

Carolyn  
861975

**RICHARDSON GEOLOGICAL CONSULTING LTD.**

4161 CROWN CRESCENT, VANCOUVER, B.C. V6R 2A8  
TELEPHONE: (604) 224-1282

December 31, 1978.

Mr. G. S. W. Bruce, Vice President,  
Dome Mines Limited,  
600 - 365 Bay Street,  
Toronto, Ontario M5H 2V9.

GSWB	LBH	DRS	EAP
PROJECT			
FI	JAN	4 1979	LE
<input type="checkbox"/> PROPERTY	<input type="checkbox"/> DRILLING		
<input type="checkbox"/> L. CUTTING	<input type="checkbox"/> LEGAL		
<input type="checkbox"/> TECHNICAL	<input type="checkbox"/> MISC.		
<input type="checkbox"/> OTHER			

Dear Wally:

Orval Gillespie is away in Hawaii, and, as he really runs the place, I was not able to get the latest reports on Carolyn from his office. However, I think that the enclosed Statement of Material Facts is the latest one and that it contains sufficient data that you will be able to get a good background on the project. I tried to shorten the historical part, but Don Cochran's report of June 14, 1976, pp 1-12 is brief enough that I could not boil it down much.

I enclose the whole Statement of Material Facts because, if you wish for more detail, it gives Carolyn's financial picture and also progress reports on the underground work. I was not able to get an additional copy of the S & M F from the Vancouver Stock Exchange,

and have not had a chance to xerox it, so perhaps you could have xeroxes made of the parts you wish for your files.

I have heard nothing further about the feasibility study except that it is in progress.

With best wishes,  
Yours very truly,  
Paul.



THE GOVERNMENT OF  
THE PROVINCE OF BRITISH COLUMBIA

MAY - 8 1978

*Don Cochrane*

Form 12

Securities Act

Date Accepted  
For Filing May 3,  
1978

SUPERINTENDENT OF BROKERS  
AND  
VANCOUVER STOCK EXCHANGE  
VANCOUVER CURB EXCHANGE

STATEMENT OF MATERIAL FACTS

Name of Exchange

VANCOUVER STOCK EXCHANGE

Name of Issuer

CAROLIN MINES LTD.

Address of Head Office of Issuer

315 - 850 West Hastings Street, Vancouver, B.C., V6C 1E1

Address of Registered Office of Issuer

202 - 900 West Pender Street, Vancouver, B.C., V6C 1L2

Address of Records Office (Section 38 - Companies Act)

202 - 900 West Pender Street, Vancouver, B.C., V6C 1L2

Name & address of Registrar & Transfer Agent  
for Issuer's shares in British Columbia.

CROWN TRUST COMPANY, 455 Howe Street, Vancouver, B.C., V6C 2B2

Neither the Superintendent of Brokers nor the Vancouver Stock Exchange/Vancouver Curb Exchange has in any way passed upon the merits of the securities offered hereunder and any representation to the contrary is an offence.

# I. DETAILS OF THE CIRCUMSTANCES RELATING TO THE OFFERING OF SECURITIES.

## SECONDARY OFFERING

This Statement of Material Facts qualifies, as a secondary offering, the sale of 165,333 shares of Carolin Mines Ltd. (the "Company") in British Columbia through the facilities of the Vancouver Stock Exchange at the market price for the shares at the time of the sale. The Company will not receive any proceeds from the sale of the shares offered by the selling shareholders, all of which proceeds shall accrue to the selling shareholders. Details of the shares being offered are as follows:

<u>Selling Shareholder</u>	<u>Number of shares owned</u>	<u>Number of shares being qualified for sale</u>	<u>Number of shares to be owned on completion of offering</u>
Norvan Management ("Norvan") #400 - 1124 Lonsdale Avenue, North Vancouver, B.C.	166,666	133,333	33,333
Fore Management Ltd. ("Fore") #400 - 1124 Lonsdale Avenue, North Vancouver, B.C.	52,000	32,000	20,000

The sale of these shares is qualified for a period of three months from the effective date hereof.

Norvan is a partnership and the following persons own, directly or indirectly, in excess of a 5% interest in that partnership:

<u>Name</u>	<u>Address</u>	<u>Percentage interest in partnership</u>
H. E. J. Aveling	1326 Camwell Drive, West Van., B.C.	43.750%
E. E. Evernden	614 Lowry Lane, North Vancouver, B.C.	40.625%
Jack Hamer-Jackson	2254 Seymour Boulevard, North Vancouver, B.C.	7.8125%
D.W. Archibald	1797 Layton Drive, North Vancouver, B.C.	7.8125%

The following persons own, directly or indirectly, in excess of a 5% interest in Fore:

<u>Name</u>	<u>Address</u>	<u>Number of shares and Percentage interest</u>
Edward D. Ford	#400-1124 Lonsdale Avenue, North Vancouver, B.C.	25 Common - 50%
David T. Reesor	#400-1124 Lonsdale Avenue, North Vancouver, B.C.	25 Common - 50%
Jean Ford	340 Mulgrave Place, West Vancouver, B.C.	50 Preferred - 50%
Diane Brennan	#400-1124 Lonsdale Avenue, North Vancouver, B.C.	50 Preferred - 50%

The range of the market price of the shares of the Company and the volume of sales in each of the 4 weeks immediately preceding the date of the acceptance of this Statement of Material Facts on the Vancouver Stock Exchange is as follows:

<u>Week</u>	<u>Market Range</u>	<u>Volume</u>
April 3 - 7	\$2.60 - \$2.80	10,800
April 10 - 14	\$2.30 - \$2.70	25,600
April 17 - 21	\$2.30 - \$2.50	22,900
April 24 - 28	\$2.25 - \$2.40	18,950

The Company has no "market maker" of its shares, as such, in British Columbia.

The number and percentage of the issued and outstanding shares of the Company beneficially owned by promoters, directors and senior officers, as a group is 379,450 and 9.8%.

2. PARTICULARS CONTRIBUTING TO THE SPECULATIVE NATURE OF THE SECURITIES BEING OFFERED.

The properties of the Company are without a known body of commercial ore and the proposed program is an exploratory search for ore. Therefore, the shares of the Company are to be considered speculative securities.

No survey has been made of the Company's located mineral claims and therefore, in accordance with the mining laws of British Columbia (the jurisdiction in which such claims are situate), their existence and area could be in doubt.

3. DETAILS OF ANY MATERIAL CHANGES OR PROPOSED MATERIAL CHANGES IN THE AFFAIRS OF THE ISSUER.

There has been no material change or proposed material change in the affairs of the Company since January 13, 1978, the effective date of the last Statement of Material Facts of the Company.

4. THE ESTIMATED NET PROCEEDS OF THE ISSUER ARE TO BE SPENT.

There are no net proceeds to the Company relating to the offering of securities as set forth in this Statement of Material Facts.

5. THE FULL NAME, HOME ADDRESS AND CHIEF OCCUPATION, THE NUMBER OF SHARES OF THE ISSUER BENEFICIALLY OWNED, DIRECTLY OR INDIRECTLY, BY EACH SENIOR OFFICER OR DIRECTOR OF THE ISSUER AND, IF EMPLOYED DURING THE PAST FIVE YEARS, THE NAME OF EACH EMPLOYER.

<u>Name and Address</u>	<u>Chief Occupation</u>	<u>Number of Shares Of Issuer Benefi- cially Owned</u>
Orval Edward Gillespie 8999 - 164th Street, Surrey, B.C.	President, Carolin Mines Ltd.	214,500
Director and President		
Roy Gordon McKay, 903 Stanton Avenue, Coquitlam, B.C.	Secretary, Carolin Mines Ltd.	94,450
Director and Secretary		
Joseph Shirley LaBine, 106 - 561 Avenue Road, Toronto, Ontario	Retired	59,500
Director		
Alfred Edmunds Angus, 12474 Crescent Road, Surrey, B.C.	Field Manager for McIntyre Porcupine Mines Ltd.	11,000
Director		

6. PARTICULARS OF THE CORPORATE STANDING OF THE ISSUER.

The Company was incorporated in British Columbia as a specially limited company on February 3, 1966, by Memorandum and Articles.

The last annual report was filed with the Registrar of Companies of British Columbia on February 20, 1978. All filings required to be made by the Company under the Securities Act and Companies Act of British Columbia are up-to-date.

Audited financial statements of the Company for the year end May 31, 1977 were placed before the shareholders at the annual general meeting held November 18, 1977.

The Company, by its Memorandum is not restricted from carrying on any business. However the Company is primarily engaged in the business of acquiring and developing natural resource properties.

7. THE AUTHORIZED AND ISSUED SHARE CAPITAL OF THE ISSUER.

The authorized capital of the Company consists of 10,000,000 shares without par value, of which 3,868,332 have been issued as fully paid. There are reserved for issuance pursuant to the terms of the Loan Agreement dated May 12, 1977 between the Company and Norvan as from time to time amended (the "Loan Agreement"), 124,000 shares and for issuance pursuant to conversion rights of any debentures issued pursuant to the Loan Agreement, 366,667 shares.

8. PRICES AT WHICH SECURITIES OF THE ISSUER HAVE BEEN ISSUED DURING THE PAST YEAR.

During the past year the Company has issued the following shares:

On June 10, 1977 to Norvan, at a deemed consideration of \$2.40 per share, pursuant to the Loan Agreement	- 133,333 shares
On June 10, 1977 to Fore, at a deemed consideration of \$2.40 per share, pursuant to the Loan Agreement	- 32,000 shares
On August 12, 1977 to Norvan at a consideration of \$3.00 per share, pursuant to the debenture of the Company dated June 8, 1977 in the principal amount of \$400,000 and issued to Norvan	- 133,333 shares
On November 16, 1977, to Norvan, at a deemed consideration of \$3.00 per share, pursuant to the Loan Agreement	- 33,333 shares
On November 16, 1977 to Fore, at a deemed consideration of \$3.00 per share, pursuant to the Loan Agreement	- 32,000 shares
On December 9, 1977 to Norvan at a deemed consideration of \$2.80 per share, pursuant to the Loan Agreement	- 50,000 shares
On January 10, 1978 to Norvan, at a deemed consideration of \$2.75 per share, pursuant to the Loan Agreement	- 50,000 shares
On January 16, 1978 to Jimmy John, at a deemed consideration of \$2.50 per share, pursuant to an agreement for the lease and option to purchase of equipment	- 8,000 shares
On January 16, 1978 to Harold Jones, at a deemed consideration of \$2.50 per share, pursuant to an agreement for the lease and option to purchase of equipment	- 8,000 shares

On February 20, 1978 to Norvan, at a deemed consideration of \$2.60 per share, pursuant to the Loan Agreement	- 33,333 shares
On February 20, 1978 to Fore, at a deemed consideration of \$2.60 per share, pursuant to the Loan Agreement	- 32,000 shares
On March 5, 1978 to Jimmy John, at a deemed consideration of \$2.50 per share, pursuant to an agreement for the lease and option to purchase of equipment	- 16,000 shares
On March 5, 1978 to Harold Jones, at a deemed consideration of \$2.50 per share, pursuant to an agreement for the lease and option to purchase of equipment	- 16,000 shares
On March 20, 1978 to Norvan, at a deemed consideration of \$2.70 per share, pursuant to the Loan Agreement	- 50,000 shares
On April 14, 1978 to Jimmy John, at a deemed consideration of \$2.50 per share, pursuant to an agreement for the lease and option to purchase of equipment	- 8,000 shares
On April 14, 1978 to Harold Jones, at a deemed consideration of \$2.50 per share, pursuant to an agreement for the lease and option to purchase of equipment	- 8,000 shares
On April 28, 1978 to Norvan, at a deemed consideration of \$2.40 per share, pursuant to the Loan Agreement	- 50,000 shares

9. PARTICULARS OF ANY BONDS, DEBENTURES, NOTES, MORTGAGES, CHARGES, LIENS, OR HYPOTHECATIONS OF THE ISSUER.

The Company has outstanding four debentures issued to Norvan, one dated November 14, 1977 for \$100,000 principal amount maturing November 16, 1980, one dated December 6, 1977 for \$150,000 principal amount maturing December 10, 1980, one dated January 6, 1978 for \$150,000 principal amount maturing June 10, 1980 and one dated February 16, 1978 for \$400,000 principal amount maturing June 10, 1980, all securing as a first fixed charge the interests of the Company in the Ladner Creek Property and as a floating charge all other assets and undertakings of the Company. The debentures bear interest at the rate of 12% per annum, which interest will be payable on maturity. Each debenture is convertible, in whole or in part, at any time during its term, into shares of the Company at a rate of 1 share for each \$3.00 principal amount of the debenture converted. All debentures rank pari passu.



