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Geological Report for CANADEX MINING CORPORATION LTD. on the EWK 1-4; LLK 1-4; DOK 1-36 Claims Liard Mining Division

ALRAE ENGINEERING LTD.

104 G/12E

September 24, 1970

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INTRODUCTION

The area on, and adjacent to, the Canadex Mining EWK and LLK claims, about 30 miles southwest of Telegraph Creek, B.C., was investigated during August 20 through September 3, 1970. Additional claims were staked between the original claims and adjacent to them, on the north, east, and west sides. Soil samples were taken during a geological reconnaissance of the area.

LOCATION AND DESCRIPTION

The property lies on the Coast Mountains of northern British Columbia, 31 miles southwest of Telegraph Creek, about six miles south of the Stikine River. It is approximately two miles long, north-south, and one and one-half miles wide. It lies along the crest and on the western slopes of a mountainous ridge separating Dokdaon and Strata Creeks. Three stream valleys, two containing head glaciers, drain westward across the property to Dokdaon Creek. The lower portions of the spurs formed by these valleys are partially soil covered. The remainder of the property consists of steep to percipitous rocky ridges and extensive talus slopes. The glaciated valleys are floored with glacial debris.

Maximum relief is approximately 3,500 feet, varying from about 4,000 feet above sea level in the valleys to about 7,500 feet on the highest peaks. No large portion of the property is inaccesible but travel by foot is slow and difficult. The nearest road access is at Telegraph Creek.

HISTORY AND LITERATURE

Available descriptive literature on the area includes a preliminary geologic map and description (Map 9-1957, 'Stikine River Area, Cassiar District, British Columbia' G.S.C.) and two private communications, one a report on the original EWK and LLK claims by George Kent, dated August 2, 1969, and another similar report by

L.J. Cunningham, dated August 5, 1969.

The area, according to Kent, contains several areas of copper mineralization, some of which have been actively investigated. The original claims were staked in 1969, covering areas of diffused sulphide mineralization where copper mineralization was observed.

CLAIM STAKING

A total of 36 additional claims were staked, covering an area one claim wide along the north, east, and west sides of the original claims and filling the area between. These claims are shown as the DOK claims on the accompanying map.

GEOCHEMICAL SAMPLING

Soil samples were taken in the soil covered areas on the northwest and southwest portions of the property. The samples were generally taken at 200 foot intervals along east-west grid lines 400 feet apart. Soils were taken at six to 12 inch depths and the sample points were labeled and flagged. Samples were analyzed by hot acid extraction and atomic absorption spectrophotometry.

As may be seen on the accompanying map sheet, both copper and molybdenum analyses indicate anomalous metal content in the soils particularly in the areas of gossan underlain by andesite containing disseminated pyrite. Anomalous copper samples from claims LLK 3, 4 and DOK 5, 6, indicate that the mapped gossan area on LLK 1 and 3 may in fact contain significant copper and that the copper bearing zone may extend to the south and west of the pyritic gossan zone.

MAPPING

A map showing the claim locations, geology, soil sample locations, general topography and geology accompany this report. Control is based on measurements made while claim staking and soil

sampling, as well as aerial photographs. Contours are based on pocket altimeter readings.

GEOLOGY

The dominant rock of the property is a deformed, intruded, faulted, and altered andesite corresponding to the Permian and/or Triassic volcanics described in G.S.C. Map 9-1957. These volcanics underlie a large region west and southwest of Telegraph Creek. At the western boundary of the property this andesite contacts a granitic intrusive evidently related to the Coast Intrusions.

Andesite

The andesite contains a tuff layer about 30 feet thick and a fine grained porphyritic tabular body, both of which appear contemporaneous with the main body. Numerous tabular to irregular masses of acidic intrusives ranging from a few feet to about 100 feet in thickness and of limited extent also occur in the andesite. They are primarily a pink, fine grained granite or rhyolite, although the texture varies considerably within and between bodies. Most are highly deformed, fractured, and in some instances cut by faults. They range from horizontal to vertical and have no apparent preferred orientation. Most, if not all, share the deformations and alterations of the enclosing andesite and are apparently early stage intrusives, preceding most of the deformation and alteration. Several dozen of these intrusives outcrop throughout the property, sometimes forming distinctive reddish areas. They show no spatial or genetic association with the mineralization.

