GEOLOGICAL REPORT

ON THE

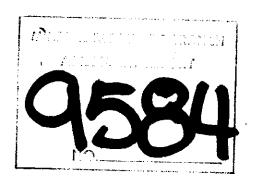
IXL CLAIMS

FOR

RICHCORE EXPLORATIONS LTD.

GREENWOOD MINING DIVISION
BRITISH COLUMBIA

NTS 82E/9W Latitude 49⁰30'N; Longitude 118⁰30'W



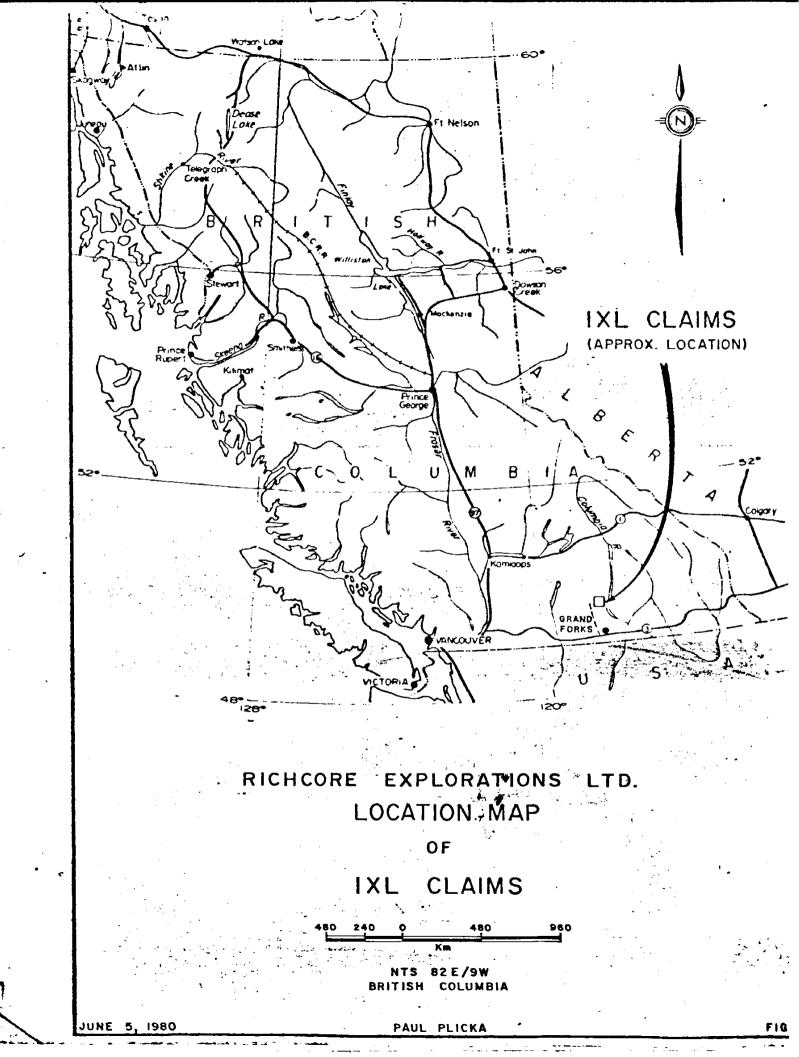
Vancouver, B.C. June 9, 1980 P. Plicka Consulting Geologist

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SUMMARY

The IXL property was examined at the request of Richcore Explorations Ltd. on May 23-25, 1980. Richcore holds 68 claims in the Franklin Mining area of the Greenwood Mining Division, B.C. Their holdings include the old McKinley mine, the IXL showing, the Alpha showing and the Buffalo and Bluejay showings.

Access to the IXL claims is by paved and gravelled road, the last four miles of which are accessible only by four-wheeled vehicle.

The geology of the IXL property consists of a Carboniferous aged crystalline limestone zone intruded by younger Jurassic granodiorites. The contact is masked by still younger sediments and volcanics of Miocene to Eocene age.

