

18346

LOG NO: 0203	RD.
ACTION:	NTS 92G/3 Lat 49°45'N Long 123°50'W
FILE NO:	

REPORT ON THE
JERVIS INLET PROPERTY

VANCOUVER MINING DIVISION

FILMED

RECEIVED
 FEB 1 1989
 Gold Commissioner's Office
 VANCOUVER, B.C.

For

Clive Ashworth
 1010 - 789 West Pender Street
 Vancouver, B.C.
 V6C 1H2

By

Roger G. Kidlark, B.Sc., F.G.A.C.
 Fayz F. Yacoub, B.Sc.
 718 - 744 West Hastings Street
 Vancouver, B.C.
 V6C 1A5

January 25, 1989

R Kidlark

SUMMARY

The Jervis Inlet property consists of six contiguous mineral claims totalling 95 units. The property is situated in the Vancouver Mining Division approximately eight kilometres northwest of Vancouver, B.C.

The region is underlain by the Coast Range Intrusive Complex which is a heterogeneous assemblage ranging in composition from granite to gabbro. The claims cover a pendant consisting of intercalated metasediments and volcanics. The pendant was locally subdivided into argillite, agglomerate, chert and tuff units.

Mineralization consists of pyrite, magnetite, pyrrhotite, chalcopyrite and sphalerite in most of the pendant rock units as lenses of massive sulphides and as disseminations. Chalcopyrite and molybdenite occur as disseminations in stockworks and quartz veins.

Rock samples collected in 1987 and 1988 returned significant values ranging up to 805 ppb gold, 28,343 ppm zinc, 5,614 ppm copper, 2,159 ppm lead, 100.3 ppm silver and 3,815 ppm molybdenite.

Significant results from previous work by the El Paso Mining and Milling Company were compiled and reinterpreted. A high order coincident copper, zinc and silver anomaly was outlined over a two kilometre length. At least 20 VLF-EM conductors occur within the anomalous area.

The geological environment on the Jervis Inlet property is similar to that at the

Britannia Mine which continually produced gold, zinc, copper, silver and lead for a period of 72 years.

A Phase I program of geological mapping, trenching and rock sampling has been recommended at an approximate cost of \$98,000.

Contingent upon favourable results from Phase I, a Phase II program of diamond drilling is recommended.

TABLE OF CONTENTS

	<u>Page No.</u>
SUMMARY	i
1. INTRODUCTION	1
2. LOCATION, ACCESS AND PHYSIOGRAPHY	1
3. CLAIM STATUS	3
4. PROPERTY HISTORY	3
5. REGIONAL GEOLOGY	6
6. 1987 & 1988 PROGRAMS	6
6.1 Purpose	6
6.2 Methods and Procedures	9
7. RESULTS	9
7.1 Property Geology	9
7.2 Rock Geochemistry	11
8. GEOLOGICAL DISCUSSION	12
9. CONCLUSIONS	15
10. RECOMMENDATIONS	16
11. PROPOSED BUDGET	17
REFERENCES	18
CERTIFICATES	19 & 20
ITEMIZED COST STATEMENT	21

LIST OF FIGURES AND MAPS

Figure 1:	General Location Map	2
Figure 2:	Claim Map	4
Figure 3:	Regional Geology Map	7 & 8
Figure 4:	Sketch of 040 Orebody; Britannia Mine	14
Map 1:	Property Geology, 1:2,400	In pocket
Map 2:	Rock and Silt Geochemistry, 1:10,000	" "
Map 3:	Compilation, 1:2,400	" "

LIST OF APPENDICES

Appendix A:	Rock Sample Descriptions
Appendix B:	Analytical Results
Appendix C:	Analytical Techniques

1. INTRODUCTION

This report was prepared to evaluate and describe the results of a prospecting and rock sampling program carried out on the Jervis Inlet Property by Ashworth Explorations Limited of Vancouver, British Columbia. The fieldwork was carried out on November 1 and 2, 1987 by Fayz Yacoub (geologist) and on November 23, 1988 by F. Yacoub and two geotechnicians. The purpose of the project was to locate and evaluate some of the known showings on the property. This report describes previous work on the claims, the results of the 1988 program and makes recommendations for further work.

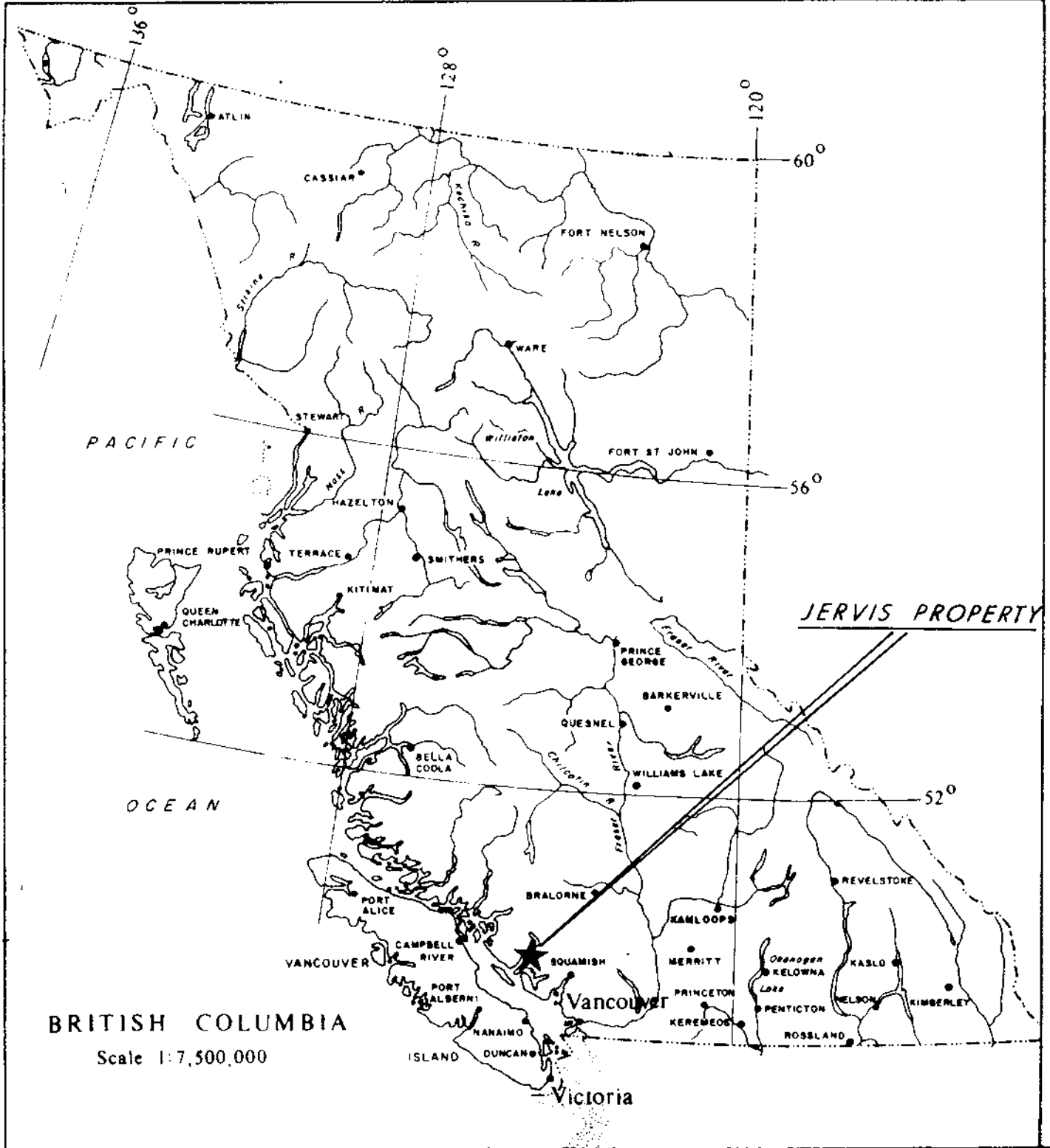
2. LOCATION, ACCESS AND PHYSIOGRAPHY

The property is located in the Vancouver Mining Division, along Jervis Inlet, and approximately 80 kilometres northwest of Vancouver, B.C. (Figure 1).

The property is centred on coordinates of latitude $49^{\circ}45'$ north and longitude $123^{\circ}50'$ west and the area is on NTS mapsheet 92G/3.

Access is by boat from the town of Egmont which is situated 13 kilometres south of the claim group.

A logging camp is situated on Jervis Inlet at the western edge of the property. Active logging has resulted in a number of logging roads which transect the property.



BRITISH COLUMBIA
Scale 1:7,500,000

JERVIS PROPERTY



R. Hill

<p>JERVIS PROPERTY GENERAL LOCATION MAP</p>	
Scale 1:7,500,000	Date: JANUARY 1988.
Drawn - J. S.	Figure 1
<p>Ashworth Explorations Limited</p>	

The area is characteristic of the fjorded coastline of British Columbia with the topography consisting of steep, rugged terrain. From sea level at Jervis Inlet, the land rises to 1,590 metres along the eastern property boundary.

The climate is generally mild; dry in summer and wet in winter. The rainy season begins in October and lasts until April. Exploration can be carried out for eight to nine months of the year.

Vegetation consists of red cedar, yellow cedar, fir, hemlock, pine and larch.

