REPORT ON THE EXPLORATION AND DEVELOPMENT OF THE CAPE MAMAINSE OPTION 1949

MACASSA MINES LIMITED

E.J. BONKOFF

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SUMMARY AND CONCLUSIONS

It was proposed by C.C. Huston that the Cape Mamainse Area, on the east shore of Lake Superior, in the Algoma Mining District, be thoroughly prospected, using modern ideas and interpretations of geological mapping, structural conditions, trenching, sampling and diamond drilling, to show conclusively whether economic concentrations of copper do or do not exist, (either as the sulfide or native). No systematic detailed investigation had been made of the Keweenawan copper bearing rocks in Canadian territory.

A favourable zone, within the "Maximum Best Section" delineated by C.C. Huston (Ref.map 1), of the Cape Mamainse Area, a known copper bearing area since 1798, was thoroughly prospected, mapped, trenched, diamond drilled and sampled, in an endeavour to establish an economic concentration of copper. To date this has been the most comprehensive work attempted on the property and the results are promising.

Two mineralized fracture zones were indicated, the Indian Diggings Zone, and the "C" Zone, (Ref.map 2). The latter was explored with short diamond drill holes and the results were promising. Copper mineralization was seen in the fractures, (vein breccia), and as replacement of the calcite amygdules in the cellular amygdaloid.

The possibilities of the "C" Zone are noted:

1. It might be a fracture zone of proximate parallel fractures with disseminated copper minerals in sufficient quantity to make a deposit of an economic grade and volume.
2. There may be copper replacement expected in the porous cellular amygdaloid horizons, (holes 11-C and 12-C).

3. It might act as a guide in exploring for an originating lode.

The similarity of the geology, (structure and mineralogy), to the productive copper area of Michigan is significant, as are the conclusions reached by the Michigan geologists in the search for copper. Basically that is, copper is where you find it. Many definite theories or presumptions can be followed, but no geological phenomenae are invariably connected with copper depositions of this type.

However in any work a basis must be established in order to begin. I therefore offer the following suggestions as a guide in the future search for copper deposits.

1. The mineralized fissure vein be used as a guide in the exploration for lode deposits.

2. The mineralized fissure vein should be examined for a possible mineable concentration of copper.

3. The mineralized fissure vein should be examined for supplementary parallel fissure veins in close proximity, with the hope of uncovering a zone of an economic concentration.

RECOMMENDATIONS

The following recommendations are given:

1. The property be maintained in good standing.

2. The "C" zone be explored by diamond drilling along its strike. I suggest that diamond drilling begin in the area between the "C" area and the "hidden" conglomerate horizon, (Ref.Map 2). The first holes spotted to intersect the

fracturing in the "hidden" conglomerate. The purpose of this beginning is to discover, if the permeable "hidden" conglomerate was the ore channel that fed the "C" zone. It is believed that vertical holes will give the maximum information for the minimum expenditure.

3. To explore by diamond drilling the Indian Diggings Zone, along its strike. This zone might be similar to the "C" Zone.

4. To use the interpreted structure,(Ref.map 2), as the basis for exploring the favourable zone by diamond drilling. Exploration to begin at or near major fracture intersections, because copper concentration is believed most likely there.

5. To continue the detailed geological mapping and prospecting of areas not yet completed. Suggested areas are:

(a) The area from footage 8000 to 16085 north, (Lake Superior), should be done in detail.

(b) The offsets should be extended to Lake Superior on the west and another 2000 feet on the east. These sections should be mapped in detail, where there is no swamp coverage.

(c) The base line extended south another 10,000 feet, with offsets extending 3500 feet to either side. This area should be done in detail, skipping areas of swamp and very heavy overburden.

DEFINITIONS

Fracture- Any break in the earth's crust,(fault, joint, bedding plane, seam, fissure, crack, fracture cleavage).

Fissure Vein- A fracture in the earth's crust filled with mineral matter different from the walls and precipitated therein from acqueous solution, or introduced by sublimation or pneumatolysis.

Lode- A deposit of valuable mineral between definite boundaries.

Ore Channel- (solution channel). The space between the walls or boundaries of a lode which may be occupied by ore and veinstone.

In this report I am using "lode" and "ore channel" synonymously.

HISTORICAL BACKGROUND

Copper has been known to exist in this area since 1798. From that date until 1906 various attempts were made to discover and mine copper and also silver. The companies concerned in this search at this location, listed in chronological order, were:

1856 Montreal Mining Company.

1881 Ontario Mineral Lands Company.

1882 Silver Islet Company, (Lake Superior Copper and Native Copper Co.)

1891 Canadian Land Purchase Company.

1892 Nipigon Mining Lands Company.

1906 Calumet and Hecla Mining Company-cross section drilling.

1948 Kennecott Copper Company- examination

1948 Macassa Mines Limited- examination by C.C. Huston.

In the summer of 1948 reconnaisance prospecting was done by the prospectors of Macassa. In 1949 this work was intensified.

LOCATION AND ACCESS

The area lies on the east shore of Lake Superior, about 60 miles north from Sault Ste.Marie, in the Algoma Mining District. A mineable deposit on this property in its excellent location would make it an attractive proposition. There would be no expensive problem of access, power, and supplies as it is readily accessible by paved highway from Sault Ste.Marie and by boat on Lake Superior.

TOPOGRAPHY OF AREA MAPPED

The area consists of north and south ridges with steep slopes and some bluffs. The ravines and valleys slope southerly in the southern section and northerly in the northern section, (Ref.map 2). From the 602' elevation of Lake Superior there is a continual rise inland, the ruggedness of the country being due to the differing rates of erosion of the (Middle Keweenawan) lavas and interbedded conglomerate.

GENERAL GEOLOGY OF AREA MAPPED

The area consists of interbedded sediments and flows of Middle Keweenawan age. Igneous flows assume the greatest thickness in the area mapped. Their strike is north westerly (N 25-28 W) and have an average dip of 30 degrees to the south-west, (monoclinal dip towards the Lake Superior basin. E.S. Moore). The lava flows and conglomerate beds are cut in the mapped area, by at least three felsite intrusions, which in strike almost conform to the flows and beds, but their dip is south-easterly, (approximately 60 degrees) cutting the flows and beds at approximately right angles, (Ref.map 2).

Both strike and transverse faults are believed to exist, (observed and interpreted). Jointing of the flows and bedding plane structure in the conglomerate beds has been seen in the field. In some cases the joints show fissure vein filling, but as joints may be relatively near-surface fractures where the rock is able to react as brittle materials, one can not expect the joint mineralization to continue to any depth, but are

presumably leakages from a parent lode.

CONTROLS AFFECTING ORE DEPOSITS

The controlling physical, structural and chemical features of the copper deposits on this property are not known, but in the sub-headings an attempt is made to point out some of these controlling features.

In referring to the copper deposits of the Middle Keweenawan rocks the writer believes them to be epigenetic. Also that the mineralization was accomplished during a short period of somewhat complex activities that followed the completion of all the essential deformation which the rocks reveal. This is in accordance with Broderick.

There are two main types of theoretical ore deposits:

1. Lode deposits.
2. Fissure vein deposits.

Physical Controls

Permeability of the rocks is believed to be requisite to ore deposition. The permeability of the beds or flows extending to depth is considered important because it is believed that copper was deposited by ascending solutions from depth.

The igneous flows show a gradation from dark dense vitreous trap to a cellular amygdaloid. Studies in Michigan state that fragmental and coalescing amygdaloid is relatively permeable and the remainder impermeable. On this property the fragmental or coalescing amygdaloidal rocks were not seen. However, the porous cellular amygdaloid, (flow tops?) was

observed, and in holes 11-C and 12-C replacement of the calcite filled amygdules with chalcocite was seen. The replacement occurred in the cellular amygdaloid adjoining fracturing. It is concluded that although the porosity of the cellular amygdaloid will allow copper replacement to occur, permeable channels, such as fractures, to the porous cellular amygdaloid are necessary.

The conglomerate horizons are considered to be permeable. The beds observed consisted mainly of medium sized pebbles, (1/2"-3") well rounded to sub-angular, with included smaller pebbles and larger boulders of varying quantities. The conglomerate beds show a dark brown ferruginous matrix, with some calcite. To date it appears that we should look to conglomerate beds for any possible solution channels.

Structural Controls

The formations have a monoclinal dip (30-40 degrees) towards the Lake Superior basin. Three felsite intrusions are recorded almost parallel to the beds and dipping approximately normal to them. A pattern of both strike and transverse fractures has been observed and interpreted, and their dip is easterly, away from Lake Superior.

The strike and dip of the felsite intrusions is conformable to the strike fractures recorded. That is the felsites may have intruded into fractures. Calcite and quartz mineralization along the periphery of the intrusions enhances this belief.

Fractures, (fissures) may have acted as channels for the distribution of the ore solutions. There are two possible interpretations of the fissure deposits.

1. To regard fissure deposits as reaching down to great depths as independent solution channels.

2. To regard fissure deposits as emanating from lode deposits. This interpretation of fissure mineralization can be used as a guide in exploring for copper deposits.

It is believed that the latter will prove to be the case here.

Other required structural controls that may be barriers to ascending ore solutions are: a fracture traversing a permeable solution channel,(lode) may become a barrier to the rising ore solutions. An impermeable intrusion might act similarly. A change in the permeability of the bed or solution channel itself, may cause a concentration of the ore solutions at that horizon.

Chemical Controls

Broderick states: the deposition of copper in Michigan is associated with a reduction of ferric iron. The deposits show the original presence of ferric iron and removal or reombination of the iron close to the introduced copper.

It was noted in the area mapped, the dark dense granular amygdaloidal basalt often carried disseminated iron. One grab sample assayed for iron and copper gave: Iron 11.59%, Copper 0.05%. Iron (hematite, specularite) was often seen with the copper sulfide, (chalcocite) in some of the fissures on the surface and in the diamond drill core. Thus a copper-iron relation was seen to exist on this property.

EXPLORATION AND DEVELOPMENT

The exploration programme for 1949 divides itself into four sections: mapping, trenching, diamond drilling and sampling. The work was undertaken with a crew of five prospectors, one geologist (the writer), and Mr. C.C. Huston (consultant). 2562 feet of diamond drilling was done by the Inspiration Mining and Development Company, from September 27 to October 31,1949.

Mapping

In May 1949 work commenced in the area termed "Maximum Best Section" by C.C.Huston,(Ref.map 1). Within this section an area three plus miles long and three thousand feet wide was prospected and the surface geology mapped, (Ref.map 2).

A picket base line was cut with the Copper Creek shaft as the origin, extending south 1600 feet and north 16,085 feet, (Lake Superior), (Ref.maps 1 and 2). Offsets were cut extending 1500 feet to either side of the base line, at 200-foot intervals for the 1600 feet south and for 4800 feet north. From 4800 feet to 8000 feet north, offset intervals were increased to 400 feet, and from 8000 feet to 16,085 feet north, increased to 1000 feet. In the area 8000 feet to 16,085 feet north, time would not permit a continuation of closer spaced offsets. There exists unmapped gaps between these 1000-foot offsets. However a general idea of the stratigraphy was obtained, (Ref.map 2).

Very few outcrops were seen, but the overburden was generally thin enough to allow easy access to the rocks with

a grub-hoe. The average depth of the overburden varies from 4 inches to 4 feet, except in swampy areas where it is much heavier.

The rocks of this area are of two main types: igneous, (flows and intrusions) and sedimentary, (conglomerate and sandstone).

Igneous Rocks:

Lava flows: It was seen in the field, in some of the flow horizons, that several alternate variations from amygdaloidal basalt to trap existed, prior to encountering a conglomerate bed. It is therefore believed that the bands of lava flows are not individual flows but a series of individual flows piled one above the other.

The flows are basalts and show a variety in their texture. In all cases they are dense and dark (black, dark gray, dark green). In granularity they vary from coarsely doleritic to densely aphanitic, in some cases vitreous. Vesicularity is abundant at what is believed to be the flow top. The vesicle fillings are mainly calcite, but olivine, pyroxene, epidote, and some quartz are also evident. The vesicular amygdaloid is broken down into two types: (a) cellular amygdaloid,- a dense medium to fine grained rock with vesicles of varying size, filled with calcite. (b) amygdaloidal basalt,- the remainder of the vesicular basalt, filled with olivine, pyroxene, and quartz.

Intrusive rocks: The intrusive rocks mapped were:

1. dark pink-red felsite, showing flow lines in some cases.

Their strike is conformable to the flows and beds, but dip almost normal to them. They appear to have intruded into strike fractures,(Ref.map 2). 2. dark green diabase, with typical doleritic texture. They appear to have entered into cross-fractures but they have an almost vertical dip, (Ref.map 2).

Sedimentary Rocks.

Conglomerate beds: They are composed of a great variety of rocks, usually of medium size (1/2"-3"). Granite and greenstone appear to constitute the bulk of the pebbles in most bands. The proportion of these rocks to each other varies considerably in the different bands.

Sandstone beds: One sandstone bed was seen, and this only as a result of diamond drilling. This horizon is dark rust-gray in color and shows bedding.

Mapping in the area completed found many mineralized showings, as evidenced by pre-1900 trenches, pits, and shafts, (Copper Creek Shaft, Silver Creek Shafts, Indian Diggings Zone, "B" Area). These old showings were carefully examined by the writer. Also mapped were 12 new finds (Ref.map 2), 2 of these were examined by diamond drilling, ("A" Area and "C" Area).

The old showings are vein matter in fractures, of varying types and intensity, (Copper Creek Fault, mineralized joint in the "B" Area). It appears that these fissure veins were followed by means of lateral and strike trenches and where mineral concentration was encountered, a pit or shaft

was sunk. The new finds are similarly mineralized fissure veins in fractures or fracture zones. The gangue in all cases is chiefly calcite, some quartz, prehnite and fragments of wall rock,(usually altered).

Mapping of the fissure veins revealed that two zones of these exist, the Indian Diggings Zone and the "C" Zone, (Ref.map 2). The former was known to exist pre-1900 work and the latter was found in the 1949 investigation, as a result of detailed prospecting and mapping. This latter,the "C" Zone is the most promising area to date. The hope is that the "C" Zone may be a zone of closely spaced parallel fractures containing disseminated copper, the total of which might be commercially exploitable. Or, this zone may act as a guide in searching for the "parent" lode

Certain structural interpretations have been made as a result of the surface mapping. The conglomerate horizons serve as excellent guides, clearly allowing interpretation of lateral displacement due to faulting. However, strike faults are difficult to view in the field or by mapping, unless perhaps a doubling up of the conglomerate horizons is seen. Using this condition, a strike fault has been interpreted along the southern portion of the "C" Zone,(Ref.map 2).

A pattern of observed and interpreted faulting has therefore evolved from our mapping. All the observed fractures (fissures) invariably show an easterly dip between 45-65degrees.

Surface mapping has been the basis of the 1949 exploratory

programme. Old and new showings were located and mapped, and their relative positions indicated. A pattern of lateral and strike faults was subsequently interpreted, which might now be interpreted to be areas or zones-of-fracturing into which ore solutions may leak. These fractures may be: exploitable ore zones; be a barrier to ascending ore solutions, causing a lode of an economic grade and volume to be deposited; or the fractures may act as a lead to a lode.

The mapping has revealed that copper was deposited in fractures,(seams, joints, faults) of various degrees of intensity throughout the area. It is now recommended and is necessary to further investigate the known and more promising of the fractures. These were finally investigated in part by diamond drilling.

Trenching

Of the 12 new found mineralized areas, 4 have been investigated by trenching,(Ref.map 2, area T-1, T-2, T-3, T-4). These were mineralized fractures of varying width and intensity. Each area showed abundant copper concentration at the place of discovery, but trenching revealed that individual fractures could not be traced for more than 200 feet and that the copper concentration was not continuous, but spotty.

At areas T-1, T-2 and T-4, the copper was present as the sulfide, chalcocite. At T-3, a massive 1/2" vein of native copper was found for a length of 8 feet.

It is noted that by lineation,these fractures (T-1,

T-2, T-3 and T-4), are part of the C" Zone, (Ref.map 2).

Diamond Drilling

At the end of August, mapping and prospecting had been completed to 8000 feet north and it was felt that sufficient information had been collected and interpreted to warrant exploratory diamond drilling.

Four areas were drilled, (Ref.map 2),totalling 2562 feet of diamond drilling. The first three,the Copper Creek Shaft area, the "A" Area and the "B" Area (Ref.map 2, diamond drill cross-sections and logs),showed little of promise, but copper mineralization in varying degrees was found in all three.

At the Copper Creek Shaft area, holes 1, 2, 3, 4, 5, and 6 were drilled, on the south side, beside the Copper Creek Shaft,(Ref.map 2). They were drilled, what was believed to be, normal to the north striking Copper Creek fault. More than one fractured area was encountered in each hole,revealing this to be a zone of faulting, (Ref.cross-sections). Copper mineralization was seen in most of the fracturing, but was not economic.

At the "A" Area, holes 7-A and 8-A were drilled (Ref. map 2), into a northerly striking native copper vein,dipping 40- 60 degrees to the east. Weak fractured areas were seen in each hole. These did not contain economic values of copper. Native copper was seen at footage 15.0 in hole 7-A and at footage 48.5 in hole 8-A. (Ref.diamond drill logs and cross-sections).

At the "B" Area holes 9-B and 10-B were drilled (Ref. map 2), into a northerly striking fracture, dipping east 45 degrees. The fracture contained vein mineralization of chalcocite and calcite, as seen on the surface. The calcite fissure veins were seen in the core but the chalcocite mineralization was not seen,(Ref.map 2, diamond drill logs and cross-sections).

The fourth area drilled, the "C" Area, gave definitely encouraging, and what are possibly economic, results. Holes 11-C to 19-C were drilled here. Values obtained in these holes were:

Hole 11-C	0.82%	over 23.0 feet	-	from 25.0'	to 48.0'
	1.05%	5.0	-	95.0'	100.0'
12-C	0.76%	3.7	-	74.5'	78.2'
13-C	1.41%	3.7	-	85.0'	88.7'

The results of vertical drill holes 14-C, 15-C and 16-C, were negligible. These holes investigated the near-surface area, (maximum depth 145 feet), on the west side of the east dipping zone of fracturing.

17-C	3.45%	2.0	-	125.0'	127.0'
18-C	1.91%	22.5	-	163.5'	183.8'
	0.826%	4.9	-	203.0'	207.9'
19-C	0.60%	25.5	-	181.8'	207.3'

Drilling in this area,("C" Area"), has shown a replacement of the calcite filled amygdules by chalcocite, (holes 11-C, 12-C) as well as copper mineralization in the fractured zones,(vein breccia), of all the holes, (Ref. diamond drill logs).

As a direct result of diamond drilling a conglomerate horizon was revealed, which was not seen on the surface because of swamp coverage. A zone of strike fracturing (N 25-28 W) is indicated, dipping 60 degrees easterly. The fracturing when sampled gave promising assay returns,(Ref.diamond drill logs and model of "C" Area). In the cellular amygdaloid of holes 11-C and 12-C, adjoining the fracturing, is a replacement of the calcite amygdules with chalcocite. This also gave promising assay returns,(Ref.diamond drill logs and cross-sections).

The original fracture drilled,striking N 75 W, dipping 60 degrees to the north-east, appears to be a supplementary "break" radiating from the main "C" fracture zone,(Ref.map 3). A similar interpretation is advanced for the fracture striking N 10 E at the "A" Area,(Ref.map 2).

The drilling at the "C" Area does not disclose what the situation is, where the shear-zone traverses the "hidden" conglomerate, in the conglomerate, or below it. Conglomerate beds are permeable horizons, and the question arises, is the "hidden" conglomerate the ore channel which fed this fracture zone? We should therefore explore by diamond drilling this conglomerate bed, in the area where the fracturing traverses the conglomerate.

The economic possibilities here cannot be overlooked. The "C" Zone should be further explored along its length and down its dip by diamond drilling. The possibility exists that the "hidden" conglomerate, revealed by diamond drilling, may be the permeable solution channel which fed this fracture

zone. Significantly the "hidden" conglomerate horizon in hole 19-C at footage 206.3 and 210.5, did carry chalcocite in the matrix. This conglomerate was composed of medium sized pebbles, the majority of which were greenstone and some granite, in a ferruginous matrix with some calcite.

It is therefore possible that the "C" zone may be a stockwork or shear-zone of closely spaced fractures with disseminated copper in all or several of them, the combination of which might be economic in grade and volume, or it may serve as a guide in the deeper exploration for a "parent" lode. Besides fissure vein mineralization found by diamond drilling in the "C" Area, a horizon of copper sulfide,(chalcocite), replacement in the calcite amygdules is indicated in the cellular amygdaloid, of holes 11-C and 12-C (Ref.diamond drill logs). This is believed to be of great significance,indicating that replacement deposition does occur in the porous country rocks adjoining such mineralized fracturing. A replacement deposit in this general area could be possible.

A model of diamond drilling done in the "C" Area clearly shows the local structural relations. The fracture zone strikes with the strike of the formations (N 25-28 W), and dips approximately 60 degrees easterly,(away from Lake Superior). The values listed earlier,generally line up along the dip of this zone. A true dip of the beds is not had because of the direction of the diamond drilling. With this evidence at hand, any future diamond drilling should be planned to explore this zone to its greatest advantage. I

believe that vertical drill holes will do this most adequately.

Sampling

Grab samples were taken promiscuously throughout the area. This aided in gauging the percentage copper to be expected from the rocks of the area. The results of these samples were:

% Copper		
0.13	-	Medium sized conglomerate, some visible chalcocite, in a ferruginous matrix. Location 1500 S, 1250 E
1.54	-	" " " 1600 S, 1200 E
0.05	-	Dark dense granular amygdaloidal basalt, with numerous specks of specularite. Location 1600 N, 200E
0.05	-	" " " 7300 N, 100 W
0.05	-	Dark dense trap, weakly fractured. Location 6800 N
0.02	-	" " " 7200 N, 100 W
0.03	-	" " from a fracture area. Location, an old pit, 4200 N, 1000 W
0.04	-	Dark dense trap from a fracture area, " "
0.05	-	" " amygdaloidal basalt with a calcite vein. Location 7200 N.
0.14	-	Dark dense amygdaloidal basalt with calcite vein, one speck of native copper seen. Oz. gold 0.005. Location 7200 N
0.90	-	Vein of quartz and calcite with dark dense amygdaloidal basalt. Visible chalcopyrite. Oz gold 0.005. Location 13, 500 N, 1100 E.
0.70	-	Dense dark granular amygdaloidal basalt with some specularite, chalcocite and malachite, from the "C" Zone, 200 N, 1300 E
10.03	-	Mud and malachite taken in one piece from a fracture area in the "C" zone, 200 N, 1300 E
0.04	-	Vein zone. (calcite, quartz and trap, little chalcocite) 7745 N.
5.39	-	Malachite and cuprite vein with calcite, very soft. From an old pit, 5000 N, 200 W.
0.06	-	Dark soft fractured rock with cuprite and malachite. From an old drift on the Quebec and Lake Superior property.
5.46	-	" " " "
37.97	-	Massive chalcocite vein from a fracture. An old drift on the Quebec and Lake Superior property.
68.28	-	Massive chalcocite. From an old pit 2500 N, 1000 W.

Channel sampling was done at all the trenched areas, T-1, T-2, T-3 and T-4 (Ref.map 2 and 3). Assay results at T-1, T-2 and T-3 were not economic (Ref.assay results), but no assays

of trace or nil were received. Sampling at T-4 ("C" Area) gave encouraging results, particularly in trench "C" (Ref.map 3). Four channel samples were taken here. The centre two, 3.5' each, were taken across the fracture, and the outside two, 3' each, were taken in the bordering country rock, (dark dense granular amygdaloidal basalt), (Ref.map 3).

Results of the sampling in the "C" Area

Trench "B" 0.06% - 3'
0.23% - 3' - Average 0.15% - 6'

Trench "C" 0.1[illegible] - 3'
1.52% [illegible]
[illegible]erage 0.96% - 13'
1.90% - 3.?
0.05% - 3'

A weaker cross-fracture was uncovered. Samples taken across this fracture were not encouraging (Ref.map 3).

It is understood from Michigan that the sampling and assaying of native copper ores is neither practical nor accurate, (native copper is the most abundant copper mineral in Michigan). In the Cape Mamainse area, the copper mineralization has so far shown itself to be mainly the sulfide, chalcocite. with lesser "sweeteners" of native copper. We therefore did not encounter the sampling and assaying difficulties of the native copper ores. It is concluded that the assay results of the sulfide samples are representative and can be relied upon.

In the sampling of the exploratory diamond drill core, the whole core was assayed, after careful logging. Chalcocite was the most prominent copper mineralizer in the fracturing,

(vein breccia). Chalcocite was the only copper mineral seen in the replacement zone of the cellular amygdaloid (Ref.holes 11-C and 12-C). Included in the fracturing (vein breccia) was the odd fracture mineralized with visible native copper. These areas were sampled but the visible native copper was not included in the samples. The assay results obtained here can be considered "cut", (Ref.diamond drill logs and cross-sections).

Samples taken (channel or core),were never more than 5 feet in length,usually about 3 feet.

Conclusions

Exploratory work to date, of a section of the Cape Mamainse Area has produced encouraging results.

Several new mineralized showings were found. Old showings were re-located. These (both) were examined, mapped and correlated. A replacement of the calcite amygdules, either wholly or partially, by chalcocite and specularite was discovered in the cellular amygdaloid of the "C" Area. This gives an indication of a replacement possibility.

The following possibilities may therefore now be said to exist:

1. Fissure veins themselves may prove to be commercially important individually.
2. A series of closely spaced parallel fissure veins might exist at the "C" Zone, in a zone of mineable proportions.
3. The fissures here or elsewhere may lead to a parent lode. Attention to such relationship of fissure vein and lode mineralization may be of great importance in the further exploration for a lode.deposit.

4. A replacement horizon in the cellular amygdaloid might be found.

With further diamond drilling, it is possible that the "C" Area may fulfill all or several of the above possibilities.

NOMENCLATURE USED IN CORE LOGGING

Trap - was described by	:	Grain. Color. Vesicularity- size abundance Vesicle filling
Conglomerate- was described by	:	Pebble size. Majority or minority of granite to greenstone pebbles.
Sandstone - was described by	:	Color. Bedding.
Fractures-were described as	:	Vein breccia-abundant calcite and/or ferruginous matrix, some quartz and epidote with fragments of wall rock (altered). Shattered trap- cracked trap with calcite, quartz, iron and/or chalcocite filling the cracks.

December, 1949 E.J.Bonkoff

REFERENCES TO LITERATURE REVIEWED

Report by	A.C. Lane	1911
Report by	E.S.Moore, O.D.M.	1926
Professional paper No. 144,	U.S. G.S.	1929
Report by	T.M.Broderick	1931
Report by	T.M. Broderick	1935
Report by	T.M.Broderick	1946
Report by	R.A.Halet	1948
Report by	C. Baycroft	1948
Reports by	C.C.Huston	1949

PROPERTY- Macassa - Copper Creek - Mamainse

Hole Number 1
Sheet Number 1
Section from 0.0 to 66.5

DIAMOND DRILL RECORD

Lat. 9989.2
Location Dep. 5060.0
Elevation of collar- 1008.5
Datum - 1000.0
Direction at start- Bearing N 80 W Mag.
Dip 45°

Started 28 Sept. 1949
Completed 30 Sept.1949
Ultimate depth 152.2
Proposed depth 150.0

Depth Feet	Formation	Sample No	Weight of sample	Assay
0.0- 6.0	Casing			
6.0- 13.5	Cong. med.br matrix			
13.5- 15.0	Cong. med-coarse,br.matrix, one 6" granite boulder			
15.0- 17.2	" " "	3555	3.2	.04
17.2- 17.8	Qtz-Cal vein, disseminated Cu			
17.8- 20.0	Cong. med br matrix, some white cal	3556	2.2	.02
20.0- 22.0	" " "			
22.0- 26.5	Cong.coarse granite boulders up to 10"			
26.5- 43.8	Cong. med fine			
43.8- 45.0	Cong. slightly brecciated, little cal			
45.0- 47.5	" " " wi.sparse Cs and/or Fe	3557	2.5	.77
	Cu at 46.2 in small cal stringer,not included in sample			
47.5- 50.0	Cong. slightly brecciated, sparse Cs	3558	2.5	.26
50.0- 51.7	Granite boulder			
51.7- 54.3	Cong.½" narrow seam at 52.0 carrying Cs	3559	2.6	.81
54.3- 57.6	Cong. med fine br matrix,cut by narrow seams	3577	3.3	.07
57.6- 61.0	" " " " "	3578	3.4	.19
61.0- 63.5	Vein breccia sparse Cs, contact at 61.0	3560	2.5	.33
63.5- 65.0	Trap dense fine grd,Fe,very sparse Cs,mud seam at 64.5	3561	1.5	.95
65.0- 66.5	Vein breccia,very sparse Cs	3562	1.5	.45
66.5- 67.5	Trap dense fine grd gr., much Fe	3563	1.0	.07
67.5- 69.2	" " " br, "			
69.2-152.2	Trap fine grd dense wi infrequent barren cal seams (1/4" approx) Trap is gr			
152.0-	End of hole			

Drilled by Inspiration

PROPERTY- Macassa-Copper Creek-Mamainse

Hole Number 2
Sheet number 1
Section

DIAMOND DRILL RECORD

Location Lat. 9989.2
Dep. 5060.0
Elevation of collar 1008.5
Datum 1000.0
Direction at start-Bearing N 80 W Mag.
Dip 35°

Started 30 Sept.1949
Completed 1 Oct.1949
Ultimate depth 126.6'
Proposed depth 125.0'

Depth feet	Formation	Sample No.	Weight of sample	Assay
0.0- 8.0	Casing			
8.0- 18.5	Cong. coarse boulders, some gr			
18.5- 19.0	Cong.fine, br matrix, some cal.			
19.0- 19.8	Vein breccia (altered)			
19.8- 54.2	Cong. med-fine,br matrix, light cal. gr pebbles			
54.2- 56.4	Cong. gr,very sparse Cs with Fe (slight alteration)	3564	2.2	.19
56.4- 59.0	Cong med. slightly brecciated, sm cal-epidote,sparse Cs	3565	2.6	.53
59.0- 61.0	Vein breccia, sm cal-epidote, sparse Cs,Fe	3566	2.0	.60
61.0- 64.5	Cong. med gr, br matrix, sm cal,also cal seams thru core very sparse Cs. Fe in cal seams	3579	3.5	.345
64.5-	Contact			
64.5- 66.0	Trap fine grd, gr (olive) very narrow Cs seams wi Fe	3580	1.5	.845
66.0- 67.7	Vein breccia, much cal	3567	1.7	.40
67.7- 71.0	Trap fine grd, br wi sm cal amyg.			
71.0-126.6	Trap grey-gr wi cal stringers, sm wi dip of core, cherty cal stringer at 94.0			
126.6-	End of hole			

Drilled by Inspiration

PROPERTY-Macassa-Copper Creek-Mamainse

Hole No.3
Sheet number 1
Section from 0.0 to 104.0'

DIAMOND DRILL RECORD

Location Lat. 9935.5
Dep. 5079.5
Elevation of collar 1005.2
Datum 1000.0
Direction at start- Bearing N 80 W Mag.
Dip 45°

Started 1 Oct.1949
Completed 2 Oct.1949
Ultimate depth 104.0'
Proposed depth 100.0'

Depth Feet	Formation	Sample No.	Weight of sample	Assay
0.0- 5.0	Casing			
5.0- 27.5	Cong.med, gr pebbles abundant, hvy br matrix			
27.5- 44.5	Cong. fine,small cal , br matrix			
44.5- 54.0	Cong. med, gr pebbles, br matrix			
54.0- 58.0	Cong.med,gr pebbles, light cal, br matrix.qtz vein 54.0-54.3 wi hard massive Fe	3581	4.0	.005
58.0- 59.0	Vein breccia fine, sparse Cs	3582	1.0	.02
59.0- 62.0	Cong. med-fine	3583	3.0	.01
62.0- 65.0	" "	3584	3.0	T
65.0- 67.6	" "	3585	2.6	T
67.6- 70.7	Trap fine grd,gr (olive) 69.0-70.7 seams wi core very sparse Cs,Cp. Very sparse Cs, Cp at contact,70.7			
70.7- 73.7	Cong. fine-very fine wi included lgr pebbles,br matrix	3586	3.0	.035
73.7- 77.5	Cong. med br matrix			
77.5- 80.0	Cong.very fine wi numerous lgr pebbles 1/2"-4"			
80.0- 83.2	" " " "	3587	3.2	.005
83.2- 84.6	Cong. med. gr pebbles,br matrix,narrow cal seam wi dip of hole showing massive Cs at 84.0-84.5	3569	1.4	.06
84.6- 87.1	Cong. med light cal,br matrix, gr pebbles	3588	2.5	.10
87.1- 90.0	" " "	3589	2.9	.04
90.0- 93.7	Vein breccia fine (1" mud seam at 90.0) soft (mud) ferruginous cement,sparse hard Fe (Cs?) cherty cal stringers	3590	3.7	.28
93.7- 94.0	Trap dense fine grd, gr (olive)carrying Cs	3591	0.3	2.03
94.0-104.0	Trap dense, br gr wi few cal amyg. odd narrow cal seam thru or across core			
104.0-	End of hole			

Drilled by Inspiration

PROPERTY Macassa-Copper Creek-Mamainse

Hole No. 4
Sheet No. 1
Section from 0.0 to 122.9'

DIAMOND DRILL RECORD

Location Lat. 9935.5
Dep. 5079.5
Elevation of collar 1005.2
Datum 1000.0
Direction at start- bearing N 80 W Mag
dip 60°

Started 3 Oct. 1949
Completed 4 Oct.1949
Ultimate depth 122 9
Proposed depth 120.0'

Depth Feet	Formation	Sample No.	Weight of sample	Assay
0.0- 4.0	Casing			
4.0- 12.0	Cong.med.majority gr pebbles 1/2"-4",br matrix			
12.0- 24.4	Cong.med,gr pebbles sm cal, br matrix,qtz-cal vein 12.0-12.3			
24.4- 25.0	Granite boulder			
25.0- 58.0	Cong med.odd lg boulder 5-10",br matrix,little cal. 56.8 jasper			
58.0- 72.5	Cong,med coarse 1/2"-6",sm cal, br matrix			
72.5- 75.0	Cong.fine, gr pebbles wi sm granite, sm cal			
75.0- 77.8	Trap,fine grd,gr (olive) frequent irregular stringers and seams wi sm carrying Cs others cal.gr mud seam at 76.3,77.8,contact and 2 specks Cs seen (Fe?)	3570	2.8	1.36
77.8- 80.0	Cong.med fine gr pebbles,br matrix,little cal	3592	2.2	06
80.0- 83.0	" " " "	3593	3.0	T
83.0- 85.5	" br matrix,pebbles surrounded by narrow cal band			
85.5- 85.6	Broken core, cal seam wi Cs			
85.6- 94.9	Cong.med fine,gr pebbles, sm cal seams,sm cal			
94.9- 97.5	Trap 94.9-95.0 fine grd, gr (olive) wi Cs-95.0-97.5 dense br, wi numerous cal amyg (1/10-2/10")	3594	2.6	.10
97.5-100.6	Vein breccia (fine)wi cal-Qtz and br matrix,Cs seen in veins normal to core at 98.1 and 100.6	3595	3.1	.15
100.6-101.6	Trap br wi numerous cal amyg			
101.6-104.2	Vein breccia wi Cs (Fe?) 102.2-102.7 fine grd gr trap shattered wi Cs in cracks	3596	2.6	.61
104.2-107.2	Trap dense dark br,odd narrow cal seam,med grd	3001	3.0	.05
107.2-122.9	" " "			
122.9-	End of hole			

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PROPERTY Macassa-Copper Creek-Mamainse

Hole Number 5
Sheet No 1
Section from 0.0 to 111.0

DIAMOND DRILL RECORD

Location Lat 9888.0
Dep 5061.0
Elevation of collar 1009.5
Datum 1000.0
Direction at start- Bearing N 80 W Mag.
dip 45°

Started 4 Oct,1949
Completed 5 Oct,1949
Ultimate depth 111.0'
Proposed depth 110.0(

Depth feet	Formation	Sample No.	Weight of sample	Assay
0.0- 9.0	Casing			
9.0- 23.0	Cong. med, gr pebbles-granite pebbles,br matrix,light cal			
23.0- 29.0	" " br matrix			
29.0- 38.0	" " " some cal			
38.0- 45.6	" " " 45.5-45.6 cal vein			
45.6- 71.4	" majority gr pebbles wi odd granite 6" boulder sm cal br matrix			
71.4- 74.4	" " " "	3002	3.0	.05
74.4- 75.0	Trap fine grd. gr	3003	0.6	.29
75.0- 78.0	Cong.med. br matrix,sm cal. 75.0-75.2 sparse Cs in narrow seam	3004	3.0	.02
78.0- 88.8	Cong.med, br matrix, sm cal			
88.8- 89.8	Vein breccia 89.5-89.7 Cs seen in ca in zone	3005	1.0	1.12
89.8- 92.5	Trap fine grd,br wi numerous cal seams.At 91.6 seam with Cs	3006	2.7	.26
92.5- 94.4	" " " 94.2-94.4 vein zone Fe (Cs?)	3007	1.9	.045
94.4- 97.0	Trap dense fine grd,dk gr, numerous cal amyg.sm cal seams	3008	2.6	.02
97.0-102.4	" " " "			
102.4-102.8	Vein zone (qtz-cal)			
102.8-111.0	Trap dense fine grd. dk gr, abundant cal amyg.sm cal seams			
111.0	End of hole			

PROPERTY Macassa-Copper Creek-Mamainse

Hole No 6
Sheet No 1
Section 0.0 to 127.0'

DIAMOND DRILL RECORD

Location- Lat.9841.0
Dep.5039.5
Elevation of collar 1003.5
Datum 1000.0
Direction at start Bearing N 80 W Mag.
Dip 60°

Started 6 Oct 1949
Completed 7 Oct 1949
Ultimate depth 127.0'
Proposed depth 125.0

Depth feet	Formation	Sample No.	Weight of sample	Assay
0.0- 5.0	Casing			
5.0- 26.5	Cong.med. br matrix,few lgr pebbles, very light cal			
26.5- 26.6	Mud seam, br			
26.6- 78.4	Cong.med,odd barren cal vein, br matrix,majority gr pebbles,odd lg granite pebble, br matrix is cherty			
78.4- 79.6	Trap fine grd,gr(olive) weakly shattered wi Cs in seams	3571	1.1	.89
79.6- 83.7	Cong, med. br matrix,majority gr pebbles,some cal seams	3572	4.1	.045
83.7- 87.0	Vein breccia, some qtz-cal	3573	3.3	.03
87.0- 90.3	Trap dense fine grd. dk gr br, numerous fine cal seams	3574	3.3	.01
90.3- 91.2	Veins of qtz cal slightly brecciated	3575	0.9	.19
91.2- 95.0	Trap,fine grd, gr, numerous cal seams. At 93.0 cal stringer across core carrying Cu(Cu not included in sample)	3576	3.8	.025
95.0-100.6	Trap fine grd. numerous cal seams, dk gr			
100.6-127.0	Trap med grd.gr. Very amyg.becoming less amyg. to 110.0 thence becomes dense and finer grd.(Blow Top?)			
127.0-	End of hole			

PROPERTY-Macassa-Copper Vein-Mamainse

Hole No. 7-A
Sheet No 1
Section from 0.0- 100.0

DIAMOND DRILL RECORD

Location- Lat
Dep

Started 7 Oct 1949
Completed 8 Oct 1949
Ultimate depth 100.0'
Proposed depth 100.0'

Elevation of collar 984.5
Datum 1000.0
Direction at start: Bearing N 75 E Mag
Dip 50°

Depth feet	Formation	Sample No.	Weight of sample	Assay
0.0- 8.0	Casing			
8.0- 10.0	Trap dk gr, med grd,dense,Fe			
10.0- 12.0	" " "	3009	2.0	.02
12.0- 12.5	" " " 12.3 cal stringer normal to core with Cu			
12.5- 15.0	Trap dense,dk gr, med grd,narrow cal stringer wi core Fe	3010	2.5	.03
15.0- 17.5	" " " " " " continues wi core to 16.5. At 16.1 Cu seen in stringer (not included)	3011	2.5	.02
17.5- 20.0	Trap dense,dk gr,med grd,odd cal stringer across core Fe			
20.0- 22.5	" " " "	3012	2.5	.01
22.5- 27.0	" " " "			
27.0- 30.0	" " ,narrow vein zone at 28.5,odd cal stringer	3013	3.0	.03
30.0- 50.0	" dk gr, med grd (ophitic). At 44.3 vein wi epidote obliquely across core			
50.0- 53.0	Trap dense, dk gr, med grd, (ophitic)	3014	3.0	.03
53.0- 59.0	" " " "			
59.0- 65.0	Trap med grd,dense,dk gr.numerous dk gr amyg,sm epidotization			
65.0- 67.0	" " " "	3015	2.0	.045
67.0- 75.2	" " " "			
75.2- 78.2	75.2-75.6 Qtz-cal veins- trap med grd dense dk gr	3016	3.0	.01
78.2- 85.0	Trap dense,med grd,dk gr,odd cal stringer across core Fe			
85.0- 87.9	" " " " "	3017	2.9	.01
87.9-100.0	" " " " "			

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PROPERTY-Macassa-Copper Vein-Mamainse

Hole No. 8-A
Sheet No. 1

DIAMOND DRILL RECORD

Section from 0.0- 103.0'

Location: Lat
Dep

Started 10 Oct.1949
Completed 11 Oct 1949
Ultimate depth 103.0'
Proposed depth 100.0'

Elevation of collar 976.2'
Datum 1000.0
Direction at start: Bearing N 75 E
Dip 50°

Depth Feet	Formation	Sample No.	Weight of sample	Assay
0.0- 21.0	Casing			
21.0- 22.0	Trap dk gr, soft			
22.0- 23.9	Vein breccia,cal-qtz, br matrix	3018	1.9	.03
23.9- 25.8	" " "			
25.8- 26.3	" (shattered trap) qtz-cal,dk gr.Cs and Fe	3019	0.5	.79
26.3- 29.0	Trap dense,dk gr, med grd, odd cal stringer	3020	2.7	.04
29.0- 41.0	" " "			
41.0- 44.0	Vein breccia,cal-qtz.sm drusy qtz,br matrix,Cs and Fe odd patch (small) of massive Cs.Mud seam at 44.0	3021	3.0	.315
44.0- 47.3	Trap dk br,soft			
47.3- 47.8	Vein breccia,massive qtz-cal(prehnite)veins wi odd patch of Cs	3022	0.5	.42
47.8- 48.5	Vein breccia,drusy qtz,sm cal,br matrix	3023	0.7	.09
48.5- 50.0	Trap dk gr,dense med grd,few cal stringers,¼" cal stringer at 49.5 wi Cu (not included)	3024	1.5	.04
50.0- 52.1	Trap dense dk gr br med grd,odd cal stringer			
52.1- 55.0	" " " irregular cal veins, Cs seen at 52.6 in a cal vein wi the core	3025	2.9	.08
55.0- 57.3	Trap dense dk gr odd cal stringer			
57.3- 62.0	" ,med grd,sm cal amyg and seams			
62.0- 65.0	" " " " ,64.5 cal vein (Cs)	3026	3.0	.07
65.0- 65.7	Vein breccia (shattered trap) dk br,med grd			
65.7- 68.8	Trap dense,gr,med grd,lg blotchy cal amyg,odd cal seam			
68.8- 69.1	Vein breccia (mass.cal) sparse Cp 67.5-70.0---	3027	2.5	.065
69.1- 85.0	Trap dk gr,med grd,odd cal stringer, odd cal amyg			
85.0- 90.5	" " " " Mud seam 88.7			
90.5- 92.0	" dense,dk br,numerous cal and gr amyg sm cal stringers			
92.0- 95.0	" " " " "	3029	3.0	.18
95.0- 98.0	" " odd cal amyg and stringer,sm dk gr amyg			
98.0-101.0	" " " " "	3030	3.0	.04
101.0-103.0	" " " " "			
103.0	End of hole			

Fe seen in Trap thruout core

Drilled by Inspiration

PROPERTY-Macassa-Chalcocite Vein-Mamainse

Hole No 9-B
Sheet No 1 104.0'
Section from 0.0 to ~~first~~

DIAMOND DRILL RECORD

Elevation of collar 1009.0'
Datum 1000.0'
Direction at start Bearing S 85 W Mag.
Dip 45°

Started 11 Oct 1949
Completed 12 Oct 1949
Ultimate depth 104.0'
Proposed depth 100.0'

Depth feet	Formation	Sample No.	Weight of sample	Assay
0.0- 6.0	Casing			
6.0- 10.0	Trap dense,med grd,gr-grey,Fe odd lg cal amyg wi epidote			
10.0- 13.0	" " " " At 11.2 and 12.9 lg cal amyg wi epidote and malachite	3031	3.0	.06
13.0- 22.0	Trap dense,med grd,gr-grey,Fe,odd lg cal amyg wi epidote			
22.0- 25.0	" " " "	3032	3.0	.04
25.0- 30.0	" " " " slightly doleritic			
30.0- 47.0	Trap med grd,dense dk br,odd lg cal amyg and seam, Fe			
47.0- 50.0	" " " "	3033	3.0	.08
50.0- 53.0	" dense med grd,dk grey,odd cal seam			
53.0- 56.0	" " " " Cal stringer at 53.3 wi Fe and Cs	3034	3.0	.28
56.0- 58.5	Vein breccia,qtz-cal abundant,sm Cs	3035	2.5	.39
58.5- 61.4	Trap,med grd,dense grey,numerous cal amyg,sm cal seams	3036	2.9	.24
61.4- 62.7	Vein breccia,massive qtz-cal,odd patch Cs	3037	1.3	.245
62.7- 65.0	Trap med grd,dk grey,fairly numerous cal amyg.odd seam cal (Fe)	3038	2.3	.095
65.0- 70.0	Trap med grd,dk grey,fairly numerous cal amyg,odd seam cal(Fe)			
70.0- 81.7	" " " and cal amyg,odd cal seam wi Fe			
81.7- 82.2	Vein breccia br matrix			
82.2- 83.3	Trap dense med grd,dk br gr,sm cal amyg and dark gr amyg, odd seam	3039	1.1	.09
83.3- 84.4	Vein breccia drusy qtz. cal	3040	1.1	.01
84.4- 86.6	Trap med grd dk br gr,odd cal stringer,odd cal amyg(Fe,Cs?)	3041	2.2	.12
86.6-104.0	" " dk.gr br,numerous dk gr amyg,odd cal amyg and stringer			
104.0	End of hole			

Drilled by Inspiration

Fe seen in trap thruout hole

NOT TO BE REMOVED FROM
THE OFFICE OF THE RESIDENT
GEOLOGIST, ONT. DEPT. OF MINES
SAULT STE. MARIE, ONT.