Mineralization, consisting of malachite, chalcopyrite, sphalerite, minor galena and pyrite, is within the crystalline limestone (probably near the granitic contact), within the volcanics as dissemination and fracture fillings, and within a quartz vein. Widths of the mineralization vary from 2.0 to 27.0 metres along an exposed length of over 100.0 metres.

Assay results indicate values of: copper, 1.92 to 2.99%; silver, 1.34 to 3.68 oz.; lead, 0.51 to 8.06%; and zinc 1.24 to 20.10% per ton of rock.

A detail exploration program has been recommended for the property divided into three phases totalling \$700,205.00 Canadian.

INTRODUCTION

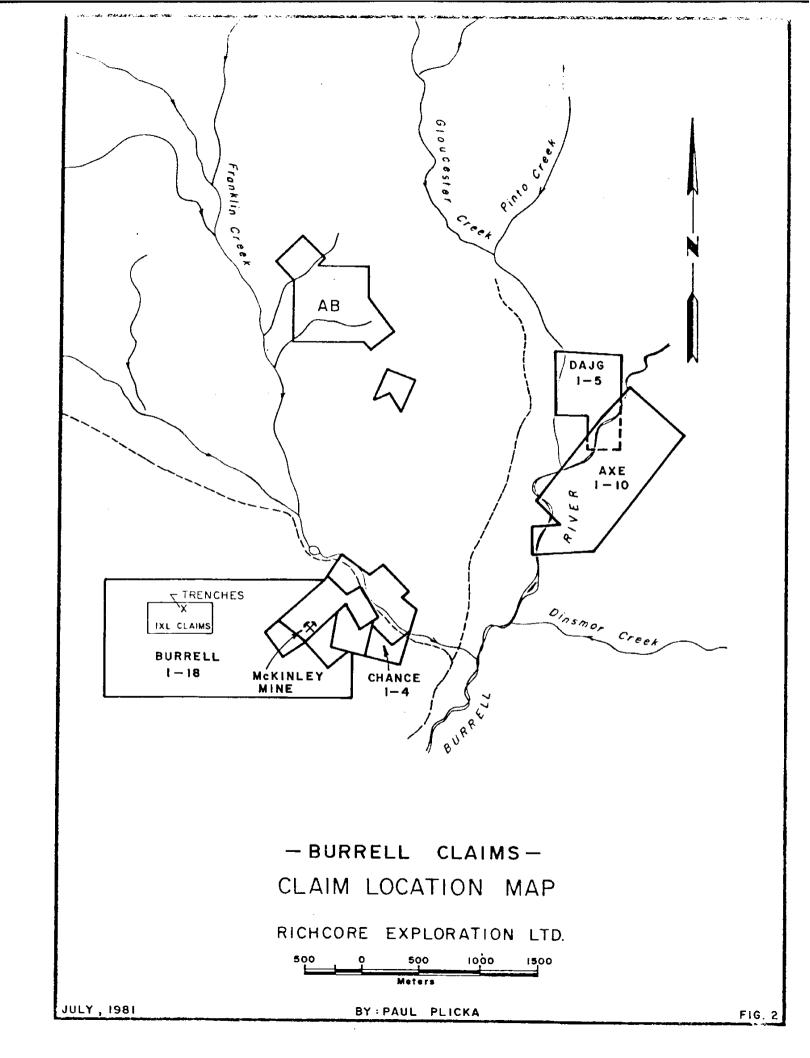
Mr. Ed Little, President of Richcore Explorations Ltd., requested a comprehensive staged exploration program for the IXL mineral claims held by the company in the Franklin Creek area of the Greenwood Mining Division, B.C.

This report, based on a personal visit to the property and a review of all available data, deals mainly with the IXL claims as they are thought, by the company, to presently have the greatest potential of their land holdings in this area.

