

84-#945 - 13045

GEOLOGY AND SOIL GEOCHEMISTRY

EMPIRE NO. 5 CLAIM

SLOCAN MINING DIVISION

CARPENTER CREEK, CODY, B.C.

NTS 82 F/14 E

LATITUDE 49°58'N, LONGITUDE 117°09'W

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

13,045

Locke B. Goldsmith, P.Eng.  
Consulting Geologist

October 1984

## TABLE OF CONTENTS

SUMMARY	1
INTRODUCTION	2
GEOLOGY AND MINERALIZATION	2
SOIL GEOCHEMISTRY	2
LOCATION MAP	3
CLAIM MAP	4
CONCLUSIONS	5
RECOMMENDATIONS	5
COST ESTIMATE	6
ENGINEER'S CERTIFICATE	7
REFERENCE	8
COST STATEMENT, 1984 PROGRAMME	9
APPENDIX: GEOCHEMICAL ANALYSES ASSAYS	
GEOLOGY AND SOIL GEOCHEMISTRY MAP	
(Pocket inside back cover)	

GEOLOGY AND SOIL GEOCHEMISTRY  
EMPIRE NO. 5 CLAIM  
SLOCAN MINING DIVISION  
CARPENTER CREEK, CODY, B.C.

SUMMARY

Silver-lead-zinc mineralization was observed in dump material at the portal of an adit. Anomalous values of silver-lead in soils occur near the west boundary of the claim; no source of the mineralization was observed.

The adit portal should be cleaned of slumped soil and rock, and an examination made of the underground workings. Detailed soil geochemistry should be completed in the western portion of the claim, and reconnaissance soil geochemistry continued over the balance. A cost of \$7,700 is estimated.

## INTRODUCTION

The Empire No. 5 reverted crown granted mineral claim is located 2.5 km due east of the former mining settlement of Cody, B.C., on the north slope of Carpenter Creek. Access is via paved road eastward from New Denver for 13 km to Three Forks, and thence southeasterly for 5 km to Sandon, and an additional 2 km to Cody on gravel roads. Logging and mining roads pass through the southwestern corner of the property.

No production records are available for the claim. An adit near 0+25 S, 2+25 E is the only evidence of mining activity which was observed. A total of 13 soil samples and 2 rock samples were analysed. Approximately 0.7 km of grid was established. Partial excavation of the adit portal was begun.

## GEOLOGY AND MINERALIZATION

The claims are underlain by argillite of the Triassic-Jurassic Slokan sediments. Where noted on and near the claims the bedding trends  $330^{\circ} 46-60^{\circ}\text{NE}$ . Granitic sills, up to 2 m in width, appear to be parallel to bedding. Foliation at  $312^{\circ} 42^{\circ}\text{NE}$  is peneconcordant to bedding. One shear zone with an attitude of  $085^{\circ} 85-90^{\circ}\text{SE}$  was observed near the mouth of the adit.

Silver-lead-zinc sulphides are present in a dump below the adit. Some specimens contain mostly pyrite. Sulphides were not observed in outcrops, although rusty bands in argillite trend  $085^{\circ}$ . Assays of selected material contain approximately 20 oz Ag/ton, .27% Pb, and 22% Zn.

## SOIL GEOCHEMISTRY

Base line for the grid was established at  $010^{\circ}$  Az with cross lines at  $100^{\circ}$ . Line spacing is 100 m with sample intervals at 50 m. Samples were taken with a narrow, elongate spade at a depth of 20 cm below organic debris. Soils vary between grey clay over argillite to red-brown sandy clay over more siliceous argillite or quartzite.

MINERAL CLAIM L1580 / 3407(11)

# EMPIRE N° 5

Carpenter Creek, Cody, B.C.