PROPERTY-Macassa-Chalcocite Veins-Mamainse

Hole No 10-B
Sheet No. 1

DIAMOND DRILL RECORD

Section from 0.0 to 101.0'

Elevation of collar 1003.5
Datum 1000.0
Direction at start: Bearing S 85 W Mag
Dip 45°

Started 13 Oct 1949
Completed 14 Oct.1949
Ultimate depth 101.0'
Proposed depth 100.0'

Depth Feet	Formation	Sample No.	Weight of sample	Assay
0.0- 7.0	Casing			
7.0- 32.0	Trap med grd,dk gr br,Fe,odd narrow cal seam			
32.0- 35.0	" " "	3042	3.0	.07
35.0- 45.5	" " "			
45.5- 48.3	" " "	3043	2.8	.075
48.3- 48.9	Vein breccia cal-qtz	3044	0.6	.025
48.9- 64.0	Trap med grd dk gr,odd cal stringer,odd epidote stringer			
64.0- 72.5	Trap med grd,very dense,dk gr br, odd cal stringer			
72.5- 75.0	" fine " dk gr blk,very dense,few lg amyg of cal,Fe (Cs?) seen on periphery of odd amyg	3045	2.5	.06
75.0- 80.0	Trap med grd,dk gr, cal amyg more numerous and smaller			
80.0- 81.2	Vein breccia qtz-cal,sm Fe	3046	1.2	.23
81.2- 84.0	Trap med grd dense dk gr, sm amyg cal,odd cal stringer	3047	2.8	.07
84.0- 95.2	" " " numerous dk gr blk.amyg,odd epidote amyg, Fe			
95.2- 98.2	" med grd dense dk gr,numerous dk gr blk amyg,odd epidote Fe	3048	3.0	.07
98.2-101.0	Trap med grd dense dk gr,numerous dk gr blk amyg, odd epidote Fe			
101.0	End of hole			

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PROPERTY-MACASSA - Location "C" - Mamainse

Hole No. 11-C
Sheet No. 1
Section from 0.0.to

DIAMOND DRILL RECORD

Elevation of collar 984.6'
Datum 1000.0(
Direction at start: Bearing S 15 W Mag
Dip 45°

Started 15 Oct. 1949
Completed 16 Oct.1949
Ultimate depth 123'
Proposed depth 125'

Depth feet	Formation	Sample No.	Weight of sample	Assay
0.0- 20.0	Casing			
20.0- 23.5	Trap dense med grd,olive gr,numerous seams Cal,much Fe	3049	3.5	.05
23.5- 25.0	Vein breccia (shattered trap)23.7 a drusy qtz-cal vein with Fe and some Cs	3050	1.5	.485
25.0- 28.0	Trap dense dk.gr.Cal seams wi Fe and Cs.At 26.3-26.8 cherty cal and 50% Fe wi sm Cs,odd cal amyg.wi Fe and Cs	3101	3.0	1.18 —
28.0- 29.5	Trap wi cal stringers carrying massive Cs,sm Fe,sm amyg with Cs and Fe	3102	1.5	1.76 —
29.5- 31.1	Trap very dense,odd cal seam,no vis.mineralization	3187	1.6	.10
31.1- 32.5	Vein breccia (shattered trap)sm stringers across core wi massive Cs patches (perhaps amyg)	3103	1.4	.51
32.5- 35.0	Trap dense dk gr,lg cal amyg (2/10-3/10) weak coalescing. Sm amyg wi massive Cs and Fe.Also sm seams wi Cs and Fe (Flow top?)	3104	2.5	.80
35.0- 36.3	" " " " "	3188	1.3	.57
36.3- 38.3	Trap dense olive gr,med-fine grd,lg cal amyg (weak coalescing) sm wi Fe others Cs,sm cal seams	3105	2.0	.605
38.3- 40.0	" " " "	3189	1.7	.28
40.0- 42.7	Trap dense dk gr,med grd,cal amyg wi Fe and Cs sm cal seams show bubbles of cal wi Cs and Fe. 40.0-40.2 cal vein wi massive Fe and Cs	3106	2.7	1.23 —
42.7- 44.7	Vein breccia massive Fe wi sm Cs wi cal sm cal amyg wi Cs and Fe sm epidote	3107	2.0	1.04 —
44.7- 48.0	Trap dense dk gr,lg cal amyg (2/10-5/10) wi Cs and Fe, odd seam of cal wi Fe and Cs	3108	3.3	.62
48.0- 50.0	Trap dense gr, lg cal amyg,med grd,odd amyg wi Fe and Cs? (1/2" cal vein across core at 48.4) sm cherty cal amyg	3190	2.0	.38
50.0- 53.0	" " " " " (2/10 cal vein at 52.8 wi Fe and Cs?) sm Cal seams	3109	3.0	.055
53.0- 57.0	" " " " ", number of amyg.decreases	3191	4.0	nil
57.0- 60.0	" " " " "	3110	3.0	.035
60.0- 62.5	Trap dense med grd dk gr,sm cal amyg sm cal stringers very sparse Fe and Cs?	3192	2.5	.03

Hole No 11-C
Sheet No. 2
Section 62.5'-

Depth feet	Formation	Sample No	Weight of sample	Assay
62.5- 64.4	Vein breccia,cal vein across core wi disseminated Cu at 63.6-63.8. Sm Cs. Epidotized slightly (Cu not included)	3111	1.7	.16
64.4- 65.0	Trap dense dk gr med grd, blk amyg 1/10			
65.0- 67.0	Trap dense dk gr med grd,cal amyg,sm surrounded by epidote, sm epidote seams wi cal and Fe (Cs?) Sm amyg wi Fe and Cs?	3112	2.0	.11
67.0- 69.3	" " br " "	3113	2.3	.13
69.3- 72.3	Trap dense med grd dk gr sm cal amyg size to 3/10 Fe	3114	3.0	.05
72.3- 75.0	" " " "			
75.0- 78.0	" br-gr med grd sm lg cal amyg,numerous sml blk amyg.Fe	3115	3.0	.04
78.0- 87.0	" " " "			
87.0- 90.0	" " " " 3 narrow cal seams across core wi Fe (Cs?)	3116	3.0	.01
90.0- 95.0	" " " " 93.4 cal stringer across core wi Fe (Cs?)			
95.0- 97.4	Trap dense,fine-med grd olive gr,numerous cal seams varying in thickness and also blotchy carrying Ce,sm Fe,odd Cs seam sm Ce and Fe? seen in trap	3117	2.4	2.16
97.4-100.0	Trap dense dk gr br med grd,odd cal stringer	3118	2.6	.04
100.0-110.0	" " "			
110.0-113.0	" " "	3119	3.0	.02
113.0-123.0	" " "			
123.0	End of hole			

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PROPERTY- MACASS'-LOCATION "C" - MAMAINSE

Hole No. 12-C
Sheet No. 1
Section from 0.0' to

DIAMOND DRILL RECORD

Elevation of collar 984.6
Datum 1000.0
Direction at start: Bearing S 15 W
Dip 65°

Started 16 Oct. 1949
Completed 17 Oct. 1949
Ultimate depth 123.0
Proposed depth 125.0

Depth feet	Formation	Sample No.	Weight of sample	Assay
0.0- 12.5	Casing			
12.5- 13.0	Granite boulder			
13.0- 16.5	Vein breccia,cherty cal,abundant Fe,br matrix	3120	3.5	.025
16.5- 19.0	" (shattered trap) numerous cal stringers and seams, Fe Dk gr tap 18.8-19.0 wi blotch of Cs	3121	2.5	.03
19.0- 20.9	Vein breccia,cherty cal br matrix-Cs and sm Fe	3122	1.9	.145
20.9- 23.7	" (weakly shattered trap) dk gr med grd many stringers wi Fe Cs?	3123	2.6	.03
23.7- 25.0	Trap dense dk gr odd cal amyg wi Cs, Fe in core	3124	1.3	.03
25.0- 26.5	Vrin breccia,cherty cal,Cs seen in patches, sm Fe	3125	1.5	1.905
26.5- 28.5	Trap dk gr med grd sm stringers sm epidote as stringers and surrounding cal amyg, sm Fe in stringers and core Cs?	3126	2.0	.185
28.5- 30.0	" " " "	3193	1.5	.02
30.0- 33.0	Vein breccia,very cherty cal sm Fe and Cs little br matrix	3127	3.0	.01
33.0- 34.2	" grades into shattered trap at 34.2 34.2 cherty cal vein wi massive Fe Cs?	3128	1.2	.03
34.2- 36.9	Trap dk gr med grd sm cal amyg wi Fe and Cs? sm seams wi Fe	3129	2.7	.02
36.9- 40.0	" dense " " " lg " (coalesced)wi Fe,sm cherty cal stringers wi Fe (top?)	3130	3.1	.03
40.0- 45.0	Trap dense dk gr med grd numerous small cal amyg 1/10 Fe in core rk sm seams of cal	3194	5.0	.05
45.0- 48.1	" " " "	3131	3.1	nil
48.1- 49.2	Vein breccia cherty cal sm Fe Cs?	3132	1.1	T
49.2- 52.2	Trap dense dk gr gray sml cal amyg med grd odd cal stringer across core wi Fe	3133	3.0	.025
52.2- 62.0	Trap dense dk gr gray med grd odd cal stringer wi Fe, sm seams cal and dk blk gr amyg			
62.0- 65.0	" " " "	3134	3.0	.01
65.0- 74.5	" " " "			
74.5- 75.7	Trap med grd to fine olive gr 75.2-75.7 many seams wi Cs and Fe	3135	1.2	1.81

Hole No. 12-0
Sheet No. 2
Section from 75.7' to

Depth Feet	Formation	Sample No	Weight of sample	Assay
75.7- 78.2	Trap med fine grd olive gr, epidote and cal in stringers wi odd patch of Cs	3136	2.5	.27
78.2- 80.0	Trap med fine grd olive gr cal epidote stringers, sm wi Fe and Cs	3137	1.8	.19
80.0- 83.0	Trap med fine grd olive gr odd epidote stringer			
83.0- 85.0	Trap med grd dk gr cal amyg 1/10-3/10, sm amyg wi epidote around them, sm amyg wi Fe Cs?	3138	2.0	.04
85.0- 87.0	" " " " 86.3-86.4 massive Fe (50% core) Cs?,cherty cal	3139	2.0	.37
87.0- 88.0	Trap med grd dk gr sm cal amyg 1/10, sm wi cherty cal and epidote carrying Fe and Cs	3140	1.0	.12
88.0- 91.0	Trap med grd dk gr numerous cal amyg 1/10-3/10 sm wi epidote odd one wi Cs and Fe blotches sm seams wi epidote and cal wi Fe	3141	3.0	.04
91.0- 93.8	" " " "			
93.8- 94.8	Trap med grd dk gr wi blotch veins of cherty cal and epidote carrying patches of Fe Cs? sm cal amyg	3142	1.0	.03
94.8- 97.0	Trap med grd dk gr number of amyg decreased odd cal-epidote stringer			
97.0-100.0	" " " " 99.7 cal epidote stringer obliquely,wi Fe and sm Cs	3143	3.0	.02
100.0-103.0	Trap med grd dk gr few cal and epidote amyg, sm cal and epidote seams			
103.0-105.0	" " " " (103.5 cal epidote stringer wi Cs and Fe) 104.5-104.7 cherty cal epidote wi Fe and Cs	3144	2.0	.17
105.0-108.0	" " " "			
108.0-111.0	Trap med grd dk gr numerous cal amyg wi epidote 1/10-4/10 wi odd amyg Fe and Cs?(cherty cal at 108.0 wi sparse Fe Cs?)	3145	3.0	.025
111.0-115.0	" " " " Cherty cal at 112.0			
115.0-123.0	Trap med grd dk br gr odd lg cal amyg 3/10,119.8 cherty cal stringers wi Fe Cs?. 121.2-123 stringer wi core 118.2-119.0 stringer wi core of cal			
123.0	End of hole			

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PROPERTY Macassa - Location "C" - Mamainse

Hole No. 13-0
Sheet No. 1
Section from 0.0' to

DIAMOND DRILL RECORD

Elevation of collar 981.7
Datum 1000.0
Direction at start: Bearing S 15 W
Dip 45°

Started 17 Oct 1949
Completed 18 Oct 1949
Ultimate depth 139.0
Proposed depth 135.0

Depth feet	Formation	Sample No	Weight of sample	Assay
0.0- 6.0	Casing			
6.0- 8.0	Trap med grd,epidotized (lath tex) numerous small blk amyg Fe in core (doleritic)	3146	2.0	.01
8.0- 11.1	" " "			
11.1- 11.5	Trap med grd br few cal amyg Fe in core			
11.5- 13.0	Trap dense dk br med grd few cal amyg,core broken,Fe			
13.0- 15.0	" " " " very dense much Fe	3147	2.0	.005
15.0- 22.5	" " " " "			
22.5- 30.2	Trap med grd br gr sm cal seams sm Fe			
30.2- 32.4	" " " " wi Cs	3148	2.2	.21
32.4- 35.0	Vein breccia qtz-cal drusy,minor Fe,sm qtz cal stringers	3149	2.6	.086
35.0- 37.2	Trap br gr med grd fine amyg few cal stringer wi Fe, sm Cs and Py	3150	2.2	.08
37.2- 38.2	Vein breccia,very calline qtz wi Fe and Cs?	3151	1.0	.09
38.2- 41.1	Trap dk br gr med grd few lg cal amyg (weak coalesced) odd wi Fe	3152	2.9	T
41.1- 44.4	Vein breccia br matrix qtz-cal	3153	3.3	.07
44.4- 47.5	" (shattered trap)gr numerous cal seams and stringers wi Cs and Fe	3154	3.1	.40
47.5- 50.0	" " Massive Fe at 48.0 numerous seams wi sparse Cs, zone chloritized	3155	2.5	.28
50.0- 53.5	" " many seams and stringers, Fe zone chloritized	3156	3.5	.06
53.5- 56.0	Trap med fine grd olive gr few seams odd stringer of cal (Fe)	3157	2.5	T
56.0- 61.3	" dense med grd dk gr few cal stringers Fe			
61.3- 64.5	Vein breccia (shattered trap)soft,many seams,cherty cal drusy, gr	3158	3.2	.02
64.5- 72.0	Trap dense med grd to fine olive gr many seams and sm stringers of cal, Fe 64.5- 69.5 "	3195	5.0	.02
72.0- 75.0	" "	3159	3.0	T
75.0- 75.8	Vein breccia br matrix			
75.8- 83.0	Trap dense med grd dk gray odd cal stringer			
83.0- 85.0	" " " sm epidote streaks Cs?	3160	2.0	T
85.0- 87.5	" " "	3161	2.5	.13

Hole Number 13-0
Sheet No. 2
Section from 87.5 to

Depth Feet	Formation	Sample No.	Weight of sample	Assay
87.5- 88.7	Vein breccia (shattered trap)gr cal epidote wi massive Cs patches	3162	1.2	4.08
88.7- 91.7	Trap dense dk gr med grd sm epidote	3163	3.0	.02
91.7- 95.0	" " " " sm Cs in epidote stringer	3164	3.3	T
95.0-101.5	" " " sm seams 7 odd stringers cal (oherty)			
101.5-105.0	" med grd to fine olive gr, few epidote stringers Fe, Cs? 102.3-102.5 oherty cal vein,103.5-104.2,sm cal stringers Fe and Cs?	3165	3.5	.03
105.0-108.5	Trap dense med fine grd olive gr,cal epidote stringers wi sparse Cs and Fe, gr mud seam at 106.0	3166	3.5	.245
108.5-112.0	Vein breccia (weak shattered trap)gr,massive Fe wi oherty cal at 109.0-110.0, zone sm oherty cal stringers	3167	3.5	.28
112.0-116.5	Trap dk gr dense med grd to fine few cal amyg wi weak coalescing sm cal seams			
116.5-118.6	" " "	3168	2.1	.26
	117.8-118.2 cal epidote vein obliquely wi Fe and Cs 118.2-118.6 broken core wi much Fe			
118.6-125.0	Trap dense med fine grd dk blk gr amug few lg cal amyg			
125.0-133.0	" " grd purple br (rust)			
133.0-134.8	" " fine dk gr wi epidote around lg cal amyg			
134.8-139.0	" " " " wi Fe and Cs? seen in odd lg cal amyg	3169	4.2	T
139.0	End of hole			

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PROPERTY- Macassa-Location "C"- Mamainse

Hole No. 14-C
Sheet No. 1
Section 0.0 -

DIAMOND DRILL RECORD

Elevation of collar 986.3
Datum 1000.0
Direction at start: Bearing -
Dip 90°

Started 19 Oct 1949
Completed 21 Oct 1949
Ultimate depth 145.0
Proposed depth 125.0

Depth feet	Formation	Sample No.	Weight of Sample	Assay
0.0- 6.0	Casing			
6.0- 11.5	Trap dense dk gr fine med grd few amyg.lg, caland blk.gr wi odd Fe in cal amyg sm seams of cal, sparse Fe 2/10 - 3/10			
11.5- 22.2	Trap dense dk gr br med grd sm to many small cal and blk gr amyg 1/20-2/10 (cellular amyg)			
22.2- 23.2	Trap epidotized med grd dk gray gr			
23.2- 26.6	Trap dk gr br dense med grd numerous amyg 1/20-2/10 of cal and blk gr			
26.6- 28.2	Trap very dense dk olive gr med fine grd,sm cal seams with sm Fe Few amyg 2/10-3/10	3196	1.6	.02
28.2- 29.4	Trap dense dk gr br med grd few cal amyg,lg.odd one shows Fe and one cal amyg. lg seen wi two blotches Cs	3197	1.2	.38
29.4- 33.5	" " med grd numerous seams and stringers,blotchy amyg,wi cherty cal,much Fe wi Cs Cp Bo Py (weak fragmental amyg)	3198	4.1	.28
33.5- 34.5	" " " sm cal amyg 1/10-2/10 (cellular amyg)			
34.5- 35.4	Trap dk olive gr dense med fine grd oll lg cla amyg 4/10 33.5-35.4	3199	1.9	.05
35.4- 37.5	Trap dense med grd dk gr br numerous cal and blk gr amyg. few seams			
37.5- 39.2	" " " small cal stringers wi Fe and Cs, sm lg amyg,odd one shows Fe Cs,of cherty cal	3200	1.7	.10
39.2- 54.5	" " " numerous blk gr amyg wi sm cal amyg 1/10-3/10, few seams, Fe in core			
54.5- 55.2	" " " " (epidotized doleritic)			
55.2- 53.8	" " " "			
53.8- 59.4	" " " " (epidotized,doleritic)			
59.4- 70.0	" " " "			
70.0- 83.5	" " " " (slightly doleritic)			

Hole No. 14-C
Sheet No. 2
Section 83.5-145.0

Depth Feet	Formation	Sample No.	Weight of sample	Assay
83.5- 88.0	Trap dense med grd dk rust gr, sm cal seams, Fe in core			
88.0- 94.0	" " " dk gr gray numerous blk gr amyg.1/20-1/10			
94.0-102.7	" " " dk olive gr, many lg cal amyg 1/10-5/10 often surrounded wi epidote			
102.7-105.5	" " " " " (epidotized)			
105.5-110.0	" " " " "			
110.0-113.5	Trap very dense dk gr br med grd odd cal amyg 2/10			
113.5-118.0	" " " " " (epidotized, slightly dolaritic			
118.0-126.0	Trap dk gr med grd,epidotized,slightly doleritic few lg cal amyg			
126.0-128.5	" " " " Fe and Cs seen in odd amyg	3217	2.5	.08
128.5-135.5	Trap dk gr,epidotized, sm cal amyg Fe and Cs,wi sm coalescing of amyg, numerous seams and stringers of cal wi Cs and Fe (fragmental amyg, weak) 128.5-132.0	3218	3.5	.02
	132.0-135.5	3219	3.5	.58
135.5-145.0	Trap dense dk gr med grd numerous small blk gy amyg 1/40-1/20			
145.0	End of hole			

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PROPERTY MACASSA-Location "C"- Mamainse

Hole No 15-C
Sheet No 1
Section from 0.0 to

DIAMOND DRILL RECORD

Started 21 Oct 1949
Completed 22 Oct 1949
Ultimate depth 113.0
Proposed depth 100.0

Direction at start: Bearing -
Dip 90°

Depth feet	Formation	Sample No.	Width of sample	Gold $
0.0- 5.0	Casing			
5.0- 6.0	Trap dense dk gr gray few cal amyg med grd			
6.0- 9.0	" " med grd numerous cal amyg 1/10-4/10 sm epidote amyg. very sparse Ma and Cs			
9.0- 10.0	" " " " " odd amyg containing Cs	3220	1.0	.025
10.0- 14.0	" " " " "	3221	4.0	.03
14.0- 18.0	" " " " "	3222	4.0	.145
18.0- 22.0	" " br, med gr,slightly epidotized, sm cal amyg,lg,3/10 and few dk gr amyg,doleritic			
22.0- 25.0	" " " " "			
25.0- 52.5	" " " " " odd cal amyg, numerous lg dk blk gr amyg 1/10-4/10 epidotized, odd seam, Fe in core			
52.5- 55.0	" " " " " but amyg sml1 1/40-1/10 and slightly doleritic			
55.0- 57.0	Trap dense med grd dk gr br, odd seam of cal			
57.0- 58.7	" " " sm cal amyg and blk gr amyg			
58.7- 61.5	" med grd dk gr numerous cal amyg,slightly shattered few stringers			
61.5- 63.5	" dense med grd dk gy few coalesced amyg of cal. sm sml cal amyg, few seams, sm Fe			
63.5- 65.6	" " " " sm cal amyg 1/10-2/10			
65.6- 68.0	" " " fine grd dk gr few amyg,sm seams			
68.0- 68.7	Vein,cal qtz, drusy, br matrix			
68.7- 72.5	" breccia(shattered trap)cherty, cal,drusy qtz stringers			
72.5- 77.5	Trap dense med grd dk gr sm cal seams and stringers,few cal and dk gr amyg,sm Fe (1/20-2/10)			
77.5- 80.2	Vein breccia (shattered trap)cherty cal,sm Fe, fragmental amyg?			
80.2- 80.5	" br matrix drusy qtz-cal, barren			
80.5- 80.7	" (shattered trap)cherty cal sm Fe and Cs?			
80.7- 82.0	Trap dense med grd dk gr			
82.0- 84.5	" " " br numerous sml blk amyg 1/20-1/10 few cal amyg, ophitic			

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84.5- 85.5	Trap dense med grd dk gr br numerous small blk amyg epidotized, oblique stringer of cal wi Fe and Cs?
85.5- 98.0	Trap med grd dense dk gr br numerous sml blk amyg sm cal
98.0- 99.5	" " " " "
99.5-113.0	" " " " " " " " " amyg
113.0-	End of hole

PROPERTY MACASSA-LOCATION "C"-Mamainse

Hole No 16-C
Sheet No. 1
Section from 0.0 to

DIAMOND DRILL RECORD

Started 24 Oct 1949
Completed 25 Oct 1949
Ultimate depth 98.8
Proposed depth 100.0

Elevation of collar 991.3
Datum 1000.0
Direction at start Bearing -
Dip 90°

Depth Feet	Formation
0.0- 9.0	Casing
9.0-12.5	Trap dense med grd dk br numerous sml blk amyg 1/20-1/10 Fe in trap
12.5-23.7	" " " " with numerous sml cal amyg
23.7-25.0	" " " odd stringer cal
25.0-42.5	Trap very dense med grd dk br, sm cal seams, very sml blk amyg. Melaphyre?
42.5-46.0	Trap dense dk gr br med grd numerous cal amyg 1/10-4/10 sm epidote wi amyg and sm dk gr amyg cellular amyg
46.0-50.0	Trap dense med grd dk br gr sm cal amyg and increase in dk gr amyg
50.0-58.5	" " " " Fe (only few cal amyg 1/10-3/10)
58.5-63.0	" " " " (Odd cal amyg wi numerous dk blk gr 1/20-1/10 ophitic)
63.0-69.5	" " " " (numerous cal amyg 1/20-1/10 sm dk gr amyg)
69.5-70.5	" " " " few cal amyg wi dk gr overcoats (px) lg
70.5-72.5	Trap med grd dense dk br gr slightly epidotized sm cal seams, sm cal amyg 1/10-3/10
72.5-73.6	Trap dense med grd few cal amyg 1/10-3/10 dk gr
73.6-98.8	Trap dense " dk br gr numerous blk gr amyg 1/20-2/10.Odd lg cal amyg 2/10-4/10, usually surrounded by dk gr overcoat, few seams and stringers Ophitic
98.8	End of hole

PROPERTY-Macassa-Location "C" Mamainse

Hole No 17.C
Sheet No 1
Section from 0.0 to

DIAMOND DRILL RECORD

Elevation of collar 976.0
Datum 1000.0
Direction at start: Bearing S 15 W
Dip 45°

Started 25 Oct.1949
Completed 27 Oct.1949
Ultimate depth 165.0
Proposed depth 165.0

Depth feet	Formation	Sample No.	Width of sample	Gold $
0.0- 11.0	Casing			
11.0 - 16.0	Trap med fine grd dk br gr, cal amyg sm epidote			
16.0- 23.5	Trap med grd dk gr, amyg sm epidote filled			
23.5- 28.5	" " " " epidotized amyg			
28.5- 30.0	" " fine br gr sm cal amyg sm epidote			
30.0- 31.2	Trap epidotized few amyg			
31.2- 36.0	Trap dk gr few amyg,cal,blk blotchy amyg			
36.0- 39.4	" " " gr mottled			
39.4- 43.2	Trap dense dk br, few amyg med grd			
43.2- 44.0	" " " epidotized and broken			
44.0- 52.5	" " mottled, few amyg med grd			
52.5	Mud seam			
52.5- 56.2	Trap dk gr med grd fine small amyg of cal			
56.2- 58.5	" med fine grd epidotized			
58.5- 63.9	" " " broken			
63.9- 82.5	" " gr epidotized, sm alteration			
82.5- 87.6	" " " " sm prehnite cal stringers			
87.6- 99.8	" " " " " "			
99.8-100.0	Vein breccia cal barite drusy qtz, sm Fe			
100.0-103.0	" " sm drusy qtz, sm Fe	3227	3.0	.04
103.0-106.0	ditto	3228	3.0	.08
106.0-109.0	ditto	3229	3.0	.12
109.0-112.0	ditto	3230	3.0	.04
112.0-115.0	ditto	3231	3.0	.02
115.0-118.0	ditto	3232	3.0	nil
118.0-121.0	ditto	3233	3.0	nil
121.0-125.0	ditto	3234	4.0	nil
125.0-127.0	Vein breccia br matrix wi cal,much Cs im Fe	3235	2.0	3.45
127.0-130.0	" cal prehnite qtz, sm Fe little Cs	3236	3.0	.07
130.0-133.0	Trap med fine sm cal seams, much Fe	3237	3.0	.02

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Hole No. 17-C
Sheet No. 2
Section from 133.0-

Depth Feet	Formation		Sample No.	Width of sample	Gold $
133.0-135.0	Vein breccia cal seams and cal, sm Fe				
135.0-138.3	Trap med fine,dk gr, sm Fe	133.0-136.0	3238	3.0	.01
138.3-139.3	Vein cal barren	136.0-139.0	3239	3.0	.05
139.3-142.0	Trap dk gr broken med grd,sm cal stringers little Fe		3240	3.0	.02
142.0-145.0	" " " " "		3241	3.0	.02
145.0-147.5	" " " " "		3242	3.0	.02
147.5-150.0	" " " " "		3243	3.0	.02
150.0-155.0	Vein, cal sm qtz little Fe, barren				
155.0-165.0	Trap med to fine dk gr sm cal stringers				
165.0	End of hole				

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PROPERTY Macassa Location "C" Mamainse

Hole No 18-C
Sheet No. 1

Elevation of collar 980.2 DIAMOND DRILL RECORD Section from 0.0 to
Datum 1000.0 Started 27 Oct.1949
Direction at start: Bearing S 15 W Completed 29 Oct.1949
Dip 45° Ultimate depth 250.0
Proposed depth 250.0

Depth feet	Formation	Sample No	Width of sample	Gold $
0.0- 5.0	Casing			
5.0- 7.0	Trap med grd dk br gr numerous blk gr amyg 1/10-1/20			
7.0- 35.0	" " " " " ,epidotized slightly doleritic,very odd cal amyg			
35.0- 40.0	Trap med grd,epidotized wi rust br alteration, blk gr amyg and odd cal amyg 2/10-3/10-doleritic			
40.0- 50.0	" " " " but rust br alteration seen intermittently every foot,doleritic			
50.0- 74.3	Trap med grd dk gr, epidotized,numerous blk gr amyg 1/10-2/10 odd cal amyg, ophitic tex.			
74.3- 75.0	Trap med grd altered rust br,numerous cal amyg 1/10			
75.0- 85.0	" " dk br gr epidotized and altered dk rust br. Ophitic			
85.0- 88.0	" epidotized,numerous blk gr amyg 1/10-2/10 slightly doleritic			
88.0- 90.0	" " " " (altered rust br)			
90.0- 96.5	" " " "			
96.5-106.0	Trap med grd dk rust br fine and numerous blk blotch amyg 1/20-1/10			
106.0-113.0	" " " " blk amyg increase in size 1/10-1/20 and number,fine ophite			
113.0-114.0	" " " "(epidotized)			
114.0-122.0	Trap fine med grd dense dk br,shows sm dk blk amyg 1/20 (melaphyre)			
122.0-130.0	" " " " blk gr amyg become numerous 1/20-1/10,few cal amyg			
130.0-139.0	" " " " colour becomes dk gr, dense, odd cal stringer			
139.0-142.0	" " " " (cherty cal stringers obliquely at 139.4,140.8,141.5,carrying Cp) also other stringers of cal.	3170	3.0	.26
142.0-147.0	" " " "			
147.0-148.5	Trap dense dk gr,cherty cal stringers (drusy)			
148.5-151.5	Vein breccia(weak)strong cherty cal mineralization,drusu,barren, br gr matrix	3171	3.0	.15

Hole No. 18-C
Sheet No. 2
Section from 151.5 to

Depth feet	Formation	Sample No	Width of sample	Gold $
151.5-154.5	Vein breccia(weak)strong cherty cal,dk br matrix	3172	3.0	.13
154.5-157.5	" " "	3173	3.0	.03
157.5-160.5	Trap dense dk gr br sm cherty cal stringers, sm amyg coalesced, sm Fe, sm breccia in stringers	3174	3.0	.07
160.5-163.5	Vein breccia,much cherty cal, dk gr br	3175	3.0	.07
163.5-164.8	" cherty, dk br, Cs	3176	1.3	2.04 —
164.8-165.7	" very heavy Cs (massive) sm Fe	3177	0.9	37.60 —
165.7-168.0	" heavy cherty cal vein mineralization, sm Cs	3178	2.3	.47
168.0-170.6	" dk gr matrix cherty cal veins,drusy,sm Fe. Cs	3179	2.6	.10
170.6-174.0	" much cal sm qtz,soft mud matrix,zone broken	3180	3.4	.05
174.0-177.4	" " "	3181	3.4	.03
177.4-179.2	" (shattered trap) dk gr, odd amyg wi Cs Cherty cal cement carrying Cs, sm Fe	3182	1.8	.42
179.2-182.0	Trap dk gr many fine seams of cherty cal carrying Fe,Cs (weak fragmental amyg)	3183	2.8	.05
182.0-183.8	Vein breccia dk gr. cherty cal cement carrying Cs and Fe	3184	1.8	1.95 —
183.8-186.0	Trap dense dk gr,many seams wi Fe and Cs,odd stringer	3185	2.2	.27
186.0-190.5	" " med grd odd stringer,numerous fine elongated amyg 1/40-2/10 parallel to dip of core			
190.5-197.0	Trap dense dk gr br med grd odd cal seam			
197.0-200.0	" " " wi numerous fine cal amyg 1/20			
200.0-203.0	" " " "			
203.0-204.3	" " " " (epidotized)			
204.3-204.5	Vein of cal and felsite obliquely across core,wi epidote 203.0-204.5	3209	1.5	.28
204.5-206.5	Trap dk gr med grd epidotized many seams wi blotchy Cs	3210	2.0	1.50 —
206.5-207.9	" dense dk gr med grd slightly epidotized wi sm Cs	3211	1.4	.45
207.9-210.0	" " dk br gr, sm fine cal and blk gr amyg			
210.0-233.6	" dk gr med grd numerous blk gr amyg 1/20-1/10 surrounded wi cal,odd stringer,odd few inches epidotized			
233.6-235.1	Breccia many seams,epidotized,cherty cal, Cs Fe Contact zone	3186	1.5	.40
235.1-236.4	Trap dense dk br,sm seams sm coalesced amyg of cal		1.3	
236.4-237.3	Breccia,cherty cal,epidotized, contact zone		0.9	
237.3	Contact			
237.3-243.2	Sandstone, dk red br		5.9	
243.2-245.0	Cong.med br matrix,numerous granite pebbles,odd lg boulder, sm gr pebbles		1.8	
245.0-250.0	" " "		5.0	
250.0	End hole			

PROPERTY Macassa Location "C" Mamainse

Hole No. 19-C
Sheet No. 1
Section from 0.0 to

DIAMOND DRILL RECORD

Started 29 Oct.1949
Completed 1 Nov.1949
Ultimate depth 255.0
Proposed depth 250.0

Elevation of collar 953.7
Datum 1000.0
Direction at start Bearing S 65 E
Dip 45°

Depth feet	Formation	Sample No.	Width of sample	Gold $
0.0- 6.0	Casing			
6.0- 40.0	Trap med grd rust br gr numerous dk gr amyg 1/20-1/10 wi sm epidotized areas			
40.0- 58.0	Trap dk gray gr " " "			
58.0- 60.0	Vein breccia cal qtz. br matrix	3245	2.0	.29
60.0- 61.2	" " " Cu disseminated thru,Cs	office specimen		
61.2- 62.7	Trap dense gr sm seams and stringers,epidotized,sm Cs	3247	1.5	.29
62.7- 68.5	" dk gr med grd numerous blk gr amyg 1/20-2/10			
68.5- 69.2	" " " (also sm lg cal amyg 1/10-2/10)			
69.2- 71.5	" " "			
71.5 - 72.5	" " " (wi few lg cherty (agot) amyg)			
72.5- 75.5	" " "			
75.5 - 79.0	Trap dk br gr med grd sm cal amyg 1/20-2/10,odd cherty cal stringer			
79.0- 84.5	Trap dense med grd dk gr br few stringers (cherty cal) Few lg weakly coalesced amyg			
84.5- 85.6	" " "			
85.6- 86.3	Vein of cherty cal sm Cs and Fe	3248	0.7	.70
86.3- 93.0	Trap dense dk gr med grd sm seams and stringers			
93.0- 94.0	" " " (sm cal amyg 1/20-1/10)			
94.0-102.5	" " "			
102.5-103.0	Vein breccia br matrix,qtz-cal			
103.0-108.5	Trap dense dk gr med grd numerous blk gr amyg 1/20-1/10 sm stringers			
108.5-111.0	Vein breccia qtz-cal drusy,br matrix sparse Cs	3249	2.5	.28
111.0-112.5	Trap dense gr gr med grd dk gr amyg 1/20 sm cal amyg 1/20-1/10			
112.5-127.0	Trap dense dk gr gr med grd numerous blk gr amyg 1/20-1/10,few seams			
127.0-133.5	" " " " slightly epidotized,vein breccia br matrix 130.5-130.8			
133.5-138.5	Trap dense dk gr med grd numerous blk amyg,od seam			
138.5-141.0	" " " epidotized,sm qtz. stringers,very sparse Cs 140.0-141.0	140.0-141.0 3252	1.0	.77

