

2323
part 1

GEOCHEMICAL SURVEY REPORT

ON THE ZZ CLAIMS

KAMLOOPS MINING DIVISION, B. C.

for

GRANDEUR MINES LTD (NPL)

by

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

January 14, 1970

Vancouver, B. C.

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MAPS

- #1 Base Map 1 inch = 400 feet
- #2 Geochemical Survey Plan 1 inch = 400 feet
- #3 Location Map 1 inch = 1 mile

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. **2323 A** MAP.....

GEOCHEMICAL SURVEY REPORT

ON THE ZZ CLAIMS

KAMLOOPS MINING DIVISION, B. C.

for

GRANDEUR MINES LTD (NPL)

INTRODUCTION

The ZZ claims held by Grandeur Mines Ltd (NPL) comprise a group of 26 claims, located 7 miles west of Kamloops, British Columbia.

Situated near the northern edge of the Iron Mask Batholith, the claims are largely underlain by a younger volcanic capping present in this area.

A geochemical soil sampling survey was conducted over the entire group during October, 1969 by personnel of Direct Development Ltd under the direction of the writer.

GENERAL CONDITIONS

The claims lie 7 miles west of Kamloops, British Columbia and are accessible by road from that centre, Highway No. 1 passing near the southern edge of the claims. Co-ordinates of the group are $120^{\circ} 30 \frac{1}{2}'$ west, longitude $50^{\circ} 41'$ north latitude.

Elevations range between approximately 1600 and 2800 feet above sea-level with low to moderate topographic relief, being steepest in the northern section.

The region, which is either lightly treed or open grazing country, is mainly free of underbrush. Climate is semi-arid although snow will be present in minor amounts during the winter months.

PROPERTY

The property consists of 26 mineral claims located in the Kamloops Mining Division of British Columbia. These are the ZZ numbers 2 - 8, 15 - 20, 27 - 32, and 39 - 44, 50.

The geochemical survey was conducted over all 26 claims.

GEOLOGY

Mapping by the Geological Survey of Canada has been published as Map 886A at a scale of 1 inch = 4 miles. Mapping of the Iron Mask Batholith by the B. C. Department of Mines is available in the Annual Reports for the years 1956 and 1967.

Available maps indicate the property is underlain mainly, if not entirely, by volcanic rocks belonging to the Kamloops Group of Tertiary Age. These consist variously of andesite, basalt, rhyolite, tuff and breccia.

In this area these volcanics cap the northern contact of the Iron Mask Batholith, units of which outcrop near the southern boundary of the claims. These intrusives consist mainly of microdiorite, porphyritic-microdiorite, diorite, monzonite and syenite, with narrow bands of picrite, basalt and serpentinite.

Copper mineralization occurs in shears, veins, breccia zones, and disseminations throughout the intrusives to the south and southeast.

GEOCHEMICAL SURVEY

Field Procedure:

East-west base and tie lines were established and cross lines run at 400 foot intervals. All lines were established by chain and compass and marked by colored flagging with stations marked at 200 foot intervals. A total of 5.2 miles of base and tie lines plus 34.5 miles of cross lines were established in this manner.

Samples, taken at 200 foot intervals on all cross-lines, were collected with an auger or pick and taken wherever possible from the soil horizon immediately underlying the surface humus layer. Sample depth varied up to 8 inches but generally averaged 4 - 5 inches. Soil type was generally a light brown, and less commonly dark brown, sand varying from fine to coarse grained.

Notes were taken at each sample location regarding soil type, depth taken, vegetation, topography and any other pertinent features that could be used later in interpreting the results.

Testing Procedure:

Samples were packaged in kraft envelopes and sent to Chemex Labs Ltd in North Vancouver for testing. Here, they were dried in an electric oven and screened to -80 mesh. Following this they were digested in a perchloric-nitric acid mixture and analyzed for total copper content by atomic absorption with values reported in parts per million (ppm).