The andesite is irregularly but pervasively chemically altered, primarily by propylitization processes which have produced abundant epidote and saussuritized zones. Epidote is abundant throughout the property as vein and fracture fillings, sometimes associated with white quartz. Irregular zones and patches of chalky-

green saussurite-like rock, sometimes showing intense deformation, are common in outcrop along the ridges between the glaciated valleys. This alteration shows no obvious trends and is common throughout the property. It is extremely irregular on a small scale, sometimes ranging from highly altered to unaltered andesite in the distance of a few feet. Much of this alteration occurred during the period of major deformation. Slickensides in the epidote vein and fissure fillings are common and in the larger veins or quartz-epidote breccia sometimes occurs. It evidently preceded the mineralization for there is no apparent relationship between the two and the quartz-epidote vein and fracture fillings have no sulphide accumulation.

Diffused iron sulphides in small irregular patches are common. Two relatively large areas (lying mainly within the original claim areas) of this mineralization occur where they form distinctive dark red gossan-like areas in talus. The iron sulphides are finely and evenly diffused and show no evidence of concentration in veins or fissures. The paragenetic relationships are obscure but the sulphide mineralization apparently followed the major deformative movements.

Ore Metal Mineralization

Copper mineralization, occurring in outcrop as malachite and azurite with minor chalcopyrite and chalcocite, is common over much of the property. It is concentrated near the two areas of disseminated iron sulphide mineralization. The minerals occur as tabular bodies and discontinuous veins up to two feet wide and 100 feet long, and as thin fracture fillings. Molybdenite was also found in two locations in quartz veins about two inches wide and tracable for several feet.

The veins are steeply dipping and are strongly oriented north-south and east-west. Wall rock alteration appears slight. The gangue is primarily coarse grained white quartz, occasionally having a fractured appearance.

