#### Bornite Ridge Mines Ltd. - cont'd

January 1st - June 30th, 1967 Letter 120

120 - has reported that diamond drilling is underway on the Highland Valley property.

July 1st - November 24th, 1967 Letters 174, 177

174 - Some interesting grades reported from drilling program. The program is a follow up on the 1966 results.

The engineer states "to date two drill holes, No.'s Br-13 and 14 with lengths of 291 and 334 feet respectively, have been completed, and Br-15 is currently drilling at a depth of 150 feet, each drilled on an angle of  $45^{\circ}$  and about 100 feet apart laterally. These,Br-9, 3.5 inch bore hole, which averaged 0.309% MOS<sub>2</sub> between footage depths of 30 to 100 feet and low values on copper. Assays to date have indicated continuous values from the bottom of the casing at 40 feet to 291 feet in hole Br-13, ranging from 0.015 to 0.31% copper and trace to 0.008% MOS<sub>2</sub>, and average of 0.125 copper over 251 feet.

Highland Valley: news extracts

896117

Assays from Br-14 from the bottom of the casing at 60 feet to 310 feet have ranged from 0.026 to 0.96% copper and a trace to 0.04% MoS<sub>2</sub> an average of 0.232% copper and 0.012% MoS<sub>2</sub>. From 240 feet to 310 feet the hole averaged 0.53% copper.

177 - Drill hole Br-14 (for greater depth) gave a better grade as follows: 310 feet to 358 feet, a 48 foot length assayed 0.844% copper from the sludge. Drilling is continuing.

### BELCARRA

December 9, 1968

Letter 249

249 - Recent bulldozing on the company's Nip claims in the Highland Valley area has exposed a widely altered shear zone with some copper mineral-ization. Further bulldozing following geochemical testing is planned for next spring.

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Carl Street 1

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### Bralorne

October 1st 1965 - August 1st 1966 Letters 27, 44, 205

27 - The I.P. survey being conducted by H.O. Seigel & Associates Ltd. has indicated several linear anomalies coinciding in general with earlier indications by magnetometer survey.

The anomalous area is being investigated by trenching to be followed by diamond drilling as required. Additional claims have been staked along the trend of the anomalous area.

44 - Partners with Bralorne in the group are Pacific Petroleums and Mountain Copper Co. of California.

Chataway has 282 Highland Valley claims totally owned and not optioned to the Bralorne group.

205 - A progress report has been received and released by Chataway Exploration Co. Ltd. from Bralorne Pioneer Mines Ltd. covering the 108 claims held under an exploration agreement by Bralorne. The agreement calls for the expenditure of \$ 50,000. every six months till March 31, 1970, and that Bralorne can earn an 80 % interest in the ground by taking it to production; Chataway would retain a 20 % interest.

Geochemical soil testing and a magnetometer survey have been completed over 67,600 feet and 62,400 feet of line respectively. An Induced Polarization survey is apt to be done.

Chataway has a further 217 claims in the area in which Bralorne has not financial or other interest.

### Burlington Mines Ltd.

October 1st, 1965 - August 1st, 1966 Letter 225 225 - Ralph Sostad Explorations Ltd. did on November 4, 1965, change

its name to Burlington Mines Ltd.

August 1st - December 1st, 1966 Letter 233

233 - acquired the Sam Claims in Highland Valley north of Bethlehem and the Hill Claims northeast of Poison Mountain summit, adjoining Copper Grant on the west and Canzac on the south.

Anaconda

March 20th - July 31st, 1964
Letter 112
112 - "Receipt of notice of intention of Anaconda Co. (Canada) Ltd. to
proceed with development of the Minex Highland Valley property for
a further year from May 31st, 1964.

### Properties (Cont'd.)

### ARLINGTON

## August 20, 1968

Letter 170

170 - Arlington Silver Mines Ltd. has reported that Cominco will start a percussion-drilling program on Arlington's Highland Valley copper prospect about August 22, 1968.

#### October 3, 1968

Leter 203

- 203 B. I. Nesbitt, president of Arlington Silver Mines Ltd. has reported that Cominco Ltd. has reported to the company that percussion drilling will resume on the eastern end of the Arlington Silver property in the Highland Valley on October 3, 1968. The first holes in the current program will be on the east end of the property within 200 feet of the boundary with Bethlehem Copper and Valley Copper Mines Ltd. property. Cominco has also reported that the percussion drilling will be followed by deeper testing with diamond drilling.
  - The first seven percussion drill holes were on the western end of the Arlington Silver property and did not penetrate the volcanic cap. The favorable formations lie below the volcanic capping.
  - Mr. Nesbitt has reported that the company's silver mine in the Slocan is making regular ore shipments of two railroad cars per week to the Cominco smelter at Trail, B.C. During the present week, the company expects to ship four railroad cars of ore equal to about 250 tons.
- 234 Arlington has reported that Cominco has moved a diamond drill on to Arlington's Highland Valley copper prospect for a deep test-hole and that drilling is now underway.

To date Cominco through Valley Copper Mines Ltd. has drilled eight shallow percussion holes on Arlington's claims, mainly in the central area. These did not get through the lava that covers much of the granitic rock in which copper ore is found in the Highland Valley. The diamond-drill hole will be a deep test in the southeast portion of Arlington's claims where they border claims of both Bethlehem Copper and Valley Copper. Interest in the property is Valley Copper Mines 70%, Arlington Silver Mines 25%, B.I. Nesbitt 5%.

# Beaver

July 1st - December 1st, 1966

(Beaver Mines Ltd.)

Letter 207 207 - incorporated on October 17th, 1966

Benson Mines Ltd.

January 1st - June 30th, 1965 Letter 67

67 - "H.H. Cohen, P. Eng., sent recommendations for the first phase of exploration on the recently acquired 34 claim block located south west of Lornex Mining and Anaconda in the Gnawed Mountain area of southern Highland Valley. The geophysical, prospecting and bulldozer work will start as soon as possible."

July 1st - September 30th, 1965 Letter 152

152 - "The road has been completed on to the company's claims located adjoining to the south the Lornex H.V. property. Grid lines have been cut and a geophysical survey is nearing completion with the results expected by mid-August."

October 1st 1965 - August 1st, 1966

Letters 198, 200, also 74

198 - The Company is carrying out exploration on a 36 claim block located south of Lornex.

200 - H.H. Cohen, P. Eng., consultant to Benson Mines Ltd., has stated on the work to date that the most significant exposure in the trenching, which is continuing, is in trench No. 3 where a mineralized zone is exposed across 20 feet true width, with better than average copper mineralization.

July 1st - December 1st, 1966 Letter 188

188 - "Nine anomalies have been located by a magnometer survey of the company's claims which adjoin the Lornex holdings in the Highland Valley. Following the survey, approximately 2,500 feet of percussion drilling was carried out during the summer and further drilling is planned when the results are correlated."

July 1st - November 24th, 1967 Letter 187

187 - Annual report - R. Devente, President of Benson Mines Ltd., stated
 / in the report for the year ended May 31, 1967 and dated September 19, 1967, that the company's biggest asset is the 40 claim group adjoining Lornex and Highmont, and in direct line of strike to the Lornex ore body. A number of major mining corporations have examined Benson's Highland Valley property. Strong recommendations by Resident Engineers to proceed with a large development program were made to their respective head offices.

### Bornite Ridge Mines Ltd.

July 31st - December 31st, 1964 Letters 213, 241

213 - recently incorporated - October 7th, 1964.

241 - 28 claims eastern slope of Gnawed Mountain - a preliminary program would be confined to a geomag survey together with a ground controls survey. The resulting survey would select the high resistant rocks typical of a granodiorite background as well as low resistant series estimated cost of the program including access road, stripping, mapping and limited diamond drilling is estimated at from \$35,000 to \$45,000, the amount to depend on each stage of work.

January 1st - June 30th, 1965

Letters 46, 71, 113

- 46 "\$40,000 to carry out first stage of the recommendations of H.G.Cohen, P. Eng., for work on the company's claims on the eastern slope of Gnawed Mountain."
- 71 Bulldozer stripping at the Highland Valley property of Bornite Ridge Mines Ltd. located widespread copper mineralization - malachite stain with smaller areas of desseminated bornite;
  - sampling program to obtain an indication of the range of grades.
  - present program in the area over and surrounding Billy Lake.
  - stripping has been directed to follow up on five anomalies located as high-low crossovers by magnetometer survey.
  - each trench is about 400 feet long and from two to ten feet deep.
  - sampling program to be carried out to determine if commercial quantities of copper can be located.
- 113 "The trenching is continuing to determine some structure controls of the mineralization. A diamond drill has been moved to the ground and is expected to start drilling in an effort to cut one or more of the areas of mineralization at depth.

July 1st - September 30th, 1965

Letters 143, 174, 188

- 143 "Work to date on the property has located widespread low grade copper mineralization in three areas." X-Ray size drilling in an effort to cut fresh samples in order to determine the range of grades."
- 174 I.P. survey of the company's claims in the area of Billy Lake recommended by W.J. Weymark, P.Eng.

- results of samplings from diamond drilling cores, as well as surface samplings have yielded assays of 0.08% copper and 0.183% molybdenum.

188 - Two week I.P. survey at cost of \$5,000 to \$6,000 covering 15 line miles.

October 1st - August 1st, 1966 Letters 200, 209

- 1 200 Bornite Ridge Mines Ltd. has reported that an I.P. survey has been completed on the company's property surrounding Billy Lake. The preliminary evaluation of the survey indicates two anomalous areas 600 feet by 800 feet.
  - 209 On a preliminary basis the I.P. survey has indicated two anomalous areas. One of these is reported to be 400 feet by 200 feet and the other 1600 feet by 600 feet.

Taseko Mines Limited

February 13th - 1968

Letter 30

30 - The claims adjoin the western boundary of the Highland Valley property under development by South Seas Mines Ltd.

The offering of treasury shares comproses 300,000 shares at 30¢ per share by prospectus dated May 25, 1967. This prospectus was reviewed in GCNL No. 150 (1967).

The president says the offering is being well received at this time and that he believes it will all be taken up probably by the third week in February. This would be followed by application to list the shares and by proceeding with the programme recommended by H.D. Forman, P. Eng. This called for expenditure of \$50,000 to investigate two zones of brecciation within granodiorite which are known to outcrop. He said that previous work on the property had explored a narrow vein system along a north-south shear but had done little to outline the area of one brecciated zone not to establish its relationship with a second zene 3,000 feet to the south. Trenching will be the first step. Also, advised are a grid survey and geological mapping with limited soil sampling with results to provide the basis for planning further work.

#### Skeena

January 1st - September 30th, 1965

- also known as Skeena Silver Mines Ltd. or Consolidated Skeena Mines Ltd. Letters 16, 112, 126, 132

16 - Brokerage house statement.

112 - Rio Algom Ltd. and Skeena Silver Mines Ltd. have announced jointly that an agreement has been signed which gives Rio Algom the exclusive right and option to acquire 16 Skeena mining claims located in the H.V. The property covered by the agreement adjoins the Cu-Mo prospect owned by Lornex Mining Corporation. It adjoins also the producing property of Bethlehem Copper Corporation Ltd. Rio Algom recently concluded an option agreement with Lornex.

Under the terms of the contract with Skeena, Rio Algom will undertake an exploration program on the 16 claims during the next 12 months. The agreement further provides for options involving further exploration extending over a period of five years and the acquisition of the property Should the purchase option be exercised, a five percent royalty would be paid by Rio Algom on ore mined on the property. The royalty would continue until payments totalling \$ 3 million have been made.

- 126 An option by Doherty Roadhouse was not exercised.
- 132 Consolidated Skeena Mines Ltd. is a name change from Skeena Silver Mines Ltd. following a one new, for five old, roll-back in the stock.

#### July 1st - December 31st, 1966

(Skeena Exploration Ltd.)

Letter 238

238 - Skeena Exploration Ltd. was on December 1, 1966, struck off the register of B.C. Companies and was dissolved.

October 1st 1965 - August 1st, 1966

Letters 35, 36, 51

- 35 Enrex Mining is expected to announce further work on the H.V. property for the 1966 season. Skeena will receive a total of 75,000 shares of Lornex for property.
- 36 Emrex Mining Co. completed, in early December 1965, the trial run of bacterial leaching on the Divide property of Consolidated Skeena. Results were encouraging and Emrex will announce soon as expanded program for 1966.
- 51 F.A. McGonigle, president, states that the Lornex Mining Corporation Ltd. whose exploration program is being managed by Riocanex on behalf of Rio Algom and Yukon Consolidated Gold Corporation Ltd. have an option royalty agreement with Skeena covering 26 claims in the H. V. (There are two agreements on the H.V. properties. One agreement is made direct with Lornex and the second is made direct with Riocanex. The terms of the two contracts vary but the 5% royalty is the same in both agreements) The work done on this property by Lornex and Riocanex includes, surveys of claims, soil sampling survey, I.P. survey and bulldozer trenching followed up by percussion drilling. The I.P. survey located an anomaly 1,000 feet wide by 3,500 feet long.

### South Seas

October 1st 1965 - August 1st, 1966 Letters 200, 232, 68, 92

- 200 George Corin and Dr. A.G. Pentland have reported that a trench recently completed on the property of South Seas Mining Co. Ltd. in the H.V. has been sampled yielding a total of 330 feet grading 0.87% copper. The trench is in an area explored in 1955 but neglected in favour of the ore zone area.
- 232- Current information is that trenching has extended the area of mineralization to a length of 2,000 feet and over a width of 195 feet with limits of the mineralized zone not determined.
  - **68** Dr. Pentland stated "It is difficult to explain the lack of agreement between facts of widespread copper mineralization at the surface and the rather good results from underground work on the one hand, and the essentially negative results from diamond drilling on the other. The only logical explanation was that the copper mineralization was in irregularly scattered blobs throughout the rock and that the diamond drill holes had a good chance of missing unless very closely spaced. The surface trenching has not placed any ore in the 'Proven' classification but it has shown that we are shooting for a very large tonnage, perhaps in the order of 50 x  $10^6$  tons or more. A bulk sampling program is planned for the spring.

92 - Title for the claims is to be held in trust and transferred to South Seas by Trojan Consolidated Mines Ltd. only at such time as the claims are brought into production.

#### cont'd South Soas

- July 1st December 1st, 1966 Letter 155
- 155 The following is the text of an August 8, 1966 letter to the shareholders of South Seas Mining Ltd. signed by Ben H. Swig, chairman. "The interest by other mining companies referred to in the March 11, 1966 letter has also continued. C.M.& S, has completed a land survey and we are awaiting a copy of its report. Several mining companies have inspected the property. We have held discussions with some of them and are of the opinion that a partnership arrangement for bringing the mine into production is possible at this juncture."

January 1st - June 30th, 1967

Letters 9, 62, 104

- 9 Current financing outlined.
- 62 Progress report on the drifting and generalities on the ore reserves.
- 104 A report, containing an ore and grade estimate is to be completed after the drifting has been finished.

### July 1st - October 12th, 1967

Letters 130, 137, 141, 151, 181

- 130 Securities statement.
- 137 Nature of the current underground program at former property of Trojan Consolidated Mines Ltd., which South Seas Mining Limited has acquired subject to royalty, is outlined by A.G. Pentland, P.Eng., a shareholder in South Seas.

Total expenditures from incorporation October 8, 1959 on exploration and development are shown at \$783,651 of which \$761,819 was spent in Highland Valley. This included \$243,535 spent under Mitsui Mining and Smelting Co. Limited agreement.

Work completed at the Trojan Mine during the past 18 months has shown that the copper mineralization is wide-spread and that it has an irreqular zonal arrangement. This work consists of a number of large trenches dug by bulldozer during 1965 and 1966 and 2,000 feet of drifting on the 150 foot level. The drifting was done during the winter of 1966-1967 and is being completed at the present time.

Two zones of copper mineralization have been explored, one striking north-south and dipping steeply to the west and a second, which branches from the first near the south end, striking northwesterly towards the high grade ore that was outlined in early underground work and diamond drilling.

141 - Lengthy report given by Dr. Pentland.

Indicated ore reserves, as calculated from the date given above (July 5, 1967) are as follows:

	Tons	Copper &
High Grade Shaft Section	1,570,000 1,881,000	2.17 1.28
Northwesterly and of the "U" Eastern Zone	13,971,000	0.52
TOTAL	17,422,000	0.75

151 - Financial statement

South Seas - cont'd

### July 1st - October 12th, 1967 - cont'd

181 - C.J. Coveney has given his views and recommendations on the South Seas

 Trojan property (Aug. 3, 1967). He states that the property is 30 miles southeast of Ashcroft, at an elevation of from 4,800 to 6,200 feet covers a total of 60 claims, moderate relief, few rock exposures, and an average of less than 20 feet of overburden.
 His report states "The breccia from an economic viewpoint, is the next.

important rock type as all the mineralization is associated with this rock. The main breccia mass covers an area about 800 to 1,000 feet in width and in excess of 1,500 feet in length.

"Dr. Pentland has suggested that the higher grade part of the deposit in in the form of a letter "U" and calculated for 3 zones a total of 17.4 million tons averaging 0.75% copper.

- the shaft section which is more delineated than the other 2 zones is calculated as 1.5 million tons of 2.17% copper.

- several reasons are given to suggest the ore reserves are on the conservative side.

"A tremendous amount of work has been done on the property but unfortunately there has been a lack of continuity of exploration as well as failure to preserve adequate records and maps. Practically all work to date has been concentrated on the known breccia area to the exclusion of other parts of the property, all of which is potential ore ground."

"Much of the South Seas claims are drift covered and very little attempt has been made to explore the ground away from the main breccia zone. I would recommend that the exploration program include geological mapping, trenching and a geophysical survey. The cost is estimated at about \$ 60,000.

#### South Soas Mining Limitod

April 9th - 1968 Letter 72

72 - A basic 50-50 deal has been made between Phelps Dodge Corporation of Canada, Limited and South Seas Mining Limited on the Trojan property in the Highland Valley area of B.C. In order for the agreement to be maintained in good standing, the following expenditures are to be made on exploration of the property by the following dates:

\$ 30,000	by June	30,	1968	\$160,000 by	June	30,	1969
\$160,000	by June	30,	1970	\$200,000 by	June	30,	1971
\$200,000	by June	30,	1972	\$250,000 by	June	30,	1973

The contract and expenditures give Phelps Dodge an option to enter into a joint venture with South Seas at any time during the contract with respect to placing the property in production. South Seas is not required to participate in the production financing.

"If Phelps Dodge undertakes the joint venture it will be the operator. It then has the right to secure financing to bring the mine into production or to keep the property in good standing until it deems commercial production practicable, or to engage in further exploration, both of the latter at its expense. If Phelps Dodge should choose not to enter into commercial production, South Seas retains the right to be the operator of the joint venture or to find a third party that will.

If Phelps Dodge chooses to mine and sell the ore before the milling stage, revenues will go 90% to repayment of loans and 5% to each of the partners, thereafter 80% to reimbursement of prior investment by South Seas and Phelps Dodge and 10% to each of the partners and thereafter 50% to each. There is over \$1,000,000 repayable to South Seas.

On August 1st, 1967, ore reserves were estimated at 17,422,000 tons grading 0.75% copper. In addition, there is a possible 10,000,000 tons of ore that has not been included owing to lack of precise information.

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July 10, 1968 Letter 141 141 - Next step in exploration of the Highland Valley property of South Seas Mining Ltd. optioned from Trojan Consolidated Mines Ltd.,

Seas Mining Ltd. optioned from Trojan Consolidated Mines Ltd., will be a bulk sampling program recommended by C. J. Coveney, P. Eng., writing in that amount as described in the accompanying tabulation.

In addition to bulk sampling of the present surface trenches, the company says it plans to extend the underground work 500 feet and do additional geophysical surveys.

By letter of June 17, 1968, Phelps Dodge Corporation of Canada Ltd. advised South Seas that it had spent \$30,000 on the Trojan property under its agreement of March 20, 1968 and that it was terminating its agreement of March 20, 1968 and relinquishing all interest in the Properties (Contd.)

#### SOUTH SEAS

July 10, 1968 Letter 141 (cont.) 141 - property.

> Work done in the past year included soil sampling, bulldozer trenching, 2 D.D. holes at approximate cost of \$30,000. Previous work included extensive trenching and diamond drilling and the sinking of a shaft to the 150 ft. level plus 3,100 ft. of drifting. Total cost of work done is estimated at \$750,000. In a report dated June 26, 1968, Mr. Coveney advised the company that the limited work done by Phelps Dodge of Canada "neither added to, nor subtracted from the information already known about the property". He said he is of the opinion that the potential of the property remains untested and that because of the irregular distribution of the copper sulphides, conventional sampling methods and diamond drilling have failed to give a true picture of the ore grade. In advising extending the underground work for 500 feet to the northeast, he says this will test an area at a vertical depth of 280 ft. below high grade surface trenches, with underground material to be bulk sampled.

The consultant says that an old geophysical survey indicated several anomalous areas in the northern part of the property. He advises that this work be redone using modern induced polarization methods. He emphasizes that the program be started immediately so as to be completed before winter. Mr. Coveney concludes that this program will go a long way towards proving whether South Seas has a small high grade or a large lowgrade oper ation. Potentially, he states, the work is being concentrated in the shaft area where he believe the potential tonnage is in excess of 75,000,000 tons.

#### July 26, 1968

### Letter 153

153 - Ben Swig, President of South Seas Mining Ltd., announces that an induced polarization survey is now underway at the mine and that there will be a total of 37 line miles done. This should take approximately three weeks. A crew is presently cleaning out a cave underground and this work should be completed within the next few days. A crushing plant and sampling plant are being prefabricated in Vancouver and will be shipped to the property and should be in operation towards the end of July. The underground work will consist of 500' of drifting and all the material from this drifting will be bulk sampled. When this is' completed, the surface trenches will also be bulk sampled. It is estimated the time required for this program will be approximately three months. Ample funds, \$120,000, are on hand for this work.

September 23, 1968 Letter 195

195 7 A total of 43.28 miles of line have been covered by induced polarization, ... self-potential and resistivity survey on the Trojan property of South Seas Mining Ltd. in the Highland Valley area of B.C. A Total of 45 individual areas were shown to be moderate to strongly anomalous with induced polarization alone. Five areas were selected for drilling because they were found to be anomalous by all three methods and all exhibit special effects often indicative of sulphide mineralization.

#### SOUTH SEAS

November 18, 1968

Letter 233

- 233 South Seas Mining Ltd. has reported that drifting up to November 8, 1968, on the South Seas (Trojan) property just north of Bethlehem
   Copper has indicated another zone of some 80 feet of higher grade ore assay results of which will be available soon.
- The plan now is to drill ten long holes both north and south of this zone to determine its full width.

This zone plus the northeast zone which averaged 1.28% copper over a drift length of 100 feet and considerably to the known 2,000,000 tons of high grade ore, which is around the shaft area.

Several drill holes are planned through the high grade sections to determine the possibility of further depth to these zones.

A new anomaly some 4,200 feet north and 50° east of the shaft was drilled to 801 feet. Low but constant chalcopyrite was indicated throughout this length. The drill was then moved to the A anomaly and a hole was drilled to 1127 feet. It was still in the volcanics and was therefore stopped. Drilling is now commencing on the anomalous areas some 2,000 feet due north of the shaft.

#### 62000 STELLARO MINING CO.ITD.

IN HIGHLAND VALUEY REPORTED

RESURE OF MULTIC PROGRAM' - J.R. Traponior, munaging director of Shotlako Missing Co. Itd., had reported the regults of drilling and survey work on the Stellako Yubot property located in Highland Valley.

1415

He reports that eleven holes have been completed, nine of which pressure that the central mineral sone and two holes made a proliminary test on the first 1.P. soundly as a guide for subsequent drilling.