The writer visited the trenched mineralized zone on the IXL claims on May 23-25, 1980. Several channel samples of the exposed mineralization were collected and the surrounding area was geologically mapped.

LOCATION, ACCESS AND TOPOGRAPHY

The area is known as the Franklin Mining Camp. The property is located approximately 60 km north of the town of Grand Forks, just west of Franklin Creek on the northwest flank of Mt. McKinley. The claims are four miles west of the old McKinley mine (Figures 1 and 2).



The property is reached by a good paved road for the first 30 km from Grand Forks, the next 30 km (gravel) is presently being paved. Access to the claims, from the main road, is via the old McKinley mine road. The last few miles of this road are in poor condition and can be traversed only by a 4-wheel vehicle.

The IXL claims cover an area on the flanks of Mt. McKinley that exposes several steep, vertical cliffs. The general area consists of a series of steeply rising hills from relatively open valleys.

CLAIMS

The Richcore land holdings consist of 60 2-post, unit and reverted Crown Granted mineral claims known as follows:

<u>Claim</u>	No.	Lot Number	Type	Recorded Date
Bryan	1	3241	Rev. C.G.	Nov. 26, 1979
Waverley	1	578 ^{\$}	Rev. C.G.	Nov. 26, 1979
Bystander	1	1028 ^s	Rev. C.G.	Nov. 26, 1979
Munster	1	923 ^s	Rev. C.G.	Nov. 26, 1979
Buffalo	1	920 ^s	Rev. C.G.	Aug. 17, 1979
Alpha	1	1204	Rev. C.G.	Aug. 17, 1979

Claim	No.	Lot Number	Туре	Recorded Date
IXL 1-2	2	1698(8)	2-Post	Aug. 1, 1979
Chance 1-4	4	. 	2-Post	July 23, 1979
Axe 1-8	8	1631-38(7)	2-Post	July 12, 1980
Axe 9-10	2	1685-86(7)	2-Post	July 23, 1979
AB 1-4	4	1256-59(8)	2-Post	Aug. 9, 1979
DAJG 1-5	5	1687-91(7)	2-Post	July 24, 1979
Burrel1	18	1820(10)	18-Units	Oct. 19, 1979
Total	60			

Total acreage for the 60 claims held is approximately 2,960 acres (Figure 2).

WORK DONE

The writer channel sampled and mapped the trenches on the IXL ground and did limited geological mapping of the surrounding area. The writer also researched all available data (see references). Mr. John Carson,

prospector, living near the Franklin Camp and the original staker of some of Richcore's claims provided much inforamtion about the activities in and the history of the area.

HISTORY

The first claims in the area were staked in the summer of 1896. Frank McFarlane located the <u>Banner</u> claim, Jos Wilcher the <u>McKinley</u> claim, the <u>Gloucester</u> claims were located in 1898, the <u>White Bean</u> in 1899, the <u>Maple Leaf</u> and <u>Union</u> in 1902, the <u>Evening Star</u> in 1903, the <u>Buffalo</u> and IXL in 1904.

The McKinley claims produced hand-cobbed ore in 1906 with further development being done in 1911. This property was worked as a high-grade for many years. The sole record of production was in 1948-49 when the property produced 145 tons of ore that returned 2.0 oz. gold, 913 oz. silver, 32,489 lbs. lead, and 49,654 lbs. zinc.

Most of the mineralized showings in the Franklin Mining Camp were trenched to expose the surface extent of mineralization. Several, like the Gloucester and Banner properties, had underground development by drifts and cross cuts to determine the vertical continuation of the surface showings.

Only the Union property was brought to a producing mine stage. During the period 1913-46, the Union Mine produced 188,680 tons of ore returning 55,098 oz. gold; 1,379,962 oz. silver; 27,922 lbs. copper; 371,579 lbs. lead; and 160,255 lbs. zinc. This was obviously a rich gold-silver property.

