82-F

ROCKLAND PROPERTY

SLOCAN M.D.

BRITISH COLUMBIA.

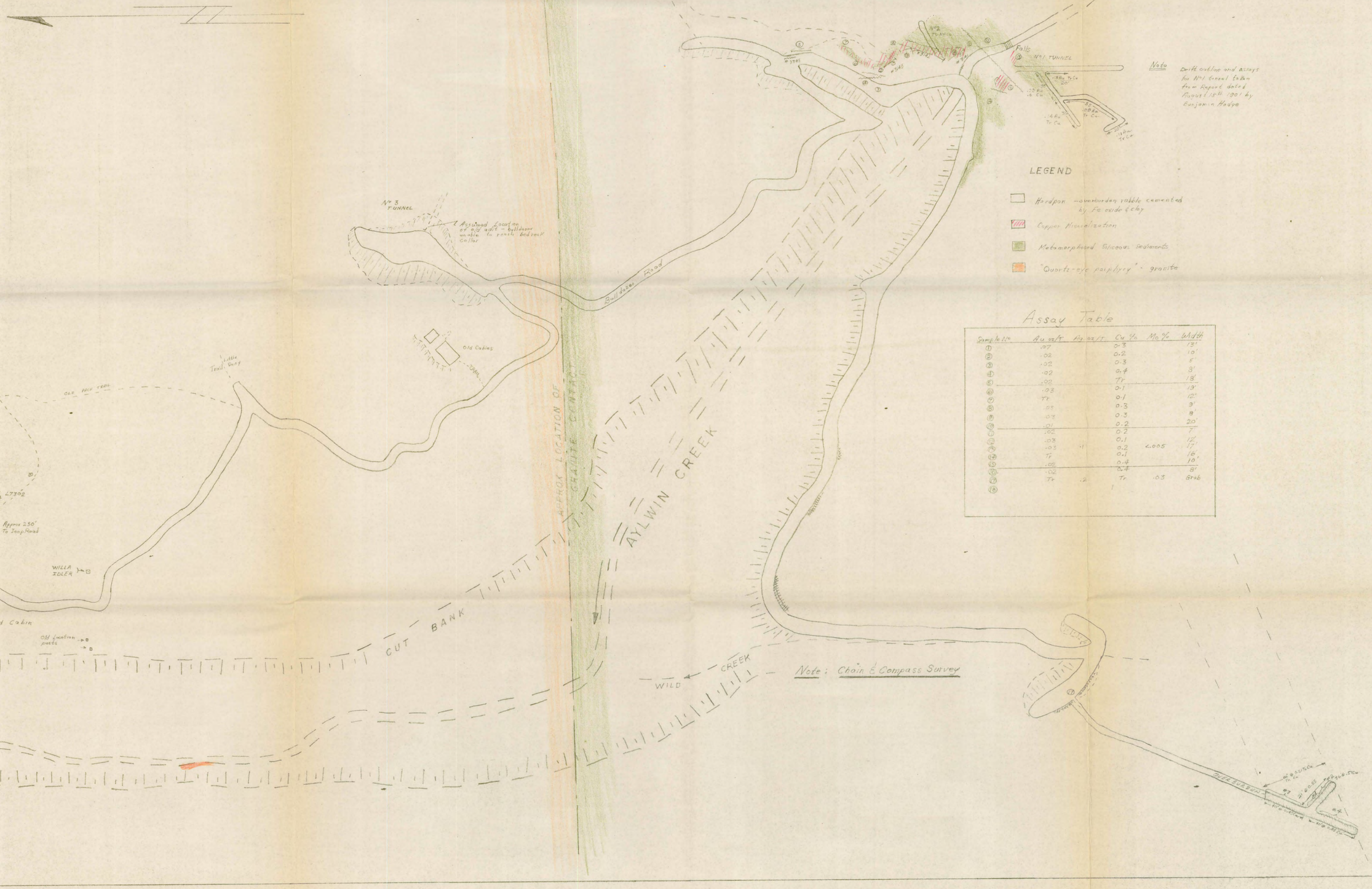
March 27, 1969. R.H. Seraphim,
Ph.D., P.Eng.

ROCKLAND PROPERTY

SURFACE PLAN

COPIED FROM COMINCO — OCT./64.

