

REPORT

ON

GEOLOGICAL, GEOCHEMICAL, AND GEOPHYSICAL SURVEYS OUT

GRIZZLY CLAIM GROUP

SHESLAY RIVER AREA, B.C.

58°14'N,131°53'W

ATLIN MINING DIVISION

NTS 104J-4

FOR

COBRE EXPLORATION LTD.

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

MAP

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## INTRODUCTION

During July, 1972, Min-Ex Services Ltd. conducted a review of all geological, geochemical, and geophysical data available on the Grizzly Prospect on behalf of Cobre Exploration Ltd. and recommended a work program which would further define areas of exploration potential on the prospect. In August, P. P. Nielsen, Geophysicist for Atled Exploration Management, was asked to further review the data and it was decided to conduct geological mapping, geochemical sampling, and ground magnetometer surveys on extended lines to the southwest and northwest of previously completed work.

A ground magnetometer survey of the previously existing grid was conducted by personnel of Hudson's Bay Oil and Gas Co. Ltd. in June, 1972 and this survey was used as a base from which the ground magnetometer program of September, 1972 was extended.

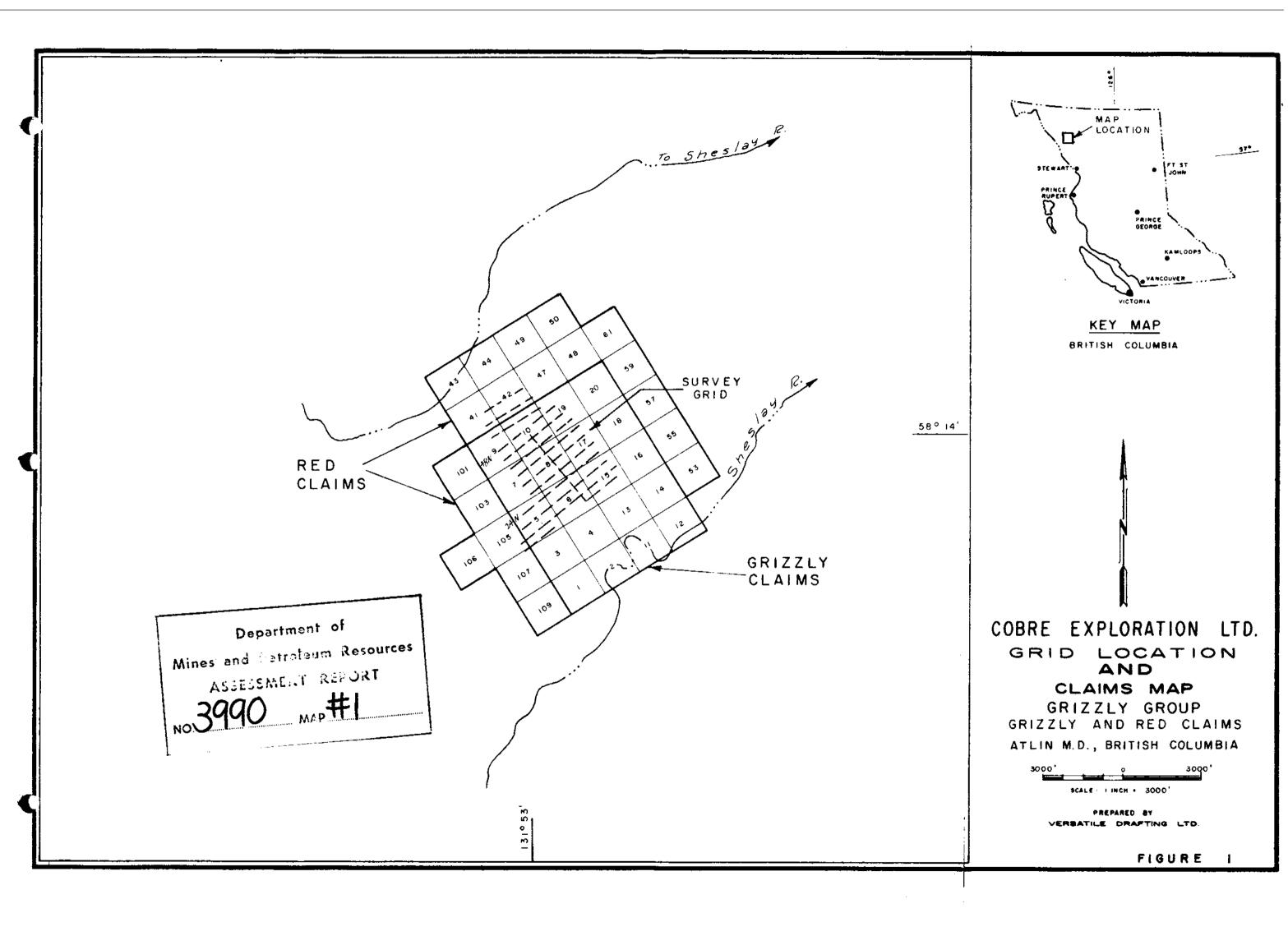
The work program was intended to examine areas along the projected trend of previously known geochemical and geophysical anomalies. The ground magnetometer survey conducted by Hudson's Bay Oil and Gas Co. Ltd. was conducted on June 5-7, 1972 and the remainder of the work was conducted on September 17-20, 1972.

This report describes results of the geological mapping and geochemical sampling conducted in September and the accompanying report by P. P. Nielsen and G. C. Gutrath of October 20, 1972 describes results of both magnetometer surveys and also reviews and re-interprets the results of an induced polarization survey conducted by McPhar Geophysics Limited in 1962.

## CLAIMS

The property presently consists of the following mineral claims in the Atlin Mining Division:

Claim	Record Number	Recording Date	Owner
Grizzly 1-20	13951-13970N	October 20, 1969	E. F. Asp
Kid 1	4146K	August 5, 1960	G. Davies
Red 41-62	17810-17831B	February 24, 1972	Cobre Exploration Ltd.
Red 101-110	18242-18251G	June 14, 1972	E. F. Asp



The work reported herein is intended to satisfy work requirements on the following portion of the above listed claims:

Grizzly 1-20 Kid 1 Red 41-44, 47-50, 53, 55, 57, 59, 61 Red 101, 103, 105-107, 109

## LOCATION AND ACCESS

The claims are located on the northwest side of the Sheslay River about 2-1/2 miles southwest of its junction with the Hackett River. Approximate co-ordinates are latitude 58°14'N, longitude 131°53'W and elevations on the property range from 1900 to 3600 feet. Telegraph Creek lies 35 miles southeast of the property and access is by helicopter from Telegraph Creek or by fixed-wing aircraft to the landing strip at the junction of the Hackett and Sheslay Rivers and then by helicopter the remaining 2-1/2 miles to the property. The landing strip, which was constructed during 1972, will accommodate aircraft of the DC-3 class.

The area lies within the dry belt which extends along the east side of the Coast Range and the field season generally lasts from mid-April or May until mid-October. The claim group begins on the north side of the Sheslay River and extends upslope to the northwest. Timber and water are available on the property and both are abundant in the Sheslay River Valley. Drilling water supplies could, however, be a problem in August and September as the area near the known showings tends to be quite dry late in the season.

## HISTORY AND PAST WORK

The showings were first located by Kennco Explorations (Western) Ltd. and the Kid 1-12 claims were staked in 1960. Geological and geochemical surveys were also conducted in 1960 and geophysical surveys were conducted on behalf of Kennco in 1962. The claims were allowed to lapse after 1964 with the exception of the Kid 1 claim which was assigned to Gordon Davies.

