

Property  
Submission

NTS 93K17

BARRY W. SMEE, PhD., P.Geol.  
*consulting geochemist/geologist*

Snowbird

821976

June 11, 1990

Minnova Inc.  
4th Floor - 311 Water Street  
Vancouver, B.C.  
V6B 1B8

Attention: Mr. Alex Davidson

Dear Alex:

**Re: X-Cal Resources Ltd.  
Snowbird Gold Project, Fort St. James, B.C.  
Bralorne Gold Projects, Bralorne, B.C.**

X-Cal Resources Ltd. is seeking a partner to option the Snowbird Project, west of Fort St. James, B.C., and also an aggressive gold exploration company to purchase one or all of the Bralorne gold properties. I am assisting Mr. Shawn Kennedy, President of X-Cal Resources, in his search for experienced and professional companies who would continue the exploration on these projects. I have enclosed executive summaries of these projects to aid you in assessing these properties.

The Snowbird project has the potential, in my opinion, to host a one million-ounce deposit or group of deposits. The carbonated shear zone which hosts the known mineralization is 30m in width and disappears under lacustrine clay cover to the south. It appears to be offset to the north. Several other zones have recently been found, but little is presently known about their mineral potential. The property is in an advanced stage of exploration in the central portion, but is in a grass roots stage along strike. The property has all-weather road access, a power line on the south end, is 20 minutes from an industrial community, and has permits in place for extensive drilling and trenching programs. Of course, it is also in the "hot" Mt. Milligan area of central B.C.

The Snowbird property is available for option from X-Cal in a straight-up deal involving option payments and escalating work commitments. These payments and expenditures would be spread over three years and would reflect an early drilling program to further delineate the known mineralization.

The Bralorne Properties surround the 4 million-ounce producer at the Bralorne-Pioneer Mine. This camp, as you know, was (and still is) the largest gold producing area in Western Canada. X-Cal, through the help of Franc Joubin, has reassembled the properties which, at the time the mine was active, were considered to be the most likely locations to host the Cadwallader Shear Zone and its mineralization. Work to date on these five properties totals \$1.9 million and has produced significant targets. Two of the areas would be drill ready with minimal additional ground work.

This five-property package offers Minnova a unique opportunity to become a major player in an active gold camp in B.C. X-Cal is willing to sell the properties outright, subject to a retained 3 percent net smelter return.

The conditions of the sale would include option payments of \$100,000 per year for five years. No work would be required except to maintain the claims in good standing during the pre-purchase period.

The data for all of these properties is in Vancouver and in Goldbridge where Shawn Kennedy resides. You can contact me or Shawn to arrange for a review of the data and a property visit. I can be contacted at my home, (604) 435-4499, or at the Abermin office, (604) 681-7727, until month end. Shawn can be reached at (604) 238-2291, (604) 980-1707, or fax (604) 238-2422.

I look forward to hearing from you in the near future.

Yours sincerely,

A handwritten signature in cursive script, appearing to read "Barry".

B.W. Smees, Ph.D., P.Geol.

BWS/cn  
Encls.



# **X-CAL RESOURCES LTD.**



**ANNUAL REPORT**

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**1989**

## CORPORATE INFORMATION

### *Officers*

W. D. H. Gardiner  
Chairman

Shawn Kennedy  
President & Chief Executive Officer

William E. Bateman  
Secretary

### *Senior Geological Advisor*

Dr. Franc R. Joubin

### *Directors*

John M. Arnold  
Guelph, Ontario

W. D. H. Gardiner  
Vancouver, British Columbia

Betty Kennedy-Burton  
Toronto, Ontario

Shawn Kennedy  
Goldbridge, British Columbia

W. E. Bateman\*  
Toronto Canada

\* To be elected at Shareholders' Meeting.

### *Auditors*

Pannell Kerr MacGillivray  
Vancouver, British Columbia

### *Registered Office*

503-470 Granville Street  
Vancouver, British Columbia

### *Bank*

Bank of Montreal  
Toronto, Ontario  
and Vancouver, British Columbia

### *Registrar and Transfer Agent*

Central Guaranty Trust Company  
Toronto, Ontario  
and Vancouver, British Columbia

### *Stock Exchange*

Listed — Toronto Stock Exchange  
Symbol — XCL

### *Legal Counsel*

Nobbs, Woods & Clark  
Toronto, Ontario  
John R. Lakes & Associates  
Vancouver, British Columbia

### *Toronto Office*

1116-111 Richmond St. W.  
Toronto, Ont. M5H 2G4  
Tel (416) 364-0001  
Fax (416) 364-5098

### *United States Securities and Exchange Commission*

U.S. 12G3 Exemption #82-1655  
Standard & Poors Directory

### *Exploration Office*

Tyaughton Lake Road  
Goldbridge, British Columbia V0K 1P0  
Tel (604) 238-2291  
Fax (604) 238-2422



## Property Holdings

### SNOWBIRD GOLD DEPOSIT Omineca Mining Division Fort St. James, British Columbia

The Snowbird Gold Deposit adjoins the town of Fort St. James, British Columbia. Paved roads, industrial electrical power, labour and other prerequisites for low cost development, are already in place. The terrain is moderate to flat with an elevation of approximately 2,000 feet above sea level. Roads onto the property have been upgraded by X-Cal for development-phase work.

The gold deposit is located in a structure called the "Sowchea Shear Zone", which parallels and is related to the large regional scale "Pinchi Fault".

The known deposit is located within the "Snowbird" and "North Zone". Both of these zones are open along strike and at depth. Drilling in this area will be aimed at increasing reserves and addressing the possibility of parallel zones. Also of some considerable interest is the newly discovered "East Zone" which has given indication that it could contribute to the overall picture, given continued success from our work. Trenching is in progress to be followed by drilling.

