibly LH intrusive. Major pyrite zone at 137 ft (5%) seen on surface on road cut. This interval more pyritic, much less Cp, generally less altered. Rock is softer, but not gougey.

## STRUCTURE

## ALTERATION

## ASSAYS

GOLD g/t		Copper %		LENGTH Ft/10	SAMPLE NUMBER		FROM TO		PYRITE HABIT		CHALCOPYRITE	
0.120	0.170	0.175	0.320	0.240	0.450	0.160	0.290	0.130	0.410	0.160	0.120	0.200
0.130	0.410	0.160	0.290	0.280	0.380	0.150	0.270	0.058	0.220	0.175	0.295	0.082
0.105	0.200	0.082	0.140	0.550	0.270	0.175	0.220	0.139	0.129	0.149	0.159	0.169
0.160	0.290	0.160	0.290	0.280	0.380	0.150	0.270	0.058	0.220	0.175	0.295	0.082
0.130	0.410	0.160	0.290	0.280	0.380	0.150	0.270	0.058	0.220	0.175	0.295	0.082
0.160	0.290	0.160	0.290	0.280	0.380	0.150	0.270	0.058	0.220	0.175	0.295	0.082
0.130	0.410	0.160	0.290	0.280	0.380	0.150	0.270	0.058	0.220	0.175	0.295	0.082
0.160	0.290	0.160	0.290	0.280	0.380	0.150	0.270	0.058	0.220	0.175	0.295	0.082
0.130	0.410	0.160	0.290	0.280	0.380	0.150	0.270	0.058	0.220	0.175	0.295	0.082
0.160	0.290	0.160	0.290	0.280	0.380	0.150	0.270	0.058	0.220	0.175	0.295	0.082
0.130	0.410	0.160	0.290	0.280	0.380	0.150	0.270	0.058	0.220	0.175	0.295	0.082
0.160	0.290	0.160	0.290	0.280	0.380	0.150	0.270	0.058	0.220	0.175	0.295	0.082
0.130	0.410	0.160	0.290	0.280	0.380	0.150	0.270	0.058	0.220	0.175	0.295	0.082
0.160	0.290	0.160	0.290	0.280	0.380	0.150	0.270	0.058	0.220	0.175	0.295	0.082
0.130	0.410	0.160	0.290	0.280	0.380	0.150	0.270	0.058	0.220	0.175	0.295	0.082
0.160	0.290	0.160	0.290	0.280	0.380	0.150	0.270	0.058	0.220	0.175	0.295	0.082
0.130	0.410	0.160	0.290	0.280	0.380	0.150	0.270	0.058	0.220	0.175	0.295	0.082
0.160	0.290	0.160	0.290	0.280	0.380	0.150	0.270	0.058	0.220	0.175	0.295	0.082
0.130	0.410	0.160	0.290	0.280	0.380	0.150	0.270	0.058	0.220	0.175	0.295	0.082
0.160	0.290	0.160	0.290	0.280	0.380	0.150	0.270	0.058	0.220	0.175	0.295	0.082
0.130	0.410	0.160	0.290	0.280	0.380	0.150	0.270	0.058	0.220	0.175	0.295	0.082
0.160	0.290	0.160	0.290	0.280	0.380	0.150	0.270	0.058	0.220	0.175	0.295	0.082
0.130	0.410	0.160	0.290	0.280	0.380	0.150	0.270	0.058	0.220	0.175	0.295	0.082
0.160	0.290	0.160	0.290	0.280	0.380	0.150	0.270	0.058	0.220	0.175	0.295	0.082
0.130	0.410	0.160	0.290	0.280	0.380	0.150	0.270	0.058	0.220	0.175	0.295	0.082
0.160	0.290	0.160	0.290	0.280	0.380	0.150	0.270	0.058	0.220	0.175	0.295	0.082
0.130	0.410	0.160	0.290	0.280	0.380	0.150	0.270					

FEET	RECOVERY PPT	ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
180.0		800	127.00	199.00	Fault Zone		MEDIUM GREY	Brecciated	Tuffaceous	Extremely broken interval, similar to previous but extensively oxidized fractures coated with limonite + traces of malachite. Unaltered windows clearly volcanic-lapilli tuff. Albitized intervals are xtal tuff or possibly LH intrusive. Major pyrite zone at 137 ft (5%) seen on surface on road cut. This interval more pyritic, much less Cp. Generally less altered. Rock is softer,
						FAULT				
230.0		800 950	199.00	255.00	Lapilli Tuff			Tuffaceous	Fragmen- tal	Relatively unaltered interval of locally crowded lapilli tuff with about 30% f.g. wacke. 'Unaltered' means dark, biotitic and magnetic. Minor local bleaching (albitization) around some fractures. Minor carb stringers as well. Primary textures very clear, frags include fs porphyry, Aug porphyry, ash tuff and intrusive! Copper mineralization is spotty, occurs as fine blebs + frac. fill irregularly - is concentrated from 212-216 ft at
280.0		300 950	255.00	281.00	Diorite (Unspecified)		PALE GREY	Porphyritic	Flow Banded	Classic Lost Horse intrusive. 20-30% 2-4mm feldspar laths + 5% biotite. Mild pinking. Extensively fractured - faulted. Trace Cp.
330.0		800 950	281.00	380.00	Lapilli Tuff			Clastic	Fragmen- tal	Variably altered well-mineralized lapilli tuff. Frags of Amyg Ande flow, feldspar, porphyry intrusive, xtal tuff, ash tuff, etc. Locally crowded. Alteration is patchy. Strong Albite + qtz flooding, affects 50% of interval. Cpy occurs throughout, overall 1-2% but spotty. Locally to 5% at 335, 354 ft. Abundant Py as well, generally exceeds Cpy. Nice ore zone intersection! Cp occurs as fine blebs mm-cn on fractures, partially replacing some



## STRUCTURE

## ALTERATION

## CHALCOPYRITE HABIT

## % CHALCOPYRITE

## % PYRITE

## PYRITE HABIT

## % MAGNETITE

## ALT. FACIES.

## % EPIDOTE

## % CHLORITE

## % K-SPAR

## % BIODITE

## % CALCITE

## ANGLE TO CORE

## STRUCTURE ID

## ANGLE TO CORE

## STRUCTURE ID

## ASSAYS

## SAMPLE NUMBER

## LENGTH Ft./10

## Copper %

## GOLD g/t

FR	35	FR	20	10.0	5.0	2.5	2.5	1.0	1.0	0.0	169.0	190.0	0.200	0.105
FR	40	CV	40	5.0	10.0	2.5	2.5	1.0	1.0	1.0	190.0	199.0	0.140	0.075
FR	40	CV	40	5.0	10.0	2.5	2.5	1.0	1.0	1.0	199.0	212.0	0.040	0.001
FR	40	CV	40	5.0	10.0	2.5	2.5	1.0	1.0	1.0	212.0	219.0	0.640	0.260
FR	40	CV	40	5.0	10.0	2.5	2.5	1.0	1.0	1.0	219.0	229.0	0.060	0.030
FR	40	CV	40	5.0	10.0	2.5	2.5	1.0	1.0	1.0	229.0	239.0	0.060	0.023
FR	40	CV	40	5.0	10.0	2.5	2.5	1.0	1.0	1.0	239.0	249.0	0.060	0.015
FR	40	CV	40	5.0	10.0	2.5	2.5	1.0	1.0	1.0	249.0	255.0	0.330	0.100
FR	40	CV	40	5.0	10.0	2.5	2.5	1.0	1.0	1.0	255.0	265.0	0.290	0.105
FR	40	CV	40	5.0	10.0	2.5	2.5	1.0	1.0	1.0	265.0	275.0	0.040	0.014
FR	40	CV	40	5.0	10.0	2.5	2.5	1.0	1.0	1.0	275.0	281.0	0.040	0.031
FR	40	CV	40	5.0	10.0	2.5	2.5	1.0	1.0	1.0	281.0	291.0	0.050	0.019
FR	40	CV	40	5.0	10.0	2.5	2.5	1.0	1.0	1.0	291.0	301.0	0.060	0.012
FR	40	CV	40	5.0	10.0	2.5	2.5	1.0	1.0	1.0	301.0	311.0	0.360	0.295
FR	40	CV	40	5.0	10.0	2.5	2.5	1.0	1.0	1.0	311.0	321.0	0.470	0.390
FR	40	CV	40	5.0	10.0	2.5	2.5	1.0	1.0	1.0	321.0	331.0	0.250	0.180
FR	40	CV	40	5.0	10.0	2.5	2.5	1.0	1.0	1.0	331.0	341.0	0.200	0.160
FR	40	CV	40	5.0	10.0	2.5	2.5	1.0	1.0	1.0	341.0	351.0	0.560	0.410
FR	40	CV	40	5.0	10.0	2.5	2.5	1.0	1.0	1.0	351.0	361.0	0.450	0.140

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINDR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
360.0	800 950	281.00	380.00	Lapilli Tuft			Clastic	Fragmen tal	Variably altered well mineralized lapilli tuft. Frag of Anyg Ande flow, feldspar, porphyry intrusive, xtal tuft, ash tuft, etc. Locally crowded. Alteration is patchy. Strong Albite + qtz flooding, affects 50% of interval. Cpy occurs throughout, overall 1-2% but spotty. Locally to 5% at 335, 354 ft. Abundant Py as well, generally exceeds Cpy. Nice ore zone intersection! Cp occurs as fine blebs mm-cm on
410.0	400 950	380.00	448.00		Fault Zone	MIXED GREY AND	Tufface ous	Sheared	Fg volcanics? Variably altered and well mineralized. Primary textures almost destroyed. Rock appears to be f.g. volc. tuft. Alteration is patchy. Alb + Kf overprinted by carb stringers + chl associated with shearing on Gully Fault. Interval overall probably 2-3% Cp.
					Fault Zone				
460.0	500 1000	448.00	490.00	Feldspar Porphyry (Unspec.)		DARK GREY	Medium Grained	Porphyr itic	Unaltered feldspar porphyry Gully Fault Dyke.
	1000	490.00	494.00	FAULT		PALE GREY	Sheared	Breccia ted	The Gully Fault. Carb + Chl alteration assoc. with shearing.
510.0	250 1000	494.00	554.00	Lithic Ash Tuft		MEDIUM GREY	Tufface ous	Aligned Phenocr ysts	A moderately chloritized strongly fractured interval of ash tuft on top, grading into lapilli-crystal tuft at bottom. Mod. Py trace Cp. Cpy increases to 1% in bottom 5 ft.

## STRUCTURE

## ALTERATION

## ASSAYS

STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% CALCITE	% BIDIOTE	% K-SPAR	% CHLORITE	% EPIDOTE	ALT. FACIES	% MAGNETITE	PYRITE HABIT	% PYRITE	CHALCOPYRITE HABIT	% CHALCOPYRITE	FROM	TO	SAMPLE NUMBER	LENGTH F+10	Copper %	GOLD g/t
FR 65	45	FR 45		5.0	10.0	5.0		5.0		1.0	<del>XXXX</del>	2.5	<del>BBB</del>	1.0	361.0	371.0			0.190	0.195
															371.0	380.0			0.420	0.305
															380.0	390.0			2.270	0.780
															390.0	400.0			0.250	0.105
															400.0	410.0			0.230	0.095
CV 45	FT 70			10.0	5.0	10.0	2.5					1.0	<del>DDDD</del>	1.0	410.0	420.0			0.080	0.047
															420.0	428.0			1.430	0.810
															428.0	438.0			0.470	0.220
															438.0	448.0			0.040	0.021
FR 15	FR 80				2.5					1.0										
FT 80	FT 55			10.0			10.0								490.0	494.0			0.090	0.062
															494.0	504.0			0.070	0.036
															504.0	514.0			0.160	0.105
FR 50	BD 70			2.5	10.0	1.0	10.0	5.0				1.0	<del>DDDD</del>	0.0	514.0	524.0			0.070	0.030
															524.0	534.0			0.030	0.005
															534.0	544.0			0.040	0.024

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MIND. LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
540.0	250	1000	494.00	554.00	Lithic Ash Tuff	MEDIUM GREY	Tuffaceous	Aligned Phenocrysts	A moderately chloritized strongly fractured interval of ash tuff on top, grading into lapilli-crystal tuff at bottom. Mod. Py trace. Cpy increases to 1% in bottom 5 ft.
	800	1000	554.00	594.00		MIXED GREY AND	Tuffaceous	Fragmen- tal	Spotted grey and pink Alb + Kf "hornfels" zone. Trace Cp only assoc. with biotitic patches. Primary textures almost destroyed. Vague fragments suggest lapilli tuff.
590.0	200	1000	594.00	601.00	Diorite (Unspecified)		Crowded Porphyry		Mod. albitized dioritic intrusive. Trace Cp with bio. in mafic? sites.
640.0	900	1000	601.00	696.00	Lithic Ash Tuff	MIXED GREY AND	Fragmen- tal	Tuffaceous	Variably altered + well mineralized, interbedded lapilli xtal and ash tuff. Polymictic frags include ash tuff, xtal tuff, feldspar porphyry, augite porphyry and amygdaloidal flow rock. Lapilli tuff comprises 50%, 30% is ash, ash tuff. Alteration is patchy (50%) albite +/- Kf flooding, overprinting strong bio +/- mag alt'n. One or two 1 ft feldspar porphyry dykes poss. maybe crowded xtal tuff. Interval is well min'd, 2-3% cp from 614-644 ft.
690.0	750	1000	696.00	785.00	Diorite (Unspecified)	LIGHT GREY	Medium Grained	Porphyritic	Weakly albitized well mineralized interval of Lost Horse diorite. Primary textures equigranular non-bedded feldspar porphyry. Distinct salt + pepper texture. Weak pervasive albitization, patchy Kf. Cpy occurs mainly as fracture fill, lesser as patchy disseminations. Cp veins on mm-cm scale 1-2/m. Minor patches are "soaked" with cp. Overall interval 1% Cp with patches of 2-3% Cp veins at 717, 738 ft, 2' at 762 ft. Nice ore

## STRUCTURE

## ALTERATION

## ASSAYS

STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% CALCITE	% BIDIITE	% K-SPAR	% CHLORITE	% EPIDOTE	% MAGNETITE	ALT. FACIES	PYRITE HABIT	% PYRITE	CHALCOPYRITE HABIT	% CHALCOPYRITE	FROM	TO	SAMPLE NUMBER	LENGTH Ft/10	Copper %	GOLD g/t	
FR 50	BD 70			2.5	10.0	1.0	10.0	5.0				1.0	0.0	0.0	534.0	544.0			0.040	0.024	540.0
															544.0	554.0			0.120	0.078	
															554.0	564.0			0.040	0.053	
															564.0	574.0			0.110	0.220	
															574.0	584.0			0.010	0.035	
															584.0	594.0			0.020	0.059	590.0
FR 30				2.5	5.0	10.0	2.5	5.0				0.0	0.0	0.0	594.0	601.0			0.130	0.160	
FR 65					2.5			2.5				1.0	1.0	1.0	601.0	611.0			0.060	0.035	
															611.0	621.0			0.750	0.610	
															621.0	631.0			0.220	0.230	
															631.0	641.0			0.120	0.080	640.0
FR 50	BD 55				10.0	10.0	2.5			2.5	0.0	0.0	1.0	1.0	641.0	651.0			0.070	0.110	
															651.0	661.0			0.040	0.036	
															661.0	671.0			0.020	0.013	
															671.0	681.0			0.280	0.120	
															681.0	691.0			0.090	0.020	690.0
															691.0	696.0			0.560	0.410	
															696.0	706.0			0.200	0.470	
FR 35	FR 70				5.0	2.5	5.0					1.0	1.0	1.0	706.0	716.0			0.260	0.290	
															716.0	726.0			0.590	0.400	

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
720.0									
	750	1000	696.00	785.00	Diorite (Unspecified)	LIGHT GREY	Medium Grained	Porphyritic	Weakly albitized well mineralized interval of Lost Horse diorite. Primary textures equigranular non-bedded feldspar porphyry. Distinct salt + pepper texture. Weak pervasive albitization, patchy Kf. Cpy occurs mainly as fracture fill, lesser as patchy disseminations. Cp veins on mm-cm scale 1-2/m. Minor patches are 'soaked' with cp. Overall interval 1% Cp with patches of 2-3% Cp veins at 717, 738 ft, 2' at 762 ft. Nice ore
770.0									
	750	1000	785.00	817.00	Lapilli Tuff	DARK GREY	Fragmen tal	Tuffaceous	Relatively fresh lapilli tuff. Black f.g. matrix +/- fs xtals, with polynictic, rounded frags of fs porphyry, ash tuff, also intrusive frags. Pyrite is ubiquitous, exceeds chalco by 2-3 times. Overall poorly mineralized.
820.0									
	750	950	817.00	956.00	Lapilli Tuff	Diorite (Unspecified)			
					Crystal Lithic Tuff	MIXED GREY AND	Fragmen tal	Tuffaceous	Mixed interval of about 50/50 volcanics and intrusive. Lapilli tuffs dark with bio + mag. Lost Horse intrusives grey or pink, with alb + Kf (limited alb + Kf alt'n of volcanics). Cp scattered throughout as mm veinlets + co blebs to 1cm. Cp generally more abundant in volcanics regardless of alt'n.
870.0									
					Diorite (Unspecified)				
					Diorite (Unspecified)				



## STRUCTURE

## ALTERATION

## ASSAYS

STRUCTURE	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	STRUCTURE ID	% CALCITE	% BIDIITE	% K-SPAR	% CHLORITE	% EPIDOTE	ALT. FACIES	% MAGNETITE	PYRITE HABIT	% PYRITE	CHALCOPYRITE HABIT	% CHALCOPYRITE	FROM	TO	SAMPLE NUMBER	LENGTH Ft/10	Copper %	GOLD g/t
FR 35	FR 70						5.0	2.5	5.0				1.0	1.0			716.0	726.0			0.590	0.400
																	726.0	736.0			0.610	0.540
																	736.0	746.0			0.360	0.250
																	746.0	756.0			0.240	0.190
																	756.0	766.0			1.480	1.200
																	766.0	776.0			0.680	0.690
																	776.0	785.0			0.250	0.180
																	785.0	795.0			0.070	0.031
FR 40	BD 65						10.0		5.0	5.0		1.0	1.0	1.0	B B B B B B B	0.3	795.0	805.0			0.070	0.001
																	805.0	817.0			0.080	0.038
																	817.0	827.0			0.040	0.024
																	827.0	837.0			0.030	0.029
																	837.0	846.0			0.060	0.042
																	846.0	853.0			0.310	0.140
FR 40	FR 60					10	5.0	10.0				1.0	1.0	1.0		2.5	853.0	866.0			0.100	0.037
																	866.0	880.0			0.140	0.109
																	880.0	892.0			0.220	0.160
																	892.0	902.0			0.310	0.260

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
900.0									
	750	950	817.00	956.00	Lapilli Tuff	MIXED GREY AND	Fragmen tal	Tufface ous	Mixed interval of about 50/50 volcanics and intrusive. Lapilli tuffs dark with bio + mag. Lost Horse intrusives grey or pink with alb + Kf (limited alb + Kf alt'n of volcanics). Cp scattered throughout as mm veinlets + ca blebs to 1cm. Cp generally more abundant in volcanics regardless of alt'n.
					Diorite (Unspecif ied)				
					Lapilli Tuff				
					Diorite (Unspecif ied)				
950.0									
	900	1000	957.00	986.00		VERY DARK GREY	Fine Grained	Tufface ous	Variably altered f.g. black ash tuff or volc. siltstone. Upper 1/2 is bio + mag alt. Lower 1/2 is intensely alb + qtz? altered. Lower contact is obscure. 1-2% Cp as mm veinlets occur in upper interval. Interval cut by numerous late alb + qtz + scap stringers, vuggy + unmineralized.
	900	1000	986.00	1011.0	Diorite (Unspecif )		Medium Grained	Porphy ritic	Albite + Kf altered equigranular Lost Horse diorite. Spotty patches Cp to 1%.
1000.0									
	750	1000	1011.0	1070.0	Feldspar Porphyry (Unspec.)		Medium Grained	Porphy ritic	Relatively unaltered (propylitized?) feldspar-bio porphyry - probably Lost Horse. Local weak Kf pinking, looks very Lost Horse. Trace Cp at upper contact, otherwise barren.
1050.0									
	750	950	1070.0	1107.0	Diorite (Unspecif )		Medium Grained	Porphy ritic	Relatively unaltered feldspar porphyry as above, but coarser grained fs - more like classic Lost Horse. Strong bio + mag alt'n overprinted by intense alb + Kf alt'n at lower contact. Py >>Cp as



## STRUCTURE

## ALTERATION

## ASSAYS

ANGLE TO CORE  
STRUCTURE ID  
ANGLE TO CORE  
STRUCTURE ID

% CALCITE

% BIDIITE

% K-SPAR

% CHLORITE

% EPIDOTE

ALT. FACIES

% MAGNETITE

PYRITE HABIT

% PYRITE

CHALCOPYRITE HABIT

% CHALCOPYRITE

FROM

TO

SAMPLE NUMBER

LENGTH Ft/10

Copper %

GOLD g/t

FR	40	FR	60
FR			
FR			
FR	45	FR	30
FR	30	FR	60

1.0	5.0	10.0
10.0		2.5
5.0	10.0	2.5
	10.0	
5.0	10.0	

1.0	1.0	2.5
1.0	1.0	1.0
1.0	1.0	1.0
1.0	1.0	0.1
1.0	2.5	1.0

892.0	902.0		
902.0	914.0		
914.0	924.0		
924.0	934.0		
934.0	944.0		
944.0	956.0		
956.0	967.0		
967.0	980.0		
980.0	986.0		
986.0	1000.		
1000.	1011.		
1011.	1021.		
1021.	1031.		
1031.	1059.		
1059.	1070.		
1070.	1080.		

0.310	0.260
0.390	0.280
0.240	0.140
0.150	0.040
0.280	0.250
0.610	0.420
0.120	0.046
0.200	0.160
0.120	0.085
0.290	0.240
0.170	0.140
0.030	0.028
0.000	0.001
0.000	0.001
0.000	0.004
0.370	0.300

900.0

950.0

1000.0

1050.0

Princeton Mining Corp.  
SIMILCO MINES LTD.  
DRILL HOLE LOG  
PROJECT ID : INGERBELLE\_EAST

HOLE / TRAVERSE ID : DDH94\_IE06  
CORE HOLE SIZE : BDGM  
DATE STARTED : 94/ 6/20  
DATE COMPLETED :  
GEOLOGGED BY :  
PLOT DATE : 94/NOV/14  
PROJECT LEADER : PMH  
LOCATION :

COLLAR AZIMUTH : 204.00  
COLLAR DIP : -55.00  
COLLAR ELEVATION : 3039.66  
COLLAR NORTHING : 14615.49  
COLLAR EASTING : 15976.37  
COLLAR OFFSET :  
COLLAR STATION :  
TOTAL LENGTH : 927.0

NTS: 92H MINING DIV.: SIMILKAMEEN

PURPOSE:

COMMENTS:

KEY INTERSECTIONS: FROM TO ; FT. OF . % CU, . G/T AU  
FROM TO ; FT. OF . % CU, . G/T AU

SURVEY DATA  
DEPTH DIP AZIMUTH  
0 - .00

SUMMARY REMARKS

LEGEND

ECON. MINERAL:  
D = DISSEMINATED MV = MICROVEIN/FRACT.FILL  
// = VEINS AND PATCHES  
DKV= DISS. < VEINS/FRACTURE FILL

STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN  
MV = MAGNETITE VEIN FL = FAULT  
IC = INTRUSIVE CONTACT

DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY	Cu% 0.0 0.2 0.4 0.6 0.8 1.0
10.00	32.00	LH2 Diorite	
39.00	70.00	LH2 Diorite	
70.00	204.00	LH1 Diorite	
238.00	296.00	LH2 Diorite	
310.00	341.00	LH2 Diorite	
375.00	423.00	LH2 Diorite	
423.00	532.00	LH2 Diorite	
532.00	555.00	LH1 Diorite	
555.00	579.00	Lapilli Tuff	
584.00	667.00	LH2 Diorite	
675.00	730.00	Crystal Lithic Tuff	
730.00	753.00	Crystal Lithic Tuff	
753.00	773.00	Crystal Lithic Tuff	
773.00	831.00		
831.00	872.00		
872.00	901.00	LH2 Diorite	

0.0 0.2 0.4 0.6 0.8 1.0

PAGE 2

[illegible]

STRUCTURE

ALTERATION

CHALCOPYRITE HABIT

% CHALCOPYRITE

ASSAYS

LENGTH Ft/10

SAMPLE NUMBER

Copper %

GOLD g/t

ANGLE TO CORE  
STRUCTURE ID  
ANGLE TO CORE  
STRUCTURE ID

% CALCITE

% BIOTITE

% K-SPAR

% CHLORITE

% EPIDOTE

ALT. FACIES

% MAGNETITE

PYRITE HABIT

% PYRITE

FROM

TO

AV 30	AV 25	AV 30	CV 30
-------	-------	-------	-------

0.1	0.1	20.0	0.1	2.5	1.0	1.0	0.1
-----	-----	------	-----	-----	-----	-----	-----

0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-----	-----	-----	-----	-----	-----	-----	-----

32.00	39.00
-------	-------

0.000	0.002
-------	-------



FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINDR LTH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
180.0									
	500	1000	70.00	204.00	LH1 Diorite	MEDIUM GREY	Fine Grained	Equigranular	Boring, relatively unaltered, fine grained intrusive, becomes more augite rich down the hole. Trace pyrite. The last 20 ft contains weak Kspar alt'n.
	600	1000	204.00	211.00	Crystal Lithic Tuff	MEDIUM GREY	Fine Grained	Porphyritic	Light green fine pyroxenes (4%) in an aphanitic matrix with very faint and fine layering (bedding) roughly
	700	1000	211.00	229.00	LH2 Diorite		Medium Grained	Porphyritic	Moderate to strong Kspar + albite alt'n within med. grained, porphyritic diorite with traces of Py + Cpy.
230.0	600	1000	229.00	238.00	LH2 Diorite	PALE GREY	Medium Grained	Porphyritic	White to rusty, light grey fault zone with moderate argillic alt'n + trace Py. Approx. 3 different faults, each with 3-6" of limonitic clay gouge.
	400	1000	238.00	296.00	LH2 Diorite		Medium Grained	Porphyritic	Pink and grey porphyritic diorite that commonly loses its textures due to alt'n. Moderate to intense Kspar (salmon coloured) throughout, with trace Cpy + Py. Weakly broken.
280.0	400	1000	296.00	310.00	LH2 Diorite	LIGHT GREY	Medium Grained	Porphyritic	Pink-grey interval with moderate potassic alt'n + 1% Py.
	350	1000	310.00	341.00	LH2 Diorite		Medium Grained	Porphyritic	Salmon pink + grey diorite with local white feldspar megacrysts 1/2" long. Trace Py + Cpy. Intense Kspar alt'n. Minor (<1ft) intervals of bedded tuff (parallel to contacts at 80 deg. TCA).
330.0	700	1000	341.00	360.00	LH2 Diorite	MEDIUM GREY	Medium Grained	Porphyritic	Darker coloured + better mineralized diorite than the interval above. 1% Cpy assoc. with black chlorite + pyrite.

