1990 ASSESSMENT REPORT
ON A PROSPECTING AND GEOLOGICAL WORK PROGRAM
JC 1 & 2 MINERAL CLAIMS

Located in the Cariboo Mining Division

NTS 93A/12

52°34' North Latitude, 121°46' West Longitude

- Prepared by -
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January 1991

1990 *ASSESSMENT REPORT* on the

PROSPECTING AND GEOLOGICAL WORK PROGRAM

JC 1 AND JC 2 MINERAL CLAIMS

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APPENDICES

1.0 INTRODUCTION

Intermittently between April 1 to September 24, 1990, an assessment work program consisting of prospecting, limited geological mapping, and rock sampling with a follow-up petrographic study was carried out on the JC 1 and JC 2 mineral claims (40 units) situated in the Cariboo Mining Division of British Columbia (Figure 1).

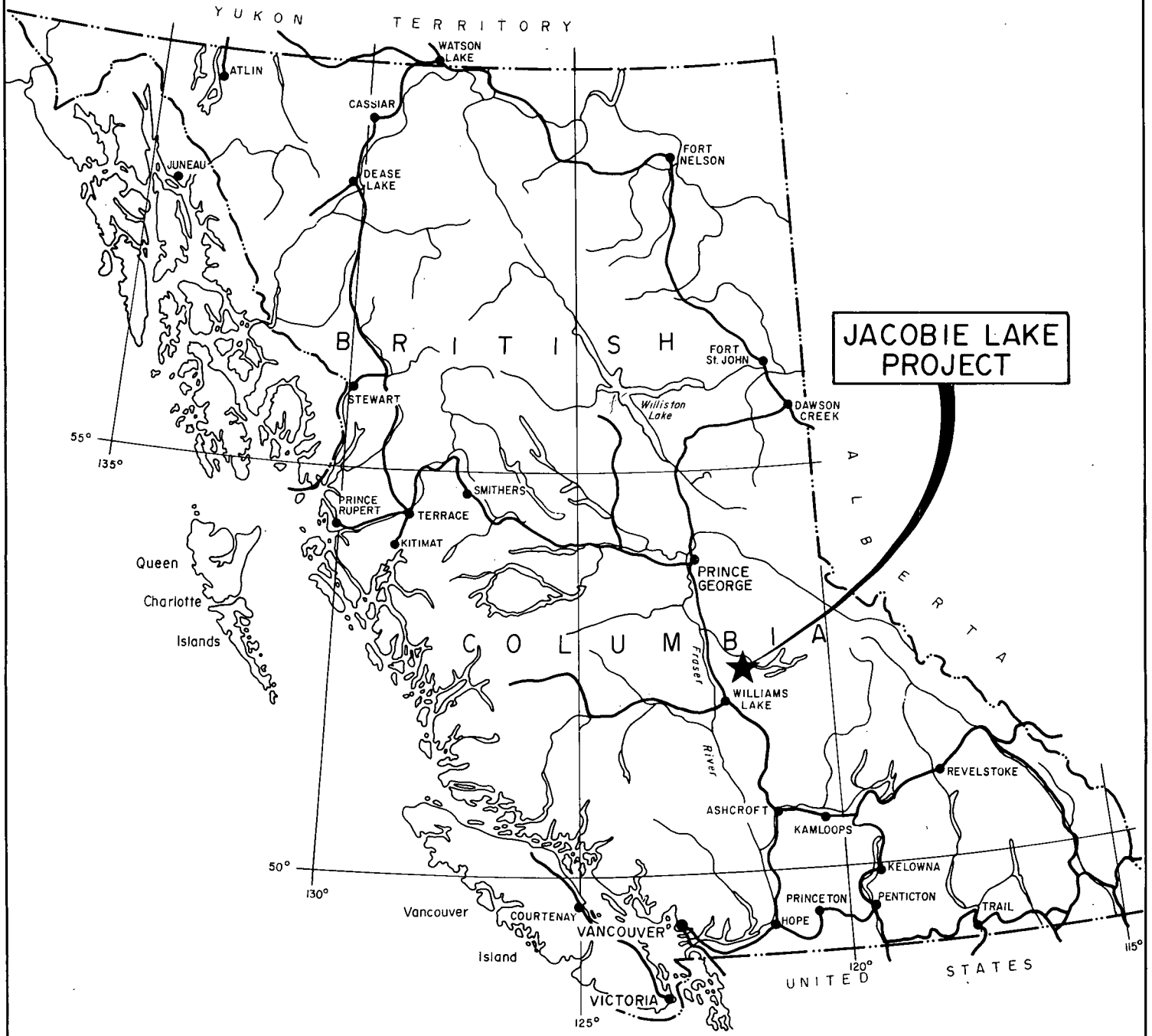
Staking of the property was initiated when outcrop exposures containing chalcocite and malachite mineralization were uncovered during road construction and logging in 1989. No prior record of these copper occurrences is known and as such they represent a significant new discovery. Of particular interest is the possible association and similarity to the Mt. Polley (Cariboo-Bell) copper-gold porphyry deposit located 7 kms to the east of the property and to the QR gold deposit located 13 kms north of the claims. At present, the Mt. Polley deposit is being readied for production within the next year.

The recent exposure of these new occurrences in an area which has undergone considerable exploration over the decades provides new promise for discovering a low-grade (large tonnage) gold-copper deposit similar to the QR or Mt. Polley deposits, as well as, to the recently discovered Mt. Milligan gold-copper deposit to the north, which contains in excess of one million ounces of gold.

2.0 LIST OF CLAIMS

Records of the British Columbia Ministry of Energy, Mines and Petroleum Resources indicate that the JC 1 and JC 2 mineral claims are 100% owned by James P. Burdett of Rose Lake, B.C. (Figure 2).

Claim Name	Record Number	No. of Units	Record Date	Expiry Date
JC 1	10100	20	Oct. 2, 1989	Oct. 2, 1991
JC 2	10101	20	Oct. 3, 1989	Oct. 3, 1991



Km 0 100 200 300 400 Km

Miles 0 50 100 200 300 Miles

JACOBIE LAKE PROJECT

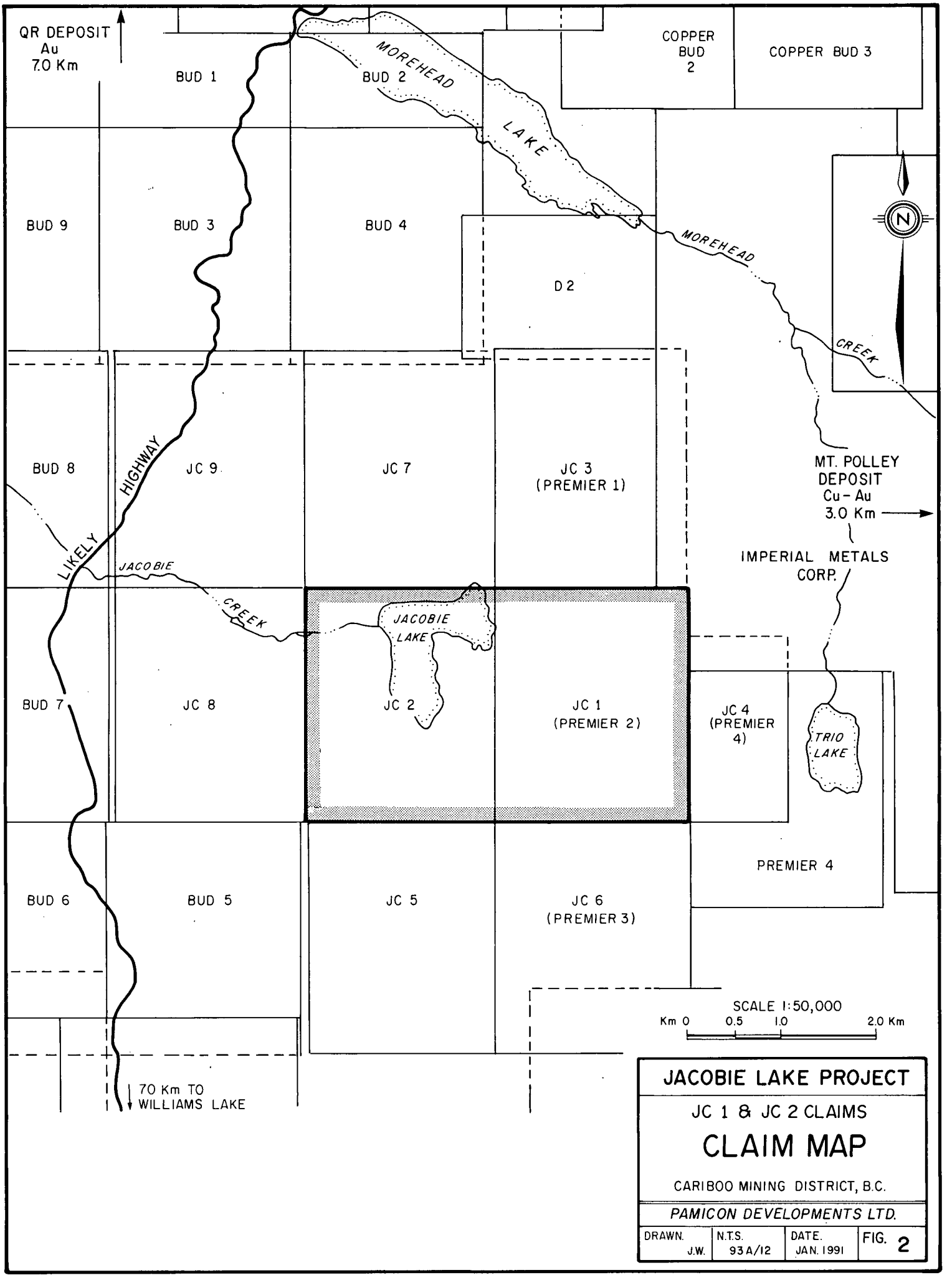
JC 1 & JC 2 CLAIMS

PROPERTY LOCATION MAP

CARIBOO MINING DISTRICT, B. C.

PAMICON DEVELOPMENTS LTD.

DRAWN.	N.T.S.	DATE.	FIGURE.
J.W.	93 A/12	Jan. 1991	1



JACOBIE LAKE PROJECT

JC 1 & JC 2 CLAIMS

CLAIM MAP

CARIBOO MINING DISTRICT, B.C.

PAMICON DEVELOPMENTS LTD.

DRAWN.	N.T.S.	DATE.	FIG.
J.W.	93A/12	JAN. 1991	2

3.0 LOCATION, ACCESS AND PHYSIOGRAPHY

The JC 1 and JC 2 claims are located approximately 65 kms north - northwest of Williams Lake and 155 kms southeast of Prince George, B.C. Access to the property is via the paved Likely Highway (No. 15) for a distance of 64 kms from 150 Mile House. The property is situated 4 kms off the Likely Highway on the gravel Jacobie Lake Forest Road on NTS 93A/12. Recent logging activity has provided excellent access to much of the property. Coordinates of the claims area are 52°34' north latitude and 121°46' west longitude, within the jurisdiction of the Cariboo Mining Division.

