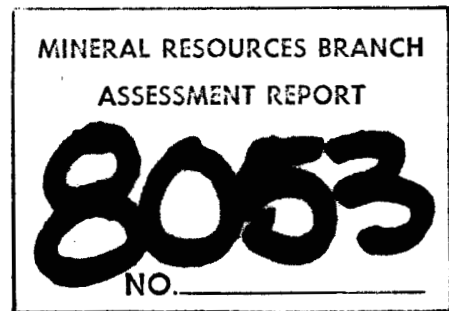


A REPORT ON THE POTENTIAL  
FOR  
SILVER, LEAD, ZINC DEPOSITS  
VICINITY OF  
SWAKUM MOUNTAIN, MERRITT AREA  
NICOLA MINING DIVISION, B.C.

'921/7E

50° 16' N - 120° 43' W

BY



L. S. TRENHOLME, P. ENG.

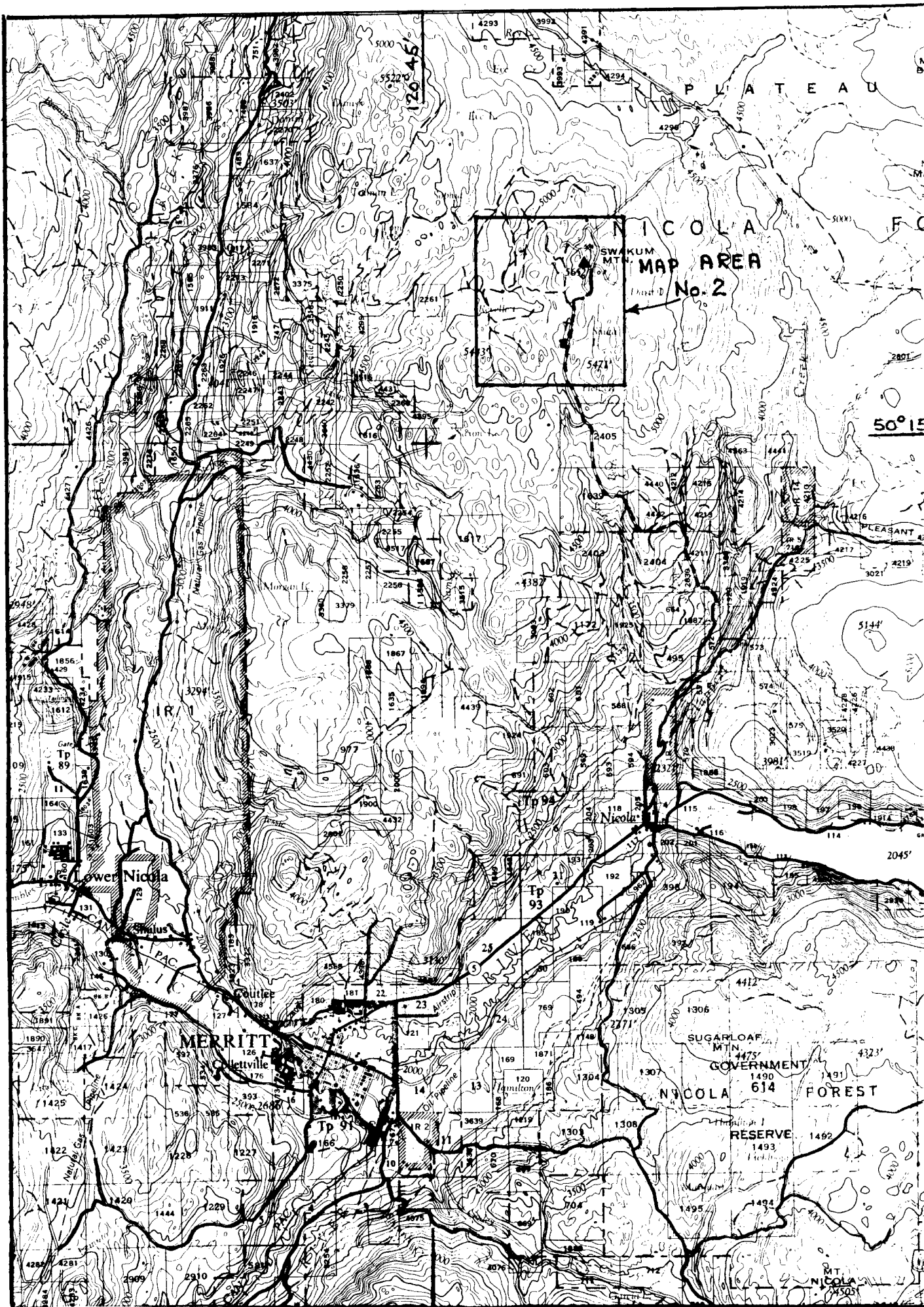
August 20, 1979

## CONTENTS

	<u>PAGE</u>
SUMMARY	1
INTRODUCTION	1
PROPERTY	1
ACCESS AND TOPOGRAPHY	2
HISTORY	2
GEOLOGY	2
RECENT WORK	3
RECORD OF ORE SHIPMENTS	3
EXPLORATION OBJECTIVES	4
RECOMMENDATIONS	4
COST ESTIMATE	5
CERTIFICATE	6

## MAPS

MERRITT MAP AREA	-	FRONT
GEOLOGY	-	POCKET



MAP No. 1

1" = 2 Mi. APPROX.

1:125,000

SUMMARY

Documented shipments from a small oreshoot on the Thelma Crown Grant in the early 1930's contained 83 ounces per ton in silver plus significant amounts of lead and zinc. A rough calculation estimates the mining grade to have been about 29 ounces per ton in silver.

Recent mapping has indicated a good potential for finding additional and larger deposits in the same unexplored environment.

An initial expenditure of about \$10,000 on soil sampling and a trial I.P. survey is recommended.

INTRODUCTION

The area was brought to the attention of the writer in June, 1979 by Mr. Murray Gordon on behalf of the owners of the 4 Crown Grants, Mr. A. B. Calkins and Ms. Joyce Haughian.

PROPERTY (See map attached.)

A. Calkins and Haughian: Crown Grants

L4510	Thelma	L4502	Bernice
L4511	Old Evelyn	L4893	Old Complex No. 1

B. Claims staked for B. Fraser and L. S. Trenholme

<u>Name</u>	<u>Units</u>	<u>Record No.</u>	<u>Record Date</u>
DARTT-1	20	639	14 June 1979
DARTT-2	10		4 July 1979

C. Other

Crown Grants L4512, L4513, L4893, L4894  
Owner is believed to be Dr. Sherwin F. Kelly of Merritt, B.C.