10. PARTICULARS OF IMPORTANT PROPERTIES PRESENTLY OWNED, LEASED, HELD UNDER OPTION, OR OPERATED BY THE ISSUER OR ANY SUBSIDIARY THEREOF OR PROPOSED TO BE OWNED, LEASED, HELD UNDER OPTION, OR OPERATED BY THE ISSUER OR ANY SUBSIDIARY THEREOF.

LADNER CREEK PROPERTY

(a) Summit Agreement

The Company by agreement dated June 7, 1973 as modified by an agreement dated for reference May 19, 1977 with Summit Mining Co. Ltd. (N.P.L.) ("Summit"), which has its postal address at Box 62, Hope, B.C., acquired from Summit an option to acquire a 100% interest in the following all of which are located in the New Westminster Mining Division, Province of British Columbia:

(i) Crown Grants (Kamloops Land Registry District)

<u>Name</u>	<u>District Lot No.</u>
Aurum #1 to #6 inclusive	1236 to 1241
Idaho	1234
Tramway	1235

(ii) Mineral Claims (New Westminster Mining Division)

<u>Name</u>	<u>Record No.(s)</u>
Home Gold #1 to #15	14723-14737
Gold Star #1 to #4	11365-11368
Cabin #1 to #14	11903-11916
Cabin #20 FR	11917
Cabin #21 FR	11918
Sylvia Fraction	13364

The shareholders of Summit are Hazel Hockins of Hope, British Columbia and Harold Hockins of 526 Kenchant, Quesnel, British Columbia.

(b) Additional Claims

The Company has also acquired through staking, mineral claims adjoining the Summit claims, as follows:

Name(s)

CARO #1 to #30	28614-28642
CARO #1FR to #6FR	28643-28647
DI (20 units)	34
PCR #1 (6 units)	89
PCR #2 (2 units)	43

The Company has been carrying out exploration activity on the Ladner Creek Property, in accordance with the suggested program of the Engineers as proposed in the Engineers' Report attached to this Statement of Material Facts, and will conduct further exploration as recommended by the Engineer. Since June, 1977, the Company has completed the surface surveying on the property and has completed the construction of a new access road. The camp facility and the muck storage area have been completed. Diamond drilling has commenced and underground decline work and cross-cutting, improving access road, car sampling of muck and environmental studies are being conducted on the property. The expenditures on the property since June, 1977 to March 15, 1978 amount to approximately \$1,059,000.

11. PARTICULARS OF THE COST OF PROPERTIES ACQUIRED BY THE ISSUER OR ANY SUBSIDIARY THEREOF WITHIN THE PAST THREE YEARS OR PROPOSED TO BE ACQUIRED BY THE ISSUER OR ANY SUBSIDIARY THEREOF.

LADNER CREEK PROPERTY

(a) Summit Agreement

To date, under the option granted to the Company by the Summit Agreement as referred to in Item 10, the Company has paid \$45,000 to Summit and \$10,000 has been paid to Summit by a previous operator of the property. A further \$10,000 is payable on June 30, 1978 and \$400,000 is payable within 6 months of the Company electing to place the property into production. The Company, under the Summit Agreement, has exclusive control over the mining property and is obligated to keep the mining property in good standing. The Company must elect, on or before June 30, 1978, whether or not to put the mining property into production.

(b) Additional Claims

The additional claims owned by the Company in the Ladner Creek Area were staked by the Company and there are no acquisition costs with respect thereto.

#### PORCHER AGREEMENT

By agreement dated January 6, 1976 the Company acquired an option to purchase all of the outstanding shares of Porcher Island Gold Mines Ltd., having its registered office at 1177 West Hastings Street, Vancouver, B.C. By allotting 5,000 shares to Porcher shareholders, the Company acquired the right to examine the mineral claims held by Porcher situated at the tip of Porcher Island in the Prince Rupert Assessment District. Under the agreement the Company was required to issue further shares to these shareholders to acquire the shares of Porcher. After reviewing the mineral claims and making the initial issuance of shares, the Company terminated the agreement with Porcher.

#### HILLS BAR MINERAL CLAIMS

By an agreement dated August 6, 1975, the Company acquired an option from Rachel Kent, Park Motel, 932-4th Avenue, Hope, British Columbia, and Charles Graham, P.O. Box 910, Merritt, British Columbia, to purchase the Hills Bar 1, 2 and 3, the MI 1 to 4 and the ME 1 to 14 mineral claims, situated in the New Westminster Mining Division of the Province of British Columbia. The option price was \$3,500 upon the execution of the agreement, which was paid, and further option payments totalling \$24,500, which was not paid. The agreement also required the expenditure of \$6,000 on the property. The Company has terminated its interest in the agreement.

12. THE NAME AND ADDRESS OF ANY PERSON OR COMPANY WHO OR THAT IS OR HAS BEEN A PROMOTER OF THE ISSUER WITHIN THE PRECEDING TWO YEARS AND THE NATURE AND AMOUNT OF ANYTHING OF VALUE RECEIVED OR TO BE RECEIVED FROM THE ISSUER

Orval E. Gillespie, 8999 - 164 Street, Surrey, British Columbia, and Roy G. McKay, 903 Stantan Avenue, Coquitlam, British Columbia, could be considered promoters of the Company. During the past two years, Mr. McKay has received \$9,000 as remuneration from the Company. Mr. Gillespie has received \$1,000 as remuneration and in December, 1976, pursuant to a stock option plan granted by the Company, purchased 40,000 shares of the Company at 65¢ per share.

13. THE NUMBER OF THE SHARES OF THE ISSUER HELD IN ESCROW OR IN POOL AND A BRIEF STATEMENT OF THE TERMS OF THE ESCROW OR POOLING AGREEMENTS.

A total of 104,150 shares of the Company are held in escrow by Crown Trust Company, 455 Howe Street, Vancouver, B.C. These shares may be released subject to the order of the Vancouver Stock Exchange and the office of the Superintendent of Brokers.

There are no pooling agreements with respect to the shares of the Company.

14. THE NUMBER OF EQUITY SHARES OF THE ISSUER OWNED BENEFICIALLY, DIRECTLY OR INDIRECTLY, BY EACH PERSON OR COMPANY WHO OWNS, OR IS KNOWN BY THE SIGNATORIES HERETO TO OWN BENEFICIALLY, DIRECTLY OR INDIRECTLY, MORE THAN 10% OF THE EQUITY SHARES OF THE ISSUER.

Those persons shown on the records of the Company as owning 10% or more of the shares of the Company are as follows:

<u>Name and Address</u>	<u>Number of Shares Owned</u>	<u>Percentage</u>
Vancouver Stock Exchange Service, 436 Howe Street, Vancouver, B.C.	513,802	13.3%
Westcoast Securities Limited, 306 - 845 West Pender St., Vancouver, B.C.	439,750	11.4%

The directors of the Company are not aware of who the beneficial owners of these shares of the Company are.

15. A BRIEF STATEMENT OF ANY MATERIAL LEGAL PROCEEDINGS TO WHICH THE ISSUER OR ANY OF ITS SUBSIDIARIES IS A PARTY OR WHOSE PROPERTY IS THE SUBJECT OF SUCH PROCEEDINGS.

None.

16. THE AGGREGATE, DIRECT OR INDIRECT, REMUNERATION PAID OR PAYABLE BY THE COMPANY DURING THE PAST YEAR TO INSIDERS OF THE COMPANY.

No remuneration has been paid by the Company to any of its insiders other than the \$6,000 paid to Mr. McKay.

17. BRIEF PARTICULARS OF ALL OPTIONS TO PURCHASE SECURITIES OF THE ISSUER UNLESS OTHERWISE DISCLOSED HEREIN.

None.

18. THE DATES AND PARTIES TO AND THE GENERAL NATURE OF EVERY MATERIAL CONTRACT ENTERED INTO BY THE ISSUER OR ANY SUBSIDIARY THEREOF WITHIN THE PRECEDING TWO YEARS WHICH IS STILL IN EFFECT AND NOT PREVIOUSLY DISCLOSED HEREIN.

On December 22, 1977 the Company entered into an agreement with Harold Jones of 2860 Airport Road, Richmond, B.C. and Jimmy John of 2993 Cedar Hill Road, Victoria. B.C. for the lease of certain vehicles and equipment for a period

of 4 months from December 26, 1977. The payment for the lease rental is the issuance to Messrs. Jones and John of 64,000 shares of the Company, 16,000 shares at the beginning of each month that such vehicles and equipment are being leased. The Company has also acquired an option to purchase such vehicles and equipment, the consideration for such purchase being the issuance of 150,000 shares of the Company. This agreement has been approved by the appropriate regulatory bodies.

19. PARTICULARS OF ANY OTHER MATERIAL FACTS RELATING TO THE SECURITIES BEING OFFERED AND NOT DISCLOSED UNDER ANY OTHER ITEM.

Under the Loan Agreement referred to in item 7 above, Norvan agreed to lend to the Company up to \$1,500,000 in four advances.

The first advance of \$400,000 under the Loan Agreement was made on June 10, 1977. The second advance of \$400,000 was made in three instalments, on November 14, 1977, December 9, 1977 and January 10, 1978. The third advance of \$400,000 was made or is being made in three instalments, on February 20, 1978, March 20, 1978 and April 20, 1978. An additional \$300,000 may be advanced not less than 60 days from the third advance.

Pursuant to the terms of the Loan Agreement, Norvan reserves the right not to make any further advances after the initial advance and the Company has the right to decline to take any additional advance beyond the first advance.

As consideration for Norvan Entering into the Loan Agreement the Company has agreed to issue to Norvan 499,999 bonus shares in the Company; 133,333 shares for each of the first three advances and 100,000 shares for the last advance. If the Company refuses to take any subsequent advance after the last advance made under the Loan Agreement, the Company is obligated to pay the bonus shares to Norvan for the next advance. Bonus shares for the first three advances have been issued by the Company.

As security for each advance, the Company is obligated to issue debentures for the principal amount of the advance. These debentures mature within 3 years of June 10, 1977 and have the terms of the outstanding debentures of the Company.

The Company has also agreed under the Loan Agreement to issue to Fore, as finder in respect of the above-mentioned loan, 32,000 shares in the Company at the time of each of the first three advances under the Loan Agreement and 24,000 shares at the time of the last advance under the Loan Agreement. Shares for the finder's fee have been issued for the first three advances.

The estimated net proceeds of the Company to be derived from the Loan Agreement, totalling \$1,500,000 are to be used on

the property of the Company located at Ladner Creek, British Columbia, in the New Westminster Mining Division, in accordance with the program which has been recommended by D.R. Cochrane, P. Eng. and D.J. Griffith, B.Sc. in their Engineering Report, a copy of which is included in this Statement of Material Facts. Reference is made to said engineering report and the progress reports thereon with respect to work which has been done on the property to date. The Company is obligated under the terms of the Loan Agreement to use the funds for the purposes as set forth above. The proceeds from each advance shall be used to carry out such portion of the program, as is possible, in the order set forth.

CAROLIN MINES LTD. (N.P.L.)

FINANCIAL STATEMENTS

FOR THE YEAR ENDED

31ST MAY, 1977.

# HARWOOD & GRAYSON

CHARTERED ACCOUNTANTS

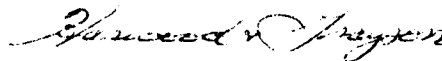
F. H. HARWOOD, C.A.  
W. H. GRAYSON, B.Com., C.A.

TELEPHONE: 682-2805  
837 WEST HASTINGS STREET  
VANCOUVER, B.C., V6C 1B6

## AUDITORS' REPORT TO THE SHAREHOLDERS

We have examined the balance sheet of Carolin Mines Ltd. (N.P.L.) as at 31st May, 1977 and the statements of changes in financial position and deficit for the year then ended. 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 31st May, 1977 and the results of its operations for the year then ended, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.



