Chatham Resources acquires property

N. M. July 24/75

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VANCOUVER — Shareholders of Chatham Resources approved the acquisition of property in the Jordan River area, Vancouver Island, for 750,000 shares, the issue of 119,818 shares at 15¢ a share to settle remaining debts and the transfer of 233,333 shares from Morris Menzies to Terence Schorn.

The company is in the process of acquiring 12 placer claims on Eldorado Creek, 18 miles southeast of Dawson City, Yukon.

A private placement has been arranged of 66,666 shares at 15¢ a share to finance acquisition of the Yukon property and to conduct preliminary programs on that property and the Jordan River ground. On the latter, a copper prospect, geochemical work and geophysics are planned for later this year or early 1976.

D. R. Fitzpatrick, R. E. Fortin, Mr. Menzies, Mr. Schorn and E. A. Yusep were elected directors.

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COMMERCE RESOURCES CORP

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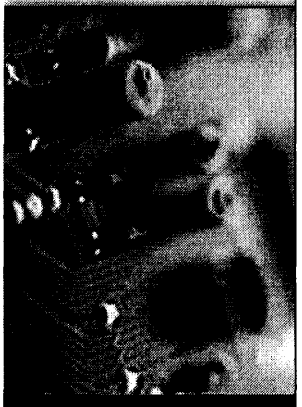

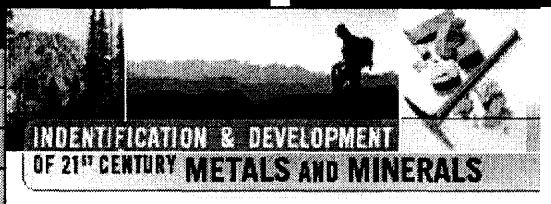

PROPERTIES

Jordan River 092C 073

Printable Page

▶ Jordan River Deposit (Copper, Gold, Silver, +/- Nickel, Platinum, Palladium)

Summary

The past producing, Jordan River (Sunro) Mine is located on the southwest part of Vancouver Island, near Sooke, B.C. Between 1962 and 1978 about 13,754,271 kg Copper; 2,262,651 grams Silver; and 203,101 grams Gold were recovered.

The deposit, is considered a Tholeiitic, intrusion-hosted, Nickel-Copper deposit. According to Eckstrand (1995) this deposit type includes such notable examples as Lynn Lake and Voiseys Bay.

Given its geologic environment, potential exists for appreciable concentrations of Platinum Group Elements (PGE). Other occurrences of Sooke Gabbro are known to contain elevated levels of PGE's (such as the Willow Grouse showing with up to 1.4 g/t Palladium). A short distance to the north, the Tofino Nickel prospect, contains up to 18.7 g/t Palladium and 6.9 g/t Platinum.

Geology

The Jordan River Mine is considered a Tholeiitic, intrusion-hosted, Nickel-Copper deposit. According to Eckstrand (1995) this deposit type includes such notable examples as Lynn Lake and Voiseys Bay.

The deposit itself is within basaltic lavas of the Metchosin Volcanics, while the mineralization appears to be genetically related to the emplacement of the Eocene Sooke Gabbro. Mineralization is at and near the Gabbroic contacts, which at the Sunro Mine, are typically elongate sills. According to the B.C. Ministry of Energy & Mines Capsule Geology (Minfile Number: 092C 073)

> "As many as 16 mineralized zones have been located on the property since it was discovered in 1915. The zones typically occur in basalt but at least three minor zones are located in areas mapped as gabbro. Three zones along the northeast contact of the gabbro body, the River, Cave and Centre, have proved to be the most promising. The River zone ranges in width from 30 centimeters to about 30 metres and is traceable along strike for about 335 metres, and to a depth of 340 metres. The zone is roughly parallel to the trend of contact, striking 150 degrees and appearing to dip from 70 to 80 degrees southwest. The Cave zone, about 200 metres southwest from the River zone, trends at 140 degrees and contains widely spaced stringers and lenses of chalcopyrite over a width of about 40 metres. The zone has a proven

length of 180 metres (possibly as much as 460 metres) and a vertical extent of 150 metres. The Centre zone, located about 90 metres southeast from the River zone, strikes 110 degrees and dips vertically. It has been traced for a length of 200 metres and to a known depth of 97 metres. Where exposed underground, the zone comprises a 36 metre width of widely spaced stringers of chalcopyrite."

Past Production

During the period from 1962 to 1978 the mine produced about 13,754,271 kg Copper; 2,262,651 grams Silver; and 203,101 grams Gold from 1,464,595 tons of material. The B.C. Ministry of Energy & Mines provides (Minfile Number: 092C 073) the following remaining mineral inventory:

1,030,465 tonnes at 1.47% Copper; and

423,782 tonnes at 1.33% Copper.

August 2, 1962.

Mr. Kenneth C. Rose,
Cowichan Copper Co. Ltd.,
River Jordon, B.C.

Dear Mr. Rose:

Thank you for your letter of July 31st to Neil McKechnie and for two prints of the Sunro 5300 level.

Neil is on the mainland, moving at intervals of a few days. He planned to be here in ten days or so. Accordingly I am keeping the material here, but am sending him a photo copy of your letter.

Yours truly,

H. Sargent,
Chief, Mineralogical Branch.

HS:ln
cc: N. D. McKechnie.

92C073
PROPERTY FILE

TO Ken Northcote
Department of Mines and Petroleum Resources
VICTORIA

FROM Gerard HEUSY
DEPT. Geology - Jordan River Mines
DATE June 19th 1972

RE Additional Core Samples from the Sumro Mine

MESSAGE

Dear Ken,

Please find enclosed 5 samples of diamond drill core representing rock types which are not easily accessible in the mine, to complete your collection.

U-525 is on the 52 Map-

(1) Is a typical sample of the gabbro close to the Cave B Orebody
(2) Is a good example of the dykes occuring both in gabbro & Basalt
(3) Is one of these diabasic? bands occuring in the volcanics close and roughly parallel to the ore zones of the River Orebody

REPLY

DATE 19

(4) Is another diabase sample, coming from the River C Zone area (56 Level)
(5) Is a representative sample of the amygdaloidal variety of basalt (From the same hole than (4), in the hostrock of the River C Zone on 56 Level).

I hope that these additional samples will be useful to you. Do not hesitate to ask me for more information.

Yours truly,

G. Heusy

"RITE - QUICK"

PROPERTY FILE

92C08E
92C013

Sunloch – Gabbro – History.

1915 – discovery by George Winkler.

1917 – property bonded to Sunloch Mining Company – built the narrow-gauge railway, drilled the first diamond drill holes & did the first underground work.

1919 – Consolidated Mining & Smelting Company acquired control. continued diamond drilling and underground work.

↓

1920 Operations suspended in 1920. Stood several hundred tons of development ore behind a cribbing at the portal of the Cross adit.

Sunloch Knoll, Centre & Cross adits totalling 3,776 ft had been driven & holes amounting to 3,470 ft had been drilled.

Gabbro Winkler & Hornet adit driven.

Surface exploration done the next few years.

1920 – 1949. Inactive until 1949.