Scale 1" = 40' | Date Mar. 12/65



Sample No	Au oz/T	Ag oz/T	Cu %	Mo %	Width
1	.07		0.3		13'
2	.02		0.2		10'
3	.02		0.3		5'
4	.02		0.4		8'
5	.02		Tr		18'
6	.03		0.1		13'
7	Tr		0.1		12'
8	.03		0.3		9'
9	.03		0.3		8'
10	.01		0.2		20'
11	.02		0.2		7'
12	.03		0.1		12'
13	.03	.1	0.2	<.005	17'
14	Tr		0.1		16'
15	.02		0.4		10'
16	.02		0.4		8'
17	Tr	.2	Tr	.03	Grab
18					

ROCKLAND
SLOCAN CITY
300 ft = 1 in
Nov/68 RHC after others

DAISY

AYLWIN CREEK

WILLA

GOLDEN REACTION

4000

4500

5000

C-1

C-3

C-4

ROCKLAND

ROCK No 1

N

inches
0 1 2
0 1 2 3 4 5
centimetres

This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.

BRITISH COLUMBIA GEOLOGICAL SURVEY

- geochemical anomaly
- tunnel
- contour
- shear zone
- drill hole
- quartz porphyry
- sediments
- diabase
- andesitic volcanics

N

TRUE

BASE LINE

ACTIVE

3500

4000

4500

5000

6000

N12 — N9 — N6 — N3 — 0 — S3 — S6 — S9 — S12 — S15 — S18 — S21

D 1

A 1 FR.

B 1 FR.

C 1

E 1

IDLER L 7304

LITTLE DAISY L 7302

GOLDEN L 7303

GOLDEN FR. L 7307

WILLA L 1529

ROCKLAND L 3884

SLIDE 1

AVALANCH 1

RUSTLER L 3885

LEGEND

- C.G. CLAIM BORDER
- M.C. BORDER
- CREEK
- 4000 TOPO. CONTOUR
- ADIT
- ROAD
- TRAIL

GEOCHEMICAL REACTION

- STRONG
- MEDIUM
- WEAK
- NIL

ROCKLAND MINING LTD.

GEOCHEMICAL SURVEY

A Füstös	Dec. 1968	ALLEN GEOLOGICAL ENGINEERING LTD.
A R Allen	R.I.	

2 Xmas

SCALE - 1"=30' - B.H.L.

TEL - OFFICE 685-2914
RES. 224-7309

R. H. SERAPHIM
PH.D., P.ENG.
GEOLOGICAL ENGINEERING

427-470 GRANVILLE
VANCOUVER 2, B.C.

March 27, 1969.

Mr. D. Tully,
Cyprus Exploration Co.,
510 West Hastings St.,
VANCOUVER, B.C.

Dear Don:

I enclose two copies of a supplementary report on the Rockland property, which updates my report of November, 1968. Charles Campbell, Junior, is now associated with Rockland, and guiding the project.

He advises me they have money to drill with, and will probably drill. So even though I am not optomistic regarding the chances there, it wouldn't hurt Cyprus to remain in contact.

I thank you for the commission.

Yours sincerely,

R.H. Seraphim.

TEL - OFFICE 685-2914
RES. 224-7309

R. H. SERAPHIM
PH.D., P.ENG.
GEOLOGICAL ENGINEERING

427-470 GRANVILLE
VANCOUVER 2, B.C.

ROCKLAND PROPERTY

SLOCAN M.D.

BRITISH COLUMBIA.

March 27, 1969.

R.H. Seraphim, Ph.D., P.Eng.

TABLE OF CONTENTS

MAPS

ROCKLAND PROPERTY

SLOCAN M.D.

BRITISH COLUMBIA.

INTRODUCTION

A report of November, 1968, by R.H. Seraphim, provided background information concerning the property, and indicated its size and grade. The mineralized zone was suggested to be at least 4000 ft. long and one or two hundred ft. wide, providing assays, at best locations, of 0.35% Cu across 100 ft or 0.6% Cu across 30 or 40 ft. The report advised that contact should be maintained with the principals of Rockland Mining Co., as their continuing work on the property might expose areas on the property where grade is higher.