The Grizzly 1-20 claims were staked in 1969 and these along with the Kid 1 claim were optioned to Colo Corp. in 1970. Colo Corp. conducted a geologic mapping program and a new geochemical survey that same year. Colo Corp. released its option in 1971 and the claims were re-optioned by Cobre Exploration Ltd. in 1972.

## LINE CUTTING

The Kennco Explorations work conducted in 1960-62 was based on a widely-spaced reconnaissance grid. This grid, which was plainly marked and is still fairly recognizable, hinged on a 6000-foot baseline oriented N35°W with cross-lines normal to the baseline at 1000-foot intervals. Stations along the cross-lines were marked every 100 feet and the average length of the cross-lines was 3200 feet. The most southerly cross-line was marked 50N and the most northerly, 110N; shorter intermediate cross-lines were established at 85N and 95N.

A new grid which covered a portion of the Kennco grid was established by Colo Corp. during the 1970 work. This grid hinged on a 3500-foot baseline oriented N40°W with cross-lines normal to the baseline at 400-foot intervals. Stations along the cross-line were marked every 100 feet; each cross-line was 3000 feet long. The most southerly cross-line was marked 13N and the most northerly 48N. The relationship between the two grids is shown on Plate I.

The grid line cut during the 1972 work program was in part an extension of the Colo Corp. grid to the southwest and in part an extension and fill-in of the Kennco grid northwest of the northwest end of the Colo Corp. grid. The new grid line is as follows:

<u>Grid</u>	Cross-Line	Length
Colo Corp.	12N 16N 20N 24N	13W-31W 15W-30W 15W-26W 15W-22W
Kennco "	105N 110N 115N Baseline	5W-15E 5W-15E 2W-15E 100N-115N

Total footage cut or re-cut

The work on the Kennco baseline and Line 110N constituted reestablishment and re-cutting of the original Kennco lines.

12,300 feet

## REGIONAL GEOLOGY

This portion of the Sheslay River area is underlain principally by Triassic volcanics lying 20-40 miles east from the east flank

of the main mass of the Coast Range Batholith. A deviation from the northwesterly regional trend occurs in the vicinity of the Sheslay River where several batholiths protrude from the main Coast Range mass in a northeasterly direction. Smaller satellitic b odies are also present and the stock which forms the core of Kaketsa Mountain southeast of the claim area is one of these.

Several highlands in the vicinity are capped by post-mineralization basaltic flows of probable Pleistocene age. These flows are remnants of the Nahlin Plateau eruptives which underlie an area of 800 square miles to the northeast.

Kaketsa Mountain, lying on the southeast side of the Sheslay River near its junction with the Hackett River, is largely composed of a dioritic stock, approximately 6 square miles in area. A tongue-like, more acidic extension of the stock projects across the Sheslay River to the northwest into the area of the Grizzly-Kid-Red claims and is moderately to poorly exposed on a lightly drift-covered slope having an average relief of 2000 feet per mile. Copper showings on the claims are closely associated with the extension of the stock. Several other copper prospects in the general area are closely associated with extensions of the Kaketsa stock or with intrusives satellitic to it.

## PROPERTY GEOLOGY

## Previous Work

The mapping by Kennco (Barr and Lawrence, 1961) was more or less of a reconnaissance nature and was conducted at the scale of 1 inch equals 400 feet. Three mapping units were recognized; 1) andesite, agglomerate, and tuff, 2) aplite dikes, and 3) quartz diorite. The mapping indicated a contact between andesite and quartz diorite which roughly parallels the Kennco baseline from 50N to 90N and then swings due north. The actual contact was found at only a few locations. A number of large xenoliths of andesite were indicated within the area of quartz diorite. A disseminated copper occurrence, labeled "main showing" was shown centered on Line 90N just east of the baseline.

The mapping by Colo Corp. (Cukor and Sevensma, 1970) was much more detailed than the previous mapping but covered only about one-half the area. The mapping was conducted at the scale of 1 inch equals 200 feet and the following units were recognized; 1) monzonite-diorite, 2) syenite-monzonite, 3) fine grained andesite, and 4) porphyritic andesite. The mapping indicated the presence

of a contact between volcanics and intrusives roughly in the same area as the earlier mapping and also found the areas of large volcanic xenoliths (roof pendants?). The xenoliths, however, were shown to have been complexly intruded by dikes, sills, and irregular masses of rock of syenitic to monzonitic composition. In addition to the area of disseminated copper mineralization designated by the earlier mapping, a number of copper occurrences in veins and shear zones were mapped east, southeast, and south of the former.

The overall impression given by the Kennco and Colo Corp. mapping is that the present surface on the claims lies very close to the roof of the tongue-like extension of the Kaketsa stock and that the accompanying copper mineralization may be in part related to the upper contact of the stock.

## 1972 Mapping

The 1972 mapping was conducted at the scale of 1 inch equals 200 feet and was intended to extend and fill-in the 1970 detailed mapping. It was recognized that exposures would be few in the areas covered as the previous mapping indicated extensive areas of overburden but, because the 1972 work was conducted along the projected trend of known geochemical and geophysical anomalies, it was believed that if only a few exposures were found they would be helpful in interpreting results of the other surveys. The area of disseminated copper showings was also re-mapped as it was believed after examination that the 1970 map was too generalized in that area. The 1970 mapping units were used with the exception that an attempt was made to distinguish between monzonite, monzonite with extensive pink feldspar flooding, and syenite. Each of the units is described below.

### Fine Grained Andesite

The fine grained andesite, where unaltered, is dark gray, massive, and appears under the hand lens to be composed largely of plagioclase, amphibole, and olivine. Any suggestion of flow banding is rare. In exposures of andesite xenoliths within the intrusive and in exposures near the contact of the intrusive, the andesite is generally altered to chlorite and, sometimes, epidote. In these exposures, small amounts of very fine grained pyrite and chalcopyrite are often present.

The fine grained andesite usually weathers to inconspicuous, rubbly outcrops within the grid area although it tends to form more massive outcrops as distance from the intrusive increases.

## Porphyritic Andesite

The porphyritic andesite unit is characterized by large, white to light gray plagicclase phenocrysts up to 0.5 inches long set in a dark gray, fine grained matrix. The unit forms prominent bluffs west of the volcanic-intrusive contact and generally appears to be much more resistant to weathering than the fine grained andesite unit. It was initially thought that the porphyritic andesite might be post-mineralization in age but several exposures were found which contained widely spaced chalcopyrite veinlets and, in addition, the porphyritic unit appears to be intruded by fine grained andesite in one exposure so it may be the oldest rock unit in the area mapped.

### Monzonite-Diorite

Intrusive rocks ranging megascopically from monzonite to diorite are prominent in the southern, southeastern, and northeastern portions of the 1970 grid. Rocks of this unit are also present in the northern portion of the area of disseminated copper showings near Line 40N,9W. The monzonite is light gray, medium grained, and consists of plagioclase, hornblende, and, locally, quartz. It appears to grade into diorite which is medium gray, medium grained and contains a greater proportion of mafic minerals. Exposures are not good enough to be certain that the monzonite grades into diorite and it is possible that they represent separate, although related, intrusive pulses. Variable amounts of magnetite are present in rocks of this unit.

In areas of copper mineralization, the plagioclase of this unit is altered variably to sericite and the mafic minerals are strongly altered to chlorite. No thin section studies were made during the 1972 study but the Kennco Report (Barr and Lawrence, 1961) indicates that green secondary biotite was found in petrographic examinations at that time and it is possible that secondary biotite is more abundant than seems evident from megascopic examination.

Sulfide veinlets cutting monzonite or diorite are usually bordered by secondary pink feldspar, probably albite, and the pink feldspar often floods outward from veinlets substantially changing the appearance of the rock. Where pink feldspar flooding makes determination of the original composition of the rock difficult, the exposures were mapped as part of the syenitic rocks unit which is described below.