Reports on the activity on the IXL ground is extremely scarce. It was late in the 1920's when original trenching was completed, however, this was reported without further details. The ground was optioned by Newmont Exploration in 1969. Newmont did regional geochem and magnetometer surveys and stripped the main mineralized zone. They exposed a minimum of 21 m (70 feet) that carried 0.55% copper over several acres.

GEOLOGY

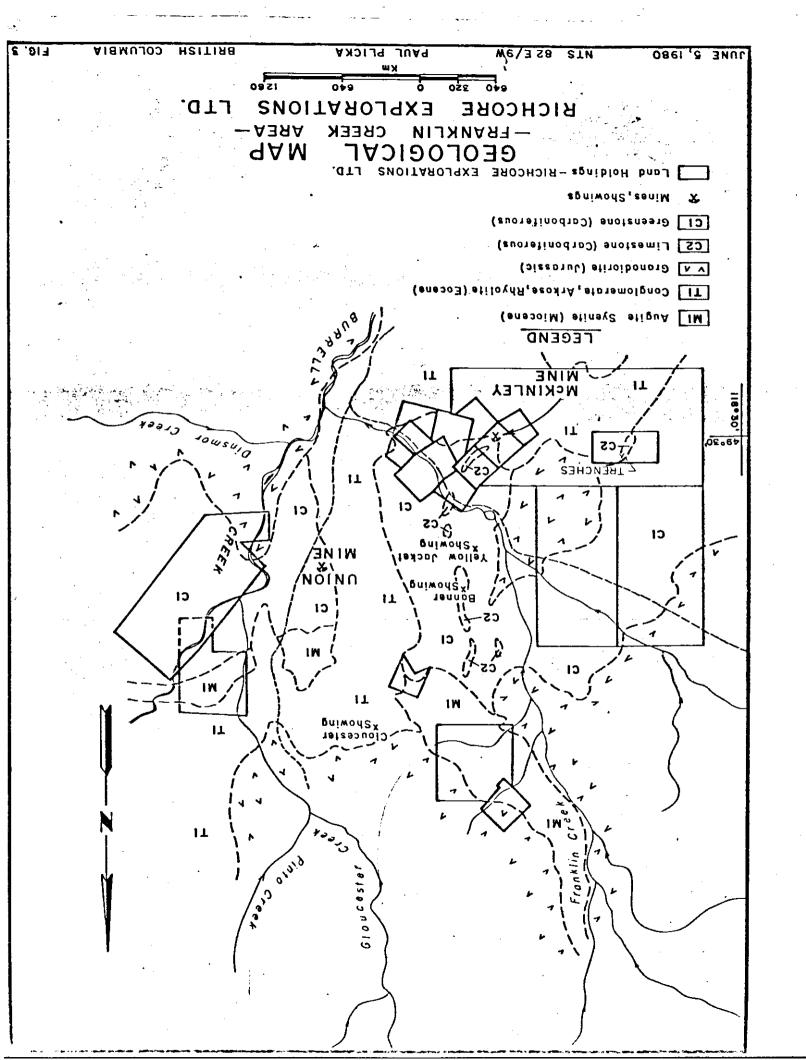
The Franklin Creek area is underlain by clastic sediments and volcanic rocks of the Permian-Carboniferous Anarchist Group, in which is included a crystalline limestone mapped separately as the Gloucester formation.

The Anarchist rocks are intruded by Lower Cretaceous - Jurassic Nelson granodiorites and monzonites, and these in turn are intruded by Eocene Coryell syenites and shonkinite. Overlying all these rocks are Miocene and Eocene clastic and volcanic rocks of the Phoenix Groups (Figure 3).