1949 Hedley Mascot Gold Mines Limited optioned the Sunloch and Gabbro property.

~~1949~~ Diamond drilling – 9,354 ft.

1950 ~~1950~~ " " 4,082 ft.

No underground work done on either property.

Estimate of 600,000 tons of ore of milling grade

1955 – Intensive programme of surface exploration.

2000 ft of diamond drilling

soil sampling, electromagnetic survey, magnetometer survey.

surface trenching

1956 – Sunloch & Gabbro properties consolidated under the name of Sunro Mines Limited.

Access road started to portal site ≈ 100 ft above the river & 1 mile from its mouth.

1957 An adit about 100 ft above sea level was started and driven 4,349 ft. Compressor-house, machine shop & explosives magazine were constructed.

1958 "1957 Adit" extended 3,456 ft to a total of 7,805 ft. Drift started at point of contact with ore & was driven for 400 ft. Extensive diamond drilling programme

was started from underground stations.

1960 Cowichan Copper Co. Ltd. obtained an operating lease from Consolidated Mining and Smelting Company of Canada Ltd. Underground workings re-opened.

1961 Rehabilitation of surface plant & Dunsmuir main adit.
Raise for ventilation driven to surface from near face of Dunsmuir adit to surface. Drifting, crosscutting, raising & chamber slashing were done in preparation for installation of mill & crushing plants.

Drifting 700 ft; crosscutting 140 ft;
raising 925 ft; crushing chamber 74,600 cu ft;
mill room chamber 143,000 cu ft; mill workshop
chamber 11,200 cu ft; fine ore bin 85,600 cu ft.

Compressor house, compressors & electrical workings installed
Crushing plant installed.
Mills installed.
Construction of mine & general offices, warehouse and dry-house.

1962 - Production of concentrates began May 1st.
Initial mill rate of 600 tons/day was increased to 1,000 tons/day by the end of the year.
Concentrate loaded into 5 ton capacity containers mounted on flat cars & transferred to tanks at the portal. The containers were transported 58 miles & unloaded at Hatch Point loading dock. Tailings were pumped to the portal then pumped an additional 5,000 ft for disposal at tidewater.

1963 Production Mining B & C orebodies of the Rim Zone. (90% from B).
No 1 shaft sunk to 486 ft below the 5100 level & raised 70 ft above 5100 level.
Crushing station excavated at the 4700 level in No 1 shaft
Raise driven from 5700 level on Rim adit to the 5900 or uppermost level; upper "C" orebody. Considerable drifting and raising done in developing this orebody on the 5300, 5400 and 5500 levels.

1963 (Cont) crushing plant area - excavation & equipment installed to convey the crushed ore from No 1 shaft to a newly installed cone crusher.

Caving developed in the vicinity of 5,430 ft in the "B" stope - collapsed on Dec 5th. Production ended

536/t of shaft sinking & raising, 3,703 ft of raising, 3,394 ft of drifting, 13,954 ft of diamond drilling in 116 holes.

1964 - Attempting to rehabilitate mine -
- reopening 5100 level as far as caved area.
- reconditioning machinery and electrical equipment in the mill and crushing plant areas

1965 Completed reopening of 5100 level adit, six separate by-passes totalling 1,111 ft required to pass around caved areas.
- reconditioning crushing, milling and concentrating areas and equipment.
- underground development included 72 ft of drifting and 451 ft of raising - preparation of additional stopes in the "C" zone.
2,773 ft of exploratory diamond drilling in "C" and "D" ore zones.
- concentrate storage shed constructed on surface.

1966 - Production
Development work in "D" ore zone & in the shaft area on lower "B" ore zone. Stope development work started on the "D" ore body on the 5100 ft level & a raise driven to intersect the Cave zone adit. In the lower "B" ore zone a transfer raise was driven from the shaft crushing station to intersect 5100 level south of the main crushing plant. Development drifting and crosscutting totalled 1,507 ft & raising 1,592 ft. Underground diamond drilling totalled 6,947 ft. Most of the ore mined and milled from "C" ore zone.

1967 Production

Drifting 5,107 ft; raising 2,066 ft; longhole drilling 48,356 ft.

1968. Changed from Cowichan Copper Co. Ltd to Cuna Copper Mines Limited.
Drifting and crosscutting 1,903 ft; raising, 1,492 ft; diamond drilling 377 ft.

Production ceased November 1, 1968

1969. Dison Development Ltd.
Maintenance of plant and other equipment and pumping in shaft.

1970 Pechiney Development Ltd – operator.

During October – rehabilitation and development work was begun underground. Drifting and crosscutting, 1,550 feet; raising, 108 ft; diamond drilling, 1,648 feet.

1971 Rehabilitation and development work done underground. Drifting and crosscutting, 2,399 feet; raising 226 ft; slashing 3,612 tons; diamond drilling 6,615 ft. Rehabilitation of underground concentrator, laying of an overflow pipe on the seabed & construction of a water supply system. Installation of an air compressor.

1972. Annual Report in press.

1973 Annual Report in press

Production Sunset Mine.

Year	Ore Shipped or Treated	Product Shipped	Gross Metal Contents		
			Au (oz)	Ag (oz)	Cu (lbs)
1962	144,009 Tons	10,148 tons	1,218	14,207	5,067,323
1963	267,675 tons	14,031 tons	1,816	19,124	8,255,898
1964	– No production –				
1965	2,968 tons	96 tons.			
1966	107,680 tons	3,552 tons	400	4,000	1,858,000
1967.	151,978 tons	5,876 tons	466	3,290	3,000,000
1968	152,543 tons	4,512 tons	540	7,064	2,270,019
1969	– No production				
1970	– No production				
1971	– No production				
1972	– 126,000 tons	1,849	92	2,219	850,540
1973	– 273,628 tons	9,137 Tons	943	10,220	4,397,828.
1974	–				

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SUNLOCH COPPER MINE

Mine Development

Total drifting and crosscutting	3,776 ft.
Total diamond drilling	19,515 ft.

Breakdown of the diamond drilling - (who did it)

Holes drilled by Sunloch Mines, Ltd., 1917 - 1920, Nos. 1 to 11	3,470 ft.
EX holes drilled by Hedley Mascot, 1949 - 1951, Nos. 15 to 48	15,544 ft.
XR holes drilled by Hedley Mascot, 1949 Nos. X 1 to X 6	501 ft.
Total Diamond Drilling	19,515 ft.

The various phases of the Hedley Mascot Drilling Program

Dates	Hole Nos.	Footage	
Mar. 1949	15 to 36	8,853 ft.	(EX)
Nov. 1949	X1 to X6	501	(XR)
		9,354 ft.	9,354 ft.
	(Of this, 7297 ft. or 78% is on the Sunloch and 2,057 ft., or 22%, is on the Gabbro group)		
	(All XR is on the Gabbro group)		
July 1950 Jan. 1951	37 to 40	(This is deep drilling on Sunloch #5 & 6 to cut River zone 800' below the river)	4,580
Feb. 1951	41 to 45	(This is short hole drilling on Sunloch #6 between the forebay and the river)	1,302
Mar. 1951	46 to 48	(Tiger zone, Tiger Mineral Claim)	809
		Total drilling by Hedley Mascot	16,045 ft

The distribution of the drill holes in various zones

Zone	Number of Holes	Holes in Mineable ore - 2% Cu.	Holes in the Ore Reserve blocks
"River"	26	11	8
"Cave"	7	1	2
"Cave-North"			
"West Extension"	5	0	0
"Center"	5	2	0
"New"	4	2	2
"Bend"	1 (XR)	1 (XR)	0
"Hornet"	0	0	0
"Caulfield"	3 (XR)	2 (XR)	0
"Yellow Cliff"	0	0	0
"Tiger"	4	0	0
"Winkler"	1	1 (?)	0
"Stewart"	0	0	0

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ORE RESERVES.

