NO SECURITIES COMMISSION OR SIMILAR AUTHORITY IN CANADA HAS IN ANY WAY PASSED UPON THE MERITS OF THE SECURITIES OFFERED HEREUNDER AND ANY REPRESENTATION TO THE CONTRARY IS AN OFFENCE.

New Issue

250,000 shares

Without nominal or par value

STARBIRD MINES LTD. (NON-PERSONAL LIABILITY)

(incorporated under the laws of the Province of British Columbia)

HEAD OFFICE:

3505 West 30th Avenue VANCOUVER, B.C.

REGISTERED OFFICE:

1250 - 505 Burrard Street VANCOUVER, B.C.

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

	Price to Public	Commissions	Proceeds to Company
Per Unit	40¢	10¢	30¢
Total	\$100,000.00	\$25,000.00	\$75,000.00

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

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

The shares offered by this prospectus represent 19.4% and the shares issued to promoters, directors and other insiders for cash and properties represent 69.1% of the total number of shares to be issued and outstanding upon completion of this offering.

September 30, 1971

103 P068 - 05

INDEX

Ni Issue																			Page 1
New Issue .	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	1
The Company	•	•	٠	٠		•						•			•		•		3
Capitalization				•				•	·	٠									3
Plan of Distributi	on		•	•				•											3
Auditors .									•							•			3
Registrar and Tra	nsfer	r A g	gent																4
Prior Sales .																			4
Business and Prop																			
					Acc	ess	•	-		•	-						•		5
			ition								-		-				•		6
	Hist	ory	•									•			•		•	•	7
	Wor	k D	one																7
	Plan	it o	r Eq	uipn	nent	•	•	٠				٠					•	•	7
Use of Proceeds										•	٠		•					-	8
Promoters .					•											•		٠	9
Directors and Off	icers	3																	9
Remuneration of	Dire	cto	rs			-												•	10
Escrowed Shares													٠						10
Principal Holders	of S	ecu	ritie	s.															11
Material Contract	S																		11
Other Material Fa	icts																		11
Statutory Rights	of W	ith(draw	al a	nd R	escis	sion												12
Engineers Report										•									19
Certificates .										-	•		•			•	•		12
Financial Stateme	ents																		13

THE COMPANY

Starbird Mines Ltd. (Non-Personal Liability) was incorporated on July 26, 1967 under the Companies Act, British Columbia by Memorandum of Association. The Company converted from a private to a public company on June 4, 1970.

AMENDMENTS TO MEMORANDUM OF ASSOCIATION

- 1. By certificate dated October 30, 1968 and issued from the office of the Registrar of Companies, the Company converted from a limited company to a specially limited company and changed its name from Starbird Mines Ltd. to Starbird Mines Ltd. (Non-Personal Liability).
- 2. By certificate dated October 30, 1968 and issued from the office of the Registrar of Companies, the Company increased its capitalization from 50,000 shares with a maximum selling price of \$1.00 to 750,000 shares divided into 10,000 Class "A" voting participating shares and 740,000 Class "B" non-voting participating shares with a maximum price of \$1.00.
- 3. By certificate dated March 25, 1970 and issued from the office of the Registrar of Companies, the Company abrogated the rights and restrictions attached to its Class "A" and Class "B" shares so that all shares are equal rank and increased its capitalization from 750,000 shares with a maximum selling price of \$1.00 to 3,000,000 shares without nominal or par value with a maximum selling price of \$1.00.

CAPITALIZATION

The Company is authorized to issue 3,000,000 shares without nominal or par value and the maximum price or consideration at or for which such shares may be sold is \$1.00. There is only one class of shares and all rank equally as to dividends, voting rights and participation in assets.

Share Capitalization	Outstanding as of June 30, 1971	Outstanding as of September 30, 1971	Outstanding on Completion of Offering
3,000,000	1,036,205	1,036,205	1,286,205

PLAN OF DISTRIBUTION

The Company offers by this prospectus 250,000 shares of its capital stock at 40¢ per share. Shares of this issue may be sold by trading directors of the Company pursuant to the provisions of Section 7 (2) of the Securities Act, 1967. No commission or other remuneration will be payable to the trading directors of the Company in connection with this offering of shares. Shares of this issue may also be sold by persons and companies registered to trade in securities in the Province of British Columbia.

AUDITORS

The auditor of the Company is Brendan P. Higgins, Chartered Accountant, 149 East 15th Street, North Vancouver, B. C.

REGISTRAR AND TRANSFER AGENT

The registrar and transfer agent of the Company is the Canada Trust Company, 901 West Pender Street, Vancouver, British Columbia.

PRIOR SALES

Particulars of shares sold for cash:

Number of Shares	Price	Commissions	Cash Received
5	\$1.00	Nil	\$ 5.00
240,000	.10	Nil	24,000.00
10,000	.25	Nil	2,500.00
76,000	.50	Nil	38,000.00
4,200	.40	Nil	1,680.00
330,205			\$66,185.00

326,005 shares are held in trust by The Canada Trust Company, 901 West Pender Street, Vancouver, B.C. and will not be released to the beneficial owners thereof until at least 30 days following completion of this offering of shares to the public.

