

*Let me see*

**CANEX AERIAL EXPLORATION LTD.**

DIVISION OF CANADIAN EXPLORATION LIMITED

700 BARRARD BUILDING

VANCOUVER 5, B. C. CANADA

8 March 1965

File: 11-2-41

Dr. L. H. Green,  
Geological Survey of Canada,  
Box 969,  
Whitehorse, Y. T.

Dear Lew:

This will acknowledge receipt of your letter of February 26 in which you have requested that we check on the accuracy of the report which you have prepared for the "Mineral Industry of the Yukon". Our engineering personnel were so tied up during the latter part of the summer last year that we were unable to carry out a final job of mapping and reporting on the mineral occurrences which were explored by Ray McKamey. Part way through the program, however, in early August, we had Duane Poliquin visit the area and I am enclosing a copy of his report in case it is of any assistance to you.

It seems to me that the galena-bearing veins were somewhat wider than you have indicated but I am sure you can get a better description of the various showings by talking to Ray McKamey.

I am certainly pleased to learn that you are to take in the Congress meeting in Australia. I think the government geologists should be accorded more of this kind of treatment as it never hurts to have one's perspective broadened through this type of get-together.

With best regards,

Yours very truly,



L. ADIE  
Exploration Manager-Canada

LA:ja

Encl.

**CANEX AERIAL EXPLORATION LTD.**

DIVISION OF CANADIAN EXPLORATION LIMITED

700 BARRARD BUILDING

VANCOUVER 5, B. C. CANADA

D. Poliquin

13 August 1964

File: 11-2-41 ✓

PRELIMINARY REPORT  
ON  
SILVER LEAD MINERALIZATION  
KODIAK, DEE, AND HI-BOY CLAIMS  
SPENCER CREEK AREA  
YUKON TERRITORY

---

092075

### Summary

The Spencer Creek property optioned in July, 1964 by Canex Aerial Exploration Ltd., was examined by the writer on August 6 and 7, 1964. The property is now accessible by a 12 mile tote road from mile 693 on the Alaska Highway. The mineralization occurs as replacement zones of galena and minor sphalerite in interbanded, northeast dipping Lower Cambrian dolomites and phyllites about two miles from the Cassiar Batholith. Some trenching, geochemical surveying and detailed prospecting to determine the presence or absence of any important sulphide bodies are recommended.

### Introduction

Early in 1964, a silver-lead showing on Spencer Creek, Yukon Territory was staked by Messrs. K. Armstrong and J. Kubiak. The property was visited by Mr. R. McKamey of Canex Aerial Exploration. Subsequent to this, the property was optioned by Canex. Claims held include the Dee 1 to 8, Kodiak 1 to 100 and Hi Boy 1 to 12 groups.

On August 6 and 7, 1964 the property was examined by the writer. The following pages are an account of this examination, conducted with Mr. J. Kubiak as guide. A grateful acknowledgement is made to Mr. McKamey for his assistance in various ways and to Dr. L. Green of the Geological Survey of Canada for his helpful comments.

### Location and Access

The Spencer Creek property is on the extreme northern part of the Spencer Creek Map Sheet (105 B/1 W $\frac{1}{2}$ , 1:50,000) in the Yukon Territory. The main showings are on a ridge two miles long, north of the headwaters of Spencer Creek, and constituting the divide between Spencer Creek and a major tributary.

The nearest commercial centre is Watson Lake, Yukon Territory, Mile 634 on the Alaska Highway. An access road to the property is now nearly complete. This road starts at Mile 693 on the Alaska Highway, and is approximately twelve miles long.

The mineral claims are recorded in the Watson Lake Mining Division. All showings to date are between 4,700 feet and 5,000 feet above sea level.

### Vegetation and Drainage

Timber line in these mountains is at approximately 4,700 feet. Below timber line and into the valleys, vegetation consists of evergreens. Above timber line, moss, lichens and some grasses occur. The timber is unsuitable for such uses as diamond drill legs.

The drainage pattern is well developed here. Most streams are linear along glacial valleys, with tributaries reaching up to the timber line. These tributaries are mainly snow-fed and by mid-summer are reduced to a trickle, or are dry.

### Geomorphology

Spencer Creek is in the extreme northeast part of the Cassiar Mountains. The Nislutin Plateau lies to the north and the Liard Plateau lies to the east.

Ice in the Pliostocene period apparently covered the whole map area moving east onto the Liard Plateau. These mountains were formed by glacial action on a rolling, high plateau. Valley floors are covered with drift, and criss-crossed with eskers and moraines.

There is little outcrop, bedrock being from a few inches to several tens of feet (in valleys) below the drift. In the area of the showings it appears that bedrock is never more than ten feet below surface.