## Syenitic Rocks

In the southern portion of the area of disseminated copper showings centered on Line 36N,9W; the intrusive rock is pink in

color and consists of pink feldspar, probably albite containing fine specks of hematite, and numerous needle-like hornblende crystals. It is uncertain if the rock represents an intrusive which is separate and distinct from the monzonite-diorite phase or is a rock which has been completely changed in appearance by feldspar flooding. Apparent gradation from syenitized monzonite to syenite seems to be present between Lines 36N and 40N in this area but exposures are so poor that it is impossible to determine definitely the origin of the syenitic rocks.

Variable amounts of fine grained disseminated chalcopyrite and pyrite are present in the syenitic rocks in the showings area but there does not seem to be any definite relationship between the abundance of pink feldspar and the abundance of sulfides.

## Southwest Grid Extension

Exposures are sparse within the area of the Southwest Grid Extension as most of the area is either low-lying and somewhat swampy or consists of steep side-slopes covered with talus (Plate I). Outcrops on Lines 12N and 16N consist of fine grained andesite and a 1-foot wide syenite dike was observed intruding the andesite at Line 12N,16+50W. Copper mineralization consisting of chalcopyrite and malachite is present in the syenite dike and to a lesser extent in the intruded andesite. Traces of pyrite and chalcopyrite are present in widely spaced fractures in the exposure at Line 16N,25W but the other exposures on these two Lines are barren.

In the area north of Line 20N, all andesite exposures, with one exception, consist of the porphyritic unit. In the exposure 150 feet southeast of Line 24N,17+70W, a westerly-trending dike of apparent fine grained andesite is present intruding the porphyritic unit. A lenticular monzonite dike (?) is present just to the southwest of Line 24N,22W. This material is barely exposed through rubble but it appears to intrude porphyritic andesite. The dike is offset some 30 feet along a west-northwesterly trending fault. Small amounts of chalcopyrite and pyrite in widely spaced veinlets are present in several of the exposures but others appear to be barren.

The fine grained andesite in the area of the Southwest Grid Extension is generally altered to chlorite and, locally, epidote. The porphyritic andesite is fresher-appearing but does contain small to trace amounts of chalcopyrite and pyrite in some exposures. An inferred contact between the porphyritic andesite and fine grained andesite units is shown on Plate I but its actual position and trend could be considerably different from that shown.

## Northwest Grid Extension

Mapping was conducted in the area of the Northwest Grid Extension between Line 48N (Colo Corp. grid) and Line 115N (based on the Kennco grid). The grid in this area constitutes a fill-in and extension of the old Kennco grid and distances quoted are east and west of the re-cut Kennco baseline.

No bedrock exposures were found in the area of the grid extension nor was any definite bedrock material found in soil sampling pits. A north-northwesterly trending zone of what appears to be outwash gravel is shown on Plate I in this area which affects interpretation of geochemical results but little else of geologic value was noted. The gravel horizon, which trends north-northwest from the ridge crest at about Line 44N, is medium coarse and contains only a limited fine soil fraction.

Indirect evidence suggests that this area is underlain by andesite which is intruded by a broad, dike-like zone of intrusive material. An outcrop of porphyritic andesite was mapped at Line 48N,8+50W and the 1961 Kennco map indicates the presence of diorite outcrops 2000 feet north of Line 48N and the baseline. The ground magnetic survey, which is described in the accompanying report by P. P. Nielsen and G. C. Gutrath, indicates the presence of an elongated magnetic high which extends from Line 36N to the extreme north end of the Northwest Grid Extension. This high, which trends north-northwesterly and averages about 700 feet wide, is interpreted as a dike-like intrusive. If the magnetic high does indeed indicate an intrusive zone, the intrusive would roughly parallel the Kennco baseline and extend from about 8E to 15E in the area of the grid extension.

Another narrow, elongated magnetic high is also present in this area which is interpreted as a dike. The suspected dike would be approximately 100 feet wide and lies roughly 500 feet east of the Kennco baseline and parallel to it.

A fault zone is also interpreted from the magnetic data which extends north-northwestward from the disseminated copper showings area along the Kennco baseline. This fault zone correlates strikingly well with an elongated geochemical anomaly described in another section of this report.

## Copper Showings Area

The area between Lines 32N and 48N and from approximately 12W to 7E was also mapped. This area, which contains the principal known disseminated copper showings on the property,

was mapped by William Rehrig for Colo Corp. in 1970 but was re-mapped to show the actual distribution of outcrops and also to attempt discrimination of rocks which were originally of monzonitic to dioritic composition from those which are syenitic material of unknown origin (intrusive vs. syenitization).

The 1970 map shows an exposure approximately 650 by 450 feet in area which is designated as syenite to monzonite. A large portion of this area, however, consists of weathered rubble and in-place material is considerably more restricted. Plate I shows the actual outcrops exposed in the showings area west of the baseline and also shows three outcrops of monzonitic to dioritic rock east of the baseline which do not appear on the 1970 map.

In the showings area, 22 outcrops of intrusive material are shown within an area of approximately 600 by 400 feet. A number of the exposures are present in shallow pits which were dug during the 1970 program and not over one-half of those shown are natural outcrop. Those in the northern one-third to one-half, were mapped as monzonite which exhibits varying amounts of pink feldspathization. Some exposures contain no pink feldspar at all while others are so extensively feldspathized that recognition of the original monzonitic composition is difficult.

In the southern one-half to two-thirds of the showings area, the rock is characterized by abundant pink to orange feldspar and numerous hornblende needles. The hornblende is variably altered to chlorite (and green biotite?) and epidote. As mentioned earlier, there appears to be a gradation from syenitized monzonite to syenite in the area between Lines 36N and 40N but exposures in that area are too poor to determine whether the syenite represents a distinct intrusive phase or is the result of syenitization.

Copper mineralization consists of chalcopyrite and malachite. The chalcopyrite is largely present as disseminated grains within and near the mafic minerals. Some pyrite is present and the observed chalcopyrite:pyrite ratio varies from 5:1 to 1:3; the average ratio appears to be approximately 1:1. Sulfide veinlets or fracture fillings are present but very subordinate. Some leaching is evidenced by the presence of limonite after chalcopyrite but the amount is not believed to be large. Malachite is rare on the surface of weathered, rubbly sub-outcrop areas but digging a few inches to a foot often uncovers malachite as disseminated specks and fracture coatings. The overall sulfide content in the area of exposures is low, ranging from 0.3% to 2%

and probably averaging between 1% and 1.5%. Induced polarization surveys suggest that higher sulfide content may be present beneath nearby covered areas.

The copper mineralization is present in both monzonite and syenitic rocks and does not appear to have a definite preference for one over the other. In general, however, the average copper content is higher in the syenitic rocks although relatively abundant chalcopyrite and pyrite were noted at a number of locations in monzonite. It is interesting to note that well-mineralized specimens of monzonite contain abundant fine grained secondary-appearing quartz while none was observed in similarly mineralized specimens of syenitic material.

An inferred contact between intrusive rocks and volcanic rocks is shown on Plate I based on several andesite exposures which were found north of Line 44N.

## GEOCHEMICAL SURVEY

During the geochemical soil sampling program conducted by Kennco in 1960 (Barr and Lawrence, 1961), samples were taken from the "A" soil horizon rather than the more conventional "B" horizon. Average sample depth was approximately 6 inches. Samples taken during the 1970 Colo Corp. program are stated to have been taken from the "B" horizon although inspection of the old sample pits suggests that some of the holes may not have been deep enough to penetrate to that level.

