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GUNNEX LIMITED

Vancouver, B. C.

G E O C H E M I C A L and G E O P H Y S I C A L R E P O R T

on the

L Y N X and L A T E C L A I M S

east of Okanagan Falls, B. C.

Kenneth C. Rose, P. Eng.

October 9, 1968

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Creek to Allendale Lake from whence bulldozed trails extend through many of the claims. The upland surface of the Okanagan Highlands is covered with an open bush which does not impede movement. Accommodation can be had at a tourist camp at Allendale Lake.

Scattered copper mineralization was found by Roderick McLean and staked as the Lynx group in 1966. The new "find" was examined by several mining companies and then optioned to General Resources Ltd. who spent about $25,000 in 1966, mainly on road building and some "cat-trenching", before relinquishing their option. There may also have been some diamond drilling but no results are available to the writer.

Kenneth Ewers offered the claims to Gunnex Limited in January, 1968, and an examination was made by Allan McGain on June 5, 1968. The copper "showings" in themselves were not considered significant but the geological environment in which the "showings" were found was considered favourable for the occurrence of porphyry copper-type mineralization. An option agreement was arranged between Gunnex Limited and Ewers and McLean but because the Gunnex staff was busy on other projects work was not begun on the Lynx and Late groups until August 26 and was terminated September 6. The work was directed by Allan McGain under the supervision of Kenneth G. Rose, P. Eng.

The results of McGain's work have been plotted, evaluated and described in this report by Kenneth Rose, P. Eng. during the period October 1 to October 9, 1968.

GENERAL GEOLOGY

The gross geological features are shown on the "Location Map and General Geology" on page 4. The Lynx and Late claims cover the southeastern third of a small Oligecene pluton of Coryell monzonite, syenite and shonkinite which has been intruded at the three-way corner contact of Pre-Permian Monashee gneisses, Cretaceous Nelson granite and Cretaceous Valhalla granite. Only the Coryell, Nelson and Monashee rocks occur on the Lynx and Late claims.

Within the claim group the Monashee rocks are gneisses, the Valhalla rocks are gneissic granite and the Coryell rocks are chiefly syenites. The syenites are typically coarse grained and have crystals as large as one inch although most are less than one-half inch. Biotite is a common constituent and together with hornblende may compose as much as 40% of the rock. Apatite and magnetite are locally abundant. The magnetite is associated with biotite clusters.

Partly assimilated xenoliths are common within the syenite and, in their present state, are fine-grained, white aplites. They are up to 20 feet long but most are less than five feet. Scattered chalcopyrite and bornite sometimes occur disseminated in the xenoliths and have resulted in locally extensive malachite staining. Scattered chalcopyrite, bornite and minor pyrite also occur as joint-plane mineralization both in the xenoliths and in the syenite. (The best mineralization found todate assayed 0.75% Cu and 0.6 oz. Ag across 33 feet, but most areas contain much less copper).

The known mineralization is not in itself of value but it does indicate the occurrence of copper minerals within a geological environment favourable for the occurrence of porphyry copper-type mineralization. Accordingly, a program of geochemical and geophysical investigations was begun to attempt to locate areas of better mineralization.

GEOCHEMISTRY

A previously established grid of picket lines was extended and enlarged in order to provide a control over the entire claim group. Most lines were picket lines, but some were chain and compass lines. The lines were spaced at intervals of 400 feet and were cut eastward and westward from a north-south base line established along the location line in the centre of the property.

Soil samples were collected along the picket lines at intervals of 400 feet and, in areas of known copper mineralization, at intervals of 200 feet. All samples were taken from the mineral soil, presumed to be the "B" layer, occurring immediately below the organic pedzol. A total of 362 samples were gathered and the location of each is shown on the accompanying Geochemical Plan.

All samples were analyzed for both copper and molybdenum by Coranex Ltd. of North Vancouver, B.C. The samples were dried and screened and a one gram sample of the minus 80 mesh fraction was digested in hot perchloric nitric and hydrochloric acids and then diluted to 50 millelitres. The molybdenum contents were determined by colourometry and the copper contents by atomic absorption using a Techtron AA4 instrument. Results were reported in parts per million.

The copper content of each sample is plotted beside the sample location on the accompanying Geochemical Plan. None of the samples contained any molybdenum and these results are, accordingly, omitted from the plan. The analytical results for copper were examined statistically. Using the formula:

$$\sigma = h\sqrt{\frac{\Sigma fd^2}{N} - \left(\frac{\Sigma fd^2}{N}\right)}$$

where σ = standard deviation
h = interval (here 10 ppm)
N = number of samples (here 362)
f = frequency
d = deviation
Σ = the sum of

The norm was established at 18 ppm and the standard deviation at 36 ppm. A possible anomaly was considered to occur at the norm plus two standard deviations, or at 90 ppm, and a probable anomaly at the norm plus three standard deviations, or at 126 ppm. The accompanying geochemical plan is contoured and coloured at values equal to the norm plus one, two and three standard deviations.

It can be seen on the Geochemical plan that there are 14 scattered spot anomalous locations, that there is no grouping of anomalous values, that all anomalous values are confined to the area underlain by the Coryell intrusive, and that the area of known copper mineralization produces no geochemical expression. Thus one must conclude there is no significant copper mineralization in the area explored.

GEOPHYSICS

A magnetic survey of the Lynx claims was made using a Sharpe MF-1 flux-gate magnetometer and using the same picket lines as were used for the geochemical survey. Measurements of the total magnetic field were taken at 100 foot intervals in the area of known mineralization, and at 200 foot intervals elsewhere. Frequent check readings were made at a base station. The Late claims were not surveyed because of an instrument failure which necessitated its return to the manufacturer. However, while running chain and compass lines in the Late claims, it was noted that there were magnetic deviations of as much as 30 degrees.