The claims area is moderately to heavily forested with spruce, balsam, cedar and fir trees. Elevations are of moderate topographic relief, ranging from 3,000 to 3,600 feet.

Jacobie Lake is situated within the JC 2 claim.

4.0 AREA HISTORY

Historically, major creeks of the area have been worked for their placer gold content since the Cariboo Gold Rush days.

Following the discovery of the Cariboo Bell (Mt. Polley) copper-gold property deposit in 1964, extensive exploration of the area followed in search of additional similar deposits. During this time span, several companies have worked in the immediate area of the present day JC 1 and JC 2 mineral claims. These companies include Milestone Mines Ltd. (1966 and 1967), Silver City Petroleum Ltd. (1967), Lecmac Mines Ltd. (1973), Dome Exploration and Newconex (1975) and Quintana Resources (1976 and 1977). Work has consisted of grid establishment, soil geochemistry surveys, geological mapping, prospecting, ground and airborne geophysical surveys, trenching and minor drill programs. No significant mineral occurrences or deposits were identified during the course of this previous activity and correspondingly, no values of economic

interest were reported from drilling. However, scattered low-grade copper showings are indicated in assessment reports to exist in the property area (a summary of relevant British Columbia Assessment Reports is listed in the bibliography).

At the nearby Cariboo Bell (Mt. Polley) deposit, current reserves are approximately 48 million tonnes grading 0.44% Cu and 0.61 g/t Au (BCMEMPR Minfile Report), while at the QR deposit reserves have been calculated as 1.2 million tonnes grading 5.22 g/t Au (Vancouver Stockwatch June 12, 1990). Within the Quesnel Belt 300 kms to the northwest, the recently discovered Mt. Milligan property deposit contains a total mineral inventory exceeding 400,000,000 tonnes, with grades ranging from 0.15 to 0.70% Cu and 0.17 to 2.75 g/tonne Au.

5.0 REGIONAL GEOLOGY

(after BCMEMPR Paper 1988-1)

The JC property, located in south central British Columbia, lies within the central Quesnel Belt or Quesnel Trough, a regionally northwest trending linear assemblage of Mesozoic age volcanic and sedimentary rocks (Figure 3). The Quesnel Belt assemblage is bounded to the east along a thrust fault contact with Precambrian to Lower Paleozoic Snowshoe Group sedimentary rocks. To the west, the probable southern extension of the Pinchi fault separates Quesnel Belt rocks from Paleozoic Cache Creek Group sediments and volcanics.

Underlying the central Quesnel Belt are Middle Triassic to Early Jurassic Nicola Group Rocks, comprising basal sedimentary rocks overlain by dominantly volcanic rocks. Basal epiclastic sediments include phyllite and siltstone with minor sandstone, greywacke conglomerate and limestone. Overlying volcanic rocks and associated sedimentary rocks include a basal package of alkaline-olivine basalt and alkali basalt composition lavas, breccias and flows with upper siltstone, sandstone and minor limestone. Successively

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JACOBIE LAKE PROJECT

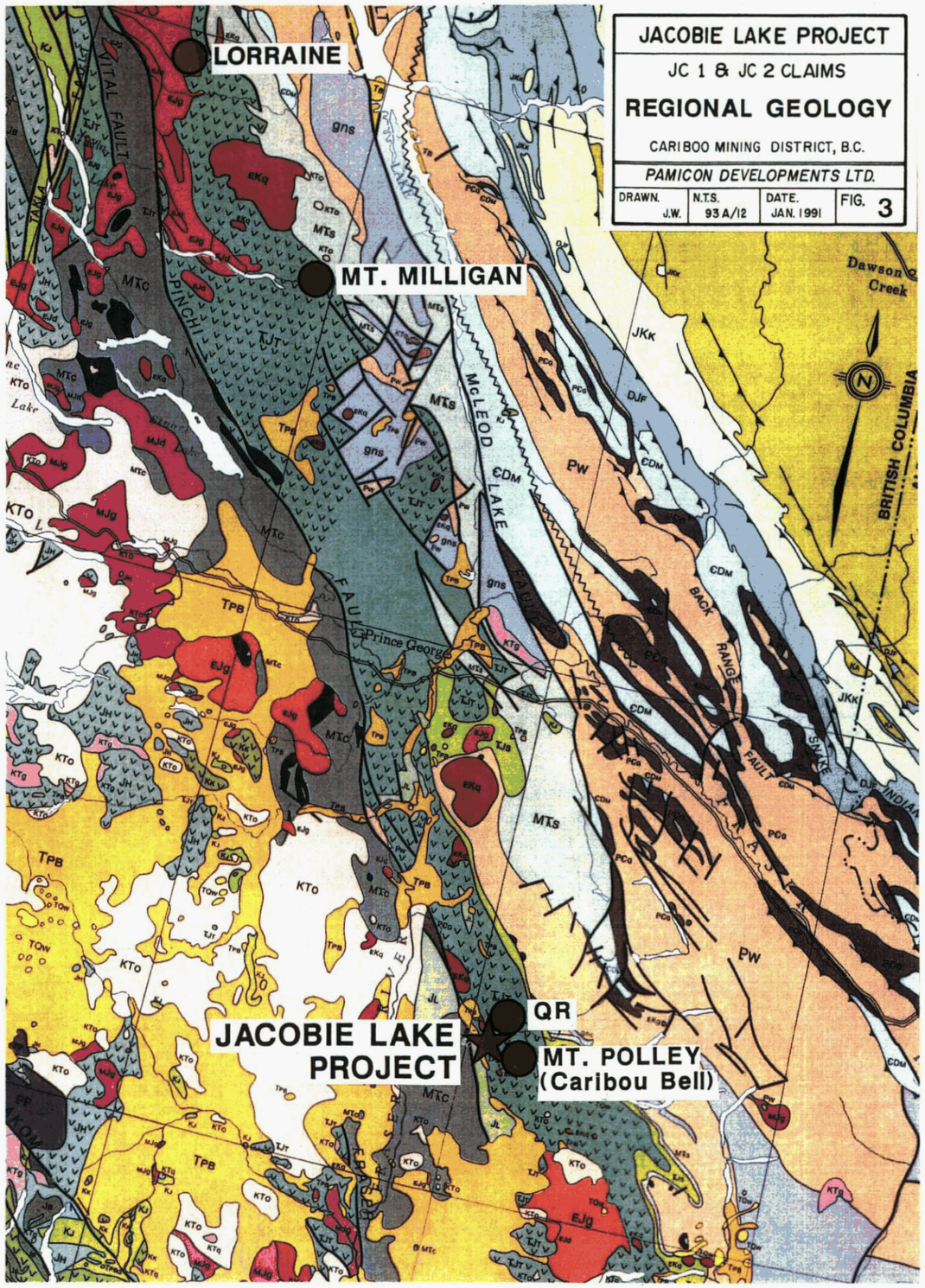
JC 1 & JC 2 CLAIMS

REGIONAL GEOLOGY

CARIBOO MINING DISTRICT, B.C.

PAMICON DEVELOPMENTS LTD.

DRAWN.	N.T.S.	DATE.	FIG.
J.W.	93 A/12	JAN. 1991	3



ASSEMBLAGE NAME		ASSEMBLAGE LITHOLOGY
MIOCENE-RECENT		
TQs	SOOKE-YAKATAGA	*mudstone, fine sandstone, conglomerate; marine and non-marine*
TERTIARY AND QUATERNARY		
TQw	WRANGELL-GARIBALDI	*basic to intermediate volcanics, with minor acid phases*
MIOCENE-PLIOCENE		
Tpb	PLATEAU BASALT	*olivine basalt, intermediate volcanics, related breccias and tuffs; minor sediments; non-marine*
EOCENE-OLIGOCENE		
Tc	CARMANAH-TWIN RIVER	*shale, conglomerate, sandstone, marine*
PALEOCENE-EOCENE		
TM	METCHOSIN-CRESCENT	*basalt, tuff, local gabbro; marine*
PALEOCENE-OLIGOCENE		
Tp	PASKAPOO-CYPRESS HILLS	*sandstone, shale, conglomerate*
UPPER CRETACEOUS-OLIGOCENE		
TB	BROTHERS PEAK	*sandstone, shale, conglomerate, coal, acid tuff*
UPPER CRETACEOUS-OLIGOCENE		
KTo	OOTSA LAKE-KAMLOOPS	*intermediate to acidic volcanic flows, tuff; non-marine*
UPPER CRETACEOUS-OLIGOCENE		
KTN	NANAIMO-CHUCKANUT	*sandstone, conglomerate, argillite; marine and non-marine*
UPPER CRETACEOUS		
KA	ALBERTA-SMOKY	*sandstone, shale*
CRETACEOUS		
KK	KINGSVALE-GAMBIER	*varicoloured intermediate and acidic volcanics; lesser basalt; minor sediments*
CRETACEOUS		
KJ	JACKASS MOUNTAIN-SKEENA	*sandstone, conglomerate, argillite; marine and non-marine*
JURASSIC-CRETACEOUS		
JKP	PACIFIC RIM-YAKATAT	*greywacke, argillite, chert, basalt; marine*
UPPER JURASSIC-LOWER CRETACEOUS		
JKk	KOOTENAY-BLAIRMORE	*sandstone, siltstone, mudstone, coal, conglomerate*
MIDDLE JURASSIC-LOWER CRETACEOUS		
JB	BOWSER-DEWDNEY	*siltstone, greywacke, shale, conglomerate, coal; marine and non-marine*
LOWER AND MIDDLE JURASSIC		
JL	LABERGE-QUESNEL	*greywacke, argillite, conglomerate; marine*
LOWER AND MIDDLE JURASSIC		
JH	HAZELTON-BONANZA	*intermediate flows, tuffs, local basalt, rhyolite, sandstone, argillite; marine and non-marine*
UPPER TRIASSIC-LOWER JURASSIC		
TJT	TAKLA-NICOLA	*augite porphyry, basaltic volcanics; siltstone, shale, limestone, conglomerate*
UPPER TRIASSIC-LOWER JURASSIC		
TJs	SLOCAN-KING SALMON	*shale, argillite, limestone, conglomerate schist, sandstone*
UPPER TRIASSIC		
TK	KARMUTSEN-NIKOLAI	*basalt, limestone, argillite; marine and non-marine*