HARWOOD & GRAYSON

CHARTERED ACCOUNTANTS

5th July, 1977.



CAROLIN MINES LTD. (N.P.L.)

BALANCE SHEET AS AT 31ST MAY, 1977.

(With Comparative Figures for the Preceding Year)

	<u>ASSETS</u>	
	<u>1977</u>	<u>1976</u>
<u>CURRENT ASSETS</u>		
Cash	166.31	1,867.64
<u>NOTE RECEIVABLE</u>	-	146,326.68
<u>MINERAL CLAIM OPTIONS</u> (Notes 1 and 2)	40,500.00	30,500.00
<u>DEFERRED EXPENSES</u> (Note 1)		
Exploration and administrative	984,259.69	842,124.73
	<u>\$1,024,926.00</u>	<u>\$1,020,819.05</u>
	<u>LIABILITIES</u>	
<u>CURRENT LIABILITIES</u>		
Accounts payable	17,403.91	10,474.82
Directors' advances	-	5,000.00
	<u>17,403.91</u>	<u>15,474.82</u>
<u>MORTGAGE PAYABLE</u> - secured	-	60,000.00
<u>SHAREHOLDERS' EQUITY</u>		
Share capital -		
Authorized -		
5,000,000 shares with a par value of 50¢ each		
Issued - (Note 3)		
3,175,000 shares (1976 - 3,010,000 shares)	1,587,500.00	1,505,000.00
Paid-in surplus	258,455.65	158,705.65
Deficit - per statement	(838,433.56)	(718,361.42)
	<u>\$1,024,926.00</u>	<u>\$1,020,819.05</u>
APPROVED ON BEHALF OF THE BOARD:		
Director Orval Gillespie		
Director Roy G. McKay		

This is the balance sheet referred to in the report of  
Harwood & Grayson, Chartered Accountants, dated 5th July, 1977.

CAROLIN MINES LTD. (N.P.L.)

STATEMENT OF DEFICIT

FOR THE YEAR ENDED 31ST MAY, 1977.

(With Comparative Figures for the Preceding Year)

	<u>1977</u>	<u>1976</u>
<u>BALANCE AT BEGINNING OF YEAR</u>	718,361.42	52,226.73
Add: Westland Developments Ltd. Contingent liability	-	53,000.00
Cost of claims and options abandoned	-	414,285.00
Exploration and administrative expense re claims abandoned	<u>120,072.14</u>	<u>198,849.69</u>
<u>BALANCE AT END OF YEAR</u>	<u>\$838,433.56</u>	<u>\$718,361.42</u>

CAROLIN MINES LTD. (N.P.L.)

STATEMENT OF CHANGES IN FINANCIAL POSITION

FOR THE YEAR ENDED 31ST MAY, 1977.

(With Comparative Figures for the Preceding Year)

	<u>1977</u>	<u>1976</u>
<u>SOURCE OF WORKING CAPITAL</u>		
Sale of shares	182,250.00	100,897.40
Mortgage proceeds	-	60,000.00
Note receivable and accrued interest	<u>146,326.68</u>	<u>336.53</u>
	<u>\$328,576.68</u>	<u>\$161,233.93</u>
<u>APPLICATION OF WORKING CAPITAL</u>		
Westland Developments Ltd.	-	53,000.00
Option payments on mineral claims	10,000.00	9,500.00
Exploration expense	205,561.49	61,417.77
Administrative expense	56,645.61	36,276.95
Mortgage retired	<u>60,000.00</u>	<u>-</u>
	<u>\$332,207.10</u>	<u>\$160,194.72</u>
<u>INCREASE (DECREASE) IN WORKING CAPITAL</u>	(3,630.42)	1,039.21
<u>WORKING CAPITAL DEFICIT - Beginning of year</u>	<u>13,607.18</u>	<u>14,646.39</u>
<u>WORKING CAPITAL DEFICIT - End of year</u>	<u>\$ 17,237.60</u>	<u>\$ 13,607.18</u>

CAROLIN MINES LTD. (N.P.L.)

NOTES TO FINANCIAL STATEMENTS

AS AT 31ST MAY, 1977.

1. Values - The mineral claims presently held by the company were all located by the company and have no acquisition costs. Mineral claims formerly owned were written off to deficit as the claims were abandoned. The amounts shown for options and deferred expenses represent costs to date and do not necessarily reflect present or future values.

2. Options - The company has entered the following option agreements:

A. Agreement dated March 1966 to purchase mineral claims for \$102,000. The company has paid \$2,000. The balance is payable at the rate of 5% of net smelter returns.

By an agreement dated 11th May, 1973 Sonic-Ray Resources Ltd. was granted an option whereby it could earn up to a 75% interest in these claims by spending \$146,000 in exploration costs. The company has not confirmed that Sonic-Ray has maintained the claims in good standing.

B. Agreement dated June 1973 to purchase crown granted and located mineral claims from Summit Mining Co. Ltd. for a sum aggregating \$465,000 to be paid over a period of years. The company has paid \$35,000 on the agreements to 31st May, 1977.

C. Agreement dated 22nd August, 1975 to purchase "Hillsbar" claims for \$28,000 plus 2.5% of net smelter returns to a maximum of \$400,000. To date \$3,500 has been paid on this option. The company has now cancelled this agreement.

3. Capital stock

A. As at 31st May, 1977 shares issued, premiums and discounts related thereto were as follows:

	<u>1 9 7 7</u>			<u>1976</u>	
			Premiums less (discounts)	Net	Net
Consideration	Shares	Par value			
Cash	1,680,000	840,000	215,505.65	840,000	820,000
Mineral claims	750,000	375,000	-	375,000	375,000
Options	5,000	2,500	3,500.00	2,500	2,500
Services	165,000	82,500	96,950.00	82,500	20,000
Other	575,000	287,500	(57,500.00)	287,500	287,500
	<u>3,175,000</u>	<u>\$1,587,500</u>	<u>\$258,455.65</u>	<u>\$1,587,500</u>	<u>1,505,000</u>

- B. During the year ended 31st May, 1977 the company issued treasury shares as follows:

1. On 17th June, 1976 company issued 125,000 shares at a deemed value of \$156,250.00 to Precambrian Shield Resources Ltd. and Numac Oil and Gas Ltd. as payment in full for exploration work carried out on the company's properties.
2. On 14th January, 1977 the company issued 40,000 shares to Mr. Orval Gillespie at 65¢ per share.

4. Directors' remuneration

There has been \$4,500.00 paid the company's directors during the year ended 31st May, 1977.

5. Subsequent events

- A. The company entered into an agreement on 12th May, 1977 with Norvan Management whereby "Norvan" would loan Carolin \$1,500,000. As security for the loan Carolin will issue debentures each with a term of three years, which will bear interest at the rate of 12% per annum. Each debenture may be converted at any time into shares of the company at a conversion rate of \$3 per share. If the debenture is converted into shares the interest abates.

Norvan is also to receive 500,000 shares of Carolin for making the loan. The agreement provides for cancellation by either party after any stage. Carolin has agreed to issue Fore Management Ltd. a maximum of 120,000 shares as a fee for arranging the loan.

The advances due and bonus and finder's fee shares to be issued are as follows:

	<u>Advance</u>	<u>Bonus</u>	<u>Shares</u> <u>Finder's fee</u>	<u>Date</u>
1)	400,000	133,333	32,000	On approval of agreement
2)	400,000	133,333	32,000	90 days after 1st advance
3)	400,000	133,334	32,000	60 days after 2nd advance
4)	<u>300,000</u>	<u>100,000</u>	<u>24,000</u>	60 days after 3rd advance
	<u>\$1,500,000</u>	<u>500,000</u>	<u>120,000</u>	

The above agreement was approved and the first advance was received 10th June, 1977.

- B. In June, 1977 Carolin paid the 1977 instalment of \$10,000 on the option agreement with Summit Mining Co. Ltd.

CAROLIN MINES LTD. (N.P.L.)

SCHEDULE OF EXPLORATION AND ADMINISTRATIVE EXPENSE

FOR THE YEAR ENDED 31ST MAY, 1977.

	<u>1977</u>	<u>1976</u>
<u>EXPLORATION</u>		
Assay	69.00	1,464.15
Camp	2,174.69	1,991.04
Drilling	-	1,070.00
Engineering	11,441.23	25,497.05
Equipment operating	5,217.10	8,542.30
Insurance	888.00	480.00
Recording and staking	2,315.00	4,438.10
Supplies	1,818.09	949.45
Taxes and fees	1,167.88	2,245.00
Travel	9,162.85	5,214.10
Wage costs	15,057.65	9,526.58
Optionee expense	156,250.00	-
	<u>\$ 205,561.49</u>	<u>\$ 61,417.77</u>
<u>ADMINISTRATIVE</u>		
Audit and legal	30,487.41	14,717.97
Fees and licences	3,268.24	3,924.48
Interest	(720.52)	(6,618.85)
Office expense	12,715.54	14,077.11
Publicity	-	1,964.88
Transfer agent costs	3,360.20	2,119.50
Travelling	3,034.74	6,091.86
Salaries	4,500.00	-
	<u>\$ 56,645.61</u>	<u>\$ 36,276.95</u>
<u>TOTAL</u>	262,207.10	97,694.72
<u>BALANCE AT BEGINNING OF YEAR</u>	<u>842,124.73</u>	<u>943,279.70</u>
	1,104,331.83	1,040,974.42
<u>TRANSFERRED TO DEFICIT</u>	<u>120,072.14</u>	<u>198,849.69</u>
<u>BALANCE AT END OF YEAR</u>	<u>\$ 984,259.69</u>	<u>\$ 842,124.73</u>

CAROLIN MINES LTD.

INTERIM FINANCIAL STATEMENTS

FOR THE PERIOD ENDED

31ST MARCH, 1978.

# HARWOOD & GRAYSON

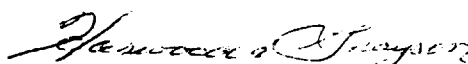
CHARTERED ACCOUNTANTS

F. H. HARWOOD, C.A.  
W. H. GRAYSON, B.Com., C.A.

TELEPHONE: 682-2805  
837 WEST HASTINGS STREET  
VANCOUVER, B.C., V6C 1B6

## ACCOUNTANTS' COMMENTS

We have prepared the accompanying balance sheet as at 31st March, 1978 and the statement of changes in financial position for the period then ended from the records of Carolin Mines Ltd. and from other information supplied to us by the company. In order to prepare these financial statements we made a review, consisting primarily of enquiry, comparison and discussion, of such information. However, in accordance with the terms of our engagement, we have not performed an audit and consequently do not express an opinion on these financial statements.



HARWOOD & GRAYSON

CHARTERED ACCOUNTANTS

Vancouver, B.C.  
14th April, 1978.



CAROLIN MINES LTD.

INTERIM BALANCE SHEET AS AT 31ST MARCH, 1978.

ASSETS

CURRENT ASSETS

Cash in bank 16,476.21

MINERAL CLAIM OPTIONS

50,500.00

DEFERRED EXPENSES

Exploration and administrative 3,386,572.62

\$3,453,548.83

LIABILITIES

CURRENT LIABILITIES

Accounts payable 78,529.39

Accrued interest on debenture loan 15,300.00

93,829.39

DEBENTURE LOAN PAYABLE (Note 1)

650,000.00

SHAREHOLDERS' EQUITY

Share capital -

Authorized - (Note 2)

10,000,000 common shares of no par value

Issued - (Notes 1 and 5)

3,802,332 shares

2,642,231.15

Paid-in surplus

905,921.85

Deficit - unchanged from 31st May, 1977

(838,433.56)

\$3,453,548.83

APPROVED ON BEHALF OF THE BOARD:

Director

Director

Subject to the accompanying comments of Harwood & Grayson,  
Chartered Accountants, dated 14th April, 1978.

CAROLIN MINES LTD.

STATEMENT OF CHANGES IN FINANCIAL POSITION

FOR THE TEN MONTHS ENDED 31ST MARCH, 1978.