This present report summarizes data obtained since the previous one. Accompanying maps are (1) Geochemical Survey, Rockland Mining Ltd., at 300 ft to the inch, by Allen Geological Engineering; (2) A reprint of the 300 ft to the inch geological map accompanying the November 1968 report, on which the geochemical high from Allens' map has been traced, and (3) A 40 ft to the inch plan traced in part from a Cominco Map, and showing some surface and tunnel sampling results.

SUMMARY and CONCLUSIONS

The geochemical surveys, and the sampling and assaying information obtained since November, 1968, tend only to confirm the impression gained at that time. The apparent dimensions of the shear zone, roughly 4000 ft. long and 100 to 300 ft. wide, remain unchanged. The grade, 0.1 to 0.3% Cu, 0.015 oz Au, and 0.2 to 0.3 oz Ag, is unchanged. Grades of 0.5 to 0.6% Cu do exist, but only across a few tens of feet.

The mineralization in the property is predominantly lineal rather than controlled by multiple directions of fracturing and faulting, and no evidence exists of secondary systems of faulting and fracturing, which might, at projected intersections, provide better targets. The property fails then to show attractive structure, or some of the other characteristics such as widespread alteration or disseminated mineralization, which characterize many of the porphyry copper properties. Follow up is not recommended at present.

GEOCHEMICAL SURVEY

Allen Geological Engineering completed a geochemical survey, and Allens' report of February 14, 1969, is reviewed and appendixed. His geochemical map is in the front pocket hereof, together with an outcrop map on which the principal anomaly has been traced.

It is surprising that Allen used the old qualitative rubeanic acid method of copper analysis when at very little if any extra expense the newer and more reliable methods of X-Ray analysis or atomic absorption are now so readily available. The survey could have been further improved by paying some attention to topography during the sample collection. The area has a strong drainage pattern, and most geochemists are aware that geochemical anomalies are much influenced by drainage pattern. Yet no samples were taken from the drainages unless they were fortuitously co-incident with the grid points.

The writer suspects that the major geochemical anomaly would continue southerly up the small streams to the tunnel on the north corner of the Rockland, and to the tunnels and drill holes C-2, C-3, and C-4 on the Willa claim if these streams had been sampled at intervals. The mineralization in the main shear zone, shown on the geological map, is with little doubt the source of the main geochemical anomaly, and the doubt would likely be even less if these streams had been sampled. The north-east portion of the mineralized shear zone does outcrop, and the geochemical anomaly and the shear zone are here co-incident. Much of the south-west portion of the anomaly is obscured by talus, and the anomaly is here,

naturally enough, mostly shifted downhill. The north-west outcropping portion could be surface sampled to provide an idea of grade, but has been visually inspected by the writer, and estimated to be lower in grade than the sampled areas reported below.

SAMPLING and ASSAYS

Approximately 100 ft width of the shear zone was sampled by Allen's staff near No. 1 tunnel on the Willa claim. The average of the assays is 0.015 Au, 0.36 Ag, and 0.27% Cu. The old Cominco map, (back pocket) shows a number of samples taken by Cominco near No. 1 tunnel, and these are of similar tenor. The sampling in the south tunnel by Rockland personnel has been added to the Cominco map. The grade is higher, but the samples are reported to have contained much copper carbonate, thus are unreliable.

The core from the Cominco drill holes No. 2 and No. 4 was sampled by Rockland personnel even though, as previously reported, it was not in good condition. These holes test part of the shear zone, and part of the anomaly. The 260 ft of hole No. 2 averaged 0.013 Au, 0.315 Ag, and 0.206% Cu. The 297 ft of hole No. 4 averaged 0.011 Au, 0.21 Ag, and 0.13% Cu.

The above assays do not test the entire mineralized shear zone, but they do test the exposed areas which visually contain the best grade.

March 27, 1969. R.H. Seraphim.

THE ROCKLAND PROPERTY

SILVERTON

B.C.

REPORT

ON

A GEOCHEMICAL SURVEY

OF

PART OF THE PROPERTY

BY

ALLEN GEOLOGICAL ENGINEERING LTD.

VANCOUVER 1, B. C.

FEBRUARY 14, 1969

CONTENTS

THE ROCKLAND PROPERTY

SILVERTON B. C.