Particulars of shares sold for other than cash:

Number of Shares	Deemed Price	Commissions	Consideration
157,500	10¢	Nil	Gypsy, Little Joe, Lucky Seven mineral claims;
10,000	10¢	Nil	Glacier King, Beth, Ed, Alyce, Ann, Cora, Ron, Sue mineral claims.
538,500	10¢	Nil	Frank Fr., Vic Fr., John Fr., Jules Fr., Cat Fr., Kitten Fr., mineral claims;

All of the above 706,000 shares are held in escrow by The Canada Trust Company, 901 W. Pender St., Vancouver, British Columbia, under the direction and control of the B.C. Securities Commission. (see paragraphs "Business and Property" and "Escrowed shares")

During the past year the Company sold 4,200 shares at 40¢ per share.

BUSINESS AND PROPERTY

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

1. Description and Access

Province of British Columbia, Skeena Mining Division

The Company is the recorded and beneficial owner of the following located mineral claims:

Claim Name	Recorded Number	Expiry Date
Glacier King	32295	September 28/72
Beth	32296	September 28/72
Ed	32297	September 28/72
Alyce	32298	September 28/72
Ann	32299	September 28/72
Dora	32300	September 28/72
Ron	32301	September 28/72
*VERNE	34544	August 22/72
*BOB	34543	August 20/72
Vic Fraction	32808	June 16/72
Frank Fraction	32807	June 17/72
Su Fraction	32302	September 28/72
KITTEN Fraction	34476	August 20/72
CAT Fraction	34477	August 20/72
JULES Fraction	34478	A ugust 20/72
JOHN Fraction	34479	August 20/72

^{*} acquired for the cost of staking.

The Company is the recorded and beneficial owner of the following Crown Granted mineral claims:

Name	Record Number	Delinquent Date
Little Joe	873	December 31, 1971
Gypsy	416	December 31, 1971
Lucky Seven	874	December 31, 1971

(hereinafter called the "Stewart area claims)

All of the above located and Crown granted mineral claims form one contiguous block.

The Company has staked 3 further claims in the Skeena Mining Division referred to as the Bill. Lu, and Julie claims in the report of D. Arscott, P. Eng., dated July 15, 1971 but the staking of such claims is presently in doubt. These claims are not considered as key claims.

Yukon Territory, Whitehorse Mining Division

The Company is the recorded and beneficial holder of the following located mineral claims acquired for the cost of staking.

Name	Record Number	Expiry Date
Star 1 - 40	Y50341 - Y50380	February 13, 1972

(hereinafter called the "Star group" of mineral claims)

Access to the Stewart area claims may be gained either by helicopter out of Stewart, a distance of approximately 4 air miles, or by trail to the property with a 3 hour climb to the workings.

The Star group of mineral claims are accessible by helicopter from Carmacks, a distance of approximately 60 miles.

2. Acquisition

By an agreement dated October 30, 1967 as amended by an agreement dated April 15, 1970, Robert Meirte agreed to convey the Glacier King, Beth, Ed, Alyce, Dora, Ron and Su Fractional mineral claims to the Company for the sum of \$21,000. and 10,000 Class "B" shares in the Company's capital stock (now common shares). The shares have been allotted and issued and the sum of \$15,000. has been paid with the balance of \$6,000. in respect thereof, payable on or before October 31, 1972. (Pursuant to an Agreement dated June 8, 1971 the payment deadline was extended to October 31, 1972.)

The cost to Robert Meirte of the above-mentioned mineral claims was approximately \$500.

By an agreement dated August 4, 1967 as amended by an agreement dated April 15, 1970, Mrs. Julia Carr of 3517 West 30th Avenue, Vancouver, British Columbia, granted an option to Robert Meirte, Verne MacKenzie, and Ludwig Lehner to acquire the Gypsy, Little Joe and Lucky Seven Crown granted mineral claims for the sum of \$45,000.00 of which \$18,000 has been paid. Pursuant to an agreement dated June 7, 1971 the balance owing was altered from \$27,000.00 to \$12,000. payable on or before October 31, 1972.

By an agreement dated April 17, 1970, Robert Meirte, Verne MacKenzie and Ludwig Lehner assigned the Carr option to the Company for 52,500 shares each in the capital stock of the Company. The Company has assumed the obligation to pay the aforesaid balance.

