# PROPERTY FILE

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see page 6

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New Issue 250,000 Shares

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BRITISH COLUMBIA

CORVAL RESOURCES LTD. (N.P.L.)

HEAD OFFICE:

101 - 325 Howe Street Vancouver, British Columbia **REGISTERED OFFICE:** 

1250 - 505 Burrard Street Vancouver, British Columbia

A PURCHASE OF THE SECURITIES OFFERED BY THIS PROSPECTUS MUST BE CONSIDERED A SPECULATION AS THE COMPANY'S MINING PROPERTIES ARE STILL ONLY IN THE EXPLORATION STAGE.

	Price to Public	Commissions	Proceeds to Company
Per Unit	30¢	5¢	25¢
Total	\$75,000	\$12,500	\$62,500

THERE IS NO EXISTING MARKET FOR THE SHARES OF THIS COMPANY.

NO SURVEY OF ANY PROPERTY OR PROPERTY INTEREST HELD BY THE COMPANY HAS BEEN MADE AND, THEREFORE, IN ACCORDANCE WITH THE MINING LAWS OF THE APPROPRIATE JURISDICTIONS IN WHICH THE PROPERTIES ARE SITUATE, THE EXISTENCE OF AND THE AREA OF THE PROPERTIES COULD BE IN DOUBT.

The shares offered by this prospectus represent 18.3% and the shares issued to promoters, directors and other insiders for cash and properties represent 43.5% of the total number of shares to be issued and outstanding upon completion of this offering.

Upon the gifting back of 18,750 shares each by Messrs. Newsom and Oberbillig the shares offered by this prospectus will represent 18.8% and the shares issued to promoters, directors and other insiders for cash and properties will represent 41.9% of the total number of shares to be issued and outstanding upon completion of this offering.

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#### THE COMPANY

Corval Resources Ltd. (N.P.L.) ("the Company") was incorporated on August 25, 1970 under the Companies Act, British Columbia by Memorandum of Association. The Company converted from a private to a public company on August 9, 1971.

#### PLAN OF DISTRIBUTION

The Company offers by this prospectus 250,000 shares of its capital stock at 30¢ per share. Shares of this issue may be sold by trading directors of the Company pursuant to the provisions of section 7(2) of the Securities Act, 1967. No commission or other remuneration will be payable to the trading directors of the Company in connection with this offering of shares. Shares of this issue may also be sold by persons and companies registered to trade in securities in the Province of British Columbia.

#### **CAPITALIZATION**

The authorized capital of the Company is \$1,500,000 divided into 3,000,000 shares with a nominal or par value of  $50\phi$  each. There is only one class of shares and all rank equally as to dividends, voting rights, and participation in assets.

Share Capitalization	Outstanding as of May 19, 1971	Outstanding as of July 15, 1971	Outstanding on Completion of Offering
3,000,000	1,115,002	1,115,002	*1,365,002

<sup>\*</sup> Upon the gifting back of 18,750 shares each by Messrs. Newsom and Oberbillig, this figure will reduce by 37,500 to 1,327,502.

# **AUDITORS**

The auditors of the Company are Messrs. McDonald, Currie & Co., Chartered Accountants, 6th Floor, 900 West Hastings Street, Vancouver, British Columbia.

# REGISTRAR AND TRANSFER AGENT

The Registrar and Transfer Agent of the Company is Canada Permanent Trust Company, 455 Granville Street, Vancouver, British Columbia.

#### PRIOR SALES

Particulars of shares sold for cash:

Number of Shares	Price	Discount	Commissions	Cash Received
2	50¢	Nil	Nil	\$ 1.00
246,000	10¢	40¢	Nil	24,600.00
119,000	20¢	30¢	Nil	23,800.00
365,002				\$48,401.00

All of the above shares sold for cash are held in trust by Canada Permanent Trust Company and will not be released to the beneficial owners thereof until 30 days after the completion of this offering of shares.

Particulars of shares sold for other than cash:

Number of Shares	Deemed Price	Discount	Commission	Consideration
* 700,000	10¢	40¢	Nil	Patricia 1 – 12

All of the above 750,000 shares are held in escrow by Canada Permanent Trust Company under the direction and control of the Superintendent of Brokers for British Columbia. (See paragraphs "Business and Property" and "Escrowed Shares".)

\* Upon the gifting back of 18,750 shares each by Messrs. Newsom and Oberbillig, this figure will reduce by 37,500 to 662,500.

All of the issued and outstanding shares of the Company have been sold during the last 12 months.

### **BUSINESS AND PROPERTY**

The Company is a mining company engaged in searching for and developing mineral properties.

- 1. Description and Access
  - (a) Nicola Mining Division British Columbia
    - (i) Coquihalla Valley claims

The Company is the recorded and beneficial owner of the following located mineral claims situate in the Coquihalla Valley, about 33 miles from Hope, B.C.:

HDD	1 Fr.	47956
HDD	2 - 5	47957 - 47960

and has an option to purchase the following claims:

Big Julie	1 - 2	47281 - 47282
Randy	1 - 4	40961 - 40964
Bonnie Lynn	1 - 4	37089 - 37092
Hope	5 – 6	18789 - 18790
Zinc	1 - 6	46429 - 46434
Rip	1 - 3	44104 - 44107
Lucky	1 - 4	21403 - 21406
Julie	1 - 2	22707 - 22708
Tab	1 - 2	41757 - 41758

The Coquihalla Valley claims are situated in the Nicola Mining Division, 3½ to 4 miles north of the small settlement of Coquihalla in the Coquihalla Valley.

The Coquihalla Valley extends north-easterly from Hope, B.C. and toward the Merritt area. The latitude is about 49° 41'N and the longitude is about 121°01'W.

The property can be reached either from Hope, 91 miles from Vancouver, B.C., by a 33 mile long gravel road, or from Merritt, B.C., by a 40 mile long gravel road. Both these roads are presently used for logging, and are also service roads for an oil pipe line and a gas pipe line through the valley.

Rough gravel roads extend from the main road up to two areas of old workings on the property, and across the property along Dry Creek, thus giving road access to most areas of interest on the claims.

The Canadian Pacific Railway formerly had a rail line through the valley. It has now been discontinued and the track taken out.

# (ii) Rip claims

The Company is the recorded and beneficial owner of the following located mineral claims, situate in the Nicola Mining Division of British Columbia:

Rip 
$$9 - 84$$
  $49198 - 49273$ 

The Rip claims are situate on Juliet Mountain and are accessible by road from Hope and Merritt, B.C.

# (iii) Laverne claims

The Company has an option to purchase the following located mineral claims:

Laverne	1 - 2	24841 - 24842
Laverne	3	•
Laverne	4	
Laverne	5 – 6	25199 - 25200
Cap	1 - 4	25201 - 25204

The Laverne claims are situate on Juliet Mountain and are accessible by road from Hope and Merritt, B.C.

# (b) Osoyoos Mining Division British Columbia

Nickel Plate property

The Company is the recorded and beneficial owner of the following located mineral claims situate at Plate Lake, 18 miles west of Penticton, B.C.:

Patricia	1 - 12	27503 - 27514
Patricia	13 - 44	27932 - 27963

The Nickel Plate property is located about 18 miles west of Penticton, B.C., and can be reached by a dirt and gravel road about 25 miles long. The road crosses the property in the summer and is open to Apex Ski Hill in the winter, two miles from the property.

# 2. Acquisition

# (a) Nicola Mining Division

The Company acquired the HDD 1 Fr. and HDD 2-5 located mineral claims for the cost of staking.

Pursuant to an agreement dated April 6, 1971 between Eva Reul of Box 968, Merritt, B.C., and the Company, the Company acquired an option to purchase the Big Julie 1-2 located mineral claims for \$2,000 and 10,000 escrowed shares of the Company, the cash consideration being payable as follows:

\$1,000 upon execution of the agreement, which has been paid;

\$1,000 on or before February 1, 1972.

Pursuant to an agreement dated April 6, 1971 between Robert Walker of 1376 Parcel, Box 544, Merritt, B.C., and the Company, the Company acquired an option to purchase the Randy 1-4 and a part interest in the Bonnie Lynn 1-4 located mineral claims for \$5,500 and 26,000 escrowed shares of the Company, the cash consideration being payable as follows:

\$2,000 upon execution of the agreement, which has been paid;

\$3,500 on or before February 1, 1972.

Pursuant to an agreement dated April 6, 1971 between Larry Ovington, of Box 474, Ashcroft, B.C., and the Company, the Company acquired an option to purchase the Zinc 1-6 and the remaining interest in the Bonnie Lynn 1-4 located mineral claims for \$6,500 and 10,000 escrowed shares of the Company, the cash consideration being payable as follows:

\$4,000 upon execution of the agreement, which has been paid;

\$2,500 on or before December 15, 1971.

Pursuant to an agreement dated April 6, 1971 between Alf Aalde of Hope, B.C., and the Company, the Company acquired an option to purchase the Hope 5-6 located mineral claims for \$1,500 and 8,000 escrowed shares of the Company, the cash consideration being payable as follows: \$750 upon execution of the agreement, which has been paid;

\$750 on or before February 1, 1972.

Pursuant to an agreement dated May 11, 1971 between Steven Petkovitch of 52 Yates Avenue, Chilliwack, B.C., and the Company, the Company acquired an option to purchase the Laverne 1-6 and Cap 1-4 located mineral claims for \$7,500 and 11,000 escrowed shares of the Company, the cash consideration being payable as follows:

\$1,000 upon execution of the agreement, which has been paid;

\$750 on May 1 and November 1 of each year, beginning November 1, 1972 and ending with a payment of \$500 on October 30, 1976.

With reference to the Reul, Walker, Ovington, Aalde and Petkovitch agreements described above, William L.C. Newsom has transferred 65,000 escrowed shares to Barry D. Speton, of Armstrong, Brawner, Speton & Phillips, solicitors for the Company, in trust, such shares to be transferred in the appropriate amounts to the said optionors if and when the Company exercises the abovementioned options. (See paragraph "Escrowed Shares").

Pursuant to an agreement dated December 11, 1970 between Malcolm George Mooney of Box 260, Osoyoos, B.C. and Steven Petkovitch of 52 Yates Avenue, Chilliwack, B.C., and the Company, the Company acquired an option to purchase the Rip 1-3, Tab 1-2, Lucky 1-4, and Julie 1-2 located mineral claims for \$30,000 and 50,000 escrowed shares of the Company payable as follows: \$1,500 upon execution of the agreement which has been paid and 50,000 shares (See paragraphs "Prior Sales" and "Escrowed Shares")

\$2,000 upon initiation of an exploration program on the mineral claims as recommended by the Company's consultants or by June 30, 1971, whichever is the sooner;

\$2,000 on or before May 1, 1972 and a like sum on or before the expiration of each six-month period thereafter until the Company shall have paid to the optionors \$16,500, the final payment being \$2,500;

\$10,000 within one year of the final payment of \$2,500 as aforesaid or upon initiation of a mining and milling operation on the mineral claims, whichever is the sooner;

The agreement further provides that in the event the Company

- sells the mineral claims or any part thereof, there shall be reserved unto the optionors a royalty of 2½% net smelter returns to be paid quarterly to a maximum of \$250,000;
- (b) places the mineral claims into commercial production, there shall be reserved unto the optionors a royalty of 10% of net profits to be paid quarterly to a maximum of \$250,000;
- participates with a third party in placing the mineral claims into commercial production, there shall be reserved unto the optionors 10% of the net profits receivable by the Company and the third party, to be paid quarterly, up to a maximum of \$250,000.

The agreement also provides that in the event of commercial production, the Company may pay to the optionors in lieu of 10% of net profits, the sum of \$250,000 as follows:

\$50,000 during the first year of production;

\$100,000 during the second year of production;

\$100,000 during the third year of production.

All payments made by the Company pursuant to the agreement are to be divided between Mooney and Petkovitch as to 1/3 and 2/3 respectively.

The Company acquired the Rip 9-84 located mineral claims from A.W. Giesbrecht of 106-1855 West 8th Avenue, Vancouver, B.C., for the sum of \$5,000.

# (b) Osoyoos Mining Division

Pursuant to an agreement dated May 19, 1971 between William L.C. Newsom, John J. Oberbillig and Hans D. Dietman and the Company, the Company acquired the Patricia 1-12 located mineral claims for 700,000 shares of the Company.

Messrs. Newsom and Oberbillig have each undertaken to surrender to the Company's treasury by way of gift 18,750 of the aforesaid shares.