Survey Results:

Background values range up to approximately 40 ppm copper, being slightly higher in the extreme southern portion of the claims. This could be due to a change in rock type or dispersion from known copper occurrences to the immediate south.

Taking values of 100 ppm copper or greater as being significantly anomalous, two such areas exist in the southeastern portion of the claim group. The first measures 800 by 500 feet and is centered at 46 + 00S on lines 4 + 00W and 8 + 00W. The second, to the east, measures approximately 1400 feet in a northeast direction before swinging southeast for 600 feet, this latter portion probably lying off the property. Width varies from 100-200 feet with a peak value of 184 ppm copper. These two anomalies are joined by weaker anomalous values forming a northeast trending zone 3200 feet long.

Outcrop is present within the anomalous zone at the stations where the two highest readings were obtained. No copper mineralization was reported to account for the anomalous conditions.

Additional isolated highs up to 240 ppm copper occur within the surveyed area but are probably due to spurious values in the overburden and therefore are not considered significant.

CONCLUSIONS

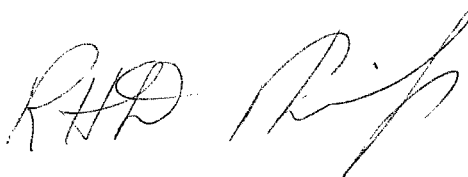
The geochemical survey outlined a weakly anomalous zone measuring approximately 3200 feet long in the southeast portion of the claims and extending east of the claim group. Two slightly stronger areas of interest occur within this zone. Although outcrop occurs within the zone, no copper mineralization has been reported to account for the anomalous conditions.

Slightly higher copper values in the southern portion of the grid are likely due to dispersion from nearby copper occurrences or may reflect a change in rock type.

Soil sampling would be ineffective in areas capped by the younger volcanics thus geological mapping should be conducted to determine the significance of the anomalous zone. Also, as overburden cover plus the younger volcanic capping are extensive, a magnetometer survey should be conducted as an aid in the geological mapping.