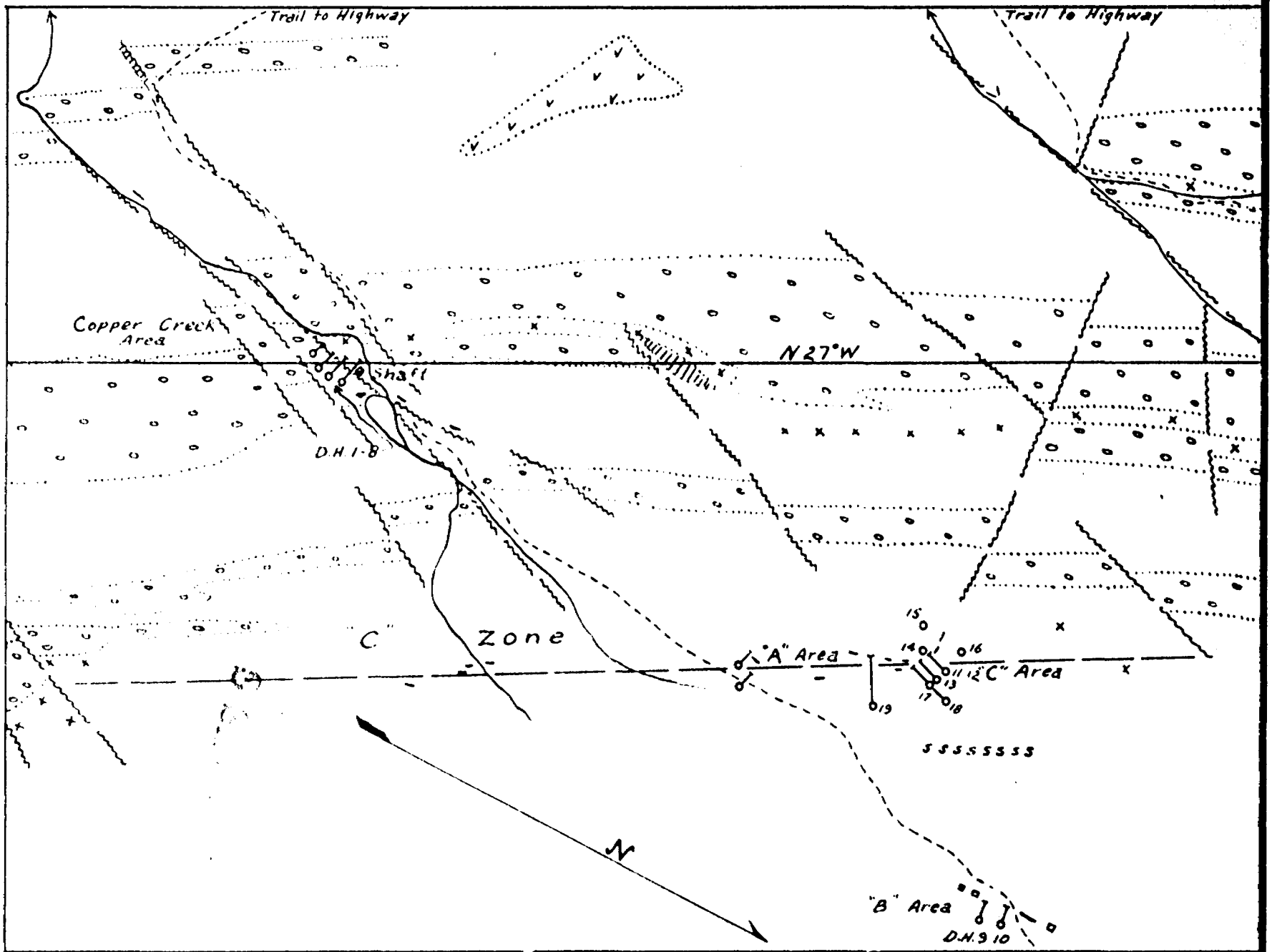
Hole No.19-C
Sheet No.2
Section from 141.0-

Depth feet	Formation	Sample No.	Width of sample	Gold $
141.0-146.5	Trap dense dk br med grd,slightly altered vein qtz drusy at 141.3,142.1,143.6,			
146.5-149.5	Trap dense med grd dk br some cal amyg 1/10 odd qtz vein			
149.5-152.0	" " blk amyg,odd stringer of cal			
152.0-158.0	" " " (sm to numerous cal amyg 1/20-1/10,sm stringers)			
158.0-159.0	Trap dense med grd dk br numerous blk amyg wi cal surrounding them 1/20-1/10,odd stringer			
159.0-162.0	" " " "(but cal not surrounding amyg)			
162.0-164.2	" " " "(wi numerous cal amyg 1/20-1/10)			
164.2-164.6	Vein cherty cal across core - Cu			
164.6-167.0	Trap dense dk br med grd sm cal amyg 1/20-1/10			
167.0-175.2	" " gr med grd numerous blk amyg 1/20-1/10			
175.2-175.4	Vein qtz across core Cs			
175.4-177.2	Trap dense dk gr med grd sm blk amyg,slight epidotization 175.2-177.2	3254	2.0	.10
177.2-181.8	Trap dense dk gr med grd sm blk amyg			
181.8-182.5	Vein breccia br matrix sm Cs			
182.5-185.0	Trap altered sm amyg sm cal seams,184.5 cherty cal vein wi Cs 181.8-185.0	3255	3.2	.32
185.0-188.2	Trap dense med grd dk gr,sm seams and stringers of cal,odd one wi Fe and Cs	3256	3.2	.42
188.2-190.0	Vein breccia br matrix qtz cal,Fe and Cs	3257	1.8	.71
190.0-192.5	" " "	3258	2.5	-2.53
192.5-196.8	Trap,gr (shattered,weak breccia)odd cal vein,Fe and Cs	3259	4.3	- .86
196.8-198.7	Vein breccia br matrix qtz cal,sm Cs	3260	1.9	.61
198.7	Contact			
198.7-202.0	Cong med,pebbles mainly gr,epidote surround sm pebbles, sm cal and br matrix		3.3	
202.0-205.0	" " "		3.0	
205.0-206.3	" " "		1.3	
206.3-207.3	" " " (Sm Cs in cement)	3261	1.0	- .92
207.3-210.5	" " "		3.2	
210.5-211.8	" " " (sm Cs in cement)	3262	1.3	.10
211.8-215.0	Cong med pebbles mainly gr but m lg granite boulders,sm cal		3.2	
215.0-220.0	" " "		5.0	
220.0-225.0	" " "			
225.0-255.0	" granite pebbles increase and sm boulders br matrix little cal			
255.0	End of hole			

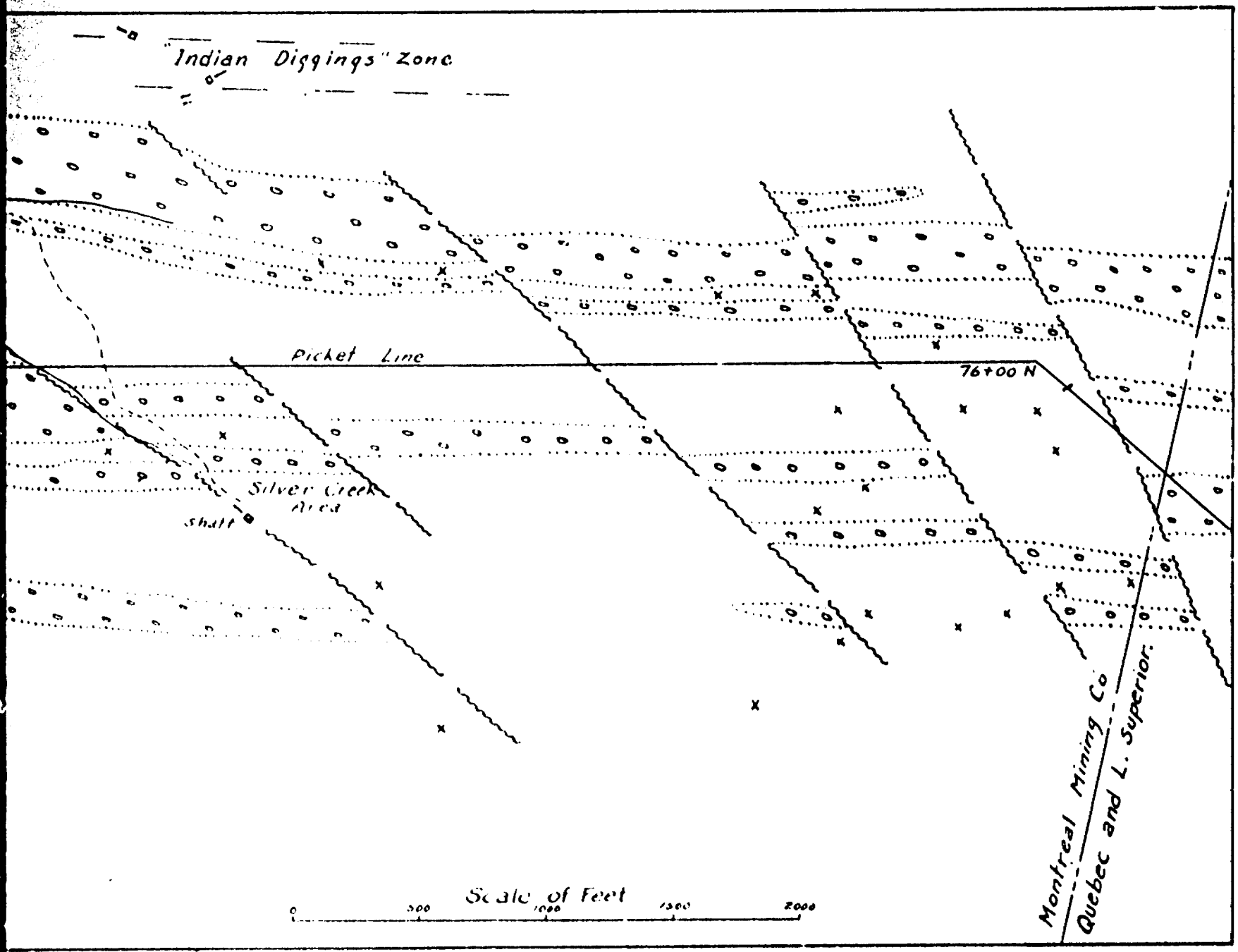
SAMPLE
Office specimen

NOT TO BE REMOVED FROM THE OFFICE OF THE RESIDENT GEOLOGIST, ONT. DEPT. OF MINES SAULT STE. MARIE, ONT.

1 OF 2



Geological plan of the copper showings in the Copper creek - Silver creek ar



Conglomerate. Fault (assumed). Drill hole Old shaft. Pit.

ea, Point Mamainse, Lake Superior. (After E.J. Bonkoff for Macassa Mines, Ltd, November, 1949)

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COPPER DEPOSITS AT POINT MAMAINSE, LAKE SUPERIOR

by
J.E. THOMSON

REFERENCES

Report of the Royal Commission on the Mineral Resources of Ontario, 1890, pp. 92, 98, 102.

Archibald Blue-"Copper at Point Mamainse", Ont.Bur.Mines, Vol.3,1893, pp. 62-88.

A C.Lane- "Record of Diamond Drilling at Port Mamainse", (Bull.No.6), Rept. No.111, Mines Branch, Ottawa, 1911.

E.S.Moore- "Batchewana Area", Ont.Dept.Mines, Vol.35, Pt.2, 1926, pp. 81-85.

HISTORY AND DEVELOPMENT

The Point Mamainse copper area lies on the east shore of Lake Superior about 60 miles by motor road north of Sault Ste.Marie. Highway No.17, which follows the shore of Lake Superior, passes near the copper showings.

David Thompson, surveyor and explorer, first reported the occurrence of copper at Mamainse in 1798.[1] It is said

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1. A.Blue. Ont.Bur nes, Vol.3,1893, p.62

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that the first attempt to mine copper was made about 1842. Early development of the area was thus contemporaneous with that in the Michigan copper district where mining began in 1844. Amongst the companies engaged in early exploration

were the Montreal Mining Company (1856), Ontario Mineral Lands Company (1871), Silver Islet Company (1882), Canadian Land Purchase Company (1891), and Nipigon Mining Company (1856-1892). According to the report of the Royal Commission of 1890, several shafts were sunk on copper-bearing veins, the deepest being about 300 feet, but their exact location is not given. Development work seems to have been concentrated at the Mamainse mine, Copper Creek shaft, Silver Creek shaft, and the "Indian Diggings". A mill and smelter were erected at the Mamainse mine, but there is no record of any copper production.

The occurrence of native copper at Mamainse under geological conditions rather similar to those of the Michigan copper mines interested American geologists and mining companies. In 1906 the Calumet and Hecla Mining Company optioned about 11,000 acres from the Nipigon Mining Company, and drilled 17 holes along a section across the Pancake Point and Sand Bay locations. The results of these investigations have been described by Lane.[2] In 1925 Moore[3] made a geological survey

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2. A.C.Lane, Bull.No.6,Mines Branch, Dept. of Mines,Ottawa, 1911.

3. E.S.Moore, Ont.Dept.Mines, Vol.35, Pt.2,1926, pp.81-85.

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of the area and described the showings. Later, during the construction of highway No.17 large pieces of native copper were found in a rock cut at mileage 55. (See Fig.)

In 1948, the showings in the area were examined by C.C. Huston, mining engineer, of Macassa Mines,Limited. On

his recommendation Macassa Mines optioned the Ryan location, the Quebec, and Lake Superior location, the two locations of the Montreal Mining Company (Nipigon Mining Lands Company), and staked a block of 27 adjacent mining claims (See Fig.1) This ground was prospected in 1948. In 1949 part of the property in the vicinity of the Copper Creek and Silver Creek shafts and "Indian Diggings" was more thoroughly prospected and mapped. The most interesting zones were drilled in September and October,1949. Nineteen holes, totalling 2562 feet, were drilled at the points indicated in Fig. 2.

GEOLOGY

The area is underlain by interbedded sediments and amygdaloidal lavas of Middle Keweenawan age. Small dikes of felsite and olivine diabase intrude the lavas and sediments.

Basaltic lava flows make up the greater part of the Keweenawan series. Most of these are characterized by highly amygdeloidal tops; the amygdule filling may be calcite, chlorite, chalcedony, olivine, pyroxene or epidote. The amygdaloid grades into massive lava that may be fine- or coarse-grained in texture. The fine-grained phase is often referred to as "trap". Lane[1] has used the name "ophite" for

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1. A.C.Lane, Op.Cit.

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the coarser grained type and "melaphyre" for olivine basalt.

The conglomerate contains an abundance of pebbles and boulders of a great variety of rock types. Boulders attain

a maximum dimension of 4 feet but the pebbles are usually under 3 inches in diameter. Sandstone is rarely seen. It is reddish in colour, arkosic to slaty in character, and shows bedding or cross-bedding.

The felsitic intrusives strike parallel to the containing strata but show cross-cutting relationships on the dip. The olivine diabase dikes have been intruded along transverse faults and have an almost vertical dip.

STRUCTURE

The Keweenawan lavas and sediments strike about N 27° ~~degrees~~ W and have an average dip of about 30 degrees to the southwest. They thus dip towards the Lake Superior basin. Dips of strata varying from 20 to 50 degrees have been recorded and in disturbed areas near faults the dip may be quite steep or even overturned.

Detailed mapping in 1949 by Macassa Mines around the Copper Creek and Silver Creek shafts indicated that a set of transverse faults exist. These are easily recognized by the offset of conglomerate horizons. It is suspected that zones of strike faulting and fracturing are also present but the displacement on these structures is more difficult to prove. The fissure veins occupy fractures that invariably dip to the eastward between 45 and 60 degrees. The vein-fractures thus dip about normal to the dip of the flows and sediments.

MINERALIZATION

Native copper and chalcocite are commonly found in fissure veins. However, recent drilling has shown that chalcocite also occurs as a replacement of the calcite filling in the amygdules and small amounts have been seen in the matrix of the conglomerate. These are encouraging indications that a replacement or lode type of deposit may be found in addition to the fissure veins.

The fissure veins are small and rich in native copper or chalcocite. Large plate-like masses of native copper are sometimes found in these narrow fractures. In 1949 a slab of native copper, 1/2 inch in thickness and 8 feet in length, was taken from a small vein. At some showings stringers of solid chalcocite are noted. There are also vein breccias, vuggy or crustiform in nature, that contain native copper in a matrix of calcite, quartz and fragments of country rock. Green secondary copper stain is always in evidence around the surface exposure of the veins.

Most of the fissure veins are believed to lie along fault zones. The geological map accompanying Lane's[1] report

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1. A.C.Lane, Op.Cit.

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shows the veins coinciding with the position of faults. Drilling at the Copper Creek shaft showed definitely that the veins in that location lie in a fractured zone along and near the faulted conglomerate-amygdaloid contact.

The replacement type of copper mineralization was found

by drilling along the "C" zone (see Fig.2). It occurs in a fractured area along a line of structural disturbance that strikes parallel with the formations and dips about 60 degrees easterly. Hole No.19 which crossed the zone showed specks of chalcocite in the amygdaloid at intervals over 125 feet of core adjacent to the main vein. The sludges averaged 0.5 per cent copper over 205 feet across the vein zone. Holes 17 and 18 also showed copper in sludge assays over 30 to 60 feet. Lane[1] has pointed out that systematic testing of sludges in

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1. A.C.Lane, Op.Cit. p.19

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two holes drilled by Calumet and Hecla gave 0.149 per cent copper over 530 feet and 0.0287 per cent over 444 feet, which compares closely with similar tests of Keweenawan rocks in the Michigan copper field. Specks of native copper in several other holes drilled by Calumet and Hecla show the widespread dissemination of the metal in the Keweenawan formations.

DRILLING RESULTS

Four areas were drilled by Macassa Mines in 1949. These are shown in Figure 2 and are known as the Copper Creek shaft area, and the A, B, and C areas. The first three showed little promise although some copper mineralization was found at each place. The "C" area gave more encouraging results. Holes 11 to 19 were drilled here, and gave the following values:

Hole No.	Dip	Footage	Core Length	Percentage Copper
11-C	45°	25' - 48'	23.0'	0.82
		95' - 100'	5.0'	1.05
12-C	65°	74.5'- 78.2'	3.7'	0.76
13-C	45°	85' - 88.7'	3.7'	1.41
17-C	45°	125' - 127'	2.0'	3.45
18-C	45°	163.5'- 183.8'	20.3'	1.91
		203.0'- 207.9'	4.9	0.826
19-C	45°	181.8'- 207.3'	25.5'	0.60

Holes 14, 15, and 16 were drilled vertically on the west side of the easterly-dipping fracture zone and gave negligible values.

Surface sampling of the "C" zone in two trenches 50 feet apart showed 0.15 per cent copper across 6 feet and 0.96 per cent across 13 feet. The zone was traced by surface work and drilling for a length of about 350 feet but there are other indications of mineralization at intervals to the south.

The "C" zone follows a line of fracturing striking N 25° - 28° W and dips 60 degrees easterly. Fractures striking N 75° W and N 10° E are regarded as subsidiary branching structures. Values are obtained from chalcocite which replaces calcite in the amygdules adjacent to fractured areas in the lava.

ACKNOWLEDGMENTS

The writer is indebted to Macassa Mines, Limited and particularly to C.C. Huston, engineer in charge, for supplying information on the property. Much of the above data was obtained from a report and maps prepared by E.J.Bonkoff, field geologist, in December, 1949. The writer visited the property in September 1949 and examined the showings with Mr.Bonkoff and the company prospectors.

J. A. REID
Mining Engineer

Jan 6/53

From Report
Sept 7/51

SECOND REPORT

SECOND REPORT
MAMAYNSE COPPER PROJECT

MAMAYNSE COPPER PROJECT

FOREWORD

The location, transportation, power facilities, geological and structural conditions and mineralogy have been fully covered in reports by Mr. C.C. Huston and others, and likewise briefly summarized by the writer in his first report of April 20, 1951, so that in this one, descriptions are confined to results obtained since that date.

In respect to tonnages shown, it is emphasized that this is simply an attempt to visualize the possibilities of the property, they do not represent proven ore.

SUMMARY

The Mamainse property has the same assemblage of rocks which characterize the well known copper producing district in Michigan on the south shore of Lake Superior. The property has a fracture system traversing those rocks which has a known length of 2-1/2 miles and a width of about half a mile, and practically all the fractures when examined or wherever drilled show copper.

Drilling has shown four zones carrying promising quantities of copper which in places is associated with some silver values. The best of these are the C-Zone and the C-2 Zone. The former has been tested to a depth of 400 feet, and for a length of 2275 feet averages 8.1 feet in width and 1.9% percent copper. It has a possible indicated tonnage of 182,000 per 100 feet of depth. The C-2 Zone runs normal to the C Zone and likely intersects it on strike. This has a length of 250 feet, an apparent true

width of 27 feet and a grade of 1.60 percent copper. It has a vertical depth of 450 feet and possibilities of 82,000 tons per 100 feet of depth. In this zone there is an enriched section 150 feet long 12.5 feet in true width and 5.13 percent copper and possibilities of 75,000 tons.

In this section also Hole C-52 shows silver values of 2.09 oz. per ton.

The other two are the Silver Creek zone, 625 feet long 11 feet wide and a grade of 1.50 percent copper with possibilities of 100,000 tons per 100 feet of depth. The Point Tamainos zone shows a length of 1150 feet, a width of 5.0 feet and a grade of 1.57 percent copper.

It is the writer's opinion that sufficient drilling has been done on the C-Zone and C-2 Zone to justify underground work as they are not only the most promising but likewise on account of their juxtaposition could be readily explored from one shaft. It is therefore suggested that a shaft be put down to a depth of 450 feet and the zone explored at the 200 foot and 400 foot horizons.

It is the writer's opinion that these deposits are of the lode or vein type somewhat comparable to many gold deposits, and that diamond drilling merely gives an indication of values and tonnage, which has to be confirmed by subsequent, underground work. It is his belief that exploration on these zones would result in the discovery of enriched sections similar to that found on the C-2 zone. It is also his belief that there is a reasonable expectation of obtaining a minable grade of 1.00 percent copper or better.

The Silver Creek and Point Tamainos zones are too far distant to be explored underground from the proposed shaft and the latter is small, so that further work on these showings will have to await results in the C Zones.

The ore is of a simple character and apparently contains nothing but copper minerals, and there are no apparent deleterious ingredients to complicate treatment or cause smelter penalties, so that a 90 percent mill recovery and a 40 percent copper concentrate is probable.

In conclusion the writer would state that all things considered, in his experience the Namainso Copper Project is one of the most promising copper prospects in the country.

EXPLORATION WORK

Work on the property consists of geological mapping, surface prospecting and some trenching, together with diamond drilling, the latter comprising 66 holes totalling 22,074.2 feet.

DRILLING

The C-2 Zone has been found since the writer's former visit. It lies east of the C-Zone and is about normal to it in strike, has an apparent dip of 50 deg. north, and so far has not been proved to extend west of the latter. Six holes C-38, C-49, C-52, C-54 and C-55 indicate the following -

Length	- 250 feet
Vertical Depth	- 400 feet
Est. True Width	- 27 feet
Grade	- 1.00% copper
Possible indicated tonnage per 100 feet of depth - 88,000	

There is, however, an enriched section included in the above and shown in holes C-49 and C-52, that at a vertical depth of between 300 and 400 feet gave as follows:

Length - 150 foot

Est.True Width 12.5 foot

Grade - 5.13% copper

Possible indicated tonnage - 75,000

In the more massive ore in this enriched section, bornite is at least equal in quantity to calcocite and silver values appear to accompany it, as in Hole C-52 from 311.1 to 338.4, 24.3 feet of core averaged 2.00 ounces of silver per ton.

The C-Zone has been extended since the former visit and three estimates by Mr. C.C. Huston give the following results to a depth of 400 foot.

	Length Feet	Approximate True Width Feet	Grade %	Tons V/F
(1)	2825	11.0	1.05	3270
(2)	2275	14.0	1.15	3150.
(3)	2275	8.1	1.02	1820

The writer checked (1) and for the same length, 2825 feet, obtained an average of 1.16% copper over 10.0 feet.

The Silver Creek zone has been explored by eight holes 1-S, 2-S, 3-S, 4-S, 12-S, 13-S, 14-S and 15-S, to a maximum depth of 445 feet. C.C. Huston's averages for these is:

	Length Feet	Est. Width Feet	Grade % Copper	Tons per V/F
(1)	825	11.0	1.58	1800
(2)	975	11.0	1.33	1100

The writer checked (1) and obtained Length 875 feet, Width 10.3 feet, grade 1.82% copper.

Holes drilled to the north of this showed only occasional values.

A notable feature of this zone is that chalcopyrite is quite prominent, that is especially noticeable in holes 5-2 and 5-4 on each side of the old shaft, where this mineral is practically the only one visible in the core, but further north and south of the shaft it diminishes in quantity and is replaced by chalcocite.

At Point Vamimse (at the old mine) nine holes were put down covering a distance along the strike of 1350 ft. This was averaged by the writer for 1150 feet at vertical distances varying from 67 feet to 365 feet and showed the following:

Length	-	1150 feet
Width	-	5.0 feet
Grade	-	1.57% copper

Four samples taken from the slime pile at the old mill foundations ran from .55% copper to 0.14% copper and gave an arithmetic average of 3.06% copper. Five grab samples from the dump of the old mine averaged .88 percent copper and four grab samples from the exposed showings averaged 7.11 percent copper. It may be mentioned that the stated recovery in the mill was .6 percent copper which was likely all in the native form.

From the Lutes vein which is in this vicinity south of the old mine chip samples taken in five sections averaged 1.07% copper over 14 feet.

In comment on the Point Vamimse drilling results, the writer would say that although they do not make ore, nevertheless if the southern part (C and C-2 zones) turns out well, this section has sufficient promise to make it worth while opening and examining the old mine workings.

IMMEDIATE FUTURE COST

Mr. C.C. Huston estimates the immediate future cost of development at $1,000,000.00 (for details see his report). The writer agrees with this figure as it is about the same as that incurred by Howlund Mines under similar

conditions of transportation, labour, power and supplies, in developing their property at Sioux Lookout during the past two years.

VALUATION:

As a result of the money spent in exploration of the property and the showings developed the writer would put a present valuation on the property of not less than $750,000.00.

ASSUMED NET VALUE OF THE ORE (Based on Noranda Schedule)

Assumed Grade Mined - 2.00% copper.

Recovery @ 90% - 1.80% "

Assumed Grade of Concentrates - 40.00% copper.

Assumed losses in shipping and handling 1½% so that 1.0 ton obtained amounts to .985 dry ton, delivered to the smelter.

Price 27¢ - 3¢ = 24¢ per lb. copper

.985 x (40x20¢) - 26 x 24¢ = $182.88

Allow 10 percent moisture, and freight at $4.00 per ton (.985 plus 10% x $4.00) = $4.43.

182.88 - 4.43 = $178.45

Concentrating Ratio (p. 71 Hoover's Economics of Mining) -

$$\frac{40 - .2}{2.00 - .2} = 22.1 \text{ to } 1$$

$$\frac{178.45}{22.1} = \$8.07 \text{ per ton net, at mine}$$

If thereby allowed an additional smelting charge of $1.00 (.985 x 4.00 = $3.94) there is $\frac{182.88 - 13.27}{22.1}$ = $7.68 net per ton at mine

In this calculation no credit is given for any precious metal values that might be in the ore nor for the premium on U.S. exchange, if the latter be allowed at 5 percent, the net value per ton is raised to $8.47 per ton and $8.31 per ton respectively.

Respectfully submitted,

(Signed) J.A. Reid, P.Eng.
Consulting Mining Engineer

RESUME - MAMAINSE COPPER PROJECT - CANADA

PROPERTY AND LOCATION:
(See Map 1)

The location is 60 miles north of Sault Ste. Marie, Ontario, on the shore of Lake Superior.

Power, labour and transportation are favourable.

The properties comprise approximately 22,451 acres.

Ryan Location		519.9 acres
Quebec and Lake Superior		6,071.7 "
Montreal Mining Co.	(1)	6,400.0 "
Montreal Mining Co.	(2)	4,800.0 "
119 Mining Claims		4,860.0 "

Purchase Price $122,500.00 Taxes approximately $2,000 per year

HISTORY:

Sporadically prospected and held by old mining companies since 1856.

Taken up by Calumet and Hecla (A. C. Lane report in 1907-8) and dropped after 17 holes drilled in section for geology. Lane recommendations not followed out.

Taken up by Macassa Mines 1948 and relinquished for financial reasons in 1950 after $45,000 spent, some prospecting and 2,568 feet drilled in 19 holes. Last 2 holes (18 and 19) caught fair values.

Taken over by Huston and Associates in unincorporated form and from February 1951 to October 15, 1951, 28,956.2 feet drilled and 10-12 prospectors engaged. $111,000.00 has been expended February - October 1951, with $69,000.00 on hand.

REPORTS AVAILABLE:

Proposal - C. C. Huston 1948
Report - E. J. Bonkoff 1949
Report - J. A. Reid, April 1951
Report - J. A. Reid, September 1951

GENERAL:

Structure is correlated with Middle Keweenawan in Michigan; principal difference that copper here is 99% chalcocite and thus more amenable to sampling.

Replacement in walls of breccia zones and in beds indicated. (Huston believes much more tonnage possible than can be conservatively calculated from drilling and Reid agrees.)

Mining costs forecast as reasonable; good recoveries and high grade (+ 40%) concentrate anticipated.

RESULTS TO DATE:
(See Map 2)

Diamond drilling under Huston direction has disclosed four shear-breccias - "C", "C2", "S" (Silver Creek) and "M" (Mamainse).

"C" Zone:

A carbonate breccia from 5' - 35' wide striking conformably with strata, but dipping (68°) normal to bedding. 34 holes complete to date in a length of 4,500', to average depth of 250' vertical, of which 17 consecutive holes indicate continuous ore as follows:

1.92% - 8.1 true width - 2,275' long

Three deep holes show breccia-shears to 600'; low values where cut in thick conglomerate bed (possibly unfavourable to deposition?).

"C2" Zone:

This zone strikes at right angles to the C zone (i.e. east-west) and dips north at an angle of 45°. It is composed of two members, an upper

member 10 feet true width extending 250 feet in length, which has been traced down dip 500 feet (this ore body is known as C-2A) and the main C-2 ore body having a true width of 30 feet, an assumed length of 250 feet and has been traced down dip 500 feet. These two ore bodies contain 500,000 tons with an average grade of 1.66% (see C-2 section).

"S" Zone (Silver Creek):

A carbonate breccia - replacement zone - from 8' - 15' wide striking obliquely across strata and of opposed dip (65°).

Twenty holes complete to date, in a length of 3,100 feet to 150 feet average vertical depth of which 7 consecutive holes indicate continuous ore as follows:

1.60 x 11.0' true width x 975'

REQUIREMENT:

Since it is questioned that drilling will clearly reveal and allow calculation of volume-grade potential, underground development is recommended by Reid and Huston.

"C","C2" and "S" zones are amenable to one shaft operation and an underground development programme is now proposed under which two levels would be established at 200 and 400 horizons with necessary lateral work and underground drilling.

With only 6% of total area partially prospected, additional tonnages should be found if additional surface exploration carried out.

TONNAGE POTENTIAL TO 400 FEET IN "C", "C2" AND "S" BRECCIA ZONES SOLELY:

Probable minimum 3,750 tons per foot depth x 400' = 1,500,000 tons

1,500,000 tons x (1.73% x 90% recovery) = 46,500,000 lbs. copper

CAPITAL REQUIRED TO DEVELOP:

NOW:	450' shaft @ $200	$ 90,000
	Camps and Plant (Estimated)	100,000
	Power Line, 16 miles (Estimated)	160,000
	X-cutting 2 levels - 5000' @ $30	150,000
	Drifting 2 levels - 6000' @ $30	180,000
	Raising (Estimated) 1000' @ $20	20,000
	Diamond Drilling (Estimated) 40,000' @ $2.50	100,000
	Test Plant	100,000
	Contingencies	100,000
		$1,000,000

or $ .021 per lb. copper without increase in reserve.

ULTIMATE:

Calculating a concentration plant at 2,000 tons per day, at $1,800 per ton day capital cost, $3,600,000,

or $ .077 per lb. copper (without increase in reserve)

PRELIMINARY COST ESTIMATE - (per pound copper smelted based on present reserve):

Development	$ .021
Capital Cost	.077
Production Cost	.100
Smelting and Sales	.030
	$ .228 per pound copper produced

Calculating the price of copper to-day at 28.7¢ and a cost of production at 22.8¢, the reserves as indicated by drilling will permit the write-off of $4,600,000 capital dollars and leave a profit of approximately $2,700,000.

All of which is respectfully submitted

C. J. Huston

October 25, 1951
909 Federal Building
85 Richmond Street West
Toronto, Ontario, Canada

HUSTON ORE RESERVES-OCTOBER 8

	Estimated Tons		Calculated Grade		
C2	575,000	x	1.58%	=	592.5
C2A	125,000	x	1.56%	=	195.0
C	728,000	x	1.92%	=	1397.7
S	440,000	x	1.60%	=	704.0
	1,868,000		1.73%		2889.2

$$\frac{\text{1,868,000 tons}}{\text{above 400 feet}} \times 1.73\%$$

REID ORE RESERVES

	Estimated Tons per 100'				Calculated Grade
C	182,000	x	4	x	1.92%
C2	82,000	x	4	x	1.60%
S	100,000	x	4	x	1.60%

$$\frac{\text{1,464,000 tons}}{\text{above 400 feet}} \times 1.81\%$$

(Feb.1952)

900

NAME - MAMAINSE COPPER PROPERTY

LOCATION - Mamainse Point, Lake Superior, 60 miles north of Sault Ste. Marie.

OWNERSHIP - C.C.HUSTON and ASSOCIATES

DEVELOPMENT - Old shafts and surface workings. 19 drill holes in 1949. 33,342 feet of drilling in 1951.

GEOLOGY - Chalcocite and native copper occur in gently dipping Keweenawan amygdaloidal lava flows and conglomerate. Drilling has located four brecciated and fractured zones containing replacement chalcocite. The main zones are located along faults. "C" zone is traced 4,500 feet, dips normal to bedding, and is 5 - 35 ft. wide. "C-2" zone, on hanging wall of "C" zone, strikes at right angles to it, and consists of two members 10 ft. and 30 ft. wide. "[illegible]" zone traced 3100 ft. and 8 - 15 ft. wide.

ORE ESTIMATES- 4,150 tons per vertical foot averaging 1.76 percent copper (C.C.Huston, Jan. 1952)

C. C. HUSTON & ASSOCIATES
MINING CONSULTANTS
2001-80 RICHMOND ST. WEST

C. C. HUSTON
A. E. JOHNSON

EM. 2-1474-5-6
CABLE-HURONTO

July 4th, 1956.

Mr. J. E. Thomson,
Ontario Department of Mines,
Parliament Buildings,
TORONTO 2, Ontario.

Dear Ed:

This will acknowledge your letter of June 29th and we will be pleased to have you visit Coppercorp.

When you are ready to go there I suggest that you let Mr. W. O. McBride, the manager, know the date of your arrival.

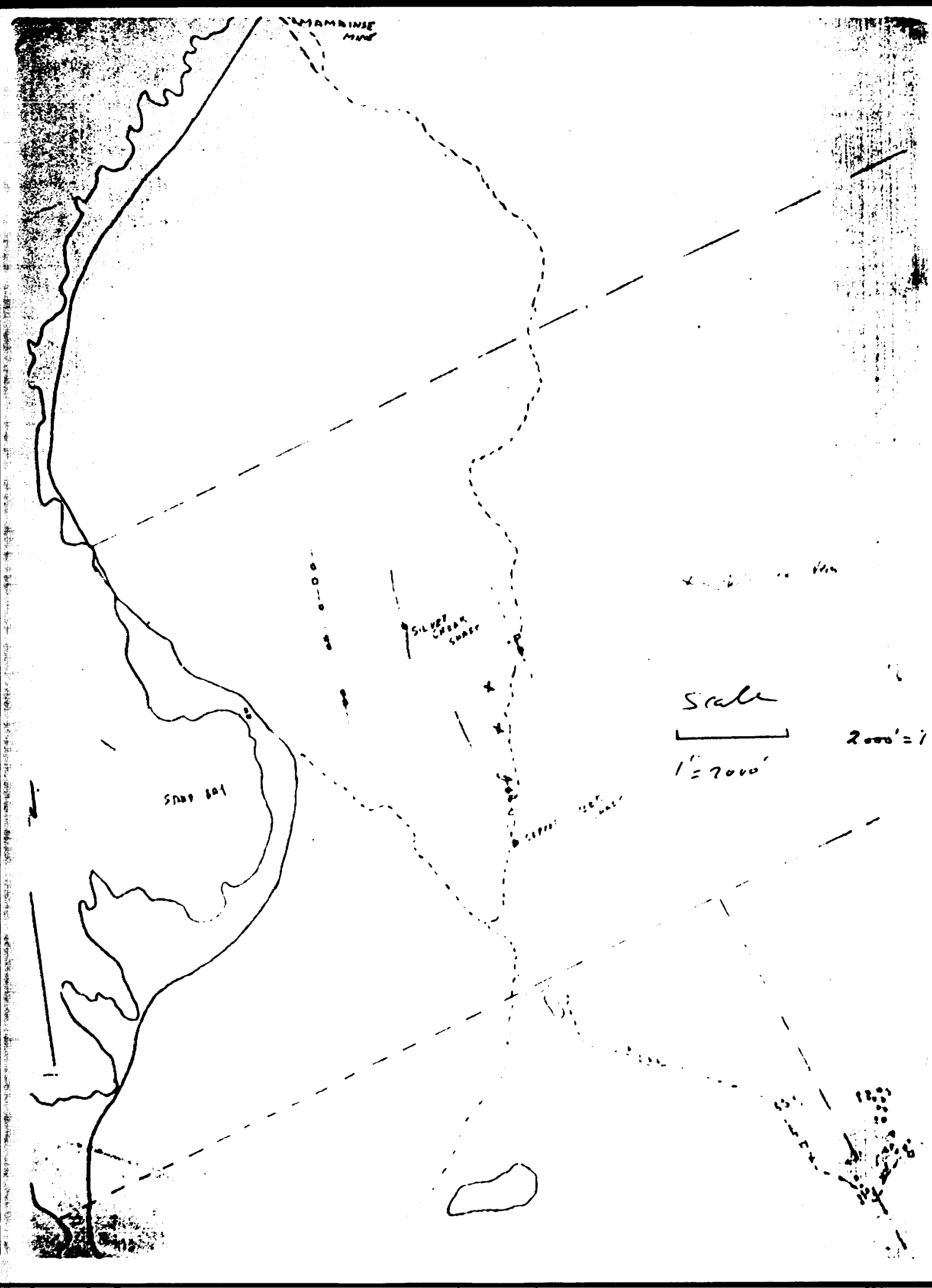
We attach copies of the latest Progress Reports and a full set of maps will be available to you at the property.

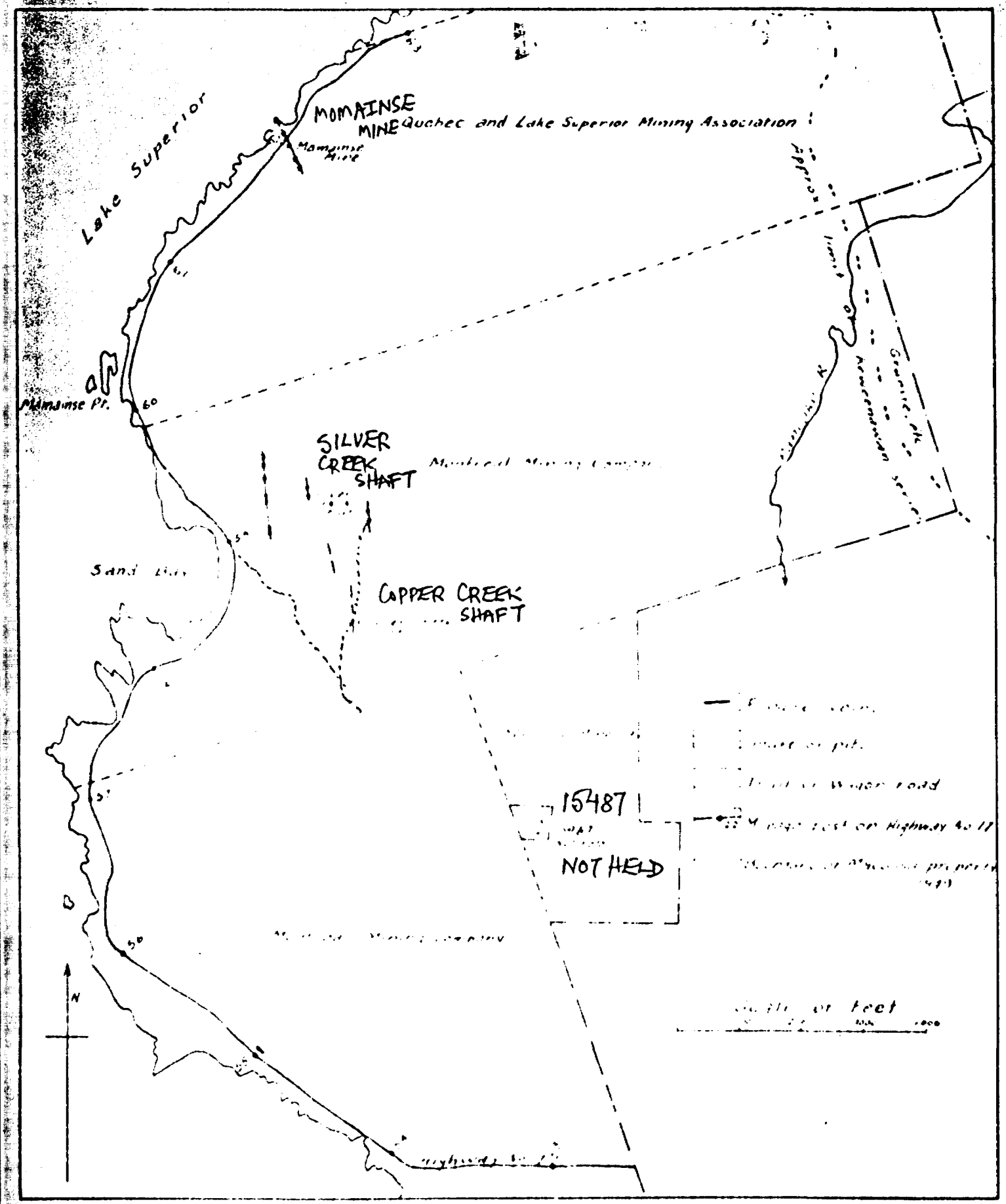
Very truly yours,

C. C. Huston, P. Eng.

CCH:mv
Attachs.

cc: W. O. McBride,
Coppercorp Limited,
P. O. Box 627,
SAULT STE. MARIE, Ont.


KAMBINSE MINE
SILVER CREEK CAMP
Scale
1" = 2000'
1" = 1000'



Sketch map of Momainse Point copper area, Lake Superior
(After Macassa Mines Ltd, 1949)

Prospectus

This prospectus has been filed pursuant to the provisions of The Securities Act of the Province of Ontario.

