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Geochemical survey report on the
IT AND AT MINERAL CLAIMS
(Cariboo Mining Division)

It 3-16, At 1-11

Situated 2 Miles north of McLeese Lake

52° 27' N

122° 17' W

Submitted by: R.H.D. Philp, P. Eng.,

Owner: DIRECT DEVELOPMENT LTD.

Work conducted by: DIRECT DEVELOPMENT
during August 1970

GEOCHEMICAL SURVEY REPORT


ON THE IT AND AT MINERAL CLAIMS

CARIBOO MINING DIVISION, B.C.

DIRECT DEVELOPMENT LTD.

by

R.H.D. Philp, P. Eng.

April 14, 1970 

Vancouver, B.C.

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Maps:

Frequency distribution plot

Location Map

1" = 3000'

Geochemical Survey Plan

1" = 400'

GEOCHEMICAL SURVEY REPORT
on the
IT and AT Mineral Claims,
Cariboo Mining Division, B.C.

INTRODUCTION:

The It and At claims comprise a group of 26 contiguous mineral claims situated 2 miles north of McLeese Lake in the Cariboo Mining Division of British Columbia.

Staked in April, 1970 by Direct Development Ltd the claims have been explored by a geochemical survey conducted by that company during August, 1970. The writer has plotted and assessed the results of this survey.

GENERAL CONDITIONS:

The property lies 2 miles north of McLeese Lake, 24 miles northerly from Williams Lake in south-central British Columbia. Access is by the McLeese Lake - Likely road then a branch road leading to Cuisson Lake which passes through the claim group.

Topographic relief is low with elevations averaging approximately 2900 feet above sea level. Timber and light to moderate underbrush occur throughout the claim group, with swampy sections in the southern portion.

Summers are fairly dry while snow is present throughout the winter months.

PROPERTY

The property consists of 25 mineral claims recorded in the Cariboo Mining Division of British Columbia, the It numbers 3-16 and At numbers 1-11.

The survey was conducted on all or a portion of It 3-16, At 3-11.

GEOLOGY:

Regional geological mapping of the McLeese Lake area has been conducted by the Geological Survey of Canada and published at a scale of 1 inch = 4 miles (Map 12-1959 - Quesnel). This indicates that the claims area is underlain mainly by granitic rocks of the Granite Mountain Intrusion, in contact with sedimentary and possibly volcanic rocks of the Cache Creek Group to the west.

Younger Tertiary sediments and / or volcanics may cap these older rocks in the northwest portion of the claims.

Several rock samples were collected during the soil sampling and examined by the writer. These were from the southern portion of the group and are of intrusive origin, consisting mainly of granodiorite - quartz diorite, often strongly foliated and altered.

Both the Granite Mountain Intrusives and Cache Creek Group rocks are favorable hosts for copper mineralization in the region.

GEOCHEMICAL SURVEY:

Field Procedure:

Soil samples were collected at 200 foot stations on east - west lines spaced 400 feet apart. Both base and cross-lines were established by chain and compass, marked with colored flagging, and stations marked every 200 feet.

Samples, collected by means of an auger or small pick, were taken whenever possible from the soil horizon immediately underlying the surface humous layer. Sample depth was generally less than 1 foot and averaged 3-4 inches.

At each sample location notes were recorded describing soil type, depth taken, topography, vegetation and any other pertinent data that could be used later in interpreting the results.

A total of 16 line - miles were sampled in the above manner.

Geochemical Testing:

Samples were packaged in Kraft envelopes and sent to Chemex Labs Ltd of North Vancouver for analysis. After drying in an electric oven and screening to - 80 mesh the samples were digested in a perchloric-nitric acid mixture and analyzed by atomic absorption for total copper content.

Interpretation of Results:

Background and anomalous ranges for copper were determined by statistical analysis. Values were grouped in ranges of 10 ppm with the percent frequency and accumulated percent frequency calculated for each group and the latter plotted on arithmetic probability paper. This indicates background values up to 16 ppm copper, a mixed zone of background and possibly anomalous values between 16 and 30 ppm and anomalous values above 30 ppm.

