SILVER LICHEN GROUP

TYPE:	GEOLOGICAL AND GEOCHEMICAL
CLAIMS:	SILVER LICHEN GROUP FIR, DON, JIM, MACK, PAT, JOE, ROB, PHILL KWIKOIT GROUP JERRY, ROLY SNUFFBOX CREEK GROUP MIKE, SILVER GAL
MINING DIVISION:	KAMLOOPS
NATIONAL TOPOGRAPH SERIES:	82 M/3
LOCATION:	LAT. 51° 20' N Long. 119° 22'W
Owner & Operator:	ORELL COPPER MINES LTD.
AUTHOR:	JAMES BLACK, P.ENG.
DATE:	JUNE 21, 1980

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INTRODUCTION

LOCATION AND ACCESS

(1) The Silver Lichen mineral claims are located six kilometers north-east of the junction of Kwiloit and Scotch Creeks on an unnamed mountain between the elevations of 1300 and 1700 meters. Scotch Creek drains into Shuswap Lake. The location is shown on the index map accompanying each drawing appended. The claims are on NTS 82 M/3 sheet.

Access is by way of Squilax, crossing the Shuswap River and continuing east on the north side of the lake to Scotch Creek road. This road is followed 18 kilometers to a logging road. This logging road is followed about 6 kilometers east to the centre of the claim group.

HISTORY AND OWNER

(ii) An outcrop of galena was discovered on a trail crossing the property in about 1966. A little stripping was done at that time, however, the property was allowed to go dormant until 1976. John Spelay restaked the prospect for Orell Copper Mines Ltd. who now owns and operates the property. In 1977 J.M. Black, P.Eng. recommended a program of geochemistry, geophysics, stripping and systematic prospecting amounting to $57,000.00. This program was undertaken in the summer of 1977. The program was moderately successful and J.M. Black, P.Eng. recommended the current program.

This year's work consisted of extending the geochemical program, geological mapping, and further prospecting. The results of the geochemical survey yielded weak amomalys, except in the vicinity of the discovery showing, and tend to reflect the nature of the underlying bedrock. Geological mapping outlined a moderately dipping monocline containing a broad flecture. The lithology on the claim group was mapped and found to vary through limestone, greenstone, to a phyllite which in part contains siliceous tuffs and chert. Prospecting uncovered new mineralization similar to the discovery showing. This mineralization requires stripping and further exposure.

SUMMARY OF WORK PERFORMED

(iii)

1. GEOLOGICAL 375 hectares were mapped at 1:5000 and outcrops shown. A further reconnaissance type mapping was undertaken in the surrounding area.
2. GEOCHEMICAL 28.5 kilometers of lime were flagged and 570 soil samples taken. One line of samples were lost in the mail.
3. PROSPECTING The claim groups were further prospected and some trail clearing was undertaken.

CLAIMS WORKED

Geochemical - Fir, Don, Red, Pat, Mike, Jim, Silver Gal
Geological - Fir, Don, Red, Pat, Mike, Joe
Prospecting - All claims

GEOLOGY

These claims are in close proximity to a major granitic pluton. At least two granitic dykes cut northerly across the property. A large mass of the main intrusive is located on the south east side of the claims at the 1400 metre level and is probably part of the Scotch Creek intrusive mass. The emplacement of this pluton is probably responsible for the present attitude of the sediments and volcanics in the general area. The rocks adjacent to the contact are silicified outward for some 500 metres. The rocks for the most part dip away from this contact.

The sediments and volcanics underlying the area strike in a northerly direction and dip westerly. These rocks have been regionally metamorphosed to green schist facies. The apparent structure is a moderately dipping monocline which contains a warp of flecture. There has been considerable adjustment between and within the beds as indicated by the crenulations and drag folds with aerial planes parallel to the dip of the beds. The structure may be more complicated than indicated.

The lowest member of the series mapped is a phyllite. This phyllite contains much argillite but sedimentary tuff and chert occurs in very siliceous thin beds. On top of this phyllite is a variable thickness of limestone which in part has been altered to marble the remainder of the limestone in blue gray and thin bedded. It contains a few interbeds of argillite and greenstone. Overlying the limestone is a greenstone which in places is represented by a green schist. This section is repeated to various degrees and each horizon can grade into another and contain a small amount of interbedded limestone. The contacts as shown on the appended plan are in places arbitrary.

Showings of galena carrying silver occur in the limestone adjacent to greenstone and is always accompanied by massive relatively barren quartz. There is a large amount of manganese present in the form of a secondary black mineral thought to be psilomelane. This secondary black mineral permeates the limestone adjacent to the galena. The recognition of this black mineral greatly assists prospecting. A second galena showing was discovered this year. The discovery showing has been described as a small pod of galena of limited extent in the limestone adjacent to the greenstone. The lower showing or one found this year is of similar nature but needs stripping to determine its size and extent.