All drill holes exposed the anticipated rock types and structure but the overage grade of mineralization was lover than that of the surface exposure. Poor core recovery also contributed to the problem of an accurate appraisal of the copper content. Sludges should a wide variation in copper assay value with no close correlation with core assays. Four of the holes showed good copper content with the core in the remaining seven holes being low grade.

A summary of the drilling is as follows:

Hole No. S-1 went to 221 feet at -40° and from 100 feet to 190 feet showed copper assays between 0.19% and 0.26%.

Hole No. E-2 went to 248 feet at -40°. From 60 feet to 110 feet the core assayed 1.44% comper. From 110 fect to 160 feet the copper assay was 0.15%. Hole No. S-3 stopped at 401 feet at -40°. From 80 feet to 92 feet the core assayed

0.87% copper and the balance of the core showed sparse copper.

Hole S-4 was drilled at -45° to 249.5 feet. From 130 feet to the hole bottom the copper content varied between 0.09% to 0.12%.

Hole S-5 cut the structure for 446.7 feet at -45°. Minor chalcopyrite was logged from 16 feet to 140 feet. The next 50 feet assayed 0.27% copper. From 190 feet to 280 feet the core was barren but the next 10 feet assayed 0.85% copper. The following 40 feet showed sparse chalcopyrite. The next 10 feet, 330 feet to 340 fect returned 1.05% copper followed by 60 feet of 0.10% copper.

Hole S-6 went 204.8 feet at -45° in altered aplite and granito to check the westerly limit of the central zone. Hole S-7 tested the depth extension of Hole S-2 and the last 100 feet of the 352 foot total length showed sparse chalcopyrite.

Hole S-8 was drilled 291 feet at -45° to test the trend of the first I.P. enough but results were inconclusive as to the trend of the anomaly. Hole S-9, however, penetrated the casterly section of this I.P. anomaly and from 16.5 fect to 30 feet yielded 2.2% copper.

Hole S-10 went to 400 feet at -55°. Minor chalcopyrite showed from 190 feet to 400 feet but the assays were only in the range of 0.05% - 0.09% copper. The oppearance of disseminated chalcopyrite at 395 feet is of special interest.

Hole S-11 tested the zone cast of Hole S-6 and from 140 feet to 189.5 feet the core assayed 0.09% copper. The hole was in the typically altered and fractured zone to the depth of 300 feet at -50°.

Mr. Trepanier summarized the drilling results as encouraging and only a start to delineato the extensive mineralized zone of freeturing and alteration. The four ore intersections show the existence of commercial grades even though the high grade surface discovery zone was shallow. Line cutting for the induced polarization survey was slow for various reasons and with continued instrument trouble the I.P. phase of the work was unduly delayed. These problems now are overcome.

The survey has indicated four anomalous zones of important extent and chargeability by reconnaissance work and detail work is now underway on these zones. They will be tested by diamond drilling as soon as possible.

#### Stellako

(Stellako Mining Co. Ltd.) July 1st - September 30th, 1965 Letters 143, 169, 176

143 - No assays have been received yet nor has there been any diamond drilling. Further trenching and geological mapping is now proceeding. The company's claim group is in the H.V. to the south of Bethlehem Copper and not far from the property of Chataway Explorations.

169 - Stellako Mining Co. Ltd. announces that by agreement dated August 25,1965 they have agreed to sell to Noranda Mines Ltd. 200,000 shares at \$ 1.00 each. Options were granted covering an additional 800,000 shares at prices ranging from \$ 1.00 to \$ 1.75 per share.

An accelerated program of geochemical, geophysical and drilling exploration is currently being laid out.

The work is to be done on the company's H.V. property where the company announced on July 26, 1965, that over 1000 feet of bulldozer trenching opened up highly altered granitic rocks. At that time it was stated that within this zone what appears to be a series of quartz veins carrying bornite and chalcopyrite roughly parallel to each other over a strike length of at least 600 feet, has been exposed.

176 - Stellako Mining Co. Ltd. has reported that the first diamond drill hole on the company's H.V. property started on September 9, 1965. The firm has approximately \$ 350,000 cash which is considered adequate for the present phase of operations. A program has started consisting of line ' cutting, geological mapping, to be followed immediately by geochemical and a geophysical survey.

An option of 64 adjoining claims has been acquired by the company.

October 1st 1965 - August 1st, 1966

Letters 202, 17

202 - Stellako Mining Co. Ltd. has announced satisfactory progress in the Yubet claim in the Highland Valley. The first 4 drill holes have indicated a wide zone of mineralization consisting of a larger lower grade zone containing a higher grade section approximately 40 feet true width. Drilling to date has been shallow near surface drilling. Core recovery has been poor in the better mineralized zone and values badly leached.

Deep drilling to test the unleached down dip extension of the zone is now in process. Exploration is continuing along strike. An I.P. and magnetometer survey will start soon.

17 - Further I.P. survey work is to be undertaken as a follow up on the work done last season which indicated four anomalous areas.

### T.C. Exploration

October 1st, 1965 - August 1st, 1966 Letters 224, 43, 141

- 224 The Highland Valley property totalling 64 claims adjoins that of Lornex Mining Corp. A report by L. Ostensoe, geologist, says two areas on the claim group deserve attention. These are areas of low swamp surrounded by ridges of resistant Bethsaida granites and, he says, being similar to topography at Lornex, might indicate an underlying area of soft hydrothermally altered granite carrying copper mineralization. In area 1, there is copper stained float. He said magnetic anomalies could quickly be outlined with a flux-gate type magnetometer. Also bulldozer stripping and overburden type drilling should investigate any low anomalies. Ten to thirty feet of overburden cover the area
- 43 T.C. Explorations has reported that a percussion drilling program has started on its property in the Highland Valley. The work will test three anomalous areas found to date to the north of Pimainus Lake. Line cutting and geophysical work is continuing on the balance of the 64 claims.

141 - In the Highland Valley the company holds 32 claims where magnetometer surveys have located two anomalies up to 3,500 feet long and 800 to 1,000 feet wide. These anomalies are associated with geological structures and bulldozer trenching has located low grade copper mineralization across 120 feet. A program of I.P. survey is planned for the ground.

### T.C. Explorations - cont'd

July 1st - December 31st, 1966 Letter 196

196 - On the company's 64 claims in the H.V., work has been mostly to the north of Pimainus Lake and has included road building, line cutting and bulldozing along with megnetometer survey work. On the east zone bedrock was reached at a shallow depth in two trenches 400 feet apart revealing copper mineralization running from 0.2% to 0.6% copper over widths of 140 and 170 feet. An I.P. survey has been completed over part of the ground but results are not known as yet. A soil sampling survey over the same area indicated an anomalous area.

January 1st - June 30th, 1967 Letters 8, 15, 34, 69, 108 8, 15, 34, 69, 108 - deals with oil and gas deposits.

July 1st - October 20th, 1967 Letters 129, 150, 176, 186, 187, 196 129 - option not exercised. 150 - a \$135,000 exploration program has been recommended. 176 - similar to 187 186 - similar to 187 187 - Treasury share option exercised. 196 - Underwriting announcement.

June 4, 1968 Letter 116

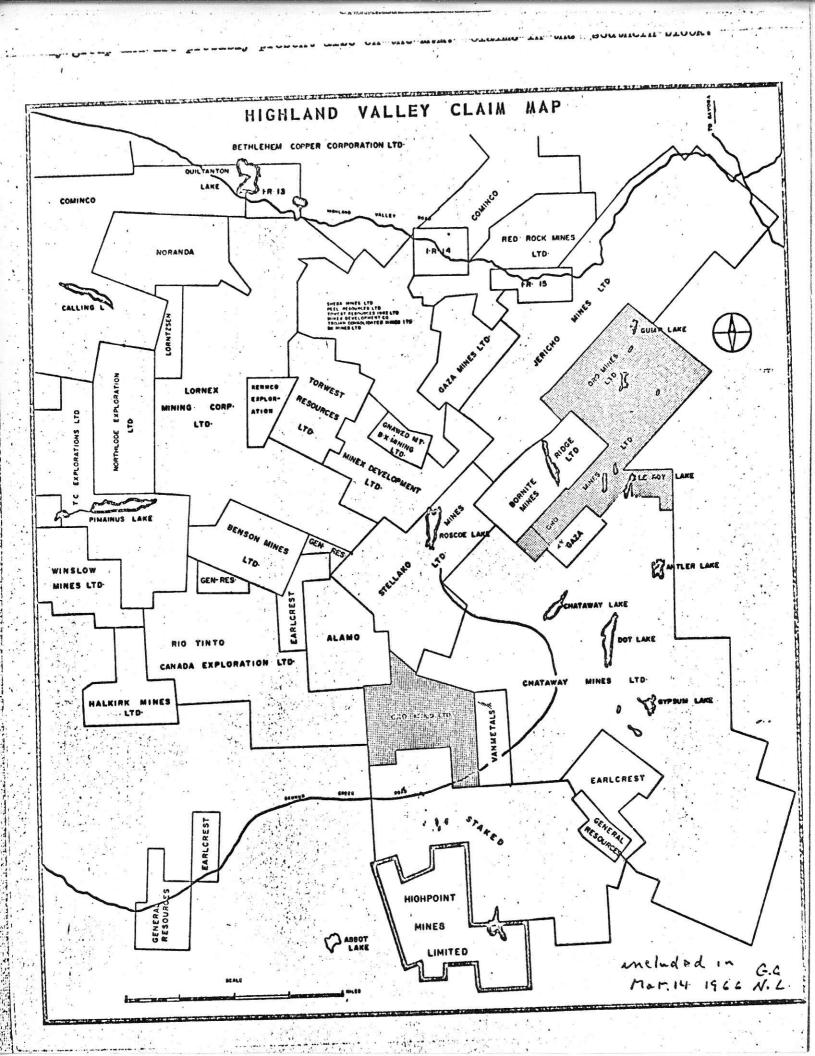
116 - In the Highland Valley 73 claims and 7 fractions are held north and south of Pimainus Lake. Exploration in 1966 included trenching, soil sampling, magnetometer and induced polarization surveys, all of which established good anomalous targets and good geological structure. The next phase of work will require an expenditure of \$100,000 and participation by a major partner or partners is being considered.

# GEORGE CROSS NEWS LETTERS

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# November 1st, 1967

- i) Geology general overburden
   ii) Reported exploration
   iii) Reported development
   iv) Activity - current
   - past
- v) Number of claims when started



### May 10, 1968

Letter 98

98 - "Exploration Program underway in Highland Valley - Adera Mining Ltd. holds 83 claims in the Highland Valley area near the properties of Bethlehem Copper, Alwin Mining, Trojan-South Seas and North Pacific. Exploration work on the claims in the passyears has established several magnetometer anomalies, one of which is some 1,200 feet by about 200 feet and a second is some 800 feet by 400 feet. Limited soil sampling also indicated anomalous areas coincident with the magnetometer work. The Company now has a crew on the property under the direction of C.J. Coveney, P. Eng., Consultant, carrying out a program of exploration including an induced polarization survey which is under contract to Huntec Ltd. The induced polarization survey work started on the property early in April and is expected to be completed in early May with the complete interpretation expected in June when a follow up program will then be planned. The preliminary results suggest some favorable results from the survey. It is expected that some \$15,000 will be spent on this phase of exploration."

October 2, 1968

Letter 202

202 - "Block of 70 Claims in Highland Valley under 50-50 Exploration Agreement. A joint announcement from J. A. McLallen, Chairman of Bethlehem Copper Corporation and S. E. Jerome, President of Adera Mining Ltd., discloses the completion of an exploration agreement covering the 70 claims held by Adera Mining in the Highland Valley area of B.C. The claim block adjoins to the west and north the holdings of Bethlehem Copper. The agreement provides for Bethlehem to pay for a minimum of 5,000 feet of diamond drilling on the Adera claims in the areas designated by Adera. All expenditures beyond the 5,000 feet of drilling are to be shared equally on a 50-50 basis with each company having a 50% interest in the property. The exploration will be under the direction of a representative of each company. Previous work on the property has included extensive geological mapping, soil sampling and geophysical surveys which has located a number of mineralized areas and a number of geophysical targets which will be tested by the 5,000 feet of drilling. The results of the previous work is being re-evaluated in the light of the recent results on the adjoining Valley Copper Mines property which has indicated massive tonnage of copper-molybdenum ore."

### Alwin

October 1st 1965 - August 1st 1966 Letters 43, 105

- 43 Alwin Mining Co. was incorporated April 30, 1964. The prospectus mentions that the Company has some 38 claims in the Highland Valley.
- 105 On the EZZ claims, adjoining Bethlehem in the Highland Valley, a crude chip sample taken across a 10 foot width of mineralized granite assayed 0.39 % copper. A later check sample assayed 0.81 % copper in the granites.

Previous work in the area consisted of geological mapping, magnetometer survey, and some diamond drilling done in 1961.

Line cutting followed by an Induced Polarization survey is planned for the property.

January 22, 1968 Letter 14

14 - Following is the text of a progress report on the Alwin Mining Company Limited property in the Highland Valley area of B.C. The report is dated Janury 16, 1968, and was prepared by the company geologist, J. Foster Irwin, P. Eng. "Potential of Alwin's new mine in the Highland Valley continues to improve as the diamond drilling program advances. From 27 diamond drill holes representing 8,000 feet of drilling ore outlined is now estimated at 3,560 tons per vertical foot to a depth of 350 feet grading 2.7% (recoverable) copper. The ore bed is still open at both ends along the strike. With investigations carried out to 350 feet in the vertical dimensions ore values continue to improve with depth. The tonnage factor of 3,560 tons per vertical foot is based on a grade cut-off of 0.5% copper.

"Outlined by the 27 drill holes assessed to date is 1,246,000 tons of copper ore grading 2.7% copper, with a net smelter value of \$26,914,000 (based on copper at 40¢ per lb.) Indicated low grade tonnage is 3,000,000 tons grading at 1.29% copper with a net smelter value of \$30,960,000 (based on 40¢ per pound for copper).

"Two promising geophysical anomalies have yet to be drilled. Good possibilities still exist for a high tonnage low grade deposit, both within the zone under investigation and on the two remote anomalies yet to be explored."

#### February 12, 1968 -Letter 29

29 - H. E. Jacques stated in a letter to shareholders dated February 8, 1968: "A feasibility study will be undertaken in the near future. The drilling has returned a silver content to the ore of from one ounce to six ounces per ton.

Alwin - cont'd

January 1st - June 30th, 1967 Letters 18, 57

18 - "The company holds a block of claims in the H.V. area near Bethlehem Copper and Lornex. Sampling of a 70 foot trench on the claims returned assays of 0.43% copper. H.O. Seigel and Associates are scheduled to start an I.P. survey on these claims in February."

57 - gives more information on incorporation.

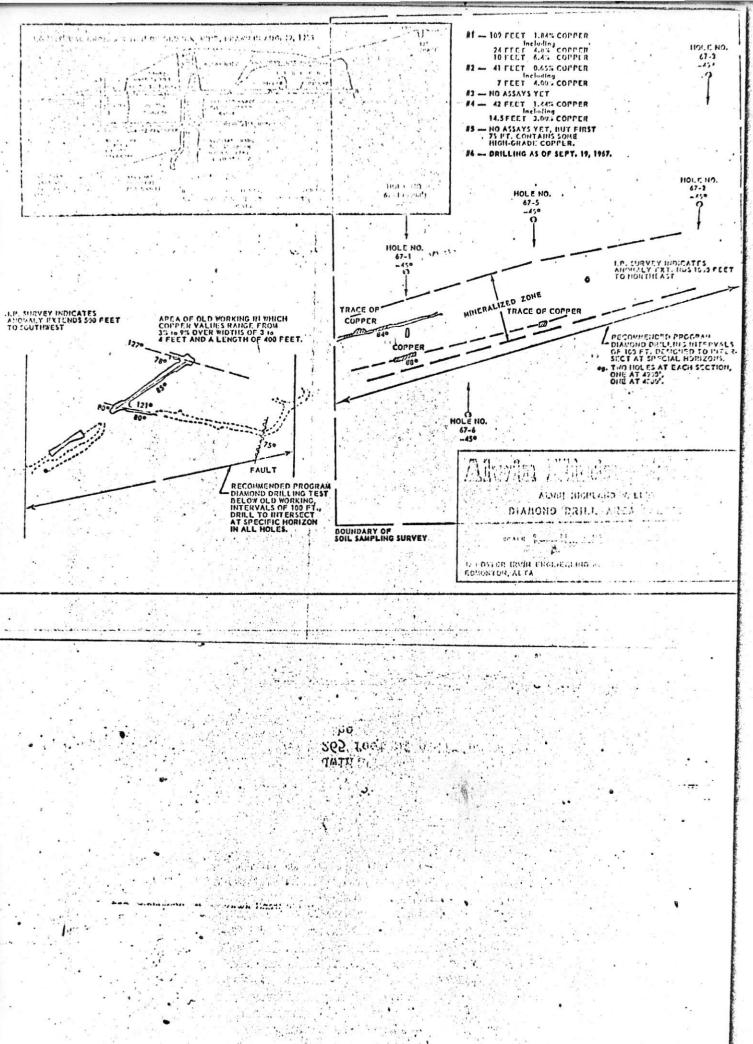
July 1st to September 15th, 1967 Letters 149, 157, 162, 165, 184

- 149 "Dr. Fawley, P. Eng., has recommended on basis of an I.P. survey of the H.V. property that diamond drilling proceed. This is now underway. The company, on basis of the new information, acquired the O.K. claims which are surrounded by Alwins "EZZ" group."
- 157 "The company is continuing to diamond drill a strong induced polarization anomaly on its O.K. - EZZ group of 25 claims in the H.V. The target being drilled was surveyed by H.O. Seigel and Associates Ltd.
- 162 "Dr. A.P. Fawley, consulting geologist to Alwin Mining Co. Ltd., has reported that the first diamond drill hole on the O.K. EZZ property of Alwin Mines Ltd. was completed to 228 feet and drilled at -45° with an average for 109 feet of 1.84% copper over the interval 119 to 228 feet. The 24 feet from 119 to 143 feet graded 4.08% copper and the 10 feet from 210 feet to 220 feet assayed 6.40% copper. The hole was drilled to the east of the old O.K. workings which are located in the H.V. between the properties of Bethlehem Copper and Lornex Mines Ltd. Dr. Fawley stated that the O.K. mineralized structure is nearly vertical and the present drilling is in an extension of this structure indicated by a weak I.P. anomaly. Drilling is continuing."
- 165 "The company is continuing to drill on its H.V. property with further assay results expected in about a week."

184 - "A September 15, 1967, report has been presented by J. Foster Irwin, P.Eng covering the recent exploration work on the Alwin Mining Company Ltd. prop erty in the Highland Valley area of B.C. Mr. Irwin is supervising the work for the company on contract with the program under the general supervision of Dr. A.P. Fawley as consultant."

The work is on the O.K. - EZZ group of 25 claims located between the operations of Lornex and Bethlehem. The drilling to date has been testing an anomalous area which extends a minimum of 1500 feet and covers the area of the old working on the O.K. Mine plus a considerable distance from the workings. The drilling has tested a strike length of 500 feet and a suggested true width of between 70 feet and 150 feet.

The results of the drilling to date are reported by Mr. Irwin as follows: "hole No. 1 returned an assay average of 1.84% copper for a core length of 109 feet, containing a 24 foot section averaging 4.8% copper and a 10 foot section averaging 6.4% copper. Over the entire hole length a true width of 151 feet is now averaged at 1.82% copper.



#### Alwin - cont'd (Letter 226)

- By making use of the engineers figures, the president's report states that a reserve estimate of 455,000 tons of 4% copper can be calculated by taking the 1750 tons per vertical foot to a depth of 260 feet. At 30¢ per pound copper, this tonnage has a gross value of \$10,920,000. and at 65¢ per pound copper the gross value is \$23,650,000.

By taking the larger zone, including the highgrade, and using 9000 tons per vertical foot to a depth of 260 feet, a tonnage of 2,340,000 grading 1.5% copper is indicated with a gross value of \$ 21,060,000 at 30¢ copper and \$45,630,000 at 65¢ copper.

The president points out that the calculation is based on only eight of the 21 holes drilled to date and over a strike length of 1000 feet which has been indicated to be a total of 3000 feet by the I.P. survey. The current drilling is at 100 foot intervals with two holes at each station. The holes designed to give a horizontal coverage of 250 feet to 350 feet and to a depth of 260 feet.

### ALWIN

April 30, 1968

Letter 89

89 - H. E. Jacques, president of Alwin Mining Co. Ltd., has reported the start of a \$550,000 underground development program for the company's EZZ-O.K. property in the Highland Valley area of B.C. The program was recommended by company director J. A. C. Ross and Crowhurst & Bacon, company consultants. The prosident stated that the financing for this second phase of the development has been arranged. The work will include 3,900 feet of drifting and crosscutting plus a minimum of 25,000 feet of underground diamond drilling. The underground program is designed to provide data on the ore zones in order to assess all factors for planning of mining operations. It will also provide representative samples of ore for metallurgical tests.

Average grade is reported as 2.70% copper. Highgrade ore has persisted in recent drilling in newly discovered zones in the No. 1 anomaly. Two other anomalies are yet to be explored.

A camp site is being prepared with the camp expected to be installed by the end of May.

May 17, 1968.

Letter 104

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104 - Surface diamond drilling No. 1 anomaly at Alwin Mining Company's highgrade copper mine in the Highland Valley, continues to extend the mineralized vein structure system westerly and add to ore reserves. The current total strike length of 2,500 feet has been established and compares with 1,500 feet announced earlier. The west end of the structure is still open to extension. Oil trenches and a short adit in this area disclose the same type of favorable mineralization as encountered in drilling in the east part of the structure.

The latest surface drill hole on this westerly extension, which will continue to a depth of 700 feet, has already intersected three previously determined ore zones. It well be followed by drilling on targets further to the west. The continuity of high grade ore average 2.7% copper on the No. 1 anomaly was confirmed by the work. A total of 19 miles of lines has been cut over part of the remainder of the Alwin claims block on which two further anomalies were revealed by I.P. surveys. Geochemical and magnetometer survey work will be started almost immediately in this virtually unexplored area of the property. Alwin has let contracts covering a \$550,000 underground development program. Haste Mine Development Ltd., a subsidiary of the Cameron McCutcheon organization, has been awarded a contract to drive a total of 4,800 feet consisting of a 7 foot by 9 foot adit, a crosscut through the mineralized copper bearing structure, and drifts along the mineralised zones. Contracts are also being negotiated for the completion of 20,000 feet to 30,000 feet of underground diamond drilling. This advanced stage of Alwin's exploration program will commence shortly after the adit has been collared.

Alwin is now installing a diesel driven compressed air plant capable of providing 1,800 c.f.m., along with sufficient diesel electric generating equipment to supply power for ventilation and camp lighting.

#### ALWIN

May 17, 1968

Letter 104

104 - Accommodation is also being erected for a crew of 35, together with cookhouse and other facilities.

July 3, 1968

Letter 136

136 - The \$500,000 underground development program on the Highland Valley property which started recently, is making rapid progress. A seven foot by nine foot adit is being driven into the mountainside and in a few weeks an extensive underground diamond drilling program will be started under the direction of Bacon and Crowhurst, consulting engineers.