SOURCE OF WORKING CAPITAL

Sale of shares (Note 5) 627,332 shares		1,702,197.35
Proceeds of loan (Note 1)	1,050,000.00	
Less: Converted into shares	<u>400,000.00</u>	<u>650,000.00</u>
		<u>\$2,352,197.35</u>

APPLICATION OF WORKING CAPITAL

Option payment on mineral claims		10,000.00
Exploration expense		1,090,374.38
Administrative expense		127,541.20
Finance fees		<u>1,184,397.35</u>
		<u>\$2,412,312.93</u>

DECREASE IN WORKING CAPITAL

60,115.58

WORKING CAPITAL DEFICIT - 31ST MAY, 1977

17,237.60

WORKING CAPITAL DEFICIT - 31ST MARCH, 1978

\$ 77,353.18

Represented by:

Current assets		16,476.21
Current liabilities		<u>93,829.39</u>
		<u>\$ 77,353.18</u>

(Prepared without Audit)

CAROLIN MINES LTD.

SCHEDULE OF EXPLORATION AND ADMINISTRATIVE EXPENSE

FOR THE TEN MONTHS ENDED 31ST MARCH, 1978.

EXPLORATION EXPENSE

Assay	9,369.32
Camp	20,274.29
Drilling and sampling	70,000.91
Engineering	67,844.58
Environmental study	11,577.91
Equipment	95,509.65
Equipment operating and supplies	11,121.93
Insurance	2,969.00
Mine tunnel	433,443.62
Muck handling and storage	88,425.53
Roads	131,757.99
Taxes	724.22
Travel and transportation	55,055.94
Wage costs	92,299.49
	<u>\$1,090,374.38</u>

ADMINISTRATIVE EXPENSE

Accounting and legal	35,454.80
Interest and bank charges	11,319.18
Office	28,143.10
Publicity	26,276.59
Salaries	6,680.00
Travel	12,412.28
Transfer agent	2,681.41
Fees and assessments	4,573.84
	<u>\$ 127,541.20</u>

FINANCE COSTS (Note 3)

\$1,184,397.35

TOTAL

2,402,312.93

BALANCE AT BEGINNING OF PERIOD

984,259.69

BALANCE AT END OF PERIOD

\$3,386,572.62

(Prepared without Audit)

CAROLIN MINES LTD.

NOTES TO THE FINANCIAL STATEMENTS

31ST MARCH, 1978.

1. The company entered into an agreement on 12th May, 1977 with Norvan Management whereby "Norvan" would loan Carolin \$1,500,000. As security for the loan Carolin will issue debentures each with a term of three years, which will bear interest at the rate of 12% per annum. Each debenture may be converted at any time into shares of the company at a conversion rate of \$3 per share. If the debenture is converted into shares the interest abates.

Norvan is also to receive 500,000 shares of Carolin for making the loan. The agreement provides for cancellation by either party after any stage. Carolin has agreed to issue Fore Management Ltd. a maximum of 120,000 shares as a fee for arranging the loan.

The advances due and bonus and finder's fee shares to be issued are as follows:

	<u>Advance</u>	<u>Shares</u> <u>Bonus</u>	<u>Finder's fee</u>	<u>Date</u>
1)	400,000	133,333	32,000	On approval of agreement
2)	400,000	133,333	32,000	90 days after 1st advance
3)	400,000	133,334	32,000	60 days after 2nd advance
4)	300,000	100,000	24,000	60 days after 3rd advance
	<u>\$1,500,000</u>	<u>500,000</u>	<u>120,000</u>	

Transactions related to this debenture loan are as follows:

<u>First Stage</u>	<u>Debenture loan</u> <u>advances</u>	<u>Shares</u> <u>issued</u>	<u>Values</u>
a) On 10th June, 1977 1st advance	\$ 400,000		\$
Bonus shares	133,333		
Finder's fee	<u>32,000</u>	165,333	396,799.20
<u>Second Stage</u>			
b) On 16th Nov. 1977 - advance	100,000		
Bonus shares	33,333		
Finder's fee	<u>32,000</u>	65,333	195,999.00
c) On 25th Nov. 1977 - advance	50,000		
d) On 10th Dec. 1977 - advance	100,000		
Bonus shares		50,000	140,000.00
e) On 10th Jan. 1978 - advance	150,000		
Bonus shares		<u>50,000</u>	<u>135,000.00</u>
forward	800,000	330,666	867,798.20

	Debenture loan advances	Shares issued	Total
brought forward	\$ 800,000	330,666	\$ 867,798.20
<u>Third Stage</u>			
f) On 20th Feb. 1978 - advance	100,000		
Bonus shares 33,333			
Finder's fee <u>32,000</u>		65,333	166,599.15
g) On 20th Mar. 1978 - advance	150,000		
Bonus shares		<u>50,000</u>	<u>135,000.00</u>
	1,050,000	445,999	1,169,397.35
On 11th August, 1977 the first stage of the debenture loan was converted into shares	<u>(400,000)</u>	<u>133,333</u>	<u>400,000.00</u>
Balance of debenture advances	<u>650,000</u>		
Shares issued		<u>579,332</u>	<u>\$1,569,397.35</u>

2. At the last annual meeting held in November, 1977 the company changed its authorized capital from 5,000,000 shares of 50¢ par value to 10,000,000 shares of no par value.
3. Finance fees. Market value of 445,999 shares issued as bonus and finder's fees - item 1 1,169,397.35  
Legal fees in preparing debenture 15,000.00  
\$1,184,397.35
4. The company has arranged to have Messrs. Harold Jones and Jimmy John maintain access to the mine and perform other services for the four months January to April, 1978. The arrangement provides that they be issued 16,000 treasury shares per month (Note 5).

5. During the period 1st June, 1977 to 31st March, 1978 the company issued the following treasury shares:

	<u>Shares</u>	<u>Value</u>
To Norvan Management and Fore Management Ltd. bonus shares and finder's fees (Note 1)	445,999	1,169,397.35
To Norvan Management on conversion of first stage \$400,000 of debenture loan	133,333	400,000.00
To Messrs. Jones and John (Note 4)	<u>48,000</u>	<u>132,800.00</u>
	<u>627,332</u>	<u>\$1,702,197.35</u>

The company may have to issue an additional 174,001 treasury shares as bonus and finder's fee should the balance of the advances authorized in the debenture be drawn. The company may have to issue an additional 366,667 shares should all advances under the debenture be drawn and the debenture then be converted into shares.

The company will have to issue 16,000 shares to Messrs. Jones and John for services in April, 1978.

6. Interest has been accrued on advances on the debenture loan to 31st March, 1978. The debenture provides that this interest will be cancelled should the option to convert the loan into shares be exercised.
7. During the ten month period remuneration paid a director amounted to \$5,000.00.

**Underground Exploration Proposal**  
**and**  
**Cost Estimate**  
**on the**  
**IDAHO GOLD ZONE**  
**of**  
**CAROLIN MINES LTD.**  
**(Situated near Hope, Southern British Columbia)**

by:

D. R. Cochrane, P. Eng.,  
and D. J. Griffith, B. Sc.,  
June 14, 1976,  
Delta, B. C.



**Cochrane Consultants Limited**  
4882 Delta St., Delta, B.C. V4K 2T8 946-9221  
Geotechnical Consulting / Exploration Services

geology  
geophysics  
geochemistry



*Figure 1. Idaho Side Hill (looking north west)*



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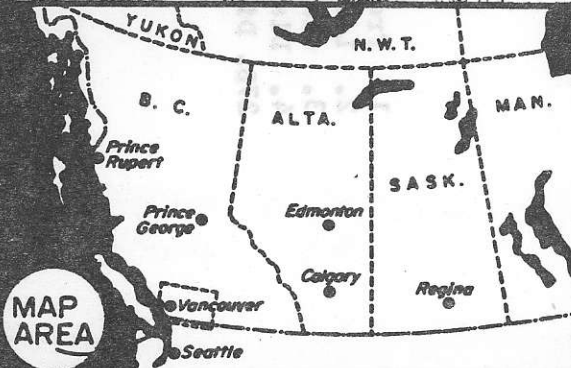
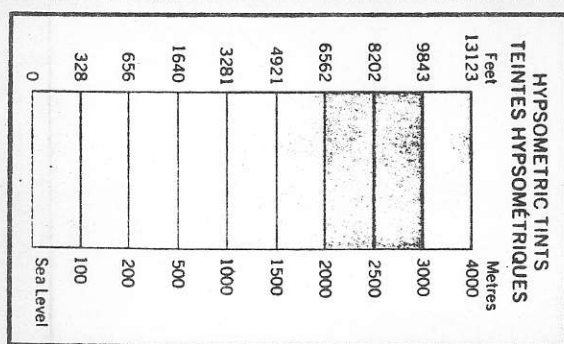
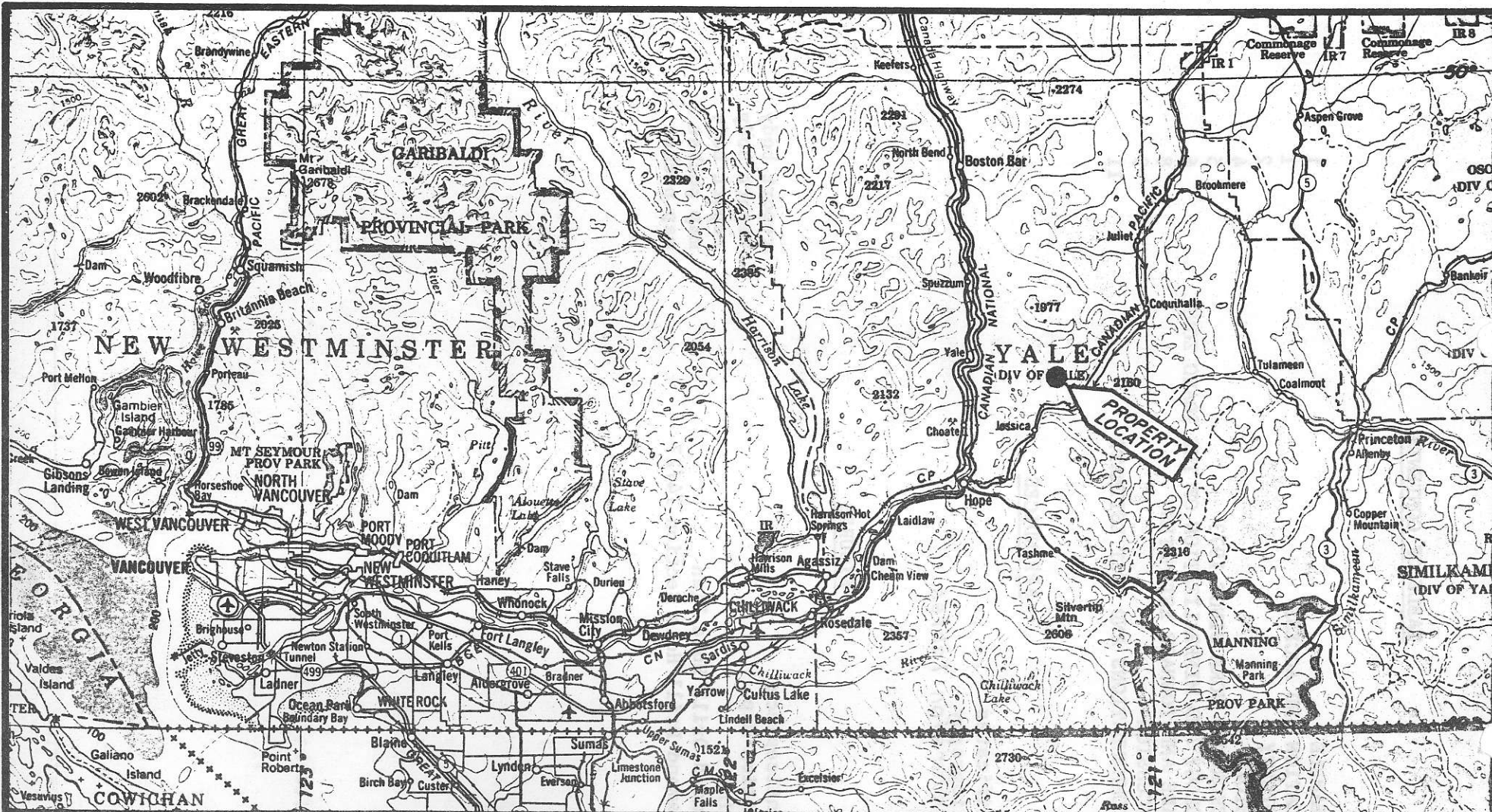
## APPENDICES

- I Certificates
- II Bibliography
- III *Conversion Tables*

## FIGURES

1. Fronticepiece	report body
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4. Diamond Drill Hole Plan	map pocket
27B. Diamond Drill Hole Section 14/27	map pocket





Above map is from Dept. of Energy, Mines & Resources "Vancouver NM 9/10", 1969.