GEOCHEMICAL

Mr. C. Kane, prospector, laid out the grid for soil sampling and instructed Lawrence Johnny, Violet Boucher and Kevin Kane in soil sampling. Mr. Kane also accompanied the crew during the first days of line flagging and soil sampling. Mr. Kane has been present and taken part in soil sampling on previous surveys on the Adams Plateau and is qualified and has sufficient experience and knowledge of soil sampling. The flagged lines and sample taking methods were inspected in the field.

Lines were ran 100 metres apart along a base line and samples taken at 50 metre intervals along these lines. The samples were taken from B Horizon after all humus and organic material had been removed from the surface. The samples were sent to Bondar-Clegg in Vancouver. They were dried and sieved with the minus 80 fraction used for analysis. Hot acid was used to extract silver, lead and zinc.

The zinc geochemistry gave a raw mean of 44 PPM and a standard deviation of 23 PPM. Readings were well above background in the discovery showing area. This moderate anomaly trends and is 100 meters long. A second northeasterly area occurs 200 metres north of Sheepfoot Lake. This anomaly trends east west is less intense and smaller. This area is in part underlain by two limestone beds. The remainder of the area sampled seem to reflect the underlying rocks with greenstone and limestone having slightly higher background readings.

Silver samples support the zinc geochemistry with limestone giving slightly higher readings.

The lead results as plotted are rather flat except for the discovery showing yielding a fair anomaly. The raw mean of the lead is 15 PPM with an S.D. of 11 PPM.

The method of grid layout tends to be bias in a north south direction. This bias is hard to eliminate from the plot of samples. If further geochemistry is undertaken it should be in the northeast quadrant of the map sheet and lines should be run in an east west direction.

ITEMIZED COST STATEMENT

(i)	Charles Brown, P.Eng.	3½ weeks	$ 1,644.86
	Helper (1)	3½ weeks	445.65
	Geochemical field crew (4)	5 weeks	5,248.95
	Prospector, Cecil Kane	12 days	1,000.00
	James Black, P.Eng. Consultant		1,195.05
	Workmens Compensation Board		135.77
(ii)	Truck, Gas & Oil & 4X4 Rent		1,475.08
	Camp, Supplies & Communications		1,418.38
(iii)	Assays		1,838.90
(iv)	Drafting		510.75
			$14,913.39

Kwikoit Creek Group	$8,000.00
Silver Lichen Group	5,713.39
Snuffbox Group	1,200.00

AUTHOR'S QUALIFICATIONS

I am a graduate in geological engineering from the University of B.C. and have a PhD. in economic geology from McGill University. I am a registered geological engineer with the Association of Professional Engineers of B.C. I have had 40 years experience in examination and exploration of mineral occurrences, especially in the Cordilleran area.

J.M. Black, P.Eng.

CERTIFICATE

I, J.M. Black of North Vancouver, B.C. do hereby certify that

1) I am a geological engineer with an office at 843 Prospect Avenue, North Vancouver, B.C. V7R 2M2.

2) I am a graduate of UBC with degree of M.Sc. in geological engineering, 1935. I am a graduate of McGill University with degree of PhD. in economic geology, 1942. I am a member of the Association of Professional Engineers of B.C. I have practiced my profession for 40 years.

3) I am the author of the accompanying report, which is based on personal knowledge of the property.

4) I have no beneficial interest in the property or claims discussed and I do not expect to receive any.

J.M. Black, P.Eng.

CARIA RESOURCES LTD.

SECURITIES ACT - QUARTERLY REPORT

Period September 30, 1980

TITLES TO PROPERTY

(all in Kamloops Mining District)