The 1972 program was intended to supplement and extend the 1970 survey to the southwest and also to re-do the survey in the area of the Kennco program north of Line 48N. Care was taken to insure that the humic and "A" horizons were penetrated and in areas where talus only was present or where thick organic material could not be penetrated no samples were taken. Sampling depth in the Southwest Grid Extension ranged from 9 to 24 inches, averaging 14 inches and sampling depth in the Northwest Grid Extension ranged from 8 to 24 inches, averaging 13 inches. The sample pits were dug with a mattock, supplemented by a small shovel in the deeper pits.

The samples were collected in kraft paper bags and the grid location of each sample was marked on the exterior of the bag. Descriptive notes recording sample depth, characteristics of the "B" horizon, and presence or absence of organic material were taken at each sample location. A total of 105 samples were collected.

The samples were taken to Chemex Labs Ltd. in North Vancouver and each was analysed for copper content. Each sample was screened to -80 mesh and a 0.5gm. portion was digested with a mixture of nitric and perchloric acids. After dilution to 25ml., copper content was determined using a Tectron AA5 atomic absorption spectrophotometer.

## Results

Copper content of each soil sample is plotted on Plate II and the results are shown in contoured form on Plate III. Background in the areas surveyed is approximately 80 ppm but, in view of the limited area covered, it is probable that the general area background is closer to 50 ppm. Contours are shown on Plate III at 100 ppm, 200 ppm, 500 ppm, and 1000 ppm. Values above 200 ppm are believed to be definitely anomalous and areas within the 200 ppm contours are patterned to show the trend of strongly anomalous results.

## Southwest Grid Extension

Two anomalies are evident in the area of the Southwest Grid Extension. The small anomaly on Line 12N,16W is centered on a small exposure of fine grained andesite which is cut by a narrow syenite dike containing malachite and chalcopyrite. Thick cover is extensive in the area and it is possible that the anomaly may represent significant mineralization in bedrock as it coincides with the southern end of the frequency effect anomaly shown on the Compilation Map in the accompanying report (Nielsen and Gutrath).

The larger, inverted "Y" shaped anomaly in the Southwest Grid Extension area is somewhat puzzling. A number of andesite exposures are present within the limits of the anomaly and, although several contain traces of copper mineralization, no areas of truly significant mineralization were observed. The highest values (1120 and 880 ppm) in the anomaly are located in areas with no bedrock exposures and it is possible that a narrow zone of stronger mineralization is present under the heart of the anomaly. If such is the case, the flanks of the anomaly probably represent down-slope migration of copper ions and would not represent bedrock mineralization. A second alternative is that the anomaly represents the downslope migration of copper ions from a larger area of copper mineralization to the north and northwest of the area covered by the survey. A third alternative is that the eastern portion of the anomaly is representative of bedrock mineralization as it is coincident with the strongest induced polarization results yet obtained on the property. The area of the IP anomaly is

characterized by extensive and probably thick overburden. A combination of the first and third alternatives is considered most likely.

## Northwest Grid Extension

Soil sampling results from the Northwest Grid Extension are surprisingly high in view of apparent thick overburden and rather widespread gravel distribution. Most of the samples within the grid extension contained in excess of 100 ppm copper and four principal elongate anomalies are indicated which contain in excess of 200 ppm copper. Each of the anomalies is potentially meaningful in an exploration sense as the grid extension area is separated from all known copper showings by the stream divide which trends roughly along Line 44N. However, as there are no bedrock exposures within the area, the anomalies can be discussed only in terms of indirect geophysical interpretations and projections. The anomalies are discussed in turn from west to east.

Anomaly 1 lies between 102N-110N and 2+50W-5W, is a minimum of 150 feet wide, and is open to the west. The anomaly, which has a peak value of 310 ppm, lies west of the fault zone projected on the basis of magnetic data along the baseline. The nearest outcrop is 150 feet southeast of the extreme southeastern edge of the anomaly and consists of hornfelsed andesite with local pink feldspar development and minor limonite after chalcopyrite.

Anomaly 2 lies between Line 100N-115N and 1+50W-2+50E, averages 300 feet wide and is open to the north. Peak values within the anomaly are 1240 and 1400 ppm copper. The highest value is from the last station on the anomaly to the northwest. The grid was not extended further north due to the presence of a large area of swampy ground a short distance to the north. Anomaly 2 lies along the fault zone projected from magnetic data to extend from the disseminated copper showings area at 36N,9W northwestward along the Kennco baseline and may reflect the presence of similar mineralized intrusive material northwest of Line 100N.

Anomaly 3 lies between Line 105N-115N and 6+50E-9+50E, is a maximum of 300 feet wide, and narrows greatly to the north. The anomaly, which has a peak value of 424 ppm, lies along the west edge of the wide dike-like intrusive zone interpreted from the ground magnetic data. It should also be noted that copper values west of the anomaly may have been greatly reduced by the presence of the adjacent gravel zone and the anomaly might have been considerably larger except for the gravel. The anomaly

also lies along the projected trend of an IP anomaly detected on Line 100N, the last Line to the northwest in the 1962 survey.

Anomaly 4 lies between 100N-111N and 12+50E-14E, averages 150 feet wide, and extends an additional 350 feet further south onto the 1970 grid. The anomaly, which has a peak value of 770 ppm copper (1970 results), lies within and along the trend of the interpreted broad, dike-like intrusive zone mentioned above. As is the case with Anomaly 3, Anomaly 4 coincides with and lies along the projected trend of a 500-foot wide zone of anomalous frequency effect shown on the Compilation Interpretation Map in the accompanying report.

## MAGNETOMETER SURVEY

A ground magnetometer survey was run over the 1970 Colo Corp. grid by personnel of Hudson's Bay Oil and Gas Co. Ltd. on June 6-7, 1972 using a McPhar M-700 magnetometer. All readings were taken at a constant height above the ground facing one direction and using the most sensitive scale possible. Tie-backs to previous stations were made at frequent intervals and a base station was monitored each morning and evening. The earth's magnetic field was exceptionally stable during the survey. A total of 5.4 line miles of survey were run with stations at 100-foot intervals.

An additional 2.6 line miles of magnetometer survey was conducted on the Southwest and Northwest Grid Extensions on September 17-20 by personnel of Atled Exploration Management Ltd. of Vancouver. Procedures followed as well as results and interpretation of the two surveys are given in the accompanying report (Report on Geological, Geochemical, and Geophysical Surveys on the Grizzly Prospect by P. P. Nielsen and G. C. Gutrath, October 20, 1971).

## RE-INTERPRETATION OF INDUCED POLARIZATION SURVEY

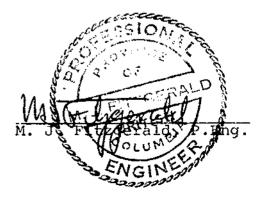
P. P. Nielsen of Atled Exploration Management Ltd. was requested to examine the data and re-interpret the results of induced polarization survey run for Kennco Explorations (Western) Ltd. in 1962. Recommendations for additional IP survey coverage were also requested, if warranted. The re-interpretation is fully presented in the accompanying report (Report on Geological, Geochemical, and Geophysical Surveys on the Grizzly Prospect by P. P. Nielsen and G. C. Gutrath, October 20, 1972).

## SUMMARY AND CONCLUSIONS

Due, possibly to the presence of extensive overburden cover, geologic mapping of the Southwest and Northwest extensions to the 1970 grid did not reveal any significant new areas of monzonitic or syenitic rocks and no new areas of significant copper mineralization were found. Geochemical soil sampling did indicate several copper-anomalous areas worthy of further investigation within the Southwest Grid Extension and also revealed the presence of four possibly significant copper anomalies within the Northwest Grid Extension. Interpretation of ground magnetic data and reinterpretation of induced polarization data suggest that three of the geochemical anomalies in the Northwest Grid Extension are related to wide fault zones or projected intrusive trends. In addition, two of the latter geochemical anomalies lie along the projected trend of metal factor and/or frequency effect anomalies.