## STRUCTURE

## ALTERATION

## ASSAYS

STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% CALCITE	% BIOTITE	% K-SPAR	% CHLORITE	% EPIDOTE	ALT. FACIES	% MAGNETITE	PYRITE HABIT	% PYRITE	CHALCOPYRITE HABIT	% CHALCOPYRITE	FROM	TO	SAMPLE NUMBER	LENGTH Ft/10	Copper %	GOLD g/t
CV 30						0.1						0.0			194.0	204.0			0.010	0.001
BD 50	UC 50					10.0						0.0	0.0		204.0	211.0			0.020	0.007
AV 50						10.0						0.0	0.0		211.0	221.0			0.010	0.002
FT												0.0			221.0	229.0			0.010	0.003
												0.0			229.0	238.0			0.000	0.002
															238.0	248.0			0.000	0.001
															248.0	258.0			0.000	0.003
															258.0	268.0			0.010	0.008
AV 40						10.0	2.5					0.0	0.0		268.0	278.0			0.010	0.010
															278.0	288.0			0.000	0.009
															288.0	296.0			0.130	0.089
AV 40						5.0	2.5					1.0	1.0		296.0	303.0			0.710	0.640
															303.0	310.0			0.220	0.195
															310.0	320.0			0.030	0.040
AV 60						20.0	2.5					0.0	0.0		320.0	330.0			0.000	0.001
															330.0	341.0			0.090	0.093
															341.0	351.0			0.240	0.420
AV 35						10.0	5.0								351.0	360.0			0.300	0.660

FEET	RECOVERY PPT	ROD PPT	FROM	TO	LITHOLOGY	MINOR LTH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
360.0										
	700	1000	360.00	375.00	LH2 Diorite		PALE GREY	Medium Grained	Porphyritic	Intensely albitized diorite (mostly white) with good mineralization above and below it, but only trace within.
	400	1000	375.00	423.00	LH2 Diorite			Medium Grained	Porphyritic	Darker coloured diorite with 1% Cpy + 2% Py in patchy mod. to int. Kspar alt'n. Some of this unit may be a finer grained phase of LH (also darker coloured).
410.0										
460.0										
	350	1000	423.00	532.00	LH2 Diorite		MIXED GREY AND	Medium Grained	Porphyritic	Bright salmon pink and grey with 0.5% Cpy as dissens. and within chlorite/pyrite fractures and spots. Probable intrusive contact at 532 ft. Occasional megacrysts of white feldspar, moderate Kspar alt'n.
510.0										
	350	1000	532.00	555.00	LH1 Diorite		DARK GREY	Fine Grained	Equigranular	Very boring, fine grained with fine, acicular HB (approx. 1%) and almost no other features. Dark grey-black. This unit may be late and not an LH at all.



## STRUCTURE

## ALTERATION

 % CHALCOPYRITE  
 CHALCOPYRITE HABIT

## ASSAYS

 ANGLE TO CORE  
 STRUCTURE ID  
 ANGLE TO CORE  
 STRUCTURE ID

 % CALCITE  
 % BIDIITE  
 % K-SPAR

 % CHLDRITE  
 % EPIDOTE

 % MAGNETITE  
 ALT. FACIES

 PYRITE HABIT  
 % PYRITE

 LENGTH F+10  
 SAMPLE NUMBER

 GOLD g/t  
 Copper %

FR	65	FR	45	5.0	10.0	5.0	5.0	1.0	2.5	1.0	361.0	371.0	0.190	0.195	360.0
											371.0	380.0	0.420	0.305	
											380.0	390.0	2.270	0.780	
											390.0	400.0	0.250	0.105	
											400.0	410.0	0.230	0.095	
CV	45	FT	70	10.0	5.0	10.0	2.5	1.0	1.0	1.0	410.0	420.0	0.080	0.047	410.0
											420.0	428.0	1.430	0.810	
											428.0	438.0	0.470	0.220	
											438.0	448.0	0.040	0.021	
FR	15	FR	80		2.5			1.0							460.0
FT	80	FT	55	10.0			10.0				490.0	494.0	0.090	0.062	
											494.0	504.0	0.070	0.036	
											504.0	514.0	0.160	0.105	510.0
FR	50	BD	70	2.5	10.0	1.0	10.0	5.0	1.0	0.0	514.0	524.0	0.070	0.030	
											524.0	534.0	0.030	0.005	
											534.0	544.0	0.040	0.024	



FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINDR LITH	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
540.0	350	1000	532.00	555.00	LH1 Diorite	DARK GREY	Fine Grained	Equigranular	Very boring, fine grained with fine, acicular HB (approx. 1%) and almost no other features. Dark grey-black. This unit may be late and not an LH at all. May be a
	300	1000	555.00	579.00	Lapilli Tuff	MEDIUM GREY	Fragnental	Medium Grained	Medium grained lithic lapilli tuff. Heterolithic angular frags commonly 1/4-1/2" in dia. cut by shallow angle Kspar/albite veins up to 1" thick.
	350	1000	579.00	584.00	LH1 Diorite	DARK GREY	Fine Grained	Equigranular	This unit may not be an LH diorite, but may be an unrelated (or related)
590.0									
	400	900	584.00	667.00	LH2 Diorite	MEDIUM GREY	Medium Grained	Porphyritic	Mottled + variable LH porphyritic diorite with 0-2% Cpy with pyrite in veins + dissens. Weak Kspar alt'n. commonly associated with chlorite veins or spots. Less than 5% intervals of 1ft thick tuffs.
640.0									
	250	1000	667.00	675.00	LH2 Diorite	PALE GREY	Medium Grained	Porphyritic	Intensely carbonate + albite (?) altered fault zone with 20% carbonate often forming a breccia matrix. Fault orientation is unclear. Only trace
690.0									
	350	1000	675.00	730.00	Crystal Lithic Tuff	Crystal	VERY DARK GREY		Some of this unit may be an intrusive, but most is a fine grained dark grey tuff (crystal ash). Low angle fault at 702-712 ft (10 deg. TCA). Larger fault at 690-693 ft. 2% Cpy throughout.
					Crystal Lithic Tuff				

## STRUCTURE

## ALTERATION

## ASSAYS

STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% CALCITE	% BIODITE	% K-SPAR	% CHLORITE	% EPIDOTE	ALT. FACIES	% MAGNETITE	PYRITE HABIT	% PYRITE	CHALCOPYRITE HABIT	% CHALCOPYRITE	FROM	TO	SAMPLE NUMBER	LENGTH FT/10	Copper %	GOLD g/t
KV 10	CV 80					0.1									532.0	542.0			0.000	0.002
															542.0	555.0			0.010	0.003
															555.0	565.0			0.110	0.046
						5.0		2.5				1.0	0.1		565.0	575.0			0.150	0.090
															575.0	579.0			0.030	0.026
						0.1									579.0	584.0			0.010	0.001
															584.0	594.0			0.110	0.010
															594.0	604.0			0.030	0.005
															604.0	614.0			0.010	0.004
															614.0	624.0			0.110	0.120
AV 35						2.5	2.5					2.5	0.1		624.0	634.0			0.180	0.062
															634.0	644.0			0.090	0.080
															644.0	654.0			0.240	0.260
															654.0	667.0			0.230	0.180
FT				20.0								0.0			667.0	675.0			0.030	0.022
															675.0	685.0			0.580	0.260
															685.0	695.0			0.310	0.250
AV 50												2.5	2.5		695.0	705.0			0.450	0.220
															705.0	715.0			1.140	0.910
															715.0	725.0			0.470	0.320

FEET	RECOVERY PPT R&D PPT	FROM TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
720.0	350	1000	675.00	730.00	Crystal Lithic Tuff			Some of this unit may be an intrusive, but most is a fine grained dark grey tuff (crystal ash). Low angle fault at 702-712 ft (10 deg. TCA). Larger fault at 690-693 ft. 2% Cpy throughout.
	400	1000	730.00	753.00	Crystal Lithic Tuff			Highly brecciated ash crystal tuff with 1/2-2' clasts of tuff supported by a calcite/cpy/magnetite matrix. One massive band at 733-735 ft contains 50% Cpy. Otherwise, the interval contains 4% Cpy, 2% Py and 0.8% magnetite within the massive Cpy, clasts of round pyritic tuff 1/8-1' in dia. are common. The massive layer has contacts at 70 degrees TCA.
	650	1000	753.00	773.00	Crystal Lithic Tuff			Calcite and albite and Kspar stringer stockwork in a texturally variable crystal tuff. 0.8% Cpy occurs as coarse clusters and within calcite vns.
770.0								
	750	1000	773.00	831.00				Sheared albite vns 1/8-1' thick, approx. 30/10 ft at 70 deg. TCA within a bedded (approx. 25 deg.) dust tuff. 2% Cpy as very fine to fine dissens. + minor veins up to 2' thick. One massive 2' vn at 821 ft contains 1% rust-yellow, botryoidal sphalerite (?) and possible pyrrhotite.
820.0								
	750	1000	831.00	872.00				This interval is a continuation of 773-831 ft, but with only 1/2 as much Cpy (approx. 1%). As well, the rock is somewhat greener and contains more Kspar.
870.0								
	750	1000	872.00	901.00	LH2 Diorite			Greenish diorite with ghost phenocrysts visible through the alt'n. 0.5% Cpy. The albite (sheeted) veins are diminishing down the hole (approx. 5/10 ft in this interval).
	300	1000	901.00	913.00				Moderate to intensely broken dust/ash tuff with 0.5% Cpy throughout.
920.0	500	1000	913.00	927.00	LH2 Diorite			Porphyritic LH2D with 0.3% Cpy. Moderate Kspar alt'n.



Princeton Mining Corp.  
SIMILCO MINES LTD.  
DRILL HOLE LOG  
PROJECT ID : INGERBELLE\_EAST

HOLE / TRAVERSE ID : DDH94\_IE07  
CORE HOLE SIZE : BDGM  
DATE STARTED : 94/ 6/20  
DATE COMPLETED :  
GEOLOGGED BY :  
PLOT DATE : 94/NOV/14  
PROJECT LEADER : PMH  
LOCATION :

COLLAR AZIMUTH : 170.00  
COLLAR DIP : -50.00  
COLLAR ELEVATION : 3093.61  
COLLAR NORTHING : 14965.15  
COLLAR EASTING : 15731.92  
COLLAR OFFSET :  
COLLAR STATION :  
TOTAL LENGTH : 929.0

NTS: 92H

MINING DIV.: SIMILKAMEEN

PURPOSE:

COMMENTS:

KEY INTERSECTIONS: FROM TO ; FT. OF . % CU, . G/T AU  
FROM TO ; FT. OF . % CU, . G/T AU

SURVEY DATA  
DEPTH DIP AZIMUTH  
0 - .00

SUMMARY REMARKS

LEGEND

ECON. MINERAL:

D = DISSEMINATED MV = MICROVEIN/FRACT.FILL

// = VEINS AND PATCHES

DKV= DISS. < VEINS/FRACTURE FILL

STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN

MV = MAGNETITE VEIN FL = FAULT

IC = INTRUSIVE CONTACT

DRILL HOLE SUMMARY

FROM TO LITHOLOGY Cu%  
0.0 0.2 0.4 0.6 0.8 1.0

0.00	40.00	Casing	
40.00	116.00	Overburden	
116.00	176.00		
176.00	202.00		
211.00	236.00		
236.00	368.00	Crystal Lithic Tuff	
368.00	501.00		
501.00	599.00	Diorite (Unspecified)	
606.00	736.00		
746.00	782.00		
798.00	929.00		

0.0 0.2 0.4 0.6 0.8 1.0

FEET	RECOVERY PPT	ROD PPT	FROM	TO	LITHOLOGY	MINDR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
0.0			0.00	40.00	Casing					
50.0			40.00	116.00	Overburden					Rounded rubblized core, mixed volc. possible LH, overburden plus 'c' horizon.
100.0			116.00	176.00				Fragmen tal	Tuffaceous	Mod. albitized lapilli-crystal tuff. 30% pale alb patches, remainder dark bio + nag alt'n. Abundant py veinlets throughout, blebby Cp irreg. distribution to 1%. Py>>Cp.
150.0			176.00	202.00				Fragmen tal	Tuffaceous	As above only stronger albitization, less py, similar Cp. Cp Py. Local

## ALTERATION

% MAGNETITE  
ALT. FACIES  
% EPIDOTE  
% CHLORITE

CHALCOPYRITE  
OPYRITE HABIT  
% PYRITE  
PYRITE HABIT

FROM

10

LENGTH Ft/10	SAMPLE NUMBER
10	1
20	2
30	3
40	4
50	5
60	6
70	7
80	8
90	9
100	10
110	11
120	12
130	13
140	14
150	15
160	16
170	17
180	18
190	19
200	20
210	21
220	22
230	23
240	24
250	25
260	26
270	27
280	28
290	29
300	30
310	31
320	32
330	33
340	34
350	35
360	36
370	37
380	38
390	39
400	40
410	41
420	42
430	43
440	44
450	45
460	46
470	47
480	48
490	49
500	50
510	51
520	52
530	53
540	54
550	55
560	56
570	57
580	58
590	59
600	60
610	61
620	62
630	63
640	64
650	65
660	66
670	67
680	68
690	69
700	70
710	71
720	72
730	73
740	74
750	75
760	76
770	77
780	78
790	79
800	80
810	81
820	82
830	83
840	84
850	85
860	86
870	87
880	88
890	89
900	90
910	91
920	92
930	93
940	94
950	95
960	96
970	97
980	98
990	99
1000	100

GOLD g/t

Copper %

- 0.0

- 50.0

- 100.0

— 150.0

[illegible]



[illegible]



## STRUCTURE

## ALTERATION

## ASSAYS

ANGLE TO CORE  
STRUCTURE ID  
ANGLE TO CORE  
STRUCTURE ID

% CALCITE

% BIOTITE

% K-SPAR

% CHLORITE

% EPIDOTE

ALT. FACIES

% MAGNETITE

PYRITE HABIT

% PYRITE

CHALCOPYRITE HABIT

% CHALCOPYRITE

SAMPLE NUMBER

LENGTH Ft./10

Copper %

GOLD g/t

FROM

TO

FR	45	FR	15	5.0	5.0	2.5	2.5	2.5	1.0	2.5	1.0	0.0	0.3
FT	15			10.0						2.5			
FR	45	FR	60		1.0	2.5		1.0		1.0			
FR	40	FR	20		10.0	10.0			1.0	1.0			

176.0	186.0			0.030	0.012	180.0
186.0	196.0			0.090	0.019	
196.0	202.0			0.100	0.009	
202.0	209.0			0.080	0.041	
209.0	219.0			0.040	0.019	
219.0	229.0			0.020	0.007	
229.0	236.0			0.100	0.035	230.0
236.0	250.0			0.040	0.025	
250.0	260.0			0.040	0.030	
260.0	270.0			0.010	0.002	
270.0	280.0			0.020	0.017	280.0
280.0	290.0			0.010	0.001	
290.0	300.0			0.000	0.001	
300.0	310.0			0.040	0.011	
310.0	320.0			0.030	0.019	
320.0	330.0			0.040	0.025	
330.0	342.0			0.030	0.002	330.0
342.0	352.0			0.050	0.036	
352.0	362.0			0.020	0.018	

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
360.0	850 990	236.00	368.00	Crystal Lithic Tuff		LIGHT GREY	Fragmen tal	Tufface ous	Variably altered crystal tuffs + minor lapilli tuffs. Alb +/- KF is mod-str, overprints strong biot/-mag alt'n. All biot/-mag windows (30%) are
410.0									
600	1000	368.00	501.00			MIXED GREY AND	Fragmen tal	Tufface ous	Same lithology as above, but intensely alb + KF altered. Primary textures all but destroyed. Remnant ghosts of phenos + frags suggest lapilli tuff. Cp is patchy + irregular, occurs as mm veinlets and as v.f.g. dissem patches in cm range. Best Cp (<to 3%) in least altered zones, most intense pink zones are generally barren. Cm Cp veinlets at 444ft, lowest 20 ft of interval is intensely albitized and silicified, saturated with both minerals on
460.0									
510.0	700 1000	501.00	599.00	Diorite (Unspecified )		MIXED GREY AND	Porphyr itic	Aligned Phenocr ysts	Intensely Alb+KF altered, weakly Cp mineralized Lost Horse Diorite. Homogenous porphyritic texture with altered plag phenos + obvious apatites. Cp + Py occurs irreg. throughout as f.g. dissem. patches (cm) and mm veinlets. Minor late gougey (cm) faults at 273, 284 ft. Rare. Vague fragmental textures locally - xenoliths?

## ASSAYS

LENGTH Ft/10	SAMPLE NUMBER	TO	FROM
10	1	10	10
20	2	20	20
30	3	30	30
40	4	40	40
50	5	50	50
60	6	60	60
70	7	70	70
80	8	80	80
90	9	90	90
100	10	100	100
110	11	110	110
120	12	120	120
130	13	130	130
140	14	140	140
150	15	150	150
160	16	160	160
170	17	170	170
180	18	180	180
190	19	190	190
200	20	200	200
210	21	210	210
220	22	220	220
230	23	230	230
240	24	240	240
250	25	250	250
260	26	260	260
270	27	270	270
280	28	280	280
290	29	290	290
300	30	300	300
310	31	310	310
320	32	320	320
330	33	330	330
340	34	340	340
350	35	350	350
360	36	360	360
370	37	370	370
380	38	380	380
390	39	390	390
400	40	400	400
410	41	410	410
420	42	420	420
430	43	430	430
440	44	440	440
450	45	450	450
460	46	460	460
470	47	470	470
480	48	480	480
490	49	490	490
500	50	500	500
510	51	510	510
520	52	520	520
530	53	530	530
540	54	540	540
550	55	550	550
560	56	560	560
570	57	570	570
580	58	580	580
590	59	590	590
600	60	600	600
610	61	610	610
620	62	620	620
630	63	630	630
640	64	640	640
650	65	650	650
660	66	660	660
670	67	670	670
680	68	680	680
690	69	690	690
700	70	700	700
710	71	710	710
720	72	720	720
730	73	730	730
740	74	740	740
750	75	750	750
760	76	760	760
770	77	770	770
780	78	780	780
790	79	790	790
800	80	800	800
810	81	810	810
820	82	820	820
830	83	830	830
840	84	840	840
850	85	850	850
860	86	860	860
870	87	870	870
880	88	880	880
890	89	890	890
900	90	900	900
910	91	910	910
920	92	920	920
930	93	930	930
940	94	940	940
950	95	950	950
960	96	960	960
970	97	970	970

360.0

FR	40	FR	20					1.0	1.0	0.3	352.0	362.0			0.020	0.018	360.0
											362.0	368.0			0.040	0.024	
											368.0	378.0			0.020	0.023	
											378.0	388.0			0.090	0.062	
											388.0	398.0			0.080	0.079	
											398.0	408.0			0.150	0.080	
											408.0	418.0			0.110	0.071	410.0
											418.0	428.0			0.420	0.450	
FR	40	FR	20					1.0	1.0	1.0	428.0	438.0			0.280	0.200	
											438.0	448.0			0.170	0.090	
											448.0	458.0			0.230	0.160	
											458.0	468.0			0.310	0.150	460.0
											468.0	478.0			0.190	0.120	
											478.0	488.0			0.120	0.095	
											488.0	501.0			0.220	0.170	
											501.0	511.0			0.080	0.095	510.0
											511.0	521.0			0.130	0.090	
FR	60	FT	45								521.0	531.0			0.140	0.100	
											531.0	541.0			0.230	0.160	

[illegible]

## STRUCTURE

## ALTERATION

## ASSAYS

ANGLE TO CORE  
STRUCTURE ID  
ANGLE TO CORE  
STRUCTURE ID

% CALCITE

% BIDIITE

% K-SPAR

% CHLORITE

% EPIDOTE

AL.T. FACIES

% MAGNETITE

PYRITE HABIT

% PYRITE

CHALCOPYRITE HABIT

% CHALCOPYRITE

FROM

TO

SAMPLE NUMBER

LENGTH FT/10

Copper %

GOLD g/t

FR	60	FT	45	2.5	5.0	20.0	5.0					1.0	1.0
FT	60	FT	40				10.0						
FR	35	FR	55	2.5	10.0	20.0	25	2.5				1.0	1.0

541.0	551.0			0.130	0.095	540.0
551.0	561.0			0.090	0.070	
561.0	571.0			0.080	0.058	
571.0	581.0			0.050	0.041	
581.0	591.0			0.020	0.021	590.0
591.0	599.0			0.060	0.039	
599.0	606.0			0.070	0.010	
606.0	616.0			0.040	0.028	
616.0	626.0			0.020	0.013	
626.0	636.0			0.030	0.023	
636.0	646.0			0.090	0.032	640.0
646.0	656.0			0.010	0.020	
656.0	666.0			0.100	0.090	
666.0	676.0			0.070	0.055	
676.0	686.0			0.050	0.081	
686.0	696.0			0.100	0.098	690.0
696.0	706.0			0.110	0.105	
706.0	716.0			0.000	0.007	
716.0	726.0			0.000	0.009	

[illegible]

## STRUCTURE

## ALTERATION

## ASSAYS

STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% CALCITE	% BIODITE	% K-SPAR	% CHLORITE	% EPIDOTE	ALT. FACIES	% MAGNETITE	PYRITE HABIT	% PYRITE	CHALCOPYRITE HABIT	% CHALCOPYRITE	FROM	TO	SAMPLE NUMBER	LENGTH F+/-10	Copper %	GOLD g/t	
FR 35	55	FR 55	BD 50	2.5	10.0	20.0	2.5	2.5			1.0	1.0	1.0	1.0	716.0	726.0			0.000	0.009	720.0
FR 55	BD 50				5.0	10.0	5.0				0.0	0.0	0.0	0.0	726.0	736.0			0.080	0.065	
FR 55	BD 50										2.5	1.0	1.0	1.0	736.0	746.0			0.160	0.110	
															746.0	756.0			0.380	0.530	
															756.0	766.0			0.170	0.069	
															766.0	776.0			0.390	0.340	770.0
															776.0	782.0			0.210	0.210	
FR 50	BD 40			1.0	20.0	20.0	5.0				2.5	1.0	1.0	1.0	782.0	792.0			0.140	0.120	
															792.0	798.0			0.070	0.033	
															798.0	808.0			0.270	0.190	
															808.0	818.0			0.220	0.180	
															818.0	828.0			0.130	0.150	820.0
															828.0	838.0			0.620	0.450	
															838.0	848.0			0.620	0.610	
															848.0	858.0			0.440	0.260	
															858.0	868.0			0.180	0.150	
FR 25	BN 30			2.5	10.0	10.0	5.0	5.0			2.5	2.5	2.5	2.5	868.0	878.0			0.270	0.240	870.0
															878.0	888.0			0.150	0.130	
															888.0	898.0			0.290	0.420	
															898.0	908.0			0.410	0.340	
															908.0	918.0			0.360	0.380	
															918.0	929.0			0.350	0.480	920.0



Princeton Mining Corp.  
SIMILCO MINES LTD.  
DRILL HOLE LOG  
PROJECT ID : INGERBELLE\_EAST

HOLE / TRAVERSE ID : DDH94\_IE08  
CORE HOLE SIZE : BDGM  
DATE STARTED : 94/ 6/20  
DATE COMPLETED :  
GEOLOGGED BY :  
PLOT DATE : 94/NOV/14  
PROJECT LEADER : PMH  
LOCATION :

COLLAR AZIMUTH : 155.95  
COLLAR DIP : -50.40  
COLLAR ELEVATION : 3039.51  
COLLAR NORTHING : 14619.82  
COLLAR EASTING : 15973.34  
COLLAR OFFSET :  
COLLAR STATION :  
TOTAL LENGTH : 916.0

NTS: 92H MINING DIV.: SIMILKAMEEN  
PURPOSE:

COMMENTS:

KEY INTERSECTIONS: FROM TO ; FT. OF . % CU, . G/T AU  
FROM TO ; FT. OF . % CU, . G/T AU

SURVEY DATA  
DEPTH DIP AZIMUTH  
0 - .00 .

SUMMARY REMARKS

LEGEND  
ECON. MINERAL:  
D = DISSEMINATED MV = MICROVEIN/FRACT.FILL  
// = VEINS AND PATCHES  
DKV = DISS. < VEINS/FRACTURE FILL

STRUCTURE ID:  
CV = CALCITE VEIN QV = QUARTZ VEIN  
MV = MAGNETITE VEIN FL = FAULT  
IC = INTRUSIVE CONTACT

DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY	Cu% 0 0.2 0.4 0.6 0.8 1.0
13.00	88.00		
88.00	132.00	Crystal Lithic Tuff	
132.00	245.00		
245.00	300.00	Fault Zone	
307.00	420.00		
420.00	469.00	Diorite (Unspecified)	
485.00	550.00	Diorite (Unspecified)	
550.00	667.00		
667.00	697.00	Diorite	
712.00	771.00	Diorite (Unspecified)	
788.00	852.00		
852.00	895.00		
895.00	916.00	Fault Zone	



## ALTERATION

GOLD g/t	Copper %	LENGTH Ft/10	SAMPLE NUMBER	TO	FROM
0.048	0.060			20.00	13.00
0.037	0.030			29.00	20.00
0.005	0.010			39.00	29.00
0.012	0.020			55.00	39.00
0.001	0.010			65.00	55.00
0.001	0.020			75.00	65.00
0.007	0.020			88.00	75.00
0.001	0.010			102.0	88.00
0.007	0.010			112.0	102.0
0.001	0.010			122.0	112.0
0.001	0.000			132.0	122.0
0.001	0.000			142.0	132.0
0.012	0.010			152.0	142.0
0.001	0.000			162.0	152.0
0.003	0.030			172.0	162.0
0.003	0.000				172.0

CHALCOPYRITE	PYRITE HABIT	% PYRITE	PYRITE HABIT	% MAGNETITE	ALT. FACIES	% EPIDOTE	% CHLORITE	% K-SPAR	% BIOTITE	% CALCITE	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID
		0.0		0.0			2.5		5.0		40	VN	40	FR	35	FR
		0.0		0.0			5.0		2.5		40	VN	40	FR	60	FR
		0.0		0.0			5.0		2.5		50	FR	50	FR	30	FR

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
180.0	800	1000	132.00	245.00		MIXED GREY AND	Medium Grained	Tuffaceous	Absolutely blitzed lapilli xtal tuffs. Irregular textures and rare fragment ghosts indicate tuffaceous origin. Rock intensely KF altered, brick red, but with abundant clots of chl - which also supports volcanic lithology. Only trace PY, essentially barren of Cp except at 199-200 ft, where Cp occurs as 1-2% disseminations. Lowest 20 ft of interval is alb + qtz? flooded giving silicified appearance.
230.0									
	150	950	245.00	300.00	Fault Zone	MIXED GREY AND	Brecciated	Converted to Fault	Extremely broken gougey zone of strongly albitized volcanics. Alteration similar to above. Overprinted by strong clay and local limonite. Trace Malachite in upper third.
280.0									
	00	950	300.00	307.00	FAULT	PALE GREY			Pale grey green Fault gouge and intensely clay altered breccia frags (20%).
330.0	850	1000	307.00	420.00	Fault Zone	MIXED GREY AND	Porphyritic	Medium Grained	Intensely KF/Alb altered interval - very difficult to determine protolith. 50% of zone completely replaced by fg KF, other 50% is grey Alb altered. Carb + albite + qtz? vns (cn) are ubiquitous. Chl+/-Py spots + mm vnlts also abundant. Cp is spotty, fracture controlled blebs to 1cm, assoc. with chl+/-py. Where visible, feld phenos usually euhedral, but also rounded or broken, suggesting tuffaceous origin. Abundant chl may also be volc indicator

## STRUCTURE

## ALTERATION

## ASSAYS

[illegible]

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
360.0									
850	1000	307.00	420.00			MIXED GREY AND	Porphyritic	Medium Grained	Intensely KF/Alb altered interval - very difficult to determine protolith. 50% of zone completely replaced by fg KF, other 50% is grey Alb altered. Carb + albite + qtz? vns (cm) are ubiquitous. Chl+/-Py spots + mm vnlts also abundant. Cp is spotty, fracture controlled blebs to 1cm, assoc. with chl+/-py. Where visible, feld phenos usually euhedral, but also rounded or broken, suggesting tuffaceous origin. Abundant chl may also be volc indicator
410.0									
950	1000	420.00	469.00	Diorite (Unspecified)		MIXED GREY AND	Fine Grained	Porphyritic	Weak to mod. Alb+KF altered fg diorite. About 30% is KF pinked, remainder is washed out albitized? showing fg textures, almost tuffaceous. Relatively barren - except for related Cp + Py blebs locally - one 1cm at 461 ft.
460.0					FAULT				
500	900	469.00	485.00	Fault Zone		PALE BROWN			Strongly fractured locally gougy oxidized zone within diorite. 2cm gouge at 475 ft.
510.0					FAULT				
800	1000	485.00	550.00	Diorite (Unspecified)		MIXED GREY AND	Medium Grained	Porphyritic	Variably altered mg diorite, coarser than above, obvious intrusive textures. Patchy KF alt'n locally intense. Chl + Py alt'n is strongest in lower 1/2. Cp occurs with chl + Py alt'n and in carb vein at 530 ft.