ASSEMBLAGE NAME		ASSEMBLAGE LITHOLOGY
MISSISSIPPIAN- TRIASSIC		
PTt	THOMPSON	*acidic to intermediate volcaniclastics, chert, argillite, limestone, local basalt and acid volcanics; marine*
MISSISSIPPIAN-TRIASSIC		
PTk	KLONDIKE-OBLIQUE	*muscovite-quartz schist, amphibolite; minor sediments*
MISSISSIPPIAN-TRIASSIC		
MTc	CACHE CREEK-ANVIL RANGE	*chert, argillite, carbonate, basalt, associated diabase, gabbro, alpine ultramafics; marine*
DEVONIAN-TRIASSIC		
MTs	SLIDE MOUNTAIN-SYLVESTER	*upper: basalt, diabase, local gabbro, alpine ultramafics; marine lower: chert, argillite, sandstone, conglomerate, limestone*
MISSISSIPPIAN-TRIASSIC		
PPc	CHILLIWACK	*argillite, volcanic sandstone, tuff, basalt, dacite, carbonate; marine*
PENNSYLVANIAN-PERMIAN		
PPs	SICKER-SKOLAI	*upper: argillite, sandstone, limestone, marine lower: basic to acidic volcanics*
MISSISSIPPIAN-TRIASSIC		
MPs	STIKINE - ASITKA	*basalt, andesite, rhyolite, tuff, carbonate, argillite, chert; marine and locally (?) non-marine*
DEVONIAN - JURASSIC		
DJF	FRONT RANGES	*carbonate, shale, sandstone*
UPPER PALEOZOIC - TRIASSIC		
PTt	TAKU	*acid to basic volcanics, argillite greywacke, limestone, conglomerate*
DEVONIAN - MISSISSIPPIAN		
DMs	EARN-BLACK CLASTIC	*sandstone, shale, pebble conglomerate*
CAMBRIAN - DEVONIAN		
CDM	MAIN RANGES	*carbonate, shale*
CAMBRIAN - MISSISSIPPIAN		
CMc	LARDEAU	*argillite, limestone, schist, phyllite, greenstone*
PROTEROZOIC - TRIASSIC		
PTa	ALEXANDER	*sandstone, argillite, limestone, basic to acidic volcanics, conglomerate; marine, locally non-marine*
PROTEROZOIC - CAMBRIAN		
PCg	GOG - HAMILL	*sandstone, siltstone, shale, pebble conglomerate*
PROTEROZOIC - PALEOZOIC		
PP	CENTRAL GNEISS - SKAGIT	*granitoid gneiss, migmatite, schist, amphibolite, plutonic rocks, minor other lithologies; includes some PTa*
PROTEROZOIC		
PW	WINDERMERE	*sandstone, siltstone, shale, diamictite, limestone, basalt, iron formation, pebble conglomerate*
PP1	MACKENZIE - MUSKWA	*quartzite, shale, basic lavas, carbonate, conglomerate*
PP2	PINGUICULA	*basalt, tuff, argillite, limestone stromatolitic biostromes, shale, dolomite*
PP	PURCELL-WERNECKE	*phyllite, slate, siltstone, sandstone, dolomite, argillite*
ARCHEAN-PALEOZOIC		
gns	SHUSWAP	*gneiss, schist, pegmatite, granitoid rocks, quartzite, marble*
gnc	CORE GNEISS	*orthogneiss and paragneiss*

AGE AND LITHOLOGY		
LATE TERTIARY		
LTg		*granite, quartz monzonite, granodiorite quartz diorite*
LTd		*syenite, granite*
LATE CRETACEOUS AND EARLY TERTIARY		
KTq		*granite, quartz monzonite; lesser granodiorite*
KTg		*granodiorite, quartz diorite, quartz monzodiorite, lesser quartz monzonite, diorite, monzonite*
KTd		*diorite, gabbro, syenite, monzonite; lesser quartz diorite to granite*
EARLY AND MID-CRETACEOUS		
EKq		*quartz monzonite, granite, granodiorite; lesser quartz diorite, quartz monzodiorite*
EKd		*gabbro, minor norite, diorite*
MID-CRETACEOUS		
⊙		*Alaskan-type ultramafics; pyroxenite, gabbro, diorite, dunite*
PALEOZOIC - EARLY TERTIARY		
MTg		MTq *quartz monzonite, granite* MTg *granodiorite, quartz diorite* MTd *diorite, gabbro, migmatite*
LATE JURASSIC AND EARLY CRETACEOUS		
JKg		*granodiorite, quartz diorite, diorite*
EARLY AND LATE JURASSIC		
MJg		*granodiorite, quartz diorite, quartz monzonite, diorite*
MJd		*syenite, leuco-monzonite, leuco-quartz monzonite*
LATE TRIASSIC-EARLY JURASSIC		
EJg		*quartz diorite, granodiorite; lesser diorite, quartz monzonite*
EJd		*diorite, monzonite, syenite, quartz diorite; minor pyroxenite, granodiorite*
UPPER TRIASSIC-LOWER JURASSIC		
⊕		*Alaskan-type ultramafics; gabbro, pyroxenite, diorite*
PENNSYLVANIAN-PERMIAN		
PPg		*quartz monzonite to diorite, syenodiorite, agmatite*
LATE PALEOZOIC-TRIASSIC		
◝		*Alpine-type ultramafics; peridotite, serpentinite*
DEVONIAN		
Dq		*quartz monzonite, granite*
MIDDLE-LATE PALEOZOIC		
Py		Pg *quartz monzonite to quartz diorite, monzonite, monzodiorite; minor gneiss, migmatite* Py *syenite, ijolite, jacupiranjite, gneiss*
DEVONIAN		
Dg		*gneissic granitoid rocks*
ORDOVICIAN AND SILURIAN		
OSg		*quartz monzonite to quartz diorite, trondjhemite, hornblendite, pyroxenite, serpentinite*
PROTEROZOIC		
Pg		*granodiorite*

overlying these units are volcanic breccias and fine tuffs of latite-trachyte composition, minor fine sediments, amygdaloidal alkali-olivine basalt, and a successor basin assemblage including post-volcanic calcareous sandstone, siltstone, and cobble conglomerate. Pleistocene glacial and fluvial deposits and Miocene lavas cover large areas of the Quesnel Belt.

Several stocks and smaller plugs and dykes of syenite to monzodiorite composition outcrop in the region. These intrusives are thought to be coeval and comagmatic with Early Jurassic volcanism extending into Middle Jurassic time. Stocks and dykes of quartz monzonite to granite of probable Cretaceous age cut earlier intrusives. Mafic dykes which cut basal sedimentary rocks probably represent feeders to overlying mafic volcanic rocks.

Structurally, the central Quesnel Belt has been folded into a broad open syncline of regional extent cut by at least three generations of faults.

Fault orientations include an early (post mid-Jurassic) northwest trending low angle reverse thrust, later northeast trending sinistral faults and a third north trending fault system which may have been active into the Tertiary. Basal sedimentary rocks display variable penatrative fabrics, with two phases of folding. Rocks higher in the sequence show no penatrative fabric.

In the Quesnel Belt region copper-gold mineralization is spatially and temporally related to comagmatic and coeval alkalic plutonism and volcanism Barr et. al., (1976). Mt. Polley (Cariboo-Bell) an alkalic porphyry deposit is located approximately 6 kilometers east of the JC property. This deposit hosts reserves of about 48 million tonnes grading 0.44% Cu and 0.61 g/t Au. Mt. Polley is characterized by crackle and intrusive breccias typical of porphyry systems, with a propylitic alteration zone surrounding a central potassic and intermediate garnet-epidote alteration zone. The QR deposit to the north is hosted by propylitically altered basalt breccias near a zoned diorite-syenite intrusive. Reserves of 1.2 million tonnes grading 5.22 g/t Au have been identified. This deposit displays features of both porphyry and

epithermal mineralization. Other styles of mineralization in the region include disseminated hydrothermal Cu in basalt flows and breccias, and Cu mineralization in Late Triassic limestones.

6.0 1990 WORK PROGRAM

Intermittently between April 1 and September 24, 1990, an exploration program was compeleted on the JC 1 and JC 2 mineral claims, which entailed prospecting, limited select geological mapping, rock chip sampling and petrographic studies. Prospecting was completed along and adjacent to a network of logging access roads and landings (Figure 5), while select outcrops along roads were mapped. A total of 38 grab, select grab and channel rock samples were collected (Appendix III). Samples were analysed by standard geochemical methods with select assaying for Cu and Ag as outlined in Appendices IV & V. Analyses included Cu, Ag, and Au with some multi-element ICP analysis. Petrographic studies were carried out on three mineralized samples collected from the JC 1 claim and one sample from north of the property. This work was completed by Vancouver Petrographics Ltd. (Appendix VI).

7.0 PROPERTY GEOLOGY & MINERALIZATION

Recent government geological mapping at 1:50,000 scale shows the JC property situated on the west limb of a regional scale northwest trending syncline (Figure 4). Rock units underlying the claims area include Late Triassic alkali-olivine and alkali basalt. Immediately to the east and northeast are younger Early Jurassic polylithic breccia, with overlying latitic crystal tuff, tuff breccia and tuffaceous sandstone with minor latite flow breccia. Units dip steeply to moderately northeast, offset by two northeast trending regional faults.

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PROPERTY LOCATION

LEGEND

SEDIMENTARY AND VOLCANIC ROCKS

TERTIARY	PLEISTOCENE	11	Glacial, fluvioglacial and fluvial gravel and sand
	MIOCENE	10	Green, grey and maroon plateau basalt (alkali olivine basalt)
CRETACEOUS			
JURASSIC	PLIENSBACHIAN	6	Cobble conglomerate: clasts of chert, limestone, sandstone carbonaceous shale and sandstone
		5	Well bedded dark grey siltstone and sandstone
	SINEMURIAN	4	Maroon, vesicular alkali olivine basalt, commonly analcite-rich
		3C	Feldspathic tuffaceous siltstone and sandstone minor breccia
		3B	Lalitic crystal tuff, tuff breccia and tuffaceous sandstone, minor latite flow breccia
		3A	Maroon and grey polylithic breccia; clasts of mafic and intermediate compositions in chloritic and feldspathic matrix
TRIASSIC	NORIAN	2H	Coarse-grained greenish grey and brown sandstone, grey medium-grained sandstone and dark grey siltstone and argillite
		2G	Massive grey limestone and calcareous sandstone
		2F	Interbedded dark grey mafic sandstone and siltstone
		2E	Analcite-bearing maroon and greenish grey alkali basalt; feldspathic in places
		2D	Hornblende-bearing pyroxene basalt
		2C	Polylithic, grey and maroon mafic breccia, minor feldspathic clasts
		2B	Maroon, pyroxene-phyric alkali basalt
		2A	Green and grey pyroxene-phyric alkali olivine basalt and alkali basalt
	CARNIAN	1	Dark grey siltstone, brown and grey sandstone; unit becomes volcaniclastic towards top. Minor conglomerate and dark grey limestone

INTRUSIVE ROCKS

9	Grey hornblende granodiorite and quartz monzonite
8	Fine- to coarse-grained grey nepheline syenite locally orbicular
7	Grey and pink, medium fine grained monzonite, monzodiorite, syenodiorite and syenite; pyroxene and/or hornblende-bearing

SYMBOLS

- Outcrop: large, small
- Bedding attitude: tops known, unknown, overturned
- Geological contact: known, approximate
- Fault: inferred
- Foliation
- Lineation: direction of plunge
- (F) Fossil locality
- (1) Significant mineral occurrence
- Cu Py cpy mal — Mineral occurrence: native copper, pyrite, chalcopyrite malachite
- Zone of mineralisation
- Limit of geological mapping
- Placer workings

SCALE 1:50,000

Km 0 0.5 1.0 2.0 3.0 Km

BCMEMPR PRELIMINARY MAP No. 67

JACOBIE LAKE PROJECT

JC 1 & JC 2 CLAIMS

PROPERTY AREA GEOLOGY

CARIBOO MINING DISTRICT, B.C.