August 13, 1968

Letter 165

- 165 A July 29, 1968, report from Bacon & Crowhurst, consulting engineers, states that a total of 80 BQ drill holes, totalling 31,216 feet has been completed. This drilling was done on lines 100 feet apart and partially explores an area 2,000 feet long by about 800 feet wide. This disclosed four steeply dipping (60° to 90°) vein fractures varying in width from 3 feet to 25 feet and averaging 10 feet. The vein fractures are from 300 feet to 800 feet in lentch and have been traced approximately 350 feet below the surface. A few intersections have been obtained at greater depths, as much as 650 feet.
  - The engineers recommend that in the area drilled from surface, an adit has been started at an elevation of 4,680 feet above sea level. This adit will be carried as a line drive beneath the drilling sections, and will intersect and follow along on the vein fractures. A crosscut will be driven in a northerly direction from a point in the adit about 1,900 feet from the portal; it will intersect other vein fractures and drifts will then be driven along them.
  - In addition to providing assay values from the parts of the vein fractures exposed, the underground work will establish the competency of the wall rocks and will permit an intelligent selection of mining method. Samples of ore from metallurgical investigation will be available from the underground workings.
  - At the date of writing, the adit has reached a point approximately 900 feet from the portal. Diamond drill stations are being cut at 100 foot intervals and a drill has just commenced fanning holes downward across the vein fractures. A second drill will be added as soon as working faces permit. The total underground drill footage is estimated at 31,216 feet.
  - Geochemistry has been carried out at 100 foot intervals along lines spaced 100 feet apart on some of the easternmost mineral claims. At least four interesting anomalous areas have been discovered to date. These warrant investigation by means of tractor trenching and/or short surface diamond drill holes. The remainder of the property should be covered by geochemistry.

#### ALWIN

August 13, 1968

Letter 165

165 - Induced polarization work carried out last year has outlined an anomalous area in the northwestern part of the mineral claims. This should be investigated by means of intensive prospecting, tractor trenching and/or surface diamond drill holes. The cost of further exploration is estimated at \$351,000.

The July 29, 1968 report by Bacon and Crowhurst did not give an estimated ore reserve figure. The most recent estimate was reported by the Company on January 23, 1968 giving estimated ore reserves as 1,246,000 tons with a copper grade of 2.7%. Also given was an alternative ore reserve calculation of 3,000,000 tons of 1.29% copper.

October 4, 1968

Letter 204

A Sept. 16 report from Bacon & Crowhurst, consulting engineers to Alwin Mining Co. Ltd., on the company's Highland Valley, B.C. property discloses that the underground, 7 feet by 9 feet portal level had been advanced 1950 feet and that 14 underground diamond drill holes had been completed for a total of 7,477 feet. The results of the six holes are given as: No. 84 cut 6 feet of 1.41% copper; No. 85 cut 4 feet of 1.48% copper, No. 86 cut 5 feet of 1.66% copper plus 3 feet of 2.66% copper, No. 89 cut 16 feet of 2.35% copper and No. 92 hole cut 41 feet of 2.15% copper. All intersections are reported as probable true width. The first three holes represent the downward extension, the No. 1 vein system, and perhaps a new No. 5 vein. The fourth intersection occurs about 100 feet below the winze from the old workings. The last two extend what is probably the No. 3 vein structure about 300 feet down the dip to the 4360 foot elevation or a total of 600 feet plus below the surface.

Several minor intersections, other than the above, were obtained during the drilling, but not of the same significance.

Under other exploration, the consultants state that the geochemical work initiated in 1967 has been extended to cover approximately one half of the claim group. Several interesting anomalous areas were outlined. One one of these, tractor trenching has uncovered three or four narrow 12 inches to 15 inches, vertical stringers, parallel to each other and spaced about 100 feet apart, containing weak chalcopyrite and bornite mineralization.

Drill indicated ore reserves are reported as 686,600 tons of 2.44% copper, and 0.30 oz. silver. The consultant state, "Based on results obtained from the occasional deep diamond drill hole driven from the surface previously, and considering the strong structural pattern at depth currently being developed, it is reasonable to expect that the tonnage quote above, which is essentially above the 4680 level, will be duplicated by the completion of the present exploration program. It is similarly expected that the average grade of 2.44% copper will be maintained. Flotation recovery studies are now underway.

November 12, 1968

Letter 229

229 - Reserves have been calculated at 686,000 tons assaying 2.44% copper, drill indicated.

#### Alwin - cont'd (Letter 184)

- "Diamond drill hole No. 2 encountered the zone on strike 500 feet to the east of hole no. 1. Results from the last 50 feet of core are not vet available. In the first 150 feet of the length a true width of 41 feet between core footages 95.2 and 154 feet, averaged 0.65% copper and contained one 7 foot section assaying 4% copper. Hole No. 3 was located to intersect the zone 200 feet below hole No. 2. The zone was encountered in hole No. 3 but assay results have not yet been returned. "Diamond drill hole No. 4 has been drilled to obtain an intersection 100 feet below diamond drill hole No. 1. With results yet incomplete returns received discredit any suggestion that the former OK workings had delimited the ore body at depth. Partial results from No. 4 hole indicate ore values at a vertical depth of 250 feet. A core section from 300 feet to 342 feet, representing a true width of 30 feet, returned an average assay of 1.44% copper and contained a section between 327.5 feet and 342 feet assaying 3% copper. No results have yet been returned for the last 140 feet of core length."

(See map for hole locations and table of results plus values in old workings).

Continued drilling is recommended for the area of the recent intersections and for the depth of the old OK workings. Preparation of winter quarters and further induced polarization survey work is also recommended. Work on the company's property in the Beaverlodge, Saskatchewan area is continuing and drilling of two zones outlined by work to date is planned for October.

July 1st - November 24th, 1967 Letters 225, 226

225 - Listed VSE, new financing.

226 - Twenty-one holes have been drilled on the Company's 25 claims, the O.K.-EZZ groups, in H.V.

Company geologist, J. Irwin, P. Eng., recommended an additional 15,000 feet of drilling plus 2000 feet of underground work at an estimated cost of \$230,000. "From work to date, the indicated tonnage for the highgrade sections only, is 1750 tons per vertical foot to a depth of 260 feet over an open strike length of 1000 feet (i.e. a width of approximately 21 feet assuming 12.5 cubic feet per ton.) A possible factor of 9000 tons per vertical foot exists, for the same strike length and depth, grading 1.5% copper.

Two highgrade occurrences persist, within a zone width ranging from 70 feet to 120 feet. These highgrade occurrences grade from 2.5 to 10% in copper across true widths of 7 to 30 feet. Interspaced, both sides and between the highgrade intersections, are narrow intersections of massive chalcopyrite and wide sections of finely disseminated bornite. On occasion, the copper content of the zone under investigation may be averaged at 1.8% copper over a true width in excess of 100 feet. Molybdenum has been observed in the drill core but is not being assessed for economic signifigance at this time.

#### ALWIN

#### November 18, 1968

Letter 233

233 - The 4680 foot elevation adit has been driven to a point 2520 feet from the portal and will be extended a further 100 feet. The crosscut driven northeasterly has been driven a total of 390 feet and intersected 25 feet assaying 1.82% copper, and 5 feet assaying 5.18% copper, representing the No. 2 and No. 3 vein systems, at 125 feet and 325 feet respectively. From this crosscut, 501 drift West and 501 drift East has partially explored the No. 2 vein system for 179 feet and 11 feet. Correspondingly, 502 drift east and 502 drift West has exposed part of the No. 3 vein system for a total distance of 164 feet easterly and is currently passing through a rather extensive fault zone in the westerly direction with the objective of picking up the vein as indicated by diamond drilling.

In 501 drift west, 25, feet, assaying 3.37% copper, was intersected, and in 501 drift East, 5 feet assaying 1.14% copper has been explosed. Both of these intersections represent only that part of the vein system so far explored.

502 drift East passed along the vein system for a total of 116 feet, of which the first 5 feet assayed 5.18% copper. The remaining 111 feet exposed is visually of equal or better grade and shows that the vein system is somewhat wider than the drift itself. Hole No. 68 -100, drilled flat from the adit with an intersection of 35 feet assaying 3.05% copper, shows that the vein system is persistent and is considerably wider ahead of the face of 502 drift East. To date 110 holes, totalling 14,889 feet, have been completed from the 4680 adit level. These were drilled along section lines spaced at 100 foot intervals and have been testing the vein structures at or below the adit elevation, down to the 4400 foot elevation. Several substantial mineralized intersections below the adit level, representing true widths of from three feet to 30 feet, have been made, and the position, attitude and size of the No. 2 and No. 3 vein systems in this area fairly well established. A porphyry dike approximately 20 feet thick which has been traced throughout the drilled area, is known to interrupt the mineralization which, however, continues underneath the dike. A re-evaluation of the ore reserve is in progress. Studies have been underway concerning the other interesting areas in the claim block and as a result an expanded geochemical program initiated in the northwest corner of the claim group.

## Properties (contd.)

### TASEKO

October 29, 1968

Letter 220

220 - The Highland Valley property of Taseko Mines Ltd. is located between the properties of the North Pacific and South Seas companies. Start of drilling is scheduled for the latter part of October to test four targets found by recent geophysical surveys. The company has engaged a permanent field staff and will engage the services of Dick Forman, P. Eng., on a year round basis, Mr. Whist states, Funds on hand before allowing for proceeds from the rights offering, are adequate to complete this drilling contract, he points out.

#### Torwest

### January 1st - June 30th, 1967 Letters 34, 44, 54, 62

- 34 If the agreement is carried to completion, Nippon Mining will provide loans to Highmont to a total of \$3,536,375 and have the right to convert these loans to 2,123,000 common shares of Highmont Mining at prices from 75 ¢ to \$ 2.25 per share. Nippon is also to provide the funds to place the property in production. When completed there will be 3,860,005 shares of Highmont Mining issued of which Nippon will hold 55%. Torwest Resources (1962) Ltd. holds 1,000,000 shares of Highmont Mining which were received as consideration for the property and earlier work thereon.
- 44 Nippon Mining Co. Ltd. at the same time as it advanced \$ 200,000 to Highmont also elected to convert the total amount of advances of \$ 350,000 into 400,000 shares of Highmont. Highmont on March 1, 1967 announced the issuance of 400,000 shares to Nippon Mining Co. Ltd. and the cancellation of the outstanding debt of \$ 350,000.
  - The Highmont Group of 34 mineral claims under exploration are in the H.V. adjoining the Lornex property to the east and some ten miles southeast of Bethlehem Copper. On February 17, 1967, Highmont advised that the present time an ore reserve calculation indicates 72,300,000 tons grading 0.25% copper and 0.064% MoS<sub>2</sub>. The \$200,000 received from Nippon Mining Co. Ltd. will be used to continue exploration on the Highmont Group to outline further ore zones.
- 54 General exploration work was carried out in the November 30, 1966 yr. on a number of properties controlled by Torwest Resources (1962) Ltd., the most important of which was the extensive program on the Highmont Mining Corp. Ltd. property in the H.V.
- 62 To date, Highmont Mining, of which 1,000,000 shares are owned by Torwest Resources, has spent \$518,000 on exploration of the H.V. property. Ore estimates have been reported at 75,000,000 tons in the East Zone and 15,000,000 in the West Zone. An announcement will be made soon as to a consulting firm to carry out the feasibility study on the property. The result of the drilling to date is being computerized and an ore estimate from the computer is expected in 30 to 40 days. Diamond drilling on the East Zone to 500 feet of depth is expected to double reserves in a few weeks, the meeting was told.

# Transval

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- No mention of.

# Trojan

January 1st - September 30th, 1965 Letters 14, 61, 63, 64, 69, 98, 130 14, 61 - Refers to B.X. Mining Co. Ltd.

63 - At the time of the annual report, the company was negotiating for property in the south-central area of B.C. and was also negotiating for a deal on the B.X. Mining property in the H.V. Copper Mines, a company related to Cominco, Buttle, Huestis, and Northwest Ventures, has since announced the acquisition of the B.X. Mines property for 480,000 shares paid to Trojan. A second B.X. Mining property is under option to and under exploration by Anaconda. Trojan has control of B.X. Mining.

The Trojan report also states that \$50,000 of the \$100,000 purchase price for the original Trojan Highland Valley property has been paid by South Seas Mining. Trojan will receive a continuing royalty on a sliding scale from any production from the property. Mitsui Metal Mines is exploring the property under an agreement with South Seas.

64, 69, 98, 130 - Applies to Dominic Lake.

January 1st - June 30th, 1967 Letters 36, 37, 41, 45, 47, 51, 53, 57, 63, 117, 118 All letters D.A., but dealt with Dominic Lake, about 15 miles from Bethlehem.

July 1st - November 24th, 1967 Letter 201

201 - In H.V., Cominco is diamond drilling on the Valley Copper Mines Ltd. property in which Tro-Buttle have a substantial interest.

# Valley Copper

December 1st - June 30th, 1964 Letter 97

97 - Huestis Mining is the owner of 780,000 shares of Valley Copper Mines Ltd., the company formed by Cominco to carry out the work on its large H.V. property holdings.

July 1st - December 31st, 1964 Letter 145

145 - Buttle Lake Mining Co. will hold 780,000 shares in Valley Copper Mines which, controlled by Cominco, has 354 claims in Highland Valley. Cominco has a geological team on the ground with work later this year expected to include trenching, stripping and diamond drilling, as results warrant.

July 23, 1968 Letter 150

160 - 1011

150 - Follow up drilling of an area lacking in surface exposures but which responded favorably to induced polarization tests is reported to have defined copper mineralization on the Highland Valley property of Valley Copper Mines Ltd. in which a number of public B.C. companies are shareholders, having contributed acreage to a holding of some 400 claims currently under exploration by Cominco Ltd.,

The drift-covered anomaly is near Divide Lake between the Bethlehem and Lornex copper mines. A total of 17 percussion holes drilled in April and May, 1968, all reconnaissance holes 600 feet apart, found ore containing more than 0.5% copper in a body whose limits have not yet been determined. Following a survey, an expanded program of percussion and diamond drilling is scheduled to start by the lst of August.

### Buttle Lake Mining Co. Ltd.

July 1st - December 1st, 1964 Letters 145, 149

- 145 "Buttle Lake Mining Co. will hold 780,000 shares in Valley Copper Mines which, controlled by Cominco, has 354 claims in Highland Valley. Cominco has a geological team on the ground with work later this year expected to include trenching, stripping and diamond drilling."
- 149 "Work is continuing on the Valley Copper Mines property under the direction of CM&S Co. of Canada."

October 1st, 1965 - August 1st, 1966 Letters 27, 141

- 27 Buttle Lake Mining interests in Highland Valley are all held through the ownership.
- 141 Buttle Lake Mining owns 780,000 shares of Valley Copper Mines Ltd. and work on the latter's 400 claims in 5 separate blocks is being carried out by Cominco Ltd. including considerable diamond drilling.

January 1st - June 30th, 1967 Letter 117

117 - "Trojan Consolidated Mines Ltd. and Buttle Lake Mining Co. Ltd. report that their consulting engineer, after personal examination of exploration results to date at their jointly held <u>Dominic Lake property</u>, 15 miles northeast of Bethlehem Copper, has recommended eight 125-foot dry percussion holes.

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B.X. Mining

January 21st, 1965

(B.X. Mining Co. Ltd.)

Letter 14

14 - B.X. Mining is the owner of two claim groups in the H.V., one of which is currently under exploration by Anaconda.

March 29th, 1965

Letter 61

61 - Trojan Consolidated Mines Ltd. recently acquired almost all of the issued shares of B.X. Mining Co. in a share for share exchange. The B.X. Mining property in the H.V. has now been sold to Valley Copper Mines Ltd. for 480,000 Treasury shares. Valley Copper is an exploration company of Cominco. The sale of the property is subject to approval of B.X. shareholders.

ALSO: see Trojan

July 1st - November 24th, 1967 Letter 155

155 - B.X. Mining Company Ltd. has issued a March 31, 1967 balance sheet which shows current assets \$228., current liabilities \$340., other liabilities of \$1,367. owed to Trojan. Of the 5,000,000 shares authorized, 1,060,005 shares are issued with nearly all of the issued shares held by Trojan.

The company holds a block of claims on Gnawed Mountain in the H.V., ju east of the Highmont Mining property where it is considered additional work on its behalf or dealing the ground off to one of the major companies which has expressed an interest. The company's other asset is 480,000 escrow shares of Valley Copper Mines Ltd. Cominco Ltd., the major shareholder of Valley Copper Mines, is continuing to supply funds for a limited exploration program of the many claim blocks held by Val Copper.

#### Bethex Explorations Ltd.

February 21 - 1968 Letter 36

36 - Bethex has purchased 40,000 shares of Ionarc Smelters Ltd at 50¢ per share and has an option on a further 40,000 shares at the same price. Ionarc is developing a smelting process, which, if successful, shall be of major importance in the mining industry.

During 1968, Bethex will carry out trenching, stripping, surface sampling and geological mapping, at an estimated cost of \$ 10,000 on the original 22 claims at Pitman, B.C.

Last year's programme of ground follow up work on the Bethex/Siscoe project will be continued.

Bethex has staked 60 mineral claims in the Taseko Lake area in B.C. Surface showings consist of wide spread sparse pyrite and chalcopyrite mineralization extending over an area 2000 feet x 7000 feet. Bethex's target is a large tonnage low grade disseminated copper deposit.

The 1968 programme will consist of geological and geochemical exploration, sampling zones of mineralization at a cost of from \$25,000 to \$30,000.

Bethex has acquired the right to explore and develop 230 mineral claims, 25 miles southwest of Smithers, B.C., owned by Norcan Mines Ltd. on a basic 70% - 30% contract. Expenditures of from \$75,000 to \$125,000 are planned for the property.

# Cam Mines Ltd.

October 1st, 1965 - August 1st, 1966 Letter 87

87 - Cam Mines Ltd. has reported that the No. 2 hole at its Highland Valley property was at 170 feet at last report and that a vertical hole entered bedrock at 109 feet and has cut copper-moly mineralization. The mineralization has a combined value of 0.52% copper equivalent. Drilling is continuing after conversion from a cable tool to wire line.

#### CANCO MINES LTD.

May 21, 1968 Letter 105 105 - Highland Valley and Brenda District Properties Scheduled For Attention

By recent B.C. prospectus Canco Mines Ltd. is offering 350,000 shares at 35¢ per share to net, after 8-3/4% commission, up to \$91,875. At its 40-claim prospect 2 miles west of the north end of Mamit Lake, 5 miles southeast of the Lornex-Highmont area, Highland Valley, the secretary-treasurer, R. L. Curnow, says work to date has been largely limited to definition of a broad oxidized trend which crosses the claim group. Mapping and trenching suggest that a silicified and pyritized zone may be a remnant, or roof pendant, on the Guichon batholith. The report says that stripping by bulldozer over magnetometer lows in the Camp zone exposed areas which provided assays as follows:

Location	Interval	Copper 1	MoS2%
Trench #3	9 feet	0.10	0.56
Trench #3-A	6 feet	0.76	Trace
Trench #3-B	20 feet	1.15	Traœ
Trench #2	10 feet	1.29	Trace
Trench #2-A	18 feet	0.22	Traœ
Camp Zone	8 feet	0.61	Trace

Line cutting over recently acquired adjacent claims is underway. Additional stripping of anomalous areas followed by drilling is proposed.

### Canzac

October 1st, 1965 - August 1st, 1966

Letters 228, also 13, 22, 47, 93, 113, 121

- 228 Ralph Sostad, president of Canzac Mines Ltd., has reported that an I.P. survey has been completed on the Company's Highland Valley property and has indicated three anomalous areas that will be drilled. Four holes have been drilled in an area located by surface exploration earlier in the season. The president states that visual examination of the diamond drill core shows native copper, chalco, bornite, hematite, and speculorite associated with a zone of alteration.
- 13 The company has also reported that a photogeological study along with correlation of the known geological and geophysical data is being made of Canzac's original 84 claim property adjoining that of North Pacific in the Highland Valley.
- 22 A photogeological interpretation should provide information as to the presence of any major structural features in the Guichon complex. It could also reveal structurally favorable areas for copper mineralization. Pending completion of the study which is expected to take about two months, exploratory work has been suspended. The work has been concentrated on a relatively small number of claims and the greater part of the property has not been explored at all.
- 47 The Company's holding in the Highland Valley area to the north and east of the North Pacific property has been expanded to approximately 145 claims by the acquisition since last fall of a further 77 claims, mostly through staking lapsed ground.

The geophysical work done last summer by Huntec Co. of Tofonto located one large anomaly which was drilled with poor drill recovery and results, but which will be further explored by mapping and probably trenching and diamond drilling.

- 93 The photo study gave a changed concept to the geology of the property and the work is proceeding along the new concept. The photogeological interpretation of the company's claims in the Highland Valley area of B.C. has indicated a target area where a soil sampling survey and geological mapping is now underway.
- 113 In the Highland Valley area, the company has been conducting a soil sampling programme on the Lux and Cindy Groups of claims. The Canzac holdings in the Highland Valley now comprise 145 claims in one contiguous block and are in an active area.
- 121 The soil sampling programme has located two well defined anomalous areas.

# Canzac - cont'd

January 1st - June 30th, 1967

Letters 4, 90

- acquired Highland Valley claims and was incorporated on December 15th, 1964
- 90 113 claims in the Highland Valley area of B.C. "The soil sampling and geological mapping program last year located four anomalous areas which will be further tested."

July 1st - November 24th, 1967

Letters 174, 194, 205

- 174 The company is still planning some work on its H.V.claims.
- 194 Surface stripping and soil sampling of anomalies on the 146 claim property in the H.V.
- 205 Canzac Mines Ltd. reports that initial trenching at its H.V. property has opened a fault zone for a width of 600 ft. and indicated strike length of 7,500 ft. varying in width from 400 to 700 ft. on a basis of preliminary mapping. Visual copper mineralization is exposed as a dissemination of chalcopyrite through sections of intrusive rocks with malachite appearing in fractures of the altered sheared formations. Next step will be detailed soil sampling along the strike of the fault zone to pin point further possible anomalous areas of mineralization.

### May 19, 1968

Letter 97

97 - The 130 claims in the Highland Valley are to be further worked by bulldozer stripping and geophysical prospected as conditions permit. New claims were recently added to this block to cover some most interesting ground.

### June 10, 1968

Letter 120

120 - Canzac Mines has reported that diamond drilling has started on the Highland Valley exploration work.

#### June 28, 1968

Letter 134

1.

134 - Canzac Mines Ltd. has reported that on the Highland Valley property the first drill hole was collared on the floor of one of the bulldozer cuts on the "Lux 63" claim. Despite extremely poor drilling conditions because of mud seams and shattered rock, this hole reached its 200 foot objective over the last week end. Drilled westward at a 45 degree angle, its core shows minor concentrations of chalcopyrite and pyrite mineralization in irregularly-spaced fractures in the quartz diorite.

The second hole will be collared in the same cut but 100 feet west of the collar of the first hole. It will be drilled eastward at a 60 degree angle. The third hole will be collared in the floor of a second bulldozer cut lying approximately 500 feet north of the cut in which the first two holes are located. A sample taken over a 14 foot width across the floor of this cut shows a 0.70% copper content, (14 pounds per ton). This hole will be drilled eastward at a 45 degree angle.

### Chataway Explorations

# December 30th - June 30th, 1964

Letters 33, 85, 90, 95

- 33 Chataway has an informal agreement with Utah Construction and Mining Co. wherein Utah assists with the program at no cost to Chataway. Also incorporated September, 1962.
- 85 3,000 foot drilling program let to Boyles Bros. valued at \$15,000.
- 90 Between 1956 and 1960 Chataway Syndicate held and worked the claims.
- 95 The informal agreement with Utah Construction and Mining was terminated.

# July 1st - December 31st, 1964

Letters 128, 155, 180, 193, 223

- 128 pockets of natural gas encountered.
- 155 6 holes (widely spread) used to develop sub-surface geologic information rather than delineate specific targets.
- 180 E.M. survey checking anomalous areas outlined with an I.P. survey using 200 foot lines; soil sampling here too.
  - chalcopyrite exposures found.
  - shear zones with copper mineralization have been located throughout the area. This letter includes these quotations; "At Craigmont, chalco-pyrite, together with magnetite replaces a zone of lining sediments at the contact with the granitic intrusion." and, "Within the intrusion, economic mineralization has been located at Bethlehem Mine near a series of faults and breccia zones that are developed at a contact between two distinct rock types."
- 193 E.M. survey resulted in 5 parallel anomalies within a width of 3,000 feet. 223 - Drilling program on I.P. survey.

