

GEOLOGICAL REPORT

ROSE CREEK GROUP

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1st November 1964

DR. A. C. SKERL
A.R.S.M., PH.D., P.ENG.
CONSULTING MINING GEOLOGIST

1758 WESTERN PARKWAY
VANCOUVER 8, B.C.

DICKSON - YUKON SYNDICATE
GEOLOGY OF ROSE CREEK GROUP
PELLY RIVER AREA
YUKON TERRITORY

INTRODUCTION

At intervals during the period from 23rd of June to 5th of October 1964 the writers - A. C. Skerl and L. Ostensoe - carried out geological, geochemical and geophysical exploration in the valley of Rose Creek. Here the Dickson-Yukon Syndicate had a large group of claims of which 50 are being retained as shown on the accompanying map (1" to 1000').

PROPERTY AND SITUATION

The strip of fifty claims extends northwesterly down the valley of Rose Creek for eight miles. The southeast end adjoins the Vangorda property.

The claim names are as follows :

Tie Nos 1 to 24

Joe Nos 2, 4, 6, 8, 10, 12, 14, 16, 17, 18

Bill Nos 16, 17, 18, 20, 22, 24, 26, 28, 30, 32, 33, 34, 35, 36, 37, 38

They appear on claim sheet No 105 K - 6, lat. $62^{\circ} 15'$, long. $133^{\circ} 30'$

The claims are in the name of Gordon Dickson of Whitehorse and the current season's work has been done by the Dickson - Yukon Syndicate with Leif Ostensoe as field engineer and A. C. Skerl as geological consultant.

TOPOGRAPHY

Within the claim area the elevation ranges from 3500 to 4500 feet but the north side of the valley goes up to 6000 feet.

The valley sides, particularly the south, are characterized by bluffs and dip slopes that have been carved by ice action.

COMMUNICATIONS

The area is remote from any highway and access is gained by aircraft either to Shrimp Lake or to the rough landing strip at Vangorda. It is then one day's journey on foot to camp sites at the northwest end of the claims. To save time and transportation costs a helicopter was employed on several occasions.

GEOLOGY

The general geology of the area is shown on the Tay River Sheet of the Canadian Geological Survey.

In the section studied for this report a northwesterly striking belt of black argillite, sericite schist etc is bounded on the northeast by the Mount Mye intrusive granite and on the southwest by the intermediate to basic volcanic rocks.

In the contact zone of the granite the metamorphism has produced garnet-biotite schists that grade into carbonate bearing schists as much as 3000 feet away from the intrusive with intermediate types between.

The granite contact is quite irregular with a pronounced southerly nose at the southeast end of the claims.

Near the granite there are easterly striking pegmatite dykes consisting largely of quartz (80%) and orthoclase (15%) with minor garnet etc. Nothing noteworthy was found spectrographically in a specimen of the pegmatite.

A large feldspar porphyry dyke trending easterly across the northwest end of the L. O. claims has small, local magnetic and copper geochemical anomalies associated with it although no mineralization has been found. The distribution of the outcrops

suggests that this dyke could be several hundred feet wide and a mile long.

In the area of volcanic rocks southwest of the claims the greenstones have been converted to chlorite schists which sometimes contain up to 5% of pyrite and pyrrhotite.

According to the geological Survey of Canada the sedimentary and volcanic rocks are probably Palaeozoic in age and the intrusive granite Cretaceous as in the following tabulation :

G E O L O G I C A L F O R M A T I O N S

Recent	Alluvial
Quaternary	Glacial
<hr/>	
Cretaceous	Feldspar Porphyry
	Granite
<hr/>	
Palaeozoic	Greenstone and Chlorite Schist
	Black Argillite
	Sericite Schist
	Garnet Biotite Schist
<hr/>	

S T R U C T U R E

All the sediments are strongly cleaved with the foliation dipping at 20 to 40° SW. The foliation frequently coincides with the bedding but attenuated dragfolds can be seen.

A study of the drill core at Vangorda mine showed that small dragfolds and slippage on cleavage planes are very common. It is therefore suspected that thrust faulting associated with imbricate structures is present throughout the sedimentary series in the general area.

Erosion has stripped large areas to form dip slopes on the cleavage direction.

MINERALIZATION

A study was made of the Vangorda deposit in the hope of recognizing criteria that would lead to finding ore in the Dickson - Yukon ground.

It was found that the ore consisted of a fine grained mixture of pyrite, pyrrhotite, magnetite, galena, sphalerite and chalcopyrite in several lenses that appear to represent overturned synclinal remnants associated with the larger lenses of essentially barren pyrite.

The sediments have been logged in two main categories - dark graphitic argillite and light sericite schist. The latter is the immediate host rock of the sulphides.

It was hoped to trace the sericite schists down Rose Creek but the paucity of outcrops of these soft rocks prevented this. Geophysical and geochemical investigations were therefore tried in an effort to locate mineralization more directly as described in the accompanying reports.

DISCUSSION

It is possible that the nose of granite noted above was responsible for the mineralization in the Firth No 6 Claim in the Vangorda ground. It was hoped that detailed prospecting on the Dickson - Yukon ground would be indicative of further mineralization but the lack of outcrops proved discouraging. Much of the area is swampy so that geochemical sampling is of doubtful value.

Basic rock was encountered in the exploration of the Firth zone so that magnetic surveying would be complicated by this rock which is known to contain appreciable magnetite. However a detailed magnetometer survey is still warranted here.

An electrical method of prospecting that would distinguish the effect of graphite from that of sulphides is needed. The new geomag method may be the answer and the recent surveys with it in other areas should be studied.

RECOMMENDATIONS

- 1. Continue the magnetic and geochemical surveys of the claims.
- 2. Consider a geomag survey.

A. C. Skerl

L. Ostensoe

METHOD OF SURVEYING

Outcrop areas were located by chain and compass lines along claim boundaries and by subsidiary lines from them. All lines were flagged with survey tape for a total of 30,000 feet.