## STRUCTURE

## ALTERATION

## ASSAYS

STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% CALCITE	% BIODITE	% K-SPAR	% CHLORITE	% EPIDOTE	ALT. FACIES	% MAGNETITE	PYRITE HABIT	% PYRITE	CHALCOPYRITE HABIT	% CHALCOPYRITE	FROM	TO	SAMPLE NUMBER	LENGTH Ft/10	Copper %	GOLD g/t
FR 45 CV 5	5			5.0		20.0	10.0	2.5			1.0	1.0								
FR 70 FT 5	5				2.5	10.0	1.0				0.0	0.0			460.0	469.0			0.010	0.004
															469.0	479.0			0.040	0.050
															479.0	485.0			0.010	0.022
															485.0	495.0			0.010	0.006
															495.0	505.0			0.310	0.440
FR 45 FT 30	30			1.0		20.0	10.0				1.0	1.0			505.0	515.0			0.040	0.021
															515.0	525.0			0.540	0.640
															525.0	534.0			0.850	0.520
															534.0	544.0			0.410	0.290

FEET	RECOVERY PPT RCD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
540.0	800 1000	485.00	550.00	Diorite (Unspecified)		MIXED GREY AND	Medium Grained	Porphyritic	Variably altered mg diorite, coarser than above, obvious intrusive textures. Patchy KF alt'n locally intense. Chl + Py alt'n is strongest in lower 1/2. Cp occurs with chl + Py alt'n and in carb
590.0									
	500 1000	550.00	667.00			VERY DARK GREY	Fine Grained	Tuffaceous	Dark strongly biotitic fg xtal to ash tuffs with minor lapilli horizons. Abundant pyrite as mm veinlets, lesser Cp, generally spotty but to 1% 576-582 ft. Interval cut by several cm carb veins, some carrying semimassive Py, one at 595 ft carries 5% Cp. Overall, interval is only weakly mineralized.
640.0					Diorite (Unspecif				
	700 1000	667.00	697.00	Diorite (Unspecified)		LIGHT RED	Fine Grained	Porphyritic	Barren weakly KF alt' + Alb veined LH diorite.
690.0									
	700 1000	697.00	712.00			VERY DARK GREY	Fine Grained	Tuffaceous	Similar to XATF above but with 10-20% cm lapilli frags, increased Py and more carb veining.
	800 1000	712.00	771.00	Diorite (Unspecified)		MIXED GREY AND	Fine Grained	Porphyritic	Barren, weakly KF alt LH diorite. Fg variety as above. KF alt commonly banded over several cm at 60-70 degrees. Same as carb veins. No cp. 8'

## STRUCTURE

## ALTERATION

## ASSAYS

STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% CALCITE	% BIOTITE	% K-SPAR	% CHLORITE	% EPIDOTE	ALT. FACIES	% MAGNETITE	PYRITE HABIT	% PYRITE	CHALCOPYRITE HABIT	% CHALCOPYRITE	FROM	TO	SAMPLE NUMBER	LENGTH Ft./10	Copper %	GOLD g/t	
FR	45	FT	30	1.0		20.0	10.0					1.0	1.0		534.0	544.0			0.410	0.290	540.0
															544.0	550.0			0.290	0.160	
															550.0	560.0			0.200	0.095	
															560.0	570.0			0.140	0.140	
															570.0	580.0			0.210	0.100	
															580.0	590.0			0.080	0.095	
															590.0	600.0			0.110	0.095	590.0
															600.0	610.0			0.150	0.120	
FR	45	CV	55		10.0		10.0			2.5	2.5	2.5	1.0		610.0	620.0			0.110	0.063	
															620.0	630.0			0.080	0.090	
															630.0	640.0			0.070	0.058	640.0
															640.0	650.0			0.060	0.039	
															650.0	660.0			0.150	0.095	
															660.0	667.0			0.120	0.025	
															667.0	677.0			0.010	0.022	
FR	50	AV	25	5.0		10.0	5.0				0.0				677.0	687.0			0.000	0.020	
															687.0	697.0			0.000	0.015	690.0
															697.0	707.0			0.070	0.044	
CV	40	FT	20	10.0	10.0		5.0			1.0	2.5	0.0			707.0	712.0			0.080	0.058	
FR	60	CV	60	10.0	10.0	20.0	10.0				0.0				712.0	722.0			0.000	0.004	



FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINDR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
720.0	800 1000	712.00	771.00	Diorite (Unspecified)		MIXED GREY AND	Fine Grained	Porphyritic	Barren, weakly KF alt LH diorite. Fg variety as above. KF alt commonly banded over several cm at 60-70 degrees. Same as carb veins. No cp. 8' Cal brx vein at 734 ft.
770.0	800 1000	771.00	788.00			MIXED GREY AND	Fine Grained	Porphyritic	Intensely albitized contact zone. Alb + Ep overprints KF + bio. Pyrite 1-2% trace Cp assoc. with Py. Alt'n zone probably lies in volcanics more than intrusive. Primary textures obliterated. Good example of 'Ab Hornfelsing'.
820.0	400 1000	788.00	852.00			VERY DARK GREY	Fine Grained	Tuffaceous	F.g. well bedded ash tuff with minor xtal/lapilli tuff, locally well banded aphanitic. Strongly biotized, weak dissem mag. Strongly fractured, abundant Py 5-10% with 1-2% Cp accompanying. Overall probably 0.3-0.4 Cu.
870.0	600 1000	852.00	895.00			VERY DARK GREY	Fine Grained	Tuffaceous	Same unit as above but almost barren, only 1% pyrite. 6' barren calcite brx vein at 864 ft.
	500 900	895.00	911.00	Fault Zone		LIGHT GREY	Sheared	Brecciated	Bleached albite altered strongly fractured Fault zone. Unmineralized. Fault gouge from 902-905 ft.



## STRUCTURE

## ALTERATION

## ASSAYS

STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	STRUCTURE ID	STRUCTURE ID	% CALCITE	% BIDIITE	% K-SPAR	% CHLORITE	% EPIDOTE	ALT. FACIES	% MAGNETITE	PYRITE HABIT	% PYRITE	CHALCOPYRITE HABIT	% CHALCOPYRITE	FROM	TO	SAMPLE NUMBER	LENGTH Ft./10	Copper %	GOLD g/t	
FR 60	CV 60	FR 60	FR 60	FR 60	10.0	10.0	20.0	10.0				0.0					712.0	722.0		0.000	0.004	720.0
																	722.0	732.0		0.000	0.010	
																	732.0	742.0		0.000	0.001	
																	742.0	752.0		0.000	0.013	
																	752.0	762.0		0.000	0.006	
																	762.0	771.0		0.010	0.007	770.0
FR 60	CV 60	FR 60	FR 60	FR 60	10.0	5.0	5.0	10.0	10.0			1.0		0.0			771.0	781.0		0.010	0.001	
																	781.0	788.0		0.020	0.007	
																	788.0	798.0		0.170	0.036	
																	798.0	808.0		0.260	0.440	
FR 45	BD 55	FR 45	BD 55	FR 45		20.0					0.0	5.0		1.0			808.0	818.0		0.140	0.073	
																	818.0	828.0		0.140	0.025	820.0
																	828.0	838.0		0.240	0.045	
																	838.0	852.0		1.210	0.160	
																	852.0	862.0		0.040	0.012	
CV 30	BD 55	CV 30	BD 55	CV 30	1.0	20.0					0.0	1.0		0.0			862.0	872.0		0.070	0.030	870.0
																	872.0	882.0		0.090	0.035	
																	882.0	892.0		0.090	0.029	
																	892.0	902.0		0.080	0.026	
FT 40	FR 55	FT 40	FR 55	FT 40			5.0	5.0	5.0			2.5		0.0			902.0	905.0		0.470	0.095	
																	905.0	916.0		0.070	0.026	

Princeton Mining Corp.  
SIMILCO MINES LTD.  
DRILL HOLE LOG  
PROJECT ID : INGERBELLE\_EAST

HOLE / TRAVERSE ID : DDH94\_IE09  
CORE HOLE SIZE : BDGM  
DATE STARTED : 94/ 6/20  
DATE COMPLETED :  
GEOLOGGED BY :  
PLOT DATE : 94/NOV/14  
PROJECT LEADER : PMH  
LOCATION :

COLLAR AZIMUTH : 3.89  
COLLAR DIP : -44.00  
COLLAR ELEVATION : 3039.67  
COLLAR NORTHING : 14642.48  
COLLAR EASTING : 15976.83  
COLLAR OFFSET :  
COLLAR STATION :  
TOTAL LENGTH : 139.0

NTS: 92H MINING DIV.: SIMILKAMEEN  
PURPOSE:

COMMENTS:

KEY INTERSECTIONS: FROM TO ; FT. OF , % CU, G/T AU  
FROM TO ; FT. OF , % CU, G/T AU

SURVEY DATA

DEPTH	DIP	AZIMUTH
0	- .00	

SUMMARY REMARKS

LEGEND

ECON. MINERAL:  
D = DISSEMINATED MV = MICROVEIN/FRACT.FILL  
// = VEINS AND PATCHES  
DIV = DISS. < VEINS/FRACTURE FILL

STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN  
MV = MAGNETITE VEIN FL = FAULT  
IC = INTRUSIVE CONTACT

DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY	Cu% 0.0 0.2 0.4 0.6 0.8 1.0
0.00	10.00	Casing	
10.00	31.00	LH2 Diorite	
31.00	40.00	Crystal Lithic Tuff	
40.00	52.00	LH2 Diorite	
52.00	86.00	LH1 Diorite	
86.00	139.00	LH2 Diorite	

RECOVERY PPT	RQD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
0.0		0.00	10.00	Casing					
200	1000	10.00	31.00	LH2 Diorite		LIGHT GREY	Medium Grained	Porphyritic	Pervasive + vein albite alteration of diorite (ghost plag. phenos visible). No sulphides present. Moderately broken and oxidized.
600	1000	31.00	40.00	Crystal Lithic Tuff		PALE GREY	Fine Grained	Banded	Pervasive and sheeted vein albite alt'n (parallel to banding in the tuffs). 0.9% Cpy as fine dissens.
250	800	40.00	52.00	LH2 Diorite			Medium Grained	Porphyritic	Moderate pervasive pink Kspar with chlorite spots. Over 1/2 of the interval is a rubbly fault(?) zone. Trace Cpy.
800	1000	52.00	86.00	LH1 Diorite		MEDIUM GREY	Fine Grained	Equigranular	Boring, fine, fairly massive LH1D. This unit could be an ash tuff (crystal). Occasional Kspar spots 3-8mm in dia.
100	500	86.00	139.00	LH2 Diorite		DARK GREY	Medium Grained	Porphyritic	Intensely broken + rusty. May be a fault or may even be overburden (?) (occasional miscellaneous chunks of core). 0.2% Cpy. EDH at 139 ft.

## STRUCTURE

## ALTERATION

## ASSAYS

[illegible]

Princeton Mining Corp.  
SIMILCO MINES LTD.  
DRILL HOLE LOG  
PROJECT ID : INGERBELLE\_EAST

HOLE / TRAVERSE ID : DDH94\_IE10  
CORE HOLE SIZE : BDGM  
DATE STARTED : 94/ 6/20  
DATE COMPLETED :  
GEOLOGGED BY :  
PLOT DATE : 94/NOV/14  
PROJECT LEADER : PMH  
LOCATION :

COLLAR AZIMUTH : 357.00  
COLLAR DIP : -45.00  
COLLAR ELEVATION : 2751.08  
COLLAR NORTHING : 14521.84  
COLLAR EASTING : 16409.06  
COLLAR OFFSET :  
COLLAR STATION :  
TOTAL LENGTH : 542.0

NTS: 92H MINING DIV.: SIMILKAMEEN  
PURPOSE:

COMMENTS:

KEY INTERSECTIONS: FROM TO ; FT. OF . % CU, . G/T AU  
FROM TO ; FT. OF . % CU, . G/T AU

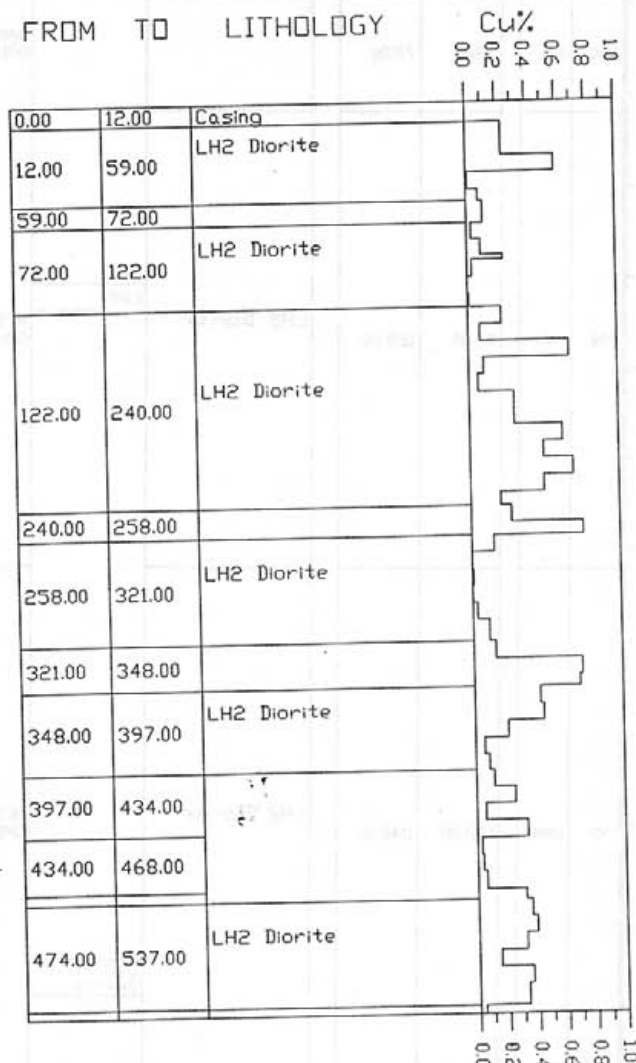
SURVEY DATA  
DEPTH DIP AZIMUTH  
0 - .00

SUMMARY REMARKS

LEGEND  
ECON. MINERAL:  
D = DISSEMINATED MV = MICROVEIN/FRACT.FILL  
// = VEINS AND PATCHES  
DKV= DISS. < VEINS/FRACTURE FILL

STRUCTURE ID:  
CV = CALCITE VEIN QV = QUARTZ VEIN  
MV = MAGNETITE VEIN FL = FAULT  
IC = INTRUSIVE CONTACT

DRILL HOLE SUMMARY



FEET	RECOVERY PPT	ROD PPT	FROM	TO	LITHOLOGY	MINDR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
0.0			0.00	12.00	Casing					
200	700		12.00	59.00	LH2 Diorite		MEDIUM GREY			Supergene clay altered with common malachite/azurite dissem. + coating around Cpy grains. Oxidation is approx. 80% at surface + reduces to 10% at 59 ft. Kspar (red) increases toward lower contact (+ fault at 55 degrees).
350	600		59.00	72.00			DARK GREY	Aligned Phenocrysts	Matrix Supported	Aphanitic dust tuff (very hard) with 0.5% Cpy as dissem. + within dark grey albite/Sx veins. No banding or bedding in the tuffs.
700	1000		72.00	122.00	LH2 Diorite	LH2	MEDIUM GREY	Medium Grained	Porphyritic	This unit is primarily a porphyritic diorite, although locally the textures are lost. Small (<3ft) intervals of dust tuff make up 3% of the interval. Generally 0.5% Cpy.
700	1000		122.00	240.00	LH2 Diorite	LH2 Diorite	MEDIUM GREY	Medium Grained	Porphyritic	Same unit as 72-122 ft, but with increased Cpy (0.8% generally, with 1-5 ft intervals containing 2% Cpy).

## STRUCTURE

## ALTERATION

## ASSAYS

GOLD g/t		Copper %		LENGTH Ft/10	SAMPLE NUMBER	TO	FROM	CHALCOPYRITE	OPYRITE HABIT	% PYRITE	PYRITE HABIT	% MAGNETITE	ALT. FACIES	% EPIDOTE	% CHLORITE	% K-SPAR	% BIODITE	% CALCITE	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	
0.280	0.240	0.560	0.590	0.032	0.010	0.036	0.076	0.110	0.030	0.026	0.061	0.120	0.013	0.006	0.043	0.240	0.080	0.064	0.670	0.160	0.065	0.240	0.300
0.280	0.240	0.560	0.590	0.032	0.010	0.036	0.076	0.110	0.030	0.026	0.061	0.120	0.013	0.006	0.043	0.240	0.080	0.064	0.670	0.160	0.065	0.240	0.300
0.280	0.240	0.560	0.590	0.032	0.010	0.036	0.076	0.110	0.030	0.026	0.061	0.120	0.013	0.006	0.043	0.240	0.080	0.064	0.670	0.160	0.065	0.240	0.300
0.280	0.240	0.560	0.590	0.032	0.010	0.036	0.076	0.110	0.030	0.026	0.061	0.120	0.013	0.006	0.043	0.240	0.080	0.064	0.670	0.160	0.065	0.240	0.300
0.280	0.240	0.560	0.590	0.032	0.010	0.036	0.076	0.110	0.030	0.026	0.061	0.120	0.013	0.006	0.043	0.240	0.080	0.064	0.670	0.160	0.065	0.240	0.300
0.280	0.240	0.560	0.590	0.032	0.010	0.036	0.076	0.110	0.030	0.026	0.061	0.120	0.013	0.006	0.043	0.240	0.080	0.064	0.670	0.160	0.065	0.240	0.300
0.280	0.240	0.560	0.590	0.032	0.010	0.036	0.076	0.110	0.030	0.026	0.061	0.120	0.013	0.006	0.043	0.240	0.080	0.064	0.670	0.160	0.065	0.240	0.300
0.280	0.240	0.560	0.590	0.032	0.010	0.036	0.076	0.110	0.030	0.026	0.061	0.120	0.013	0.006	0.043	0.240	0.080	0.064	0.670	0.160	0.065	0.240	0.300
0.280	0.240	0.560	0.590	0.032	0.010	0.036	0.076	0.110	0.030	0.026	0.061	0.120	0.013	0.006	0.043	0.240	0.080	0.064	0.670	0.160	0.065	0.240	0.300
0.280	0.240	0.560	0.590	0.032	0.010	0.036	0.076	0.110	0.030	0.026	0.061	0.120	0.013	0.006	0.043	0.240	0.080	0.064	0.670	0.160	0.065	0.240	0.300
0.280	0.240	0.560	0.590	0.032	0.010	0.036	0.076	0.110	0.030	0.026	0.061	0.120	0.013	0.006	0.043	0.240	0.080	0.064	0.670	0.160	0.065	0.240	0.300
0.280	0.240	0.560	0.590	0.032	0.010	0.036	0.076	0.110	0.030	0.026	0.061	0.120	0.013	0.006	0.043	0.240	0.080	0.064	0.670	0.160	0.065	0.240	0.300
0.280	0.240	0.560	0.590	0.032	0.010	0.036	0.076	0.110	0.030	0.026	0.061	0.120	0.013	0.006	0.043	0.240	0.080	0.064	0.670	0.160	0.065	0.240	0.300
0.280	0.240	0.560	0.590	0.032	0.010	0.036	0.076	0.110	0.030	0.026	0.061	0.120	0.013	0.006	0.043	0.240	0.080	0.064	0.670	0.160	0.065	0.240	0.300
0.280	0.240	0.560	0.590	0.032	0.010	0.036																	



[illegible]





FEET	RECOVERY PPT	ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
360.0										
600	1000	348.00	397.00		LH2 Diorite		MEDIUM GREY	Medium Grained	Porphyritic	Light to dark grey (light corresponds to more albite alt'n + less magnetite). Slightly porphyritic diorite with 1% Cpy as dissems + local clusters. Lower contact is a fault (2 ft broken, 1' of gouge) at 65 degrees TCA.
410.0										
550	1000	397.00	434.00					Aligned Phenocrysts	Bedded	Aphanitic, siliceous dust tuff with 2% pyrite + 0.5% Cpy. Cpy commonly is concentrated within certain bands of the dust tuff.
460.0										
450	1000	434.00	468.00					Aligned Phenocrysts	Bedded	Zone of Kspar/chlorite alt'n within the dust tuff.
650	1000	468.00	474.00					Aligned Phenocrysts	Bedded	Zone of 1.5% Cpy.
510.0										
700	1000	474.00	537.00		LH2 Diorite		MEDIUM GREY	Medium Grained	Porphyritic	Slightly porphyritic diorite with 1.5% Cpy as veins + fine disseminations and rare coarse clusters. Lower contact is broken and not visible.
300	1000	537.00	542.00				VERY DARK	Bedded	Fine Grained	Dark grey-black volcanic (?) sandstone (locally siltstone) with beds at 50

Princeton Mining Corp.  
SIMILCO MINES LTD.  
DRILL HOLE LOG  
PROJECT ID : INGERBELLE\_EAST

HOLE / TRAVERSE ID : DDH94\_IE11  
CORE HOLE SIZE : BDGM  
DATE STARTED : 94/ 6/20  
DATE COMPLETED :  
GEOLOGGED BY :  
PLOT DATE : 94/NOV/14  
PROJECT LEADER : PMH  
LOCATION :

COLLAR AZIMUTH : 195.03  
COLLAR DIP : -47.70  
COLLAR ELEVATION : 2751.89  
COLLAR NORTHING : 14501.33  
COLLAR EASTING : 16405.57  
COLLAR OFFSET :  
COLLAR STATION :  
TOTAL LENGTH : 60.0

NTS: 92H MINING DIV.: SIMILKAMEEN  
PURPOSE:

COMMENTS: HOLE ABANDONED IN BROKEN GROUND AT 60 FEET.

KEY INTERSECTIONS: FROM TO ; FT. OF . % CU, . G/T AU  
FROM TO ; FT. OF . % CU, . G/T AU

SURVEY DATA		
DEPTH	DIP	AZIMUTH
0	- .00	.

<p style="text-align: center;">SUMMARY REMARKS</p>
--

LEGEND	
ECON. MINERAL:	
D = DISSEMINATED MV = MICROVEIN/FRACT.FILL	
// = VEINS AND PATCHES	
DKV= DISS. < VEINS/FRACTURE FILL	
STRUCTURE ID:	
CV = CALCITE VEIN QV = QUARTZ VEIN	
MV = MAGNETITE VEIN FL = FAULT	
IC = INTRUSIVE CONTACT	

DRILL HOLE SUMMARY			
FROM	TO	LITHOLOGY	Cu% 0.0 0.2 0.4 0.6 0.8 1.0
0.00	20.00	Casing	
20.00	49.00	Overburden	

0 10 20 30 40 50 60 70 80 90 100

PAGE 2

							REMARKS
FEET	ROD PPT	RECOVERY PPT	LITHOLOGY	COLOR	TEXTURE 1	TEXTURE 2	
0.0			FROM TO				
			0.00 20.00				
							Miscellaneous alluvial boulders. The hole is drilling roughly parallel to the slope and therefore it was decided to abandon it. No assays were taken. EDH at 49 ft.
			20.00 49.00				
50.0							

Princeton Mining Corp.  
SIMILCO MINES LTD.  
DRILL HOLE LOG  
PROJECT ID : INGERBELLE\_EAST

HOLE / TRAVERSE ID : DDH94\_IE12  
CORE HOLE SIZE : BDGM  
DATE STARTED : 94/ 6/20  
DATE COMPLETED :  
GEOLOGGED BY :  
PLOT DATE : 94/NOV/14  
PROJECT LEADER : PMH  
LOCATION :

COLLAR AZIMUTH : 202.31  
COLLAR DIP : -60.40  
COLLAR ELEVATION : 2752.40  
COLLAR NORTHING : 14509.11  
COLLAR EASTING : 16407.47  
COLLAR OFFSET :  
COLLAR STATION :  
TOTAL LENGTH : 533.0

NTS: 92H  
PURPOSE:

MINING DIV.: SIMILKAMEEN

COMMENTS:

KEY INTERSECTIONS: FROM TO ; FT. OF . % CU, . G/T AU  
FROM TO ; FT. OF . % CU, . G/T AU

SURVEY DATA

DEPTH	DIP	AZIMUTH
0	- .00	

SUMMARY REMARKS

LEGEND

ECON. MINERAL:  
D = DISSEMINATED MV = MICROVEIN/FRACT.FILL  
// = VEINS AND PATCHES  
DKV= DISS. < VEINS/FRACTURE FILL

STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN  
MV = MAGNETITE VEIN FL = FAULT  
IC = INTRUSIVE CONTACT

DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY	Cu% 0.0 0.2 0.4 0.6 0.8 1.0
0.00	50.00	Casing	
50.00	76.00	LH2 Diorite	
76.00	89.00	LH2 Diorite	
89.00	161.00	LH2 Diorite	
161.00	178.00	LH2 Diorite	
178.00	273.00	LH2 Diorite	
273.00	326.00	LH2 Diorite	
326.00	373.00		
373.00	392.00		
392.00	433.00	LH2 Diorite	
433.00	457.00	LH2 Diorite	
457.00	505.00	LH2 Diorite	
505.00	533.00	LH2 Megacrystic Porphyry	

0.0 0.2 0.4 0.6 0.8 1.0

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
0.0		0.00	50.00	Casing					
50.0	450 1000	50.00	76.00	LH2 Diorite		MEDIUM GREY	Medium Grained	Porphyritic	1.5% Cpy and common malachite on fractures in a porphyritic, spotted diorite. Spots are white Fspar clusters up to 1/2" in dia. Oxidation is approximately 20%.
	250 1000	76.00	89.00	LH2 Diorite		VERY DARK GREY	Medium Grained	Porphyritic	Unaltered (relatively) and unmineralized variety of porphyritic LH diorite. This may even be a post-mineral phase.
100.0	450 1000	89.00	161.00	LH2 Diorite		MEDIUM GREY	Medium Grained	Porphyritic	Variably altered porphyritic diorite, although textures are often obliterated by the alteration. Commonly 1% Cpy as fine disseminations, locally concentrated to 2% over 1 ft. intervals.
150.0	300 900	161.00	178.00	LH2 Diorite	LH2 Diorite	LIGHT GREY	Medium Grained	Porphyritic	Zone of limonite and argillic alt'n around a major fault at 168-172 ft
	600 1000	178.00	273.00				Medium	Porphyritic	Highly altered but poorly mineralized

## ASSAYS

0.0

[illegible]

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
180.0									
230.0	600 1000	178.00	273.00	LH2 Diorite			Medium Grained	Porphyritic	Highly altered but poorly mineralized red + grey diorite, slightly porphyritic. Local minor (<5 ft thick) intervals of finely banded tuff (at 40 deg. TCA) constitute only 5% of the interval. 0.1% Cpy as fine dissens.
280.0	400 1000	273.00	326.00	LH2 Diorite			Coarse Grained	Porphyritic	Very similar alt'n and min'n as above interval, but plag. phenocrysts are coarse (almost megacrystic) and more numerous (approx. 4%).
330.0	750 1000	326.00	373.00			DARK GREY	Fine Grained	Equigranular	Post-mineral (?) LH (fine Felted Spars, dark grey) chilled at upper, irregular intrusive contact. Common xenoliths up to 2 ft thick (approx. 20% overall) of albitized n.g. diorite. Trace Cpy + Py only.