### January 1st - June 30th, 1965

- Letters 7, 27, 41, 45, 49, 57, 67, 75, 102
- 102 Soil testing, magnetometer and bulldozer work has located four areas of high grade copper over a length of 3,000 feet and over a width of zone of some 1,000 feet - drilling of zone is now underway.
  - 75 Some trenching work with channel sampling (double channel sampling -five continuous five foot samples were taken and then a second sample line taken three feet above.)
    - part of the trenching consists of a 5 foot width of chalcopyrite on the east side of the trench ran 9.80% copper. Additional and continuous (adjoining) 5 foot samples of soft sericitic material ran 0.06% and 0.11% copper.
    - there appears to be junction of three mineralized faults in the canyon area.
    - since there is very considerable secondary enrichment of the ore in trench No. 1 in the form of chalcocite, the silver content could be high.
- 67 Exposure of chalcopyrite on foot wall side (5 foot width) sampling.
- 57 Exposure of mineralization by bulldozer.
- 49 Work included staking claims to 350, I.P., E.M., trenching, road construction and diamond drilling.
- 45 Trenching.
- 41 Bulldozing exposes high grade showings.
- 27 N.I. (promotional talks).
- 7 Preceding letters and 7 a good example of mention of everything under the sun and moon in describing and promoting the property.

### Chataway Explorations - cont'd

October 1st, 1965 - August 1st, 1966 Letters 192, 198, 14, 27, 104, 137

192 - The terms of the agreement between the company and Bralorne Pioneer, Pacific Petroleums Ltd. and Mountain Copper Co. of California, call for the expenditure of \$ 50,000 every 6 months. The option runs until March 31, 1970 which would require a total expenditure of \$ 450,000 if continued to that date. If the 108 claim property is put into production then Chataway would retain a 20 \$ interest. Chataway will receive \$ 125,000 out of the net proceeds of any operation on the property as return of pre-production expenses.

If the Bralorne Group elect not to place the property into production after spending the \$ 450,000, it could receive 150,000 shares of Chataway as completed discharge of all obligations.

The group has no financial interest in Chataway's other 271 claims and has been active on Zone 4 since July 15, 1965, taking numerous soil samples and cutting miles of line.

The company explains that before the Group came into the property, Chataway had completed a portion of its preliminary drilling program by probing shallow depths. Hole No. 1, completed to 245 feet, returned a 20 foot section assaying 1.26% copper from 80 to 100 feet. Hole No. 2, to 217 feet, returned 20 feet of 1.60% copper between 120 and 140 feet, and Hole No. 7 had a 16 foot sludge sample that assayed 2.85% copper from 73 to 89 feet. Holes No.'s 6, 8, and 9, were lost because the soft material in this zone simply could not be cored. All other holes had minor copper values including No.'s 4 and 5 which were drilled far south of the known ore zone for additional geological information.

Further testing in Zone 4 was discontinued at this time due to the poor core recovery. It was at this point that the Bralorne group started exploration of the area.

The Group is now engaged in geophysical and geochemical surveys to locate targets. Chataway is working the property in the Stellako area.

198 - A winter program has been approved by the directors for the Number 2 Zone of the large property held in the H.V. area of B.C. The zone is adjoining the properties of Stellako and Lornex and is some distance from the Zone 4 of the property which is subject of an agreement with Bralorne.

The Zone 2 area has been explored by a soil sampling survey and E.M. survey, with present arrangements being made for an I.P. survey. There are some 50 claims in the zone and it is intended to diamond drill as soon as targets can be isolated.

14 - On the 108 claims optioned from Chataway a comprehensive program with full coverage by soil testing followed by megnetometer survey has been completed. Major geophysics by I.P. survey is now well along. A bulldozer is employed full time trenching in an area of higher geo-chemical readings.

### Chataway Explorations - cont'd

**October** 1st, 1965 - August 1st, 1966 - (Letter 14 - cont'd)

- 14 On the balance of the Chataway H.V. property, Chataway has been continuously testing No. 2 zone on the western side of the property. Soil testing is almost complete as is the magnetometer survey. The summary and mapping of this work is underway. The summary will show a long anomalous area on strike with known mineral occurrences both within the property and to the westward. Recent dozing uncovered 800 feet of chalcocite mineralization in line with mile-long anomaly developed in the recent soil testing. A very attractive aspect of the new developments is that in lining up new and old work a major break, 3 miles long within the property is indicated. It strikes into the area of the Stellako and Lornex developments. Much is to be done to check this theory.
- 27 The anomalous area is being investigated by trenching, to be followed by diamond drilling as required. Additional claims have been staked along the trend of the anomalous area.
- 104 In H.V., Chataway has started drilling on its 100% owned claims south of Chataway Lake to test an I.P. anomaly. Also, the Bralorne Group is drilling on the 128 claims they have under option.
- 137 On the company's Bralorne option in the H.V., Bralorne Pioneer, Pacific Pete, and Mountain Copper have advised Chataway they are ready to start stripping highgrade areas of Zone 4 by bulldozing.
  On the balance of the Chataway property, testing of the Chataway Lake anomaly by percussion drilling is planned pending interpretation of the I.P. survey of 37 line miles.

July 1st - December 1st, 1966 Letters 148, 168

- 148 The Bralorne managed exploration program did not find mineralization in commercial quantities.
- 168 First physical work done by Bralorne.

January 1st - June 30th, 1967 Letters 27, 96, 118

27 - "Exploration work in the form of the third drilling program is to continue on Chataway Exploration Co. Ltd.'s S.E. quarter of the Highland Valley property. This area of 122 mineral claims is under option to Bralorne and Associates, Pacific Pete, and Mountain Copper of California. Exploration to date included geochemical and geophysical survey along with trenching, diamond and percussion drilling."

"High values in surface sampling plus limitations in selective sampling from percussion drilling increases the probability of higher copper values than those indicated. The ore is split into two areas in the zone and mining costs would be high. It is possible that the two may merge into one large ore body at a depth greater than 150 feet."

"Comparison by overlay mapping of geochemical and geophysical results on the high grade area of Zone 4 has shown six similar or comparable areas which will be tested by the percussion drilling now under way."

"On the balance of the Highland Valley property, a winter program is underway in the N.E. quarter. A mile-long fan of copper-mineralized porphyry float indicates that ore making structure exists in this area which is called Zone 3. The dozing of roads and some trenches has been completed and interesting mineralization was found by dozing. A geochemical survey of this area is underway.

### Chataway Explorations - cont'd

July 1st - November 24th, 1967 Letter 178

178 - Narrow highgrade cut in H.V. drilling. Chataway President, S.W. Wright, has reported that the first diamond drill hole on the northwest quarter of the Company's H.V. property is testing an I.P. anomaly which is indicated to be 1,200 feet long and 200 feet wide at 200 feet below the surface and 800 feet wide at 300 feet below the surface. The I.P. survey was conducted by Seigel and Associates.

The hole cut the following copper intersections:- five feet of 0.27% copper, 12 inches of 56% copper (this twelve inch section is identified by Mr. Wright as primary chalcocite which has been reported from a number of places on the property in narrow stringers). The balance of the hole graded:- 0.09% copper over 10 feet; 0.08% copper over 10 feet, and 0.04% copper over a further 10 feet. The president reported an average of 1.97% copper across a 300 foot width when the 56% section is averaged of the full width.

The high grade section also carried 4.20 oz. silver and 0.02 oz. gold per ton.

The president stated that the drilling was in bad and broken ground and the sludge samples have been submitted for assay and are expected to assay better grade in the broken sections of the hole beyond the 12 inches of highgrade.

Drilling is continuing.

January 31, 1968 Letter 21

21 - S. W. Wright announces that on some of the company's 405 copper claims in the Highland Valley, bulldozing and minor drilling have indicated the necessity for more intensive exploration.

May 24, 1968

Letter 108

108 - The report of Chataway Exploration Co. Ltd. for the year ended January 31, 1968, states that in the southeast quarter, the Zone 4 area of the company's Highland Valley property, it was previously reported that the occurrance of massive sulphide copper ore had been tested by a series of shallow drill holes. This zone contains 600,000 tons of 1.58% copper to 100 feet in depth with the bottom open. To this has been added an area of disseminated copper mineralization with the necessary geological members of quartz-diorites and prophyry for the probable disposition of major tonnages of copper ore.

May 28, 1968

I Letter 110

110 - Chataway Explorations Ltd. annual meeting approved an agreement with King Resources covering the exploration of the Chataway property in the Highland Valley area of B.C. along with all of the Company's other properties.

Sid Wright, Chataway president, told the annual meeting that King Resources now has four geologists and helpers on the property supported

#### CHATAWAY EXPLORATIONS

110 (contd.) - by a helicopter which is, at least for the present, stationed at the camp to speed the initial exploration steps. He told the meeting that the initial survey work and detail geology now underway is being done in far greater detail than at any time in the past. He also pointed out that the camp operation and management has been turned over to a contractor leaving the geologists free to do field work. Mr. Wright told the meeting that a King Resources geologist is to be on hand in the near future to examine the data on all of the outside properties in preparation for the planning of work for this year.

### August 27, 1968

Letter 176

176 - Chataway Exploration Ltd. has reported that King Resources Ltd. of Denver, Colo, will continue with additional geochemical work, photo interpretation and geological mapping on Chataway's Highland Valley B.C. property. The King report said that through its Consultant, M.C.R. Explorations Ltd. mapping and the gathering of information of a general nature has been completed on the property. The work planned now is designed to delineate targets for I.P. survey, to be followed by bulldozing and diamond drilling. Chataway has agreements with King Resources whereby King will spend a minimum of \$75,000 this year in the Highland Valley with provision for future finances if results warrant further work.

# Chataway Exploration Co. Ltd.

July 1st - November 24th, 1967 - cont'd

178 - The president stated that the drilling was in bad and broken ground and the sludge samples have been submitted for assay and are expected to assay better grade in the broken sections of the hole beyond the 12 inches of highgrade. Drilling is continuing.

May 7th - 1968

Letter 95

95 - On the Highland Valley property, King Resources Ltd. is committed to spend a minimum of \$75,000 on exploration and development of the Highland Valley properties before March 31, 1969.

The agreement further provides that King Resources may give notice before January 31, 1973 of its intention to proceed with the financing and putting Highland Valley into production, to take shares in the capital stock of Chataway on an ascending percentage basis which, for an expenditure of \$1,090,000 would entitle King to 39.99% of the issued shares of the company.

### Cleveland

October 1st, 1965 - August 1st, 1966 Letter 214, also 14, 50, 87

- 214 Comprising 40 located claims in the Highland Valley west of the western boundary of Bethlehem Copper. An exploration program calling for expenditure of \$ 20,000. included road access work, magnetometer survey, soil sampling, trenching, mapping, and requisite supervision. Phase Two would involve a further \$ 20,000. as a minimum to include diamond drilling and more trenching.
- 14 Work on its 108 claim property in the Highland Valley has included stripping, trenching, and 16 percussion drill holes, for a total of 2,000 feet. Assays from some of these holes have graded 0.5% copper and 0.07% moly. An Induced Polarization survey is planned for the property in the next month.

50 - The RAF, TAM, MER, and JAC claims originally purchased during the summer of 1965 were explored by trenching; one of which, on MER 6, was explored further by percussion drilling of approximately 2,000 feet.

Some of the core at various depths to 150 feet (4 1/4 inch core) assayed 1 % copper with 0.076% moly and traces of silver. These results indicated that further work should follow to determine whether or not an orebody of commercial size may be present.

Should results be as expected the company proposes to extend the I.P. program over a larger area of the company's claims. A diamond drilling program is planned for Spring if the interpretation of the I.P. now progressing warrants additional work.

87 - The I.P. survey was completed on some 20% of the ground. A number of targets may be percussion or diamond drilled as equipment is available.

August 31st - December 1st, 1966 Letter 204

(Cleveland Mining & Smelting Co. Ltd.) 204 - 100 claims held under option by Cleveland Mining as to a 50% interest, New Indian as to 25% and Vananda as to 35% (soil sampling program). These claims are N.W. of Bethlehem Copper and adjoin holdings of Cam Copper and North Pacific.

July 1st - November 24th, 1967 Letters 168, 194

168 - underwriting announcement.

194 - Cleveland reports that Utah Construction and Mining Co. is presently laying water line on the Highland Valley claims with intention to commence diamond drilling of indicated anomalies within the next 10 days. Decision to conduct a diamond drilling program follows evaluation of I.P. E.M., and magnetic surveys. The Cleveland claims are approximately three miles west of Bethlehem Copper and immediately adjoin the Alwin property.

#### CLEVELAND MINING & SMELTING

# August 2, 1968

Letter 158
158- Cleveland Mining has reported that ground preparations for an induced polarization survey are now complete on its Highland Valley claims near to a recent copper strike made by Highland Valley Copper Company. The same Cleveland claims adjoin the Alwin Mining Co. Ltd. property. The Cleveland program is on the company's JAC Claims where approximately 7 miles of picket lines have not been cleaned out, blazed and chained. Contract for the induced polarization survey has been placed with Seigel Associates Ltd., Vancouver, and the work will proceed forthwith.

# November 26, 1968 Letter 239

239 - F. J. Hemsworth, P. Eng., has recommended that Cleveland Mining spend \$25,200 for an I.P. survey over some of its Highland Valley claims and that \$10,000 be set aside for diamond drilling of anticipated anomalous areas. The company proposes to spend \$35,200 for this program and \$6,800 to provide working capital and to pay accounts payable, the total of \$42,000 being the proceeds of a recent underwriting. The property is 30 miles by road from Ashcroft and about two miles west of Bethlehem Copper Mine. It is also two miles N.W. of the new major discovery on Valley Copper (Cominco) ground. It totals 120 contiguous claims. The Consultant says that in the last three years Cleveland has built roads, surveyed the claims, prospected, conducted I.P. and geochemical surveys, drilled percussion and D.D. holes and done considerable bulldozer trenching.

Prospecting located several mineralized zones. On JAC claims, a shear zone was exposed for a strike length of 500 feet. Some molybdenite was present and the copper minerals, chalcopyrite and bornite, occurred as specks and blebs along planes of foliation across widths of up to 20 feet. Trenching showed the zone to be spotty and the mineralization to be limited to fractures.

Copper mineralization was discovered on Mer 1 and Mer 2 claims. The most notable mineralization was found along the boundary between Mer 5 and 6. Malachite, bornite and chalcopyrite are the copper minerals present. The country rock is a quartz diorite with a medium to coarse equigranular texture, and is similar to the Guichon quartz diorite of the Bethlehem mine. Bornite occurs as blebs, varying from one-eighth to one-half inch in size, disseminated throughout the rock and not confined to fractures. Trenching exposed the copper mineralization at bedrock over an area of about one acre.

The consultant continues as follows:

After this interesting showing was exposed as much as possible by trenching, sixteen percussion holes were drilled. Assays on four of these holes to an average depth of 100 feet, averaged copper 0.5% molybdenite 0.06¢, and silver 0.16 ounces: per ton.

# Cominco

January 1st - June 30th, 1967 - All the letters for this period were typically exclusive of property development other than potash.

### Vananda

January 1st - September 30th, 1965 Letter 185

185 - T.E. Blossom, President of Vananda Explorations Ltd., has reported that the company has recently acquired 10 claims in the H.V. area and some 8,000 feet southwest of the Stellako Mines showing currently being drilled. Prospecting and exploration is planned for the ground.

October 1st - 1965 - August 1st, 1966 Letters 53, 117

- 53 The Eden group of claims are held 50-50 by Vananda Explorations and New Indian Mines Ltd. and are located on the north side of the valley, north of Jericho and south of the Dansey claims being worked by North Pacific.
- 117 The large I.P. anomaly is being tested by diamond drilling in hole No. areas of scattered copper mineralization were found with some concentrations along fracture planes. Drilling is continuing to test the anomalous area with 3,000 feet of drilling in eight holes.

July 1st - December 31st, 1966 Letter 204

204 - Work on the Eden-Ezra-Job claims, H.V., included the drilling of 10 hol on an I.P. anomaly which covered a small portion of the area. This was followed by a geochemical survey. The current report says also that la in September, soil sampling started on 100 claims held under option by Cleveland Mining as to 50% interest, New Indian as to 25% and Vananda a to 25%. These claims are NW of Bethlehem Copper and adjoin holdings of Cam-Copper and North Pacific. Two surface showings were located by prospecting.

January 1st - June 30th, 1967

### (Vananda Explorations Ltd.)

Letter 62

62 - New Indian Mines Ltd. and Vananda Explorations Ltd. have reported that as a result of a further and continuing study of the I.P. work and diamond drilling completed on the Eden-Ezra-Job groups of claims in the H.V. a decision has been made to continue exploration. Very shortly further stripping and bulldozer work will start.

July 1st - November 24th, 1967

Letter 221

221 - Vananda Exploration owns a 50% interest in approximately 70 claims in t H.V. and are presently negotiating for an option on a further 60 claims

# November 28, 1968

Letter 241

241 - Vananda Explorations Ltd. has let a contract to Seigel & Associates Ltd. for an induced polarization survey on the JOB claims located one mile north of Indian Reserve No. 15, and two miles east of the Bethlehem Copper property, in the Highland Valley area of B.C. The survey started November 20 on the claims which are almost completely Properties Cont'd.

# VANANDA

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November 28, 1968 Letter 241 (contd.) 241 - overburden covered. Detailed induced polarization survey work will also be done on the Eden and C.L. claims groups which yielded encouraging reading in earlier work.

### Varmetals

January 1st - June 30th, 1964 Letter 102 102 - Other holdings of Vanmetals include 20 claims in H.V.

October 1st 1965 - August 1st 1966 Letter 98

98 - In the Highland Valley, the Company holds two blocks of claims, 49 claim Justice, and 16 claim Rain groups. Soil Sampling and trenching on the Rain traced a copper bearing quartz vein for 700 feet and over a width of some 150 feet.

Vimy

(Viny Explorations Ltd.)

### Vastlode Mining Co. Ltd.

February 28 - 1968 Letter 41

41 - Vastlode Hining Co. Ltd. have tunnelled to date a total of 500 feet at an elevation of 4900 feet including drifting over 250 feet along the ore-zone, on the 139 claim property at Tolman Lake on the west slope of Swakum Mountain near Merritt, B.C. Bulk sampling of the lead-zinc-copper mineralization and assaying are in progress and ore from the tunnel is now stockpiled. Andy Gavelin, president of Vastlode, has reported that the mineralization has been consistently of ore grade to high grade. The calcite zone which is the main ore zone has an average width of 50 feet and ranges from 30 feet to 65 feet. The length of the tunnel may extend beyond 4,000 feet, which is the length of the structure indicated by the drilling and trenching. On the basis of the drilling, the president expects that the tunnel will enter a high grade section of mineralization in the near future.

On surface, a diamond drill crew is testing the extension of the main zone to the southwest to establish a site for a second adit at 200 ft. lower elevation.

• April 16, 1968 Letter 77

77 - In June, 1963, Andy Gavelin and A. L. Steffens staked a block of claims on the west slope of Swakum Mountain near the headwaters of Tolman Creek, between Sopha and Danish Lakes, northwest of Merritt, B.C. The claims were vended to Vastlode Mining Co. Ltd. and a program of trenching and short hole drilling was carried out. The trenches and drilling located copper ranging from a trace to 1% copper, from a trace to 2% lead and from a trace to 4% zinc, over an indicated length of 200 feet. The major structural break along which the mineralization occurs has been traced at intervals over about 5,000 feet with the width of mineralization varying from a few inches to over 50 feet.

San Doh mines Limited acquired an option on a 50% interest in the property and undertook to carry out a minimum of 2,000 feet of drilling at a cost of \$27,000 with the two companies to joint venture the exploration beyond that point with San Doh Mines acting as managers. A new company, Highland Lode Mines Ltd., has been formed to hold the property and carry out the work. The announcement that the joint venture had been entered was made in July, 1967.

Since then San Doh drilled a series of holes, about 1800 feet from the area first worked by Mr. Gavelin and Steffens. The results of four of these holes were reported as an average width of 17 feet grading 0.83 oz. silver, 0.23% copper, 3.01% lead and 5.25% 3.390 zinc. These holes were spread over a length of the zone of about 1,000 feet and tested to about 200 feet of depth.

### VASTLODE MINING CO. LTD

### Letter 77 contd.

To follow up on these results, San Doh, as part of the joint venture, started an underground program about the end of December, 1967. To date, this work has advanced some 650 feet underground and it has cut several mineralized sections. The most recently reported was the section from 608 feet to 683 feet, some 75 feet. The samples were taken across the face before drilling for the next round and the assays from these face samples have been averaged to give 0.27 oz. silver, 0.423% copper, 1.32% lead and 6.48% zinc.

Since these assays, several additional rounds have been taken in the same material. The objective is to continue drifting in the mineralization with slashes or drill holes every 50 feet to determine the full width of the mineralization.

The exploration of the present zone is proceeding with satisfactory results but the companies need additional financing to continue the work and to further explore a number of other interesting zones and the considerable length of the structure.

# October 26, 1968 Letter 218

11

218 - By agreement dated June 16, 1967 San Doh formed a joint venture with Vastlode Mining Co. Ltd. for exploration of 139 located claims which have been transferred to Highland Lode Mines Ltd. for a consideration of 250,000 shares to San Doh and 500,000 shares to Vastlode.

The Consultant says that at the Highland Lode property, the presence of a 7 foot mineralized breccia zone has been established on No. 3 zone to a depth of 150 feet over a length of 1,000 feet. He adds that due to difficult ground, the entire zone could not be drifted on, but a grade of 0.25 oz. silver per ton, 0.36% copper, 2.0% lead and 6.0% zinc is indicated at this level, with both ends open. Zones No. 1 and 2, and others partially exposed, remain to be investigated.

Much of the property has not been thoroughly investigated, he points out, and hence considerable work will be required even to make available enough data for a preliminary estimate of the potential. He advises that part or all of a field program is called for with part of it, or as much as possible of it, completed before the year end. The program includes a grid over selected areas for an EM survey, followed by geochemical surveying where indicated; then diamond drilling from surface, underground diamond drilling, stripping and trenching, further drifting, crosscutting and raising on No. 3 zone. Properties (contd.)

### VASTLODE

May 22, 1968 Letter 106

106 - In June, 1967, agreement was made between San Doh and Vastlode Mining Company Ltd. to explore the 139 claim property, approximately 7 miles north of the Craigmont Mine, Merritt, B.C. Under the terms of the agreement, San Doh had to complete 2,000 feet of B.Q. wireline diamond drilling, and to form a new 5,000,000 share company, Highland Lode Mines Ltd. to hold the ground.

August 26, 1968

Letter 175

175 - Paul Polischuk, General Manager of San Doh Mines Ltd., has reported that recent surface work at the company's property, located near the headwaters of Tolman Lake, along the west slope of Swakum Mountain about 15 miles northwest of Merritt, B.C. has opened by surface stripping a strong well mineralized copper-silver-lead zone throughout the 100 feet long area. A diamond drill is being set up to test the area. The magnetometer survey indicates that the zone could be as significant as the original zone which has not been opened by 1,000 feet of adit level.

September 27, 1968

# Letter 199

199 - Diamond drilling on the recently bulldized exposed zone about 2,000 feet westerly from the adit tunnel has completed the first hole. A six foot section of this hole from 63 feet to 69 feet assayed 0.65 oz. silver, 1.25% copper; 7.7% lead and 11.25% zinc. The balance of the core is being submitted for assay. Drilling is continuing on the property located about 15 miles from Merritt, B.C.