## LADNER CR. PROJECT

Ladner Cr./Coquitlam R., B.C.  
New Westminster M.D.  
N.T.S.: 92H/11W

LOCATION MAP Figure 2

**CAROLIN MINES LTD.(N.P.L.)**

0 5 10 20 30 MILES

0 5 10 20 30 40 KILOMETRES

(1" = 15.75 MILES)  
DWN: B.A.C., FEB/77  
Cochrane Consultants Limited  
4882 Data Street — Data B.C.

#### A. PREAMBLE

In the spring of 1973, Carolin Mines Ltd. of Vancouver optioned a group of claims collectively known as the Ladner Creek group and situated just outside of Hope in Southern British Columbia. During 1973 and 1974 extensive exploration work was conducted, and was centered mainly on the Idaho Zone, a gold bearing sulphide-arsenide deposit adjacent to the former producing Aurum Gold Mine. In the spring of 1975, after expenditures of about \$750,000.00 by Carolin, the property was optioned by Precambrian Shield Resources and Numac Oil and Gas and exploration work continued until the fall of 1975, with additional expenditures of approximately \$280,000.00.

Early in June 1976, Carolin Mines Ltd. repurchased the property from Precambrian/Numac, and Carolin now owns, once again 100% of the property.

This note describes recommendations for additional work on the gold deposits and estimates costs. In keeping with modern practise, metric units have been used where applicable, and, in order to avoid possible misinterpretation, a conversion table is appended.

#### B. LOCATION AND ACCESS

The property is situated in the northern portion of the Cascade Mountains, some 20 air kilometers northeast of the town of Hope, in southern British Columbia. Most of the claims lie north of the "South West Fork", and west of the Main Fork of Ladner Creek. Facile road access to the southern claims sector is provided by a logging-

mining road which proceeds northerly then westerly from the Coquihalla River road at a point near kilometer 28 and close to "Jessica" a station on the now abandoned West Kettle Railway Line, The access road is easily passable by car or truck in the summer months, but is occasionally "washed out" in the freshet seasons. Access to the northernmost claims is by pack trail or by charter helicopter and the latter is available from a base in Hope.

The National Topographic System Code for the claims area is 92 H/11 (west  $\frac{1}{2}$ ); the latitude is  $49^{\circ}30'N$ , and longitude  $121^{\circ}15'W$ . (see Figure 1)

#### C. PROPERTY

Carolin Mines Ltd., with an office at 811-850 West Hastings in Vancouver, B.C. holds title by option to eight Crown granted claims and thirty-six (36) located claims and fractions from Summit Mining Co. of Hope, B.C. In addition, Carolin owns outright thirty-four (34) adjoining "CARO" claims and fractions. Precambrian Shield Resources Ltd., during their option period, staked additional claims which are now being transferred to Carolin. The claims form a contiguous block situated in the New Westminster Mining Division and are shown on B.C. Department of Mines claim Map 92H/11W (M). (See Figure 2)







The following tables list pertinent claims information.

TABLE A ORIGINAL OPTIONED MINERAL CLAIMS

1. Crown Grants

<u>Name</u>	<u>Lot No.</u>	<u>Acres</u>	<u>Expiry Dates*</u> (taxes paid to)
Aurum #1 to #6 incl.	1236 to 1241	227.52	July 2, 1976
Idaho	1234	40.75	" "
Tramway	1235	51.15	" "

2. Located Claims and Fractions

<u>Name</u>	<u>Record No.(s)</u>	<u>Expiry Date</u> (work recorded to)
Home Gold #1 to #15	14723-14737	August 21, 1982
Gold Star #1 to #4	11365-11368	July 28, 1980
Cabin #1 to #9, #11 & #13	11903-11/13/15	July 21, 1980
Cabin #10, 12 & 14	11916/18/20	July 21, 1982
Cabin #20 FR	11917	July 21, 1982
Cabin #21 FR	11918	July 21, 1980
Sylvia FR	11364	July 20, 1980

TABLE B CAROLIN MINES - list of claims and fractions owned outright

<u>Name(s)</u>	<u>Record No. (s)</u>	<u>Expiry Date</u>
CARO #1 to 23, and 25	28614-28639	June 29, 1980
CARO 24 & 26	28638/40	June 29, 1982
CARO #29 to #30	28641/42	June 29, 1982
CARO #1, & #3 FR	28643/28645	June 29, 1980
CARO #2 FR	28644	June 29, 1982
CARO #5 FR	28646	June 29, 1982
CARO #6 FR	28647	June 29, 1980

TABLE C List of Claims Staked by Precambrian Shield (Now being transferred to Carolin)

DI (20 units)	34	July 11, 1976
PCR #1 (6 units)	89	May, 1982
PCR #2 (2 units)	43	July, 1982

\*as of May, 1976:

The property is irregular in shape, but is roughly eight (8) kilometers long (NNW) by 2.5 kilometers wide and covers an area of about 15 square kilometers.



#### D. HISTORY

A detailed account of the history of the Coquihalla Gold Belt is to be found in the various reports of Dr. C. E. Cairnes and in numerous B.C. Dept. of Mines Annual Reports of the Minister of Mines of the area, to which the reader is referred to for historic detail.

A terse version is given in various Cochrane and Cochrane-Griffith reports and a brief summary is presented below.

The discovery of the lode-gold deposits of the Coquihalla gold belt was a by product of the famous late 1850 placer gold rush on the Fraser River which was in full bloom as British Columbia joined the Canadian Confederation as a Province in 1871. Detailed placer work, even to the point of "panning the soil" culminated in the discovery of the Aurum Mine mother lode which produced spectacular specimens of native free gold, after old timers tunnelled along the serpentine-slate contact in underground adits, cross cuts, stopes and raises. A staking rush followed the Aurum discovery in 1923 and Carolin Mines now owns a respectable portion of the subsequent "finds" which were once well known mining names in the early 1930s. They include the Aurum and Pipestem Mines (or Home Gold) from which recorded production totalled just over 800 ounces of gold to less well known prospects such as the Idaho, Tramway, Rush of the Bull, Golden Cache and Gem Mines. The gold mines in the belt all closed down prior to the Second World War. The present claim group owned by Carolin covers all of the above named gold occurrences and it is the first time in history that one company has had the opportunity of investigating a good portion of the Coquihalla Gold Belt in its entirety.



### E. BACKGROUND AND WORK SINCE 1973

Exploration work on the Ladner Creek property since 1973 has included close to 7000 meters of B.Q. wire line drilling (in 39 holes), geochemical soil sampling, assaying, geophysical surveying, geological mapping, transit surveying, trenching, road building, mill testing, and preliminary re-evaluation of the old mine workings.

Diamond drilling has been centered almost exclusively on the Idaho zone, and drilling has outlined a sizeable gold deposit and the "average", (statistically speaking), hole intersected 30 meters grading close to 0.10 troy ounces of gold per ton, and within this width there are wide sections that are significantly higher in grade. The Idaho zone has now been traced for almost 400 meters north-northwesterly and is still open to the north.

The results of the geochemical soil sampling work on the property is most encouraging and one of the anomalies was trenched and drill tested in the fall of 1975. This resulted in the discovery of the McMaster Zone, which is geologically and mineralogically similar to the Idaho, and is located just over one kilometer to the north. Several other geochemical "gold in soil" anomalies are, as yet, untested.

Two mill tests have been conducted on bulk samples from the Idaho Zone, by Britton Research of Vancouver, B.C. The results show that mineralized rock is amenable to direct cyanidation with recoveries in the order of 85 to in excess of 90%. At present, the proposed procedure would be to pre-concentrate the ore by floatation and then cyanide the float cons after regrinding.





F. GEOLOGY AND MINERALIZATION OF THE IDAHO ZONE

The geology of the area has been described in various G.S.C. publications including Summary Report, 1919 Part B; 1920 Part A; Memoir 139 "Coquihalla River Area" (1924); and Summary Report, 1929 Part A.

The Carolin claims straddle the north trending Coquihalla Serpentine Belt, which lies between the Paleozoic Cache Creek (Hozameen) series on the west, and the upper Jurassic Ladner slates on the east. Cache Creek rocks consist chiefly of interbedded cherts and shales and the Ladner Group is predominantly slates and argillites. The Idaho zone lies within what is believed to be the Lower Ladner Group and the regional trend of the host rocks is northwesterly. Rock units dip at steep to moderate angles northeasterly in the Idaho Zone area. The serpentine contact is some 200 to 300 meters west of the Idaho Zone, and this contact is nearly vertical. The host rocks of the Idaho Zones are greywackes, argillites and slates which have been variously albitized, carbonatized and silicified. The upper Idaho mineralized band appears to conform to the general bedding attitudes of the Ladner Slates.

In the Idaho Zone anomalously high gold values are found in silicified albite-carbonate bands which contain up to 20% by volume sulphides and arsenides. Normally pyrrhotite and pyrite are the most abundant metallic minerals followed by arsenopyrite and chalcopyrite. Visible native gold is not common, and the deposit may be described as a "no see um".



The sulphides and arsenides occur in streaks and bands within the altered fractured host rocks as well as in disseminations for some distance on each side of the well mineralized zones. Gold values are moderately uniform and the gold appears to be associated with pyrite (see report by Dr. A. J. Sinclair).

A generalized and simplified vertical geological section through the Idaho from top to bottom may be described as follows:

- (a) non mineralized argillite
- (b) grey green greywacke, becoming fractured and chloritic
- (c) upper mineralized Idaho Zone of albite-carbonate rock containing appreciable gold values
- (d) black to grey (graphitic) slates
- (e) lower mineralized Idaho Zone
- (f) unmineralized greywacke to conglomerate with narrow mineralized bands.

Mineralization is best classified as A. H. Lang's "E" type of ore, that is "sulphide replacement--consisting chiefly of auriferous arsenopyrite, pyrite and pyrrhotite."

Silver values are generally low (i.e., less than 1 oz. Ag/ton) and copper is often present in the 0.01 to 0.03% range within the auriferous zones.



G. GRADE and TONNAGE ESTIMATES

Grade and tonnage calculations have kept pace with drilling since late in 1973. The following table lists current estimates and references are described (to and including hole #39).

<u>Tonnage</u> <u>(millions of short tons)</u>	<u>Average Grade</u> <u>(Au oz./ton)</u>	<u>Remarks</u> <u>and References</u>
2.19	0.110	Griffith/Cochrane: Drill indicated assuming continuity between drill fences, fifty feet each side rule, 0.050 oz./ton cut off.
2.716	0.113	Clarke: Drill indicated and possible, 0.050 oz./ton cut off.
1.369	0.163	Clarke: Drill indicated and possible, 0.090 oz./ton cut off.
4.2	0.098	Montgomery: Geological reserves, geological cut off.
1.7	0.148	Montgomery: Geological reserves, 0.090 cut off grade.



Preliminary statistical computer analysis by Montgomery and Sinclair have determined that the following important relationships exist:

(a) Statistically, the Idaho Zone is remarkably uniform and no major surprises (i. e. lack of continuity between drill fences) are anticipated.

(b) The "statistical" range of sample correlation is 150 feet and interpolation and extrapolation of data is viable up to 500 feet.

#### H. DISCUSSION

Exploration work on the Ladner Creek property and in particular the exploration work on the Idaho Zone to date has determined that:

(a) mineralization consists of pyrite, pyrrhotite, arsenopyrite and fine free gold in an albite-carbonate-quartz-chlorite host rock.

(b) the mineralized bands appear to be conformable to bedding in the Ladner slates and several such bands exist within the sedimentary pile (i.e. upper upper Idaho, upper Idaho, lower Idaho, upper McMaster, lower McMaster, etc.)