The range for background is unusually low for this region although the reason for this is not known. A few soil profiles would be necessary to determine whether these low values are

confined to the particular soil horizon sampled.

A southerly trending anomalous zone extending from the northern boundary at 40 + 00N to 16 + 00N centered at 20 + 00W, is the most extensive area of anomalous values. A smaller area, but with values in excess of 200 ppm copper, occurs east of this on lines 32 + 00N and 36 + 00N.

Several other anomalous areas exist throughout the property, most consisting of 2-3 readings. In the southern portion of the group a northwesterly trending anomalous zone is centered at 32 + 00S, 6 + 00E, measuring approximately 1000 by 400 feet.

One feature that may be significant is a rough alignment of the individual anomalies in northwesterly and northeasterly trending zones, the main zones crossing a short distance west of the base - line on the 0 + 00 line.

CONCLUSIONS AND RECOMMENDATIONS:

The It and At claims appear to be underlain mainly, if not entirely, by rocks of intrusive origin.

The geochemical survey indicated unusually low background values for copper, the cause of which has not been determined.. However, several anomalies occur throughout the property. These are grouped in northwesterly and northeasterly trending zones, possibly related to structural features such as faulting in these directions.

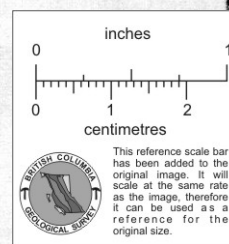
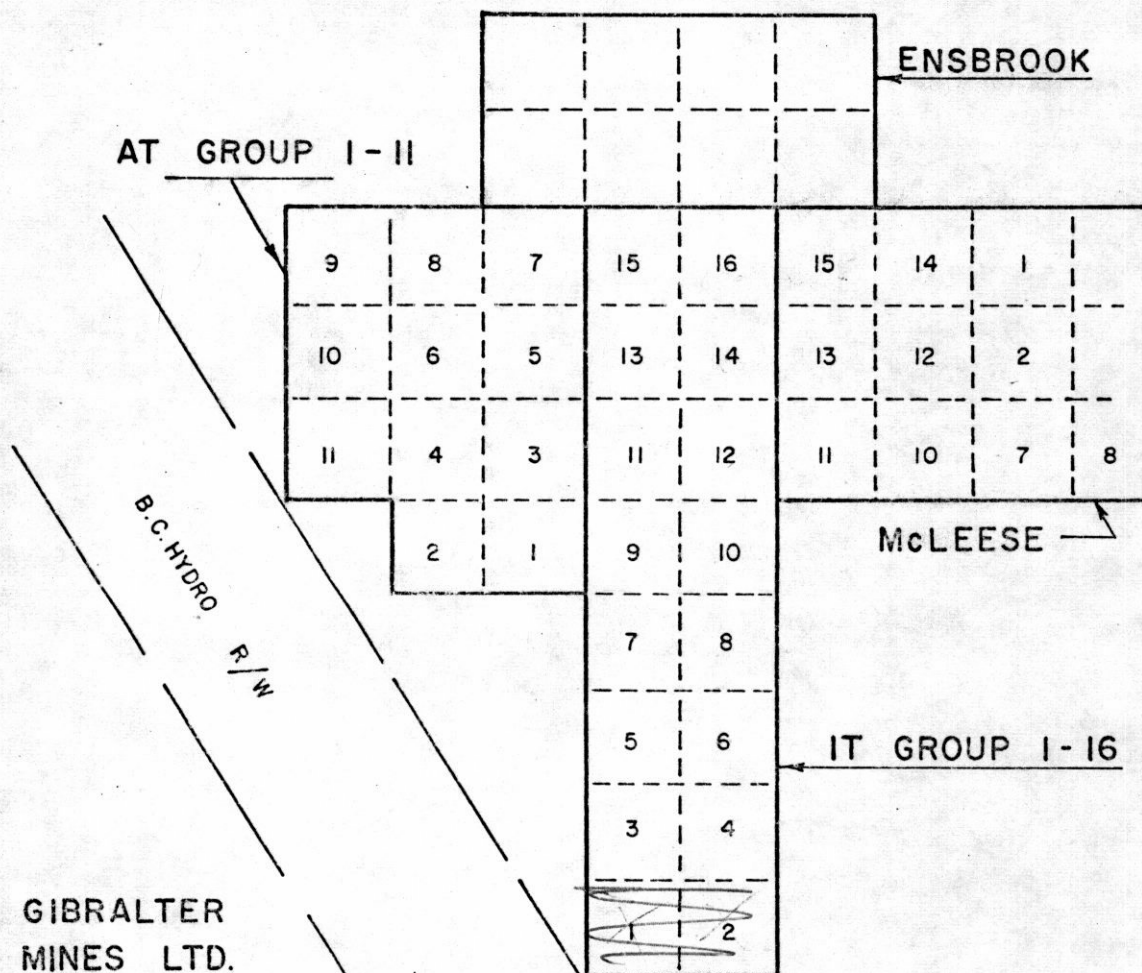
Geological mapping together with a magnetometer survey should be conducted over the entire group. Several soil profiles should also be taken to enable a better assessment of the geochemical results.

