

LOG NO: FEB 01 1993 RD.
ACTION.
FILE NO:



**GEOLOGICAL AND GEOCHEMICAL ASSESSMENT REPORT**

**ON THE**

**DEER BAY PROPERTY, ALBERNI, M.D.**

**NTS 92 F/4, F/5**

**LAT: 49° 14'; LONG: 125° 35'**

**FOR**

**PETER C. BUCKLAND**

**BY**

**ARNE O. BIRKELAND, P.ENG.**

**ARNEX RESOURCES LIMITED**

**DECEMBER 12, 1992**

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

C:\DBPRPT1.DOC

**22,749**

## TABLE OF CONTENTS

	Page
1.0 Introduction .....	1
1.1 General .....	1
1.2 Property .....	2
1.3 Location, Access, Physiography .....	4
1.4 History .....	5
1.5 Economic Assessment .....	8
2.0 Geology .....	8
2.1 Regional Geology .....	8
2.1.1 Lithology .....	8
2.1.2 Structure .....	14
2.2 Economic Geology .....	14
2.3 Property Geology .....	17
2.3.1 Lithology .....	17
2.3.2 Structure .....	20
2.3.3 Metamorphism .....	20
2.3.4 Mineralization .....	21
3.0 Geochemistry .....	22
3.1 Procedure .....	22
3.2 Results .....	23
4.0 Conclusions .....	24
5.0 Recommendations .....	25

### LIST OF FIGURES

<u>Figure Number</u>	<u>NTS#</u>	<u>Figure Name</u>	<u>Scale</u>	<u>Page</u>
1	92F	Location Map	1:250,000	2
2	92F/4, F/5	Claim Location Map	1:50,000	3
3	92F/4, F/5	Geology Compilation Map Deer Bay Property	1:5,000	In Pocket
4	92F/4, F/5	Geochemical Sample Locations and Results	1:5,000	In Pocket
5	92	Regional Geologic Map 1386A	1:1,000,000	9
6	92	Geotectonic Correlation Chart		10-11
7		Relations of Formations of Vancouver Island		12

### APPENDIX

- I Statement of Expenditures
- II Statement of Qualification
- III Geochemical Data Sheets
- IV Analytical Certificates
- V Bibliography

**GEOLOGICAL AND GEOCHEMICAL ASSESSMENT REPORT**  
**DEER BAY PROPERTY**

**1.0 INTRODUCTION**

1.1 General

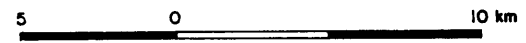
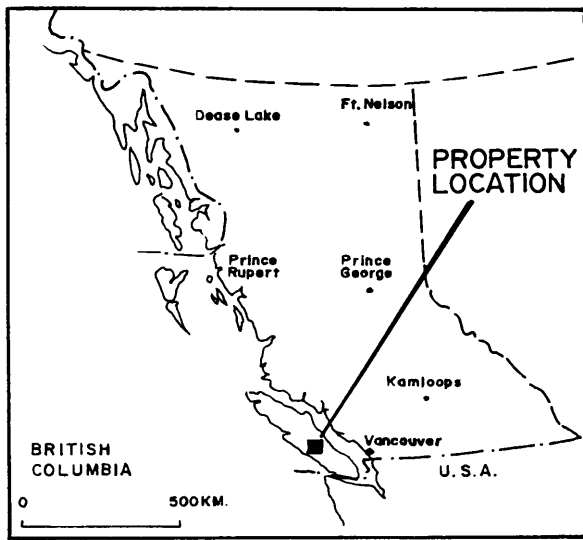
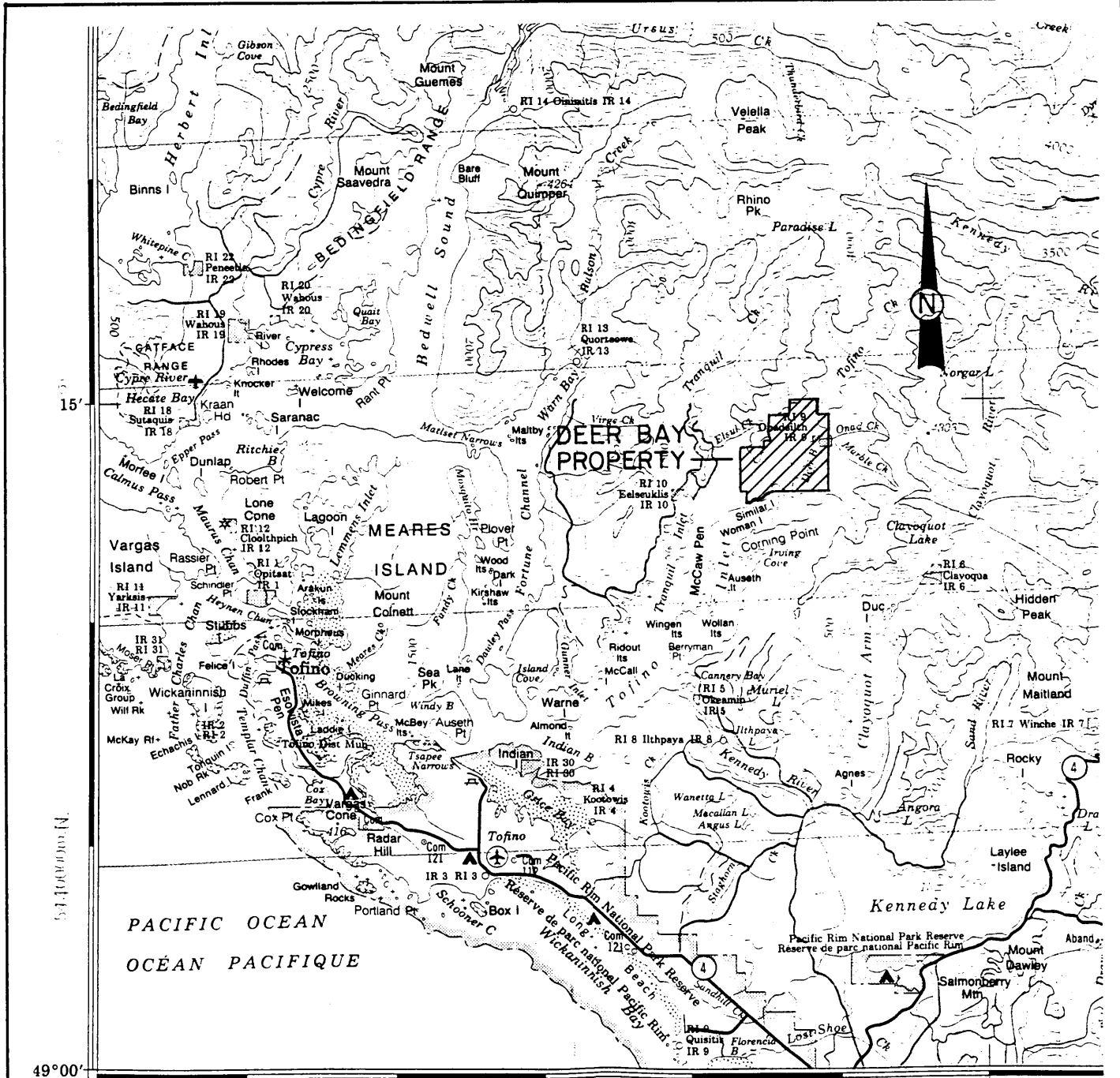
This report describes results of a geological mapping and reconnaissance soil sampling program conducted on the Deer Bay Property between July 10th and July 15th, 1992.

Geological mapping and soil sampling were conducted along a recently constructed logging road which passes in the vicinity up-slope of the Ni-Cu-PGM showing area. Cu-Mo-Au skarn and Au quartz vein showings in the Tofino Creek area were also examined.