The cost to the vendors of the Patricia 1 - 12 claims was \$600. The Company acquired the Patricia 13 - 44 located mineral claims for the cost of staking.

# 3. History

# (a) Nicola Mining Division

## (i) Coquihalla Valley claims

It is not known when the property was first discovered, but a reference is found in the B.C. Minister of Mines Report 1936, where the property is referred to as the Coldwater. Three short adits and some surface stripping is described in the report. The work explored a narrow quartz carbonate vein carrying lead, zinc, copper, silver and gold values. It was located in the granodiorite apparently on the northern half of the claims.

The next information about the property is from 1951 in a report by Joseph T. Mandy, Ph.D., P. Eng. on the Keystone group of claims, which apparently covered approximately the same ground as the present property. Dr. J.T. Mandy, P. Eng., mentions in his report that: "The geology and related structure are favourable for the occurrence of important mineral deposits." He describes two types of mineralization; a series of quartz veins with high grade lead, zinc, silver and a deposit of scattered zinc, lead, in the dense fracturing of silicified limestone and rhyolite near the granodiorite contact.

Dr. J.T. Mandy recommends further underground work to outline the ore bodies. Only little exploration seems to have taken place on the property between 1936 and 1951.

A report from 1954 by Keith C. Fahrni, P.Eng., describes the southern half of the present property, where considerable underground work appears to have been carried out between 1951 and 1954 on narrow high grade veins of copper, silver, lead and zinc mineralization in the granodiorite. Mr. K.C. Fahrni, P. Eng., draws no conclusions about the property in his report. Considerable underground work was done around this time. In 1965-66 part of the northern half of the present property, the Hope claims, were under option to Anaconda American Brass Ltd., Western Exploration Division. The southern half of the present property was under option to Dorian Mines Ltd. a "controlled Alscope Consolidated Ltd. subsidiary". Anaconda carried out geochemical and geophysical surveys and bulldozer trenching. Dorian Mines Ltd. carried out about 5,000 feet of stripping and 6,662 feet of diamond drilling. This work is discussed under "Work Done on the Property" as set out in the report of E. Livgard, P. Eng., dated April 26, 1971 annexed to and forming a part of this prospectus. Only minor trenching has been carried out since 1966.

# (b) Osoyoos Mining Division

Nickel Plate property

Old work on the Nickel Plate property consists of a few shallow hand trenches. There is no other history of these claims.

### 4.

The Company has done only preliminary exploration work on its properties.

#### 5. Plant or Equipment

There is no underground or surface plant or equipment on the Company's properties.

### **USE OF PROCEEDS**

The Company plans to carry out the following exploration programs on its properties:

In accordance with the recommendations of E. Livgard, P.Eng., in his report on the Coquihalla Valley claims dated April 26, 1971, a copy of which accompanies and forms part of this prospectus, the cost of which program is estimated as follows:

# Stage I

Grid System			
32 line miles @ \$100			\$ 3,200
Geological Mapping & Sampling			
30 days, wages & expenses @ \$100/day			3,000
Geochemical Survey			
32 line miles, 200' sample spacing,			
850 samples			
24 days, 2 men, wages & exp. @ \$140/day		\$3,360	
850 x \$2 (Cu,Pb,Zn,Ag)		1,700	
geochemist visit & report - 6 days @ \$140		840	
disbursements & expenses		1,800	
travel	-	600	8,300
	c/f		\$14,500

	b/f	\$14,500
Magnetic Survey & Report		2.000
32 line miles @ \$90/mile		2,880
Administration, Supervision & Travel 2 mos. @ \$1600/mo.	·	3,200
Consulting 4 days @ \$150/day		600
		\$21,180
Contingencies 10% approx.		1,820
		\$23,000
Stage II		
Electromagnetic Survey		
selected 16 line miles (VLF EM16 vertical		
loop SE300) \$250/line mile survey & report		\$ 4,000
Cat Trenching		
20 days @ \$400/day		8,000
Adit Rehabilitation		1 400
2 men 10 days @ \$140/day	.1	1,400
Geological Mapping & Sampling of Trenching & Underground 2 men, 10 days @ \$140/day	1	1,400
Administration		900
1½ mos. @ \$600/mo.		900
Consulting		
laying out diamond drill program 4 days @ \$150/day		600
4 days & \$150/day		
		\$16,300
Contingencies 10% approx.		1,700
1		****
		\$18,000
Stage III		
Diamond Drilling		
22 holes totalling 7,800 feet BQ core \$10/ft		\$78,000
down time & expenses 10%		7,800
Core logging, splitting & sampling -		
1 man 3 mos. inc. expenses		4,800
Analysis 780 samples — analysed for		
Zn, Cu, Ag.	\$8,600	
90 composite samples anal. for	2 200	10,900
In, Cd, Pb, Au	2,300	10,900
Administration 3 mos. @ \$600/mo		1,800
consulting – 14 days @ \$150/day		2,100
consuming 11 days C \$150/day		105,400
Contingencies 100% approv		10,600
Contingencies 10% approx.		10,000
,		116,000

(b) In accordance with the recommendations of E. Livgard, P.Eng., in his report of the Nickel Plate property dated April 16, 1971, a copy of which accompanies and forms part of this prospectus, the cost of which program is estimated as follows:

|--|

Stage I	
Grid System	
15 line miles — line spacing 400' stations at	
100', plus 2 miles tie lines	\$ 1,700
Magnetic Survey	
15 line miles @ \$80/mile plus report	1,200
Soil Survey	
samples at 100' spacing, analysis & report	4,500
Administration & Travel	1,000
Consulting	500
	\$ 8,900
Contingencies 10% approx.	890
contingential 10% approxim	
	\$ 9,790
Stage II	
Cat Trenching	
200 hours @ \$40/hour	\$ 8,000
Mobilization	500
Geological mapping & sampling of trenches	500
Administration, travel analysis	800
Consulting	500
Consuming	
	\$10,300
Contingencies 10% approx.	1,030
	\$11,330

Grand Total – Stages I, II – \$21,120

The proceeds from the sale of shares offered by this prospectus are intended to be used in carrying out Stage I and II of the program of work recommended by E. Livgard, P. Eng., on the Coquihalla Valley claims and Stages I and II of the program of work recommended by E. Livgard, P. Eng., on the Nickel Plate property as set forth above, and the Company will not discontinue or depart from the recommended programs of work unless advised in writing by its consulting engineer to do so. Should the Company contemplate any such change or departure, notice thereof will be given to all shareholders.

In the opinion of the directors of the Company, the proceeds of the offering by this prospectus in the net amount of \$62,500 when combined with the funds in the Company's treasury of approximately \$10,000 will be sufficient to carry out Stages I and II on the Coquihalla Valley claims and Stages I and II on the Nickel Plate property as recommended by E. Livgard and to maintain the Company's properties in good standing.

In the event the proceeds are not sufficient to carry out all of the Stages of work intended, the Company will give priority to the recommendations for the Coquihalla Valley claims.

No part of the proceeds shall be used to invest, underwrite or trade in securities other than those that qualify under the laws of the jurisdictions in which the securities offered by this prospectus may lawfully be sold.

Should the Company propose to use the said proceeds to invest, underwrite or trade in non-trustee type securities after the initial distribution of the securities offered by this prospectus, approval by the shareholders shall first be obtained and disclosure made to the regulatory securities bodies having jurisdiction over the sale of securities offered by this prospectus.

#### PRELIMINARY EXPENSES

The preliminary expenses which the Company incurred from the date of incorporation, August 25, 1970 to May 19, 1971 amounted to \$20,252 of which \$7,831 was for exploration and development, \$11,249 was for administration, and \$1,171 was for incorporation costs. Of these amounts, the sum of \$11,295 relating to properties not acquired has been written off to deficit. (See financial statements herein.) The Company does not anticipate spending any further monies on preliminary matters.

# **PROMOTERS**

William L.C. Newsom and John J. Oberbillig were responsible for the founding and organizing of the Company and, therefore, may be considered to be its promoters. As vendors of property to the Company, Messrs. Newsom and Oberbillig received 472,500 and 212,500 shares respectively. Mr. Newsom subsequently transferred 65,000 shares to Barry D. Speton in trust to be held in connection with option agreements (see paragraph "Business and Property — Acquisition") and transferred a total of 195,000 shares to Frank X. Earl, Gordon Gutrath, G. Clinton Snell and Ross G. McCulloch. Messrs. Newsom and Oberbillig have each undertaken to surrender to the Company's treasury by way of gift 18,750 of the aforesaid shares. (See paragraphs "Prior Sales — shares sold for other than cash", "Business and Property" and "Escrowed Shares" herein.)

#### **DIRECTORS AND OFFICERS**

Name	Address	Office Held
John James Oberbillig II	1207 - 1616 Pendrell Street Vancouver, B.C.	Director and President
William Lionel Clarence Newsom	102 - 666 Whiting Way Coquitlam, B.C.	Managing Director and Vice-President
Frank Xaver Earl	Elsa, Yukon Territory	Director
Gordon Charles Gutrath	5550 Rugby Street Burnaby, B.C.	Director

The principal occupations of the directors during the past five years are as follows:

John J. Oberbillig: Engineer with Placer Development Ltd. January 1964 to May 1966; Manager with

Cortex Joint Venture, Crescent Valley, Nevada, May 1966 to April 1967; Resident Manager with Interprovincial Metals Ltd., April 1967 to February 1968; Engineer with Sonoma International, Guerneville, California, February 1968 to June 1968; Consultant with Cahill Mine, Nevada, June 1968 to September 1968; Graduate work at University of Nevada and independent consulting September 1968 to February 1969; Resident Manager with Buffalo Lake Mines, Kingman, Arizona, February 1969 to January 1970; Managing Director of Buffalo Lake Mines, Vancouver, B.C., January 1970 to May 1970; President of Buffalo Lake Mines,

August 1970 to date.

William L.C. Newsom: Clerk and paint consultant with Builders Supply, Land, Whitehorse, Y.T.,

November 1965 to July 1966; Miners helper with United Keno Hill Mines, Elsa, Y.T., December 1966 to May 1967; Ore controller with Utica Mines Ltd., Keremeos, B.C., May 1967 to November 1968; Ore controller with Artic Gold & Silver Mines, November 1968 to March 1969; Ore controller with S & N Mine Management Consultants Ltd., April 1969 to May 1970; Self employed prospector June 1970 to September 1970; Executive with Corval Resources Ltd. (N.P.L.),

September 1970 to date.

Frank X. Earl: Shift boss with United Keno Hill Mines, 1956 to date.

Gordon C. Gutrath: Exploration geologist with Newmont Mining Corp. of Canada Ltd., June 1960 to

July 1967; Self-employed geologist, August 1967 to September 1970; Geologist and manager with Atled Exploration Management Ltd., Vancouver, September

1970 to date.

#### REMUNERATION OF DIRECTORS

The aggregate remuneration paid to the Company's directors and senior officers from the date of the incorporation of the Company, August 25, 1970 to May 19, 1971 was \$6,800. For the period May 20 to June 15, 1971, the sum of \$800 was paid.

For the financial year ending May 19, 1972, it is estimated that the aggregate direct remuneration to be paid to the Company's directors and senior officers will amount to \$12,000.

#### ESCROWED SHARES

As of the date hereof 750,000 shares are held in escrow by Canada Permanent Trust Company, 455 Granville Street, Vancouver, British Columbia, under the direction and control of the Superintendent of Brokers for British Columbia. The escrow restrictions provide that the shares may not be traded in, dealt with in any manner whatsoever, or released, nor may the Company, its transfer agent or escrow holder make any transfer or record any trading of the shares without the consent of the Superintendent of Brokers. If the Company loses or does not obtain a good marketable title to or abandons or discontinues development of the property which was the consideration for the shares in escrow, or in the event the property is not as represented, the holders of the escrow shares have agreed to advise the Superintendent of Brokers and to surrender by way of gift to the Company such numbers of escrowed shares as the Superintendent of Brokers may deem fair and equitable.