SLOCAN M.D. 82F / 14E



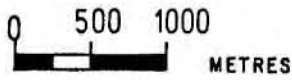
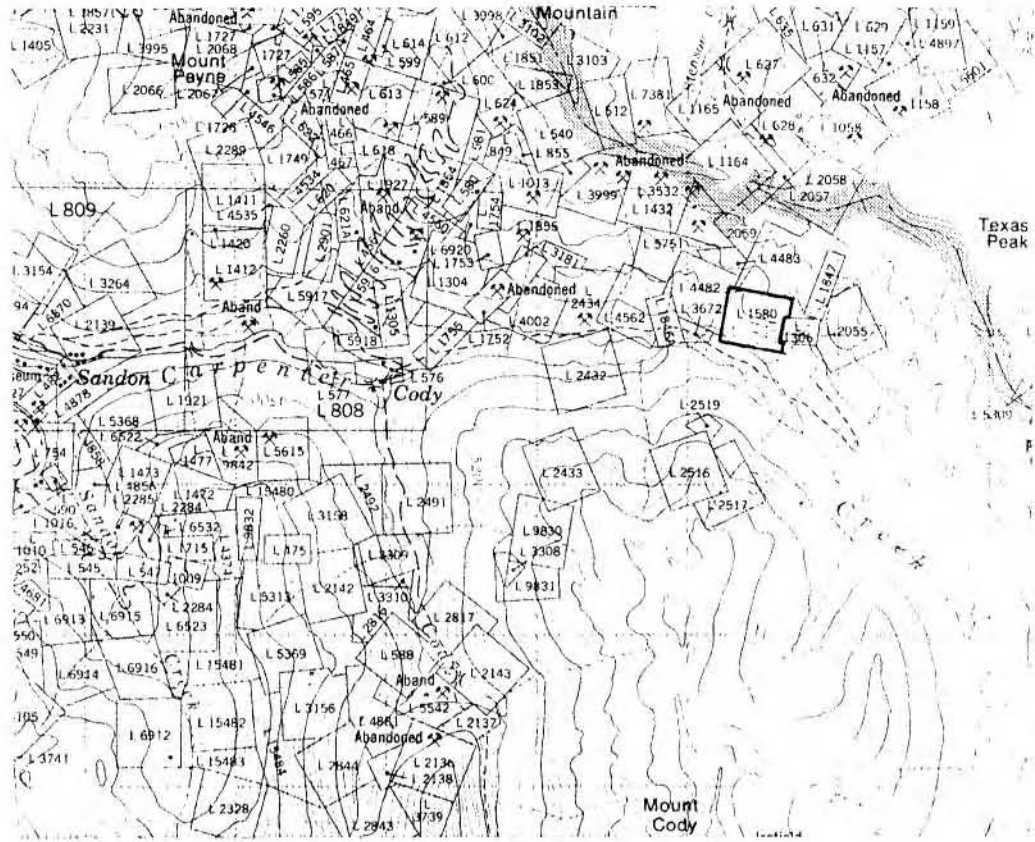
## LOCATION MAP

Locke B. Goldsmith, P.Eng.

ARCTEX ENGINEERING SERVICES

September 1984

# CLAIM MAP



1 : 50,000

MINERAL CLAIM L 1580 / 3407(11)

## EMPIRE N<sup>o</sup> 5

Carpenter Creek, Cody, B.C.

SLOCAN M.D. 82F / 14E

Locke B. Goldsmith, P.Eng.

ARCTEX ENGINEERING SERVICES

September 1984

Too few samples were collected to establish levels of background, threshold, and anomalous values. However from experience gained during years of soil sampling in the Slocan sediments, the values of 11.1 ppm Ag, 483 ppm Pb at 1+00 N, 1+50 E and 5.5 ppm Ag at 00 1+00 E belong to an anomalous population. No old workings were observed in the vicinity of these sample locations.

## CONCLUSIONS

Two anomalous silver values and one anomalous lead value were obtained from preliminary soil sampling. Silver-lead-zinc mineralization appears to have been mined from underground in an area which does not underlie the soil anomalies.

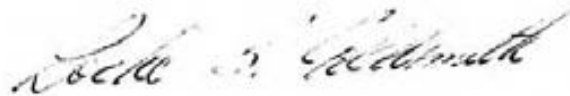
## RECOMMENDATIONS

1. Detailed soil sampling should be completed around the anomalous values. Reconnaissance sampling should be extended to cover the remainder of the claim.
2. The rubble and soil should be removed from the adit portal and an underground search for the source of the silver-lead-zinc mineralization should be made.

## COST ESTIMATE

Geochemical sampling and geological mapping	\$3,000
Excavation of portal	500
Analyses	1,000
Vehicle, supplies, room, board	1,000
Engineering, supervision	500
Reporting	<u>1,000</u>
	7,000
Contingencies @ 10%	<u>700</u>
Total	\$7,700

Respectfully submitted,



Locke B. Goldsmith, P.Eng.  
Consulting Geologist

Vancouver, B.C.

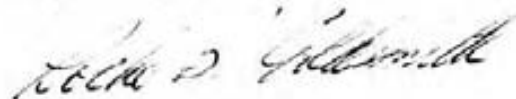
October 9, 1984



ENGINEER'S CERTIFICATE  
LOCKE B. GOLDSMITH

1. I, Locke B. Goldsmith, am a Registered Professional Engineer in the Province of Ontario and the Northwest Territories, and a Registered Professional Geologist in the State of Oregon. My address is 301, 1855 Balsam Street, Vancouver, B.C.
2. I have a B.Sc. (Honours) degree from Michigan Technological University and have done postgraduate study in Geology at Michigan Tech, University of Nevada and the University of British Columbia. I am a graduate of the Haileybury School of Mines and am a Certified Mining Technician. I am a member of the Society of Economic Geologists, the AIME, and the Australasian Institute of Mining and Metallurgy, and a Fellow of the Geological Association of Canada.
3. I have been engaged in mining exploration for the past 25 years.
4. I have authored the report entitled, "Geology and Soil Geochemistry, Empire No. 5 Claim, Slocan Mining Division, Carpenter Creek, Cody, B.C.", dated October 9, 1984. The report is based upon fieldwork and research supervised by the author.
5. I control, with associates, 100% interest in the property.
6. I consent to the use of this report in a prospectus or in a statement of material facts related to the raising of funds.