3. CLAIM STATUS (Figure 2)

The registered owner of the property is Clive Ashworth of Vancouver, B.C. The property consists of six contiguous mineral claims totalling 95 units (Figure 2).

Claim data is as follows:

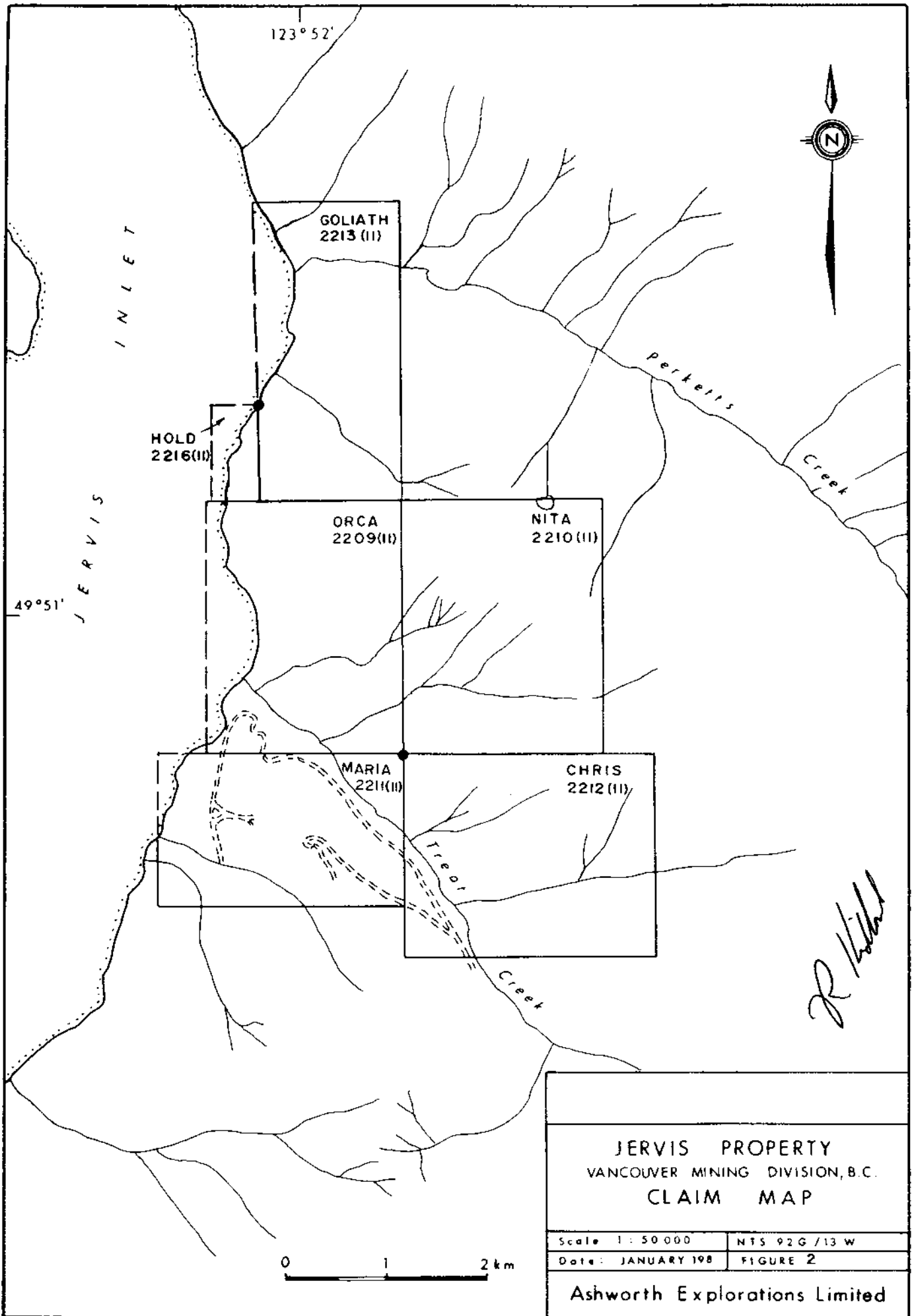
<u>CLAIM NAME</u>	<u>UNITS</u>	<u>RECORD NO.</u>	<u>RECORD DATE</u>	<u>EXPIRY DATE</u>
Orca	20	2209	Nov. 24/87	Nov. 24/89
Nita	20	2210	Nov. 24/87	Nov. 24/89
Maria	15	2211	Nov. 24/87	Nov. 24/89
Chris	20	2212	Nov. 24/87	Nov. 24/89
Goliath	18	2213	Nov. 24/87	Nov. 24/89
Hold	2	2216	Nov. 24/87	Nov. 24/89
Total	95 units			

4. PROPERTY HISTORY

Previous work is as follows:

1917 (B.C.M.M. Report)

- Copper Group
- three levels driven into massive pyrrhotite and magnetite
- highest results from three samples; 0.02 oz/ton Au, 1.2 oz/ton Ag, 1.1% Cu, 33.9% Fe.



49°51'

123°52'

J E R V I S
I N L E T

GOLIATH
2213 (II)

HOLD
2216 (II)

ORCA
2209 (II)

NITA
2210 (II)

Perketts
Creek

MARIA
2211 (II)

CHRIS
2212 (II)

Treol
Creek

R. H. H.

JERVIS PROPERTY
VANCOUVER MINING DIVISION, B.C.
CLAIM MAP

Scale 1 : 50 000	NTS 92 G / 13 W
Date : JANUARY 198	FIGURE 2

Ashworth Explorations Limited

0 1 2 km

1922 (B.C.M.M. Report)

- Copper Group.
- more development work on levels 1,2,3 and fourth level driven - no assays given.

1966 (Examination Treat Creek Showings by Gunnex Limited)

- Copper Group.
- four showings located in skarn type mineralized zones
- 13 samples taken with highest result 0.01 oz/ton Au, 0.79 oz/ton Ag, 1.53% Cu.

1969 (Drill Program by Jervis Inlet Mines Limited)

- Copper Group.
- drilled 4 holes totalling 2000' looking for sulphur, iron copper, zinc.
- intersected numerous sulphide lenses in brecciated hornfels rocks.
- 26 assays documented, 15 of which assayed 0.01 oz/ton Au.

1971-1973 (El Paso Mining and Milling Company) (Map 1 and 3)

- Copper Group.
- Work Done
 - a grid was laid out with 10 foot stations and 100 foot line intervals
 - soil sampling, magnetometer, VLF-EM surveys were carried out at all stations on the grid
 - geological mapping and rock sampling were carried out at a scale of 1:2400
 - limited diamond drilling to test continuity of surface mineralization
- Results
 - mapping delineated numerous mineralized (pyrrhotite, pyrite, chalcopyrite, sphalerite, molybdenum, magnetite) and altered zones.
 - soil sampling strongly anomalous in silver, copper, zinc molybdenum - all trend east-west.
 - magnetic anomalies (>2000 gammas) trend east-west.
 - strong VLF-EM conductors.
 - approximately 2,500 ft AQ diamond drilling (4 holes) intersected weakly mineralized copper and zinc.
 - Gold was not analyzed in soils, rocks or drill core.
- Mr. Harold M. Jones, P.Eng. (1983) summarizes El Paso's exploration work as follows:

While El Paso was not successful in locating an economic mineral deposit, it does not preclude the presence of one within the claims area. The geological setting is favourable for base metal mineralization and gold. Little interest was paid to gold by El Paso, principally due to the low price of the metal at that time. At today's gold price, the area warrants exploring for this metal.

1972 (Thunder Valley Mines Ltd.)

- Fang Claims.
- geological mapping, magnetometer, VLF-EM survey.
- located sheared oxidized zone (with sulphides) mineralized with pyrite, chalcopyrite, pyrrhotite.
- took three rock samples with highest result 0.02 oz/ton Au, 3.8 oz/ton Ag, 8.12% Cu.

5. REGIONAL GEOLOGY

The region is underlain by the Coast Range Intrusive Complex which is a heterogeneous assemblage ranging in composition from granite to gabbro (Figure 3). The units have been emplaced over a long period of time as a succession of intrusions rather than as a single unit.

Pendants of metamorphosed sediments and volcanics are common within the plutonic complex. The sedimentary-volcanic package has been correlated with the Britannia Group which lies approximately 50 kilometres to the southeast. Pyritization is a common alteration of all pendant rocks.