Class of Shares	Name and Address of Shareholder	Number of Shares Held in Escrow	Percentage of Class
common	William L.C. Newsom 102-666 Whiting Way Coquitlam, B.C.	*212,500	*19.0
common	John J. Oberbillig 1206-1616 Pendrell Street Vancouver, B.C.	*212,500	*19.0
common	Hans D. Dietman 8-1516 West 14th Avenue Vancouver, B.C.	15,000	* 1.3
common	Barry D. Speton (in trust) 1250-505 Burrard Street Vancouver, B.C.	65,000	* 5.8
common	Steven Petkovitch 52 Yates Avenue Chilliwack, B.C.	33,333	* 3.0
common	Malcolm George Mooney Box 260 Osoyoos, B.C.	16,667	* 1.5
common	Frank X. Earl Elsa, Y.T.	60,000	* 5.4
common	Gordon Gutrath 5550 Rugby Street Burnaby, B.C.	70,000	* 6.3
common	G. Clinton Snell 1508 Bishop Road White Rock, B.C.	25,000	* 2.2
common	Ross G. McCulloch 1111 West Hastings Street Vancouver, B.C.	40,000	* 3.6
	,	*750,000	*67.1

<sup>\*</sup>These figures and percentages will vary slightly upon the gifting back of 18,750 shares each by Messrs. Newsom and Oberbillig.

#### PRINCIPAL HOLDERS OF SECURITIES

As of the date hereof, the following table sets forth the number of shares owned of record or beneficially, directly or indirectly, by each person who owns more than 10% of the Company's shares:

Name and Address	Type of Ownership	Number of Shares Owned	Percentage of Shares Outstanding
William L.C. Newsom 102-666 Whiting Way Coquitlam, B.C.	Record and Beneficial	*224,250	*20.1%
John J. Oberbillig 1207-1616 Pendrell Vancouver, B.C.	Record and Beneficial	*227,500	*20.4%

The directors of the Company beneficially own \*53.3% of the outstanding shares of the Company.

#### STATUTORY RIGHTS OF WITHDRAWAL AND RESCISSION

Sections 61 and 62 of the Securities Act, 1967 (British Columbia) provide, in effect, that where a security is offered to the public in the course of primary distribution:

- (a) A purchaser has the right to rescind a contract for the purchase of a security, while still the owner thereof, if a copy of the last prospectus, together with financial statements and reports and summaries of reports relating to the securities as filed with the British Columbia Securities Commission, was not delivered to him or his agent prior to delivery to either of them of the written confirmation of the sale of securities. Written notice of intention to commence an action for rescission must be served on the person who contracted to sell within 60 days of the date of delivery of the written confirmation, but no action shall be commenced after the expiration of three months from the date of service of such notice.
- (b) A purchaser has the right to rescind a contract for the purchase of such security, while still the owner thereof, if the prospectus or any amended prospectus offering such security contains an untrue statement of a material fact or omits to state a material fact necessary in order to make any statement therein not misleading in the light of the circumstances in which it was made, but no action to enforce this right can be commenced by a purchaser after expiration of 90 days from the later of the date of such contract or the date on which such prospectus or amended prospectus is received or is deemed to be received by him or his agent.

Reference is made to the said Act for the complete text of the provisions under which the foregoing rights are conferred.

#### **CERTIFICATES**

# **Directors**

The foregoing constitutes full, true and plain disclosure of all material facts relating to the securities offered by this prospectus as required by Part VII of the Securities Act, 1967 and the regulations thereunder.

"FRANK EARL" "W.L.C. NEWSOM"

"J.J. OBERBILLIG" "G.C. GUTRATH"

### **Promoters**

The foregoing constitutes full, true and plain disclosure of all material facts relating to the securities offered by this prospectus as required by Part VII of the Securities Act, 1967 and the regulations thereunder.

"J.J. OBERBILLIG"

"W.L.C. NEWSOM"

<sup>\*</sup>These figures and percentages will vary slightly upon the gifting back of 18,750 shares each by Messrs. Newsom and Oberbillig.

# McDONALD, CURRIE & CO.

CHARTERED ACCOUNTANTS

INTERNATIONAL FIRM COOPERS & LYBRAND

TELEPHONE 682-7821 900 WEST HASTINGS STREET VANCOUVER 111, BRITISH COLUMBIA, CANADA

# **AUDITORS' REPORT TO THE DIRECTORS**

We have examined the balance sheet of Corval Resources Ltd. (N.P.L.) as at May 19, 1971 and the statements of deferred exploration, development and administrative costs and source and use of working capital for the period from August 25, 1970 (date of incorporation) to May 19, 1971. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances.

In our opinion these financial statements present fairly the financial position of the company as at May 19, 1971 and the results of its operations and the source and use of its working capital for the period then ended, in accordance with generally accepted accounting principles.

Vancouver, B.C. May 27, 1971

McDONALD, CURRIE & CO. CHARTERED ACCOUNTANTS

# BALANCE SHEET AS AT MAY 19, 1971

ASSETS	\$		
CASH	13,0	22	
MINERAL PROPERTIES (notes 1 and 2)	91,7	75	
DEFERRED COSTS (note 1)  Deferred exploration, development and administrative costs  Organization costs	7,785 1,172 8,9 113,7		
LIABILITIES			
ACCOUNTS PAYABLE AND ACCRUED LIABILITIES	1,6	48	
SHAREHOLDERS' EQUITY			
CAPITAL STOCK (note 3) Authorized - 3,000,000 shares of the par value of 50¢ each			
Issued and fully paid - 1,115,002 shares	123,4	101	
DEFICIT - Deferred costs written off	11,2	95	
•	112,1	06	
	113,7	′54 <del></del>	

# SIGNED ON BEHALF OF THE BOARD

"J.J. Oberbillig" Director

"W.L. Newsom" Director

# STATEMENT OF DEFERRED EXPLORATION, DEVELOPMENT AND ADMINISTRATIVE COSTS

FOR THE PERIOD ENDED MAY 19, 1971

EXPLORATION AND DEVELOPMENT		S
Assays	56	
Consulting fees	4,077	
Equipment rental	55	
Licences and taxes	255	
Maps	33	
Prospecting and property examination	3,355	7,831
ADMINISTRATIVE		
Audit	750	
Advertising and promotion	354	
Legal	1,000	
Office rent and secretarial services	1,200	
Office and stationery	465	
Salaries and employee benefits	6.915	
Telephone	365	
Travel	200	11,249
•		19,080
Deduct: Costs relating to properties not acquired		
written-off to deficit		11,295
TOTAL		7,785
ALLOCATED TO MINERAL PROPERTIES AS FOLLOWS:		
Coquihalla claims		6,762
Patricia claims		1,023
		7,785

# STATEMENT OF SOURCE AND USE OF WORKING CAPITAL

FOR THE PERIOD ENDED MAY 19, 1971

SOURCE	\$
Capital stock issued for cash (365,002 shares)	48,401
Capital stock issued for mineral properties (750,000 shares)	75,000
	123,401
USE	10.000
Deferred exploration, development and administrative costs	19,080 91,775
Mineral properties Incorporation costs	1,172
incorporation costs	
	112,027
WORKING CAPITAL – END OF PERIOD	11,374
REPRESENTED BY:	
Cash	13,022
Less: Accounts payable and accrued liabilities	1,648
WORKING CAPITAL – END OF PERIOD	11,374

#### NOTES TO FINANCIAL STATEMENTS

FOR THE PERIOD ENDED MAY 19, 1971

#### 1. Values

The amounts shown for mineral properties and deferred costs represent costs to date and do not necessarily reflect present or future values.

# 2. Mineral Properties

(a) Mineral properties owned or being acquired under option are situated in the Province of British Columbia and are as follows:

	Claims	\$
Osoyoos Mining Division		
Patricia claims (note 2 (b))	44	71,500
Nicola Mining Division		
Coquihalla claims (note 2 (c) )	81	5.025
Coquihalla claims – options to purchase		
(note 2 (d))		15.250
	164	91,775

- (b) Pursuant to an agreement dated May 19, 1971, the company acquired twelve of the Patricia claims for 700,000 shares of the company recorded at an ascribed value of \$70,000.
  - The balance of thirty-two mineral claims were acquired pursuant to an agreement dated May 12, 1971 for \$1,500.
- (c) Seventy-six of the Coquihalla claims were acquired pursuant to an agreement dated April 19, 1971 for \$5,000 and five claims were staked by the company and recorded at a nominal value of \$5 each.
- (d) The company is acquiring under six separate option agreements thirty-nine mineral claims for a cash consideration of \$53,000 payable in varying annual amounts of from \$5,500 to \$14,750 to 1976 and 115,000 shares of the company. As at May 19, 1971 the company has paid \$10,250 cash and issued 50,000 shares recorded at an ascribed value of \$5,000. The remaining 65,000 shares to be issued under these agreements will be satisfied by a vendor of the Patricia claims per note (b) above.

# 3. Capital Stock

The company has issued the following shares of its capital stock:

	Shares	Par value \$	Discounts \$	Net \$
For cash	365,002	182,501	134,100	48,401
For property	750,000	375,000	300,000	75,000
	1,115,002	557,501	434,100	123,401

Pursuant to instructions issued by the Securities Commission of British Columbia in July, 1971, the vendors of the mineral claims (note 2(b)) have agreed to gift to the company, 37,500 of the shares issued for property.

# 4. Remuneration of Directors and Senior Officers

No directors' fees were paid during the period. Remuneration to a director for day-to-day management of the company since incorporation amounted to \$6,800.

#### Report on the

# CORVAL RESOURCES LTD. (N.P.L.)

#### **PROPERTY**

#### IN THE COQUIHALLA VALLEY, B.C.

April 26th, 1971.

E. Livgard, B.Sc., P. Eng.

Vancouver, B.C.

#### INTRODUCTION:

The Corval Resources Ltd. property in the Coquihalla Valley was visited by the writer in the late summer of 1969, and the exposed mineralization on RIP No. 1 - No. 3, Lucky No. 1 - No. 4, and Julie No. 1 - No. 2 examined

Mr. W.L.C. Newsom, Vice-President and Director of Corval Resources Ltd., requested a report on the property with recommendations for exploration.

The following is the report based on that examination and on published and unpublished reports and maps on the property or the region, as listed in the references.

The maps accompanying this report are largely direct tracings or copies, with a change of scale, and/or consolidation on fewer maps of information found on the maps listed in the references.

The geochemical survey was carried out by Anaconda, Britannia Beach, and the interpretation of that survey by Tri-Con Exploration Surveys Ltd.

# **SUMMARY AND CONCLUSIONS:**

The 110 claims either staked by, purchased by, or under option to Corval Resources Ltd., 720 West Hastings Street, Vancouver, in the Coquihalla Valley, about 33 miles from Hope, B.C., cover a mineralized contact zone between the Eagle granodiorite and what is thought to be the Nicola group of volcanic rocks. The whole area and particularly the contact zone has been exceptionally heavily hydrothermally altered, and very extensive introduction of pyrite and manganese minerals has taken place. Economic minerals found consist of sphalerite with associated cadmium, chalcopyrite, an unidentified silver mineral, probably tetrahedrite, and small amounts of galena and gold. Three main types of mineralization have been identified. These are:

- A. Replacement type mineralization containing principally zinc, cadmium, copper and silver. This type is generally confined to the contact zone and apparently favours the intrusive rocks. The possible size and grade of this type of mineralization in the claim area is considerable, and establishes it as a primary exploration target in an attempt to locate a large low grade ore body amenable to open pit mining.
- B. The second type consists of fracture filling and disseminated mineralization, either associated with replacement mineralization in the contact zone and containing the same minerals as the latter, or removed from the contact zone, occurring in the granodiorite and consisting principally of copper and associated silver mineralization. The contact zone mineralization of this type may add to the grade and tonnage of the replacement mineralization, and removed from the contact zone it is a secondary exploration target as a possible porphyry copper type deposit.
- C. The third type of mineralization consists of several veins ranging in width from a few inches to a few feet. These are quartz carbonate veins and contain values in silver, gold, lead, zinc and copper. This mineralization constitutes a third exploration target of lesser interest than the previous two.

The Corval Resources Ltd. property in the Coquihalla Valley has many very favourable features which indicate to the writer that it is of outstanding merit and deserves a thorough exploration program. The possibility of finding a body of mineralized rock of economic size and grade is considered to be good.

# **RECOMMENDATIONS FOR EXPLORATION:**

The first requirement is a geological map. This should use a good survey controlled grid system for accurate location

The grid system should extend over fourteen claims in length, and two in width, for a total of 28 line miles, with a 400' line spacing and stations established every 200'. Tie lines would add another four miles of line.

A geochemical survey should be carried out covering the entire grid system with samples taken at every station for a total of about 850 samples, to be analysed for copper, lead; zinc and silver.

Mr. B.C. Macdonald, P.Eng., mentions in his report that magnetite is associated with heavier concentrations of zinc, copper mineralization. A magnetic survey is therefore recommended.