Respectfully submitted,



R.H.D. Philp, P. Eng.

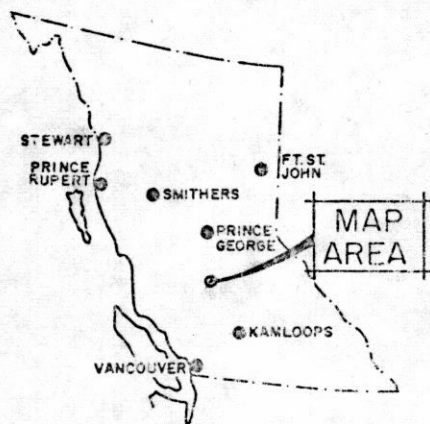
GIBRALTER
MINES LTD.



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MINES LTD.

AT GROUP I - 8 51718M - 51725M
9 - 11 51758M - 51760M

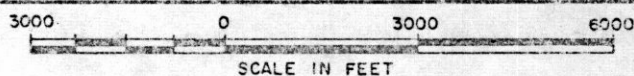
IT GROUP I - 16 988631 -



DIRECT DEVELOPMENT LTD. (N.P.L.)

LOCATION MAP

IT AND AT CLAIM GROUPS



APRIL 5, 1971

PLATE I

99.99 99.9 99.8 99.5 99 98 95 90 80 70 60 50 40 30 20 10 5 2 1 0.5 0.2 0.1 0.05 0.01

Direct Development Ltd
 It + At Claims
 Caniboo M.D.

Geochemical Survey
 Copper - frequency distribution

Range ppm (copper)