# Properties (contd)

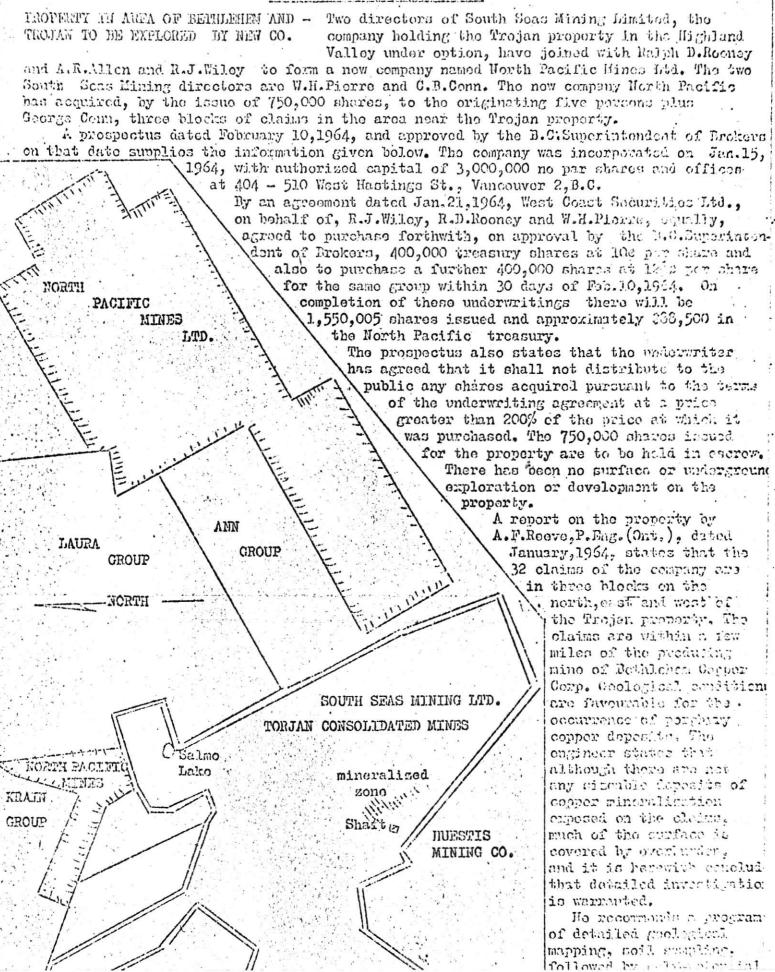
# ZENITH

# November 28, 1968

Letter 241

241 - R.H.D. Philp, P. Eng., has detailed an exploration program for the Highland Valley claims of Zenith Mining Corporation Ltd., located one mile north of Pimainus Lake.. He says the 96 contiguous claims and fractions are within the Guichon Batholith, &miles S.W. of Bethlehem Copper Mine and 3 miles west of the L ornex property. Bulldozer trenching, geochemical and magnetometer surveys

### NORTH PACIFIC MINES LTD.



# FOR THE RECORD

Comingo Ltd. has declared a semi-annual dividend for the period ended June 30,1966, in the amount of 90¢ per share payable July 15, record June 17,1966. The company paid the same amount in January 1966 and paid 80¢ per share in July 1965.

Considen Nodustrial Gas & Oil Ltd. has extended its offer to acquire all of the Abasand Oils Ltd. shares on the basis of one common share of Canadian Industrial Gas & Oil Ltd.for each four shares Abasand. More that 96% of the

chares have been acquired to date under the offer. The offer is now open till June 30,1966.

Consolidated Skeens Mines Ltd. has reported acquisition of 32 claims in the Olgio Lakeeres of the Yukon, some 20 miles east of the Dynasty-Vangorda eres. The cost of the claims to Consolidated Skeens is \$2,624 plus 11,000 free shares.

<u>Ecroway Mines Ltd.</u> annual meeting was told that a program of bulldozer stripping is following up on six anomalous areas located by previous geophysical survey. The claims are located to the south of the Bornite Ridge holdings and are in the area of Tyner Lake, Highland Valley area of B.C. Boraway has about \$15,000 cash and 1,100,005 chares issued of the 5,000,000 shares authorized.

THEIRAND CHEEF MENES LED. (M.P.L.)

HIGHLAND CHIEF MINES LAD.

WORK UNDERWAY - The map adjoining shows the holdings of the recently incorporated firm

Highland Chief Mines Ltd. The company was incorporated during May 1966 with registered offices at 800-789 West Pender St., Vancouver, and authorized capital of 5,000,000 shares of no par value.

The holdings total of the company are 243 claims. Of the total, 115 claims were sold to Highland Chief Mines Ltd. by Peace River Petroleums Ltd.

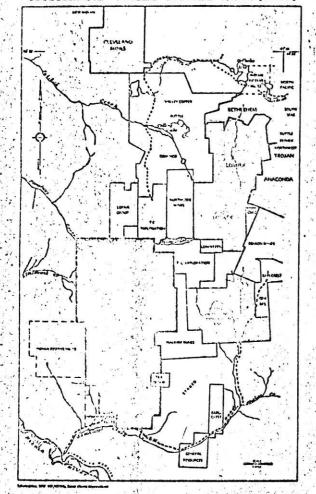
A program of road building and engineering study is currently underway in preparation for a full scale program in the current season.

Directors of the company are: J.L.(Whitey) Vilson, president; Raymond Colishaw, vice-president; George A. Richardson, managing director; and Georgo Wilkinson, director.

The company has quickly completed its financing at the private company stage and is planning to make a public offering as soon as the necessary authorities can be received.

A large portion of the current holdings of Highland Chief were previously hold and explored by Kennecott Copper several years ago.

+ NO.113(JUNE 13,1966) + GEORGE CROSS NEWS LEFTER +



### Properties (cont'd.)

# COPPER-CAN

June 27, 1968

Letter 133

- 133 Copper-Can Developments Ltd. was formed by the amalgamation of Bio-Metals Corporation Ltd. and Fleurmont Placer Development Ltd. Copper-Can Developments Ltd. holds a lease on four claims in the Highland Valley area of B.C. from Consolidated Skeena which expires in 1975.
- The company is presently producing, shipping and selling a high grade copper cement, about 70% copper, through the use of bacterial leaching. Results to date have been encouraging and the size of the operation is being increased.

### August 1, 1968

Letter 157

157 - In-place-bacterial-leaching operations by Copper Can Developments Ltd. in the Highland Valley area of B.C. has been termed "remarkably successful" by its inventor, Dr. C. L. Emery of Vancouver. On-site leaching of copper ore, which was uneconomical to mine by conventional methods, has proven highly successful.

The property, leased by Copper Can from Consolidated Skeena Mining, has estimated reserves of 3.5 million tons of 0.45% copper. The property was uneconomical to mine by convtional methods but the patented leaching method used by Copper Can is removing the copper economically.

Under the new method, bacteria are pumped into fractured sulphide deposits where they leach out the copper from the host rock and the resultant copper sulphide solution is gathered and pure copper powder removed.

The process can precipitate 99.9% copper powder into a bagging operation and the solution is then chemically reinforced and returned in a continuous flow to the ore body.

While the conventional leaching process still requires traditional mining methods and the establishment of large dumps on which the bacteria react, this new process eliminates the necessity of mining ore.

Copper Can is currently negotiating with a number of other B.C. mining companies to use the revolutionary process on other known ore bodies.

October 2, 1968 Letter 202 202 - The pilot operation in the Highland Valley has reached the breakeven point, the company states.

Earlcrest (Earlcrest Resources Ltd.)

July 1st - December 31st, 1964

Letters 135, 143

135 - Bulldozing located a mineralized shear zone on the GAR group.

143 - "Bulldozer work is underway on the Alamo group of Earlcrest Resources Ltd. in the H.V., about 5 miles north of Skukum Creek. The trenching is testing an anomaly indicated by soil sampling and magnetometer. The company's GAR group is adjacent to the Skeena Silver ground where a discovery was recently made."

- also soil sampling and bulldozer work on GAR groups as well.

January 1st - June 30th 1965 Letter 86 86 Earlcrest retains several groups of claims in the H.V. - Merritt area.

October 1st 1965 - August 1st 1966 Letters 209 also 141

- 209 R.B. Stokes, P. Eng., has reported that Earlcrest Resources Ltd. has been bulldozing in its Joe group of claims in the Highland Valley. This work has located copper mineralization similar to that adjoining General Resources property. On the General Resources ground, copper mineralization has been located at the junction of two faults. There is a swamp where the faults converge and the swamp extends onto the Earlcrest property. Bulldozing along its margin has exposed copper mineralization mostly as bornite, near the swamp.
- 141 The company holds 100,000 common shares of General Resources. Ten years assessment work has been filed on the 12 claim Joe group of claims located to the south of the Lornex property. Work on the properties adjoining the Joe claims indicate that a geophysical survey of the claims is warranted.

August 31st - December 1st 1966 Letter 148

148 - Earlcrest and General Resources have an agreement in Pine Point area. By the looks of the claim map this is probably true of H.V.

# Gaza

July 1st - December 31st, 1964 Letter 145 (Gaza Mines Ltd.) 145 - D.A. - looks as if it is a new issue.

### General Resources - cont'd

October 1st 1965 - August 1st 1966 Letters 7, 19, 91

- 7 W.E. Simpson, Secretary-Treasurer of General Resources Ltd., has reported that diamond drilling is now underway on the No. 2 hole on the Cris group of claims located to the south of the Lornex property. An I.P. survey will be carried out on the Cal group near the Stellako ground as soon as possible.
- The first copper assay obtained from the drilling program on the Cris 19 group of General Resources Ltd. in H.V. indicate that the zone so far encountered is of sub-commercial grade. The I.P. anomaly is 2,000 feet long and where drilled so far is 100 to 200 feet wide. The No. 5 hole now drilling is on a swamp where the anomaly is 500 to 800 feet wide. No. 5 hole is scheduled to go to 350 feet. Four new drill sites have been prepared. The Cris group is at 5500 feet elevation and located to the south of the Lornex property.
- **91** · Cal group subject of major company agreement. Cyprus Mines Ltd. has undertaken an agreement which outlines the future exploration of the 12 Cal claims. The claims are to the north and east of the property formerly under exploration by Stellako and were acquired by General Resources Ltd. shortly before September 1965.

Cyprus Mines Corporation will earn a 51% interest in the 12 claims by doing an initial \$35,000. commitment of work. Further exploration may be carried out by Cyprus at its sole expense if Cyprus elects to do so. Should Cyprus elect to carry out additional exploration and subsequently terminate its interest in the venture, it will receive one share of General Resources stock for every dollar spent in the further exploration work not to exceed 250,000 shares.

August 31st - December 1st 1966 Letter 186, 204

- 186 "On the Cris group, south of Lornex, H.V., General will consider continuation of work following a 5 hole drilling program to test an anomaly 2000 ft. by 500 ft. to 800 ft. wide underlying a swamp. Minor copper values were encountered and it was considered that the anomalies were caused by mineralized sheared clays in the faults. Work has been filed for 10 years."
- 204 Cyprus Mining Corporation which has an option on a 51% interest on claim groups of General Resources Ltd.

July 1st - November 24th, 1967 Letter 165 (August 24)

165 - An exploration of the Okanagan Falls copper prospect and on the Cal group of claims in the H.V. did not show economic values; no further work will be carried out on those claims.

# Halkirk Mining Corp. Ltd.

December 31, 1965 Letter 251 251 - Halkirk received registration under the B.C. Securities Act.

### Highland Chiof

October 1st 1965 - August 1st, 1966 Letters 95, 102, 128, 130

95 - newly incorporated.

- 102 Highland Chief Mines Ltd. holds 243 claims in the southern Highland Valley. Peace River Petroleums is the vendor of 115 claims to the new company and H. Killoran sold the remaining block. Considerable is known of the property since it was under exploration by Kennecott Copper several years ago.
- 128 The property lies at elevations ranging from 2,500 to 5,500 feet and about 14 miles N.E. of Spence's Bridge. The program is to consist of camp and road construction, survey of claims and baselines, geochemical survey, magnetometer survey, bulldozer trenching and stripping and 40 miles of I.P. survey.
- 130 The initial exploration program has a budget of \$ 50,000.

August 31st - December 1st, 1966

Letter 172 (Highland Chief Mines Ltd.)
172 - Highland Chief Mines Ltd. has reported that a program of road-building, staking, trenching, line cutting and surveying, has been underway on the company's H.V. area claims. - now hold 259 claims. The current work is the follow-up work on a soil sampling anomaly located several years ago on a section of the property previously explored by Kennecott Copper. - The anomaly is to be further tested by geomagnetic and geophysical surve work.

NOTE: - T.C. Exploration, a company working immediately to the north of the property, has uncovered good looking showings along the ground which apparently trends into the Highland Chief property.

### Highmont

August 9th - December 19th, 1966

- Letters 153, 165, 179, 196, 197, 210, 244
- 153 A meeting will consider a proposal to sell the HIghmont property to a new company, Highmont Mining Corp. Ltd. for 750,000 shares of the new company plus 250,000 additional shares of the new company as payment to Torwest for the \$334,660.69 spent on the exploration of the Highmont cliams.
- 165 Torwest caused Highmont to be incorporated with B.C. charter on March 25, 1966, initially as a wholly-owned subsidiary with auth. capital of 5,000,000 shares, 50¢ par.

In his conclusions regarding the Highmont property, the consultant says previous drilling has proved existence of a mineralized area 600 feet . by 1000 feet, including chalcopyrite, bornite and molybdenite. The grade, according to sludges, is at present sub-commercial and it is expected the core will run somewhat slower than the sludges. He adds that there are indications of mineralization in the southwest corner of the property which is on the westerly slopes of Gnawed Mountain. The

- southwest corner of the property is adjacent to the Lornex property.
  179 Mr. Falkins says Highmont directors are convinced molybdenum will form an equal if not a major part of the metal content. He points out that the copper grades and depth persistence are similar to those found in the work at Highland Valley by Lornex Mining Corp. and that moly content appears to be in line with that at Brenda Mines.
- 196 Highmont Mining was created by a spin off of the property by Torwest Resources Ltd. which received 1,000,000 Highmont shares as the property vendor.

An announcement is expected soon covering the participation of a major Japanese firm in the financing of the exploration and development of the Highmont property.

197 - On October 7, 1966, an agreement was signed between Highmont Mining Corp. Ltd., Nippon Mining co. Ltd., and Torwest Resources (1962) Ltd. which provides for the financing of the exploration and the construction of a concentrator on a 34 claim block in the Highland Valley area of B.C. If production is not attained by March 1, 1974, then the agreement is terminated.

The current program on the property is churn drilling on a 200 foot grid with 21 holes completed to date.

It is expected to enter the feasibility study stage in January 1968 with ore reserves in the order of 159,000,000 tons, if the three indicated zones prove up upon drilling.

#### Highmont - cont'd

210 - If an agreement is carried to completion, Nippon Mining will provide a total of \$3,536,375 and have the right to convert these loans to 2,123,000 common shares of Highmont Mining Corp. Ltd. at prices from 75¢ to \$2.25 per share.

Working on a 1200 foot grid with hole spacing of 200 feet, some 47 holes of the current 77 hole program have been completed. All holes are to a depth of 250 feet. Assays are completed for 35 of these holes. Therefore, figures for tonnage and grade must necessarily be inconclusive. However, a rough analysis shows 19,000,000 tons, grading 0.301% copper and 0.069% MoS2. Calculating copper at 40¢ per pound and molybdenum disulphide at 90¢ per pound, this grade represents a dollar value of \$ 3.65 per ton of ore.

In drawing a parallel with other mining ventures, Highment might well be compared with the Brenda operation in the Peachland area. Although present known reserves exceed 100,000,000 tons on the Brenda, the grade of 0.24% copper and 0.12% MoS<sub>2</sub> are comparable with the grades at Highmont. In dollar value, this is \$ 4.10 at Brenda to the \$ 3.65 ore at Highmont. Percussion drilling on the present grade is expected to be completed by November 15. At this time, diamond drilling within the grid will get underway to probe the area to a depth of 500 feet with several holes being put down to 1000 feet vertically.

244 - Highmont Mining Corp. Ltd. have completed the first stage of a large development and exploration program on the 34 claim group adjoining the property of Lornex Mining Corp. Ltd. in the Highland Valley area of B.C. The second phase to testing of the property has started and a budget of \$313,492, just over \$104,000 per month, has been set for the three months December, January and February, 1967. The work planned for this period includes 8,500 feet of diamond drilling with one machine and 57,500 feet of percussion drilling with two machines.

The initial phase of the program consisted of the drilling of a grid pattern of 77 percussion holes to 250 feet of depth and on 200 foot spacinq.

An induced polarization survey over the property to the west of the area grid drilled, which had been examined by an induced polarization survey by Huntec in 1962, has indicated by the preliminary results a major anomalous area. Within the major area, there appears from the preliminary results to be a series of three areas of higher readings which parallel each other and run in a general northwest-southeast direction.

The percussion drilling has indicated a zone of copper-molybdenum ore approximately 1,500 feet by 1,200 feet and open on three sides. To a depth of 250 feet, the tonnage is 23,885,000 averaging 0.331% copper and 0.069% MoS2.

## Highmont - cont'd

## February 17th - October 16th, 1967 Letters 34, 44, 71, 135, 153, 200

 If the agreement is carried to completion, Nippon Mining will provide loans to Highmont to a total of \$3,536,375 and have the right to convert these loans to 2,123,000 common shares of Highmont Mining at prices from 75¢ to \$2.25 per share. Nippon is also to provide the funds to place the property in production. When completed, there will be 3,860,005 shares of Highmont Mining issued of which Nippon will hold 55%. Torwest Resources (1962) Ltd. holds 1,000,000 shares of Highmont Mining which were received as consideration for the property and earlier work thereon.

February 17 - 1966

- "On February 17, 1967, Highmont advised that at the present time an ore reserve calculation indicates 72,300,000 tons grading 0.25% copper and 0.064% MoS<sub>2</sub>." \$ 200,000 received from Nippon Mining Co. Ltd. will be used to continue exploration on the Highmont Group to outline further ore zones.
- 71 R.W. Falkins, president of Highmont Mining Corp. Ltd., has reported that Chapman, Wood, and Griswold Ltd. have been appointed to the consulting engineers and geologists to prepare the preliminary feasibility on the company's copper molybdenum property.
- 135 The proposed \$1,350,000 program would include the consultants' firm recommendation that \$500,000 be spent in the first stage for driving a 2,900 foot adit and 625 feet of raises to provide bulk samples as a conclusive check of drill results.

Stage 2 would be implemented at the one-third to one-half way point of Stage 1 if results to that time prove favorable and would cost a minimum of \$500,000 for a pilot flotation plant capable of handling at least 100 tons per day and an assay laboratory. Stage 3, for a further \$350,000, would be contemporaneous with Stage 2. This would comprise in addition to more drilling and geophysical work, detailed studies of water and power sources and surveys of tailings and waste disposal areas.

"The consultants using a figure of 31.6¢ Canadian per lb. copper and \$1.73 Canadian per lb. molybdenum place a value of \$3.28 per ton on the potential ore."

"The deposits are open for extension both in depth and laterally and the chances of developing additional reserves at approximately the drill indicated grade ore, maintaining an acceptable waste to ore ratio, are considered good.

"The consultants also advise that if values can be established and current tax laws continue in effect, the Highmont property can be placed in production at a minimum mill rate of 1,000 tons per day with profits resulting from operation permitting repayment of required capital plus a minimum return of 10% per annum on initial investment at current and foreseeable metal prices.

Nippon Mining Co. Ltd. is required to bring the Highmont property into commercial production by March 1, 1974, and to provide all of the necessary financing to do so.

#### Highmont - cont'd

- 153 W.G. Hainsworth, consulting geologist, reviews the work to July 24 by stating: that percussion holes totaled 262 for a footage of 61,116 feet, that diamond drill holes totaled 16 holes for an aggregate of 8,278 feet, that overburden is estimated at 12.6 feet deep, that induced polarization surveys have been run over 15.4 miles of line spaced at 400 foot intervals and 200 foot spacing and that trenching totaled 8,160 feet.
- 200 R.W. Falkins, president of Highmont Mining Corporation Ltd., has reported that there is currently a crew of 28 men on the company's Highland Valley copper-molybdenum property working three shifts per day seven days a week advancing the underground adit level at the rate of approximately 30 feet per day. On October 13, 1967, the level had been advanced 185 feet and was advancing in mineralization.

The present program is to include 1,800 feet of drifting plus the driving of three raises of about 100 feet each for the purpose of providing a conclusive check of the grade established in the drilling programme. A crusher bulk sampling plant has been set up and is in full operation with a capacity of 200 tons per day.

The metallurgical testing to date has shown that by using standard concentration procedure for flotation copper recovery of a minimum of 87% in a concentrate grading 25% is achieved and recovery of a minimum of 80% of the molybdenum in a concentrate grading 91.7% MoS<sub>2</sub> is achieved. The current underground budget is \$200,000 and completion is scheduled for December 10, 1967. Mr. Falkins stated that the present programme is for the purpose of confirming that grades underground are at least as good as those obtained in the drilling programme. On percussion hole results the partially delineated mineral reserves to 250 feet are estimated at 45,397,000 tons grading 0.300% copper and 0.098% molybdenum sulphide; low grade 12,411,000 tons grading 0.185% copper and 0.044% molybdenum sulphide. Ratio of waste to ore grade is given at 0.47 to 1. Highmont Mining Corp. Ltd. and Nippon Mining Co. Ltd. have also agreed in principle to a 15-year product sales agreement at E. & M.J. export refinery prices for electrolitic copper and E.& M.J. prices for all other products.

# Highmont Mining Corp. Ltd.

February 22nd - April 10th, 1968 Letters 37, 58, 73

- 37 R.W. Falkins, president of Highmont Mining Corp. Ltd., has reported that the underground programme at the property, located adjoining the Lornex Mining Corp. property to the southeast, has advanced the adit level 1170 feet from the portal to the area of the P-19 raise. This raise has been driven up 141 feet with just 21 feet to be driven to completion. Early indications are that the raise is in good grade mineralization. The west cross cut has been driven 100.5 feet and will be advanced a further 100 feet to the location for the P-20 raise. The present programme calls for a minimum of three raises.
- 58 Development work is proceeding at the Highmont property in the Highland Valley with the start of P-20 raise which is situated 200 feet to the west of P-19 raise. Simultaneous to the raising program, underground diamond drilling is starting and will be carried out in conjunction with the underground bulk sampling program. The first underground drill hole will be drilled due south from the face of the main adit located at P-19 raise and will attempt to intersect the contact of the Bethsaida and Skeena granodiorites located approximately 800 feet south of raise P-19.
- 73 Progress at the Highland Valley property of Highmont Mining Corp. Ltd. is proceeding as per the recommendations of Chapman, Wood & Griswold. Raise No. 2, being driven up on percussion hole No. P-20, is 106 feet from the adit track. Some 60 feet further remains before breakout at surface. Progress in the last 20 feet has been slow due to poor ground conditions. Reports from the property indicate moderate mineralization accompanying the highly altered and soft rock.

Diamond drill hole No. HU-1, being bored from the face of the main drive and on the same bearing as last reported at 604 feet. This hole, a flat hole, is being carried through to the main intrusive contact. Geological reports indicate minor to moderate copper-molybdenum mineralization in the early portion with increasing values at depth. This is the first of five holes being drilled to confirm surface drilling results and to assist layout of further underground operations. Properties Cont'd.

#### HIGHMONT

Letter 58 (cont.)

200 feet to the west of P-19 raise. Simultaneous to the raising program, underground diamond drilling is starting and will be carried out in conjunction with the underground bulk sampling program. The first underground drill hole will be drilled due south from the face of the main adit located at P-19 raise and will attempt to intersect the contact of the Bethsaida and Skeena granodiorites located approximately 800 feet south of P-19 raise.