On completion of the above work, the information should be evaluated and the more favourable areas surveyed electro-magnetically. Two types of E.M. survey are recommended to attempt to pick up both disseminated and massive mineralization. The survey should cover an estimated 16 line miles.

On completion of the surveys, cat trenching should be carried out in anomalous areas, and some of the old adits should be opened up so that a geological mapping program of trenches and underground can be carried out. About 20 days of cat work and 10 days of geological mapping will be necessary. Following the above work, sufficient information should be available to intelligently lay out a program of diamond drilling to test the mineralized areas.

The following program is considered necessary to test the presently known mineralized areas:

The southern area where extensive and possibly economic grade mineralization is known to be present should be drilled in detail by sixteen holes 300 feet deep, drilled at 45° toward the west. The holes should be spaced 200 feet apart, and drilled along east-west lines 400 feet apart, with four holes per line. On the northern and central part of the claims the geochemical anomaly and mineralized trenches, coupled with deep oxidation, make some diamond drilling desirable. Six 500' holes are recommended to check the mineralization. The total diamond drill footage recommended is 7800 feet.

#### **COST**

#### STAGE 1

Grid System			
32 line miles @ \$100.00 (14 claims long, 2 claims wide and 4 miles base line)		\$ 3,200.00	
Geological Mapping and Sampling			
30 days, wages and expenses @ \$100./day		3,000.00	
Geochemical Survey			
32 line miles, 200' sample spacing 850 samples. 24 days, 2 men, wages and exp.			
@ \$140./day	3,360.00		
850 x \$2 (Cu, Pb, Zn, Ag)	1,700.00		
Geochemist visit and report -			
6 days @ \$140.	840.00		
Disbursement & expenses	1,800.00	0.000.00	
Travel	600.00	8,300.00	
Magnetic Survey and Report			
32 line miles @ \$90./mile		2,880.00	
Administration, supervision and travel			
2 months @ \$1600./month		3,200.00	
Consulting, 4 days @ \$150.00/day		600.00	
Contingencies 10% approx.		20,780.00 1,820.00	\$23,000.00

# **STAGE II**

<del>-</del>		
Electromagnetic Survey selected 16 line miles. (VLF EM16 Vertical Loop SE300)		
\$250./line mile survey and report	\$ 4,000.00	
Cat Trenching		
20 days @ \$400./day	8,000.00	
Adit Rehabilitation		
2 men 10 days @ \$140./day	1,400.00	
Geological Mapping and sampling of trenching and underground.  2 men 10 days @ \$140./day	1,400.00	
Administration		
1-1/2 months @ \$600./month	900.00	
Consulting – laying out diamond drill		
program. 4 days @ \$150./day	600.00	
Continue in 100/ manage	16,300.00 1,700.00	\$18,000.00
Contingencies 10% approx.	1,700.00	\$18,000.00
STAGE III		
Diamond Drilling		
22 holes totalling 7,800 feet	\$78,000.00	
BQ core \$10./foot Down time and expenses 10%	7,800.00	
Core logging, splitting and sampling –	7,,000.00	
1 man 3 months inc. expenses	4,800.00	
Analysis 780 samples –		
analysed for Zn, Cu, Ag	\$8,600.00	
90 composite samples anal. for In, Cd, Pb, Au	2,300.00 10,900.00	
Administration		
3 months @ \$600./month	1,800.00	
Consulting – 14 days @ \$150./day	2,100.00	
Contingencies 10% approx.	105,400.00 10,600.00	
Contingencies 10/0 approx.		
TOTAL: STAGES I, II and III:		\$157,000.00

# LOCATION AND ACCESS:

The claims are situated in the Nicola Mining Division, 3½ to 4 miles north of the small settlement of Coquihalla in the Coquihalla Valley.

The Coquihalla Valley extends north-easterly from Hope, B.C., and toward the Merritt area. The latitude is about  $49^{\circ}41$ ' N and the longitude is about  $121^{\circ}$  01' W.

The property can be reached either from Hope, 91 miles from Vancouver, B.C., by a 33 mile long gravel road, or from Merritt, B.C., by a 40 mile long gravel road. Both these roads are presently used for logging, and are also service roads for an oil pipe line and a gas pipe line through the valley.

Rough gravel roads extend from the main road up to two areas of old workings on the property, and across the property along Dry creek, thus giving road access to most areas of interest on the claims.

The Canadian Pacific Railway formerly had a rail line through the valley. It has now been discontinued and the track taken out.

#### **TOPOGRAPHY AND CLIMATE:**

The property lies within the physiographic boundary of the Cascade Mountains, and covers part of the eastern slope of July Mountain. The elevation in the valley is about 3400 feet, and July Mountain reaches 7000 feet. The grade varies from  $0^{\circ}$  in the valley to about  $25^{\circ}$  in some parts around Dry Creek which bisects the property as it flows east and into the Coldwater River. The Coldwater River flows northeast to Merritt, where it joins the Nicola River. The relatively steep slopes on each side of Dry Creek are the location of most of the few natural rock exposures on the property.

The area has been intensely glaciated, but the highest peaks stood above the pleistocene ice and the mountain sides show evidence of alpine glaciation, but the terrain on the property itself is not rugged and presents no obstacle to easy exploration.

The property lies intermediate between the coastal area and the interior. The precipitation is heavy, maybe 40 inches per year, and the temperature may occasionally reach 30 - 40 degrees below zero fahrenheit. The ground will be snow covered from about November until late April.

### PROPERTY:

The property consists of 110 contiguous claims, as follows:

Julie 1 and 2 - Record Nos. 22707 - 08

These claims were recorded on August 24th, 1964, by Mr. Steve Petkovich of Chilliwack, B.C. The claims are in good standing until August 24th, 1971.

Lucky 1 - 4 - Record Nos. 21403 - 06

These claims were recorded September 13th, 1963, by Mr. Steve Petkovich of Chilliwack, B.C. The claims are in good standing until September 13th, 1971.

Rip 1 - 3 - Record Nos. 44104 - 06

Staked by Malcolm George Mooney of Osoyoos, B.C. and recorded on January 15th, 1969. The claims are in good standing until January 15th, 1972.

Tab 1 and 2 - Record Nos. 41757 - 58

Recorded August 6th, 1969, by Malcolm George Mooney. The claims are in good standing until August 6th, 1971.

All the above claims are under option to Corval Resources Ltd. of 720 West Hastings Street, Vancouver, under an Option Agreement dated December, 1970.

The following claims have been staked by Corval Resources Ltd:

HDD 1 Fr. and HDD 2 - 5 - Tag Nos. 202235-M and 202236-39

These claims were recorded on January 4th, 1971, at Vancouver.

The Rip 1 - 3 were examined in the field and were found to be staked in accordance with the mining regulations.

A partial claim survey by Anaconda confirms the location of the claims, Julie 1 and 2, Lucky 1 - 4 and to some extent Rip 1 - 3, and no information was found on searching the claim records at Nicola Mining Division in Merritt other than that confirming that the above claims cover and have the mineral rights to the above ground.

Big Julie 1 - 2 - Record Nos. 47281 - 82

These claims were recorded on October 16th, 1970, in the name of Eva Reul of Merritt, B.C., and are in good standing until October 16th, 1971.

Randy 1 - 4 - Record Nos. 40961 - 64

These claims were recorded on May 28th, 1969, in the name of Robert A. Walker of Merritt, B.C., and are in good standing until May 28th, 1971.

#### Hope 5 - 6 - Record Nos. 18789 - 90

These claims were staked in August 1962 by Dirk Grevling and transferred to Alf Aalde of Hope, B.C., in July 1969. The claims are in good standing until September 4th, 1971.

#### Zinc 1 - 6 - Record Nos. 46429 - 36

These claims were recorded on July 8th, 1970, in the name of Larry Ovington of Ashcroft, B.C., and are in good standing until July 8th, 1971.

# Bonnie Lynn 1 - 4 - Record Nos. 37089 - 92

These claims were staked on June 6th, 1968, in the name of Robert A. Walker, and half interest transferred to Mary Ovington. The claims are in good standing until June 6th, 1971.

The above claims were optioned to Corval Resources Ltd. (N.P.L.) under agreements dated April 6th, 1971.

# Rip 9 - 84 - Tag Numbers 241209-M - 268-M, and 232441-M - 456-M

These claims were staked on April 7th, 8th and 9th, 1971, by Andrew Giesbrecht of Vancouver, B.C., and purchased by Corval Resources Ltd. under an agreement dated April 22nd, 1971.

The above claims have not been examined in the field, and information as to location has been received from the Company.

#### HISTORY:

It is not known when the property was first discovered, but a reference is found in the B.C. Minister of Mines Report 1936, where the property is referred to as the Coldwater. Three short adits and some surface stripping is described in the report. The work explored a narrow quartz carbonate vein carrying lead, zinc, copper, silver and gold values. It was located in the granodiorite apparently on the northern half of the claims.

The next information about the property is from 1951 in a report by Joseph T. Mandy, Ph.D., P.Eng. on the Keystone group of claims, which apparently covered approximately the same ground as the present property. Dr. J.T. Mandy, P.Eng., mentions in his report that: "The geology and related structure are favourable for the occurrence of important mineral deposits". He describes two types of mineralization; a series of quartz veins with high grade lead, zinc, silver and a deposit of scattered zinc, lead, in the dense fracturing of silicified limestone and rhyolite near the granodiorite contact.

Dr. J.T. Mandy recommends further underground work to outline the ore bodies. Only little exploration seems to have taken place on the property between 1936 and 1951.

A report from 1954 by Keith C. Fahrni, P.Eng., describes the southern half of the present property, where considerable underground work appears to have been carried out between 1951 and 1954 on narrow high grade veins of copper, silver, lead and zinc mineralization in the granodiorite. Mr. K.C. Fahrni, P.Eng., draws no conclusions about the property in his report. Considerable underground work was done around this time.

In 1965-66 part of the northern half of the present property, the HOPE claims, were under option to Anaconda American Brass Ltd., Western Exploration Division. The southern half of the present property was under option to Dorian Mines Ltd. a "controlled Alscope Consolidated Ltd. subsidiary". Anaconda carried out geochemical and geophysical surveys and bulldozer trenching. Dorian Mines Ltd. carried out about 5000 feet of stripping and 6662 feet of diamond drilling. This work will be discussed under appropriate headings under descriptions of the property. Orlly minor trenching has been carried out since 1966. The above two properties are now both under option to Corval Resources Ltd.

#### PHOTO-INTERPRETATION

Aerial Photographs B.C. 5167 173-179 and B.C. 5169 54 - 61 were purchased from the B.C. Lands Service in Victoria. A mosaic was constructed and topographic information and features believed related to the geology were traced onto a map after stereoscopic viewing of the photographs.

The mineralization known to the writer on the Corval Resources Ltd. claims was seen to be located within a zone of north-south striking lineaments. This zone varies in width from 500 feet to 1,000 feet approximately. It is well defined for a length of 2½ miles, extending one mile north of Dry Creek and one and a half miles south of Dry Creek. The zone is less well defined, and appears to split up and widen both to the north and south. It can be traced for a total distance of about seven miles, three miles north and four miles south of Dry Creek. The zone may extend further north in the bottom of Coquihalla Valley.

Rocks within the zone are known to be extensively brecciated, and it seems probable it is the location of faulting. One to one and a half miles west of the above zone another set of parallel lineaments can be seen extending four to five miles north-south. Other lineaments in the area occur primarily in three directions: 18° E, 63° E and 33° W of north. These lineaments are probably expressions of fracturing. The fracturing is most intense between the two north-south striking zones.

#### REGIONAL GEOLOGY:

The property covers a part of either a contact between the Eagle granodiorite and what is thought to be the Nicola group of rocks or a separate remnant of the Nicola group surrounded by granodiorite.

The granodiorite is of Upper Jurassic and/or Lower Cretaceous age. It intrudes the Nicola group on the north east, and borders onto the Jackass Group on the west. The western border may be an assumed fault, the Pasayten fault. It lies 3½ miles to the west of the property, and strikes north-westerly and dips south-westerly.

The granodiorite is moderately coarse grained equigranular. A specimen taken by Cairns (1924) had the following composition.

50% oligoclase 15-20% quartz 5-10% orthoclase

and about 20% green hornblende and brown biotite partly altered to epidote and chlorite. Muscovite is locally abundant, and the rock is then leucocratic. The rocks are extensively foliated. The foliation is parallel to the margins of the pluton and thus also parallel to the regional structure and the Pasayten fault. The foliation is either banded with segregation of the dark minerals or gneissic with oriented minerals and no segregation.