Re-mapping of the disseminated copper showings in the north-western part of the 1970 grid indicates that significant copper mineralization occurs in both the monzonite and syenitic intrusive phases and may be associated with pink feldspar, epidote, chlorite alteration or with silicification.

Further work is warranted including 1) an induced polarization survey over the Southwest and Northwest Grid Extensions, 2) an attempt to extend the geochemical survey in the Northwest Grid Extension area into the low-lying swampy area to the north and 3) diamond drilling of known induced polarization anomalies adjoining the disseminated copper showings.



## REFERENCES

Barr, D.A. and Lawrence, E.A., 1961, Report on Geological and Geochemical Surveys, Kid 1-12 M.C.'s, Sheslay River Area, B.C.; B.C. Dept. Mines and Petroleum Resources Assessment Report #349.

Cukor, V. and Sevensma, P. H., 1970, Report on Geological and Geochemical Surveys, Kid 1 and Grizzly 1-20 Mineral Claims, Sheslay River Area, B.C.; B.C. Dept. Mines and Petroleum Resources Assessment Report #2605.

Nielsen, P. P. and Gutrath, G. C., 1972, Report on Geological, Geochemical, and Geophysical Surveys on the Grizzly Prospect, Sheslay River Area, B.C.; Submitted to B.C. Dept. Mines and Petroleum Resources as Partial Fulfillment of Assessment Work and attached to this Report.

## STATEMENT OF EXPENDITURE

Harrison Airways Ltd. Invoice #6706	\$	55.40
Vancouver Island Helicopter Invoice #7828		826.64
TransProvincial Airlines Ltd. Invoice #12403		14.00
Chemex Labs Ltd. Invoice #8389, 8333, 8339		172.30
Versatile Drafting Ltd. Invoice #591		105.00
Versatile Reproductions and Supply Ltd. Invoice #1392, 1436, 1470, 1477		40.95
R. Carlick - Contractor Statement September 20, 1972		125.00
Atled Exploration Management Ltd. Invoice #7229		767.50
Min-Ex Services Ltd. Statement November 21, 1972	:	2,136.14
Hudson's Bay Oil & Gas Co. Ltd. Letter October 19, 1972 and invoice copies (See Appendix)		559.98
Total:	\$ 4	4,802.91
Personnel		

M. J. Fitzgerald, P.Eng. September 17-20, 1972

Man-Days Property

Allan Chard, Atled Exploration Management Ltd. September 17-20, 1972

R. Carlick, Contractor September 17-20, 1972

Total Man-Days on Property:

## EXPENDITURES BY HUDSON'S BAY OIL & GAS CO. LTD.

## MAGNETOMETER SURVEY

June 6, 7, 13, 1972

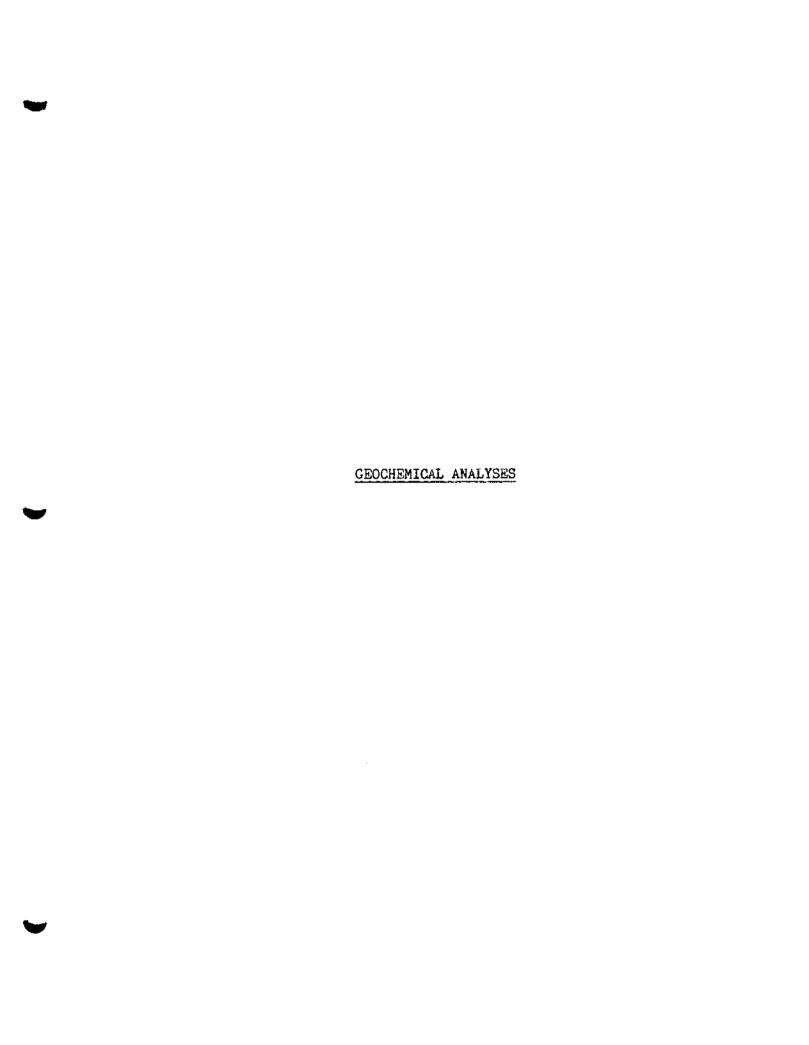
Salaries
A. Saxberg
3 days @ \$25 \$ 75.00

Meals
Camp 2 days @ \$10 20.00

Helicopter
Invoice #6347, 6345, 6346
Total \$929.95 - allocate
1/2 to survey 464.98

Total: \$559.98

\_\_\_\_





212 BROOKSBANK AVE. NORTH VANCOUVER, B.C.

CANADA

TELEPHONE: 985-0648

· CHEMISTS

Cobre Explorations Ltd.,

2467 Kilmarnock Cresc.,

North Vancouver, B. C.

GEOCHEMISTS

ANALYSTS

**ASSAYERS** 

CERTIFICATE NO.

INVOICE NO.

8339

19463

DATE RECEIVED

Sept. 25/72

DATE ANALYSED

Sept. 29/72

ATTN:

TO:

AUTN:		Grizzly Project
	PPM	<u> </u>
SAMPLE NO.:	Copper	
XL 12N 13W	112	
16	1200	
17	160	
18	126	
19	94	
20	41	
21	42	
22	60	
23	120	
24	100	
25	104	
26	108	
XL 12N 27W	292	
XL 16N 16W	88	
XL 16N 20+30W	84	
21	48	
22	104	
23	88	
24	88	
26	94	
27	138	
XL 16N 28W	212	
XL 20N15W	330	
17	230	
21	880	
22	670	
XL 20N 26W	488	
XL 24N 15W	70	
16	148	
1.7	160	
18	270	
19	362	
20	1120	
XL 24N 21W	424	
XL 48N 7W	330	
XL 48N 8W	285	
XL 70N 3+70W	230	
105N 1E	1240	
2	114	
105N 3E	76	
Std.	50	





212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA

TELEPHONE: 985-0648

· CHEMISTS

Cobre Explorations Ltd.,

North Vancotiver, B. C.

2467 Kilmarnock Crescent,

**GEOCHEMISTS** 

ANALYSTS

ASSAYERS

CERTIFICATE NO.

19464

INVOICE NO.