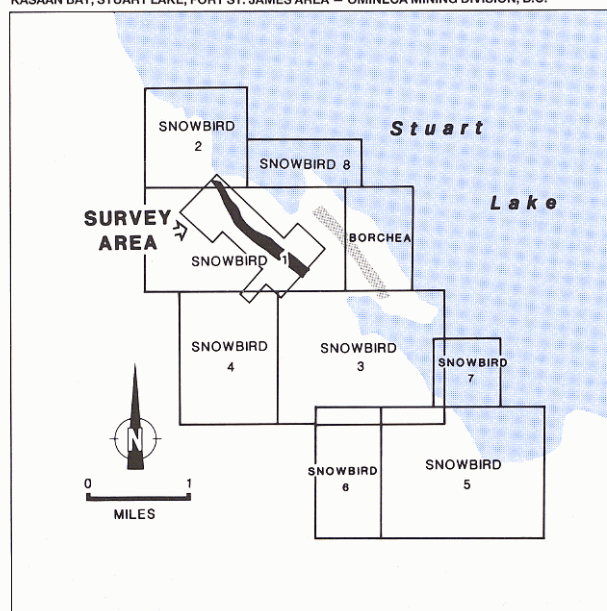
#### North Zone

Current possible reserves of 250,000 tons of .20 oz per ton gold are estimated from a section of the North Zone, which has returned the following assays to date.

Drill Hole Intersections North Zone, Snowbird Property Fort St. James, B.C.				
Hole #	Depth		Interval (ft.)	Au (oz/ton)
	from (ft.)	to (ft.)		
X 88-6	272.49	281.18	8.69	0.226
	309.00	318.85	9.85	0.109
X 88-9	272.65	275.93	3.28	0.298
X 88-13	333.35	337.12	3.77	0.110
	356.15	376.23	20.08	0.319
X 88-14	281.12	291.29	10.17	0.0897
X 89-2	192.56	195.84	3.28	0.114
	212.15	217.99	5.84	0.351
X 89-3	325.51	335.58	10.07	0.264
X 89-4	263.96	271.50	7.54	0.189
X 89-9B	362.55	365.17	2.62	0.128
	496.71	504.58	7.87	0.124
X 89-10	514.30	520.99	6.69	0.152
	527.94	537.43	9.49	0.204
X 89-11	506.52	521.58	15.06	0.136

### SNOWBIRD PROPERTY – CLAIM MAP

KASAAN BAY, STUART LAKE, FORT ST. JAMES AREA – OMINECA MINING DIVISION, B.C.



#### Snowbird Zone

Bulk sampling of the Snowbird Zone will have to be carried out in order to gain an estimate of true grade from this section. The following are some of the better values obtained from drilling.

Significant Snowbird Zone Drill Hole Assays		
Hole	Width (ft.)	Grade (oz/ton)
86-2	13.9	0.27
86-6	5.0	23.0
86-7	3.28	0.715
C-1	5.0	0.27
C-2	5.0	0.35
P-6	3.0	0.698
P-7	8.0	0.58

The drilling from the North and Snowbird zones is still largely confined to an area which begins at surface and has been partially tested to approximately 300 feet of depth. All indications are that we are only at the top of a system which may have considerable depth.

### East Zone

Current work to define the extent of the large mineralizing system on our claims has resulted in the discovery of a whole new area called the "East Zone". This new zone has returned very encouraging gold values over a wide area. At the time of this report extensive surface trenching is in progress, in preparation for drilling there.

### South Half

Yet another area referred to as the "South Half" has also returned encouraging gold values from percussion drill holes. This section of the property is in early exploration phase and will be better evaluated as part of the current work.

In summary the Snowbird Gold Deposit has continued to respond well to drilling and step-out exploration. While reserves are presently modest, the large structural setting and extensive gold mineralization on the property indicates a potential for a medium to large-size gold mine with excellent development logistics.

### BRIDGE RIVER, BRALORNE AREA Lillooet Mining Division British Columbia

Historically, this area has been the most prolific gold camp in British Columbia. The Bralorne/Pioneer Gold Mines yielded over 4,000,000 ounces of gold averaging over .52 oz per ton.

We are maintaining our extensive landholdings in this camp as we believe there will be new mines found in this area. One of our key claim blocks has been recently optioned to a major company. Our other holdings are central and integral to exploration and development of the area.

### Anderson Lake Project

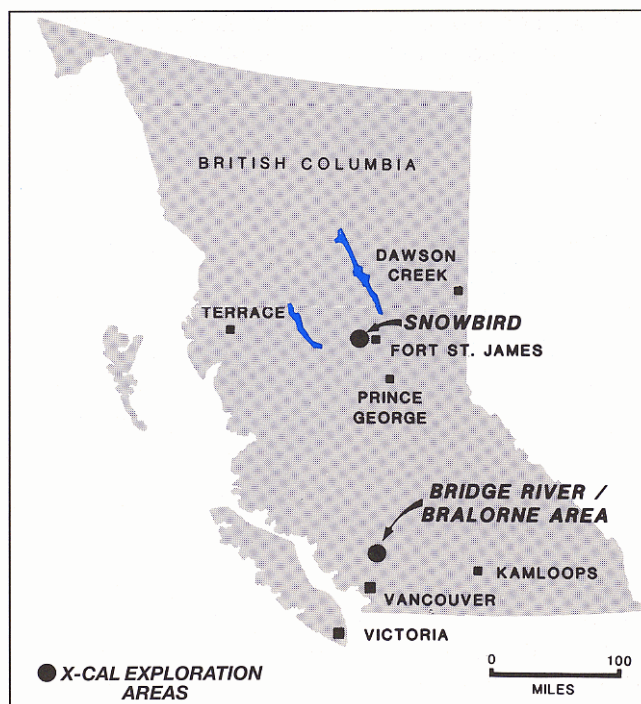
Teck Corporation has optioned the Anderson Lake claim block which covers a five mile length of the "Cadwallader Gold Belt", host to the prolific Bralorne/Pioneer Gold Mines.