The Nicola group of rocks has been mapped (G.S.C.) as Upper Triassic rocks consisting of "schistose, dark green, locally massive, altered intermediate to basic hornblende, augite and feldspar porphyry associated with minor pelite. (fine grained clastic rocks of clay size shale, argillite, slate and phyllite), calcareous rocks and quartzite". The rocks strike parallel to the contact with the foliated granodiorite, and dip steeply north-east. On the contact the rocks are re-crystallized, cut by numerous sills and locally mineralized with iron and copper sulphides. The rocks west of the granodiorite belong to the Jackass Mountain group of Lower Cretaceous age, and consist largely of greywacke with some interbedded black argillite and conglomerate.

West of the Jackass Mountain group is found the Ladner group of lower and middle Jurassic pelite and volcanic sandstone. West of this again close to Hope is found the Paleozoic Hozameen Group, which consists of pelite, chert, basic volcanic rocks and minor limestone.

The basic structural activity in the area according to G.S.C. appears to have taken place in the mid-Cretaceous to early Tertiary time, and consisted of folding, thrust and reverse faulting west of the Eagle pluton and of foliation and uplifting of the pluton with little internal deformation. Much mineralization in the region is related to cretaceous faults.

The Eagle granodiorite extends southward onto the Princeton map sheet West half and a number of properties are described as occurring along its contact to the Nicola group. Several of these properties have mineralization similar to that on the Corval Resources Ltd. property at Coquihalla.

#### **CLAIM GEOLOGY:**

The claims cover a mineralized contact area between the Eagle granodiorite and metamorphosed and highly altered sedimentary rocks which are probably of the Nicola group but may be of the Hozameen group (Dr. J.T. Mandy, P.Eng. assigned these rocks to the Hozameen group).

The rocks of the Eagle granodiorite cover roughly the western half of the claim group while the sedimentary rocks occupy the eastern half. Granodiorite also outcrops a short distance south and south-east of the claims. The north-eastern part of the claims is covered with alluvial overburden, and it is not known if the sedimentary rocks on the claim ground connect to the Nicola group mapped (G.S.C.) 1½ miles N.E. of the claims.

The two main showings on the property have been slightly misplaced on the G.S.C. map 12-1969 Hope West Half. They are described in the G.S.C. Paper 69-47 Hope Map Area West Half as:

"Pyrite, galena, sphalerite, tetrahedrite, and rare chalcopyrite in quartz carbonate veins in granodiorite" and as "disseminated pyrite, sphalerite, galena and chalcopyrite in altered porphyritic quartz monzonite or quartz diorite".

The sedimentary rocks surrounded on at least three sides by the granodiorite have been very heavily altered. They consisted originally of volcanic tuffs and agglomerates and according to Dr. J.T. Mandy, P.Eng., of

limestone, conglomerate and possibly rhyolite. The rocks have been so heavily altered, however, that identification is difficult. There has been very extensive kaolinization and silicification as well as introduction of calcite, rhodocrosite, rhodonite and extensive pyritization. The same alteration has taken place in the granodiorite and the contact is often very indeterminate. Extensive oxidation and ubiquitous manganese staining further hide the geologic picture. Both the granodiorite and the sedimentary rocks have been fractured in a northerly and a north-easterly direction and the granodiorite also shows near horizontal fractures. Slickensides and gauged walls on the north easterly striking fractures indicate movement in this direction. The sedimentary rocks have been strongly and extensively brecciated.

The mineralization consists of pyrite, sphalerite, both marmatite and lighter coloured varieties, chalcopyrite, silver, probably in tetrahedrite, galena, specular hematite, magnetite, rhodocrosite, rhodonite and a number of oxide derivatives of these minerals. The mineral deposits consist of replacement type occurrences at or near the contact, and of disseminated mineralization, and fracture filling at and some considerable distance from the contact. Quartz-carbonate vein type mineralization has been explored by a few hundred feet of underground drifting. The minerals of economic interest in the contact area consist of sphalerite with associated cadmium, indium, copper and silver values.

Away from the contact zone in the granodiorite both south and east of the claim ground is found chalcopyrite in fine fractures and disseminated through the rock. Exceptionally high silver values are often associated with this chalcopyrite. The silver mineral is unknown. This type of mineralization seems to extend widely in the area, but its distribution and possible grade is not known. It is a porphyry type copper mineralization and may occur on the claim ground in its south eastern or its north western area.

#### **SAMPLES:**

Sample No. 1 (16910) – taken by the writer.

Granodiorite from near the contact zone.

Old surfaces on the sample are coated with a black manganese stain. "Fresh" surfaces show strong kaolinization of the feldspar and numerous oxide filled cavities. There is some fine grained quartz box-work and some comb structure. The sample contains disseminated chalcopyrite and an unidentified grey metallic looking mineral with good cleavage, high luster, and a white grey streak. The mineral may be sphalerite with relatively low iron content or possibly a vitreous mineral with black stain giving a metallic look.

The sample assayed:

Cu -	•	1.24
Zn -		1.40
Pb -		1.04
Ag -		21.4
Au -		.02
Cd -		.01
In -		not assaved

Sample No. 2 (16911) – taken by the writer.

This sample from the contact zone on the south end of the claims consists of highly kaolinized granodiorite. The sample is spotted with brown and black flecks of iron and manganese. Specular hematite and minor black sphalerite is disseminated through the sample. On fracture surfaces and to a lesser extent disseminated through the rock is pyrite and minor chalcopyrite.

The sample assayed:

Cu -	.02
Zn -	.12
Pb -	.05
Ag -	.4
Au -	Tr.
Cd -	Tr.
In -	not assayed

Sample No. 3 (16912) – taken by the writer.

This sample is from the contact zone on the north end of the claims. The sample is highly kaolinized and is

strongly brown and black coloured. No metallic minerals are visible. Some quartz boxwork and comb structure is visible. The rock type is not readily identifiable in the sample, but the location it came from indicates it is granodiorite near the contact to the sediments.

The sample assayed:

Cu -	.03
Pb -	.06
Zn -	.16
Ag -	.6
Au -	.01
Cd -	Tr.
In -	not assaved

Sample No. 4 (16913) – taken by Malcolm Mooney.

This sample consists of oxidized manganese stained kaolinized rock of undetermined original composition. The rock is heavily mineralized primarily with sphalerite but also with galena, pyrite, and specular hematite.

The sample assayed:

Cu -	.38	
Zn -	24.32	
Pb -	.07	
Ag -	2.7	
Au -	.02	
Cd	.14	
In -	not assayed	ĺ

Sample No. 5 (16914) - taken by Steve Petkovich.

This sample is from the south end of the property. It consists of heavy altered, kaolinized feldspathic rock, with considerable sphalerite, disseminated pyrite, and specular hematite.

The sample assayed:

Cu -	.05
Zn -	.65
Pb -	.15
Ag -	2.3
Au -	.08
Cd -	.004
In -	not assayed

Corval Resources Ltd. (N.P.L.) has done no work on the claims other than a quick geological examination, assaying of the above samples, and correlation of the available information, i.e. this report.

#### WORK DONE ON THE PROPERTY:

Work on the property has in the past centered at different times either on the north half or the south half of the present consolidated property. These two parts lie north and south of Dry Creek which bisects the claims. There is no reason or indication to lead to the belief that the mineralization is necessarily divided in two.

Geochemical surveying has been carried out on both the north half and the south half of the property. The results on the south half are not known, but are described as having given a "principal anomalous zone" 660 feet x 400 feet.

The geochemical survey on the northern half of the property by Anaconda gave anomalous values for zinc and partly for lead extending over an area from the western-uphill border of the claims down to the alluvial-bench gravel-overburden, and covers most of the RIP No. 1 claim and a large part of RIP No. 3. The anomaly may extend further both west-uphill — and to the north and south. The survey was terminated in these directions without locating the end of the anomaly. Toward the south the anomaly narrows down close to Dry Creek, but values may be located north of the survey. The overburden along the lower part of this creek may mask possible values. It seems very likely that the anomaly on the north side and the reported anomaly on the south side of the creek connect. The anomalous values are generally over 1000 R.P.M. in zinc, which is 4 or 5 times higher than the apparent background. The lead values are also anomalous over the same area toward the south, but restricted to

the north. Copper and molybdenum were analysed for but were not found to be anomalous in most cases. This is surprising in view of the widespread copper mineralization. Geochemical values in zinc are usually very mobile. In this case the values are of such high order and sufficiently widespread however that the source is thought to be a very significant exploration target.

An induced polarization survey was carried out on some part of the northern half of the claim ground by Anaconda, but no information is available regarding this survey.

Diamond drilling has been done on the southern part of the property at a reported geochemical anomalous zone by Dorian Mines Ltd.

Assay results and some geological information from this drilling are available in: Summary Report of Diamond Drilling by B.C. Macdonald, P.Eng., 6662 feet of drilling was carried out by Pacsac drill and by AXT core drilling. Below is a listing of the assays of diamond drill core as it appears in B.C. Macdonald, P.Eng., Report.

Hole No.	Footage	Silver	Copper	Zinc	Gross Metal Value
1	0 - 99 55 - 99 55 - 60 81 - 83 97 - 99	0.187 0.125	no assay	1.128 2.367 6.2 16.75 18.25	3.53 7.04
2	0 - 11 73 - 76	0.578	0.100	4.040 10.15	13.43
3	0 - 50	Tr.	0.157	Tr.	1.41
4	47 - 89.5 67.5 - 75 67.5 - 89.5	0.590	0.132	5.235 24.41 9.6	17.20
5	34 - 120 64 - 65 118 - 119	0.298	0.116	0.949 9.8 8.4	4.21
6	35 - 72	Tr.	0.144	Tr.	1.30
7	25 - 76 25 - 43.5 67 - 76	0.184	0.128	4.148 6.97 9.16	13.44
8	195 - 196 241.5-243.5	0.100 0.088	0.060 0.188	2.000 5.800	6.48 18.00
9	14.5-129-5	0.234	0.065	1.100	4.10
10	0-152 81-152	0.341 0.536	0.108 0.162	Tr. 0.580	1.45 3.89
11	7-157.5	0.449	0.072	Tr.	1.28
12	0-148	0.344	0.136	0.674	3.66
13	0-101	0.816	0.103	1.087	5.22
14	18 - 144.5	0.403	0.097	0.890	4.02
15	Abandoned				
16	30-72	0.249	0.143	0.579	3.32
17	0 - 86	0.140	0.153	0.277	2.40
18	163-179	1.162	0.063	0.053	2.35
19	12-47.8 126-278	0.736 0.595	0.077 0.062	0.075 0.064	1.94 1.58
20	12-200 200-250	0.318 0.747	0.097 0.190	Tr. 1.152	1.33 6.10

Hole No.	Footage	Silver	Copper	Zinc	Gross Metal Value
20	250-310	0.360	0.144	Tr.	1.80
21	403-406 427-435 543-545	0.950 0.200 1.250	0.010 0.070 0.050	11.230 1.970 4.200	33.99 6.62 14.38
22	9.5-43 201.5-217	0.900 0.820	0.076 0.200	3.680 3.100	11.61 11.94
23	25.5-50	0.944	Tr.	Tr.	1.32
24		Tr.	Tr.	Tr.	
25	8-45	0.210	0.097	2.260	7.72
26	241-330	0.274	0.053	1.250	4.49
27	Hi-Grade at 0-4	(sphalerite); not a	ssayed.		
28	0.30	0.232	0.192	3.950	13.51
29		Tr.	Tr.	Tr.	
30		Tr.	Tr.	Tr.	
31		Tr.	Tr.	Tr.	
32		Tr.	Tr.	Tr.	

Ag \$1.40/oz. Cu 0.45/lb Zn 0.145/lb

An attempt was made to plot up the drill results on sections, but not enough information is available regarding elevation of the drill holes, and in some cases attitudes of drill holes, to draw reliable conclusions from these sections, but they indicate a mineralized zone striking about NS and being 150 to 400 feet wide with the full width toward the east not being determined.

The mineralization seems to be weaker toward the south border of July No. 1 - No. 2, but is open toward the north. About 600 feet of strike length has been examined by drilling. The anomalous geochemical survey values indicate a possible additional extension of the zone for a further 3000 feet or more.

Section No. 7, which is 200 feet from the southern border of the July No. 1 - No. 2 shows a mineralized width of 250 feet where drill core assays average over \$5.00 in metal values of zinc, copper and silver (at \$10.145/lb. Zn, \$0.45/lb. Cy, \$1.40/oz. Ag).