### ACCESS AND TOPOGRAPHY

The property is located 13 miles N.N.E. of the Town of Merritt and is reached by about 10 miles of gravel road from the Community of Nicola. Topography is gently rolling at an elevation of about 5200 feet. There is ample water for drilling and camp purposes.

### HISTORY

Small scale mining and shipping prior to 1948.

References:           G.S.C. Memoir No. 249, 1948  
                          B.C. Minister of Mines Reports 1926-1934

### GEOLOGY

South-striking limestone and conglomerate beds within the Nicola Volcanic sequence dip steeply east, probably as the eastern limb of a south-plunging anticline. Silver, lead, and zinc mineralization with minor copper occurs as tabular to lenticular replacements of matrix of west-dipping breccia zones within the limestone.

Zones of brecciation may be related to folding stresses with failure parallel to the axial plane of a regional fold and/or to transverse minor faults striking E.N.E.

Map Unit 4 appears to be a volcanic neck and contains angular blocks of limestone.

RECENT WORK

Detailed geological mapping by Bryan Fraser, B. Sc. in June, 1979 has outlined the trend of the favourable limestone host on the Crown Grants and adjoining claim Dartt-1.

SWAKUM MOUNTAIN DEPOSITS

(Reference: G.S.C. Memoir #249, 1948)

ORE SHIPMENTS

<u>MINE</u>	<u>TONS</u>	<u>CONTAINED METAL</u>				
		<u>GOLD</u> (oz.)	<u>SILVER</u> (oz.)	<u>COPPER</u> (lb.)	<u>LEAD</u> (lb.)	<u>ZINC</u> (lb.)
Lucky Mike	26	2.0	137	1,932	1,753	?
Almeda	3	1.0	52	?	576	?
Thelma	89	1.0	7,419	?	9,683	10,237

CALCULATED GRADE OF SHIPMENTS

<u>MINE</u>	<u>GOLD</u> (oz/ton)	<u>SILVER</u> (oz/ton)	<u>COPPER</u> %	<u>LEAD</u> %	<u>ZINC</u> %
Lucky Mike	0.076	5.27	3.7	3.35	?
Almeda	0.333	17.30	?	9.60	?
Thelma	0.011	83.35	?	5.40	5.72