A. C. Skerl

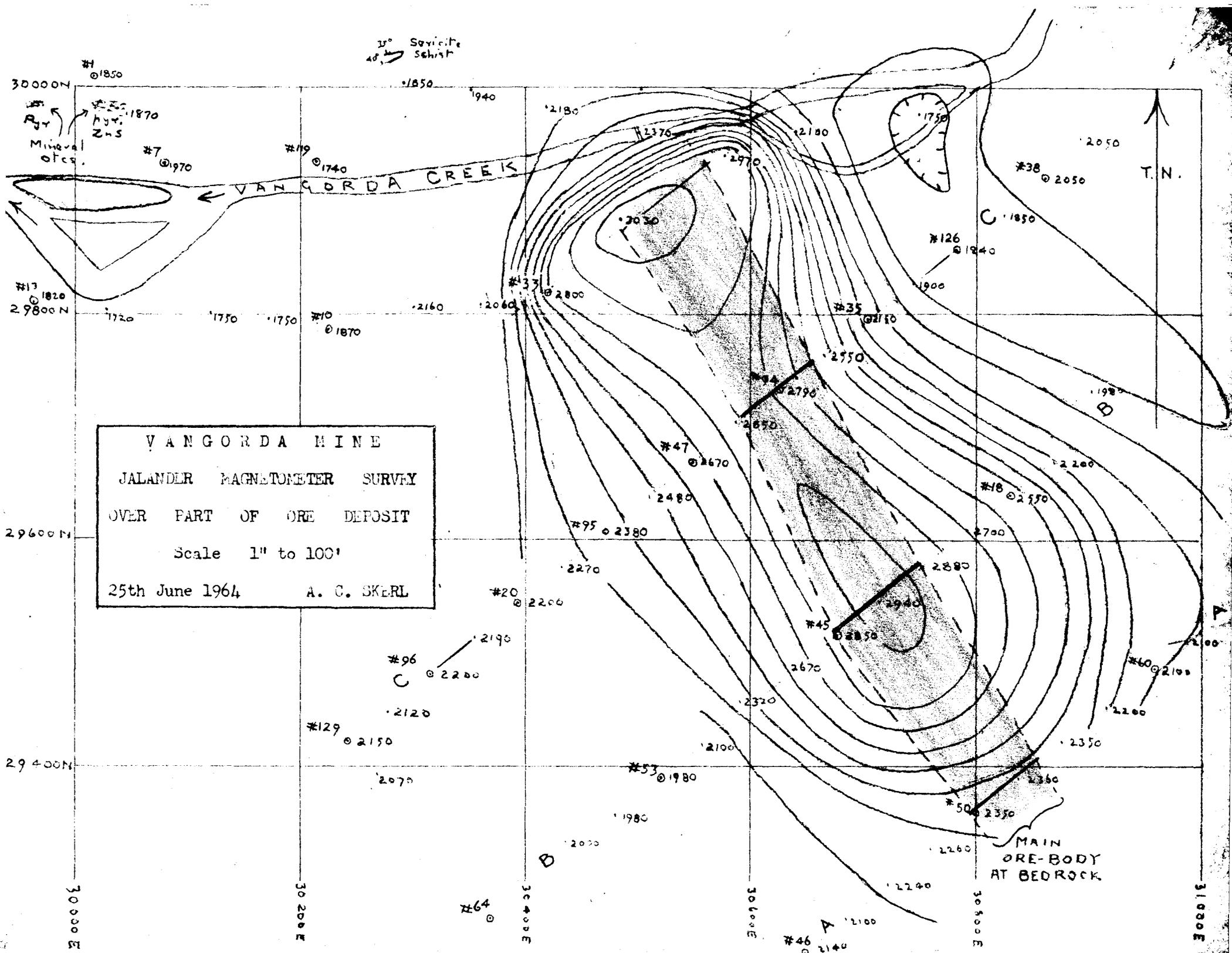
AFFIDAVIT

I hereby certify that the proportion of expenses for the Rose Creek investigations in 1964 allocated to the geological work were as follows :

	\$
Air transportation	500.00
Salary L. Ostensoe	500.00
Consulting fees A. C. Skerl	400.00
Wages T. Lowery	350.00
Camp equipment	150.00
Supplies	300.00
Misc. (radio rental etc)	300.00
Total	<u>\$ 2500.00</u>

A. C. Skerl

10° Sensitive
40° Schist



VANGORDA MINE
JALANDER MAGNETOMETER SURVEY
OVER PART OF ORE DEPOSIT
Scale 1" to 100'
25th June 1964 A. C. SKERL

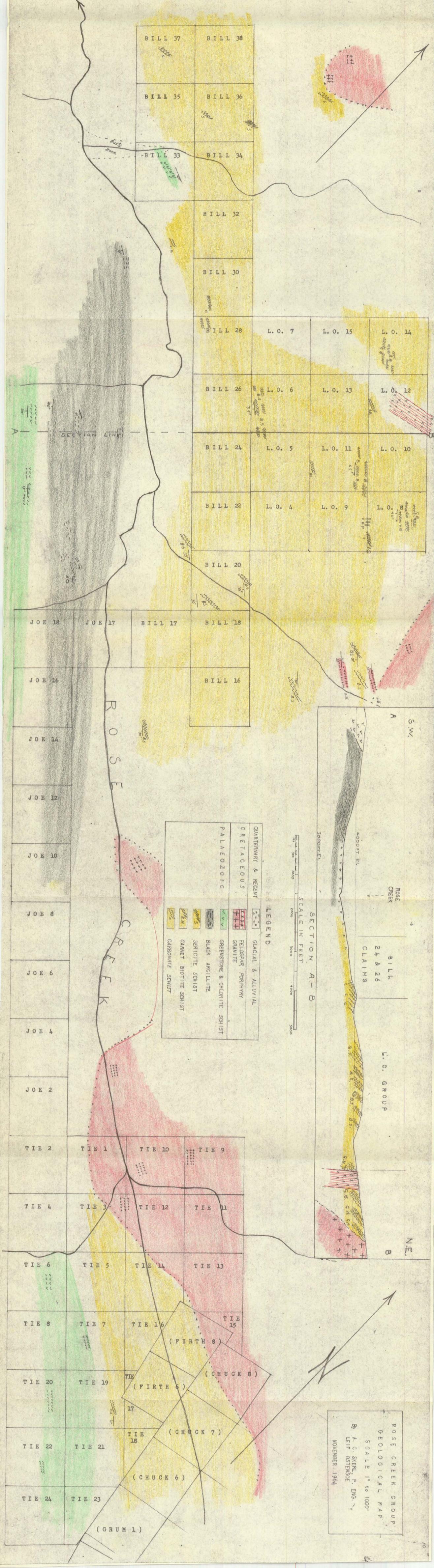
MAIN ORE-BODY AT BEDROCK

Mineral ofcs.
#1 @ 1850
#7 @ 1970
#13 @ 1820
#19 @ 1740

#64 @

#46 @ 2140

T.N.



