

3439

GEOCHEMICAL REPORT

RIO ALTO EXPLORATION LTD.

Sand Creek "B" Property, 2 miles NE of Galloway, B.C.
Latitude 49° 22' Longitude 115° 09'

AUTHOR: G. L. Anselmo, President

P. ENGINEER: W. G. Stevenson

809/6E

DATE OF WORK: July 12-30 and October 3, 1971

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

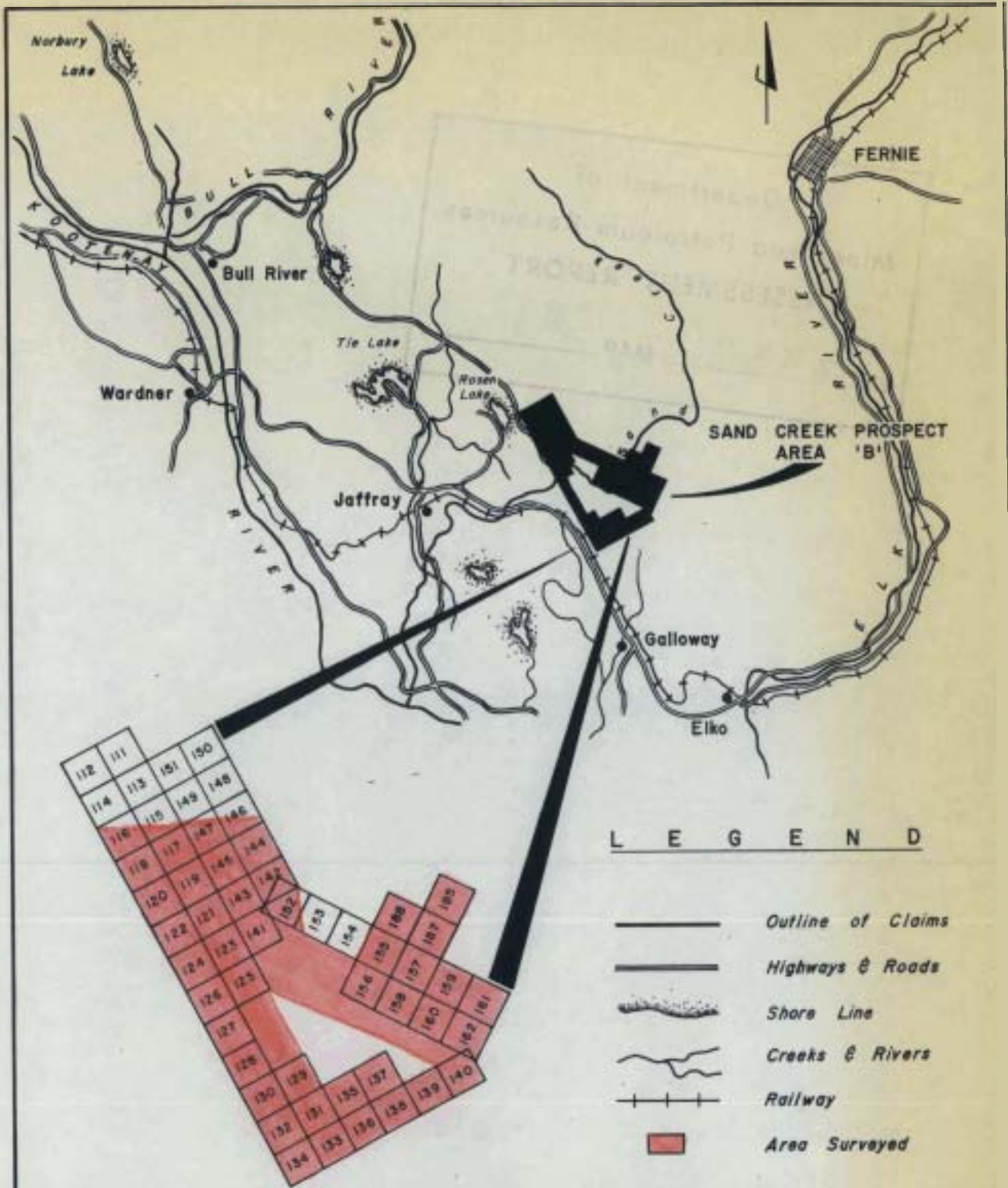
NO. 3439 MAP _____

C O N T E N T S

	<u>PAGE</u>
Introduction	1
Location & Access	1
Property	1
Survey Specifications	
Survey Grid	1
Geochemical Survey	1-2
Data Presentation	2
Discussion of Results	
Geochemistry	2
Data Correlation	2-3
Conclusions	3
Recommendations	3
Certificates	
G. L. Anselmo, President	4
W. G. Stevenson, P. Engineer	5

