4330

GEOLOGICAL AND GEOCHEMICAL REPORT

LEE CLAIM GROUP

located at 2-1/2 to 4 mi. S.E. of Trapp Lake, B. C.

Lat.50°-25.1'N. Long.120°-14.0'W

(N.T.S. 92-I-8)

KAMLOOPS MINING DIVISION

by

W. M. Sharp, P.Eng., B.C.

for

WESTERN STANDARD SILVER MINES LTD. (N.P.L.)
KELOWNA, B.C.

between

JUNE 7TH AND NOVEMBER 13TH, 1972

TABLE OF CONTENTS

INTRODUCTION

The LEE 1-20 claim group was staked to cover a northwesterly(?) striking shear and fracture zone within the southeast corner of the present LEE 1-20 claim group. This structure, occurring in a fine-grained, and light coloured phase of the local hornblende diorite body, at least locally contains minor amounts of disseminated chalcopyrite in sericitized and pyritized host rocks.

A preliminary geological and soil-sample traverse was run through the general locality of the above showings on June 8, 1972. On the basis of the geological and geochemical evidence obtained a broader survey was planned; this was executed during November 9-12, 1972. The results of these surveys are described and interpreted in this report.

PROPERTY, LOCATION & ACCESS

LEE 1-20 comprises one 7000' x 6000' block of contiguous, full-sized mineral claims centering about a point lying about 3-1/4 miles southeast of Trapp Lake; LEE 11-14, inclusive, and on which the 1972 surveys were made, situates in the southeast corner of the above block.

Most parts of the property are readily accessible via the system of old logging and ranch roads from Highway 5 in the vicinity of Stump and Nicola Lakes. The 1972 survey area is most conveniently reached via the 6 miles of south-trending road departing from Highway 5 just beyond the north end of Trapp Lake.

PHYSICAL FEATURES OF PROPERTY

The claim group straddles a flatly rolling terrain between elevations 3000-3500 feet. The area has been strongly and uniformly glaciated and, as a result, it is almost totally blanketed by drift comprising layered deposits of boulder till, silt, sand, clay, and mixtures of these. Swamps and small lakes occupy most topographic

depressions - possibly to the extent 15-20 per cent of the claims area.

Soil development, as it pertains to geochemical sampling, is generally poor. A typical section comprises yellowish to reddish silt in which an identifiable "B-zone" is absent or only slightly developed.

Approximately one-half of the area has been logged off; the remaining forest cover comprises 'open' stands of small fir and pine. Consequently, the terrain, except where swampy, water-covered or heavily littered with logging trash, presents no major obstacles to foot-travel or ground-based surveys.

GENERAL GEOLOGY

Fig. 1 supplements the following text.

The property appears to be entirely underlain by rocks relating to the easterly branch of the Nicola 'granodioritic' batholith. G.S.C. Map 886A indicates that this body contacts (and intrudes) volcanic and/or sedimentary rocks of the Upper Triassic Nicola Group within the extreme southwest corner of the LEE claim block. Exposures within the block would suggest that the claims are largely underlain by a dioritic (contact) phase of the intrusive and locally (N.E.) by Tertiary basaltic cap rocks. However, with less than one per cent of the area comprising bedrock outcrop, the bedrock lithology and structure can only be inferred. The parallel N.W.-trending magnetic highs ("ridges") shown on B.C. Map 5213G probably indicate the presence of a cap-layer of basaltic rocks - which would be in general accordance with the lithology shown on G.S.C. Map 886A. If this is so, and because of the fact that this (Kamloops Group) assemblage of volcanic rocks post-dates the predominant regional (copper) mineralization, the northeasterly parts of the claim block should be excluded from future 'surface' exploration programs - pending local confirmation of the G.S.C. lithological delineations.

FIELD SURVEY METHODS

Dwg. No. 1 supplements the following text.