INTRODUCTION

Persuant to instructions from the management of Rockland Mining Ltd., (N.P.L.) of 635-789 West Pender Street, Vancouver 1, B. C., a geochemical survey was made of the central portion of the copper-molybdenum property near Silverton, B. C. by Allen Geological Engineering Ltd. Mr. David H. Hawkins, President of Rockland Mining Ltd., remained at the property during the course of the survey, and supplied detailed information pertaining to the local geology, terrain and mineral showings that was most valuable to the job.

Reports in the company files contain much data pertaining to general descriptions of location showings, workings and geology, hence these are not covered in detail, herein, but are mentioned briefly, and emphasis is placed on the geochemical investigation.

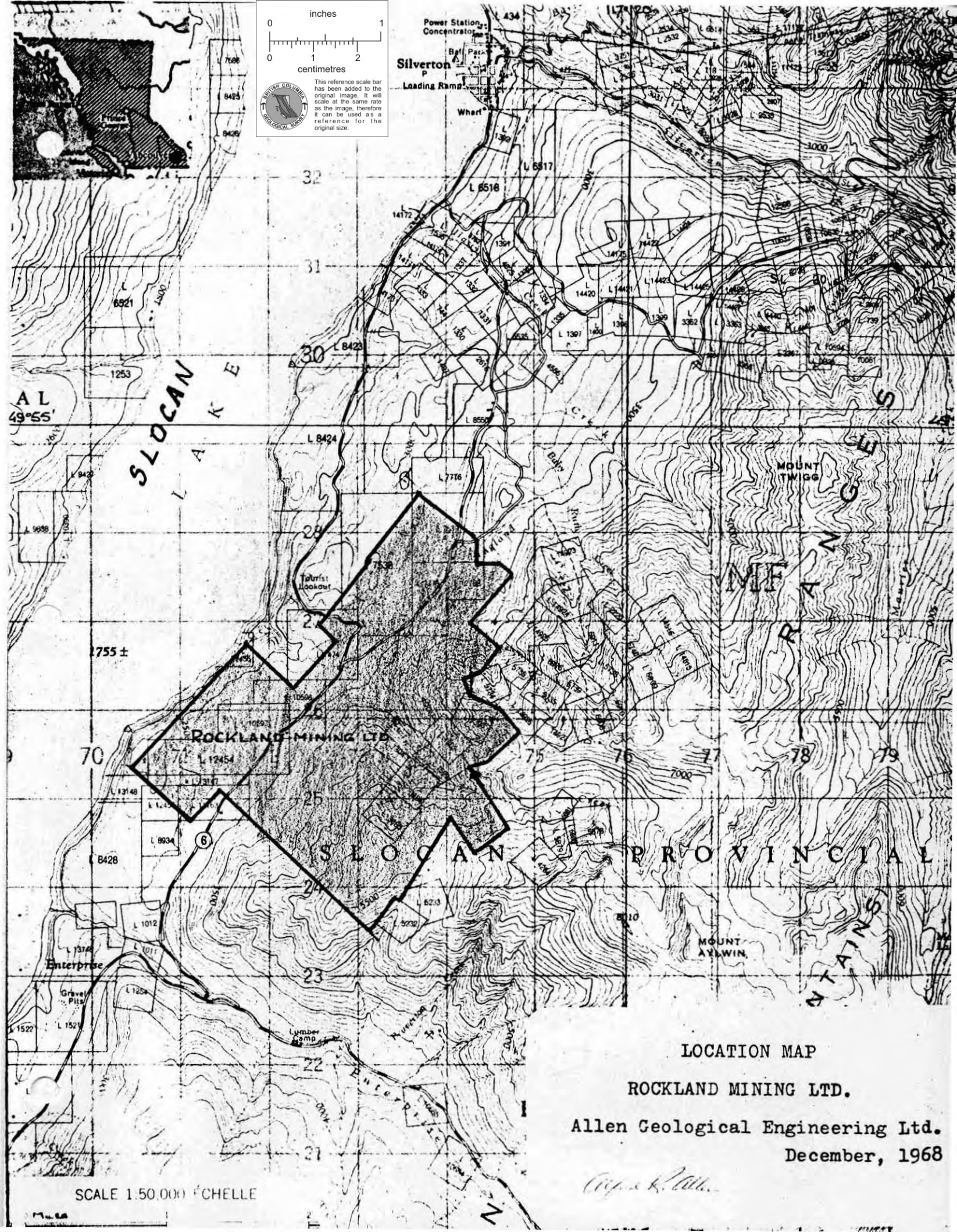
LOCATION AND ACCESSIBILITY

The property is located on the east shore of Slocan Lake, about 3½ miles south of Silverton B. C. Access is via Castlegar, north for 57 miles on highway six.