#### April 10, 1968

Letter 73

73 - Progress at the Highland Valley property of Highmont Mining Corp. Ltd. is proceeding as per the recommendations of Chapman, Wood & Griswold. Raise No. 2 being driven up on percussion hole No. P-20, is 106 feet from the adit track. Some 60 feet further remains before breakout at surface. Progress in the last 20 feet has been slow due to poor ground conditions. Reports from the property indicate moderate mineralization accompanying the highly altered and soft rock.

Diamond drill hole No. HU-1, being bored from the face of the main drive and on the same bearing as last reported at 604 feet. This hole, a flat hole, is being carried through to the main intrusive contact. Geological reports indicate minor to moderate copper molybdenum mineralization in the early portion with increasing values at depth. This is the first of five holes being drilled to confirm surface drilling results and to assist layout of further underground operations.

# June 14, 1968

#### Letter 124

124 -The bulk sampling program at the Highmont Mining Corp. Ltd. property in Highland Valley started in September 1967, and was completed in April when the camp was temporarily closed. During that period, 1,385.5 feet of lateral work, 299.7 feet of raising 5,148.25 cubic feet of slashing and 900 feet of diamond drilling was completed. Tonnage from this program that was bulk sampled amounted to approximately 7,260 tons.

In reviewing the results of the program, W. G. Hainsworth, P. Eng., consulting geologist, stated, "It must be emphasized that the underground operations recently completed at Highmont is roughly half of that recommended by Chapman, Wood and Griswold, in their July 6, 1967 report. All figures and data available at this time must be considered in the light of this fact.

"Consistent mineralization was encountered in the adit at 575 feet from the portal. Up to this point, mineralization was weak and sporadic with occasional strong sections. From 575 feet to the end of the drive, 1161 feet, the average grade was 0.20% copper and 0.024% molybdenum disulphide. This section can be upgraded to 0.275% copper and 0.058% MoS2 with a stripping ratio of 0.724 waste to 1 ore. This is the vicinity of the copper grade as predicted by the consultants but well below the expected molybdenum values. The west drift averaged 0.19% copper and 0.011% MoS2 over its 287 feet of length.

#### HIGHMONT

June 14, 1968 (cont.) Letter 124

124 - Geological evidence here indicates the drift as being located in a weak section of the area, mineral-wise. It might be unfair at this stage to draw any inference from the assay results in this drift.

"Two raises were excavated, with both being taken up along percussion holes. The first raise, labelled the P-19 raise, was taken to within 10 feet of the surface. It followed the vertical percussion hole P-19 all the way. The grade averaged out at 0.26% copper and 0.016% MoS2. The second raise, called the P-20 raise, was put up near the end of the west drift. Abandonment of this raise was brought on by bad rock conditions prior to completion. Over its incomplete length the raise graded 0.22% copper and 0.018% MoS2."

The underground diamond drill holes cut 520 feet grading 0.293% copper, 0.010% MoS2 and 270 ufeet 0.21% copper and 0.036% MoS2.

Completion of the underground program, about 50% of which has been done to date has been recommended."

August 19, 1968

Letter 169

169 - Highmont has received an underwriting from West Coast Securities on behalf of Garfield Trading Co. Ltd.

August 20, 1968

Letter 170

170 - Underground work to date consisted of 1,161 feet of adit work, 287 feet of drifting and 282 feet of raise work which is approximately one half of the recommanded program. The new program will consist of three underground drives totalling 1,600 feet and two raises totalling 400 feet. This material is processed by the crushing and bulk sampling plant, a portion of the material is also used for metallurgical tests.

The diamond drill program will be done in two operations, surface and underground and will be done simultaneously. The surface program will consist of 12,750 feet of B.Q. wire line diamond drilling distributed in 17 holes. The drilling is laid out on northsouth sections, at each drill station a hole will be drilled at 45° to 700 feet and a vertical will add substantially to ore reserves.

Underground drilling will consist of 3,000 feet of A.Q. wireline in 6 holes to act as a guide for the underground bulk sampling and correlate drill results to this sampling and secondly to assist in surface drilling interpretation.

October 17, 1968, Letter 212 212 - Since the start of the new program on August 27, 1968, 96 rounds Properties (Cont'd.)

# HIGHMONT

October 17, 1968 Letter 212 (cont.)

212 - totalling 517 feet of underground drifting have been processed by the bulk sampling plant. The average grade over 517 feet has been 0.346% copper plus 0.03% MoS2.

The last 34 rounds have averaged 0.567% copper and 0.033% MoS2 over 203 feet. Two surface drills are drilling to expand the ore reserves from the 250 foot level to 500 feet plus one underground drill. A total of 48 personnel are on the property.

#### HIGHPOINT

# December 12, 1968 Letter 252

252 - Highpoint Mines Ltd. started assembling crew and equipment at its DEB group of claims, Highland Valley, on October 13, 1968. H. Wober P. Eng., outlines outlines work done to that date. (For prospectus review see GONL No, 246 (1968). In this period 12,000 feet of base line was cut and surveyed, 34 miles of compass and chain line blazed with stations marked every 200 feet on a line spacing of 600 feet. Soil samples were taken at 200 feet intervals along all cross lines and along the base line, and silt samples were taken where the line cut across Skuhost Creek.

A ground magnetometer survey was carried out over the entire line grid. Readings were taken at 200 feet initially and on several lines readings at a closer spacing of 100 or 50 feet to define significant changes more closely.

Detailed geological mapping and prospecting over the entire property confirmed, by observation of float trends and using float frequency count, the existence of two contacts in the western part of the property. These contacts, first interpreted by K. Northcote and later indicated by the government airborne magnetometer survey, are from the central Bethsaida phase to Bethlehem and the Guichon phase.

The contacts are parallel and trend NNW. Location of the contacts with regard to the line grid were interpreted using the magnetometer survey which revealed a trend of magnetic highs coinciding with the trend of the Bethlehem phase in this area.

Mr. Wober says that several sharp and marrow magnetic lows paralleling and sometimes cutting into the magnetic high may reflect structural and/or alteration zones.

He found that the geochemical response was relatively weak as must be expected in this area of deep overburden and glacial debris. However, several highs across 2 - 3 lines trend parallel to the geological features in the western area, namely the contacts and magnetic trends.

An I.P. survey is scheduled for December over lines established by flagging and blazing for the initial work.

# International Copper Corp.

January 1st - June 30th, 1967 Letter 43

43 - R.E. Signorello, President of International Copper Corp. Ltd., has reported that line cutting has been completed and a magnetometer survey is now underway on the 28 claims held in the H.V. area of B.C.

July 1st - November 24th, 1967 Letter 214

214 - International Copper's other interests include a block of claims in the H.V. where limited work has indicated areas worthy of further exploration.

# <u>J.C.</u>

- No mention of.
- Appears to have gained some of Cleveland's claims according to one of the property maps.

Jericho - cont'd

January 1st - June 30th, 1967 Letter 48

48 - Work on the company's H.V. property is under the direction of Canadian Superior Exploration - and is presently percussion drilling a sizeable anomaly located last season.

Agreement has been reached with Bio-Metals Corporation to bring into production the claims upon which ore has been found. H.B. Hatch states that the tonnage has not been proven but that the grade has been indicated as about 1% to 1.5% copper.

Mr. Hatch states "Jericho Mines Ltd. has entered into a contract with Bio Metals Corp. to install a pilot plant to process this ore. The installation and operation of the pilot plant will be done by Bio-Metals Corp. and is expected that preliminary production of high grade copper ore will be made at the Jericho property sometime in the fall of 1967.

# July 1st - November 24th, 1967

Letters 138, 184, 187

- 138 Pilot leaching operation designed to prove amenability of the lode ore at the H.V. property to recovery of copper by this method is expected to start by end of August. H.B. Hatch, President, says the process is now being installed and that Jericho has arranged the necessary funds. He points out that exploration at the property has shown mineralization to be present to the 100 foot level averaging between 1.0% and 1.5% copper and that there are indications of depth extension with other occurrences indicated by diamond drilling. The leaching method would dispense with preliminary concentration and smelting.
- 184 A meeting is now being held to consider passing a resolution approving a agreement between Jericho Mines Ltd. and Dr. C.L. Emery and Associates to bring Jericho Mines into production under the Bio-Metals processes on the basis of 60% to Jericho and 40% to Dr. Emery and Associates, of net profits, after the return of the Financier's investment.

March 29, 1968.

Letter 63

63 - The Jericho Mines option was terminated after disappointing drilling results.

July 11, 1968

Letter 142

142 - H. B. Hatch, President, states in the report of Jericho Mines Ltd. for the year ended March 31, 1968, that the feasibility report has been submitted by Bio Metals on the Jericho property regarding the bacterial leaching process. This report states definitely that the process is sujitable for the extraction of copper from the Jericho ores. The cost of placing Jericho Mines into production under the bacterial leaching method should not exceed \$300,000 and would take from 6 to 8 months whereas the cost of placing the property into production under the conventional mining method would be higher, and take longer.

<sup>187 -</sup> the agreement between Jericho Mines Ltd. and Dr. C.L. Emery was approved

#### Jericho

November 20, 1964 Letter 225

- 225 The 9 by 9 level will give access to the ore zones explored by the tunnel driven last winter at a point 500 feet above this upper level.
  - 33 diamond drill holes have been drilled to test the three ore zones located by the geophysical work and the higher level tunnel. Over 90% of the diamond drill holes returned commercial copper with a grade of approximately 1.5% copper plus low silver values and some molybdenum content.
  - The preceeding letters (before Nov. 1964) deal with the drilling program and the justification of driving adits.

January 1st - June 30th, 1965 Letters 23, 45, 95

- 23 The lower level adit (9 by 9) is advancing. Intersection of a mineralized fault zone has increased the "ore making potential".
- 45 adits are being driven to cut zones of mineralization. With the previous and present development, six well mineralized zones have been found.
- 95 In a report presented to the meeting, H.B. Hatch, Consulting Geologist, states:

"It is impossible at this date to give tonnage figures but he believes that there is indicated at Jericho now, to the 500 foot vertical horizon, between 3 and 5 million tons of ore which will have a probable gross value of at least \$12.00 per ton. This tonnage is sufficient to supply a 1,000 ton mill for 8 to 10 years."

At last report, the lower level was advancing through weak ground at 2,260 feet from the portal.

The present plan is to drill the five zones of mineralization to 1000 feet below surface and to drive raises to the surface in at least two two locations.

October 1st, 1965 - August 1st, 1966 Letters 54, 77, 90

54 - In a notice announcing the annual general meeting, a brief is given. Two agreements shareholders will be asked to approve are:-

- (1) Canadian Superior Exploration Co. Ltd. wholly owned by Superior Oil Co. Inc. of California, agrees to expend a total of \$10,000,000 to bring the Jericho property to warranted production.
- (2) Canadian Superio Exploration Co. Ltd. agrees to leave to Bio-Metals Corporation Ltd. of Vancouver, approximately 175 acres on a basis of 25% to Bio Metals of net smelter returns.

During the period December 1964 to March 1966, the lower adit was driven 2428 feet. This is a 9 by 9 trackless entry, the end of which is 480 feet vertically below the Upper Adit. In driving adit two, mineralized zones were encountered. Ten AX Wireline diamond drill holes tested the two zones (890 and 1725 zones i.e., named for their distance from the portal) along strike and below the tunnel floor. Mineralization was found to extend to the limits of the drilling and beyond, i.e., more drilling will be required to fully delineate each zone. One long hole cut the control fault structure 400 feet below Lower Adit level.

#### Jericho - cont'd (Oct. 1st 1965 - August 1st 1966)

- 54 In September 1965, a raise was started to follow the footwall of the zone 890 from the Lower Adit to surface.
- 77 As part of a consideration at a general meeting the following is given: by agreement, dated January 3, 1966, Bio-Metals Corp. Ltd. would lease 4 claims and 2 fractions from Jericho for the purpose of the former carrying out work thereon. If Bio fails to start production and fails to maintain commercial production for at least 30 consecutive days before August 31, 1967, or on May 31, 1968 if Bio fails to maintain commercial production during the whole of the 7 months to May 31, 1968, and on May 31, 1967, if Bio fails to maintain commercial production on the immediately preceding 31st day of May, the lease shall terminate. If the lease terminates, the claims fall under terms of the Canadian Superior agreement. After proceeds and cash generated from production shall, after Bio has recouped all its capital, be paid 25% to Bio and 75% by way of royalty to Jericho.
- 90 both agreements were approved.

July 1st - December 1st, 1966 Letter 212

212 - "The work this season included quite extensive soil sampling and detailed geological mapping on the southern half of the property where limited work has been previously done. In addition, quite an extensive area of the southern claims were covered by Induced polarization survey. Expenditures by Canadian Superior Exploration Ltd. on the Jericho Mines Ltd. property, totalled approximately \$ 53,000."

"Under the agreement, Canadian Superior Explorations Ltd. has the right to explore the property until December 31, 1968. There is no work committment for the period, but if Canadian Superior is to continue beyond December 31, 1968, a new company is to be formed to hold the property."

# Property Cont'd

# JERICIO MINES LID.

July 11, 1968 Letter 142 (cont.d)

142 - Jericho Mines does not intend to use the bacterial elaching process until a report is obtained on the results of the use of the process on the Skeena Mines property where it is now being used.

A report by R. G. Jury, P. Eng., states that during 1966 and 1967 Canadian Superior Oils Ltd. examined the Jericho claims exclusive of the adit area, and drilled several surface percussion holes on zones of interest.

Further drilling and tunnel work will be required to outline the 890 and 1,725 zones, together with Zone No. 1. The report states that there is a good possibility of increasing the indicated tonnage.

KALCO VALLEY MINES LTD. HIGHLAND VALLEY GROUND - W.A.Dexter, president of Kalco Valley Mines Ltd., has reported that ACQUIRED TO BE EXPLORED the company has acquired an option to earn an 80% interest in 88 claims owned by Cleveland Mining & Smelting Co.Ltd., located in the Highland Valley. Kalco has made a cash payment of \$6,000 and must spend a total of \$405,000 on the property by 1Sep77, in order to acquire its interest in the property. The consultant says the claims warrant additional exploration for following reasons: Similar geological environment to nearby producers; the presence of a drill indicated mineralized zone of 640,000 tons grading 0.364% copper with good potential of additional tonnage; Four percussion holes on the "open" north and east sides of the zone gave the following results: Hole No. 1 from 20 - 50 ft. ( 30 ft.) averaged 0.47% copper

Hole No. 3 from 30 - 150 ft. (100 ft.) averaged 0.53% copper Hole No.15 from 60 - 110 ft. (50 ft.) averaged 0.53% copper Hole No.16 from 30 - 100 ft. (70 ft.) averaged 0.51% copper;

The presence of significant faulting and fracturing of the favourable granitic host rock; and large unexplored areas covered by dense clay overburden that could mask underlying deposits. The president also reported that a program will be initiated on the property as soon as weather conditions permit.

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# Konnoo

(Kennecott Copper Corporation)

- No mention of H.V. holdings.

London Pride

October 1st 1965 - August 1st 1966 Letter 22

22 - Directors of London Pride Silver Mines Ltd. have reported that a program of geological mapping and bulldozer trenching will be undertaken on the company's 8 claim block in the Highland Valley.

August 31st - December 1st, 1966 Letters 164, 167, 203 164, 167, 203 - Refer to work that was mentioned in 1967.

January 1st - June 30th, 1967

(London Pride Silver Mines Ltd.)

Letters 14, 48

- "Trenching on the property last fall tested a copper mineralized zone over a length of 1300 feet and having widths of between 200 and 400 feet. The zone is open to extension on both ends. Only some of the trenches reached bedrock as overburden was too deep in some locations."
- <u>Salmo Prince Mines Ltd.</u> grouped its 6 claims in Highland Valley last October with 7 claims of London Pride Silver Mines Ltd. with each to share costs and possible returns 50-50. "H.D. Forman, P. Eng., advised that work done subsequently gave sufficient encouragement to justify further exploration of the contact." (contract?)

- a diamond drilling program is proposed (\$15,000) on the claims, which are about one mile from the results being obtained by South Seas Mining Co.

July 1st - November 24, 1967 Letter 171

171 - G.R. Dawson, Chairman of the Annual Meeting of London Silver Mines Ltd., stated that the Salmo Prince Mines Ltd. had now, after considerable difficulty, informed London Pride that it now has funds for its 50% share of the H.V. drilling program. This drilling is expected to begin within a month.

October 15, 1968 Letter 210

210 - The program of diamond drilling recommended in 1967 for the further exploration of the Highland Valley claims jointly held by London Pride Mines Ltd. and Salmo Prince Mines Ltd. failed to get underway. The Directors of Salmo Prince were unable to arrange their share . of the financing costs, and repeatedly refused to enter into a further agreement which would have allowed London Pride Mines to have undertaken the exploration alone for a major interest in the claims.

#### LORNEX MINING CORPORATION LTD.

CONSTRUCTION ESSENTIALLY ON SCHEDULE - Lornex Mining Corporation Ltd. annual report states that despite unusually severe winter weather and spring break-up conditions, the Lornex Project is essentially on schedule in relation to the planned

start-up in the second quarter of 1972.

The pit operation is fully staffed, and personnel are being added to strength as required in preparation for the commencement of milling operations. The permanent workforce at year end was 309, about 56% of the currently estimated required final total of 550. Preparation of the open pit for production involving removal of overburden, oxide ore and waste rock is being carried out at a satisfactory rate. Revised density calculations indicate a total pre-production removal requirement of 52 million tons compared with 47 million tons previously reported. Since the cubic yardage involved has remained unchanged, there has been no resultant increase in the budgeted pit preparation costs.

A total of 37,661,000 tons of material had been removed by yearend, about 72% of preproduction requirements. The yearend work on the process and ancillary facilities had advanced to 92% of completion of physical construction. It appears that the average grade of copper may turn out to be better than the 0.427% grade used in the feasibility study. It is expected that production will exceed the design rate.

expected that production will exceed the design rate. Capital expend. for the year were \$79,342,000. Total cap.expend. on the project to 31 Dec71, including accrued interest, financing expenses and exploration expenses and after deducting receipts from sales of townsite property were \$115,627,000. Development and construction commitments at 31Dec71 were approx. \$8,319,000.

#### Lornex

July 22, 1964

Letter 141

141 - Lornex Mining Corporation Ltd. is a recently incorporated B.C. company with authorized capital of 5,000,000 shares of 50¢ par value.

January 26th - August 6th, 1965 Letters 17, 125, 151

Letters 1/, 125, 151

17 - Egil H. Lorntzsen, well known B.C. prospector, has in cooperation with A. David Ross and C. Wm. McK.Burge, lawyer, formed Lornex Mining Corporation Ltd. with an authorized capital of 5,000,000 shares of which 1,200,000 are currently issued.

Lornex Mining holds 134 claims in the Highland Valley area of B.C. where in excess of 4,000 feet of bulldozer trenching has been completed to date. The president, Mr. Lorntzsen. states that this work has exposed a large porphyry type copper deposit located on the west slope of Gnawed Mountain adjoining the Anaconda and Kennco Exploration properties.

The bulldozer work has exposed an area of sheared and fractured rocks mineralized with copper, molybdenum and silver, fairly evenlt distributed over all the exposed area covering about 1,200 feet wide and 2,000 feet long.

The president reports that several major companies have expressed interest in the property.

125 - Egil H. Lorntzsen, president of Lornex Mining Corporation Ltd, has reported that the first diamond drill hole has started on the company's property in the Highland Valley to check the results of the dry drilling program.

Lornex Mining Corp. holds 134 claims and fractions located three to six miles south of Bethlehem Copper Corp. operation.

Work to date on the property has included some 10,000 feet of bulldozer trenching and the driving of 160 dry drill holes which tested the mineralization over an area 4,5000 feet long by 1000 feet wide. The work has been done over this area and while mineralization is widespread it should not be assumed that the mineralization is continuous over the entire area.

In addition to the dry drilling, and diamond drilling, the present work included new road work, transit survey of the workings and drill holes together with mapping of the geology of the trenches and line cutting for an induced polarization survey. This survey work is being related to the magnetometer work carried out earlier.

The results of the first diamond drill hole have not been obtained as yet but indications are that the mineralization is better in the diamond drill core than results from the dry drilling. Mineralization appears to improve at depth but final assessment of the core awaits assay results.

#### Lornex - cont'd

151 - E.H. Lorntzsen, president and prime mover in Lornex Mining Corporation Ltd. has reported that the present work on the company's extensive Highland Valley copper-molybdenum property has located two new trenches of better looking copper mineralization at the north end of the property and a zone of good molybdenum mineralization at the south end of the zone.

The recent molybdenum mineralization has been located in a trench on the southeast side of the area of mineralization as defined by the trenching to date. The molybdenum was discovered in a fault located by the trench and exposed by the trench for some 40 feet. Further trenching is planned to extend the fault and the mineralization. Samples from the fault zone are of obvious high grade molybdenum but meaningful sampling will have to await further exploration work.

To the north of the discovery area, two trenches have recently been bulldozed, one 500 feet north of the discovery and the other 900 feet north of the discovery. The trench 500 feet north carried good looking chalcopyrite mineralization and the trench 900 feet north carried highgrade bornite stringers and lenses. The importance of these discoveries will await the results of the percussion drilling which is now in these trenches testing the zone to depth.

The copper-molybdenum mineralization has been located and tested over an area two miles long and about 1,000 feet wide. While the grade is quite low in most of the area, the copper content is remarkably continuous.

#### August 30th - December 21st, 1966

Letters 168, 203, 220, 246

- 168 A percussion drill and a rotary drill are also being used to outline the limits of better mineralization. The rotary drill, capable of sampling to 1,000 feet, is being tested on the property.
- 203 Mr. Lorntzsen stated that the work on the property is not to final enough stage to give any firm tonnage projections without a number of qualifications.

The present area drilled would give a tonnage of substantially over the earlier expectations of 100,000,000 tons depending upon the grade of ore taken for the calculation.

220 - Text of the November 6, 1966, report of Dr. Skerl:

"As you requested I have analysed the diamond drilling results that are available to date and estimated the tonnage and grade of ore that they indicate.

Because of the wide spacing of 800 feet apart of the drill lines for this primary drilling pattern and also the lack of certainty as to the internal structures of the deposit the calculated ore cannot be classified as positive in the usual sense so far as grade is concerned. However the relative consistency of the grades for both the individual assays along the holes and also the averages for the holes is strong evidence that the present calculated average is close, namely:

#### 0.44% Cu 0.031% MoS2

The current programme of drilling on intermediate lines at a spacing of 400 feet should help to confirm this average. The real test will be made by the underground work that is planned because it will enable the mineralization to be correlated with the geological structures.

# Lornex- Letter 220 - cont'd

For the present calculation, the results on the four drill lines 3N, 11N, 19N and 27N have been used.

\*\*

Most of the drill holes reached to 1000 feet below the bedrock with no •evidence of loss of grade. Also the chosen assay limits give an almost vertical deposit. The plan view has therfore been assumed to be the same at all elevations.

The block of ground from 200 feet south of line 3N to 200 feet north of line 27N to a depth of 1000 feet below bedrock on each section contains: 330 million tons averaging 0.44% Cu and 0.31% MoS2.

Within the west half of the deposit lines 11N, 19N and 27N indicate a block 2000 feet long and 600 feet wide that amount to 100 million tons averaging:

0.53% Cu and 0.36% MoS2.

If the deposit was mined at the rate of 50,000 tons per day with a waste to ore ratio of 1:1 the total costs including smelter charges would be about \$1.70 per ton.

Assuming that 90% of the copper and 70% of the molybdenite are recovered and that metal prices are taken at 35¢ and \$1.00 per pound respectively, the net return would be \$3.20.

The net working profit would then be \$1.50 per ton of ore or \$27,000,000 per year.

Production would be 70,000 tons of copper and 7 million pounds of molybdenite concentrates per year.

The amount of copper produced would be sufficient by itself to sustain a good size of smelter.