Summary:

	Probable	Possible	Total Probable and possible
a. In which the Component Ore Blocks are approximately 3% copper or better			
	488,425 T @ 3.68%	83,050 T @ 3.04%	571,475 T @ 3.58%
b. In which the component ore blocks are approximately 2% copper or better			
	570,780 T @ 3.28%	123,250 T @ 2.46%	694,030 T @ 3.14%
a.			
"River"	451,424 T @ 3.66%	65,300 T @ 2.92%	516,724 T @ 3.57%
"New"	37,000 3.74	17,750 3.48	54,750 3.66
	488,424 3.68%	83,050 3.04%	571,475 3.59%
b.			
"River"	483,750 T @ 3.52%	65,300 T 2.92%	549,050 T @ 3.45%
"New	80,600 2.00	34,550 2.04	115,150 2.01
"Cave"	6,430 1.65	23,400 1.77	29,830 1.75
	570,780 T @ 3.28%	123,250 T @ 2.46	694,030 T @ 3.14%

BREAKDOWN ACCORDING TO ELEVATION:

a. Component ore blocks are approx. 3% Cu or better:

	Probable	Possible	Total Probable and Possible
Above 100 ft. elev.			
River Zone	366,370 T @ 3.80%	65,300 T @ 2.92%	431,670 T @ 3.67%
Below 100 ft. elev.			
River Zone	85,055 T @ 3.12%	nil	85,055 T @ 3.12%
New Zone	37,000 3.74	17,750 T @ 3.48%	54,750 3.66
	122,055 T @ 3.30%	17,750 T @ 3.48%	139,805 T @ 3.33%

b. Component Ore Blocks are approx. 2% Cu or better:

Above 100 ft. elev.			
River Zone	378,970 T @ 3.74%	65,300 T @ 2.92%	444,270 T @ 3.62%
Cave Zone	6,430 T @ 1.65%	23,400 1.77	29,830 1.75
	385,400 3.72%	88,700 2.62%	474,100 3.51%
Below 100 ft. elev.			
River Zone	104,780 T @ 2.77%	nil	104,780 T @ 2.77%
New Zone	80,600 2.00	34,550 2.04	115,150 2.01
	185,380 2.43%	34,550 2.04%	219,930 2.37%

a. Component ore blocks are approx. 3% Cu or better:

	Probable		Possible		Total probable and possible	
Above 200 ft. elev. (using method of horizontal sections here)						
River Zone	342,740 T @	3.82%	46,200 T @	4.21%	388,940 T @	3.87%
Below 200 ft. elev.						
River Zone	120,399 T @	3.00%	nil		120,399 T @	3.00%
New Zone	37,000	3.74%	17,750	3.48%	54,750	3.66%
	157,399	3.17%	17,750	3.48%	175,149	3.20%

b. Component ore blocks are approx. 2% Cu or better:

Above 200 ft. elev. (using method of horizontal sections here)						
River Zone	342,740 T @	3.82%	46,200 T @	4.21%	388,940 T @	3.87%
Cave Zone	6,430	1.65%	23,400	1.77%	29,830	1.75%
	349,170	3.78%	69,600	3.40%	418,770	3.71%
Below 200 ft. elev.						
River Zone	152,725 T @	2.68%	nil		152,725 T @	2.68%
New Zone	80,600	2.00%	34,550	2.04%	115,150	2.01%
	233,325	2.45%	34,550	2.04%	267,875	2.40%

If another 50 feet of pillar should be left beneath the river bed, River Zone, making the pillar 100 feet thick in all, then 43,940 T @ 3.98% must be deducted from the above River Zone (vertical section method).

SUMMARY OF MILL TESTS

All testing was done by Granby Consolidated Mining, Smelting and Power Co., Allenby, B.C.

In May, 1950, about 15 pounds of core, selected from the River Zone holes so as to give approx. the average mine assay, were sent to Granby for mill test.

This sample assayed 4.0% Cu., .10 oz. Ag., .02 oz. Au. It is typical of our ore reserves since it is from beneath the river where most of the tonnage lies. This ore, being richer, is softer than that in the next series of mill tests on material taken from the tunnels.

Mill Tests on Diamond Drill Core:

Under the same grinding conditions,
79% of Sunloch ore would be - 200 mesh
and 63% of Copper Mountain ore would be - 200 mesh

Estimated that 7 x 10 ball mill on Sunloch ore would put out
392 tons per day with 1/2 inch feed
525 tons per day with 8-mesh feed

Test No. 274	Heads 4.03% Cu	Conc. 23.00% Cu.	Tails .343% Cu
	% Rec. 92.9%	R.C. 6.1	Tailings 3.8% - 100 79.8% - 200 mesh

In September, 1950, 200 pounds of ore from the River tunnel and the CaveTunnel were shipped to Allenby for mill test.

These samples were bulldozed and hammered off the walls of the tunnels and the material thus obtained was sorted to bring the grade up to about 2% Cu. The highest-grade batch assayed 1.8% Cu. This low grade material is hard in comparison with the ore in drill holes under the river and is not representative of the mine.

Mill Tests on Tunnel Material:

Cave Zone (contains pyrrhotite)

1. Heads 1.12% Cu % rec. 85% regrind at least part of rougher float to get 20% concentrate. Tailings from 35 min. grind 65% - 200 mesh.

2. Heads 1.82% Cu. % Rec. 90% rougher float 22% Cu. Tailings from 35 min. grind 88% - 200 mesh.

River Zone (almost no pyrrhotite)

Heads 1.60% Cu. % Rec. 90% rougher float 20% Cu.
Tailings 35 min. grind 63% - 200 mesh.

Suitable flotation reagents are:

Aerofloat 25 at .05 #/ton approx.
Xanthate Z-5 at .05 #/ton approx.
Pine oil at .08 #/ton approx.

Brief descriptions of minor zones (none of which contributes to our ore reserves)

CENTER ZONE: Sunloch #6 M.C. Trends diagonally across the 600 feet of ground between the River zone and the Cave zone. Is exposed at the portal of the Center tunnel (8' @ 3.4% Cu.), in the cross-cut from the River tunnel (low grade), and is cut beneath the river by holes #31, 33, 37, 38 and 39, (8' @ 2.37% Cu. is the best assay here).

"WHITE FLAG", "GORDON" and "NO NAME" ZONES: Sunloch #6 M.C. These are unimportant, minor, surface exposures on the hillside at elev. 900 feet, between the River and Center zones. They exhibit poorly-defined shearing and contain a little mineralization. Thought to have some possible significance as intersectors with the River Zone, thereby enriching it.