PAMICON DEVELOPMENTS LTD.

DRAWN.	N.T.S.	DATE.	FIG.
J.W.	93 A/12	JAN. 1991	4

Outcrops observed on the property by the author include maroon-grey mafic volcanic breccia, maroon fine grained volcanic sandstone or tuff and a light tan very fine grained limonitic chert or silicified unit (Figure 5).

A petrographic report on three mineralized rock samples from the property (and a fourth sample to the north of the property approximately 4 km) was completed by Vancouver Petrographics Ltd. (Appendix VI, Figure 5). The above mentioned volcanic sandstone was identified as a mafic crystal tuff, composed of pyroxene crystal clasts, basalt clasts and feldspar crystal clasts, with perfectly preserved clastic features. The two additional samples from the property were identified as trachybasalt and porphyritic and amygdaloidal trachyte. Copper minerals identified include chalcocite, cuprite and native copper, with minor covellite and malachite. Mineralization occurs primarily as even fine disseminations intimately associated with Fe-oxides, and as a deuteric amygdaloidal assemblage, apparently representing a primary occurrance.

Mineralization identified in the field occurs mainly as fine disseminated dark blue-grey metallics in maroon fine grained volcanics. Minor malachite development on outcrop surfaces is indicative of the presence of Cu mineralization. Analytical results range from background values in Cu and Ag to 7.29% Cu and >1.0 opt Ag in select grab samples (Figure 5; Appendix III).

To date, similar styles of copper mineralization have been exposed intermittently in road cuts over an area of approximately one square kilometre. Due to extensive overburden cover between mineralized outcrops, no inferrence as to structures or trends can be made at this time, but as is typical in porphyry deposit environments, the widespread occurrence of copper mineralization as is seen on the JC 1 and JC 2 claims could be indicative of this style of mineralization.

8.0 DISCUSSION AND CONCLUSIONS

The JC 1 and JC 2 mineral claims are located adjacent to two significant gold-copper deposits (Mt. Polley/Cariboo Bell and QR) within the Quesnel Belt. In addition, along its trend to the northwest and southeast, the Quesnel Belt hosts several other major ore deposits, most important of which is the recently discovered Mt. Milligan deposit. These deposits occur within and proximal to calc-alkaline intrusive bodies and Upper Triassic-Lower Jurassic volcanic and sedimentary rocks.

It is interpreted from the assessment work carried out in 1990 and a compilation of data from government geological mapping studies of the area that the JC 1 and JC 2 claim area is underlain by favourable stratigraphy similar to that of the ore deposits in this belt described above. In this geological environment, it is common to find several calc-alkaline spatially related mineralizing intrusives - both outcropping and burried at depth - in a linear trend.

Significant new copper-bearing mineral occurrences discovered in 1990 on the JC 1 and JC 2 claims may be higher level expressions of an underlying ore-hosting intrusive. These hypotheses require extensive field exploration studies which are being recommended for the property.

Respectfully submitted,

A. Montgomery, Geologist

APPENDIX I

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APPENDIX II

COST STATEMENT

COST STATEMENT

JC 1 AND 2 CLAIMS

CARIBOO MINING DIVISION

WAGES		
R. Darney (Geologist) - 3 days @ $425.00	1,275.00	
A. Montgomery (Geologist) - 3 days @ $325.00	975.00	
D. Fulcher (Sampler) - 3 days @ $225.00	675.00	
G. Douglas (Sampler) - 3 days @ $225.00	675.00	
Total Wages		$ 3,600.00
GENERAL EXPENSES		
Travel and Accomodations - 10 days @ $35.00	$ 350.00	
Truck Rental - 3 days @ $75.00	225.80	
Field Equipment & Supplies Expendible	100.00	
Assays (Chemex Labs)	408.82	
Thin Sections (Vancouver Petrographics)	506.00	
Management Fee	238.47	
		1,828.29
Report		2,000.00
TOTAL THIS PROGRAM		$ 7,428.29

APPENDIX III

SAMPLE DESCRIPTIONS

[redacted]
DEVELOPMENTS LIMITED Geochemical Data [redacted]et - ROCK SAMPLING

Sampler Montgomery
Date May - June 1990

Project Jacobic, Lake
Property JC

NTS 93 A/12
Location Ref Caribou
Air Photo No

SAMPLE NO.	LOCATION	SAMPLE TYPE	Sample Width / True Width	DESCRIPTION			ADDITIONAL OBSERVATIONS	ASSAYS					
				Rock Type	Alteration	Mineralization		CU %	CU PPM	AG PPM	AU PPB		
91802	JC 1	grab		chert ?	limonite	-	strong limonite weathering		20	<	<		
91803	"	select grab		tuffaceous sst.	-	minor mal. chalcocite(?)	selection of mal. stained material	0.26		0.5	<		
91804	"	grab		"	-	-	as 803, select grab of material without mal.		670	<	<		
91805	"	"		purple - maroon bucht	-	1-3% f. diss. chalcocite + mal	material along road, originated from "landing # 3"	2.52		12.0	<		
91811	"	channel	1.0m / 1.0m	tuffaceous sst.	-	<1%-2% v.f. diss metallic	across o/c at 91803+91804		400	<	<		
91820	"	grab		maroon-grey coarse volcanic clastic	-		shear/fault zones cut o/c		124	<	<		

PRINTED IN CANADA

[redacted] DEVELOPMENTS LIMITED

Geochemical Data [illegible]eet - ROCK SAMPLING

NTS 93 A/12

Sampler Jim, Craig, Bob | Project Jacobe Lake | Location Ref Caribou

Date April 1990 | Property JC | Air Photo No

SAMPLE NO.	LOCATION	SAMPLE TYPE	Sample Width / True Width	DESCRIPTION			ADDITIONAL OBSERVATIONS	ASSAYS				
				Rock Type	Alteration	Mineralization			CU PPM	AG PPM	AU PPB	
JIM #1	JC 1	select grab		mafic volcanic	–	malachite	samples from maroon coloured		104	0.2	18	
JIM #2	"	"		"	–		v. fine - fine grained volcanics		34	0.1	1	
CRA #3	"	"		"	–		↓		10	0.1	3	
BD #1	"	"		?	–				3693	25.1	24	
BD #2A	"	"		?	–		outcrop to subcrop		6152	3.1	18	
BD #2B	"	"		?	–		some rusty weathering		165	.3	2	
BD #3	"	"		?	–		malachite stain		1538	.8	9	
JC #1	"	"		?	–				30	.3	33	
JC #2	"	"		volcanic breccia?	–				11547	3.3	8	

[redacted] DEVELOPMENTS LIMITED

Geochemical Data [illegible]eet - ROCK SAMPLING

NTS 93 A/12

Sampler Jim / Craig

Date 1989

Project Jacobic, Lake

Property JC

Location Ref Cariboo

Air Photo No

SAMPLE NO.	LOCATION	SAMPLE TYPE	Sample Width / True Width	DESCRIPTION			ADDITIONAL OBSERVATIONS	ASSAYS					
				Rock Type	Alteration	Mineralization		CU %	CU PPM	AG opt	AG PPM	AU PPB	
D45901	JC 1	select grab		mafic volcanic?				1.34	12668		2.0	6	
902	"	"		"					32		.1	24	
903	"	"		"					5834		1.1	2	
904	"	"		"					434		.1	11	
905	"	"		"					6644		1.8	7	
906	"	"		"				4.23	38088		19.6	26	
907	"	"		"				6.52	61829		22.7	17	
908	"	"		"					577		.2	14	
909	"	"		"					6974		1.5	9	
910	"	"		"					2072		1.3	9	
911	"	"		"				5.88	58707	1.23	34.1	40	
912	"	"		"				4.33	40204		20.8	16	
913	"	"		"				7.29	68034	1.29	35.9	68	

[redacted]
DEVELOPMENTS LIMITED

Geochemical Data [redacted]et - ROCK SAMPLING

NTS 93A/12

Sampler Jim / Craig | Project Jacobic Lake | Location Ref Cariboo

Date 1990 | Property JC | Air Photo No

SAMPLE NO.	LOCATION	SAMPLE TYPE	Sample Width / True Width	DESCRIPTION			ADDITIONAL OBSERVATIONS	ASSAYS					
				Rock Type	Alteration	Mineralization		Cu %	Ag PPM	Au PPB			
MJ 1	JC 1	select grab		mafic volcanic?		mineralization incl. variable		2.64	21.6	10			
MJ 2	"	"		"		malachite & fine metallics		5.16	27.5	10.			
MJ 3	"	"		"		↓		1.01	2.3	5			
MJ 4	"	"		"				1.22	5.4	5			
MJ 5	"	"		"				1.08	1.7	5			
MJ 6	"	"		"				0.85	2.0	<			
MJ 7	"	"		"				0.92	4.1	<			
MJ 8	"	"		"				0.80	2.6	<			
MJ 9	"	"		"				0.98	3.9	<			
MJ 9*	"	"		"				0.98	3.8	<			

PRINTED IN CANADA

APPENDIX IV

ANALYTICAL CERTIFICATES

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: PAMICON DEVELOPMENTS LIMITED

711 - 675 W. HASTINGS ST.
VANCOUVER, BC
V6B 1N4

A9016404

Comments: ATTN: STEVE TODORUK

CERTIFICATE A9016404

PAMICON DEVELOPMENTS LIMITED

Project: JACOBIE
P.O. # :

Samples submitted to our lab in Vancouver, BC.
This report was printed on 13-JUN-90.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
205	19	Geochem ring to approx 150 mesh
294	19	Crush and split (0-10 pounds)
238	19	NITRIC-AQUA REGIA DIGESTION

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
100	19	Au ppb: Fuse 10 g sample	FA-AAS	5	10000
2	13	Cu ppm: HNO3-aqua regia digest	AAS	1	10000
6	19	Ag ppm: HNO3-aqua regia digest	AAS-BKGD CORR	0.2	100.0
301	6	Cu %: HClO4-HNO3 digestion	AAS	0.01	100.0

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: PAMICON DEVELOPMENTS LIMITED

711 - 675 W. HASTINGS ST.
VANCOUVER, BC
V6B 1N4

Project : JACOBIE
Comments: ATTN: STEVE TODORUK

Invoice Date: 13-JUN-90
Invoice No. : I-9016404
P.O. Number :

CERTIFICATE OF ANALYSIS A9016404

SAMPLE DESCRIPTION	PREP CODE	Au ppb FA+AA	Cu ppm	Ag ppm Aqua R	Cu %
91802	205 294	< 5	20	< 0.1	-----
91803	205 294	< 5	-----	0.5	0.26
91804	205 294	< 5	670	< 0.1	-----
91805	205 294	< 5	-----	12.0	2.52
91811	205 294	5	400	< 0.1	-----
91820	205 294	< 5	124	< 0.1	-----

CERTIFICATION : Bichler

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Craig Boruck · File # 90-2257