## STRUCTURE

## ALTERATION

## ASSAYS

[illegible]

FROM	TO	SAMPLE NUMBER	LENGTH Ft./10	Copper %	GOLD g/t
178.0	188.0			0.140	0.140
188.0	198.0			0.010	0.012
198.0	208.0			0.010	0.003
208.0	218.0			0.020	0.047
218.0	228.0			0.020	0.022
228.0	238.0			0.010	0.014
238.0	248.0			0.000	0.010
248.0	258.0			0.050	0.067
258.0	268.0			0.000	0.004
268.0	273.0			0.000	0.004
273.0	283.0			0.010	0.019
283.0	293.0			0.010	0.011
293.0	303.0			0.000	0.003
303.0	313.0			0.000	0.007
313.0	326.0			0.000	0.001
326.0	336.0			0.000	0.006
336.0	346.0			0.010	0.018
346.0	356.0			0.030	0.023
356.0	366.0			0.010	0.017

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINDR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
360.0	750	1000	326.00	373.00		DARK GREY	Fine Grained	Equigranular	Post-mineral (?) LH (fine felted fspars, dark grey) chilled at upper, irregular intrusive contact. Common xenoliths up to 2 ft thick (approx. 20% overall) of albitized m.g. diorite. Trace Cpy + Py only.
	250	650	373.00	392.00		DARK GREY	Fine Grained	Equigranular	Same as above, but with intense albite alteration + local (10%) tuffaceous xenoliths (?).
410.0	600	1000	392.00	433.00	LH2 Diorite	DARK GREY	Medium Grained	Porphyritic	Mg. Lost Horse diorite with dark grey feldspars (albite alt'd?). These feldspars occasionally have white cores rimmed by dark grey. More pyrite in this interval than usual (3%) with associated 0.1% Cpy.
	650	1000	433.00	457.00	LH2 Diorite	MEDIUM GREY	Medium Grained	Porphyritic	Mg. Lost Horse diorite as above, but with white, unaltered (relatively) feldspar phenocrysts.
460.0	600	1000	457.00	505.00	LH2 Diorite	MEDIUM GREY	Porphyritic		Mg. Lost Horse diorite with grey fspars phenos and an intense albite/scapolite (?) stringer stockwork. Trace Cpy except 1 ft at 504-505 ft contains 3% Cpy.
510.0	600	1000	505.00	533.00	LH2 Megacrystic Porphyry		Coarse Grained	Porphyritic	Intense potassic alt'n in a megacrystic diorite. fspars up to 1/2' in length, along with 3% black/dark green pyroxenes (?) (med. grained). Locally broken. EDH at 533 ft.

Princeton Mining Corp.  
SIMILCO MINES LTD.  
DRILL HOLE LOG  
PROJECT ID : INGERBELLE\_EAST

HOLE / TRAVERSE ID : DDH94\_IE13  
CORE HOLE SIZE : BDGM  
DATE STARTED : 94/ 6/20  
DATE COMPLETED :  
GEOLOGGED BY :  
PLOT DATE : 94/NOV/14  
PROJECT LEADER : PMH  
LOCATION :

COLLAR AZIMUTH : 346.58  
COLLAR DIP : -45.10  
COLLAR ELEVATION : 2639.42  
COLLAR NORTHING : 15020.78  
COLLAR EASTING : 16500.83  
COLLAR OFFSET :  
COLLAR STATION :  
TOTAL LENGTH : 400.0

NTS: 92H

MINING DIV.: SIMILKAMEEN

PURPOSE:

COMMENTS:

KEY INTERSECTIONS: FROM TO ; FT. OF . % CU, . G/T AU  
FROM TO ; FT. OF . % CU, . G/T AU

SURVEY DATA  
DEPTH DIP AZIMUTH  
0 - .00

SUMMARY REMARKS

LEGEND

ECON. MINERAL:  
D = DISSEMINATED MV = MICROVEIN/FRACT.FILL  
// = VEINS AND PATCHES  
DKV= DISS. < VEINS/FRACTURE FILL

STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN  
MV = MAGNETITE VEIN FL = FAULT  
IC = INTRUSIVE CONTACT

DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY	Cu% 0 20 40 60 80 100
0.00	17.00	Casing	
17.00	50.00	Overburden	
50.00	102.00	Lapilli Tuff	
102.00	133.00	Lapilli Tuff	
133.00	162.00	Lapilli Tuff	
166.00	223.00	Crystal Lithic Tuff	
223.00	290.00		
290.00	384.00	LH2 Diorite	
384.00	393.00		

0 20 40 60 80 100

FEET	RECOVERY PPT	ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
0.0			0.00	17.00	Casing					
			17.00	50.00	Overburden					
50.0			50.00	102.00	Lapilli Tuff		MEDIUM GREY	Coarse Grained	Fragmen tal	Polymictic lapilli tuff with 10% lithic frags up to 4' in dia. in a fine matrix. Uneven chalcopryrite distribution with 1.5% overall, but consisting of several 1-5 ft zones of 2-3%. One 1/2" massive vn at 70 degrees TCA at 63 ft.
			102.00	133.00	Lapilli Tuff		MEDIUM GREY	Medium Grained	Fragmen tal	Polymictic lapilli tuff as above, but with only 1% lapilli sized frags, the rest are ash sized. This unit may be a lithic ash tuff. Increasing epidote alt'n (3%).
			133.00	162.00	Lapilli Tuff		MEDIUM GREY	Coarse Grained	Fragmen tal	Polymictic lapilli tuff with 10% lithic frags up to 5' in dia. in a fine matrix. 2 ft of sand at 151-153 ft may indicate a fault.
150.0			162.00	166.00	Crystal		MEDIUM GREY	Fine Grained	Fragmen tal	Finer grained version of above. May be a lithic ash tuff. Contacts are
			166.00	223.00	Crystal Lithic Tuff		MEDIUM GREY		Fragmen tal	Fine ash tuff with 2% disseminated (and minor fracture filling) Cpy, associated with increased carbonate stringers and Kspar alt'n.

## STRUCTURE

## ALTERATION

## ASSAYS

[illegible]

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
180.0	600	1000	166.00	223.00	Crystal Lithic Tuff		MEDIUM GREY	Fragmen tal	
230.0	750	1000	223.00	290.00			Aligned Phenocr ysts		Aphanitic to fine dust tuff with local intervals (approx. 5%) (1-3ft thick) of diorite. Good Cpy mineralization (approx. 2%) as dissem. clusters and fracture fills (fine to med. grained). Lower contact is a fault/shear.
280.0									
330.0	450	1000	290.00	384.00	LH2 Diorite		MEDIUM GREY	Medium Grained	Porphy ritic
									Unmineralized, but moderately Kspar alt'd. LH diorite. Upper contact is a fault, as is lower contact. Occasional epidote veins, with Kspar envelopes. Minor talc at lower contact.
					LH2				

## STRUCTURE

## ALTERATION

## ASSAYS

GOLD g/t		Copper %	LENGTH Ft/10	SAMPLE NUMBER	TD	FROM
0.700	0.600				186.0	176.0
0.510	1.120				196.0	186.0
0.400	0.660				206.0	196.0
0.430	0.720				216.0	206.0
0.260	0.430				223.0	216.0
0.110	0.140				233.0	223.0
0.160	0.270				243.0	233.0
0.460	0.690				253.0	243.0
0.380	0.800				263.0	253.0
0.300	0.210				273.0	263.0
0.220	0.170				286.0	273.0
0.038	0.040				290.0	286.0
0.005	0.010				300.0	290.0
0.230	0.170				310.0	300.0
0.023	0.010				320.0	310.0
0.008	0.000				330.0	320.0
0.002	0.000				340.0	330.0
0.013	0.000				350.0	340.0
0.005	0.010					350.0



RECOVERY PPT	ROD PPT	FEET	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
450	1000		290.00	384.00	LH2 Diorite		MEDIUM GREY	Medium Grained	Porphyritic	Unmineralized, but moderately Kspar alt'd. LH diorite. Upper contact is a Fault, as is lower contact. Occasional epidote veins, with Kspar envelopes. Minor talc at lower contact.
300	1000		384.00	393.00			MEDIUM RED	Aligned Phenocrysts		Aphanitic dust tuff/siltstone, no bedding visible, unmineralized, but intense Kspar alt'n + local green talc/sericite veining close to upper contact.
300	1000		393.00	400.00			DARK GREY	Aligned Phenocrysts		As above from 384-393 ft, but no talc veining or Kspar alt'n. EDH at 400 ft.



## ASSAYS

LENGTH Ft/10		SAMPLE NUMBER		GOLD g/t	Copper %
FROM	TO				
360.0	372.0			0.022	0.010
372.0	384.0			0.028	0.010
384.0	393.0			0.007	0.010
393.0	400.0			0.010	0.000

## ALTERATION

## STRUCTURE

% CHALCOPYRITE		CHALCOPYRITE HABIT		% PYRITE	PYRITE HABIT	% MAGNETITE	ALT. FACIES	% EPIDOTE	% CHLORITE	% K-SPAR	% BIDIITE	% CALCITE	ANGLE TO CORE		STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID
	0.0	00000000		0.1	00000000	1.0				2.5						TV 20	
										30.0						TV 20	
										30.0							

Princeton Mining Corp.  
SIMILCO MINES LTD.  
DRILL HOLE LOG  
PROJECT ID : INGERBELLE\_EAST

HOLE / TRAVERSE ID : DDH94\_IE14  
CORE HOLE SIZE : BDGM  
DATE STARTED : 94/ 6/20  
DATE COMPLETED :  
GEOLOGGED BY :  
PLOT DATE : 94/NOV/14  
PROJECT LEADER : PMH  
LOCATION :

COLLAR AZIMUTH : 193.00  
COLLAR DIP : -46.60  
COLLAR ELEVATION : 2648.08  
COLLAR NORTHING : 15092.36  
COLLAR EASTING : 16482.53  
COLLAR OFFSET :  
COLLAR STATION :  
TOTAL LENGTH : 559.0

NTS: 92H  
PURPOSE:

MINING DIV.: SIMILKAMEEN

COMMENTS:

KEY INTERSECTIONS: FROM TO ; FT. OF . % CU, . G/T AU  
FROM TO ; FT. OF . % CU, . G/T AU

SURVEY DATA  
DEPTH DIP AZIMUTH  
0 - .00

SUMMARY REMARKS

LEGEND

ECON. MINERAL:  
D = DISSEMINATED MV = MICROVEIN/FRACT.FILL  
// = VEINS AND PATCHES  
DKV= DISS. < VEINS/FRACTURE FILL

STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN  
MV = MAGNETITE VEIN FL = FAULT  
IC = INTRUSIVE CONTACT

DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY	Cu% 0.0 0.2 0.4 0.6 0.8 1.0
0.00	47.00	Casing	
53.00	82.00	Lapilli Tuff	
82.00	95.00	Lapilli Tuff	
105.00	135.00		
135.00	174.00		
174.00	189.00	LH1 Diorite	
189.00	207.00	LH1 Diorite	
222.00	259.00		
259.00	289.00	LH2 Diorite	
300.00	313.00		
313.00	329.00		
341.00	410.00		
410.00	429.00		
429.00	446.00		
446.00	459.00	Crystal Lithic Tuff	
459.00	543.00		
543.00	559.00	Crystal Lithic Tuff	

0.0 0.2 0.4 0.6 0.8 1.0

FEET	RECOVERY PPT	ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
0.0			0.00	47.00	Casing					
50.0			47.00	53.00	Overburden					
	650	1000	53.00	82.00	Lapilli Tuff		MEDIUM GREY	Fine Grained	Fragmen tal	Heterolithic lapilli tuff with clasts decreasing down the hole. 1% Cpy commonly assoc. with albite (?) veins displaying Kspar envelopes, or as disseminations (fine grained) throughout. Limonite is reduced to trace at 59 ft (bottom of oxid).
	750	1000	82.00	95.00	Lapilli Tuff		MEDIUM GREY	Fine Grained	Fragmen tal	As above, but with increased (2%) Cpy as fine to medium disseminations. LC is sharp and at 75 degrees TCA.
100.0	650	1000	95.00	105.00			LIGHT GREY	Aligned Phenocrysts		70/30 banded dust tuff and crystal ash tuff. The latter occurs as massive beds 1-3 ft thick. 2% Cpy as fine to med. dissens and clusters. Up to 5% pyrite locally (generally 2%).
	650	1000	105.00	135.00			LIGHT GREY	Aligned Phenocrysts		Same mixed dust tuff and ash tuff as above, but with 0.5% Cpy and 2% pyrite. Occasional heterolithic lapilli beds. Bedding at 60 degrees TCA.
150.0	600	1000	135.00	174.00			DARK GREY	Aligned Phenocrysts		60/40 dust tuff and crystal ash tuff with 3% Cpy (one massive 2' thick band of Cpy at 163 ft at 75 degrees TCA) as fine to med. disseminations and clusters. Lower contact is a 3' fault that cuts off the mineralization.
	700	1000	174.00	189.00	LHI Diorite		DARK GREY	Fine Grained	Equigranular	Fine, equigranular diorite with trace Cpy. Lower contact is a qtz-sericite fault zone.

[illegible]

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
180.0	700	1000	174.00	189.00	LH1 Diorite	DARK GREY	Fine Grained	Equigranular	Fine, equigranular diorite with trace Cpy. Lower contact is a qtz-sericite fault zone.
	700	1000	189.00	207.00	LH1 Diorite	PALE GREY	Sheared		Quartz(?) sericite alt'd. Fault zone with numerous 1-4' gouge zones throughout. Trace Cpy. 0.1% fine, dissem. black metallic sulphide.
	800	1000	207.00	211.00	LH2 Diorite	MEDIUM RED	Fine Grained	Porphyritic	0.5% Cpy in a red, Kspar alt'd fine porphyritic diorite. Common black
	700	1000	211.00	217.00	LH2 Diorite	MEDIUM RED	Fine Grained	Porphyritic	1.5% Cpy in the same unit described above (as disseminations and fracture fills).
	700	1000	217.00	222.00	LH2 Diorite	MEDIUM RED	Fine Grained	Porphyritic	0.5% Cpy in the same unit described above.
230.0	500	1000	222.00	259.00			Aligned Phenocrysts	Bedded	0.3% Cpy in a dust tuff with 15% xtal ash tuff interbeds up to 3 ft thick. Bedding in the ash tuffs at 100 degrees TCA.
280.0	400	1000	259.00	289.00	LH2 Diorite	MEDIUM GREY	Fine Grained	Porphyritic	Fine, porphyritic diorite with patchy red Kspar veins + envelopes at 30 degrees TCA. No sulphides worth mentioning. Upper contact is a fault, lower appears intrusive, but orientation is unclear.
	750	1000	289.00	296.00		LIGHT GREY	Aligned Phenocrysts	Bedded	Aphanitic dust tuff with intense albitization (stringers and pervasive). Some bedding at 40 degrees TCA is
	750	1000	296.00	300.00		LIGHT GREY	Aligned Phenocr	Bedded	1.5% Cpy in the same dust tuff described above. The lower contact is
	750	1000	300.00	313.00		MEDIUM GREY			1.5% Cpy in a lithic lapilli and xtal ash tuff. Lapilli are heterolithic, commonly pale green, rounded, approx. 2-8mm thick. This unit is not very common at ING. EAST.
	800	1000	313.00	329.00		MEDIUM GREY			Same unit as above, but with only trace Cpy.
330.0	750	1000	329.00	337.00		DARK GREY			Same unit as above, but with 1.5% Cpy. Lower contact is conformable at 30 degrees TCA.
	700	1000	337.00	341.00		MEDIUM GREY	Aligned Phenocr	Bedded	1.5% Cpy occurs commonly as stringers and some disseminations.
	600	1000	341.00	410.00		MEDIUM GREY	Aligned Phenocrysts	Bedded	The same unit as above, but with only trace Cpy. About 10% xtal tuff in beds up to 5 ft thick.

## STRUCTURE

## ALTERATION

## ASSAYS

GOLD g/t		Copper %	LENGTH Ft/10	SAMPLE NUMBER	TO	FROM	CHALCOPYRITE	OPHYRITE HABIT	% PYRITE	PYRITE HABIT	% MAGNETITE	ALT. FACIES	% EPIDOTE	% CHLORITE	% K-SPAR	% BIOTITE	% CALCITE	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID
180.0	0.008	0.010			189.0	174.0	0.0	0.0	0.0	0.0						1.0				60	CV
	0.005	0.000			199.0	189.0	0.0	0.0	0.0	0.0				10.0		1.0				65	FZ
	0.012	0.000			207.0	199.0	1.0	0.0	0.0	0.0				2.5	2.5	2.5				20	CV
	0.020	0.010			211.0	207.0	1.0	0.0	0.0	0.0				2.5	2.5	2.5				20	CV
	0.490	0.450			217.0	211.0	1.0	0.0	0.0	0.0				2.5	2.5	2.5				20	CV
	0.058	0.060			222.0	217.0		0.0	0.0	0.0											
	0.013	0.030			232.0	222.0		0.0	0.0	0.0											
230.0	0.004	0.030			242.0	232.0	0.3	0.0	1.0	0.0				1.0	5.0	2.5				40	BD
	0.031	0.030			252.0	242.0		0.0	0.0	0.0											
	0.019	0.020			259.0	252.0		0.0	0.0	0.0											
	0.013	0.010			269.0	259.0		0.0	0.0	0.0											
	0.010	0.010			279.0	269.0		0.0	0.0	0.0											
280.0	0.031	0.010			289.0	279.0		0.0	0.0	0.0											
	0.007	0.010			296.0	289.0	0.0	0.0	0.0	0.0				2.5	2.5	2.5				60	AV
	0.580	0.460			300.0	296.0	1.0	0.0	1.0	0.0				2.5	2.5	2.5				60	AV
	0.190	0.350			307.0	300.0	1.0	0.0	1.0	0.0			0.1	1.0	1.0	1.0					
	0.021	0.040			313.0	307.0		0.0	0.1	0.0			0.1	1.0	1.0	1.0					
	0.120	0.020			323.0	313.0		0.0	0.0	0.0			0.1	1.0	1.0	1.0					
	0.016	0.010			329.0	323.0		0.0	0.0	0.0			0.1	1.0	1.0	1.0					
330.0	0.121	0.150			337.0	329.0	1.0	0.0	1.0	0.0			0.1	1.0	1.0	1.0				30	LC
	0.091	0.100			341.0	337.0	1.0	0.0	1.0	0.0			0.1	1.0	1.0	1.0				30	BD
	0.055	0.050			351.0	341.0	0.0	0.0	0.0	0.0			0.1	1.0	1.0	1.0				30	SV
	0.074	0.020			361.0	351.0	0.0	0.0	0.0	0.0			0.1	1.0	1.0	1.0				30	BD

FEET	RECOVERY PPT	ROD PPT	FROM	TO	LITHOLOGY	MINDR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
360.0										
	600	1000	341.00	410.00			MEDIUM GREY	Aligned Phenocrysts	Bedded	The same unit as above, but with only trace Cpy. About 10% xtal tuff in beds up to 5 ft thick.
410.0										
	600	1000	410.00	429.00			MEDIUM GREY	Fine Grained	Fragmen- tal	1% Cpy as fine dissens. within a fine lithic lapilli and med. crystal ash tuff. Lapilli generally 2-8mm in size. Lower contact is parallel to bedding at 40 degrees TCA.
	600	900	429.00	446.00			LIGHT GREEN	Aligned Phenocrysts		0.5% Cpy in an aphanitic pale green dust tuff. Commonly highly broken. Lower contact is a 2' fault gouge at 55 degrees TCA.
	750	1000	446.00	459.00	Crystal Lithic Tuff		DARK GREY	Fine Grained	Equigranular	1.5% Cpy as stringers 1-3mm wide and fine dissens. that decrease away from upper contact. The tuff is dark grey to black, fine grained, equigranular with 3% lithic lapilli to 8mm in dia.
460.0										
	600	1000	459.00	543.00			MEDIUM GREY	Aligned Phenocrysts		1.5% Cpy and 3% pyrite as fine to med. dissens. + common sulphide stringers 2-6mm thick at 65 degrees TCA, perpendicular to the bedding. The unit is a dust tuff with 20% crystal ash tuff beds 1-3 ft thick.
510.0										
	800	1000	543.00	559.00	Crystal Lithic Tuff		VERY DARK GREY	Fine Grained	Equigranular	Fine, dark grey to black, biotitic ash tuff with 15% Cpy as common sulphide (Cpy + Py) stringers at 60 degrees TCA (2-4mm thick) + fine disseminations. Bore at 559 ft. The hole was stopped because being close to the river. Mining at these depths is not feasible.



## STRUCTURE

## ALTERATION

## ASSAYS

GOLD g/t		Copper %	LENGTH Ft./10	SAMPLE NUMBER		FROM		TO	
0.008	0.020					361.0	371.0		
0.120	0.140					371.0	381.0		
0.012	0.010					381.0	391.0		
0.019	0.010					391.0	401.0		
0.030	0.050					401.0	410.0		
0.060	0.170					410.0	420.0		
0.135	0.330					420.0	429.0		
0.065	0.080					429.0	439.0		
0.073	0.080					439.0	446.0		
0.320	0.420					446.0	453.0		
0.028	0.070					453.0	459.0		
0.260	0.090					459.0	469.0		
0.018	0.350					469.0	479.0		
0.600	0.770					479.0	489.0		
0.620	0.640					489.0	499.0		
0.210	0.320					499.0	509.0		
0.190	0.370					509.0	519.0		
0.023	0.110					519.0	529.0		
0.320	0.190					529.0	539.0		
0.340	0.430					539.0	543.0		
0.032	0.480					543.0	553.0		
0.056	0.110					553.0	559.0		



Princeton Mining Corp.  
SIMILCO MINES LTD.  
DRILL HOLE LOG  
PROJECT ID : INGERBELLE\_EAST

HOLE / TRAVERSE ID : DDH94\_IE15  
CORE HOLE SIZE : BDGM  
DATE STARTED : 94/ 6/20  
DATE COMPLETED :  
GEOLOGGED BY :  
PLOT DATE : 94/NOV/14  
PROJECT LEADER : PMH  
LOCATION :

COLLAR AZIMUTH : 349.46  
COLLAR DIP : -45.70  
COLLAR ELEVATION : 2733.37  
COLLAR NORTHING : 15213.13  
COLLAR EASTING : 16396.15  
COLLAR OFFSET :  
COLLAR STATION :  
TOTAL LENGTH : 595.0

NTS: 92H

MINING DIV.: SIMILKAMEEN

PURPOSE:

COMMENTS:

KEY INTERSECTIONS: FROM TO ; FT. OF . % CU, . G/T AU  
FROM TO ; FT. OF . % CU, . G/T AU

SURVEY DATA  
DEPTH DIP AZIMUTH  
0 - .00

SUMMARY REMARKS

LEGEND

ECON. MINERAL:  
D = DISSEMINATED MV = MICROVEIN/FRACT.FILL  
// = VEINS AND PATCHES  
DKV= DISS. < VEINS/FRACTURE FILL

STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN  
MV = MAGNETITE VEIN FL = FAULT  
IC = INTRUSIVE CONTACT

DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY	Cu% 0 0.2 0.4 0.6 0.8 1.0
9.00	48.00	Lapilli Tuff	
48.00	145.00	LH2 Diorite	
150.00	192.00	LH2 Diorite	
200.00	222.00	LH2 Diorite	
222.00	330.00	LH2 Diorite	
330.00	396.00	Crystal Lithic Tuff	
396.00	441.00	LH2 Diorite	
452.00	506.00	LH2 Diorite	
506.00	525.00	Crystal Lithic Tuff	
525.00	595.00	Lapilli Tuff	

0.0 0.2 0.4 0.6 0.8 1.0

FEET	RECOVERY PPT	ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
0.0			0.00	9.00	Casing					
	250	1000	9.00	48.00	Lapilli Tuff		DARK GREY	Fine Grained	Fragmen tal	Oxidized from surface to 39 ft (limonitic and malachite fractures), although only approx. 5% oxidation at surface. Moderately broken. 1.5% Cpy as dissems, veins + clusters up to 1cm in dia. (fine grained), decreasing away from surface.
50.0					Lapilli Tuff					
	700	1000	48.00	145.00	LH2 Diorite			Medium Grained	Porphyritic	Trace Cpy in Lost Horse, med. grained, weakly porphyritic diorite with moderate Kspar alt'n as a red 'wash' through the matrix and as veins or envelopes. Cpy occurs in rare albite stringers.
100.0										
	800	1000	145.00	150.00	Lapilli Tuff		VERY DARK	Fine Grained	Fragmen tal	Lithic lapilli tuff, dark grey-black with local magnetite clusters and 0.5%.
150.0					LH2 Diorite			Medium Grained	Porphyritic	Trace Cpy in a weakly porphyritic diorite with moderate potassic alteration. Trace MOS2 in a FLT at 176-177 ft.
	700	1000	150.00	192.00						

## AL TERATION

## ASSAYS

[illegible]

RECOVERY PPT	ROD PPT	FEET	TO	FROM	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS	
		180.0									
		700	1000	150.00	192.00	LH2 Diorite		Medium Grained	Porphyritic	Trace Cpy in a weakly porphyritic diorite with moderate potassic alteration. Trace MOS2 in a FLT at 176-177 ft.	
		700	1000	192.00	200.00		VERY DARK GREY	Fine Grained	Equigranular	Irregular contact, unclear which unit intrudes which, but this unit is similar to others that have been called LH3D (or feldspar unit).	
		650	1000	200.00	222.00	LH2 Diorite		Medium Grained	Porphyritic	Trace Cpy as fine dissens. within moderate to intensely Kspar altered porphyritic diorite.	
		230.0									
		450	1000	222.00	330.00	LH2 Diorite		MEDIUM GREY	Medium Grained	Porphyritic	As above, but with less Kspar alt'n.
		280.0									
		400	1000	330.00	396.00	Crystal Lithic Tuff	Crystal	GREY GREEN	Fine Grained	Fine grained, massive (no bedding), equigranular ash tuff with moderate fspars veining + trace Cpy. Locally intensely broken.	

## STRUCTURE

## ALTERATION

## ASSAYS

GOLD g/t		Copper %		LENGTH Ft/10	SAMPLE NUMBER		TO	FROM	CHALCOPYRITE		PYRITE HABIT		% PYRITE	PYRITE HABIT	% MAGNETITE	ALT. FACIES	% EPIDOTE	% CHLORITE	% K-SPAR	% Biotite	% CALCITE	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	STRUCTURE ID		
0.006	0.000	0.016	0.010				192.0	180.0	0.0				0.0		0.1				2.5	2.5	1.0		20			KV		
0.016	0.010	0.006	0.010				200.0	192.0	0.0										2.5			40	UC			75	KV	
0.011	0.000	0.004	0.000				222.0	200.0	0.0										10.0									
0.004	0.000	0.005	0.000				232.0	222.0	0.0																			
0.004	0.000	0.004	0.000				252.0	242.0	0.0																			
0.014	0.000	0.016	0.000				262.0	252.0	0.0																			
0.012	0.000	0.011	0.000				272.0	262.0	0.0										2.5									
0.011	0.000	0.003	0.000				292.0	282.0	0.0																			
0.026	0.000	0.024	0.000				312.0	302.0	0.0																			
0.009	0.000	0.010	0.000				330.0	322.0	0.0																			
0.010	0.000	0.003	0.010				340.0	330.0	0.0											2.5							50	KV
0.003	0.000						360.0	350.0																				

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
360.0									
400	1000	330.00	396.00	Crystal Lithic Tuff		GREY GREEN	Fine Grained		Fine grained, massive (no bedding), equigranular ash tuff with moderate Fspar veining + trace Cpy. Locally intensely broken.
410.0									
500	1000	396.00	441.00	LH2 Diorite		DARK GREY	Medium Grained	Porphyritic	Weakly porphyritic, med. grained, dark grey diorite with local Fspar (red) veining and trace Cpy. Lower contact is a fault.
400	1000	441.00	452.00	Crystal Lithic Tuff		GREY GREEN	Matrix Support ed		Crystal (feldspar) ash tuff, very fine grained, moderately broken, fine Kspar (red) veins at 60 degrees TCA.
460.0									
550	1000	452.00	506.00	LH2 Diorite			Medium Grained	Porphyritic	Med. grained porphyritic diorite, fairly massive (not much veining or textural variation). Trace fine Cpy. assoc. with chlorite/magnetite spots.
510.0									
650	1000	506.00	525.00	Crystal Lithic Tuff		GREY GREEN	Fine Grained	Bedded	Fine ash tuff, well bedded at 45 degrees TCA. Tops may be down based on graded bedding. 20% LH2 dikes (contacts at 60 degrees TCA NOT parallel to bedding) 0.5% very fine Cpy.
550	1000	525.00	595.00	Lapilli Tuff		GREY GREEN	Converted to fault	Fragnent tal	Heterolithic lapilli tuff with a coarse, intrusive-like matrix. It is possible that this is a porphyritic intrusive with selective alteration of some of the clasts. Lots of magnetite (2%) as discrete veins and spots. Cpy overall, but locally concentrated. EDH at 595 ft Magnetite streaks at

## STRUCTURE

## ALTERATION

## ASSAYS

[illegible]



RECOVERY PPT	ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
550	1000	525.00	595.00	Lapilli Tuff		GREY GREEN	Converted to fault	Fragmen tal	Heterolithic lapilli tuff with a coarse, intrusive-like matrix. It is possible that this is a pseudo-bx'd intrusive with selective alteration of some of the clasts. Lots of magnetite (3%) as dissem, veins and spots. 0.2% Cpy overall, but locally concentrated. EDH at 595 Ft. Magnetite breccia with 8% magnetite supported by LLTF clasts. 0.2% Cpy.