Teck can earn 60% of the Anderson Lake Project area by making exploration expenditures and payments to X-Cal totalling \$1.7 million over the next five years or less. The Teck crew is at work on the project now. Results will be reported on a timely basis.

### Tyax Property

The Tyax property has surface showings of gold mineralization of up to 20 feet wide of .1 oz per ton gold and 10 feet wide of .4 oz per ton gold in a large structural setting. It is adjoined by the "Congress Gold Deposit" to the south and appears to be integrated with other new gold discoveries which have taken place in that section of the Bralorne Gold Camp.

Current information has indicated new drill targets on this property which will be subject to future exploration by the company or by joint-venture.





## OTHER BRALORNE AREA PROPERTIES

### Pilot Property

This 3,000 acre project covers a 3 km length of the Pilot Shear Zone and also encompasses the 5,600 feet of underground workings of the old Pilot Gold Mine. Drill targets along the shear zone have been accessed as well as some rehabilitation of the underground workings. Surface showings with values up to .3 oz per ton gold have been targeted.

### Waterloo Project

The project area is located adjoining and to the east of the Bralorne Gold Mine. The possibility exists for the development of an epithermal type of gold deposit. Gold showing with values up to 1.7 oz per ton have been located.

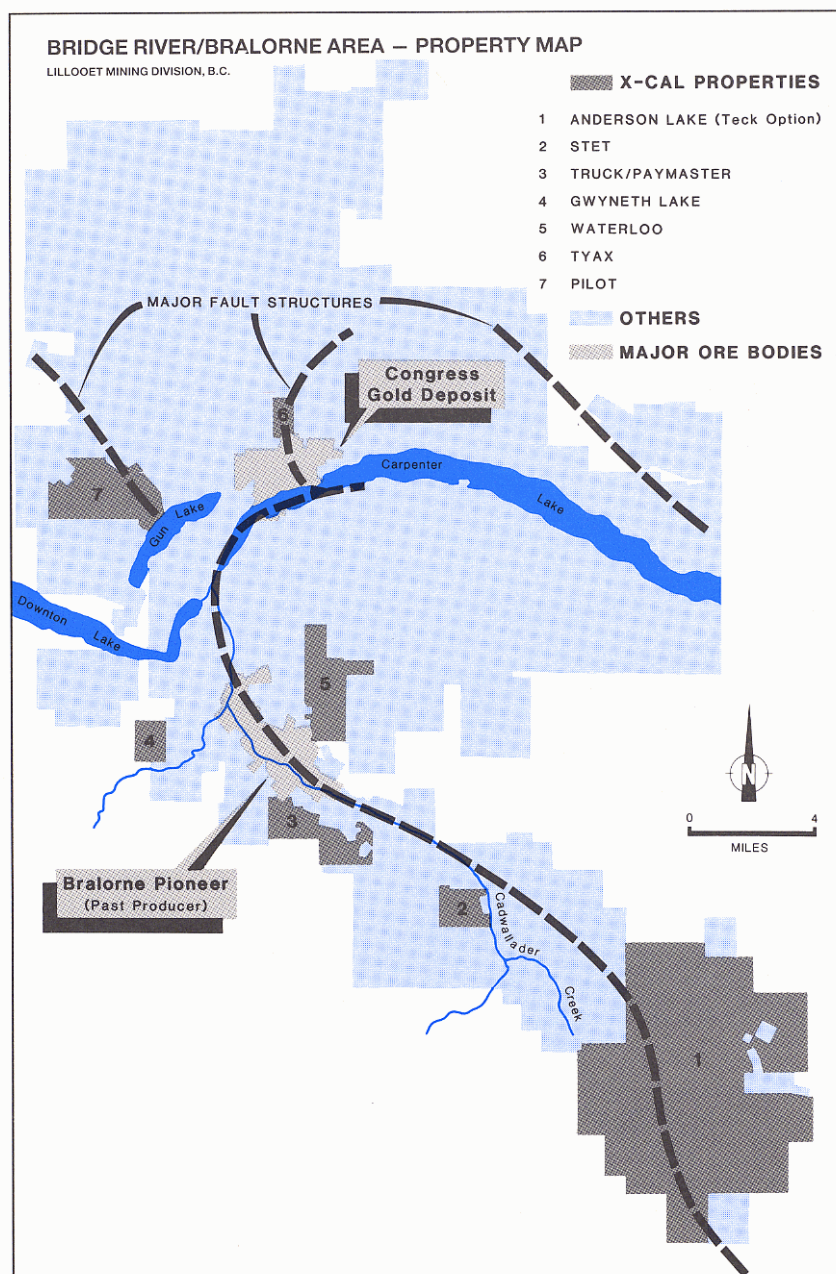
### Truck/Paymaster Group

These claims adjoin the Pioneer Gold Mine to the south and contain an outcrop of favourable albitite and gold quartz as a drill target.

## ONTARIO

### Kapuskasing Joint Venture

The joint venture group has elected to reduce the size of our claim block in this area. This year's work will include stripping and sampling of favourable targets discovered during last year's exploration program.