I L L U S T R A T I O N S

A 1 Figure 1	Claims & Location Map
3 Geochemical Map	Copper
4 Geochemical Map	Zinc
5 Geochemical Map	Lead
6 Geochemical Map	Silver
7 Plate 1	Soil Profile 1



RIO ALTO EXPLORATION LTD.

SAND CREEK PROSPECT AREA 'B'

LOCATION AND CLAIMS MAP

SCALE: LOCATION MAP: 1" = 4 MILES APPROX. CLAIMS MAP: 1" = 5000 FEET APPROX.

INTRODUCTION

From July 12-30 and October 3, 1971, Tri-Con Exploration Surveys Ltd., on behalf of Rio Alto Exploration Ltd., conducted a program of geochemical surveying on the Sand Creek Area "B" Prospect (Figure 1), Fort Steele Mining Division, Province of British Columbia.

LOCATION & ACCESS

The claims surveyed are situated approximately 2 miles NE of Galloway, British Columbia. Sand Creek runs through the claims. The exact location is at longitude $115^{\circ} 09'$ and latitude $49^{\circ} 22'$, N.T.S. 82G/6.

Access to the property is by dirt road, .2 miles east of Galloway.

PROPERTY

The Sand Creek Area "B" Prospect consists of 55 mineral claims, described as follows:

<u>Claim</u>	<u>Record Number</u>
Rio 111-162	16692-743
Rio 185-187	16766-68

SURVEY SPECIFICATIONS

Survey Grid

A grid was established with 500' line spacings and sample intervals of 500' as shown on the geochemical maps. The author, on investigating the property, located various sample flags on or near their supposed position on the grid lines as shown on the geochemical maps.

Geochemical Survey

The soils of the property are well developed with angular rock indicating proximity of bedrock.

A detailed study of the soil can be seen on Plate 1.

The soil sample holes were dug with a mattock to an average depth of 12". The soils were taken by hand and placed in a water resistant sam-

ple envelope where they remained until analysis.

The soils were delivered to Loring Laboratories Ltd. of Calgary, Alberta, where drying, -80 mesh sieving, hot acid extraction, and analysis by atomic absorption was carried out under the supervision of professional chemists.

Data Presentation

The survey data accompany this report as planimetric maps and illustrations as follows:

Geochemical Map	Copper contoured at 15, 17 and 19 ppm.
Geochemical Map	Zinc contoured at 90, 110 and 130 ppm.
Geochemical Map	Lead contoured at 20, 25 and 30 ppm.
Geochemical Map	Silver contoured at 0.8, 1.6 and 2.4 ppm.
Plate 1	Soil Profile 1

DISCUSSION OF RESULTS

Geochemistry

Any geochemical anomalous zones on the property are of interest in that the basic soils (as shown by the pH's on Plate 1) impede and in most cases virtually halt ion migration. However, the anomalous values in Cu, Pb, Zn and Ag over most of the property are sporadic and would tend to discredit the possibility of a discovery of any significance.

The eastern sector of the ground however, does hold more promise in that zinc, copper, lead and silver anomalies are somewhat coincident and they do extend over a fairly large area.

Data Correlation

The copper, lead, zinc and silver response over the areas of known mineralization as shown on the geochemical maps, is very low. Considerably lower in fact, than all the areas designated anomalous.

With the soil pH's bordering on a scale of neutral to basic, it is difficult to draw sound conclusions as to the significance of individual

anomalies on the property. However, if the soils could be considered to have a basic pH in most cases, the relation of low values to mineralization in known areas would considerably increase the possibility of encountering mineralization in other areas shown as anomalous.

CONCLUSIONS

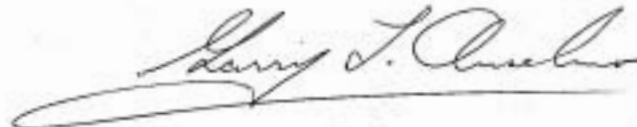
A detailed program of geochemical surveying was conducted on the Sand Creek Area "B" property, Fort Steele Mining Division, B.C.