540.0

590.0



## ASSAYS

540.0

0.020	0.045
0.000	0.190
0.020	0.045
0.010	0.023
0.000	0.013
0.010	0.030

- 590.0

Princeton Mining Corp.  
SIMILCO MINES LTD.  
DRILL HOLE LOG  
PROJECT ID : INGERBELLE\_EAST

HOLE / TRAVERSE ID : DDH94\_IE16  
CORE HOLE SIZE : BDGM  
DATE STARTED : 94/ 6/20  
DATE COMPLETED :  
GEOLOGGED BY :  
PLOT DATE : 94/NOV/15  
PROJECT LEADER : PMH  
LOCATION :

COLLAR AZIMUTH : 354.19  
COLLAR DIP : -46.20  
COLLAR ELEVATION : 2800.26  
COLLAR NORTHING : 15088.38  
COLLAR EASTING : 16200.56  
COLLAR OFFSET :  
COLLAR STATION :  
TOTAL LENGTH : 504.0

NTS: 92H MINING DIV.: SIMILKAMEEN  
PURPOSE:

COMMENTS:

KEY INTERSECTIONS: FROM TO ; FT. OF . % CU, . G/T AU  
FROM TO ; FT. OF . % CU, . G/T AU

SURVEY DATA  
DEPTH DIP AZIMUTH  
0 - .00

DRILL HOLE SUMMARY  
FROM TO LITHOLOGY Cu%  
8 8 0 0 0 0 10

SUMMARY REMARKS

This hole should have been well mineralized, right from the collar, but appears to have cut a post-mineral (LH?) dyke until 209 ft. The rest of the hole displayed only spotty mineralization. A strong fault at 336-339 ft, which cuts off mineralization in a crystal tuff may be the North fault.

LEGEND

ECON. MINERAL:  
D = DISSEMINATED MV = MICROVEIN/FRACT.FILL  
// = VEINS AND PATCHES  
DKV= DISS. < VEINS/FRACTURE FILL

STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN  
MV = MAGNETITE VEIN FL = FAULT  
IC = INTRUSIVE CONTACT

0.00	13.00	Casing	
13.00	47.00	LH1 Diorite	
47.00	64.00	LH1 Diorite	
64.00	89.00	LH1 Diorite	
89.00	189.00	LH1 Diorite	
189.00	209.00	LH1 Diorite	
209.00	241.00	Crystal Lithic Tuff	
241.00	265.00	Crystal Lithic Tuff	
265.00	280.00	Crystal Lithic Tuff	
280.00	294.00	Crystal Lithic Tuff	
294.00	329.00	Crystal Lithic Tuff	
339.00	354.00	Crystal Lithic Tuff	
363.00	393.00	Crystal Lithic Tuff	
393.00	467.00	Crystal Lithic Tuff	
467.00	504.00	LH2 Diorite	

RECOVERY PPT	ROD PPT	FEET	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
		0.0	0.00	13.00	Casing					
		50	13.00	47.00	LHI Diorite		GREY GREEN	Medium Grained	Equigranular	Broken and supergene clay altered Lost Horse diorite (med. grained, equigranular) with trace malachite. All limonite is gone at 47 ft (bottom of oxidation).
		400	47.00	64.00	LHI Diorite		GREY GREEN	Medium Grained	Equigranular	Med. grained, weakly porphyritic diorite, minor weak Fspar alt'n.
		600	64.00	89.00	LHI Diorite		GREY GREEN	Medium Grained	Equigranular	Diorite as above, but with intense Kspar (pervasive) alteration.
		600	89.00	189.00	LHI Diorite		MEDIUM GREY	Medium Grained	Equigranular	Med. grained, equigranular diorite with pyroxenes (med. grained) in good shape. Lots of dissem. magnetite, trace Cpy.

## STRUCTURE

## ALTERATION

## CHALCOPYRITE HABIT

## ASSAYS

[illegible]

FEET	RECOVERY PPT RAD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
180.0	600	1000	89.00	189.00	LH1 Diorite	MEDIUM GREY	Medium Grained	Equigranular	Med. grained, equigranular diorite with pyroxenes (med. grained) in good shape. Lots of disseminated magnetite, trace Cpy.
	650	1000	189.00	209.00	LH1 Diorite	MEDIUM GREY	Medium Grained	Equigranular	As above, but with increased Kspar, magnetite and chlorite (intense feldspar alteration that occasionally forms veins which appear to cut magnetite/chlorite zones).
230.0	450	1000	209.00	241.00	Crystal Lithic Tuff		Fine Grained	Equigranular	Fine to aphanitic xtal ash tuff that may be the same intrusive as above, but with the textures obliterated by potassic + magnetite alteration. As with the above unit, Kspar veins cut magnetite spots/clusters.
	350	1000	241.00	265.00	Crystal Lithic Tuff		Medium Grained	Fragmen-tal	Fine to med. grained crystal ash tuff with local lapilli (coarser version of the unit above). Locally this unit resembles an intrusive or ash-lapilli tuff.
	450	1000	265.00	280.00	Crystal Lithic Tuff		Fine Grained	Equigranular	As with the above unit, this is probably a crystal tuff, but could be an intrusive, but with 2% disseminated and fracture postdated, n.g. Cpy. Less Kspar alteration than the above intervals.
280.0	650	1000	280.00	294.00	Crystal Lithic Tuff	DARK GREEN	Fine Grained	Porphyritic	Dark green xtal (and lithic lapilli?) tuff with white feldspar (?) spots (approx. 5%, 3-10mm in dia.) often with thin faint Kspar rims. 0.5% Cpy as spotty clusters and fine disseminations. Lower contact is sharp and 10 degrees TCA.
	400	1000	294.00	329.00	Crystal Lithic Tuff		Fine Grained	Porphyritic	Same unit as above, but without the albite spot alteration (only local minor amounts). Increased, moderate patchy Kspar alteration. Gives a red colour. 0.5% Cpy.
330.0	700	1000	329.00	339.00	Crystal Lithic Tuff	DARK GREEN	Fine Grained	Porphyritic	2% Cpy in a red or green crystal ash and lapilli tuff. The green tuff is better mineralized than the red, potassic altered tuff, but both are heavily mineralized.
	800	1000	339.00	354.00	Crystal Lithic Tuff	DARK GREEN	Mottled	Porphyritic	Same unit as above the fault but not mineralized. Moderate potassic alteration throughout.
	650	1000	354.00	363.00	Crystal Lithic Tuff		Fine Grained	Porphyritic	15% Cpy in a weakly potassic altered interval of crystal ash tuff.

STRUCTURE				ALTERATION										ASSAYS									
ANGLE TO CORE STRUCTURE ID		ANGLE TO CORE STRUCTURE ID		ANGLE TO CORE STRUCTURE ID		% CALCITE	% BIDIOTE	% K-SPAR	% CHLORITE	% EPIDOTE	% MAGNETITE	ALT. FACIES	PYRITE HABIT	% PYRITE	ALCOPYRITE HABIT	% CHALCOPYRITE	SAMPLE NUMBER	LENGTH FT./10	Copper %	GOLD g/t			
FROM	TO																						
KV 40								1.0	1.0			2.5			0.0		179.0	189.0	0.000	0.020			
KV 40								10.0	1.0			2.5	0.0	0.0	0.0		189.0	199.0	0.000	0.007			
KV 45								10.0	1.0			2.5	0.0	0.0	0.0		199.0	209.0	0.000	0.001			
KV 45								10.0	1.0			2.5	0.0	0.0	0.0		209.0	219.0	0.020	0.016			
KV 45								10.0	1.0			2.5	0.0	0.0	0.0		219.0	229.0	0.010	0.045			
KV 45								1.0	1.0			2.5	0.1	0.1	0.1		229.0	241.0	0.010	0.016			
LC 10								1.0					0.1	0.1	0.1		241.0	251.0	0.010	0.010			
LC 10								5.0					0.1	0.1	0.1		251.0	258.0	0.010	0.007			
LC 10													2.5	2.5	2.5		258.0	265.0	0.040	0.090			
LC 10													0.1	0.1	0.1		265.0	273.0	0.550	0.580			
LC 10													0.1	0.1	0.1		273.0	280.0	0.840	0.720			
LC 10													0.1	0.1	0.1		280.0	288.0	0.110	0.120			
LC 10													0.1	0.1	0.1		288.0	295.0	0.090	0.360			
LC 10													0.1	0.1	0.1		295.0	305.0	0.070	0.105			
LC 10													0.1	0.1	0.1		305.0	315.0	0.180	0.210			
LC 10													0.1	0.1	0.1		315.0	329.0	0.250	0.340			
LC 10													0.1	0.1	0.1		329.0	339.0	0.890	0.900			
LC 10													0.1	0.1	0.1		339.0	349.0	0.010	0.012			
LC 10													0.1	0.1	0.1		349.0	354.0	0.030	0.026			
LC 10													0.1	0.1	0.1		354.0	363.0	0.460	0.600			

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
360.0	650 1000	354.00	363.00	Crystal			Fine	Porphyritic	1.5% Cpy in a weakly potassic altered
	550 1000	363.00	393.00	Crystal Lithic Tuff			Fine Grained	Porphyritic	0.5% Cpy in a weakly altered (potassically) interval of crystal ash tuff. Local coarser sections may be intrusive <4' thick.
410.0									
	700 1000	393.00	467.00	Crystal Lithic Tuff		MEDIUM GREY	Fine Grained		Albite stringer stockwork, common orientation is 40 degrees TCA, trace Cpy only. Very weak Kspar alt'n, although local 1-3 ft intervals are intense.
460.0									
	600 1000	467.00	504.00	LH2 Diorite			Medium Grained	Porphyritic	Weakly porphyritic red and grey diorite with local zones of albite stringer stockwork. Mafics are in relatively good shape. Trace Cpy. Common epidote spots.



## ALTERATION

## ASSAYS

GOLD g/t		Copper %		LENGTH Ft/10	SAMPLE NUMBER	TO	FROM
0.600	0.460					363.0	354.0
0.380	0.350					373.0	363.0
0.260	0.220					383.0	373.0
0.043	0.030					393.0	383.0
0.035	0.020					403.0	393.0
0.027	0.010					413.0	403.0
0.005	0.000					423.0	413.0
0.001	0.000					433.0	423.0
0.001	0.000					443.0	433.0
0.001	0.000					453.0	443.0
0.002	0.000					467.0	453.0
0.002	0.000					477.0	467.0
0.001	0.000					487.0	477.0
0.015	0.000					497.0	487.0
0.014	0.000					504.0	497.0



Princeton Mining Corp.  
SIMILCO MINES LTD.  
DRILL HOLE LOG  
PROJECT ID : INGERBELLE\_EAST

HOLE / TRAVERSE ID : DDH94\_IE17  
CORE HOLE SIZE : BDGM  
DATE STARTED : 94/ 6/20  
DATE COMPLETED :  
GEOLOGGED BY :  
PLOT DATE : 94/NOV/15  
PROJECT LEADER : PMH  
LOCATION :

COLLAR AZIMUTH : 157.82  
COLLAR DIP : -46.60  
COLLAR ELEVATION : 2797.24  
COLLAR NORTHING : 15032.99  
COLLAR EASTING : 16175.44  
COLLAR OFFSET :  
COLLAR STATION :  
TOTAL LENGTH : 735.0

NTS: 92H MINING DIV.: SIMILKAMEEN  
PURPOSE:

COMMENTS:

KEY INTERSECTIONS: FROM TO ; FT. OF . % CU, . G/T AU  
FROM TO ; FT. OF . % CU, . G/T AU

SURVEY DATA  
DEPTH DIP AZIMUTH  
0 - .00 .

SUMMARY REMARKS

Well mineralized hole overall. Drilled to the south (approx. 160 degrees) from the Gully fault. The first 355 ft were >0.3% (visually), within WCF volcanics. Following a brief interval of only minor Cpy, the interval from 563 ft to the EDH was well mineralized. In particular, 563-641 ft will have grades approx. 1% and the narrow massive veins are very similar to those intersected in 94-IE06. (050-060 degrees structure?).

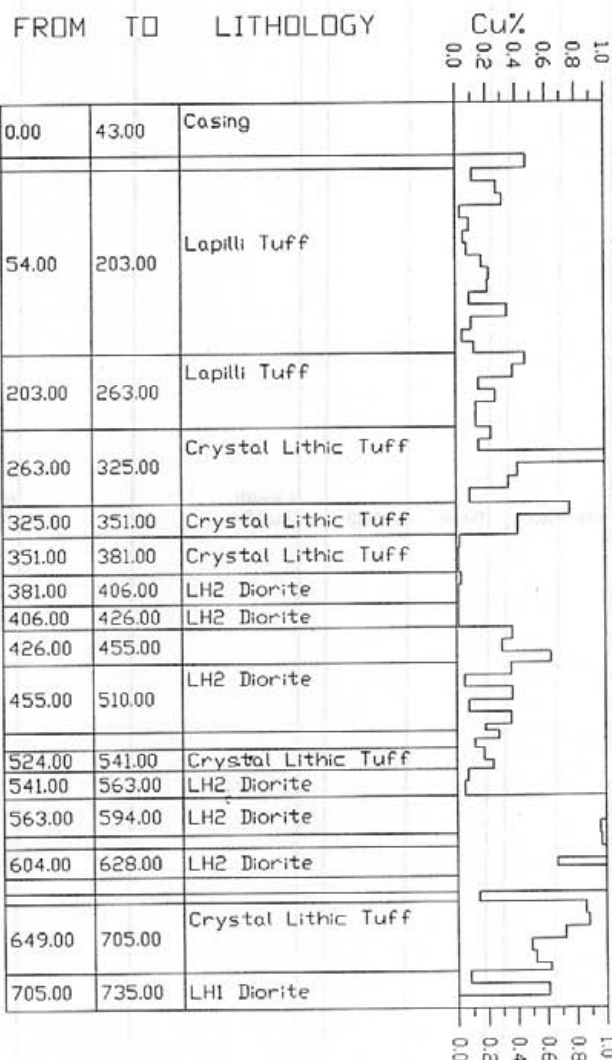
LEGEND

ECON. MINERAL:  
D = DISSEMINATED MV = MICROVEIN/FRACT.FILL  
// = VEINS AND PATCHES  
DKV= DISS. < VEINS/FRACTURE FILL

STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN  
MV = MAGNETITE VEIN FL = FAULT  
IC = INTRUSIVE CONTACT

DRILL HOLE SUMMARY



PAGE 2

[illegible]

## ASSAYS

[illegible]

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
180.0	550	1000	54.00	203.00	Lapilli Tuff	MEDIUM GREY	Fine Grained	Fragmen tal	0.8% Cpy as fine to med. dissem. Fracture filling 1-3mm thick (rare 10-15 mm's thick) and clusters 3-8mm in dia. in a med. grey, weakly pervasively albite altered lithic lapilli tuff. Common albite veins as well. Local broken zones, but no obvious faults. Occasional short (<4ft) intervals appear to be intrusive.
230.0	750	1000	203.00	263.00	Lapilli Tuff	MEDIUM GREY	Fine Grained	Fragmen tal	1.5% Cpy and 2% Py in a lapilli or crystal ash tuff. Sulphides occur as dissem (fine to med) or veins at 10-40 degrees TCA (most commonly approx. 25 degrees TCA).
280.0	750	1000	263.00	325.00	Crystal Lithic Tuff	LIGHT GREY	Bedded		2% Cpy and 1.5% Py in a bedded ash tuff. Graded bedding at 316 ft indicates tops up. Sulphides as fine to med. dissem and clusters and occasional veins 3-8mm thick, commonly at 40 degrees TCA.
330.0	700	1000	325.00	351.00	Crystal Lithic Tuff	LIGHT GREY	Matrix Supported		Fine crystal ash tuff with no bedding or banding contains sporadic zones of 2% Cpy as stringers at 40 degrees TCA with pyrite. Lower contact is based on sulphide content and is gradational over approx. 5 ft.
	750	1000	351.00	381.00	Crystal Lithic Tuff				Intensely oxidized crystal ash tuff with 0.3% fine, dissem Cpy. This unit locally appears intrusive and grades into the diorite below. Albite stringers have disguised the intrusive

## STRUCTURE

## ALTERATION

% CHALCOPYRITE  
CHALCOPYRITE HABIT

## ASSAYS

[illegible]

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
360.0									
750	1000	351.00	381.00	Crystal Lithic Tuff		LIGHT GREY	Matrix Support ed		Intensely albitized crystal ash tuff (?) with 0.3% fine, dissem Cpy. This unit locally appears intrusive and grades into the diorite below. Albite alt'n may have disguised the intrusive textures.
700	1000	381.00	406.00	LH2 Diorite		LIGHT GREY	Medium Grained	Porphy- ritic	Mottled and albite altered diorite (weakly porphyritic) textures locally obliterated. Trace Cpy, 0.2% fine black-brown, disseminated sphalerite(?) (may be fine biotite).
410.0									
400	1000	406.00	426.00	LH2 Diorite		LIGHT GREY		Porphy- ritic	6' gouges, every 1-2 Ft, throughout the interval, otherwise as above.
350	1000	426.00	455.00			GREY GREEN	Aligned Phenocr- ysts	Bedded	1% Cpy in an aphanitic, pale grey-green dust tuff with bedding at 40 degrees TCA. Moderately broken.
460.0									
650	1000	455.00	510.00	LH2 Diorite		MEDIUM GREY	Medium Grained	Porphy- ritic	Highly altered mildly porphyritic diorite with local xenoliths (?) of black lapilli tuff (up to 2 Ft thick). 1% Cpy as fine dissens and clusters and minor stringers (up to 3% Cpy over 1 Ft intervals). Neither contact is a fault.
510.0									
600	1000	510.00	524.00	Lapilli Tuff		DARK GREY	Fragmen- tal	Medium Grained	Heterolithic lapilli tuff with 0.8% Cpy as very fine dissens and local clusters up to 8mm in dia. Intrusive (?) upper contact at 35 degrees TCA.
700	1000	524.00	541.00			MEDIUM GREY	Fine Grained	Matrix Support ed	1% Cpy as fine dissens with pyrite in a fine, crystal ash (?) tuff. Sharp upper contact at 40 degrees TCA. Lower contact is a 1' fault gouge at 60 degrees TCA.



## ALTERATION

## ASSAYS

GOLD g/t		Copper %	LENGTH Ft/10	SAMPLE NUMBER	TO	FROM
0.012	0.010				371.0	361.0
0.007	0.010				381.0	371.0
0.018	0.030				391.0	381.0
0.014	0.010				406.0	391.0
0.011	0.010				416.0	406.0
0.021	0.010				426.0	416.0
0.340	0.370				436.0	426.0
0.170	0.300				446.0	436.0
0.510	0.630				455.0	446.0
0.280	0.360				465.0	455.0
0.020	0.050				475.0	465.0
0.360	0.370				485.0	475.0
0.078	0.080				495.0	485.0
0.190	0.360				505.0	495.0
0.160	0.190				510.0	505.0
0.170	0.280				517.0	510.0
0.065	0.120				524.0	517.0
0.160	0.180				534.0	524.0
0.180	0.240				541.0	534.0

FEET	RECOVERY PPT	ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
540.0										
	700	1000	541.00	563.00	LH2 Diorite		MEDIUM GREY	Medium Grained	Porphyritic	1% Cpy and fine dissens. with pyrite within albite altered diorite. Some of this unit may be crystal tuff.
	650	1000	563.00	594.00	LH2 Diorite		DARK GREY	Medium Grained	Porphyritic	4% Cpy within a highly altered diorite (?) (euhedral, med. grained feldspars are still visible). Cpy occurs as med. grained clusters and stringers and one 3' banded (pyrite + Cpy) vein at 573 ft at 30 degrees TCA. The massive vein also contains 0.3% MOS2. The upper contact is based on grade and is gradational. The lower contact marks the beginning of a major fault zone.
590.0										
	50	1000	594.00	604.00	LH2 Diorite		MEDIUM GREY		Porphyritic	Major fault that cores this highly mineralized section (oriented at 60 degrees TCA).
	650	1000	604.00	628.00	LH2 Diorite		MEDIUM GREY	Medium Grained	Porphyritic	Continued highly mineralized diorite on this side of the fault.
					LH2					
640.0										
	700	1000	628.00	641.00	Crystal Lithic Tuff		DARK GREY			Highly albite altered crystal tuff with 4% Cpy and 4% pyrite as large (1") clusters and one 6' massive vein at 634-635 ft (pyrite, Cpy and trace MOS2). Lower contact is gradational and based on grade.
	800	1000	641.00	649.00	Crystal Lithic Tuff		LIGHT GREY			0.5% Cpy in the same unit (although lighter coloured) as described above (greater albite alt'n?).
	550	1000	649.00	705.00	Crystal Lithic Tuff		DARK GREY			Darker version of the above XLTF (more massive as well), becomes gradually lighter coloured with depth. Commonly broken. 1.5% Cpy as fine dissens and occasional 2-5mm stringers at 30-60 degrees TCA. Minor bedding in the tuff at 60 degrees TCA. Lower contact observed by alteration.
690.0										
	600	1000	705.00	735.00	LH1 Diorite		MEDIUM GREY	Medium Grained	Equigranular	Pyroxenes are altered, but still euhedral in the L.H. diorite with common albite veins and 0.8% very fine, dissens. Cpy.



## STRUCTURE

## ALTERATION

## ASSAYS

[illegible]

Princeton Mining Corp.  
SIMILCO MINES LTD.  
DRILL HOLE LOG  
PROJECT ID : INGERBELLE\_EAST

HOLE / TRAVERSE ID : DDH94\_IE18  
CORE HOLE SIZE : BDGM  
DATE STARTED : 94/ 6/20  
DATE COMPLETED :  
GEOLOGGED BY :  
PLOT DATE : 94/NOV/15  
PROJECT LEADER : PMH  
LOCATION :

COLLAR AZIMUTH : 318.51  
COLLAR DIP : -44.30  
COLLAR ELEVATION : 2800.62  
COLLAR NORTHING : 15061.96  
COLLAR EASTING : 16174.94  
COLLAR OFFSET :  
COLLAR STATION :  
TOTAL LENGTH : 649.0

NTS: 92H MINING DIV.: SIMILKAMEEN

PURPOSE:

COMMENTS:

KEY INTERSECTIONS: FROM TO ; FT. OF . % CU, . G/T AU  
FROM TO ; FT. OF . % CU, . G/T AU

SURVEY DATA  
DEPTH DIP AZIMUTH  
0 - .00

SUMMARY REMARKS

LEGEND

ECON. MINERAL:  
D = DISSEMINATED MV = MICROVEIN/FRACT.FILL  
// = VEINS AND PATCHES  
DKV= DISS. < VEINS/FRACTURE FILL

STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN  
MV = MAGNETITE VEIN FL = FAULT  
IC = INTRUSIVE CONTACT

DRILL HOLE SUMMARY

FROM TO LITHOLOGY Cu%  
0 0 0 0 0 0 10

5.00	77.00	LH1 Diorite	
77.00	94.00	Lapilli Tuff	
94.00	137.00	Crystal Lithic Tuff	
137.00	179.00	Crystal Lithic Tuff	
179.00	243.00	Crystal Lithic Tuff	
243.00	294.00	LH1 Diorite	
294.00	327.00	Crystal Lithic Tuff	
327.00	354.00	Crystal Lithic Tuff	
354.00	396.00	Crystal Lithic Tuff	
396.00	523.00	Crystal Lithic Tuff	
523.00	596.00	Lapilli Tuff	
596.00	649.00	Lapilli Tuff	

0 0 0 0 0 0 10

PAGE 2

[illegible]

## ALTERATION

## ASSAYS

GOLD g/t		Copper %		LENGTH F t/10	AMPLE NUMBER	TO	FROM
0.029	0.020						
0.095	0.130						
0.038	0.090						
0.135	0.190						
0.140	0.200						
0.320	0.180						
0.200	0.380						
0.070	0.090						
0.280	0.420						
0.820	1.060						
0.300	0.350						

CHALCOPYRITE	PYRITE HABIT	% PYRITE	PYRITE HABIT	% MAGNETITE	ALT. FACIES	% EPIDOTE	% CHLORITE	% K-SPAR	% BIOTITE	% CALCITE	ANGLE TO CORE	STRUCTURE ID
		0.0		1.0				25				CV 35
		5.0		2.5		1.0						
		1.0				1.0		1.0				AV 25
		1.0				1.0		1.0				AV 25

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
180.0									
	500 1000	179.00	243.00	Crystal Lithic Tuff			Fine Grained		
230.0									
	700 1000	243.00	294.00	LH1 Diorite		LIGHT GREY	Fine Grained	Equigranular	Indistinct upper contact (obscured by alt'n?). Lower contact is sharp and 20 degrees TCA. This unit looks like a fine diorite (magnetite, int. equigranular texture), but could be a massive crystal ash tuff, only trace Cpy.
280.0									
	550 1000	294.00	327.00	Crystal Lithic Tuff		MEDIUM GREY	Fine Grained		Crystal ash tuff with local lapilli up to 1' in dia. Abundant pyrite with epidote, 0.3% Cpy as fine dissens. with the pyrite.
330.0									
	650 1000	327.00	354.00	Crystal Lithic Tuff		MEDIUM GREY	Bedded		Same unit as above, locally bedded (bedded), but with increased Cpy (2%) and Kspar alteration (with chlorite spots and patches).
	700 1000	354.00	396.00	Crystal Lithic Tuff		MEDIUM GREY	Fine Grained	Equigranular	Fine crystal ash tuff (locally massive and intrusive textures) with less Kspar, chlorite and only 0.3% Cpy.

STRUCTURE			ALTERATION										ASSAYS		Copper %	GOLD g/t				
STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	% CALCITE	% BIODITE	% K-SPAR	% CHLORITE	% EPIDOTE	ALT. FACIES	% MAGNETITE	PYRITE HABIT	% PYRITE	CHALCOPYRITE HABIT	% CHALCOPYRITE	FROM				TO	SAMPLE NUMBER	LENGTH Ft./10
AV	25			1.0	5.0		1.0				1.0	1.0		179.0	189.0			0.640	0.420	180.0
														189.0	199.0			0.020	0.029	
														199.0	209.0			0.030	0.042	
														209.0	219.0			0.230	0.190	
														219.0	229.0			0.310	0.400	
														229.0	243.0			0.470	0.260	230.0
														243.0	253.0			0.010	0.017	
CV		KV	30	5.0		2.5		2.5	2.5		0.1	0.0		253.0	263.0			0.010	0.047	
														263.0	273.0			0.010	0.013	
														273.0	283.0			0.020	0.030	280.0
														283.0	294.0			0.000	0.046	
														294.0	304.0			0.130	0.120	
CV	80			2.5	0.1	1.0		0.1			2.5	0.3		304.0	314.0			0.090	0.056	
														314.0	327.0			0.120	0.085	
														327.0	337.0			1.000	0.460	330.0
BD	45			2.5	0.1	5.0	2.5	1.0			1.0	2.5		337.0	347.0			0.440	0.340	
														347.0	354.0			0.490	0.380	
CV	80			2.5	0.1	2.5	1.0	0.1			0.1	0.1		354.0	364.0			0.180	0.160	

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
360.0	700 1000	354.00	396.00	Crystal Lithic Tuff		MEDIUM GREY	Fine Grained	Equigranular	Fine crystal ash tuff (locally massive and intrusive textures) with less Kspar/chlorite and only 0.3% Cpy.
410.0									
					Crystal				
460.0	550 1000	396.00	523.00	Crystal Lithic Tuff			Foliated	Stockwork Veined	Intensely Kspar, chlorite altered (Kspar and chlorite sheeted veins) with numerous later calcite veins. 0.3% Cpy overall with several 1-5 ft intervals containing 1% Cpy (commonly in less altered sections).
510.0									
	500 1000	523.00	596.00	Lapilli Tuff		DARK GREY	Medium Grained	Fragmen- tal	0.5% Cpy and 1.5% pyrite in a dark grey to black lithic lapilli tuff that grades upwards into the crystal tuff above. Less Kspar and chlorite altered than above. Locally broken.