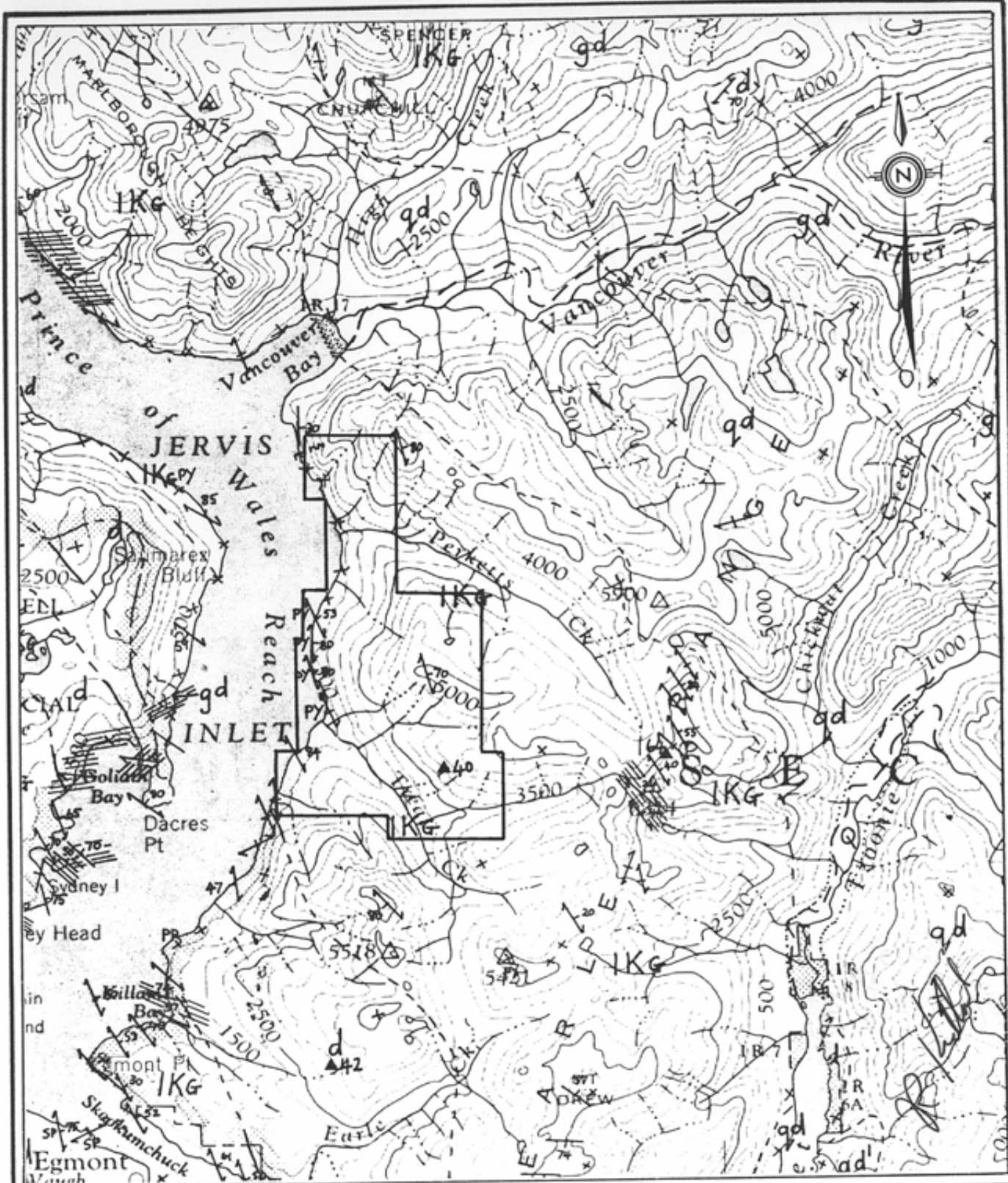
A table of formations is as follows:

<u>AGE</u>	<u>GROUP</u>	<u>DESCRIPTION</u>
Jurassic or later	Coast Intrusions	Coarse-grained hornblende granodiorite Medium-grained biotite granodiorite Main batholithic mass - quartz diorite Quartz feldspar porphyry
----- INTRUSIVE CONTACT -----		
Unknown probably Cretaceous	Jervis Group	Basalt, andesite, pyroclastic, limestone Dolomite, chert and argillite Conglomerate, graywacke, sandstone, greenstone Metavolcanics, metasediments, metadiabase Gneiss

6. 1987 AND 1988 PROGRAMS

6.1 PURPOSE

On November 1 and 2, 1987 Fayz Yacoub (geologist) carried out prospecting, rock sampling and stream sediment sampling on the property.



0 1 2 3 4 5 km

Geology by J.A. Roddick, G.J. Woodsworth and
W.W. Hutchison, 1970-1974.

JERVIS PROPERTY
VANCOUVER MINING DIVISION, B.C.
REGIONAL GEOLOGY MAP

Scale 1 : 125000

By: F.Y.

Date : JANUARY 1989

Figure : 3

Ashworth Explorations Limited

LEGEND

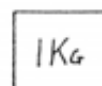
QUATERNARY

PLEISTOCENE AND RECENT



Alluvial, marine and glacial deposits.

LOWER CRETACEOUS

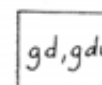


GAMBIER GROUP

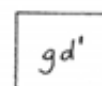
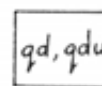
Andesite to rhyodacite flows and pyroclastics, greenstone, argillite; minor conglomerate, limestone and schist.

PLUTONIC ROCKS

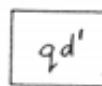
(IUGS Classification, 1973)



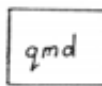
Granodiorite; gdu (non-IUGS classification, from older reports)

Leucocratic varieties of granodiorite, tonalite and quartz diorite; minor β - granite

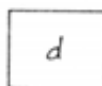
Quartz diorite; qdu (non-IUGS classification, from older reports)



Leucocratic quartz diorite, minor granodiorite and tonalite



Quartz monzodiorite, minor quartz diorite



Diorite, minor gabbro and quartz diorite

SYMBOLS

Approximate limit of outcrop

Geological boundary (known, approximate)

Attitude of bedding or flows (inclined, vertical)

Attitude of foliation (inclined, vertical, dip unknown)

Outcrop examined; bedding or foliation absent

Fault (approximate)

Fossil Locality

Dyke Swarms

MINERAL DEPOSITSReferenceNameProduct(s)

40

Copper (T)

Au, Ag, Cu, Fe

42

Red Jacket

Ag, Cu, Mo, Au

64

Mo



On November 23, 1988, F. Yacoub and two geotechnicians carried out prospecting and rock sampling on the property. The purpose of the program was:

- a) to locate and evaluate known showings on the property,
- b) to find and systematically sample sulphide mineralization on the property,
and
- c) to determine an exploration approach.

6.2 METHODS AND PROCEDURES

Prospecting and rock sampling were carried out at a scale of 1:10,000 (Map 2). Altimeters, compasses and topographic maps were utilized for control.

In 1987, a total of 20 rock samples and three stream sediment samples were collected.

In 1988, a total of 29 rock samples were collected.

All samples were analyzed for gold and multi-element ICP by Vangeochem Lab Ltd. See Appendix B for analytical reports and Appendix C for analytical techniques.

7. RESULTS

7.1 PROPERTY GEOLOGY

A simplification and restoration of El Paso Mining's geology map is presented on Map 1 and the 1987 and 1988 program results are presented on Map 2.

The property is underlain by the Coast Range Intrusives which are comprised of quartz monzonite, quartz diorite and diorite. The intrusives are overlain by

northwest trending bands of argillites and volcanics which transect the central portion of the claims and have been divided into the following units:

Agglomerate - Unit 1

This unit occurs along the northern edge of the extrusive-sedimentary band. A black-coloured fine-grained to aphanitic matrix contains angular to subangular granitic and volcanic xenoliths. Rock fragments average 1.0 to 2.0 cm in diameter and range up to 0.6 metres in size.

Chert - Unit 2

Fine-grained to aphanitic, gray-coloured and thinly laminated bands of chert are interbedded with argillites and within volcanics.

Argillite - Unit 3

Thinly bedded, black-coloured argillites form intercalated northwesterly-trending bands within the volcanics.

Tuff - Unit 4

Tuff is used generally here to describe a finely-banded dark green to black coloured volcanic unit. The composition varies from tuffaceous aphanitic basalt to andesite to a porphyritic nonfoliated andesite. Fine to medium-grained disseminated pyrite and pyrrhotite occur throughout. Intense propylitic alteration occurs on fractures.

Mineralization

Pyrite, magnetite, pyrrhotite, chalcopyrite and sphalerite are present in most of the pendant rock units as lenses of massive sulphides and as disseminations in

skarns. Outcrops of massive sulphides are leached or oxidized at the surface due to the unstable nature of high sulphide minerals and form a series of gossans, consisting of siliceous iron oxides separated by soft yellow limonite areas.

Chalcopyrite and molybdenite occur as disseminations in stockworks and quartz veins.

7.2 ROCK GEOCHEMISTRY

The following rock samples returned significant values (Map 2).