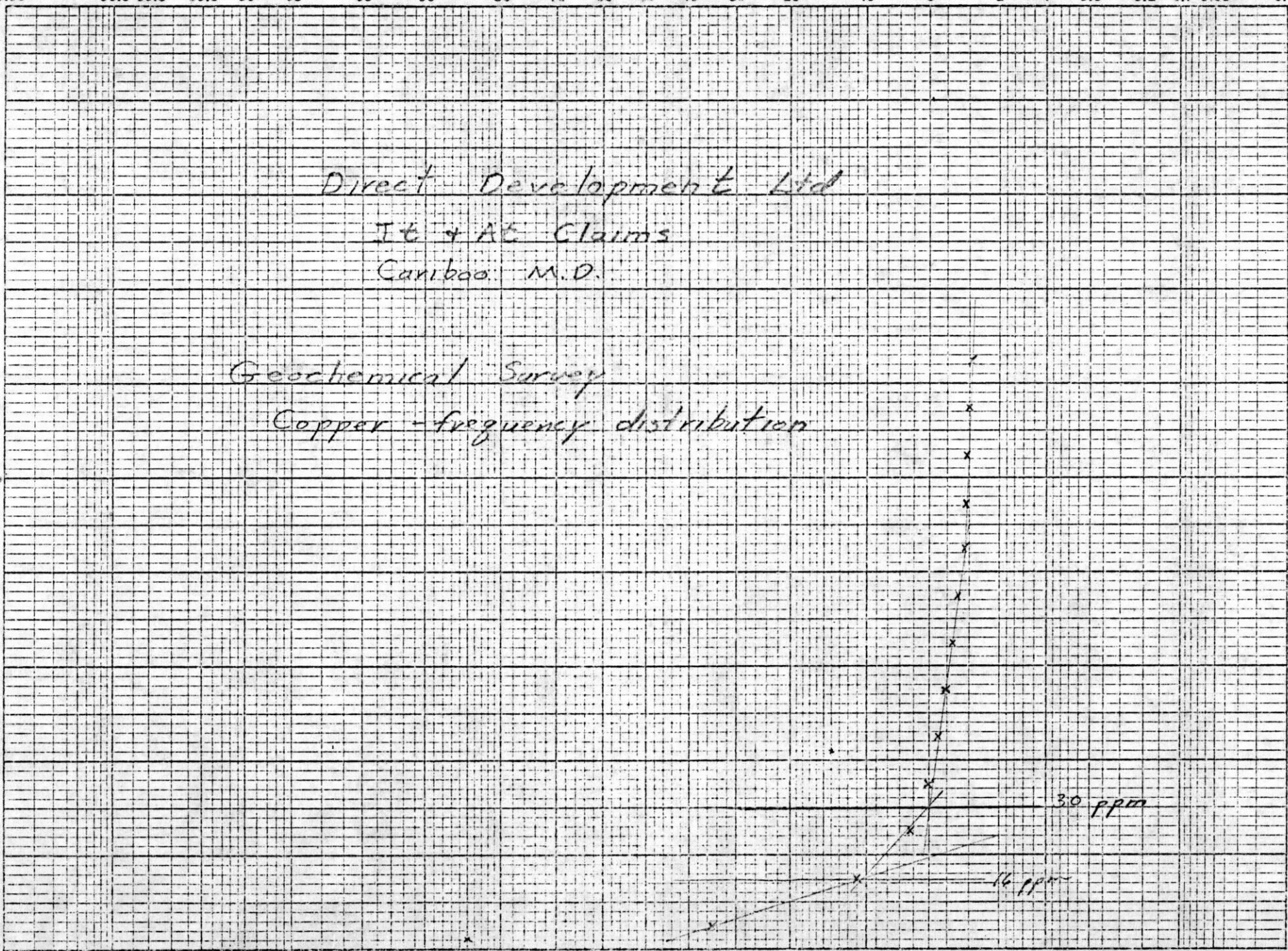
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70
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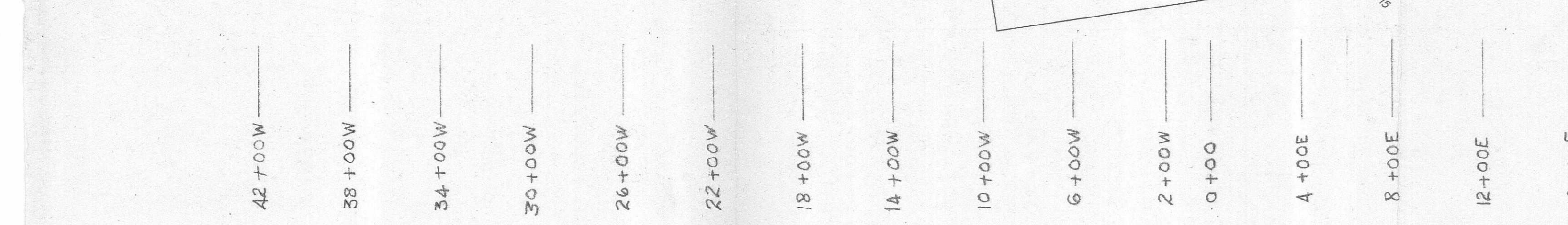