# X-CAL RESOURCES LTD.

## Balance Sheet

March 31, 1989

### ASSETS

	1989	1988
CURRENT		
Cash and short term investments	\$ 253,221	\$ 159,414
Prepaid expense	2,094	2,670
Grant receivable	—	50,000
Other investments	—	8,552
	<u>255,315</u>	<u>220,636</u>
MINERAL INTERESTS AND DEFERRED COSTS (Note 2)		
Mineral interests	229,683	229,683
Deferred exploration costs, net	1,702,304	1,284,497
Deferred administration costs	799,636	578,410
	<u>2,731,623</u>	<u>2,092,590</u>
EQUIPMENT (Note 3)	12,103	19,130
	<u>\$2,999,041</u>	<u>\$2,332,356</u>

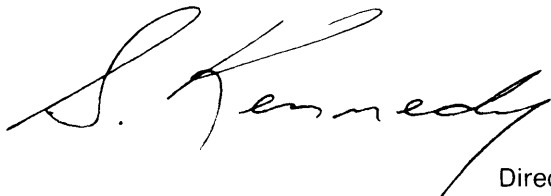
### LIABILITIES

CURRENT		
Accounts payable	\$ 44,235	\$ 21,261
Wages payable	4,939	2,153
Obligation under capital lease (Note 6)	2,008	1,693
	<u>51,182</u>	<u>25,107</u>
OBLIGATION UNDER CAPITAL LEASE (Note 6)	1,140	3,148
CONTINGENT LIABILITY (Note 8)		

### SHAREHOLDERS' EQUITY

SHARE CAPITAL		
Authorized		
50,000,000 common shares without par value		
Issued (Note 9)	3,221,697	2,538,197
DEFICIT	(274,978)	(234,096)
	<u>2,946,719</u>	<u>2,304,101</u>
	<u>\$2,999,041</u>	<u>\$2,332,356</u>

APPROVED BY THE DIRECTORS

  
Director

  
Director



## Statement of Earnings and Deficit

For the year ended March 31, 1989

	1989	1988
<b>INCOME</b>		
Option fee income .....	\$ —	\$ 25,000
Interest income .....	10,640	10,009
Gain on sale of investments .....	478	—
	<u>11,118</u>	<u>35,009</u>
<b>EXPENSES</b>		
Loss on sale of investment .....	—	3,785
Write down of investment to realizable value .....	—	14,709
Costs of mineral claims abandoned or sold .....	—	3,195
	<u>—</u>	<u>21,689</u>
<b>NET EARNINGS FOR THE YEAR</b> .....	11,118	13,320
<b>DEFICIT, beginning of year</b> .....	(234,096)	(222,416)
	(222,978)	(209,096)
Share issue costs .....	(52,000)	(25,000)
<b>DEFICIT, end of year</b> .....	<u>\$ (274,978)</u>	<u>\$ (234,096)</u>
<b>EARNINGS PER SHARE (Note 1(c))</b>		

## Statement of Changes in Cash Resources

For the year ended March 31, 1989

	1989	1988
<b>CASH DERIVED FROM (APPLIED TO) OPERATIONS</b>		
Net earnings for the year .....	\$ 11,118	\$ 13,320
Add (deduct): prior years mineral interest costs written off .....	—	3,195
loss (gain) on sale of investment .....	(478)	3,785
write down of investment .....	—	14,709
Working capital derived from operations .....	10,640	35,009
Decrease (increase) in working capital		
Proceeds on sale of investments .....	9,030	16,954
Other items .....	26,336	(7,045)
Grant receivable .....	50,000	(50,000)
	<u>96,006</u>	<u>(5,082)</u>
<b>CASH DERIVED FROM (APPLIED TO) INVESTING ACTIVITIES</b>		
Equipment additions .....	—	(10,252)
Acquisition of mineral interests, net of shares issued .....	—	(500)
Deferred exploration expenditures, net of revenue recoveries .....	(440,307)	(479,165)
Deferred administration expenditures, net of depreciation		
(\$7,027; 1988 — \$7,403) .....	(214,199)	(145,243)
	<u>(654,506)</u>	<u>(635,160)</u>
<b>CASH DERIVED FROM (APPLIED TO) FINANCING ACTIVITIES</b>		
Share subscriptions for shares issued .....	706,000	563,400
Share subscriptions for shares not issued .....	—	(27,000)
	706,000	536,400
Government exploration grants .....	—	60,000
Share issue costs .....	(52,000)	(25,000)
Obligation under capital lease, net of finance charges .....	—	5,585
Principal repayment on capital lease .....	(1,693)	(744)
	<u>652,307</u>	<u>576,241</u>
<b>NET INCREASE (DECREASE) IN CASH RESOURCES FOR THE YEAR</b> ..	93,807	(64,001)
<b>CASH RESOURCES, beginning of year</b> .....	159,414	223,415
<b>CASH RESOURCES, end of year</b> .....	<u>\$ 253,221</u>	<u>\$ 159,414</u>

## Schedule of Exploration and Development Costs

For the year ended March 31, 1989

	1989	1988
<b>CURRENT COSTS</b>		
Assays .....	\$ 30,180	\$ 34,194
Drilling .....	160,375	207,759
Field expenses .....	12,623	22,940
Licenses and fees .....	19,973	1,955
Travel and transportation .....	12,642	9,469
Consulting .....	54,832	21,422
Equipment rental .....	36,050	58,534
Other costs .....	9,314	13,878
Project administration .....	—	61,286
Wages		
Management .....	57,824	42,952
Other .....	9,724	51,252
Roadwork and trenching .....	2,200	—
Joint venture costs .....	34,570	—
	<u>440,307</u>	<u>525,641</u>
deduct: exploration and equipment rental revenue .....	—	88,736
less: direct costs .....	—	42,260
	<u>—</u>	<u>46,476</u>
	<u>440,307</u>	<u>479,165</u>
DEFERRED COSTS, beginning of year .....	1,737,200	1,319,027
deduct: costs on interests abandoned/sold .....	—	(992)
	<u>1,737,200</u>	<u>1,318,035</u>
DEFERRED COSTS, end of year .....	2,177,507	1,797,200
less: allocation of tax rights on flow-through		
financing (\$22,500 during the year) .....	(475,203)	(452,703)
government grant .....	—	(60,000)
	<u>\$1,702,304</u>	<u>\$1,284,497</u>