SAMPLE NO.	DESCRIPTION	VALUES
JER87-R4	Chip sample over 1 m. Disseminated pyrite, chalcopyrite and galena in a greenstone.	805 ppb Au 100.3 ppm Ag 618 ppm Bi 985 ppm Zn 2,357 ppm Pb 234 ppm Cu
JER87-R16	Grab chip sample from a light gray volcanic containing disseminated pyrite.	3,815 ppm Mo
JER87-R21	Chip sample over 2 m. Rusty mineralized greenstone with 10-15% pyrrhotite, pyrite and minor chalcopyrite.	1,966 ppm Cu
JER87-R27	Chip sample over 2.0 m of a rusty volcanic. Contains 10-15% disseminated pyrrhotite, pyrite, sphalerite with traces of chalcopyrite.	28,343 ppm Zn 2,159 ppm Pb 1,082 ppm Cu 20.7 ppm Ag 200 ppm Cd
JRF88-R9	Chip sample over 60 cm of a rusty silicified zone. Traces of fine-grained galena, pyrite and chalcopyrite.	1,497 ppm Pb 1,091 ppm Zn 20.6 ppm Ag 575 ppm Cu
JRJ88-R1	Float of silicified dacite. 1-2% fine-grained pyrite.	2,045 ppm Cu

JRJ88-R4	Select chip sample across 1.0 m. Rusty weathered dacite.	6,245 ppm Pb 4.5 ppm Ag 599 ppm Cu
JRJ88-R5	Same as JER87-R27.	11,315 ppm Zn 1.9 ppm Ag 736 ppm Cu
JRV88-R5	Chip sample across 0.3 m. Rusty fine-grained andesite with dis- seminated pyrite, chalcopyrite, and pyrrhotite.	46.6 ppm Ag 7,362 ppm Zn 5,614 ppm Cu
JRV88-R6	Chip sample across 4.0 m. Gossan.	3,238 ppm Cu 2,166 ppm Zn 22.0 ppm Ag
JRV88-R7	Chip sample over 1 m of gossan.	1,840 ppm Cu 29.9 ppm Ag

8. GEOLOGICAL DISCUSSION

Significant results from previous work by El Paso have been compiled and reinterpreted on Map 3. The following threshold values were used for soil anomalies:

ELEMENT	THRESHOLD VALUE
Copper	500 ppm
Zinc	400 ppm
Silver	3.0 ppm

A northwest-trending soil anomaly occurs along the central portion of the claims area. Coincident high order copper, zinc and silver values are semi-continuous over the anomalous area, which is approximately two kilometres in length and 380 metres in width. At least 20 VLF-EM conductors are coincident.

Geologically the areal anomaly occurs over a mafic volcanic tuff area that has undergone intense silicification and pyritization.

To date no widespread bedrock source for the anomaly has been located.

Government geologists correlate the metasediment-volcanic rocks at Jervis Inlet with the Britannia Group and the Britannia Mine is presented as a geologic model (Bacon, 1957).

BRITANNIA MINE

Geological Setting

The Britannia Mine occurs in a pendant of mainly volcanic rocks intruded by several plutons and is located 52 kilometres southeast of Jervis Inlet. The stratified sequence is dominated by pyroclastic rocks of andesitic to dacitic character which are intercalated near the top and overlain by dark marine shales and siltstones (GEM, 1970).

The pendant trends northwesterly and has been emplaced along the Britannia shear zone which is a zone of intense deformation.

Sulphide Mineralization

The sulphide orebodies of Britannia are highly heterogeneous mixtures of sulphides, remnant altered host rocks and discrete veins. The main mineralogy of orebodies is simple and fairly constant. Pyrite is by far the most abundant mineral with less chalcopyrite and sphalerite and minor erratically distributed galena, tennantite, or tetrahedrite.

Massive quartz-free pyrite veins occur along the fringes of the orebodies. The centres of the veins consist of dense granular pyrite, which decreases towards the host rock.

The main massive orebodies all show a marked zonal structure in which they have one or more high-grade chalcopyrite cores enveloped successively by a lower-grade zone and overlapping pyrite and siliceous zone. An example follows:

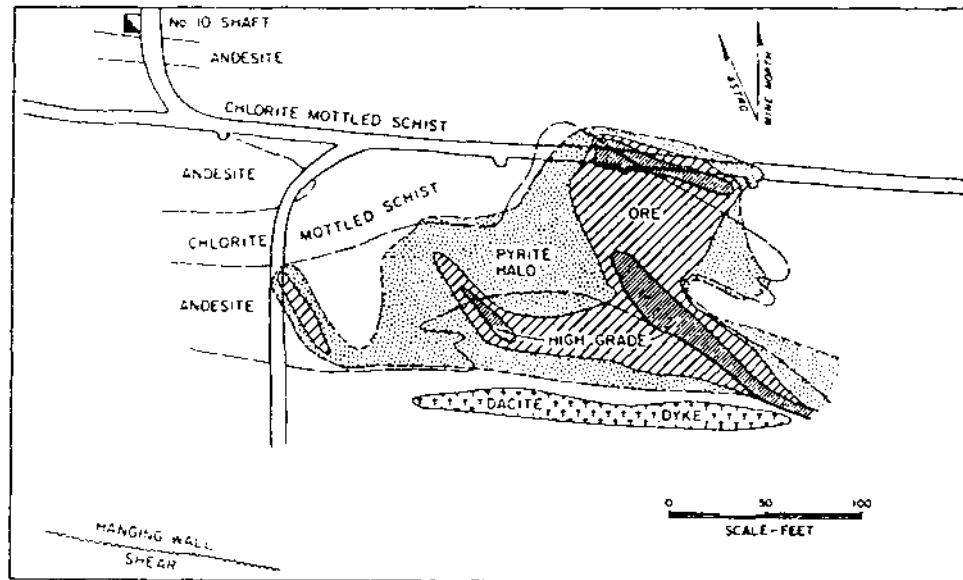


Figure 4. Sketch of the 040 orebody, 4950 level, Britannia. (GEM, 1970)

Anaconda (GAC, 1974) summarizes the origin as follows:

The Britannia copper-zinc sulphide deposits, previously described as formed from hydrothermal solutions emplaced into a foliated host, are re-interpreted as volcanogenic deposits formed from hydrothermal and exhalative solutions related to dacitic volcanism, and deformed during later shearing and faulting. Massive sulphide deposits occur near the contact of coarse dacitic tuff and overlying fine andesitic rocks; stringer ore is in silicified dacitic tuff below the massive bodies. Anhydrite, barite and chert form related exhalite deposits.

Several periods of inhomogeneous strain produced a broad zone of S-tectonites, called the Britannia shear zone, which contains all known ore bodies. Metamorphic assemblages in the silicate rocks and textures in the sulphides indicate that the rocks and ores were

metamorphosed in the lower greenschist facies. During ore formation and later shearing deformation, rocks were altered with increase in K₂O, SiO₂, and H₂O, and decrease in CaO and total Fe. Dacite dike swarms intruded the sheared rocks along the foliation; in and near ore deposits sulphides were remobilized into late quartz veins related to the dacite dikes.

A major system of late faults cuts the shear zone subparallel to its margins and to foliation. Reconstruction suggests that the ore bodies may be the disconnected segments of two original deposits. This requires a subvertical offset along one fault zone of a few thousand feet during and/or following shearing deformation, and later subhorizontal offset with a cumulative right-lateral displacement of several thousand feet (GAC, 1974).

Production Figures (GSC Preliminary Map 66)

The Britannia Mine operated continuously from 1905 to 1974 and ceased milling in 1977. Total tonnage mined was 47,884,558 tonnes including 516,960 tonnes copper, 125,291 tonnes zinc, 15,336 kilograms gold, 180,845 kilograms silver, and 15,563 tonnes lead.

Current reserves are 1,424,000 tonnes grading 1.9% copper.

9. CONCLUSIONS

The author believes that the Jervis Inlet property has good potential for hosting an economic polymetallic deposit for the following reasons:

- 1) The geological environment is similar to that which hosts the Britannia Mine.
- 2) Rock sampling in 1987 and 1988 returned significant polymetallic values.
- 3) Coincident high order copper, zinc and silver soil anomalies are semi-continuous over a large area.
- 4) At least twenty VLF-EM conductors occur over the areal soil anomaly.

For these reasons, further exploration work is warranted and recommended.

10. RECOMMENDATIONS

PHASE I

- 1) Lay out a detailed grid over the areal soil anomaly. Line spacings would be at 50 metres with stations at 25 metre intervals. A total of approximately 35 line kilometres should cover the area.
- 2) Carry out detailed geological mapping and rock sampling to delineate drill targets.
- 3) Backhoe trench all showings.
- 4) Blast trenches in areas not accessible by the backhoe.
- 5) Carry out magnetometer and VLF-EM geophysics over the grid area to evaluate previous results and define drill targets.

Estimated cost is \$98,000.

PHASE II

Phase II would be contingent on drill targets being established by Phase I. The program would consist of approximately 1,500 metres of diamond drilling to test the surface mineralization at depth.

11. PROPOSED BUDGET

PHASE I

Project Preparation		\$	2,000
Mob/Demob (includes transportation, freight and wages)			5,960
Field Crew			25,725
Field Costs	(including boat support, camp costs, fuel, food, expediting, communications, plugger, air cargo, transit survey, rentals and supplies)		18,610
Geophysics	(Magnetometer and VLF-EM)		12,775
Backhoe Trenching			6,160
Lab Analysis	(including 100 silt and 220 rock samples)		5,680
Supervision and Report	(including map plotting, drafting, word processing, copying and binding)		<u>7,980</u>
Sub-total		\$	84,890
Administration 15%			<u>12,734</u>
Total		\$	<u>97,624</u>
	(Say	\$	<u>98,000</u>)

Respectfully submitted



Roger G. Kidlark, B.Sc., F.G.A.C.