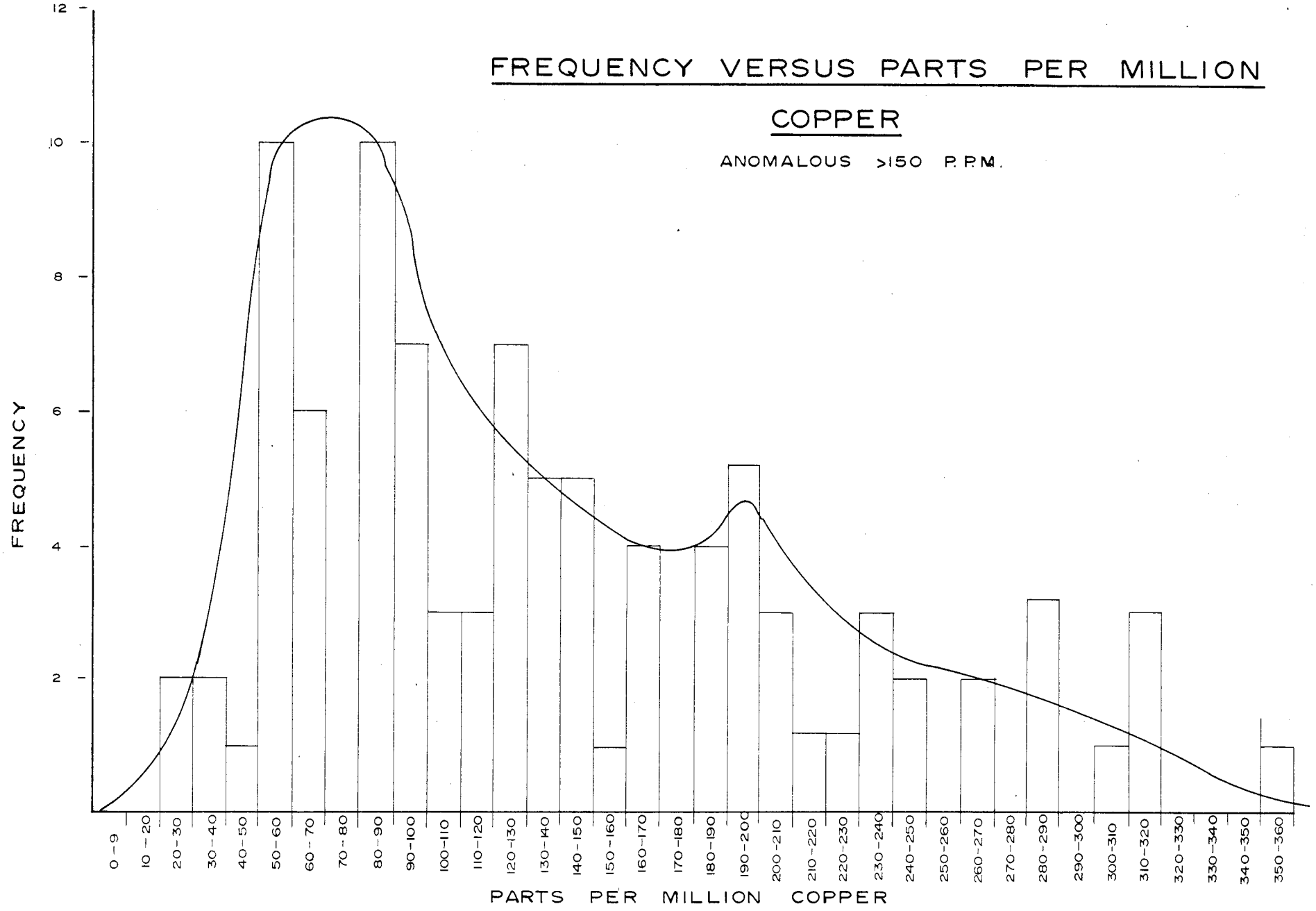

FREQUENCY VERSUS PARTS PER MILLION
COPPER
ANOMALOUS >150 P.P.M.
FREQUENCY
12
10
8
6
4
2
0-9
10-20
20-30
30-40
40-50
50-60
60-70
70-80
80-90
90-100
100-110
110-120
120-130
130-140
140-150
150-160
160-170
170-180
180-190
190-200
200-210
210-220
220-230
230-240
240-250
250-260
260-270
270-280
280-290
290-300
300-310
310-320
320-330
330-340
340-350
350-360
PARTS PER MILLION COPPER