BILL 37 BILL 38
 BILL 35 BILL 36
 BILL 33 BILL 34
 BILL 32
 BILL 30

BILL 28 L.O. 7 L.O. 15 L.O. 14
 BILL 26 L.O. 6 L.O. 13 L.O. 12
 BILL 24 L.O. 5 L.O. 11 L.O. 10
 BILL 22 L.O. 4 L.O. 9 L.O. 8
 BILL 20

JOE 18 JOE 17 BILL 17 BILL 18
 JOE 16 BILL 16
 JOE 14
 JOE 12
 JOE 10
 JOE 8
 JOE 6
 JOE 4
 JOE 2

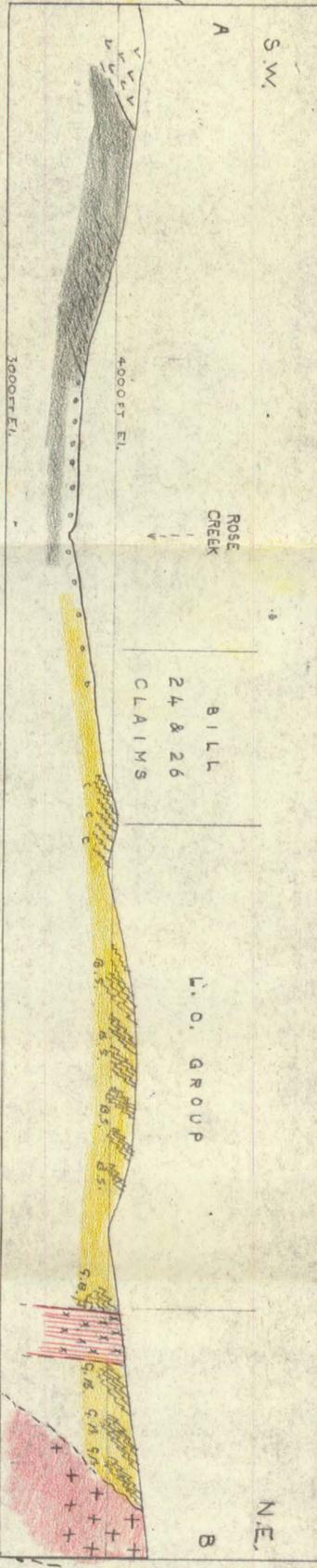
R O S E

C R E E K

LEGEND

QUATERNARY & RECENT	GLACIAL & ALLUVIAL
CRETACEOUS	FELDSPAR PORPHYRY
	GRANITE
PALAEZOIC	GREENSTONE & CHLORITE SCHIST
	BLACK ARGILLITE
	SERICITE SCHIST
	GARNET BIOTITE SCHIST
	CARBONATE SCHIST

SECTION A-B
 SCALE IN FEET
 0 500 1000 2000 3000 4000 5000



TIE 2 TIE 1 TIE 10 TIE 9
 TIE 4 TIE 3 TIE 12 TIE 11
 TIE 6 TIE 5 TIE 14 TIE 13
 TIE 8 TIE 7 TIE 16 TIE 15
 (FIRTH 8)
 (CHUCK 8)
 TIE 20 TIE 19 TIE 17 (FIRTH 6)
 (CHUCK 7)
 TIE 22 TIE 21 TIE 18 (CHUCK 6)
 TIE 24 TIE 23 (GRUM 1)

ROSE CREEK GROUP
 GEOLOGICAL MAP
 SCALE 1" to 1000'
 By A. C. SKERL, P. ENG.
 LEIF OSTENSEN
 NOVEMBER, 1964

GEOPHYSICAL REPORT
ROSE CREEK GROUP

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1st November 1964

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GEOPHYSICAL SURVEY
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Within the claim area the elevation ranges from 3500 to 4500 feet but to the north the side of the Rose Creek valley goes up to 6000 feet.

The valley sides, particularly the south, are characterised by bluffs and dip slopes that have been carved by ice action.

COMMUNICATIONS

The area is remote from any highway and access is gained by aircraft either to Shrimp Lake or to the rough landing strip at Vangorda. It is then one day's journey on foot to camp sites at the northwest end of the claims. To save time and transportation costs a helicopter was employed on several occasions.

GEOLOGY

The general geology of the area is shown on the Tay River Sheet of the Canadian Geological Survey.

A companion geological report for assessment purposes describes the rock types, possible mineralization, etc.

MAGNETOMETER SURVEY

The ore body at Vangorda gives a distinct magnetic anomaly as shown on the accompanying plan (scale 1" to 100'). It was therefore decided to explore the likely areas of the Rose Creek claims with a fluxgate type of magnetometer (M F 1) that was rented from Sharpe Instruments Co. It was set for a background of 1000 γ at the camp site on claim L.O. 11.

The results have been plotted on the accompanying map (scale 1" to 400').

Two magnetic anomalies previously reported by A. Allan (1955) in the Rose Creek area were checked. The first is 3000 feet southwest of Bill22 claim and a range of 500 γ for a length of 200 feet was found. Some outcrops of graphitic argillite near the centre of the anomaly gave readings of 2000 γ above background. Finely disseminated magnetite in the argillite was the cause of the anomaly.

Nothing significant was found at the supposed position of the second anomaly at 3000 feet to the northwest of the first.

Reconnaissance in the area across the Rose River to the northeast of these two places found interesting readings in the Bill 24 claim so after staking the L.O. group of claims a series of lines were run with tape and compass for 30,000 feet, as shown on the accompanying map. Magnetometer readings were then taken every 100 feet.

Nothing else of note was found, the variation between readings at 100 feet apart rarely being more than 50 %.