By an agreement dated June 28, 1968 as amended by an agreement dated April 15, 1970, Robert Meirte agreed to convey the Frank, Vic, John, Jules, Cat and Kitten fractional mineral claims to the Company for the sum of \$12,000 and 538,500 shares in the Company's capital stock. The sum of \$12,000, has been paid and the 538,500 shares have been allotted and issued. Following issuance of the shares, Robert Meirte transferred 177,500 shares to Verne MacKenzie, and 167,500 shares to Ludwig Lehner for the consideration of 1¢ per share. (see paragraphs "Promoters", "Escrowed shares", and "principal Holders of Securities"). The cost to Robert Meirte of the above-mentioned claims was approximately \$500.

REPORT

ON

STAR GROUP OF CLAIMS

(Lat. 62° 26' N; Long. 137° 47' W)

WHITEHORSE MINING DIVISION YUKON TERRITORY

for

STARBIRD MINES LIMITED

by

A.J. Sinclair, P. Eng.

July 29, 1971

INDEX

Summary																			Page 21
Introductio	n	-				-	•			-									21
History .																			23
General Ge	ology							•											23
Aeromagne	tic Sı	ırvey				•				•									23
Geochemic	al Sur	vey		•		٠													25
Recommen	datio	ns											,						25
Estimate of	Expe	endit	ures																27
Conclusion	s .	•						•						•			•		27
References		-	•	•	•	٠		•	•	•		•	•						28
Certificate			•	٠	•			•	•	•						•	•	•	29
Figures	1:	Loc	catio	n				•	•	٠	·	ė							22
	2:	Cla	ims																24
	3:	Log	g pro	bab	ility	plot	of s	oil C	u res	ults									26

REPORT ON STAR GROUP OF CLAIMS

SUMMARY

1. Star Group, consisting of Star 1 to 40 claims inclusive, and owned by Starbird Mines Limited, Vancouver, B.C., is on the south flank of Prospector Mountain, Dawson Range, Whitehorse Mining Division, Yukon Territory.

\

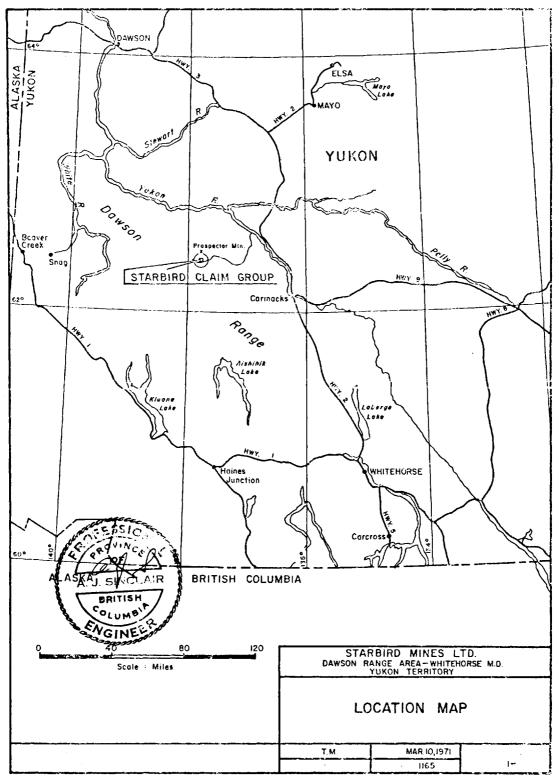
- 2. An airborne magnetometer survey indicates a pronounced, closed, total field anomaly (high) located centrally within the group.
- 3. Of 183 soil samples taken in the northwestern part of the property about 11 percent appear anomalous (higher than 70 ppm Cu). A number of these anomalous values from a group coincident with part of the aeromagnetic high.
- 4. Existing geophysical and geochemical results for the property are sufficiently encouraging to indicate that further work is warranted.
- 5. Further evaluation should be directed towards completion of the soil geochemical coverage of the property and detailed geological mapping and prospecting.
- 6. Estimated expenditures for an exploration program involving the foregoing aspects total \$19,140.00, not including normal overhead and operating costs of the company.

INTRODUCTION

Star group of calims, held by Starbird Mines Ltd., Vancouver, B.C., consist of 40 contiguous claims (Star 1 to 40 inclusive as shown in figure 2) in the Prospector Mountain area, Dawson Range, Whitehorse Mining Division, Yukon Territory (figure 1). The group is centred approximately at latitude 62° 26' N and longitude 137° 47' W, and is accessible by helicopter from Carmacks about 60 miles to the southeast. Airstrips for small fixed wing aircraft exist at Casino Mines' property about 38 miles northwest of Star group and at Hayes Creek (International Mines) about 12 miles north of Star Group.

The claims are on the south side of Prospector Mountain about 1 mile from the summit at elevations between 4000 and 5000 feet a.m.s.l.

The writer has not visited the Star Group of claims. This report is based on examination of published geological maps and technical papers dealing with the general area, and evaluation of geochemical and geophysical work conducted by Geo-X Surveys Ltd. during early 1971. The writer's purpose is to evaluate available information, and, if warranted, outline further exploration.