Section No. 6, 270 feet from the southern border, shows a mineralized width of about 300 feet where the best mineralized central 150 foot width gave \$5.25 in metal values of zinc copper and silver at the same price. Samples taken on the property indicate that cadmium may add significant values. The above values are of course gross metal values, and are not necessarily recoverable.

No recovery tests of any kind have to the writer's knowledge been carried out on the property. From geological examination of grab samples, there seems to be no reason why metallurgical recovery should not be good.

The other sections showed in some cases wider widths of indicated lower values and some narrower widths of higher values, i.e. Hole No. 22 which gave \$11.61 in the above metal values over 33 feet or Hole No. 1 which gave \$7.04 in the same metal values over 44 feet. There is not sufficient information to draw conclusions about the correlation of mineralization between sections.

Some excerpts from Mr. B.C. Macdonald's Report "Summary Report of Diamond Drilling" will be of interest:

"Surface leaching was found to be extreme in most holes, extending to depths of 30 feet, with a gradual decrease after that horizon. Limonite and minor manganese oxide characterize the upper section, with zones often completely lacking in primary sulphides but heavy in pseudomorphics", and "Economic mineralization is principally in the form of sphalerite, with some recoverable values in both copper and silver. The sphalerite occurs in massive and disseminated form and varies from a yellow, translucent, amberoid type to typical 'blackjack'. Magnetite is often associated with the heavier concentrations which also show better than average copper and

silver values. It is felt that the zinc principally occurs as replacement lenses or zones with very little veining indicated. In one instance, the presence of quartz gangue would suggest the latter condition. Most of the better sections have been encountered at or near the volcanic-intrusive contact, with the bulk of the values favouring the intrusive. Very few commercial zinc values were found away from this contact within the volcanics, but any sections tested invariably showed low copper-silver values associated with pyrite."

Trenching with bulldozer has been carried out both on the south and north part of the property. Some geological information has been obtained from mapping in these trenches, but very heavy oxidation, leaching and staining limits the usefullness of these rock exposures particularly with respect to grade information. The principal features clarified in the trenching were the intrusive-volcanic contact, the strong brecciation in the volcanics, the mineralized fracturing in the intrusive and the extreme oxidation in near surface rocks.

Underground work has also been done on both the north and south ends of the property. Several adits have been put in, and crosscuts driven in to several vein structures in the granodiorite. The vein structures range in width from a few inches up to about 10 feet. According to Mr. Keith C. Fahrni, P.Eng., in his report "Report on the Stenvold Property", 1954 (south part of the present claim group). The veins are associated with monzonitic and andesitic dykes striking north south in the granodiorite. Values of from 45 to 75 oz. of silver have been obtained from one vein according to Mr. K.C. Fahrni. The large majority of the samples listed in that report are much lower in value, however. Dr. Joseph T. Mandy, P.Eng. Report "Report on the Keystone Group, 1951" (the north half of the present group) mentions four veins of interest ranging in width from 1.5 feet to 4.5 feet.

Dr. J.T. Mandy, P.Eng., considers the mineralization in these veins sufficiently encouraging to recommend continuing the underground work, to increase the ore reserves. He estimated an expenditure of \$60,000. for this work.

Some of the better grade samples listed by Dr. J.T. Mandy assayed as follows:

Width	Oz. Au./ton	Oz. Ag./ton	Pb %	<b>Z</b> n %
			<del></del>	
1'	.03	25.15	6.85	?
1'	.06	22.?	4.42	5.91
1.3'	.015	14.40	2.91	4.89
4.5'	1.36	2.10	Tr.	Tr.

His conclusion is: "It is considered that this ore deposit warrants detailed further exploration for the purpose of developing the indicated potentiality of a small tonnage medium grade, medium cost profitable producing mine".

All portals of underground working were completely or partly caved at the time of the writer's examination of the property, and no part of the underground workings was examined for safety reasons. Therefore no conclusion as to the possibility of a profitable underground mining operation on the property is offered. The exploration for a large tonnage low grade deposit amenable to open pit mining must certainly be the first priority, however, in view of Dr. J.T. Mandy's conclusion and with the addition of information about some good grade intersections in more recent drilling underground mining possibilities must be kept in mind.

Respectfully submitted,

"EGIL LIVGARD" Egil Livgard, B.Sc., P.Eng.

#### REFERENCES:

G.S.C. Princeton Map Area.

G.S.C. Memoir 139

G.S.C. Hope Map Area, West Half.

M.M.R. 1936

M.M.R. 1954

M.M.R. 1954

M.M.R. 1965, P.160

M.M.R. 1966, P.171

Report on Stenvold Property

Report on Keystone Property

Reference Maps:

Stonewall Mine

Geochemical Survey, Hope, B.C.

• / • ·

Sketch Map

Trenches

Claim Map

Map

Memoir 243, H.M.A. Rice, 1960.

Cairnes 1924

Paper 69-47, J.W.H. Monger, 1970.

D31-32, Coldwater (Golden Ledge Mine?)

Keystone (Golden Ledge Mine?)

,,

Keith C. Fahrni, P.Eng. Oct. 1954, Granby Copper Mtn.

(Lucky Claims, Julie claims)

Joseph T. Mandy, Ph.D. P.Eng. August 4th, 1951.

(Golden Ledge, Rip and Tab Claims)

by F.B.W. October 29th, 1948. 1" = 500? and Geol.

(Julie Claims, Lucky claims)

Anaconda Britannia Beach, 1" = 200', by Peter E. Hirst,

P.Eng., December 9th, 1965. (Rip and Tab Claims)

Trenches and Geological (Golden Ledge)

1" = 100"

Anaconda June 17th, 1966, P.A.L.

1" = 40', 4th April 1967 by R.Y. (Lucky & Julie Claims)

Survey 1" = 200', Anaconda.

Copy of above map with some survey elevations.

#### **CERTIFICATE**

I, EGIL LIVGARD, with business and residential addresses in Vancouver, British Columbia, do hereby certify that:

- 1. I am a consulting geological engineer.
- 2. I am a graduate of the University of British Columbia, B.Sc., 1960, Geological Sciences.
- 3. I am a Member of the Association of Professional Engineers of the Province of British Columbia.
- 4. From 1960 to 1970 I was engaged in mining and exploration geology in Canada and Norway.
- 5. I have not received, nor do I expect to receive any interest, directly or indirectly, in the properties described herein, or in the properties or securities of any company to which these properties may be sold.

DATED at Vancouver, British Columbia, this 26th day of April, 1971.

"EGIL LIVGARD"

Egil Livgard, B.Sc., P.Eng. Vancouver, B.C.

# TRI-CON EXPLORATION SURVEYS LTD.

Suite 200, 1405 HUNTER STREET NORTH VANCOUVER, B.C. 985-0601

April 7, 1971

Livgard Consultants Ltd. 1331 Marine Building Vancouver 1, B.C.

Dear Mr. Livgard:

This material is a preliminary attempt to evaluate the geochemistry of the Corval property. Considerably more interpretation could have been made were the topography, soil types and depths, and pH factors known for the area sampled. Some material I have been able to accumulate will be discussed briefly in the "General History" of the property. I will then deal with contamination factors and discuss the statistics enclosed. Finally I will discuss the over-all geochemical patterns on the property and then give my conclusions.

### **General History**

On the B.C. relief map the property is shown to lie between 5000-5500 feet in elevation; approximately 36 miles S-SW of Merritt. The over-all slope of this area is East to Coldwater Creek. The soils in this area are, for the most part, relatively arid of a friable sandy-clay mixture often strewn with gravels and glacial debris. They are an average to below average medium for ion transfer due to the lack of large amounts of organic acids and the moderate to low degree of precipitation. The patterns developed on the geochemical maps can therefore be interpreted as existing close to the source material. Discussion with Mr. J. Boraxo, head of the Anaconda Exploration Geochemical Division, led me to believe that there was considerable organic material present in the soils indicating a sampling depth of 3" - 5". If this information is factual, the organic material would "hold" lead ions, and values would be higher than they would normally be were the proper "B" horizon soils taken for analysis. Also, the organic material would account for some or all of the high molybdenum results as there were analytical errors in the analysis of molybdenum due to interfering organic acids in the colormetric analysis of soils during the time the samples were analysed at the Anaconda lab. (prior to and including 1966).

#### **Statistics & Contamination**

The enclosed statistical data has been used to approximate the population distribution and the threshold and anomalous areas on the property. It would appear that there are definite contamination problems on the property in respect to lead and zinc analysis, due to mine dumps and roads. A statistical approach to the property is then highly biased. The property would have to be divided into three distinct sectors for such methods to have interpretive value. (1) area of contamined soils (2) area of uncontaminated soils (3) area of soils taken from old stream beds or gravel deposits. For these reasons, the contour levels for lead and zinc were chosen randomly with the aim of discovering trends on the property. This method proved to be successful as the maps will verify.

#### **Geochemical Interpretation Maps**

#### Lead

Though the area around the mine dump and roads approaching it are highly suspect of contamination, there are areas of anomalous values which in the writer's opinion can be directly related to mineralization. Anomalous soils outside of the dump area show anomalous zones striking N-S in general. The main area of interest outside the dump area consists of the anomaly shown through HDD No. 2 and the anomaly existing on the intersection of Lucky No. 3 & 4. Trends show a possibility of a link-up between these two anomalous zones.

#### Zinc

Again, contamination is highly suspect around the dump area and immediate roads. In general, the anomalies trend N-S as do the lead anomalies, and in the majority of cases are coincident with them. By the

additional contouring of two intervals within the suspected contamination area, a distinct N-S trend was delineated and a more circular area to the west of this trend was distinguished giving a more definite pattern to this particular area. In the writer's opinion, there is a high probability that these trends reflect mineralized zones. The over-all intensity of the zinc values is encouraging and is indicative of mineralization. Unfortunately, a shortage of essential data on surface soils and topography makes it impossible to give an estimate on the probably percentages of zinc in the rock as interpreted from soil analysis.

#### **Conclusions**

- (1) The lead and zinc ions in the surface soils are thought to be near their source material due to the minimal amount of ion migration in soils of this general area. For this reason also, the surface soils would be representative of more sulfides in the source material than would be soils in an area of greater ion mobility.
- (2) Zinc and lead anomalies strike N-S and are in most instances coincident. Associated high copper values in these areas indicates againt the probability of the source of these anomalies being mineralization, as copper, zinc and lead mineralization most often occur together in varying amounts.
- (3) A more conclusive statistical analysis of the property would be time consuming and in the writer's opinion, more costly than warranted.
- (4) Molybdenum values on the property are suspect of error due to improper analytical techniques.

I trust this interpretation will aid you in the further exploration of the Corval property.

Yours truly, TRI-CON EXPLORATION SURVEYS LTD.