8339

DATE RECEIVED

Sept. 25/72

DATE ANALYSED

Sept. 29/72

ATTN:

TO:

Grizzly Project

AIIN;		Grizzly Project
	PPM	
SAMPLE NO	Copp	per
	4E 212	
	5 178	
	5 200	
	7 200	
	3 118	
	100	
1		
1		
1		
1		
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		sample
105N 1W	212 -	,
	2 22	
	3292	
	4 212	
105N 5		
110N	1E 292	
	2 292	
_	3 134 4 194	
	5 212	
	6 173 7 242	
	7 242	
	8 206	. <u></u>
	9 424	••••••••••••••••••••••••••••••••••••••
	0 90	
1	1 58	
	2 144	
	3 224	
	4 60	
	5E 72	
110N	1W 330	
	2 141	
	3 248	
	4 300	
110N	5W 68	
115N	1E 152	
	2 242	
115N	3E 108	
Std.	46	



Certified by Sunfamenin



212 BROOKSBANK AVE. NORTH VANCOUVER, B.C. CANADA

TELEPHONE: 985-0648

TO: Cobre Explorations Ltd.,

2467 Kilmarnock Crescent,

North Vancouver, B. C.

- CHEMISTS GEOCHEMISTS

ANALYSTS

ASSAYERS

CERTIFICATE NO.

INVOICE NO.

8339

19465

DATE RECEIVED Sept. 25/72

DATE ANALYSED Sept. 29/72

ATTN:

Grizzly Project

		Grizzly Project	
		PPM	
SAMPLE NO.:		Copper	
115N	4A E	90	
115N	4B E	86	
	5	86	
	6	78	
	7	230	
	8	120	
	9	90	
	10	128	
	11	64	
	12	136	
	13	120	
	14	120	
115N	15E	68.	
115N	1W	586	
115N	<u>2</u> W	94	
KBL	102N	840	
	104	410	
	105	35 <b>2</b>	
	106	424	
	108	206	
	110	138	
	112	189	
	114	410	
KBL	115N	1400	
	1_16+40W	670	
XL 161	N 25W	> 4000	



TO:

# CHEMEX LABS LTD.

212 BROOKSBANK AVE. NORTH VANCOUVER, B.C.

CANADA

TELEPHONE: 985-0648

Cobre Explorations Ltd.,

North Vancouver, B. C.

2467 Kilmarnock Crescent,

CHEMISTS GEOCHEMISTS

ANALYSTS

800

ASSAYERS

CERTIFICATE NO.

19465

INVOICE NO.

8389

DATE RECEIVED

Oct. 5/72

DATE ANALYSED Oct. 6/72

ATTN: Mr. Fitzgerald

SAMPLE NO.:         Zinc         Silver           KBL 102N         98         0.5           104         152         < 0.5           105         115         < 0.5           106         62         1.0           108         89         0.5           110         72         0.5           112         65         < 0.5           114         265         1.0           115N         275         1.5			PPM	PPM	 
104       152       < 0.5         105       115       < 0.5         106       62       1.0         108       89       0.5         110       72       0.5         112       65       < 0.5         114       265       1.0	SAMPLE	NO.:	Zinc	Silver	
105     115     < 0.5	KBL	102N	98	0.5	
106     62     1.0       108     89     0.5       110     72     0.5       112     65     < 0.5		104	152	< 0.5	
108     89     0.5       110     72     0.5       112     65     < 0.5       114     265     1.0		105	115	< 0.5	
110 72 0.5 112 65 < 0.5 114 265 1.0		106	62	1.0	
112 65 < 0.5 114 265 1.0		108	89	0.5	
114 265 1.0		110	72	0.5	
		112	65	< 0.5	
115N 275 1.5		114	265	1.0	
		115N	275	1.5	





212 BROOKSBANK AVE, NORTH VANCOUVER, B.C.

CANADA

TELEPHONE: 985-0648

AREA CODE: 604

CHEMISTS

GEOCHEMISTS

ANALYSTS

**ASSAYERS** 

CERTIFICATE NO.

21453

TO:

Cobre Explorations Ltd.,

2467 Kilmarnock Crescent,

North Vancouver, B. C.

INVOICE NO.

8333

RECEIVED

Sept. 25/72

ANALYSED

Sept. 29/72

ATTN:

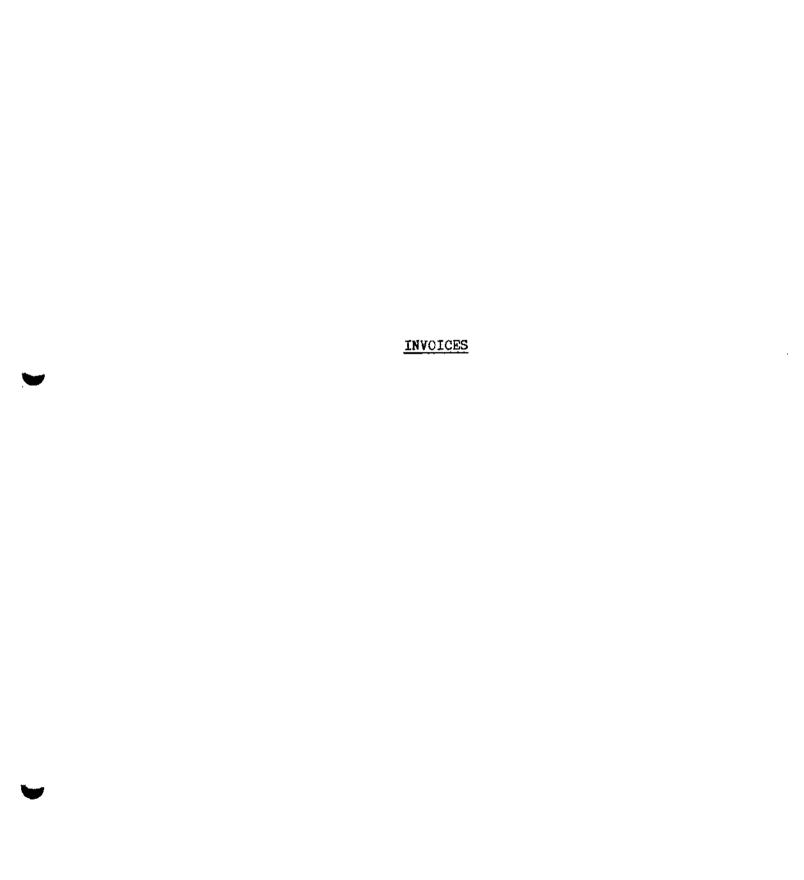
Mr. M. J. Fitzgerald

2203.51

% Copper	% Lead	% Zinc	Oz/Ton Silver	Oz/Ton Gold	
	< 0.01		0.28	< 0.003	
		0.02		< 0.003	
0.38					
0.17					
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	<del>"</del>				
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	·				
	Copper < 0.01 < 0.01 0.16 0.21 0.38 0.17	Copper Lead  < 0.01 < 0.01 < 0.01 < 0.01 0.16 0.21 0.38 0.17	Copper         Lead         Zinc           < 0.01	Copper         Lead         Zinc         Silver           < 0.01	Copper         Lead         Zinc         Silver         Gold           < 0.01



REGISTURED ASSAYLE, PROVINCE OF BRITISH COLUMBIA



## MIN - EX SERVICES LTD.

# GEOLOGICAL CONSULTING

MINERAL EXPLORATION MANAGEMENT

M. J. FITZGERALD, P. Eng. GEOLOGICAL ENGINEER

2467 KILMARNOCK CRESCENT NORTH VANCOUVER, B.C.

TEL; 980-4312

November 21, 1972

Cobre Exploration Ltd., 705 Fort Worth National Bank Building, Fort Worth, Texas 76102, U.S.A.