(c) the geochemical soil sampling results suggest that other auriferous bands are present on this property, and in addition, that the intrusive, located in the center of the property, is also mineralized with anomalously high amounts of gold.



(d) The Idaho zone consists basically of two limbs, which intersect on the west side, and plunge and dip at moderate angles to the north. The average drill hole intersected 30 meters of 0.1 ounce per ton gold and the zones are open to the north.

(e) Mill tests have shown the auriferous zone material is amenable to cyanidation within acceptable limits of recovery.

(f) The Idaho Zones are truncated (i.e. outcrop) in the south by topography, and rakes into the hillside so that surface diamond drilling to the north requires continuously increased dead rock drilling. (hole 37, the most northerly is 1618 feet deep). The surface diamond drill coverage is therefore restricted and widespread at the north end of the deposit.

(g) It is now, therefore, more economically expedient to underground develop the deposit, and drill and test from underground rather than to drill and further develop from surface. Long surface drill holes are deflecting to such an extent that target area intersection is not always possible; and it is now economically unjustified to correct the deviation (wedge) in all long surface holes.

(h) Underground drifting in the Idaho Zone is now required in order to provide:

1. first hand knowledge of the horizontal, vertical and lateral extent of the deposit.
2. access for underground drilling.
3. bulk samples for assaying, mill testing and geological investigations.
4. determine the continuity of the deposit between drill hole fences, especially at the north end of the deposit.



I. RECOMMENDATIONS and COST ESTIMATE

In view of the foregoing, the author strongly recommends further detail engineering studies and an underground exploration test of the Idaho Zones. This program should be somewhat flexible, and, in addition, due to the current inflation trends, a contingency factor of 20% has been used in place of the 1970 10%, and 1974-5 15% figure. The purpose of the program is twofold, namely:

(a) to test the lateral, vertical, and currently "drilled off" length of the Idaho, in order to more accurately estimate reserves in this area; and in addition, to determine suitable mining and milling practices; and

(b) to test the northerly extension of the deposit.

A detailed cost estimate of the recommended program is presented below:

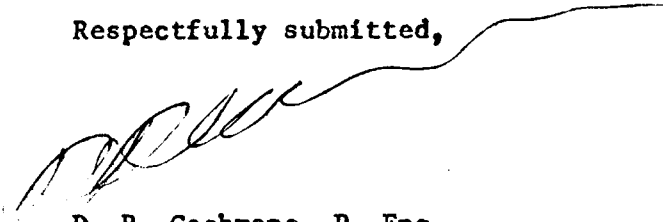
1. Rehabilitate access road from the Coquihalla to the Ladner Creek bridge.	\$ 2,500.00
2.* Construct a new road from Ladner Creek bridge to portal site.	12,500.00
3. Prepare portal and buildings site	12,500.00
4. Prepare muck storage (sample) space	5,000.00
5.* Erect dry, warehouse-shop, first aid facilities and office building (based on 6 mo. lease arrangements and including moving).	20,000.00
6. Survey and collar portal	6,000.00
7. Exploration decline, keeping to 15%, and "in ore" (as close as possible), 600 metres @ \$490.00 per metre	294,000.00



8. Exploration cross-cutting, test raising, drill station slashing, 350 metres @ \$400.00 per metre	\$140,000.00
9. Exploration winze from north end of the main decline to test the northerly persistence of zones, 300 metres @ \$500.00 per metre	150,000.00
10. Underground diamond drilling, including logging and assaying, 6,000 metres @ \$40.00 per metre	240,000.00
11. Mill testing, assaying underground muck, geological mapping, etc.	50,000.00
12. Test stoping	47,500.00
13. Transportation and communications	15,000.00
14. Engineering and supervision	42,500.00
15. Contingencies @ 20% of sub-total of \$1,037,500.00	207,500.00
	<hr/>
<u>TOTAL</u>	\$1,245,000.00
<u>SAY</u>	\$1,250,000.00

If part 9, the north exploration winze to test the persistence of the zone to the north is unsuccessful, then a full feasibility study of the deposit, and the method, rate, and economics of mining, would be required. If part 9 of the program is successful, additional funds will be required in order to further explore and delimit the extent of the mineralized zones.

Respectfully submitted,



D. R. Cochrane, P. Eng.,  
June 13, 1976, Delta, B. C.



## APPENDIX II

### Bibliography:

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## Conversion Tables

Simple Conversion Table of Length

Inches	1	2	3	4	5	6	7	8	9	10	11	12
Centimetres	2.54	5.08	7.62	10.16	12.70	15.24	17.78	20.32	22.86	25.40	27.94	30.48 (approx 0.3 m)
Feet	1	2	3	4	5	6	7	8	9	10		
Metres	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4	2.7	3.0		
Miles	1	2	3	4	5	6	7	8	9	10		
Kilometres	1.6	3.2	4.8	6.4	8.0	9.7	11.3	12.9	14.5	16.1		

Simple Conversion Table of Weight

Ounces (av)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Grams	28.3	56.7	85.0	113.4	141.7	170.1	198.4	226.8	255.1	283.5	311.8	340.2	368.5	396.9	425.2	453.6*
Pounds	1	2	3	4	5	6	7	8	9	10						
Kilograms	0.45	0.91	1.36	1.81	2.27	2.72	3.18	3.63	4.08	4.54						

\* (approx 0.45 kg)

Simple Conversion Table of Area

Square Inches	1	2	3	4	5	6	7	8	9	10
Square Centimetres	6.45	12.90	19.36	25.81	32.26	38.71	45.16	51.61	58.06	64.52
Square Feet	1	2	3	4	5	6	7	8	9	10
Square Metres	0.09	0.19	0.28	0.37	0.46	0.56	0.65	0.74	0.84	0.93
Acres	1	2	3	4	5	6	7	8	9	10
Square Metres	4 047	8 094	12 141	16 187	20 234	24 281	28 328	32 375	36 422	40 469

Simple Conversion Table of Volume

Ounces (fl.)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Millilitres	28.4	56.8	85.2	113.7	142.1	170.5	198.9	227.3	255.7	284.1	312.5	341.0	369.4	397.8	426.2	454.6
Ounces (fl.)	17	18	19	20												
Millilitres	483.0	511.4	539.8	568.3 (approx. 0.57 L)												
Pints	1	2	3	4	5	6	7	8	9	10						
Litres	0.57	1.14	1.70	2.27	2.84	3.41	3.98	4.55	5.11	5.68						
Gallons	1	2	3	4	5	6	7	8	9	10						
Litres	4.5	9.1	13.6	18.2	22.7	27.3	31.8	36.4	40.9	45.5						

.. from "Metrics &amp; Measurements, Canada Metric Commission.

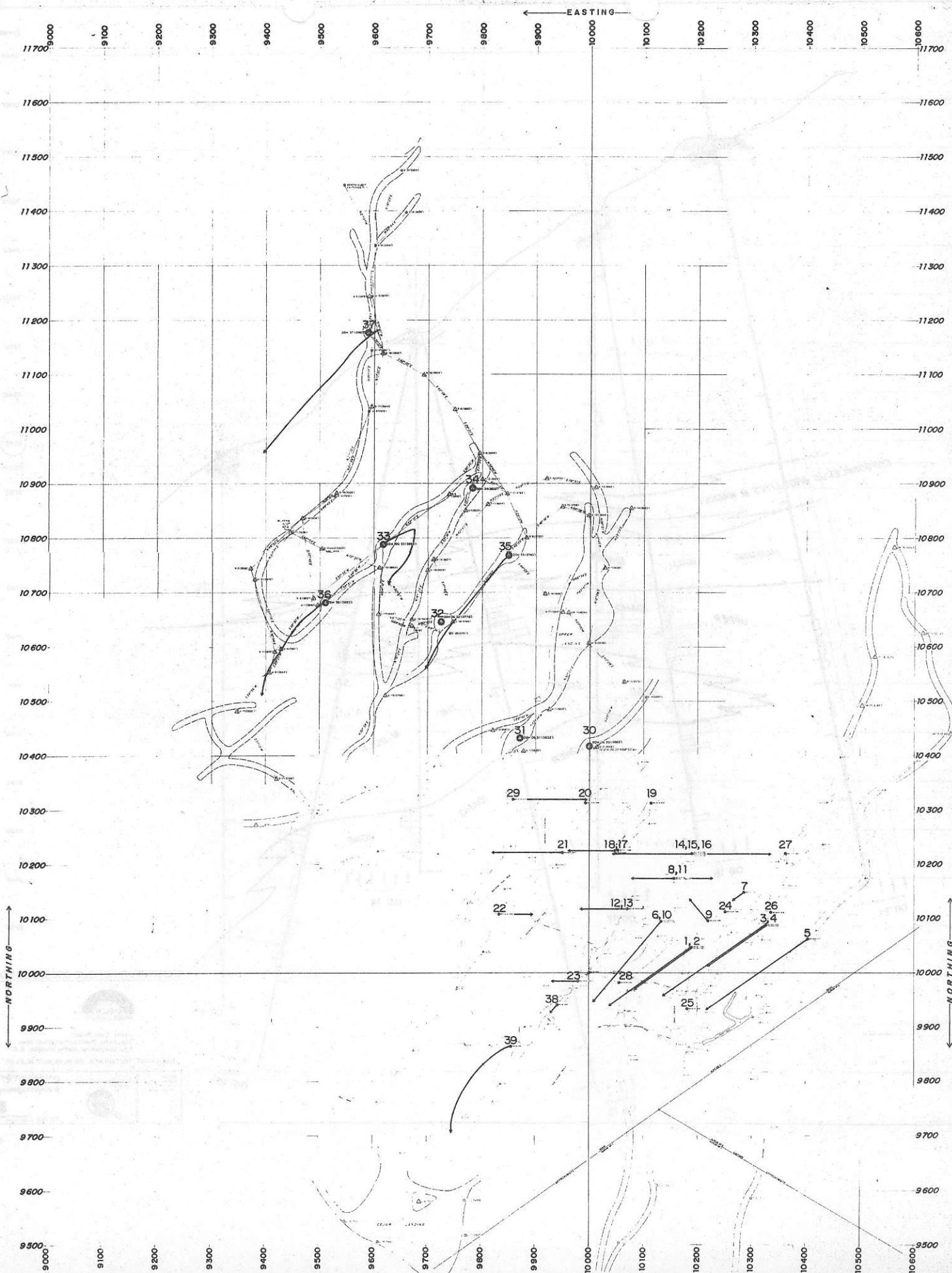


FIGURE NO.