## Schedule of Administration Costs

For the year ended March 31, 1989

	1989	1988
<b>CURRENT COSTS</b>		
Advertising, printing and stationery .....	\$ 17,730	\$ 33,191
Depreciation .....	7,027	7,403
Automobile expense .....	9,405	6,318
Dues and subscriptions .....	3,966	345
Insurance .....	2,965	1,588
Legal, audit and accounting .....	38,441	36,201
Management fees .....	—	6,670
Salaries and benefits .....	17,736	17,604
Office expense .....	23,434	24,169
Rent .....	26,640	31,533
Telephone .....	17,380	18,374
Travel .....	38,680	17,678
Registrar and transfer agent .....	2,911	4,262
Stock exchange fees .....	6,640	4,862
Other .....	8,271	3,734
Recoveries — exploration projects .....	—	(61,286)
	<u>221,226</u>	<u>152,646</u>
DEFERRED COSTS, beginning of year .....	578,410	427,487
deduct: administration costs on interests sold/abandoned .....	—	(1,723)
	<u>578,410</u>	<u>425,764</u>
DEFERRED ADMINISTRATION COSTS, end of year .....	<u>\$ 799,636</u>	<u>\$ 578,410</u>

## Notes to the Financial Statements

### 1. ACCOUNTING POLICIES

#### (a) Mineral Interests and Deferred Costs

The company is engaged in the exploration for and development of, mineral properties and has established the policy of deferring costs relating to the properties, including administration costs, until such time as the properties are put into commercial production, sold or abandoned.

The amounts shown for mineral interests and deferred costs represent costs or deemed consideration less write-offs to date and do not necessarily reflect present or future value. The recoverability of these amounts is dependent upon the confirmation of economically recoverable reserves, the ability of the company to obtain necessary financing to successfully complete their development and upon subsequent profitable production.

#### (b) Equipment

Equipment and equipment under capital lease are recorded at cost and depreciated at 20% per annum on the straight line basis.

#### (c) Earnings Per Share

The company does not present earnings per share as it is not considered meaningful at this stage of the company's activities.

#### (d) Government Grants

Recovery of a portion of exploration expenditures under government assistance programs is recorded in the accounts when the related application is approved by the appropriate government agency.

### 2. MINERAL INTERESTS AND DEFERRED COSTS

#### (a) The company has the following mineral interests and related deferred costs:

	1989	1988
<b>Acquisition and Exploration Costs</b>		
<b>Lillooet Mining Division, B.C.</b>		
Pilot .....	\$ 417,680	\$ 417,680
Anderson Lake (see (c) below) .....	407,944	407,944
Waterloo .....	45,591	39,578
Tyax (see (c) below) .....	193,879	193,558
X-Cal Gwyneth .....	14,688	14,688
Butte .....	1	1
Truck/Paymaster .....	20,916	12,916
	<u>1,100,699</u>	<u>1,086,365</u>
<b>Omineca Mining Division, B.C.</b>		
Snowbird Group option (see (b) below) .....	1,187,270	795,866
<b>Kapuskasing Region, Ontario</b>		
The company holds an undivided 25% interest in a joint venture on claims in Doherty, Pelletier, and Caithness Townships.		
Costs to date .....	119,221	84,652
	<u>2,407,190</u>	<u>1,966,883</u>
less: reduction for transfer of tax rights on flow-through share agreements .....	(475,203)	(452,703)
Deferred administration costs .....	799,636	578,410
	<u>\$2,731,623</u>	<u>\$2,092,590</u>

(b) The company has an option entitling it to purchase the Snowbird Group by expenditure of \$920,000 on the claims before 1994 and a determination to enter into commercial production. The vendor is to receive a 3% net smelter royalty from all commercial production on the claims.

(c) The company had granted exclusive options expiring December 31, 1990 to Canada Tungsten Mining Corporation Limited to acquire an unencumbered 50% interest in the company's Tyax and Anderson Lake mineral properties. During the year, Canada Tungsten notified the company of its intention not to maintain its options rights on these properties.

### 3. EQUIPMENT

	1989			1988
	Cost	Accumulated Depreciation	Net Book Value	Net Book Value
Automotive . . . . .	\$14,386	\$10,933	\$ 3,453	\$ 6,330
General . . . . .	17,042	11,743	5,299	8,332
Equipment under capital lease . . . . .	5,585	2,234	3,351	4,468
	<u>\$37,013</u>	<u>\$24,910</u>	<u>\$12,103</u>	<u>\$19,130</u>

### 4. RELATED PARTY TRANSACTIONS

During the year ended March 31, 1989, the company paid legal fees of \$15,856 to a law firm with which an officer of the company is associated.



5. INCOME TAXES

The future income tax benefit which may result from mineral interest, deferred cost expenditures and other costs to date is not recorded in the accounts. Expenditures of \$1,000,397, included in net deferred exploration costs of \$1,702,304 were acquired by the issue of "flow-through" shares and are not eligible for future income tax deductions by the company.