BEND ZONE: Vulcan #1 M.C., S.E. corner. Elev. 450'. Inside the Gabbro intrusive. On the north bank of the Jordan River, marked by a deep cleft in the rock between a high island and the north bank of the river. This cleft is 10' wide and runs parallel to the river. It is caused by a strong shear, 200 ft. long, containing some good chalcopyrite and pyrrhotite on the surface. X-ray hole #X6 cuts the south half of this zone but could not penetrate into the north wall of the open shear, 30' below the surface. The core is well mineralized but contains too much pyrrhotite and pyrite. 1 to 2% Cu. over true width of 7 ft.

HORNET ZONE: Black Hornet M.C., N.W. corner. Inside the gabbro intrusive, near the south-west contact. Elev. 900'. Three side hill cuts and one 15' tunnel. Spotty mineralization, rich in places. Attitude and size indeterminable owing to incomplete exposure of the zone in a very steep-walled canyon.

CAULFIELD ZONE: Black Hornet M.C. A series of six old pits scattered at intervals along 1300 feet of the southwest contact. In basalt very near the contact. Elev. 350' to 750'. All pits contain only minor chalcopyrite mineralization except at the southeast end where one exposure is well mineralized. This showing, at elev. 340' was tested with three X-ray holes. The first two cut ore between 2 and 3% Cu. over 5 - 7' widths at shallow depth. The third hole, 40' directly beneath the outcrop, had no mineralization.

YELLOW CLIFF ZONES: On the south bank of the Jordan River. Straddles the boundary between Black Hornet M.C. (Gabbro group) and the Tiger M.C. (Sunloch group). Is probably the southeast extension of the Caulfield zone onto the south side of the river. Some good to very good mineralization. Follows along the vertical cliff, which trends parallel to the intrusive contact. No drilling has been done. Three trenches were dug in 1949.

In one: 3' @ 2.1% Cu., Tr. Au., 0.8 oz. Ag.
Second: 5' @ 3.3% Cu., .02 oz. Au., 1.7 oz. Ag.
Third: oxidized mineralization.

TIGER ZONE: Tiger M.C. (Sunloch Group). In basalt, parallel to S.W. contact. A series of large rusty outcrops occur for a strike length of 260 feet extending from the main outcrop on the narrow gauge railway track to the Jordan River. Elev. 520' to 290'. Mineralization is shown by drill holes to exist over a length of at least 300 feet but the richly-mineralized main shoot cannot be more than 150 feet long. Holes 35 and 36 drilled under the river in 1949 found only light mineralization. Hole 36, 100 feet directly beneath the main outcrop cut very rich, uniform mineralization over a 20 ft. true width. The ore is too high in pyrrhotite. Core assayed 1.58% Cu. over a true width of 20 feet. Hole 47 - unfinished. Hole 48, 100 ft. south of hole 46, drew a complete blank. The Tiger zone should be tested at greater depth by completing Hole 47 as the character of the mineralization may change to include more copper without any diminution.

WINKLER ZONE: Vulcan #2 M.C. Elev. 530'. Right on the southwest contact. One 80' tunnel and one old drill hole of which there is no official record. A 1949 sample in the tunnel ran 0.4% Cu. over 8' width. Drill hole said to run 10' @ 2.15 Cu. (George Winkler).

Additional showing 100' downhill to the northwest, sampled 1949 on the surface (oxidized), 5' @ 0.34% Cu.

Also a showing in track cut, 180' farther up the track to the northeast:

3' @ 0.33% Cu.
2' @ 1.12% Cu. Both sampled in 1949.

STEWART ZONE: Vulcan #3, N.W. corner. Elev. 1000'. Right inside gabbro intrusive. A high-nickel zone. Twelve old pits, partly caved in, expose mineralization over an area 240' x 140'. This area trends north-south. Heavy overburden. B.C. Department of Mines Report of 1921 cites nickel assays up to 0.5% Ni.

1949 samples: 5' @ Au Tr, Cu 0.32%
5' @ Au Tr, Cu 0.18%
2.5' Au 0.01, Cu 0.52%

BIOGEOCHEMISTRY:

In the summer of 1950, Dr. J. S. Stevenson of the B.C. Department of Mines spent about ten days experimenting with the dithizone method of testing trees for their metal content. Although his tests were not sufficiently exhaustive to definitely determine the usefulness of the method in this area, there were distinct anomalies in the copper/zinc ratio in trees growing over the known ore zones. A line of tests was run along the narrow-gauge track from west of the Tiger zone to east of the River zone. Trees were tested every 100 feet approx. Balsam was found to be the most suitable type of tree.

At some future date this method may be very useful as a help in exploring the ground on the Sunloch-Gabbro claims and in exploring the ground beyond the claims. Heavy overburden and heavy vegetation has always handicapped prospecting here.

HISTORY OF EXPLORATION BY HEDLEY MASCOT

When drilling was begun in March, 1949, we followed the clue provided by D.D.H. #7, a hole drilled by Consolidated M. & S. Hole #7, directly beneath the river, contained a width of 42 feet of ore averaging 2.4% Cu. This was by far the best ore of which there was evidence at that time. Holes 15, 16, 17, 18, 19, 20 were drilled to test this ore shoot to a depth of 350 feet below the river. This drilling indicated widths of ore up to 60 feet, assaying around 4% Cu.

When Hole 20 was finished, it was decided that we should search for ore at elevations higher than the river so that mining could be begun without the need for a shaft at the first stage.

Accordingly, the good ore shoot of the River zone was left and drilling was done on the northwest extension of the Cave zone under some old, lightly mineralized open-cuts. While this drilling was in progress, a second No. 1 machine was brought in and began drilling on the hillside below the forebay to test the River zone above the River tunnel. It is here that the bulk of the C.M. & S. ore reserve was located. Neither of the two high-level drilling programs succeeded in finding commercial ore.

The machine from the northwest extension of the Cave zone was then brought around to drill the Tiger zone from the bed of the River. It was thought at that time, that the Tiger zone would be enriched beneath the river in the same way as the River zone but such was not the case.

When the machine at the forebay finished on the hillside, it was skidded down to the river bed and set up to drill holes #31 and 33 into the Cave zone beneath the river. These holes showed a width of 100 feet in the Cave zone with an average grade of only .30% Cu. This same machine then concluded the 1949 drilling program by doing hole #34 which demonstrated the continuity of the River zone high-grade shoot to a depth of 500 feet below the river.

In the latter part of the 1949 program, an X-ray machine was brought in to drill 500' of holes in the Caulfield and Bend zones.

Work was stopped in November of 1949 after 9,354 feet of drilling had been completed. As a result of some of this drilling, 477,555 tons of ore @ 3.6% Cu. was known to be present in the River zone, most of it in the high-grade shoot under the river.