COPPERCORP LIMITED

HEAD OFFICE
Suite 300, 25 King Street West,
Toronto 1, Ontario

DIRECTORS AND OFFICERS

President and Director	JOHN CHARLES PERRY, Mining Engineer, 1095 Crestview Avenue, Oakville, Ontario.
Vice-President and Director	ERIC DUFF SCOTT, Stock Broker, 66 Admiral Road, Toronto 5.
Director and Promoter	DARWIN REIDPATH MARTIN, Executive, 180 Summer Street, Buffalo, N.Y.
Director	JOHN JAMES BOLAND, JR., Executive, 72 Audley End, Eggertsville, N.Y.
Director	JAMES WILFRED COCHRANE, Stock Broker, 45 Glenayr Road, Toronto 10.
Secretary-Treasurer	PERCY NUGENT TAPLEY, Executive, 98 Ridge Drive, Toronto 7.

AUDITORS

Clarkson, Gordon & Co., Chartered Accountants, 15 Wellington Street West, Toronto 1.

TRANSFER AGENT AND REGISTRAR

National Trust Company Limited, 20 King Street East, Toronto 1.

1. The Company was incorporated under the laws of the Province of Ontario with the name Mamainse Mines Limited by letters patent dated August 30th, 1951. By supplementary letters patent dated June 16th, 1955, its name was changed to Coppercorp Limited and its authorized capital was altered to 3,500,000 common shares without nominal or par value, of which 1,240,005 shares have been issued and are fully paid and non-assessable. The Company did not carry on any business whatsoever between the date of its incorporation and June 15th, 1955, it then had no assets or liabilities and the only shares of its authorized capital which were then outstanding were the five for which the applicants for its incorporation subscribed.

2. There are no bonds or debentures outstanding or proposed to be issued. No commission has been paid or is payable on the sale of the Company's shares. The Company has not paid any dividend.

3. National Trust Company Limited, 20 King Street East, Toronto 1, holds 675,000 of the vendor's shares in escrow until released, in blocks of not less than 10,000 shares each, by the Ontario Securities Commission; transfer, hypothecation, assignment or other alienation within the escrow to be subject to the consent of the said Commission. As releases of the vendor's shares from escrow are effected, the shares released are to be distributed pro rata amongst the holders of the escrowed vendor's shares at the time of each such release.

4. By an indenture of "Contract for Purchase of Mining Rights", which is hereinafter referred to as "THE PURCHASE CONTRACT", dated, for convenience, June 20th, 1955 and entered into between Charles Coombs Huston, Room 904, 85 Richmond Street West, Toronto 1, Consulting Mining Engineer, who is hereinafter referred to as "HUSTON", of the first part, and the Company of the second part, Huston, for himself and on behalf of his associates (hereinafter referred to as "THE SYNDICATE") who are hereinafter named as the allottees of 740,000 shares of the Company, sold and assigned to the Company, and the Company purchased and accepted:—

(i) An option, which is hereinafter referred to as "THE NEPIGON OPTION", from The Nepigon Mining Lands Company, a corporation incorporated by Special Act of the Province of Ontario, 63 Victoria, Chapter 131, having its head office at Suite 1107, 111 Richmond Street West, Toronto 1, to Huston to purchase the mining rights and certain surface rights, which are hereinafter referred to as "THE NEPIGON RIGHTS", in parts of The Montreal Mining Company's Southern Location, or the Pancake Point Location, and of the Montreal Mining Company's Northern Location, or the Sand Bay Location, both on the east side of Lake Superior, in the District of Algoma and Province of Ontario, at and near Cape Mamainse. The Nepigon rights are in lands in the said two locations comprising an aggregate of 10,690.24 acres, more or less. The option price was originally $50,000.00 and the unpaid balance is $36,000.00, payable in four annual instalments of $2,500.00 each and the balance on or before December 31st, 1959, which will be payable by the Company.

(ii) An option, which is hereinafter referred to as "THE LUTES OPTION", from Kathleen L. Lutes, of Cape Mamainse, in the District of Algoma, the wife of Gleason V. Lutes, to Huston to purchase the mining rights and certain surface rights, which are hereinafter referred to as "THE LUTES RIGHTS", in part of The Quebec and Lake Superior Mining Association's Location at Cape Mamainse, or the A. McDonell Location, and of Lot 8 of the Kincaid Locations near Cape Mamainse, both on the east side of Lake Superior, in the District of Algoma. The Lutes rights are in lands in the said two locations comprising 5,857.6 acres, more or less. Huston paid $5,000.00 for the Lutes option and, in addition, the original option price was $75,000.00, the unpaid balance of which is $55,000.00, payable in 11 annual instalments of $5,000.00 each, the last on or before January 3rd, 1966, which will be payable by the Company. In addition and under a recent extension agreement of the Lutes option, in the event of the same being exercised and in the further event of the then owner of the Lutes rights, from time to time and at its option, electing to mine and work the Lutes rights, such owner is to pay a royalty of 5¢ per short ton of merchantable ores containing 2% or less of copper and, if and to the extent that such ores shall have a copper content in excess of 2%, the royalty is to be the said sum of 5¢ per ton plus 1¢ per ton for each full one-fifth of 1% of the copper content in excess of 2%.

5. The Nepigon rights are entered in the Office of Land Titles at Sault Ste. Marie as Parcels 3655 to 3670, inclusive, in the Register for Algoma West Section, and the Lutes rights are entered in that office as Parcels 3712½ and 3713 in the same register.

6. The considerations stipulated in the purchase contract, and which have been paid or otherwise satisfied by the Company, are as follows:—

(a) The sum of $620,005.00, whereof $5.00 has been retained by the Company and applied in satisfaction of the issue price of the five shares of the Company for which the applicants for its incorporation subscribed; whereof $245,000.00 was payable by the Company to Huston, and whereof the balance of $375,000 has been satisfied by the allotment and issue by the Company of 750,000 shares, which are hereinafter referred to as "THE VENDOR'S SHARES", at the issue value of 50¢ per share and as fully paid and non-assessable.

(b) The payment by the Company of the costs of and incidental to its incorporation and organization, of and incidental to obtaining the aforesaid supplementary letters patent and of and incidental to the acquisition by the Company of the Nepigon option and the Lutes option.

7. In lieu of requiring the Company to pay to him in money the aforesaid sum of $245,000.00, Huston, on behalf of the Syndicate, has purchased from the Company 490,000 of its shares at the issue price of 50¢ per share and as fully paid and non-assessable.

8. The 75,000 of the vendor's shares which are not held in escrow and the 490,000 of the shares of the Company to which the next preceding paragraph relates are hereinafter together referred to as "THE FREE SHARES".

9. An agreement dated June 20th, 1955 and hereinafter referred to as "THE SHARE CONTRACT" has been entered into between the Company and the undernamed companies and partnership, who are hereinafter collectively referred to as "THE UNDERWRITERS", whereunder the Underwriters, on their own behalf, have contracted to purchase from the Company and to pay for, within five days from the date upon which the Ontario Securities Commission accepts for filing this prospectus (which date of acceptance is hereinafter referred to as "THE EFFECTIVE DATE" and which will be the sixth day of July, 1955), 1,000,000 of the treasury shares of the Company at the issue price of 50¢ per share, which is hereinafter referred to as "THE FIRM COMMITMENT", and whereby the Company has given and granted to the Underwriters, on their own behalf, sole and exclusive options, which are hereinafter referred to as "THE TREASURY SHARE OPIONS", to purchase a total of a further 500,000 of the treasury shares of the Company, as fully paid and non-assessable, at the prices, in the quantities and within the times hereunder mentioned, that is to say:—

FIRST OPTION. All or any part of 125,000 shares at the price of 75¢ per share at or before the expiration of nine months next succeeding the effective date.

SECOND OPTION. All or any part of 125,000 shares at the price of $1.00 per share at or before the expiration of 12 months next succeeding the effective date.

THIRD OPTION. All or any part of 125,000 shares at the price of $1.25 per share at or before the expiration of 15 months next succeeding the effective date.

FOURTH OPTION. All or any part of 125,000 shares at the price of $1.50 per share at or before the expiration of 18 months next succeeding the effective date.

Failure on the part of the Underwriters duly and fully to exercise the treasury share options other than the last of them will automatically cancel the remaining share option or options.

10. The obligations of the Underwriters under the share contract are several and not joint. The names and addresses of the Underwriters, the percentage interest of each in the firm commitment and in the treasury share options are as follows:—

CRANG SECURITIES LIMITED, 40 Adelaide Street West, Toronto 1	27½%
DOHERTY, ROADHOUSE & CO. LIMITED, 255 Bay Street, Toronto 1	27½%
BONGARD & COMPANY, 25 Adelaide Street West, Toronto 1	25 %
GEORGE R. GARDINER LIMITED, 44 King Street West, Toronto 1	10 %
LAMAQUE MINING COMPANY LIMITED, Suite 2500, 25 King Street West, Toronto 1	10 %
	100 %

11. By an agreement, dated June 20th, 1955, Huston, on behalf of the Syndicate, has sold to the Underwriters 125,000 of the free shares at the price of 1¢ per share and has given and granted to the Underwriters sole and exclusive options, which are hereinafter referred to as "THE FREE SHARE OPTIONS", to purchase a total of a further 375,000 of the free shares at the prices, in the quantities, within the times and subject to the occurrence of the events hereunder mentioned, that is to say:—

(i) All or any part of 125,000 shares at the price of 50¢ per share at or before the expiration of 18 months next succeeding the effective date.

(ii) In the event that all the Underwriters shall duly exercise in full the first of the treasury share options, all or any part of a further 125,000 shares at the price of 75¢ per share, exercisable at or before the expiration of 18 months next succeeding the effective date.

(iii) In the event that all the Underwriters shall duly exercise in full all the treasury share options all or any part of a further 125,000 shares at the price of 75¢ per share, exercisable at or before the expiration of the period of six months next succeeding the date upon which the Underwriters shall have exercised in full all the treasury share options.

12. In order to complete the sale to the Underwriters of 125,000 of the free shares at the price of , per share and to enable the Underwriters to obtain prompt delivery of the 375,000 free shares comprised in the free share options if and to the extent that the same are duly exercised, 500,000

of the free shares have been allotted by the directors of the Company to Roytor & Co. No. 10 Acc. and the certificates therefor will be held by Manning, Mortimer & Mundell, 85 Richmond Street West, Toronto 1, the solicitors for the Company, for delivery to the Underwriters, as to 125,000 shares forthwith after the effective date, and as to the remaining 375,000 shares if, as and when the Underwriters duly exercise the free share options.

13. The 675,000 escrowed vendor's shares and the remaining 65,000 of those of the vendor's shares which are not escrowed and which have not been allotted to Roytor & Co. No. 10 Acc. have been allotted to the undernamed persons and corporations, who compose the Syndicate, in the number hereunder set opposite the name of each:—

NAME	ADDRESS	NO. OF SHARES
John J. Boland, Jr.	Marine Trust Building, Buffalo, N.Y.	75,804
Mrs. Evelyn S. Blun	86 Chatham Avenue, Buffalo, N.Y.	16,244
Mrs. Evelyn S. Blun in trust for Linda B. Blun	86 Chatham Avenue, Buffalo, N.Y.	16,243
John L. Coles	390 Dundas Street, Woodstock, Ontario.	6,317
Clara G. Carrington	43 Kingsway Crescent, Toronto 18, Ontario.	895
Godfrey A. Clarke	255 Lytton Boulevard, Toronto, Ontario.	897
Crang Securities Limited	40 Adelaide Street West, Toronto, Ontario.	18,952
Joseph Davis	120 West Tupper Street, Buffalo, N.Y.	37,902
Mrs. Dorothy Foster	95 Highland Ave., Buffalo, N.Y.	6,317
Allen H. Gardner	151 Ruskin Road, Eggertsville, N.Y.	6,317
C. C. Huston	85 Richmond Street West, Toronto, Ontario.	111,000
Richard Michael Horowitz	187 Admiral Road, Buffalo, N.Y.	1,100
Susan Lynn Horowitz	187 Admiral Road, Buffalo, N.Y.	1,100
Edward H. Kavinoky	1435 Rand Building, Buffalo, N.Y.	25,267
Elmer J. Kranz	245 Elmwood Ave., Buffalo, N.Y.	1,581
Miss Norma Lefcowitz	696 LeBrun Rd., Buffalo 21, N.Y.	2,395
Hymen Lefcowitz in trust for Mark Lefcowitz	18 Clarendon Ct., Metuchen, N.Y.	1,100
Jules Lefcowitz	18 Clarendon Ct., Metuchen, N.Y.	1,100
Andrew Lefcowitz	18 Clarendon Ct., Metuchen, N.Y.	1,100
Mrs. Laura B. Martin	180 Summer Street, Buffalo, N.Y.	25,268
Mrs. Laura B. Martin in trust for Pattie E. Martin	180 Summer Street, Buffalo, N.Y.	18,952

NAME	ADDRESS	NO. OF SHARES
Mrs. Laura B. Martin in trust for Alexander Martin	180 Summer Street, Buffalo, N.Y.	18,952
Darwin R. Martin	180 Summer Street, Buffalo, N.Y.	118,805
Mrs. Mabel Opley	430 Kelton Avenue, West Los Angeles 24, California.	18,952
R. John Pearce	122 Richmond St. West, Toronto, Ontario.	896
Richard C. Pearce	122 Richmond St. West, Toronto, Ontario.	897
Norman C. Pearce	116 Richmond Street West, Toronto, Ontario.	3,074
Richard Pearce	122 Richmond Street West, Toronto, Ontario.	3,585
Mrs. Jane Putnam	245 Elmwood Ave., Buffalo, N.Y.	1,581
Prospect Development Limited D. R. Martin, Pres.	257 Elmwood Ave., Buffalo, N.Y.	148,450
Christ Rentschler	245 Elmwood Ave Buffalo, N.Y.	1,581
James Stovroff	25 Hardwood Place, Buffalo, N.Y.	3,158
Haskell Stovroff	25 Hardwood Place, Buffalo, N.Y.	3,158
Raymond J. Stevens	710 Ohio Street, Buffalo, N.Y.	10,829
G. Edwin Spitzmiller	Genesee Building, Buffalo, N.Y.	3,158
Robert W. Smith	83 East Morris Avenue, Buffalo, N.Y.	6,317
Joseph J. Volker	Lafayette Building, Buffalo, N.Y.	6,317
G. R. Vanstone	Apt. G3, 477 Bayview Ave., Toronto Ontario.	6,317
Robert Warner	106 Soldiers Place, Buffalo, N.Y.	1,507
Robert Warner trustee for Robert Warner, Jr.	106 Soldiers Place, Buffalo, N.Y.	1,000
Robert Warner trustee for Nancy Gene Warner	106 Soldiers Place, Buffalo, N.Y.	200
Robert Warner and Betty W. Stovroff as trustees for Eugene M. Warner	639 Lafayette Avenue, Buffalo, N.Y.	5,415
		740,000

14. In the event and to the extent that the Underwriters do not fully exercise the free share options, the shares remaining in the name of Roytor & Co. No. 10 Acc. will be distributed amongst the members of the Syndicate in accordance with their rights to such shares. If and to the extent that the Underwriters exercise the free share options, the sale prices, together with the sale price of the above-mentioned 125,000 free shares sold to the Underwriters at 1¢ per share, will be distributed amongst the members of the Syndicate in accordance with their rights to such shares.

15. There is no sub-option agreement or sub-underwriting agreement in existence or proposed to be given, nor is there any assignment or proposed assignment of any such agreement. The only persons having more than a 5% interest in the four companies and one partnership comprising the Underwriters are as follows:—

CRANG SECURITIES LIMITED
J. Harold Crang, 40 Adelaide Street West, Toronto 1.
Eric D. Scott, 40 Adelaide Street West, Toronto 1.

DOHERTY, ROADHOUSE & Co. LIMITED
Thomas H. Roadhouse,255 Bay Street, Toronto 1.
D'Arcy M. Doherty, 255 Bay Street, Toronto 1.
John M. Rogers, 255 Bay Street, Toronto 1.
James W. Cochrane, 255 Bay Street, Toronto 1.

BONGARD & COMPANY
Robert R. Bongard, 25 Adelaide Street West, Toronto 1.
Gordon R. Bongard, 25 Adelaide Street West, Toronto 1.
Strachan Bongard Sr., 25 Adelaide Street West, Toronto 1.
Harvey Bongard, 25 Adelaide Street West, Toronto 1.
Maitland McCarthy, 540 Howe Street, Vancouver, B.C.
John Dillon, Toronto General Trusts Building, 8th Avenue, Calgary, Alberta.
Alfred J. Macdonald, 25 Adelaide Street West, Toronto 1.

GEORGE R. GARDINER LIMITED
George R. Gardiner, 44 King Street West, Toronto 1.

LAMAQUE MINING COMPANY LIMITED
Lamaque Gold Mines Limited, Suite 2500, 25 King Street West, Toronto 1.

16. Two of the Underwriters, namely, Bongard & Company and George R. Gardiner Limited, are registered security dealers and intend to sell their proportions of the shares comprised in the treasury share options and in the free share options and their proportions of the 125,000 free shares sold to the Underwriters at the price of 1¢ per share. With respect to the proportions of all those shares which will be the property of the remaining three Underwriters, if and when any of such shares are offered for sale in the Province of Ontario, they will be offered through registered security dealers at the usual rates of commission as fixed by The Toronto Stock Exchange for mining companies. The signatories hereto undertake to file an amendment to this prospectus in the event of any default in the exercise of the treasury share options and the free share options within twenty days of such default, if the shares of the Company are then in course of primary distribution. With the exceptions of the treasury share options and the free share options, no option agreement is outstanding or is proposed to be given. With the exception of the firm commitment, there is no underwriting agreement outstanding or proposed to be given.

17. John Alexander Reid, Consulting Professional Engineer, 85 Glendonwynne Road, Toronto 9, under date of June 15th, 1955, has made the accompanying report upon the properties comprised in the Nepigon option and the Lutes option, wherein are given particulars of (i) the means of access to those properties, (ii) the character, extent and condition of the surface exploration and development and (iii) the known history of the properties. No underground exploration or developmnt has yet been done, and there is no underground plant or equipment, nor is there any surface plant and equipment. No work has yet been done nor have any improvements been made by the Company, which has the present management of the properties.

18. The management of the Company is about to proceed with development and further exploration under the supervision and control of a competent and experienced mining engineer. On the Sand Bay Location, a shaft will be sunk to a depth of 500 feet, and not less than 3,000 feet of underground lateral development work will be done. Thereafter, such further underground lateral development work will be done as shall appear to be requisite. Prospecting and exploration work upon the surface of the properties will be undertaken. It is estimated that the foregoing development work will cost approximately $400,000.00. In relation thereto, such surface plant and equipment as shall be required and any needed underground plant and equipment will be purchased.

The proceeds from current sales of shares will also be used to pay the Company's current liabilities, together with the option payments under the Nepigon option and the Lutes option, and for general corporate purposes.

19. The preliminary administrative expenses of the Company, including the costs of and incidental to its incorporation and organization and obtaining supplementary letters patent changing its name and its share capital and of and incidental to the acquisition by it of the Nepigon option and the Lutes option, are estimated not to exceed $5,000.00, of which no part has, as yet, been paid other than $1,072.50 paid to the solicitors for the Company with which to meet the fee of the Provincial Secretary upon the application for the incorporation of the Company. It is estimated that the administrative expenses of the Company for the current year will not exceed $7,500.00.

20. The Company has not borrowed any money; it has not purchased any property; it has not acquired any rights to any property other than the Nepigon rights and the Lutes rights, and it does not now propose to purchase any property other than such plant, machinery, equipment, supplies, etc., as, from time to time, it may find necessary or desirable to purchase in relation to exploration and development work on the lands comprised in the Nepigon rights and the Lutes rights. Save only in the ordinary course of the business of the Company, there is no indebtedness to be created or assumed by it which is not shown in the balance sheet dated June 27th, 1955 which accompanies this prospectus.

21. No director or officer of the Company has received, or will receive during its current financial year, any remuneration paid or to be paid by the Company, other than a monthly salary of $100.00 which will be paid to the secretary-treasurer of the Company.

22. The Company was incorporated upon the instructions of, and at the instance of, Darwin R. Martin aforesaid. Save only with respect to the purchase by the Company of the Nepigon option and the Lutes option for the considerations hereinbefore mentioned, the Company has not made any payment to any promoter and does not intend to make any such payment.

23. With the exceptions of Darwin R. Martin and John J. Boland Jr., no director or officer of the Company, whether personally or as a partner in a firm and whether directly or indirectly, has ever had any interest in the properties acquired by the Company. Darwin R. Martin, his wife Laura B. Martin, both personally and in trust, and John J. Boland Jr. are members of the Syndicate, which acquired the Nepigon option and the Lutes option in the name of Huston, and their interests in the relevant properties are reflected in the foregoing list of the allottees of 740,000 shares of the Company.

24. (a) JOHN CHARLES PERRY has been a mining engineer in Ontario for upwards of three years. He is the president of The Teck-Hughes Gold Mines Limited, Lamaque Gold Mines Limited and Lamaque Mining Company Limited.

(b) ERIC DUFF SCOTT has, for more than three years, been a partner in the firm of J. H. Crang & Co., members of The Toronto Stock Exchange.

(c) DARWIN REIDPATH MARTIN has, for more than three years, been a financier and executive. He is the president of Buffalo-Phenix Corporation, Buffalo, of Prospect Development Limited, Toronto, and of 245 Elmwood Avenue Inc., Buffalo, which owns and operates the Hotel Stuyvesant in Buffalo.

(d) JOHN JAMES BOLAND JR. has, for upwards of three years, been a partner in the firm Boland & Cornelius, Steamship Operators, the vice-president of American Steamships Company, a director of Bison Steamship Company and a director of Barcalo Manufacturing Company, all of Buffalo.

(e) JAMES WILFRED COCHRANE has, for upwards of three years, been a partner in the firm Doherty, Roadhouse & Co., members of The Toronto Stock Exchange, Toronto.

(f) PERCY NUGENT TAPLEY has, for upwards of three years, been a company executive. He is the secretary of The Teck-Hughes Gold Mines Limited and the secretary-treasurer of Lamaque Gold Mines Limited.

25. Under the provisions of a "Financing Agreement", dated, for convenience, June 6th, 1955 and entered into between Charles C. Huston and Crang Securities Limited, for so long as any of the treasury share options shall remain unexercised and in good standing, the latter is to have the right to cause to be elected a majority of the directors of the Company.

26. As is hereinbefore disclosed, the Company has, to date, issued as fully paid and non-assessable 1,240,005 shares, of which 750,000 are vendor's shares and have been issued as part of the considerations stipulated in the purchase contract, five shares have been issued at the price of $1.00 each and 490,000 shares have been issued at the price of 50¢ each. As and when the escrowed vendor's shares are released from escrow, they may be sold and, if and to the extent that they are sold, the proceeds will not be paid to the Company. There is no arrangement for the sale of the escrowed vendor's shares.

CERTIFICATION

The foregoing constitutes full, true and plain disclosure of all material facts in respect of the offering of securities referred to above as required by Section 38 of The Securities Act of the Province of Ontario, and there is no further material information applicable other than in the financial statement and the report of John Alexander Reid, Professional Engineer.

DATED this 4th day of July, 1955.

DIRECTORS

"JOHN CHARLES PERRY"
(John Charles Perry)
"ERIC D. SCOTT"
(Eric Duff Scott)
"DARWIN R. MARTIN"
(Darwin Reidpath Martin)
"JOHN J. BOLAND JR."
(John James Boland Jr.)
"J. W. COCHRANE"
(James Wilfred Cochrane)

PROMOTER

"DARWIN R. MARTIN"
(Darwin Reidpath Martin)

To the best of the knowledge, information and belief of the undersigned, the foregoing constitutes full, true and plain disclosure of all material facts in respect of the offering of securities referred to above as required by Section 38 of The Securities Act of the Province of Ontario, and there is no further material information applicable other than in the financial statement and the report of John Alexander Reid, Professional Engineer. In respect of matters which are not within the knowledge of the undersigned, they have relied upon the accuracy and adequacy of the foregoing.

UNDERWRITERS AND OPTIONEES

CRANG SECURITIES LIMITED
"ERIC D. SCOTT", President
"L. L. MASSON", Secretary

DOHERTY, ROADHOUSE & CO. LIMITED
"J. W. COCHRANE", President
"W. H. JACOB", Secretary

BONGARD & COMPANY
BONGARD & CO.
per Gordon R. Bongard, Partner

GEORGE R. GARDINER LIMITED
"GEORGE GARDINER", President
"F. HELLIKER, Secretary

LAMAQUE MINING COMPANY LIMITED
"J. C. PERRY, President
"P. N. TAPLEY", Secretary

COPPERCORP LIMITED

(Incorporated under the laws of Ontario)

Balance Sheet

As at June 27, 1955

ASSETS

Options to purchase mining rights (Note 1)	$620,005
Estimated organization expenses	5,000
	$625,005

LIABILITIES AND CAPITAL

Estimated accounts payable			$ 5,000
Capital:			
Authorized—3,500,000 shares of no par value			
Issued — 490,005 shares for cash (Note 1)		$245,005	
750,000 shares as part consideration for options to purchase mining claims		375,000	
1,240,005 shares			620,005
			$625,005

NOTES:

(1) The options to purchase mining rights were acquired for 750,000 shares of capital stock issued at 50¢ per share and $245,005 cash. In accordance with the purchase agreement, $245,000 of the cash consideration was applied by the company to a subscription for 490,000 additional shares.

Unpaid balances on options to purchase mining rights:

(a) $36,000 payable in four instalments of $2,500 each on or before December 31, 1955 to 1958 inclusive and $26,000 on or before December 31, 1959;

(b) $55,000 payable in eleven instalments of $5,000 each on or before January 3, 1956 to 1966 inclusive.

(2) Under the terms of an agreement dated December 30, 1954 there is a commitment to make royalty payments under one option as follows:

5c per short ton of merchantable ores containing 2% or less of copper and 1c per short ton for each full 1/5 of 1% of the copper content in excess of 2%.

(3) The company has agreed to sell and the underwriters have agreed to purchase 1,000,000 shares at 50¢ per share payable within five days of the date upon which the Ontario Securities Commission issues a receipt for the attached prospectus. Options on the company's capital stock are outstanding as follows:

125,000 shares at 75¢ per share within nine months of the above date;
125,000 shares at $1.00 per share within twelve months of the above date;
125,000 shares at $1.25 per share within fifteen months of the above date;
125,000 shares at $1.50 per share within eighteen months of the above date.

In addition, shareholders have sold to the underwriters 125,000 shares at 1c per share and have granted options to them covering 375,000 shares at 50c to 75c per share as set out in Section 11 of the attached prospectus.

Approved:

"J. W. COCHRANE", Director.

"J. C. PERRY", Director.

AUDITORS' REPORT

To the Directors of
Coppercorp Limited:

We have examined the balance sheet of Coppercorp Limited as at June 27, 1955. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances.

In our opinion the accompanying balance sheet is properly drawn up so as to exhibit a true and correct view of the state of the affairs of the company as at June 27, 1955, according to the best of our information and the explanations given to us and as shown by the books of the company.

CLARKSON, GORDON & CO.,
Chartered Accountants.

Toronto, Canada,
June 28, 1955.

Report on
COPPERCORP LTD. PROPERTIES
By J. A. REID, P. Eng.
Consulting Mining Engineer
June 15, 1955

June 15th, 1955.

Coppercorp Ltd.,
909 Federal Bldg.,
85 Richmond St. West,
Toronto, Ontario.
Gentlemen:

At your request, I have prepared this report on the properties of Coppercorp Ltd.

This report is based on visits to the property in April and September, 1951, and access to information gathered since that date. I have previously reported on this property briefly under dates of April 20th, 1951, September 7th, 1951 and July, 1952.

I. Location

Mamainse Point area on the east shore of Lake Superior, District of Algoma, Ontario.

II. Properties

The properties comprise three principal parcels of land held under option by your company.

A. From Nepigon Mining Lands Company

1. Montreal Mining Company—Southern Location (Pancake Point Location), comprising 4,580.27 acres, more or less.
2. Montreal Mining Company—Northern Location (Sand Bay Location), comprising 6,109.97 acres, more or less.

Both of which locations are registered under the Land Titles Act as Parcels 3655 to 3670, inclusive.

B. From Kathleen L. Lutes

1. Quebec and Lake Superior Mining Association Location (A. M. McDonell) comprising 5,606.87 acres, more or less.
2. Lot 8 of the Kirkland Location, comprising 250.7 acres, more or less.

These locations are registered under the Land Titles Act as Parcels 3712½ and 3713.

The total acreage is therefore 16,547.81 acres, more or less.

The balance of purchase prices is stated to be:

1. On the Nepigon Lands a total of $36,000.00 in five (5) instalments before December 31st, 1959.
2. On the Lutes option, a total of $55,000.00 in eleven (11) instalments before January 3rd, 1966.

Under the terms of the Lutes Option, a royalty of 5¢ per ton (of 2,000 lbs.) of ore containing 2% copper or less, is payable. The royalty increases 1¢ per ton for each 1/5% of contained copper in excess of 2%.

Verification of title is accepted from the statements of the Company's solicitors, Manning, Mortimer, and Mundell, thereupon.

III. Access and Facilities

The properties at Point Mamainse lie approximately 60 miles north of Sault Ste. Marie, Ontario.

The properties are traversed from south to north by Highway 17, a first-class paved road, extending from Sault Ste. Marie to the Montreal River. Hydro-electric power is available at Montreal River, a distance of approximately 16 miles from the properties.

The property is relatively rugged and heavily wooded.

Transportation, labour, power and other economic factors are considered favourable.

IV. History

These properties contain the same assemblage of host rocks which characterize the well-known copper producing district in Michigan on the opposite shore of Lake Superior.

Copper was first reported in the area by the Jesuit Fathers, in 1672. The Mining Companies referred to in the options were incorporated in 1856. Their ground was sporadically prospected during the height of the mineral excitement in Michigan and has been held dormant by those companies since that time.

In 1906, the Mamainse Mine was briefly optioned by Calumet and Hecla.

In 1948, Macassa Mines expended $45,000.00 in a short drilling program of 2,568 feet and subsequently relinquished the property.

In January, 1951, C. C. Huston and Associates re-optioned the properties and to July, 1952, completed a total of 33,400 feet of diamond drilling.

In 1953, the Ontario Department of Mines published Vol. LXII, Part 4, covering the Mamainse Point Copper Area.

Coppercorp Ltd. has undertaken to develop these properties.

V. Geology

The property is underlain by rocks of Keweenawan Age comprising an interbedded series of sediments (principally conglomerate) traps and amydaloidal basalts, similar in age and other characteristics to those in the well-known copper field of Michigan, on the south shore of Lake Superior. These rocks strike N 25 - 30° E (Magnetic), and dip 30° west. They are cut by numerous transverse faults. The property has a fracture system traversing these rocks, which has a known length of 2½ miles and a width of about ½ mile. Practically all the fractures, whenever examined or wherever drilled, showed copper.

The principal known fracture of the general structure of the property consist of three copper bearing "breaks" or "shears". The eastern one is called the "B" zone, the central one the "C" zone, and the western is known from early days as the Indian Diggings.

The "C" zone strikes N 10° W and dips 65° E across the prevailing bedding. The Indian Diggings has an apparent strike of N 20° W and an undetermined east dip. The "B" zone is about 600 feet east of "C" zone and appears to be parallel to it. It shows some copper values on surface, but the limited amount of drilling there showed nothing of note.

In the "Indian Diggings" zone (so called from the use of native copper in the early days for weapons and utensils) the workings comprise ancient pits and trenches. No other work has been done. The zone lies about 2,200 feet west of the "C" zone.

The breaks described above appear to be the latest on the property, and are not known to be shifted by transverse faults or fractures.

Two main transverse copper bearing fissures are known, which have produced some ore, i.e., the Copper Creek vein and the Silver Creek vein. On strike, both these veins should intersect the "C" zone and the Indian Diggings breaks. There are probably others of similar character, which have not been discovered.

The Copper Creek ore comprised both native copper and chalcocite (cuprous sulphide, 79.8% Copper), and that of Silver Creek wholly or mainly chalcocite, with some silver values. A feature of these veins or "breaks", noted by early observers and likewise by the present writer, is that they frequently occupy topographic depressions from which it can be inferred that they are strong, persistent structures. In all the ore seen, sulphides are the predominant minerals, and native copper seems to be of minor importance. Chalcocite is the principal copper mineral and in places it is associated with bornite (copper-iron sulphide 63.3% copper), chalcopyrite (34.5% copper) is of sparse occurrence.

The Coppercorp Ltd. ore differs from that of the Michigan deposits in respect to mineralization. In the latter, copper is mainly native metal and in the former principally in the form of sulphides. It is

possible that this difference may be in part responsible for the failure of early efforts, since the search at that time was for the native metal.

The copper mines of the south shore of Lake Superior are amongst the deepest in the world. Several of the leading properties there have produced ore to depths considerably in excess of 5,000 feet. The showings at Mamainse are found in the same assemblage of rocks as on the south shore, and likewise resemble them mineralogically. The thickness of the Keweenawan series at Mamainse Point has been variously estimated to be between 12,000 and 17,000 feet. In view of the above resemblance, I would consider the chances of persistence of ore at depth at Mamainse Point as being exceptionally good.

VI. Results of Work to Date

Publication of Ontario Department of Mines Report Vol. LXII, Part 4, on the Mamainse Point Copper Area in 1953 post-dated the 1952 drilling program, upon which this evaluation is based. A number of transverse structures are indicated which were previously unknown and will require to be assessed in the future.

Diamond drilling to 1952 has shown four zones carrying promising quantities of copper, which in places is associated with silver values. These zones are known as "C" zone, "C-2" zone, Silver Creek zone and Point Mamainse zone.

Ore reserve calculations are shown only [illegible] and Silver Creek zones. These zones comprise two east dipping fractures, converging and possibly [illegible] their north ends and lie wholly within the Montreal Mining Company - North Location. Dip [illegible] es varies from 55° - 68° east.

"C-2" zone is a transverse fracture believed to join the "C" zone. Dip is 45° north.

The Point Mamainse zone lies in the Quebec and Lake Superior Mining Location. It was at this place that mining and milling were briefly attempted circa 1907, and a small stamp mill built to recover native copper from this vein.

It is the writer's opinion that these deposits are of the lode or vein type, somewhat comparable to many gold deposits, and that diamond drilling merely gives an indication of value and tonnage, which has to be confirmed by underground work. It is his belief that there is a reasonable expectation of obtaining a mineable grade of 2.00 per cent copper or better.

VII. Ore Reserves

Calculation of ore reserves are based on diamond drilling with "A" core. Total footage drilled to July, 1952, was approximately 33,700 feet.

Drilling has shown four zones with promising quantities of copper, associated in places with silver values. No calculations have been included for silver content. The best of these zones to date appear to be the "C" zone and the "C-2" zone:—

(1) "C" Zone —This zone has been tested to a depth of 400 feet and for a length of 2,275 feet. It has an average width of 8.1 feet in this area.

(2) "C-2" Zone.- The "C-2" Zone runs normal to the "C" Zone and lightly intersects it on strike. It has a length of 250 feet and an apparent true width of 27 feet. The vertical depth is 450 feet. In this zone, there is an enriched section 150 feet long, 12.5 feet in true width, averaging 5.13% copper.

(3) Silver Creek Zone

(a) North Zone—has a length of 1,312 feet and has been calculated on the basis of the higher grade widths, only, to a depth of 250 feet.

(b) South Zone—has a length of 1,050 feet and also calculated to a depth of 250 feet only.

My calculations of ore reserves are as follows:

(1) "C" Zone $\frac{1,300 \times 4.4 \times 250}{10}$ = 143,000 tons @ 3.51% Copper

(2) "C-2" Zone 105,000 tons @ 2.53% Copper

(3) (a) Silver Creek North Zone

$\frac{1,312 \times 5.1 \times 250}{10}$ = 167,200 tons @ 2.8% Copper

(b) Silver Creek South Zone

$$\frac{1,050 \times 6.9 \times 250}{10} = 181,125 \text{ tons @ } 2.24\% \text{ Copper}$$

TOTALS

	Tonnage		*Grade*
C-1 and Silver Creek Deposits	491,405	×	2.8%
C-2 Deposit	105,000	×	2.53%
Totals and Averages	596,405	×	2.75% Copper

Or to put it in round figures, there is a reasonable expectation of 600,000 tons of an average grade of 2.75% Copper.

Recoverable copper in the above tonnages, by milling, would be
600,000 x (2.75 x 20) x 92.4% — 30,492,000 pounds

This figure does not include silver values, which if used as a credit against the cost of producing the copper, would somewhat enhance the profit.

It may be mentioned here, that ore on the C1 and Silver Creek showings has been estimated to 250 feet in depth, and on the C-2 deposit to 500 feet. If the ore should extend to 1,000 feet depth, the ore possibilities in the first instance would be increased fourfold and in the second instance doubled. Furthermore, there is the area around the old mine at Point Mamainse to be considered.

The vein at Point Mamainse has been drilled to the extent of nine holes, with the following results, — Depth of intersections 87 to 365 feet.

Length of zone	—	1,150 feet
Width of zone	—	5.0 feet
Grade of zone	—	1.57% Copper

In addition, four samples taken from the slime pile at the old mill foundations ran from 0.55% to 9.14% copper with an arithmetic average of 3.96%. Five grab samples from the old dump averaged 0.83% copper and four grab samples from the exposed showings averaged 7.11% copper. It may be mentioned that the stated recovery in the old stamp mill was 0.6% copper, which was likely only the native copper content.

The Lutes vein, which is in the vicinity, south of the old mine, gave chip samples in five sections which averaged 1.07% copper over 14 feet width.

VIII. Exploration Evaluation

Work on the property consists of geological mapping, surface prospecting, trenching and diamond drilling to the extent of some 33,700 feet. As a result of the money spent in exploration of the property and the showings developed, the writer would place a present valuation on the property of not less than $750,000.00.

IX. Conclusions

The writer considers the Coppercorp Ltd. properties a prospect of definitely mine-making probabilities for the following reasons:

(1) It has favourable geological conditions as the assemblage of rocks is similar in age and character to those on the south shore of Lake Superior.

(2) It gives evidence of having over a large area, remarkably strong and persistent structures and those found even where explored superficially show evidence of being ore bearing; in fact, there are several other showings on the property apart from the one being worked, which are worth further exploration.

(3) The results obtained by drilling on the "C" zone are sufficiently encouraging to warrant further investigation by underground work, even if nothing else should be found.

(4) The property is in a district, already provided with transportation and power facilities.

(5) In conclusion, I would say that considering the Coppercorp Ltd. project from the standpoint of ore bearing possibilities, with present market conditions, together with its exceptional advantage in respect to transportaton, power and smelting facilities, it is the best copper prospect in my knowledge.

Respectfully submitted,

"J. A. REID"

J. A. REID, P.Eng.
Consulting Mining Engineer.

CERTIFICATE

I, John Alexander Reid, of 85 Glendonwynne Road, Toronto 9, Ontario, hereby certify that:—

1. I am a graduate in Chemistry and Mineralogy of Queen's University, Kingston, Ontario, with the degree of Bachelor of Science (1902). I am a member of The Association of Professional Engineers of Ontario, and have been practising my profession continuously for more than 50 years.

2. Under date of June 15th, 1955, I made a report on the Mamainse Copper Project, which report is based on personal investigations, observations, visits to the property during the year 1951, examination of drilling records and assays pertinent to the property to which the said report relates and full cognizance of the relevant facts.

3. I have no interest, either directly or indirectly, in the properties which are the subject of my said report, or in the securities of any company concerned therewith, and I do not expect to receive, either directly or indirectly, any such interest.

DATED at Toronto this 18th day of June, 1955.

"J. A. REID"
J. A. REID, P.Eng.

COPPERCORP
LIMITED

Report

For Year Ended December 31st, 1955

COPPERCORP LIMITED

✧

CAPITAL STOCK

AUTHORIZED	3,500,000 shares of $1.00 each
ISSUED	2,740,005 shares of $1.00 each

✧

J. C. PERRY	President
E. D. SCOTT	Vice-President
H. F. CASSIDY	Secretary-Treasurer

✧

DIRECTORS

J. J. BOLAND, Jr.
J. W. COCHRANE
D. R. MARTIN
J. C. PERRY
E. D. SCOTT

✧

TRANSFER AGENTS

NATIONAL TRUST COMPANY, LIMITED
Toronto

✧

HEAD OFFICE

Suite 2500 - 25 King Street West, Toronto 1, Canada

COPPERCORP LIMITED

To the Shareholders:

Your Directors submit herewith their first Annual Report covering the part year from the date of incorporation, June 16th, to December 31st, 1955. The Balance Sheet, your Auditors' Report with statements and a detailed report on operations by Mr. C. C. Huston, Consulting Engineer, are included.

Your property, comprising some 16,000 acres, lies about 60 miles north of Sault Ste. Marie on Highway 17. Diamond drilling had indicated a substantial tonnage of copper ore in three different zones. Proving this ore by underground drifting and crosscutting is the next stage. A contract was let for shaft sinking and development work and at year end the shaft was sunk to a depth of 261 feet with the first level station completed.

Financing arrangements excluding shares and cash paid for the company's mining property netted the treasury $1,062,500.00 after all options were taken up leaving 759,995 shares in a 3,500,000 share company unissued.

The splendid work of Mr. C. C. Huston, Consulting Engineer, and Mr. W. O. McBride, Manager, is greatly appreciated.

On behalf of the Board,

J. C. PERRY,
President.

Toronto, 4th June, 1956.