Box 456, 150 Mi House BC V0K 2G0

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
JIM #1	12	104	13	245	.2	134	25	289	5.69	2	6	ND	3	30	3.0	2	2	148	2.39	.206	12	82	1.01	28	.15	5	1.14	.03	.50	2	18
JIM #2	1	34	11	30	.1	53	17	1357	2.95	5	5	ND	1	281	.2	2	2	24	22.33	.087	4	50	1.82	21	.04	2	.97	.02	.04	2	1
CRA #3	1	10	11	80	.1	81	28	337	4.24	4	5	ND	1	44	.4	2	2	46	3.26	.062	2	102	1.97	266	.31	3	2.51	.02	1.51	1	3

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 MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: Rock AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: JUL 5 1990 **DATE REPORT MAILED:** July 9/90 **SIGNED BY** ..... D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Craig Boruck File # 90-3187

Box 456, 150 Mi House BC V0K 2G0

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
BD #1	1	3693	5	57	25.1	14	23	866	5.87	2	5	ND	1	231	.8	3	2	200	2.76	.425	15	12	1.91	290	.14	17	1.94	.07	.59	1	24
BD #2A	1	6152	6	76	3.1	21	26	742	5.06	2	5	ND	1	173	1.5	4	3	114	3.30	.264	9	47	1.68	43	.16	8	1.21	.06	.25	1	18
BD #2B	1	165	4	49	.3	26	20	744	3.67	7	6	ND	1	186	.6	3	2	116	7.99	.027	2	37	4.25	25	.02	5	.30	.03	.03	1	2
BD #3	1	1538	12	71	.8	21	25	1383	5.45	2	5	ND	1	199	.6	6	2	129	5.95	.226	9	44	2.67	35	.08	9	1.38	.03	.60	1	9

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 MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: Rock AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: AUG 7 1990 **DATE REPORT MAILED:** Aug 9/90. **SIGNED BY.....C. Leong.** D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

[redacted]CME [redacted]LYT[redacted] LA[redacted]ATOR[redacted] LT[redacted] [redacted] E. [redacted]TIN[redacted]T. [redacted]OUV[redacted].C.[redacted]6A [redacted] PHONE(604)253-[redacted]158 FAX(604)253-1[redacted]

GEOCHEMICAL ANALYSIS CERTIFICATE

Craig Boruck File # 90-0885

Box 456, 150 Mile House BC V0K 2G0

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
JC #1	1	30 ✓	15	86	.3	19	26	889	6.33	56	5	ND	1	92	1	5	2	146	2.95	.230	13	35	2.18	18	.15	14	2.89	.80	.15	1	33
JC #2	1	11547 ✓	2	88	3.3	26	23	925	5.19	13	5	ND	2	229	2	3	2	147	2.62	.247	13	39	2.75	25	.15	8	1.72	.02	.08	1	8

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 MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: ROCK AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: APR 9 1990 **DATE REPORT MAILED:** April 12/90. **SIGNED BY** C. Leong .D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

✓ **ASSAY RECOMMENDED**

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

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 MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: ROCK AU** ANALYSIS BY FA/ICP FROM 10 GM SAMPLE.

DATE RECEIVED: OCT 24 1989 **DATE REPORT MAILED:** Oct 31/89 **SIGNED BY.** C. Leong D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

White Channel Resources Inc. PROJECT J.C. CLAIM File # 89-4438

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au** PPB
D 45901	1	12668 ✓	7	103	2.0	18	24	844	5.65	7	5	ND	1	218	1	2	2	224	2.56	.232	12	33	2.24	116	.17	13	1.72	.14	.04	1	6
D 45902	1	32	6	86	.1	16	27	1127	6.01	3	5	ND	1	165	1	2	2	152	3.35	.239	14	29	2.66	22	.12	14	2.61	.50	.05	1	24
D 45903	1	5834	9	83	1.1	15	22	858	5.01	7	5	ND	1	213	1	2	2	194	2.63	.226	12	28	2.20	26	.14	16	1.66	.10	.04	1	2
D 45904	1	434	9	60	.1	26	22	575	4.85	5	5	ND	1	103	1	2	2	141	1.77	.213	10	40	2.70	43	.09	9	1.42	.05	.15	1	11
D 45905	1	6644	10	74	1.8	24	18	1036	4.54	9	5	ND	1	194	1	2	2	194	4.96	.211	12	46	2.38	18	.09	6	1.59	.06	.08	1	7
D 45906	4	38088 ✓	3	90	19.6	11	27	1133	4.92	2	5	ND	1	123	1	2	2	160	6.91	.165	10	12	1.95	83	.10	2	1.85	.02	.02	1	26
D 45907	4	61829 ✓	8	123	22.7	11	27	773	5.62	5	5	ND	1	61	2	2	2	181	3.20	.174	10	13	1.73	11	.15	2	1.61	.02	.02	1	17
D 45908	1	577	3	63	.2	22	23	1032	5.49	5	5	ND	1	65	1	2	2	103	11.76	.080	3	16	.24	93	.02	2	.47	.01	.08	1	14
D 45909	1	6974	11	91	1.5	25	22	1010	4.86	4	5	ND	1	348	1	2	2	157	2.75	.243	15	37	2.80	20	.12	10	1.91	.01	.06	1	9
D 45910	1	2072	7	71	1.3	14	19	885	5.01	5	5	ND	1	101	1	2	2	175	3.32	.180	11	7	1.94	38	.19	11	2.39	.28	.59	1	9
D 45911	3	58707 ✓	4	128	34.1 ✓	12	33	929	6.17	2	5	ND	1	55	1	2	3	224	2.51	.195	11	13	2.34	6	.17	3	2.03	.02	.01	1	40
D 45912	4	40204 ✓	3	78	20.8 ✓	10	19	959	4.03	3	5	ND	1	104	1	2	2	143	10.32	.138	9	10	1.17	31	.07	2	1.16	.02	.01	1	16
D 45913	8	68034 ✓	4	121	35.9 ✓	16	30	689	4.89	3	5	ND	1	62	1	2	2	182	3.74	.168	10	12	1.67	5	.18	8	1.42	.03	.02	1	68
STD C/AU-R	18	62	39	132	6.5	67	31	1009	3.99	39	22	7	37	47	17	15	21	56	.48	.088	37	55	.88	174	.06	36	1.94	.06	.14	13	520

✓ ASSAY IN PROGRESS

ACME ANALYTICAL LABORATORIES LTD.
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
PHONE(604)253-3158 FAX(604)253-1716

DATE RECEIVED: OCT 31 1989
DATE REPORT MAILED: Nov. 2/89

ASSAY CERTIFICATE

- SAMPLE TYPE: ROCK PULP

SIGNED BY..... D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

WHITE CHANNEL RESOURCES FILE # 89-4438R

SAMPLE#	Cu %	Ag OZ/T
D45901	1.34	-
D45906	4.23	-
D45907	6.52	-
D45911	5.88	1.23
D45912	4.33	-
D45913	7.29	1.29

ECO-TECH LABORATORIES LTD.
ASSAYING - ENVIRONMENTAL TESTING
10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax 573-4557

MAY 18, 1990

CERTIFICATE OF ANALYSIS ETK 90-115 A

Placer Dome Inc.
401, 1450 Pearson Place
KAMLOOPS, B.C.
V1S 1J9

A S S A Y S

DATE RECEIVED: MAY 16, 1990
PROJECT: GENERAL 1E
NUMBER SAMPLES: 5
TYPE SAMPLES: ROCK

REJECTS: STORE
PULPS: STORE

ET#	Description	Cu (%)
115 - 1	MJ 1	2.64
115 - 2	MJ 2	5.16
115 - 3	MJ 3	1.01
115 - 4	MJ 4	1.22
115 - 5	MJ 5	1.08

ECO-TECH LABORATORIES LTD.
JUTTA JEALOUSE
B.C. Certified Assayer

F A X
SC90/PLACER1

ECO-TECH LABORATORIES LTD.

10041 EAST TRANS CANADA HWY.
KAMLOOPS, B.C. V2C 2J3
PHONE - 604-573-5700
FAX - 604-573-4557

PLACER DOME INC. - ETK 90-115

401, 1450 Pearson Place
KAMLOOPS, B.C.
V1S 1J9

MAY 23, 1990

VALUES IN PPM UNLESS OTHERWISE REPORTED

PROJECT: IE
5 ROCK SAMPLES RECEIVED MAY 16, 1990

ET#	DESCRIPTION	AU(ppb)	AG	AL(%)	AS	B	BA	BI	CA(%)	CD	CO	CR	CU	FE(%)	K(%)	LA	MG(%)	MN	MO	NA(%)	NI	P	PB	SB	SN	SR	TI(%)	U	V	W	Y	ZN
115 - 1	MJ 1	10	21.6	2.12	<5	15	5	<5	4.44	<1	34	42	>10000	5.41	.03	<10	2.51	1313	9	.05	11	1764	8	<5	<20	82	.22	10	227	10	12	106
115 - 2	MJ 2	10	27.5	2.09	5	16	5	<5	4.06	<1	29	42	>10000	6.09	.03	<10	2.34	1048	12	.06	9	1551	6	<5	<20	80	.25	<10	224	40	11	116
115 - 3	MJ 3	5	2.3	2.11	10	17	20	<5	3.29	<1	29	73	>10000	4.96	.10	<10	2.81	1216	7	.05	30	2748	8	10	<20	496	.14	<10	170	10	11	131
115 - 4	MJ 4	5	5.4	2.05	<5	15	10	<5	4.73	<1	42	34	>10000	7.23	.02	<10	2.33	1457	6	.07	19	2375	4	10	<20	137	.11	10	257	10	12	96
115 - 5	MJ 5	5	1.7	1.81	10	18	15	<5	2.79	<1	26	66	>10000	4.66	.09	<10	2.69	1117	7	.05	29	2756	6	5	<20	385	.12	<10	157	10	10	108

NOTE: < = LESS THAN

ECO-TECH LABORATORIES LTD.
JUTTA JEALOUSE
B.C. CERTIFIED ASSAYER

SC90/KAM1

P L A C E R D O M E I N C (V A N C O U V E R L A B O R A T O R Y)

GEOCHEMICAL DATA LISTING: BC GEN 1E DATE: 90:05:29

PDI lab data file: P0332
AREA:
MAPSHEET NO:
VENTURE: BC GEN 1E
GEOLOGIST: D LEISHMAN
LAB PROJECT NO: 0332

PLEASE DISTRIBUTE RESULTS TO: D LEISHMAN
B. HODGSON M. GAREAU E. KIMURA E. GONZALEZ-URIEN

REMARKS:
"RESULTS TO DOUG LEISHMAN AT KAMLOOPS OFFICE"
"ASSAY AU >200 PPB; PLEASE CUT THE ROCKS AS INDICATED AND ANALYSE HALF
"RETURN UNUSED HALF TO D LEISHMAN AT KAMLOOPS OFFICE"

STANDARD ANALYSIS METHODS USED BY PDL GEOCHEM LAB ARE LISTED BELOW:
ALL RESULTS EXPRESSED AS INDICATED IN UNITS COLUMN BELOW
ANY EXCEPTIONS FOR THIS PROJECT ARE NOTED ABOVE

REMARKS: INTERNAL LAB STANDARDS HAVE BEEN INCLUDED FOR REFERENCE.
SAMPLE NUMBERS FOLLOWED BY * ARE DUPLICATE ANALYSES.