In July, 1950, a program of deep drilling was started to extend the River zone downwards. The River zone was tested to a depth of 800 feet below the River, by holes #37, 38, 39 and 40. This drilling demonstrated the continuity of the mineralized zone to this low elevation but commercial grade ore was found in only one hole (#37) which is directly beneath the good ore shoot. A theory originally advanced by Dr. Dolmage even before drilling commenced on the Sunloch became more and more favoured as drilling progressed. This theory was that the River zone ore shoot has a plunge to the northwest. A study of the disposition of good drill hole intersections in a longitudinal section of the River zone shows it to be reasonable. It was desired to put the theory to the final test by directing a deep hole to the northwest of hole 37 and this was finally done after overcoming the many difficulties imposed by the limited choice of drill sites, deep gravel to penetrate, etc. Hole 40 was drilled from the northwest side of the river and although it did not go where it was intended, it did arrive at the River zone to the northwest of hole 37 and showed the character of the zone there to be much different. In hole 40, the zone is richly mineralized over a width of 50 feet which is much wider than the 13 foot width of hole 37 but a much higher proportion of pyrrhotite.is present in hole 40 so that the copper grade over the 50 feet is sub-ore.

Deep hole drilling was attended by difficulties from many sources. In the long holes, the drillers made poor advances, core recovery was poor although it had been good in the short holes, and the holes could not be directed properly. The holes invariably wandered 100 to 150 feet to the right of the aiming point and all flattened considerably so that the desired depths were not attained. Finally, hole 40 had to be stopped prematurely due to floods in January.

When flooding in January and February precluded any further drilling in the river bed until April or March, it was decided to try again to find ore above the river. Accordingly, more holes were drilled above the River tunnel and one above the Cave tunnel. The closely-spaced drilling above the River tunnel did not find any ore ore of good grade but it did indicate the presence of 85,000 tons @ 1.22% Cu. over widths of 20 feet, following up the plunge from the good shoot beneath the river.

The final drilling was done in the Tiger zone again, this time directly below the outcrop. Hole 46, 100 feet below the outcrop found very rich and uniform mineralization over a 20' width but the grade is only 1.58% Cu. due to the high proportion of pyrrhotite.

Chalcopyrite/pyrrhotite ratios in ore zones can change rapidly in any direction and for no apparent reason, therefore further drilling on the Tiger zone is advisable, particularly in view of the excellent mineralization found in hole 46.

Drilling was stopped in March, 1951, after Hedley Mascot had spent $75,000 on the Sunloch, drilled 16,000 feet and obtained ore reserves of 571,475 tons @ 3.58% or 694,030 tons @ 3.14%, depending on whether the grades of component ore blocks are kept above 3% Cu. or above 2% Cu.

All of this tonnage is in the Sunloch mine area and the bulk of it is in the River Zone.

RECOMMENDATIONS

Aside from any considerations of option terms, it is now economically feasible to put the Sunloch mine into production. The ore reserves are sufficient to supply a 500 ton mill for four years. At the price of 24¢ per lb. of copper an operating profit of $4.00 per ton for ore of 3% grade is indicated by careful calculation of costs.

If it should be desired first to substantiate and enlarge the ore reserves by diamond drilling this could be done by further drilling in the River zone from set-ups in the river bed. Such drilling should be confined to elevations shallower than 500 feet below the river, owing to the difficulties and delays that are experienced in deep drilling from the surface. Such deeper drilling should wait until underground openings are available at low elevations. Since the holes that now outline the River zone ore shoot are at approximately 100 to 120 foot spacing, there is an excellent chance of increasing the tonnage and the grade by filling in between the present holes with further drilling. In addition, several holes should be earmarked to test the zone about 50 feet to the northwest of the last most northwesterly hole at all levels. This is for the purpose of following up the plunge theory so strongly suggested by the results of the drilling program just completed.

Once the mine is in production, underground openings down to 300 or 600 feet below the river would be available. By diamond drilling from these there is an excellent chance of discovering more ore at greater depth in the River zone (especially to the northwest), in the New zone and possibly on the east side of the River zone in the footwall of the River zone. This footwall region, at depths higher than 500 feet below the river, has no mineralization. However, two of the deep holes (#38 and 40), give indications that ore might be found in the footwall at the lower elevations.

Again, if the mine is in production, compressed air will be available in the present River and Cave tunnels so that a series of 50 foot holes could be drilled from the present tunnels to test the full widths of the River and Cave zones which are only partially exposed by these tunnels. In the case of the River zone, its average width above the tunnel is indicated by diamond drilling to be 20 feet - yet the tunnel only exposes a 6 foot width. Similarly, the Cave zone is a wide, dispersed zone with an overall width of about 100 feet. It is possible that short holes drilled at 25 foot intervals into the walls of the Cave tunnel may discover ore.

It is wellknown fact that, in ore bodies of a similar character such as those at Noranda, the ratio of chalcopyrite to pyrrhotite varies unpredictably in different parts of the orebody. An orebody consisting largely of chalcopyrite at one elevation may become predominantly pyrrhotite a few hundred feet below and then return to its former high-chalcopyrite composition below that. Such changes do not seem to follow any rule and it is apparently erroneous

to assume that the pyrrhotite content must increase with depth simply because pyrrhotite is a typically high-temperature mineral.

In the Sunloch mine, rich mineralization of a fairly uniform character over substantial widths is present in many places in which it is not suitable for copper ore because of high pyrrhotite content. If the ore found in these drill holes had consisted of chalcopyrite in the same proportion as was found in the main ore shoot of the River zone, excellent orebodies would result. Such places are the Cave zone beneath the river, the River zone in hole #40 and the Tiger Zone. For this reason, these three places (and others as well) should be explored more widely, since it is possible that the mineralogy will change, in any direction, to produce copper ore.

Another place recommended for increasing the ore reserves by drilling holes less than 750' long from the surface, is in the New zone. In this zone, holes 38 and 37 are 190 feet apart horizontally so that presumably they test the extremities of an ore shoot approximately 225' long. Therefore, a hole to cut the New zone at the same horizon (450' below the river), half way between holes 38 and 37, should cut the richer and wider middle portion of the zone. The New zone, however, is deep-seated and does not outcrop on the surface nor is it met by drill holes 100 to 200 feet below the river. Therefore, its investigation might better be left to a later date when deep workings are available.

In exploring the minor zones along the southwest gabbro contact and elsewhere, I would recommend an investigation of the biogeochemical method in this area beyond the work already done by Dr. Stevenson. The reason is that these zones are all in regions of heavy overburden so that they and the whole contact region itself are very incompletely exposed. Most of the showings are located in creek beds or near a cliff outcrop showing that their discovery was largely due to their relatively shallow covering of overburden. Therefore, if all these showings are drilled indiscriminately it might be found that they are the poorest parts of the contact zone and that the best parts lie under overburden. Therefore a further investigation of the biogeochemical method should be undertaken and, if it is effective, it should be applied to the contact zone before all the small, minor showings are drilled. The best parts of the contact zone may be concealed by overburden and it might be possible to locate them in advance of drilling by the biogeochemical method.