"GARRY L. ANSELMO" G.L. Anselmo President FILES SAVED

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SYSTEM - BASIC

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# TYPE IN LOWER BOUND, AND INTERVAL?0,100

# STATISTICAL PROPERTIES

NUMBER OF VALUES = 298 ARITHMETIC MEAN = 523.624

RANGE = 3795 (380 - 5)

VARIANCE = 390719 STANDARD DEVIATION = 625.075

95 PER CENT CONFIDENCE LIMITS = -726.527 TO 1773.77

# FREQUENCY DISTRIBUTION

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0	100	60	20.13	20.13
100	200	85	28.52	48.66
200	300	29	9.73	58.39
300	400	17	5.70	64.09
400	500	10	3.36	67.45
500	600	8	2.68	70.13
600	700	1	.34	70.47
700	800	9	3.02	73.49
800	900	10	3.36	76.85
900	3800 -	69 –	23.15	100.00
NOW AT END				

17:13 RAN O MINS 0.37 SECS

FROM	UP TO BUT NOT INCLUDING	G FREQUENCY	PER CENT FREQUENCY	CUM PER CENT FREQUENCY
900	1000	9	3.00	79.87
1000	1100	4	1.34	81.21
1100	1200	12	4.03	85.23
1200	1300	7	2.35	87.58
1300	1400	5	1.68	89.26
1400	1500	6	2.01	91.28
1500	1600	3	1.01	92.28
1600	1700	2	.67	92.95
1700	1800	0	.00	92.95
1800	- 3800	- 21	7.05	100.00
NOW AT END				

17:16 RAN O MINS 0.35 SECS

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TYPE IN LOWER BOUND, AND INTERVAL?0,10

# STATISTICAL PROPERTIES

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VARIANCE = 1432.87 STANDARD DEVIATION = 37.8532

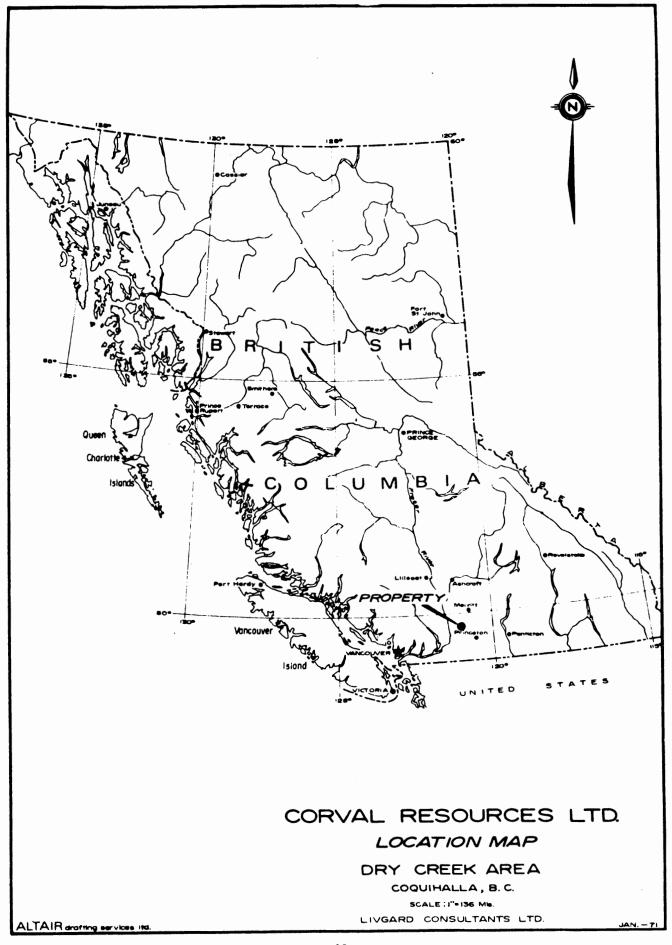
95 PER CENT CONFIDENCE LIMITS = -52.9686 TO 98.444

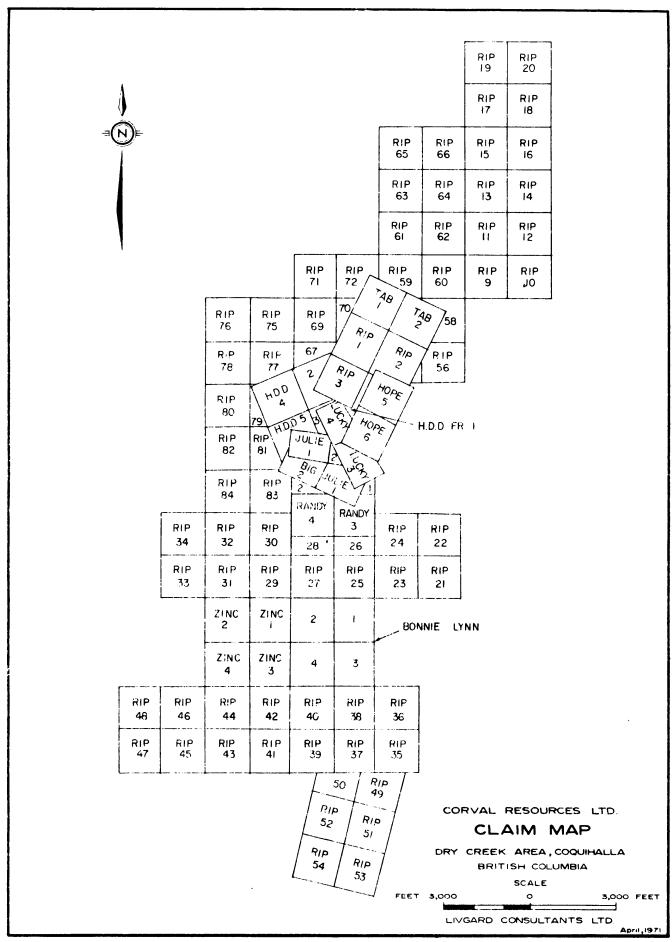
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20	30	39	13.45	80.00
30	40	23	7.93	87.93
40	50	5	1.72	89.66
50	60	9	3.10	92.76
60	70	2	.69	93.45
70	80	3	1.03	94.48
89	90	2	.69	95.17
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NOW AT LAID				

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16:34 RAN O MINS 0.35 SECS





#### Report on the

# CORVAL RESOURCES LTD. (N.P.L.)

#### Property

# NICKEL PLATE LAKE, B.C.

April 16th, 1971

Egil Livgard, B.Sc., P. Eng.

Vancouver, B.C.

#### INTRODUCTION:

The area is well known to the writer through several visits in the past. The property was examined in December 1970 while snow-covered, and the following report, requested by Mr. W.L.C. Newsom, is mainly based on knowledge gained on previous visits and on published material of the area.

#### SUMMARY AND CONCLUSIONS:

The property consists of 12 contiguous claims at Nickel Plate Lake, 18 miles west of Penticton, British Columbia. The claims cover gently sloping drift covered ground between Nickel Plate Lake and Riordan Mountain. The rocks in the area are mapped as the Upper Triassic Nicola Group, consisting generally of volcanic rocks, quartzite and limestone. These rocks are surrounded and intruded by various igneous rocks of the Nelson Plutonic Rocks. There has been much mineralizing activity in the area and economic deposits of gold have been worked. Other deposits of copper, molybdenum and tungsten have been explored.

Most of the known deposits are of the contact metamorphic type.

The claim ground has small exposures of skarn containing copper and minor tungsten.

The geology and mineralization in this general area, together with geological indications on the claim ground, suggests to the writer that the claims are centrally located in an area that holds considerable exploration interest, and the probability of finding economic deposits of copper, tungsten, or gold are considered to be good.

#### **RECOMMENDATIONS:**

The mineralization of interest is of a contact metamorphic type, and therefore is probably of a higher magnetic intensity than the surrounding rocks, and a magnetic survey should outline all areas of interest.

#### Stage I

A geochemical survey would further outline favourable area. Samples should be analysed for copper. Any area of coincident high magnetic and high geochemical soil values would be of particular interest, and would require further exploration. To carry out these surveys a grid system would have to be established.

# Stage II

The probability of finding coincident magnetic and soil anomalous values is considered to be high, and cat trenching would be required to expose bedrock in any such area.

The exposed mineralization should also be trenched to its limits.

A program of cat trenching is therefore recommended. The drift cover is thought to be light in most areas, and 200 hours of cat work should expose sufficient bedrock to make a preliminary evaluation of the mineralization.

## COSTS:

# Stage I

Grid System

15 line miles – line spacing 400', stations at 100', plus 2 miles tie lines.
17 miles @ \$100./mile

\$ 1,700.00

Magnetic Survey

15 line miles @ \$80./mile, plus report

1,200.00

Soil Survey		
Samples at 100' spacing, analysis and report	4,500.00	
Administration and Travel	1,000.00	
Consulting	500.00	
	8,900.00	
10% contingencies	890.00	\$ 9,790.00
Stage II		
Cat Trenching		
200 hours @ \$40./hour	8,000.00	
Mobilization	500.00	
Geological mapping and sampling of trenches.	500.00	
Administration, travel, analysis	800.00	
Consulting	500.00	
10,300.00	10,300.00	
10% contingencies	1,030.00	\$11,330.00
		\$21,120.00

#### PROPERTY:

The property consists of 12 contiguous claims named PATRICIA No. 1 - No. 12, staked on the 17th and 18th of December, 1970, and recorded on the 4th of January, 1971, by W.L.C. Newsom.

The PATRICIA No. 1 - No. 6 were examined in the field and found to have been staked properly, and to cover as nearly as could be determined the ground as outlined on the accompanying map. There may be some overlapping of previously staked ground along the western border.

# **LOCATION AND ACCESS:**

The property is located about 18 miles west of Penticton, British Columbia, and can be reached by a dirt and gravel road about 25 miles long. The road crosses the property in the summer and is open to Apex Ski Hill in the winter, two miles from the property.

# TOPOGRAPHY AND CLIMATE:

The claims border on Nickel Plate Lake on the west, and cover gentle slopes between the Lake and Riordan Mountain (6896' elevation) less than one mile east of the property. The claims are forest covered and few outcrops are found. The overburden is not thought to be deep. The elevation of the property is between 6100' and 6400' above sea level.

The precipitation is relatively light in the area, and the snow cover may reach about 4-5 feet and would stay from November till March or April. The temperature is moderate, and may go below  $O^0$  for only short periods in winter.

# HISTORY:

Old work on the claim ground consists of a few shallow hand trenches. The writer knows of no other work having been carried out on the ground covered by the claims.

# REGIONAL GEOLOGY:

The area was mapped in 1927 and 1958-59 by G.S.C. (see ref.) and shows the claim ground and the surrounding terrain as being drift covered but presumably underlain by rocks of the Upper Triassic Nicola Group, consisting of greenstone, tuff, quartzite, limestone argillite and schist. In the older mapping these rocks have been sub-divided into the Wolf Creek and the Hedley formations. The Wolf Creek formation generally comprises volcanic rocks and the Hedley formation the sedimentary rocks.

These rock types stretch from the edge of the map at the old Nickel Plate Mine at Hedley and northeast for 8 miles. The southeastern border is in part formed by a fault and in part by the contact to Cretaceous granodiorite. The granodiorite has also intruded the volcanic – sedimentary rocks to the northeast.

On the north the rocks border on a post-triassic granite.

Riordan Mountain, just east of the claim ground, is in part formed by an irregular dioritic plugg.

The three intrusive rock types of post triassic granite, granodiorite and diorite, gabbro, quartz diorite, have been mapped as Cretaceous Nelson plutonic rocks on the later G.S.C. Map.

Generally the granite rocks are found north of the claim area, the granodiorite south and east, while the third intrusive subdivision of diorite, gabbro, quartz-diorite forms dykes, sills and irregular intrusive masses in the Nicola group and other sedimentary and volcanic rocks in the area. Most mineralization in the area is associated with this latest intrusive.

The general structural features in the area consist of north-easterly and northerly striking faults which form some rock type boundaries, and to some extent seem to have guided intrusive activity.

Another notable feature of the area is the very large number of small intrusive bodies of various shapes occurring in an area from the claims and south.

Mineralization in the area has been extensive and significant. The most important being of course the gold mines at Hedley, 4-5 miles south-west of the claims. The mineralization at these mines consist of gold in contact metamorphic deposits. The rock is generally skarn-altered limestones of the Nicola Group. The minerals are pyrite, arsenopyrite, chalcopyrite and some sphalerite, galena and gold and bismuth tellurides. Other gold properties are found at Bradshaw Creek, 6 miles south of the claims, and at Apex Mountain,  $2\frac{1}{2}$  miles south east of the claims, but both of these are in rock types different from that at the claims. Both molybdenum and copper has also been produced from the area in small amounts.

At Riordan Mountain mineralization has been known since about 1900. It consists of copper and tungsten. The copper occurs as chalcopyrite in quartz veins and as blebs and stringers in skarn. During the war scheelite was discovered in the skarn and some exploration work, mainly hand trenching, was carried out.

#### **CLAIM GEOLOGY:**

The property is drift covered, and the only exposure is found in old trenches. These trenches expose skarn consisting primarily of brown garnet (garnetite). This rock contains scattered blebs and stringers of chalcopyrite and pyrrhotite. The extent of this mineralization is not known, but widely scattered float suggests a possible wide extent. The writer took two grab samples of this material from exposed bedrock. These assayed 1.08% Cu. and 0.57% Cu. and 0.02% and 0.04% Wo<sub>3</sub>.

Large angular boulders of dioritic composition are found in several places on the northern part of the property, suggesting underlaying intrusive rocks and hence a favourable contact zone.