Mineralization of the camp can be grouped into two main divisions; that associated with the Mesozoic rocks and best developed in the rocks of the Anarchist Group, and that associated with the Tertiary shonkinite. The principle sulphides in each case are pyrite, galena, sphalerite, and chalcopyrite, the proportions varying in individual occurrences. Note that the two types of mineralization result in differing ore values, e.g., dominantly gold-silver from the Union ore and lead-zinc from the McKinley ores. Copper content of ores at the time of smelting resulted in payment penalties and thus copper returns are never reported. It is thought that the Franklin Camp is now a valuable one for copper ores with associated gold, silver, lead and zinc.

The geology on the IXL property appears from the cursory examination quite simple. Essentially, a zone of crystalline limestone of the Gloucester formation in all probability abuts against or is intruded by younger Nelson granodiorites. This contact, however, is not revealed because of a cover of still younger volcanic rock. The volcanics are exposed on both sides of the crystalline limestone with conglomerates exposed further to the southeast. The trend of rocks is roughly northeast-southwest (Figure 4).

From an interpretation of known magnetic data the structure on the IXL group appears to show trends in a northeast direction. Strong crossfaulting or shearing in a northwest direction is evident on the property and immediately to the north. Structure to the south appears to be twisted with strong fault expressions trending north.



MINERALIZATION

The mineralization exposed by trenches on the IXL ground indicates three types of separate mineralization; sparce contact minerals with the crystalline limestone close to the possible granitic contact, disseminated copper sulphide minerals within the adjacent volcanics, and a strong quartz vein that reveals abundant copper, lead and zinc sulphides.

The observed minerals are malachite, chalcopyrite, sphalerite, minor galena and pyrite. The mineralization has been recorded across widths varying from 2.0 m for the quartz vein to 27.0 m for the disseminated copper zone. The length of mineralization is at least 100.0 m and open at both ends. Strike of the mineralized zone is northeast-southwest (Figure 5).

<u>Sample #7348</u>: 27 m channel sample, volcanic zone assayed as follows: Au 0.02 oz., Ag 1.82 oz., Cu 2.99%, Pb 1.45%, Zn 8.10%.

Sample #7349: Grey andesitic flow heavily pyritized 20 m channel assayed as follows: Au 0.01 oz., Ag 0.03 oz., Cu 0.01%, Pb 0.01%, Zn 0.02%.

Sample #7350: Mostly pyritized andesite, 15 m channel sample assayed as follows: Au 0.015 oz., Ag 1.34 oz., Cu 2.27%, Pb 0.51%, Zn 1.24%.

Sample #7076: Heavily pyritized siliceous andesite assayed as follows: Au 0.03 oz., Ag 0.03 oz., Cu 0.02%.

<u>Sample #7077</u>: Mineralized, grey limestone which carries Au 0.02 oz., Ag 0.02 oz. (other samples did not carry any significant values).

Sample #7078: 2 m channel across heavily mineralized zone with quartz stringers assayed as follows: Au 0.02 oz., Ag 3.68 oz., Cu 1.92%, Pb 8.06%, Zn 20.1%.

Sample Identification	Gold oz/ton	Silver oz/ton	Copper Percent Cu	Lead Percent Pb	Zinc Percent Zn
7076	0.030	0.03	0.02	·	
7077	0.020	0.02	<0.01	~~	
7078	0.020	3.68	1.92	8.06	20.10
7079	0.010	0.11	0.03	0.51	0.11
7348	0.020	1.82	2.99	1.45	8.10
7349	0.010	0.03	0.01	<0.01	0.02
7350	0.015	1.34	2.27	0.51	1.24

DISCUSSION OF RESULTS

Extremely excellent values of copper, silver, lead and zinc have been obtained across wide widths of 2.0 to 27.0 metres. This obviously must

be the main exploration target. Three samples indicate the range in mineral value per ton:

Copper: 1.92 - 2.99%

Silver: 1.34 - 3.68 oz.