GOOD FEATURES OF THE SUNLOCH-GABBRO GEOLOGY

The following points should be kept in mind in assessing the possibilities of finding further supplies of ore, both in the known ore zones and in others yet undiscovered:

Eight minor zones are known outside of the three main zones of the Sunloch mine. In addition, there are numerous and widespread mineralized shears too small in exposed size to be dignified by a name. All these, together with the rock alteration accompanying them, are evidence of widespread hydrothermal action in association with the gabbro intrusive. Although the mineralization is widespread, it is not all so thinly-spread as to be worthless since the River zone, composed of the same type of mineralization as the minor zones, contains a large, good-grade orebody. Presumably some structural control caused the enrichment of the River zone but so far we do not know what it is. Therefore, the same, or some other, structural control can produce enrichment in any of the minor zones. At least we have no reason to suppose that one or more of the minor zones will not make an orebody. The presence of these numerous zones, in an approved geologic setting, together with the known enrichment of some of them to produce orebodies, is a point strongly in favour of the property.

The ore is of the high-temperature type (pyrrhotite, nickel, apatite, scapolite, hornblende), so that orebodies may have great vertical range.

The Sunloch mine proper lies in a strip of ground, 600 feet

wide at the surface, that parallels the northeast contact and lies between 600 and 1200 feet from it. Within this strip or block, bounded by the River zone on one side and the Cave zone on the other, is a great deal of shearing and alteration with numerous small ore showings. Unexpectedly, at 450 feet below the river, the New zone appears suggesting that the whole block of ground between the two downward-converging main zones is a potential source of other ore zones such as the New zone.

The River zone is known to be mineralized for a length of 1200 feet at the elevation of the river. The "A" subzone of the River zone is persistent for 800 feet below the river and contains mineable ore to that depth. The good ore-shoot of the River zone beneath the river has a length of 220 feet at shallow depth and its length at greater depth beneath the river is unknown because there are insufficient drill holes to determine it. Therefore, the drilling done so far on the River zone has demonstrated the continuity of the structure and shown that there is mineable ore 800 feet below the river. At the same time, the drilling is not nearly exhaustive enough to examine all the possibilities for ore in the various parts of the River zone. When the River zone is thoroughly explored, there should be considerably greater tonnages found in it than have so far been indicated by the drilling. This is especially true between the levels of 350 feet below the river and 800 feet below the river, where there is only one hole (34), in the ore shoot.

The fact that the "A" sub-zone of the River zone persists for 800 feet vertically below the river without any gaps of sub-ore material in this distance, so far as present drill holes indicate, seems to show that it is not necessary to worry too much about the wide spacing of the holes and to fear that there might be lower-grade material lying between the present holes. The fairly uniform persistence to depth, with the good alignment of the drill hole intersections, gives one a good deal of confidence in making the assumption that the ore is continuous between holes in the River zone.

The uniformly high-grade individual samples across the full width of each sub-zone of the River zone, as seen from a study of the true sections of holes #16, 17, 19 and 34, show that the ore of the main ore shoot does not consist of bands of high grade within a larger zone of low grade. It is true that ore of the latter type is indicated by the drilling done above the River tunnel and in some of the other zones, and it appears to be the type of thing visible in the River tunnel itself. However, after examining this ore in the tunnels, it should not be assumed that the ore in our main reserves is of the same nature. A study of the drill hole true sections with the individual assays, shows that such is not the case.

To go farther afield, it should be remembered that the property is within an area of similar geology measuring 10 miles wide by 30 miles long which occupies the southwest tip of Vancouver Island. Within this area is basalt intruded by gabbro batholiths to produce geological conditions similar to those at the Sunloch mine. Therefore the property is, geologically speaking, serviced by an area of considerable size and, if the oreforming solutions are considered to have originated from the gabbro source and if the various gabbro masses be considered as originating from the same source in depth, then a large reservoir of gabbro is available from which copper-bearing solutions can be derived. The East Sooke copper deposit, 25 miles to the east, is similar in many ways to the Sunloch ore.

A good deal of attention should be paid to the results of hole #40. This is the last deep hole drilled in the River zone and it cuts the River zone farther to the northwest than any other hole drilled by Hedley Mascot. There is a marked change in the zone, in hole 40 from that in holes #37, 38 and 39, all farther to the southeast. Where the zone was narrow before (13 feet in #37), it is now well mineralized over a true width of 50 feet. Where the predominant sulphide before was chalcopyrite, pyrrhotite is now the more plentiful. The results of hole 40 seem to suggest that the ore shoot is getting

wider to the northwest in keeping with the plunge theory but that one of the inexplicable changes to pyrrhotite is taking place. The widening out of the zone is the important encouragement of hole 40 and it opens considerable possibilities for the River zone to the northwest at all levels. In addition, hole 40 was prematurely stopped by floods and it has not been drilled far enough into the footwall to properly investigate the indications of ore in the footwall at this depth which were provided by the alteration of the rock in hole 40 and by the sulphides in hole 38, east of the footwall.

"J. W. Young"

May 1951.

PF 092C 073

BRITISH COLUMBIA

Ministry of
Energy and Mines

MEMORANDUM

TO: Rick Conte (MEM-Vancouver) **DATE:** May 30, 2000
cc. Larry Jones, Graham Nixon, Nick Massey (MEM-Victoria)
Greg Carriere (MEM-Nanaimo)

FROM: Jacques Houle (MEM-Nanaimo)

RE: Sunro Property - Minfile 092C 073

A visit was made to the Sunro Property on April 26, 2000 by Greg Carriere and Jacques Houle (MEM-Nanaimo) and Dean Crick (Boliden-Myra Falls) to evaluate the field status of the historic mine workings, and to investigate the nature of the mineralization.

According to Minfile, the Sunro is classified as a Tholeiitic intrusion-hosted Ni-Cu deposit, even though it historically produced only copper, silver and gold, and remaining reserves list copper as the only metal of interest. There is no record of enriched nickel or platinum group metals at Sunro, nor historic platinum placer mining along the Jordan River, which exposes the deposit at surface. However, Graham Nixon's recent PGE (platinum group element) flyer suggests that similar deposits elsewhere in B.C., (ie. Giant Mascot), should be reviewed for potentially economic levels of PGE's. It was considered that if elevated values of PGE's exist at Sunro (say >1 g/t), the known reserves and exploration potential would be far more interesting to exploration and mining companies.

No complete exposures of the ore zones were observed at Sunro, since the underground workings were inaccessible, and surface exposures of the ore zones had been glory-holed and/or caved. However, along the south bank of the Jordan River, the edges of the River Zone stopes were visible, and selected rock samples (170501 and 170502) were taken from chalcopyrite-rich vestiges of the ore zones along the old stope walls. Also, a thin ore lens in outcrop was selectively sampled (170503) along the north bank of the Jordan River, representing the Gordon Zone. Along the switchback access road along the south side of the river, a selective outcrop sample (170504) was taken, which probably represents the up-dip portion of the Cave Zone. At the 5100 Level portal, a very well-

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Mines Branch
Energy and Minerals Division

2080B Labieux Road
Nanaimo BC V9T 6J9

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mineralized (probably Sunro) ore specimen was discovered in a rock dump, and sampled (170505). All 5 samples were sent to Acme (Vancouver) and analyzed for 39 elements.