The June 8, 1972 survey was based on compass-chain traverses along an interval of the main access road in LEE 12 and westerly and easterly bearing lines through LEE 13 and 14 - the latter comprising the most northerly cross-line of the subsequently-established survey grid. All outcrops encountered on the road traverse were mapped; soil samples were taken close to, or in the general vicinity of bedrock exposures. Where feasible, soil samples were taken at 200-foot intervals along the east-west traverse; no outcrops were observed on this line. Some of the soil samples were field-tested (for cold-sol. copper) by the rubeanic-spot method; all were eventually submitted for laboratory determination of total copper.

On the follow-up geological-geochemical survey during November, 1972 the location-line for LEE 11-12-13-14 was stationed and soil-sampled at 200-foot intervals and mapped in respect of roads and trails. From this, three additional 3000' cross-lines on 800' N-S spacing and one 800' intermediate cross-line were established. The main cross-lines were soil-sampled at 200' intervals and the short intermediate line sampled at 100' intervals. The few outcrops observed were located with reference to the cross-line stations, and geologic features such as rock-type, structures, alteration and sulphide mineralization were mapped or noted.

The soil sampling was done with a light mattock. Sample-depths were generally within a range of 4"-8" below the "A" soil layer. The typical soil sample comprised slightly yellow/red/brown silt or clayey silt; a minor proportion of the samples comprised well developed B-zone soil. All samples were packaged in standard high wet-strength kraft paper bags, and the corresponding grid-station number was marked on each bag.

LABORATORY & OFFICE WORK

All soil samples were taken to the North Vancouver laboratory of Bondar-Clegg & Company Ltd. for preparation and determination

of their total copper content as follows:

Samples were dried in infra-red ovens on contamination-free aluminum shells, and then screened through an 80-mesh stainless steel sieve, with only the natural under-size fraction being kept for analysis. Next, standard (weight) portions of each sample were digested in hot aqua regia. The resulting solution was 'bulked' to 20% total acid. The dilute solution was analyzed via atomic absorption spectrophotometer - this 'controlled' by comparison with 'matrix' and synthetic standards. Results were reported as parts per million (ppm) total copper.

The geological and geochemical data were plotted (Dwg. No. 1) for purposes of evaluation.

INTERPRETATIONS & CONCLUSIONS

The results of the 1972 surveys are plotted on Dwg. No. 1 accompanying this report.

A total of 92 soil samples was collected in the course of the June and November, 1972 surveys. A visual appraisal of the (local) results indicates the following ranges of soil-copper concentrations: background, 0-30 ppm; threshold, 31-60 ppm; anomalous, 61-plus ppm.

The relatively few soil samples showing values significantly above background range tend to be restricted to the southeast corner of LEE 12, and to an area of Fe (Cu) mineralization. Of these, only three show values exceeding 61 ppm total soil-copper; hence, a statistical analysis of the geochemical survey results is not warranted - at least not until such time as a broader reconnaissance survey of the group and/or adjoining (open) areas has been completed.

The sparsity of outcrops within the predominantly drift-covered area over which the surveys were made makes it difficult to arrive at even a preliminary interpretation of the bedrock

geology or to make even tentative correlations between isolated altered and/or mineralized exposures. However, the 1972 mapping indicates a possibly continuous zone of pyritized fractured and altered diorites of several 100's of feet lateral extent. As these, at least locally, are well pyritized and contain minor amounts of copper minerals further exploration of the occurrences would appear to be justified on the basis of the geological relationships alone. This might be best accomplished via an extension of soil sampling, with supporting magnetometer coverage, over and outward of the existing showings. An investigation of the composite, positive magnetic anomaly which trends northwesterly through the north half of the LEE 1-20 claim block, shown on Map 5213G, should be included in any future survey.