HISTORY

The general area has held economic interest for mineral exploration for several decades. Vein and contact metasomatic deposits on Freegold Mountain, important for their gold potential, were examined first in the early 1930's (Johnston, 1937; Bostock, 1936). Small silver-galena veins are also known such as that on Trombley Creek (Bostock, 1944) and the Bomber adit (Phillips and Godwin, 1970). More recently exploration activity in the region has been spurred by (1) the Mt. Nansen gold-silver vein which to 1969 had produced 2800 oz. Au and 85,000 oz. Ag (Saagar and Bianconi, 1971), and (2) Casino Mines' large tonnage, low grade, porphry-type, molybdenite deposit 38 miles to the north of Star Group (Phillips and Godwin, 1970).

Thus far mineralization has not been discovered on Star Group although ground work has been limited. Recorded work includes an aeromagnetic survey covering the entire property and a soil geochemical survey covering about one-quarter of the area. The geochemical coverage includes relatively widely spaced B-horizon samples that were analyzed for Cu and Mo (Sandner, 1971).

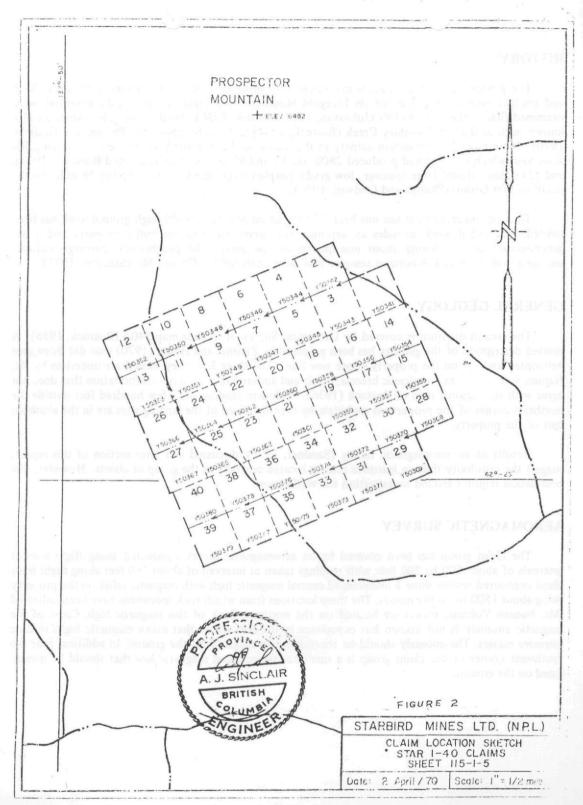
GENERAL GEOLOGY

The area in question is covered by Geological Survey of Canada map 340A (Bostock, 1936). A limited description of the geology has been prepared by Zimmer and Hilker (1970) who did three spot helicopter landings on the property above tree line. The three sites they visited are underlain by Mt. Nansen volcanic rocks — volcanic breccia, basalt and andesite respectively — information that does not agree with the regional map of Bostock (1936). A fourth landing site a few hundred feet outside the northeast corner of the property is underlain by syenite. None of the landing sites are in the southern half of the property.

Results of an aeromagnetic survey (Sandner, 1971), discussed in a later section of this report, suggest the possibility that an intrusive mass is located centrally in the group of claims. However, this postulation requires ground investigation for verification.

AEROMAGNETIC SURVEY

The claim group has been covered by an aeromagnetic survey conducted along flight lines at internals of about 500 to 700 feet with readings taken at intervals of about 160 feet along flight lines. Hand contoured results show a pronounced central magnetic high with magnetic relief on the property being about 1500 to 2000 gammas. The three locations from which rock specimens have been collected (Mt. Nansen Volcanic rocks) are located on the northern flank of this magnetic high. Cause of the magnetic anomaly is not known but experience in the area shows that many magnetic highs outline intrusive masses. The anomaly should be thoroughly investigated on the ground. In addition, near the southwest corner of the claim group is a small but pronounced magnetic low that should be investigated on the ground.



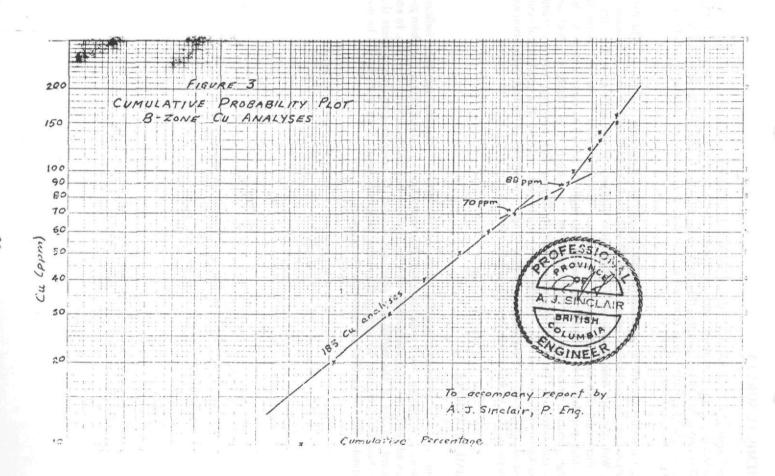
GEOCHEMICAL SURVEY

One hundred and eighty-three soil samples were taken from the northwestern part of the property at intervals of 400 feet along east-northeasterly trending lines spaced 400 feet apart. (Sandner, 1971). These were B-horizon samples that were analyzed for Cu and Mo. Analytical results for Mo were very low, most samples being reported as "not detected" with other scattered results as high as 3 ppm Mo.