Lead: 0.51 - 8.06%

Zinc: 1.24 - 20.10%

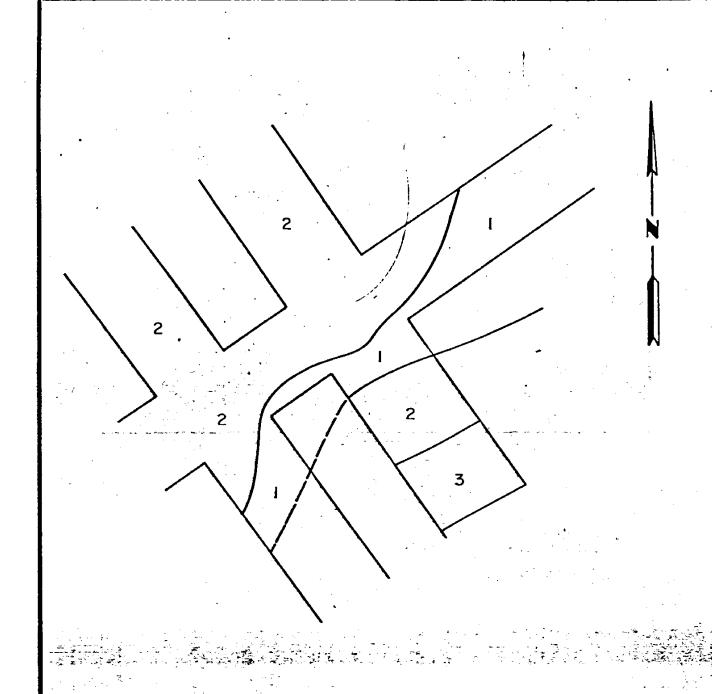
This type of mineralization is exposed along the trenches for in excess of 100 metres and is open at both ends.

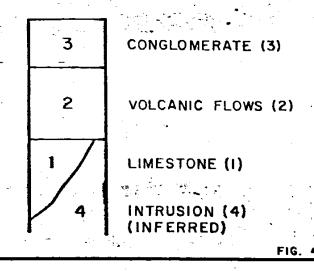
Hydrothermal deposition in the contact zone shows a good zinc-silver relationship. The grading of pyrite is from minor to heavy in adjacent volcanic flows thus indicating the possibility of zoning. The change is linerally related to distance from the contact zone. Further from the contact zone the grade of economic minerals decrease drastically. However, this type of mineralization might indicate andesite porphyry zoning possibly of a Cu-Au type.

The gold value in visibly unmineralized limestone indicates a secondary exploration target. Granitized or crystalline limestone if found could carry economic gold deposit.

CONCLUSIONS

The Franklin camp area is well known for its mineral deposits. All ore deposits are of hydrothermal origin either as a contact zone, sheer zone or vein deposits. This abundance of mineral within a relatively small area indicates the possibility of a large magmatic body of primary mineralization. Therefore, a three phase exploration program is recommended with the emphasis on a Cu-Au porphyry target. The secondary target would be gold in rhyolite flows and gold in altered limestone.

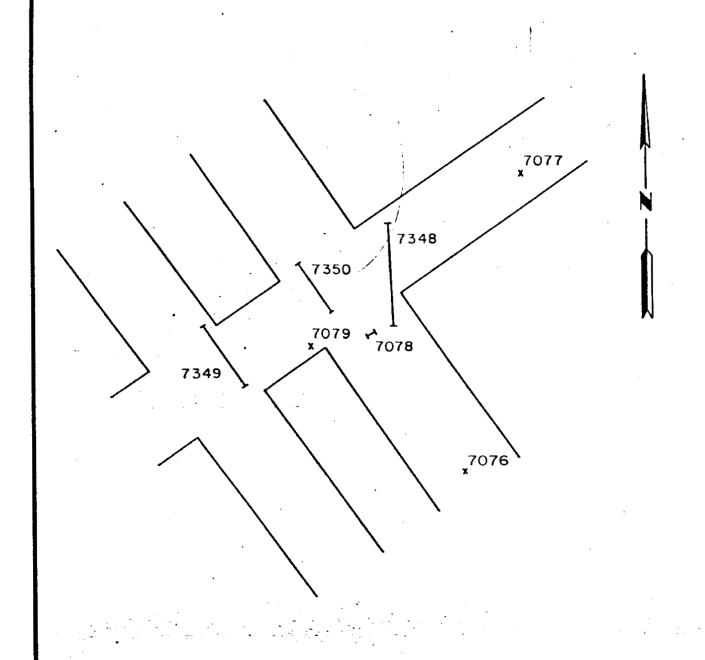




IXL CLAIMS

TRENCH GEOLOGY

SCALE: Icm.=10 m.