Now that such a vast tonnage of ore is indicated it is imperative to press ahead with the underground exploration to obtain adequate amounts of representative ore for testing in a pilot mill and to observe at first hand the attitudes of the numerous structures and their relationships to the mineralization.

When a really firm average grade has been demonstrated it should be possible to raise the large amount of capital required to put the mine into production."

Dr. Skerl recently exercised an employee stock option.

246 - The area on which mineralization has been proven and the depth to which it has been probed is far greater than envisaged from the I.P. survey and initial percussion drilling.

The Lornex ground is badly broken and intensly faulted, making drilling and good core recovery difficult. Various types of drills and drilling techniques were tested on the property with the wireline type of drill using mud as a lubricant proving most efficient.

Lornex has completed the purchase of mineral claims from Consolidated Skeena Mines Ltd. by payment of a total of 75,000 shares pursuant to the agreement of May 17, 1965.

The option to purchase six mineral claims from Kennoo Explorations (Western) Limited has been dropped.

The option as assigned by Rio Algom Mines Ltd. to Lornex to purchase a further 15 claims from Consolidated Skeena Mines Ltd. has been kept in good standing.

At the date of this report, the company owns, has under option, or is in the process of recording in excess of 204 mineral claims.

Lornex - cont'd

January 13th - November 20th, 1967 Letters 9, 40, 224

 Recent assay results indicate two higher-grade zones which lie within the ore body's "North Zone" and striking approximately north-south. One of these zones lies on the west side of the induced polarization anomaly and has been traced on five drill lines. The second zone lies to the east of the first and has been traced southward on four lines, well off the southern limits of the I.P. anomaly. Both zones appear to be related to geological contacts and faulting structures.

40 - Two drills are working at the property of Lornex Mining Corporation in Highland Valley as work proceeds in preparation for a sytematic underground program to determine values. The program is financed by Rio Algom Mines Limited and Yukon Consolidated Gold Corp. Ltd.

No. 52, on Line 27-N on N.W. corner of the ore body, was drilled to the east to intersect the main contact fault and pass through the higher grade zone lying on the east side of the fault. Barren Bethsaida-type grandiorite was cut on the west side of the fault down to 840 ft. From 850 ft. to 1498 ft. (the bottom of the hole) grade averaged 0.538% copper and 0.017% MoS<sub>2</sub>.

Exploration drilling to south of the indicated ore body to date has shown some ore grade mineralization about 1000 ft. S.E. of the southern tip of the I.P. anomaly. This mineralization is narrow and near surface. Exploration drilling in this southern region continues. Two holes on a neighboring property to the north cut no mineralization and the drill was removed from the property.

224 - "The Lornex property contains a large low grade copper deposit with some molybdenum values. Gravel overburden averages approximately 145 feet in thickness. The limited metallurgical tests completed to date indicate that recoveries of copper and molybdenum would be satisfactory. Current indications are that open pit mining on a very large scale will be necessary if the deposit is to be mined economically.

The purpose of the Phase II programme (currently underway and planned for completion in the Spring of 1968) is to define with precision the factors involved in the determination of economic viability.....

.....It is now considered that the results of the examination of this material together with finalization of the tests of milling and metallurgical recoveries and processes and the preliminary capital and operating costs estimates now in preparation will permit a judgement to be made as to viability in the spring of 1968. If it then appears probable that the project is economically viable, a full scale feasibility project will be undertaken."

The above quotes are taken from the remarks made by R.D. Armstrong, president of Lornex Mining Corporation Ltd. in the annual report for the year ended September 30, 1967.

Exploration at the Lornex property designated Phase II, was started November 1966, has an estimated total cost of \$5,250,000 of which \$3,100,693 has been spent to Sept. 30, 1967. The purpose of the phaseII is to develop information as to copper and molybdenum ore reserves and recoveries together with engineering and metallurgical data to permit the preparation of preliminary capital and operating cost estimates. It comprises extension of surface drilling, the sinking of a shaft, approx-

#### Lornex - cont'd - Letter 224

and operation of a 100 ton per day pilot mill.

The work in Phase II completed to September 30, 1967, included a total of 57,682 feet of surface diamond drilling. The surface diamond drilling now totals 82 holes and 82,974 feet. In addition, 511 shallow percussion drill holes have been completed representing a total of 90,917 feet. The surface drilling as planned has been completed. The shaft was sunk to 550 feet, and work on the cross cut commenced early in October, 1967. The crushing and sampling plant started operation in April. To September 30, a total of 8,092 tons of material had been crushed.

A small open pit was developed to provide additional material for metallurgical experimentation in the pilot plant. About 46,800 tons of material comprising oxide ore, sulphide ore, fault gouge material and low grade rock have been stockpiled for this purpose.

Preliminary engineering studies were carried out to establish tentative locations for processing facilities, for disposal of overburden, waste and tailings and for a townsite.

Computer analyses were carried out on a series of some 50 alternative open pit designs ranging in capacity from 5,000 tons per day to 70,000 tons per day.

March 26, 1968 Letter 60

60 - In addition to carrying forward its detailed investigation of the Lornex Mining Corporation in the Highland Valley, owned 34.6%, Rio Algom Mines is engaged in a long term quest for more copper situations in B.C. In addition to participation in the Lornex and other development projects, Rio Algom spent \$1,026,000 on exploration.

At Lornex, the report says that the underground program was extended to include the cutting of drives and underground drilling to provide more precise and detailed information as to grade. Metallurgical testing was carried out during the year in the 100ton per day pilot mill which was constructed for this purpose. The objective of the testing was to develop information as to grinding methods and copper and molybdenum recoveries and to provide a factual basis for the computation of capital and operating costs of a commercial scale operation. Geological, metallurgical and financial analyses are continuing in association with consultants. It is expected that a decision will be reached during 1968 as to whether this deposit can be developed on a profitable basis.

# May 10, 1968

Letter 98

98 - Work carried out during the six months ended March 31, 1968 related to continuation of the Phase II assessment program described in the Directors' report to the shareholders for the year ended September 30, 1967.

During this period, the east crosscut was completed at a distance

#### Properties Contd.

#### LORNEX

May 10, 1968 Letter 98 (cont.) 98 - of 247 fe

of 247 feet from the shaft and the west crosscut was extended to 754 feet from the shaft. The north and south drives had advanced to 306 feet and 224 feet respectively from the west crosscut. If this program is completed as now planned, approximately 1,100 feet of additional underground development will be carried out. A total of 1,629 feet of underground horizontal diamond drilling was completed from the west crosscut and the north drive. Approximately 4,500 feet of additional underground drilling will be required to complete this program.

Metallurgical studies were substantially completed. Recovery of copper and molybdenum from the sulphide ore is regarded as satisfactory; recoveries from the oxide ore appear to be uneconomic. A substantial amount of engineering and geological investigation has been carried out in collaboration with the company's consultants. However, bad ground conditions have extended the expected completion date of the planned underground program and will delay a decision as to viability.

M.C.S. Exploration

- No mention of.

Properties Cont'd.

#### MAMIT LAKE

Letter 54

March 18, 1968

Mamit Lake Mining Ltd.

54 - will start the 1968 exploration program on its 150 claims in the Highland Valley area of B.C. in the next week, Sid W. Wright, executive vice-president, has reported. The work will include bulldozer stripping as a follow up on the mineralization located last season. The stripping will be followed by percussion and diamond drilling. Geophysical work has located six targets, one of which is in the area of an old mine pit dug in 1915 on a highgrade copper showing. Trenching in 1967 located an area of disseminated copper mineralization over six feet in a trench. A short drill hole cut 22 feet of 0.67% copper.

April 10, 1968

Letter 73

73 -

S. W. Wright, P. Eng., executive vice-president of Mamit Lake Mining Ltd., has reported that the bulldozer program on the Highland Valley, area property is obtaining good results. The work has opened 350 feet width of disseminated and easily visible copper mineralization. Additional claims have been acquired and the company now holds 163.

On the northern part of the property, 2 miles from the mineralization, bulldozer work uncovered a 1,000 foot wide zone of advanced alteration and pyritization. This may be the outer halo of a major target for exploration.

In summary, Mr. Wright stated that the bulldozer work has been directed by the presence of favourable geology and geophysical surveys.

### Minex

January 1st - December 1st, 1964 Letters 28, 112

- 28 Red Rock Mines Ltd. is a private company contolled by Minex Development Limited and J.A. Halberg which recently acquired 35 claims and fractions stargetically located in the H.V. The Red Rock claims are bounded on the north by Bethlehem Copper and Northwest Ventures, on the east by Jericho, and on the south and west by the large block of claims recently acquired by Anaconda under an option agreement with Peel-Sheba, Minex, Torwest, and B.X. Mines. The group of claims was acquired by Red Rock from the Merit Syndicate and E.H. Lorntzsen for a consideration of 275,000 treasury shares.
- 112 In a report to shareholders, Minex Development reports receipt of notice of intention of Anaconda Company (Canada) Limited to proceed with develop -ment of the Minex Highland Valley property for a further year from May 31st, 1964. The letter says further that in anticipation of this, Minex Directors have been engaged in consultation with the company's engineers in looking into acquisition of other properties for development. Decisions will be reported to shareholders in the not too ditant future, it is expected.

January 1st - September 30th, 1965 No mention of.

October 1st, 1965 - August 1st, 1966 Letters 204, Dec./65, 67

204 - Anaconda, prior to relinquishing its option, carried out geological, geophysical and soil sampling surveys, plus limited diamond drilling.

# December 1965

The Northern Miner

- Anaconda drops option.
- The Anaconda Company (Canada) Ltd. has informed Peel Resources (Sheba Copper), Torwest Resources, <u>Minex Development</u>, and B.X. Mining Co. that the agreement under which Anaconda has been conducting an exploration program on the combined properties in the Highland Valley will be term-inated.
- 67 On April 1, Minex started surface stripping by bulldozer at its property in H.V. This work is being directed by Egil H. Lorntzsen.

January 1st - June 30th, 1967 Letters 102, 123

102 - The Minex property is on the south side of Highland Valley, 5 miles south of Bethlehem Copper Mine and 2 1/2 miles south east of the Lornex orebody. The claims are immediately west, south and east of Gnawed Mountain, elevation 5,900 feet. The lowest elevation is 5,200 feet near Roscoe Lake at the southeast corner of the claims. Enough work has been done to keep the 34 contiguous claims in good standing for at least one year, and in some cases, for as much as 5 years. The only equipment owned by the company is a 1966 power wagon valued at \$3,000.00.

# Minex - cont'd

#### January 1st - June 30th, 1967 Letter 102 - cont'd

Dr. Skerl says the Minex claims are near the centre of the Guichon batholith that consists of a variety of granitic types of intrusives. He points out that at Bethlehem and Lornex, the orebodies are situated in zones of strong faulting and intensive hydrothermal alterations on opposite sides of a large mass of so-called Skeena quartz-diorite where it is in contact with other types of granodiorite, and concludes that the Minex ground could contain part of the same contact as at Lornex, but in an area of deep overburden. He describes in some detail the evidence obtained on Minex ground of significant mineralization that could be an extension of the Highmont orebody and recommends a drilling program to explore this area. Interesting mineralization uncovered in the Ide No. 10 and No. 12 claims last year should be tested by percussion drilling. Thirdly, the consultant says that the bulk of the claims have still to be systematically prospected and proposes a geochemical silt survey.

Dr. Skerl brings out that the known mineralization on Minex occurs under the same geological conditions as the orebody reported earlier this year by Highmont and that a series of trenches cut last year at 400 feet spacing in Minex claim Ide No. 2 opposite the Highmont orebody uncovered well fractured rock in this area 1500 by 800 feet that was mineralized with bornite, chalcopyrite and occasional molybdenite in steep fractures many of which trend east to east-southeast. Two lines of percussion holes at 200 feet apart are planned to test what may well be an extension of the Highmont orebody.

In a supplementary report, Dr. Skerl advised that successful outcome of each of his recommendations could warrant further development and exploration at a cost of \$ 155,000.00 to include \$ 80,000.00 for percussion drilling, \$ 60,000.00 in diamond drilling, \$ 5,000.00 for geochemical soil sampling and \$ 10,000.00 in bulldozing geochemical anomalies.

- 103 Underwriting information (May 29)
- 123 Minex Development Ltd. has reported a drilling program of 5,000 feet of percussion drilling is now underway on the Highland Valley property. This drilling is being carried out on ground adjoining the East Zone of the Highmont Mining Corporation. Results will be evaluated as soon as assay results are available. In addition, a geochemical soil survey will be made in a recently exposed zone of mineralization in the southwest quarter of the Minex Claims.

#### July 1st - September 29th, 1967

Letters 139, 180, 187, 197

139 - Minex Development Limited reports that drilling results from 3,000 feet of percussion drilling recently completed on Minex ground adjoining the Highmont Mining Corporation's East Zone, have begun to come in. Copper assays indicate an extension of low grade copper ore from the Highmont property into the Minex AM 32 fraction.

# Minex Development Limited

December 12th - December 28th, 1967 Letters 240, 250

240 - The maeting was told that, near the end of the field season on the company's property in the Highland Valley, B.C., a soil sampling anomaly sam 1,000 feat by 800 feat was stripped in several places by bulldozer and where the trenches reached bedrock, copper mineralization was discovered. The bedrock was only opened in a few places and none were over very large areas, therefore samples were not assayed but the copper mineralization is considered of major importance owing to the size of the anomaly. The meeting was told that the anomaly is known to extend onto the B.X. property to the north which is now owned by Trojan Consolidated.

A major company from the U.S.A. has made an offer to carry out an exploration program on the property next year with the work to include the following: a complete induced polarization survey; soil sampling, geological mapping, 5,000 feet of percussion drilling. This work would cost between \$100,000 and \$150,000. The percentage of the property to be received by the U.S.A. company is still a matter of consideration.

250 - D.M. Morgan, P. Eng., president, in the annual report of Minex Development Ltd., says that some 5,000 feet of percussion drilling on the Minex property adjoining the East Zone orebody of Highmont Mining Corp., H.V., indicated an average assay of 0.276% copper on the company's AM32 fraction. He adds that a diamond drill hole in this area indicated the depth of this mineralization persists to 500 feet, and that this indicates ten million tons of material of this grade. However, molybdenum values were too low to contibute additional values, so that at present this zone cannot be considered to be of economic value.

A systematic program of geochemical sampling was started in the South East quadrant of the property and some 13 line miles of sampling hasz been completed revealing one large copper anomaly, and three smaller arcmalies showing copper and molybdenum values. Some trenching was started on the large anomaly and despite the depth of overburden being in excess of 20 feet, some small areas of bed rock were exposed showing copper mineralization. Percussion drilling is being planned to further check this anomaly.

Properties Cont'd.

#### MINEX

# May 21, 1968 to November 1, 1968

Letters 105, 122, 207, 223

105 - Canadian Superior Exploation Ltd. has committed, in the first year, to the following work, 1) a Minimum of 5,000 of percussion drilling on the copper anomalies found in 1967; 2) a complete geological survey; 3) an induced polarization survey on 34 claims; 4) a complete geochemical survey. Canadian Superior on completion of this work will have the right to an extension of the option for a further period up to March 31, 1970 and if additional work in excess of \$75,000 is carried out, a further extension until September 30, 1970.

Upon completion of the working option period, or sconer, Superior shall have the right to form a new 5,000,000 share company, after it has expanded or paid to the new company any balance of \$00,000 not previously expended on the property.

- 122 Canadian Superior has atarted work on the property. A crew of 16 men have completed two thirds of the 30 miles of line cutting, and has started induced polarization and geochemical survey. Arrangements to being a drilling program have been made and it is expected to begin drilling by mid-June, 1968. The first drilling target will be the large 1600 ft. x 1000 ft. copper anomaly with soil sampling reading of 500 ppm, found last fall on the AM - 16 claims.
- 207 Minex Development has received a progress report from Canadian Superior Exploration Ltd. which states that a percussion drilling program of 21 holes has been planned for the Highland Valley claims of Minex which are optioned to Canadian Superior Exploration Ltd. on a 70-30 agreement. The drilling is scheduled to start October 25, 1968 with the holes being drilled to the east at 40 degrees. The depth of the holes will vary between 250 feet and 300 feet.

The drilling is based on the results of an induced polarization survey and confirmed by a soil sampling survey both of which surveys located anomalous conditions. The area to be drilled is a short distance south and a little east of the area being explored by Highmont Mining.

223 - A percussion drilling rig is now on the Minex Development Ltd. property in the Highland Valley area of B.C. The planned work is a series of 21 holes on a grid to test targets located by induced polarization survey work along with soil sampling and earlier percussion drilling. The work is being done under an agreement whereby Canadian Superior Exploration Ltd. can earn a 70% interest in the property by placing it in production. Minex Development retains a 30% interest in the property.

#### New Indian

July 1st - January 1st 1964

Letter 109. 138

109 - Joint venture exploration program on 52 claims due west of Bethlehem. Each company (Vananda and New Indian) will contribute 50% of the costs. An I.P. survey is to follow the results of the soil sampling. Although most of the area is obscured by overburden, the claims are known to be underlain by granite rocks of the Guichon Batholith.

138 - awaiting geochemical survey results.

January 1st - June 30th, 1965 Letter 123

123 - Bulldozing (stripping and trenching) has exposed considerable malachite and disseminated chalcopyrite.

October 1st, 1965 - August 1st, 1966 Letter 53, 97, 117

53 - Current work on the Eden claims in the H.V. is road building and line cutting in preparation for an I.P. survey.

The claims are held 50-50 by Vananda Explorations and New Indian Mines Ltd. and are located on the north side of the valley, north of Jericho and south of the Dancey claims being worked by North Pacific. The lines ' are being cut by bulldozer at \$100. per line mile and some 10 miles have been completed. The survey will cover the north end of the property where bulldozer trenching has opened considerable copper mineralization.

- 97 New Indian Mines Ltd. and Vananda Explorations Ltd. have reported that the No. 1 diamond drill hole was at 89 feet and encountered only 13 feet of overburden.
- 117 In hole No. 1 areas of scattered copper mineralization were found with some concentrations along fracture planes. Three sections have been split and assayed with the following results: 226 to 231 ft. 0.08% copper; 258 to 261 ft. 1.0% copper; 352 to 360 ft. 0.27% copper. Drilling is continuing to test the anomalous areas with 3,000 feet of drilling in eight holes.

July 1st - December 1st, 1966 Letter 204

204 - Pork on the Eden-Ezra-Job claims, H.V., included the drilling of 10 holes on an I.P. anomaly which covered a small portion of the area. This was followed by a geochemical survey - also late in September, soil sampling started on 100 claims held under option by <u>Cleveland Mining</u> as to a 50% interest, New Indian as to 25%, and Vananda as to 25%.

July 1st - November 24th, 1967 Letters 128, 130, 171

- 128 Recently, a geochemical survey on Nim claims, H.V., gave positive results. After unfavourable results last season on the Eden-Ezra claims, H.V., in spite of very favorable I.P. indications, bulldozer stripping of part of the property not drilled last year has been recommended.
- 130 A geochemical survey of the Nim claim group, a mile west of Bethlehem Copper, involving 1,194 soil samples, has shown that several geochemical anomalies are evident.

#### New Indian - cont'd (July 1st - November 24th, 1967)

130 - The Consultant says that bulldozer stripping and trenching are planned on several claims starting on Nim 14 and Nim 18 claim anomalies. Stripping will determine extent of the underlying copper mineralization and indicate if drilling is warranted, he says.

171 - Stripping by bulldozer begun.

# August 12, 1968

Letter 164

164 - New Indian Mines Ltd. President, T. E. Blossom, has released a report by F. J. Hemsworth, P. Eng., on 2 groups of claims in Highland Valley; Nim group 4 miles N.W. of the Valley Copper discovery, and the Ezra, Eden and Job claim groups about 4 miles east of Bethlehem Copper mine. The consultant says a geochemical survey on the Nim claims followed by bulldozer trenching and stripping has uncovered chalcopyrite and bornite along rock fractures. An I.P. survey is recommended for the Nim. An I.P. survey in 1966 indicated 3 anomalies on the Eden, resulting in a recommendation by Seigel Associates for more detailed surveys and 2 more D.D. holes to at least 400 ft. About 13 miles of lines are now being cut on the adjacent Ezra and Job groups, preparatory to more I.P. surveys. Mr. Hemsworth says also that a crew is being sent to the optioned 40 claims at Cuisson Lake in the McLeese Lake area, west of and . adjacent to Gibraltar Mines' holdings, in preparation for an electro magnetic survey planned for the fall.

#### New Indian Mines Limited

July 1st - January 1st, 1964

Letters 109, 138

109 - Joint venture exploration program on 52 claims due west of Bethlehem. Each company (Vananda and New Indian) will contribute 50% of the costs. An I.P. survey is to follow the results of soil sampling. Although most of the area is obscured by overburden, the claims are known to be underlain by granite rocks of the Guichon Batholith.

138 - Awaiting geochemical survey results.

January 1st - June 30th, 1965 Letter 123

123 - Bulldozing (stripping and trenching) has exposed considerable malachite and disseminated chalcopyrite.

July 1st - December 1st, 1966

Letter 204

204 - Work on the Eden-Ezra-Job claims, Highland Valley, included the drilling of 10 holes on an I.P. anomaly which covered a small portion of the area. This was followed by a geochemical survey - also late in September soil sampling started on 100 claims held under option by <u>Cleveland Mining</u> as to a 50% interest, New Indian as to 25%, and Vananda as to 25%.

December 28th, 1966 Letter 249

249 - Results on one of the company's Highland Valley holdings were disappointing but the claims are retained pending further investigation. Also, in Highland Valley, the company retains the NIM group and a 25% interest in 100 claims known as the BAY group. A geochemical survey covering this group has just been completed and samples are being analyzed.

January 1st - June 30th, 1967 Letter 62

62 - Vananda Explorations Ltd. have reported that, as a result of I.P. and diamond drilling on Eden-Ezra-Job groups of claims, due wast of Bethlehem in the Highland Valley, exploration will continue.

- further stripping, bulldozing, I.P. surveying, and drilling to be done.

### Noranda

January 1st - September 30th, 1965 Letter 169

169 - An agreement has been made with Stellako Mining Co. Ltd. which involves a program of geochemical, geophysical and drilling.

The work is to be done on the Company's H.V. property (which one?) where the company announced on July 26, 1965 that over 1000 feet of trenching (bulldozer) opened up highly altered granitic rocks. At that time it was stated that within this zone, what appears to be a series of quartz veins carrying bornite and chalcopyrite roughly parallel to each other over a strike length of at least 600 feet, has been exposed.

#### Northlode Exploration

July 1st - September 30th, 1965

Letter 175

- 175 The company has acquired a block of 40 claims which adjoin to the west the property of Lornex Mining Coeporation Ltd.
  - a minimum of \$10,000 worth of exploration has been agreed upon within one year.

#### October 1st - August 1st, 1966

Letters 204, 210, 242, 10, 22, 47

- 204 The immediate program calls for detailed prospecting on the northerly part of Northlode's claims to be followed by bulldozer stripping and trenching on favourable structure.
- 210 A report from A.R. Allen, P. End., states that on Northlode property, copper mineralization has been discovered in fractured Bethsaida quartzdiorite porphyry. Bornite along with some chalcopyrite occupies fractures up to 1/4 inch across. This is near the northeastern part of the property where shallow drift-filled depressions extend a considerable distance to the south and southwest, indicating possible extensive zones of weakness. On adjoining properties, both to the north and south such was found to be the conditions when the drift was bulldozed to bedrock and the copper mineralization was found in and adjoining the faulted zones.
- 242 "The present program is to extend the area of mineralization by trenching, drilling and magnetometer survey. Widespread copper mineralization has been revealed by the recent stripping and trenching program.
- 10 Northlode Exploration Ltd. reports that it has added 40 claims. The new ground fills in an area between ground held by CM&S and Valley Copper.
- 22 Northlode reports it has staked two claims adjoining the east side of the company's "Lorex" group and projecting in the general direction of the ore body of Lornex. Leif Ostensoe, geologist, has advised Northlode that the favourable copper-bearing host rock, known as BEthsaida quartzdiorite extends from the Lornex ore body in a westerly direction across the northern portion of Northlode's property.
  - J. Cream, president, says that a geophysical survey is being carried out under Mr. Ostensoe, and that sites for drilling are being surveyed. Northlode's statement for the 5 months to October 31, 1965 shows that the "Lorex" group was acquired from Egil Lorntzson for 100,000 shares of Northlode.
- 47 Northlode has reported that the results from the first thirteen percussion holes drilled on the company's Lorex and Plim claims have shown sub-marginal grades of copper mineralization only. Drilling was limited in depth since dry-percussion equipment can not drill below the water table.