The Cu results for the rather restricted area samples are of considerable interest. The data have been analyzed on log probability paper (figure 3) and show the existence of two populations above 10 ppm. With the very limited geological information available for the claim group it is difficult to interpret these data with certainty but it would appear that the highest 11 percent of the data represent a high population of "anomalous" values that might be related to mineral deposits. Because of the high standard deviation of the high population it is unlikely to be related to a rock unit but rather to mineralization. The lower population (below 70 ppm Cu), however, almost certainly represents background Cu derived from normal weathering of rock material. The geochemical results are of interest because of the coincidence of a number of adjacent samples of the high population with the central magnetic high to which reference has been made.

RECOMMENDATIONS

Coincidence of anomalous soil Cu values and the airborne magnetic high zone indicate that further work is warranted. Such work must include complete geological mapping of the claim group to provide an adequate basis for interpretation of both geophysical and geochemical results. In addition, the apparent success of the partial soil geochemical coverage completed to date suggests that this coverage should be extended to include the entire group of claims. Such work should be preceded by the establishment of a grid of cut lines over the property.



ESTIMATE OF EXPENDITURES

1.	Line Cutting 30 miles at \$85.00 for general coverage 10 miles at \$85.00 for detail re:		\$ 2,550.00
	anomalies		850.00
2.	Geological Mapping 40 miles at \$100.00		4,000.00
3.	Soil Sample Analysis		
	2,500 samples for Cu and Mo at \$2.00		5,000.00
4.	Camp Costs		1,500.00
5.	Transportation		
	Helicopter, fixed wing, etc.		2,000.00
6.	Consulting Services		1,500.00
	SUB	TOTAL	\$ 17,400.00
7.	Contingencies (10%)		1,740.00
	TOTAL ESTIMATED EXPENDITURES		\$ 19,140.00

CONCLUSIONS

Preliminary exploration of Star Group of claims, involving an aeromagnetic survey and limited geochemical analyses, suggests that further evaluation of the group is warranted. In particular, an aeromagnetic high has been delimited centrally located in the claim group, with coincident high soil copper values. In view of these positive results and the general interest generated in the area during the past few years, ground examination is warranted. This work should include detailed geological mapping and prospecting of the claims group, and completion of the soil geochemical coverage of the property. Such a program would entail estimated costs totalling \$19,140.00.

REFERENCES

- 1. Bostock, H.S., 1944, Preliminary map, Selwyn River, Yukon; Geol. Survey of Canada Paper 44-34
- 2. Bostock, H.S., 1936, Carmacks district, Yukon; Geol. Survey of Canada Mem. No. 189 (contains map 340A)
- 3. Johnston, J.R., 1937, Geology and mineral deposits of Freegold Mountain, Carmacks district, Yukon; Geol. Survey of Canada Mem. No. 214.
- 4. Phillips, M.P., and C. I. Godwin, 1970, Geology and rotary drilling at the Casino deposit, Yukon Territory; preprint of paper presented orally at C.I.M.M. meeting, Kamloops, B.C., 1970.
- 5. Saagar, R., and F. Bianconi, 1971, The Mount Nansen gold-silver deposit, Yukon Territory, Canada; Mineralium Deposita, in press.
- 6. Sandner, S.L., 1971, Report on an airborne magnetometer survey and partial geochemical survey over the Star group of claims situtaed on the south side of Prospector Mountain; Private report for Starbird Mines Ltd., Vancouver, B.C. by Geo-X Surveys Ltd., Vancouver, B.C. 11 pp plus appendices and maps.
- 7. Zimmer, G.S., and R. G. Hilker, 1970, Geological report, Star 1-40 claim group, Dawson Range, Yukon Territory; private report for Starbird Mines Ltd., Vancouver, B. C.

A. J. Sinclair, P. Eng. July 29, 1971

CERTIFICATE

- I, Alastair J. Sinclair, of the city of Vancouver, province of British Columbia, hereby certify:
- 1. That I am a Geological Engineer residing at 5869 Dunbar Street, Vancouver 13, British Columbia.
- 2. That I obtained a B.A.Sc. degree in Applied Geology from the University of Toronto in 1957, an M.A.Sc. degree in Geological Engineering from the University of Toronto in 1958, and a Ph.D. in Geology from the University of British Columbia in 1964.
- 3. That I am a registered Professional Engineer in the Province of Ontario in the Mining Division, and in the Province of British Columbia in the Geology Division.
- 4. That I have practiced my profession for fourteen years.
- 5. That I have no interest directly or indirectly, nor do I expect to have any direct or indirect interest in the properties or securities of Starbird Mines Ltd.
- 6. That the accompanying report is based upon my studies of geological reports of the area and reports on previous exploration as listed in the accompanying references.