A grid of lines at 100 ft spacing showed that the original finding in the Bill 24 claim was limited to a length of 250 feet and nothing was found on the ground to account for it.

C O N C L U S I O N

The results of the magnetometer survey so far have been disappointing but it should be continued.

The next area that should be investigated in detail is the southeast end of the claims where a continuation of the geological conditions on the Firth zone might be expected.

R E C O M M E N D A T I O N

Make a detailed magnetometer survey of the claims at the southeast end of the group.

A F F I D A V I T

I hereby certify that the proportion of expenses for the Rose Creek investigations in 1964 allocated to the geophysical work were as follows :

Air Transportation	300.00
Salary L. Ostensoe	300.00
Consulting fees A. C. Skerl	200.00
Wages T. Lowery	200.00
Camp equipment	50.00
Supplies	100.00
Magnetometer rental	250.00
Misc. (radio rental etc.)	200.00
	<hr/>
Total	\$ 1,600.00

The addresses of those employed on the work are

Dr. A. C. Skerl, 1758 Western Parkway, Vancouver 8, B. C.

Mr. Leif Ostensoe, 5597 Toronto Road, Vancouver 8, B. C.

Mr. T. Lowery, c/o Mr. K. Macracken, 4429 Angus Drive, Vancouver, B. C.



1. et. Reports. Reports

INSEPT. NO. RECORDS

DATE OF REPORT AND CHANGE

Record 1 of .

Report #G20074

Year - 1964

Site: TOS K G

Field Station: Whitehorse

Area: Pelly River

Project Name: ~~TSS~~ TSS

Project ID #: 62

Location: Work Target

Grid: TIE 1-24, JOE 2-18, BILL 16-38

Lat: 62 15' N, 133 30' W

Client: Dickson - Yukon Syndicate

Personnel: A. C. Skerf, L. Ostensoe

Type of report: Geological + geophysical consultant reports.

Comments: Geological mapping + magnetometer survey.

Date entry of file 9 records

FILE # 131

Formerly assigned
018990

**GEOCHEMICAL REPORT
ROSE CREEK GROUP**

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1st November 1964

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GEOLOGY

The general geology of the area is shown on the Tay River Sheet of the Canadian Geological Survey.

A companion geological report for assessment purposes describes the rock types, possible mineralization, etc.

GEOCHEMICAL SURVEY

Although the Vangorda ore body averages only 0.27% Cu it was found that distinct geochemical copper responses could be obtained from the overlying soil. It was therefore decided to use the rubeanic method for copper developed by Dr. H. V. Warren of U. B. C. because of its simplicity in the field and to retain all samples in case they were later required for zinc testing. The method is described as follows :

This rubeanic acid field test for copper was described by H. V. Warren and R. E. Delavault in the January 1959 issue of the Western Miner.

The materials were prepared as follows :

1. Reagent Paper.

1 gm of rubeanic acid was dissolved in 100 ml reagent grade acetone and then used to wet strips of filter paper that were then dried and cut up into pieces 1" by 1".

2. Extracting Solution

One pound of hydrated sodium acetate together with 1 quart of acetone, both reagent grade, were made up to 1 gallon with copper free water.

3. A quantity of 2 inch squares of glazed onion skin paper were prepared.

4. Apparatus

The following were obtained :

a 50 ml pyrex beaker, a 12 mm test tube with a rubber stopper, a $\frac{1}{4}$ teaspoon measure, a plastic bottle for the extracting solution, 9 cm filter papers and 1" squares of filter paper.

~~PROCEDURE~~

To make a test a piece of reagent paper with an identification number on it was placed on a 1" square of filter paper in the bottom of the beaker. A carefully folded filter paper with a sharp tip was placed in the beaker so that the tip just touched the reagent paper. Next some soil was placed on the onion skin paper where small stones and roots could be sorted out before taking a level $\frac{1}{4}$ teaspoonful that was placed in the test tube. From 1 to 2 ml of extracting solution sufficient to make a thick slurry was then added, the tube closed with the stopper wrapped in onion skin paper to prevent contamination and then shaken for 15 to 20 seconds.

The mixture was then poured neatly into the filter paper funnel whereupon a stain would develop on the reagent paper whose intensity and size would depend on the amount of copper present.

The various spots obtained were classified by letters as follows with the approximate equivalent in micrograms of copper per gm of soil as suggested by Warren and Delavault :

A	very large black stain	1.0
B	large black stain	0.5
C	distinct black stain	0.2
D	distinct grey stain	0.1
N	nil	nil

Apart from samples taken during reconnaissance trips through the area the main geochemical survey was made where a series of lines totalling 30,000 feet were run with tape and compass. Samples were taken at 100 ft intervals and closer where interesting values were found.

R E S U L T S

The geochemical readings have been plotted on the accompanying map (scale 1" to 400').

On the hillside in the L. O. claims in the area of the schistose rocks between the granite and Rose Creek the soil samples gave low readings generally although there were occasional highs. When closer sampling was tried around these highs they were not sustained.

Along the floor of the valley of Rose Creek soil samples were much higher on the average but too widespread to be identified as anomalous.

Special samples taken in the area of the magnetic high in the Bill 24 claim failed to indicate the presence of a significant amount of copper.

A special effort was made to obtain soil samples from below the surface materials but there was often the complication of an ash layer up to 6 inches thick that might sometimes have sufficient soil above it that its presence would not be realized. It would therefore be advisable to use a hand auger in areas where the ash is prevalent.

C O N C L U S I O N

No definite geochemical anomaly was found in the area prospected but the survey should be extended to cover all the claims. In particular it could be of value in conjunction with a magnetometer survey of the southeast end of the group.

R E C O M M E N D A T I O N

Continue the geochemical survey using a hand auger to obtain samples from a depth of say four feet which should be compared with those taken closer to the surface.