FIG. 1

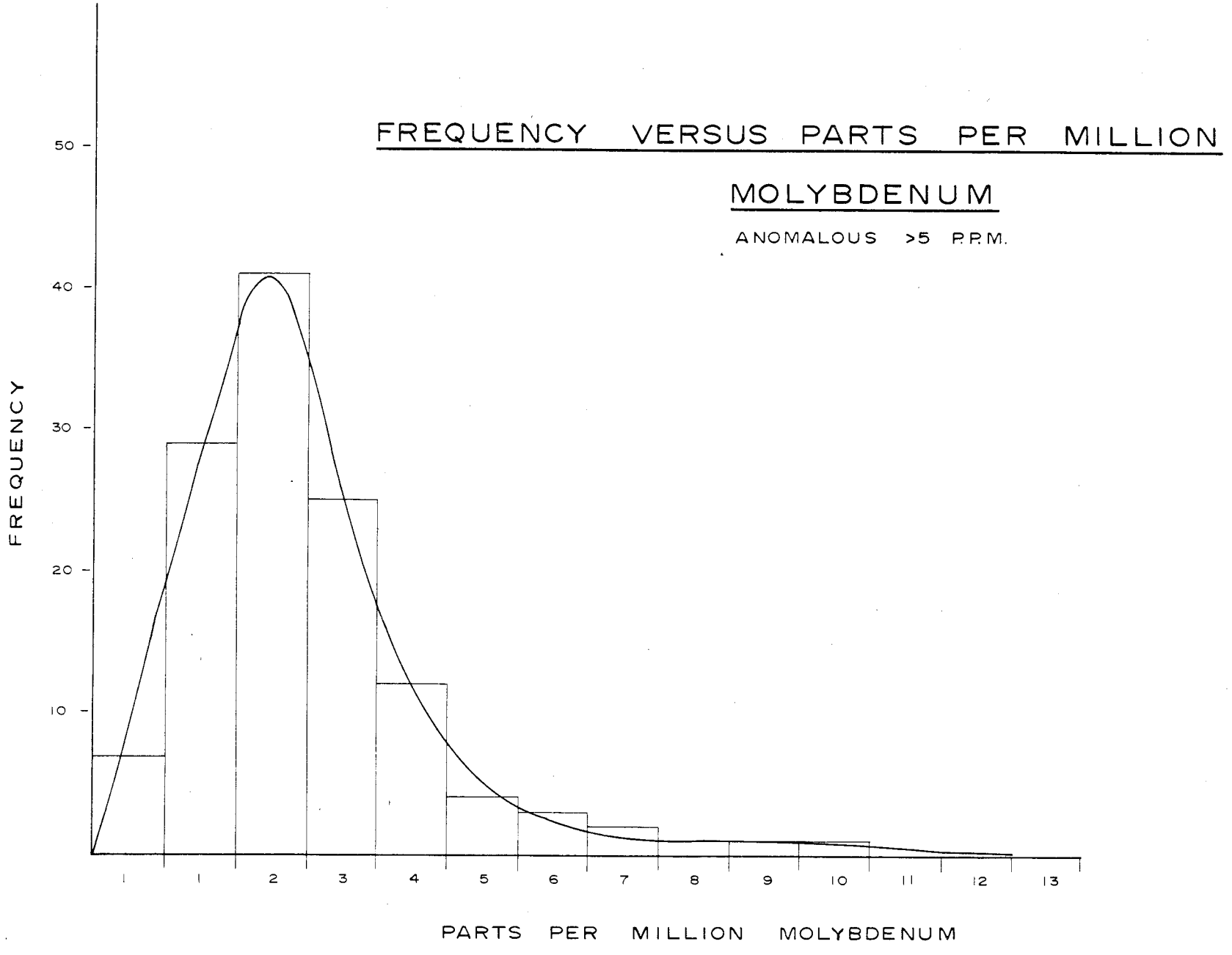

FREQUENCY VERSUS PARTS PER MILLION
MOLYBDENUM
ANOMALOUS >5 P.P.M.
FREQUENCY
50
40
30
20
10
1
1
2
3
4
5
6
7
8
9
10
11
12
13
PARTS PER MILLION MOLYBDENUM

FIG. 2

The mineralization is apparently a late-stage vein filling process following most of the major deformative movement and alteration. Clear crosscutting relationships show that it followed emplacement of the granitic intrusives in the andesite. The spatial relationships with the main areas of iron sulphide mineralization suggest a genetic relationship.

Granitic Intrusive

Outcrops of a coarse grained, mafic containing granitic rock, apparently of quartz-monzonite to granodioritic composition, occur along the western margins of the property. Contacts with the andesite show a clear intrusive relationship. Stoped blocks and andesite xenoliths occur in the granitic rock which sometimes has gneissic layers at the contact. This rock apparently occupies a large area along the margin of the property and is probably a part of the Coast Intrusions.

STRUCTURE

The gross structural features indicate an uplift and rotation of the andesite to the east, accompanied by a system of steeply dipping north-south striking imbricate faulting. The tuff layer suggests folding to a near vertical position. A series of faults is visible in the valley walls, some with apparent displacements of 200 feet along dip, where references such as displaced acidic intrusives are present. These faults dip steeply to the west and strike north-south. Most are masked to some degree by accompanying or subsequent chemical alterations.

This movement is apparently not contemporaneous with the ore-metal mineralization. No evidence of a conduit system related to the faulting is present. The north-south east-west vertical orientation of the mineralized veins also appears to be related to a more nearly vertical stress.

CONCLUSIONS

Pervasive alteration, faulting, and sulphide mineralization are widespread on the property, copper and molybdenum mineralization is common, and the geological conditions are favourable for mineralization. Surface exposures of ore-metal mineralization are limited and apparently result from a late-stage process not closely associated with the major structural and chemical alterations. The mineralization may be a minor late-stage expression of these events or, possibly, a minor surface expression of deeper, more extensive mineralization. The failure of steep topographical exposures (over 2,000 feet within a half-mile in the most highly mineralized area) to indicate a change in degree or type of mineralization does not support the latter possibility. It is doubtful if surface geology can provide a definite answer.

Detailed geological mapping, including stress-time analyses of the deformation and mineralization sequences may prove useful in defining areas for subsurface studies. This study should also include the area between the ridge crest and Strata Creek east of the property. A detailed topographical map is a necessity for such geological mapping.

Respectfully Submitted:
"J. VEITCH"
J. Veitch.
Endorsed by:

Rae G. Jury, P. Eng.