4



Printed at 400,000  
Map Area: 1000' x 1000' (1000' x 1000')

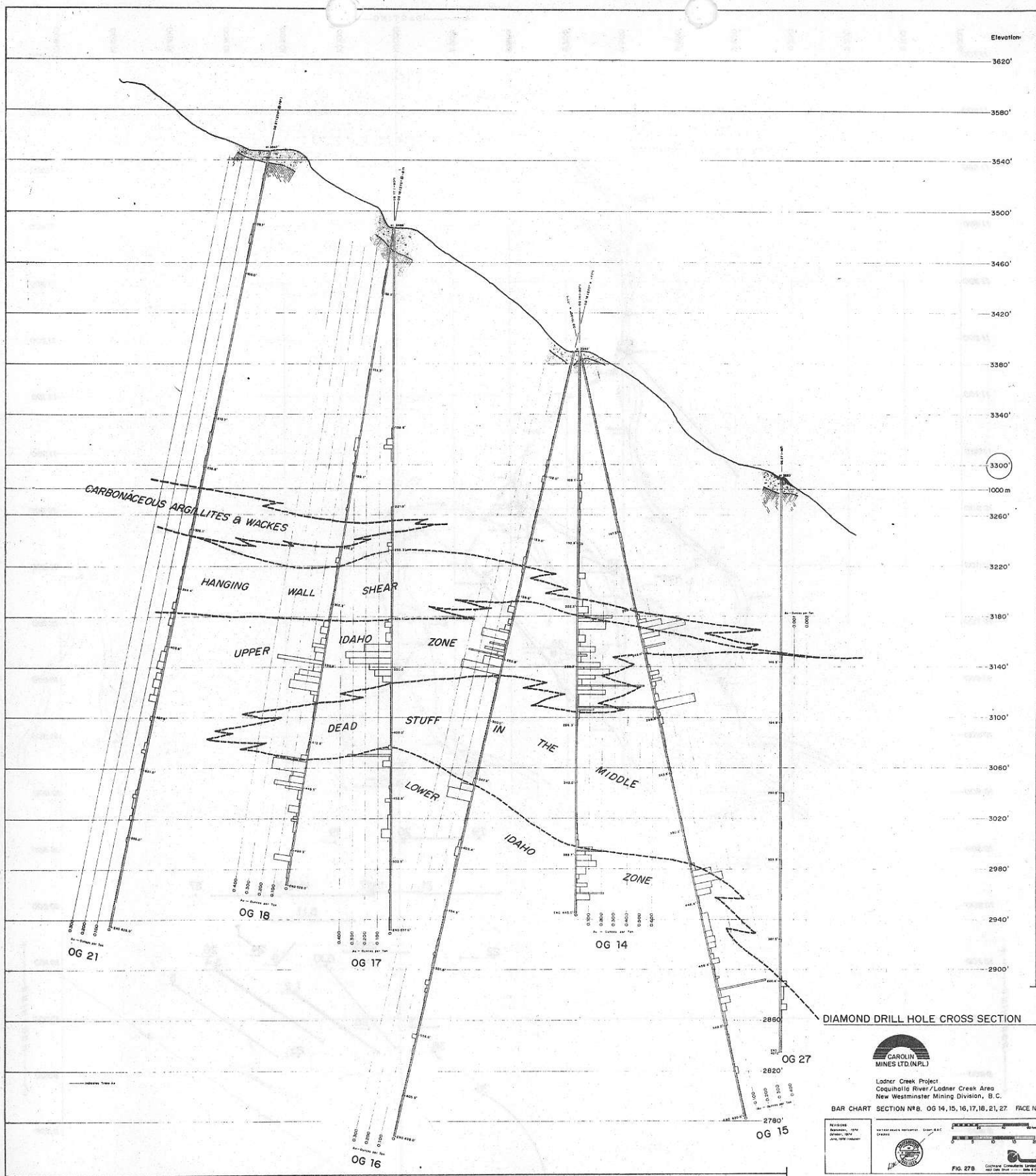


**CAROLIN MINES LTD.**  
LADNER CREEK PROJECT  
NEW WESTMINSTER MINING DIVISION

BRITISH COLUMBIA

**IDAHO ZONE**

Scale: 1 inch = 1 mile  
Graphic scale bar showing distances in feet and miles.




DIAMOND DRILL HOLE CROSS SECTION



Ladner Creek Project  
Cochinella River/Ladner Creek Area  
New Westminster Mining Division, B.C.

BAR CHART SECTION NOS. OG 14, 15, 16, 17, 18, 21, 27. FACE 14





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August 2, 1977

Progress Report # 77 - 1

Carolin Mines Ltd.; Ladner Creek Project

In early May, 1977, financing was arranged for the work proposed in my June 14, 1976 report on "Underground Exploration Proposal on the Idaho Gold Zone". By early June, the surface surveying had been completed, the contract had been let to Fry and Associates, a new access road had been started to the portal site, and necessary camp facilities had been installed.

Work has progressed well but somewhat slower than expected, due mainly to equipment troubles and patches of inclement weather. The -20% decline is currently at just over the 100 metre mark and is designed to intersect the surface drill hole #13 at the 140 metre mark. Drill hole #13 cut several good sections in the proposed decline intersection area which included results such as 0.266 oz. Au/ton across 2.92 metres and 0.330 oz. Au/ton across 0.82 metres.

A muck storage area has been cleared in order to accomodate the decline muck on a round by round basis, and a sample plant has been purchased and mobilized to the minesite in order that samples may be prepared for assay pruposes.

Preliminary computed<sup>r</sup> data processing has commenced to optimize sample patterns and intervals. Dr. A. J. Sinclair of U.B.C. is handling this phase of affairs. Mr. W. E. Clarke, P. Eng. has been retained to advise on the underground work and Mr. T. Worthington, P. Eng. has been retained to consult on milling and sampling. Ker, Preistman and Associates in co-operation with B. C. Research have been retained to advise on Environmental aspects.

Tenders have now been recieved from three diamond drill contractors, and the contract for 1500 metres of underground drilling will be let early next week.

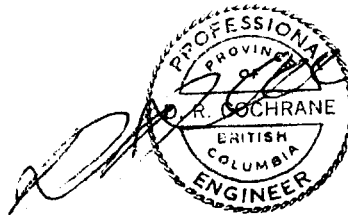
Mr. B. Cochrane (A.O.C.A.) has commenced preparation of mine plans and sections on a metric scale. Mr. B. Smith (former surveyor at Giant Mascott) is in charge of the underground surveying and sampling at the minesite.



In summary then, the first six (6) items in my June 14, 1976 report have been completed and work is progressing on recommendation #7 (the decline).

The total of the field related expenditures to date is approximately \$125,000.00 and is close to the estimated budget.

Respectfully submitted



D. R. Cochrane

P. Eng.



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October 17, 1977

PROGRESS REPORT #77-2

For: Carolin Mines Ltd. (N.P.L.)

Re: Ladner Creek Project

Surface and underground work has continued uninterrupted during this period. The main 2.4 by 2.7 metre (8' x 9') decline is being kept at -20% and bearing mine north, has reached the 187 metre (614') mark. The 600 cross cut, which is driven easterly from the 107 metre (350') point in the main decline, is now complete at 68 metres east. Early in October a significant amount of water was encountered in the main decline in the 160 to 170 metre interval and grouting was necessary which delayed progress somewhat. The water problem in this area has been solved and attention is now being concentrated on the main decline.

The following categories describe the progress in various areas of the work.

1. Sample Plant:

A 15" x 24" jaw crusher, rolls, twin G.M. 200 KW generator, motors, conveyors and electrical supplies were purchased from Highmont Mining Corp. and this equipment was interfaced with a sampling tower, coarse ore bin and vibrating feeders built by Nelson Machinery Ltd. This plant was erected into re-enforced concrete foundations at the muck storage site on October 11 and 12. Mr. Ted Worthington, P. Eng. is in charge of the design and assembly of the plant and final electrical wiring, and "tune up" will be completed shortly. Mr. Bub Bateman has been retained by Carolin Mines as field foreman on the project.

The plant has a designed capacity of 25 short tons per hour and will quite adequately handle the muck from the underground workings.





2. Muck Storage Area:

An additional muck storage area has been cleared, level and backfilled to accommodate the underground development muck on a round by round basis. Each round is tagged and flagged off so that facile identification of each 2.4 metre (8') round from the underground workings may be easily identified and trucked to the sample plant for processing.

3. Underground Sampling:

A "car" sampling system has been initiated whereby each scoop load from a given round is sampled and the composite sample thus produced is assayed.



Underground sampling is also being conducted by channel sampling, pannel sampling and small core diamond drilling (bazooka work).

Underground Diamond Drilling:

In addition to the small core test diamond drilling being conducted by Carolin, a contract has been recently awarded to Kema Drilling Inc. for a minimum of 1500 metres (approx. 5000') of A.Q. wireline underground drilling. The first A.Q. hole has now been completed to 51.8 metres and was drilled easterly at  $+36^{\circ}$  from the 600 cross cut. An additional 400 metres of drilling is planned in the cross cut. A drill station has been established at the 665 metre north point in the main decline and a ring of holes is planned from this section.



5.           Geology and Engineering:

The main decline obliquely drifted through the Lower Idaho Zone, and has recently crossed the nose and is now in the Upper Idaho Zone. The "nose" area is a complexly folded and faulted area and had to be grouted because of incoming water. The first mineralized band of the Upper Idaho Zone was encountered in the 170 metre area of the decline and appears to be approximately 3.5 metres thick and well replaced. Future advance in the main decline will be confined to the Upper Idaho Zone, and underground drilling will be used to further test the lower zone.

The 600 cross cut east initially encountered the hanging wall band of the lower zone, and this was followed by 20 metres of barren graphitic slate (dead stuff in the middle) and finally 40 metres of the Upper Idaho Zone was cross cut. The mineralization encountered in the Upper Zone is as anticipated from surface diamond drilling. The replacement type mineralization is essentially restricted to specific lithologic units with weaker zones between the heavily altered sections.



In view of the firm and rising price of gold, various cut off grades will be studied.

6. Environmental:

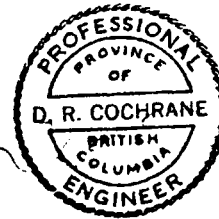
Ker - Preistman and Associates Ltd., and B. C. Research have been retained to conduct environmental impact studies on the mine site area and immediate environs. Collection of field data on native fish populations, species and water quality monitor sites have been completed to permit compilation of the Prospectus and stage 1 reports.



7. Cost:

The direct field related expenditures, (between June 1 and September 30, 1977, and including engineering and supervision) on the project are \$348,000.00

Respectfully submitted



D. R. Cochrane, P. Eng.

October 17, 1977,

Delta, B. C.



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**PROGRESS REPORT #77-3**

**Carolyn Mines**

**Ladner Creek Project, Hope, B. C.**

This progress report is to supplement earlier reports designated #77-1 and dated August 2; and 77-2 dated October 17, 1977. They pertain exclusively to the Idaho Gold Zone underground exploration and ancillary surface work at Ladner Creek, in the New Westminster Mining Division. For background information please refer to a report entitled "An Underground Exploration Proposal and Cost Estimate on the Idaho Gold Zone of Carolyn Mines Ltd." dated July 14, 1976 by the author.

Since the 2nd of August, underground decline work has resumed on the main 500 (metre) east ramp after completion of the 600 (metre) north cross cut. The main decline was turned onto the 700 east mine latitude to become the 700 north cross cut. Advance for this period was 87 metres for a total advance (including the 68 metre long 600 cross cut) of 342.4 metres. (since collaring the portal on June 16, 1977.) The following categories describe progress in various areas of the program.

1. Personnel and Contractors

Carolyn Mines "in field" staff totals six men including Mr. David Griffith (B.Sc.) the project manager. The duties of Carolyn's staff includes surveying, sample plant construction, sampling, logging and splitting core, maintaining road access, clearing muck storage sites, expediting, maintaining the Lear camp and a host of miscellaneous day to day tasks necessary to operations. The underground decline work is being conducted by Fry and Associates, and their staff includes one superintendent, six miners (on two 8 hr. shifts per day), two mechanics and periodic head office supervision. S and L Contractors were hired by Fry to transport the muck to the muck storage area and their personnel consists of one and sometimes two truckdrivers, two equipment operators and an owner-operator. S and L are also employed by Carolyn to maintain the access road for snow removal and excavations for muck storage. Kema Diamond Drilling Inc. has two diamond drillers who are normally alternately supervised by Mr. Mathieu and Mr. Kendrick.

The consulting staff consists of Ker Priestman and Associates (environmental studies), Mr. F. E. Worthington (metallurgy), W. E. Clarke and D. R. Cochrane (geology and engineering).

2.        Mining

The main decline ramp which was turned from its northerly bearing to an easterly one at the 700 mine north latitude, has now been turned at the 700 north, 560 east point and will once more resume its northerly course towards the surface drill hole fence at the 860 mine north latitude (drill holes 33 and 34). There remains then 160 metres (or 525 feet) to the 860 north point. With safety bays, drill stations and gentle turns, the all inclusive remaining distance will actually be closer to the 180 metre mark. (approximately 600 feet). Underground drill stations are being established at 33 metre intervals along the main decline. Drilling will soon commence in the 700 cross cut then there will be drill stations as close as possible to 733, 767, 800, 833, and 867 metre marks.



Underground advance has been at a standstill for the last two weeks, since all personnel have been employed in winterizing operations and meeting the requirements set out by the district mines inspector which includes:

- completion of first aid room
- snow slide protection over the portal
- upgrade access road

After installation of an additional 4 inch pipe, and some additional rock bolting, mining will resume.

3.        Underground Diamond Drilling

To date, a total of 524.3 metres (1720 feet) of A.Q. wire line drilling has been completed in 14 drill holes. Ten of the holes were drilled from the 600 cross cut and four holes in the 666 north drill station. After the 666 north section is drilled off, the drill is scheduled to move into the 700 cross cut area.