It is estimated that the Thelma shipment of 89 tons was hand sorted from about 250 tons of ore mined. Thus it is inferred that the grade of this oreshoot was approximately as follows:

Gold	0.004 oz/ton
Silver	29.0 oz/ton
Lead	1.9%
Zinc	2.0%

## EXPLORATION OBJECTIVES

Although the oreshoots found in the past were too small to attract serious attention, recent mapping has demonstrated the limestone host to have a greater width (600 feet) than was previously recognized, and, thus, to have considerable potential for additional and larger mineralized breccia zones.

Recurrent zones of fracture cleavage parallel to the axial plane of folding could develop anywhere within the limestone bed and might or might not reach rock surface.

To the writer's knowledge, there has been to date no program of drilling, geochemical or geophysical work done on the Thelma Crown Grant or vicinity.

It is, therefore, recommended that soil sampling be employed to test for covered mineralization reaching rock surface and that an induced polarization survey be used to detect, in addition, any mineralized breccias that come within 200 feet of rock surface, but do not reach it.

## RECOMMENDATIONS

### STAGE I

#### Soil Sampling Program

Strike Length - 2500 meters

Lines at 50 meter spacing

Samples at 15 meter spacing (700 samples)

Assay for Silver, Lead, and Zinc

RECOMMENDATIONS (continued)

- STAGE II
1. Fill-in soil samples as indicated by Stage I - say 200 samples.
  2. Induced Polarization: trial lines over known mineralization and that indicated by soil sampling.

STAGE III (Contingent on Stages I and II)

Extended I.P. survey to be followed by diamond drilling.

COST ESTIMATE

<u>STAGE I</u>	a) Sampling and Plotting (700 samples @ \$4.00)	\$ 2,800.00	
	b) Chemical Analysis (700 samples @ \$3.10)	2,170.00	
	c) Supervision & Miscellaneous	<u>530.00</u>	\$ 5,500.00
<u>STAGE II</u>	a) Supplementary Soil Sampling (200 samples @ \$7.10)	1,420.00	
	b) Trial I.P.	2,000.00	
	c) Supervision & Miscellaneous	<u>780.00</u>	<u>4,200.00</u>
	Sub-Total		9,700.00
<u>STAGE III</u>	Contingent on Stages I and II		
	a) I.P. Survey	10,000.00	
	b) Diamond Drilling (Preliminary 10 holes @ 300' = 3,000' @ \$20.00)	<u>60,000.00</u>	<u>70,000.00</u>
	<u>TOTAL</u>		<u>\$79,700.00</u>

Respectfully submitted,

*L. S. Trenholme*

20-8-79

L. S. Trenholme, P. Eng.

Vancouver, B. C.  
August 20, 1979



CERTIFICATE

The undersigned certifies that:

1. He is a graduate geologist (M.Sc. 1939) and has practised his profession as a mining and exploration geologist continuously to the present.
2. He is a member in good standing of the Association of Professional Engineers of the Province of British Columbia and maintains a consulting practice from his office at 475 Howe Street in the City of Vancouver.
3. He is an equal owner with Bryan Fraser in the claims herein described as Dartt-1 and Dartt-2.
4. He does not have any financial interest in any other mineral claims described herein or shown on the map attached hereto.
5. He has visited the subject properties in company with Mr. Fraser and has financed the cost of mapping and staking.
6. He has studied the available data relevant to the subject claims and Crown Grants.

L. S. Trenholme, P. Eng.

DATED at Vancouver, B. C.  
this 20th day of August, 1979.