The results for the 39 elements analyzed are appended (A001308), along with a second spreadsheet of sample descriptions and selected analyses. Observations and conclusions are listed below:

1. Values of nickel, cobalt, platinum and palladium are elevated in all samples, but are clearly at sub-economic levels. This suggests that the known ore zones at Sunro trend towards the copper-rich end of the copper-nickel spectrum for these types of deposits. Therefore, no evidence exists at this time to suggest significant PGE potential at Sunro.
2. Values of copper, silver and gold are significantly elevated for all except sample 170504, which is thought to be from a more distal location relative to ore stopes than the other 4 samples. The other 4 samples yielded significantly higher values in these 3 elements than historical production grades, particularly in gold. This suggests that visual correlation of higher grade ore is possible, and that higher grade ore may be significantly enriched in gold. Since historic production occurred prior to the gold price boom in 1980, it may be worthwhile to review historic mine data for possible gold enrichment trends, and to contour data for total metal values rather than just for copper.
3. Values of selenium and tellurium are elevated in sample 170505. The source and implications of these metals are not apparent.

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From ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER BC V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716 @ CSV TEXT FORMAT
To B.C. Ministry of Energy and Mines (BC)
Acme file # A9001308 Received: APR 28 2000 * 5 samples in this disk file.

ELEMENT	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	Pd	Pt
SAMPLES	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	ppb	ppb
B 170501	0.37	6948.84	1.63	69.5	1852	22.6	20.4	437	4.62	0.8	< .1	245.3	0.3	15	0.13	0.05	0.16	63	1.84	0.161	3.2	31.5	0.89	13.4	0.079	1	1.18	0.186	0.08	< .2	4	0.02	1.02	9	5.8	0.97	6.4	22	3
B 170502	0.02	24263.2	< .01	947.2	8409	240	222.8	1726	12.7	1.8	< .1	565.4	< .1	5.5	2.05	< .02	0.7	84	4.62	0.112	4.7	37.6	2.19	6.7	0.112	18	2.59	0.07	0.03	0.5	5.1	< .02	0.28	< 5	4.4	2.4	9	72	6
B 170503	0.27	21228.7	0.19	205.3	3085	55.2	85.9	455	7.2	1	< .1	1291	< .1	11.3	0.82	< .02	0.71	122	1.83	0.205	< .5	3.9	0.65	19.7	0.086	2	1.18	0.209	0.07	0.3	6.1	< .02	2.53	< 5	14.4	1.21	6.7	17	3
B 170504	12.97	1767.44	1.21	90.7	643	19.3	25.1	510	3.27	0.4	< .1	19.4	0.1	5	0.3	0.04	0.18	113	1.53	0.083	1.5	30.8	0.77	11.8	0.162	2	1.08	0.162	0.08	0.4	4.8	< .02	0.25	< 5	0.9	0.22	5.1	40	9
B 170505	< .01	99999	< .01	2610	19380	998.3	1137	70	28.79	0.8	< .1	702	< .1	2.7	6.93	< .02	0.27	13	0.6	0.186	0.9	8.8	0.11	2.9	0.006	33	0.15	0.015	< .01	< .2	0.6	< .02	2.92	8	70.2	10.41	1.6	74	5
E B 170505	< .01	99999	< .01	2649	19581	1044	1195	76	29.94	0.7	< .1	765.4	< .1	2.8	6.82	0.07	0.23	18	0.5	0.198	0.9	10.5	0.11	2.7	0.007	32	0.15	0.017	< .01	< .2	0.1	< .02	3.03	< 5	70.9	10.16	1.1	104	4

Sunro Property - Minfile 092C 073 - Jacques Houle - April 26, 2000

Sample #	Northing^0	Westing^0	Elevation'	Type	Dimension	Orientation	Location	Description	Alteration	Mineralization	Mo(ppm)	Cu(ppm)	Ni(ppm)	Co(ppm)	Se(ppm)	Te(ppm)	Ag(ppb)	Au(ppb)	Pd(ppb)	Pt(ppb)
170501	48.26.968	124.01.926	1477?	outcrop grab	0.5m.wide	15/90	River Adit West Rib	foliated basalt	hornblende	pyrite, chalcopyrite	0.37	**6948.84**	22.6	20.4	5.8	0.97	1852	245.3	22	3
170502	50m east of 170501		same	outcrop grab	0.25m.wide	15/90	River Adit East Rib	foliated basalt	hbde,qtzstrngrs	cpy,az,mal,chalcocite	0.02	**24263.22**	**240.0**	**222.8**	4.4	2.40	8409	**565.4**	72	6
170503	100m @240 fr.170501		same	outcrop grab	0.25m.wide	105/90	Gordon Zone@river	massive basalt	hbde,qtzstrngrs	py,cpy,bornite	0.27	**21228.68**	55.2	85.9	14.4	1.21	3085	**1290.6**	17	3
170504	48.26.937	124.02.101	higher	outcrop grab	0.25m.wide	90/90	road @ switchback	massive basalt	hbde,qtzstrngrs	py,cpy	**12.97**	**1767.44**	19.3	25.1	0.9	0.22	643	19.4	40	9
170505	48.25.878	124.02.978	lower	float grab	n/a	n/a	5100 adit dump	massive basalt	hbde,qtzblebs	pyrr,cpy,tellurides?	<0.01	**>100000**	**998.3**	**1136.5**	**70.2**	**10.41**	**19380**	**702.0**	74	5

1973

JORDAN RIVER MINES LTD.

STE. 701-744 WEST HASTINGS STREET • VANCOUVER 1, B.C., CANADA • TELEPHONE: 687-1564

March 14, 1974

Sec 71 File

Hon. Minister of Mines and Petroleum Resources
Parliament Buildings
Victoria, B.C.

Dear Sir:

Re: Mineral Land Tax Act
Section 71

Enclosed is a report on Jordan River Mines Ltd - Sunro property as required under Section 71, of the recently Amended B.C. Mineral Act.

a) Description of the claims

b) A description of the Mineral deposit from which Minerals are being produced.

c) The rate of production of the Minerals.

Yours truly,
JORDAN RIVER MINES LTD.

G.H. Keir
Chief Geologist

GHK/mbc

Encl.

5011

MAY 1 '74 PM

DEPT. OF MINES
AND PETROLEUM RESOURCES

REFERRED TO		DATE	INITIAL
D.M.			
ADM (M)			
ADM (P)			
C.G.G.	✓		
C.P.R.			
D.[illegible]	✓		
A[illegible]R			
G.[illegible]			
ACCTS.			
G.[illegible]L.			
INSP.			
M. REV.			
EC. & P.			
FILE NO.			
FILING CLERK			

Jordan River Mines Ltd. - Sunro Property

The Jordan River Mines Ltd. is located in the Victoria Assessment district, Renfrew district. The property is made up of 78 Claims leased from Sunro Mines Ltd. (N.P.L.)

a) 58 Crown-granted Mineral and Fractional Claims registered in the name of Sunro Mines Ltd. (N.P.L.)

b) 20 Mineral and Fractional Claims registered in the name of Sunro Mines Ltd. (N.P.L.)