The survey located one major area of interest with coincident anomalous values in Cu, Pb, Zn and Ag. Whether or not these anomalies reflect mineralization could only be ascertained by a study in physical depth both geochemically and geophysically. pH studies indicate that should there be any mineralization present, it would lie below or near the anomalous zones.

RECOMMENDATIONS

1. Some induced polarization of anomalous areas should be conducted to locate possible sulfides.
2. Trenching of areas of interest as defined by step 1 and the present geochemistry.
3. Further work may be recommended after steps 1 and 2 have been concluded.

Respectfully submitted,
TRI-CON EXPLORATION SURVEYS LTD.



G. L. Anselmo
President

Soil Profile N° 1



DEPTH HORIZON

6" Ao + B

8" B

8" B + C

6"+ C

Rock	Chip	From	Total	Hole
ppm. Cu.	ppm. Pb.	ppm. Zn.	ppm. Ag.	ppm. Ph.
12	30	78	< 0.5	8.2
21	62	295	< 0.5	6.9
44	39	158	< 0.5	7.2
36	35	163	< 0.5	7.0



Department of
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ASSESSMENT REPORT
No 3439 MAP #2

SOIL PROFILE I

RIO ALTO EXPLORATION LTD.
SAND CREEK PROSPECT AREA 'B'

SCALE 1" = 10" APPROX.



EXPLORATION SURVEYS LTD

PLATE I
File C25

Ken Pastma Nov 1971

CERTIFICATE

I, Garry L. Anselmo, DO HEREBY CERTIFY:

- That I am President of Tri-Con Exploration Surveys Ltd. with offices at Suite 200 - 1405 Hunter Street, North Vancouver, British Columbia, and a Consultant in Geochemical Exploration.
- That I studied Geology and Geochemistry at the University of British Columbia for three years and am a graduate of Simon Fraser University with the Degree of Bachelor of Arts.
- That I have been engaged in Mining Exploration for six years.
- That I have no direct, indirect or contingent interest in the Sand Creek "B" Property or in the securities of Rio Alto Exploration Ltd., nor do I intend to receive any such interest.
- That this report dated December 6, 1971 is based on information derived from a Geochemical Survey carried out by Tri-Con Exploration Surveys Ltd.

Dated at Vancouver, British Columbia,
this 6 day of December, 1971.

TRI-CON EXPLORATION SURVEYS LTD.



G. L. Anselmo, B.A.
President

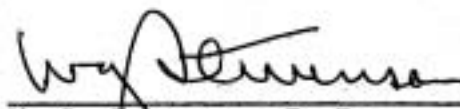
CERTIFICATE

I, William G. Stevenson, DO HEREBY CERTIFY:

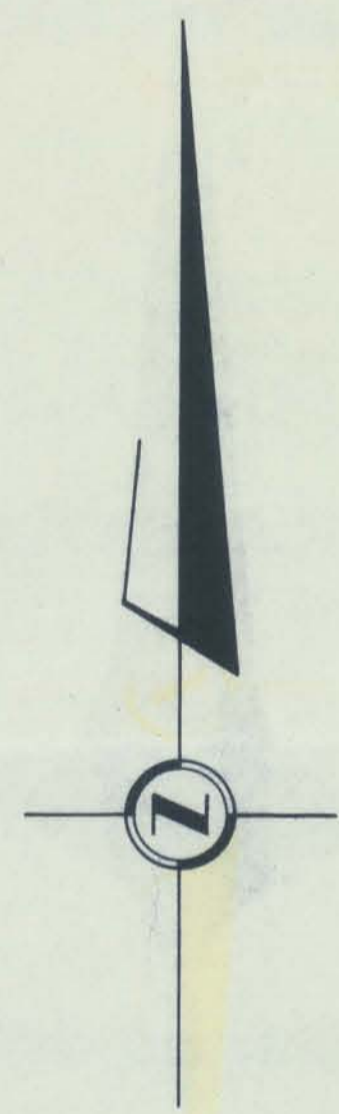
- That I am a Consulting Geological Engineer with offices at Suite 209 Stock Exchange Building, 475 Howe Street, Vancouver 1, B.C.
- That I am a graduate of the University of Utah, 1946, with a B.Sc. Degree.
- That I am a registered Professional Engineer in the Association in British Columbia.
- That I have practised my profession for 22 years.
- That I have no direct, indirect or contingent interest in the Sand Creek "B" Property or in the securities of Rio Alto Exploration Ltd., nor do I intend to receive any such interest.
- That I have reviewed a report dated December 6, 1971 based on work conducted by Tri-Con Exploration Surveys Ltd. under the supervision of G. L. Anselmo, President.