A F F I D A V I T

I hereby certify that the proportion of expenses for the Rose Creek investigations in 1964 allocated to the geochemical work were as follows :

Air Transportation	\$ 200.00
Salary L. Ostensoe	200.00
Consulting fees A. C. Skerl	100.00
Wages T. Lowery	150.00
Camp equipment	50.00
Supplies	100.00
Misc. (geochem. kit, radio rental, etc.)	100.00
	<hr/>
Total	\$ 900.00
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The addresses of those employed on the work are

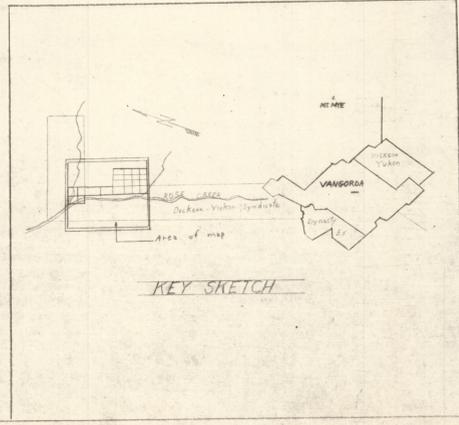
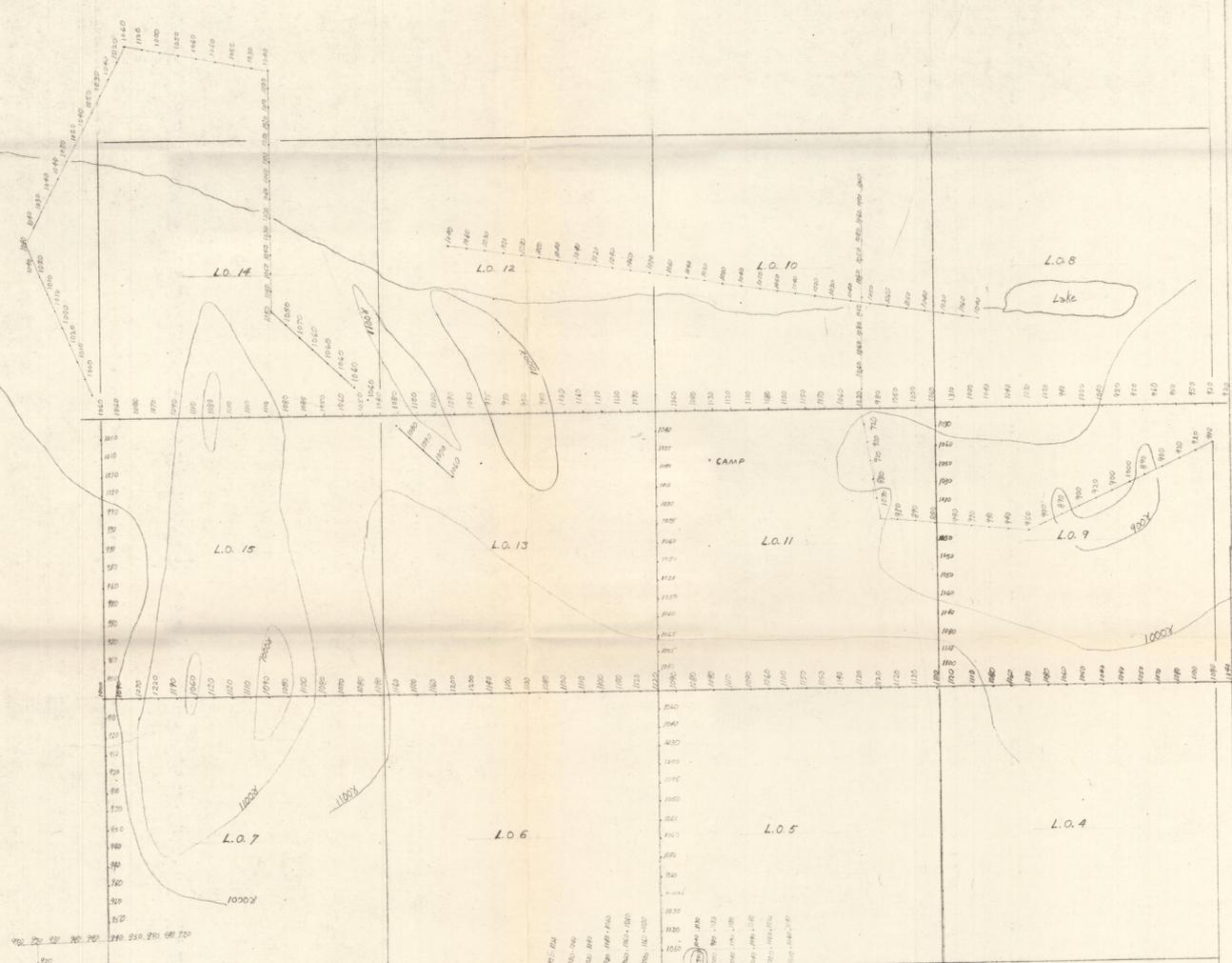
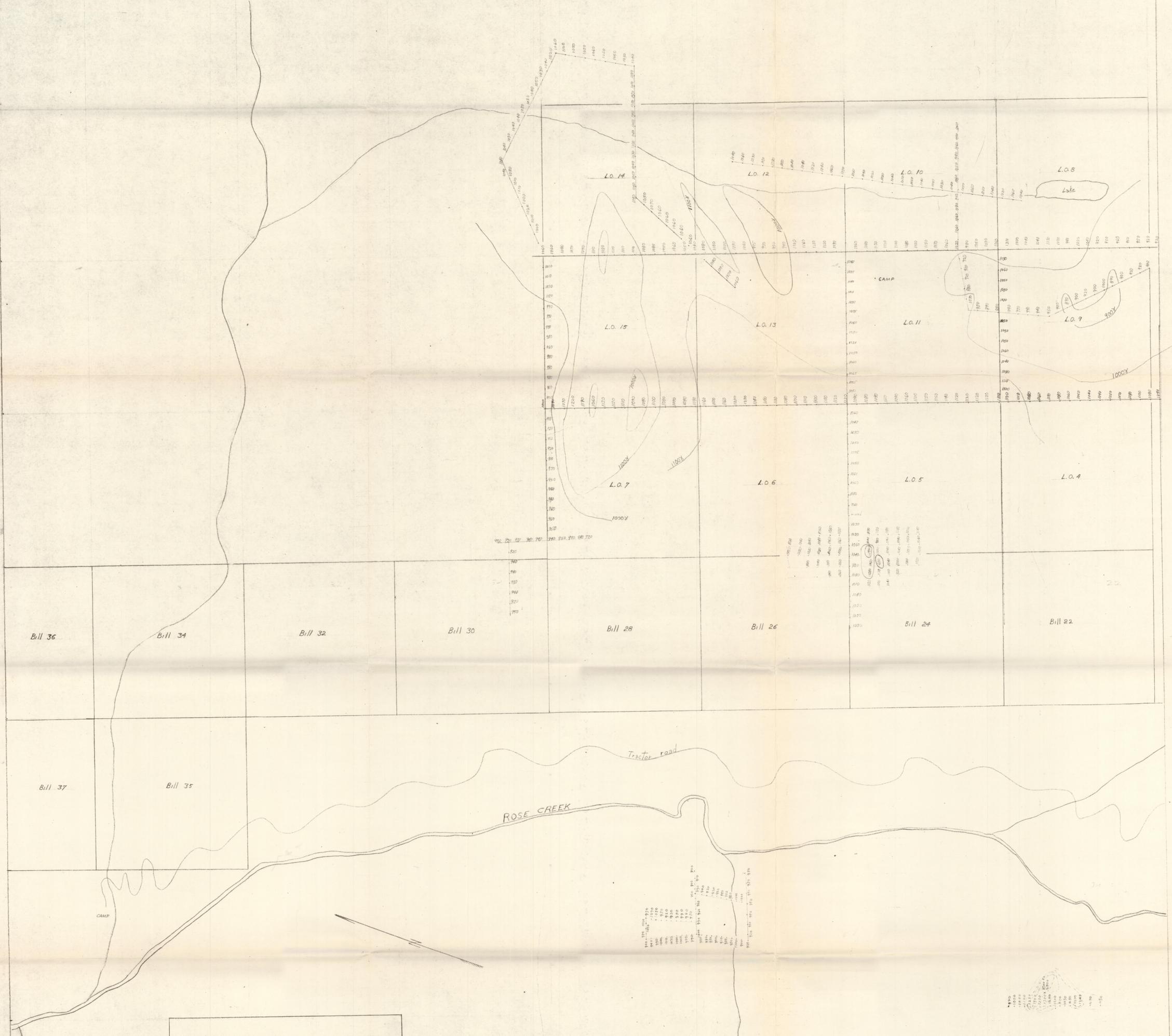
Dr. A. C. Skerl, 1758 Western Parkway, Vancouver 8, B. C.