	UNITS	WT.G	ATTACK	USED	TIME	RANGE	METHOD
AG	PPM	0.5	HCLO4/HNO3		4HRS	0.2-20	A.A. BACKGROUND COR
AU1	PPB	10.0	AQUA REGIA		3HRS	5-4000	A.A. SOLVENT EXTRACT.
CU	PPM	0.5	HCLO4/HNO3		4HRS	2-4000	ATOMIC ABSORPTION

PDI GEOCHEM SYSTEM: Data From: BC GEN 1E PAGE: 1

GRID	SAMPLE	PROJECT	Ag PPM	Au1 PPB	Cu PPM
	MJ6	0332	2.0	<5	0.85%
	MJ7	0332	4.1	<5	0.92%
	MJ8	0332	2.6	<5	0.80%
	MJ9	0332	3.9	<5	0.98%
	MJ9*	0332	3.8	<5	0.98%
test	STD P1	0332	0.3		22
test	STD AU6	0332		275	
test	STD CU	0332			0.40%

END OF LISTING - 8 RECORDS PRINTED Run on: 90:05:29 at 15:41:50

PLACER DOME INC: GEOCHEM ASSAY SYSTEM

Following elements needed some values adjusted:

ELEMENT	NSS	LOW	HI	%	BLNK	NVAL
AU1	0	4	0	0	0	4
CU	0	0	0	4	0	4

4 records skipped: tests, duplicate analyses

SUMMARY OF GEOCHEM DATA: BC GEN 1E

ITEM	# VALUES	MISSING	MINIMUM	MAXIMUM	AVERAGE	STD. DEV.
GRID	0	4				
SAMP	0	4				
PROJ	4	0	0332	0332		
AG	4	0	2.00	4.10	3.15	1.01
AU1	4	0	2.50	2.50	2.50	0.00
CU	4	0	8000.00	9800.00	8875.00	788.98

END OF SCAN: DATE: 90:05:29 time: 15:41:50 4 RECORDS PROCESSED

APPENDIX V

ANALYTICAL PROCEDURES

CHEMEX LABS LTD.

Prep.	Crush and split (0 - 10 lbs), geochem ring to approx. - 150 mesh		
	AU (ppb)	Fuse 10g sample	
	CU (ppm)	HNO3 - aqua regia digest	
	AG (ppm)	HNO3 - aqua regia digest	
	CU (%)	HCLO4 - HNO3 digest	
Analysis	AU (ppb)	FA-AAS	(5 ppb detection)
	CU (ppm)	AAS	(1 ppm detection)
	AG (ppm)	AAS-Background correction	(0.2 ppm detection)
	CU (%)	AAS	(0.01% detection)

ACME ANAYTICAL LABORATORIES LTD.

Prep.	1/2 - 2 lbs. samples crush, split, pulverized; 30 element geochem. 0.500g sample digested with 3ml 3-1-2 HCL-HNO3-H2O at 95 degree C for one hour then diluted to 10ml with water.
	AU from 10g sample acid leach; AG & CU assay 1g sample, leach 50ml aqua regia, dilute to 100ml with water.
Analysis	30 element geochem by ICP
	AU by acid leach/AA
	CU & AG assay by ICP

ECO-TECH LABORATORIES LTD.

Prep.	dried, crushed, riffle split to pulp size and pulverized to approximately - 140 mesh; multi-element geochem digestion by hot aqua-regia. AU (ppb) 10.0g sample roasted at 600°C then digested with hot aqua-regia. specific analysis for AG 0.5g sample HCLO4/HNO3 digestion. CU assay 0.5g sample HCLO4/HNO3 digestion.
Analysis	30 element geochem by ICP AU (ppb) AA - MIBK solvent extract AG (ppm) AA - Background correction CU (%) AA

APPENDIX VI

PETROGRAPHIC REPORT

Vancouver Petrographics Ltd.

JAMES VINNELL, Manager
JOHN G. PAYNE, Ph.D. Geologist
CRAIG LEITCH, Ph.D. Geologist
JEFF HARRIS, Ph.D. Geologist 929-5867
KEN E. NORTHCOTE, Ph.D. Geologist

P.O. BOX 39
8080 GLOVER ROAD,
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Report for: Al Montgomery,
Pamicon Developments Ltd.,
711-675 West Hastings St.,
Vancouver,
V6B 1N4

July 11th, 1990

Samples:

4 samples from the Hydraulic map area (NTS 93A/12), Cariboo Mining District.

Samples are numbered 91803, 91805, 91813 and "Native Cu". All were prepared for examination as polished thin sections.

In order to provide guidance for the petrographic work, small portions of each sample were submitted for chemical analysis for Cu. Results are as follows:

Sample	Cu (ppm)
91803	1,410
91805	>47,000
91813	62
"Native Cu"	>10,000

Summary:

Sample 91803 is a mafic tuff composed predominantly of even-sized crystal clasts of fresh pyroxene. Its other major components are lithic clasts of dark basalt, and probable crystal clasts of feldspars (mainly K-spar) and Fe-Ti oxides. The rock is fresh, but for minor carbonate development, and shows perfectly preserved clastic features.

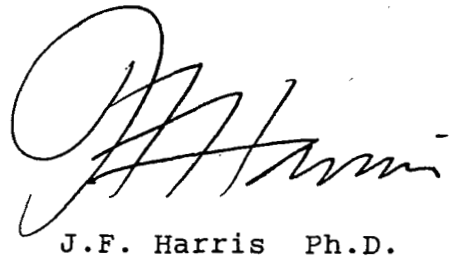
Sample 91805 is a trachybasalt composed of plagioclase and K-spar laths in a dark, opaque-rich matrix. It is strongly altered to carbonate, as irregular patches and probable pseudomorphs of original phenocrysts. The rock may be somewhat vesicular, and shows a cryptofragmental fabric which may be evidence of autobreccition.

Chalcocite is a distinctive accessory, closely associated with (replacing?) primary disseminated Fe oxides.

Sample 91813 is an altered andesite. It consists of sericite-clay pseudomorphs after elongate plagioclase phenocrysts, set in a microgranular matrix of felsitic plagioclase and possible chlorite. The rock shows pervasive and veinlet carbonate alteration.

The sample designated "Native Cu: is a sparsely porphyritic and amygdaloidal trachyte, composed largely of microgranular K-feldspar with accessory pyroxene. It shows mild carbonate-epidote-chlorite alteration. Native Cu, partly altered to cuprite, occurs in association with a deuteric amygdaloidal assemblage.

Individual petrographic descriptions are attached.



J.F. Harris Ph.D.

(929-5867)

PHOTOMICROGRAPHS

SAMPLE 91805

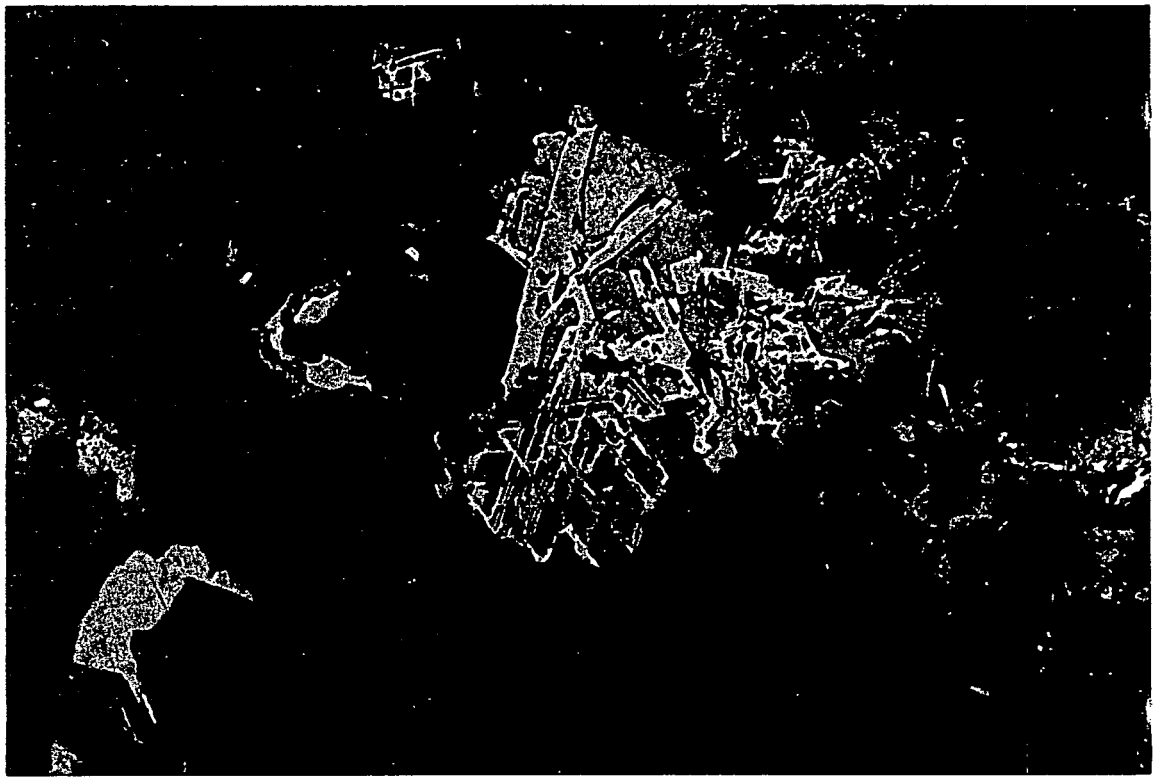
Neg. 176-22: Reflected light. Scale 1cm = 42 microns.
Shows intimate intergrowth of chalcocite (mottled bluish grey) and hematite (lighter grey prismatic grains and boxworks). Slide also includes some discrete pockets of chalcocite without Fe oxides (left centre; bottom left).

Neg. 176-23: Reflected light. Scale 1cm = 42 microns.
Shows homogenous area of chalcocite (mottled bluish-grey) with octahedral structure - possibly inherited from original Fe oxides. Smaller chalcocite pockets at lower left are largely altered to digenite and covellite (blue). One of these pockets contains a prismatic inclusion of hematite (light grey). Note network of minute grey speckles in rock matrix (e.g. upper left). This represents the pervasive impregnation of the groundmass by micron-sized hematite.