DATED at Vancouver, British Columbia, this 10th day of *DECEMBER*, 1971

W. G. STEVENSON & ASSOCIATES LIMITED
Consulting Geologists

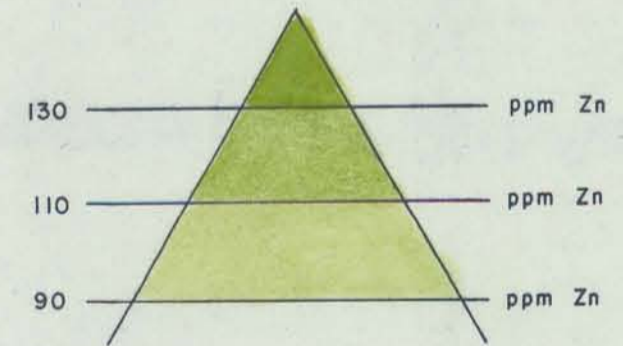


W. G. Stevenson, P. Eng.



L E G E N D

- Outline of SAND CREEK PROSPECT
- Soil Profile
- Adit
- Grab Sample



ZINC

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NO. 3439 MAP #4

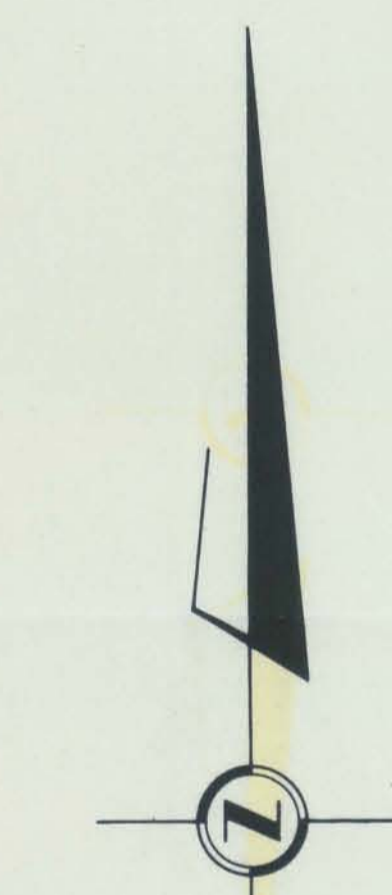
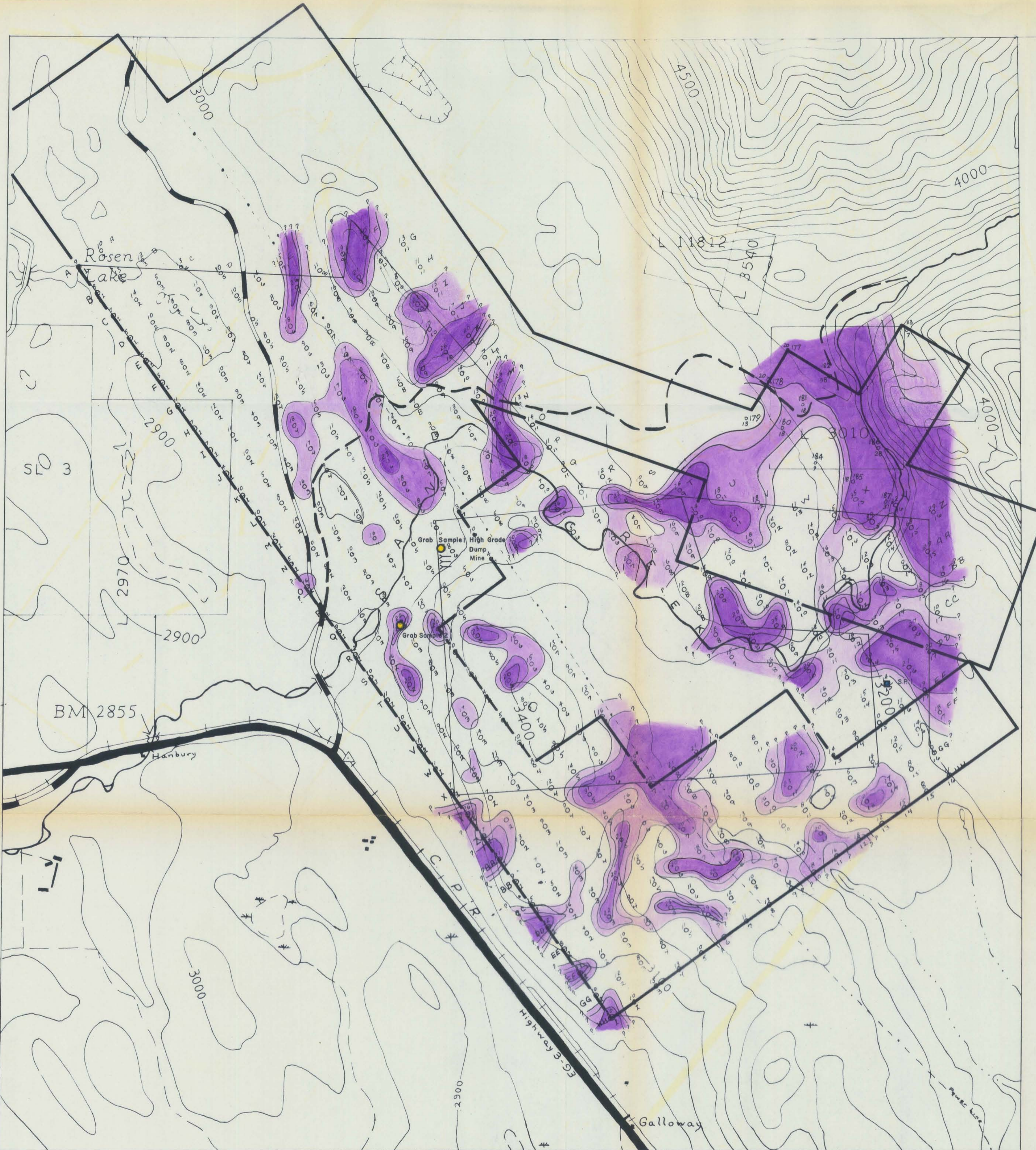
NOTE:
To Accompany Geochemical Report Dated Dec 1971 on
SAND CREEK PROSPECT
By: G. L. Anselmo President.