*L. S. Trenholme*  
20-8-79

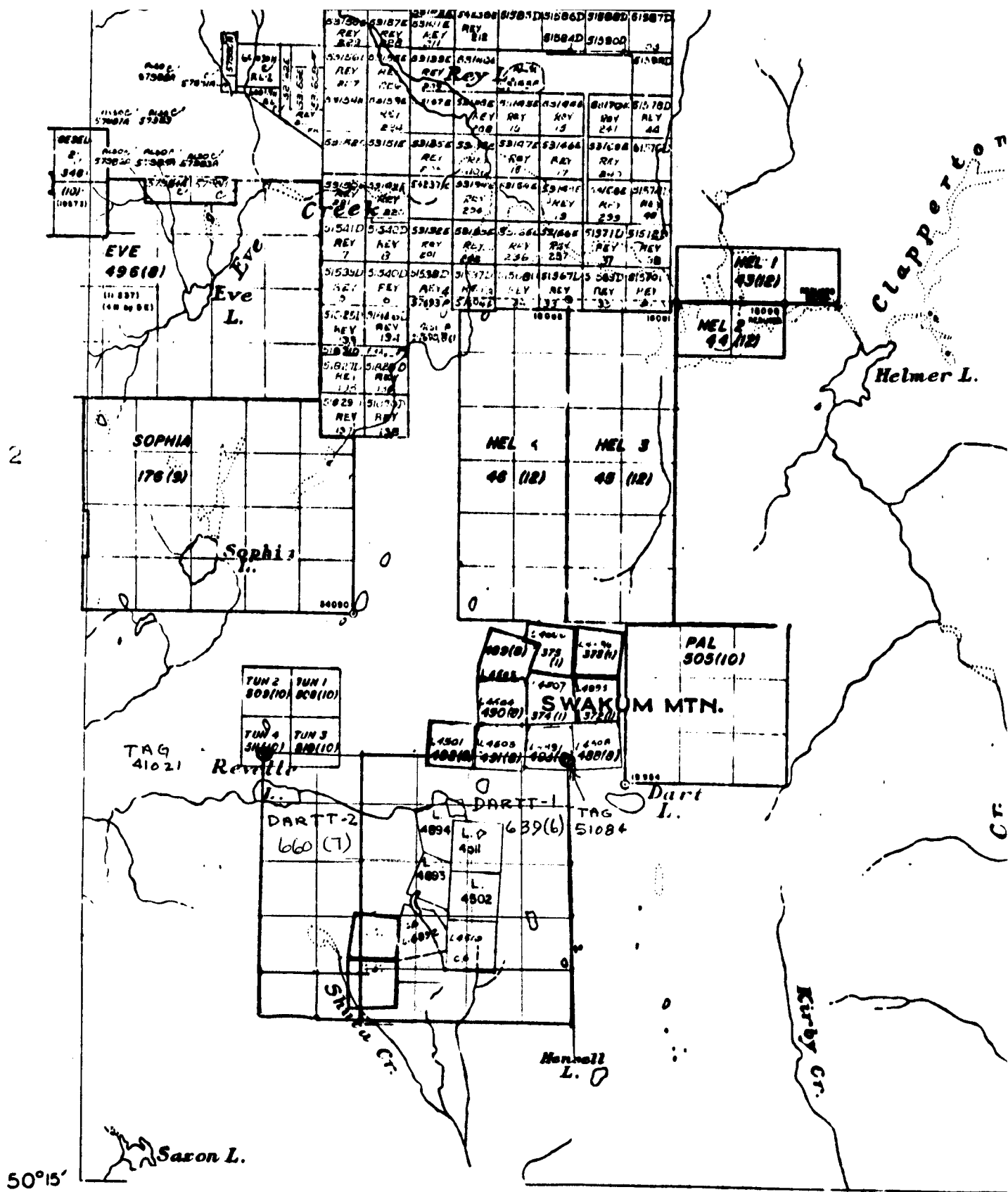
Statement of Mapping and Prospecting Expenditures

DARTT CLAIMS and VICINITY

June - 1979

B. Fraser, B. Sc. (June 15 - 26, 1979)		
Wages - 12 days @ \$125.00		\$1,500.00
Vehicle Rental (Cana Rentals)	\$704.46	
Food, meals, gas	<u>620.31</u>	1,324.77
Drafting & Report		
L. S. Trenholme - 2 days @ \$150.00		<u>300.00</u>
	TOTAL	<u>\$3,124.77</u>

*L.S. Trenholme  
June 8/80*



50°15'  
120°45'

MAP 92 I/7E  
(1:50,000)