6. OBLIGATION UNDER CAPITAL LEASE

	1989	1988
Lease contract maturing September, 1990 net of deferred finance charges .	\$ 3,148	\$ 4,841
Current portion included in current liabilities . . . . .	2,008	1,693
	<u>\$ 1,140</u>	<u>\$ 3,148</u>
Repayments are as follows:		
1990 . . . . .	\$ 2,396	
1991 . . . . .	1,198	
Total minimum lease payments . . . . .	3,594	
less: amount representing interest at 17.5% . . . . .	446	
Balance of the obligation . . . . .	<u>\$ 3,148</u>	

Office expense includes \$704 for interest paid on the above obligation under capital lease.

7. COMMITMENTS

To maintain certain mineral interests, the company is required to make expenditures on option agreements, exploration costs, and joint venture contributions (See Note 2).

8. CONTINGENT LIABILITY

A claim has been made against the company for approximately \$35,000 for services rendered. Management is of the opinion that the claim is totally without merit and no provision for that claim has been reflected in the accounts.

9. SHARE CAPITAL

(a) The company has issued the following share capital:

	Shares	Value
Balance, March 31, 1988 . . . . .	5,338,493	\$2,538,197
During the year ended March 31, 1989		
Shares issued for cash (Note 9(b)) . . . . .	1,456,038	683,500
Balance, March 31, 1989 . . . . .	<u>6,794,531</u>	<u>\$3,221,697</u>

(b) Of the 1,456,038 shares issued for cash during the year, 250,000 were issued as flow-through shares to finance mineral exploration. The subscription proceeds of \$150,000 have been allocated \$127,500 to share capital and \$22,500 to a reduction of exploration expenditures in recognition of the transfer of the income tax deduction rights on the expenditures to the subscribers.

(c) Shares have been reserved for possible future issue under the following:

The company has granted stock purchase options entitling the optionees to purchase up to 640,000 shares ranging in price from \$0.38 to \$1.00 per share, expiring as to 5,000 shares in December, 1991, as to 435,000 shares in July, 1993 and as to 200,000 shares in September, 1993. Consent of the shareholders and regulatory authorities is required for some of these options.

## AUDITORS' REPORT

To the Shareholders of  
X-Cal Resources Ltd.

We have examined the balance sheet of X-Cal Resources Ltd., as at March 31, 1989 and the statements of earnings and deficit and changes in cash resources for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

In our opinion, these financial statements present fairly the financial position of the company as at March 31, 1989 and the results of its operations and the changes in its financial position for the year then ended in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Vancouver, Canada  
June 5, 1989

Pannell Kerr MacGillivray  
Chartered Accountants



# X-CAL RESOURCES LTD.

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June 11, 1990

TSE Symbol: XCL

## **SNOWBIRD GOLD DEPOSIT Fort St. James, British Columbia**

The summer work program is underway at our *Snowbird Gold Project*.

The continued success of Continental Gold with their large "Mount Milligan" gold/copper project near Fort St. James, B.C. has highlighted the size potential for deposits related to the regional scale Pinchi Fault System.

Our *Snowbird Gold Project* is located on a gold-bearing part of this large fault system, called the Sowchea Shear Zone, to the west of the main Pinchi Fault.

Dr. Barry Smee, professional geologist, has been retained by X-Cal to collate all of the information to date on the *Snowbird Gold Deposit* into a composite report. The executive summary of the project is available now. The composite maps which show the new gold targets, in addition to the area of existing reserves, are expected to be available this week.

Detailed geochemistry over the newly discovered Granite Body is being carried out now.

Prospecting and geochemistry are also being carried out on the south half of the property where gold anomalous areas were outlined last fall.

The information will be used to target the next round of trenching and drilling.

We are pleased to announce the addition of Dr. Barry Smee to our geological team, which also included: Dr. Franc R. Joubin, William Heshka, P.Eng., Brian Game, B.Sc., and Christopher Sampson, P.Eng.

The Company has also retained the services of the Barrington Communications Group, headed by Mr. John Gray.

The Barrington Group are familiar with the potential of the Fort St. James area through their work with Continental Gold.

To date, X-Cal has expended approximately \$2.0 million on the Snowbird Gold Project.

Shawn Kennedy, President

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For further information, please contact:

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(604) 238-2291

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Toronto, Ontario  
(416) 364-0001



**X-CAL RESOURCES LTD.**

**SNOWBIRD GOLD PROPERTY**

**FORT ST. JAMES, BRITISH COLUMBIA**

**JUNE, 1990**

**X-CAL RESOURCES LTD.**  
**TSE/XCL**

# SNOWBIRD PROPERTY

## PROPERTY SUMMARY

<b>Target:</b>	Gold
<b>Location:</b>	NTS 93K/7, 8, 15km west of Fort St. James, B.C. Road access to property.
<b>Acreage:</b>	Approximately 6,667 acres in 108 units in the Snowbird Group Approximately 6,050 acres in 98 units in the Sowchea Group
<b>Interest:</b>	X-Cal 100% interest subject to a 3% NSR to Pipawa Exploration Ltd.
<b>Work Commitment:</b>	Government: \$41,200/year. Property in good standing until 1996.

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## PROPERTY HISTORY

Massive stibnite in a shear zone was first reported in 1920 by prospectors examining placer gold creeks in the area of the present Snowbird Property. Underground development and production resulted in the shipment of 54 tons of antimony ore in 1937. Pioneer Gold Mines Ltd. optioned the Snowbird property in 1939. Pioneer sank an inclined shaft to a depth of 45m on what was called the "MAIN VEIN" and also drove an adit and drifted for 45m on the massive stibnite "Cross Vein", a separate and cross cutting structure. Thirty-six tons of ore were shipped during that time.

The property was examined briefly by several companies during the war years, but little exploration was done. Cominco intersected 5 feet of 0.24 oz/t gold near the inclined shaft, but did not follow with any other work. A further shipment of massive stibnite totalling 66.1 tons from the "Cross Vein" was made in 1947.