RIO ALTO EXPLORATION LTD.

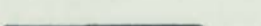

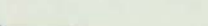

SAND CREEK PROSPECT
AREA 'B'
SCALE: 5" = 1 mi.

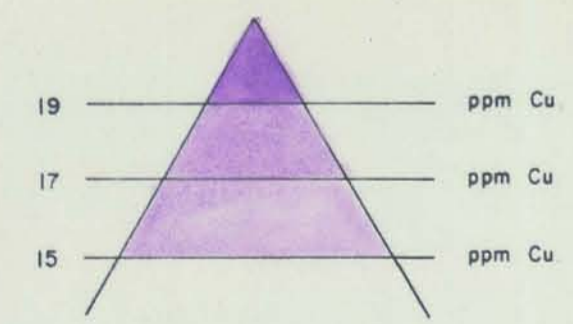
SOIL SAMPLING GRID

FIGURE 1



L E G E N D

-  Outline of SAND CREEK PROSPECT
-  Soil Profile
-  Adit
-  Grab Sample



COPPER

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 NO. 3439 MAP #3

NOTE:
 To Accompany Geochemical Report Dated Dec 6/74 on
 SAND CREEK PROSPECT.
 By: G. L. Anselmo *G. L. Anselmo* President.

RIO ALTO EXPLORATION LTD.