## STRUCTURE

## ALTERATION

## CHALCOPYRITE HABIT

## % CHALCOPYRITE

## ASSAYS

[illegible]



[illegible]

## ALTERATION

## ASSAYS

SAMPLE NUMBER		LENGTH FT./10	Copper %	GOLD g/t
533.0	543.0		0.090	0.090
543.0	553.0		0.080	0.063
553.0	563.0		0.040	0.033
563.0	573.0		0.030	0.032
573.0	583.0		0.180	0.120
583.0	596.0		0.340	0.200
596.0	606.0		0.760	0.340
606.0	616.0		0.210	0.120
616.0	626.0		0.500	0.190
626.0	636.0		0.250	0.130
636.0	649.0		0.150	0.140

Princeton Mining Corp.  
SIMILCO MINES LTD.  
DRILL HOLE LOG  
PROJECT ID : INGERBELLE\_EAST

HOLE / TRAVERSE ID : DDH94\_IE19  
CORE HOLE SIZE : BDGM  
DATE STARTED : 94/ 6/20  
DATE COMPLETED :  
GEOLOGGED BY :  
PLOT DATE : 94/NOV/15  
PROJECT LEADER : PMH  
LOCATION :

COLLAR AZIMUTH : 197.89  
COLLAR DIP : -45.40  
COLLAR ELEVATION : 2972.49  
COLLAR NORTHING : 15323.84  
COLLAR EASTING : 16031.49  
COLLAR OFFSET :  
COLLAR STATION :  
TOTAL LENGTH : 870.0

NTS: 92H MINING DIV.: SIMILKAMEEN  
PURPOSE:

COMMENTS:

KEY INTERSECTIONS: FROM TO ; FT. OF . % CU, . G/T AU  
FROM TO ; FT. OF . % CU, . G/T AU

SURVEY DATA  
DEPTH DIP AZIMUTH  
0 - .00

SUMMARY REMARKS

LEGEND

ECON. MINERAL:  
D = DISSEMINATED MV = MICROVEIN/FRACT.FILL  
// = VEINS AND PATCHES  
DIV = DISS. < VEINS/FRACTURE FILL

STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN  
M = MAGNETITE VEIN FL = FAULT  
IC = INTRUSIVE CONTACT

DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY	Cu% 0 20 40 60 80 100
11.00	36.00	Crystal Lithic Tuff	
47.00	110.00	Crystal Lithic Tuff	
128.00	220.00	Crystal Lithic Tuff	
230.00	249.00	LH2 Monzonite	
249.00	384.00	Lapilli Tuff	
417.00	485.00	Crystal Lithic Tuff	
485.00	524.00	Crystal Lithic Tuff	
533.00	638.00	LH1 Diorite	
655.00	698.00	LH2 <sup>+</sup> Diorite	
698.00	740.00	Crystal Lithic Tuff	
740.00	809.00	LH1 Diorite	
809.00	829.00	Crystal Lithic Tuff	
829.00	870.00	Crystal Lithic Tuff	

0 20 40 60 80 100

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LTH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
0.0		0.00	11.00	Casing					
250	800	11.00	36.00	Crystal Lithic Tuff		MEDIUM GREY	Fine Grained	Equigra nular	0.5% Cpy and 0.3% malachite in a fine to med. grained crystal tuff, although it may be an intrusive. The sulphides are only 10% oxidized. The core is rubbly and broken.
100	750	36.00	47.00	Lapilli Tuff		VERY DARK GREY	Medium Grained	Fragmen tal	0.3% Cpy and 0.8% Pyrite in a black, med. grained lithic lapilli tuff (heterolithic). Clasts are 35%, 10-30mm in dia. and subrounded. As above, approx. 10% oxidation.
250	1000	47.00	110.00	Crystal Lithic Tuff		DARK GREY	Fine Grained	Equigra nular	Fine, equigranular, crystal tuff with approx. 10% coarser, dark grey lapilli tuff intervals. Common clay and limonite rich fractures, 0.5% Cpy overall. Moderately broken and 10% oxidized.
100	900	110.00	128.00	Crystal Lithic Tuff			Fine Grained	Equigra nular	Rubbly and limonitic fault zone with 1% Cpy as fine disseminations. Fault orientation is unclear.
400	900	128.00	220.00	Crystal Lithic Tuff		MEDIUM GREY	Fine Grained	Mottled	0.8% Cpy overall in a mottled and variably altered crystal ash tuff (?). Cpy is fine and disseminated with local clusters up to 5mm in dia. Intensely broken with mod (?) (30%) oxidation from 132-169 ft. Less broken and 20% oxidation after this, up until 195 ft (all oxidation gone at 195 ft).

## CHALCOPYRITE HABIT

0.0

— 150.0

[illegible]

## STRUCTURE

## ALTERATION

## ASSAYS

STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% CALCITE	% BIOTITE	% K-SPAR	% CHLORITE	% EPIDOTE	ALT. FACIES	% MAGNETITE	PYRITE HABIT	% PYRITE	CHALCOPYRITE HABIT	% CHALCOPYRITE	FROM	TO	SAMPLE NUMBER	LENGTH Ft/10	Copper %	GOLD g/t
AV 75		UC 10			2.5	2.5						1.0	1.0		178.0	188.0			0.310	0.260
															188.0	198.0			0.680	0.480
															198.0	208.0			0.150	0.045
															208.0	220.0			0.150	0.120
															220.0	230.0			0.120	0.090
															230.0	240.0			0.200	0.100
															240.0	249.0			0.160	0.240
															249.0	254.0			0.140	0.085
															254.0	267.0			0.040	0.048
															267.0	277.0			0.120	0.040
															277.0	287.0			0.780	0.320
															287.0	297.0			0.760	0.460
															297.0	307.0			0.610	0.490
															307.0	317.0			0.120	0.070
															317.0	327.0			0.210	0.150
															327.0	337.0			0.360	0.160
															337.0	347.0			0.480	0.220
															347.0	357.0			0.140	0.130
															357.0	367.0			0.220	0.180



FEET	RECOVERY PPT RCD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
360.0	700	1000	249.00	384.00	Lapilli Tuff	MEDIUM GREY	Coarse Grained	Fragmen tal	1.5% Cpy in an ash and lapilli tuff (approx. 20/80). Local fine ash beds display bedding (these are chaotic and may themselves be lithic frags. Cpy occurs as med. dissens and stringers and clusters up to 4 inches in dia. (only one 4' in dia. at 283 ft).
	800	1000	384.00	399.00	LH1 Diorite		Medium Grained	Equigra nular	Post-mineral (?) diorite, reddish grey in colour, equigranular with pyroxenes in reasonable condition. Trace Cpy and pyrite only. Lower contact is indistinct. Upper contact is broken.
410.0	600	1000	399.00	417.00	Lapilli Tuff	VERY DARK GREY	Coarse Grained	Fragmen tal	Heterolithic lapilli tuff (70% of the clasts are black, aphanitic and intensely magnetic (40% magnetite). 0.5% Cpy + 2% Py as med. disseminations.
	750	1000	417.00	485.00	Crystal Lithic Tuff	MEDIUM GREY	Fine Grained	Equigra nular	1% Cpy as fine to med. dissens, and occasional veins/stringers within a mottled, variably altered crystal tuff (?) with approx. 2% scattered lapilli. This may be an altered flow or even intrusive.
460.0	750	1000	485.00	524.00	Crystal Lithic Tuff	MEDIUM GREY	Fine Grained	Equigra nular	0.3% Cpy as fine dissens. within the same crystal tuff described above, although it is slightly coarser grained and locally appears intrusive. Gradational and interbedded contact with fine volcanic seds. below.
510.0	700	1000	524.00	533.00		LIGHT GREY	Aligned Phenocr ysts	Bedded	Aphanitic to fine, finely interbedded dust tuff with beds at 80 degrees TCA, tops up (?) (graded bedding). Only trace sulphides, Kspar alteration of select, very fine beds gives a pink
	750	1000	533.00	638.00	LH1 Diorite	MEDIUM GREY	Medium Grained	Equigra nular	Med. grained, equigran. diorite, with pyroxenes often fairly fresh. Generally uninteresting, although increased Fspar



## STRUCTURE

## ALTERATION

## CHALCOPYRITE HABIT

## % CHALCOPYRITE

## ASSAYS

GOLD g/t		Copper %	LENGTH Ft/10	SAMPLE NUMBER	TO	FROM
0.120	0.120				367.0	357.0
0.240	0.690				377.0	367.0
0.200	0.260				384.0	377.0
0.038	0.030				392.0	384.0
0.010	0.010				409.0	399.0
0.039	0.030				417.0	409.0
0.035	0.030				427.0	417.0
0.022	0.030				437.0	427.0
0.070	0.040				447.0	437.0
0.130	0.160				457.0	447.0
0.340	0.260				467.0	457.0
0.320	0.400				477.0	467.0
0.320	0.360				485.0	477.0
0.480	0.620				495.0	485.0
0.160	0.170				505.0	495.0
0.027	0.020				515.0	505.0
0.006	0.010				524.0	515.0
0.003	0.010				533.0	524.0
0.004	0.000					
0.001	0.000					

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
540.0									
590.0	750 1000	533.00	638.00	LH1 Diorite		MEDIUM GREY	Medium Grained	Equigranular	Med. grained, equigran. diorite, with pyroxenes often fairly fresh. Generally uninteresting, although increased Fspar alt'n. toward the upper contact, increasing albite toward the lower contact. Only trace Cpy.
640.0	650 1000	638.00	641.00	LH1 Diorite		MEDIUM	Medium	Equigranular	The same diorite as above, but with 1%
	700 1000	641.00	655.00	Lapilli Tuff		DARK GREY	Coarse Grained	Fragmental	Lithic lapilli tuff with 20% aphanitic, dark grey massive dust tuff. Minor biotitic patches, 0.8% Cpy as fine dissens and fracture fillings.
	750 1000	655.00	698.00	LH2 Diorite		LIGHT GREY	Medium Grained	Porphyritic	The first two feet of this unit are mineralized with 1% Cpy, otherwise there are traces only. The unit is a med. grained diorite with euhedral pyroxenes (locally well preserved). The unit becomes finer grained and biotitic (and albitic) near the lower contact (may be a tuff here).
690.0									
	1000	698.00	740.00	Crystal Lithic Tuff		MEDIUM GREY	Fine Grained	Equigranular	Thin tuffaceous unit with 1 ft of dust tuff at upper contact (bedding at 65 and 10A). Followed by 5 ft of lithic lapilli tuff and then crystal tuff. 1% Cpy overall as fine dissens and fracture fills and minor coarse, rounded clasts to 1/2" in dia.

## STRUCTURE

## ALTERATION

## ASSAYS

STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% CALCITE	% BIOTITE	% K-SPAR	% CHLORITE	% EPIDOTE	ALT. FACIES	% MAGNETITE	PYRITE HABIT	% PYRITE	CHALCOPYRITE HABIT	% CHALCOPYRITE	FROM	TO	SAMPLE NUMBER	LENGTH Ft./10	Copper %	GOLD g/t	
															533.0	543.0			0.000	0.001	540.0
															543.0	553.0			0.000	0.031	
															553.0	563.0			0.000	0.021	
															563.0	573.0			0.000	0.032	
															573.0	583.0			0.000	0.009	
															583.0	593.0			0.000	0.017	590.0
						1.0				0.1		0.0		0.0	593.0	603.0			0.000	0.002	
															603.0	613.0			0.000	0.004	
															613.0	623.0			0.010	0.005	
															623.0	628.0			0.020	0.009	
															628.0	635.0			0.440	0.320	
															635.0	641.0			0.130	0.110	640.0
AV 55					0.1	1.0				0.1		1.0		1.0	641.0	648.0			0.900	0.380	
															648.0	655.0			0.260	0.140	
															655.0	665.0			0.080	0.062	
															665.0	675.0			0.360	0.320	
AV 50					0.1							0.1		0.1	675.0	685.0			0.080	0.105	
															685.0	698.0			0.010	0.013	690.0
															698.0	708.0			0.490	0.200	
															708.0	718.0			0.210	0.150	
															718.0	728.0			0.210	0.180	

## PAGE 10

FEET	RECOVERY PPT	ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
720.0		1000	698.00	740.00	Crystal Lithic Tuff		MEDIUM GREY	Fine Grained	Equigranular	Mixed tuffaceous unit with 1 ft of dust tuff at upper contact (bedding at 65 deg. TCA), followed by 5 ft of lithic lapilli tuff and then crystal tuff. 1% Cpy overall as fine dissem. and fracture fills and minor coarse, isolated clusters to 1/2" in dia.
770.0		800 1000	740.00	809.00	LH1 Diorite		MEDIUM GREY	Medium Grained	Equigranular	1.5% Cpy and 1.5% Pyrite as fine disseminations, frequent fracture fillings and rare clusters within a fsp. and albite altered fine to med. equigranular diorite. Lower contact is a moderate fault.
820.0		800 1000	809.00	829.00	Crystal Lithic Tuff		MEDIUM GREY	Banded	Fine Grained	1.5% Cpy and 1.5% Py as fine dissem., occasional fracture fillings and occasional clusters up to 1/4" in dia. One 3' band of massive pyrite/pyrrhotite contains 4% Cpy at 815 ft. Moderate albite laminations along bedding planes (?).
870.0		700 1000	829.00	870.00	Crystal Lithic Tuff		MEDIUM GREY	Banded	Fine Grained	As above, but with only 0.3% Cpy and Py, and less albite alteration. As well, approx. 20% of the unit is fine grained diorite.

## ASSAYS

720.0

[illegible]

Princeton Mining Corp.  
SIMILCO MINES LTD.  
DRILL HOLE LOG  
PROJECT ID : INGERBELLE EAST

HOLE / TRAVERSE ID : DDH94\_IE20  
CORE HOLE SIZE : BDGM  
DATE STARTED : 94/ 6/20  
DATE COMPLETED :  
GEOLOGGED BY :  
PLOT DATE : 94/NOV/15  
PROJECT LEADER : PMH  
LOCATION :

COLLAR AZIMUTH : 358.92  
COLLAR DIP : -45.00  
COLLAR ELEVATION : 2973.74  
COLLAR NORTHING : 15226.76  
COLLAR EASTING : 15979.95  
COLLAR OFFSET :  
COLLAR STATION :  
TOTAL LENGTH : 392.0

NTS: 92H  
PURPOSE:

MINING DIV.: SIMILKAMEEN

COMMENTS:

KEY INTERSECTIONS: FROM TO ; FT. OF % CU, G/T AU  
FROM TO ; FT. OF % CU, G/T AU

SURVEY DATA  
DEPTH DIP AZIMUTH  
0 - .00

SUMMARY REMARKS

LEGEND

ECON. MINERAL:  
D = DISSEMINATED MV = MICROVEIN/FRACT.FILL  
// = VEINS AND PATCHES  
DKV= DISS. < VEINS/FRACTURE FILL

STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN  
MV = MAGNETITE VEIN FL = FAULT  
IC = INTRUSIVE CONTACT

DRILL HOLE SUMMARY

FROM TO LITHOLOGY Cu%  
0 0 0 0 0 0 0

0.00	10.00	Casing	
10.00	43.00	Crystal Lithic Tuff	
43.00	57.00	LH1 Diorite	
57.00	107.00	Lapilli Tuff	
107.00	131.00	Lapilli Tuff	
131.00	255.00	Lapilli Tuff	
255.00	281.00	Lapilli Tuff	
281.00	392.00	LH2 Diorite	

0 0 0 0 0 0 0

RECOVERY PPT	ROD PPT	FEET	TO	FROM	LITHOLOGY	MINDR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
		0.0		0.00	10.00	Casing				
	200	900	10.00	43.00	Crystal Lithic Tuff		DARK GREY	Fine Grained	Matrix Supported	Fine grained, dark grey to black crystal ash tuff with no visible bedding. 1% fine, disseminated Cpy, often along hairline fractures. Ubiquitous malachite on limonitic fractures. 20% oxidation overall.
	250	1000	43.00	57.00	LH1 Diorite		LIGHT GREY	Medium Grained	Equigranular	Pervasively albite altered, fine to med. diorite with only trace Cpy or pyrite. Moderately broken.
	200	900	57.00	107.00	Lapilli Tuff		MEDIUM GREY	Coarse Grained	Fragmen tal	Moderately broken lithic lapilli tuff, approx. 20% oxidized at the top, and grading down to 0% oxidation at the bottom of the interval. 0.8% Cpy and common malachite.
					Lapilli Tuff					
	800	1000	107.00	131.00	Lapilli Tuff		MEDIUM GREY	Coarse Grained	Fragmen tal	As above, but less broken, unoxidized, and with about twice as much chalcoppyrite (1.5%).
	600	1000	131.00	255.00	Lapilli Tuff		DARK GREY	Coarse Grained	Fragmen tal	Coarse lapilli tuff with common Fspar phenocrysts, locally altered (especially near lower contact) by Kspar, chlorite and epidote. 0.3% Cpy overall, local 1-2 ft sections with 1% Cpy.



## STRUCTURE

## ALTERATION

## ASSAYS

GOLD g/t		Copper %	LENGTH Ft/10	SAMPLE NUMBER	FROM	TO
0.058	0.050				23.00	10.00
0.260	0.370				33.00	23.00
0.240	0.310				43.00	33.00
0.016	0.020				53.00	43.00
0.023	0.030				57.00	53.00
0.180	0.270				67.00	57.00
0.240	0.400				77.00	67.00
0.420	0.590				87.00	77.00
0.140	0.370				97.00	87.00
0.130	0.200				107.0	97.00
0.360	0.440				117.0	107.0
0.280	0.310				127.0	117.0
0.160	0.190				131.0	127.0
0.080	0.120				141.0	131.0
0.070	0.090				151.0	141.0
0.061	0.080				161.0	151.0
0.062	0.090				171.0	161.0
0.070	0.080					171.0



REMARKS	TEXTURE 2	TEXTURE 1	COLOR	MINOR LITH.	LITHOLOGY	TO	FROM	RECOVERY PPT	RCD PPT	FEET
Coarse lapilli tuff with common Fspar phenocrysts, locally altered (especially near lower contact) by Kspar, chlorite and epidote. 0.3% Cpy overall, local 1-2 ft sections with 1% Cpy.	Fragmen- tal	Coarse Grained	DARK GREY		Lapilli Tuff	255.00	131.00	1000	600	180.0
As above, but with increased Kspar alt'n (intense) and 2% Cpy as large clusters up to 2' in dia. and fine dissem. Lower boundary is a 6' fault gouge. Some of this unit is massive and may be an intrusive.	Fragmen- tal	Coarse Grained	DARK GREY		Lapilli Tuff	281.00	255.00	1000	600	230.0
Med. to coarse diorite with locally moderate to intense potassic alt'n and occasional magnetite veining. 0.3% Cpy overall, with local stretches <10 ft thick of 0.8% Cpy as rounded spots and fine dissem. EDH at 392 ft.	Porphy- ritic	Medium Grained	DARK GREY		LH2 Diorite	392.00	281.00	1000	750	280.0

## STRUCTURE

## ALTERATION

## ASSAYS

ANGLE TO CORE  
STRUCTURE ID  
ANGLE TO CORE  
STRUCTURE ID

% CALCITE% BIOTITE% K-SPAR% CHLDRITE% EPIDOTEALT. FACIES

1000

% APRILPYRITE HABITCHALCOPYRITEFROM2SAMPLE NUMBERLENGTH Ft/10Copper %4/6 GOLD180.0

0.280	0.120
0.060	0.041
0.310	0.220
0.270	0.160
0.020	0.061
0.020	0.007
0.120	0.160
0.400	0.380
0.630	0.520
0.970	0.980
0.150	0.130
0.070	0.105
0.160	0.160
0.040	0.044
0.060	0.080
0.070	0.059
0.070	0.068
0.000	0.044

- 230.0- 280.0

- 330.0

[illegible]

RECOVERY PPT	ROD PPT	FEET	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
750	1000	360.0	281.00	392.00	LH2 Diorite		DARK GREY	Medium Grained	Porphyritic	Med. to coarse diorite with locally moderate to intense potassic alt'n and occasional magnetite veining. 0.3% Cpy overall, with local stretches <10 ft thick of 0.8% Cpy as rounded spots and fine dissens. EDH at 392 ft.

## STRUCTURE

## ALTERATION

% CHALCOPYRITE	CHALCOPYRITE HABIT
0-10	1
10-20	2
20-30	3
30-40	4
40-50	5
50-60	6
60-70	7
70-80	8
80-90	9
90-100	10

LENGTH Ft/10

SAMPLE NUMBER

360.0		
	GOLD g/t	Copper %
	0.024	0.010
	0.032	0.010
	0.001	0.000

FROM	TO	NUMBER	DATE
361.0	371.0		
371.0	381.0		
381.0	392.0		

CHALCOPYRITE	0.1
OPYRITE HABIT	
% PYRITE	0.1
PYRITE HABIT	
% MAGNETITE	
ALT. FACIES	1.0

% EPIDOTE	1.0
% CHLDRITE	
% K-SPAR	1.0
% BIOTITE	
% CALCITE	

ANGLE TO CORE	
STRUCTURE ID	
ANGLE TO CORE	
STRUCTURE ID	

Princeton Mining Corp.  
SIMILCO MINES LTD.  
DRILL HOLE LOG  
PROJECT ID : INGERBELLE\_EAST

HOLE / TRAVERSE ID : DDH94\_1E21  
CORE HOLE SIZE : BDGM  
DATE STARTED : 94/ 6/20  
DATE COMPLETED :  
GEOLOGGED BY :  
PLOT DATE : 94/NOV/15  
PROJECT LEADER : PMH  
LOCATION :

COLLAR AZIMUTH : 187.68  
COLLAR DIP : -45.60  
COLLAR ELEVATION : 2898.41  
COLLAR NORTHING : 14809.54  
COLLAR EASTING : 16165.76  
COLLAR OFFSET :  
COLLAR STATION :  
TOTAL LENGTH : 621.0

NTS: 92H  
PURPOSE:

MINING DIV.: SIMILKAMEEN

COMMENTS:

KEY INTERSECTIONS: FROM TO ; FT. OF . % CU, . G/T AU  
FROM TO ; FT. OF . % CU, . G/T AU

SURVEY DATA  
DEPTH DIP AZIMUTH  
0 - .00

SUMMARY REMARKS

LEGEND

ECON. MINERAL:  
D = DISSEMINATED MV = MICROVEIN (FRAC TO 10)  
V = VEINS AND PATCHES  
D.V. = DISS. < VEINS/FRACTURE < 10

STRUCTURE ID:

CV = CALCITE VEIN  
MV = MAGNETITE VEIN  
IC = INTRUSIVE (DIA 1)

DRILL HOLE SUMMARY

FROM TO LITHOLOGY Cu%  
0 0 0 0 0 0 10

0.00	45.00	Casing	
45.00	64.00	LH2 Diorite	
64.00	108.00	LH2 Diorite	
108.00	215.00	Lapilli Tuff	
215.00	235.00	Crystal Lithic Tuff	
235.00	251.00		
251.00	353.00	Crystal Lithic Tuff	
353.00	418.00	Crystal Lithic Tuff	
418.00	444.00	Crystal Lithic Tuff	
444.00	478.00	Crystal Lithic Tuff	
478.00	502.00	Crystal Lithic Tuff	
502.00	621.00	LH2 Monzonite	

0 0 0 0 0 0 10

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
0.0		0.00	45.00	Casing					
50.0	250 950	45.00	64.00	LH2 Diorite		LIGHT GREY	Medium Grained	Mottled	Intensely clay and carbonate altered (supergene?) with minor dark grey qtz/carbonate veining. Textures are largely obliterated. Only trace Cpy. About 50% oxidized. This could be a fault zone.
100.0	650 1000	64.00	108.00	LH2 Diorite		MEDIUM GREY	Medium Grained	Porphyritic	Dominant sets of sulphide (Py + Cpy) veins at 20, 45 and 60 degrees to the core axis, within porphyritic diorite. 0-5% Cpy, 2% pyrite throughout. Lower contact is indistinct, 10% oxidation.
150.0	650 1000	108.00	215.00	Lapilli Tuff		DARK GREY	Coarse Grained	Fragmen tal	15% Cpy as fine to coarse dissemi and local veins up to 1" thick. Traces of malachite, and 0.5% limonite coating fractures to 195 ft. Locally broken.

## ASSAYS

- 0.0

[illegible]

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINDR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
180.0									
	650 1000	108.00	215.00	Lopilli Tuff		DARK GREY	Coarse Grained	Fragmen tal	1.5% Cpy as fine to coarse dissens and local veins up to 1" thick. Traces of malachite, and 0.5% limonite coating fractures to 195 ft. Locally broken.
	550 1000	215.00	235.00	Crystal Lithic Tuff		MEDIUM GREY	Fine Grained	Equigra nular	Fine to med. grained, locally aphanitic tuff with some sections that appear intrusive. Gradational upper contact. Moderate albite alt'n and only trace Cpy.
230.0									
	500 1000	235.00	251.00			VERY DARK GREY	Banded	Breccio ted	White and rusty calcite/qtz breccia vein at 10 degrees TCA, associated with a 10' fault gouge and talc altered crystal tuff. Coarse, euhedral pyrite clusters up to 3cm in dia. Rare Cpy clusters up to 1cm in dia.
280.0									
	550 1000	251.00	353.00	Crystal Lithic Tuff				Fine Grained	0.3% Cpy in an intensely albitic crystal tuff (?) with occasional pyrite clusters + red Fspar envelopes around fractures. The entire unit is an albite stringer stockwork zone.
330.0									
	650 1000	353.00	418.00	Crystal Lithic Tuff					Similar to a similar unit to the one above, but with much more stringer. Locally this



## ALTERATION

## ASSAYS

[illegible]

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
360.0									
	650	1000	353.00	418.00	Crystal Lithic Tuff	MEDIUM GREY	Fine Grained	Equigranular	
					Crystal				6' of fault gouge, with talc alt'n of
410.0									
	300	1000	418.00	444.00	Crystal Lithic Tuff			Fine Grained	0.3% Cpy in a fault zone displaying intense Kspar (red) alt'n within grey feldspar crystal tuffs. 1-12' gouge zones, approx. 1 per 2 ft.
460.0									
	500	1000	444.00	478.00	Crystal Lithic Tuff			Fine Grained	Carbonate (calcite) breccia zone with 10% white calcite veins that locally coalesce to form a breccia matrix. Only 0.3% Cpy.
					Crystal Lithic Tuff				
	750	1000	478.00	502.00	Crystal Lithic Tuff	MEDIUM GREEN	Fine Grained	Equigranular	Med. green, fine grained equigranular crystal tuff with trace Cpy and moderate albite veining. Lower contact is a fault zone.
510.0									
					LH2 Monzonite				
	1000		502.00	621.00	LH2 Monzonite		Medium Grained	Porphyritic	Red-grey diorite with 2 feldspars (dark grey and white) with the white ones commonly porphyritic. Sporadic Cpy associated with most intense Kspar altered zones, only 0.3% overall. A zone of intermittent gouge and intense clay, talc alt'n.

## STRUCTURE

## ALTERATION

## ASSAYS

GOLD g/t		Copper %		LENGTH Ft/10	SAMPLE NUMBER	TO	FROM	CHALCOPYRITE	OPYRITE HABIT	% PYRITE	PYRITE HABIT	% MAGNETITE	ALT. FACIES	% EPIDOTE	% CHLORITE	% K-SPAR	% BIODITE	% CALCITE	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID
0.150	0.140	0.320	0.280				353.0	363.0			0-V	1.0				1.0						AV 60
0.290	0.240	0.160	0.140				363.0	373.0			0-V	1.0				1.0						
0.020	0.019	0.010	0.001				373.0	383.0			0-V	1.0				1.0						
0.010	0.001	0.010	0.005				383.0	393.0			0-V	1.0				1.0						
0.010	0.001	0.010	0.001				393.0	403.0			0-V	1.0				1.0						
0.010	0.001	0.010	0.001				403.0	413.0			0-V	1.0				1.0						
0.010	0.005	0.010	0.001				413.0	418.0			0-V	1.0				1.0						
0.010	0.001	0.000	0.006				418.0	428.0			0-V	1.0				1.0						FZ 60
0.040	0.044	0.000	0.010				428.0	438.0			0-V	1.0				1.0						
0.010	0.006	0.010	0.008				438.0	444.0			0-V	1.0				1.0						
0.010	0.006	0.010	0.006				444.0	454.0			0-V	1.0				1.0						CV 45
0.060	0.048	0.000	0.001				454.0	464.0			0-V	1.0				1.0						
0.010	0.008	0.010	0.015				464.0	471.0			0-V	1.0				1.0						
0.000	0.001	0.010	0.011				471.0	478.0			0-V	1.0				1.0						
0.000	0.001	0.020	0.029				478.0	488.0			0-V	1.0				1.0						
0.010	0.015	0.020	0.029				488.0	502.0			0-V	1.0				1.0						
0.020	0.011	0.020	0.029				502.0	512.0			0-V	1.0				1.0						
0.020	0.029	0.020	0.029				512.0	522.0			0-V	1.0				1.0						
0.260	0.210	0.120	0.120				522.0	532.0			0-V	1.0				1.0						
0.120	0.120						532.0	542.0			0-V	1.0				1.0						

	RECOVERY PPT	RDD PPT	FEET	TO	FROM	LITHOLOGY	MINDR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
590.0		1000		621.00	502.00	LH2 Monzonite			Medium Grained	Porphyritic	Red-grey diorite with 2 feldspars (dark grey and white) with the white ones commonly porphyritic. Sporadic Cpy associated with most intense Kspar altered zones, only 0.3% overall. 5 ft zone of intermittent gouge and intense clay, talc alt'n.