Respectfully submitted,



Locke B. Goldsmith, P.Eng.  
Consulting Geologist

Vancouver, B.C.

October 9, 1984

**REFERENCE**

Cairnes, C.E. 1935. Description of Properties, Slocan Mining Camp, B.C.  
G.S.C. Memoir 184.

## COST STATEMENT, 1984 PROGRAMME

## 1. Wage Scales

L.B. Goldsmith, Consulting Geologist - July 26,  
 ½ Aug. 19, ½ 31, ½ Sept. 14, ½ Oct. 9, total  
 3 days @ \$360/day \$1,080.00

## 2. Food

Total expenditure of \$23.40, divided by  
 2 field days = \$11.70/day 23.40

## 3. Transportation

4x4 vehicle, 2 days @ \$45.00/day	\$ 90.00	
Approx. 46 km round trip, Silverton to property, 3 trips @ \$0.30/km	41.40	
Gas	<u>11.20</u>	
	\$142.60	142.60

## 4. Analyses

13 soil samples @ \$3.45	\$ 44.85	
2 assays @ \$27.00	54.00	
Freight	<u>8.70</u>	
	\$107.55	107.55

## 5. Report

Typing, drafting, photocopying, report materials		<u>357.30</u>
		\$1,710.85

APPENDIX

To: L.B. GOLDSMITH  
 #301, 1855 Balsam Street  
 Vancouver, B.C., V6K 3M3  
 cc: Silverton



File No. 26593  
 Date August 21, 1984  
 Samples Rock

PROJECT: EMP

*Certificate of*  
**ASSAY of**  
**LORING LABORATORIES LTD.**

Page # 1

SAMPLE No.	OZ./TON SILVER	%	%
		Pb	Zn
<u>Assays</u> <u>Rock Sample</u>  EMP Dump	21.12	27.62	25.24
<p><b>I Hereby Certify</b> THAT THE ABOVE RESULTS ARE THOSE          ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES . . . .</p>			

Rejects Retained one month.  
 Pulps Retained one month  
 unless specific arrangements  
 made in advance.

*D. Gold*

Assayer

To: L. B. GOLDSMITH  
 #301, 1855 Balsam Street  
 Vancouver, B.C., V6K 3M3  
 cc: Silverton



File No. 26593  
 Date August 21, 1984  
 Samples Soil  
 PROJECT: EMP

Certificate of  
**ASSAY** of  
**LORING LABORATORIES LTD.**

Page # 2

SAMPLE No.	PPM Pb	PPM Ag
<u>"Geochemical Analysis"</u>		
EMP-L00-		
-		
-1+00E	91	5.5
-1+50E	73	.8
-2+00E	96	.3
-2+50E	58	.2
-3+00E	51	Nil
-3+50E	46	.2
-4+00E	44	Nil
EMP-L1N-		
-		
-		
-1+50E	483	11.1
-2+00E	83	.1
-2+50E	43	.2
-3+00E	38	.3
-3+50E	54	.3
-4+00E	40	.1

**I** **Hereby Certify** THAT THE ABOVE RESULTS ARE THOSE  
 ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES . . . .

Rejects Retained one month.  
 Pulps Retained one month  
 unless specific arrangements  
 made in advance.

  
 Assayer

To: L.B. GOLDSMITH  
#301, 1855 Balsam Street  
Vancouver, B.C., V6K 3M3  
cc: Silverton



File No. 26737  
Date September 7, 1984  
Samples Rock  
SERIES: EMP-2

Certificate of  
ASSAY of  
LORING LABORATORIES LTD.