Respectfully submitted,

W. M. Sharp, P.Eng.

North Vancouver, B. C.
May 16, 1973

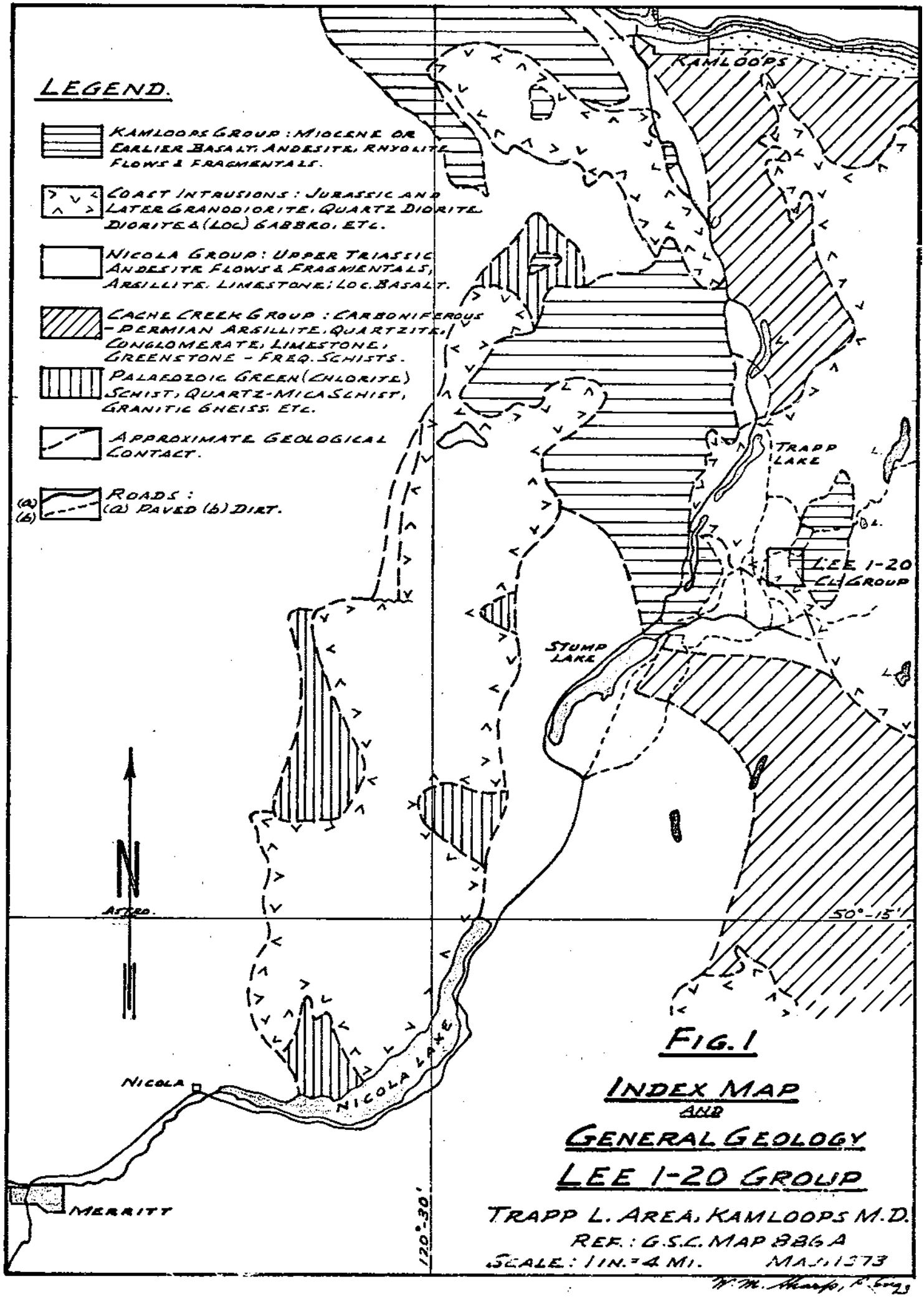

FIG. 1

INDEX MAP AND GENERAL GEOLOGY LEE 1-20 GROUP

TRAPP L. AREA, KAMLOOPS M.D.