## ASSAYS

SAMPLE NUMBER		LENGTH Ft./10	Copper %	GOLD g/t
FROM	TO			
532.0	542.0		0.120	0.120
542.0	552.0		0.050	0.105
552.0	562.0		0.070	0.080
562.0	572.0		0.130	0.130
572.0	582.0		0.070	0.160
582.0	592.0		0.000	0.052
592.0	602.0		0.000	0.017
602.0	612.0		0.000	0.006
612.0	621.0		0.000	0.034

Princeton Mining Corp.  
SIMILCO MINES LTD.  
DRILL HOLE LOG  
PROJECT ID : INGERBELLE\_EAST

HOLE / TRAVERSE ID : DDH94\_IE22  
CORE HOLE SIZE : BDGM  
DATE STARTED : 94/ 6/20  
DATE COMPLETED :  
GEOLOGGED BY :  
PLOT DATE : 94/NOV/15  
PROJECT LEADER : PMH  
LOCATION :

COLLAR AZIMUTH : 180.49  
COLLAR DIP : -45.40  
COLLAR ELEVATION : 2967.43  
COLLAR NORTHING : 14883.72  
COLLAR EASTING : 15968.50  
COLLAR OFFSET :  
COLLAR STATION :  
TOTAL LENGTH : 589.0

NTS: 92H  
PURPOSE:

MINING DIV.: SIMILKAMEEN

COMMENTS:

KEY INTERSECTIONS: FROM TO ; FT. OF . % CU, . G/T AU  
FROM TO ; FT. OF . % CU, . G/T AU

SURVEY DATA  
DEPTH DIP AZIMUTH  
0 - .00

SUMMARY REMARKS

LEGEND

ECON. MINERAL:  
D = DISSEMINATED MV = MICROVEIN/FRACT.FILL  
// = VEINS AND PATCHES  
DKV= DISS. < VEINS/FRACTURE FILL

STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN  
MV = MAGNETITE VEIN FL = FAULT  
IC = INTRUSIVE CONTACT

DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY	Cu%
			80 80 40 90 80 50
20.00	73.00	Andesite Flow	
94.00	132.00	Andesite Flow	
132.00	169.00	Lapilli Tuff	
169.00	236.00	Crystal Lithic Tuff	
244.00	347.00	Crystal Lithic Tuff	
347.00	403.00	Crystal Lithic Tuff	
403.00	507.00	LHI Diorite	
507.00	572.00	LHE Monzonite	

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINDR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
0.0		0.00	11.00	Casing					
	400 850	11.00	20.00	Crystal Lithic Tuff		MEDIUM GREY	Fine Grained	Equigranular	1.5% Cpy as fine dissens. within a rusty fractured crystal tuff. About 5% oxidation.
	650 1000	20.00	73.00	Andesite Flow		MEDIUM GREY	Fine Grained	Porphyritic	Augite porphyry flow (?) with 1-4mm aug. phenos (black) in a grey-green, feldspathic matrix. Minor tuffaceous interbeds (3 ft thick, 0.3% Cpy, mostly confined to tuffaceous interbeds. Only about 2% oxidation.
50.0	700 1000	73.00	84.00	Lapilli Tuff		DARK GREY	Medium Grained	Fragmen- tal	Dark grey to black, lithic lapilli tuff with 1% Cpy and 3% pyrite as fine dissens. and stringers.
	750 1000	84.00	94.00	Andesite Flow		MEDIUM GREY	Fine Grained	Equigranular	0.5% Cpy in a biotite altered andesite (?). This could be a diorite (pyroxenes are fairly small, not porphyritic).
100.0	650 1000	94.00	132.00	Andesite Flow		LIGHT GREY	Fine Grained	Porphyritic	0.3% Cpy in the same unit as above, but lighter coloured, less biotite with (essentially none), and more porphyritic (augite phenos to 3mm). Cpy increases toward the lower contact.
150.0	750 1000	132.00	169.00	Lapilli Tuff		DARK GREY	Coarse Grained	Fragmen- tal	0.5% Cpy and 2% pyrite in a coarse lithic lapilli tuff with local bedding of crystal ash layers at 25 degrees TCA. Local patchy magnetite concentrations.
	800 1000	169.00	236.00	Crystal Lithic Tuff		GREY GREEN	Fine Grained	Equigranular	Fine, fairly massive, crystalline, porphyritic, grey to black, with sections of ash tuff, and some places 0.5% Cpy and 2% pyrite. In py. dark grey to black, and yellow.

## ASSAYS

0.0

[illegible]



FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
180.0									
800	1000	169.00	236.00	Crystal Lithic Tuff		GREY GREEN	Fine Grained	Equigranular	Fine, fairly massive equigranular (porphyritic only in minor 1-2 ft sections) ash tuff, may be intrusive in places. 0.5% Cpy as fine dissens. with 1% Py. Weak albite (+ minor Kspar rims) veining.
230.0									
200	1000	236.00	244.00	Crystal Lithic Tuff		GREY GREEN		Equigranular	Broken crystal tuff. May be a fault zone, but no significant gouge present.
280.0									
650	1000	244.00	347.00	Crystal Lithic Tuff		LIGHT GREY	Fine Grained	Equigranular	Fine, fairly massive equigranular ash tuff with minor interbedded lithic lapilli + dust tuffs. One contact at 35 degrees TCA. 0.5% Cpy as sporadic zones 1-5 ft thick containing 0.8-1.5% Cpy.
330.0									
650	1000	347.00	403.00	Crystal Lithic Tuff		MEDIUM GREY	Fine Grained	Aligned Phenocrysts	0.8% Cpy as fine dissens + occasional clusters and rare stringers within crystal tuff with 20% interbedded dust tuff intervals. One contact at 55 degrees TCA. Contact is sharp and distinct.

## STRUCTURE

## ALTERATION

% CHALCOPYRITE	CHALCOPYRITE HABIT
0-10	1
10-20	2
20-30	3
30-40	4
40-50	5
50-60	6
60-70	7
70-80	8
80-90	9
90-100	10

## ASSAYS

[illegible]

REMARKS	TEXTURE 2	TEXTURE 1	COLOR	MINDR LITH.	LITHOLOGY	TO	FROM	RECOVERY PPT ROD PPT	FEET
	Aligned Phenocrysts	Fine Grained	MEDIUM GREY		Crystal Lithic Tuff	403.00	347.00	1000 650	360.0

## STRUCTURE

## ALTERATION

% CHALCOPYRITE	CHALCOPYRITE HABIT
0-10	1
11-20	2
21-30	3
31-40	4
41-50	5
51-60	6
61-70	7
71-80	8
81-90	9
91-100	10

## ASSAYS

GOLD g/t		Copper %	LENGTH Ft/10	SAMPLE NUMBER	TO	FROM
0.200	0.180				367.0	357.0
0.200	0.260				377.0	367.0
0.220	0.280				387.0	377.0
0.220	0.250				397.0	387.0
0.300	0.170				403.0	397.0
0.002	0.010				413.0	403.0
0.006	0.000				423.0	413.0
0.001	0.000				433.0	423.0
0.005	0.000				443.0	433.0
0.002	0.000				453.0	443.0
0.006	0.000				463.0	453.0
0.001	0.000				473.0	463.0
0.007	0.000				483.0	473.0
0.001	0.000				493.0	483.0
0.003	0.000				507.0	493.0
0.001	0.000				517.0	507.0
0.002	0.000				527.0	517.0
0.058	0.050				537.0	527.0
0.075	0.050					537.0

FEET	RECOVERY PPT	RQD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
540.0										
	750	1000	507.00	572.00	LH2 Monzonite		MEDIUM GREY	Coarse Grained	Porphy- ritic	The upper contact is gradational and obscured by moderate albite and potassic alt'n. Coarse grey Fspar phenocrysts (25%) are mixed with 10% white Fspar crystal. 0.3% Cpy as sporadic fine disseminations.
	750	1000	572.00	577.00	Crystal Lithic Tuff		MEDIUM GREY	Fine Grained	Equigranular	Fine crystal tuff (?) with 0.8% fine, dissen. and stringers of Cpy and
	300	1000	577.00	589.00	Crystal Lithic Tuff		MEDIUM GREY	Fine Grained	Equigranular	As above, but with intense, pervasive Kspar alt'n and only trace Cpy. EDH at 589 ft.



Princeton Mining Corp.  
SIMILCO MINES LTD.  
DRILL HOLE LOG  
PROJECT ID : INGERBELLE\_EAST

HOLE / TRAVERSE ID : DDH94\_IE23  
CORE HOLE SIZE : BDGM  
DATE STARTED : 94/ 6/20  
DATE COMPLETED :  
GEOLOGGED BY :  
PLOT DATE : 94/NOV/15  
PROJECT LEADER : PMH  
LOCATION :

COLLAR AZIMUTH : 29.40  
COLLAR DIP : -44.70  
COLLAR ELEVATION : 3066.21  
COLLAR NORTHING : 14924.53  
COLLAR EASTING : 15319.74  
COLLAR OFFSET :  
COLLAR STATION :  
TOTAL LENGTH : 700.0

NTS: 92H MINING DIV.: SIMILKAMEEN

PURPOSE:

COMMENTS:

KEY INTERSECTIONS: FROM TO ; FT. OF . % CU, . G/T AU  
FROM TO ; FT. OF . % CU, . G/T AU

SURVEY DATA  
DEPTH DIP AZIMUTH  
0 - .00

SUMMARY REMARKS

LEGEND

ECON. MINERAL:  
D = DISSEMINATED MV = MICROVEIN/FRACT.FILL  
V = VEINS AND PATCHES  
DVE = DISSEMINATED VEINS/FRACTURE FILL

STRUCTURE ID:  
Q = QUARTZ VEIN QV = QUARTZ VEIN  
M = MAGNETITE VEIN FL = FAULT  
C = CONTACT

DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY	Cu% 0 5 10 15 20
0.00	20.00	Casing	
29.00	243.00	LH2 Monzonite	
243.00	290.00	Crystal Lithic Tuff	
290.00	323.00	Crystal Lithic Tuff	
323.00	351.00	Lapilli Tuff	
351.00	401.00	Lapilli Tuff	
401.00	597.00	Lapilli Tuff	
597.00	624.00	Lapilli Tuff	
624.00	700.00	Lapilli Tuff	

0 5 10 15 20

PAGE 2

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## ASSAYS

Copper %	GOLD g/t	
0.060	0.043	0.0
0.010	0.008	
		50.0
0.010	0.002	
		100.0
0.010	0.004	
		150.0

FROM	TO	NUMBER	DATE
20.00	29.00		
29.00	40.00		
90.00	100.0		
140.0	150.0		

## % CHALCOPYRITE

## CHALCOPYRITE HABIT

% PYRITE	
10	0.0
5	
0	
2.5	

## ALTERATION

% EPIDOTE			0.0
% CHLORITE			1.0
% K-SPAR			10.0
% BIDIOTITE			
% CALCITE			1.0

## STRUCTURE

ANGLE TO CORE		
STRUCTURE ID		
ANGLE TO CORE		
STRUCTURE ID		

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
190.0									
700	1000	29.00	243.00	LH2 Monzonite			Medium Grained	Porphyritic	Almost no sulphides in a pervasively (local envelopes) Kspar altered, weakly porphyritic two feldspar intrusive (monzonite). Becomes clay rich within 10 ft of the fault zone below.
230.0									
200	1000	243.00	290.00	Crystal Lithic Tuff		MEDIUM GREY		Sheared	Intense fault zone (Gully fault) over the entire interval. Protolith unrecognizable. 0.5% very fine dark black crushed Cpy with pyrite occasionally forming mylonitic bands at 25 degrees TCA. 60% clay gouge.
280.0									
500	1000	290.00	323.00	Crystal Lithic Tuff	Crystal Lithic	MEDIUM GREY	Fine Grained	Stackwork Veined	About 50% of this interval is a carbonate stringer stockwork/breccia zone with grey carbonate stringers 1" thick, supporting XLTF clasts. 0.5% Cpy and 0.5% Py as fine dissens.
330.0									
250	950	323.00	351.00	Lapilli Tuff		DARK GREY	Coarse Grained	Fragmen tal	1% Cpy in a sheared/faulted lithic lapilli tuff. Common mylonitic shears 1-8" thick at 45 degrees TCA. Very broken and gougy. Cpy occurs as fine to med. dissens and local clusters/stringers.
				Lapilli Tuff		LIGHT GREY	Coarse Grained	Fragmen tal	Light buff-grey lithic lapilli tuff with minor (< 4 ft) intervals of unmineralized diorite and 2 ft of bedded (70 degrees TCA) dust tuff at 391 ft 1% Cpy as fine dissens and

## STRUCTURE

## ALTERATION

## ASSAYS

STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% CALCITE	% BIODITE	% K-SPAR	% CHLDRITE	% EPIDOTE	ALT. FACIES	% MAGNETITE	PYRITE HABIT	% PYRITE	CHALCOPYRITE HABIT	% CHALCOPYRITE	LENGTH Ft/10	SAMPLE NUMBER	FROM	TO	Copper %	GOLD g/t
				1.0		10.0	1.0	0.0				0.0		0.0			190.0	200.0	0.030	0.004
																	220.0	230.0	0.010	0.009
																	230.0	243.0	0.010	0.009
																	243.0	253.0	0.060	0.043
																	253.0	263.0	0.230	0.210
FT	25			2.5		5.0						1.0		1.0			263.0	273.0	0.070	0.057
																	273.0	283.0	0.070	0.046
																	283.0	290.0	0.240	0.160
																	290.0	300.0	0.070	0.039
CV				5.0		1.0						1.0		1.0			300.0	310.0	0.110	0.032
																	310.0	323.0	0.090	0.066
																	323.0	333.0	0.250	0.160
SH	45	FZ	45									1.0		1.0			333.0	343.0	0.280	0.150
																	343.0	351.0	0.200	0.120
SH	45	FZ	45			1.0	1.0					1.0		1.0			351.0	361.0	0.030	0.028

	RECOVERY PPT	RAD PPT	FROM	TO	LITHOLOGY	MINDR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
360.0										
		700	1000	351.00	401.00	Lapilli Tuff		LIGHT GREY	Coarse Grained	Fragmen tal Light buff-grey lithic lapilli tuff with minor (< 4 ft) intervals of unmineralized diorite and 2 ft of bedded (70 degrees TCA) dust tuff at 391 ft. 1% Cpy as fine dissens and occasional clusters/stringers. Lower contact is gradational.
410.0										
		600	1000	401.00	597.00	Lapilli Tuff		DARK GREY	Coarse Grained	Fragmen tal 0.5% Cpy as very fine dissens. within a monotonous section of dark grey to black lithic lapilli tuff. Two 5 ft albic intervals are the only signs of alteration other than calcite veins. Occasional finer intervals may be xtal ash layers.
460.0										
510.0										
						Lapilli Tuff				

STRUCTURE				ALTERATION				ASSAYS				GOLD g/t	Copper %	LENGTH Ft/10	SAMPLE NUMBER	TO	FROM			
ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	% CALCITE	% BIOTITE	% K-SPAR	% CHLORITE	% EPIDOTE	ALT. FACIES	% MAGNETITE	PYRITE HABIT							% PYRITE	CHALCOPYRITE HABIT	% CHALCOPYRITE
45	FZ	45	SH		1.0							1.0				361.0	371.0	0.220	0.140	360.0
																371.0	381.0	0.170	0.120	
																381.0	391.0	0.260	0.150	
																391.0	401.0	0.250	0.180	
																401.0	411.0	0.240	0.185	410.0
																411.0	421.0	0.020	0.014	
																421.0	431.0	0.200	0.140	
																431.0	441.0	0.130	0.105	
																441.0	451.0	0.030	0.020	
																451.0	461.0	0.030	0.025	460.0
																461.0	471.0	0.020	0.026	
																471.0	481.0	0.010	0.013	
																481.0	491.0	0.010	0.017	
																491.0	501.0	0.010	0.022	
																501.0	511.0	0.010	0.029	510.0
																511.0	521.0	0.030	0.018	
																521.0	531.0	0.080	0.049	
																531.0	541.0	0.040	0.059	

	RECOVERY PPT	ROD PPT	FEET	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
600	1000	401.00	597.00	Lapilli Tuff	Lapilli	DARK GREY	Coarse Grained	Fragmen tal	6' of fault gouge within a 7 ft
650	1000	597.00	624.00	Lapilli Tuff		DARK GREY	Coarse Grained	Fragmen tal	2% Cpy in a black to grey lithic lapilli tuff as fine dissem. and med. clusters and stringers up to 1' thick at 20 degrees TCA. About 20% of the interval is moderately albite altered (grey sections).
700	1000	624.00	700.00	Lapilli Tuff		DARK GREY	Coarse Grained	Fragmen tal	0.3% Cpy as fine dissens. within a black to dark grey lithic lapilli tuff.

## ALTERATION

## ASSAYS

[illegible]

Princeton Mining Corp.  
SIMILCO MINES LTD.  
DRILL HOLE LOG  
PROJECT ID : INGERBELLE\_EAST

HOLE / TRAVERSE ID : DDH94\_IE24  
CORE HOLE SIZE : BDGM  
DATE STARTED : 94/ 6/20  
DATE COMPLETED :  
GEOLOGGED BY :  
PLOT DATE : 94/NOV/15  
PROJECT LEADER : PMH  
LOCATION :

COLLAR AZIMUTH : 196.79  
COLLAR DIP : -45.40  
COLLAR ELEVATION : 3148.17  
COLLAR NORTHING : 14592.38  
COLLAR EASTING : 15761.97  
COLLAR OFFSET :  
COLLAR STATION :  
TOTAL LENGTH : 797.0

NTS: 92H MINING DIV.: SIMILKAMEEN  
PURPOSE:

COMMENTS:

KEY INTERSECTIONS: FROM TO ; FT. OF . % CU, . G/T AU  
FROM TO ; FT. OF . % CU, . G/T AU

SURVEY DATA  
DEPTH DIP AZIMUTH  
0 - .00

SUMMARY REMARKS

LEGEND

ECON. MINERAL:  
D = DISSEMINATED MV = MICROVEIN/FRACT.FILL  
// = VEINS AND PATCHES  
DKV= DISS. < VEINS/FRACTURE FILL

STRUCTURE ID:

CV = CALCITE VEIN QV = QUARTZ VEIN  
MV = MAGNETITE VEIN FL = FAULT  
IC = INTRUSIVE CONTACT

DRILL HOLE SUMMARY

FROM	TO	LITHOLOGY	Cu% 0 20 40 60 80 100
23.00	124.00	Crystal Lithic Tuff	
124.00	269.00	LH2 Diorite	
269.00	293.00	Crystal Lithic Tuff	
293.00	372.00	Crystal Lithic Tuff	
372.00	390.00		
435.00	454.00		
454.00	514.00	Lopilli Tuff	
518.00	541.00	Lopilli Tuff	
541.00	630.00	Lopilli Tuff	
644.00	680.00	Lopilli Tuff	
680.00	707.00	Lopilli Tuff	
707.00	748.00		
748.00	797.00	Lopilli Tuff	



FEET	RECOVERY PPT	ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
0.0			0.00	16.00	Casing					
	650	1000	16.00	23.00	Crystal Lithic Tuff		MEDIUM GREY	Fine Grained	Stringer Zone	Albite stringer (sheeted veins at 65 degrees TCA) zone with 5-10 mm stringers, approx. 1 per 1/2 inch.
50.0										
	650	1000	23.00	124.00	Crystal Lithic Tuff		MEDIUM GREY	Fine Grained	Mottled	Same unit as above (probably a crystal tuff), but with only sparse albite stringers. Common albitic/biotite/Ksparr patches up to 5 ft thick. Trace Cpy overall as very rare clusters (usually within pink Kspar alt'n). About 10% oxidation throughout (traces of malachite and limonitic fractures).
100.0										
150.0	550	1000	124.00	269.00	LH2 Diorite		MEDIUM GREY	Medium Grained	Porphyritic	0.8% Cpy and 2% pyrite as fine to med. disseminations and med. stringers up to 1/2" thick. Overall, the unit is quite rusty, but only trace Cpy (approx. 10% oxidation overall). Cpy is not related to any type of alteration. All oxidation gone at 269 ft.

	% CHALCOPYRITE	CHALCOPYRITE HABIT
1	100	100
2	100	100
3	100	100
4	100	100
5	100	100
6	100	100
7	100	100
8	100	100
9	100	100
10	100	100
11	100	100
12	100	100
13	100	100
14	100	100
15	100	100
16	100	100
17	100	100
18	100	100
19	100	100
20	100	100
21	100	100
22	100	100
23	100	100
24	100	100
25	100	100
26	100	100
27	100	100
28	100	100
29	100	100
30	100	100
31	100	100
32	100	100
33	100	100
34	100	100
35	100	100
36	100	100
37	100	100
38	100	100
39	100	100
40	100	100
41	100	100
42	100	100
43	100	100
44	100	100
45	100	100
46	100	100
47	100	100
48	100	100
49	100	100
50	100	100
51	100	100
52	100	100
53	100	100
54	100	100
55	100	100
56	100	100
57	100	100
58	100	100
59	100	100
60	100	100
61	100	100
62	100	100
63	100	100
64	100	100
65	100	100
66	100	100
67	100	100
68	100	100
69	100	100
70	100	100
71	100	100
72	100	100
73	100	100
74	100	100
75	100	100
76	100	100
77	100	100
78	100	100
79	100	100
80	100	100
81	100	100
82	100	100
83	100	100
84	100	100
85	100	100
86	100	100
87	100	100
88	100	100
89	100	100
90	100	100
91	100	100
92	100	100
93	100	100
94	100	100
95	100	100
96	100	100
97	100	100
98	100	100
99	100	100
100	100	100

## SAMPLE NUMBER

[illegible]

REMARKS	TEXTURE 2	TEXTURE 1	COLOR	MINDR LTH.	LITHOLOGY	TO	FROM	RECOVERY PPT	ROD PPT	FEET
	Porphyritic	Medium Grained	MEDIUM GREY		LH2 Diorite	269.00	124.00	1000	550	180.0
Rusty, 2 ft fault gouge.				LH2						230.0
Moderately albite altered crystal ash tuff (?), textures almost obliterated. Trace Cpy and Py. Moderate biotite altered patches. Lower contact is gradational.	Mottled	Fine Grained	LIGHT GREY		Crystal Lithic Tuff	293.00	269.00	1000	800	280.0
Massive crystal tuff with rare Kspar and albite stringers, no bedding, although grain size and proportion of lithic frags increases down the hole. 0.5% Cpy and 1/0% pyrite as fine dissens. and 1-5mm stringers.	Matrix Supported	Fine Grained	LIGHT GREY		Crystal Lithic Tuff	372.00	293.00	1000	700	330.0

## STRUCTURE

## ALTERATION

## ASSAYS

GOLD g/t	Copper %	LENGTH Ft/10	SAMPLE NUMBER	ID	FROM
0.090	0.190	180.0			174.0
0.115	0.180				184.0
0.180	0.130				194.0
0.160	0.180				204.0
0.075	0.060				214.0
0.030	0.020	230.0			224.0
0.016	0.080				234.0
0.160	0.350				244.0
0.042	0.050				254.0
0.002	0.000				264.0
0.006	0.000	280.0			269.0
0.004	0.020				279.0
0.064	0.090				293.0
0.095	0.150				303.0
0.130	0.190				313.0
0.039	0.110	330.0			323.0
0.072	0.130				333.0
0.063	0.120				343.0
0.080	0.150				353.0

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
360.0	700	1000	293.00	372.00	Crystal Lithic Tuff	LIGHT GREY	Fine Grained	Matrix Support ed	Massive crystal tuff with rare Kspar and albite stringers, no bedding, although grain size and proportion of lithic frags increases down the hole. 0.5% Cpy and 1/0% pyrite as fine dissem. and 1-5mm stringers.
	600	1000	372.00	390.00		DARK GREY	Medium Grained	Equigranular	Post-mineral lamprophyre (?) dyke with 8% med. to coarse biotite crystals. Contacts at approx. 20 degrees TCA. Traces of Cpy near the margins (probably remobilized).
	750	1000	390.00	405.00	Crystal Lithic Tuff	MEDIUM GREY	Fine Grained		Fine crystal ash tuff with 3% lapilli sized clasts, weak potassic (Kspar) and epidote alt'n 1.5% Cpy and 1% pyrite as fine dissem. and occasional stringers at all angles TCA.
410.0	600	1000	405.00	411.00		DARK GREY	Medium Grained	Equigranular	Dark lamprophyre with 8% biotite, becomes bleached toward the lower contact. Irregular contacts at roughly
	650	1000	411.00	420.00	Crystal Lithic Tuff	PALE GREY	Fine Grained	Equigranular	0.3% Cpy within a grey crystal tuff (possibly a fine intrusive). No bedding, massive.
	800	1000	420.00	435.00			Bedded		0.8% Cpy as fine dissem. and several stringers 1-20 mm thick within an intensely Kspar altered dust tuff with bedding at 80 degrees TCA.
	800	1000	435.00	454.00		DARK GREY			70% lamp dyke intruding 30% crystal tuff with 1% Cpy confined to the tuff only (0.5% Cpy overall). Lamp contacts are irregular but approx. 60 degrees TCA.
460.0	700	1000	454.00	514.00	Lapilli Tuff	DARK GREY	Flatten ed	Coarse Grained	Coarse lithic lapilli tuff with variable Cpy, but approx. 1% overall. Several 1 ft sections contain 2% Cpy. Cpy occurs as fine dissem. and within albite/epidote stringers 1-8mm thick. Bedding at 70 degrees TCA.
510.0	700	1000	514.00	518.00	Lapilli	DARK GREY	Flatten ed	Coarse Grained	2% Cpy as veins and dissem. in a lithic lapilli tuff.
	450	1000	518.00	541.00	Lapilli Tuff	DARK GREY	Breccia ted	Coarse Grained	2% Cpy and 2% pyrite as coarse clusters within calcite veins/breccia matrix, and as fine disseminations. LLTF clasts are supported by the matrix and are angular 5-20mm in dia.