## INVOICE FOR GRIZZLY PROSPECT WORK

## GRIZZLY-KID-RED CLAIM GROUPS

Geologic Mapping, Geochemical Survey Report and Map Preparation - September to November, 1972

## Professional Services

M. J. Fitzgerald Field Work September 17-20 4 days @ \$175 \$700.00 Travel to and from Property September 15, 16, 21 300.00 3 days @ \$100 Preparation for Field Work (Hiring personnel, arrangements for transportation, review of data) 1 day @ \$100 100.00 Report and Map Preparation 4 days @ \$150 600.00

\$1,700.00

Total:

## Expenses

Transportation to and from Smithers (Personal car) 1920 miles @ 11¢ = \$211.20 Project share = 1/2

\$105.60

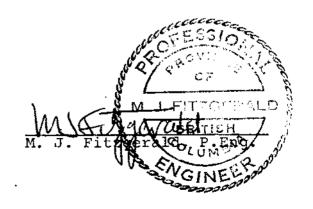
Motel

26.78

cont'd

4 days

Meals Travelling - 4 days Camp - 12 man-days @ \$10	\$ 19.95 120.00		
Camp Gear Rental 4 days @ \$5	20.00		
Rental Car Prince Rupert-Smithers Skeena Rent-a-Car Ltd. Invoice #80982	53.59		
Ferry Prince Rupert	3.00		
Long Distance Phone Calls	87.22		
Total:		\$ ==	436.14
Total Billing		\$ 2 <del></del>	2,136.14
Items charged directly to Cobre attached page	Exploration are 1	iste	ed on the
Total of said items		\$2	2,106.79
Total Expenditure by Cobre Explo Grizzly Prospect	oration Ltd. on	4 ==	,242.93



## MIN - EX SERVICES LTD.

# GEOLOGICAL CONSULTING AND MINERAL EXPLORATION MANAGEMENT

M. J. FITZGERALD, P. Eng. GEOLOGICAL ENGINEER

2467 KILMARNOCK CRESCENT NORTH VANCOUVER, B.C. TEL: 980-4312

# TIEMS CHARGED DIRECTLY TO COBRE EXPLORATION LTD.

Harrison Airways Ltd. Invoice #6706	\$	55.40
Vancouver Island Helicopters Invoice #7828		826.64
TransProvincial Airlines Ltd. Invoice #12403		14.00
Chemex Labs Ltd. Invoice #8389, 8333, 8339		172.30
Versatile Drafting Ltd. Invoice #591		105.00
Versatile Reproductions and Supply Ltd. Invoice #1392, 1436, 1470, 1477		40.95
R. Carlick - Contractor Statement September 20, 1972		125.00
Atled Exploration Management Ltd. Invoice #7229		767.50
Total:	\$2	,106.79

Charter Flights Training School

Aircraft Sales & Service

## HARRISON AIRWAYS LTD.

479 Bell Irving Street

- Vancouver International Airport, B.C.

Cobre Exploation Itd. 2467 Kilmarnock Crescent North Vancouver, B. C.

Invoice  $N^0$  6796

Order No.

Please return One Copy with remittance.

Sept. 16/72 Smithers - Sheslay

Mr. M. Fitzgerald Ticket #0789 \$55.40

FOR PEOPLE ON THE MOVE



## COUVER ISLAND HELICOPTÈRS LTD.

-In Account With-

656-3937

SIDNEY, B.C.

SEPTEMBER 29, 1972 COBRE EMPLORATION LIMITED 2467 KILMARNOCK CRESCENT NORTH VANCOUVER, . B.C.

	, 6 <sub>2</sub> ,			
REFERENCE INVOICE	1828	<del> </del>		<del></del>
FLYING SERVICE FOR MI AS PER ATTACHED FLIGHT IN GRIZZY HELICOPTER TYPE BO	IVOICES.			197 <u>2</u> 
BASE OF OPERATION	20	HAFT CREEK	B.C.	·
	BALANCE F	ORWARD		
Hours	@ \$	PER HR	\$	
Hours	@ <b>5</b>	PER HR.		
5:10 Hours VII.H. FUEL	_ @ <b>s</b> 155.0	<u>))                                   </u>		800.80
MINIMUM CHARGES (IF	APPLICABLE)			
CREW EXPENSES	Po transmont	fuel to		

**TOTAL CHARGES** 

Schaft 35.00 per hr.

326.64

25.84

TERMS: 30 DAYS NET Interest of 116% per mouth (18 per cent per annum) charged on overdue accounts.

This company complies with the CODE OF ETHICS of the Helicopter Association of America.

## VANCOUVER ISLAND HELICOPTERS LTD.

P.O. BOX 566 - SIDNEY, B.C.

CUSTOMER'S COPY DAILY FLIGHT INVOICE

CONTRACT	Cobre Exploration Utd
1.000000	2467 Kilmarnouls Crescent
	North Vancouver, BC

AIRCRAFT	DATE		BASE	
155	SEPT.	19 72	SCHAFT	CK.

TIMEOFF	TOTAL TIME	MILES	PASS.	LOAD	REMARKS
SEPT, 17	135	1128	d f (k)	OF GEAR	TO TOLEGRAPH
	1.30	211	Ng'C	usp Ge	OR TO SHESLAY
	.25	27	195 1	DEN J'E	Dup, To Fly Camp.
	1.00	E 57	URN	ScHA	et.
	2,30				
SEPT, 20	1,00	50	AFT C	N. 75	SHESLAY FLY CAMP
	35				PALP. DUT DE FLY
	1.05		l .	Efuip	l' ''
	2:40	-		. /	
TOTAL	5:10	~			VIH FUEL 5:10 HRS.

INVOICE NUMBER	T	
7828	Mitterevaled	Bud Illeton
	AMNATURE	PILOT
	K: ISLAND BUNKESS FORMS - VICTO	RIA, B.C.

BOX 310, TERRACE, B.C.



OFFICE (604) 635-6516

TRANS-PROVINCIAL
BOX 310

AIRLINES LTD.

TERRACE, BRITISH COLUMBIA

COBRE EXPLORATION 2467 KILMARNOCK NORTH VANCOUVER BC Nº -12403

of whole

REFERENCE	٥	ESCRIPTION	DATE	AMOUNT	TOTAL
	3 SEP 72 3 SEP 72 3 SEP 72 3 SEP 72 3 SEP 72	5,3 9 7 5,5 9 4 4 7,1 0 3 4 7,1 0 9 4 7,1 6 3	28.8 ( 48.0 ( 96.0 ( 96.0 ( 14.0 (	\$ N. PP. KEE 80	26280
		.			

garrangia

INTEREST OF 1% PER MONTH CHARGED ON OVERDUE ACCOUNTS

## INVOICE



CHEMEX LABS LTD. 212 BROOKSBANK AVE., NORTH VANCOUVER, B.C. TELEPHONE 085-0648

COALS Y	PTOINTIONS PERS.	DATE SUPE. AFT /A	
2467 K11	sernock Crescent.	invoice no	8333
Worth Van	CONVER. B. C. GRIZZLY	CERTIFICATE NO. 21453 ATTN: Mr. M. J. Fitzgereld	
·	l		
Frem	DESCRIPTION	SUB-TOTAL	TOTAL
	Grissly Proj.		
2	Assayed for Copper, Lead, Zinc, Silver & Gold @ \$14.00 Assayed for Copper @ \$3.00	\$28.00 12.00	
			\$40.00
· ·			

TERMS - NET 80 DAYS

## INVOICE



CHEMEX LABS LTD. 212 BROOKSBANK AVE., NORTH VANCOUVER, B.C. TELEPHONE 985-0648

Cobi	re Explorations Ltd.,	DATE Oct.6/72		
246	7 Kilmarnock Crescent,	INVOICE NO. 8389  CERTIFICATE NO. 19465  ATTN:		
Nor	th Vancouver, B.C.			
-m	Gerry			
ITEM	DESCRIPTION	SUB-TOTAL	TOTAL	
9	Analyzed for Zinc & Silver @ \$0.70	\$6.30		
			\$6.30	
<b>F</b>				
•				