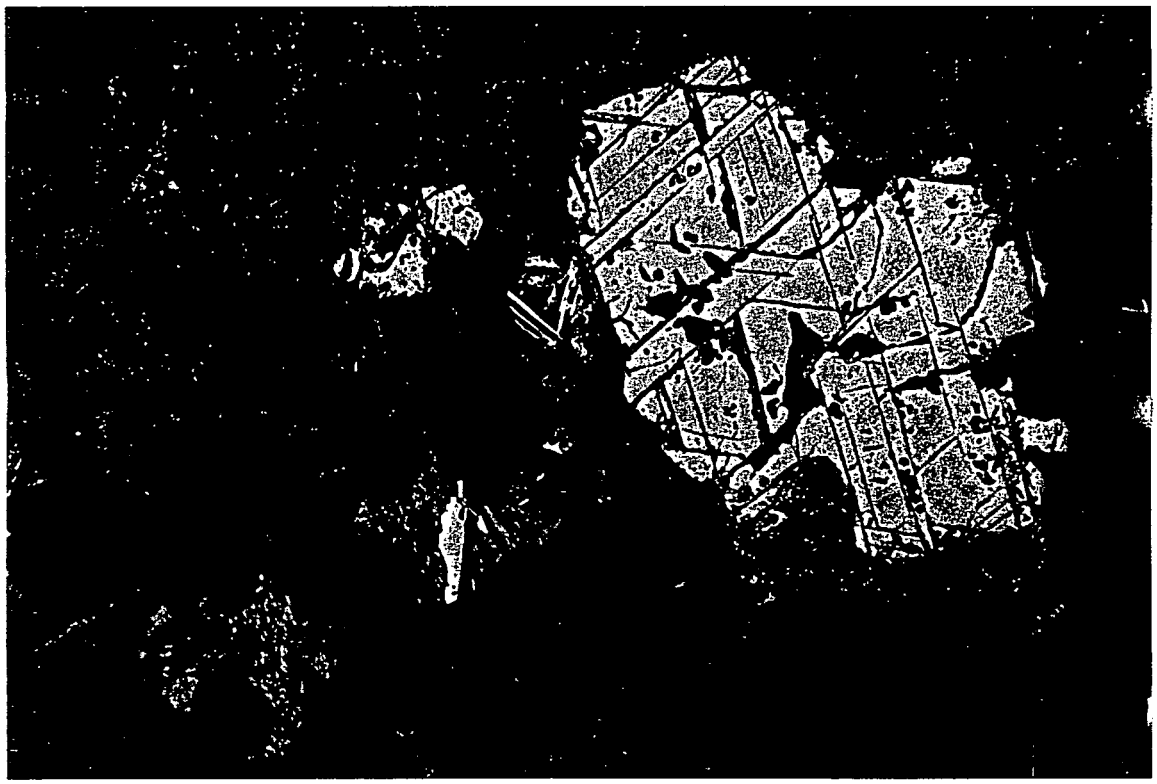
SAMPLE "NATIVE COPPER"

Neg. 176-24: Reflected light. Scale 1cm = 85 microns.
Shows pockets and rimming growths of native Cu (bright pinky orange) largely altered to cuprite (blue-grey). The Cu minerals occur intergrown with granular quartz (dark grey) at right, and on the contact of the quartz and an area of sparry calcite (dark grey with cleavages, at left) constituting a probable amygdaloidal assemblage.

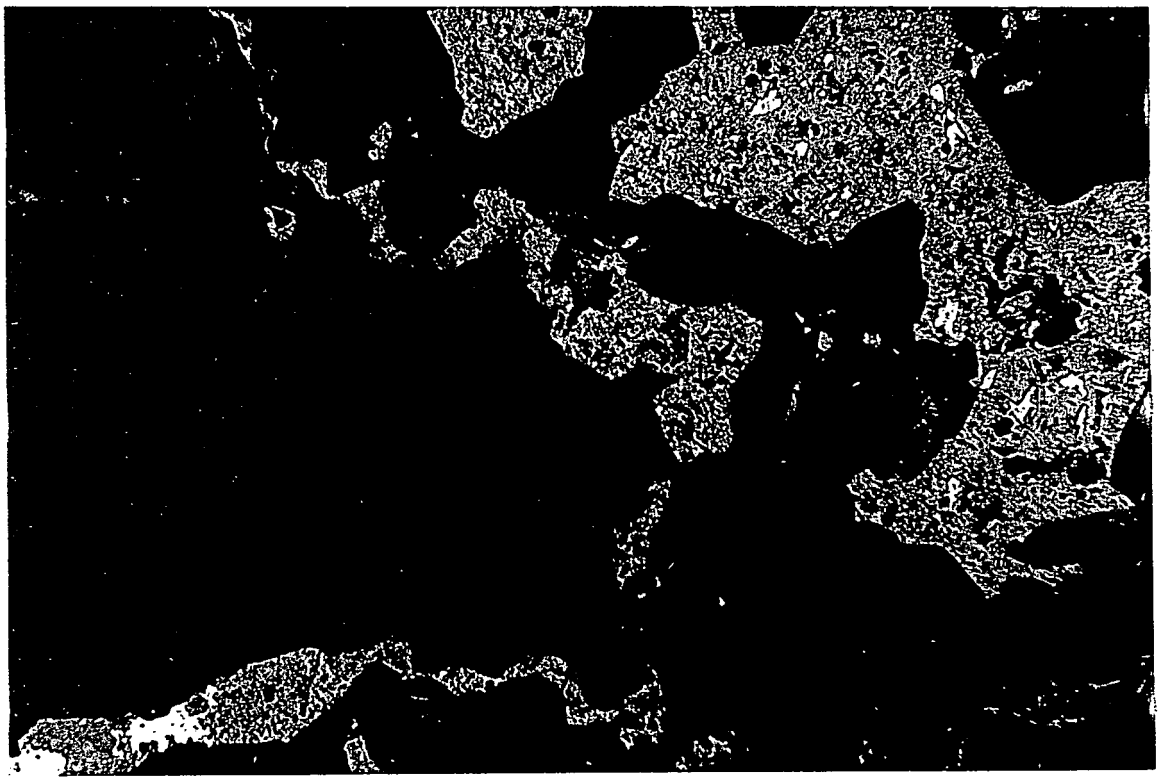
Neg. 176-25: Reflected light. Scale 1cm = 85 microns.
Shows smaller pockets of native Cu (bright orange) associated with amygdules of quartz (smooth dark grey areas) in trachytic rock matrix of fine-grained K-spar and pyroxene (darkest grey, granular background). Note small flecks and boxwork-textured clusters of disseminated Fe-Ti oxides (light grey) throughout rock matrix. Red speckles in native Cu at bottom right are tarnish. Blue areas in the native Cu are patches of alteration to cuprite.



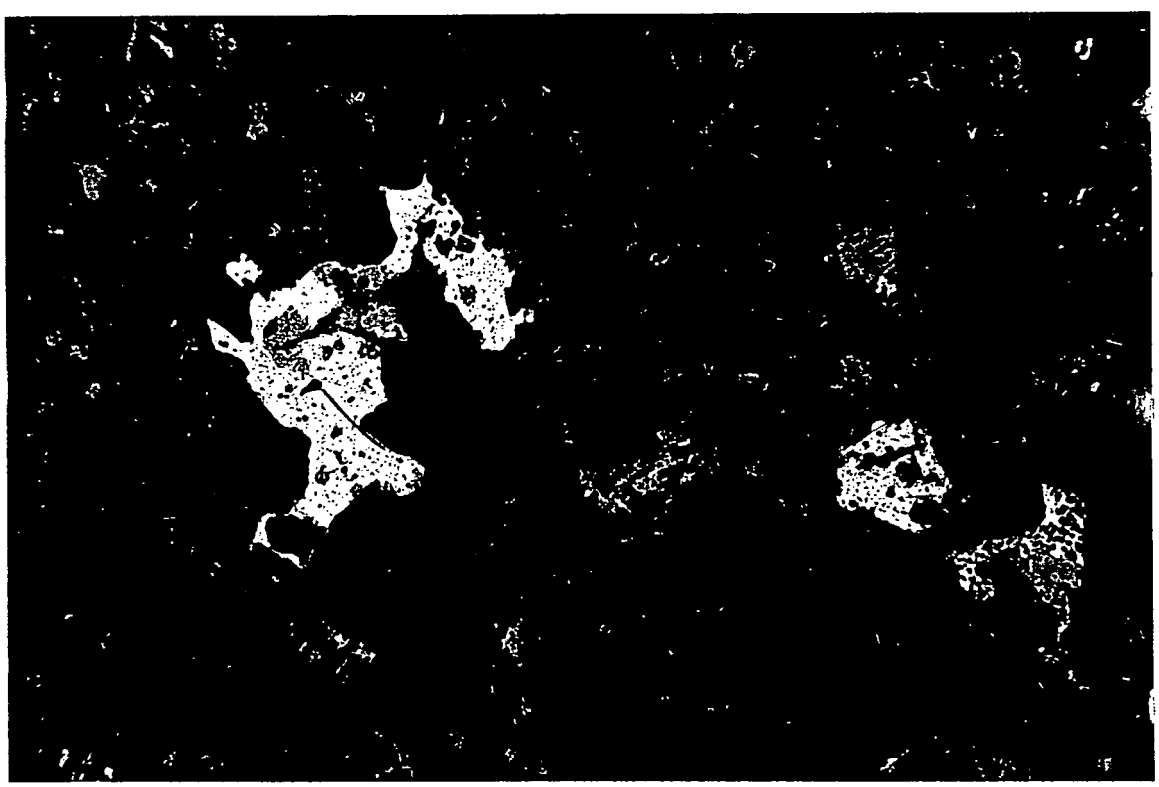
NEG. 176-22



NEG. 176-23



NEG. 176-24



NEG. 176-25

SAMPLE 91803 **MAFIC CRYSTAL TUFF**

Estimated mode

K-feldspar	12
Plagioclase	3
Clinopyroxene	60
Carbonate	3
Lithic clasts	10
Fe-Ti oxides	12

This rock is a tuff composed of tightly packed, rather even-sized mineral grains and lesser lithic clasts, 0.1 - 0.6mm in size.

The most abundant constituent is clinopyroxene, (pale yellowish-green in colour in thin section) as individual, stumpy, prismatic subhedra. These are generally fresh but for incipient alteration to carbonate along cracks and cleavages.

Another prominent constituent consists of dark, sub-opaque lithic clasts, composed of microlitic feldspars with interstitial hematized glass. In a few cases this material is seen partially enclosing pyroxene crystals - suggesting that it represents the groundmass phase of an abundantly porphyritic basalt (or trachybasalt) in which the pyroxene crystals were phenocrysts - now largely disaggregated by an explosive event.

Feldspars, mainly K-spar, form small crystal clasts and, in part, appear to constitute a matrix phase.

The other major constituent is an opaque oxide, occurring as individual anhedral-subhedral clasts, 0.05 - 0.5mm in size. It is also seen occasionally as inclusions within pyroxene grains, and with adhering selvedges of ferruginous basaltic groundmass. The oxide grains are of polyphase character, often showing lamellar intergrowth textures. They are probably composed mainly of hematite and ilmenite. The rock shows no attraction to the hand magnet, despite the abundance of oxides.

The remaining component is carbonate, which occurs as sporadic interclast pockets, partially replacing feldspar.

This rock is a mafic crystal tuff of distinctive type. It shows a perceptible laminar fabric defined by alternating bands in which coarser pyroxene crystals and smaller ferruginous lithic clasts predominate. This structure presumably represents primary bedding, as the rock shows no recrystallization, and is notably fresh. The lack of chloritic material is remarkable.

No recognizable Cu minerals were seen.

SAMPLE 91805 ALTERED CUPRIFEROUS TRACHYBASALT

Estimated mode

Plagioclase	42
K-feldspar	20
Chlorite	8
Carbonate	18
Hematite) Fe-Ti oxides)	5
Chalcocite	5
Digenite	trace
Covellite	trace
Cuprite(?)	2

This is a heterogenous porphyritic volcanic rock of uncertain character.