REF.: G.S.C. MAP 886A

SCALE: 1 IN. = 4 MI. MAY, 1973

W. M. Murphy, P. Eng.

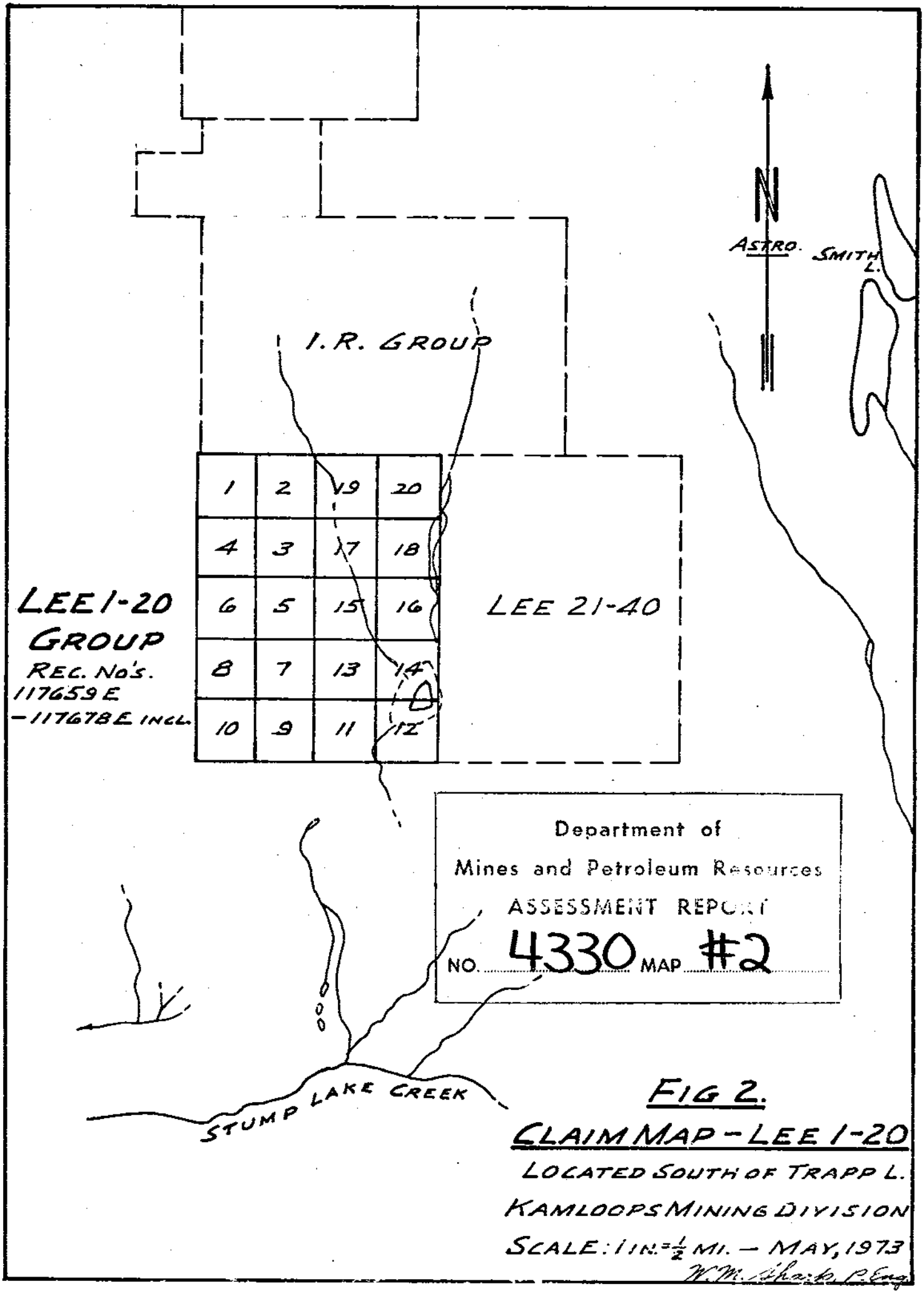

FIG 2.