The showings were mapped by the G.S.C. as part of the Fort St. James map area. They reported high grade gold occurring in a carbonated zone 46m wide, which is intersected by a stockwork of quartz veins and lenses. This zone strikes northwesterly, dips 40-50° northeast and was followed for about 500 feet along strike. Further extensions are hidden by lacustrine sediments. The one ore shoot exposed at that time was 95 feet in length, at least 135 feet deep and 3 feet wide. This shoot averaged 0.25 oz/t gold and 9.2% antimony. Another shoot 300 feet to the northwest was reported which contained up to 0.52 oz/t gold over narrow widths. Other veins are reported in the immediate area. It is significant to note that two structural directions were noted by the G.S.C., a major northwest carbonated shear and

northeast carbonated and highly mineralized vein-filled faults.

The property lay dormant until 1970 when a geochemical survey was undertaken on a portion of the claims. Small drill programs were completed on the quartz stringer zones in 1974 and 1980 which produced gold intersections of 0.12 oz/t over 4 feet, and 0.35 oz/t over 5 feet.

X-Cal optioned the property in 1985 and completed a trenching, geochemical sampling, and a 10-hole diamond drilling program in 1986. The drill holes were aimed at the northwest trending alteration zone which was known to host two mineralized veins: the MAIN VEIN and the PEGLEG VEIN, together called the SNOWBIRD ZONE. All holes intersected the quartz-ankerite-mariposite alteration. Hole 86-2 contained 4.25m of 0.27 oz/t gold, and Hole 86-6 intersected a spectacular vein 15cm wide containing visible gold which assayed 248.16 oz/t gold and 84.58 oz/t silver. These veins were followed 400 feet along strike. The significance of these high grade gold intersections was apparent in that the mineralogy was different from what was previously known. A separate mineralizing event was suggested.

During 1987, a comprehensive geophysical survey comprising I.P., horizontal loop EM, VLF-EM, and magnetics was completed over the northwest portion of the claim group. The I.P. located the known zone of alteration and extended the strike length of this zone to 2,000m; the zone was still open to the northwest and southeast. Both the I.P. and magnetics suggested north to northeasterly trending fault zones are present on the property.

X-Cal undertook a 25-hole diamond drill program in the same area as in 1986 to further

# SNOWBIRD PROPERTY

delineate the gold intersections found in the earlier program. Gold values in drill core were detected, but were below economic concentrations. A percussion drilling program during 1987 was designed to penetrate the clay overburden and sample basal till and bedrock in the areas designated as anomalous by the geophysical program. Twenty-five of the fifty-seven holes encountered quartz-ankerite-mariposite alteration; the alteration zone was extended an additional kilometre along strike. Twenty of these holes encountered highly anomalous gold concentrations. The presence of an additional structure east of the SNOWBIRD ZONE was suggested by the results, and called the EAST ZONE.

An additional diamond drill program in early 1988 was designed to test the strike extension of the SNOWBIRD ZONE alteration. This program was successful in extending the gold mineralized portion of the structure an additional 370m. Intersections included 2.65m of 0.226 oz/t, 3m of 0.109 oz/t, 6.12m of 0.319 oz/t (which includes 1m of 1.412 oz/t), and 1m of 0.298 oz/t gold. Deep drilling intersected the alteration zone at 400m, indicating that the zone remains continuous to depth. This new area of significant gold mineralization was designated the "NORTH ZONE".

Drilling continued in 1989 with activity concentrated on the NORTH and EAST ZONES. Six holes intersected significant gold concentrations in the MAIN ZONE, producing a combined block 150m along strike and 120m down dip. The mineralized intersections in the nine widely spaced holes in this block averaged 2.4m in width, produced an estimated reserve of 305,980 tons of 0.219 oz/t gold, including the SNOWBIRD ZONE. Two holes placed in the EAST ZONE intersected a new quartz-carbonate-mariposite alteration zone and a mineralized felsic intrusive.

A prospecting program discovered two new areas of highly altered volcanics more than a kilometre north of the previously last known showing. In addition, a granite intrusive was found on the peninsula east of what is thought to be the main Sowchea shear zone. This intrusive is well fractured and mineralized. Soil samples over the intrusive contain up to 6800ppb gold.

Prospecting on the remainder of this large property is continuing.

## PROPERTY GEOLOGY

The claims are underlain by Triassic age chert, argillite, slates, and andesites of the Cache Creek group. These sediments and volcanics have been intruded by alpine-type ultramafics and a blue schist

metamorphic assemblage. The ultramafics have been altered to serpentinite, then hydrothermally altered to an ankerite-quartz-mariposite assemblage known as listwanite. Diorite dykes are common. A granite intrusion occurs on the eastern side of the property.

A major northwest trending fault, known as the Sowchea Shear Zone, crosses the property along the shore of the Stuart Lake. This structural feature is considered to be related to the main Pinchi Fault located several kilometres to the east. Extensive brecciation and fracturing accompanies the trace of the Sowchea Shear Zone and its splays. Cross faults and flat faults are common and may be mineralized.

Hydrothermal alteration within the ultramafics includes conversion of significant volumes of rock to talc. The listwanite assemblage is most often spatially associated with gold mineralization. Silicification, sericitization and chloritization are also common.

The gold mineralization found to date appears to post-date the main hydrothermal alteration. Two types of mineralization are evident: mineralized quartz veins with pyrite and arsenopyrite; and sulphide enriched fracture zones with quartz or quartz ankerite stringers. Sulphides can include pyrite, arsenopyrite, and minor stibnite. Quartz veins can be ribboned and contain appreciable wall rock fragments which may also be mineralized.

The geological setting of the Snowbird property is similar to the Bralorne camp of British Columbia and the Motherlode gold camp of California. The main control on mineralization appears to be structural preparation of the host rocks.