Results from remaining holes will determine whether further drilling will be done at this time.

July 1st - November 24th, 1967 Letters 156, 168, 186

156 - In the H.V. the company has completed an airborne E.M. survey (E.M., magnetometer and scintollometer) which has (have) indicated the presence of extensive anomalous zones. The above encouraging results are being followed by line cutting and an I.P. survey.

# Northlode Exploration - cont'd (July 1st - November 24th, 1967)

- 168 President Gary Schell has reported that the company has cut more than 30 miles of lines on the H.V. property and that the I.P. survey is well advanced and this survey trends, so far, to confirm the anomalous area indicated by the aerial survey work.
- Some surface samples have given copper values from 1.8% to 4.6% copper. 186 - The above work is on the 43 claim Bar of Copper group. The next logical
  - (?) step is to drill.
- March 29, 1968

Letter 63

63 - The company is carrying out a trenching and linecutting program on the Normex claims adjacent to the Lornex property in the Highland Valley area of B.C.

August 20, 1968

Letter 170

170 - Owing to the renewed interest in the Highland Valley area of B.C., as a result of the very large discovery by the Cominco Ltd. controlled company, Valley Copper Mines Ltd., Northlode has arranged for the detail soil sampling of its Bar Group of 43 claims which lie a few miles to the southwest of the Valley Copper discovery area and are in a favourable geological setting.

## North Pacific (Krain Property) - cont'd

January 1st - September 30th, 1965

Letters 17, 128, 145

17 - Reserves of probably 10 x 10<sup>6</sup> tons of approximately 0.50% copper were indicated on the Krain Copper property in the H.V. by work in the period 1957 to 1959. This ground was recently acquired by Northern Pacific Mines Ltd. and is now being further tested.

128 - Current drilling program has been directed to obtain better recovery and to test greater depth.

- further drilling is to test the boundaries of mineralization for a possible extension in the width and length of the zone of mineralization.

145 - Road building and trenching, also percussion drilling.

January 1st - June 30th, 1967 Letters 64, 102

(North Pacific Mines Ltd.)

First - G.N.C.L. of August 28 - It was stated that the recent drilling has extended the indicated ore potential. A March 1967 report gave reserves of 20 x  $10^6$  tons of 0.45% Cu. drill proven, and 60 x  $10^6$  tons of probable. - a number of major mining companies are supposed to be expressing interest due to the results of the last drilling.

64 - A.R. Allen, P. Eng. states that on the basis of a careful examination of the result of work on the ground to date, he estimated drill proven reserves of 20 x  $10^6$  tons grading 0.45% copper with an additional probable reserve of 60 x  $10^6$  tons of a grade not estimated. Silver and moly occur with the copper but average grades have not been estimated. The engineer recommends a \$ 500,000 program for the property to provide the information upon which a full feasibility study can be based. The recommended program is to include additional diamond drilling, driving of a tunnel the length and breadth of the zone, a pilot plant for mill tests and heap leaching tests on the oxidized material. 102 - deals with a transfer of shares.

#### NORTH PACIFIC (KRAIN)

October 3, 1968

Letter 203

203 - In addition to holding an option on the Krain group of claims in Highland Valley, North Pacific Mines Ltd. holds full title to the Dansey group, having exercised completely its option on the latter which is now known as "North Pacific No. 2 Group". The consideration for the Dansey was \$4,000 and 50,000 North Pacific shares. The company proposes to proceed with a program on the Dansey property, recommended by D. W. Pringle, P. Eng., at estimated cost of \$125,000.

The North Pacific No. 2 or Dansey property is located about 4 miles NE of Bethlehem Copper's mine in Highland Valley and some 4 miles SE of the Krain claims. Mr. Pringle, in his summary, says that the geological location and results dictate that more work should be done. He says that strong mineralized shear zones have been exposed by trenching and that generally the shears trend northeasterly and dip about 70 deg. Northwest. Mineralization is found in shear lodes and disseminations. Generally, he found, both types are widespread but of low grades. The program is to include I.P. surveys, ground geological mapping, dozer work, trenching and diamond drilling.

The consultant's report on the Krain property says that the location, plus the mineralization uncovered to date dictates that **a** well planned 2 to 3 year program should be carried out. He concludes that, for this comprehensive program, some \$150,000 would be necessary per year. An excellent potential is indicated in the Krain area which covers 28 claims, 5 miles north of the Bethlehem open pit. Showings outcrop at 5,500 to 5,700 ft elevation, almost on the divide between Highland Valley and Guichon Creek Valley. Mr. Pringle points out that various tonnage and grade calculations have been made for the Krain occurrances over the past few years by different companies. He adds:

"I don't believe the tonnage is as important as the grade at this stage of operation. It appears that a 0.4 - 0.5% copper (plus some Mo and Ag.) would be a reasonable grade to apply to this Krain mineralized area. There is approximately 20,000,000 tons of the above grade (50% Oxidized) without considering the waste/ore stripping ratio. "If the above grade is to be the normal in the area, then a large tonnage must be proven up. This means a wide diamond drill pattern must be established - say on a 400 foot grid. Drilling must continue north and south to the percussion area. Some drilling must be done to the south west of the present zone due to an indicated anomaly and an interesting set of rocks and structure. "Regional geological mapping must be projected under the volcanic capping and some long shot drilling through the capping must, in the final analysis, be done. This will require very detailed geological mapping around the capping limits".

# Northlode Exploration Ltd.

March 29th - 1968 Letter 63 63 = The company d

63 - The company is also carrying out a trenching and linecutting program on the Lorex claims adjacent to the Lornex property in the Highland Valley area of B.C.

O.K. Property

- Refer to Alwin Mining Co. Ltd.

## Oro

115

## October 1st 1965 - August 1st 1966 Letters 22, 51, 115

22 - Oro was recently incorporated.

51 - First phase of program recommended by Rae Jury, P.Eng., is planned by Oro Mines Ltd. on two groups of claims.

Mr. Jury, in recommending programs, estimated to cost \$228,000. says initial work on the northerly group (soil testing) has indicated at least 3 areas requiring further explration. The consultant says that both groups are well within the boundaries of the granodiorite and that major fault zones are known to traverse the Price claims in the northerly group and are probably present on the M.M. claims in the southern block.

A 25 mile I.P. survey contract has been let. With 2 recently staked claims and the purchase of 8 claims for \$800 the company now has 177 claims.

Oro - cont'd

July 1st - December 1st, 1966 Letters 152, 217

- 152 in the H.V., Oro has acquired an additional 10 claims onto its northern group. - No previous mention of.
- 217 Similar to material found in Letter 56, 67. Also say for the sale of promotion: "Indications obtained from the work to date suggest the claim groups are in favorable geological settings and that a large tonnage potential exists in a number of areas on the properties.

#### January 1st - March 31st, 1967

(Oro Mines Ltd.)

Letter 56

 56 - A January 16, 1967 report, recommended a \$ 125,000 exploration program for Oro Mines Ltd. two H.V. claim groups and Princeton group of claims. The Oro Mines North and South group claims are approximately 5 miles from Bethlehem.

Work done to date on the North group of claims includes about 8 miles of I.P. completed immediately south and east of Billy Lake. About one mile of new road has been constructed on the claim group. Two short diamond drill holes totalling 242 feet were drilled during 1966 to test mineralization encountered in bulldozer trenching.

On the South group, work has included 4 miles of road construction and 12 bulldozer trenches. Reconnaissance geochemical soil survey was conducted over nearly all the claim group. The I.P. survey totalled 6.82 line miles.

July 1st - November 24th, 1967

Letters 206, 223

206 - The company holds a number of blocks of claims in the H.V. which have been under exploration with encouraging results over the past two years.

223 - On the H.V. property, this season's work outlined three very favorable areas where further work is recommended.

# Pccl

October 1st, 1965 to August 1st, 1966

Letters 232, 245, 109, 120

- 232 Peel intends to continue the exploration program on the Sheba property in view of the results obtained in the past season on the ground by Anaconda. Anaconda has made available all of the core from the past two seasons diamond drilling program.
- 245 The controlled Sheba Copper Mines Ltd. will resume control of its claims south of Bethlehem Copper at January 31, 1966.
- 109 Ore samples from a high grade deposit on Peel's Sheba Copper Co. interest, high-grade surface occurrence on Sheba J. 101 have been sent to Bethlehem Copper and to Craigmont Mines to determine if this ore is amenable to treatment in the concentrating circuits of either or both Companies. If so, the proposal under consideration is that the tonnage exposed should be "gloty-holed" while further testing of the 100 claims held by Sheba in H.V. proceeds.
- 120 Peel Resources is financing work on its 62% owned subsidiary, Sheba Copper Mines Ltd., by taking down Sheba shares at 40¢ per share.

Peel - cont'd

July 1st - December 1st, 1966 Letters 204, 208

204 - Drilling starts on Sheba ground between two claims of Highmont. This ground is in the vicinity of the areas of mineralization currently under development by Highmont.

Three fractional claims in this area form part of the holdings of Sheba Copper, which, together with other claim groups owned by Peel Resources. Torwest Resources, Minex Development, Trojan Consolidated, and B.X. Mines, were under option to Anaconda American Brass Ltd. in 1964 and 1965.

208 - A preliminary agreement with United Copper Corporation Ltd. covering surface stripping by bulldozer and diamond drilling has been arranged. United may earn a 60% interest in the property in consideration of carrying it to production if warranted.

January 1st - June 30th, 1967

Letters 78, 90, 120

- 78 On April 12, 1967 an agreement was signed between Sumitomo Metal Mining Co. of Canada Ltd. and Sheba Copper Mines Ltd. which provides for the exploration and production of a 101 claim block.
- 90 Sumitomo Metal Mining Co. Ltd. has started on a \$100,000 exploration program for the 100 Sheba Copper Mines Ltd. claims.
- 120 On behalf of Sheba Copper Mines Ltd., Peel has reported that 39 miles of line have been cut on the 100 H.V. claims and that geological mapping has indicated that the contact between the Bethlehem quartz-diorite and the Guichon quartz-diorite runs approximately north and south through the eastern part of the property. The Guichon side of the contact is considered favorable for the occurrence of copper deposits on the basis of known data.

July 1st - August 31st, 1967

Letter 153

(Peel Resources Ltd.)

153 - Peel Resources Ltd. which has the largest single share position in <u>Sheba Copper Mines Ltd.</u>, has issued a progress report covering exploration results on Sheba's 105 claims in H.V. Refer to Sheba Copper Mines under "Active Properties" (which is also

listed in letter 153,1967).

<u>R.M.</u>

- No mention of.

#### Red Rock

December 1st - June 30th, 1964 Letters 28, 40

28 - Red Rock Mines Ltd. is a private company controlled by Minex Development Limited and J.A. Hallberg which has recently acquired 35 claims and fractions strategically located in the H.V. The Red Rock claims are bounded on the north by Bethlehem Copper and Northwest Ventures, on the east by Jericho and on the south and west by the large block of claims recently acquired by Anaconda under an option agreement with Peel-Sheba, Minex, Torwest, and B.X. Mines.

40 - Conversion to public company approved.

January 1st - June 30th, 1965 Letters 99, 120

- 99 H.H. Cohen, P. Eng., in a report dated January 21, 1964, recommends for the H.V. property a geophysical study to determine any structural features that may provide suitable areas of favorable geology for further geology. In view of the natural exposures, he says initial work should be confined to magnetometer survey on a grid 400 ft. by 100 ft. with a detailed survey on a grid 100 ft. by 25 ft. on areas of interest.
- 120 A diamond drilling program is planned for July and consists of 4 holes spaced at 400' intervals in an east-west direction. Vertical holes are planned for a depth of about 200 feet each. If overburden is too deep at this location, an alternate location is under consideration. Red Rock's H.V. property is centrally located in the active exploration area south and east of Bethlehem Copper. Cominco is exploring ground to the north of Red Rock. Immediately to the west is the large area under option to Anaconda which has bulldozers at work while immediately south is the underground exploration program of Jericho Mines.

July 1st - December 31st, 1966 - Letter 240

240 - Among the directors elected was Egil Lorntzsen. The company has been doing some preliminary work on its claims in the eastern H.V. area, but deep overburden terminated work in that area. The company has acquired recently a block of claims in the area of Pimainus Lake where soil sampling and magnetometer survey work has indicated several target areas where bulldozer stripping will be undertaken in the near future.

October 1st 1965 - August 1st, 1966 Letters 202, 30

- 202 Red Rock Mines Ltd. is proceeding with a limited program of bulldozer stripping on its H.V. property southeast of Bethlehem Copper.
- 30 Prospecting and limited percussion drilling located some interesting areas that will be followed by bulldozer work in the spring.

details will be released in the near future regarding this financing.

#### RIVIERA MINES LIMITED

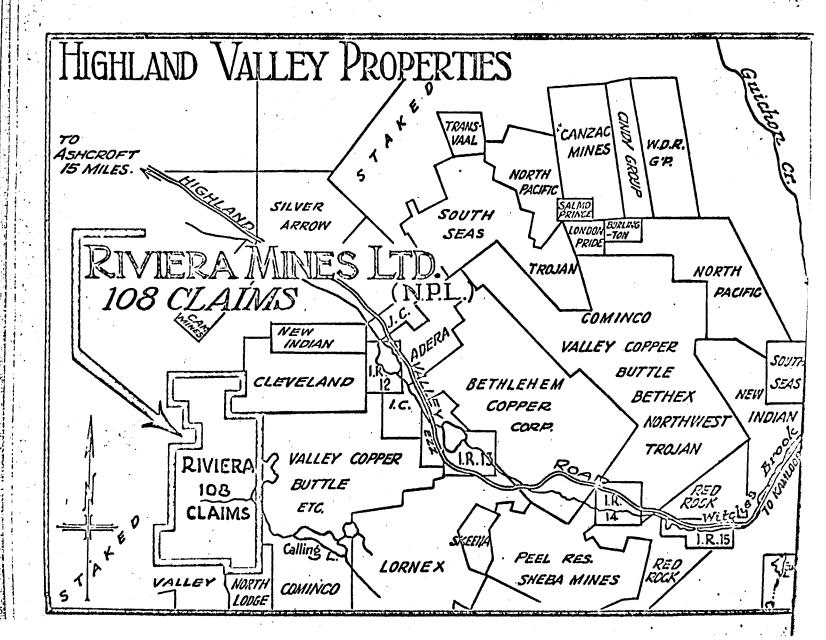
EXPLORATION PROGRAM TO BE CARRIED OUT ON 108 CLAIMS Riviera Minos Limitod was incorporated January 6,1966, with an authorized capital of 3,000,000 sharos of 50¢ par value and registered office at 450 - 890 West Pender

St., Vancouver, B.C. Directors of the company are: Alexander H.Lenec, David Chong, W.G.Craig, S.Kripps and E.Van Daele. The promoter of the company is David Chong, lawyer.

The company is currently making its first public offering of 200,000 shares at 25¢ per share. These shares were underwritten by Wolbay Investments Ltd. of 404 - 510 West Hastings St., Vancouver. Prior to the underwriting by Welbay, the company had issued 740,000 shares for properties. The shares issued for properties were placed in escrow and were issued as follows: 246,667 shares to Magnus Bratlien; 246,667 shares to David Chong and 246,666 shares to Adam Derry, securities salesman at Waite, Reid & Co.Ltd.

In addition, the company has sold 300,000 shares at 10¢ per share. Following the underwriting, the company has a total of 1,240,005 shares issued of the 3,000,000 shares authorized.

The company's claims total 108 and are located in the Highland Valley area of B.C., as shown on the map below. A January 18,1966, report on the company's property by R.G.Jury, P.Eng., states that the claims are at elevations of from 4,000 to 4,500 feet with large outcrops on the northern end of the property and largely overburden covered in the central and southern parts of the claims. The engineer states that there is no known mineralization on the property. He recommends soil sampling, geological mapping and I.P.survey.



## Riviera

October 1st, 1965 - August 1st, 1966 Letters 22, 65

22 - Riviera Mines Ltd. is a recently incorporated company.

65 - The company's claims total 108 and are located in the Highland Valley. The claims are at elevations of from 4,000 to 4,500 feet with large outcrops on the northern end of the property and largely overburdencovered in the central and southern parts of the claims. The engineer states that there is no known mineralization on the property.

August 31st - December 31st, 1966 Letter 191

191 - In the Highland Valley the company exploration work has included soil sampling survey work which located four anomalous areas. The areas of these anomalies have been covered by line cutting and an Induced Polarization survey is now underway by Lockwood Survey Corp. Ltd. to further define target areas.

May 17, 1968

Letter 104

104 - A soil sampling program is planned on parts of the 66 claims of its Highland Valley property which it decided to retain after exploration work, and to conduct a geophysical survey of any anomalous areas which may be found with diamond drilling or X-ray drilling to follow if warranged. The claims' northern boundary is 3½ miles south of a point on the Highland Valley Highway, 15 miles south east of Ashcroft.

October 23, 1968 Letter 216

216 - Pyramid Mining Co. Ltd. and Riviera Mines Ltd. has annonneed that an option agreement has been reached whereby Pyramid Mining Co. Ltd. by completing work commitments over the next eight years, will earn a 70% interest in the 72 claim block now held by Riviera Mines Ltd. in the Highland Valley region. Line cutting is now in progress and Seigel Associates Ltd. will commence and complete this fall an induced polarization survey covering approximately one third of the group.

# Properties Cont'd.

## ROYAL CANADIAN VENTURES LTD.

March 6, 1968 Letter 46

A contract has been let to Nike Contract Core Drilling Ltd. for the driving of two holes to 400 to 600 feet on the company's OK Lake claims in the Highland Valley area of B.C. The company owns a 100% interest in 41 claims and also holds a 15% carried interest in 18 claims held by Alwin Mining, surrounding the two Crown granted claims on which the Alwin drilling has been underway.

#### Salmo Prince

October 1st 1965 - August 1st, 1966 Letter 3

3 - A report dated December 9, 1965 from W.G. Hainsworth, consulting geologist, recommends a land survey to locate the claims, a geological survey, soil sampling, plus further work depending upon the results of the first phase. The two-phase program would cost approximately \$ 28,000.

July 1st - December 31st, 1966 Letter 203

203 - London Pride Silver Mines Ltd. and Salmo Prince Mines Ltd. have announced they have entered a joint agreement for the purpose of conducting immediately a bulldozer trenching program on their 13 claims which adjoin in the H.V.

January 1st - June 30th, 1967

#### (Salmo Prince Mines Ltd.)

Letter 48

 48 - The company grouped its 6 claims in H.V. last October with 7 claims of London Pride Silver Mines Ltd. with each to share costs and possible returns 50 -50. H.D. Forman, P. Eng., advised that work done subsequently gave sufficient encouragement to justify further exploration of the contact. He proposes a \$15,000. diamond drilling program to be carried out on these claims which are about one mile from the results being obtained by South Seas Mining Co.

#### Sheba Copper

(Sheba Copper Mines Ltd.)

- see Peel Resources

ALSO: Letter 116, 1967

116 - The extract is from a letter dated May 10, 1967, by Dr. D.D. Campbell. "The similarity in geology bewteen the western portion of the Sheba claim block and that of the productive property of Bethlehem Copper to the north is well demonstrated. According to the projection southward of the Bethlehem property the contact between the Guichon quartz diorite to the east and the Bethlehem quartz diorite to the west, should pass down the eastern side of the Sheba claim block about 2000 feet west of its eastern boundary - - - the effect of this therefore is the contact warranty through investigation throughout its length, particularly in this region of north-south regional faulting.

Because of the demonstrated occurrence en Jay 101 and at Gnawed Mountain of significant copper mineralization in brecciated rock plus probable presence of the Bethlehem-Guichon contact a few thousand feet to the east, the exploration for and of that contact presents a most worthwhile endeavour in the search for porphyry copper orebodies of the Bethlehem type. Because of the cover of overburden throughout the eastern portion of the Sheba property the Bethlehem-Guichon contact has not been explored in this area. Exploration for and along this contact must be by geophysical and geochemical means and by diamond drilling with the first two methods providing targets for the drill.

A length of nearly 4 miles of the Bethlehem-Guichon contact could lie along the eastern claims of the Sheba property and in this district all of it can be considered to have ore potential.

This property is currently being developed under an exploration contract with Sumitomo Metal Mining Co. of Canada, which is effective to production on a 60% to Sumitomo and 40% to Sheba basis."

#### January 30, 1968 Letter 20

20 - Robert C. Spall, president of Sheba Copper Mines Ltd., has reported that to date the current series of drilling on the company's Highland Valley, B.C. property has totalled 15 diamond drill holes and approximately five percussion drill holes. The percussion drilling program is continuing in the area of the property along its southern border, adjoining the claims of Trojan Consolidated Mines Ltd. In this area, diamond drill holes No. 5, 6, 13, 14, and 15 have been drilled to test an area of surface mineralization which has been partially tested by bulldozer trenches. The area opened by the surface trenches and known to be a large fracture zone carrying copper mineralization is approximately 2,000 feet long and some 2,400 feet wide. High values encountered in drilling in this area have been 0.26% MoS2 and 0.4% copper.

There is exploration continuing in two other areas of the property. One of these is along the contract between the two major rock types in the area which has been productive in the Highland Valley. The second is the diamond drill testing of an induced polarization target located in the area of known copper mineralization. The

#### Properties Cont'd.

#### SHEBA COPPER

January 30, 1968

Letter 20 (cont.)

20 - present work is under an exploration agreement with Sumitomo which has spent some \$100,000 to date on the claims.

February 27, 1968 Letter 40

40 - R. C. Spall, president of Sheba Copper Mines, has reported that No. 16  $\mathcal{A}_{i}$ percussion drill hole, located on the north slope of Gnawed Mountain in Highland Valley area B.C. has hit copper mineralization from 70 feet to the bottom of the hole at 250 feet. Assays for copper from 10 foot sections over this distance ranged from a low of 0.14% to a high 0.44% copper for an average of 0.23% over 180 feet. Molybdenum ranged between 0.10% to 0.57% an average of 0.20% over 180 feet. The hole is located in the centre of an unexplored area 800 feet in width which is open to the north and northeast and is located about 900 feet to the southeast of diamond drill Hole No. 5, the best hole drilled last fall.

#### March 15, 1968

Letter 53

53 - Sheba copper has reported that as part of the exploration program on the Highland Valley property, Sumitomo Metal Mining Company of Canada Ltd. has started another percussion drilling program in the area of drill hole #16 which yielded economic values of molybdenum and copper over a length of 180 feet. The program calls for an additional five holes, the first of which, hole #17, will be collared very close to the #16 hole, for confirmation of the mineralization. Holes #18 and #19 will be drilled to a depth of 250 feet and will be located 140 feet west and east respectively of Hole #16. Holes #20 and #21 will be drilled to a depth of 300 feet and will be located 150 feet north and south respectively of the #16 section. All holes will be drilled at an angle of 45°. Should these five drill holes confirm the extension of the mineralized area, then further drilling will be carried out.