STRUCTURE				ALTERATION												ASSAYS				GOLD g/t	Copper %	LENGTH Ft/10	SAMPLE NUMBER	TO	FROM
STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% CALCITE	% BIODITE	% K-SPAR	% CHLORITE	% EPIDOTE	ALT. FACIES	% MAGNETITE	PYRITE HABIT	% PYRITE	ALCOPYRITE HABIT	% CHALCOPYRITE											
AV	40					1.0					<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<&														

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
360.0	700	1000	293.00	372.00	Crystal Lithic Tuff	LIGHT GREY	Fine Grained	Matrix Support ed	Massive crystal tuff with rare Kspar and albite stringers, no bedding, although grain size and proportion of lithic frags increases down the hole. 0.5% Cpy and 1/0% pyrite as fine dissens. and 1-5mm stringers.
	600	1000	372.00	390.00		DARK GREY	Medium Grained	Equigranular	Post-mineral lamprophyre (?) dyke with 8% med. to coarse biotite crystals. Contacts at approx. 20 degrees TCA. Traces of Cpy near the margins (probably remobilized).
	750	1000	390.00	405.00	Crystal Lithic Tuff	MEDIUM GREY	Fine Grained		Fine crystal ash tuff with 3% lapilli sized clasts, weak potassic (Kspar) and epidote alt'n. 1.5% Cpy and 1% pyrite as fine dissens and occasional stringers at all angles TCA.
410.0	600	1000	405.00	411.00		DARK GREY	Medium Grained	Equigranular	Dark lamprophyre with 8% biotite, becomes bleached toward the lower contact. Irregular contacts at roughly
	650	1000	411.00	420.00	Crystal Lithic Tuff	PALE GREY	Fine Grained	Equigranular	0.3% Cpy within a grey crystal tuff (possibly a fine intrusive). No bedding, massive.
	800	1000	420.00	435.00			Bedded		0.8% Cpy as fine dissens. and several stringers 1-20 mm thick within an intensely Kspar altered dust tuff with bedding at 80 degrees TCA.
	800	1000	435.00	454.00		DARK GREY			70% lamp dyke intruding 30% crystal tuff with 1% Cpy confined to the tuff only (0.5% Cpy overall). Lamp contacts are irregular but approx. 60 degrees TCA.
460.0	700	1000	454.00	514.00	Lapilli Tuff	DARK GREY	Flatten ed	Coarse Grained	Coarse lithic lapilli tuff with variable Cpy, but approx. 1% overall. Several 1 ft sections contain 2% Cpy. Cpy occurs as fine dissens and within albite/epidote stringers 1-8mm thick. Bedding at 70 degrees TCA.
510.0	700	1000	514.00	518.00	Lapilli	DARK GREY	Flatten ed	Coarse Grained	2% Cpy as veins and dissens. in a lithic lapilli tuff.
	450	1000	518.00	541.00	Lapilli Tuff	DARK GREY	Breccia ted	Coarse Grained	2% Cpy and 2% pyrite as coarse clusters within calcite veins/breccia matrix, and as fine disseminations. LLTF clasts are supported by the matrix and are angular 5-20mm in dia.



## ASSAYS

180.0

[illegible]



FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
360.0	700	1000	293.00	372.00	Crystal Lithic Tuff	LIGHT GREY	Fine Grained	Matrix Support ed	Massive crystal tuff with rare Kspar and albite stringers, no bedding, although grain size and proportion of lithic frags increases down the hole. 0.5% Cpy and 1/8% pyrite as fine dissem. and 1-5mm stringers.
	600	1000	372.00	390.00		DARK GREY	Medium Grained	Equigranular	Post-mineral lamprophyre (?) dyke with 8% med. to coarse biotite crystals. Contacts at approx. 20 degrees TCA. Traces of Cpy near the margins (probably remobilized).
	750	1000	390.00	405.00	Crystal Lithic Tuff	MEDIUM GREY	Fine Grained		Fine crystal ash tuff with 3% lapilli sized clasts, weak potassic (Kspar) and epidote alt'n. 1.5% Cpy and 1% pyrite as fine dissem. and occasional stringers at all angles TCA.
410.0	600	1000	405.00	411.00		DARK GREY	Medium Grained	Equigranular	Dark lamprophyre with 8% biotite, becomes bleached toward the lower contact. Irregular contacts at roughly
	650	1000	411.00	420.00	Crystal Lithic Tuff	PALE GREY	Fine Grained	Equigranular	0.3% Cpy within a grey crystal tuff (possibly a fine intrusive). No bedding, massive.
	800	1000	420.00	435.00			Bedded		0.8% Cpy as fine dissem. and several stringers 1-20 mm thick within an intensely Kspar altered dust tuff with bedding at 80 degrees TCA.
	800	1000	435.00	454.00		DARK GREY			70% lamp dyke intruding 30% crystal tuff with 1% Cpy confined to the tuff only (0.5% Cpy overall). Lamp contacts are irregular but approx. 60 degrees TCA.
460.0	700	1000	454.00	514.00	Lapilli Tuff	DARK GREY	Flatten ed	Coarse Grained	Coarse lithic lapilli tuff with variable Cpy, but approx. 1% overall. Several 1 ft sections contain 2% Cpy. Cpy occurs as fine dissem. and within albite/epidote stringers 1-8mm thick. Bedding at 70 degrees TCA.
510.0	700	1000	514.00	518.00	Lapilli	DARK GREY	Flatten ed	Coarse Grained	2% Cpy as veins and dissem. in a lithic lapilli tuff.
	450	1000	518.00	541.00	Lapilli Tuff	DARK GREY	Breccia ted	Coarse Grained	2% Cpy and 2% pyrite as coarse clusters within calcite veins/breccia matrix, and as fine disseminations. LLIF clasts are supported by the matrix and are angular 5-20mm in dia.

## STRUCTURE

## ALTERATION

## ASSAYS

STRUCTURE ID	ANGLE TO CORE	STRUCTURE ID	ANGLE TO CORE	% CALCITE	% BIOTITE	% K-SPAR	% CHLORITE	% EPIDOTE	ALT. FACIES	% MAGNETITE	PYRITE HABIT	% PYRITE	% CHALCOPYRITE	CHALCOPYRITE HABIT	FROM	TO	SAMPLE NUMBER	LENGTH Ft./10	Copper %	GOLD g/t
KV 20	AV 30				2.5	1.0					O=V O=V O=V	1.0	O=V O=V O=V	1.0	353.0	363.0			0.150	0.080
CV 45	UC 20				5.0						O=V O=V O=V	0.0	O=V O=V O=V	0.0	363.0	372.0			0.300	0.280
				1.0		1.0		1.0			O=V O=V O=V	1.0	O=V O=V O=V	1.0	372.0	382.0			0.020	0.018
					5.0						O=V O=V O=V		O=V O=V O=V		382.0	390.0			0.010	0.011
											O=V O=V O=V	1.0	O=V O=V O=V	1.0	390.0	398.0			0.460	0.240
											O=V O=V O=V		O=V O=V O=V		398.0	405.0			0.810	0.620
											O=V O=V O=V		O=V O=V O=V		405.0	411.0			0.020	0.010
						1.0		1.0			O=V O=V O=V	0.0	O=V O=V O=V	0.1	411.0	420.0			0.070	0.080
BD 80	SV 20					10.0	0.1	1.0			O=V O=V O=V	1.0	O=V O=V O=V	1.0	420.0	428.0			0.280	0.340
											O=V O=V O=V		O=V O=V O=V		428.0	435.0			0.240	0.130
SV 20								1.0			O=V O=V O=V	1.0	O=V O=V O=V	1.0	435.0	445.0			0.180	0.095
											O=V O=V O=V		O=V O=V O=V		445.0	454.0			0.030	0.025
											O=V O=V O=V		O=V O=V O=V		454.0	464.0			0.140	0.095
											O=V O=V O=V		O=V O=V O=V		464.0	474.0			0.160	0.050
											O=V O=V O=V		O=V O=V O=V		474.0	484.0			0.110	0.080
SV 50	BD 70								1.0		O=V O=V O=V	1.0	O=V O=V O=V	1.0	484.0	494.0			0.070	0.047
											O=V O=V O=V		O=V O=V O=V		494.0	504.0			0.110	0.047
											O=V O=V O=V		O=V O=V O=V		504.0	514.0			0.080	0.051
SV 50	BD 70								1.0		O=V O=V O=V	2.5	O=V O=V O=V	2.5	514.0	518.0			0.580	0.180
											O=V O=V O=V		O=V O=V O=V		518.0	528.0			0.590	0.205
CV 50	BD 70			10.0					1.0		O=V O=V O=V	2.5	O=V O=V O=V	2.5	528.0	541.0			0.850	0.305

360.0

410.0

460.0

510.0

FEET	RECOVERY PPT ROD PPT	FROM	TO	LITHOLOGY	MINOR LITH.	COLOR	TEXTURE 1	TEXTURE 2	REMARKS
540.0									
	600 950	541.00	630.00	Lapilli Tuff		DARK GREY	Fragmen tal	Coarse Grained	3% Cpy and 3% pyrite as veins, clusters and dissens. (Fine to coarse) throughout, within a probable lithic lapilli tuff. Common calcite veins.
590.0				Lapilli Tuff					
		630.00	644.00	Lapilli Tuff		DARK GREY	Flatten ed	Coarse Grained	Albite altered zone (intense) with 1.5% Cpy as fine dissens.
640.0				Lapilli Tuff		DARK GREY	Flatten ed	Coarse Grained	Dark grey to black lithic lapilli tuff with 1.5% Cpy and 2% pyrite as fine veins, disseminations and local clusters.
		644.00	680.00	Lapilli Tuff		DARK GREY	Flatten ed	Coarse Grained	
690.0				Lapilli Tuff		DARK GREY	Flatten ed	Coarse Grained	Lithic lapilli tuff with 1% very fine, disseminated Cpy and along hairline fractures with albite haloes.
		680.00	707.00	Lapilli Tuff		DARK GREY	Flatten ed	Coarse Grained	
	600 1000	707.00	748.00			MEDIUM GREY	Aligned Phenocr ysts	Mottled	0.5% Cpy and 0.5% pyrite as fine to very fine dissens. within an aphanitic, dust tuff. Olive green at upper contact. Grades to black at lower contact (fault).

[illegible]

RECOVERY PPT		FROM		TO		LITHOLOGY	MINOR LITH.	COLOUR	TEXTURE 1	TEXTURE 2	REMARKS
ROD PPT	FEET										
600	1000	707.00	748.00					MEDIUM GREY	Aligned Phenocrysts	Mottled	0.5% Cpy and 0.5% pyrite as fine to very fine dissens. within an aphanitic, dust tuff. Olive green at upper contact. Grades to black at lower contact (fault).
600	1000	748.00	797.00			Lapilli Tuff		DARK GREY	Coarse Grained	Fragmental	0.5% Cpy and 2% pyrite within a lithic lapilli tuff containing numerous narrow, 1-3mm thick, pink Kspar veins that decrease away from the upper contact.

## ALTERATION

## ASSAYS

FROM		TO		SAMPLE NUMBER	LENGTH Ft./10	Copper %	GOLD g/t	720.0
717.0	727.0							
727.0	737.0					0.040	0.028	
737.0	748.0					0.060	0.015	
748.0	758.0					0.130	0.022	
758.0	768.0					0.060	0.024	
768.0	778.0					0.030	0.011	770.0
778.0	788.0					0.070	0.044	
788.0	797.0					0.060	0.017	

**APPENDIX II**

**INDUCED POLARIZATION  
PSUEDO SECTIONS**



# MIDAAS Corp.

Deep High-Resolution Waveform Induced Polarization Services.

May 31, 1994

## Technical Summary

### Induced Polarization / Resistivity Survey, Similco Mines, Princeton, B.C.

#### The Survey

Between May 18 and May 25, an induced polarization - resistivity survey was carried out covering twelve lines for a total of approximately 8 ½ line miles (13.6km); see figure 1. Specifications for this geophysical survey are summarized as follows:

- Survey type: Pole-dipole.
- Survey method: Time domain, digital waveform.
- Electrode spacing: a = 100ft.
- No. separations at each station: n = 12.
- Line lengths: 36 - 40 stations each, except line 4800W.
- Transmitter: Hunttec Mk IV, 2.5kW.
- Receiver: PCIP digital waveform receiver, 150 samples per second over the complete transmitted waveform.
- Survey productivity per day: 1.75 lines, 6300 feet, 63 stations, or 750 recordings.
- Results presented: Standard Hallof pseudo-sections, including apparent resistivity, chargeability, and metal factor.

Technical specifications of the MIDAAS PC-IP receiver are included as an Appendix.

Lines surveyed were cut by a third party. Only on line 10400W were measurement stations surveyed accurately, by a third party survey team. Geophysical measurement locations are at intervals of 100 linear feet, and were not corrected for slope. There may be some discrepancy between grid labels and measurement locations because the geophysical equipment used are designed to operate at intervals of 25 metres rather than 100 feet.

In addition, lines were neither cut nor labelled south of approximately 500N. Geophysical stations were chained and flagged as required, but were not formally surveyed in. When finding positions based on geophysical results, locations should be measured linearly, referenced to 1500N.

As a result of these points, MIDAAS Corp. can not assume responsibility for exact positioning of results.



## Depth and Resolution

The "a" spacing of 100ft determines lateral resolution: structures smaller than **100 feet** are likely to be poorly resolved.

The array type, the "a" spacing, and the number of separations ("n"=12) determine the penetration depth of the survey. In the simplest case of uniform, homogeneous ground, a pole-dipole configuration will provide information from depths to **approximately  $a \times n / 3$ , or 400 feet** in our case. This rule of thumb becomes less and less applicable as the true geological situation departs further from the uniform half-space approximation. If overburden conductivity is **higher** than that of deeper material, penetration depth will be **less** than 400ft. With overburden conductivity lower than at depth, penetration may be slightly greater.

It should be re-iterated that measurements do not always represent material properties vertically below the measurement station. Electrical current flows in three dimensions, and there may be significant "side look" in the presence of latterly varying structures. In our case, this is particularly important on lines 10800W and 10400W, which are on the side of a deep canyon.

Finally, users of Hallof pseudo-sections must be reminded that data presented this way **do not** represent geo-electric cross sections. Many assumptions are involved in plotting results as pseudo-sections. Reliable interpretations in terms of geo-electrical properties and their probable positions depend on a thorough understanding of all the relevant physics and mathematics.

## Survey diary

*May 18, 1994:* MIDAAS Corp. mobilized one operator (geophysicist) and one crew chief to Princeton, and began deploying equipment. First instrument location next to the crusher.

*May 19:* Client provided three helpers. Line 10800W and start of line 10400W surveyed.

*May 20:* Lines 10400W and 10000W surveyed. Third party surveyors located all stations of line 10400W only.

*May 21:* Lines 9400W and 7600W surveyed. Instrument location moved.

*May 22:* Lines 8200W and 7000N surveyed.

*May 23:* Line 1500N surveyed, and instrument location moved.

*May 24:* Lines 6200W and 5800W surveyed.

*May 25:* Instrument moved, and lines 5400W and 4800W surveyed. Crew packed up all equipment and de-mobilized to Vancouver by midnight.

*May 26, 27, 30, 31:* All data reduced and plotted, and report written.

## Comments on Data

*General:* This is a difficult site upon which to perform ip / resistivity surveys for three reasons:

- i) Severe topography affects the western portion of the survey area, introducing significant "3-D" effects which make interpretation more difficult.
- ii) Much of the southern portion of the area is covered in constructed material such as waste rock, road works, or tailings piles. This makes electrical contact with host rock difficult, and may result in noisy data along some segments of survey lines.
- iii) There are many instances of "cultural noise" such as power lines, buildings, concrete and other constructed materials, and large metal structures.

Under most of these conditions, chargeability is affected more severely than resistivity. Comments on data along specific lines follow. Results are presented in sections as noted for each line.

Please refer to figure 1 to correlate results with local features on the site.

*Line 10800W, section 1:* Topographic effects are extreme, particularly around station 1800N where the line goes over a ridge. The effects of sounding around man-made objects is severe in the vicinity of the conveyor plant (stations 400 through 800). The line is not straight; rather it followed the road, staying as far east of the conveyor and power line as possible.

*Line 10400W, section 2:* This line follows the road that runs north of the crusher. Stations were surveyed in by surveyors for this line only. Some stations (mainly the first 4) involved placing electrodes in road material, or on rock exposed by road cut.

*Line 10000W, section 3:* The first three stations are in the boulder field adjacent to the crusher. There is a 40ft cliff before station 0. The remainder of the line is in natural material.

*Line 9400W, section 4:* This line experienced problems related to an outcrop and topographic high near station 1900N, and deep organic material north of that. Thick layers of dead fall and loose organics prevent good electrical contact with true mineral soil and host rock. The effect is aggravated by the local topographic high which tends to force electrical current away from the area.

*Line 8200W, section 5:* Stations 0N - 400N and 700N are on waste rock pads or piles.

*Line 7600W, section 6:* Stations 200S - 700N on road, rubble slope or rubbish dump material.

*Line 7000W, section 7:* Stations 100S - 500N on road or waste rock piles.

*Line 6200W, section 8:* Stations 200S - 0, and 400N - 600N suffer from roads or steep rubble slopes. Very abrupt topography between 0 and 400N severely affects current flow in the ground, resulting in possible distortion of results.

*Line 5800W, section 9:* Stations 1800S - 1600S and 100S - 200N suffer as per line 6200W.

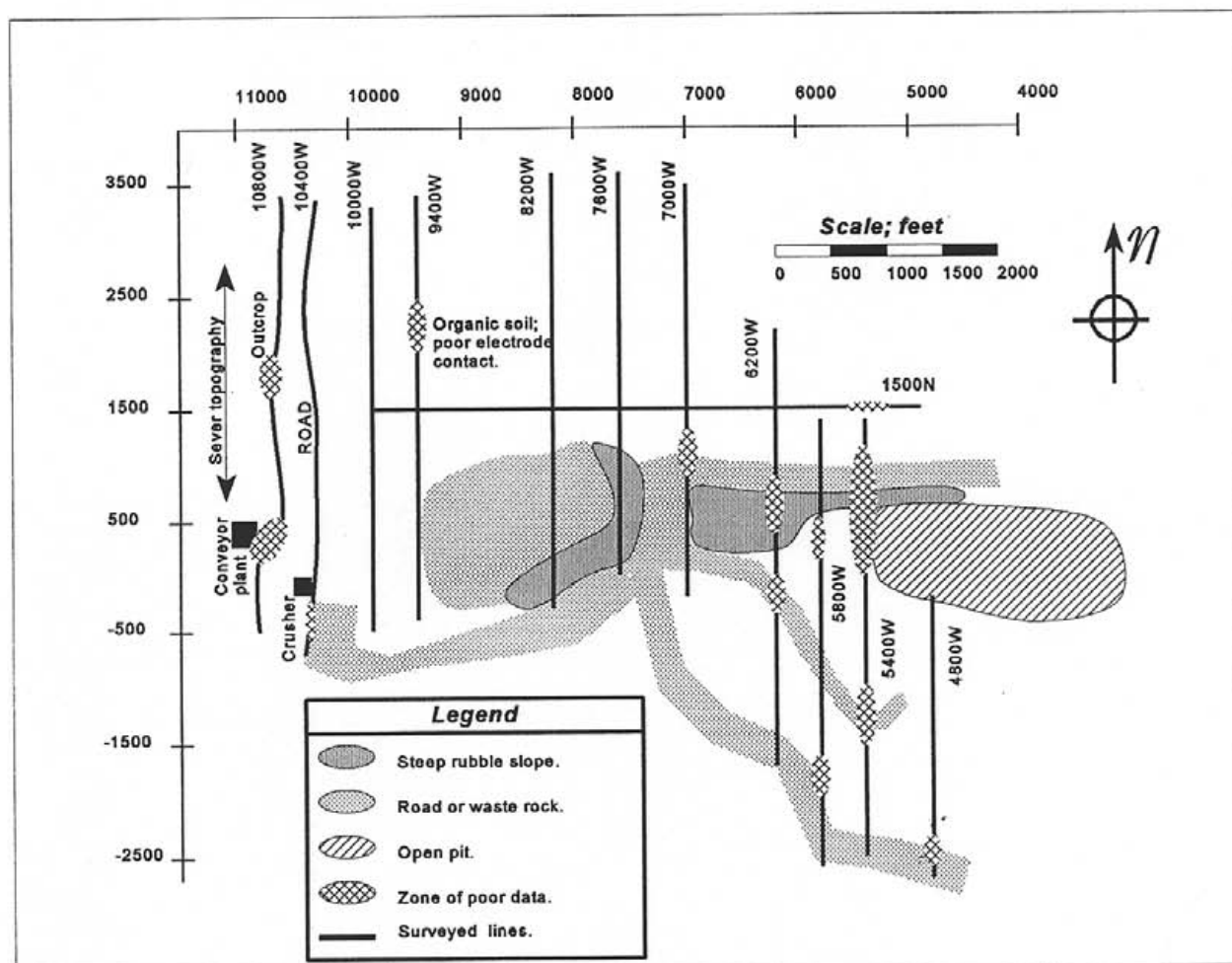
*Line 5400W, section 10:* Chargeability was virtually unusable from stations 1300S - 1100S, and from 400S - 1000N due to the effects of very abrupt topography, and road, rubble slope and other non-natural materials.

*Line 4800W, section 11:* This line was short due to the open pit at the north end.

*Line 1500N, section 12:* Few problems were encountered with this line. It runs west to east along the crest of the topographic high.

### Summary

Twelve lines each approximately 3800 feet long were surveyed for induced polarization and resistivity, at 100ft spacing, with  $n=12$ . Raw data are complete digitized time-domain waveforms, reduced to standard apparent resistivity and chargeability using MIDAAS Corp. processing facilities. Figure 1 is a sketch of the area and the lines surveyed. Results have been provided as standard Hallof pseudo-sections, in figures labelled sections 1 through 12.



**Figure 1** Location sketch, induced polarization and resistivity survey lines, May 1994. Position of roads and rubble slopes is approximate.

# Appendix

## **PC IP MIDAAS INDUCED POLARIZATION RECEIVER: FEATURES**

- Complete, unprocessed waveforms are recorded. All processing during and after surveying is performed on **raw** data.
- Primary voltage is calculated as an average over the latter part of the primary signal waveform. Averaging limits are user selectable.
- Chargeability is calculated by digitally integrating the secondary signal waveform. Integration limits are user selectable.
- Spontaneous potentials are recorded at each station before the data gathering cycle begins and is automatically cancelled during active data acquisition.
- Synchronizing: transmitted current is monitored directly (outside transmitter), and separate pulses coincident with positive and negative "off" times are optically coupled to the receiver for precise synchronization.
- Final results can be output in a variety of formats simplifying further processing or plotted with third-party software.
- Field quality assurance facilities:
  - Clipped, reversed or low level signals are detected and can be accepted or rejected.
  - Apparent resistivity and chargeability pseudo-sections are built on screen as data gathering proceeds.
  - Waveforms of all data at one station can be plotted on one screen, including listings of apparent resistivity and chargeability. Plotting characteristics are interactively adjustable.
  - Signal features such as spikes, EM coupling etc. can be recognized on these plots. Individual waveforms can then be interactively deselected if necessary.
  - Complete or partial signals (potential waveforms) can be plotted on screen.
  - Pseudo-sections or waveforms from other surveys can be compared to data currently being acquired.
  - Listings of all results gathered so far can be generated without halting data acquisition.
  - A user-defined minimum number of stacks will always be gathered at each station. Further stacking is then possible, with extra stacks interactively kept or discarded.
  - A log of data acquisition activity is kept as a separate text file, including optional comments (automatically keyed to the station and time).
  - Data are always stored to disk immediately upon being gathered so that any system failure does not force re-gathering of the entire data set.

## **PC IP MIDAAS INDUCED POLARIZATION RECEIVER SPECIFICATIONS:** **SURVEYS • TECHNICAL • PROCESSING**

NOTES: All parameters are selectable at survey time. All specifications subject to change without notice.

### **SURVEY SPECIFICATIONS**

- Survey type: Total waveform, time domain pole-dipole.
- Results:
  - ASCII list files of all data and collection statistics in several formats, suitable for input to many third party plotting, inversion and processing facilities.
  - Colour (or black and white) graphs of waveforms; plotted individually or as groups; as complete or partial signals; and raw or stacked data.
  - Colour contour pseudo-sections and plan maps.
- Productivity: Three to four kilometres per day at  $n=12$  with minimum two stacks (over 1500 records) over average terrain with a crew of six. Pseudo-sections are generated as surveying progresses.
- Electrode ("a") spacing: 2ft - 200ft or 1m - 60m.
- Maximum line length: 11,000ft (200ft spacings), or 2.9km (50m spacings).
- "n" values available: 1 through 12 recorded as 1-4, 1-8, or 1-12.
- Stacking: Interactive on-site. Automatic and visual quality control ensures stacking is appropriate at each station, while keeping gathering time to a minimum.
- Processing software is available separately for manipulating raw data. Features include:
  - Visually compare waveforms at different stacks, positions and stations.
  - Select and de-select individual waveforms for inclusion in stacking.
  - Concatenate lines or extract segments of lines.
  - Select time windows for calculation of primary voltages and chargeability.
  - Rapidly generate ASCII format or coloured pseudo-sections.
  - Generate direct listings of results (apparent resistivity, SP, chargeability, etc) for third-party inversion, signal-processing or plotting packages.
  - Re-calculate, re-stack, and/or filter all results.
  - Convert raw waveform data into ASCII readable format.
  - Perform digital signal-processing such as noise filtering.
  - Custom requirements can be accommodated.

## TECHNICAL SPECIFICATIONS

- **Data format:** Measured potentials are recorded as complete, digitized waveforms. Storage format is proprietary to minimize file size, but processing software is available, and conversion of raw data to ASCII format is possible.
- **System inputs:** Up to 48 pre-placed field electrodes are available for measurement at either end of the 2.4km 50-conductor cable. Instrument simultaneously digitizes 4 differential potentials.
- **Resolution:** Programmable gain gives an equivalent dynamic range of 126dB (21 bits). Every measurement can have gain individually set.

Gain	Max.Input Swing: mV	Resolution: LSB in mV
1	±5000	2.44
10	±500	0.244
100	±50	0.024
1000	±5	0.0024

- **Transmitter:** Any commercially available IP transmitter.
- **Synchronizing:** Optically coupled direct monitoring of the transmitter output current requires our proprietary synchronizing unit.
- **Transmitter Cycles:** 2, 4, or 8 seconds.
- **Receiver Components:** IBM PC-386 or better; Burr-Brown IBM-PC compatible data acquisition hardware installed inside computer (two full length slots required); Proprietary multiplexing, amplifying and SP cancellation front-end; Proprietary 50-conductor cabling.
- **Sampling Rate:** 10 - 300 samples per second.
- **Receiver power source:** Portable 120V, 60Hz, 600W generator.

## PROCESSING SPECIFICATIONS

- Hardware Required

- IBM AT compatible computer running DOS version 3.x.
- Graphics: CGA, EGA, VGA, or Hercules mono.
- Recommended: 386-class computer and co-processor, 2Mb memory, disk-caching software, VGA colour monitor, hard drive.

- User Interface

Menus and prompted form-filling in a custom text and graphics windowing environment with some context sensitive help.

- Input data

MIDAAS format; raw field-data files (\*.RAW) contain data for one survey line, with global parameters in a file header, and local parameters in headers preceding each record.

- Outputs

Output files are in ASCII (text file) columnar format. Data listed and format of columns depends on option selected. Results available for listing include power stake and potential electrode locations, Edwards effective depth, apparent resistivity, chargeability (in milliseconds), metal factor, primary voltage values, current, S.P., processing statistics, etc.

- Data Plots

Colour contour pseudo-sections and plan maps provide high resolution visual display of results.

- Stacking

Number of stacks gathered in the field is interactively determined by the operator at each position. During or after gathering, all waveforms can be visually reviewed, and individual records flagged to be include or excluded from subsequent stacking operations.

- Primary Voltages

Primary Voltage is calculated as an average over a window of both +Vp and -Vp waveforms. Window start and stop times are user selectable.

- Chargeability

+Vs and -Vs waveforms are numerically integrated. Limits of integration are user selectable.

- S.P.

Cumulative and local S.P. can be calculated across a section.

- Plotting: Four styles of screen plots are available.

- i) All data at one station can be graphed including complete waveforms, expanded secondary voltages, and listings of apparent resistivity (ar) and chargeability (m). Different stacks are distinguished using colour, and many interactive options are available with each screen of plots.
- ii) Up to 20 complete or partial waveforms from a survey line can be plotted on the screen. Adjustable scales and formats facilitate inspection and comparison of stacks, n's, stations or lines.
- iii) Pseudo-sections of ar and m can be output and viewed in ASCII readable format.
- iv) Coloured pseudo-sections of ar and m can be displayed on screen.







PROPOSED  
PHASE II  
PIT

PRESENT  
INGERBELLE  
PIT

DDH 94I-34

255' @ 0.64% CU

DDH 94IE-06

156' @ 1.24% CU

PROPOSED  
PHASE I PIT

SIMILKAMEEN  
RIVER



GEOLOGICAL SURVEY BRANCH  
ASSESSMENT REPORT

24,620

SECTION:  
SCALE: 1:1200  
DATE:  
DESIGN BY:  
DRAWN BY: SJB  
CHECK BY:  
APP BY:

SIMILCO MINES LTD. -  
PRINCETON, B.C.

TITLE  
INGERBELLE  
DRILLING AND  
PIT OUTLINES

FILENAME: DEPARTMENT: DRAWING NO.: REV  
19941215.dwg Geology 4 5