TO SOUTH

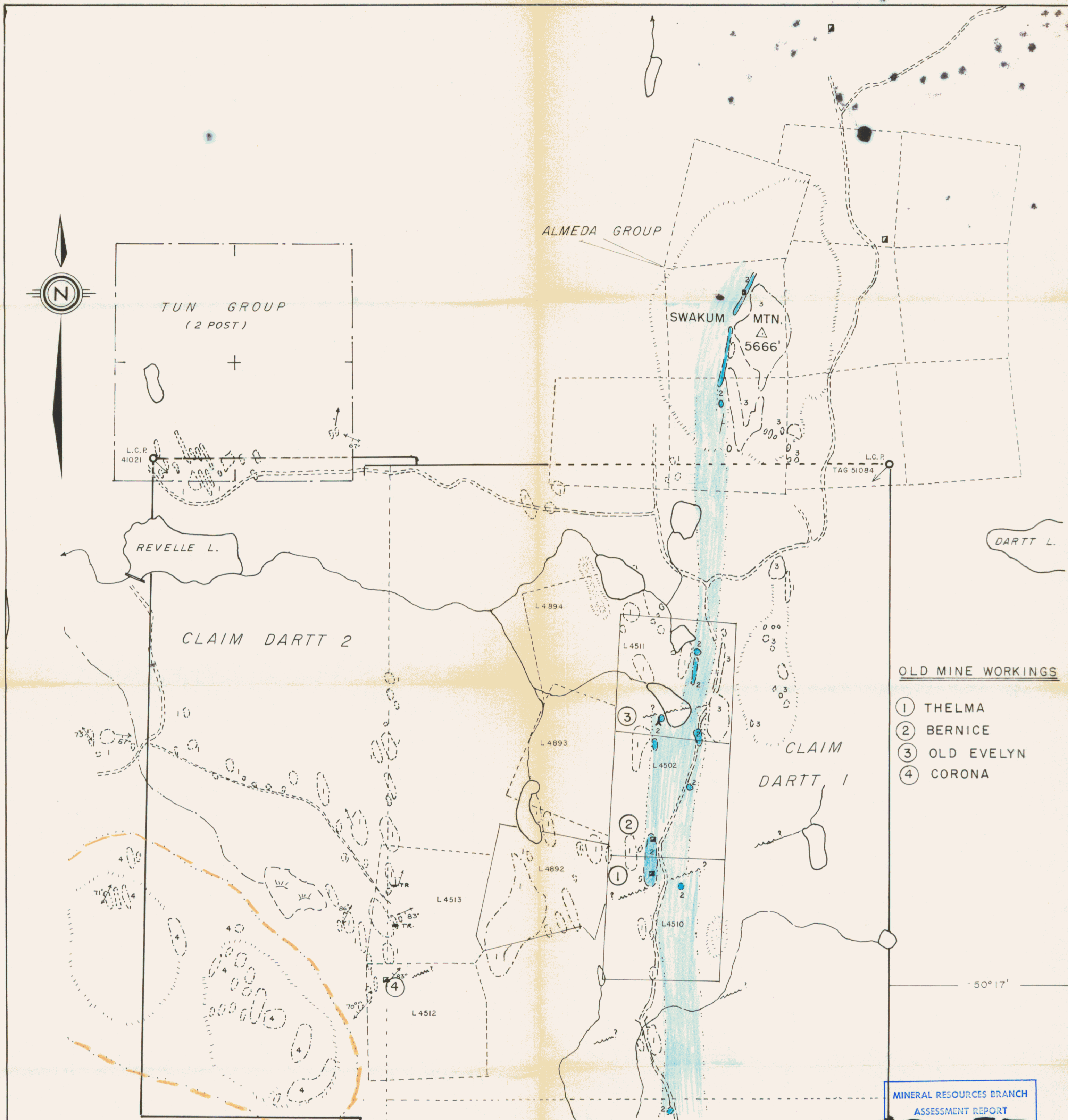
To Accompany Assessment Report  
by  
L.S. Trenholme  
June 11, 1980

MINERAL DEPARTMENT OF MINES AND  
ASSESSMENT REPORT

# 8053

NO.

OF MINES AND  
VICT



- OLD MINE WORKINGS
- ① THELMA
  - ② BERNICE
  - ③ OLD EVELYN
  - ④ CORONA

MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
**8053**  
NO.

GEOLOGY

- 4 POST (?) NICOLA DIATREME
- NICOLA GROUP
- 3 CONGLOMERATE
- 2 LIMESTONE
- 1 ANDESITE

*L. S. Frankel*  
20-8-79

SILVER-LEAD-ZINC PROSPECT  
SWAKUM MOUNTAIN - MERRITT AREA

NICOLA M.D., B.C.