COPPERCORP LIMITED

(Incorporated under the laws of Ontario)

Balance Sheet — December 31, 1955

ASSETS

Current:		
Cash	$654,775.98	
Finance company notes due December 14, 1956—at cost	200,000.00	
Accrued interest	2,280.82	
Deposit and advance	314.26	$ 857,371.06
Fixed:		
Road—at cost	$ 15,156.48	
Buildings and equipment—at cost	90,572.72	105,729.20
Mining rights: (Note 1)		
Cost of options to purchase mining rights	$620,005.00	
Payments made under options	7,500.00	627,505.00
Exploration and development—deferred		138,916.61
Incorporation expense		3,017.47
		$ 1,732,539.34

LIABILITIES

Accounts payable		$ 50,034.34
Capital:		
Authorized—3,500,000 shares of no par value		
Issued during year—		
750,000 shares as part consideration for options to purchase mining claims	$ 375,000.00	
1,990,005 shares for cash	1,307,505.00	
2,740,005 shares		1,682,505.00
		$ 1,732,539.34

Approved:

J. C. PERRY, Director.

ERIC D. SCOTT, Director.

Notes:

(1) The options to purchase mining rights were acquired for 750,000 shares of capital stock issued at 30¢ per share and $245,005 cash. In accordance with the purchase agreement, $245,000 of the cash consideration was applied by the company to a subscription for 490,000 additional shares.

Unpaid balances on options to purchase mining rights:

(a) $33,500 payable in three instalments of $2,500 each on or before December 31, 1956 to 1958 inclusive and $26,000 on or before December 31, 1959;

(b) $50,000 payable in ten instalments of $5,000 each on or before January 3, 1957 to 1966 inclusive.

(2) The company was incorporated under the laws of the Province of Ontario with the name Mamainse Mines Limited by letters patent dated August 30, 1951. By supplementary letters patent dated June 16, 1955 its name was changed to Coppercorp Limited and its authorized capital was altered to 3,500,000 common shares without nominal or par value, of which 2,740,005 shares have been issued and are fully paid and non-assessable. The company did not carry on any business whatsoever between the date of its incorporation and June 15, 1955.

AUDITORS' REPORT

To the Shareholders of
Coppercorp Limited:

We have examined the balance sheet of Coppercorp Limited as at December 31, 1955 and the statement of exploration and development - deferred, for the period June 16, 1955 to December 31, 1955. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances.

In our opinion the accompanying balance sheet and statement of exploration and development - deferred, present fairly the financial position of the company as at December 31, 1955 and the results of its operations for the period ended on that date.

Toronto, Canada,
June 4, 1956.

CLARKSON, GORDON & CO.,
Chartered Accountants.

COPPERCORP LIMITED

STATEMENT OF EXPLORATION AND DEVELOPMENT - DEFERRED FOR THE PERIOD JUNE 16, 1955 TO DECEMBER 31, 1955

Exploration and development:		
Clearing site, road maintenance and prospecting	$ 8,916.83	
Diamond drilling	24,286.09	
Shaft sinking	67,427.58	
Station cutting, drifting and crosscutting	11,248.92	
Mine office expense	11,120.04	
Sundry	9,437.87	$132,437.33
General and administrative:		
Legal fees	$ 3,929.22	
Listing and transfer fees and expenses	3,163.44	
Sundry	4,996.12	12,088.78
		$144,526.11
Deduct interest income		5,609.50
		$138,916.61

COPPERCORP LIMITED

Toronto, May 31st, 1956.

Mr. J. C. Perry, President and the Directors,
Coppercorp Limited,
2500 - 25 King Street West,
Toronto 1, Ontario.

Gentlemen:

Submitted herewith is a report on operations at your property to December 31st, 1955.

BRIEF HISTORY:

Following the results of previous investigations by a syndicate, Coppercorp Limited was incorporated June 16th, 1955 and clearing of the selected shaft site commenced July 13th, 1955.

The program of surface diamond drilling was started August 1st, 1955 and a three compartment shaft collared to 40 feet of depth by August 15th of that year.

A new access road from the shaft site to the highway was made, plant buildings, headframe and equipment were erected by November 7th and shaft sinking from the collar commenced November 8th, 1955.

PLANT AND EQUIPMENT:

A contract was entered into with Temiskaming-Inspiration for the shaft sinking and the preliminary lateral work.

Bunkhouses, cookery, offices, warehouse and 3 staff residences have been erected and are in use.

A 90 foot wood headframe was erected by the Company.

DIAMOND DRILLING:

Surface diamond drilling, which commenced August 1st, 1955 totals, to December 31st, 1955, 6,563 feet in the following locations:

(a) Mamainse Location	745 ft. in	3 holes
(b) "C" Area	546 ft. in	3 holes
(c) Silver Creek South	1,862 ft. in	7 holes
(d) Copper Creek (UC.)	1,045 ft. in	4 holes
(e) "SB" Zone	2,365 ft. in	10 holes
	6,563 ft. in	27 holes

MINING:

Shaft Sinking

A three compartment shaft was sunk to 261.0 feet to December 31st, 1955. Station cutting totalled 7,808 cubic feet.

Bulk Sampling Plant

In order to arrive at an accurate figure for the average copper content, construction of a bulk sampling plant capable of handling up to 300 tons per day was planned.

This plant will crush each round separately and by a method of continuous sampling will reduce the volume of each round to a final sampling of about 100 pounds upon which a determinative assay can be made.

Metallurgical Tests

A metallurgical test made upon selected average cores from "C" and Silver Creek on a one to one basis indicates that at a grind 65% —200 mesh a copper concentrate carrying 40% Cu, 9.0 ozs. Ag and .05 ozs. Au per ton can be made with modest reagent consumption at recoveries of 95.5% Cu, 88.0% Ag and 95.0% Au.

These tests are considered eminently satisfactory.

GENERAL:

Surface prospecting is proceeding in the unprospected portion of the company's property and a new zone, called "SB", found in late November.

An airborne electromagnetic survey will be tested over the property and if the results are satisfactory the company's property will be surveyed by that method.

It is planned to continue the diamond drilling of the "SB" Zone.

I should like to express my appreciation of the support and assistance given me by the President and Directors, Mr. W. O. McBride (Manager) and Mr. S. LeBaron (Geologist).

All of which is respectfully submitted,

C. C. HUSTON, P. Eng.,
Consulting Engineer.

Printed in Canada

COPPERCORP LIMITED

Progress Report

June 8th, 1956.

Mr. J. C. Perry, President and the Directors,
Coppercorp Limited,
2500 - 25 King Street West,
TORONTO 1, Ontario.

Gentlemen:

The following Progress Report reviews developments to June 8th, 1956.

SURFACE DIAMOND DRILLING

The zone of principal importance developed by surface diamond drilling is the "SB" zone which lies approximately 700 feet east, roughly parallel to and of the same type as the "C" zone.

This has been drilled for a length of 1,600 feet in 16 holes, totalling 6,589 feet to this date, from which holes calculations now made indicate three principal ore sections to a depth of 450 feet:

(1)	100,000 tons	at 1.74% Cu
(2)	24,000 tons	at 2.4 % Cu
(3)	46,000 tons	at 4.24% Cu
	170,000 tons	at 2.5 % Cu

which, allowing for a dilution factor of 20%, indicates 204,000 tons of an average grade of 2.1% Cu over mining width.

UNDERGROUND DIAMOND DRILLING

Seven drill holes have been completed underground probing the area of the "C-2" orebody and have totalled 1,868 feet.

MINING

Shaft Sinking

A three compartment shaft sunk 261.0 feet to December 31, 1955 is now complete to a depth of 550 feet and three levels established at 250, 375 and 500 feet.

Station cutting has totalled 14,261 cubic feet.

Lateral Development

There has to June 8th been completed 903.6 feet of cross-cutting as per the following tabulation:

1st level	256.9 feet
2nd level	326.8 feet
3rd level	320.8 feet

The "C" zone has been encountered in its expected position on the 1st and 2nd levels and has been explored by drifting as follows:

1st level	597.2 feet
2nd level	476.4 feet

Crosscuts on the 3rd level are being driven toward the "C" zone and have extended 220.8 feet, and toward Silver Creek westward and have extended approximately 140 feet. This latter crosscut for the development of the Silver Creek zone is estimated to require 1,200 feet of crosscutting.

Results of Underground Exploration to Date

The following table sets out the average assay results of work done to June 1, 1956:

		Muck Samples			Face Samples	
250 Level		Grade %	Tons	Width	Grade %	Length
S Drift	April 1956	.583	645.5	7.4	0.74	174.9'
	May 23	.38	977.4	6.9	0.99	197.8'
	To Date	.46	1,622.9	7.1	.87	372.7'
N Drift	April 1956	.737	409.3	6.2	3.26	94.8'
	May 28	1.39	691.3	6.9	1.64	129.7'
	To Date	1.15	1,100.7	6.6	2.27	224.5'
375 Level						
S Drift	April 1956	.903	913.1	8.5	1.36	187.3'
	May 24	0	0	0	0	0'
	To Date	.903	913.1	8.5	1.36	187.3'
N Drift	April 1956	.918	587.4	11.2	2.22	104.1'
	May 26	.94	1,105.9	6.7	2.22	185.0'
	To Date	.935	1,693.3	8.3	2.22	289.1'
MINE OVERALL TO DATE		.83%	5,330.0	8.7	1.63%	1,073.6'

The above figures will be subject to modification by further assays and test holes in drift walls, results of which have not been received.

The North drifts on both the 1st and 2nd levels are considered to be continuous stoping lengths. The average face sampling is somewhat in excess of the original surface diamond drill calculations for this area.

It should be noted that the muck samples reflect a copper content of approximately half the face sample values shown.

It is my present opinion that the type of mineralization, chalcocite, and its erratic distribution occurring as it does in ribbons, stringers and blebs, and particularly owing to its softness (friability), that the muck samples may not represent a true figure. Some results of recent experiments indicate that "fines" in the muck may be higher in grade and larger experimental muck samples should indicate higher copper values.

With this difference in mind and in order to obtain accurate representative muck samples, if possible, we have thought it essential to push the completion of the bulk sampling plant which is now ready for operation.

GENERAL

With the spring break-up, prospectors are working into unprospected portions of the property. They have reported a flow top type of deposition, east of the wide conglomerate, from which two preliminary grabs have given 1.0% and .52% Cu. These assays in this type of occurrence may be of some significance.

Prospect bulldozing north of the "C" zone has disclosed an intersting occurrence of chalcocite of as yet unknown importance.

The airborne electromagnetic survey has not yet been tested owing to weather conditions.

Diamond drilling is continuing on the "SB" zone with the object of intersecting that zone by surface holes at depths below 500 feet.

On June 7th Mr. McBride advised by telephone that the 3rd level crosscut toward Silver Creek, at a point approximately 200 feet from the shaft, encountered a broken zone in trap, the fractures showing native copper. Sufficient native copper occurred here to hamper crosscutting, the structure in which the metal occurs although previously unknown now appears conformable to the "C" zone in strike and dip.

All of which is respectfully submitted.

C. C. HUSTON, P. Eng.,
Consulting Engineer.

C
O
P
Y

June 27th, 1956.

Mr. J. C. Perry, President, and the Directors,
Coppercorp Limited,
2500 - 25 King Street West,
TORONTO, Ontario.

Gentlemen:

The following interim report reviews developments to June 23rd, 1956.

SURFACE DIAMOND DRILLING

One deep verticle hole at the south end of the "SB" zone intersected the projection of that zone from 523-529 feet. Chalcocite was seen in the core but no assays have been received.

This intersection is 100 feet below the depths previously calculated for this zone as set out in the report dated June 8th.

UNDERGROUND DIAMOND DRILLING

Pending the cutting of diamond drill stations on the 500 foot level no further diamond drilling underground has been done during the period.

MINING

Lateral Development

During the period June 1st to 28th, the following lateral development, with results, was done:

1st Level: North Drift, length 163', faces averaged 1.21% Cu over 8', muck samples averaged .51% for 876 tons.

2nd Level: North Drift, length 143', faces averaged 3.26% Cu over 8', muck samples averaged 2.9%

Overall average for both levels for this period:

Length	306 feet
Faces averaged	2.18%
Mucks averaged	1.59%

On the third (500 ft.) level crosscutting to the Silver Creek was continued on past the breccia vein containing slab native copper and at present is approximately 302 feet from the station or about one-quarter of the total distance. The native copper reached thicknesses to 8 inches.

The third level crosscut east toward the "C" zone has already encountered 100 feet of "C" zone footwall fractured trap rock containing small amounts of bornite and chalcopyrite.

The face is 370 feet from the shaft and the last 18 feet can be described as silicified breccia containing bornite, chalcopyrite and chalcocite which is believed to form a portion of the "C" zone proper. It is expected that 80 further feet of crosscutting will be required here to traverse the interesting section.

BULK SAMPLING PLANT

The bulk sampling plant commenced intermittent operations on June 20th and considerable difficulties are being experienced owing to wet carbonate muck. It is anticipated that from four to six weeks operation will be required before results can be properly evaluated.

No satisfactory samples have yet been produced by the mill.

GENERAL

The prospectors are working in the unprospected portions of the property.

An airborne electromagnetic test was made under ideal conditions and the results were such as to make it clear that deposits such as these, containing less than 5% total sulphides are not readily detectible. Surface mapping and prospecting will be required.

Two large samples, one of native copper and one of chalcocite are on exhibit at the Annual Meeting and are to be presented to the Royal Ontario Museum, having been taken from the underground developments at this property.

All of which is respectfully submitted.

CCH:mv

C. C. Huston, P. Eng.
Consulting Engineer.

PROGRAM

12:00 Noon	Buses arriving from Sault Ste. Marie
12:00 - 1:00 P.M.	Guided tours of surface facilities: Service Building Crusher Building Mill Building Display in Offices
1:30 P.M.	Reception and Buffet Luncheon
2:30 P.M.	*Welcome by* W. GRIFFIN, Mine Manager *Introduction of guest speakers by* ERIC D. SCOTT, President of Coppercorp Ltd. *Address by:* THE HONOURABLE GEORGE C. WARDROPE, Minister of Mines THE HONOURABLE A. A. WISHART, Q.C., Attorney General, M.P.P. of Sault Ste. Marie MR. J. P. SHERIDAN, P.ENG., President Sheridan Geophysics Ltd.
3:30 P.M.	Buses leaving for Sault Ste. Marie
4:30 P.M.	Plane departure Hors d'oeuvres and cocktails served on flight.

Directors and Officers

COPPERCORP LIMITED

MR. ERIC D. SCOTT
President

DR. S. P. OGRYZLO, PH.D., P.ENG.
Vice-President

MR. J. J. BOLAND, III

MR. J. W. COCHRANE

MR. D. R. MARTIN

MR. H. F. CASSIDY — *Secretary-Treasurer*

SHERIDAN GEOPHYSICS LIMITED

MR. J. P. SHERIDAN, P.ENG.
President

MR. GRAHAM H. DUFF
Secretary-Treasurer

Managing Director — DR. GEORGE DISLER, PH.D., P.ENG.

Mine Manager — MR. WILLIAM GRIFFIN

Resident Geologist — MR. UNTO JARVI

THE COPPERCORP MINE

Operated By

SHERIDAN GEOPHYSICS LIMITED

History and Operations

In the year 1672 a Jesuit Missionary first reported the presence of copper on the North Shore of Lake Superior approximately fifty miles north of what is now known as Sault Ste. Marie.

In the latter part of the eighteenth century evidence shows that local Indians mined some of the known native copper zones on what presently constitutes the Coppercorp Property.

In 1845 a number of crown grants, including mineral rights, were given to the Montreal Mining Company. These grants, totalling approximately 18,000 acres, represent the Coppercorp Property as it is known today.

During the latter part of the eighteen hundreds, several shafts were sunk and limited production took place from a number of small shafts.

In 1948 the Toronto Consulting Firm of C. C. Huston and Associates examined the old showings and recommended further exploration in the form of diamond drilling.

In 1949 drilling under the direction of C. C. Huston and Associates was commenced and a new Company known as Coppercorp Limited was formed on the prospect. Subsequent drilling outlined what is presently known as the C and C-2 Orebodies and indicated the SB Orebody and also the Silver Creek Orebody. Armed with these favourable drill results, Coppercorp Limited collared and sank a 550 foot shaft in 1954 and carried out approximately 14,000 feet of lateral development.

The results of this diamond drilling exploration program and the underground development program outlined an orebody estimated to contain approximately one million tons averaging two per cent copper above the 500 foot horizon. The cost of this initial exploration program carried out by Coppercorp was approximately $1,500,000.

In 1957, faced with falling copper prices, the exploration program was terminated.

Current Developments

In August 1964 Vauze Mines Limited, a Company controlled by Sheridan Geophysics Limited, approached the Coppercorp Management with a proposal to move the Vauze Mine and Mill from its Noranda area property to the Coppercorp Property and finance the Coppercorp Property to production. The deal was consummated in late October 1964 and provided for Vauze Mines Limited to bring the Coppercorp Property to production at a rate of not less than 500 tons per day by the 30th of November 1965. The deal further specified that Vauze was to provide up to two million dollars, the estimated cost of the move and property development.

In May of 1965 control of Vauze Mines Limited was sold by Sheridan Geophysics Limited and Sheridan Geophysics Limited together with its associated Company, North Canadian Enterprises Limited, repurchased the total mining assets of Vauze Mines Limited and provided all the financing required to bring the property into production. Under the terms of the final lease arrangements, after the pre-production expenses are recovered by the operator, the profits are then split on a 50-50 basis between Coppercorp Limited and Sheridan Geophysics Limited. The term of the lease agreement is twenty years renewable for a further twenty years.

The Development Program

In November and December of 1964, some surface construction was commenced. In February 1965 the Vauze Mill was shut down at Noranda and the move to the Coppercorp Property commenced.

In June 1965 the Coppercorp shaft was dewatered and underground development resumed.

In May 1965 surface diamond drilling was commenced utilizing two drills. Further detail drilling was carried out on the SB Zone and the Silver Creek North Zone. Included in this surface exploration program was a detailed geophysical survey of the area immediately surrounding the known orebody combined with detailed geological and geochemical examinations. The results of

this program have permitted a new determination of ore reserves which now stands at approximately 1,500,000 tons grading 2.1% copper and located above the 500 foot horizon

Commencement of Production

On the 10th of October, 1965, hydro-electric power was supplied to the property from the Great Lake Power Dam located at the Montreal River, 17 miles north of the mine. On the 13th of October 1965 the Mill commenced production at a rate of 500 tons per day. The initial concentrate from the mill assayed in excess of 50% copper and the recovery on the very first day of production was in excess of 90%.

These fine results produced by the Mill only eight months after the Mill had been shut down in Noranda are indeed a tribute to the personnel involved.

Geology at the Ore Deposits

GEOLOGY

The general geology of the Coppercorp Mine is similar to that of the Keweenaw copper area of Northern Michigan. The rock types consist mainly of interbedded lava flows and conglomerates, striking N30 W and dipping gently westward. They are intersected by numerous transverse faults and it is within three of these faults that the Coppercorp mineralization is located. The copper sulphides are found mainly within shear and breccia zones. The chief ore mineral is chalcocite with minor amounts of bornite and chalcopyrite. Native copper, an important mineral in the Michigan deposits, is rare in the Coppercorp area.

Five ore zones are presently known. These are named C, C-2, SB, Silver Creek South and Silver Creek North. The C and C-2 zones, now under intensive development, contains approximately 400,000 tons grading 2.3% Cu to the 500 foot level.

The Silver Creek South Zone, with limited underground development, contains approximately 490,000 tons grading 1.9% Cu.

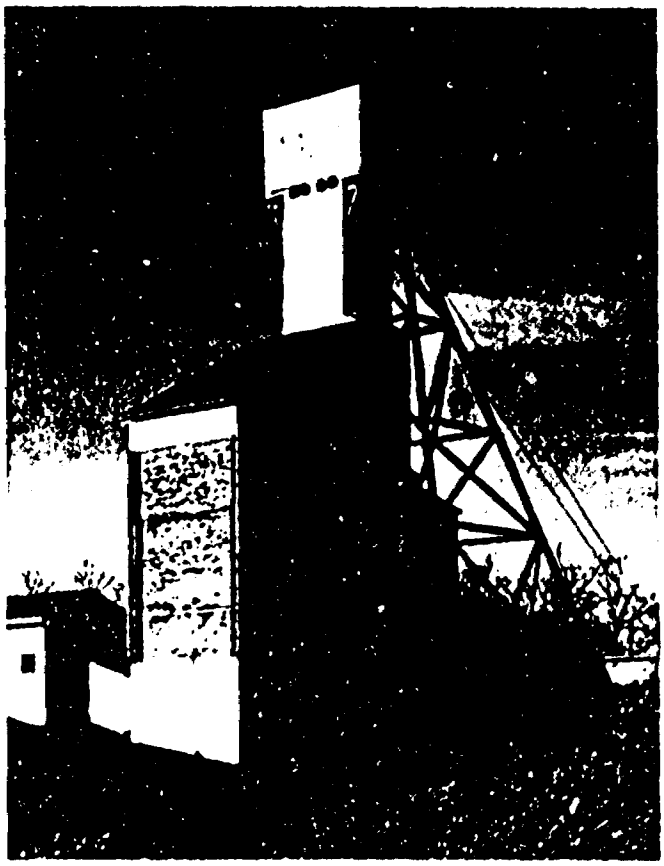
The remaining zones, the SB and the Silver Creek North indicate 650,000 tons grading 2.1% copper, but these two zones have been explored by surface diamond drilling only.

Thus the total ore reserves at present are 1,540,000 tons grading 2.1% copper and located above the 500 foot level.

The probability of finding further ore along strike or down dip is considered good.

MINING

At present all ore is coming from the C and C-2 Zones which are developed on three levels, the 250, 375 and 500 foot level. Extraction of ore is by shrinkage stope method employing boxholes and timbered chutes.



Headframe complex with coarse ore bin and waste bin

Stope preparation in the C Zone consists of cutting boxholes on 25 foot centres from the ore drifts in all stoping sections and building a timber chute in each boxhole to facilitate loading of broken ore into mine cars. Silling out is done at a height of 19 feet above track and is continuous to full ore width over an entire stoping section. One stope raise open at 45° at full ore width is driven from the top of one of the boxholes in each stoping section.

Stoping will be mainly by open rills which is basically a static shrinkage method. Some standard or dynamic shrinkage mining will be required to open up and finish off each stoping section. Mining width is expected to average in excess of eight feet but widths will vary from

about three feet up to fourteen feet in the presently developed stoping sections.

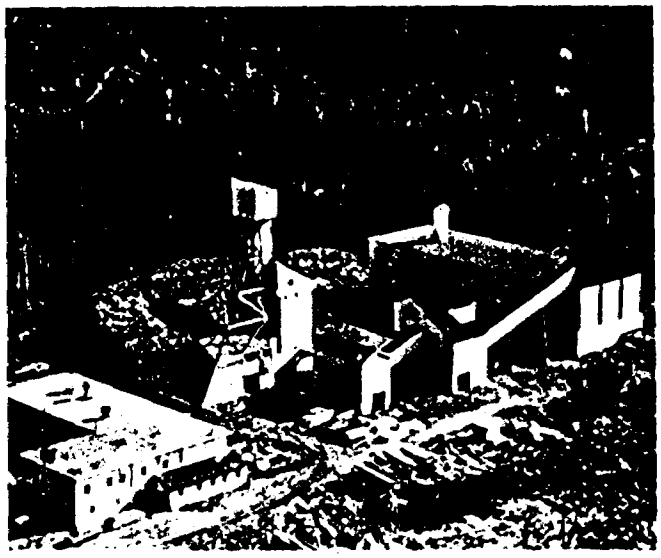
Miners going underground

It is planned to mine the C and C-2 Zones on the top two levels to provide continuous mill feed while shaft deepening is in progress on one shift per day. On completion of the shaft bottom and the installation of a loading station which will be tied into the present ore pass system the stope preparation on the third level on C Zone and Silver Creek Zone will proceed.

FUTURE DEVELOPMENTS

In early 1966 it is planned to drive the first level north to explore the farther northern extension of the C Zone and then to open up the Silver Creek Zone both North and South on the 280 and 500 foot levels. In addition it is planned to open up the SB Zone on the 280 and 500 foot levels. This program will involve approximately ten to fifteen thousand feet of lateral development. At the present time deep drilling is being carried out from underground on the Silver Creek Zone and it appears from the initial results that the Silver Creek Zone may be expected to continue to at least the 3,000 foot horizon.

SURFACE INSTALLATIONS

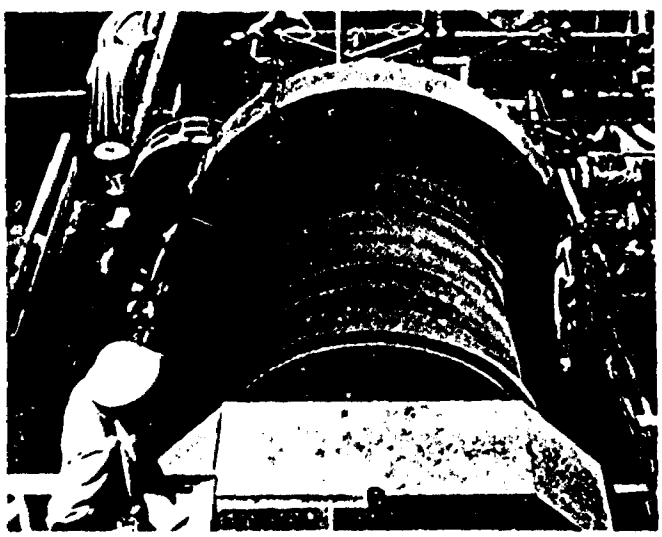


General view showing layout of service building, headframe, crusher houses and mill. The service building houses the dry, bathroom, compressor room, machine shop, warehouse and offices.

The Service Building houses the Engineering Offices, the Accounting Offices, Warehouse, Mine Dry, Machine Shop, Compressor Room and Hoist House under one roof. The Mill building houses the Assay Office.

CRUSHING AND MILLING

The crushing plant was designed to crush 500 tons per day operating on a six hour day. Storage of the fine ore is provided in a 2,000 ton capacity fine ore bin. The mill, a standard flotation mill is presently operating at 580 tons per day and works 24 hours per day, on a seven day week.



One of the two ball mills

THE MANAGEMENT TEAM

Eric D. Scott,
President, Coppercorp Limited

Mr. Scott is a Senior Partner of J. H. Crang & Company of Toronto, Members of the Toronto Stock Exchange and other principal Canadian Exchanges. Mr. Scott has been associated with J. H. Crang & Co. for more than thirty years and is an Officer or Director of various Canadian financial and industrial companies. He is a former President and Chairman of the Board of Governors of the Toronto Stock Exchange. Mr. Scott has been a Director of Coppercorp since incorporation and President of the Company since the Spring of 1965.

J. P. Sheridan, P.Eng.,
President of Sheridan Geophysics Limited

Mr. Sheridan is a graduate in Engineering Physics, University of Toronto in 1955. He formed Sheridan Geophysics Limited in 1956 and has been President of that company since its incorporation. In addition, Mr. Sheridan is a Director and President of a number of mining exploration companies including White Star Copper Mines Limited and Belleterre Quebec Mines, Limited. He was formerly President of Vauze Mines Limited.

The Sheridan Geophysics Limited Coppercorp Mine is one of the select few personally controlled operating mines in Canada today. Mr. Sheridan has set an enviable record in piloting the Coppercorp project from conception to production in less than a year at a cost of less than two million dollars.

George Disler,

Managing Director of the project and formerly Managing Director of Vauze Mines Limited, George studied geology in Switzerland and later in Finland where he completed his doctorate degree on the "Outokumpu" Copper Mine. He emigrated to Canada in 1952 and was associated with C. C. Huston & Associates for 12 years prior to being appointed Managing Director and Chief Geologist for Sheridan Geophysics and associated Companies. The operation and exploration of the Coppercorp Mine is the direct responsibility of George Disler.

William

Manager of the operation was former Manager of Vauze Mines Limited. Mr. Griffin who is a well known operator with widely varied experience was Manager of Gulch Mines Limited and of Chibougamau Explorers and Assistant Manager of East Malartic Gold Mines Limited, of Pronto Uranium Mines Limited and of Patet Copper Mines. He has been responsible for the administration and coordination of all phases of the Coppercorp project.

One of the three banks of flotation cells

COPPER CONCENTRATE

The concentrate produced averages about 50% contained copper with about $10.00 in gold and silver values. It is believed that this concentrate is the highest grade concentrate produced in commercial quantities in Canada.

ELECTRICITY

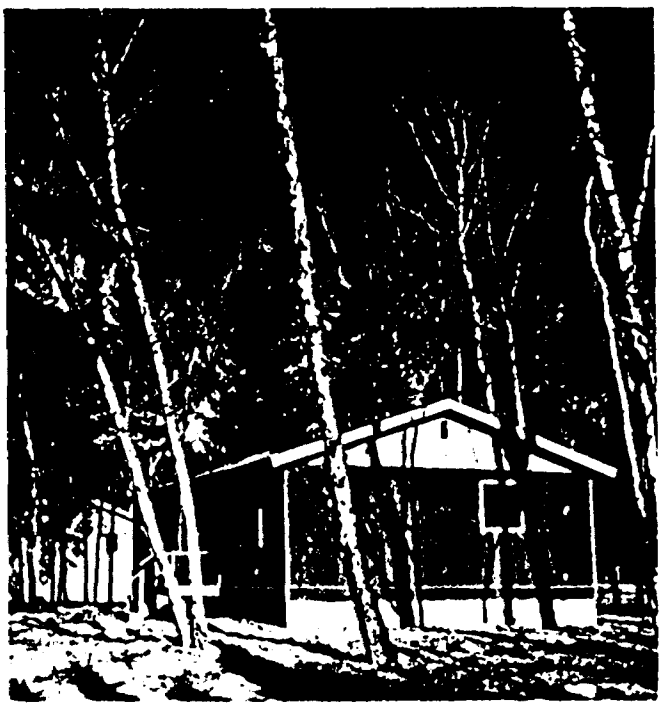
Hydro Electric Power is provided for the Mine and Townsite by Great Lakes Power Company's Hogg Generating Station on the Montreal River and transmitted over a 44,000 volt, 17 mile transmission line.

Distribution on the property is at 550 volts.

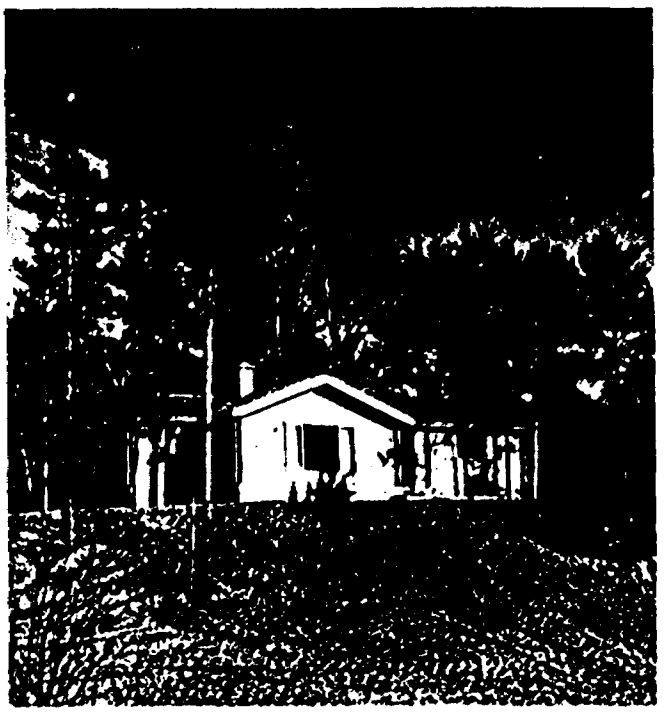
Electrical Consultants on the property were Walter Dow & Co.

CAMP FACILITIES AND TOWNSITE

Camp facilities, including sleeping quarters and dining hall, have been provided on the property for approximately 65 men. In addition, a small townsite has been started on the lakefront and at present the senior staff is housed in seven homes. Each home has three bedrooms and all modern conveniences.



Staffhouses



Manager's residence

Dining room with Chef

MARKETING OF CONCENTRATES

The concentrates produced are trucked to Sault Ste. Marie and from there are shipped to world markets either by ship or rail.

GENERAL

The property is located on the Trans Canada Highway only sixty miles north of a major city. Certain problems however were involved because of lack of previous development in the local community. For instance, there was no hydro-electric power in the area, there was no telephone service and although a substantial number of people lived in the local area there was no adequate schooling facilities and no provisions whatsoever for secondary schooling. Normally it takes approximately three years to bring a mine into production once a decision has been made to bring the mine into production. However, in this particular case the mine was actually in production eleven months after the decision was made to bring it into production. Consequently there has not been sufficient time to allow the local area to develop the normal services generally required to satisfactorily operate a mine. These local and temporary hardships are gradually however being eliminated due in no small part to a co-operative and helpful attitude of the local Government Officials and the senior personnel of the Department of Mines.

Unto Jarvi

Chief Geologist of the operation, was formerly Geologist at Vauze Mines in Noranda. A 1960 graduate of Queen's University, ' · had previously worked at Kerr Addison, Opemiska and Canadian Malartic.

Tom Kneen

Underground Superintendent and Chief Engineer of the operation Tom Kneen has been associated with the project since its inception. Tom who graduated in Mining Engineering at U.B.C. has been Chief Engineer at Pater Mine and planning and design Engineer at Pronto Uranium Mines Limited. After six months of trouble shooting during the building construction and shaft dewatering Tom concentrated on preparing the mine for production.

Dan Stamp

Mechanical Superintendent of the operation started in the mining industry back in 1936 at Canadian Malartic Mines and East Malartic Mines. He became Plant Superintendent at Snow Lake for Howe Sound Exploration Company and held the same position for Campbell Chibougamau from 1955 to 1962.

Russ Upton

Construction Superintendent for Industrial Mine Installations Limited before joining Sheridan Geophysics Limited. Russ has directed the dismantling and conversion of the Spanish American Mill Buildings and their re-erection at the Coppercorp site. He has been responsible for supervising all plant and camp construction. Previous to this project, Russ worked on the Mattagami Lake Mines, Lake Dufault, the Wasamac project and Spanish American construction projects.

Bill Glover,
Mill Superintendent

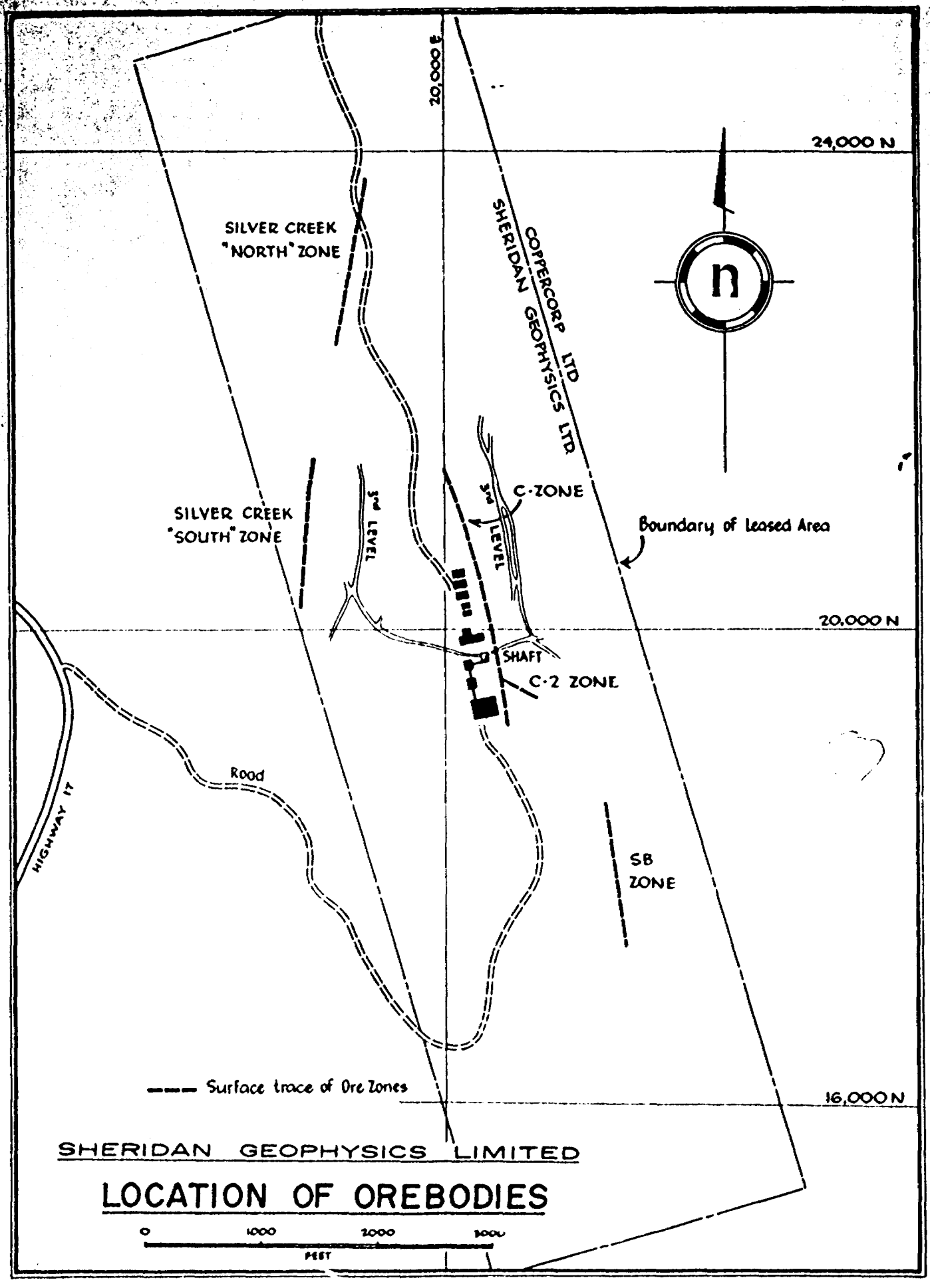
Came from Pronto Mines Limited where he had been Mill Foreman for nearly five years in the Copper Mill and for four years in the Uranium Mill. Bill joined the Company in time to supervise the setting up of mill equipment and the initial operation of the circuit.

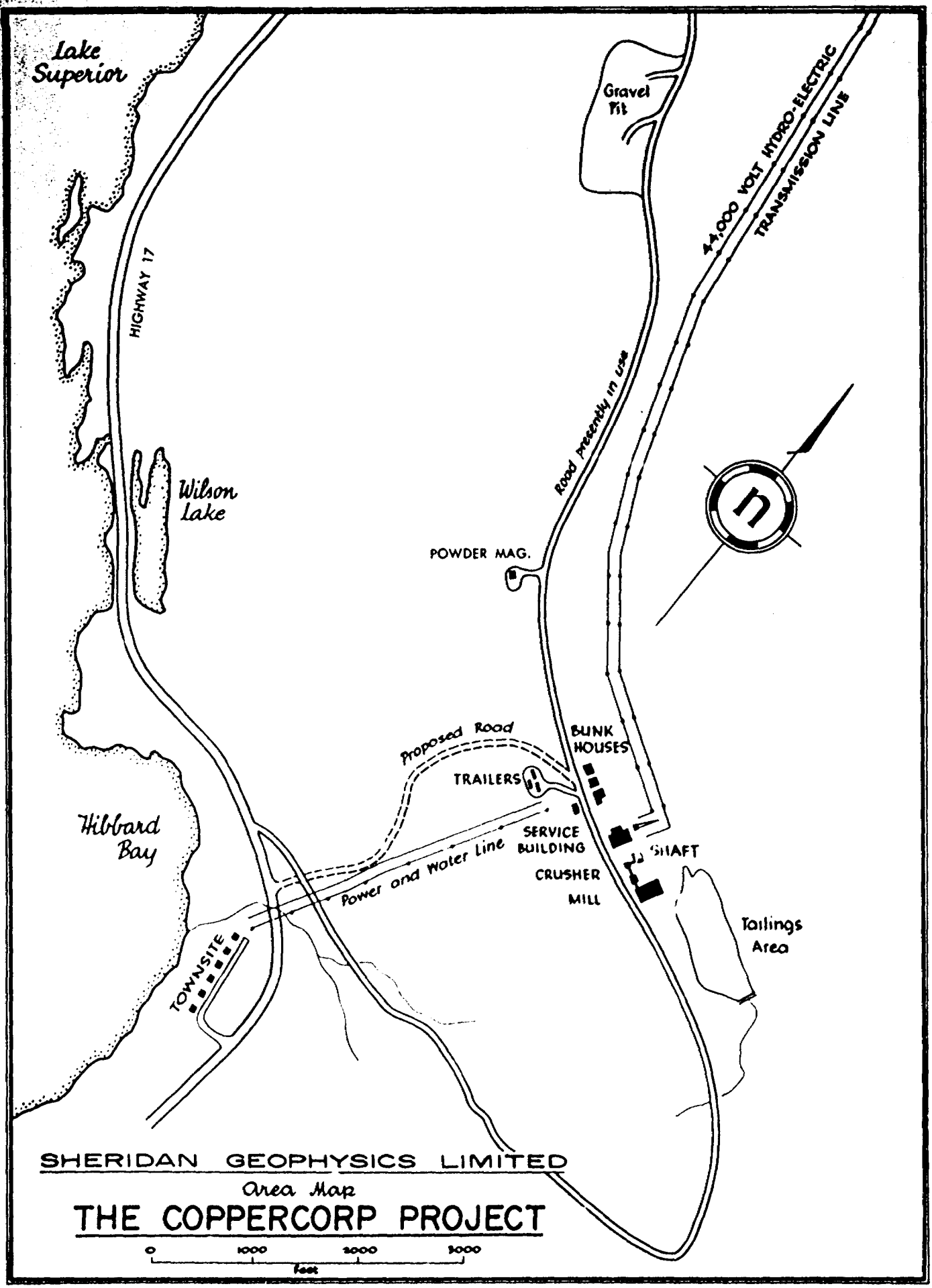
Bill Forest

Chief electrician for mill and mine was formerly electrician at Elder Mines and Eldrich Mines Limited. Construction Electrician on the Lake Dufault project and electrical mechanical supervisor at Elder Peel Limited.