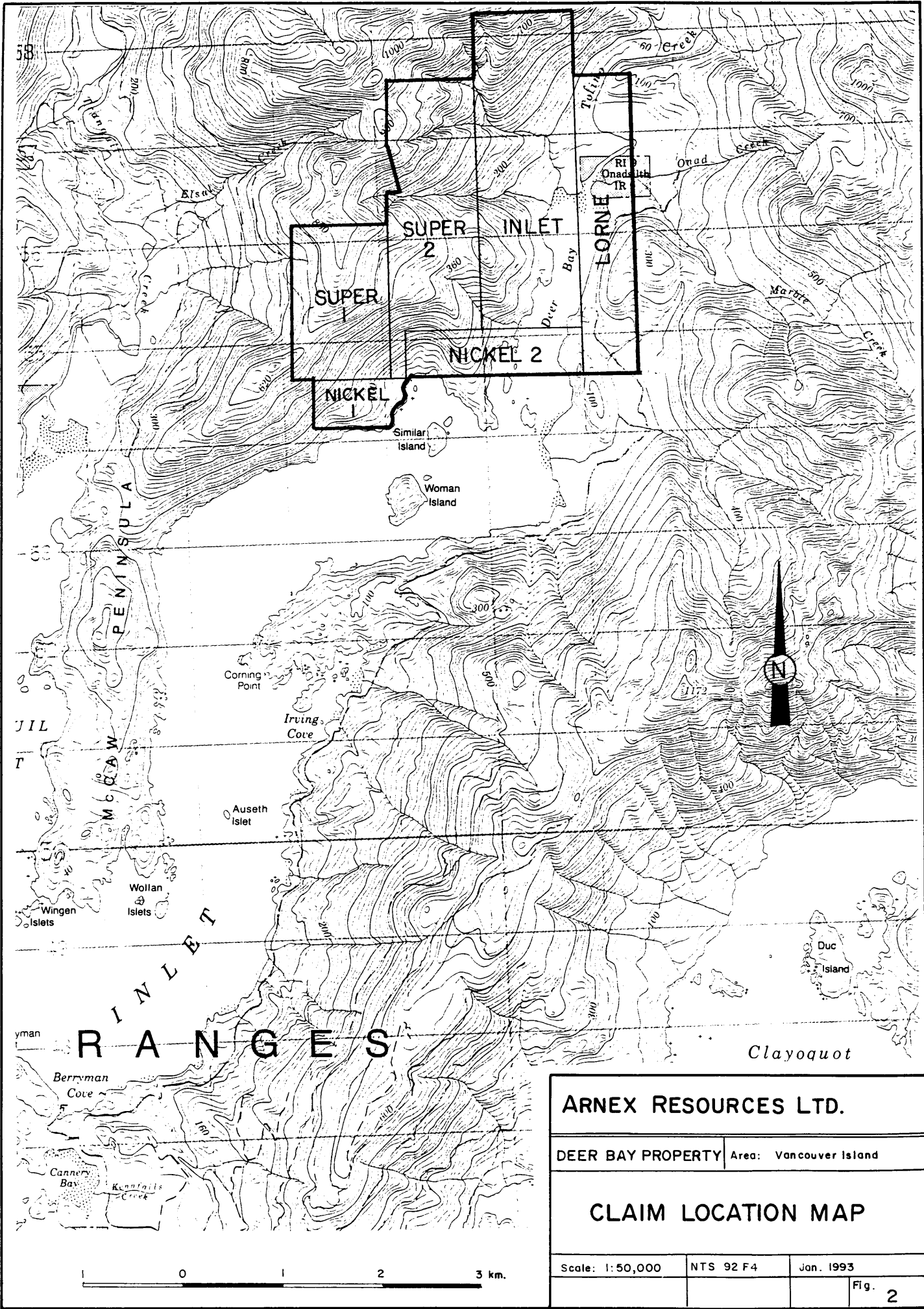
The objective of the field work, review of satellite imagery and literature research was to identify exploration targets on the property and recommend follow-up exploration activities.

1.2 Property

The property is comprised of 6 continuous mineral claims totalling 40 units owned by Peter Buckland (See Table 1, Figure 2).



<b>ARNEX RESOURCES LTD.</b>			
<b>DEER BAY PROPERTY</b>		Area: Vancouver Island	
<b>LOCATION MAP</b>			
Scale: 1:250,000	NTS 92F4	Jan. 1993	
			Fig. 1



<b>ARNEX RESOURCES LTD.</b>			
DEER BAY PROPERTY		Area: Vancouver Island	
<b>CLAIM LOCATION MAP</b>			
Scale: 1:50,000	NTS 92 F4	Jan. 1993	
			Fig. 2

Deer Bay Property  
Mineral Tenure

<u>Claim Name</u>	<u>Record #</u>	<u>No of Units</u>	<u>Expiry Date</u>
Nickel 1	200102, 1048	2	Oct. 24/92
Nickel 2	200131, 1338	2	Nov. 12/92
Lorne	200132, 1341	6	Nov. 12/92
Super 1	200234, 2150	6	May 10/93
Super 2	200235, 2151	12	May 10/93
Inlet	200614, 3404	12	Dec. 1/92

Table 1

### 1.3 Location, Access and Physiography

The Deer Bay property is located approximately 25Km northeast of Tofino on the West Coast of Vancouver Island, B.C. in the Alberni Mining Division (Figure 1). The property is situated at the head of the Tofino Inlet at latitude  $49^{\circ} 14'$  and longitude  $125^{\circ} 35'$  on NTS maps 94 F/4 and F/5.

The property can be accessed by boat from Tofino, a distance of approximately 30Km by water. The property can also be reached by a 70Km road access from Highway 4, and West Main - Deer Bay Main - and RAH logging roads. Active logging and road building on the property continues to provide increased access and outcrop exposure on various portions of the claim group.

In 1979, Pawnee Oil Corporation concluded that widespread Cu and Mo mineralization was related to a major diorite intrusion located northeast of Tofino Inlet. Cu occurs in skarn where limestone horizons are intruded by diorite sills and feldspar porphyry dykes. Molybdenite occurs mainly in skarns with a minor amount in late phase siliceous dykes and fractures.

Follow-up diamond drilling in 1979 and 1980 intersected Cu and Mo mineralization as narrow high grade zones associated with skarns and as disseminations in feldspar porphyry dykes and sills and diorite stocks.

In 1984, work conducted by Seminole Resources Inc. on the Winter claims defined a coincident belt of Cu-Mo showings associated with sporadic soil anomalies and a second zone, unrelated to the showings, anomalous in precious metals. Work conducted on the Super claim group during 1984 again reported Cu mineralization associated with skarn zones.

In 1984 Cominco examined the property and a brief geochemical, geological and geophysical program was carried out. Cominco optioned the property in 1985 and carried out detailed geological mapping, soil sampling, geophysics and trenching on the main Cu-Ni-PGM showing area. Cominco concluded that PGM bearing Cu-Ni mineralization may have been emplaced as an immiscible liquid at the same time of injection of the ultrabasic host, demonstrating



a potential for size and continuity of mineralization. The field work which was conducted failed to find any additional substantial occurrences of Ni-Cu-PGM mineralization similar to those reported in the discovery outcrop area.

A report by Mason, July 1986 states: *... "While the isolated outcrop (Main Showing) is only 30M by 10M the associated rock types (altered ultramafics and anorthosite) and the Cu-Ni sulfide bands suggest that it is part of a much larger body... the property has both demonstrated grades and potential for significant tonnage."*

Reconnaissance geological mapping and geochemical surveys were carried out by Stag Explorations during 1988. Soil geochemistry was somewhat effective in delineating anomalous zones around the Main Showing. Mineral showings in the Tofino Creek area were found to coincide with an implied linear soil geochemical trend and additional exploration was recommended.

During 1990, an orientation IP survey was conducted in the mineralized Cu skarn area. Chargeability I.P. anomalies were encountered and a follow-up program was carried out in 1991. Various chargeability, magnetic and electromagnetic features, some of which may be important exploration targets, were reported.

## 1.5 Economic Assessment

The property can be summarized as containing the following mineralized environments:

1. Cu-Ni-PGM mineralizations associated with ultrabasic dykes and sills;
2. High grade Cu +/- Mo, Au, Ag associated with magnetite and diopside-epidote-garnet skarns at the contact between intrusive dykes and sills and carbonate units;
3. Disseminated Cu-Mo porphyry style mineralization associated with Jurassic Island intrusions and/or Tertiary Catface intrusions.