4. Sampling

Sampling, in two forms, has proceeded well during this period. Muck sampling from each round is conducted by taking one small shovel-full of muck from each scoop load. Normally three large full bags are collected from each 8 foot round in this manner. The three assays are averaged to provide grade information on a day to day, round by round basis. In addition to muck sampling, Mr. P. Willson has been chip channel sampling walls, backs and the face (where applicable). Samples are sent to Bondar Clegg in Vancouver and check assays to Loring Labs in Calgary.

5. Muck Storage

Decline rounds that grade in excess of 0.05 troy ounces of gold per ton, and those that grade lower but are bounded by rounds in excess of 0.05 troy ounces per ton are tagged and stored in one of the muck storage tiers near the sample plant. A survey plan of the position of the piles is kept in the field office at Lear, in order that a particular round may be easily located, for further processing.

*= Lear Camp down on old railroad*

6.        Sample Plant

The foundations for the crusher motors were poured Dec. 2nd. The jaw crusher has been grouted in its final position. The #1 conveyor is bolted into place with the belt on, and the #2 conveyor has been bolted down. The discharge chutes have been welded into place. The generator is being dried out in preparation for start-up. Much of the remaining work is mainly electrical in nature and involves wiring which will be contracted. A great deal of winterizing of the sample plant has been recently completed to minimize possible damage from snow. A shed has been erected over the 200kw. generator and rebuilt twin G.M. deisel engines and the generator is currently being dried-out prior to testing. Due to the difficulties, and additional expenses involved in moving muck and operating the sample plant under severe winter conditions, it is not anticipated that full scale operation will begin until next spring.

7.        Access and Equipment

Road access from Hope, to the Lear Camp and thence to the Portal has remained fair. The Dept. of Highways plows snow to Othello (just outside of Hope); from there snow will be plowed to the Lear Camp on the Coquihalla road (a distance of 6.4km or 4 miles); and from there to the Idaho Portal (a distance of 18.5km or 11½ miles). Carolin Mines Ltd. has made arrangements with Messr. H. Jones and J. John of Vancouver, whereby Carolin has full use of a large inventory of heavy equipment (as listed in Appendix I) for a period of four (4) months. The equipment will be used in snow removal, access road maintenance, muck loading, hauling and also as standby and safety equipment.

8. Geology and Mineralization

Significant mineralization was encountered at the 183.5 metre mark (602 feet) from the portal in the main decline, where the ramp entered the Upper Idaho zone. Mineralization consisted of abundant pyrite, pyrrhotite, arsenopyrite and traces of chalcopyrite and sphalerite. Visible gold was observed in the 700 cross cut, main ramp. The average of a total of a continuous 51.8 metres (170 feet) from the muck samples in the main decline and cross cut is 0.148 troy ounces of gold per short ton. This represents an average of 26 rounds, calculated from 99 separate muck assays. Chip channel sampling in this area gave similar and confirmatory check results with individual assays ranging from 0.045 ounces across 1.65 metres to 1.03 ounces across 2.50 metres.

Underground diamond drilling in both the 600 cross cut and 666 drill station has confirmed the results indicated by the much wider-spaced surface diamond drilling program conducted in 1973, 1974 and 1975, in and around the present underground working area.

In general, progress has been considerably slower than anticipated, however results to date are most encouraging.

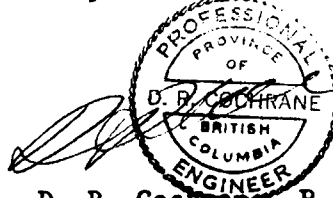
9. Budget

A total of \$538,953.00 has been directly expended in exploration on the property this year to date.

10. Recommendations

In view of the encouraging exploration results encountered during the recent course of the program, continuation on a basis similar to that recommended in the "Underground Proposal Report" dated July 14, 1976 is strongly recommended.

Respectfully submitted



D. R. Cochrane, P. Eng.

December 21, 1977

# APPENDIX I

List of equipment owned by Harold Jones and Jimmy John to belong to Carolin Mines Ltd. for use at their Ladner Creek project at Hope, B. C.

Description	Replacement Value
1 only Tucker Sno-Cat Sec. #159365	\$ 2,500.00
1 only 1,000 gal. fuel tank on skids w. pump	1,000.00
1 only 500 gal. " " on wheels "	800.00
1 only Cat Sen Set Model D 333, Ser. #66D 4766-125KVA	22,500.00
1 only International TD 25-B w. angle dozer winch equipped with ice grousers Ser. #2066	45,000.00
1 only 600 CFM Gardner Denver portable air compressor	10,000.00
1 only 600 DFM Chicago pneumatic " " "	10,000.00
1 only Michigan Model #280 Dozer	60,000.00
1 only Michigan Model #275 A front end loader 5 yd.	22,000.00
1 only Onan 3 KVA site plant	1,450.00
1 only Dodge power wagon	2,750.00
1 only Lincoln 400 AMP diesel lite plant Ser. A 640016	2,800.00
1 only Kenworth 1973 tractor Ser. #889180	35,000.00
1 only Fruehauf 40' hi boy	6,500.00
1 only Sicard Sno blower	35,000.00
1 only Gustin Western all wheel drive grader w. sno-wing	28,000.00
1 only Volvo dump truck 1975 (6 x 6)	69,000.00
	<hr/> \$354,800.00

Due to the fact that these machines are written down in value we have had to keep the prices in line. The new replacements of the above list of equipment would be well in excess of 1½ million Dollars.

December 20, 1977

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**Progress Report #78-1**

**for**

**CAROLIN MINES LTD.**

**on**

**Underground Exploration of the**

**Idaho Gold Zone**

**Situated Near Hope**

**Southern British Columbia**

**Report by**

**D. R. Cochrane, P. Eng.**

**Delta, B. C.**

**April 17, 1978.**



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## FIGURE

83	Work Sheet .....	Map pocket
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## INTRODUCTION

This progress report is to supplement earlier progress reports designated 77-1 (August 2, 1977;) 77-2 (October 17,) and 77-3 (December 19, 1977). They pertain exclusively to current exploration work on Idaho crown granted mineral claim (Lot 1234) located in the New Westminster Mining Division. Background information and surface work since 1973 is described in a report titled "Underground Exploration Proposal and Cost Estimate on the Idaho Gold Zone of Carolin Mines Ltd." and dated June 14, 1976.

Some of the following information is related to the "Mine Grid" established to control underground surveying and diamond drilling and a copy of a map showing the underground workings, surface diamond drill hole location and mine sections is appended. "Mine North" is defined as  $33^{\circ}30'$  west of true north, and the accompanying map is at a (metric) scale of 1:1000 (or 1" to 83.33 feet in the english system). The following describes progress in the various categories of operations during this period.



GENERAL

Late in December 1977, the original underground contractor (R.F. Fry and Associates (Pacific) Ltd.) was replaced by White Mine Developments Ltd. of Vancouver B. C. The change over commenced early in January 1978 and by January 23rd, mining resumed in the main decline. During this changeover period underground diamond drilling continued on a somewhat interrupted basis due to access problems caused by snow, and snow slides.

At the same time, additional heavy equipment was mobilized to the job site to maintain access (see Progress report #77-3). Carolin's crew was kept busy aiding both the former and new contractor in demobilization and mobilization of equipment and in the construction of shelters at the portal.

The weather improved considerably in February and since resumption of operations there has been good advance by the new underground contractor. Underground drilling has, until recently, been hampered somewhat by the mining operation; however, currently the underground drilling contractor (Kema Drilling Inc.) is upgrading operations to a two machine-three shifts a day basis.



Mining (decline) work has recently been terminated since the advance recommended in the June 14, 1976 report (item 7 in recommendations) has now been achieved. The next phase of exploration work on the Idaho Gold Zone will consist of intensive diamond drilling, logging core, sampling and assaying. The successful completion of this next period will effectively complete the bulk of the exploration work recommended in the "Underground Proposal Report".



#### UNDERGROUND MINING WORK

Total decline advance for this period has been close to 200 meters, for a total advance to date in the main (-20%) ramp of 470 meters. In addition there has been 67 meters of cross cutting, the establishment of six (6) diamond drill bays (at 33 meter intervals down the main decline) and slashing thirteen (13) safety bays.

The main ramp and cross cuts have investigated a portion of the mineralized area existing between 510 meters north and 870 meters north, and 490 meters east to 580 meters east (mine grid coordinates, see accompanying map ).



## ACCESS

A considerable amount of attention has been directed to the access road from the Coquihalla Road to the portal (a distance of 8 kilometers). Several hundred meters of ditches have been blasted and several wooden culverts constructed. The road is now in very good condition, currently permitting two wheel drive access to the portal site. Waste rock is presently being dumped on some of the muddy sections of the road and the road is being periodically graded.

I understand from the newsmedia that construction is to commence shortly on the new Hope-Merritt "Coquihalla" highway. Construction is to start at both the Merritt and Hope ends, and will bring facile black-top access to within 8 kilometers of the portal. The department of highways has been surveying and overburden drilling throughout the winter in the Coquihalla Valley.



#### **SAMPLING-MUCKSTORAGE**

Car sampling of the muck from each round has continued uninterrupted during this period. The muck is hauled by truck to the muck storage area on a round by round basis, and each round is tagged and the samples sent to assay. Chip and car samples are sent to Bondar Clegg and Co. in Vancouver, and check (control) assays to Loring Labs in Calgary. About 10% of the samples are "checked". The vast majority of samples are assayed for gold only with the occasional analysis for other metals, notably copper and silver.

Mr. P. Willson is in charge of sampling, storage of muck, and assay bookkeeping.



## GEOLOGY AND MINERALIZATION

Underground decline work, underground diamond drilling and underground sampling has continued to confirm results indicated by the much wider spaced surface diamond drilling. The main decline was swung mine north onto the Griffith Fault at the 820 north point and continued along the fault to the end of the decline at 870 (meters) north. This fault is the main axis of the Idaho Gold Zone and is responsible for the abrupt termination of several lithologic units. The grade of mineralization close to this fault is most encouraging, as for example underground drill hole IU-32 (drilled mine west at  $-45^{\circ}$  from the 733 drill bay) averaged 6.17 grams of gold per metric ton across 31.55 meters. (0.18 troy ounces of gold per short ton across 103.5 feet).





## ENGINEERING

Consulting engineers on the project include Mr. W. Clarke P. Eng.; Cochrane Consultants; F. E. Worthington and Associates (metallurgy); and Ker Priestman and Associates. The latter, in conjunction with B. C. Research is in charge of environmental considerations.

Mr. P. Willson has assumed responsibilities in underground surveying with checks by Mr. D. Griffith (project manager) and the author.

Diamond drill hole sections, assay plans and other engineering drawings are up-to-date in the office of Cochrane Consultants. A complete set of drawings is kept at the Lear field camp.

Surface diamond drill hole O.G. 33 was intersected in the main decline near the 860 north mark.



**BUDGET**

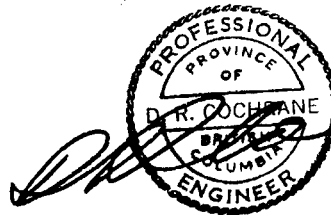
Since the commencement of recent operations early in May, 1977 and to March 15, 1978, the direct field related exploration expenditures total \$1,059,000.00. This included consulting fees but is exclusive of administration expenses such as accounting and legal fees, bank interest charges etc.



## RECOMMENDATIONS

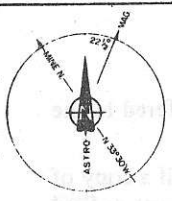
In view of the encouraging results that have been obtained during the course of the 1977 and early 1978 exploration work, I recommend completion of the program as outlined, in general, in the Underground Proposal Report of July 14, 1976. The completional work is to include additional diamond drilling, sampling and check assaying. On completion of this work, a re-evaluation of the data will take place which will determine the course of future events. Even at this point in time however, the concept of additional work should be entertained and the course and cost of such work should be planned.

Respectfully submitted



D. R. Cochrane,  
April 17, 1978





IDAHO ZONE Lodner Creek Project  
New Westminster Mining Division, B.C.

1:1000 0 20 40 60 80 100 120 140 160 180 200 METRES

WORK SHEET Figure 83