George Hamilton

Mine Captain for the operation was formerly Mine Captain at Lakeshore Mines Limited at Kirkland Lake where he worked for almost thirty years. George brings to this operation a wealth of experience in the mining method presently being used at this mine.


20,000 E
24,000 N
SILVER CREEK
"NORTH" ZONE
SHERIDAN GEOPHYSICS LTD
COPPERCORP LTD
n
SILVER CREEK
"SOUTH" ZONE
3rd LEVEL
C-ZONE
Boundary of Leased Area
20,000 N
SHAFT
C-2 ZONE
Road
HIGHWAY 17
SB
ZONE
Surface trace of Ore Zones
16,000 N
SHERIDAN GEOPHYSICS LIMITED
LOCATION OF OREBODIES
0
1000
2000
3000
FEET


Lake Superior
Gravel Pit
44,000 VOLT HYDRO-ELECTRIC TRANSMISSION LINE
HIGHWAY 17
Road presently in use
Wilson Lake
POWDER MAG.
N
Proposed Road
BUNK HOUSES
TRAILERS
Hibbard Bay
SERVICE BUILDING
SHAFT
Power and Water Line
CRUSHER
MILL
Tailings Area
TOWNSITE
SHERIDAN GEOPHYSICS LIMITED
Area Map
THE COPPERCORP PROJECT
0
1000
2000
3000
Feet

COPPERCORP
LIMITED

Report

For Year Ended December 31st, 1965

COPPERCORP LIMITED

✧

CAPITAL STOCK

AUTHORIZED . . . . . 5,000,000 shares of no par value

ISSUED . . . . . 3,603,006 shares of no par value

✧

ERIC D. SCOTT . . . . . President

DR. S. P. OGRYZLO . . . . . Vice-President

H. F. CASSIDY . . . . . Secretary-Treasurer

✧

DIRECTORS

J. J. BOLAND III

J. W. COCHRANE

D. R. MARTIN

DR. S. P. OGRYZLO

ERIC D. SCOTT

✧

TRANSFER AGENTS

NATIONAL TRUST COMPANY, LIMITED
Toronto

✧

HEAD OFFICE

Room 1405, 302 Bay Street, Toronto 1, Canada

COPPERCORP LIMITED

TO THE SHAREHOLDERS:

The Company's financial statements as at December 31, 1965, with the auditors' report of Clarkson, Gordon & Company, are herewith submitted.

Agreement with Vauze Mines Limited covering lease of part of our property was transferred at their request to North Canadian Enterprises Limited as at 12th May, 1965. The work on the leased acreage proceeded rapidly and production began in the fall of 1965. The official opening of the mine was held on 12th November, 1965, and a copy of the brochure published at the time was forwarded to all our shareholders. There have been intermittent operating delays, due principally to water line and power line interruptions. We are to be congratulated upon having such industrious and progressive partners in this enterprise. The estimate of expenditures of North Canadian Enterprises Limited to the end of 1965 is approximately $2,000,000. Since the end of the year the 500,000 treasury shares of Coppercorp, payable under the agreement when the mill was in operation, have been issued. If prices of copper are maintained, it is hoped that all expenditures made under the agreement will be repaid in 1967, after which we could expect to receive our share of any net profits. North Canadian Enterprises Limited report that production of copper from October 10th to December 31st, 1965, totalled 767,480 lbs. and that from January 1st to March 31st, 1966, an additional 957,998 lbs. of copper were produced.

In November, 1965, North Canadian Enterprises Limited suggested that we participate with them in giving options on Coppercorp shares to key personnel at the mine. We considered this in the Company's interest and matched North Canadian Enterprises Limited offer of 50,000 shares with an additional 50,000 shares as per footnote (2) (b) of the balance sheet.

The exploratory diamond drilling referred to in the last annual report was completed in the early part of 1965. Drilling results were not satisfactory, giving low values only. During the summer of 1965, a new copper showing was discovered near the main highway and it is anticipated that some exploration and diamond drilling will be done in 1966 in the neighbourhood of this discovery to explore its possibilities.

Under our agreement of 5th September, 1962, with Algoma Central and Hudson Bay Railway Company, a royalty payment of $1,000.00 was due 5th September, 1965. Under the agreement, if this payment was not made and we advised them of it without receiving payment, the lease automatically terminated. We wrote to them accordingly and have received no reply, which in our understanding has cancelled the lease with them.

During the last eighteen months, the duties of the Board have become somewhat onerous and it has been considered advisable to ask the shareholders to approve a special resolution increasing the number of directors from five (5) to seven (7) with the quorum of three (3) remaining the same as formerly. This will assist in more readily obtaining a quorum of directors when required.

On behalf of the Board,

ERIC D. SCOTT,
President.

Toronto, 19th April, 1966.

COPPERCORP LIMITED

(Incorporated under the laws of Ontario)

Balance Sheet — December 31, 1965

(with comparative figures for 1964)

ASSETS

	1965	1964
CURRENT:		
Cash	$ 5,790.28	$ 18,172.23
Accounts receivable		25.00
Finance company notes and Trust company guaranteed investment receipts — at cost	160,000.60	90,197.25
Stores inventory — nominal value	1.00	1.00
	165,791.28	108,395.48
FIXED:		
Roads, furniture and fixtures at cost less accumulated depreciation of $51	9,998.84	9,795.32
OTHER:		
Mining rights — at cost	711,005.00	706,005.00
Deferred exploration and development (statement 2)	1,454,704.81	1,425,819.23
Incorporation expenses	4,129.47	4,129.47
	2,169,839.28	2,135,953.70
	$ 2,345,629.40	$ 2,254,144.50

LIABILITIES

	1965	1964
Accounts payable	$ 5,173.40	$ 18,688.50
CAPITAL:		
Authorized —		
5,000,000 shares of no par value		
Issued (notes 1 and 2) —		
750,000 shares as part consideration for options to purchase claims	375,000.00	375,000.00
2,853,006 shares for cash	1,965,456.00	1,860,456.00
3,603,006 shares	2,340,456.00	2,235,456.00

On behalf of the Board:

ERIC D. SCOTT, Director.

S. P. OGRYZLO, Director.

$ 2,345,629.40	$ 2,254,144.50

NOTES:

(1) Under an agreement made in 1964 with Vauze Mines Limited, subsequently assigned to North Canadian Enterprises Limited, the company leased 677.89 acres of its property for a period of twenty years, renewable for a further twenty years. The lessee was to spend between $1,500,000 and $2,000,000 on development of the mine and the construction of a mill. The net profits as defined in the agreement are first to be used to repay the lessee for these expenditures after which the net profits are to be divided equally between lessee and the company.

To date $1,975,000 has been expended on the mill, on development and preproduction. A further $100,000 may be required to complete the facilities. All mining and milling costs to December 31, 1965 are included as part of preproduction expenditures. From the commencement of production, October 10, 1965 to December 31, 1965, the lessee has reported that according to its assays 767,480 pounds of copper had been produced but no settlements on copper sales have been received.

(2) Capital stock:
- (a) During the year 300,000 shares were issued at 35¢ per share.
- (b) During the year options were granted to individuals employed at the Coppercorp mine to purchase 50,000 shares at 58¢ per share exercisable in amounts of 10,000 shares commencing November 11, 1966 and annually thereafter to November 11, 1970.
- (c) As part consideration for bringing the mine into production the company agreed to issue 500,000 shares to the lessee which have not yet been issued.

AUDITORS' REPORT

To the Shareholders of
Coppercorp Limited:

We have examined the balance sheet of Coppercorp Limited as at December 31, 1965 and the statement of deferred exploration and development for the year ended on that date. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances.

In our opinion, the accompanying balance sheet and statement of deferred exploration and development present fairly the financial position of the company as at December 31, 1965, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Toronto, Canada,
March 28, 1966.

CLARKSON, GORDON & CO.,
Chartered Accountants.

STATEMENT 2

COPPERCORP LIMITED

STATEMENT OF DEFERRED EXPLORATION AND DEVELOPMENT FOR THE YEAR ENDED DECEMBER 31, 1965

	Total to December 31, 1964	Expenditures during year (net)	Total to December 31, 1965
EXPLORATION AND DEVELOPMENT:			
Geological and geophysical surveys	$ 55,215.82	$11,675.52	$ 66,891.34
Clearing site, road maintenance and prospecting	26,172.89		26,172.89
Diamond drilling	132,141.64	10,430.93	142,572.57
Non-metallic minerals exploration	18,742.52		18,742.52
Loss on disposal of fixed assets	218,131.62		218,131.62
Raising	52,893.37		52,893.37
Sampling and mining	20,684.60		20,684.60
Shaft sinking	136,764.11		136,764.11
Station-cutting, drifting and cross-cutting	651,007.10		651,007.10
Mine office expense	41,048.11		41,048.11
Acreage tax and rental	16,646.80	1,660.65	18,307.45
Insurance	14,091.17	1,040.25	15,134.42
Sundry	69,809.42		69,809.42
	1,453,352.17	24,807.35	1,478,159.52
GENERAL AND ADMINISTRATIVE:			
Legal and audit	17,956.81	2,706.95	20,663.76
Listing and transfer fees and expenses	12,996.57	1,958.50	14,955.07
Head office expenses	42,609.13	10,134.58	52,743.71
	73,562.51	14,800.03	88,362.54
Total expenditures	1,526,914.68	39,607.38	1,566,522.06
DEDUCT:			
Interest income	98,995.45	10,621.80	109,617.25
Rental	100.00	100.00	200.00
Royalties	2,000.00		2,000.00
	101,095.45	10,721.80	111,817.25
	$ 1,425,819.23	$28,885.58	$ 1,454,704.81

COPPERCORP
LIMITED

Report

For Year Ended December 31st, 1966

COPPERCORP LIMITED

✧

CAPITAL STOCK

AUTHORIZED . . . . . 5,000,000 shares of no par value
ISSUED . . . . . 4,103,006 shares of no par value

✧

ERIC D. SCOTT . . . . . President
DR. S. P. OGRYZLO . . . . . Vice-President
H. F. CASSIDY . . . . . Secretary-Treasurer

✧

DIRECTORS

J. J. BOLAND III
A. E. DENNIS
DR. GEORGE DISLER
W. M. LIPSETT
D. R. MARTIN
DR. S. P. OGRYZLO
ERIC D. SCOTT

✧

TRANSFER AGENTS

NATIONAL TRUST COMPANY, LIMITED
Toronto

✧

HEAD OFFICE

Room 1405, 302 Bay Street, Toronto 1, Canada

COPPERCORP LIMITED

TO THE SHAREHOLDERS:

Financial statements of the company as at December 31, 1966, with the report of our auditors, Clarkson, Gordon and Company, are submitted herewith.

A total of 149,691 tons was milled from January 1st to December 31st, 1966. The concentrate trucked to Sault Ste. Marie during the calendar year contained 4,258,215 lbs. of copper, valued at Can$2,700,000. The broken ore reserve at the end of 1966 was 71,927 tons containing 1.88% copper.

For the first quarter of 1967 a total of 40,850 tons was milled and the concentrate trucked to Sault Ste. Marie during that period contained 1,195,120 pounds of copper. Operating cost for the three months was $300,137.00.

As mentioned in the last annual report, we hope that mine production will have repaid all capital and operating expenditures by the end of the current year. We must pay tribute to the excellent mining and milling operations and over-all direction and management of North Canadian Enterprises, Limited, at the company's property.

While none of the employee share options referred to in the last annual report have been taken up, it has been deemed advisable to increase the possible total options to 100,000 shares, of which 70,000 shares have been designated for employees as listed in the company information circular. Share options at December 31, 1966, referred to in balance sheet footnotes, have been cancelled.

1966 exploration expenditures on the unleased portion of the property cost $29,857.38, but did not find any ore. $15,000.00 has been allotted for preliminary 1967 exploration for a showing worthy of further expenditures.

On behalf of the Board,

ERIC D. SCOTT,
President.

Toronto, 31st May, 1967.

COPPERCORP LIMITED

(Incorporated under the laws of Ontario)

STATEMENT 1

Balance Sheet — December 31, 1966

(with comparative figures for 1965)

ASSETS

	1966	1965
CURRENT:		
Cash	$ 21,101	$ 5,790
Finance company notes — at cost	105,000	160,000
Stores inventory — nominal value	1	1
Total current assets	126,102	165,791
FIXED:		
Roads, furniture and fixtures at cost less accumulated depreciation of $92	9,956	9,999
OTHER:		
Mining rights — at cost (including value assigned to 500,000 shares issued as part consideration for bringing the mine into production) (note 2)	866,005	711,005
Deferred exploration and development (statement 2)	1,499,121	1,454,705
Incorporation expenses	4,129	4,129
	2,369,255	2,169,839
	$2,505,313	$2,345,629

LIABILITIES

	1966	1965
Accounts payable	$ 14,857	$ 5,173
CAPITAL:		
Authorized — 5,000,000 shares of no par value		
Issued (notes 1 and 2) —		
750,000 shares as part consideration for options to purchase claims	375,000	375,000
500,000 shares as part consideration for bringing the mine into production	150,000	
2,853,006 shares for cash	1,965,456	1,965,456
4,103,006	2,490,456	2,340,456

On behalf of the Board:

ERIC D. SCOTT, Director.

GEORGE DISLER, Director.

$2,505,313	$2,345,629

AUDITORS' REPORT

To the Shareholders of
Coppercorp Limited:

We have examined the balance sheet of Coppercorp Limited as at December 31, 1966 and the statement of deferred exploration and development for the year ended on that date. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances.

In our opinion, the accompanying balance sheet and statement of deferred exploration and development present fairly the financial position of the company as at December 31, 1966, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Toronto, Canada,
May 17, 1967.

CLARKSON, GORDON & CO.,
Chartered Accountants.

STATEMENT 2

COPPERCORP LIMITED

STATEMENT OF DEFERRED EXPLORATION AND DEVELOPMENT
For the Year Ended December 31, 1966

	Total to December 31, 1965	Expenditures during year (net)	Total to December 31, 1966
EXPLORATION AND DEVELOPMENT:			
Geological and geophysical surveys	$ 66,891	$ 31,566	$ 98,457
Clearing site, road maintenance and prospecting	26,173		26,173
Diamond drilling	142,573		142,573
Non-metallic minerals exploration	18,743		18,743
Loss on disposal of fixed assets	218,132		218,132
Raising	52,893		52,893
Sampling and mining	20,685		20,685
Shaft sinking	136,764		136,764
Station-cutting, drifting and cross-cutting	651,007		651,007
Mine office expense	41,048		41,048
Acreage tax and rental	18,307	1,661	19,968
Insurance	15,134	316	15,450
Sundry	69,809		69,809
	1,478,159	33,543	1,511,702
GENERAL AND ADMINISTRATIVE:			
Legal and audit	20,664	5,108	25,772
Listing and transfer fees and expenses	14,955	2,098	17,053
Head office expenses	52,744	8,043	60,787
Directors' fees		3,525	3,525
	88,363	18,774	107,137
Total expenditures	1,566,522	52,317	1,618,839
DEDUCT:			
Interest income	109,617	7,801	117,418
Rental	200	100	300
Royalties	2,000		2,000
	111,817	7,901	119,718
	$1,454,705	$ 44,416	$1,499,121

COPPERCORP LIMITED

NOTES TO FINANCIAL STATEMENTS
December 31, 1966

1. Under an agreement made in 1964 with Vauze Mines Limited, subsequently assigned to North Canadian Enterprises Limited, the company leased 677.89 acres of its property for a period of twenty years, renewable for a further twenty years. The lessee was to spend between $1,500,000 and $2,000,000 on development of the mine and the construction of a mill. The net profits as defined in the agreement are first to be used to repay the lessee for these expenditures after which the net profits are to be divided equally between lessee and the company.

   To-date $1,903,300 has been expended on the mill and on development and pre-production. A further $130,000 may be required for further underground development and outside facilities.

   As at December 31, 1966 the lessee had unrecovered expenditures (before allowing for any interest on capital advances) of approximately $609,800 against which the lessee has presold approximately 9 months production of copper as a hedge against declining copper prices, and a suit for a breach of contract against the purchaser of copper concentrates claiming damages.

2. CAPITAL STOCK:

   (a) During the year 500,000 shares were issued to the lessee at a price fixed by the directors of 30¢ per share as part consideration for bringing the mine into production under the terms of the agreement referred to in note 1.

   (b) At December 31, 1966, employees of Coppercorp mine held options to purchase 39,000 shares at prices from 45¢ to 85¢ a share. These options are exercisable in four annual amounts of 9,000 shares to 1970 and 3,000 shares in 1971. During the year options to purchase 26,000 shares either expired or were defaulted on and were accordingly cancelled.

COPPERCORP
LIMITED

Report

For Year Ended December 31st, 1967

COPPERCORP LIMITED

✧

CAPITAL STOCK

AUTHORIZED	5,000,000 shares of no par value
ISSUED	4,103,006 shares of no par value

✧

ERIC D. SCOTT	President
DR. S. P. OGRYZLO	Vice-President
H. F. CASSIDY	Secretary-Treasurer

✧

DIRECTORS

J. J. BOLAND III
A. E. DENNIS
DR. GEORGE DISLER
E. FRANKLIN HATCH
D. R. MARTIN
DR. S. P. OGRYZLO
ERIC D. SCOTT

✧

TRANSFER AGENTS

NATIONAL TRUST COMPANY, LIMITED
Toronto

✧

HEAD OFFICE

Room 1405, 302 Bay Street, Toronto 1, Canada

COPPERCORP LIMITED

To the Shareholders:

Financial statements of the company as at December 31, 1967, with the report of our auditors, Clarkson, Gordon and Company, are submitted herewith.

Summary of 1967 mine operations:

Ore broken	143,742 tons
Ore milled	146,436 tons
Copper produced	3,557,000 pounds

In the annual reports for 1965 and 1966, mention was made of our hope that the capital and operating expenses of the lessee would have been repaid from operations and we would be receiving half of the operating profits before the end of 1967. Due to circumstances beyond the control of North Canadian Enterprises Limited, the lessee, the expenditures referred to have not been fully paid off and a debit balance remains in the account at December 31, 1967 of $463,700 as shown below:

Summary of Lessee's Account with Coppercorp Limited

Balance of unrecovered expenditures before interest as at December 31, 1966		$ 609,300	
Interest on capital allowances to December 31, 1966		160,000	$ 769,300
1967 Operations:			
Revenue from metal sales		$1,761,600	
Less: Operating expenditures	$1,319,900		
Capital expenditures	65,600		
Interest on capital advances	50,000	1,435,500	306,100
Net unrecovered expenditures at December 31, 1967			$ 463,700

The production of copper in 1967 was 698,000 pounds less than in the fifteen month period ending December 31, 1966. Net recovery from mining operations in 1967, before capital expenditures, was $371,700 (after capital expenditures $306,100). Similar recovery for the fifteen month period ending December 31, 1966 (before capital expenditures) was $1,133,500. Lower ore grade, lower copper prices and a shortage of miners were contributing factors to lower earnings in 1967. In addition, an exploration development programme consisting of in excess of 1,000 feet of lateral development per month was commenced in July, 1967, and continued throughout the remainder of the year.

Barring exceptional and unforeseen circumstances, the lessee anticipates that 1968 mining operations will repay all expenses for 1968 as well as the balance of $463,700 due at the end of 1967.

The 1967 exploration programme, using geochemical and geophysical field techniques as well as prospecting, covered an area of four square miles of the unleased portion of our property. Favourable targets located will be investigated during the 1968 field season.

When planning 1968 exploration work, we were faced with a possible shortage of working capital if we did not receive anticipated payments from mine profits during this year. To assist us in carrying on our 1968 exploration programme, the lessee has kindly offered, and your Board has accepted the offer, to pay us $50,000 before November 30th next. This amount will be a payment towards our share in the profits under the lease. It may be paid earlier than required under our agreement which does not require payment until all capital and operating expenses have been recovered. The lessee has also waived payment of the amount of accumulated interest to December 31, 1967, of $210,000 and any interest thereon until March 31, 1969, or the end of the Federal mine income tax exemption period, whichever is the later.

On behalf of the Board,

ERIC D. SCOTT,
President.

Toronto, 1st May, 1968.

STATEMENT 1

COPPERCORP LIMITED

(Incorporated under the laws of Ontario)

Balance Sheet — December 31, 1967

(with comparative figures for 1966)

ASSETS

	1967	1966
CURRENT:		
Cash	$ 2,207	$ 21,101
Finance company notes — at cost	90,000	105,000
Stores inventory — nominal value	1	1
Total current assets	92,208	126,102
FIXED:		
Roads, furniture and fixtures at cost less accumulated depreciation of $123 (1966 — $92)	9,925	9,956
OTHER:		
Mining rights — at cost (including value assigned to 500,000 shares issued as part consideration for bringing the mine into production)	366,005	366,005
Deferred exploration, development and general administrative expenditures (statement 2)	1,527,154	1,499,121
Incorporation expenses	4,129	4,129
	2,397,288	2,369,255
	$2,499,421	$2,505,313

LIABILITIES

	1967	1966
Accounts payable	$ 8,965	$ 14,857
CAPITAL:		
Authorized —		
5,000,000 shares of no par value		
Issued (note 2) —		
750,000 shares as part consideration for options to purchase claims	375,000	375,000
500,000 shares as part consideration for bringing the mine into production	150,000	150,000
2,853,006 shares for cash	1,965,456	1,965,456
4,103,006	2,490,456	2,490,456
	$2,499,421	$2,505,313

On behalf of the Board:

ERIC D. SCOTT, Director.

S. P. OGRYZLO, Director.

AUDITORS' REPORT

To the Shareholders of
Coppercorp Limited:

We have examined the balance sheet of Coppercorp Limited as at December 31, 1967 and the statement of deferred exploration, development and general administrative expenditures for the year then ended. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered neceessary in the circumstances.

In our opinion these financial statements present fairly the financial position of the company as at December 31, 1967, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Toronto, Canada,
April 10, 1968.

CLARKSON, GORDON & CO.,
Chartered Accountants.

COPPERCORP LIMITED

NOTES TO FINANCIAL STATEMENTS
December 31, 1967

1. Under an agreement made in 1964 with Vauze Mines Limited, subsequently assigned to North Canadian Enterprises Limited, the company leased 677.89 acres of its property for a period of twenty years, renewable for a further twenty years. The lessee was to spend between $1,500,000 and $2,000,000 on development of the mine and the construction of a mill. The net profits as defined in the agreement are first to be used to repay the lessee for these expenditures after which the net profits are to be divided equally between lessee and the company.

   To date $1,968,800 has been expended on the mill and on development and pre-production.

   As at December 31, 1967 the lessee had unrecovered expenditures of approximately $463,700.

   A suit for breach of contract has been instituted by the lessee claiming damages against the purchaser of copper concentrates.

2. Capital Stock:

   (a) At December 31, 1967, employees of Coppercorp Mine held options to purchase 55,000 shares at 50¢ per share. These options are exercisable in five annual amounts of 11,000 shares to 1972. An additional 45,000 shares have been set aside by the directors to be optioned to employees at prices and in amounts to be determined at a future date.

   (b) During the year options to purchase 39,000 shares were either defaulted on, expired or were cancelled.

STATEMENT 2

COPPERCORP LIMITED

STATEMENT OF DEFERRED EXPLORATION, DEVELOPMENT AND GENERAL ADMINISTRATIVE EXPENDITURES

For the Year Ended December 31, 1967

	Total to December 31, 1966	Expenditures during year (net)	Total to December 31, 1967
EXPLORATION AND DEVELOPMENT:			
Geological and geophysical surveys	$ 98,457	$ 11,908	$ 110,365
Clearing site, road maintenance and prospecting	26,173		26,173
Diamond drilling	142,573		142,573
Non-metallic minerals exploration	18,743		18,743
Loss on disposal of fixed assets	218,132		218,132
Raising	52,893		52,893
Sampling and mining	20,685		20,685
Shaft sinking	136,764		136,764
Station-cutting, drifting and cross-cutting	651,007		651,007
Mine office expense	41,048		41,048
Acreage tax and rental	19,968	1,661	21,629
Insurance	15,450	453	15,903
Sundry	69,809		69,809
	1,511,702	14,022	1,525,724
GENERAL AND ADMINISTRATIVE:			
Legal and audit	25,772	4,578	30,350
Listing and transfer fees and expenses	17,053	1,643	18,696
Head office expenses	60,787	8,885	69,672
Directors' fees	3,525	4,200	7,725
	107,137	19,306	126,443
Total expenditures	1,618,839	33,328	1,652,167
DEDUCT:			
Interest income	117,418	5,195	122,613
Rental	300	100	400
Royalties	2,000		2,000
	119,718	5,295	125,013
	$1,499,121	$ 28,033	$1,527,154

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COPPERCORP
LIMITED

Report

For Year Ended December 31st, 1968

COPPERCORP LIMITED

✧

CAPITAL STOCK

AUTHORIZED . . . . . 5,000,000 shares of no par value

ISSUED . . . . . 4,203,006 shares of no par value

✧

PETER H. H. RIDOUT, Q.C. . . . . President

DR. S. P. OGRYZLO . . . . . Vice-President

H. F. CASSIDY . . . . . Secretary-Treasurer

✧

DIRECTORS

J. J. BOLAND III

A. E. DENNIS

DR. GEORGE DISLER

E. FRANKLIN HATCH

D. R. MARTIN

DR. S. P. OGRYZLO

PETER H. H. RIDOUT, Q.C.

✧

TRANSFER AGENTS

NATIONAL TRUST COMPANY, LIMITED

Toronto

✧

HEAD OFFICE

Room 1101, 302 Bay Street, Toronto 105, Canada

COPPERCORP LIMITED

Room 1101, 302 Bay Street
TORONTO 105, ONTARIO

Notice to Shareholders:

Take notice that the Annual General Meeting of the Shareholders of Coppercorp Limited will be held at the Royal York Hotel (British Columbia Room), Toronto, Ontario, on Thursday, the 26th June, 1969, at eleven o'clock in the forenoon (Toronto time) to receive reports, elect Directors and appoint Auditors, and to transact all such other business as may properly come before the meeting.

Copy of the Annual Report of the Company, information circular and proxy form are enclosed herewith.

DATED at Toronto the 2nd day of June, 1969.

By Order of the Board,

H. F. CASSIDY,
Secretary.

N.B. — Each shareholder who does not expect to personally attend the meeting is respectfully requested to sign and return the form of proxy in the addressed envelope enclosed. Kindly advise of any change of address.

COPPERCORP LIMITED

INFORMATION CIRCULAR

The management of Coppercorp Limited is soliciting proxies for the company's annual general meeting of shareholders on Thursday, 26th June, 1969. Proxies given may be revoked at any time before being used at the meeting. The transfer books will not be closed.

The company's outstanding shares on April 25th were 4,203,006 common shares of no par value, each share being entitled to one vote.

North Canadian Enterprises Ltd. is the registered owner of 500,000 shares of the capital stock of the company according to the share records of the company. The directors of this company have been advised that North Canadian Enterprises Ltd. has no beneficial interest, direct or indirect, in such 500,000 shares. To the knowledge of the directors, and the senior officers of the company no other person or company beneficially owns, directly or indirectly shares carrying more than 10 per cent of the voting rights attached to all shares of the company.

Seven directors are to be elected at the meeting to hold office until the next annual general meeting or until their successors are elected. In the absence of other instructions on the proxy form, it will be voted for the re-election of the persons as listed below. Should any director unexpectedly be unable to serve the proxy will be voted as may be decided.

Name	Occupation for the past five years	Position held with company	First elected	Shares beneficially owned May 30, 1969
Peter H. H. Ridout, Q.C.	Partner, Manning, Bruce, MacDonald & Macintosh.	President	1969	1
Dr. S. P. Ogryzlo	Vice-President, The Patino Mining Corporation Limited.	Vice-President	1965	1
Darwin R. Martin	Retired.	Director	1955	315,256 x
Howard A. Masson	Bank Manager.			1
E. Franklin Hatch	Vice-President and Director, Heritage Securities, Inc.	Director	1967	20,000
Dr. George Disler	Consulting Geologist, C. C. Huston & Associates 1962-4, Sheridan Geophysics Limited 1964-7. Private practice 1968-9.	Director	1966	1
A. T. Kana	Chartered Accountant, Gunn, Roberts & Company 1964-5, Professional Management Services Ltd. 1966-7, Sheridan Geophysics Limited 1968-9.			1

x Not including 63,172 shares beneficially owned by wife and children.

Aggregate direct remuneration paid in 1968 to the company's directors and senior officers was $11,200.00 of which directors' fees totalled $4,200.00 and maintenance of head office and secretary's salary $7,000.00.

The company has no pension plan.

COPPERCORP LIMITED

To the Shareholders:

Financial statements of the company as at December 31, 1968, with the report of our auditors, Clarkson Gordon and Company, are submitted herewith.

1968 mine operations are summarized below:

Ore broken	162,600 tons
Ore milled	142,986 tons
Copper produced	4,203,960 pounds

In the annual reports of past years mention was made of the repayment of the capital and operating expenses of the lessee so that the company would receive half of the operating profits from the mine. A summary of the lessee's account with Coppercorp Limited as at December 31, 1968, follows:

Balance of unrecovered expenditures before interest as at December 31, 1967		$ 253,700	
Interest on capital allowances to December 31, 1968		210,000	$ 463,700
1968 Operations:			
Revenue from metal sales		$2,258,000	
Less: Operating expenditures	$1,297,400		
Capital expenditures	26,400		
Interest on capital advances	36,000	1,359,800	898,200
Net profits at December 31, 1968			$ 434,500

Half of the net profits of $434,500, or $217,250, as shown above are due to Coppercorp Limited.

To increase working capital, your directors sold 100,000 shares of treasury stock to Pancake Lake Copper Mines, Limited, at fifty cents per share, on August 12th, 1968.

The 1968 field programme covered approximately 6,000 acres, which were explored using geochemical techniques as well as mapping and prospecting. Several new targets of interest were located and partly drilled. Diamond drilling totalled 5,120 feet and encouraging results obtained will be followed up by the 1969 exploration programme.

Exploration planned on our unleased claims during 1969 is estimated to cost $35,000.00, and outside properties of interest will be investigated.

The annual Ontario Mining Tax on our property which last year was $1,660.65 has been increased to $8,303.24.

Mr. Eric D. Scott, who has been President of the company since 1965, has retired due to health reasons. Mr. Scott has made an invaluable contribution to the company and has been the mainspring of its efforts to develop and explore the property. Your directors hope that Mr. Scott will soon be restored to full health and vigor.

Mr. P. H. H. Ridout, Q.C., has been elected by the Board to complete Mr. Scott's term of office.

On behalf of the Board,

PETER H. H. RIDOUT,
President.

Toronto, 30th May, 1969.

COPPERCORP LIMITED

(Incorporated under the laws of Ontario)

STATEMENT 1

Balance Sheet — December 31, 1968

(with comparative figures for 1967)

ASSETS

	1968	1967
CURRENT:		
Cash	$ 9,494	$ 2,207
Finance company notes — at cost	120,000	90,000
Stores inventory — nominal value	1	1
Total current assets	129,495	92,208
Rental receivable less $50,000 advance from lessee (note 1)	167,250	
FIXED:		
Roads, furniture and fixtures at cost less accumulated depreciation of $169 (1967 — $123)	9,974	9,925
OTHER:		
Mining rights — at cost (including value assigned to 500,000 shares issued as part consideration for bringing the mine into production)	866,005	866,005
Deferred exploration, development and general administrative expenditures less amortization (note 2 and statement 2)	1,418,683	1,527,154
Incorporation expenses — at cost	4,129	4,129
	2,288,817	2,397,288
	$2,595,536	$2,499,421

LIABILITIES

	1968	1967
CURRENT:		
Accounts payable	$ 1,288	$ 8,965
Deferred income taxes (note 3)	18,300	
SHAREHOLDERS' EQUITY:		
Capital stock —		
Authorized:		
5,000,000 shares of no par value		
Issued (note 4):		
750,000 shares as part consideration for options to purchase claims	375,000	375,000
500,000 shares as part consideration for bringing the mine into production	150,000	150,000
2,953,006 shares for cash	2,015,456	1,965,456
4,203,006 shares	2,540,456	2,490,456
Retained earnings (statement 2)	53,492	
On behalf of the Board:		
P. H. H. RIDOUT, Director.		
S. P. OGRYZLO, Director.		
	$2,595,536	$2,499,421

(See accompanying notes to the financial statements)

AUDITORS' REPORT

To the Shareholders of
Coppercorp Limited:

We have examined the balance sheet of Coppercorp Limited as at December 31, 1968 and the statements of income and retained earnings, deferred exploration, development and general administrative expenditures and source and application of funds for the year then ended. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances.

In our opinion these financial statements present fairly the financial position of the company as at December 31, 1968 and the results of its operations and the source and application of its funds for the year then ended, in accordance with generally accepted accounting principles applied on the basis consistent with that of the preceding year.

Toronto, Canada,
May 26, 1969.

CLARKSON, GORDON & CO.,
Chartered Accountants.

COPPERCORP LIMITED

NOTES TO FINANCIAL STATEMENTS
December 31, 1968

1. Under an agreement made in 1964 with Vauze Mines Limited, subsequently assigned to North Canadian Enterprises Limited, the company leased 677.89 acres of its property for a period of twenty years, renewable for a further twenty years. The lessee was to spend between $1,500,000 and $2,000,000 on development of the mine and the construction of a mill. The net profits as defined in the agreement are first to be used to repay the lessee for these expenditures after which the net profits are to be divided equally between the lessee and the company.
   To date $1,995,300 has been expended on the mill and on development and pre-production.
   As at December 31, 1968, the lessee had recovered from profits the cost of its capital expenditures. Rental of $217,250, being one-half of the lessee's net profit as defined, accrued to the company. The rental receivable, less a $50,000 advance from the lessee, has been recorded as a non-current asset pending negotiation re the financing of the copper hedging transactions.
   A suit for breach of contract has been instituted by the lessee claiming damages against a purchaser of copper concentrates. The purchaser has instituted a counter-suit for breach of contract against the lessee.
2. During 1968 the company commenced amortization of the deferred exploration, development and general administrative expenditures made prior to entitlement to a share of profits from the mining property, at a rate of $1.00 per ton of ore milled from its leased property. The rate of amortization contemplates a mine life of approximately ten years.
3. The provision for deferred income taxes of $18,300 is the amount by which income taxes otherwise payable in respect of the year have been reduced by claiming for tax purposes capital cost allowances and deferred exploration, development and general administrative expenditures in excess of the amounts charged to income. This amount is applicable to those future periods in which such claims for tax purposes will be less than charges in the accounts for depreciation and amortization of deferred exploration, development and general administrative expenditures and is accordingly shown in the balance sheet as deferred income taxes.
4. (a) During 1968, 100,000 shares were issued for cash consideration of $50,000.
   (b) At December 31, 1968, employees of Sheridan Geophysics Limited (the mine operator) and/or North Canadian Enterprises Ltd. (the lessee) held options to purchase 87,000 shares of the company's capital stock at 50¢ per share. These options are exercisable in cumulative instalments to 1972. During 1968 options to purchase [illegible],000 shares were granted and options to purchase 13,000 shares were cancelled, both of which amounts have been reflected in the above total.
5. Remuneration paid to directors and senior officers as defined in The Corporations Act (Ontario) amounted to $16,200 in 1968.

STATEMENT 2

STATEMENT OF INCOME AND RETAINED EARNINGS
For the Year Ended December 31, 1968

REVENUE:		
Rental income (note 1)		$ 217,350
Interest income		5,224
		222,574
DEDUCT:		
Amortization of deferred expenditures (note 2)	142,986	
Office expense	12,069	
Legal and audit expense	5,016	
Directors' fees	4,200	
Listing and transfer fees	2,518	
Acreage tax and rental fees	1,661	
Insurance expense	332	168,782
Profit before income taxes		53,792
Provision for deferred income taxes (note 3)		18,300
Net profit for the year and retained earnings at December 31, 1968		$ 35,492

(See accompanying notes to the financial statements)

STATEMENT 3

COPPERCORP LIMITED

STATEMENT OF DEFERRED EXPLORATION, DEVELOPMENT AND GENERAL ADMINISTRATIVE EXPENDITURES
For the Year Ended December 31, 1968

	Total to December 31, 1967	Expenditures during year (net)	Total to December 31, 1968
EXPLORATION AND DEVELOPMENT:			
Geological and geophysical surveys	$ 110,365	$ 12,977	$ 123,342
Clearing site, road maintenance and prospecting	26,173		26,173
Diamond drilling	142,573	21,538	164,111
Non-metallic minerals exploration	18,743		18,743
Loss on disposal of fixed assets	218,132		218,132
Raising	52,893		52,893
Sampling and mining	20,685		20,685
Shaft sinking	136,764		136,764
Station-cutting, drifting and cross-cutting	651,007		651,007
Mine office expense	41,048		41,048
Acreage tax and rental	21,629		21,629
Insurance	15,903		15,903
Sundry	69,809		69,809
	1,525,724	34,515	1,560,239
GENERAL AND ADMINISTRATIVE:			
Legal and audit	30,350		30,350
Listing and transfer fees and expenses	18,696		18,696
Head office expenses	69,672		69,672
Directors' fees	7,725		7,725
	126,443		126,443
Total expenditures	1,652,167		1,686,682
DEDUCT:			
Interest income	122,613		122,613
Rental	400		400
Royalties	2,000		2,000
	125,013		125,013
	$1,527,154	$ 34,515	$1,561,669
Deduct amortization (note 2)			142,986
	$1,527,154		$1,418,683

(See accompanying notes to the financial statements)

COPPERCORP LIMITED

STATEMENT OF SOURCE AND APPLICATION OF FUNDS
For the Year Ended December 31, 1968

SOURCE OF FUNDS:	
Operations —	
Net income for the year	$ 35,492
Add charges which do not involve an outlay of funds:	
Amortization of deferred exploration, development and general administrative expenditures	142,986
Provision for deferred income taxes	18,300
Depreciation	44
	196,822
Issue of shares for cash	50,000
	246,822
APPLICATION OF FUNDS:	
Increase in rental receivable	167,250
Deferred exploration and development expenditures	34,515
Purchase of fixed assets	93
	201,858
Increase in working capital	44,964
Working capital December 31, 1967	83,243
Working capital December 31, 1968	$ 128,207

(See accompanying notes to the financial statements)

Clarkson, Gordon & Co. have been the company's auditors since commencement of business in 1955, and it is the intention of the company's management to vote proxies received for that firm's re-appointment at a remuneration to be fixed by the Board of Directors, unless instructed otherwise on the proxy form.

The company's annual report for 1968, as mailed to the shareholders, including financial statements and reports of the directors and auditors will be submitted to the meeting of shareholders for approval.

677.89 acres of the company's property are under lease to North Canadian Enterprises Limited under a joint venture agreement dated October 30, 1964. Such agreement was approved by the shareholders at a special meeting held November 24, 1964. The mining operations on the leased property are carried on by Sheridan Geophysics Limited, an associated company of North Canadian Enterprises Limited. As mentioned in the 1965 report, the company agreed to grant options to employees of Sheridan Geophysics Limited and/or North Canadian Enterprises Ltd. to purchase shares of stock in the company up to 50,000 shares and this total has since been increased to 100,000 shares.

Name of optionee	No. of shares optioned	Date of Grant	Price	Expiration Date
Wm. Griffin	10,000	May 19, 1967	50¢	20% each May 19, 1968-9-70-1-2 Cumulative if desired
Dr. George Disler	10,000	May 19, 1967	50¢	20% each May 19, 1968-9-70-1-2 Cumulative if desired
George Elbre	10,000	May 19, 1967	50¢	20% each May 19, 1968-9-70-1-2 Cumulative if desired
E. W. Bazinet	10,000	May 19, 1967	50¢	20% each May 19, 1968-9-70-1-2 Cumulative if desired
Eric Quaisser	5,000	May 19, 1967	50¢	20% each May 19, 1968-9-70-1-2 Cumulative if desired
George Dimitrieff	5,000	May 19, 1967	50¢	20% each May 19, 1968-9-70-1-2 Cumulative if desired
Judy Bruce	5,000	May 19, 1967	50¢	20% each May 19, 1968-9-70-1-2 Cumulative if desired
Sub total	55,000			
A. T. Kana	5,000	April 22, 1968	50¢	20% each May 19, 1968-9-70-1-2 Cumulative if desired
Donat Daoust	5,000	April 22, 1968	50¢	20% each May 19, 1968-9-70-1-2 Cumulative if desired
Bruce Staines	10,000	April 22, 1968	50¢	20% each May 19, 1968-9-70-1-2 Cumulative if desired
Peter Cain	3,000	April 22, 1968	50¢	20% each May 19, 1968-9-70-1-2 Cumulative if desired
Morris Smith	3,000	April 22, 1968	50¢	20% each May 19, 1968-9-70-1-2 Cumulative if desired
David Izatt	3,000	April 22, 1968	50¢	20% each May 19, 1968-9-70-1-2 Cumulative if desired
Howard Miller	3,000	April 22, 1968	50¢	20% each May 19, 1968-9-70-1-2 Cumulative if desired
Sub total	32,000			
Total	87,000			

No consideration was received by the company for granting the above options. The price range of the shares in the 30-day period preceding the date of the grant of the first 55,000 shares was 54¢ to 74¢ and of the last 45,000 shares was 49¢ to 60¢. None of the options has been exercised.

At the time of mailing this statement, the management knows of no other matters than those referred to in the notice of meeting to be placed before the shareholders. However, if other matters are properly brought before the meeting, those named as proxies will vote as they may decide.

COPPERCORP LIMITED

INTERIM REPORT — JUNE 30, 1969

To the Shareholders:

Financial statements for the six months ended June 30, 1969, are submitted herewith.