CLAIM MAP - LEE 1-20

LOCATED SOUTH OF TRAPP L.

KAMLOOPS MINING DIVISION

SCALE: 1 IN. = ½ MI. — MAY, 1973

W. M. Shaw P. Eng.

TEL: BUS. 987-5322
RES: 987-9520

WILLIAM M. SHARP, M.A.Sc., P.Eng.
CONSULTING GEOLOGICAL ENGINEER
171 W. ESPLANADE, NORTH VANCOUVER, B.C.

May 16, 1973

President & Directors,
Western Standard Silver Mines Ltd. (N.P.L.),
c/o P.O. Box 462,
Kelowna, B. C.

Gentlemen:

The accompanying "GEOLOGICAL & GEOCHEMICAL REPORT, LEE CLAIM GROUP, KAMLOOPS MINING DIVISION" has been prepared in accordance with your March, 1973 directive.

The report is based on successive 1-day and 4-day surveys made by the writer during June and November, 1972 respectively. The cost of these surveys and subsequent report has been tabulated; hence, the report may be submitted (in duplicate, with Form B, Mineral Act) to the Mining Recorder of the Kamloops Mining Division as evidence that work in the amount of at least $100 per claim has been done on the property prior to the May 12, 1973 expiry date - with the understanding that you wish to file for 2 years on each of LEE 5-15, inclusive.

Yours truly,

W. M. Sharp

W. M. Sharp, P.Eng.

Atts.

CANADA
PROVINCE OF
BRITISH COLUMBIA

TO WIT:

In the Matter of Geological and geochemical field exploration done on the LEE claim group (LEE 5-15, inclusive-rec.no's 117663E-117673E, inclusive) in the Kamloops Mining Division for Western Standard Silver Mines Ltd. (N.P.L.) between June 7 and November 13, 1972, with subsequent map and report preparation to May 16, 1973:

I, William M. Sharp, P.Eng., B.C.
of 171 West Esplanade Avenue, North Vancouver,

in the Province of British Columbia

do solemnly declare that the following is an accurate estimate of time and costs involved in the above field exploration and relevant office engineering work:

Consultant Fees, W. M. Sharp, P.Eng.:			
June 7,	Field Travel, 3/4 day @ $75.	$ 56.25	
" 8,	Field Eng., 1 day @ $125.	125.00	
" 9,	Office Eng., 1/4 day @ $75.	18.75	
" 13,	Office Eng., 1/4 day @ $75.	18.75	$ 218.75
Direct Expense:			
June 7-8,	Motel & Meals.	$ 18.60	
" "	Car Op. Allowance, 602 mi. @ 0.10.	60.20	
" 12,	Bondar-Clegg #2906, 11 sample prep. & analysis.	13.20	
" 7-8,	Travel expense to company Field Assistants.	94.80	$ 186.80
Consultant Fees, W. M. Sharp, P.Eng.:			
Nov. 9,	Field-travel, 1 day @ $75.	$ 75.00	
" 10-12,	Field eng., 3 days @ $125.	375.00	
May 8-12,	Office, 4-3/4 days @ $75.	356.25	$ 806.25
Direct Expense:			
Nov. 9-12,	S. Fegan, Van., B.C., Field Asst. wages & travel expense.	$160.00	
" 10-12,	W. Sharp & S. Fegan, motel & Meals.	58.80	
" "	4 rolls flagging.	4.00	
" 9-12,	Car Op. Allowance, 864.6 mi. @ 0.10.	86.46	
" 17,	Bondar-Clegg #8068, sample prep. and analyses, 67 @ 1.20.	80.40	
May 16/73,	Western Tech. Supply, map prints.	1.91	
" "	Apex, photocopies, 10 @ 0.10.	1.00	
" 17/73	Mrs. A. Owen, report steno.	18.00	
" "	Notary services re Stat. Declaration	3.00	$ 413.57
	Total:		$1,625.37

AND I make this solemn declaration, conscientiously believing it to be true and knowing that it is of the same force and effect as if made under oath, and by virtue of the CANADA EVIDENCE ACT.