The dominant component consists of abundant, randomly oriented, rectangular euhedra of feldspar, 0.05 - 1.0mm in size, set in a dark matrix or interstitial phase of uncertain composition (felsite and chlorite?), intimately impregnated with micron-sized opaque (hematitic?) dust.

Carbonate is a prominent alteration phase, occurring throughout as irregular pockets and pervasive networks. Sometimes the carbonate masses are clearly pseudomorphs, or partial pseudomorphs, of plagioclase or other phenocrysts, up to 2.0mm in size. In some cases these pseudomorphs are composed of intergrowths of carbonate and felted chlorite, or are predominantly chlorite, and may represent altered pyroxene.

In some cases the pockets of carbonate and/or chlorite have somewhat the aspect of vesicular fillings.

The dark, feldspar-studded matrix tends to alternate in patchy manner with the carbonate-rich areas - giving a somewhat fragmental appearance. However, no definite fragment outlines are distinguishable.

Another compositional heterogeneity takes the form of microgranular anhedral aggregates of feldspar (probably mixtures of K-spar and albite) which form diffuse patches and streaks, often with intergrown carbonate. These may represent late-magmatic segregations or another form of alteration.

A prominent feature of the rock is the presence of rather evenly disseminated, discrete, equant grains of opaques, 0.05 - 0.4mm in size. These often show a pronounced octahedral lamellar/boxwork texture, and appear to be composed of intergrowths of chalcocite, hematite and earthy Fe oxides and/or rutile in various proportions. Some of them are almost entirely chalcocite, whilst others consist

Sample 91805 cont.

of meshworks or radiate clusters of acicular hematite with interstitial chalcocite.

Digenite (showing a patchy blue colour in contrast to the grey of the chalcocite) is a less abundant component, generally as small, dispersed flecks in the silicate host. There are also traces of covellite replacing chalcocite.

In cross-polarized reflected light the rock is seen to contain abundant fine-grained dispersed oxidic material which imparts a strong red translucency. This is probably mainly the hematitic dust which pervades the groundmass but, in view of the Cu-rich character of this rock, could well include some cuprite.

The distribution of chalcocite appears random, and shows no particular relation to the concentrations of carbonate or secondary feldspars. It is in no way structurally controlled. It is possible that the Cu sulfides are of deuteric origin, and pseudomorph pre-exisiting primary Fe-Ti oxides, though textures are ambiguous. The total lack of pyrite and of recognizable sulfide-associated alteration are notable features.

SAMPLE 91813 **ALTERED ANDESITE**

Estimated mode

Plagioclase	32
Chlorite	12
Sericite) Clays)	40
Carbonate	12
Quartz	1
Apatite	1
Rutile) Fe-Ti oxides)	2

Low-power examination of the cut-off block of this sample shows the strong white etch indicative of plagioclase-rich composition, and a sub-oriented fabric of abundant prismatic feldspars suggestive of flow in an extrusive or sub-volcanic intrusive of andesitic type.

In thin section the rock is found to consist of totally altered phenocrysts in a relatively unaltered, microgranular groundmass.

Pseudomorphed phenocrysts make up 40 - 50% of the rock. They are of prismatic form, and range in size from 0.1 - 2.0mm or more. Most of them (originally plagioclase) are now composed of intergrowths of felted to cryptocrystalline sericite, possibly with indeterminate proportions of clays. A few - representing original mafic silicates - are composed of felted chlorite.

The groundmass is of microgranular/felsitic texture, and is composed of plagioclase, of grain size 20 - 50 microns, with an interstitial cryptocrystalline component which may be largely chlorite.

Accessories include rare, rather coarse, subhedral grains of apatite, 0.2 - 1.0mm in size, and randomly-disseminated Fe-Ti oxides as individual equant grains, 0.02 - 0.5mm in size. These show similar octahedral, lattice-textured habit as those in Sample 91805, but apparently contain no Cu minerals.

The rock shows moderate carbonate alteration, as random, small, pervasive flecks throughout the groundmass and altered phenocrysts, and as a network of incipient microfractures. There are also a few, more distinct, hairline veinlets of carbonate and intergrown carbonate and quartz.

The fracture-controlled carbonate is often limonite-stained, and is probably of ferruginous (ankeritic) composition.

SAMPLE "NATIVE Cu" **TRACHYTE**

Estimated mode

K-feldspar	77
Clinopyroxene	8
Chlorite	2
Carbonate	4
Epidote	5
Quartz	trace
Fe-Ti oxides	2
Native Cu	1
Cuprite	1
Malachite	trace

This rock is distinctive for its highly potassic character (see strong positive cobaltinitrite stain on the cut-off block).

It is a fine-grained volcanic, consisting essentially of a felsitic to microlitic matrix of K-feldspar, of grain size 10 - 100 microns, with accessory pyroxene as randomly oriented prismatic grains, 20 - 200 microns in size.

The pyroxene ranges from fresh to strongly carbonate altered. The feldspar shows mild pervasive alteration to wisps and patches of cryptocrystalline epidote.

Fine-grained, disseminated opaques are the other accessory component. These consist of hematite, magnetite and ilmenite, in various proportions, as tiny equant granules, 10 - 50 microns in size, often coalescing to larger atoll-like forms. Some of these consist of rims of opaques around cores of felted chlorite, and are presumably a form of pseudomorph.

Occasional small pockets of granular quartz, secondary feldspar and carbonate, sometimes rimmed by epidote, have the aspect of amygdules.

The rock contains very rare individual phenocrysts, 0.5 - 3.0mm in size. Some of these are fresh clinopyroxene, whilst others are totally altered to intergrowths of carbonate and quartz, or carbonate and chlorite. The latter type may, in fact, be amygdules rather than pseudomorphs.

Native Cu is a minor but distinctive component of this rock. It occurs in close association with the two coarse, carbonate-chlorite-quartz patches (possible amygdules) mentioned above, and also with smaller amygdule-like pockets of quartz in the groundmass.

The native Cu forms irregular intergrowths, 20 - 200 microns in size, with the quartz of the scattered small amygdules. It also forms coarser rims and pockets, up to 0.5 or 1.0mm, in the two larger crypto-amygdules. In the latter instances it is extensively

Sample "Native Cu" cont.

altered to cuprite, throughout which the native Cu survives as tiny remnants. There are also traces of malachite in this association.

It is possible that some cuprite may also occur in dispersed, fine-grained, disseminated form along with the Fe oxides. At this scale it is very difficult to distinguish cuprite from the prevalent hematite.

APPENDIX VII

STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I, ALLAN T. MONTGOMERY, of 4764 Moss Street, Vancouver, in the Province of British Columbia, DO HEREBY CERTIFY:

1. THAT I am a Geologist in the employment of Pamicon Developments Limited, with offices at Suite 711, 675 West Hastings Street, Vancouver, British Columbia.

2. THAT I am a graduate of the University of British Columbia with a Bachelor of Science Degree in Geology (Honours).

3. THAT my primary employment since 1985 has been in the field of mineral exploration.

4. THAT my experience has encompassed a wide range of geologic environments and has allowed considerable familiarization with prospecting, geophysical, geochemical and exploration drilling techniques.

5. THAT this report is based on data generated by myself, under the direction of Steve L. Todoruk, Geologist and Charles K. Ikona, Professional Engineer.

6. THAT I have no interest in the property described herein, nor in securities of any company associated with the property, nor do I expect to receive any such interest.

DATED at Vancouver, B.C., this 28th day of December, 1990.

A Montgomery

Allan Montgomery, Geologist

JC #7

JC #3

JC #2

JC #1

JC #4

JC #6

JACOBIE LAKE

△Cu

D45904 = 434 ppm Cu
D45905 = 6644 ppm Cu
D45906 = 4.23% Cu, 19.6 ppm Ag
D45907 = 6.52% Cu, 22.7 ppm Ag
MJ 3 = 1.01% Cu, 2.3 ppm Ag
MJ 4 = 1.22% Cu, 5.4 ppm Ag
MJ 5 = 1.08% Cu
MJ 8 = 0.80% Cu, 2.6 ppm Ag
MJ 9 = 0.98% Cu, 3.9 ppm Ag
(Select grabs)

BD#3 = 1538 ppm Cu (select grab)

91802 = 20 ppm Cu (select grab)

Maroon, fine grained xstl-lithic mafic tuff

91803 = 0.26% Cu (select grab)
91804 = 670 ppm Cu (select grab)
91811 = 400 ppm Cu / 1.0 m (channel)

Chert (?) (v. limonitic)

D45901 = 1.43% Cu, 2.0 ppm Ag (select grab)
D45902 = 32 ppm Cu
D45903 = 5834 ppm Cu
MJ 1 = 2.64% Cu, 21.6 ppm Ag
MJ 9* = 0.98% Cu, 3.8 ppm Ag
(Select grabs)

"Native Cu"
Cu, Ag

BD#2A = 6152 ppm Cu, 3.1 ppm Ag (select grab)
BD#2B = 165 ppm Cu (select grab)

BD#1 = 3693 ppm Cu, 25.1 ppm Ag (select grab)

D45908 = 577 ppm Cu

JIM#1 = 104 ppm Cu (select grab)
JIM#2 = 34 ppm Cu (select grab)
CRA#3 = 10 ppm Cu (select grab)

91805 = 2.52% Cu, 12.0 ppm Ag (float)

D45909 = 6974 ppm Cu
D45910 = 2072 ppm Cu
D45911 = 5.88% Cu, 1.23 opt Ag
D45912 = 4.33% Cu, 20.8 ppm Ag
D45913 = 7.29% Cu, 1.29 opt Ag
MJ 2 = 5.16% Cu, 27.5 ppm Ag
MJ 6 = 0.85% Cu, 2.0 ppm Ag
MJ 7 = 0.92% Cu, 4.1 ppm Ag
(Select grabs)

70°

91820 = 124 ppm Cu (grab)
JC#2 = 11547 ppm Cu, 3.3 ppm Ag (select grab)

Maroon to gray mafic volcanic possible coarse clastic – locally porphyritic, epidote/chlorite/hematite altered

JC#1 = 30 ppm Cu, 33 ppb Au (select grab)

N

SCALE 1:10,000

m 0 100 200 400 600 m

LEGEND

- ■ ROCK CHIP SAMPLE/RESULTS; LOCATION APPROXIMATE (Underline designates petrographic analysis)
- △ PROSPECTOR MINERAL OCCURRENCE; Cu-COPPER, Ag-SILVER
- OUTCROP LIMIT
- 70° SHEAR, DIP
- L.C.P. - CLAIM BOUNDARY
- GRAVEL LOGGING ROAD

GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,792

JACOBIE LAKE PROJECT

JC 1 & JC 2 CLAIMS
ROCK SAMPLE LOCATIONS/ RESULTS & PRELIMINARY GEOLOGY

CARIBOO MINING DISTRICT, B.C.

PAMICON DEVELOPMENTS LTD.

DRAWN.	N.T.S.	DATE.	FIG.
J.W.	93A/12	JAN. 1991	5