## RECOMMENDED PROGRAM

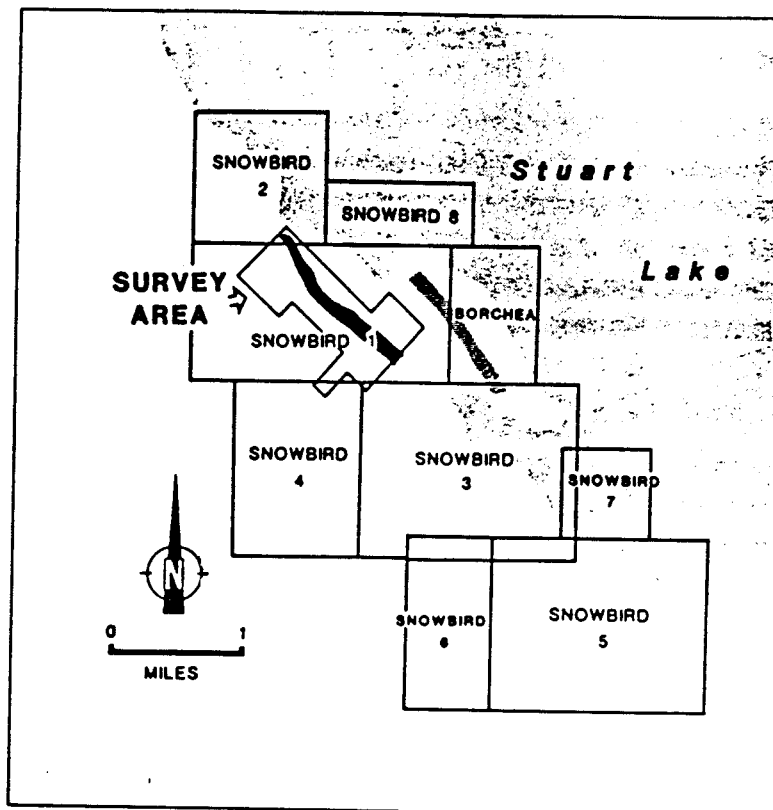
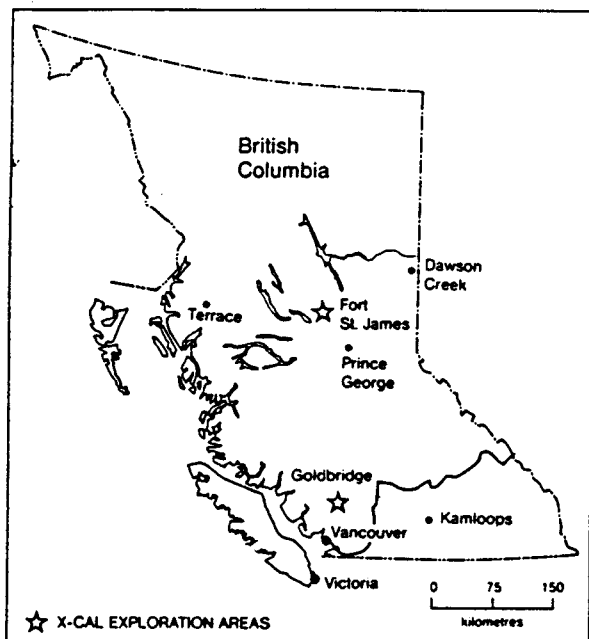
The grid on the Snowbird Property should be extended to cover the remaining portions of the claim group which has yet to be examined. An induced polarization, VLF-EM and magnetic survey should be done to further delineate alteration zones and structure. Emphasis should be placed on understanding the role of the northeasterly striking and flat faults which appear to play a controlling role in the localizing of gold mineralization.

In addition, trenching and detailed sampling should be completed on the new GRANITE ZONE in the vicinity of the granite intrusive. Prospecting should continue.

A geochemical orientation survey should be undertaken in areas of clay overburden to better understand what sampling methods, if any, are applicable.

These data should be assimilated prior to undertaking further drilling.





### SNOWBIRD PROPERTY – CLAIM MAP

KASAAN BAY, STUART LAKE, FORT ST. JAMES AREA – OMINECA MINING DIVISION, B.C.

Significant Snowbird Zone Drill Hole Assays		
Hole	Width (ft.)	Grade (oz/ton)
86-2	13.9	0.27
86-6	5.0	23.0
86-7	3.28	0.715
C-1	5.0	0.27
C-2	5.0	0.35
P-6	3.0	0.698
P-7	8.0	0.58

Drill Hole Intersections North Zone, Snowbird Property Fort St. James, B.C.				
Hole #	Depth from (ft.)	to (ft.)	Interval (ft.)	Au (oz/ton)
X 88-6	272.49	281.18	8.69	0.226
	309.00	318.85	9.85	0.109
X 88-9	272.65	275.93	3.28	0.298
	333.35	337.12	3.77	0.110
X 88-13	356.15	376.23	20.08	0.319
	281.12	291.29	10.17	0.0897
X 88-14	281.12	291.29	10.17	0.0897
	192.56	195.84	3.28	0.114
X 89-2	212.15	217.99	5.84	0.351
	325.51	335.58	10.07	0.264
X 89-3	325.51	335.58	10.07	0.264
	263.96	271.50	7.54	0.189
X 89-4	263.96	271.50	7.54	0.189
	362.55	365.17	2.62	0.128
X 89-9B	496.71	504.58	7.87	0.124
	514.30	520.99	6.69	0.152
X 89-10	527.94	537.43	9.49	0.204
	506.52	521.58	15.06	0.136
X 89-11	506.52	521.58	15.06	0.136