Respectfully submitted,

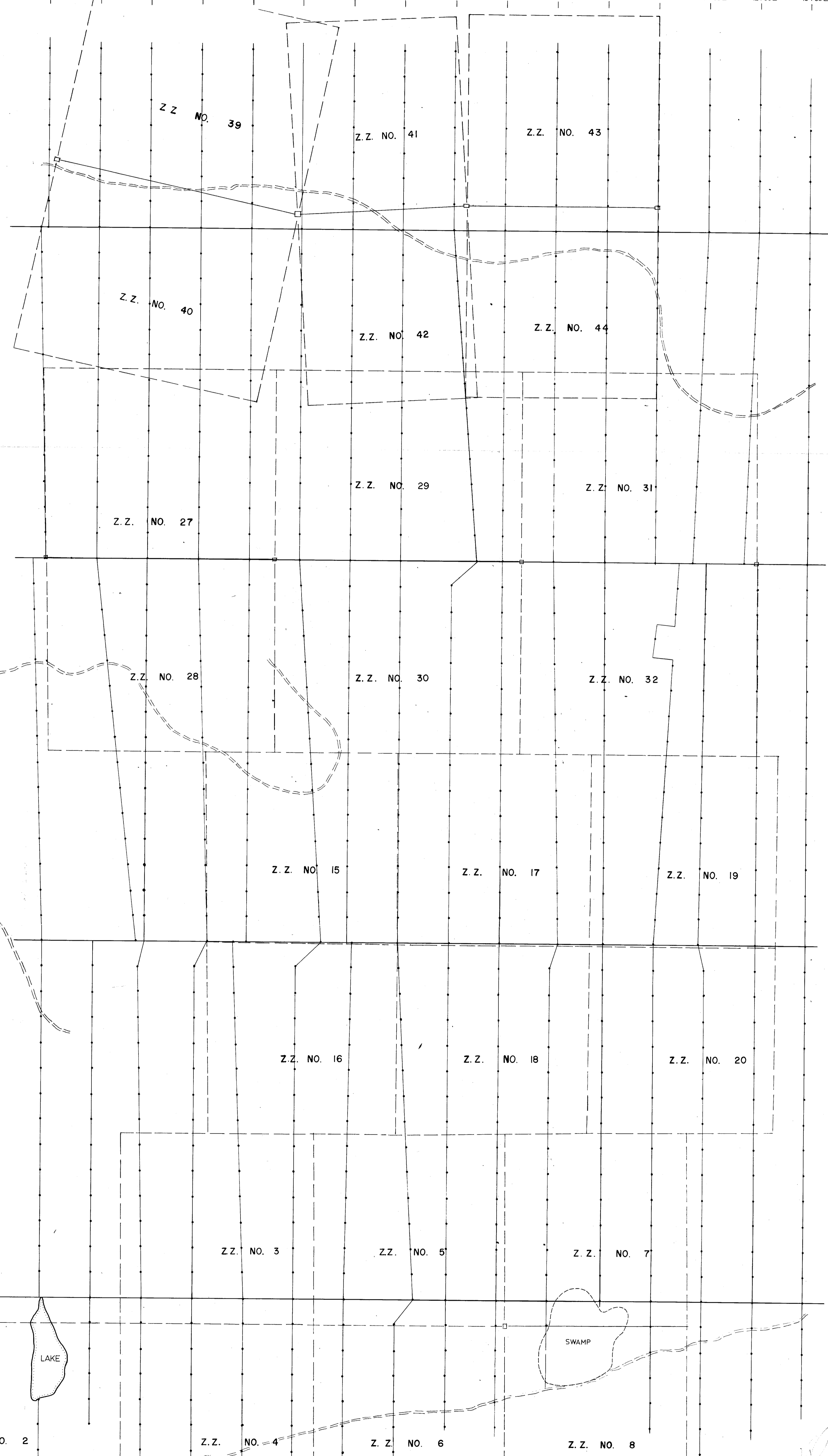
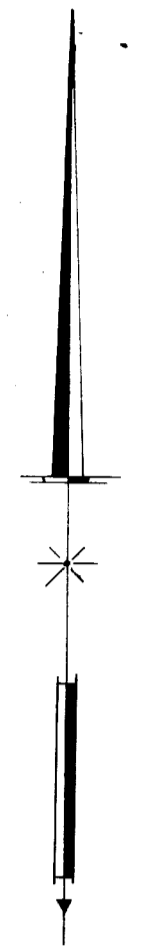
R. H. D. Philp, P. Eng.,



January 14, 1970

76+00W 72+00W 68+00W 64+00W 60+00W 56+00W 52+00W 48+00W 44+00W 40+00W 36+00W 32+00W 28+00W 24+00W 20+00W 16+00W 12+00W 8+00W 4+00W 0 4+00E 8+00E 12+00E 16+00E