Dated at Vancouver in the Province of British Columbia this 29th day of July, 1971.

A, J. Sinclair, P. Eng.

REPORT

ON

STEWART AREA CLAIMS

(GYPSY, LITTLE JOE, LUCKY SEVEN, ETC.

(55° 59'N, 129° 57'W)

for

STARBIRD MINES LTD.

by

D. Arscott, P. Eng.

CONTENTS

Summary .								•	•		•						Page 33
Introduction							-										33
Claims																	34
Location and Acc	cess																34
Previous Work																	35
Geography .							•					•					35
Geology .																	35
Regional G	eolo	gy					•					·				-	35
Local Geol	ogy						•		•						•		38
Mineralizat	ion																38
Conclusions .								•									38
Recommendation	ns									•							40
APPENDIX:																	
Facilities						•											41
References					•								٠				41
Certificate	•																42
ILLUSTRATION	IS:																
Figure 1:	Loc	catio	on														36
Figure 2:	Pla	n of	Por	tlanc	i Car	nal M	ine					•		•			37
Figure 3:					n Ma olog	•											39

SUMMARY

Potentially good mineralization has been indicated by a study of the Starbird Mines Ltd. claims in the Stewart Area of British Columbia, covering the former Portland Canal Mine.

A strong and persistent vein with a short history of gold-silver-lead mining is located on the Little Joe claim, near the centre of the widely mineralized Portland Canal Fissure Zone.

A detailed exploration program is recommended to evaluate this vein and probably neighbouring veins on the property.

INTRODUCTION

At the request of Starbird Mines Ltd., an engineering evaluation has been made of the company's mining property in the Stewart, B. C. area.

The report is based on the writer's visit to the property on the 1st and 2nd of June, 1971, and on previous engineering and government reports, as listed in the accompanying list of references.

CLAIMS

The property described consists of the following claims:

Claim Name	Claim Type	Record No. or Lot No.
Little Joe	Crown Grant	873
Gypsy	**	416
Lucky Seven	"	876
Glacier King	Located Mineral Claim	32295
Beth	,, ,, ,,	32296
Ed	" " "	32297
Alyce	" "	32298
Ann	19 99 99	32299
Dora	" " "	32300
Ron	22 22 22	32301
Bob	1)),),	34543
Verne	22 22 22	34544
Frank	Fractional Mineral Claim	32807
Vic	22 22 22	32808
Su	22 22 22	32302
Kitten	" " "	34476
Cat	11 21 22	34477
Jules	22 22 22	34478
John	1) 11 22	34479
Bill	Located Mineral Claim	Ownership in doubt
Lu	12 12 22	" " "
Julie	" "	,, ,, ,,

LOCATION AND ACCESS

The claims lie on Glacier Creek, a tributary of the Bear River, four miles northwest of Stewart at the head of Portland Canal, B. C.

A Vancouver Island Helicopters Ltd. 3-place helicopter is based in Stewart and provides fast, inexpensive access to the old workings on the Little Joe claim.

In addition, there is a long, low gradient and formerly corduroyed trail in excellent condition from the Bear Valley road to the property. However, the climb to the workings would probably take some three hours.

PREVIOUS WORK

Tunnelling was commenced on a well defined quartz vein on the Little Joe claim in 1906, and development continued until 1910, at which time a fifty-ton per day mill was put into operation, along with the completion of a two-mile tramway.

The underground development totalled some 1,300 feet of drifting on three levels, over a vertical distance of 100 feet

Figures referring to the tonnage milled vary. However, one B.C. Minister of Mines Reports states that 7,000 tons was milled during 1911, and the present size of the stopes tends to confirm that figure as the total production.

In 1906, a 40-foot shaft was sunk on the Gypsy claim, on a vein believed to be an offshot of the main vein on the Little Joe.

Between 1906 and 1910 exploration and development was carried out on numerous other properties in the vicinity of Glacier Creek. These included the Dunwell, the Lakeview, the Ruth and Francis, the Ben Bolt, the Evening Sun, and the Columbia.

A geological mapping and sampling program was conducted by A.C.A. Howe International Ltd. in 1969, and in June 1971 the writer undertook a soil sampling orientation survey.

GEOGRAPHY

The main workings of the Portland Canal Mine lies at an elevation of 2,400 feet (A.S.L.), and relief across the property is approximately 1,000 feet.