## 2.0 GEOLOGY

### 2.1 Regional Geology

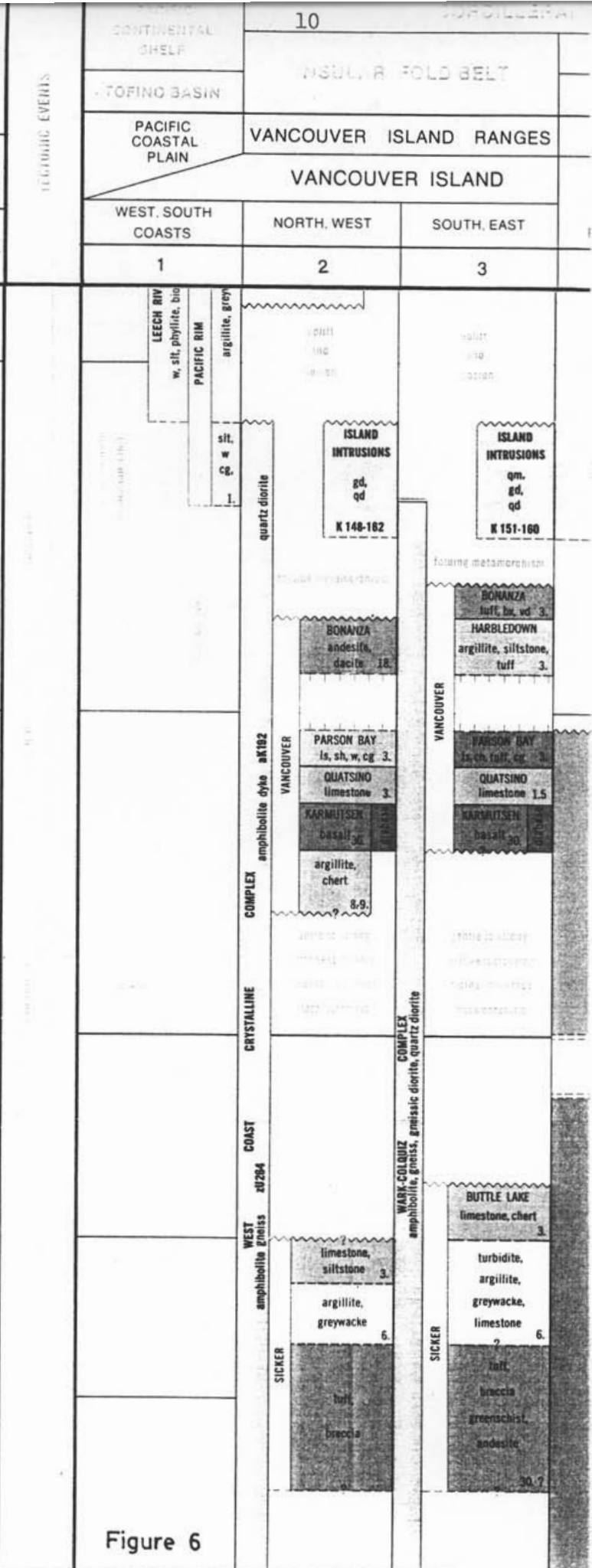
#### 2.1.1 Lithology

Regional geological mapping and compilation by Muller & Parson (1968), recently updated by Wheeler & McFeely (1991), indicates that the Deer Bay Property lies within a northwest trending belt of Paleozoic rocks intruded and metamorphosed by the early



# STANDARDS FOR GEOLOGICAL TIME

EON	TIME		TIME-STRATIGRAPHIC		TIME-ROCK	
	ERA	PERIOD	SERIES	STAGE		
					*Ma	
PHANEROZOIC	JURASSIC	UPPER	NEOCENE	VALANGINIAN	130	
				BERRIASIAN	136	
			UPPER TITHONIAN	UPPER VOLGIAN	141	
				LOWER VOLGIAN	146	
			PORTLANDIAN	151		
			KIMMERIDGIAN		151	
			OXFORDIAN		157	
			MIDDLE	CALLOVIAN		162
				BATHONIAN		167
				BAJOCIAN		172
				TOARCIAN		178
			LOWER	PLIENSBACHIAN		183
				SINEMURIAN		188
				HETTANGIAN		190-195
	TRIASSIC	UPPER	RHAETIAN		(205)	
			NORIAN			
			KARNIAN			
		MIDDLE	LADINIAN		(215)	
			ANISIAN			
			SPATHIAN			
			SMITHIAN			
			DIENERIAN			
	LOWER	GRIESBACHIAN		225		
PERMIAN	U	OCHOAN	DZHULFIAN	230		
		GUADALUPIAN	KAZANIAN	240		
	LOWER	LEONARDIAN		ARTINSKIAN	265-268	
		WOLFCAMPIAN				
				SAKMARIAN	280	
				ASSELIAN		
PENNSYLVANIAN	U	VIRGILIAN	ORENBURGIAN	290-295		
		MISSOURIAN	GZHELIAN			
	M	DESMOINESIAN	MOSCOWIAN	WEST-PHALIAN	310-315	
		ATOKAN	BASHKIRIAN			
	L	MORROWAN		U CARBONIFEROUS	325	
MISSISSIPPIAN	UPPER	CHESTERAN		ARBOREIFEROUS		
		MERAMECIAN				
	LOWER	OSAGIAN		ARBOREIFEROUS	335-340	
		TOURNAISIAN				



Geotectonic Correlation Chart for Sheet 92, Fraser River, Map 1386A

# STANDARDS FOR GEOLOGICAL TIME

EON	TIME		TIME-STRATIGRAPHIC		TIME-ROCK	
	ERA	PERIOD	SERIES	STAGE		*Ma
CENOZOIC	TERTIARY	PALEOGENE	NEOGENE	RECENT		
				PLEISTOCENE	1.5-2	
				PLIOCENE	7	
				MIOCENE	26	
				OLIGOCENE	37-38	
				EOCENE	53-54	
				PALEOCENE	65	
	MESOZOIC	CRETACEOUS	UPPER	SENONIAN	MAESTRICHTIAN	70
					CAMPANIAN	76
					SANTONIAN	82
					CONIACIAN	88
					TURONIAN	94
					CENOMANIAN	100
					ALBIAN	106
LOWER			NEOCOMIAN	APTIAN	112	
				BARREMIAN	118	
				HAUTERIVIAN	124	
				VALANGINIAN	130	
				BERRIASIAN	136	
				UPPER TITHONIAN	141	
				UPPER VOLGIAN	141	

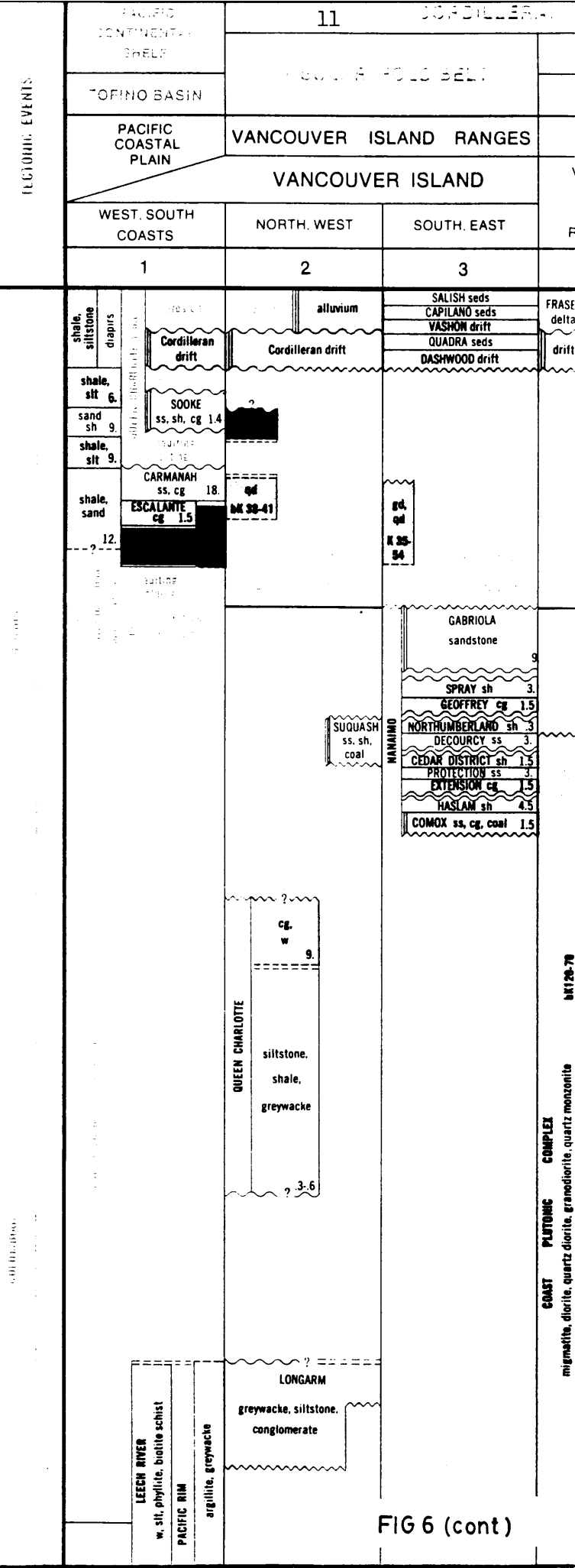


FIG 6 (cont)