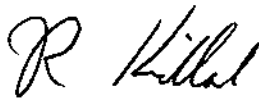
REFERENCES

- B.C. Dept. of Mines and Petroleum Resources, 1970. Geology, Exploration and Mining in British Columbia.
- B.C. Minister of Mines Report, 1917.
1922.
1925.
- Bacon, W.R., 1957. Geology of Lower Jervis Inlet, B.C. Dept. of Mines Bulletin 39.
- Folk, P., 1975. Geological and Geochemical Survey on the Bun Claims, Assessment Report 5,775.
- GAC Cordilleran Section, 1974. Programme and Abstracts from Volcanic Geology and Mineral Deposits of the Canadian Cordillera.
- Malcolm, D.C., 1968. B.J. Group, Jervis Inlet, private company report.
- Tomlinson, F.C., 1971. Geological Report on the Fang Nos. 1-14 Inclusive and Egg Nos. 1-2, for Thunder Valley Mines Ltd., private company report.

CERTIFICATE

I, ROGER G. KIDLARK, of 303 - 9110 Halston Court, Burnaby, B.C., do hereby certify that:

1. I am a graduate of the University of Toronto with a Bachelor of Science Degree in Geology, 1974.
2. I am a Fellow in good standing with the Geological Association of Canada.
3. I have practised my profession as a geologist for twelve years in British Columbia, Yukon and Northwest Territories, Ontario and Nova Scotia.
4. The information, opinions and recommendations in this report are based on published and unpublished literature and results of fieldwork carried out on the subject property November 1 and 2, 1987 and November 23, 1988.
5. I have no direct, indirect or contingent interest in the subject claims.
6. I consent to the use of this report in a Prospectus or Statement of Material Facts for the purpose of private or public financing.



Roger G. Kidlark, B.Sc., F.G.A.C.

Dated at Vancouver, January 25, 1989

CERTIFICATE

I, FAYZ F. YACOUB, of 13031 - 64th Avenue, Surrey, British Columbia, V3W 1X8, do hereby declare:

1. That I am a graduate in geology and chemistry from Assuit University, Egypt (B.Sc. 1967), and Mining Exploration Geology of the International Institute for Aerial Survey and Earth Sciences (I.T.C.), Holland (Diploma 1978).
2. I have actively pursued my career as a geologist for the past fifteen years.
3. The information, opinions, and recommendations in this report are based on fieldwork carried out by myself, and on published and unpublished literature. I was present on the subject property on November 1 and 2, 1987 and November 23, 1988.
4. I have no interest, direct or indirect, in the subject claims.
5. I consent to the use of this report in a Prospectus or Statement of Material Facts for the purpose of private or public financing.



Fayz F. Yacoub, B.Sc.

Dated at Vancouver, January 25, 1989

ITEMIZED COST STATEMENT

(Geologist-Nov. 1 and 2, 1987;
Geologist, 2 Geotechnicians-Nov. 23, 1988)

Project Preparation (includes consultant \$400/day x 2 days)		\$	1,100.00
Mob/Demob (includes transportation, freight and wages)			1,590.00
<u>Field Crew</u>			
Project Geologist \$275/day x 3 days	\$	875.00	
2 Geotechnicians \$210/day x 2 mandays		<u>420.00</u>	1,295.00
<u>Field Costs</u>			
Boat Rental \$75/hr x 4.5 hrs	\$	337.50	
Food and Accommodations \$70/day x 5 mandays		350.00	
Communications		75.00	
Supplies		75.00	
4X4 Truck \$110/day x 3 days		<u>330.00</u>	1,167.50
<u>Lab Analysis</u>			
Nov. 23, 1988			
30 rock samples @ \$16.75/sample	\$	502.50	
Fire Assay Au/AA, Multi-element ICP			
Nov. 1&2, 1987			
25 rock samples @ \$13.25/sample		331.25	
Geochem Au/AA, Multi-element ICP			
Nov. 1&2, 1987			
4 rock samples @ \$20.00/sample		<u>80.00</u>	913.75
Rare earth analysis			
<u>Supervision and Report</u>			
Supervision	\$	225.00	
Report Writing		650.00	
Map plotting and Drafting		300.00	
Word Processing, Copying, Binding		<u>150.00</u>	1,325.00
Sub-total			\$ 7,391.25
Administration 15%			<u>1,108.70</u>
Total			\$ <u>8,499.95</u>

APPENDIX A

ROCK SAMPLE DESCRIPTIONS

ROCK SAMPLE DESCRIPTIONS - JERVIS PROPERTY

SAMPLE NO.	DESCRIPTION	WIDTH (cm)
JER87-R1	Float; Silicified feldspar porphyry, 2-5% pyrite.	---
JER87-R2	Chip sample; Silicified rusty outcrop with 2% disseminated pyrite and minor epidote.	200
JER87-R3	Chip sample; Rusty silicified outcrop, 2-3% disseminated pyrite, minor pyrrhotite.	100
JER87-R4	Chip sample; Volcanic outcrop, with disseminated pyrite, chalcopyrite and galena, altered, friable, rusty on weathered surfaces.	100
JER87-R5	Dump sample; Silicified volcanic material, disseminated pyrite and chalcopyrite.	---
JER87-R6	Float; Volcanic material, abundant disseminated pyrite and chalcopyrite.	---
JER87-R7	Chip sample; Silicified andesite, abundant disseminated pyrite and chalcopyrite, 10% epidote, rusty on weathered surfaces.	30
JER87-R8	Chip sample; Light gray feldspar porphyry dyke, strike 45 degrees and vertical, 2-3% fine-grained pyrite along contact with host rock, dark brown iron staining on weathered surface.	250
JER87-R9	Chip sample; Dark brown, rusty, silicified volcanic outcrop, abundant sulphides, mainly pyrite (20-25%), minor chalcopyrite, 5% epidote, iron staining.	100
JER87-R10	Chip sample; Light gray fine-grained acidic dyke, attitude 65/75 south, 20-25% disseminated pyrite, minor pyrrhotite.	70
JER87-R11	Chip sample; Silicified feldspar porphyry dyke, with fine-grained pyrite, black rusty iron staining, intruded into basic volcanic rocks.	60

JER87-R12	Chip sample; Andesite, disseminated pyrite, highly weathered and rusty.	200
JER87-R13	Grab sample; From drill hole location. Mineralized andesite with pyrrhotite, pyrite, magnetite, heavy and magnetic.	---
JER87-R14	Chip sample; Slightly altered and silicified andesite, dark brown rust, no obvious sulphides.	100
JER87-R15	Chip sample; Light gray volcanic, 2-3% disseminated pyrite, strong dark brown rust due to oxidation.	50
JER87-R15B	Chip sample; Light gray fine-grained volcanic outcrop with 3-5% disseminated pyrite, minor pyrrhotite.	50
JER87-R16	Chip sample; Light gray, fine to medium-grained volcanic outcrop, 5% pyrite, 1-2% pyrrhotite.	50
JER87-R17	Chip sample; Silicified, altered volcanic outcrop, 2-5% pyrite.	50
JER87-R21	Chip sample; Rusty mineralized volcanic, 10-15% pyrrhotite, pyrite and minor chalcopyrite.	200
JER87-R22	Chip sample; Silicified, altered volcanic, 2-3% epidote, fine-grained pyrite, minor pyrrhotite.	100
JER87-R23	Chip sample; Sheared, altered zone of volcanic rock, pyrite, epidote, zone is rusty with yellow limonitic staining.	30
JER87-R24	Chip sample; Same outcrop as R25. Altered andesite with 5-7% disseminated pyrite and pyrrhotite.	50
JER87-R25	Chip sample; From same mineralized zone as R23 and R24, with disseminated pyrite, no chalcopyrite.	100
JER87-R26	Chip sample; Vesicular andesite, disseminated pyrite, minor pyrrhotite, altered with little limonite observed.	100
JER87-R27	Chip sample; Slightly altered volcanic, dark gray, fine-grained andesite, 3% pyrite, 2% pyrrhotite, trace of fine-grained galena.	100

JRF-R01	Float; Angular gray aphanitic volcanic, strong pyrite dissemination, minor chalcopyrite, remnants of dark gray volcanic fragments.	---
JRF-R02	Chip sample; Reddish, rusty, sheared outcrop of gray to dark gray aphanitic volcanic, strong pyrite dissemination up to 60%, 2-3% chalcopyrite, minor pyrrhotite.	40
JRF-R03	Chip sample; Pyritized volcanic, 10% fine-grained pyrite, 10-15% dark brown iron oxides on weathered surfaces.	30
JRF-R04	Chip sample; As R04, pyritized volcanic with 5-7% dark brown rusty pyrite and iron oxides.	30
JRF-R05	Float; Angular dark gray volcanic andesite 5% disseminated pyrite, minor pyrrhotite, trace chalcopyrite.	---
JRF-R06	Chip sample; Light to dark brown altered volcanic outcrop, weak to moderate argillic alteration, vugs filled with hematite, minor limonite, 2-3% pyrite.	50
JRF-R07	Chip sample; Altered outcrop of weak to moderate argillic alteration, minor silicification, 2-3% disseminated pyrite.	50
JRF-R08	Channel sample across 5 cm of quartz vein and 25 cm of wall rock; Massive quartz vein with 5% disseminated pyrite, 1-2% chalcopyrite, fine-grained galena, strike 20 degrees E, wall rock is gray volcanic with 1-2% pyrite.	30
JRF-R09	Chip sample; Dark brown vuggy, silicified zone mineralized with 5% pyrite, 1% chalcopyrite, trace fine-grained galena, zone strikes 350/vertical.	60
JRF-R10	Chip sample; Pyritized volcanic outcrop, dark brown and rusty on weathered surfaces, 20% disseminated pyrite, 1-2% fine-grained galena.	200
JRF-R11	Float; Angular quartz vein, massive quartz with 1-2% disseminated pyrite, minor pyrrhotite.	---