PROPERTY

The property is made up of four crown grant mineral claims, a 3-claim lease, and 47 located claims. These are as follows:-

Mineral Lease M 58	Willa	L.1529
	Rockland	L.3884
	Rustler	L.3885
Individual Crown Grants	Little Daisy	L.7302
	Golden	L.7303
	Idler	L.7304
	Golden Fr.	L.7307
Claims held by location	D.C.	1-4 inclusive
	Mel	1-4 inclusive
	Dave	
	P.W.	1 Fr.
	A-S	1
	O-M	1-3 inclusive
	A.C.	1
	F-X	1
	OXO	1-2 inclusive
	X.X.X.	1
	E-O	
	Blanket	2-3 inclusive
	W-Blanket	1-2 inclusive
	Final	1 Fr.



LOCATION MAP

ROCKLAND MINING LTD.

Allen Geological Engineering Ltd.

December, 1968

T.T.T.	1-3 inclusive
Final	2 Fr.
Final	3 Fr.
Final	4-6 inclusive
Finningan	Fr.
Flanningan	1
Completion	
A	1 Fr.
B	1 Fr.
C	1
D	1
E	1
F	1
G	1
Avalanche	
Slide	1-2 inclusive

TOPOGRAPHY

The claims area is on the rugged and steeply sloping east shoreline of Slocan Lake. The lake is 1,755 feet above sea level. The highest ridge, near the southeastern corner of the property is in excess of 5,900feet above sea level.

Alwin Creek and tributaries flow westerly in narrow rugged valleys to Slocan Lake.

GEOLOGY

Within the Nelson batholith, the property is underlain by a complex of metamorphosed Slocan Group sediments and augite porphyry. Diabase and quartz eye porphyry, along with minor lamprophyre dykes have been intruded into the above rocks. Brecciation and faulting further complicate the geology, and within and near the broken zones there is sulphide mineralization. Copper and Molybdenum, along with gold and silver are the important constituents of the mineralized zones.

GEOCHEMICAL SURVEY

INTRODUCTION

In 1967 Amax Exploration Inc. conducted reconnaissance surveys over roads, trails and creek valleys, sampling rock outcrops,soil, silt and water. Results indicated that geochemical investigation was practicable and additional work was recommended. Subsequently Allen Geological Engineering Ltd. was retained to conduct soil sampling survey over the central portion of the property

on a grid pattern. The grid covered the following claims:-

Wholly	Partially
Rockland	Rustler
Willa	E 1
C 1	Avalanch 1
Little Daisy	Slide 1
Idler	A 1 Fr.
B 1 Fr.	D 1
	Active
	Golden
	Golden Fr.

PURPOSE

The workings and showings are centrally located on the surveyed grid which is almost one mile square. The purpose of the survey was to acquire if possible sufficient data upon which to assist in determining the trend of the mineralized zones.

CREW

Mr. T. Thomas an experienced senior staff member of Allen Geological Engineering, was in charge of the

job. He was assisted by Mr. Terry Thomas, Mr. J. Hunyadi and Mr. C.Hart.

DURATION

The work was started October 27th and was carries on continuously to November 2nd, 1968.

PROCEEDURE

A base line was surveyed through the approximate centre of the grid area by chain and transit in a north-south direction. East-west grid lines were surveyed by chain and Brunton compass on a 300 foot spacing.

On all lines stations were established every 100 feet with a numbered picket.

At each picket a small bag of soil was taken and designated with the station number. The samples were taken to Langley B. C., dried and tested by the

Rubianic acid method for copper. The Rubianic test papers were graded to Nil, Weak, Medium and Strong, and so designated on a plan map on a scale of 300 feet per inch. This map number is R 1 and accompanies this report. In order to assist with interpretation of results a map showing sections through the grid area was drawn, designated as R 2, and also accompanies this report.