### Geology

#### Rock Types

In the vicinity of the Spencer Creek mineral occurrences, there are three main rock units. A description of these is taken from G. S. C. Map 22 - 1957. With G. S. C. Reference Numbers, these rock units are:

- 15 A - The Cassiar Batholith, mainly biotite quartz monzonite. The Batholith is Jurassic in age.
- 2 b - Biotite schist and quartzite, commonly garnetiferous.
- 1 - Limestone, thin bedded limestones, slate phyllite, minor argillite, slat, dolomite.

Units 1 and 2 b are Early Cambrian in age. The mineral occurrences at Spencer Creek are in unit 1.

#### Structural Geology

The main structural feature of the general area is the Cassiar batholith. It occupies an anticlinal position with a northwesterly trending major syncline on each side. The Spencer Creek property is on the northeast limb of the major anticline. The general strike of beds on the property is at Az.325, dips vary from 20° to 70° to the northeast.

Some fault zones usually trending north-south were observed on the property. On one of these, a dike cut and displaced by the fault indicated lateral movement of 300 - 400 feet.

### Economic Geology

#### General

Silver bearing occurrences of galena and sphalerite associated with the Cassiar Batholith have been known for some time. Most of these are similar, being replacement type deposits, in thinly bedded impure Lower Cambrian limestones, dolomites, and phyllites. A fair amount of work has been done on some of these, including trenching, diamond drilling, and drifting. Mr. C. W. Ball has informed the writer that the Rancheria Mining Company plans small scale production from their Logjam Creek silver-lead-zinc property. A. S. & R. have an option to treat the ore.

#### The Spencer Creek Property

There are four separate showings on the Spencer Creek silver-lead property with several pits on each. Few of the pits got into actual bedrock, and most pits were fairly small in size. The three main showings were on a two mile long ridge and they are described in order of examination. The Hi Boy showing is described subsequently. Pits on each showing are ordered alphabetically.

##### # 1 Showing

There are six pits on this showing, the largest being 6' x 5' x 3' deep. All of these pits were dug into zones of oxidization or where stain from the oxidization of galena occurred. The oxidized material consists of a heavy hard dark blue-black material containing

some limonite box works and trace remnants of sphalerite and galena. The limonite varies from dark brown to yellow ochre in color. The blue black oxidized material is call "manganite" by local prospectors.

These pits did not cut unoxidized sulphides. This is the most easterly showing, but the blue black stain and fragments of oxidized material continue for over a thousand feet to the east along the ridge.

# 2 Showing

A Pit - 2' x 3' x 2' deep.. Cut into rusty, limey phyllite. No sulphides seen.

B Pit - 4' x 6' x 3½' deep. One heavily oxidized band of galena with quartz and calcite has replaced limestone and phyllite along their contact. The band is vertical with strike 60°. It is exposed 6' along the pit. Sample A 727 across the band should run 30% Pb.

C Pit - 3' x 3' x 1' deep. This is into very limonitic phyllite and dolomite. Traces of fine grained galena were seen in this pit.

D Pt - 3' x 3' x 1' deep. This is into rusty phyllite; not sulphides are visible.

# 3 Showing

A Pit - 15' x 3' x 2' deep. This pit is cut into a replacement zone about 6' wide through dolomite and phyllite. Most of this was oxidized but several pods and stringers of galena were visible. One of these stringers 14" wide, was sampled (#A 728) and should run approximately 25% Pb.

B. Pit - 10' x 4' x 6' deep. This pit cuts a zone of replacement in dolomite. The mineralization consists of pods and stringers of galena. The largest pod (6" x 10") was sampled (#A 729) and this should run 25% Pb.

C Pit - In the west end of this pit a 10" stringer of galena is exposed.

D Pit - This pit has caved in but fragments of galena-bearing rock were abundant in the rubble. The pit cuts across a limestone phyllite contact.

The Armstrong Showing, Hi Boy Group

There are five small pits on this showing. They exposed rusty limestone and phyllite. Traces of galena and sphalerite were seen in the D pit.

The pits are along a shear zone, and there is "manganite" stain for several hundred feet along this zone.

Other Mineral Occurrences

Mr. Kubiak had reported several other mineral occurrences, some on and some off the claims. When we were there he could not find the 4' wide and 6' wide exposures of galena reportedly discovered on the Kodiak claims. An "occurrence" of bornite to the south was found to be one tiny fragment of float and its source was far from definite. Weak gossans were noted a mile or so to the west. Their location was given to Mr. McKamey.

### Conclusions

All showings on the map are in close proximity to a fault zone. The mineralization seems to be replacements of galena and minor sphalerite along or near the contacts of interbanded dolomites and phyllites. No zones of any size have been exposed to date, but no large cuts have been made.