Financial Report

Gross revenue for six months ended June 30, 1969	$ 5,530
Net loss for the six months ended June 30, 1969 including $77,356 amortization of deferred charges	$ 79,869
Application of funds for the six months ended June 30, 1969:	
Operations —	
Net loss for the period	$ 79,869
Deduct charges which do not involve an outlay of funds —	
Amortization of deferred charges and depreciation	77,374
	2,495
Exploration expenditures — deferred	4,020
Decrease in working capital	6,515
Working capital December 31, 1968	128,207
Working capital June 30, 1969	$ 121,692

(The above figures are taken from the records of the company without verification by audit.)

The above financial information has not been presented in comparative form because the company was in the pre-production stage for the six months ended June 30, 1968 and all expenditures were deferred.

During the six months ended June 30, 1969 no rent accrued to the company from its lease because only 70% of the mine production for the period was shipped and the copper hedge transactions resulted in a loss.

The interim report of Coppercorp Limited for the six months period ending June 30, 1969 which accompanies the directors' circular in my opinion presents fairly the financial position of Coppercorp Limited and the results of its operations for the period under review.

H. F. CASSIDY,
Secretary-Treasurer.

Lessee's Statement of Operations for the Six Month Period Ended June 30th, 1969

Mine operations for the six months ended June 30, 1969 as reported by the lessee were as follows:

Metal production (2,073,000 pounds) at net realizable value		$1,154,242
Operating expenditures		
Mining and development	$ 402,781	
Milling	85,752	
Other mine expenses	102,043	
Administrative and general	66,346	656,922
Mine operating profit		$ 497,320

The lessee estimates that the net realizable value of copper produced in concentrate form at the mine for the six months ending December 31, 1969 will be in the range of $.60 to $.70 per pound of copper subject to fluctuations in the hedge account.

Manager of Exploration Report --

PRODUCTION

Since the beginning of mining and milling on October 10th, 1965 to December 31st, 1968 the mine, operated by North Canadian Enterprises produced 12,736,650 pounds of copper.

Production at the mine for the first six months of 1969 totalled 78,018 tons containing 2,181,700 pounds of copper.

Based on the present ore reserve and on recent favourable drill results within the lease area, it is believed that the mine will be operating profitably for several years at the present copper prices.

EXPLORATION

The Coppercorp property comprises several patented parcels totalling 16,547 acres, of which 678 acres (to a vertical depth of 1,650 feet below surface) are under lease to North Canadian Enterprises.

Exploration on the Coppercorp property since 1965 consisted of geophysical surveys (magnetic and electromagnetic) covering approx. 50% of the 16,000 acres and geochemical surveys covering 75% of the property. Favourable targets located by these surveys were followed up by geological mapping, prospecting and diamond drilling. Four holes (2,875 feet) were drilled in 1966 testing geophysical anomalies and 14 holes (5,121 feet) in 1968 to explore a possible extension of the Lutes vein as well as geochemical targets, both located to the North of the Lease area.

1969 Exploration in progress on your property consists of follow-up work (prospecting, line cutting and some geochemical sampling) by a prospectors team, on favourable targets located in previous years.

Surface drilling has been performed to the north of the lease in the area of a geochemical target (three holes) and again in the vicinity of the Lutes vein (two holes), but weak mineralization only was intersected. Drilling in these two areas has been stopped.

Four holes were drilled since July 1st some seven hundred feet to the west of the lease in an area where previous drilling (1955 and 1964) apparently missed the southerly extension of the Silver Creek zone. One vertical hole earlier reported on averaged 7.34% Cu over 21 feet. A second vertical hole drilled 200 feet to the east intersected 6.6' of 1.33% Cu at a depth of 540 feet, which would give the vein structure a dip of about 65°. The last hole drilled at 68° from the same location intersected the zone, but with no mineralization noted.

Although prospecting and drilling on your property has located several favourable mineralized structures, no new economic mineralization has been indicated to date. However there remain numerous untested areas of interest; i.e. the Trout Lake area and the Government Swamp area, both located to the east of the lease, several untested geochemical anomalies mainly in the North portion of the property, as well as possible extensions of the presently known vein system, mainly to the South and West of the lease area.

The company plans to carry out active exploration including drilling on your property in the coming years in order to test all remaining targets of interest.

Directors' Circular

Forming part of the recommendation of the Directors of Coppercorp Limited (the "Company"), as to the offer to purchase the shares of the Company, dated September 4th, 1969, made by Guaranty Trust Company of Canada on behalf of undisclosed principals (the "offeror").

BENEFICIAL OWNERSHIP OF SHARES OF COMPANY

To the best of the knowledge of the Directors:

(a) **The following is the number of shares in the capital of the Company beneficially owned, directly or indirectly, by each Director and by each senior officer of the Company.**

Name	No of shares beneficially owned
Howard A. Masson — President and Director	1
Peter H. H. Ridout, Q.C. — Director	1
Dr. S. P. Ogryzlo — Vice-President and Director	1
Darwin R. Martin — Director	315,256
Dr. George Disler — Director	1
E. Franklin Hatch — Director	24,800
A. T. Kana — Director	1
H. F. Cassidy — Secretary	500

(b) 500,000 shares of the Company are registered in the name of North Canadian Enterprises Limited. The beneficial ownership of such shares, to the know'edge of the Directors, lies either in the said Company or its controlling shareholder, Marjorie Sheridan, wife of Mr. J. P. Sheridan, 4 King Street West, Toronto, who in turn controls indirectly a further 100,000 shares of the Company registered in the name of Pancake Lake Copper Mines Limited. Accordingly, in the opinion of the Directors, Mr. J. P. Sheridan is in a position to control the votes attaching to at least 600,000 shares of the Company.

ACCEPTANCE OF OFFER

To the knowledge of the Directors, Messrs. Martin, Ridout, Hatch, Masson and Dr. Ogryzlo, Directors, and Mr. Cassidy, Secretary of the Company, will not accept the offer to purchase shares of the Company.

BENEFICIAL OWNERSHIP OF SHARES OF OFFEROR

The Directors understand that the offer is made on behalf of Mr. J. P. Sheridan and/or associates whose beneficial ownership of shares of the Company, direct and indirect, to the knowledge of the Directors, is set forth in paragraph 1 (b) hereof. Mr. J. P. Sheridan controls, directly and indirectly, voting rights attaching to at least 600,000 shares of the Company, and controls directly or indirectly, or is closely associated with, the offeror.

MATERIAL CONTRACTS

(77.39 acres of the Company's property are leased to North Canadian Enterprises Limited, (the "lessee") referred to in paragraph 1 (b) hereof, under a lease agreement dated October 30th, 1964, running for a period of 20 years, renewable for a further 20 years. As provided in the lease, $2 million has been expended by the lessee in development and preproduction. The Lessee has recovered its expenditures, and as in the lease provided, net profits as defined in the lease are divided equally between the lessee and the Company.

MATERIAL CHANGES

The attention of shareholders is directed to the accompanying interim financial statements of the Company and the Lessee's Statement of Operations for the 6-month period ended June 30, 1969, as they relate to the earnings of the Company derived from the lease operation referred to under Material Contracts above, from which the Company is to receive 50% of net profits as provided in the lease.

APPROVAL

The contents of this circular have been approved and the delivery hereof to the shareholders of the Company has been duly authorized by the Board of Directors.

Recommendation of Directors

Your directors have considered carefully the offer from Guaranty Trust Company of Canada dated September 4, 1969, to purchase 500,000 shares as of your Company at the price of 50¢ a share.

Your directors feel bound to advise the shareholders that the offer is being made on behalf of Mr. J. P. Sheridan and/or his associates who control or are closely associated with North Canadian Enterprises Limited, which controls the Lessee under the lease agreement with the Company and which controls in excess of 600,000 shares of your Company.

Your directors are of the opinion that the offering price for the shares is substantially below their value, having regard to the earnings and the projected earnings of the Company.

Your directors furthermore consider that the best interests of your Company would not be served if the offer were to succeed having regard to the number of shares now owned or controlled by the offeror.

Your directors wish to advise the shareholders that, with the exception of two directors who hold qualifying shares only, and have declined to disclose their acceptance or rejection of the offer, they propose not to accept the offer, and to convey to the shareholders their recommendations against acceptance of the offer.

On behalf of the Board of Directors,

H. A. MASSON,
President.

Toronto, 16th September 1969.

Printed in Canada

COPPERCORP, LIMITED

Suite 1101, 302 Bay Street,
Toronto 105, Canada.

1st September, 1969.

To the Shareholders:

Dr. George Disler, our Manager of Exploration, and a director of this company, reports as follows:

"The 1969 exploration program on the Coppercorp property, outside of the North Canadian Enterprises lease, consists of prospecting, geochemical surveys and diamond drilling.

A hole drilled last week at 1,500 feet south and 700 feet west of the North Canadian Enterprises lease intersected what is believed to be an extension of the Silver Creek zone. The vertical hole intersected from 119 feet to 140 feet, 7.34% copper over 21 feet."

This drill hole is encouraging.

H. A. MASSON,
President.

COPPERCORP
LIMITED

Report

For Year Ended December 31st, 1969

and six months ended June 30th, 1970

COPPERCORP LIMITED

✧

CAPITAL STOCK

AUTHORIZED	5,000,000 shares of no par value
ISSUED	4,203,006 shares of no par value

✧

HOWARD A. MASSON	President
E. R. HEALD	Vice-President
E. FRANKLIN HATCH	Vice-President
H. F. CASSIDY	Secretary-Treasurer

✧

DIRECTORS

E. FRANKLIN HATCH
E. R. HEALD
D. R. MARTIN
HOWARD A. MASSON
PETER H. H. RIDOUT, Q.C.

✧

TRANSFER AGENTS

NATIONAL TRUST COMPANY, LIMITED
Toronto

✧

HEAD OFFICE

Room 1101, 302 Bay Street, Toronto 1, Canada

COPPERCORP LIMITED

To the Shareholders:

Your Directors submit herewith a Supplementary Report of your Company covering the year ended December 31, 1969 and the six month period ended June 30, 1970. The annual meeting originally called for August 31, 1970 did not take place and a fresh annual meeting pursuant to an order of the Supreme Court of Ontario has been called for November 13, 1970. This report should be read in conjunction with the report dated August 10, 1970 which was mailed to shareholders in connection with the annual meeting as originally called.

During the period under review, operations conducted on 677.89 acres leased by your Company to North Canadian Enterprises Limited have continued to generate significant revenue from metal sales. Despite persistent demands by the Company, no rental payments accruing to your Company have been received except an advance of $50,000, which the lessee is seeking to recover. A major point of dispute between your Company and the lessee concerns the lessee's participation in the copper futures market. As a consequence, on August 28, 1970 your Directors instituted an action against the lessee in the Supreme Court of Ontario asking for rescission of the lease agreement and for an accounting of the rentals due.

Your Company controls an area of over 15,000 acres surrounding the leased area mentioned above. Your Directors believe that an aggressive exploration program covering this largely unexplored area is more than ever desirable. The rentals to which your Company is entitled under the lease are the obvious source of financing such exploration, and your Directors intend to pursue vigorously the action for their collection.

Your Directors urge you to complete your proxy in favour of management and return it in the envelope provided at the earliest opportunity.

On behalf of the Board,

H. A. MASSON,
President.

October 22, 1970.

COPPERCO

(Incorporated und

Balance Sheet –

(With comparati

ASSETS

	1969	1968
CURRENT:		
Cash	$ 4,317	$ 9,494
Finance company notes — at cost	87,705	120,000
Rental receivable less $50,000 advance from lessee (note 1)	123,400	
Stores inventory — nominal value		1
Total current assets	215,422	129,495
Rental receivable less $50,000 advance from lessee (note 1)		167,250
FIXED:		
Roads, furniture and fixtures at cost less accumulated depreciation of $205 (1968 - $169)	9,938	9,974
OTHER:		
Deferred income taxes (note 3)	57,500	
Mining rights — at cost (including value assigned to 500,000 shares issued as part consideration for bringing the mine into production)	866,005	866,005
Deferred exploration, development and general administrative expenditures less amortization (note 2 and statement 3)	1,299,705	1,418,683
Incorporation expenses — at cost	4,129	4,129
	2,227,339	2,288,817
	$2,452,699	$2,595,536

(See accompanying not

AUDITOR

To the Shareholders of
Coppercorp Limited:

We have examined the balance sheet of Coppercorp Limited as at December 31, 1969 and the statements of income and retained earnings, deferred exploration, development and general administrative expenditures and source and application of funds for the year then ended. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances.

'P LIMITED

laws of Ontario)

STATEMENT 1

December 31, 1969

ures for 1968)

LIABILITIES

	1969	1968
CURRENT:		
Accounts payable	$ 34,289	$ 1,208
Deferred income taxes (note 3)		18,300
SHAREHOLDERS' EQUITY:		
Capital stock —		
Authorized:		
5,000,000 shares of no par value		
Issued (note 4):		
750,000 shares as part consideration for options to purchase claims	375,000	375,000
500,000 shares as part consideration for bringing the mine into production	150,000	150,000
2,953,006 shares for cash	2,015,456	2,015,456
4,203,006 shares	2,540,456	2,540,456
Retained earnings (deficit) (statement 2)	(122,046)	35,492
	$2,452,699	$2,595,536

On behalf of the Board:

H. A. MASSON, Director

P. H. H. RIDOUT, Director

he financial statements)

REPORT

In our opinion these financial statements present fairly the financial position of the company as at December 31, 1969 and the results of its operations and the source and application of its funds for the year then ended, in accordance with generally accepted accounting principles applied on the basis consistent with that of the preceding year.

Toronto, Canada,
June 29, 1970.

CLARKSON, GORDON & CO.,
Chartered Accountants.

STATEMENT 2

COPPERCORP LIMITED

STATEMENT OF INCOME AND RETAINED EARNINGS
For the Year Ended December 31, 1969
(with comparative figures for the year 1968)

	1969	1968
REVENUE:		
Rental income (note 1)	$ 100	$ 100
Share of net profit (loss) as defined in lease agreement including adjustments in 1969 of $228,500 relating to previous periods	(43,950)	217,250
Interest and other income	8,494	5,224
	(35,356)	222,574
DEDUCT:		
Amortization of deferred expenditures (note 2)	161,488	142,966
Office expense	15,316	12,069
Legal and audit expense	5,788	5,016
Directors' fees	4,200	4,200
Listing and transfer fees	2,555	2,518
Acreage tax and rental fees	8,303	1,661
Insurance expense	332	332
	197,982	168,782
Profit (loss) before income taxes	(233,338)	53,792
Deferred income taxes (note 3)	75,800	(18,300)
Net profit (loss) for the year	(157,538)	35,492
Retained earnings, beginning of year	35,492	
Retained earnings (deficit), end of year	$ (122,046)	$ 35,492

(See accompanying notes to the financial statements)

STATEMENT 3

COPPERCORP LIMITED

STATEMENT OF DEFERRED EXPLORATION, DEVELOPMENT AND GENERAL ADMINISTRATIVE EXPENDITURES

For the Year Ended December 31, 1969

	Total to December 31, 1968	Expenditures during year (net)	Total to December 31, 1969
EXPLORATION AND DEVELOPMENT:			
Geological and geophysical surveys	$ 123,342	$ 6,979	$ 130,321
Clearing site, road maintenance and prospecting	26,173		26,173
Diamond drilling	164,111	35,531	199,642
Non-metallic minerals exploration	18,743		18,743
Loss on disposal of fixed assets	218,132		218,132
Raising	52,893		52,893
Sampling and mining	20,685		20,685
Shaft sinking	136,764		136,764
Station-cutting, drifting and cross-cutting	651,007		651,007
Mine office expense	41,048		41,048
Acreage tax and rental	21,629		21,629
Insurance	15,903		15,903
Sundry	69,809		69,809
	1,560,239	42,510	1,602,749
GENERAL AND ADMINISTRATIVE:			
Legal and audit	30,350		30,350
Listing and transfer fees and expenses	18,696		18,696
Head office expenses	69,672		69,672
Directors' fees	7,725		7,725
	126,443		126,443
Total expenditures	1,686,682	42,510	1,729,192
DEDUCT:			
Interest income	122,613		122,613
Rental	400		400
Royalties	2,000		2,000
	125,013		125,013
	1,561,669		1,604,179
Deduct amortization (note 2)	142,986	161,488	304,474
	$1,418,683	$ (118,978)	$1,299,705

(See accompanying notes to the financial statements)

COPPERCORP LIMITED

STATEMENT OF SOURCE AND APPLICATION OF FUNDS
For the Year Ended December 31, 1969
(With comparative figures for 1968)

	1969	1968
SOURCE OF FUNDS:		
Operations —		
Net income for the year		$ 35,492
Add charges which do not involve an outlay of funds:		
Amortization of deferred exploration, development and general administrative expenditures		142,986
Provision for deferred income taxes		18,300
Depreciation		44
		196,822
Issue of shares for cash		50,000
Reclassification of rental receivable	$ 167,250	
	167,250	246,822
APPLICATION OF FUNDS:		
Operations —		
Net loss for the year	157,538	
Adjust for items which do not involve funds:		
Deferred income taxes	75,800	
Amortization of deferred exploration, development and general administrative expenditures	(161,483)	
Depreciation	(36)	
	71,814	
Rental receivable		167,250
Deferred exploration and development expenditures	42,510	34,515
Purchase of fixed assets		93
	114,324	201,858
Increase in working capital	52,926	44,964
Working capital, beginning of year	128,207	83,243
Working capital, end of year	$ 181,133	$ 128,207

(See accompanying notes to the financial statements)

COPPERCORP LIMITED

NOTES TO FINANCIAL STATEMENTS
December 31, 1969

1. Under an agreement made in 1964 the company leased 677.89 acres of its property for a period of twenty years, renewable for a further twenty years. The lessee was to spend between $1,500,000 and $2,000,000 on development of the mine and the construction of a mill. The net profits as defined in the agreement were first to be used to repay the lessee for these expenditures, interest on capital advances and subsequent capital expenditures after which the net profits are to be divided equally between the lessee and the company.

   During 1969, the lessee realized $2,719,400 from copper sales which amount was reduced by $838,100 loss on copper hedging transactions. Cost of production of $1,618,400, capital expenditures of $122,300 and prior period adjustments of metal sales and mining taxes resulted in a net deficiency of $87,900. As a result the balance accrued for the 1968 year of $167,250 has been reduced by $43,950 (being one-half of the 1969 net deficiency). The resulting amount of $123,400 becomes due during 1970 on the determination of the copper hedging accounts.

   A suit for breach of contract has been instituted by the lessee claiming damages against a purchaser of copper concentrates. The purchaser has instituted a counter-suit for breach of contract against the lessee.

2. Deferred exploration, development and general administrative expenditures are being amortized at a rate of $1.00 per ton of ore milled from the leased property. The rate of amortization has been based on a mine life of approximately ten years.

3. During 1969 the company recorded amortization of deferred exploration, development and general administrative expenditures in the accounts in excess of the amount claimed for income tax purposes. The future income tax benefit to be derived when such amounts claimed for income tax purposes exceed those recorded in the accounts has been shown in the balance sheet as a deferred charge. In addition the company has a loss carry-forward for tax purposes which may reduce income taxes of future years by approximately $38,000 which amount has not been reflected in the accounts.

4. At December 31, 1969, employees of Sheridan Geophysics Limited (the mine operator), North Canadian Enterprises Ltd. (the lessee) and the company held options to purchase 107,000 shares of the company's capital stock at 50¢ per share of which, options on 55,000 shares are held by directors of the company. These options are exercisable in cumulative instalments to 1975. During 1969 options to purchase 50,000 shares were granted and options to purchase 30,000 shares were cancelled, both of which amounts have been reflected in the above total.

5. Remuneration paid to directors and senior officers as defined in The Corporations Act (Ontario) amounted to $22,200 in 1969 ($16,200 in 1968).

COPPERCO

(Incorporated und

Balance Sheet –

ASSETS

CURRENT:		
Finance company notes — at cost plus accrued interest		$ 79,595
Rental receivable (note 1) —		
to December 31, 1969	$ 173,400	
6 months to June 30, 1970	34,555	
	207,955	
Less advance by lessee	50,000	157,955
Total current assets		237,550
FIXED:		
Roads, furniture and fixtures at cost less accumulated depreciation of $219		9,924
OTHER:		
Mining rights — at cost (including value assigned to 500,000 shares issued as part consideration for bringing the mine into production)		866,805
Deferred exploration, development and general administrative expenditures less amortization (note 2 and statement 3)		1,236,614
Incorporation expenses — at cost		4,129
		2,107,548
On behalf of the Board:		
H. A. MASSON, Director.		$2,355,022
E. R. HEALD, Director.		

(See accompanying notes

AUDITOR

To the Shareholders of
Coppercorp Limited:

We have examined the balance sheet of Coppercorp Limited as at June 30, 1970 and the statements of income and retained earnings, deferred exploration, development and general administrative expenditures and source and application of funds for the six months then ended. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances.

As explained in note 1 to the financial statements, the company is in disagreement with the lessee of its mine as to the accounting for and amount of profits from the mine operation. Until these disagreements are resolved it is not possible to determine with certainty the net profit from mine operations nor the amount due from the lessee.

Because the amounts involved in the aforementioned disagreement enter materially into the determination of financial position and results of operations, we do not express

P LIMITED

...of Ontario)

STATEMENT 1

...une 30, 1970

LIABILITIES

CURRENT:	
Bank indebtedness	$ 489
Accounts payable	45,114
	45,603
SHAREHOLDERS' EQUITY:	
Capital Stock —	
Authorized:	
5,000,000 shares of no par value	
Issued (note 4):	
750,000 shares as part consideration for options to purchase claims	375,000
500,000 shares as part consideration for bringing the mine into production	150,000
2,953,006 shares for cash	2,015,456
4,203,006	2,540,456
Deficit (statement 2)	(231,037)
	2,309,419
	$2,355,022

...financial statements)

...PORT

...n opinion on the accompanying financial statements taken as a whole. However in ...our opinion:

1. finance company notes, fixed and other assets, current liabilities and capital stock at June 30, 1970;
2. interest revenue and expenses for the six months then ended, and
3. the statement of deferred exploration, development and general administrative expenditures for the six months then ended

...are fairly stated in accordance with generally accepted accounting principles applied ...on a basis consistent with that of the preceding period.

...Toronto, Canada,
October 20, 1970.

CLARKSON, GORDON & CO.,
Chartered Accountants

COPPERCORP LIMITED

STATEMENT OF INCOME AND RETAINED EARNINGS
For the Six Months Ended June 30, 1970

REVENUE:	
Rental income	$ 50
Share of net profit from mine operation as defined in lease agreement, (note 1)	34,505
Interest and other	5,547
	40,102
DEDUCT:	
Amortization of deferred expenditures (note 2)	65,647
Office expense	10,141
Legal and audit expense	8,423
Director's fees	2,100
Listing and transfer fees	950
Acreage tax and rental fees	4,000
Insurance expense	332
	91,593
Reversal of deferred income taxes (note 3)	57,500
Net loss for the period	108,991
Deficit, December 31, 1969	122,046
Deficit, June 30, 1970	$ 231,037

(See accompanying notes to the financial statements)

STATEMENT 3

COPPERCORP LIMITED

STATEMENT OF DEFERRED EXPLORATION, DEVELOPMENT AND GENERAL ADMINISTRATIVE EXPENDITURES

For the Six Months Ended June 30, 1970

	Total to December 31, 1969	Net change during period	Total to June 30, 1970
EXPLORATION AND DEVELOPMENT:			
Geological and geophysical surveys	$ 130,321	$ 2,556	$ 132,877
Clearing site, road maintenance and prospecting	26,173		26,173
Diamond drilling	199,642		199,642
Non-metallic minerals exploration	18,743		18,743
Loss on disposal of fixed assets	218,132		218,132
Raising	52,893		52,893
Sampling and mining	20,685		20,685
Shaft sinking	136,764		136,764
Station-cutting, drifting and cross-cutting	651,007		651,007
Mine office expense	41,048		41,048
Acreage tax and rental	21,629		21,629
Insurance	15,903		15,903
Sundry	69,809		69,809
	1,602,749	2,556	1,605,305
GENERAL AND ADMINISTRATIVE:			
Legal and audit	30,350		30,350
Listing and transfer fees and expenses	18,696		18,696
Head office expenses	69,672		69,672
Directors' fees	7,725		7,725
	126,443		126,443
Total expenditures	1,729,192	2,556	1,731,748
DEDUCT:			
Interest income	122,613		122,613
Rental	400		400
Royalties	2,000		2,000
	125,013		125,013
	1,604,179		1,606,735
Deduct amortization (note 2)	304,474	65,647	370,121
	$1,299,705	$ (63,091)	$1,236,614

(See accompanying notes to the financial statements)

COPPERCORP LIMITED

STATEMENT OF SOURCE AND APPLICATION OF FUNDS
For the Six Months Ended June 30, 1970

SOURCE OF FUNDS:	
Operations —	
Items which do not involve funds:	
Amortization of deferred exploration, development and general administrative expenditures	$ 65,647
Depreciation	14
Reversal of deferred income taxes	57,500
	123,161
Less net loss for the period	108,991
	14,170
EXPENDITURE OF FUNDS:	
Deferred exploration and development expenditures	2,556
Purchase of mining rights	800
	3,356
Increase in working capital	10,814
Working capital, December 31, 1969	181,133
Working capital June 30, 1970	$ 191,947

COPPERCORP LIMITED

NOTES TO THE FINANCIAL STATEMENTS
June 30, 1970

1. Under an agreement made in 1964 the company leased 677.89 acres of its property for a period of twenty years, renewable for a further twenty years. The lessee was to spend between $1,500,000 and $2,000,000 on development of the mine and the construction of a mill. The net profits as defined in the agreement were first to be used to repay the lessee for these expenditures, interest on capital advances and agreed subsequent capital expenditures after which the net profits are to be divided equally between the lessee and the company.

   The company has commenced an action in the Supreme Court of Ontario against the lessee to rescind the above lease and to obtain a full and complete accounting of all rents and profits due under the lease agreement, including profits and losses on copper hedging for contracts entered into after December 23, 1969.

   Under a court order dated September 22, 1970 the lessee was required to produce "an operating statement referable to the leasehold agreement" for the six months ending June 30, 1970 which statement was to be reviewed by Clarkson, Gordon & Co. This operating statement has been produced and shows a net operating loss of $58,543.

   The statement produced by the lessee does not give effect to the provisions of the leasehold agreement in at least the following respects:

   1) Revenue has been adjusted by $99,621 for inventories on hand at the beginning and end of the period, instead of being based on cash receipts during the period;

   2) Capital expenditures of $16,198 have been excluded;

   3) Certain expenses of $14,130 (net) have been deducted which were provided for in the statements as at December 31, 1969;

   4) Management charges of $30,000 (specifically excluded in the lease agreement) have been included.

   Subject to any adjustments resulting from the company's action against the lessee and after adjustment of the lessee's statement for the items referred to above, the accompanying financial statements reflect the net profits of the lessee as follows:

Receipts from metal sales		$1,011,541
Less loss on copper hedging (excluding contracts entered into subsequent to December 23, 1969)		217,543
		793,998
Mining, milling, development and administrative expenses	$ 658,790	
Estimated mining taxes	50,000	
Capital expenditures, net of disposals	16,198	724,988
Net profits		$ 69,010
Company's share of net profits for the six months ended June 30, 1970		$ 34,505

   The net profits are subject to a suit for breach of contract by the lessee claiming damages against a purchaser of copper concentrates. The purchaser has instituted a counter-suit for breach of contract against the lessee.

2. Deferred exploration, development and general administrative expenditures are being amortized at a rate of $1.00 per ton of ore milled from the leased property. The rate of amortization has been based on a mine life of approximately ten years.

3. During the six months ended June 30, 1970 the company recorded amortization of deferred exploration, development and general administrative expenditures in the accounts in excess of the amount claimed for income tax purposes. In 1969 the future income tax benefit to have been derived when such

amounts claimed for income tax purposes exceeded those recorded in the accounts was shown in the balance sheet as a deferred charge as the company at that time had reasonable expectations of making taxable profits. In 1970, due to the decline in the price of copper, it is uncertain when the company will be subject to income taxes. In accordance with current accounting practice, the accumulated amount attributable to future income tax benefits has been charged to income in the accompanying statements. The amount, not now recorded in the financial statements, relating to future income tax benefits totalled $92,000 at June 30, 1970. In addition, the company has a loss carry-forward for tax purposes which may reduce income taxes of future years by approximately $38,000, which amount has not been reflected in the accounts.

4. At June 30, 1970 the following options to purchase shares of the company's capital stock at 50¢ per share, exercisable in cumulative instalments to 1974, were outstanding:

(a) Employees of the lessee and mine operator	52,000 shares
(b) Directors of the company	55,000 shares

5. Remuneration paid to directors and senior officers as defined in The Corporations Act (Ontario) amounted to $10,400 in the six months ended June 30, 1970.

COPPERCORP
LIMITED

Report

For Year Ended December 31st, 1969

SSM-159

COPPERCORP LIMITED

✧

CAPITAL STOCK

AUTHORIZED	5,000,000 shares of no par value
ISSUED	4,203,006 shares of no par value

✧

HOWARD A. MASSON	President
E. R. HEALD	Vice-President
E. FRANKLIN HATCH	Vice-President
H. F. CASSIDY	Secretary-Treasurer

✧

DIRECTORS

E. FRANKLIN HATCH
E. R. HEALD
A. T. KANA
D. R. MARTIN
HOWARD A. MASSON
A. P. MURPHY
PETER H. H. RIDOUT, Q.C.

✧

TRANSFER AGENTS

NATIONAL TRUST COMPANY, LIMITED
Toronto

✧

HEAD OFFICE

Room 1101, 302 Bay Street, Toronto 105, Canada

COPPERCORP LIMITED

To the Shareholders:

Financial statements of the company as at December 31, 1969, with the report of our auditors, Clarkson, Gordon & Co., are submitted herewith.

1969 mine operations are summarized below:

Ore milled	161,488 tons
Copper produced	3,942,500 pounds

In the annual reports of past years mention was made of the repayment of the capital and operating expenses of the lessee so that the company would receive half of the operating profits from the mine. A summary of the lessee's account with Coppercorp Limited as at December 31, 1969, follows:

	1968	1969	
Balance of unrecovered expenditures and interest to December 31, 1967			$463,700
Subsequent operations:			
Revenue from metal sales	$2,093,200	$2,719,400	
Profit or (loss) on copper hedging	164,800	(838,100)	
	2,258,000	1,881,300	
Less:			
Operating expenditures	1,297,400	1,614,200	
Capital expenditures	26,400	122,300	
Interest on capital advances	36,000	4,200	
	1,359,800	1,740,700	
	898,200	140,600	
Prior period adjustments of metal sales and mining taxes		228,500	
Net profit (loss) (as defined in agreement)	898,200	(87,900)	810,300
Cumulative net profits as defined in the lease agreement as at December 31, 1969			$346,600

Half of the accumulated net profits of $346,600, or $173,300 as shown above are due to Coppercorp Limited and should be receivable within the current year after settlement of items in dispute with the lessee.

The 1969 Field Program consisted of prospecting and examination of the Mamainse Vein, the Felsite Area, the Government Swamp and the Trout Lake Area. Diamond drilling totalled 3,848 feet, and it is intended to pursue a vigorous exploration program in the future if funds for this purpose are available.

Mr. H. A. Masson assumed the presidency in August and Mr. P. H. H. Ridout, Q.C. remained as a Director. Dr. S. P. Ogryzlo, whose wise counsel for many years has been of great benefit to the Company, has resigned as a Vice President and Director because of pressure of other business and has been replaced by Mr. E. R. Heald.

Despite a buoyant copper market experienced during 1969 resulting in metal sales of $2,719,400 it is regrettable to note a profit of only $140,600 before prior years adjustments on 1969 operations.

In this connection, hedging procedures carried on during the year by the lessee and resulting in a loss of $853,100, which was charged to operations, are largely responsible for this serious decline in revenue.

Your Directors on several occasions have attempted to resolve hedging procedures with the lessee with a view to reducing losses in this account. We were unsuccessful during the year in our efforts and the Company withdrew from the hedge account. The lessee has disputed the withdrawal and the Company is upon legal advice, placing this matter along with a request for interpretation of other items in the lease agreement before the Courts for decision. We are hopeful when this decision is reached that the lessee's figures referred to above should show substantial improvement and that Coppercorp will receive settlement of rents owing which will provide for the further development of your Company.

If we are to resolve our difficulties with the lessee, which in turn will benefit the shareholders, it is imperative that we be provided with voting control at the forthcoming annual meeting. We therefore strongly urge you to return the enclosed proxy to us without delay.

On behalf of the Board,

H. A. MASSON,

President.

Toronto, 10th August, 1970.

COPPERCORP LIMITED

(Incorporated under the laws of Ontario)

STATEMENT 1

Balance Sheet — December 31, 1969

(With comparative figures for 1968)

ASSETS

	1969	1968
CURRENT:		
Cash	$ 4,317	$ 9,494
Finance company notes — at cost	87,705	120,000
Rental receivable less $50,000 advance from lessee (note 1)	123,400	
Stores inventory — nominal value		1
Total current assets	215,422	129,495
Rental receivable less $50,000 advance from lessee (note 1)		167,250
FIXED:		
Roads, furniture and fixtures at cost less accumulated depreciation of $205 (1968 — $169)	9,938	9,974
OTHER:		
Deferred income taxes (note 3)	57,500	
Mining rights — at cost (including value assigned to 500,000 shares issued as part consideration for bringing the mine into production)	866,005	866,005
Deferred exploration, development and general administrative expenditures less amortization (note 2 and statement 3)	1,299,705	1,418,683
Incorporation expenses — at cost	4,129	4,129
	2,227,339	2,288,817
	$2,452,699	$2,595,536

LIABILITIES

	1969	1968
CURRENT:		
Accounts payable	$ 34,289	$ 1,288
Deferred income taxes (note 3)		18,300
SHAREHOLDERS' EQUITY:		
Capital stock — Authorized:		
5,000,000 shares of no par value		
Issued (note 4):		
750,000 shares as part consideration for options to purchase claims	375,000	375,000
500,000 shares as part consideration for bringing the mine into production	150,000	150,000
2,953,006 shares for cash	2,015,456	2,015,456
4,203,006 shares	2,540,456	2,540,456
Retained earnings (deficit) (statement 2)	(122,046)	35,492
	$2,452,699	$2,595,536

On behalf of the Board:

H. A. MASSON, Director

P. H. H. RIDOUT, Director

(See accompanying notes to the financial statements)

AUDITORS' REPORT

To the Shareholders of
Coppercorp Limited:

We have examined the balance sheet of Coppercorp Limited as at December 31, 1969 and the statements of income and retained earnings, deferred exploration, development and general administrative expenditures and source and application of funds for the year then ended. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances.

In our opinion these financial statements present fairly the financial position of the company as at December 31, 1969 and the results of its operations and the source and application of its funds for the year then ended, in accordance with generally accepted accounting principles applied on the basis consistent with that of the preceding year.

June 29, 1970.
Toronto, Canada.

CLARKSON, GORDON & CO.,
Chartered Accountants.

COPPERCORP LIMITED

STATEMENT OF INCOME AND RETAINED EARNINGS
For the Year Ended December 31, 1969
(with comparative figures for the year 1968)

	1969	1968
REVENUE:		
Rental income (note 1)	$ 100	$ 100
Share of net profit (loss) as defined in lease agreement including adjustments in 1969 of $228,500 relating to previous periods	(43,950)	217,250
Interest and other income	8,494	5,224
	(35,356)	222,574
DEDUCT:		
Amortization of deferred expenditures (note 2)	161,488	142,986
Office expense	15,316	12,069
Legal and audit expense	5,788	5,016
Directors' fees	4,200	4,200
Listing and transfer fees	2,555	2,518
Acreage tax and rental fees	8,303	1,661
Insurance expense	332	332
	197,982	168,782
Profit (loss) before income taxes	(233,338)	53,792
Deferred income taxes (note 3)	75,800	(18,300)
Net profit (loss) for the year	(157,538)	35,492
Retained earnings, beginning of year	35,492	
Retained earnings (deficit), end of year	$ (122,046)	$ 35,492

(See accompanying notes to the financial statements)

STATEMENT 3

COPPERCORP LIMITED

STATEMENT OF DEFERRED EXPLORATION, DEVELOPMENT AND GENERAL ADMINISTRATIVE EXPENDITURES

For the Year Ended December 31, 1969

	Total to December 31, 1968	Expenditures during year (net)	Total to December 31, 1969
EXPLORATION AND DEVELOPMENT:			
Geological and geophysical surveys	$ 123,342	$ 6,979	$ 130,321
Clearing site, road maintenance and prospecting	26,173		26,173
Diamond drilling	164,111	35,531	199,642
Non-metallic minerals exploration	18,743		18,743
Loss on disposal of fixed assets	218,132		218,132
Raising	52,893		52,893
Sampling and mining	20,685		20,685
Shaft sinking	136,764		136,764
Station-cutting, drifting and cross-cutting	651,007		651,007
Mine office expense	41,048		41,048
Acreage tax and rental	21,629		21,629
Insurance	15,903		15,903
Sundry	69,809		69,809
	1,560,239	42,510	1,602,749
GENERAL AND ADMINISTRATIVE:			
Legal and audit	30,350		30,350
Listing and transfer fees and expenses	18,696		18,696
Head office expenses	69,672		69,672
Directors' fees	7,725		7,725
	126,443		126,443
Total expenditures	1,686,682	42,510	1,729,192
DEDUCT:			
Interest income	122,613		122,613
Rental	400		400
Royalties	2,000		2,000
	125,013		125,013
	1,561,669		1,604,179
Deduct amortization (note 2)	142,986	161,488	304,474
	$1,418,683	$ (118,978)	$1,299,705

(See accompanying notes to the financial statements)

COPPERCORP LIMITED

STATEMENT OF SOURCE AND APPLICATION OF FUNDS

For the Year Ended December 31, 1969

(with comparative figures for 1968)

	1969	1968
SOURCE OF FUNDS:		
Operations —		
Net income for the year		$ 35,492
Add charges which do not involve an outlay of funds:		
Amortization of deferred exploration, development and general administrative expenditures		142,986
Provision for deferred income taxes		18,300
Depreciation		44
		196,822
Issue of shares for cash		50,000
Reclassification of rental receivable	$ 167,250	
	167,250	246,822
APPLICATION OF FUNDS:		
Operations —		
Net loss for the year	157,538	
Adjust for items which do not involve funds:		
Deferred income taxes	75,800	
Amortization of deferred exploration, development and general administrative expenditures	(161,488)	
Depreciation	(36)	
	71,814	
Rental receivable		167,250
Deferred exploration and development expenditures	42,510	34,515
Purchase of fixed assets		93
	114,324	201,858
Increase in working capital	52,926	44,964
Working capital, beginning of year	128,207	83,243
Working capital, end of year	$ 181,133	$ 128,207

(See accompanying notes to the financial statements)

COPPERCORP LIMITED

NOTES TO FINANCIAL STATEMENTS
December 31, 1969

1. Under an agreement made in 1964 the company leased 677.89 acres of its property for a period of twenty years, renewable for a further twenty years. The lessee was to spend between $1,500,000 and $2,000,000 on development of the mine and the construction of a mill. The net profits as defined in the agreement were first to be used to repay the lessee for these expenditures, interest on capital advances and subsequent capital expenditures after which the net profits are to be divided equally between the lessee and the company.

   During 1969, the lessee realized $2,719,400 from copper sales which amount was reduced by $838,100 loss on copper hedging transactions. Cost of production of $1,618,400, capital expenditures of $122,300 and prior period adjustments of metal sales and mining taxes resulted in a net deficiency of $87,900. As a result the balance accrued for the 1967 year of $167,250 has been reduced by $43,950 (being one-half of the 1969 net deficiency). The resulting amount of $123,400 becomes due during 1970 on the determination of the copper hedging accounts.

   A suit for breach of contract has been instituted by the lessee claiming damages against a purchaser of copper concentrates. The purchaser has instituted a counter-suit for breach of contract against the lessee.

2. Deferred exploration, development and general administrative expenditures are being amortized at a rate of $1.00 per ton of ore milled from the leased property. The rate of amortization has been based on a mine life of approximately ten years.

3. During 1969 the company recorded amortization of deferred exploration, development and general administrative expenditures in the accounts in excess of the amount claimed for income tax purposes. The future income tax benefit to be derived when such amounts claimed for income tax purposes exceed those recorded in the accounts has been shown in the balance sheet as a deferred charge. In addition the company has a loss carry-forward for tax purposes which may reduce income taxes of future years by approximately $38,000 which amount has not been reflected in the accounts.

4. At December 31, 1969, employees of Sheridan Geophysics Limited (the mine operator), North Canadian Enterprises Ltd. (the lessee) and the company held options to purchase 107,000 shares of the company's capital stock at 50¢ per share of which, options on 55,000 shares are held by directors of the company. These options are exercisable in cumulative instalments to 1975. During 1969 options to purchase 50,000 shares were granted and options to purchase 30,000 shares were cancelled, both of which amounts have been reflected in the above total.

5. Remuneration paid to directors and senior officers as defined in The Corporations Act (Ontario) amounted to $22,200 in 1969 ($16,200 in 1968).

COPPERCORP LIMITED

Room 1101, 302 Bay Street
TORONTO 105, ONTARIO

Notice to Shareholders:

Take notice that the Annual General Meeting of the Shareholders of Coppercorp Limited will be held at the Toronto Board of Trade, 11th Floor, 11 Adelaide Street West, Toronto, Ontario, on Monday, the 31st August, 1970, at eleven o'clock in the forenoon (Toronto time) to receive reports, elect Directors and appoint Auditors, and to transact all such other business as may properly come before the meeting.

Copy of the Annual Report of the Company, information circular and proxy form are enclosed herewith.

DATED at Toronto the 12th day of August, 1970.

By Order of the Board.

H. F. CASSIDY,
Secretary.

N.B. — Each shareholder who does not expect to personally attend the meeting is respectfully requested to sign and return the form of proxy in the addressed envelope enclosed. Kindly advise of any change of address.