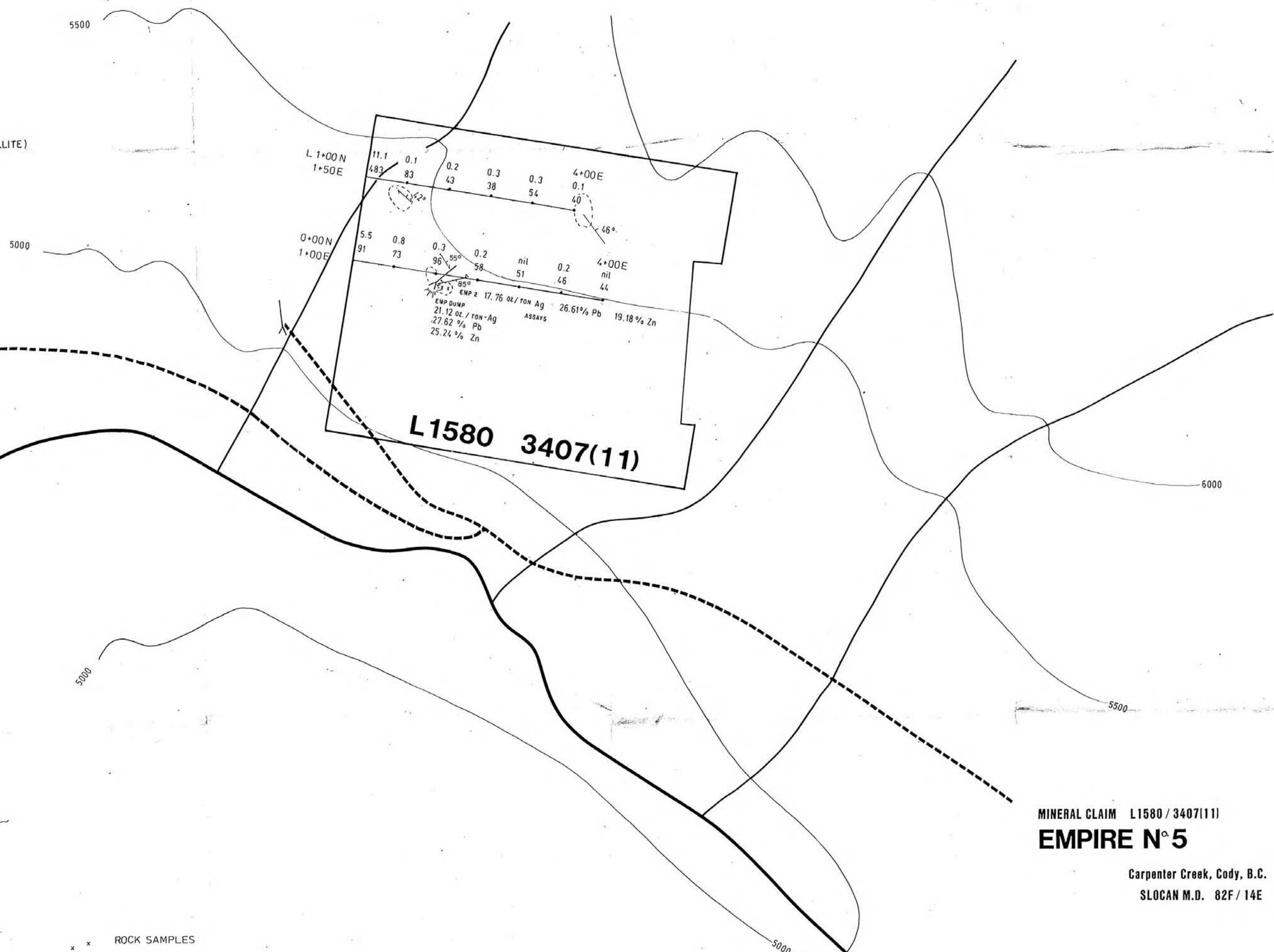
SAMPLE No.	OZ./TON SILVER	%Pb	%Zn
<p>"Rock Sample"</p> <p>EMP-2</p>	17.76	26.61	19.18

I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE  
ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES . . .

Rejects Retained one month.  
Pulps Retained one month  
unless specific arrangements  
made in advance.

Assayer

ADIT ↙  
 OUTCROP ( Triassic - Jurassic Slocan Group ARGILLITE )  
 BEDDING ↘ 40°  
 SHEAR ↗ 40°  
 FOLIATION ↖ 40°



L 1+00N  
1+50E

11.1 0.1  
48.3 83

0.2 0.3 0.3 4+00E  
4.3 38 54 0.1

0+00N  
1+00E

5.5 0.8  
91 73

0.3 0.2  
96 58

nil 0.2 4+00E  
51 46 nil

46°

85°

EMP DUMP  
21.12 oz / TON - Ag  
27.62 % Pb  
25.24 % Zn

EMP 2 17.76 oz / TON Ag  
26.61 % Pb  
19.18 % Zn

**L1580 3407(11)**

MINERAL CLAIM L1580 / 3407(11)  
**EMPIRE N° 5**  
 Carpenter Creek, Cody, B.C.  
 SLOCAN M.D. 82F / 14E

September 1984

Locke B. Goldsmith, P.Eng.

ARCTEX ENGINEERING SERVICES

**GEOCHEMISTRY & GEOLOGY**

GEOLOGICAL BRANCH  
 ASSESSMENT REPORT

**13,045**