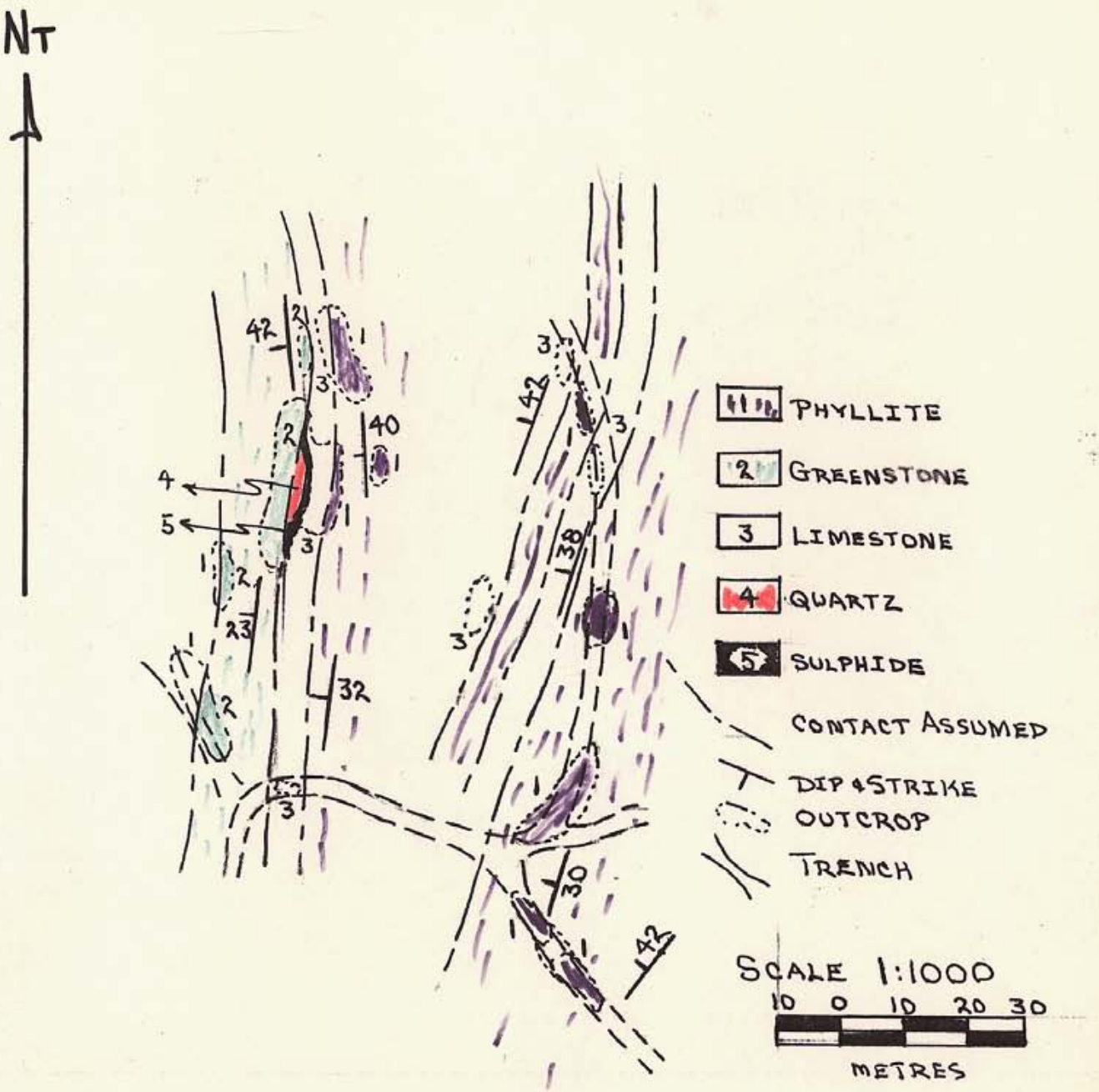
MOSQUITO KING & BOWLER CREEK CLAIMS

Claim	Units	Record No.	Expiry Date
A1	1	128831	Nov. 13/82
A2	1	128832	Nov. 13/82
Fox	4	490	Aug. 24/82
MK 1	20	565	Oct. 18/82
MK 2	10	566	Oct. 18/82
MK 3	12	567	Oct. 18/82
MK 4	4	568	Oct. 18/82
Zinc	6	437	June 28/83
BC 1	2	539	Oct. 4/82
BC 2	15	540	Oct. 4/82
BC 3	16	541	Oct. 4/82
BC 4	12	1086	Nov. 10/82
Miltec 1 and 2	2	114	Oct. 21/82

SILVER LICHEN CLAIMS

Claim	Units	Record No.	Expiry Date
Red	5	526	Sept. 16/82
Fir	3	562	Oct. 12/82
Pat	2	590	Nov. 1/82
Joe	1	827	May 18/82
Jim	6	826	May 18/82
Don	2	1082	Nov. 3/82
Mike	11	1259	June 28/82
Phil	4	1260	June 28/82
Jerry	20	1261	June 28/82
Bob	6	1262	June 28/82
Mack	6	1263	June 28/82
Roly	20	1264	June 28/82
Silver Gal	6	2164	Oct. 9/82

OREL COPPER MINES LTD.