DECLARED before me at
North Vancouver in the
Province of British Columbia, this
18th day of May
A. D., 1973

W. M. Sharp

A Notary Public in and for the Province of ~~British~~ Columbia.
~~A Commissioner for taking affidavits within British Columbia.~~

DATED May 17, 19 73.

IN THE MATTER OF

Geological & Geochemical Field Exploration, Lee Claim Group, Kamloops Mining Division, for Western Standard Silver Mines Ltd. (N.P.L.)

R.C.L. FORM NO. 63

Statutory Declaration

ROSE, COWAN & LATTA PRINTERS LTD. • LEGAL FORM PRINTERS
120 PRINCESS AVE., VANCOUVER, B.C.

APPENDIX

(2)

LEE GROUP, KAMLOOPS MIN. DIV.

BONDAR-CLEGG & COMPANY LTD.
geologists • geochemists • analysts
1500 PEMBERTON AVENUE, NORTH VANCOUVER, B.C.
PHONE 988-5315

GEOCHEMICAL LAB REPORT

No: 22-202

Extraction: hot aqua regia
Method: atomic absorption
Fraction Used: -80 mesh

From: Mr. W. Sharp
Date: June 12, 1972 19
Analyst: K.B.

SAMPLE NO.	Cu ppm	SOIL TYPE	RUBEANIC COLOUR		SPOT SCALE 0-5	REMARKS
L 1	20	SILT, PALE BROWN	TRACE	BLUE	0.25	BACKGROUND SOIL-CU
L 2	27	" , " "	"	"	0.5	" " "
L 3	23	" , GRAY-BROWN	"	"	0.5	" " "
L 4	27	" , " "	"	"	0.5	" " "
L 5	23	" , DARK BROWN	"	"	0.25	" " "
L 6	28	" , MED. BROWN	"	"	0.25	" " "
L 7	35	" , " "	"	"	0.5	WEAKLY-ANOM. " "
L 7A	115	" , RED-BROWN	"	"	0.5	ANOMALOUS " "
L 8	82	" , YELLOW-BROWN	LIGHT	"	1.0	" " "
L 10	85	" , MED. GRAY- "	STRONG	"	3.0	" " "
L 10A	25	" BROWN-GRAY	TRACE	"	0.25	BACKGROUND " "

LEE GROUP, KAMLOOPS MIN. DIV.

BONDAR-CLEGG & COMPANY LTD.

geologists • geochemists • analysts

1500 PEMBERTON AVENUE, NORTH VANCOUVER, B.C.
PHONE 988-5315

GEOCHEMICAL LAB REPORT

No: 22-[illegible]

Extraction Hot Aqua Regia

Method Atomic Absorption

Fraction Used

From Mr. W. M. Sharp, P. Eng.

Date December 4, 1972 19

Analyst K. B.

SAMPLE NO.	Cu ppm		REMARKS
12 + 1100'	13	LEE GROUP LINE L-12 E & W. SOIL SAMPLES	
+ 1400'	13		
300'	9		
600'	18		
+ 1300'	11		
12+100'E. (16)	17		
12+100'W. (18)	24		
+ 2W (19)	15		
+ 4W (20)	15		
+ 6W (22)	26		
+ 8W (23)	28		
+ 10W (25)	7		
+ 12W (27)	6		
+ 14W (30)	9		
	33	20	SOIL SAMPLES, ROAD TRAVERSE SOUTH OF LEE 12 N.L.
	35	13	
	36	21	
N/A :	38	44	
OFF GROUP	39	53	
	40	36	
	41	17	
	42	24	
	43	28	

LEE GROUP, KAMLOOPS MIN. DIV. geologists • geochemists • analysts
BONDAR-CLEGG & COMPANY LTD.
1500 PEMBERTON AVENUE, NORTH VANCOUVER, B.C.
PHONE 988-5315

GEOCHEMICAL LAB REPORT

No: 22-720

Extraction: Hot Aqua Regia
Method: Atomic Absorption
Fraction Used: -80 mesh

From: Mr. W. M. Sharp, P. Eng.
Date: November 15, 1972 19
Analyst: K. B.