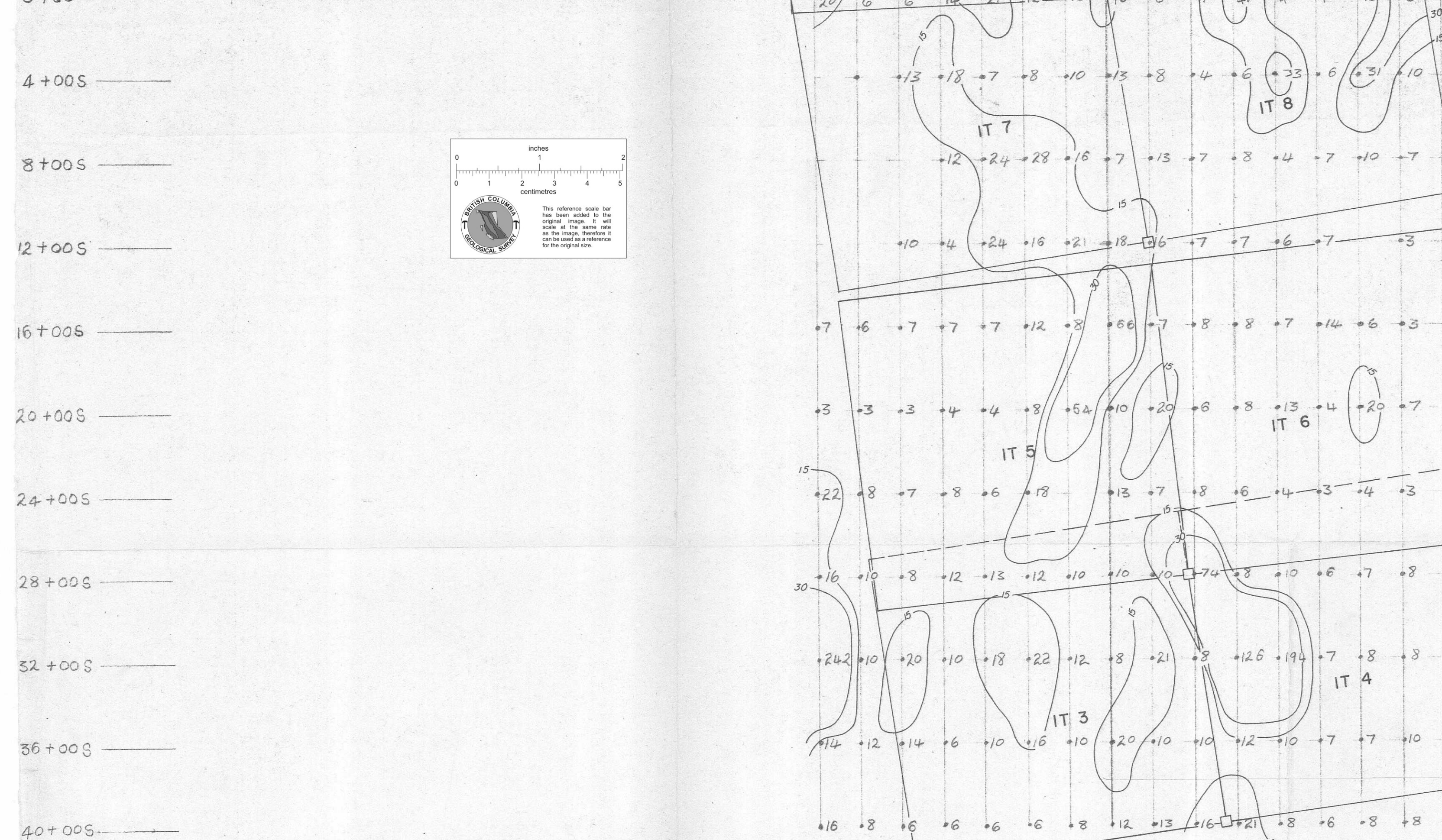
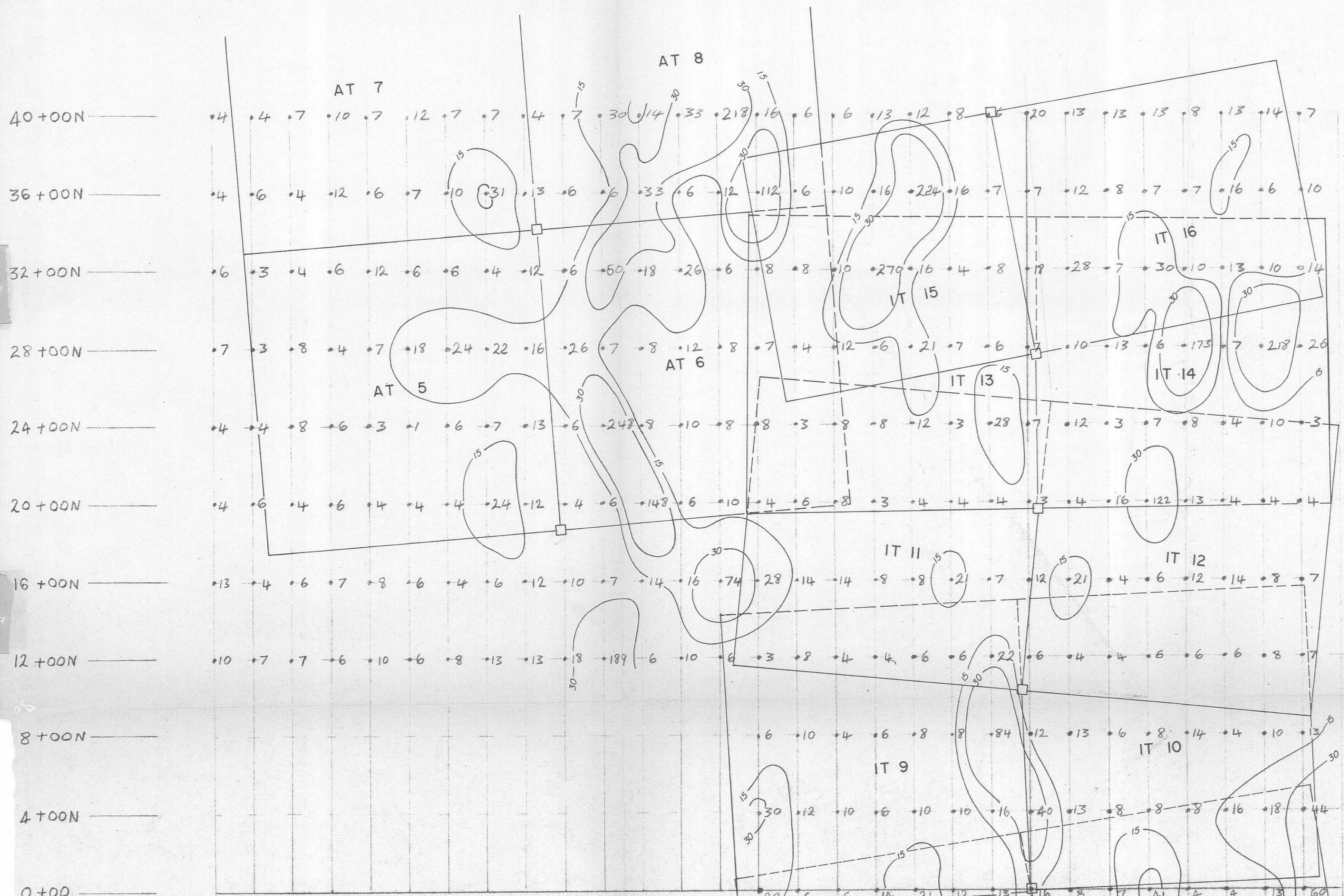
0.01 0.05 0.1 0.2 0.5 1 2 5 10 20 30 40 50 60 70 80 90 95 98 99 99.5 99.8 99.9 99.99

Accumulated percent frequency

30 ppm

16 ppm





22 COPPER VALUE (p.p.m.)
15 COPPER CONTOUR

DIRECT DEVELOPMENT	
IT & AT GROUP GEOCHEMICAL SURVEY	
DRAWN BY S.D.	SCALE: 1" = 400 Ft.