RESULTS

A major anomalous area was outlined on the Willa and Little Daisy claims. It extends in a narrow band down Alwin creek and below the road located on the northeast bank of the creek.

Two sizeable anomalous areas were outlined on the Rockland and Idler claims.

Four small anomalous areas, indicated by only one to three soil samples, ere also indicated near the larger anomalies.

Time and weather did not allow the establishment of close grid patterns on and around the anomalous areas for detailed information. Such follow-up surveys are warra nted when weather permits in order to localize the bedrock sources of the copper mineralization. Because of the rugged topography, however, it is considered that, along with available data acquired from the workings and showings, the locations of the sources of the copper mineralization is sufficiently tied down to warrant proceeding with additonal investigations forthwith.

INTERPRETATION

The major anomaly outlined principally on the Willa and Little Daisy claims appears to have been derived from two sources of copper mineralization. The most obvious of these is the Willa brecciated zone which extends northeasterly across the easterly and upper part of the anomaly. The second possible source is the quartz eye porphyry which underlies this particular location. Primary consideration is therefor

allocated to the hypotheses that the zone of weakness and the porphyry intrusive may be important sources of copper mineralization, The long extension of the large anomaly northwest down the creek vally may be the result of seepage and coarse mineralized talus located there.

The anomaly in the central part of the Rockland claim appears to be tied in with the Rockland shear, but here also there is a nearby occurrance of quartz eye porphyry. Detailed investigation of the anomaly is warranted.

The anomalous zone on the southwestern portion of the Idler claim is close to the same elevation as the Rockland anomaly. Quartz eye porphyry is also associated with this anomaly, and additonal investigation of the anomaly is adviseable.

SURFACE SAMPLING

In order to check the grade of surface showings the following samples were taken from the vicinity of the

#1 adit tunnel by Mr. T Thomas.

Sample Number	Location	Width Ft.	Gold oz/T.	Silver oz/T.	Cu. %	Mo %
18921 C	10 Ft. E. of #1 portal	10	0.05	0.90	0.40	Trace
18922 C	10 Ft. W. of and below #1 portal	10	0.07	1.85	0.70	Traee
18923 C	20 Ft. W. of and below # 1 portal	10	0.02	0.10	0.28	Trace
18924 C	30 Ft. W. of and below # 1 portal	10	Trace	0.10	0.30	Traee
18925 C	40 Ft. W. of and below # 1 portal	10	0.005	0.60	0.18	Trace
18927 C	60 Ft. W. of and below # 1 portal	10	0.005	0.05	0.15	Trace
18928 C	70 Ft. W. of and below # 1 portal	10	0.015	0.30	0.35	Trace
18929 C	80 Ft. W. of and below # 1 portal	10	0.005	0.20	0.20	Trace
18930 C	90 Ft. W. of and below # 1 portal	10	0.01	0.15	0.18	Trace
18931 C	100 Ft. W. of and below # 1 portal	10	0.005	0.10	0.20	Trace
18932 C	101 Ft. W. of and below # 1 portal	10	0.01	0.10	0.20	Trace
18933 C	102 Ft. W. of and below # 1 portal	10	0.005	0.15	0.23	TrAce
19834 C	175 Ft. S. Sta. 6E, small falls,	15	0.01	0.05	0.15	0.164

CONCLUSIONS

The Rockland property is well located in the Slocan mining area of B. C., near the town of Silverton. Impressive showings of copper, along with gold, silver and molybdenum, have been partially explored by short adit tunnels and trenches. In the past, work has been directed towards opening up the high-grade showings, but current policy is to investigate the large tonnage potential of the property. To this end a geochemical survey has been completed over approximately the central square mile of the property. Positive results point to the necessity for an expanded exploration programme. Detailed in the following paragraph, therefor, is a works programme considered to be most practicable for the 1969 season on the Rockland property.

RECOMMENDATIONS

The following work is recommended on the Rockland property near Silverton for the 1969 field season.