The locations of all magnetic measurements are shown on the accompanying Magnetic Plan and the strength of the magnetic field at these points is plotted in gammas. The plan is contoured at intervals of 250 gammas. The readings varied from a low of 3350 gammas to a maximum of 12,000 gammas.

Readings in excess of 6,000 gammas were invariably point locations and could be related to local concentrations of magnetite. More normal readings could be found a few feet distant. Most such high readings were ignored and are not shown on the Magnetic Plan.

Like the geochemical survey, the magnetic survey succeeded only in outlining the Coryell syenitic intrusive. The known mineralization failed to produce any detectable magnetic effects. The Coryell syenite has a rough magnetic texture with many sharp highs and lows and shows the greatest magnetic relief. The wall rocks have a broad, more even texture having only weak magnetic relief. From the Magnetic Plan it can be seen that Coryell syenite underlies Lynx claims 1, 2, 3, parts of 4 and 6, 19, parts of 20 and 22, 24, 25, 26, 27, 28, 29 and probably occurs under Lynx 18 and parts of Late 1 and 2. This same area encompasses all the interesting geochemical values.

Electro-magnetic techniques were tried but no significant responses could be found. A Sharpe SE-250 vertical loop instrument was tested in an area of known mineralization in the Lynx #3 claim using coil separations varying from 50 feet to 200 feet and using lines in all directions. A maximum deflection of only 2^0 was encountered. Hence it was concluded that the disseminated mineralization was not a conductor and that electro-magnetic techniques were not applicable.

CONCLUSIONS

1. Copper mineralization occurs in a geological environment favourable for the occurrence of porphyry copper-type orebodies.

2. The known mineralization has neither a geochemical nor a magnetic expression.

3. The known mineralization produces no detectable electro-magnetic effects.

4. The Coryell syenite pluton has both a geochemical and a magnetic expression.

5. Several spot geochemical anomalies occur and none are considered worthy of further investigation.

6. None of the magnetic features merit further investigations.

7. The Coryell syenitic pluton as a whole is considered favourable for the occurrence of copper and merits further investigation by detailed prospecting.

Kenneth C. Rose, P. Eng.
Vancouver, B. C.

October 9, 1968.

T S L Laboratories Limited

325 HOWE STREET - VANCOUVER 1, B.C.

TELEPHONE 688-3504

ASSAYERS
CHEMISTS
GEOCHEMISTS

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM AJAX MERCURY MINES LTD.

REPORT NO. V-5410

SAMPLE(S) OF ROCK Submitted on February 20, 1969.

Sample No.	Gold (Au)oz:ton	Silver (Ag)oz:ton	Copper (Cu)%
100	trace	2.35	3.63

oz:ton - Troy ounces per 2,000 lbs.

DATE February 21, 1969.

SIGNED Ernest J. Oberstenier

PULP AND REJECTS DISCARDED AFTER 3 MONTHS

DIVISION OF TECHNICAL SERVICE LABORATORIES

T S L Laboratories Limited

325 HOWE STREET - VANCOUVER 1, B.C.

TELEPHONE 688-3504

ASSAYERS
CHEMISTS
GEOCHEMISTS

CERTIFICATE OF ANALYSIS

Semiquantitative Spectrographic

SAMPLE(S) FROM AJAX MERCURY MINES LTD.

REPORT NO. V-5410

SAMPLE(S) OF ROCK Submitted on February 19, 1969.

	Sample	Sample	Sample		Sample	Sample	Sample
	100				100		
Antimony	-			Phosphorus	-		
Arsenic	-			Platinum			
Barium	.2%			Rhenium	X		
Beryllium (BeO)	-			Rhodium			
Bismuth	-			Rubidium	X		
Boron	-			Ruthenium			
Cadmium	-			Silver	1-2 oz:t		
Cerium (CeO_2)	-			Strontium	.1%		
Caesium	X			Tantalum (Ta_2O_5)	-		
Chromium	-			Tellurium	-		
Cobalt	-			Thallium	-		
Columbium (Cb_2O_5)	-			Thorium (ThO_2)	-		
Copper	LM			Tin	-		
Gallium	.001%			Titanium	1-2%		
Germanium	-			Tungsten	-		
Gold	-			Uranium (U_3O_8)	-		
Hafnium	-			Vanadium	.01%		
Indium	-			Yttrium (Y_2O_3)	-		
Iridium	-			Zinc	-		
Lanthanum (La_2O_3)	-			Zirconium (ZrO_2)	.01%		
Lead	.02%			ROCK FORMING METALS			
Lithium (Li_2O)	-			Aluminum (Al_2O_3)	MH		
Manganese	.05%			Calcium (CaO)	M		
Mercury	-			Iron (Fe)	5%		
Molybdenum	-			Magnesium (MgO)	.5%		
Neodymium (Nd_2O_3)	-			Silica (SiO_2)	H		
Nickel	.005%			Sodium (Na_2O)	2%		
Palladium	-			Potassium (K_2O)	-		

Figures are approximate:

CODE

H — High	— 10 — 100% approx.	LM — Low Medium	— .5 — 5% approx.	FT — Faint Trace	— approx. less than .01%.
MH — Medium High	— 5 — 50% approx.	L — Low	— .1 — 1% approx.	PT — Possible Trace	— Presence not certain.
M — Medium	— 1 — 10% approx.	TL — Trace Low	— .05 — .5% approx.	- — Not Detected	— Elements looked for but not found.
		T — Trace	— .01 — .1% approx.	X — Not looked for	

DATE February 28, 1969. SIGNED Ernest J. Oberstein

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