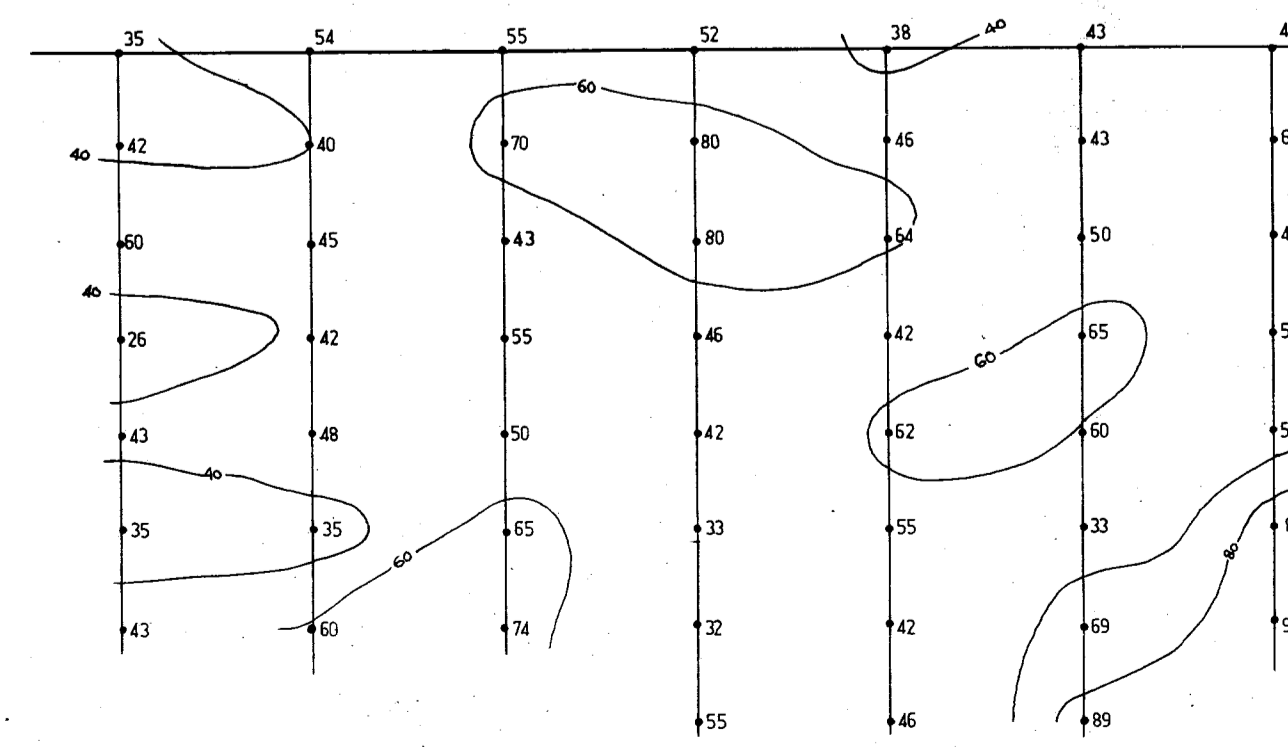
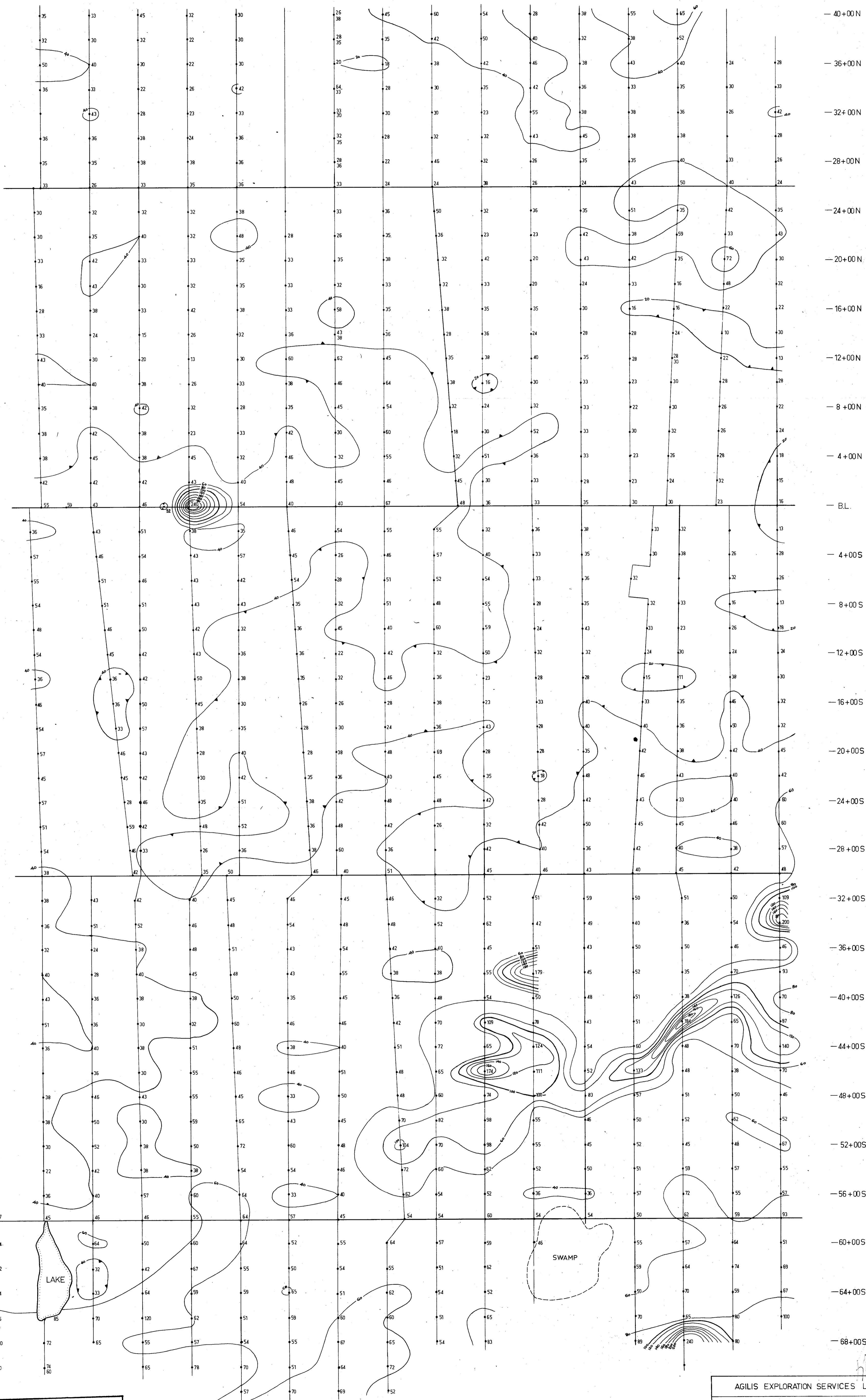
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28+00N
24+00N
20+00N
16+00N
12+00N
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4+00N
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8+00S
12+00S
16+00S
20+00S
24+00S
28+00S
32+00S
36+00S
40+00S
44+00S
48+00S
52+00S
56+00S
60+00S
64+00S
68+00S