APPENDIX A

COST STATEMENT

Name	Position	Period Worked	Wages
J.D. Veitch	Geologist	Aug 13 - Sept 8/70	$ 1,015.87
D.K. Reinke	Assistant	Aug 13 - Sept 8/70	891.45
W.J. Olsson	Assistant	Aug 13 - Sept 6/70	628.80
R.G. Jury	Supervision	Aug 17, Sept 23/70	200.00
			$ 2,726.12

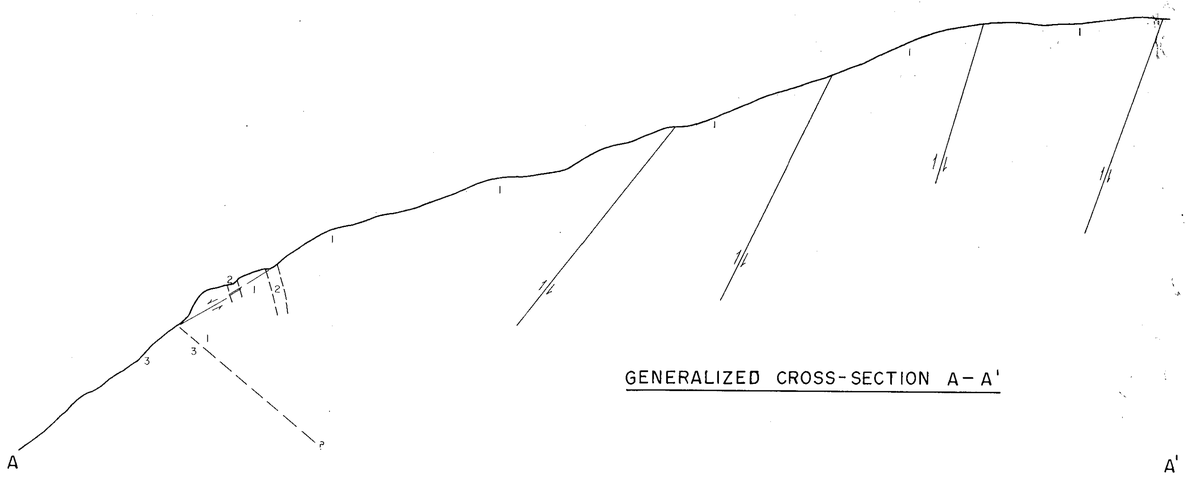
Altair Drafting Services Ltd. - Drafting	114.14
Helicopter Charter	1,328.00
Truck Rental and Fuel	432.27
Soil Sample Analyses	283.80
	$ 4,884.33

Declared before me at the city of Vancouver, in the Province of British Columbia, this 17th day of May, A.D. 1971