JRF-R12	Pyritized volcanic zone, strike 20 degrees E, strong disseminated pyrite(up to 40%), minor pyrrhotite, orange to dark brown rusty weathered surfaces.	40
JRJ88-R01	Float; Angular, light gray fine-grained volcanic dacite, 1-2% fine-grained pyrite, minor silicification.	---
JRJ88-R02	Float; Light gray to green volcanic with 10% disseminated sulphides, mainly fine-grained pyrite and pyrrhotite, magnetic.	---
JRJ88-R03	Chip sample; Light gray volcanic dacite with 2-3% disseminated, fine-grained pyrite. Hosting vuggy quartz vein 3-4 cm wide, no obvious sulphides within vein.	50
JRJ88-R04	Chip sample; Light to dark gray volcanic with weak argillic alteration, minor disseminated pyrite, dark brown rusty weathered surface.	100
JRJ88-R05	Chip sample; Light to dark brown altered volcanic dacite, 10-15% fine-grained pyrite, 2-3% magnetite, minor limonite, weak to moderate argillic alteration.	200
JRJ88-R06	Chip sample; Silicified light gray volcanic rock, 5-7% fine-grained pyrite, remnants of volcanic fragments.	100
JRJ88-R07	Chip sample; Light to dark gray volcanic dacite, slightly silicified with 5-10% disseminated pyrite, minor epidote.	100
JRJ88-R08	Chip sample; Across same outcrop as R07, 10% disseminated pyrite in light gray volcanic dacite.	100
JRJ88-R10	Grab sample; Rusty dark brown outcrop of volcanic dacite, 5% pyrite.	---
JRJ88-R11	Grab sample; Rusty, pyritized, light to dark gray volcanic dacite with 2-3% fine-grained pyrite.	---
JRV88-R1	Chip sample; Quartz stringer in shear zone, attitude 10/75E within dark gray andesite 5-10% fine-grained pyrite, minor chalcopyrite.	100

JRV88-R2	Chip sample; Dark gray fine-grained andesite volcanic with quartz veinlets, attitudes 10-30/70-80E.	300
JRV88-R3	Float; Angular to subangular volcanic boulder with minor disseminated pyrite, moderate argillic alteration.	---
JRV88-R4	Chip sample; Dark gray, fine-grained volcanic andesite with quartz stringers, minor rust.	30
JRV88-R5	Chip sample; Rusty, mineralized, dark gray fine-grained volcanic andesite, with disseminated pyrite, chalcopyrite, minor pyrrhotite.	30
JRV88-R6	Chip sample; Mineralized volcanic with semi-massive to massive sulphides (pyrite, chalcopyrite, bornite, pyrrhotite), rusty red to yellow patches of iron oxides. Sample from a shallow pit.	400
JRV88-R7	Chip sample; Strong sulphide mineralization exposed in shallow pit, rusty dark brown volcanic andesite, semi-massive to massive sulphides, pyrite, chalcopyrite, bornite and pyrrhotite.	100

APPENDIX B

ANALYTICAL REPORTS

GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEC. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
 THIS LEACH IS PARTIAL FOR MN FE CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND NL. AU DETECTION LIMIT BY ICP IS 3 PPM.
 - SAMPLE TYPE: P1-ROCK P2-SILT AU ANALYSIS BY AA FROM 10 GRAM SAMPLE.

DATE RECEIVED: NOV 6 1987

DATE REPORT MAILED: Nov 17/87

ASSAYER: R. Dean TOYE, CERTIFIED B.C. ASSAYER

ASHWORTH EXPLORATION PROJECT-175 File # 87-5468 Page 1

SAMPLE#	MO	CU	PB	ZN	AG	NI	CO	MN	FE	AS	U	AU	TH	SR	CD	SB	BI	V	CA	P	LA	CR	MG	BA	TI	B	NL	NA	K	W	AU1
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	I	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	I	I	PPM	PPM	I	PPM	I	PPM	I	I	%	PPM	PPM
JER 87 R-1	21	236	30	136	.7	1	4	815	2.39	8	5	ND	3	27	1	2	2	6	.92	.023	2	3	.37	71	.01	2	1.11	.06	.13	1	1
JER 87 R-2	3	137	2	66	.4	18	13	204	2.96	2	5	ND	1	19	1	2	2	60	.76	.030	2	17	.51	50	.18	4	1.18	.07	.02	1	1
JER 87 R-3	1	126	13	48	.4	6	7	290	4.39	2	5	ND	1	4	1	2	2	44	.17	.018	2	13	.75	8	.06	2	.93	.01	.01	1	2
JER 87 R-4	5	234	2357	985	100.3	23	18	2040	9.24	8	5	ND	1	48	4	2	618	238	4.06	.048	2	79	2.00	73	.11	2	7.07	.14	.01	2	805
JER 87 R-5	2	304	21	48	.4	15	21	263	3.65	2	5	ND	1	29	1	2	4	62	.72	.022	2	25	.83	9	.16	2	1.60	.07	.02	1	4
JER 87 R-6	3	1090	21	48	1.6	47	102	174	7.10	13	5	ND	1	19	1	2	5	50	.70	.027	2	29	.60	6	.32	2	.98	.02	.01	1	45
JER 87 R-7	2	690	5	27	1.0	5	21	204	2.50	2	5	ND	1	30	1	2	3	53	1.06	.020	2	19	.39	44	.55	5	1.02	.03	.02	1	1
JER 87 R-8	3	18	2	37	.1	3	4	152	2.77	2	5	ND	2	12	1	2	2	31	.24	.035	5	5	.65	64	.11	2	1.05	.04	.06	1	3
JER 87 R-9	13	390	13	658	.9	20	28	1151	9.46	10	5	ND	2	29	1	2	2	69	.60	.053	5	63	1.39	8	.20	2	2.24	.01	.01	1	1
JER 87 R-10	89	891	23	118	5.5	20	548	647	17.60	11	5	ND	2	14	1	2	15	36	1.01	.051	2	48	.53	6	.06	2	.88	.01	.01	1	14
JER 87 R-11	3	607	16	45	.7	9	18	146	4.88	8	5	ND	1	23	1	2	2	53	.94	.019	2	19	.30	9	.33	2	1.14	.03	.01	1	1
JER 87 R-12	5	79	117	229	.3	70	23	1943	9.31	2	5	ND	1	934	1	2	2	108	1.04	.023	2	330	3.13	90	.19	2	4.06	.10	.10	1	2
JER 87 R-13	31	366	13	62	.6	35	14	373	4.95	14	5	ND	1	41	1	2	2	105	1.49	.062	2	49	1.17	63	.34	6	2.00	.17	.03	1	1
JER 87 R-14	4	95	44	210	.7	118	18	530	3.04	11	5	ND	1	9	1	2	2	36	3.85	.035	2	45	.33	1	.22	3	2.09	.01	.01	2	1
JER 87 R-15	19	62	113	771	1.5	28	7	996	3.32	7	5	ND	1	40	2	2	2	70	3.53	.081	2	37	1.40	4	.19	3	3.17	.01	.01	1	1
JER 87 R-15B	4	114	29	153	.4	132	19	551	3.60	12	5	ND	1	9	1	2	2	39	4.00	.033	2	55	.35	1	.19	2	2.48	.01	.01	2	1
JER 87 R-16	3815	536	17	23	2.0	13	7	376	6.34	2	5	ND	2	27	1	2	2	57	1.21	.048	2	32	.38	8	.22	2	1.41	.02	.01	1	1
JER 87 R-17	6	307	9	357	.5	105	23	972	7.86	2	5	ND	1	30	1	2	2	29	1.43	.141	2	12	.21	2	.04	4	.47	.01	.01	1	2
JER 87 R-21	17	1966	8	154	3.2	196	96	543	13.01	2	5	ND	1	26	1	2	2	25	2.17	.087	2	10	.13	2	.06	2	.49	.01	.01	1	1
JER 87 R-22	52	519	12	108	.9	183	38	472	7.59	10	5	ND	1	23	1	2	2	32	2.57	.055	2	52	.78	1	.10	2	2.70	.01	.01	1	1
JER 87 R-23	43	787	14	91	1.1	20	8	191	3.08	3	5	ND	1	29	1	2	2	17	2.85	.026	8	13	.11	1	.08	2	1.76	.01	.01	2	1
JER 87 R-24	3	204	2	344	.5	15	11	863	7.18	13	5	ND	1	11	1	2	2	104	1.45	.013	2	37	1.29	4	.29	2	1.90	.01	.01	1	1
JER 87 R-25	4	492	10	53	.8	52	73	183	8.22	3	5	ND	1	27	1	2	2	39	1.51	.033	2	17	.45	4	.35	3	1.34	.04	.02	1	8
JER 87 R-26	2	184	30	334	1.0	31	12	128	3.04	2	5	ND	1	42	1	2	2	49	.88	.030	2	10	.24	11	.38	2	.99	.10	.02	1	1
JER 87 R-27	7	1092	2159	28343	20.7	48	61	536	8.91	14	5	ND	1	34	200	2	26	30	.76	.013	2	19	.41	1	.20	2	.84	.01	.01	6	12
STD C/MU-R	19	60	37	132	7.3	67	28	1054	4.14	38	16	8	39	51	18	18	19	59	.48	.086	38	60	.87	178	.08	35	1.90	.07	.14	11	480