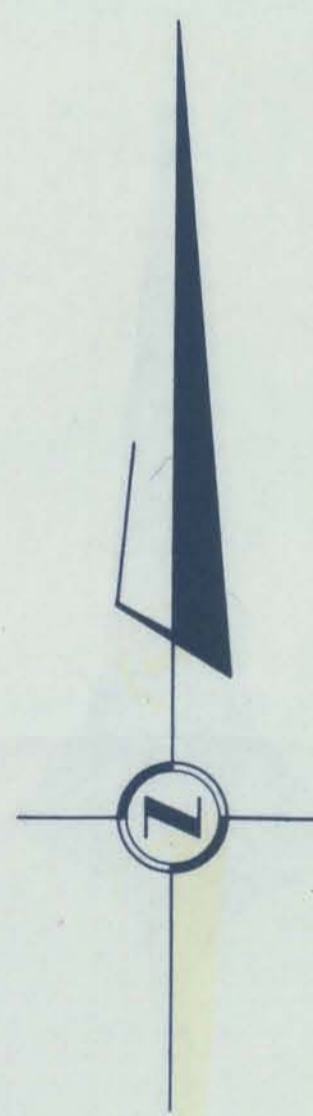
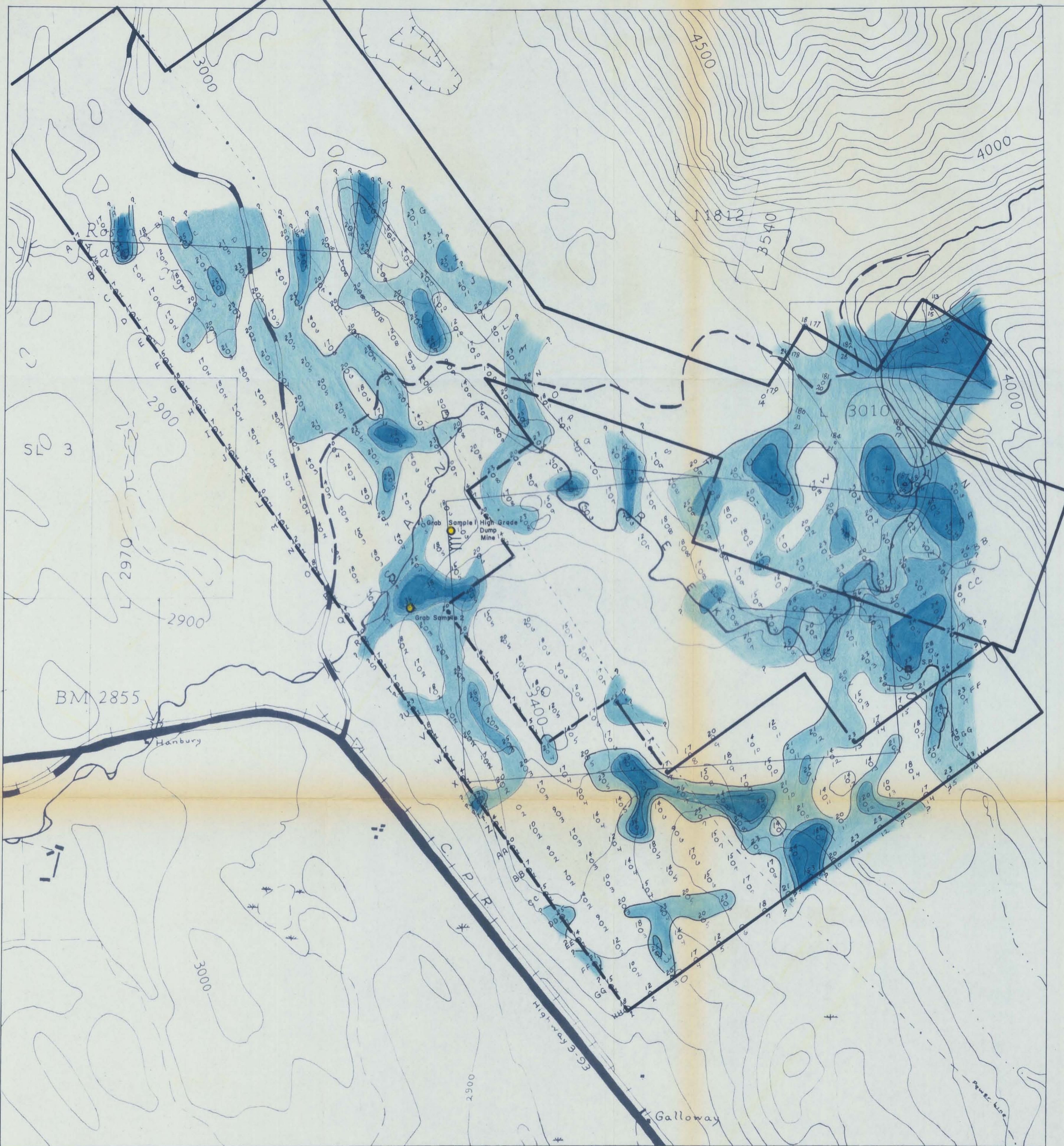
SAND CREEK PROSPECT
 AREA 'B'
 SCALE: 5" = 1mi.