Mr. Leif Ostensoe, 5597 Toronto Road, Vancouver 8, B. C.

Mr. T. Lowery, c/o Mr. K. Macracken, 4429 Angus Drive, Vancouver, C. C.

1100
2300
5400

A. C. Skerl



DICKSON - YUKON SYM
 ROSE CREEK AREA
 MAGNETOMETER RESULTS

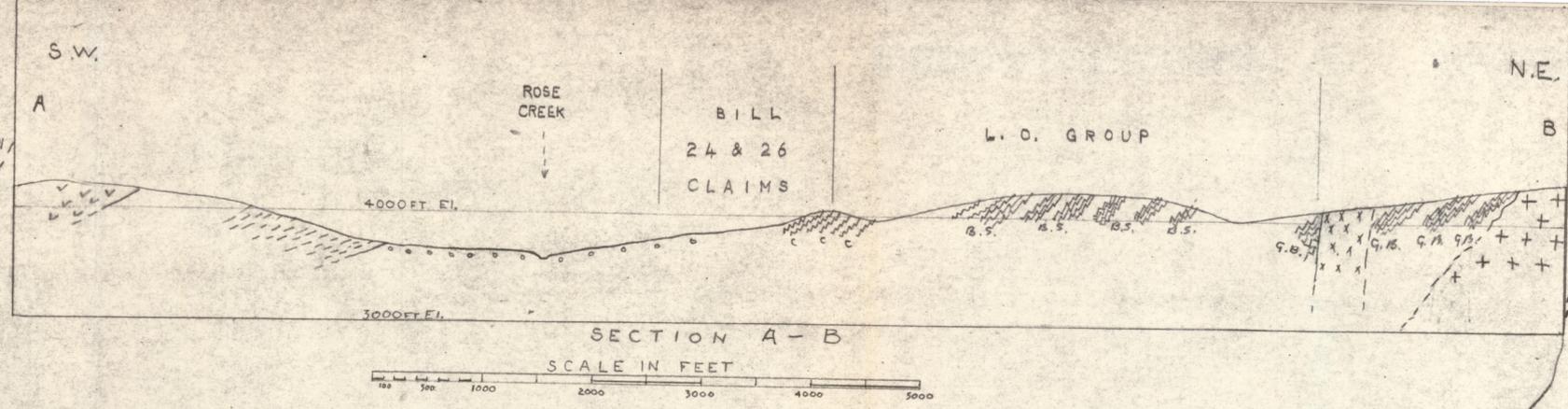
Reading Relative to 1000 Gammas

1 inch = 400 ft

JUNE-OCT 1964

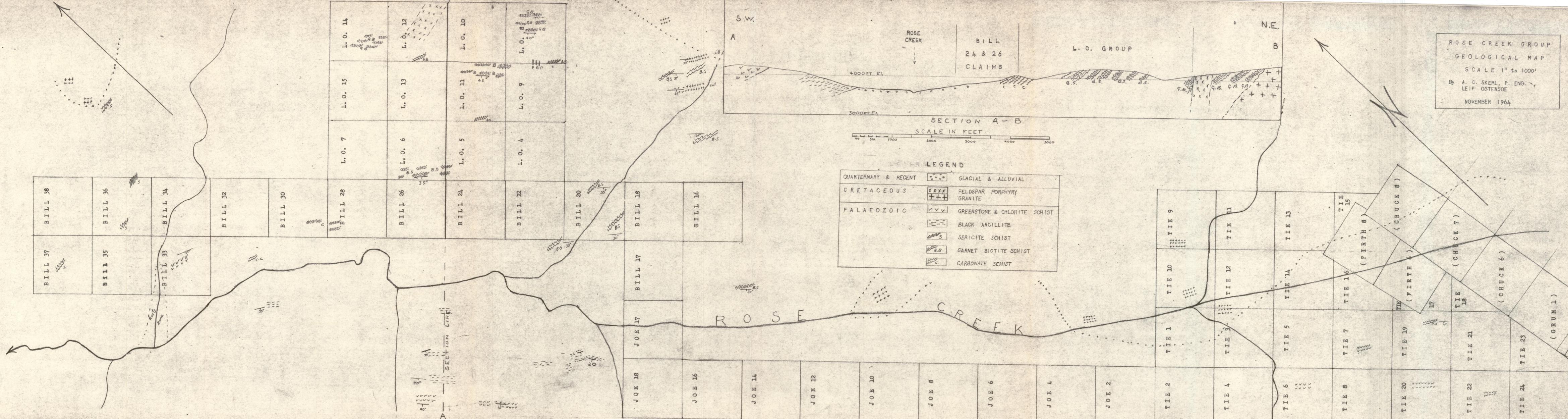
Dr. AC. Sherl R. Eng
 L. G. Pearson