IXL CLAIMS

TRENCH SAMPLE LOCATION RICHCORE EXPLORATIONS LTD.

SCALE: Icm.=10 m.

JUNE 5, 1980

PAUL PLICKA



can test Itd.

1650 PANDORA STREET, VANCOUVER, B.C. V5L 1L6

Mr. Paul Plicka

609 - 525 Seymour Street,

Vancouver, B.C.

V6B 3H7

Certificate of Assay

File No. 5849 D

Date:

May 30, 1980.

Attention:

Alle licrely Certify that the following are the results of assays made by us upon submitted

Ore

samples.

Sample Ide	ntification	GOLD	SILVER	Copper	Lead	Zinc			1
		Ounces Per Ton	Ounces Per Ton	Percent Cu	Percent Pb	Percent Zn	Percent	Percent	Percent
Py (IL AND LIMESTONE 2 m ZONE ANDE QULIME 27 m AND PY 20 m IS m PY AND	7076 7077 7078 7079 7348 7349 7350	0.030 0.020 0.020 0.010 0.020 0.010 0.015	0.03 0.02 3.68 0.11 1.82 0.03 1.34	0.02 L 0.01 1.92 0.03 2.99 0.01 2.27	8.06 0.51 1.45 L<0.01 0.51	20.10 0.11 8.10 0.02 1.24			

Note Pulps retained three months.

CAN TEST LTD.

Rejects retained two weeks.

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EXPLORATION PROGRAM

Phase 1

Initiate a soil and silt geochem grid system over the holdings. Use of IXL trenches and surrounding area for interpretation control on mineral mobility in the area. Map all exposed outcrops.

Phase 2

Carry out ground electromagnetic and magnetometric surveys mainly in target areas and in areas covered by conglomerate. Trench near surface targets. Outline boundaries of intrusions. Determine gold content in rhyolite flows. Determine gold content of granitized or crystalline limestone if found.

Phase 3

Cut a grid in target areas. Carry out detail sampling and mapping.

Carry out induced polarization survey and detail electromagnetic survey.

Use detail electromagnetic survey to aid geological mapping. Drill interpreted targets.

ESTIMATED COST OF EXPLORATION PROGRAM

Phase 1

Grid on Burrell group including IXL area of interest 6 km x 7 km	
Establish 2 base lines, 3 km spacing, 200 m line spacing, 100 m stations	
Total 14 km base line \$150/km:	\$ 2,100.00
210 km flag lines \$100/km:	21,000.00
Collect 2,240 soil samples or rock chips, \$5 sample:	11,200.00
Assays approximtely \$15/sample:	33,600.00
Grid on Axe, Little, AB and DAJG Claims Total base line 4 km:	600.00
Total lines 37 km:	3,700.00
Collect 370 soil or rock chips:	1,850.00
Assays:	5,500.00
General prospecting of open adjacent ground 2 crews at \$3,500/month, 2 months:	14,000.00
Mobilization:	15,000.00
Cook, 2 months:	4,000.00
Camp supplies, \$200/day, 60 days:	12,000.00
Transportation:	10,000.00
Helicopter Support:	20,000.00
Geology and Supervision:	20,000.00
Additional Assays: Subtotal	10,000.00 \$184,550.00
Contingencies 10%	18,455.00
Estimated Total Phase #1	\$203,005.00