3439

SOIL SAMPLING GRID

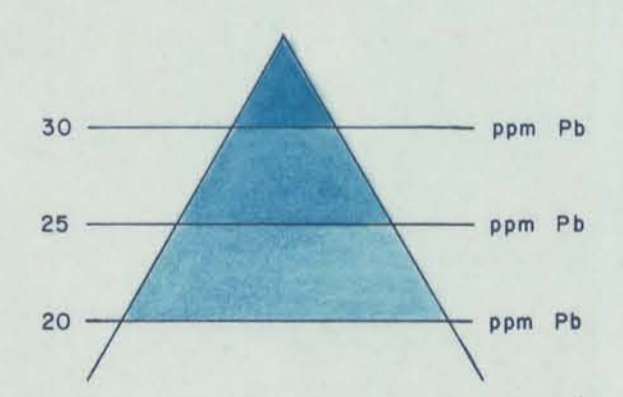
M-3

FIGURE 1



L E G E N D

- Outline of SAND CREEK PROSPECT
- Soil Profile
- Adit
- Grab Sample



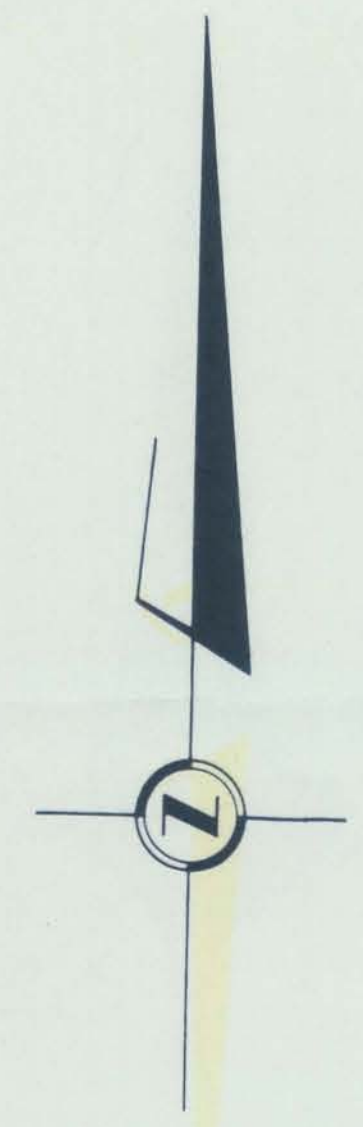
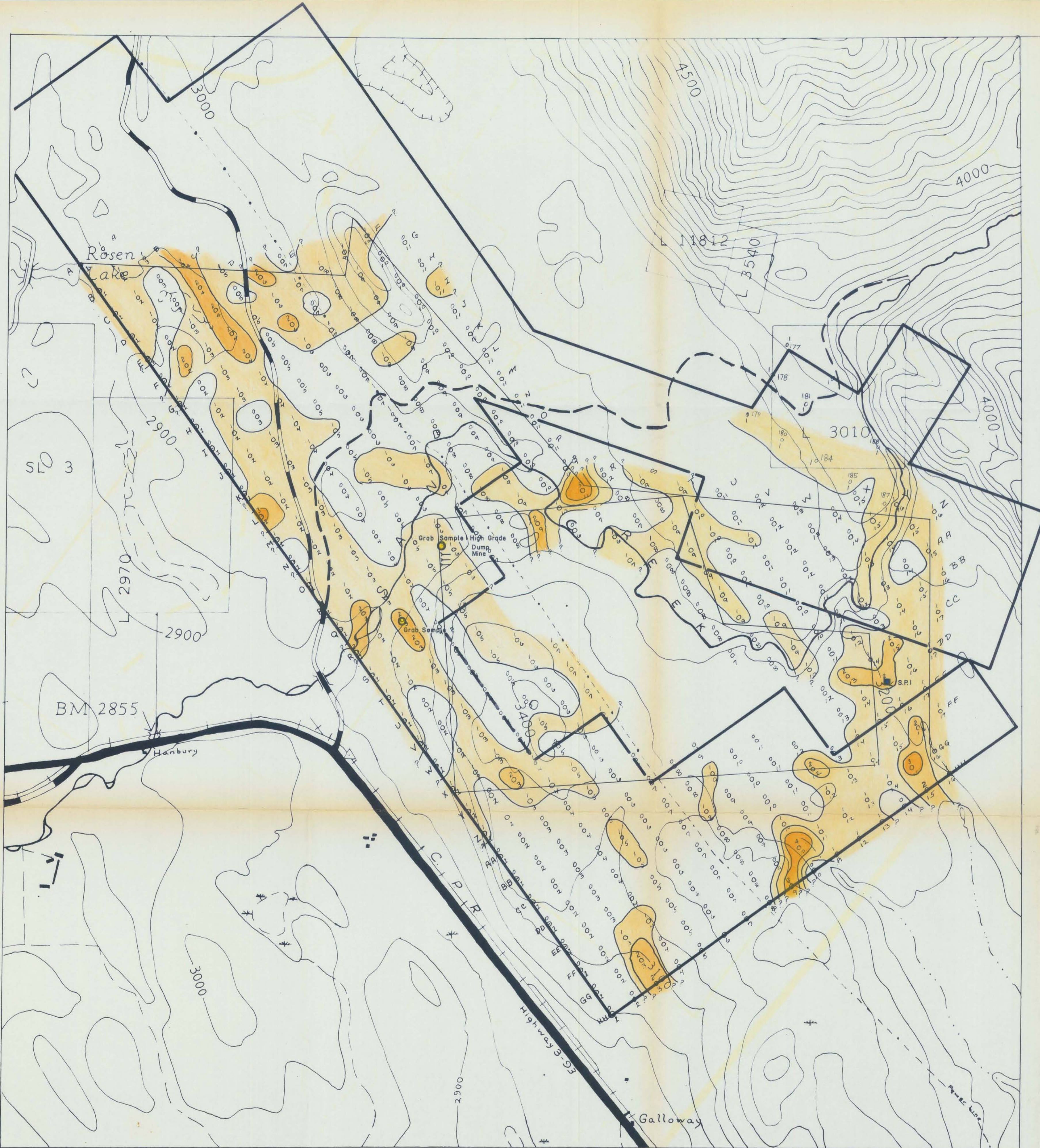
LEAD