SAMPLE NO.	Cu ppm	SOIL DESCRIPTION	DEPTH	REMARKS
L 11	16	BROWN EARTHY	6"	FAIR B-ZONE
12	12	BROWN SILTY	4"	POOR " - "
13	8	YELLOW-BROWN SILTY	4"	" " - "
14	8	" " "	4"	" " - "
15	8	" " "	4"	" " - "
16	8	PALE GRAY BROWN SILTY	4"	" " - "
17	8	MED. GRAY-BROWN SILTY	6"	" " - "
18	8	MED. BROWN LOAMY SILT	6"	" " - "
19	8	MED. GRAY-BROWN SILTY	4"	" " - "
20	8	BROWN-GRAY SILTY	8"	" " - "
21	10	GRAY-BROWN LOAMY SILT	6"	" " - "
22	8	GRAY-BROWN LOAMY SILT	4"	" " - "
23	8	PALE BROWN-GRAY SILT	3"	" " - "
24	8	PALE BROWN-GRAY SILT	4"	" " - "
L 25	6	MED. GRAY-BROWN SILT	4"	" " - "
16 2E	8	MED. BROWN SILTY		
4E	32	" " EARTHY		
6 E	12	" " SILTY		
8E	24	" " RUBBLY		
10E	12	" " SILTY		
12E	12	" " "		
16 14E	12	" " "		
16 2W	12	ORG.-BROWN SILTY		
4W	16	GRAY-BROWN SILTY		
6W	11	" - " "		
8W	14	SLIGHTLY ORGANIC BROWN SILTY		
10W	21	MODERATELY ORG. BROWN SILTY		
12W	12	MED. GRAY-BROWN SILTY		
16 14W	8	MED. GRAY-BROWN SILTY		
20 2E	8	PALE GRAY-BROWN SILTY		

BONDAR-CLEGG & COMPANY LTD.

LEE GROUP, KAMLOOPS MIN. DIV.

Geochemical Lab Report

Report No. 22-720 Page No. 2

SAMPLE NO.	Cu ppm				SAMPLE NO.	Cu ppm			
20 - 4E	8	PALE	BROWN	SILTY	24 - 12W	16	GRAY	BROWN	SILTY
6E	22	MED.	"	"	24 - 14W	16	"	"	"
8E	28	MED.	"	"					
10E	17	MED.	"	"					
12E	12	MED.	"	"					
20 - 14E	23	MED.	"	"					
20 - 2W	8	PALE	"	"					
4W	7	PALE	"	"					
6W	8	PALE	"	"					
8W	20	(ORG) DARK	"	"					
9.5W	16	(ORG) DARK	"	"					
22 - 6.5E	12	MED. BROWN EARTHY - SILT							
9E	19	MED BROWN SANDY / SILTY							
10E	24	MED. BROWN SILTY							
11E	24	"	"	"					
12E	28	"	"	"					
13E	15	PALE	"	"					
14E	9	"	"	"					
22- 15E	36	MED. - BROWN EARTHY SILT							
24 - 2E	8	PALE	BROWN	SILTY					
4E	6	MED.	"	"					
6E	4	PALE	"	"					
8E	16	MED. - BROWN SILTY LOAM							
9E	12	PALE	BROWN	SILTY					
10E	28	MED. RED-BROWN		SILTY					
11E	20	MED.	BROWN	EARTHY					
12E	34	"	"	"					
13E	16	MED. BROWN EARTHY SILT							
14E	29	BROWN	EARTHY						
24 - 15E	18	"		"					
24 - 2W	11	PALE	BROWN	SILTY					
4W	23	PALE BROWN CLAYEY SILT							
6W	12	GRAY - BROWN CLAYEY SILT							
8W	13	PALE	BROWN	SILTY					
24 - 10W	15	GRAY - BROWN		SILTY					