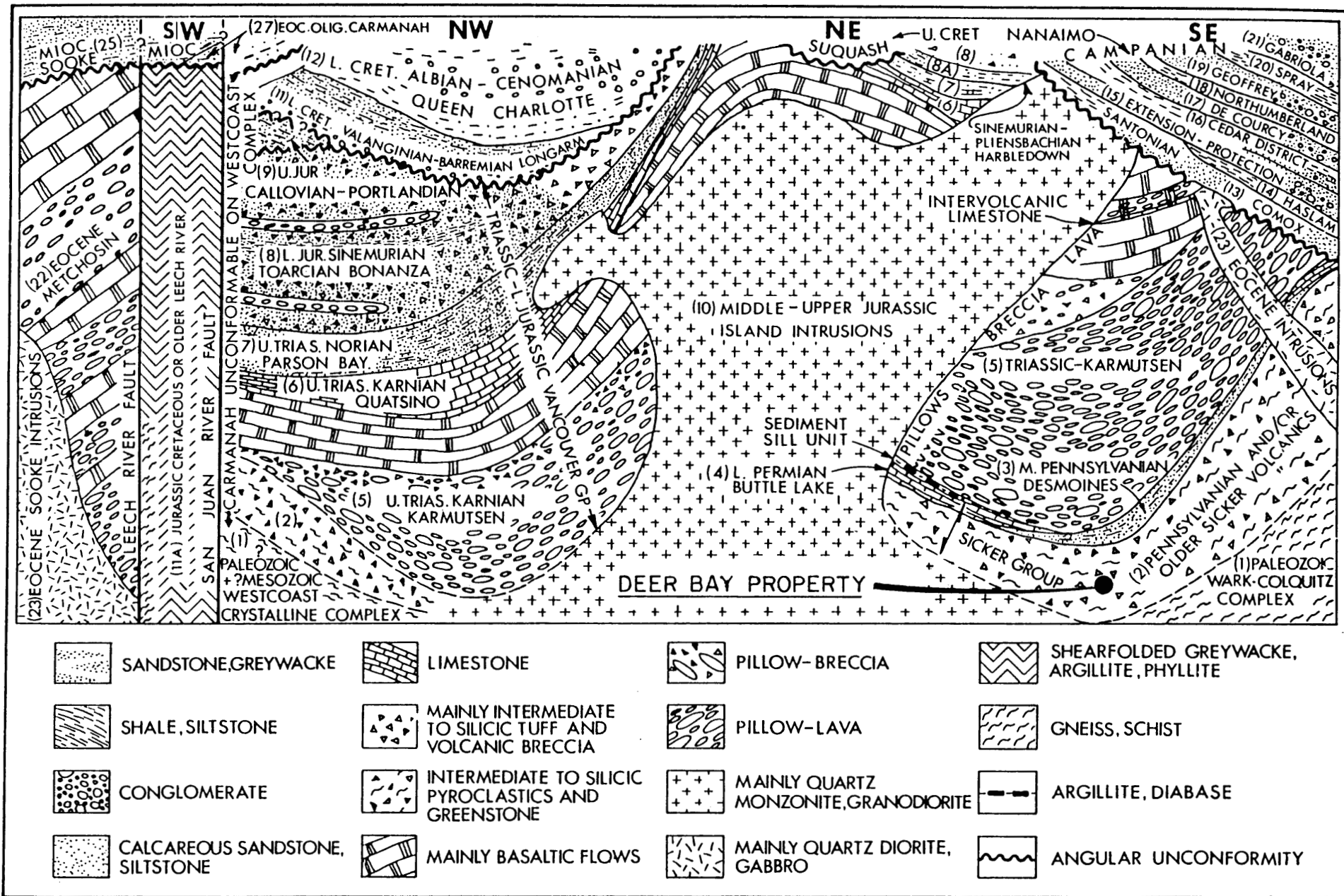


Figure 7. Relationships of formations of Vancouver Island.

Jurassic? West Coast complex, middle Jurassic Island Intrusions and Tertiary Catface Intrusions. (See Figure 5, 6, 7)

Paleozoic rocks consist of the Sicker group which is comprised of the Nitinat, Myra, Sediment Sill and Buttle Lake formations.

The lowermost Nitinat formation is comprised of mafic flow breccia, pillow basalt and interbedded basaltic tuffs. The overlying Myra formation is defined by the onset of layered strata and consists of differentiated mafic to felsic volcanics and sedimentary rocks comprised of argillite and chert. Volcanic rocks are predominant in the early part of the Myra formation and grade upwards into sedimentary rocks which are overlain by the Sediment Sill unit composed of alternating argillite and limestone containing intercalated diabase sills. The Sediment Sill unit is overlain by the Buttle Lake formation which consists primarily of coarse grained bioclastic limestone interbedded with minor amounts of chert and argillite.

The West Coast Crystalline Complex (WC3) forms a belt of gneissic rocks occurring within a 250Km by up to 20Km wide belt along the western coast of Vancouver Island. The WC3 of early to middle Jurassic age? is composed of intrusive rocks and metamorphic equivalents of the Sicker group. Three main lithologies are present: quartz-feldspar gneiss, metabasalt, and foliated quartz diorite. The WC3 may represent a granitized migmatic zone where hyperbysal intrusions and assimilation of wallrocks at depth

occurs along the subduction zone bordering western North America. Considerable uplift and erosion is responsible for exposing Paleozoic and WC3 strata. Granitization may be localized along major structures which form inlets and topographic depressions.

Middle to late Jurassic Island intrusions are present in the vicinity of the property. Island intrusions consist of diorite to granodiorite stocks with associated high level quartz-feldspar porphyry dykes and sills. Tertiary Catface diorite and feldspar porphyry dykes and sills also intrude all strata.

#### 2.1.2 Structure

The Deer Bay property is on the eastern flank of a north trending axial uplift known as the Buttle Lake Arch. Sicker group rocks along the flanks are separated by a core complex of hyperbysal Island Intrusions. Folding is common in Paleozoic and WC3 rocks while rocks of Mesozoic and later age are conspicuously stratified.

Northwest trending transcurrent normal faults are cut by Tertiary age northeasterly and northerly trending block faults.

#### 2.2 Economic Geology

Volcanogenic Massive Sulfide (VMS) and porphyry Co-Mo deposits are present on northern Vancouver Island.



The Myra Falls VMS deposits operated by Westmin Resources Ltd. at Buttle Lake, occur approximately 40Km north of the property. Production at Myra Falls commenced during 1967 and current production is at a rate of 4000 tons/day. Global reserves for all deposits are approximately 20,000,000 tons grading 1%-2% Cu, 5% Zn, 1% Pb, 2 g/t Au, and 40-90 g/t Ag. Recent exploration success will result in an increase in reserves and mine life.

The Island Copper Cu-Mo porphyry deposit is situated on Holberg Inlet approximately 15Km south of Port Hardy. Reserves in excess of 280,000,000 tons of .52% Cu, 0.017% Mo and 0.24 g/t Au are hosted in high level Island Intrusion quartz-feldspar dyke swarms and hornfels wall rock alteration zones. Nearby, the Hushamu, Hep and Red Dog deposits host large low grade Cu-Mo porphyry reserves.

The Catface porphyry Cu deposit occurs on Catface mountain approximately 30Km west of the Deer Bay Property. Reserves of approximately 180,000,000 tons of 0.45% to 0.5% Cu equivalent are associated with Tertiary Catface dykes and sills.

Stratigraphy and Lithology

**Catface Intrusives (Tg)**

Tgdio - light grey medium to coarse grained quartz diorite.

**Island Intrusives (Jg)**

Jgdio - grey medium to coarse grained diorite; granodiorite.

**Sicker Group (CPs)**

1st - grey medium grained massive bioclastic limestone; marble locally.

arg - alternating light, dark grey thin bedded argillite; pyrite.

and - green, grey fine grained massive andesite; chlorite.

bas - dark green, grey basalt; calcite epidote veinlets, local py+/-cpy.

meta - layered dark grey silicified argillite,  
sed chert, greywacke.

meta - dark green basalt; epidote, calcite;  
bas amphibolite gneiss.

**West Coast Crystalline Complex (WC3)**

gab - massive medium grained dark grey-green hornblend gabbro.

amp - medium to coarse grained black amphibolite.

gns - pale green, grey fine to medium grained quartzo-feldspathic gneiss; amphibolite layers common; quartz, feldspar, muscovite chlorite veins.

Table 2

## 2.3 Property Geology

### 2.3.1 Lithology

The northerly trending, easterly dipping stratigraphic sequence on the Deer Bay Property consists of the following (from west to east, oldest to youngest):

WEST COAST COMPLEX (WC3) - Quartzo-felspathic gneiss; amphibolite

SICKER GROUP (CPs) - Mafic, felsic volcanics; argillite;  
limestone

Intruding the Paleozoic strata to the southwest and northeast respectively are intrusive stocks and related dykes and sills as follows:

CATFACE INTRUSIONS (Tg) - Quartz diorite

ISLAND INTRUSIONS (Jg) - Diorite; granodiorite

Lithologic descriptions are summarized in Table 2, Stratigraphy and Lithology.