Phase 2

EM survey approximately 200 km \$100/km:	\$ 20,000.00
Magnetometric survey approximately 200 km \$150/km:	30,000.00
Trenching:	30,000.00
Assay:	40,000.00
Geology and Supervision:	20,000.00
Cook:	4,000.00
Supplies:	12,000.00
Transportation:	15,000.00
Helicopter: Subtotal	20,000.00 \$191,000.00
Contingencies 10% Estimated Total Phase #2	19,100.00 \$210,100.00

Phase 3

Cut grid approximately 50 km at \$200/km:	\$ 10,000.00
I.P. survey \$600/km approximately 20 km:	30,000.00
Magnetometric survey:	10,000.00
EM survey:	5,000.00
Trenching:	20,000.00
Drilling \$32/foot, 2000':	64,000.00
Helicopter Support:	40,000.00
Assays approximately \$25, 400 samples:	10,000.00
Assays approximately \$15, 400 samples:	6,000.00
Mobilization:	15,000.00
Transportation:	15,000.00
Geology and Supervision:	20,000.00
Cook:	4,000.00
Camp Supplies: Subtotal	12,000.00 \$261,000.00
Contingencies 10%	26,100.00
Estimated Total Phase #3	\$287,100.00
Estimated Total All Phases	\$700,205.00

Respectfully submitted,

Paul Plicka

CERTIFICATE

- I, Paul Plicka, of Suite 609, 525 Seymour Street, Vancouver, British Columbia, V6B 3H7, hereby certify as follows:
- 1. I am a graduate of Prague Technical University, 1966.
- 2. I have practised my profession for eleven years in British Columbia.
- 3. I am a fellow of the Geological Association of Canada, in good standing since 1973.
- 4. I have no direct or indirect interest in the securities of Richcore Explorations Ltd., nor do I expect to receive any interest in the future.
- 5. Richcore Explorations Ltd. has my permission to use all or any facts contained in this report for their prospectus.

Paul Plicka Consulting Geologist

REFERENCES

- B.C. Department of Mines and Petroleum Resources Annual Reports, 1915 p. K338-352; 1925 p. A196, 208; 1932 p. A122; 1946 p. 155; 1965 p. 172; 1969 p. 310.
- 2. Geological Survey of Canada, Memoir 56, 1915. Franklin Mining Camp by Drysdale.
- 3. Geological Survey of Canada, Map 6-1957, Kettle River East by E.W. Little.
- 4. James Pike Report on the Union Mine. October, 1935.
- 5. Kingfisher Group. Report by D. Cox, 1970.
- 6. John Carson, Verbal Information, 1980.

Paul Plicka Consulting Geologist 609, 525 Seymour Street Vancouver, B.C. V6B 3H7

July 20, 1981

Mr. R. Rutherford Chief Gold Commissioner Victoria, B.C.

Dear Sir:

Re: Richcore Explorations Ltd.

Properties in Greenwood Mining Division

This letter outlines expenditures on Richcore Exploration Ltd. properties.

Monies spent on Burrell group: \$ 6,400 Monies spent on Axe group: 5,797

The monies on the Burrell group were spent as follows:

Geological report and assays
Road cleaning and improvements

Total expended

\$ 6,400

6907

The monies on the Axe group were spent as follows:

Soil sampling and assays
Road cleaning and improvements

\$ 4,097 1,700

IXL + E AXE

Total expended

\$ 5,797

I trust this is the required information. Please find enclosed two copies of the report on the Burrell group and two copies of the report

on the Axe group.

Yours truly,

Paul Plicka Consulting Geologist

MINISTRY OF ENERGY, MINES AND PETROLEUM RESOURCES

JUL 22 1981

MINERAL TITLES FILE ROOM

REFERRED TO DATE INITIALS
C.G.C.
D.C.G.C.
G.C.
F.M.C.
M.T.D.R.
P.L.C.R.
C.O.A.L.
D.W.