a) Crown-granted Claims

Lot 826 "Gabbro Fraction."
Lot 834 "Vulcan Fraction"
Lot 819 "Vulcan No. 1"
Lot 820 "Vulcan No. 2"
Lot 821 "Vulcan No. 3"
Lot 822 "Vulcan No. 4"
Lot 823 "Vulcan No. 5"
Lot 825 "Gabbro"
Lot 792 "Sunloch No. 1"
Lot 838 "Tiger"
Lot 796 "Sunloch No. 5"
Lot 797 "Sunloch No. 6"
Lot 852 "V.I.P."
Lot 835 "Cliff Fraction"
Lot 793 "Sunloch No. 2"
Lot 794 "Sunloch No. 3"
Lot 795 "Sunloch No. 4"
Lot 839 "Sombrio"
Lot 844 "Ada Fraction"
Lot 824 "Vulcan No. 6"

Lot 827 "Yellow Jacket"
Lot 828 "Black Hornet"
Lot 829 "Adaline"
Lot 830 "War Eagle"
Lot 831 "Queen Bee"
Lot 832 "Mud-Wasp"
Lot 833 "Lucky Bunch"
Lot 860 "Viking No. 3"
Lot 859 "Viking No. 2"
Lot 858 "Viking No. 1"
Lot 837 "Bee Fraction"
Lot 861 "Viking No. 4"
Lot 836 "Hornet Fraction"
Lot 840 "White Bare"
Lot 841 "Black Bare"
Lot 842 "Olive"
Lot 843 "King"
Lot 853 "Hope"
Lot 854" Olive Fraction"
Lot 855 "Peggy"
Lot 856 "Ayah Fraction"
Lot 862 "White Rock Fraction"
Lot 863 "Alpha"
Lot 864 "Beta"
Lot 865 "Gamma"
Lot 847 "Morning"
Lot 848 "Noonday"
Lot 850 "Nelson"
Lot 851 "Trail"
Lot 857 "Dody Fraction"
Lot 849 "Le Roy"
Lot 845 "Rossland"
Lot 846 "Cour De Line"
"Gabbro No. 2 Fractional"
"Gabbro No. 4 Fractional"
"Gabbro No. 6 Fractional"
"Sun No. 1 Fractional"
"Sun No. 3"

b) Mineral Claims

Cook No. 1
Cook No. 2
Cook No. 3
Cook No. 4
Cook No. 5
Cook No. 6
Cook No. 7
Cook No. 8
Cook No. 9
Cook No. 10
Cook No. 11
Cook No. 12
Cook No. 13
Cook No. 14
Cook No. 15
Cook No. 16
Cook No. 17
Cook No. 18
Cook No. 19
Cook No. 20

General Geology

The Sunro Property is underlain by the rocks of the Metchosin formation. The following types have been recognized.

Basalt, Amygdaloidal Basalt, Diabase, Metamorphosed Basalt. Hornblendite seems to occur along or close to two particular types of faults.

Three stocks of Gabbro striking N.W. have been outlined on the property. This Gabbro is fine grained close to the orebodies and coarser grained away from them. The Gabbro stocks on the property dip from 55 N.E. to vertical.

The South-westerly Gabbro stock is cut by two acidic dykes, approximately twenty feet thick. The dykes strike N 50 E and dip 70 to the N.W.

Both Basalt and Gabbro are cut by Numerous Diabase dykes striking N.W. - S.E. and N.S. These dykes bear Copper Mineralization below ore grade.

Mineralization

Sixteen Mineralized Zones have been located on the property since 1915.

The River Zones are the best known and the Mineralization consists of Chalcopyrite and Pyrrhotite. Pyrite Mineralization has been observed along slips. Pyrrhotite occurs mostly in Solid bands. Chalcopyrite has a tendency to occur in hairy stringers and occasionally in bands.

Alteration of the host rock is limited to a few inches from the vein and consists of hornblendization and Chloritization.

Rate of Production

Scheduled rate of production at the Mine is 1000 tons per day grading 1 % Cu, on a 7 days a week Continual Operation.

15 MINFILE NUMBER: 092C 073 * Gemstones
NAME(S): SUNRO

STATUS: Past Producer Underground
NTS MAP: 092C08E UTM ZONE: 10
LATITUDE: 48 26 55 NORTHING: 5366450
LONGITUDE: 124 01 54 EASTING: 423700
ELEVATION: 0300 Metres
LOCATION ACCURACY: Within 500M

COMMENTS: On Jordan River about 3 km from the sea. Spectacular gorge, remote. Portals sealed. Access via 2.8 km up Forebay Rd, then L to reservoir, L along the wall, R at end. Track into gorge is 4WD for several km, steep and eroded near the bottom. River Tunnel portal open, but only accessable by experienced climbers. Lots of float in the dumps below portals.

COMMODITIES: Copper Gold Silver Molybdenum

MINERALS
SIGNIFICANT: Chalcopyrite Pyrrhotite Pyrite Molybdenite Pentlandite
Copper Cubanite
COMMENTS: Pentlandite occurs locally in pyrrhotite.

Three NW trending bands of gabbro occur, ranging in width from 150 to 900 m, separated by about 1 km of basalt, and known to extend along strike for about 6.5 km. The centre band, from 600 to 900 m wide, is the widest and most important, hosting copper mineralization in shears in basalt along both contacts. The rock is a dark greenish grey coarse-grained hornblende gabbro with conspicuous plagioclase crystals. Some white patches occur in the gabbro where plagioclase has been hydrothermally altered to scapolite. The basalt in the contact zone has a definite hornfels texture.

Microscopic lathes of cubanite have been noted in some specimens of chalcopyrite, and minute blebs and wisps of pentlandite have been seen in pyrrhotite. Much of the pyrite has a striking colloform texture. As many as 16 mineralized zones have been located on the property since it was discovered in 1915. The zones typically occur in basalt but at least three minor zones are located in areas mapped as gabbro. Production commenced in 1962 and proceeded intermittently for 8 years until 1974.

August 16, 1962.

Mr. Kenneth C. Rose, P. Eng.,
Cowichan Copper Company Limited,
River Jordon, B. C.

Dear Ken:

Thanks for your letter of July 31st, and the accompanying maps of the 5300.

The folds of the dyke as you outline them, and I agree that the reference seems logical, suggests ptygmatic folding. The dykes, as you point out, closely resemble the lavas and I think they may well represent feeders of successive flows; this would serve to account for them being fairly distinct from the flow rocks, though similar in composition. The intrusions of the gabbro may well have been accompanied by enough heat to render nearby volcanic flows plastic and consequent internal flow could result in discernible ptygmatic structures.

I would think that the tendency of mineralization to favor the dykes may well be due mostly to differences in competence, with fractures tending to form in and near the dykes in preference to the basalts.

I have seen lobate and sinuous contacts of greenstones in contact with granitic rocks in the Shield and at such contacts the intrusive would show no indications of chilling; the inference was that the intruded rocks had been hot and probably plastic at these places.

I think that I did suggest that the mineralization of the somewhat weak fracture system may well have been due to a proximity to underlying rocks of Leach River age and that necessary heat may have been supplied by the gabbro intrusions.

You can let me know, if you will, when the

old adits are ready. Actually, it would suit me just as well if the time were on in September. You are unique in being easily reached from Victoria so that actually I could come at almost any time.

Best regards,

Yours truly,

For: N. D. McKechnie,
Mineral Engineer.

NDMcK/tr