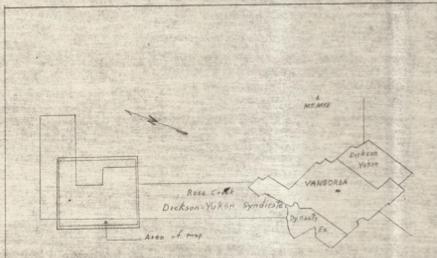
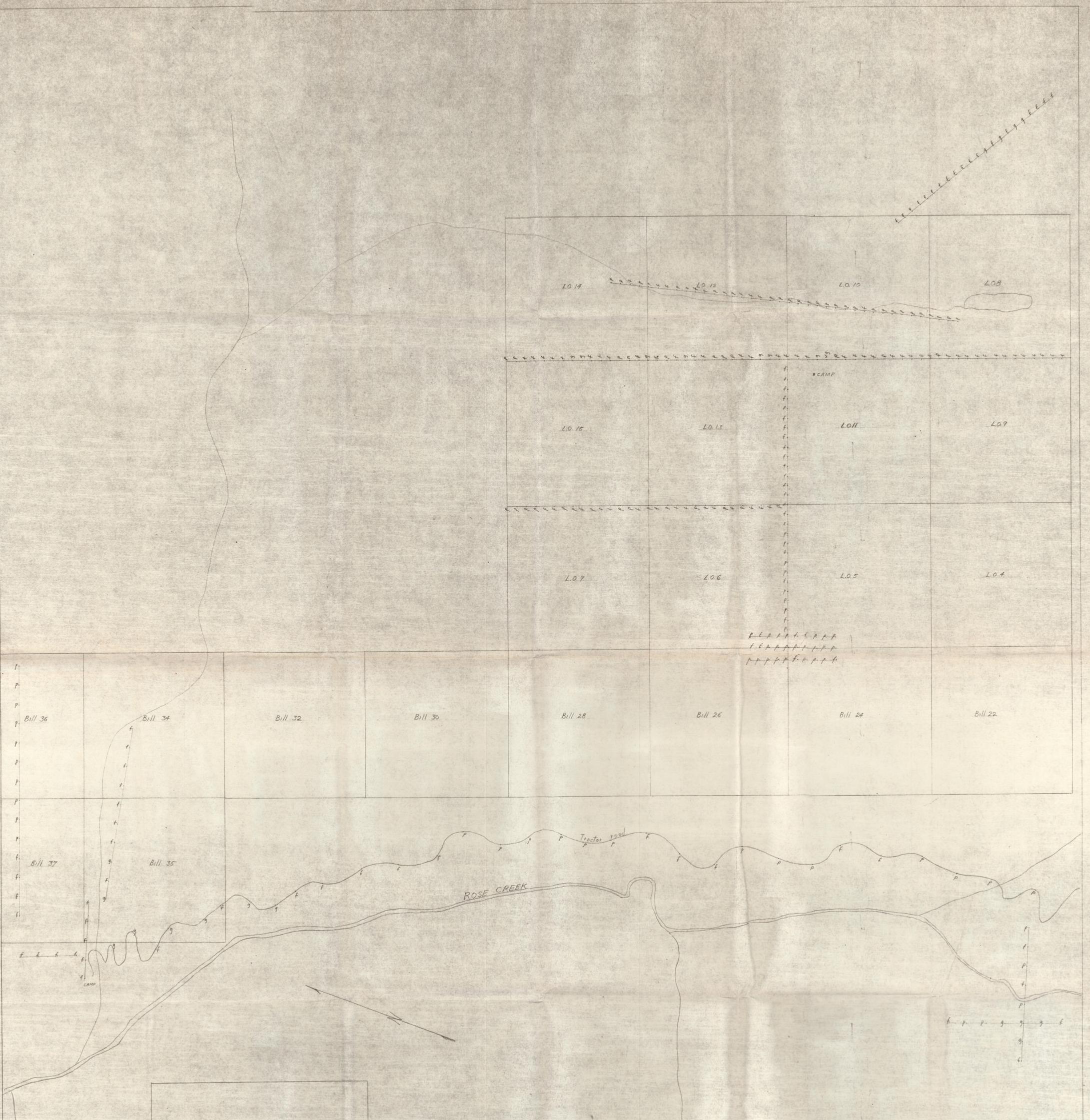
ROSE CREEK GROUP
 GEOLOGICAL MAP
 SCALE 1" to 1000'
 By A. C. SKERL, P. ENG.
 LEIF OSTENSOE
 NOVEMBER 1964



LEGEND

QUATERNARY & RECENT	•••••	GLACIAL & ALLUVIAL
CRETACEOUS	XXXX +++	FELDSPAR PORPHYRY GRANITE
PALAEOZOIC	∨∨∨	GREENSTONE & CHLORITE SCHIST
	— — —	BLACK ARGILLITE
		SERICITE SCHIST
		GARNET BIOTITE SCHIST
		CARBONATE SCHIST