SAMPLE#	MO PPM	CU PPM	PB PPM	ZN PPM	AG PPM	NI PPM	CO PPM	MN PPM	FE %	AS %	U PPM	AU PPM	TH PPM	SR PPM	CD PPM	SB PPM	BI PPM	V PPM	CA %	P %	LA PPM	CR PPM	MS %	BA PPM	TI %	B PPM	AL %	NA %	K %	W PPM	AUR PPB
JER 87 S-1	8	119	74	298	.6	20	14	1150	4.49	23	5	ND	3	46	2	2	2	62	.72	.043	5	27	1.14	93	.18	8	2.62	.05	.04	1	4
JER 87 S-2	7	116	33	166	.1	18	11	658	3.28	20	5	ND	2	35	2	2	3	51	.52	.052	7	24	.96	89	.18	4	1.75	.01	.04	1	4
JER 87 S-3	16	242	43	176	.1	18	15	746	3.92	18	5	ND	1	40	1	2	2	57	.53	.056	7	25	.99	101	.19	3	2.02	.02	.05	1	6

GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
 THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR NG BA TI B W AND LIMITED FOR NA K AND AL. AD DETECTION LIMIT BY ICP IS 3 PPM.
 - SAMPLE TYPE: ROCK AU** ANALYSIS BY FA+AA FROM 10 GR SAMPLE.

DATE RECEIVED: NOV 24 1988

DATE REPORT MAILED: Nov 29/88

SIGNED BY: *C. Long* D. TOTK, C. LEONG, B. CHAN, J. WANG; CERTIFIED B.C. ASSAYERS

ASHWORTH EXPLORATION LTD. PROJECT 256 File # 88-6003

SAMPLE#	Mo	Cd	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Tb	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	AU**
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	%	PPM	%	%	%	%	%	PPM	PPB
JRF86-R2	3	300	34	75	1.5	200	376	472	29.42	74	5	ND	1	1	2	2	3	23	1.71	.004	2	15	.15	1	.04	2	.64	.01	.01	1	72
JRF86-R3	8	180	2	22	.3	71	25	107	7.25	2	5	ND	1	82	2	2	2	36	1.43	.022	3	19	.38	21	.23	3	2.28	.14	.03	3	9
JRF86-R4	3	172	10	46	.1	357	41	245	6.74	2	5	ND	1	171	1	2	2	27	1.93	.013	2	184	1.02	43	.08	2	3.79	.23	.07	1	1
JRF86-R5	4	350	19	61	.9	49	42	327	13.92	2	5	ND	1	82	1	2	2	74	1.29	.041	2	27	.59	36	.18	2	1.76	.10	.03	1	1
JRF86-R6	2	218	12	79	.6	40	24	314	4.69	2	5	ND	1	31	2	2	2	64	1.94	.055	2	26	.48	26	.29	5	2.06	.09	.07	1	1
JRF86-R7	3	254	8	91	.5	38	32	529	7.23	2	5	ND	1	29	1	2	2	171	1.14	.051	2	52	2.10	45	.23	2	3.24	.10	.03	1	1
JRF86-R8	2	357	22	311	1.2	40	30	511	6.67	2	5	ND	1	27	3	2	3	97	.93	.028	2	45	1.39	38	.18	2	2.47	.04	.01	1	2
JRF86-R9	3	575	1457	1091	20.6	23	47	512	10.24	9	5	ND	1	73	9	2	17	35	1.66	.041	2	12	.38	39	.06	4	4.54	.02	.03	2	60
JRF86-R10	7	259	93	133	1.4	20	25	303	6.80	2	5	ND	1	29	1	2	2	91	.83	.084	2	34	.86	165	.26	3	2.01	.04	.02	2	3
JRF86-R11	3	160	73	74	.9	29	21	148	2.70	2	5	ND	1	28	1	2	2	27	.44	.025	2	19	.48	145	.08	9	.90	.05	.01	1	3
JRF86-R12	4	357	15	463	.5	14	28	1185	6.76	2	5	ND	1	17	3	2	3	88	.71	.051	3	68	1.83	23	.34	2	2.47	.01	.01	2	6
JRJ86-R1	1	2045	10	275	4.1	267	135	304	17.33	7	5	ND	1	21	2	2	2	26	1.72	.093	2	5	.07	5	.04	3	.67	.01	.01	1	1
JRJ86-R2	2	634	14	106	.6	76	43	439	12.88	2	5	ND	1	24	1	2	3	79	1.18	.054	2	39	1.19	9	.20	2	2.01	.04	.03	2	1
JRJ86-R3	3	94	9	79	.2	11	12	712	3.84	5	5	ND	1	12	1	2	2	66	2.87	.054	4	6	1.20	7	.16	2	3.21	.01	.01	1	1
JRJ86-R4	10	595	133	6245	4.5	48	45	1631	8.14	44	5	ND	1	22	57	2	2	86	.69	.036	2	41	1.78	5	.21	2	2.18	.01	.01	2	1
JRJ86-R5	12	736	38	11315	1.9	47	42	1590	10.41	66	5	ND	1	19	99	2	3	76	.52	.034	2	54	1.41	29	.13	2	1.84	.01	.01	2	2
JRJ86-R6	4	40	25	403	.1	3	5	359	2.92	75	5	ND	3	4	3	3	2	6	.07	.017	8	5	.18	36	.03	7	.69	.04	.05	2	3
JRJ86-R7	3	64	55	300	.7	20	9	695	4.29	17	5	ND	2	45	4	2	2	81	.64	.080	4	62	1.58	94	.19	6	2.38	.09	.10	2	22
JRJ86-R8	1	17	3	55	.2	9	13	396	4.45	2	5	ND	1	117	1	2	2	51	1.41	.075	2	16	1.44	29	.05	2	1.58	.22	.05	2	1
JRJ86-R10	2	50	24	101	.5	16	12	889	4.06	15	5	ND	1	51	2	2	2	65	1.69	.093	2	29	1.64	27	.12	5	3.06	.05	.07	2	76
JRJ86-R11	16	282	12	294	1.9	15	5	1375	5.00	7	18	ND	1	39	5	2	2	107	.80	.034	2	37	2.17	1	.44	2	2.42	.01	.01	2	1
JRV86-R1	4	689	34	1110	3.8	119	55	1057	13.95	38	5	ND	1	14	8	2	2	82	2.51	.038	6	45	1.42	3	.10	2	2.70	.01	.01	2	12
JRV86-R2	4	140	21	174	.5	69	20	646	4.56	2	5	ND	1	114	2	2	2	74	1.50	.030	2	95	1.39	100	.15	3	3.07	.12	.07	2	1
JRV86-R3	19	91	28	473	.6	52	10	691	3.36	9	5	ND	2	24	4	2	2	76	.67	.035	2	228	1.72	28	.14	2	1.67	.03	.01	1	1
JRV86-R4	2	35	13	1769	.4	11	6	441	2.20	2	5	ND	2	24	25	2	2	32	.76	.024	6	21	.16	21	.15	2	.33	.01	.01	2	1
JRV86-R5	2	5614	131	7362	46.6	20	30	616	4.21	2	5	ND	1	37	75	2	15	46	.80	.065	3	26	.41	3	.16	4	.78	.01	.01	1	13
JRV86-R6	10	3238	546	2166	22.0	142	160	355	9.65	18	5	ND	3	25	20	4	2	52	.56	.047	6	16	.12	10	.05	5	.35	.01	.01	1	3
JRV86-R7	10	1840	429	565	29.9	10	19	313	7.59	21	5	ND	1	29	4	4	2	93	.87	.069	5	12	.11	1	.10	6	45	.01	.01	2	8
STD C/AU-R	20	63	42	132	7.2	69	32	1053	4.11	41	20	B	40	53	20	17	22	60	.48	.097	40	58	.93	180	.07	39	1.52	.06	.15	13	475