COPPERCORP LIMITED

INFORMATION CIRCULAR

The management of Coppercorp Limited is soliciting proxies for the company's annual general meeting of shareholders on Monday, 31st August, 1970. Proxies given may be revoked at any time before being used at the meeting. The transfer books will not be closed.

The company's outstanding shares on August 12th were 4,203,006 common shares of no par value, each share being entitled to one vote.

North Canadian Enterprises Ltd. is the registered owner of 500,000 shares of the capital stock of the Company according to the share records. The directors believe that these shares are either owned beneficially by North Canadian Enterprises Ltd. which in turn appears to be owned by Marjorie Sheridan, the wife of J. P. Sheridan, or by certain trustees for the benefit of either Marjorie Sheridan and/or the children of J. P. Sheridan and Marjorie Sheridan. In either event, J. P. Sheridan by virtue of the family relationship controls the votes attached to these shares. In addition, the directors believe that the said J. P. Sheridan controls the votes attaching to a further 100,000 shares acquired by Pancake Lake Copper Mines Limited in 1968, so that an aggregate of 600,000 shares may be voted by him and constitutes approximately 14.5% of the outstanding equity shares of the Company.

Seven directors are to be elected at the meeting to hold office until the next annual general meeting or until their successors are elected. In the absence of other instructions in the proxy form, it will be voted for the re-election of the persons as listed below. Should any director unexpectedly be unable to serve the proxy will be voted as may be decided.

Name	Occupation for the past five years	Position held with company	First elected	Shares beneficially owned July 31, 1970
Howard A. Masson	Bank Manager.	President	1969	1
E. R. Heald	Mining Executive.	Director	1970	1
Darwin R. Martin	Retired.	Director	1955	263,431 x
E. Franklin Hatch	Vice-President and Director, Heritage Securities, Inc.	Director	1967	20,000
Peter H. H. Ridout, Q.C.	Partner, Manning, Bruce, Mac. Donald & Macintosh.	Director	1969	1
A. T. Kana	Chartered Accountant, Gunn, Roberts & Company 1964-5, Professional Management Services Ltd. 1966-7, Sheridan Geophysics Limited 1968-9.	Director	1969	1
A. P. Murphy	Self employed financial consultant.	Director	1969	1

x Not including 63,172 shares beneficially owned by wife and children.

Aggregate direct remuneration paid in 1969 to the company's directors and senior officers was $22,200.00 of which directors' fees totalled $4,200.00 and maintenance of head office and secretary's salary $7,000.00.

The company has no pension plan.

Clarkson, Gordon & Co. have been the company's auditors since commencement of business in 1955, and it is the intention of the company's management to vote proxies received for that firm's re-appointment at a remuneration to be fixed by the Board of Directors, unless instructed otherwise on the proxy form.

The company's annual report for 1969, as mailed to the shareholders, including financial statements and reports of the directors and auditors will be submitted to the meeting of shareholders for approval.

677.89 acres of the company's property are und . . . North Canadian Enterprises Limited under a joint venture agreement dated October 30, 1964. Such agreement was approved by the shareholders at a special meeting held November 24, 1964. The mining operations on the leased property are carried on by Sheridan Geophysics Limited, an associated company of North Canadian Enterprises Limited. As mentioned in the 1965 report, the company agreed to grant options to employees of Sheridan Geophysics Limited and/or North Canadian Enterprises Ltd., to purchase shares of stock in the company up to 50,000 shares and this total has since been increased to 100,000 shares.

Name of optionee	No. of shares optioned	Date of Grant	Price	Expiration Date
Wm. Griffin	10,000	May 19, 1967	50¢	20% each May 19, 1968-9-70-1-2 Cumulative if desired
George Elbre	10,000	May 19, 1967	50¢	20% each May 19, 1968-9-70-1-2 Cumulative if desired
George Dimitrieff	5,000	May 19, 1967	50¢	20% each May 19, 1968-9-70-1-2 Cumulative if desired
Sub total	25,000			
A. T. Kana	5,000	April 22, 1968	50¢	20% each May 19, 1968-9-70-1-2 Cumulative if desired
Donat Daoust	5,000	April 22, 1968	50¢	20% each May 19, 1968-9-70-1-2 Cumulative if desired
Bruce Staines	10,000	April 22, 1968	50¢	20% each May 19, 1968-9-70-1-2 Cumulative if desired
Peter Cain	3,000	April 22, 1968	50¢	20% each May 19, 1968-9-70-1-2 Cumulative if desired
Morris Smith	3,000	April 22, 1968	50¢	20% each May 19, 1968-9-70-1-2 Cumulative if desired
David Izatt	3,000	April 22, 1968	50¢	20% each May 19, 1968-9-70-1-2 Cumulative if desired
Howard Miller	3,000	April 22, 1968	50¢	20% each May 19, 1968-9-70-1-2 Cumulative if desired
Sub total	32,000			
Howard A. Masson	50,000	June 26, 1969	50¢	20% each August 1, 1971-2-3-4-5 Cumulative if desired
Total	107,000			

No consideration was received by the company for granting the above options. The price range of the shares in the 30-day period preceding the date of the grant of the first 25,000 shares was 54¢ to 74¢, the second 32,000 shares was 49¢ to 60¢ and the third 50,000 shares was 45¢ to 59¢. None of the options has been exercised.

At the time of mailing this statement, the management knows of no other matters than those referred to in the notice of meeting to be placed before the shareholders. However, if other matters are properly brought before the meeting, those named as proxies will vote as they may decide.

81-159

COPPERCORP LIMITED

302 Bay Street
Toronto, Ontario.

August 21, 1970

TO the shareholders of Coppercorp Limited.

You may have received a letter from North Canadian Enterprises Limited signed by J. P. Sheridan, General Manager, which is dated July 10, 1970. Mr. Sheridan did not state, for reasons of his own, that North Canadian is the lessee of 677 acres of over 16,000 acres owned by Coppercorp. The problems of Coppercorp and its directors have been compounded by Mr. Sheridan's refusal to provide information as required by the lease. The lessee has produced in excess of 15 million pounds of copper from the leased property since commencement of production. To date, Coppercorp is still awaiting its first share of profits despite the exceptionally high copper prices which have prevailed. In Mr. Sheridan's letter he refers to your directors' "unenlightened interference" in his marketing procedures and his participation in the copper futures market. For the record, it must be stated that Coppercorp's directors did not interfere in this operation but have many times been concerned about the vague manner in which it has been conducted. The pounds of copper involved in the speculation in copper futures have been in excess of the copper actually produced on the leased premises. You will note from the 1969 financial statements in your hands that the loss incurred by North Canadian in these activities was no less than $838,100. At no time were the directors consulted regarding the operation of the futures account. The directors question this loss and intend if necessary to pursue the matter into the courts.

Our annual meeting should have been held in June of this year. It was delayed because our auditors were unable to obtain the necessary financial information from North Canadian Enterprises Limited. Considerable amounts of money will be owed to Coppercorp on August 31, 1970, by North Canadian Enterprises Limited, the lessee. Your directors, unfortunately, are unable to tell the shareholders at this time how much the lessee will owe as Coppercorp's share of the net profits. However, a payment and accounting will be demanded on August 31, 1970. If a satisfactory answer is not received from North Canadian Enterprises Limited, the lessee, your directors intend to commence proceedings to enforce our claim. It is therefore essential that you return your proxy in favour of the present directors. Mr. Sheridan in his letter did not state that he controls at least 600,000 shares of Coppercorp entitled to vote at the meeting, and without your vote his board may be voted in.

There are a number of misstatements in Mr. Sheridan's letter which require comment:

1. He mentions that Mr Masson, President, sent a letter to the shareholders dated September 1, 1969, announcing a drill hole with encouraging results. This hole had been reported to the directors by Coppercorp's Manager of Exploration, Dr. Geo. Disler, and by law had to be disclosed to shareholders. The suggestion of Mr. Sheridan that the President made the disclosure to you for his own purposes is absurd and without foundation.

2. Mr. Sheridan has stated that Coppercorp has failed to account properly to its shareholders with respect to the leased property. *Mr. Sheridan is the only source of the figures about which he complains.* Coppercorp's auditors are Clarkson, Gordon & Co., internationally known auditing firm, who are in charge of preparing our financial statements.

3. In 1967 North Canadian made a payment of $50,000 to Coppercorp on account of its share of the profits from the leased property. There was no undertaking by Coppercorp to explore anywhere, and there was no obligation to repay such amount.

As shown on Coppercorp's reports, in the last three years the Company has expended on exploration in excess of $90,000.

4. Mr. Sheridan has stated that in his opinion the directors have been delinquent in overseeing the operation of the leased premises. Needless to say, it is North Canadian Enterprises Limited's obligation, as lessee, to run the mine and to pay Coppercorp its share of the profits. Over the years the directors have visited the leased premises and have sent their own consulting engineers who have submitted reports. All of the directors have been diligent in attending meetings of the board.

5. Mr. Sheridan has questioned certain of the procedures of the board of directors. Mr. Sheridan has a nominee on the board of directors. In every respect meetings have been called in accordance with the by-laws of the Company and all of the matters referred to in paragraph 5 were approved by the board including in most cases Mr. Sheridan's own nominee. The minutes of the directors' meetings are always available to the directors of the Company. Minutes of the meetings have all been read and approved by all the directors including Mr. Sheridan's nominee.

Coppercorp has always had one office in T[illegible]. For a short time your President sublet a small office, until other arrangements were made for [illegible]odation at the head office of the Company.

Mr. Sheridan states that the board of directors is not technically qualified to effectively direct the affairs of Coppercorp. Since 1965, Coppercorp has had the benefit of the experience of Dr. S. P. Ogryzlo, Vice-President of The Patino Mining Corporation Limited. Dr. Ogryzlo was a director and Vice-President of Coppercorp until his resignation in July, 1970. Mr. E. F. Hatch, of New York City, also a qualified mining engineer of worldwide experience, has been a member of the board since 1967. From time to time the board has also employed outside consultants including D. S. E. Malouf.

Mr. Sheridan states that Coppercorp owes him for 1969 exploration work. Despite a request by Coppercorp, Mr. Sheridan has not given Coppercorp sufficient details of work done, and accordingly your directors felt that his claim is unjustified. Mr. Sheridan has not seen fit to provide such details and has commenced an action against Coppercorp.

THE ANNUAL MEETING IS ON MONDAY, AUGUST 31, 1970, IN TORONTO. IN ORDER TO PROTECT YOUR RIGHTS, IT IS ESSENTIAL THAT THE PROXY IN MY FAVOUR SENT TO YOU WITH THE ANNUAL REPORT BE SIGNED AND RETURNED TO COPPERCORP IMMEDIATELY.

On behalf of the Board of Directors,

Yours very truly,

H. A. MASSON,
President.

COPPERCORP LIMITED

Room 1101 — 302 Bay Street
TORONTO 1, ONTARIO

NOTICE OF ANNUAL GENERAL MEETING OF SHAREHOLDERS

Take notice that the annual general meeting of shareholders of Coppercorp Limited will be held at the Ontario Room South, Lord Simcoe Hotel, 150 King Street West, Toronto, Ontario, on Friday, November 13, 1970, at eleven o'clock in the forenoon (Toronto time) to (a) receive and consider the annual report for 1969 and the financial statements and the reports of the auditors for the year ended December 31, 1969 and for the six months period ended June 30, 1970; (b) elect directors; (c) appoint auditors and authorize the directors to fix their remuneration; and (d) transact all such other business as may properly come before the meeting or any adjournment thereof.

A copy of the annual report, an information circular and a proxy form are enclosed herewith.

Each shareholder who does not expect personally to attend the meeting is requested to date and sign the form of proxy enclosed and return it in the addressed envelope enclosed.

DATED at Toronto the 26th day of October, 1970.

By Order of the Board,

H. F. CASSIDY,
Secretary.

COPPERCORP LIMITED

INFORMATION CIRCULAR
as of October 21, 1970

This information circular is furnished in connection with the solicitation by the management of Coppercorp Limited (the Company) of proxies for use at the annual general meeting of shareholders to be held on November 13, 1970 for the purposes set forth in the attached notice of meeting.

It is expected that the solicitation will be primarily by mail. Proxies may also be solicited personally by management of the Company at nominal cost. The cost of solicitation by management will be borne by the Company.

APPOINTMENT AND REVOCATION OF PROXIES

The persons designated in the enclosed form of proxy are directors of the Company. A shareholder desiring to appoint some other person to represent him at the meeting may do so by striking out the names of the persons designated and inserting such other person's name in the blank space provided in the form of proxy or by completing another proper form of proxy and, in either case, delivering the completed form of proxy to the Secretary of the Company.

A shareholder who has given a proxy may revoke it either (a) by signing a proxy bearing a later date and delivering it to the Secretary of the Company, or (b) as to any matter on which a vote shall not already have been cast pursuant to the authority conferred by such proxy, by signing written notice of revocation and delivering it to the Secretary of the Company or the Chairman of the meeting.

EXERCISE OF DISCRETION BY PROXIES

The persons named in the enclosed form of proxy will vote the shares in respect of which they are appointed for the election of directors and the appointment of auditors as stated under those headings in this circular. The enclosed form of proxy confers discretionary authority upon the persons named therein with respect to amendments or variations to matters identified in the notice of meeting, and with respect to other matters which may properly come before the meeting. At the time of printing this circular the management of the Company knows of no such amendment, variations or other matters to come before the meeting other than the matters referred to in the notice of meeting.

VOTING SHARES AND PRINCIPAL HOLDERS THEREOF

On October 21, 1970 the Company had outstanding 4,203,006 shares without par value, each carrying the right to one vote. All shareholders of record as of the time of the annual general meeting or any adjournment thereof are entitled to attend the meeting or any such adjournment and to vote thereat, either in person or by proxy, the shares held by them.

North Canadian Enterprises Limited is the registered holder of 500,000 shares (11.9% of the issued shares of the Company) but the Company has been informed that North Canadian Enterprises Limited is not the beneficial owner thereof. Pancake Lake Copper Mines Limited is the beneficial owner of 194,000 shares (4.6% of the issued shares of the Company). New Hosco Mines Limited is the beneficial owner of 131,517 shares (3.1% of the issued shares of the Company). The Company has been informed that J. P. Sheridan controls North Canadian Enterprises Limited, Pancake Lake Copper Mines Limited and New Hosco Mines Limited and, therefore, is in a position to vote 825,518 shares or approximately 19.6% of the issued shares of the Company.

ELECTION OF DIRECTORS

The board consists of seven directors to be elected annually. The persons named in the enclosed form of proxy intend to vote for the election of nominees whose names are set forth below, all of whom with the exception of Edward J. Burke and Richard B. McCormick are now members of the board of directors

and have been since the dates indicated. The management does not contemplate that any of the nominees will be unable to serve as a director but if that should occur for any reason prior to the meeting, the persons named in the enclosed form of proxy reserve the right to vote for another nominee in their discretion. Each director elected will hold office until the next annual meeting of shareholders or until his successor is duly elected unless his office is earlier vacated in accordance with the by-laws.

The following table and the notes thereto state the names of all the persons proposed to be nominated for election as directors, all other positions and offices with the Company now held by them, their principal occupations or employments, the year in which they became directors of the Company, and the approximate number of shares of the Company beneficially owned directly or indirectly by each of them as of October 21, 1970.

Name and Office Held	Principal Occupation	Director Since	Number of Shares Owned
Edward J. Burke	For the past five years and currently partner, Burke & Dougherty, attorneys at law.	Not yet a Director	
E. Franklin Hatch *Vice-President*	Vice-President and Director, Heritage Securities Inc.	1969	20,000
E. R. Heald *Vice-President*	For the past five years and currently director, Tribag Mining Co., Limited and other corporations.	1970	1
Darwin R. Martin	Retired.	1955	280,000 *
Howard A. Masson *President*	President of the Company since August 19, 1969. For five years prior thereto employee of a Chartered Bank.	1969	
Richard B. McCormick	For the past five years and currently partner, Lathan, Lumsden, McCormick and Adams, certified public accountants.	Not yet a Director	
Peter H. H. Ridout	Partner, Manning, Bruce, Macdonald & Macintosh, solicitors.	1969	1

* Not including 25,268 shares owned by a trust of which Darwin R. Martin is the trustee and a beneficiary.

The information as to shares beneficially owned, not being within the knowledge of the Company, has been furnished by the respective nominees individually.

Pursuant to an arrangement that, so long as the personal representative of John J. Boland, Jr., deceased, (who owns 89,804 shares) owns shares of the Company, two members of the board will represent such personal representative, Edward J. Burke and Richard B. McCormick, two of the foregoing proposed nominees, are proposed for election as such representatives.

REMUNERATION OF DIRECTORS AND SENIOR OFFICERS

The aggregate remuneration paid or payable in 1969 to the directors and senior officers of the Company was $22,200.

During the period January 1, 1969 to date, options exercisable cumulatively as to 20% in each of the five years following the granting thereof, have been granted to a director and senior officer of the Company as follows:—

Number of Shares Optioned	Date of grant of Option	Expiration date of Option	Purchase Price per Share	Price Range on The Toronto Stock Exchange in the thirty-day period preceding the date of grant
50,000	July 26, 1969	August 1, 1974	50¢	45¢ - 59¢

The Company received no consideration for the granting of the foregoing options.

APPOINTMENT OF AUDITORS

The persons named in the enclosed form of proxy intend to vote for the re-appointment of Messrs. Clarkson, Gordon & Co., Chartered Accountants, Toronto, Ontario, as auditors of the Company, to hold office until the next annual general meeting of shareholders. Messrs. Clarkson, Gordon & Co. have been auditors of the Company for more than five years.

GENERAL

Information contained herein is given as of October 21, 1970. The management knows of no matters to come before the annual general meeting of shareholders other than the matters referred to in the notice of meeting. Receipt at such meeting of reports of the directors and auditors and the Company's financial statements for its last completed fiscal period and for the six month period ended June 30, 1970 will not constitute approval or disapproval of any matters referred to therein. If any matters which are not now known should properly come before the meeting, the accompanying proxy instrument will be voted on such matters in accordance with the best judgment of the person voting it.

Printed in Canada

COPPERCORP LIMITED

PROXY

Proxy solicited by and on behalf of the management for the annual general meeting of shareholders

The undersigned shareholder of Coppercorp Limited hereby appoints HOWARD A. MASSON, or him failing E. R. HEALD, or him failing E. FRANKLIN HATCH or .....
..... as proxy for the undersigned to vote for and on behalf of the undersigned at the annual general meeting of shareholders of the company to be held on the 13th day of November, 1970, and at any adjournment thereof:

(a) for the election of directors;

(b) for the appointment of auditors; and

(c) on such other business as may properly come before the meeting.

The undersigned hereby revokes any proxies heretofore given.

DATED the ..... day of ..... , 1970.

Signature .....

Please sign exactly as your name appears on the proxy and date the proxy. If the shareholder is a corporation, its corporate seal should be affixed.

COPPERCORP
LIMITED

Report

For the two year period ended December 31, 1971.

COPPERCORP LIMITED

✧

CAPITAL STOCK

AUTHORIZED	5,000,000 shares of no par value
ISSUED	4,203,006 shares of no par value

✧

E. R. Heald	President
P. H. H. Ridout	Secretary

✧

DIRECTORS

E. J. Burke

E. R. Heald

D. R. Martin

R. B. McCormick

P. H. H. Ridout, Q.C.

TRANSFER AGENTS

NATIONAL TRUST COMPANY, LIMITED
Toronto

✧

Suite 612, 85 Richmond Street West, Toronto, Ontario.

85 Richmond-Street West
Toronto, Canada

TO THE SHAREHOLDERS

As you are aware, the last Annual General Meeting of the shareholders of the Company was held, after numerous delays, on November 13, 1970, as directed by an order of the Supreme Court of Ontario.

The cost of the last meeting was excessive due to numerous mailings, court action, etc. and this together with declining copper prices in the latter part of 1970 and the year 1971, placed the Company in a position where its own activities were severely restricted. As a result it has not been possible for the Company to pursue the litigation commenced during 1970 in what appears to be a complicated, involved and expensive affair or to conduct serious exploration work outside the leased area.

Submitted herewith are the financial statements of the Company, as reported on by the Company's auditors for the year ended December, 1970 and for the year ended December 31, 1971.

The results of the operation are disappointing and the losses indicated are substantial. The loss appears to be due to lower copper prices and lower grade ore available in the leased area. The losses indicated are calculated, as per lease agreement, on a "cash flow" basis which precludes using a valuation for concentrate inventory at the year end. The lessee has not shipped copper concentrate since mid 1971.

The opinion is generally held that the Company's property has merit and good exploration chances on the large area outside the acreage being worked by the lessee. The directors believe that financing can be arranged for part of this exploration. Continued shareholder support is solicited while the directors consider the alternatives open to the Company.

During the past year Messrs. H. A. Masson and E. F. Hatch found it necessary, for reasons of health, to resign as directors. Their efforts on behalf of the Company are now acknowledged.

April 18, 1972

On behalf of the Board

E. R. Heald

President

COPPERCORP LIMITED
(Incorporated under the laws of Ontario)

BALANCE SHEET

DECEMBER 31, 1970
(with comparative figures for 1969)

A S S E T S

	1970	1969
Current:		
Cash	$ 6,519	$ 4,317
Finance company notes - at cost	24,846	87,705
Rental receivable less $50,000 advance from lessee (note 1)	20,100	123,400
Total current assets	51,465	215,422
Fixed:		
Roads, furniture and fixtures at cost less accumulated depreciation of $268 (1969 - $205)	10,047	9,938
Other:		
Deferred income taxes (note 3)		57,500
Mining rights - at cost (including value assigned to 500,000 shares issued as part consideration for bringing the mine into production)	866,805	866,005
Deferred exploration, development and general administrative expenditures less amortization (note 2 and statement 3)	1,157,951	1,299,705
Incorporation expenses - at cost	4,129	4,129
	2,028,885	2,227,339
	$2,090,397	$2,452,699

COPPERCORP LIMITED

NOTES TO FINANCIAL STATEMENTS

DECEMBER 31, 1970

1. Under an agreement made in 1964 the company leased 677.89 acres of its property for a period of twenty years, renewable for a further twenty years. The lessee was to spend between $1,500,000 and $2,000,000 on development of the mine and the construction of a mill. The net profits as defined in the agreement were first to be used to repay the lessee for these expenditures, interest on capital advances and agreed subsequent capital expenditures, after which the net profits are to be divided equally between the lessee and the company.

   The company has commenced an action in the Supreme Court of Ontario against the lessee to rescind the above lease and to obtain a full and complete accounting of all rents and profits due under the lease agreement, including profits and losses on copper hedging for contracts entered into after December 23, 1969.

   The company is in dispute with the lessee regarding certain costs entering into the determination of net profits under the lease agreement.

   The net profits are also subject to a suit for breach of contract by the lessee claiming damages against a purchaser of copper concentrates. The purchaser has instituted a counter-suit for breach of contract against the lessee.

2. Deferred exploration, development and general administrative expenditures are being amortized at a rate of $1.00 per ton of ore milled from the leased property. The rate of amortization has been based on a mine life of approximately ten years.

3. During the year ended December 31, 1970 the company recorded amortization of deferred exploration, development and general administrative expenditures in the accounts in excess of the amount claimed for income tax purposes. In

1969 the future income tax benefit to have been derived when such amounts claimed for income tax purposes exceeded those recorded in the accounts was shown in the balance sheet as a deferred charge as the company at that time had reasonable expectations of making taxable profits. In 1970, due to the decline in the price of copper, it is uncertain when the company will be subject to income taxes. In accordance with current accounting practice, the accumulated amount attributable to future income tax benefits has been charged to income in the accompanying statements. The amount, not now recorded in the financial statemer , relating to future income tax benefits totalled $134,000 at December 31, 1970. In addition, the company has a loss carry-forward for tax purposes which may reduce income taxes of future years by approximately $126,000, which amount has not been reflected in the accounts.

4. At December 31, 1970 the following options to purchase shares of the company's capital stock at 50¢ per share, exercisable in cumulative instalments to 1975, were outstanding:

(a)	Employees of the lessee and mine operator	57,000 shares
(b)	Directors of the company	55,000 shares

5. Remuneration paid to directors and senior officers as defined in The Corporations Act (Ontario) amounted to $20,350 in the year ended December 31, 1970.

STATEMENT 1

L I A B I L I T I E S

	1970	1969
Current:		
Accounts payable	$ 38,789	$ 34,289
Shareholders' equity:		
Capital stock -		
Authorized:		
5,000,000 shares of no par value		
Issued (note 4):		
750,000 shares as part consideration for options to purchase claims	375,000	375,000
500,000 shares as part consideration for bringing the mine into production	150,000	150,000
2,953,006 shares for cash	2,015,456	2,015,456
	2,540,456	2,540,456
4,203,006 shares		
Deficit (statement 2)	(488,848)	(122,046)
	$2,090,397	$2,452,699

On behalf of the Board:

Director

Director

(See accompanying notes to the financial statements)

COPPERCORP LIMITED

STATEMENT OF INCOME AND DEFICIT

YEAR ENDED DECEMBER 31, 1970
(with comparative figures for 1969)

	1970	1969
Revenue:		
Rental income	$ 100	$ 100
Share of net loss as defined in lease agreement, (note 1)	(103,400)	(43,950)
Interest and other	7,225	8,494
	(96,075)	(35,356)
Expenses:		
Amortization of deferred expenditures (note 2)	144,328	161,488
Office expense	26,180	15,316
Legal and audit expense	25,860	5,788
Directors' fees	3,900	4,200
Listing and transfer fees	4,324	2,555
Acreage tax and rental fees	8,303	8,303
Insurance expense	332	332
	213,227	197,982
Loss before income taxes	(309,302)	(233,338)
Deferred income taxes (note 3)	(57,500)	75,800
Net loss for the year	(366,802)	(157,538)
Retained earnings (deficit), beginning of year	(122,046)	35,492
Deficit, end of year	$(488,848)	$(122,046)

(See accompanying notes to the financial statements)

COPPERCORP LIMITED

STATEMENT OF DEFERRED EXPLORATION, DEVELOPMENT AND GENERAL ADMINISTRATIVE EXPENDITURES

YEAR ENDED DECEMBER 31, 1970

	Total to December 31, 1969	Expenditures during year (net)	Total to December 31, 1970
Exploration and development:			
Geological and geophysical surveys	$ 130,321	$ 2,574	$ 132,895
Clearing site, road maintenance and prospecting	26,173		26,173
Diamond drilling	199,642		199,642
Non-metallic minerals exploration	18,743		18,743
Loss on disposal of fixed assets	218,132		218,132
Raising	52,893		52,893
Sampling and mining	20,685		20,685
Shaft sinking	136,764		136,764
Station-cutting, drifting and cross-cutting	651,007		651,007
Mine office expense	41,048		41,048
Acreage tax and rental	21,629		21,629
Insurance	15,903		15,903
Sundry	69,809		69,809
	1,602,749	2,574	1,605,323
General and administrative:			
Legal and audit	30,350		30,350
Listing and transfer fees and expenses	18,696		18,696
Head office expenses	69,672		69,672
Directors' fees	7,725		7,725
	126,443		126,443
Total expenditures	1,729,192	2,574	1,731,766
Deduct:			
Interest income	122,613		122,613
Rental	400		400
Royalties	2,000		2,000
	125,013		125,013
	1,604,179		1,606,753
Deduct amortization (note 2)	304,474	144,328	448,802
	$1,299,705	$(141,754)	$1,157,951

(See accompanying notes to the financial statements)

COPPERCORP LIMITED

STATEMENT OF SOURCE AND APPLICATION OF FUNDS

YEAR ENDED DECEMBER 31, 1970
(with comparative figures for 1969)

	1970	1969
Source of funds:		
Reclassification of rental receivable		$ 167,250
		167,250
Application of funds:		
Operations -		
Net loss for the year	$ 366,802	157,538
Charges to operations which do not involve funds:		
Deferred income taxes	(57,500)	75,800
Amortization of deferred exploration, development and general administrative expenditures	(144,328)	(161,488)
Depreciation	(63)	(36)
	164,911	71,814
Mining rights	800	
Deferred exploration and development [illegible]	2,574	42,510
Purchase of fixed assets	172	
	168,457	114,324
Increase (decrease) in working capital	(168,457)	52,926
Working capital, beginning of year	181,133	128,207
Working capital, end of year	$ 12,676	$ 181,133

(See accompanying notes to the financial statements)

Clarkson, Gordon & Co.
Chartered Accountants

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Halifax Saint John Quebec Montreal Ottawa
Toronto Hamilton Kitchener London Windsor
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Edmonton Vancouver Victoria

Arthur Young, Clarkson, Gordon & Co.
United States—Brazil

Telephone 864-1234 (Area Code 416)

AUDITORS' REPORT

To the Shareholders of
Coppercorp Limited:

We have examined the balance sheet of Coppercorp Limited as at December 31, 1970 and the statements of income and deficit, deferred exploration, development and general administrative expenditures and source and application of funds for the year then ended. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances.

As explained in note 1 to the financial statements, the company is in disagreement with the lessee of its mine as to the accounting for and amount of profits from the mine operation. Until these disagreements are resolved it is not possible to determine with certainty the net profit from mine operations nor the amount due from the lessee.

Because the amounts involved in the aforementioned disagreement enter materially into the determination of financial position and results of operations we do not express an opinion on the accompanying financial statements taken as a whole. However in our opinion:

1. cash, finance company notes, fixed and other assets, current liabilities and capital stock at December 31, 1970;

2. interest revenue and expenses for the year then ended, and

3. the statement of deferred exploration, development and general administrative expenditures for the year then ended

are fairly stated in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Clarkson, Gordon & Co.

Chartered Accountants

Toronto, Canada,
July 19, 1971.

COPPERCORP LIMITED
(Incorporated under the laws of Ontario)

BALANCE SHEET

DECEMBER 31, 1971
(with comparative figures for 1970)

A S S E T S

		1971	1970
Current:			
Cash		$ 1,304	$ 6,519
Finance company notes - at cost			24,846
Bank deposit receipt - at cost		5,000	
Rental receivable (note 1)	123,600		
Less allowance for possible loss on collection	103,400	20,200	20,100
Total current assets		26,504	51,465
Fixed:			
Roads, furniture and fixtures at cost less accumulated depreciation of $393 (1970 - $268)		10,296	10,047
Other:			
Mining rights - at cost (note 2)		866,805	866,805
Deferred exploration, development and general administrative expenditures less amortization (note 3 and statement 3)		1,005,338	1,157,951
Incorporation expenses - at cost		4,129	4,129
		1,876,272	2,028,885
		$1,913,072	$2,090,397

L I A B I L I T I E S

	1971	1970
Current:		
Accounts payable	$ 44,676	$ 38,789
Shareholders' equity:		
Capital stock -		
Authorized:		
5,000,000 shares of no par value		
Issued (note 4):		
750,000 shares as part consideration for options to purchase claims	375,000	375,000
500,000 shares as part consideration for bringing the mine into production	150,000	150,000
2,953,006 shares for cash	2,015,456	2,015,456
4,203,006 shares	2,540,456	2,540,456
Deficit (statement 2)	(672,060)	(488,848)
	1,868,396	2,051,608
	$1,913,072	$2,090,397

On behalf of the Board:

Director

Director

(See accompanying notes to the financial statements)

COPPERCORP LIMITED

STATEMENT OF INCOME AND DEFICIT

FOR THE YEAR ENDED DECEMBER 31, 1971
(with comparative figures for 1970)

	1971	1970
Revenue:		
Rental income	$ 100	$ 100
Interest and other	658	7,225
	758	7,325
Expenses:		
Provision for possible loss on collection of rents due from lessee (note 1)		103,400
Amortization of deferred expenditures (note 3)	152,613	144,328
Office expense	11,175	26,180
Legal and audit expense	9,625	25,860
Directors' fees		3,900
Listing and transfer fees	1,409	4,324
Acreage tax and rental fees	8,816	8,303
Insurance expense	332	332
	183,970	316,627
Loss before income taxes	(183,212)	(309,302)
Deferred income taxes		(57,500)
Net loss for the year	(183,212)	(366,802)
Deficit, beginning of year	(488,848)	(122,046)
Deficit, end of year	$(672,060)	$(488,848)

(See accompanying notes to the financial statements)

COPPERCORP LIMITED

STATEMENT 3

STATEMENT OF DEFERRED EXPLORATION, DEVELOPMENT AND GENERAL ADMINISTRATIVE EXPENDITURES

FOR THE YEAR ENDED DECEMBER 31, 1971

	Total to December 31, 1970	Expenditures during year (net)	Total to December 31, 1971
Exploration and development:			
Geological and geophysical surveys	$ 132,895		$ 132,895
Clearing site, road maintenance and prospecting	26,173		26,173
Diamond drilling	199,642		199,642
Non-metallic minerals exploration	18,743		18,743
Loss on disposal of fixed assets	218,132		218,132
Raising	52,893		52,393
Sampling and mining	20,685		20,685
Shaft sinking	136,764		136,764
Station-cutting, drifting and cross-cutting	651,007		651,007
Mine office expense	41,048		41,048
Acreage tax and rental	21,629		21,629
Insurance	15,903		15,903
Sundry	69,809		69,809
	1,605,323		1,605,323
General and administrative:			
Legal and audit	30,350		30,350
Listing and transfer fees and expenses	18,696		18,696
Head office expenses	69,672		69,672
Directors' fees	7,725		7,725
	126,443		126,443
Total expenditures	1,731,766		1,731,766
Deduct:			
Interest income	122,613		122,613
Rental	400		400
Royalties	2,000		2,000
	125,013		125,013
	1,606,753		1,606,753
Deduct amortization (note 3)	448,802	$ 152,613	601,415
	$1,157,951	$(152,613)	$1,005,338

(See accompanying notes to the financial statements)

COPPERCORP LIMITED

STATEMENT OF SOURCE AND APPLICATION OF FUNDS

FOR THE YEAR ENDED DECEMBER 31, 1971
(with comparative figures for 1970)

	1971	1970
Application of funds:		
Operations -		
Net loss for the year	$183,212	$366,802
Charges to operations which do not involve an outlay of funds:		
Deferred income taxes		(57,500)
Amortization of deferred exploration, development and general administrative expenditures	(152,613)	(144,328)
Depreciation	(125)	(63)
	30,474	164,911
Mining rights		800
Deferred exploration and development expenditures		2,574
Purchase of fixed assets	374	172
	30,848	168,457
Decrease in working capital	30,848	168,457
Working capital, beginning of year	12,676	181,133
Working capital (deficiency), end of year	$(18,172)	$ 12,676

(See accompanying notes to the financial statements)

COPPERCORP LIMITED

NOTES TO FINANCIAL STATEMENTS

DECEMBER 31, 1971

1. Under an agreement made in 1964 the company leased 677.89 acres of its property for a period of twenty years, renewable for a further twenty years. The lessee North Canadian Enterprises Limited, was to spend between $1,500,000 and $2,000,000 on development of the mine and the construction of a mill. The net profits as defined in the agreement were first to be used to repay the lessee for these expenditures, interest on capital advances and agreed subsequent capital expenditures, after which 50% of the net profits are to be paid to the company as rent. The company recorded as rental income 50% of the 1968 and 1969 net profits earned by the lessee and in 1970 made a provision for possible loss in collecting the rental due in an amount equal to 50% of the 1970 net loss estimated by the lessee. This 1970 provision has been reclassified as an expense instead of as a reduction in revenue.

For the years 1970 and 1971 the lessee estimated the cumulative losses to be approximately $563,000 and as he is entitled to recoup losses out of future profits further rent will not accrue to the company until future net profits exceed this amount.

The company has commenced an action in the Supreme Court of Ontario against the lessee to rescind the above lease and to obtain a full and complete accounting of all rents due under the lease agreement, including profits and losses on copper hedging for contracts entered into after December 23, 1969.

The company is in dispute with the lessee regarding certain costs entering into the determination of net profits under the lease agreement.

The determination of net profits are also subject to the outcome of a suit whereby the lessee is claiming damages against a purchaser of copper concentrates for breach of contract. The purchaser has instituted a counter-suit for breach of contract against the lessee.

2. The cost of mining rights includes the following:

750,000 shares of the company's capital stock issued at 50¢ per share as part consideration for options to purchase claims	$375,000
500,000 shares of the company's capital stock issued at 30¢ per share as part consideration for bringing the mine into production	150,000
Cash expenditures	341,805
	$866,805

3. Deferred exploration, development and general administrative expenditures are being amortized at a rate of $1.00 per ton of ore milled from the leased property. The rate of amortization has been based on a mine life of approximately ten years.

4. At December 31, 1971 the following options to purchase shares of the company's capital stock at 50¢ per share, exercisable in cumulative instalments to 1975, were outstanding:

(a) Employees of the lessee and mine operator	57,000 shares
(b) Directors of the company	55,000 shares

5. Remuneration paid to directors and senior officers as defined in The Business Corporations Act (Ontario) amounted to $9,200 during the year ended December 31, 1971.

6. At December 31, 1971 the company had losses, deferred exploration, development and general administrative expenses and additional depreciation charges available to reduce income taxes of future years by approximately $359,000 (at current rates). This potential tax saving has not been reflected in the accounts.

Clarkson, Gordon & Co.
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Clarkson, Gordon & Co.

Toronto, Canada,
April 6, 1972.

Chartered Accountants

PLAN OF
RYAN T'WP.
SAULT STE MARIE MINING DIVISION.
DISTRICT OF ALGOMA
Scale, 40 chains to an inch.

AST North

W E S.

SUPERIOR LAKE

PALMER T'WP.

KINCAID T'WP.

HERRICK T'WP.

FISHER T'WP.

Quebec and Lake Superior Mining Association Regist. Area 6,400 Ac±

Mamainse Pt.

Mamainse Is.

Wilson Lake

Montreal Mining Company's Location Ref V9 Area 6400 Ac.

Old Mine

Area within limits of Sections 19 and 20 temporarily withdrawn from staking by Ontario Council dated 18 Nov 1943.

Montreal Mining Company's Location Ref 20 Area 4300 Ac±

Rossean I.

Coppermine Pt.

Cottrell Cove.

Pancake Bay

Pancake Point

BATCHEWAUNG MINING COMPANY'S LOCATION.

Surface reservations 200' wide by Dept of L. & F. shewn hereon thus

41N02SE0502 MCDONNELL10A1 RYAN

MCDONELL-DOC-0010-A1 #1

SSM 89 RYAN TWP

Lot 8 39.1 ac Optioned

LAKE SUPERIOR

QUEBEC AND LAKE SUPERIOR MINING ASSOCIATION

MONTREAL MINING COMPANY

BANCAS RIVER

27 Claims Staked

RYAN TWP.

Sec. D.

Sec. A.

MAXIMUM BELT SECTION

MINIMUM BELT SECTION

MONTREAL MINING COMPANY

CI 15487 Not Held

LAKE SUPERIOR

HIGHWAY No 17

LEGEND

- FISSURE VEINS
- DIABASE
- QUARTZ PORPHYRY AND FELSITE
- CONGLOMERATE
- BASALT, AMYGDALOIDAL BASALT AND FELSITIC FLOWS
- SHAFT OR PIT
- TRENCH
- BUILDING
- TRAIL OR WINTER ROAD
- MILEAGE POST ON HIGHWAY 17
- STRIKE AND DIP OF BEDS

SCALE - 1000 FT TO THE INCH

GEOLOGICAL MAP OF THE MAMAINSE PROMINTORY DISTRICT OF ALGOMA ONTARIO

MC

MCDONELL LOG - 10AL

41N02SE0500 MCDONNELL10A1 RYAN

MACASSA MINES LIMITED

MAMAINSE COPPER

GEOLOGICAL PLAN 1949 MAPPING SHOWING DRILLING & PRINCIPAL AREAS

Scale 1" = 500' Nov. 1949 E.J. BONKOFF

Legend

- Conglomerate - undiff.
- Sandstone horizon
- Trap - undifferentiated
- Trap - Iron rich
- Felsite
- Diabase
- Fractures copper in red
- Multiple fracture zones
- Faulting interpreted
- Geol. Boundaries
- Roads & Trails
- Drill Holes 1949
- Old Shafts
- Pits

TO SAULT STE MARIE

L.

LAKE SUPERIOR

TO MAIN HIGHWAY

TO SAND BAY CAMP & HIGHWAY

INDIAN DIGGINGS ZONE

COPPER CREEK AREA

SILVER CREEK AREA

SILVER CREEK

"C" ZONE

"C" AREA

"B" AREA

"A" AREA

N27W

N13-30E

N35

OVERBURDEN, LOW GROUND & SLASH

MONTREAL MINING CO.

QUEBEC & LAKE SUPERIOR

MICHIPICOTEN R.

MICHIPICOTEN R.

SAW MILL

ADIT

CROSSCUT

MAMAINSE

G.C. MILL

TO MONTREAL RIV.

McDONELL-LOC-0010-A1 #3


MAMAINSE COPPER PROSPECT
SCALE 1" = 500' SEPTEMBER 1951
Figures as at Nov. 1, 1951 and subject to re-calculation
4,920 tns/vft @ 1.77% + 1-2 oz Ag
Legend
Conglomerate undiff
Trap undiff
Trap iron-rich
Felsite
Diabase
Fractures copper in red
Faulting interpreted
Geol Boundaries
Roads & Trails
Drill Holes
Old Shafts
Pits
E.J. Bonkoff G.W. Goettler
LAKE SUPERIOR
To Sault Ste Marie
To Highway
To Highway
Indian Diggings Zone
Overburden, Low Ground & Slash
Copper Creek Area
Silver Creek Area
B Area
E Zone
Montreal Mining Co.
Quebec & Lake Superior
Mamainse Mine Area
Saw Mill
Ryan
NOT TO BE REMOVED FROM THE OFFICE OF THE RESIDENT GEOLOGIST, ONT. DEPT. OF MINES SAULT STE. MARIE, ONT.
MCDONELL LOC-0010-A1 #4
230