TERMS — NET 80 DAYS

## INVOICE



CHEMEX LABS LTD. 212 BROOKSBANK AVE., NORTH VANCOUVER, B.C. TELEPHONE 985-0648

Cob	re Explorations Ltd.,	DATE DEFOSET 4/12		
246	7 Kilmarnock Crescent,	invoice no8339		
Mor	th Vancouver, B. C. GROWN	CERTIFICATE NO	19463 to 19465	
		ATTN:		
ITEM	DESCRIPTION	SUB-TOTAL	TOTAL	
•	Grissly Project			
105 105	Analysed for Copper @ \$1.00 Prepared @ \$0.20	\$105.00 21.00		
			\$126,00	
•				

TERMS — NET 30 DAYS

		Noveme	BER 2	<u>0</u> 19.	72	<del>,</del>	
	OBRE	EXPLORATION LTD.				N was	
$O_{2}$	1-67	KILMARNOCK CRES,					
		VANCOUVEFL, E.C.				*	
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		Abbotsford,	. В. С.			ist i	-
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R۶	2M BOL	DESCRIPTION	RATE				
<u>-1</u>	VER 519	GRIZZLY CLAIMS	5	00		105	00
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<del>-</del>			<u> </u>				_
<u> </u>	-	TOTAL	<u> </u>			105	00
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	<u> </u>	INVOICE PREPARED BY US P. Wadman	<u> </u>	<del>!</del>	. "	<del>)</del>	. '
<u> </u>	<del></del>	TERMS: 30 DAYS NET	<del></del> -		· .	,	. , .

INVOIÇE

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VER - 591

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	-								
			IN ACCOU	NT WITH:					
Gr.	HZZL	y Ch	HIM GROU	VERSATILE R	EPRODUCTIONS CYPRUS ST., ABB PHONE: 853-	OTSFORD, 8		.TD.	
NT ACINGS	N <sup>‡</sup> REQ.	7 Y P E	PRINTS	\$ 1 2 E	SQ FT	RATE			
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				FEDERAL	SALES TAX	12 %			37
	· · · · · ·				TOTAL				52
				PROVINCIAL	SALES TAX	5 %		0.	16
į		1		ŀ	TOTAL			2	10

ORDERED BY:

INVOICE Nº P 14-70

<u> </u>	(C) (D) (S)		XPLORBI		r. No				
			IN ACCOUN	T WITH:					
VERSATILE REPRODUCTIONS & SUPPLY CO. LTD.  CHIZZLY CLAIM GROUP. 33771 CYPRUS ST., ABBOTSFORD, B.C. PHONE: 853-0914									
Nº TRAGINGS	Nº REQ.	TYPE	PRINTS	SIZE	SQ FT	RATE			
5	SEN	BLAC	Fline	3. Ox 3. C	2250		.08	19	.0-7
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			<del></del>	FEDERAL	SALES TAX	12 %			. <u>28</u> .35
					IVIAL			_ 2_1_	<u>. 35 </u>

PROVINCIAL SALES TAX

TOTAL

ORDERED BY:

5 %

	<u> Vou 3</u>	
CORRE EXPLORATION LTD		
2467 KILMARNINK CRESCENT		
MORTH VANCOUVER		

IN ACCOUNT WITH

### VERSATILE REPRODUCTIONS & SUPPLY CO. LTD.

33771 CYPRUS ST. ABPOTS: HTG. R.C.

GRISSLY CLAIMS

ORDERED BY:

100

PHONE: 85×0/04

7					<del></del>		
NE TRACINGS	NE Q	TYPE	PRINTS	SIZE	SQ FT	9419	
	4	Sep	, Gt	3,13	34.	د ع	1260
•				·			
				_			
		1					
•							
		CHARGE					
				FEDERAL	SALES TAX	12 %	1.51
					TOTAL		
				PROVINCIAL	SALES TAX	5 %	71
					TOTAL		14.82

INVOICE Nº P139>\_

ı			Nov.	10	
۵.	Cabre	Exploration Ltd.			
΄.	246,7	Kilmsonick Cres	<u> </u>		
_	No 14	Vancouver, B.C.	_		

IN ACCOUNT WITH:

### VERSATILE REPRODUCTIONS & SUPPLY CO. LTD.

33771 CYPRUS ST., ABBOTSFORD, B.C.

PHONE: 853-0914

GRIZZLEY CLAIMS

Nº TRACINGS	N <sup>Q</sup> REQ.	TYPE PRINTS	SIZ€	SQ FT.	RATE	
3	<b>A</b>	Blackling	3 x 3'	27	10	275
1	1		11217	1.5	10	015
						285
		-	·			<del></del>
		charge				
		Chall				
		_				,
			FEDERAL	SALES TAX	12 %	034
				TOTAL		034 3 19 016
			PROVINCIAL	SALES TAX	5 %	016
				TOTAL		3 35

ORDERED BY: Wadman
--------------------

20 SOPT, 1972 Box 209 Watson LAKE

Received From Cobre Exploration LTd \$ 1250 for contract line cutting and geochemical Sampling Services. September 17-21, 1972.

> Ron Carlick Ron Carlick

# ATLED EXPLORATION MANAGEMENT LTD.

# 420-475 HOWE STREET • VANCOUVER 1, B.C. TELEPHONE 688-0471

October, 1972

Cobre Explorations Ltd., 2467 Kilmarnock Crescent, North Vancouver, B. C.

Attention: Mr. M. Fitzgerald

## IN VOICE #7229

RE: Magnetometer Survey and Data Correlation Grizzly Prospect, Sheslay River Area, NW, B.C.

# 1. Provision of following:

	(a)	Magnetometer Operator 4 days @ \$55	/day \$	220.00
	(b)	Magentometer 4 days @ \$10/day		40.00
	(c)	Camp gear 4 days @ \$5/day		20.00
				280.00
2.	Con.	<u>sulting</u>		
	(a)	Study and correlation of geologica geochemical and geophysical data 2.5 days @ \$125/day	1,	312.50
	(b)	Report - typing, printing, draftin (including re-drafting of old magnetometer survey)	g	175.00
				487.50
			TOTAL \$	767.50

# Hudson's Bay Oil and Gas Company Limited



320 Seventh Avenue S.W. - Calgary 2, Alberta, Canada - Telephone (403) 267-2110

171 Pemberton Avenue North Vancouver, B. C. 19 October 1972

Mr. Mike Fitzgerald 2467 Kilmarnock Crescent North Vancouver, B. C.

Dear Mike:

re: Grizzly and Snippaker Cu Prospects

As per our recent conversations, please find attached all the various invoices for the costs HBOG incurred from the examination of these properties.

#### Grizzly:

Bondar-Clegg Geochemical Analysis	\$ 32.40
" " Assaying	54.00
Vancouver Island Helicopter - Fly In	529.55
" - Fly Out	400.40
Magnetometer Survey -	
A. Saxberg, HBOG employee,	
3 Days @ \$25.00 /day	75.00
	<del></del>
Total Expenditure	\$ 1,091.35

#### Snippaker:

Bondar-Clegg Geochemical Analysis \$ 87.50

Okanagan Helicopters - invoice not yet received.

I hope that these will be of use to you.

Best regards,

And

Attach.

/sh

VANCOUVER ISLAND HELICOPTERS L	Y, B.C. TELEPHONE 456-2821	^ .
655-3937	Armen .	***
DATE TOTAL STATE AND	DATE THE	5-19/2
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