SILVER LICHEN GROUP

DISCOVERY ZONE

SEPT/79

82 M/3W

MAP 5

LCP 02158 PHIL

LCP 02161

LCP 02135 RED

LCP 02162 JIM

LCP 02215

DISCOVERY SHOWING

LOWER SHOWING

SHEEPROOT LAKE

LCP 02163 DON

LCP 02160 JERSEY

LCP 02164 ROLY

LCP 02156 PIP

LCP 02158 MIKE

LCP 02151 PAT

APPROXIMATE CONTACT GRANITE

SCOTCH CR.

NORTH

LOCATION MAP 82 M/6 S.W.

LICHEN MTN.

ADAMS LAKE

SCOTCH CREEK

SHUSWAP LAKE

51°

120°

119°

SALMON ARM

LEGEND :

ROAD, ALL WEATHER, 4WD

SCALE - 1" = 1000'

GRAPHIC - 0 50 100 150 200 250 300 M.

GEOLOGICAL PLAN

CHAIN AND COMPASS SURVEY

LEGEND :

1. PHYLLITE (ARGILLACEOUS) lc SILICEOUS TUFF, CHERT, IN PART CALCAREOUS (THIN BEDDED)
2. GREENSTONE IN PART GREEN SCHIST MINOR LIMESTONE
3. LIMESTONE MINOR GREENSTONE
4. GRANITIC DYKE
5. BASIC DYKE

DIP AND STRIKE

FRACTURE

CONTACT ASSUMED

ORELL COPPER MINES LTD

SALMON ARM, B.C.

SILVER LICHEN CLAIM GROUP

82M:3

1

PACIFIC SURVEY CORPORATION 77-173

LCP 0216 LCP 02161

LCP 0215

LCP 02160 PHIL

LCP 02165 RED

LCP 02165 JIM

LCP 02160 JERRY LCP 02156 PIP

LCP 02164 ROLY LCP 02155 MIKE

SAMPLES LOST (PREVIOUS VALUES)

SAMPLES LOST

SHEEFFOOT LAKE

NORTH

LOCATION MAP 82 M/3 & 6

LICHEN MTN.

ADAMS LAKE

SHUSWAP LAKE

CLEAR CREEK

CHASE

SALMON ARM

51°

120°

118°

LEGEND:

---- ROAD, ALL WEATHER, 4 W.D.

SCALE - 1" = 600'

GRAPHIC - 0 50 100 150 200 250 300 M.

CHAIN & COMPASS SURVEY

GEOCHEMICAL PLAN

TOTAL ZINC IN PPM.

ISOPLETH INTERVAL 25 PPM.

N = 528

$\bar{X}$ = 44

S = 23

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SILVER LICHEN CLAIM GROUP

82M:3

PACIFIC SURVEYS CORPORATION 82 M/3

LCP 0216 PHIL

LCP 0216 JERRY | LCP 0216 ROLY

LCP 0216 FIR | LCP 0216 MIKE

LCP 0216 RED

LCP 0216 JIM

LCP 0216

SAMPLES LOST (PREVIOUS VALUES)

SAMPLES LOST

SHEEPFROOT AXE

LOCATION MAP 82 M/E & W.

LICHEN MTN.

ADAMS LAKE

ADAMS RIVER

SHUSWAP LAKE

SALMON ARM

51°

119°

118°

LEGEND:

ROAD, ALL WEATHER, 4 W.D.

SCALE - 1" = 2000'

GRAPHIC - 0 50 100 150 200 250 300 M.

CHAIN & COMPASS SURVEY

GEOCHEMICAL PLAN

TOTAL LEAD IN P.P.M.

ISOPLETH INTERVAL 50 P.P.M.

N = 528

$\bar{X}$ = 15

S = 11

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SILVER LICHEN CLAIM GROUP

82M:3

MINERAL RESOURCES BRANCH

GEOLOGICAL SURVEY BRANCH

ASSESSMENT REPORT

NO. 8348

3

GEOCHEMICAL PLAN

SILVER P.P.M.

ISOPLETH INTERVAL .5 P.P.M.

SAMPLES LOST (PRELIMINARY VALUES)

SAMPLES LOST

LOCATION MAP 82 M/3 E½W½

LICHEN MTN.

ADAM LAKE

SILVER LAKE

SHUSWAP LAKE

SALMON ARM

51°

119°

LEGEND:

ROAD - ALL WEATHER, 4 W.D.

SCALE - 1" = 2000'

GRAPHIC - 0 500 1000 1500 2000 2500 3000 M.

CHAIN & COMPASS SURVEY

ORELL COPPER MINES LTD

SALMON ARM, B.C.

SILVER LICHEN CLAIM GROUP

82M:3