### WEST COAST CRYSTALLINE COMPLEX (WC3)

The principal rock type mapped during the 1992 mapping program consisted of quartzo-feldspathic gneiss containing numerous thin foliated amphibolite bands. Gneisses are characteristically fine to medium grained and are pale green to grayish in colour with moderately developed foliation. Dark green chlorite rich bands and amphibolite dykes and sills are common within the gneissic complex and remnant basaltic sills and intercalated felsic volcanics were observed where metamorphism is less prevalent. Chalky white feldspar, light colored muscovite and disseminated pyrite often occur at contacts between gneiss and amphibolite.

The WC3 is interpreted as a migmatic zone of granitized Paleozoic strata. Granitization has occurred at depth and preferentially along major structures. Uplift and erosion have exposed graded metamorphic fronts as observed on the property.

### PALEOZOIC SICKER GROUP (CPS)

A thick sequence of metabasalts are comprised of dark green fine grained basalt and andesite containing local amygdales. Calcite and epidote stringers are common and a wide variety of dykes intrude the metabasalts. Limestone lenses occur near the contacts with metabasalt or diabase in the upper portion of the assemblage. They have been metamorphosed to a coarse grained assemblage of calcite and garnet diopside skarn assemblage.

Near the upper portion of the metabasalt sequence the intercalated limestone and metabasalt/diabase unit may represent a metamorphose equivalent of the Sediment Sill unit. This is supported by the presence of a large limestone occurrence in the north central portion of the claim group which may represent an overlying segment of the Buttle Lake formation.

Of particular note is a hornblende gabbro intrusive body 400M southwest of the main showing. The hornblende gabbro consists of a massive medium grained dark green to grey rock consisting of amphibolite and altered feldspar. Several variations of this intrusive include dark grey, black and green amphibolite. A genetic relationship between the gabbro and Cu-Ni-PGM bearing amphibolite is postulated.

#### INTRUSIVE ROCKS

The head of Tofino Inlet is underlain by Jurassic Island Intrusions (Jg) consisting of a poly-phase sequence of diorite and granodiorite stocks, sills and dykes.

The northern portion of the property in the vicinity of Tofino Creek is underlain by a thick unit of dacite feldspar porphyry which is thought to belong to the Tertiary Catface Intrusive complex (Tg). A body of Tg diorite also has been mapped in the southwestern portion of the property.

### 2.3.2 Structure

Pronounced jointing and faulting occur along a northeasterly direction generally paralleling Tofino Creek and Deer Bay. A conjugate fault set trending in a northwesterly direction commonly contains numerous gabbro and diabased dykes and local pyrite. These normal faults are considered to be Tertiary in age and relate to emplacement of Tg.

Geologic mapping (Figure 3) reveals changes in direction of foliation indicating folding in the WC3 and CPs units is common. Small isoclinal folds plunging northwesterly are often observed in outcrop.

### 2.3.3 Metamorphism

Metamorphic events include contact metamorphic aureoles marginal to Jg and Tg intrusives as well as regional granitization of CPs group protolith contained within the WC3.

Contact metamorphic aureoles about diorite intrusions and quartz-feldspar and diorite dykes occurs primarily as skarn assemblages when in contact with carbonate rich wall rocks. Skarn assemblages often contain magnetite and varying amount of base metal +/- Au, Ag. Hornfels aureoles occur when intrusives are in contact with volcanic and sedimentary wall rocks and commonly contain disseminated chalcopyrite.

Granitization of the Paleozoic CPs protolith is responsible for the quartz-feldspar and amphibolite gneiss complexes which make up the WC3. Truly intrusive diorites and related contact metasomatism can be observed within the WC3 but most greenschist metamorphic facies appears to be related to granitization or recrystallization of subducting strata. Greenschist to higher grade amphibolite facies is irregularly distributed within the complex highgrade metamorphic belt. The metamorphic events of the WC3 are poorly understood.

#### 2.3.4 Mineralization

Mineralization on the Deer Bay Property consists of three principal types:

Cu-Ni-PGM sulfide mineralization

Cu-Mo+/-Au skarn mineralization

Au+base metal sulfide mineralization associated with quartz veins and felsic dykes.

On the Main Showing, Ni-Cu-PGM mineralization has been mapped, trenched and sampled by previous operators. Mineralization consists of massive sulfide containing chalcopyrite, violarite and millerite-pentlandite. Assay values to 25.4% Cu, 14% Ni, 0.2 oz/T Au, 5200 Pd are reported. Sulfide float from this

occurrence is distributed downstream from where the showing outcrops. No additional mineralization of this nature has been found in outcrop outside of the original showing area.

In the Tofino Creek area in the northern portion of the property, numerous showings of Cu+/-Mo,Au skarn mineralization are exposed in old adits, shafts and in logging roadcuts along a northeasterly strike length of approximately 1500M. Massive magnetite, pyrite, chalcopyrite and bornite occur mainly in calcite-garnet-diopside skarn at the contacts between feldspar porphyry dykes and carbonate rich wallrocks. Minor amounts of Mo also occurs in the skarns as dissemination in late stage dykes. Assays of up to 25% Cu over .5M, 2% Mo over 1M and .46 oz/T Au have been obtained.

Minor disseminated chalcopyrite mineralization also occurs in the gabbro body southwest of the main showing and was noted in basalts and metabasalts mapped in new roadcuts.

### **3.0 GEOCHEMISTRY**

#### **3.1 Procedure**

Reconnaissance style soil sampling and stream sediment and rock chip sampling were conducted along newly constructed logging road northeast of the main PGM showing. Descriptions of samples taken are contained in Appendix III, Geochemical Data Sheets.



Soil samples were taken from the B horizon, from residual soil profiles where possible, at intervals of approximately 100M. Soils were analyzed by Acme Analytical Laboratories Ltd. utilizing multielement ICP analytical techniques.

Moss mat stream sediment sampling was conducted on appropriate drainages.

### 3.2 Results

Results and analytical procedures are reported in Appendix IV, Analytical Certificates and key elements are plotted on Figure 4, Geochemical Sample Locations and Results.

Moss Mat sample SX 100127 returned strongly anomalous Au (418ppb) and U (218ppm) values with moderately anomalous Cu (104ppm), Ni (31 ppm) and Co (32 ppm) values. In the adjacent drainage, sample SX 100128 was strongly anomalous in Mn (6140 ppm) and Mg (106 ppm) and moderately anomalous in La(10 ppm) and Ba (106 ppm). Results indicate that Ni massive sulfide mineralization similar to the Main Showing may be present up-drainage, a distance of 1600M to 2000M along strike from the initial discovery area.

Soil samples Sx 100116 and Sx 100122 are moderately anomalous in Pt and Pd and again suggest Ni-PGM mineralization may be present upslope of the Main Showing.

Soil sample SX 100118 returned a value of 465 ppb Au. This high result may be due to nugget effect as no other elements from this sample appear to have elevated values.

From previous work, limited soil sampling conducted on a grid in the Ni-PGM area encountered highly anomalous Pt and Pd values approximately 100M south of the Main Showing (75ppm Cu, 37ppm Ni, 9ppb Au, 40ppb Pt and 117ppb Pd). Samples with moderate highly anomalous Cu, Ni values also occur as clusters in two areas located 120M north and 200M southeast of the main showing.

Soil sampling in the Tofino Creek area yielded sporadic anomalous Au values and minor anomalous Cu values. Au and Cu geochemistry at this location appears to define the northeasterly trend of Cu+/-Mo-Au skarn mineralization exposed in old workings.

#### **4.0 CONCLUSIONS**

The Deer Bay property is primarily underlain by quartz-feldspar gneiss belonging to the WC3 and metavolcanic and metasedimentary rocks of the Paleozoic CPs Group. Greenschist metamorphic facies within the WC3 results from granitization of the protolith.

Foliated gneissic complexes cut by amphibolite dykes and sills is predominant in the area mapped.

Ni-Cu-PGM sulfide mineralization occurs in outcrop at the Main Showing area. Minor disseminated chalcopyrite observed in an intrusive gabbro complex may indicate a genetic association and demonstrate size potential for sulfide mineralization. Stream sediment and soil anomalies north and south of the Main Showing indicate mineralized showings may occur over a +2Km strike length.

In the Tofino Creek area, Cu-Mo +/- Au and Ag mineralization is associated with skarns and felsic dykes and quartz veins related to Island intrusions and/or Catface intrusions. Old workings and a geochemically anomalous trend occurs over a 1,500M strike length.

## **5.0 RECOMMENDATIONS**

A favourable geologic setting, a highgrade showing in outcrop and several geochemical responses over a 2Km strike length indicates additional exploration is warranted in the Ni-Cu-PGM area.