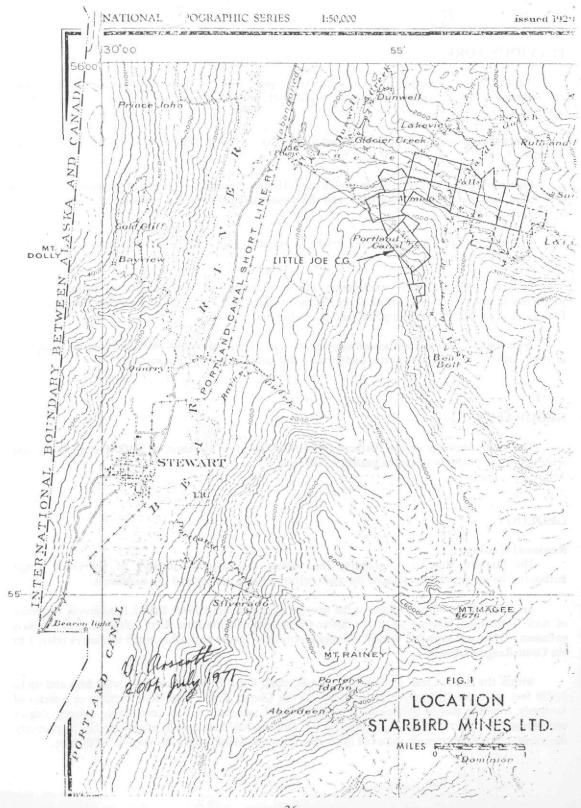
GEOLOGY

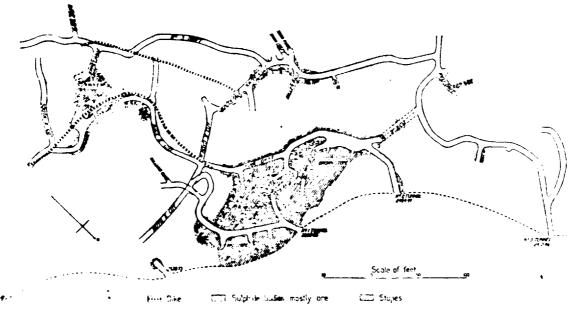
Regional Geology:

The Starbird Mines Ltd. property lies outside the eastern boundary of the Coast Range Batholith, the nearest outcropping of the main intrusive being one mile to the southwest.

Adjacent to the batholith (and at the western margin of the Bowser Basin), is a Jurassic sequence of rock formations, referred to as the Bitter Creek argillites, the Bear River volcanics, and the Nass volcanics. These are intruded locally by augite porphyry stocks and other small intrusives related to the Coast Range Batholith.

Within the Bitter Creek formation, is the Portland Canal Fissure zone, four miles long and up to 1,500 feet wide, trending northerly and centred on Glacier Creek. This zone consists of a series of northerly trending shears, frequently quartz-filled, and mineralized to a remarkably uniform degree with respect to tenor and mineral composition. One tunnel, half a mile northwest of the property described, crosscut seven such veins (all more than 2 feet in width) over a distance of 1,500 feet.





-Pian of workings of Portland Canal mine, from surveys by management, August, 1911.

<u>Fig. 2</u>

Local Geology:

The Little Joe claim is near the centre of the Portland Canal Fissure zone. The main vein on which most of the work took place, strikes north-northwest and dips 20° to 30° to the west. The width of this vein averages 8 feet along a strike length which appears to be at least 2,200 feet.

The vein is a quartz and calcite filled fissure, with varying proportions of fragmented host rock within it. The host rock is mainly argillite, with a small amount of interbedded limestone. Felsitic dykes dykes have been found in close proximity to the vein.

Mineralization:

The main vein is mineralized with pyrite, galena, sphalerite, tetrahedrite, argentite, and native silver. The pyrite is believed to carry the bulk of the gold values, and the galena, much of the silver.

The ore occurs as lenticular masses within the vein, and most of the stoping appears to have been carried out on two orebodies, each a few thousands of tons in size. Indications of the grades at these orebodies are given as follows:

In 1909, an average dump sample by W. J. Elmdort, mining engineer, yielded:

0.3 oz. per ton gold 11.9 oz. per ton silver 5.0% lead

"Usual" values were described by R. McConnell of the G.S.C. (1913), as,

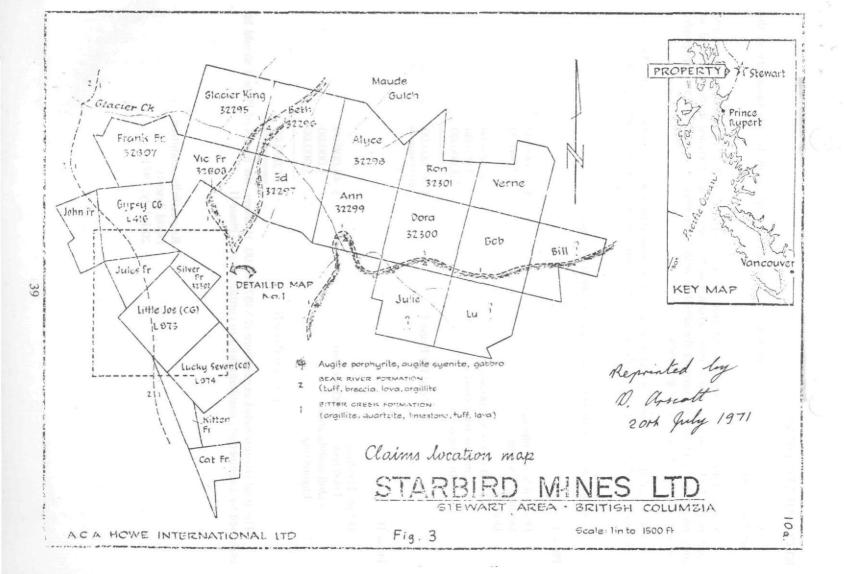
0.12 to 0.3 oz. per ton gold 5 to 25 oz. per ton silver 3 to 12% lead

The average monthly assay for the faces of No. 2 and No. 3 tunnels respectively, for September 1910, were quoted by the B. C. Minister of Mines Report as:

\$5.20 and \$4.00 in gold 61 and 15 oz. per ton silver 2.5 and 4% lead

CONCLUSIONS

Systematic exploration could well reveal new ore-mineral concentrations within the main vein, and possibly in neighbouring veins on the property. The chances of locating commercial quantities of mineralization appear to be very good.



RECOMMENDATIONS

A fairly detailed exploration approach is necessary to compensate for the variability of the mineralization within the veins.

Soil sampling has been found to function well on the property. A 25-foot sample spacing and analysis for lead in the "B" soil horizon would give the best results. Detailed mapping should accompany the soil sampling to correlate the sampling with outcropping veins and relocate topography and workings with respect to the grid used.

Finally, drilling of the resulting anomalies on a priority basis will be necessary. An "Ax" core drill should provide the necessary combination of portability, recovery, and sampling capability.

Cost allowances for these recommendations are as follows:

Phase I:

Detailed Soil Sampling	\$ 12,000.00
Detailed Mapping	2,000.00
Drilling:	
2,500 feet @ \$12.00 per foot	30,000.00
Drill mobilization costs	3,000.00
Engineering costs	3,000.00
Total for Phase I	\$ 50,000.00

Phase II:

Detailed Drilling: 4,000 feet @ \$12.00 per foot Drill mobilization Engineering	\$ 48,000.00 4,000.00 5,000.00
Total for Phase II	\$ 57,000.00

The total recommended expenditure is \$107,000.00. However, the results of Phase I should be evaluated by a competent consultant prior to continuation to Phase II.

Respectfully submitted, David Arscott 20th July, 1971

APPENDIX

FACILITIES

Tide water at Stewart provides excellent low cost shipping. At north Stewart is serviced twice weekly by the Northland Navigation Co. Ltd., from Vancouver. Granduc Mines Ltd. is shipping ore concentrates from a dock one mile south of Stewart.

A plentiful supply of water is available from Glacier Creek and its tributaries for drilling purposes.

Stewart, with a population of 1,500 has most of the basic supply services.

REFERENCES

Regional:

McConnell, R., Portions of Portland Canal and Skeena Mining Divisions, Skeena District, B.C., G. S. C. Memoir 32, 1913.

Hanson, G., Bear River and Stewart Map Areas, Cassiar District, B.C., G.S.C. Memoir 159, 1929

Topography Map: Nass River, 1" = 4 miles, No. 103P

Property:

B.C. Minister of Mines Reports for 1906, 1907, 1908, 1909, 1910, 1914, 1967, 1968, and 1969.

Howe, A.C.A., and Timmins, W.G., Geological Report on Starbird Mines Ltd., Portland Canal Area, October 1967.

Timmins, W.G., Geological Report on the Starbird Mines Ltd. Property, October 1969.

Arscott, D., Geochemical Reconnaissance Survey, June 1971.

Airphotos: B.C. 2182 - 78 and 79

CERTIFICATE

I, David Philip Arscott, of office address 301-540 Burrard Street, Vancouver 1, British Columbia, do hereby certify that:

I am a Professional Engineer, registered in British Columbia.

I am a graduate of McGill University, with degrees of Bachelor of Engineering in Mining Engineering, (1963) and Master of Science in Mineral Exploration (1966).

I have five years experience in mineral exploration, mostly in British Columbia.

This report is based on my personal experience on the property on the 1st and 2nd of June 1971, and on all available references to the property and to the area.

I have no interest, direct, indirect, or anticipated in any property or securities of Starbird Mines Ltd.

DATED at Vancouver, B.C., this fifteenth day of July, 1971.

David Arscott, P. Eng.



STARBIRD MINES LTD.

(N.P.L.)

PROSPECTUS