2323
part 1

AGILIS EXPLORATION SERVICES LTD.	
GRANDEUR MINES LIMITED NPL.	
Z.Z. MINERAL CLAIMS	
KAMLOOPS BC.	
BASE MAP	
DRAWN BY: PV.	SCALE: 1:400'
CHECKED BY: R.P.	DATE: December, 1989

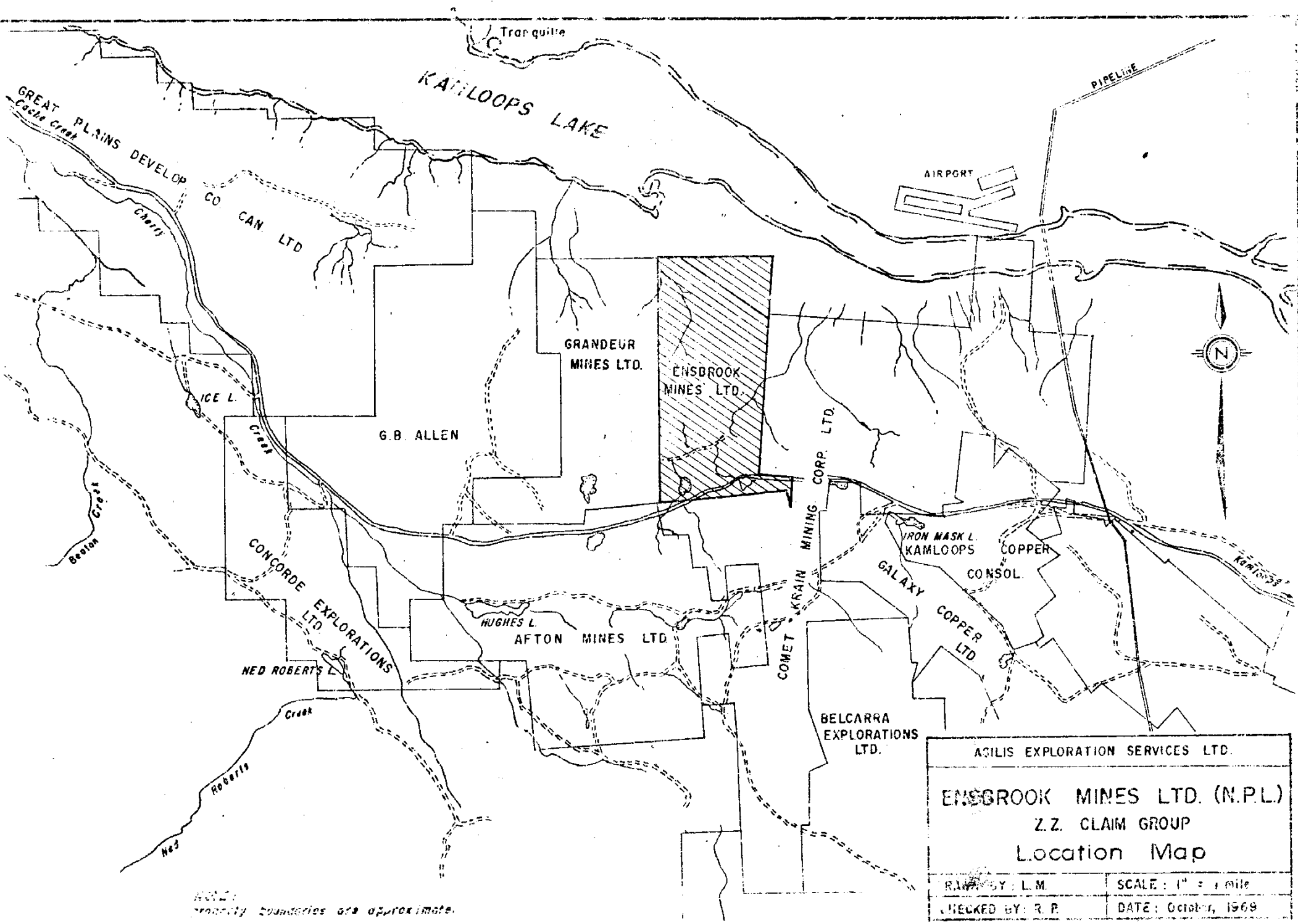
76+00W 72+00W 68+00W 64+00W 60+00W 56+00W 52+00W 48+00W 44+00W 40+00W 36+00W 32+00W 28+00W 24+00W 20+00W 16+00W 12+00W 8+00W 4+00W 0 4+00E 8+00E 12+00E 16+00E



LEGEND:
 + Cu value in ppm.
 Contour interval: 20 ppm.

Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. 2323A MAP #2

AGILIS EXPLORATION SERVICES LTD.
 GRANDEUR MINES LIMITED NPL.
 Z Z MINERAL CLAIMS
 KAMLOOPS BC.
 GEOCHEMICAL SURVEY
 DRAWN BY: R.V. SCALE: 1:400'
 CHECKED BY: R.P. DATE: December, 1969



NOTE:
 property boundaries are approximate.

AGILIS EXPLORATION SERVICES LTD.	
ENSBROOK MINES LTD. (N.P.L.)	
Z.Z. CLAIM GROUP	
Location Map	
DRAWN BY: L.M.	SCALE: 1" = 1 mile
CHECKED BY: R.P.	DATE: October, 1969