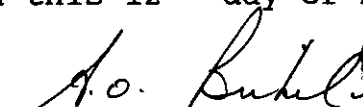
Detailed prospecting, mapping, stream sediment and soil sampling is recommended updrainage of anomalous stream sediments Sx 100127 and Sx100128. Fill-in detailed sampling and additional soil

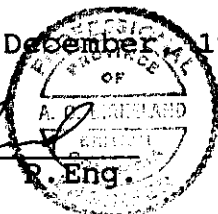
sample lines are also recommended upslope of PGM anomalies Sx100116 and Sx 100122. Follow-up detailed soil sampling of the anomalous Pt, Pd, Cu and Ni anomalies on the grid north and south of the Main Showing is also recommended.

Mapping and reconnaissance soil sampling on all newly constructed access roads is recommended on an ongoing basis as active logging continues to provide exposure and access on the property.

Dated this 12<sup>th</sup> day of December, 1992

By:

  
Arne O. Birkeland, P. Eng.



**APPENDIX I**

**STATEMENT OF EXPENDITURES**

ARNEX RESOURCES LTD.  
 4005 BROCKTON CRES.  
 NORTH VANCOUVER, B.C., V7G 1E5

APPENDIX I  
 STATEMENT OF EXPENDITURES  
 DEER BAY PROPERTY - 1992 GEOLOGICAL/GEOCHEMICAL PROGRAM

DESCRIPTION =====		UNITS =====	COST/UNIT =====	AMOUNT =====
Fees	Geological Engineer	5 field day	\$425 / day	\$2,125.00
	Geological Technican	5 field day	\$200 / day	\$1,000.00
	Geological Engineer	2 report day	\$425 / day	\$850.00
	Clerical	20 hrs	\$20 / hr	\$400.00
Rentals	Truck	4 day	\$75 / day	\$300.00
	Camper	4 day	\$25 / day	\$100.00
	Field Equip	4 day	\$15 / day	\$60.00
	Subtotal			\$4,835.00
	GST			\$338.45
Expenses	Acme Labs - Analytical			\$455.64
	MacMillan Bloedel - Maps			\$33.30
	Satellite Image			\$642.00
	Mineral Tenure Recording Fees			\$460.00
				=====
TOTAL				\$6,764.39

**APPENDIX II**

**CERTIFICATE OF QUALIFICATION**

APPENDIX I

CERTIFICATE OF QUALIFICATION

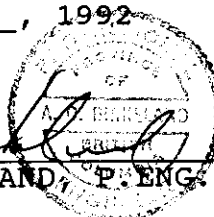
I, ARNE O. BIRKELAND, DO HEREBY CERTIFY THAT:

1. I am a Geological Engineer in the employ of Arnex Resources Ltd. with offices at 4005 Brockton Crescent, North Vancouver, British Columbia.
2. I am a 1972 graduate of the Colorado School of Mines with a Bachelor of Science Degree in Geological Engineering.
3. I have been a registered Professional Engineer with the Association of Professional Engineers of British Columbia (Registration No. 9870) since 1975.
4. My primary employment since 1966 has been in the field of mineral exploration, namely as a Geological Engineer.
5. My experience has encompassed a wide range of geological environments and has allowed considerable familiarization with geophysical, geochemical and diamond drilling techniques.
6. I have conducted the exploration work on the property reported on herein. This report is based on data acquired and also draws from researched published information available on the area.

DATED at North Vancouver, British Columbia,

this 12 day of Dec, 1992

  
ARNE O. BIRKELAND, P. ENG.





**APPENDIX III**

**GEOCHEMICAL DATA SHEETS**

**ARNEX**  
**RESOURCES LTD. GEOCHEMICAL DATA SHEET - SOIL SAMPLING**

EXPLORATION DIVISION

SAMPLER A. O. BIRKELAND  
 DATE 07/11/92

PROJECT DEER BAY

NTS 92F/H

LINE SUPER 1 CLAIM

AIR PHOTO NO.

SAMPLE NO.	LOCATION	Depth Cm.	Horiz	DESCRIPTION				SLOPE	VEG.	ADDITIONAL OBSERVATIONS OR REMARKS	ASSAYS			
				Colour	Part Size	% ORG.	Ph				Pb	Zn		
100101	0+00S	5	B	Gr-Br	clay	low		steep	For	WC3 - Westcoast Complex Att. light and dark quartzo- feldspathic gneiss				
100102	1+21S	2	B	Orange Tan	clay	low		steep	For	From seep-gully				
100103	1+78S	4	A-C Mk	Bl- Gr	loam- clay	mod		steep (wey)	For	loam meta-seds 179°/-80°W				
100104	2+77S	4	B	Or-Br	silt	low		steep	For	Thin Bedded meta-seds 190°/-60°W				
100105	3+47S	5	B	Or-Br	silt	low		steep	For	Intercalated arg - meta volc				
100106	4+45	3	B	Br	Silt	low		steep	For	Massive green meta volc (bas.)				
100107	5+00	4	B	Or-Br	Silt	low		steep	For	Meta volc.				

SAMPLER A.O. BIRKELAND  
DATE 08/12/92

PROJECT DEER BAY

NTS 92 F/4  
LINE SUPER 1, SUPER 2, Inlet  
AIR PHOTO NO. claims

SAMPLE NO. <i>Sx.</i>	LOCATION	Depth	Horiz	DESCRIPTION				SLOPE	VEG.	ADDITIONAL OBSERVATIONS OR REMARKS	ASSAYS			
				Colour	Part Size	% ORG.	Ph				Pb	Zn		
100108	5+84	8	B	Gr Or	Clay	Low		Steep	For.	WC3 - Gneiss Amphibolite				
100109	6+73	5	B C	Or Rxd chips	clay-	Low		Steep	For.	Meta dacite? or int. tuff? minor py/gls				
100111	9+23	4	B	Or- Tan	clay- Silt	low- med		Steep	For.	Meta Volc.				
100113	11+60	3	A C	Bl- Gr.	loam clay	med- low		Steep	For.	Intabedded dacite; andesite Meta Volc.				
100114	13+15	4	B	Br	silt	low		Med	For.	Meta Volc.				
100115	15+40	7	B	Br-Or	Silt	low		Med	For	Massive med gr metablc.				
100116	16+55	4	B	Or-Br	Silt	low		Med	logged	Massive volc - more hornfels + epidote Calcite py ± minor sph. tr epy in skarn veinlets				

SAMPLER A.O. BIRKELAND  
DATE 07/12/92

PROJECT DEER BAY

NTS 92F/4  
CREEK SUPER CLAIM  
AIR PHOTO NO. \_\_\_\_\_

SAMPLE NO. Sr	VOLUME		DRAIN AGE	Ph	TYPE OF SAMPLE	COLOUR	TEXTURE	% ORGANIC MATERIAL	PETROLOGY OF BEDROCK AND/OR FLOAT	ADDITIONAL OBSERVATIONS OR REMARKS	ASSAYS			
	Width	Depth									Pb	Zn		
100110	0.5	dup int.	med steep		M.M. (Mass Mat)	DK. brown	Silty	Med- high	WC3	mm sample from int. creek - drains towards showing area				
100112	0.5	dup int	med		M.M.	Br.	Silt	med	WC3 meta volc.	mm from Runoff channel				
100117 18+155	0.5	0.1	Med		A.S.S.	Tan- gr	Chky Sand	low	Metaarg.	Rusty weathering po lam. arg. po minor < 1%				
100118 20+40	0.5	0.2	med		Bank S.S	Gr	Sand	low	Meta volc	Massive green bas? w/ qtz py veining; minor epidote				
100119	0.5	0.1	Med		A.S.S.	Gr	Sandy	Med	Meta volc	Potassic epidote skarn - weak Minor qtz py veins				

SAMPLER H.O. BURKELAND

DATE 07/13/92

PROJECT DEER CAY (DBP)

NTS 92 F/4

LINE SUPERIOR GROUP

AIR PHOTO NO.