Recommendations

It is recommended that:

1. Trenches be bulldozed across existing pits to expose more bedrock. Trenches should also be bulldozed across the zones of heaviest oxidization.
2. A reconnaissance geochemical survey be carried out in the area along with a detailed soil sample survey over the most interesting areas to determine if any significant deposits of silver and lead are present.
3. Prospecting on and around the claim groups be carried out in detail.

DUANE POLIQUIN

References and Sources of Information

Geophysics Paper 1304. Magnetic Map of Spencer Creek Y. T.,  
Sheet 105 B/1 (1 mile = 1")

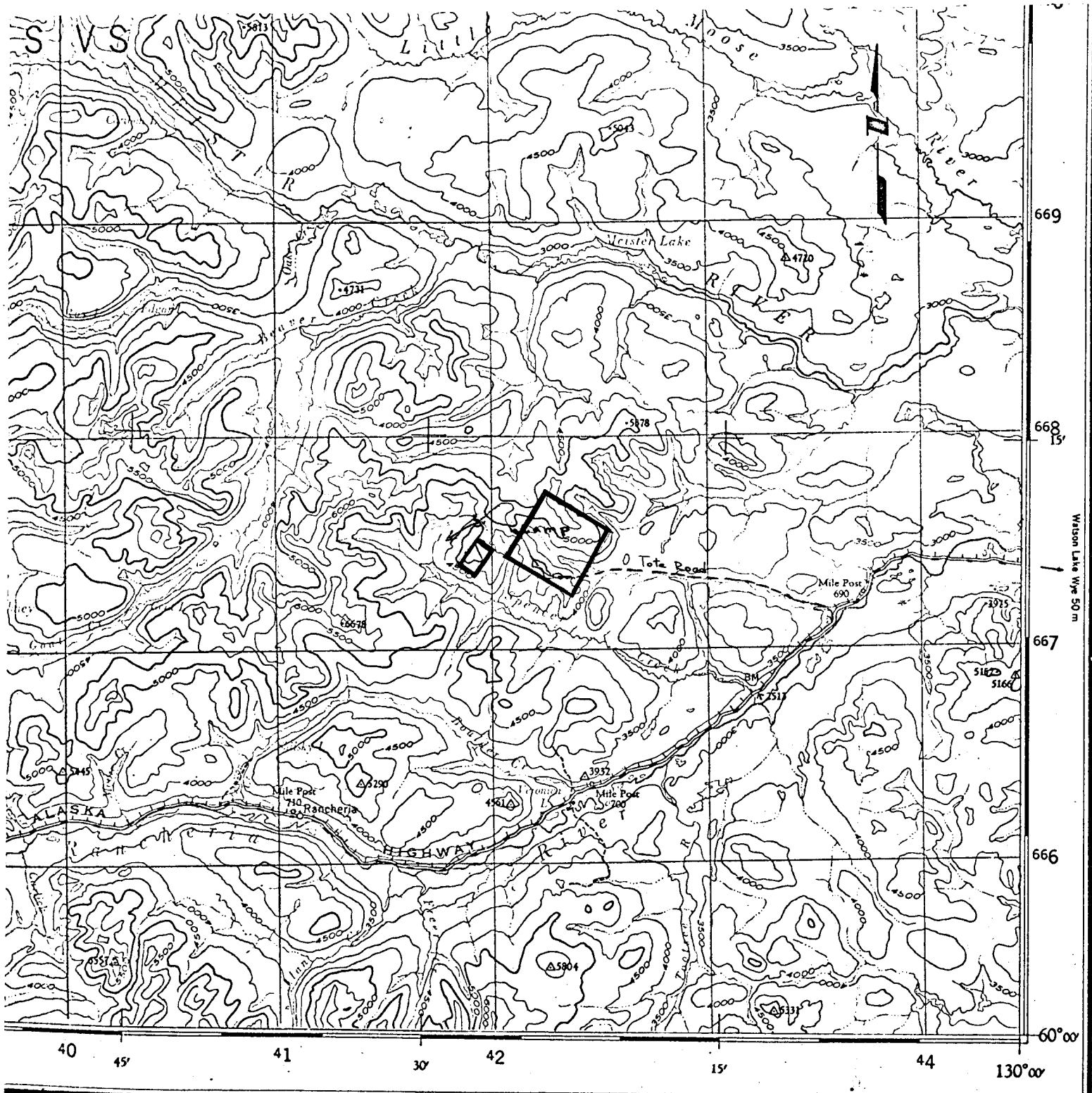
Greene, L. Dr. - Resident Geologist, G. S. C., Whitehorse, Y.T.

G. S. C. Paper 22 - 1957. Geology of the Wolf Lake Map Area,  
Poole. (4 miles = 1")

/ja

cc: E. A. Scholz  
L. Adie  
R. McKamey  
File

# LOCATION MAP



SPENCER CREEK SHDWING, YUKON  
Scale 1 = 250,000