LEE 5

LEE 15
117673E
(RECORD NUMBER)

LAKE

LEE 16
117674E

14W 12W 10W 8W 6W 4W 2W W-O-E 2E 4E 6E 8E 10E 12E 14E 15E

L-11
L-12

LINE 12S

9 6 7 28 26 15 15 24 12 17 N.S. 9 N.S. 18 N.S. N.S. 13 N.S. 11 18

L-13 B
L-14 B
L-15 B

LEE 7

LEE 13
117671E

LEE 14
117672E

FINE-GRAINED DIORITE

L-16

LINE 16S

8 12 21 14 11 16 12 8 8 32 12 24 12 12 12

L-17 B

L-18 1/2 B

L-19 B

L-20

LINE 20S

LAKE

16 20 8 7 8 8 8 8 22 28 17 12 23 25

UNALTERED FINE-GRAINED DIORITE

LEE 9

LEE 11
117669E

L-21 10

TRAIL

LEE 12
117670E

SERICITIZED FINE-GRAINED DIORITE WITH CONSID. DISSEM. PYRITE & TRACE CHALCOPYRITE.

B5

SPARSE SERICITE

FINE TO MED: GRAINED HBD.-DIORITE ; CHLORITE-SERICITE W. PATCHY DISSEM PY (TR. CP.) IN FRACT. AREAS.

L-22 B

12 19 24 24 28 15 9 36

SHEARED FINE-GRAINED DIORITE W. MINOR AMOUNT DISSEM. PYRITE.

L-23 B

LINE 24S

L-24

16 16 15 13 12 23 11 8 8 6 4 16 12 28 20 B 34 16 29 18

TRAIL

FINE-GRAINED DIORITE: FRACT. W. 5-10% DISSEM. PY. AND ASSOC. MILD SERICITE REPLACEMENT.

B2

TRACE DISSEM. CHALCOPYRITE

115

FINE-GRAINED DIORITE, MINOR SERICITE & PYRITE

35

L-25 1/2

14W 12W 10W 8W 6W 4W 2W W-O-E 2E 4E 6E 8E 10E 12E 14E

23°

NORTH

MAGNETIC

ASTRON.

LEGEND

L-15 B — CHAINAGE STATION ON CLAIM LOCATION LINE WITH PPM TOTAL SOIL-COPPER PER SOIL SAMPLE @ STATION.

PPM = PARTS PER MILLION (0-29 PPM : BACKGROUND RANGE SOIL-COPPER; 30-PLUS " : ANOMALOUS " " - ")

L-16 — B — CROSS-LINE & SAMPLE-STATION WITH PPM TOTAL SOIL-COPPER.

ROAD

BEDROCK OUTCROP (DIORITE)

TRENCH OR OPEN-CUT.

N.S. = NOT SAMPLED.

4330 M3

MAP TO ACCOMPANY GEOLOGICAL AND GEOCHEMICAL REPORT ON THE LEE 1-20 GROUP SOUTH OF TRAPP LAKE, KAMLOOPS MINING DIVISION. DATED MAY 15, 1973.

W. M. Sharp P.Eng.

W. M. SHARP, P.Eng. — CONSULTING GEOLOGICAL ENGINEER, NORTH VANCOUVER, B.C.

WESTERN STANDARD SILVER MINES LTD. (N.P.L.)

LEE 1-20 CLAIM GROUP
KAMLOOPS MINING DIVISION, B. C.

PLAN
GEOLOGICAL-GEOCHEMICAL SURVEY

FIELD WORK: JUNE 8 & NOV. 9-12, 1972

Scale:	Dwn. by: W.M. SHARP, P.Eng.	Revision:	Dwg. No.
1 IN. = 200 FT.	Date: MAY 10, 1972		1.