- ASSAY REQUIRED FOR CORRECT RESULT -

APPENDIX C
ANALYTICAL TECHNIQUES

APPENDIX C
ANALYTICAL TECHNIQUES

ANALYTICAL TECHNIQUES

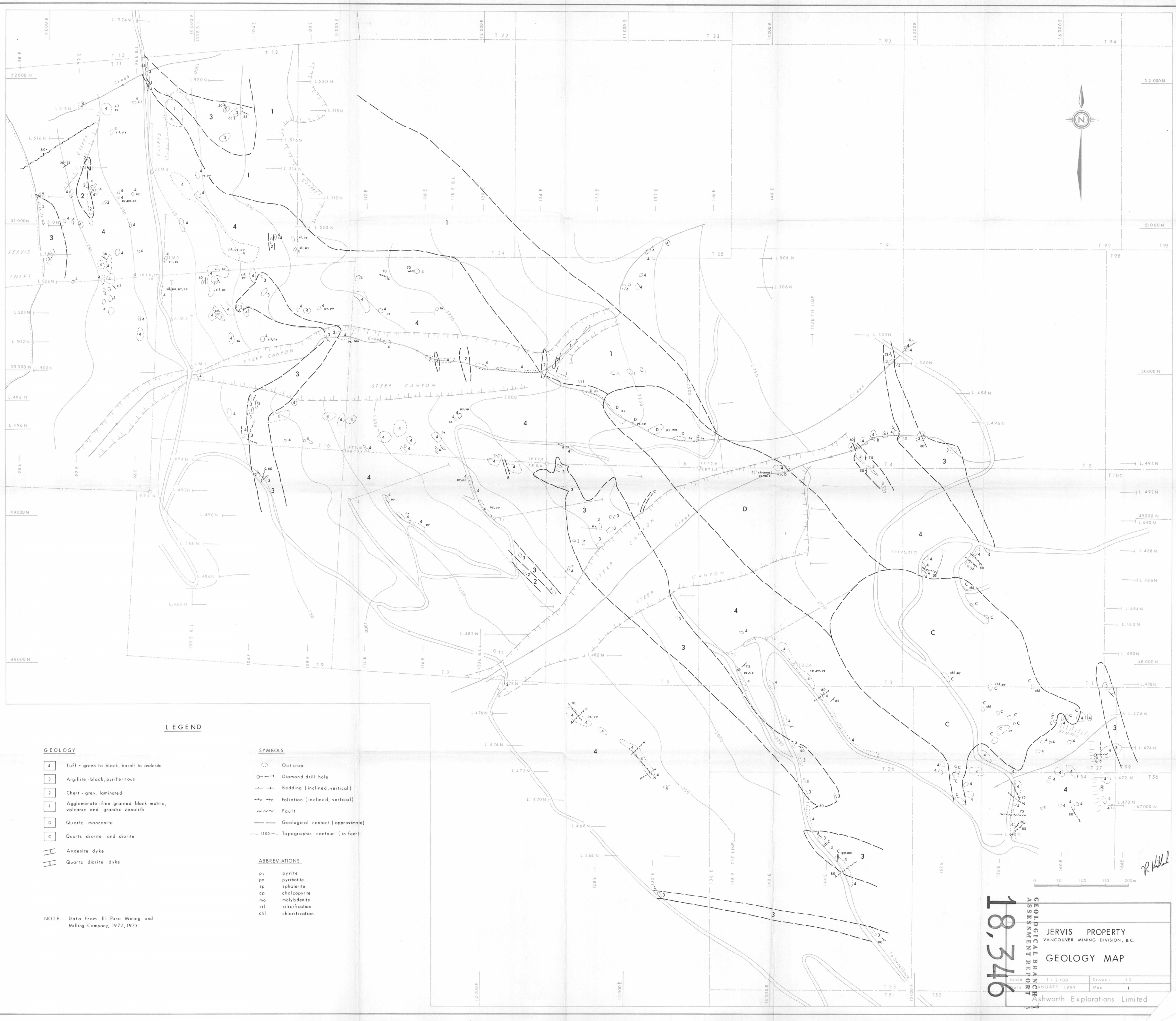
The analysis was performed by Acme Analytical Laboratories Ltd. of Vancouver, B.C. The rocks were crushed to $-3/6"$ for up to 101 lbs and then 1/2 lb was pulverized to -100 mesh. Soils and silts are dried at 60 degrees celsius and 30 grams are sieved to -80 mesh. The methods are described below.

ICP (30 elements)

A .50 gram sample is digested with 3 ml 3-2-1 HCL-HNO-H₂O at 95 degrees celsius for one hour and is diluted to 10 ml with water. This leach is near total for base metals, partial for rock forming elements and very slight for refractory elements.

Gold - Soil and Silt, Rock

A 10.0 gram sample is ignited at 600 degrees celsius, digested with hot aqua regia, extracted by MIBK and analysed by graphite furnace AA.



LEGEND

- GEOLOGY**
- 4 Tuff - green to black, basalt to andesite
 - 3 Argillite - black, pyrriferous
 - 2 Chert - grey, laminated
 - 1 Agglomerate - fine grained black matrix, volcanic and granitic xenolith
 - D Quartz monzonite
 - C Quartz diorite and diorite
 - Andesite dyke
 - Quartz diorite dyke

- SYMBOLS**
- Outcrop
 - Diamond drill hole
 - Bedding (inclined, vertical)
 - Foliation (inclined, vertical)
 - ~ Fault
 - Geological contact (approximate)
 - 1500 Topographic contour (in feet)

- ABBREVIATIONS**
- py pyrite
 - pa pyrrothite
 - sp sphalerite
 - cp chalcocopyrite
 - mo molybdenite
 - sil silicification
 - chl chloritization

NOTE: Data from El Paso Mining and Milling Company, 1972, 1973.

18,346

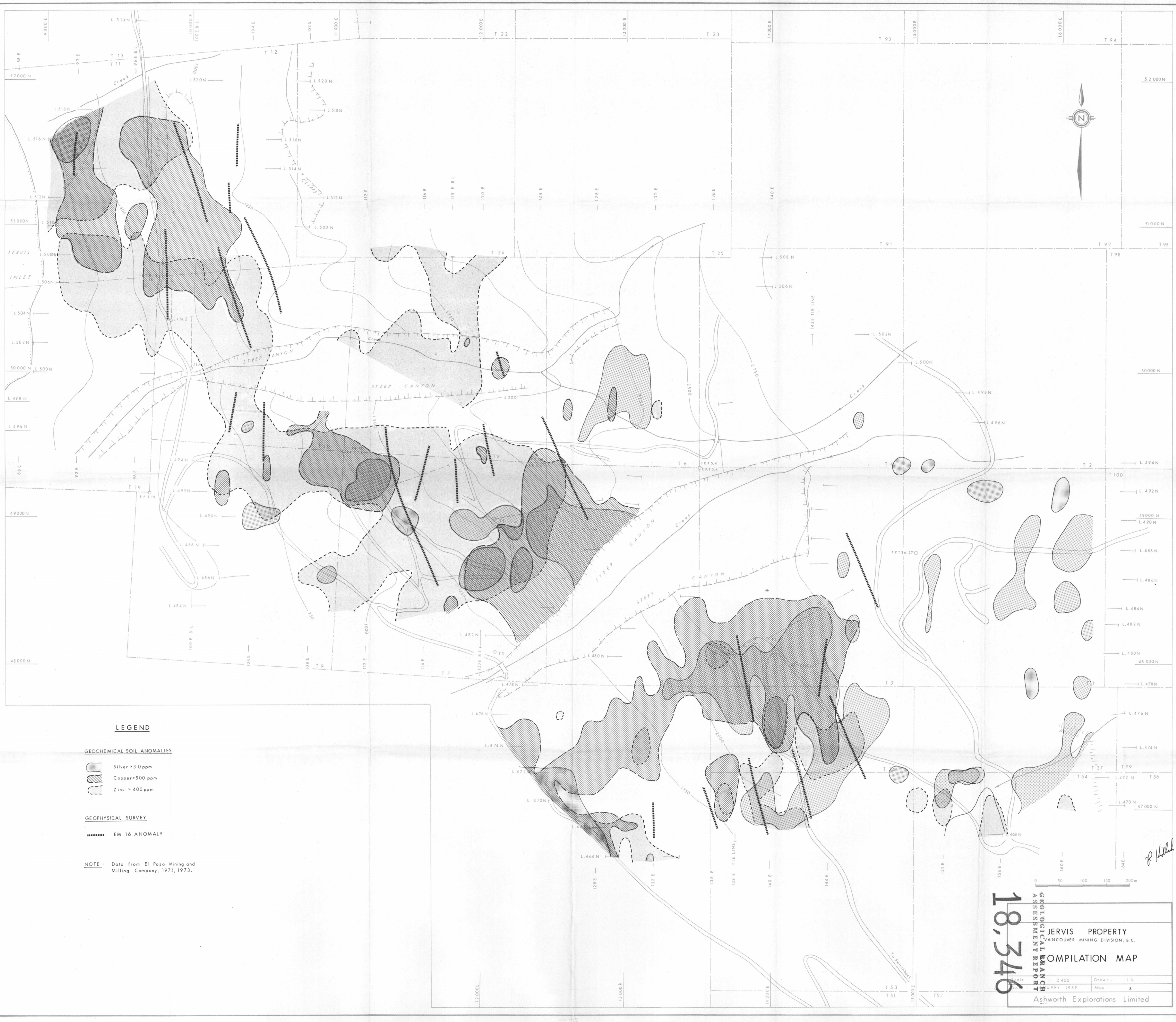
GEOLOGICAL BRANCH
ASSESSMENT REPORT

JERVIS PROPERTY
VANCOUVER MINING DIVISION, B.C.

GEOLOGY MAP

Scale: 1 : 2 400
Date: JANUARY 1989
Ashworth Explorations Limited

Drawn: J.S.
Map: 1



LEGEND

GEOCHEMICAL SOIL ANOMALIES

- Silver > 30 ppm
- Copper > 500 ppm
- Zinc > 400 ppm

GEOPHYSICAL SURVEY

- EM 16 ANOMALY

NOTE: Data from El Paso Mining and Milling Company, 1971, 1973.

18,346

GEOLOGICAL BRANCH
ASSESSMENT REPORT

JERVIS PROPERTY
VANCOUVER MINING DIVISION, B.C.

COMPILATION MAP

Scale: 1:2400

Drawn: J.S.

DATE: MARCH 1989

Map: 3

Ashworth Explorations Limited

R. Hill