	Estimated Costs
1. Additional topographic mapping of the central portion of the property,	$4,000.00
2. Detailed geological mapping,	5,000.00
3. Geochemical surveys over selected areas on 20 to 50 foot grids to tie in the indicated anomalous areas,	7,000.00
4. Bulldozing and stripping to check bedrock geology,	14,000.00
5. Rock trenching,	5,000.00
6. Preparation of sites for core and percussion surface drilling,	10,000.00
7. Surface core drilling,	85,000.00
8. Surface percussion drilling,	30,000.00
9. Improvement and opening of underground workings,	15,000.00
10. Underground core drilling,	20,000.00
11. Office, overhead, supervision,	30,000.00
12. Contingencies fund,	25,000.00
Estimated total costs,	$250,000.00

Respectfully submitted,

per _____ P. Eng.

ALLEN GEOLOGICAL ENGINEERING LTD.

Vancouver, B.C,
February 15th, 1969

REFERENCES

Cairnes, C. E., Slocan Mining Camp, Mem 173, 1934

Cairnes, C. E., Slocan Mining Camp, Mem 184, 1935

McIntyre, J. F., Summary Report, Rockland Property, Jan. 31, 1968

-oOo-

SHEET NO. 1

FILE NO. 312437/459

J. R. WILLIAMS & SON LTD.

MUTUAL 5-5821

PROVINCIAL ASSAYERS

580 NELSON STREET

VANCOUVER 2, B. C. January 15th 1969

RESULTS of Assays made on samples of ore submitted by: Messrs. ROCKLAND MINING COMPANY

MARK	Gold Oz/Ton		Silver Oz/Ton		Copper %			
Hole #2								
0 - 43	0.03		0.40		0.35			
43 - 65	0.02		0.35		0.50	$4.52		
65 - 85	0.02		0.55		0.25			
85 - 104	0.01		0.20		0.15			
104 - 123	0.015		0.30		0.10			
122 - 139	0.01		0.35		0.15			
139 - 159	0.015		0.30		0.15			
159 - 177	0.025		0.40		0.15			
177 - 196	0.01		0.20		0.15			
196 - 213	0.005		0.25		0.12			
213 - 233	0.02		0.25		0.12			
233 - 259	0.02		0.25		0.10			
Hole #4								
0 - 69	0.005		0.20		0.10			
69 - 92	0.005		0.25		0.10			
92 - 117	0.005		0.25		0.05			
117 - 140	0.015		0.25		0.15			
140 - 164	0.01		0.20		0.07			

Assays made by: J. Moore

SHEET NO. 2

FILE NO. 312437/459

J. R. WILLIAMS & SON LTD.

PROVINCIAL ASSAYERS

580 NELSON STREET

MUTUAL 5-5821

VANCOUVER 2, B. C., January 15th 19 69

RESULTS of Assays made on samples of ore submitted by: Messrs. ROCKLAND MINING COMPANY

MARK	Gold Oz/Ton		Silver Oz/Ton		Copper %			
Hole #4								
169 - 187	0.01		0.15		0.15			
187 - 213	0.015		0.15		0.12			
213 - 242	0.015		0.25		0.20			
242 - 265	0.01		0.10		0.15			
265 - 292	0.025		0.30		0.22			
292 - 302	0.01		0.30		0.20			

Assays made by: J. A. Moore

cc

SHEET NO. 1

FILE NO. 310165/177

J. R. WILLIAMS & SON LTD.

PROVINCIAL ASSAYERS

580 NELSON STREET

MUTUAL 5-5821

VANCOUVER 2, B. C., November 7th 19 68

RESULTS of Assays made on samples of ore submitted by: MESSRS. ALLEN GEOLOGICAL ENG. LTD.

MARK	Gold ozs/ton	Silver ozs/ton	Copper %	Mo %
18921C	0.05	0.90	0.40	Trace
18922C	0.07	1.85	0.70	Trace
18923C	0.02	0.10	0.28	Trace
18924C	Trace	0.10	0.30	Trace
18925C	0.005	0.60	0.18	Trace
18927C	0.005	0.05	0.15	Trace
18928C	0.015	0.30	0.35	Trace
18929C	0.005	0.20	0.20	Trace
18930C	0.01	0.15	0.18	Trace
18931C	0.005	0.10	0.20	Trace
18932C	0.01	0.10	0.20	Trace
18933C	0.005	0.15	0.23	Trace
18934C	0.01	0.05	0.15	0.164

Assays made by: J. R. Moore