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NOTE:
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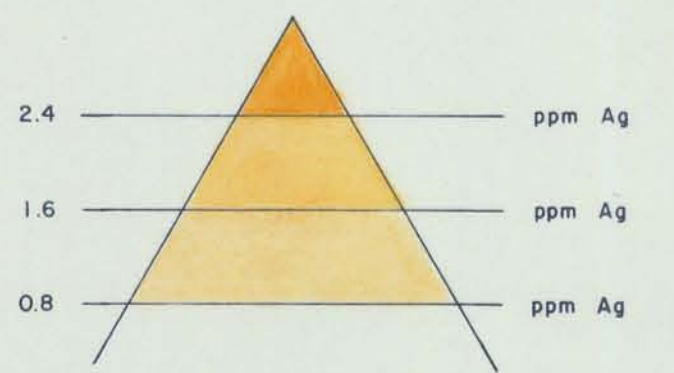
RIO ALTO EXPLORATION LTD.
 SAND CREEK PROSPECT
 AREA 'B'
 SCALE 5" = 1 mi.
 SOIL SAMPLING GRID

FIGURE 1



L E G E N D

-  Outline of SAND CREEK PROSPECT
-  Soil Profile
-  Adit
-  Grab Sample



SILVER

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 NO. 3439 MAP #6

NOTE:
 To Accompany Geochemical Report Dated *Dec 1961* on
 SAND CREEK PROSPECT
 By: G. L. Anselmi *[Signature]* President

RIO ALTO EXPLORATION LTD.
 SAND CREEK PROSPECT
 AREA 'B'
 SCALE: 5" = 1 mi.

SOIL SAMPLING GRID

FIGURE I