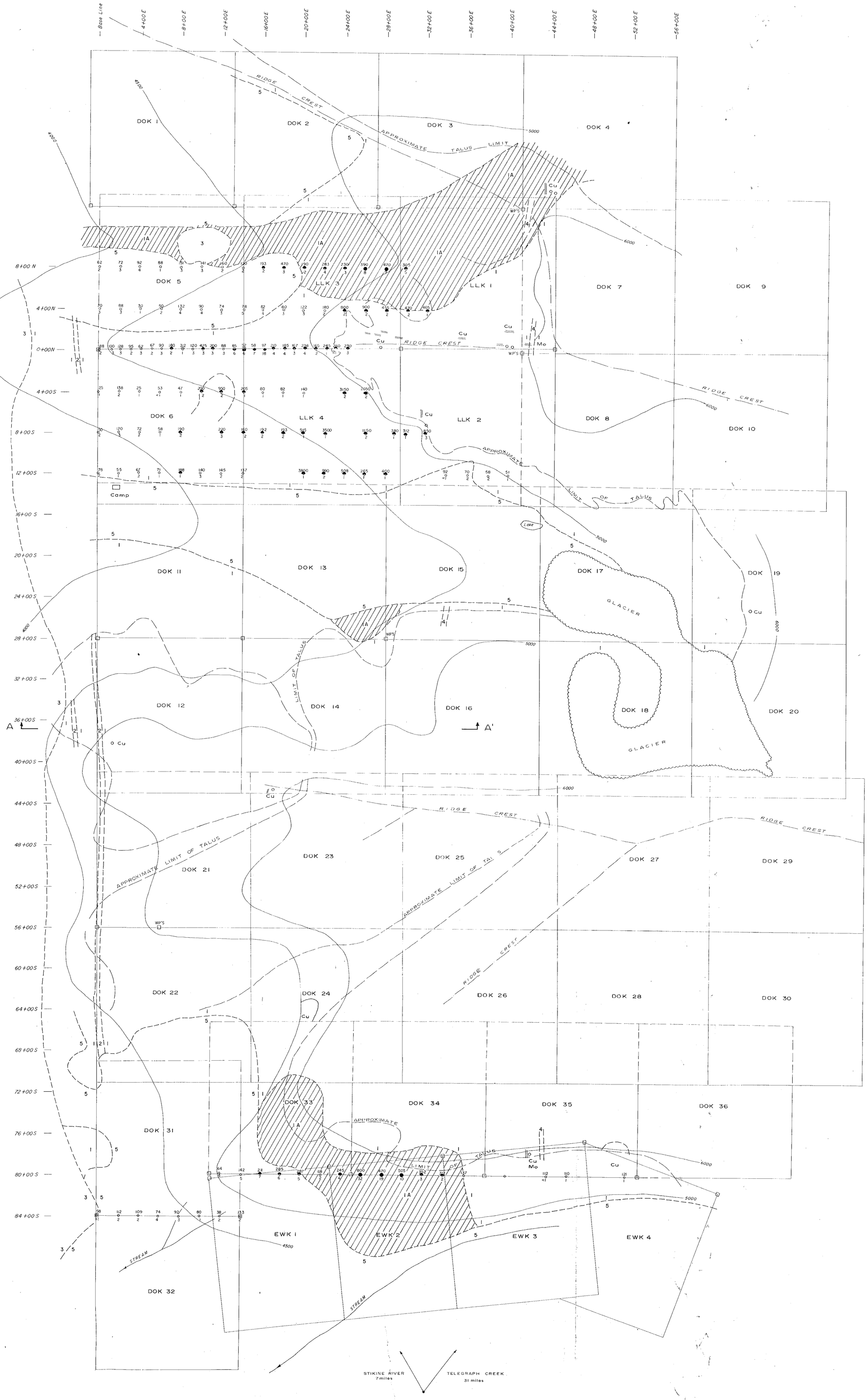
A Commissioner for taking Affidavits within British Columbia or A Notary Public in and for the Province of British Columbia.

Rae G. Jury, P. Eng.

SUB-MINING RECORDER



GENERALIZED CROSS-SECTION A – A'



800' 400' 0 400' 800'

SCALE: 1" = 400'

N.B

TO ACCOMPANY GEOLOGICAL REPORT ON THE LLK, EWK & DOK CLAIMS LIARD MINING DISTRICT BY J. VEITCH ENDORSED BY R. JURY P. ENG. DATED SEPT. 24, 1970.

R. S. Jury

LEGEND

GEOLOGY

- 5 — SURFICIAL DEPOSITS — Glacial Debris, Thick Soil
- 4 — PORPHYRITIC TABULAR INTRUSIVE — Dacite-Like with Feldspar Phenocrysts
- 3 — GRANITIC INTRUSIVE — Biotite-Amphibole Containing Granitic Rock of Apparent Massive Proportions
- 2 — TUFF
- IA — IRON SULPHIDE – ANDESITE — Diffused Iron Sulphides Producing Gossan-Like Areas
- 1 — ANDESITE — Includes Granitic Tabular Intrusives

SYMBOLS

- ORE – MINERAL MINERALIZATION
- VEIN
- Tabular to Irregular Bodies, Fissure Fillings – Lower Float Associated
- O — Float of No Evident Source
- RIDGE CRESTS
- APPROXIMATE LIMIT OF TALUS

CONTOURS APPROXIMATE IN FEET ABOVE SEA LEVEL

GEOCHEMISTRY

508 / 1 — P.P.M. Cu / P.P.M. Mo — ANOMALOUS — Cu >150 P.P.M., Mo >5 P.P.M.

3029 M-1

Department of Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 3029 MAP #1

ALRAE ENGINEERING LTD.
CONSULTING ENGINEERS & GEOLOGISTS. VANCOUVER, CANADA

CANADEX MINING CORPORATION LTD.

GEOLOGICAL PLAN
LLK, EWK, DOK, CLAIMS
LIARD DISTRICT, B.C.

SCALE : 1" = 400'	DESIGNED
DATE : SEPT. 24/70	DRAWN Altair
REVISED :	CHECKED
	MAP No 3029 – 1