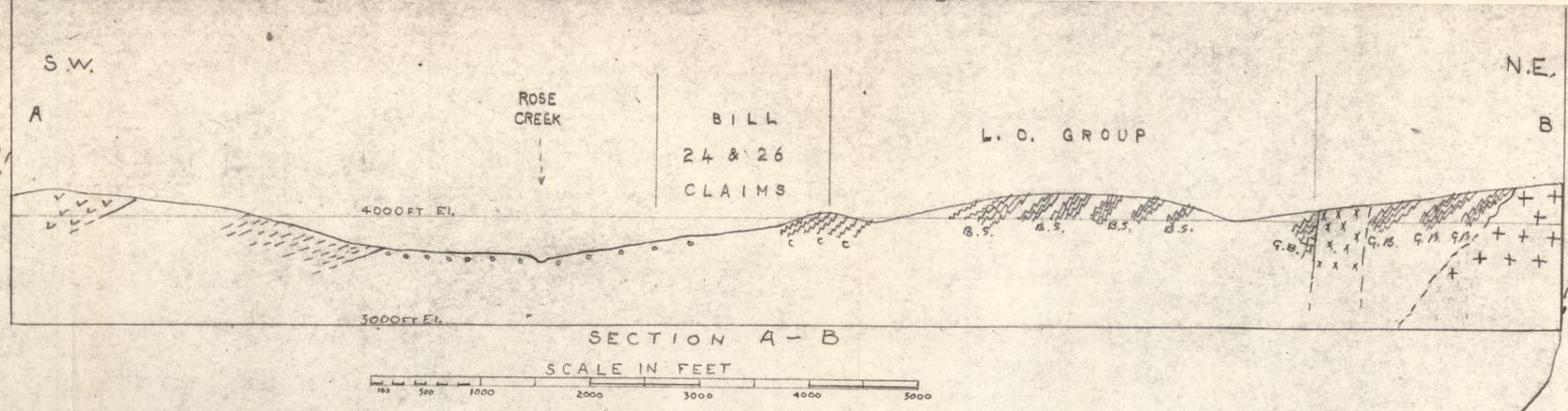
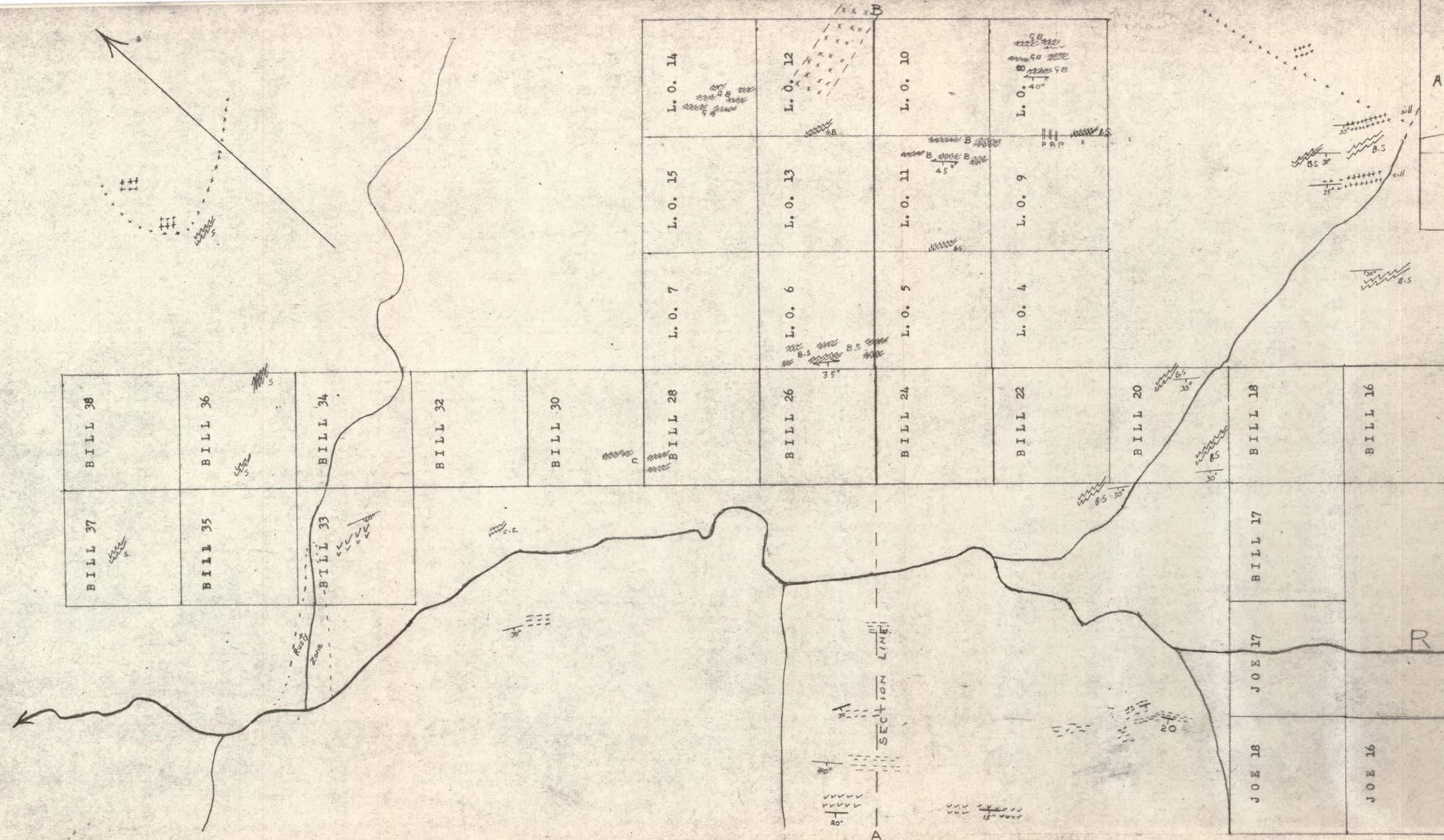
KEY SKETCH

Dickson-Yukon Syndicate
 ROSE CREEK AREA
 GEOCHEMICAL RESULTS

v.g. - very good
 g. - good
 f. - fair
 p. - poor
 n. - nil

1 INCH = 400 FEET
 AUG-OCT 1964

Dr. A.C. Steel, P. Eng.
 L. OsTanson



LEGEND

QUATERNARY & RECENT	GLACIAL & ALLUVIAL
CRETACEOUS	FELDSPAR PORPHYRY GRANITE
PALAEOZOIC	GREENSTONE & CHLORITE SCHIST
	BLACK ARGILLITE
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