Respectfully submitted

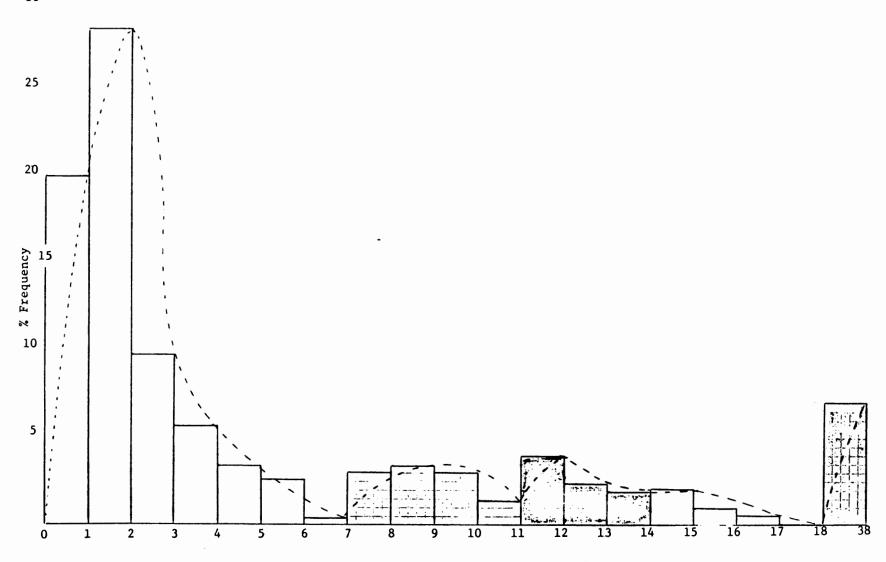
"EGIL LIVGARD" Egil Livgard, B.Sc., P. Eng.

# **CERTIFICATE**

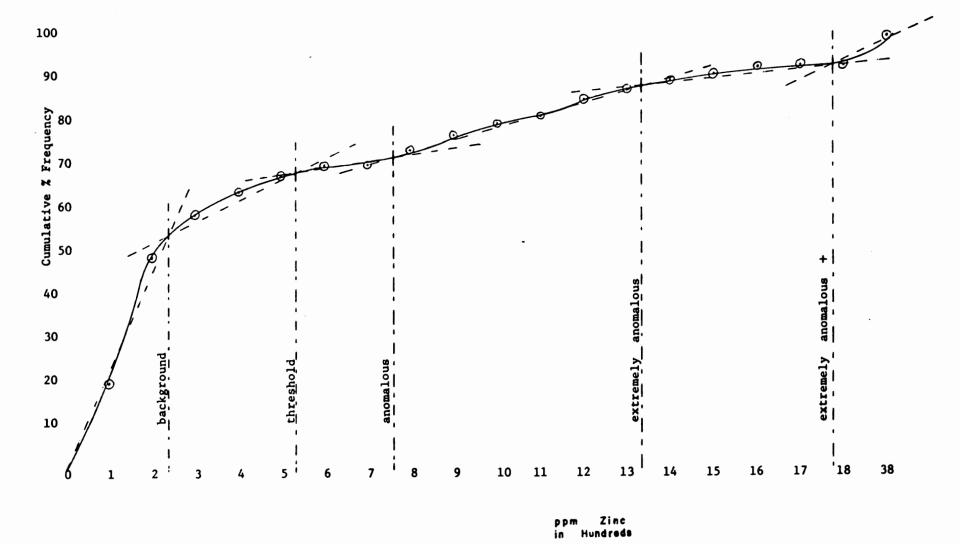
- I, EGIL LIVGARD, with business and residential addresses in Vancouver, British Columbia, do hereby certify that:
- 1. I am a consulting geological engineer.
- 2, I am a graduate of the University of British Columbia, B.Sc., 1960, Geological Sciences.
- 3. I am a Member of the Association of Professional Engineers of the Province of British Columbia.
- 4. From 1960 to 1970 I was engaged in mining and exploration geology in Canada and Norway.
- 5. I have not received, nor do I expect to receive any interest, directly or indirectly, in the properties described herein, or in the properties or securities of any company to which these properties may be sold.

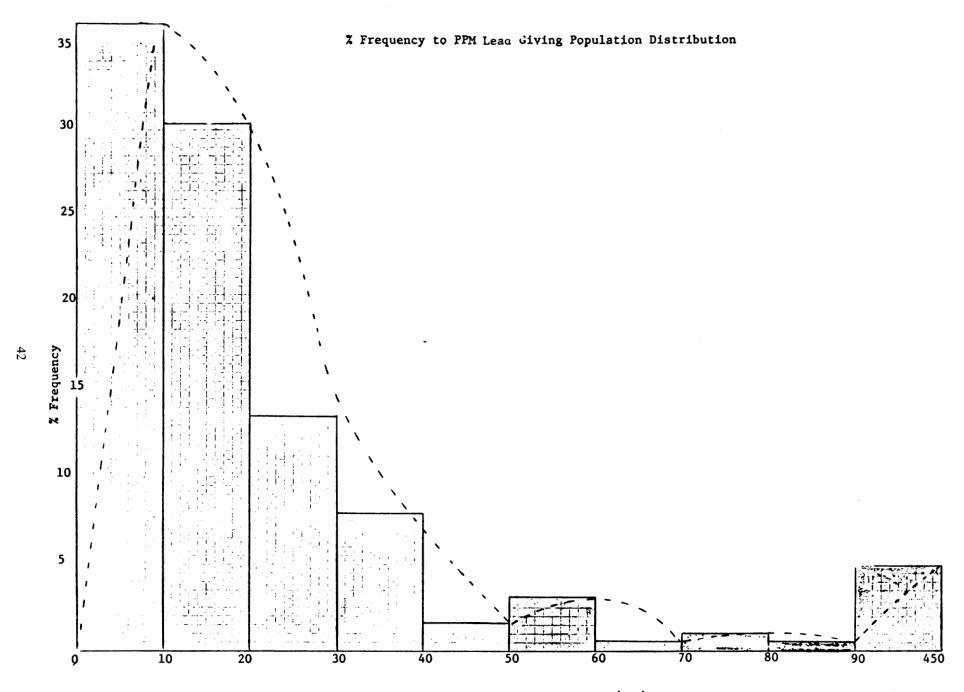
DATED at Vancouver, British Columbia, this 16th day of April, 1971.

"EGIL LIVGARD" Egil Livgard, B.Sc., P.Eng. Vancouver, B.C.



ppm - Zinc in Hundreds





opm Lead

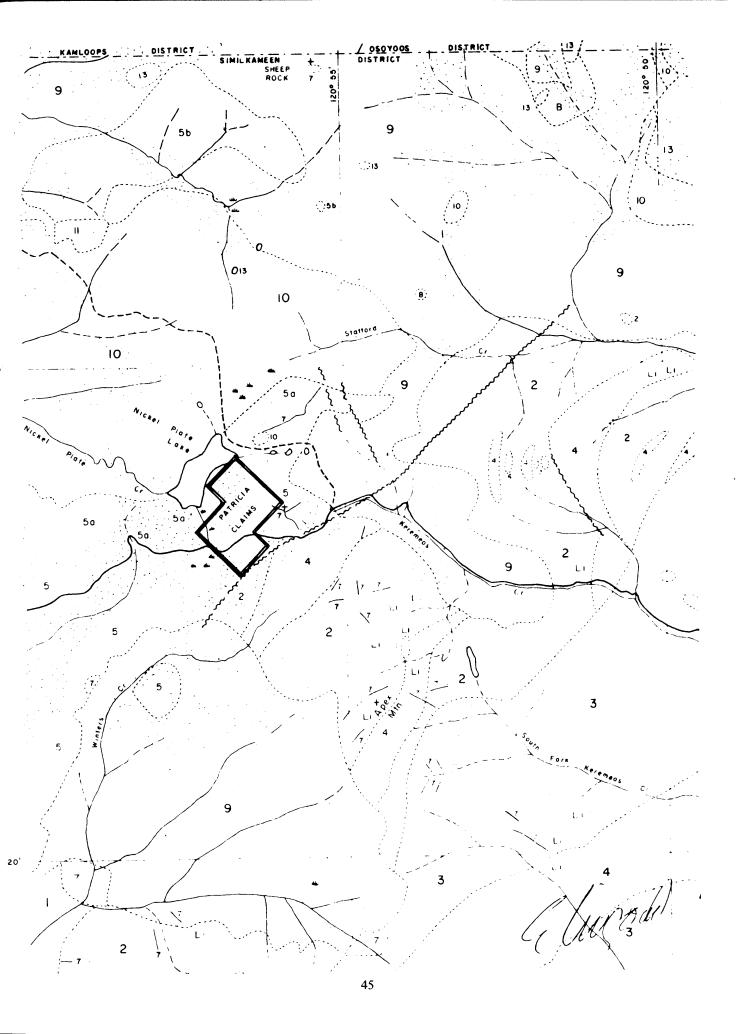
# LEGEND

# OLALLA

SIMILKAMEEN DISTRICT B. C. SCALE | I Inch to I Mile

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		_
	TERTIARY	
၁၊၀	13	MARRON FORMATION: mainly baselt and andesite, more acid laves in northern part of map-area, releted breccia, agglomerate and tuff, conglomerate
E NOZOIC		Systematics and fatt, conglowerate
CEI	12	SPRINGBROOK FORMATION mainly conglomerate, sonastone, shale, tuff, talus deposits
į	POST - TR	
		Granite, parphyry.
i	, <b>-</b> J	
	10	Granite.
	9	Granodiorite:
	<u> </u>	
	8	Syenite
210		
02010	7/	Mainly diorite, gabbro, quartz diorite
MES		
	6	Pyroxenite
	TRIASSIC	WOLFE CREEK FORMATION AND HEDLEY FORMATION
	5	(undifferentiated) 5 a, WOLFE CREEK FORMATION (mainly) andesite, basalt, breccia, tuff, minor sediments
	TRIACCIC	5b, HEDLEY FORMATION (mainly) quartzite, cherty quartzite , argillite, limestone - breccia tuff
	TRIASSIC	OLD TOM FORMATION mainly basalt and andesite
i	<u> </u>	(greenstone) related dioritic infrusives, chert
	3	SHOEMAKER FORMATION mainly chert, tuff, greenstone,
		limestone
	2	INDEPENDENCE FORMATION chert, greenstone, breccia,
		argillite , limestone.
		BRADSHAW FORMATION argillite, tuff, quartzite,
		breccia, andesite
	Α	Massive limestone, breccia, conglomerate (at base)
	لـــــا	Unconformably overlies (3) and (4), age unknown
	В	Crystalline rocks of granitic composition
	لـــــا	Origin uncertain
	Drift-d	covered area
	Limesto	one beds. Not all of the same age Li
	Road	well travelled <del></del>
	Road n	ot well travelled
	Stream	(position approximate)
	Marsh	
	Land	District boundary.



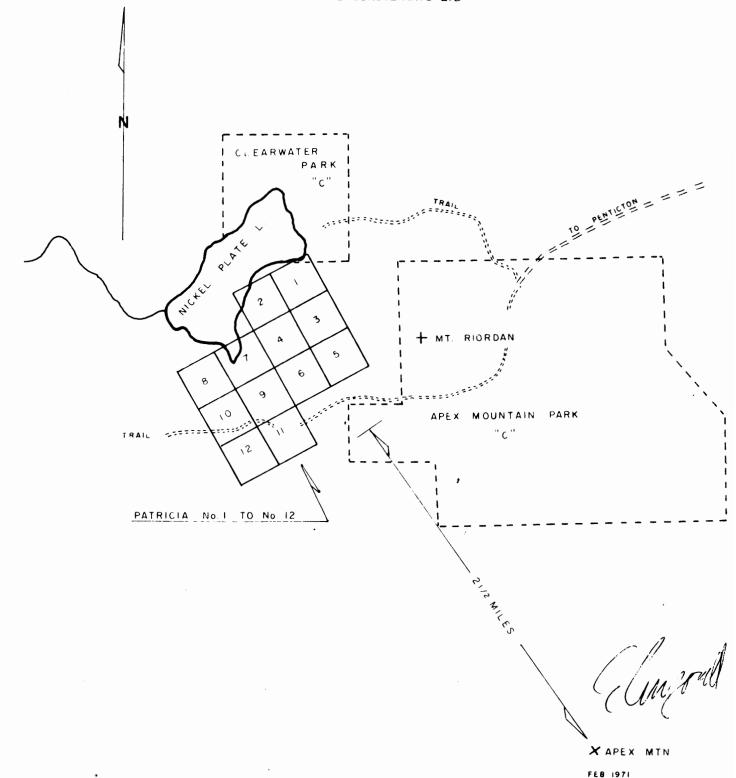
# PATRICIA CLAIMS

SIMILKAMEEN DISTRICT B.C.

SCALE: 1 = 3000

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