SAMPLE NO. SX	LOCATION	Depth cm	Horiz	DESCRIPTION				SLOPE	VEG.	ADDITIONAL OBSERVATIONS OR REMARKS	ASSAYS			
				Colour	Part Size	% ORG.	Ph				Pb	Zn		
100120	22+29	3	B	Br+ Or	Silt+ Clay	Med		Steep	logged	Cs - Interbedded bl py arg and felsic lapilli or xle tuff				
100122	24+47	4	A+ C	Bl+ Dk gr.	loam+ Clay	Med		Steep	log	Cs - Interbedded Vol, arg, pyritic Dominatedly black arg.				
100123	25+95	2	B	Orange	silt	Low		Steep	log	Interbedded lam. grey lst; and volcanics; 060°-45°N				
100124	27+20	4	B	Or- Br	Silt	low		Mod	log	Interbedded lst; and volc				
100125	28+27	2	A	Bl- gr	loam	high		Mod	log	Int massive dk green bas (calcite veins); grey lst; locally sil along fault @ 140°				
100126	29+60	0- 2	A	Br	Silt	Med		Mod	log	Combination MM&SS - Mafic Vol (Bas); gtz calcite py & minor cpy veining				

**ARNEX**  
**RESOURCES LTD. GEOCHEMICAL DATA SHEET - STREAM SILTS**

EXPLORATION DIVISION

SAMPLER A.O. BIRKELAND  
 DATE 07/13/92

PROJECT DEER BAY (DBP)

NTS 92F/4  
 CREEK SUPER 1  
 AIR PHOTO NO. GROUP

SAMPLE NO.	VOLUME		DRAIN AGE	Ph	TYPE OF SAMPLE	COLOUR	TEXTURE	% ORGANIC MATERIAL	PETROLOGY OF BEDROCK AND/OR FLOAT	ADDITIONAL OBSERVATIONS OR REMARKS	ASSAYS					
	Width ml	Depth ml									Pb	Zn				
5X 100127 23+15	0.3	Dry	Mod.		Dry S.S. (stream sediment)	Or-Br	Silty Sandy	Mod	Es-Mafic Vole.							
100127 31+55	1m	.1	Mod	8.6	MM	Gr Br	Sand Silt	Low	Mafic Vole	Good MM from major Year Round Creek - considerable Jg float						
100128 333m (1100) Elev	.3	.1	Mod		MM	Gr Br	Silty	Mod	Jg	Country rock Boulder phase of Devite; scarce epidote, diopside w/minor py ± tr cpy variegated						



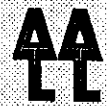




**APPENDIX IV**

**ANALYTICAL CERTIFICATES**

GEOCHEMICAL ANALYSIS CERTIFICATE



Arnex Resources Ltd. File # 92-2081  
4005 Brockton Crescent, North Vancouver BC V7G 1E5 Submitted by: A.O. BIRKELAND

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	Al	Na	K	W	Au**	Pt**	Pd**
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	ppm	ppb	ppb	ppb
SX 100101	1	16	8	27	.2	4	8	173	5.99	2	5	ND	3	14	.7	2	4	263	.11	.021	3	10	.32	14	.30	3	1.80	.01	.02	1	7	1	1
SX 100102	1	14	10	31	.1	7	7	148	7.39	2	5	ND	1	11	.8	2	2	181	.13	.029	2	13	.31	7	.28	2	1.89	.01	.02	1	5	2	1
SX 100103	1	7	4	7	.1	3	2	57	1.42	2	5	ND	1	9	.2	2	2	80	.09	.019	2	4	.07	6	.14	2	.33	.02	.03	1	6	2	2
SX 100104	1	8	4	14	.1	3	5	85	5.01	2	5	ND	1	4	.2	2	2	135	.06	.019	2	11	.12	8	.23	4	.91	.01	.02	1	7	1	2
SX 100105	1	21	7	27	.1	6	9	164	7.68	3	5	ND	1	10	.2	2	2	143	.13	.033	2	17	.25	12	.20	2	2.50	.01	.02	1	6	7	3
SX 100106	1	9	10	11	.1	2	3	67	3.00	3	5	ND	1	7	.2	2	2	87	.07	.021	2	6	.09	8	.22	2	1.08	.01	.02	1	7	5	5
SX 100107	1	13	10	14	.1	5	4	96	5.05	6	5	ND	1	9	.2	2	2	162	.14	.029	2	12	.10	10	.39	2	1.12	.01	.03	1	9	4	4
SX 100108	1	20	6	19	.1	5	6	107	4.75	10	5	ND	1	7	.2	2	2	173	.09	.020	2	12	.10	9	.30	2	1.24	.01	.02	1	5	1	1
SX 100109	1	21	9	20	.1	4	5	76	6.30	3	5	ND	1	7	.2	2	3	248	.08	.026	2	10	.12	10	.40	2	1.38	.01	.02	1	3	1	1
RE SX 100114	1	6	5	11	.1	3	4	99	3.21	2	5	ND	1	8	.2	2	2	128	.08	.020	2	9	.09	13	.22	2	1.22	.01	.03	1	5	1	4
SX 100110	1	16	9	14	.3	3	20	886	2.13	2	5	ND	1	10	.2	2	2	35	.11	.070	2	7	.10	15	.08	3	1.79	.01	.06	1	18	4	5
SX 100111	1	6	8	8	.1	1	3	61	3.58	2	5	ND	1	7	.2	2	2	133	.08	.011	2	11	.07	8	.34	2	.80	.01	.02	1	4	2	1
SX 100112	1	20	12	21	.2	8	22	592	4.36	2	5	ND	1	14	.2	2	2	102	.20	.067	2	13	.20	17	.19	7	1.99	.01	.04	1	4	5	1
SX 100113	1	1	2	1	.1	1	1	31	.22	2	5	ND	1	3	.2	2	2	7	.02	.008	3	1	.01	8	.03	2	.16	.01	.02	1	13	4	1
SX 100114	1	7	7	11	.1	2	4	92	2.82	4	5	ND	1	8	.2	2	3	112	.07	.020	2	9	.08	15	.20	3	1.05	.01	.02	1	3	1	2
SX 100115	1	21	11	28	.1	3	6	114	6.64	4	5	ND	1	12	.2	2	2	105	.16	.016	4	15	.14	15	.26	4	3.17	.01	.02	1	8	1	1
SX 100116	1	10	7	13	.1	3	4	100	3.71	4	5	ND	1	13	.2	2	2	92	.22	.016	3	12	.12	12	.24	2	1.37	.01	.02	1	6	10	8
SX 100117	1	59	2	59	.1	15	14	653	3.57	32	5	ND	1	27	.2	2	2	68	.83	.046	5	21	.81	27	.19	2	3.17	.02	.03	1	9	3	2
SX 100118	1	45	2	53	.1	9	14	779	3.31	16	5	ND	1	27	.2	2	2	63	.86	.051	6	22	.83	31	.18	5	2.23	.02	.03	1	465	4	5
SX 100119	1	48	2	60	.1	14	14	670	3.58	34	5	ND	1	27	.2	2	2	63	.82	.045	5	22	.90	37	.17	5	2.16	.02	.04	1	8	7	7
SX 100120	2	6	7	28	.1	11	11	446	4.39	13	5	ND	1	10	.2	2	2	133	.14	.018	2	45	.33	24	.15	3	1.78	.01	.04	1	9	3	1
SX 100121	2	29	7	99	.2	11	19	341	6.65	34	5	ND	1	13	.2	2	8	97	.20	.033	3	19	.35	18	.12	4	5.93	.01	.03	1	6	2	3
SX 100122	1	6	7	15	.1	2	1	68	.68	2	5	ND	1	30	.2	2	2	32	.19	.033	2	4	.11	11	.06	5	.31	.01	.04	1	20	9	11
SX 100123	1	9	6	41	.2	14	6	88	2.58	8	5	ND	1	7	.2	2	2	57	.09	.016	3	19	.26	12	.13	4	1.78	.01	.02	1	18	1	1
SX 100124	1	10	10	38	.1	12	6	154	3.76	8	5	ND	1	17	.2	2	2	86	1.37	.025	5	22	.51	19	.08	2	2.49	.01	.02	1	5	6	1
SX 100125	1	9	12	14	.1	3	3	85	.69	5	5	ND	1	21	.5	2	2	40	.39	.058	2	7	.09	63	.15	3	.40	.01	.04	1	5	6	1
SX 100126	1	18	14	24	.1	8	22	739	2.31	6	5	ND	1	22	.2	2	3	82	.62	.080	2	12	.18	93	.15	6	.83	.02	.08	1	5	1	2
SX 100127	1	104	6	69	.1	31	26	759	5.56	22	218	2	1	46	.2	2	2	116	1.02	.059	5	52	1.27	31	.22	5	2.02	.02	.03	1	418	4	6
SX 100128	2	17	12	165	.3	9	32	6104	2.12	28	10	ND	1	75	.5	2	4	30	1.54	.079	10	6	.12	106	.05	9	5.67	.02	.03	1	10	4	3
STANDARD C/FA-10R	19	57	39	131	7.2	71	32	1028	3.88	42	19	7	37	54	18.6	14	20	56	.47	.087	37	57	.86	171	.09	35	1.83	.07	.15	11	46	51	48

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: STREAM SED. AU\*\* PT\*\* PD\*\* BY FIRE ASSAY & ANALYSIS BY ICP/GRAPHITE FURNACE. Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: JUL 24 1992 DATE REPORT MAILED: July 30/92 SIGNED BY: C. Leong D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS



GEOCHEMICAL ANALYSIS CERTIFICATE

Arnex Resources Ltd. File # 92-2082

4005 Brockton Crescent, North Vancouver BC V7G 1E5 Submitted by: A.O. BIRKELAND

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	Al	Na	K	W	Zr	Sn	Y	Nb	Be	Sc	Au**	Pt**	Pd**
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppb
RX 188401	4	191	16	92	.2	16	37	1882	9.26	4	5	ND	1	382	.3	2	2	308	7.14	.181	11	8	2.39	94	.81	10.04	2.52	.50	2	17	1	30	1	1	31.5	33	1	1
RX 188402	4	62	14	118	.4	29	15	1115	6.11	6	5	ND	1	170	.2	2	2	205	.91	.074	6	20	1.37	447	.49	8.71	2.27	1.32	2	2	1	18	1	1	24.8	40	1	5
RX 188403	3	103	9	91	.5	21	28	845	6.77	4	5	ND	1	157	.3	3	2	197	1.71	.088	8	32	1.61	179	.53	8.99	1.85	1.34	6	1	1	21	1	1	28.0	32	5	8
RE RX 188401	5	180	17	84	.8	15	35	1839	9.00	4	6	ND	2	374	.2	4	5	303	6.95	.176	12	7	2.35	92	.81	9.80	2.48	.50	9	18	1	29	1	1	30.8	25	1	1

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 10ML HClO4-HNO3-HCl-HF AT 200 DEG. C TO FUMING AND IS DILUTED TO 10 ML WITH DILUTED AQUA REGIA. THIS LEACH IS PARTIAL FOR MAGNETITE, CHROMITE, BARITE, OXIDES OF AL, ZR & MN AND MASSIVE SULFIDE SAMPLES. AU DETECTION LIMIT BY ICP IS 3 PPM. AS, CR, SB SUBJECT TO THE LOST OF VOLATILIZATION DURING HClO4 FUMING.

- SAMPLE TYPE: ROCK AU\*\* PT\*\* PD\*\* BY FIRE ASSAY & ANALYSIS BY ICP/GRAPHITE FURNACE. Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: JUL 24 1992 DATE REPORT MAILED: *July 31/92* SIGNED BY: *[Signature]* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

**APPENDIX V**

**BIBLIOGRAPHY**  
**SELECTED REFERENCES**

## APPENDIX V

### BIBLIOGRAPHY

#### SELECTED REFERENCES

- Carsan, D.J.T. (1973) Plutonic Rocks of Vancouver Island, GSC Paper 72-44.
- EMPR MINFILE, (1990): 092F - Albernie.
- EMPR AR 1898, 1899, 1902, 1916, 1955, 1961, 1966, 1967
- EMPR GEM 1969
- EMPR EXPL 1972, 1973, 1974, 1980, 1986, 1987
- EMPR ASS RT 8106, 8138, 14807, 16220, 17284, 18751
- Lamb, J. (1981): The Island Copper Mine, CIM District 6 Paper.
- Matysek, P.F., Gravel, J.L. Jackanun, W., Feulgen, S., (1990): NTS 92F - Albernie, MEMPR BC RGS 25, GSC O.F. 2183.
- Muller, J.E. (1977): Geology of Vancouver Island, GSC O.F. 463.
- Muller, J.E. (1980): The Paleozoic Sicker Group of Vancouver Island, GSC Paper 79-30.
- Muller, J.E., Carson, D.J.T., (1968): Geology and Mineral Deposits of Albernie Map Area, GSC Paper 68-50.
- Roddick, J.A., Muller, J.E., and Okulitch, A.V. (1979): Frazer River, Sheet 92, GSC Map 1386A.
- Sutherland Brown, A., (1988): Mineral Inventory of the Albernie Region, EMPR OF 1988-24.
- Walker, R.R., (1980): Western Mines - Lynx, Myra and Price Deposits, CIM Bulletin Vol. 73, No. 824.
- Wheeler, J.O., McFeely, P., (1991): Tectonic Assemblage Map, GSC Map 1712A.
- Wilton, P. (1989): Sicker Group Workshop and Personal Communication, B.C.G.S.

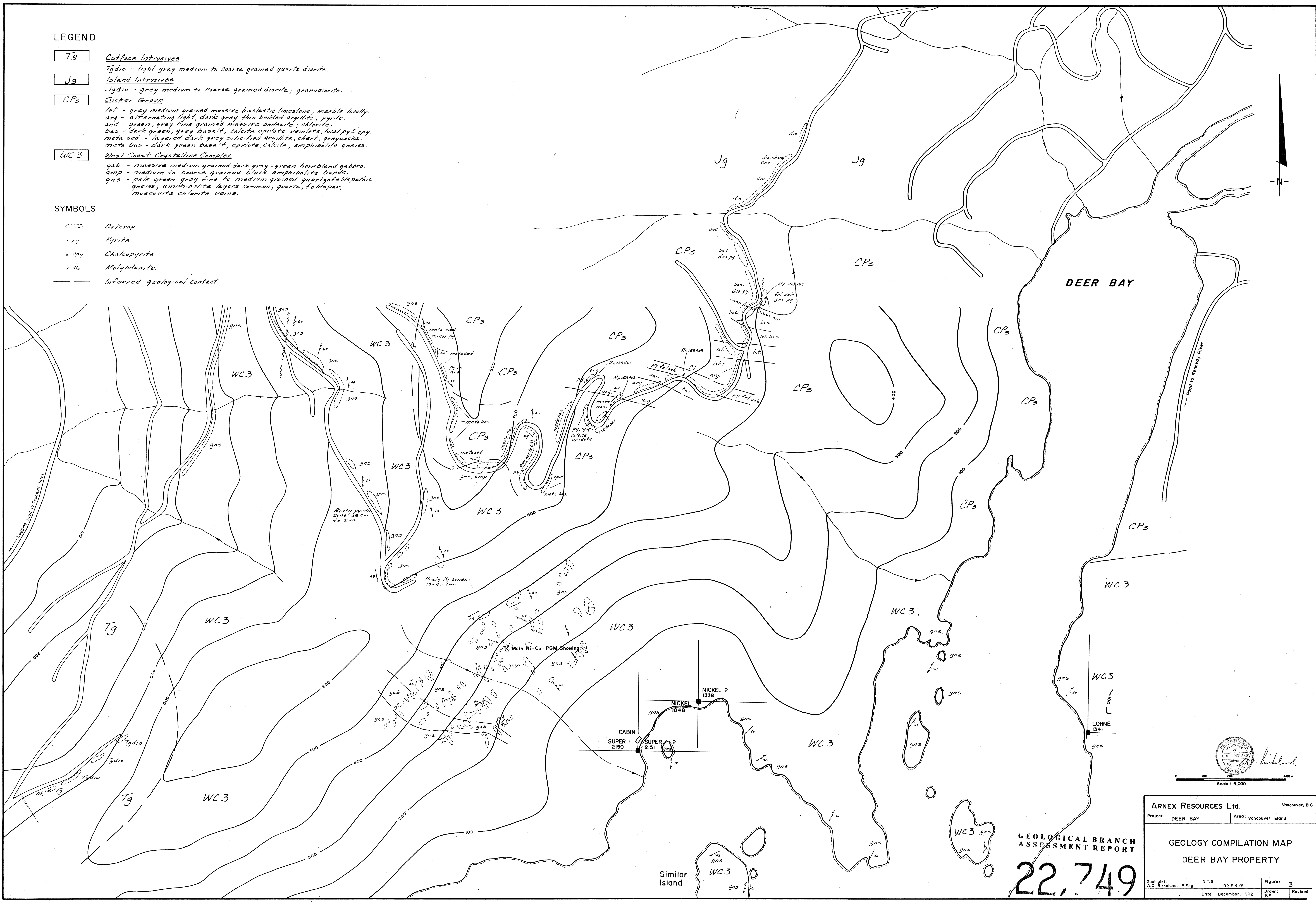
C:\DOC\DBPB1.DOC

**LEGEND**

- Tg *Catface Intrusives*  
Tgdi - light gray medium to coarse grained quartz diorite.
- Jg *Island Intrusives*  
Jgdi - grey medium to coarse grained diorite; granodiorite.
- CPs *Sicker Group*  
lt - grey medium grained massive bioclastic limestone; marble locally.  
arg - alternating light, dark gray thin bedded argillite; pyrite.  
and - green, gray fine grained massive andesite; chlorite.  
bas - dark green, grey basalt; calcite epidote veinlets, local pyrite.  
meta sed - layered dark grey silicified argillite, chert, greywacke.  
meta bas - dark green basalt; epidote, calcite; amphibolite gneiss.
- WC3 *West Coast Crystalline Complex*  
gab - massive medium grained dark grey-green hornblend gabbro.  
amp - medium to coarse grained black amphibolite bands.  
gns - pale green, grey fine to medium grained quartzofeldspathic gneiss; amphibolite layers common; quartz, feldspar, muscovite chlorite veins.

**SYMBOLS**

- Outcrop.*
- Pyrite.*
- Chalcopyrite.*
- Molybdenite.*
- Inferred geological contact*

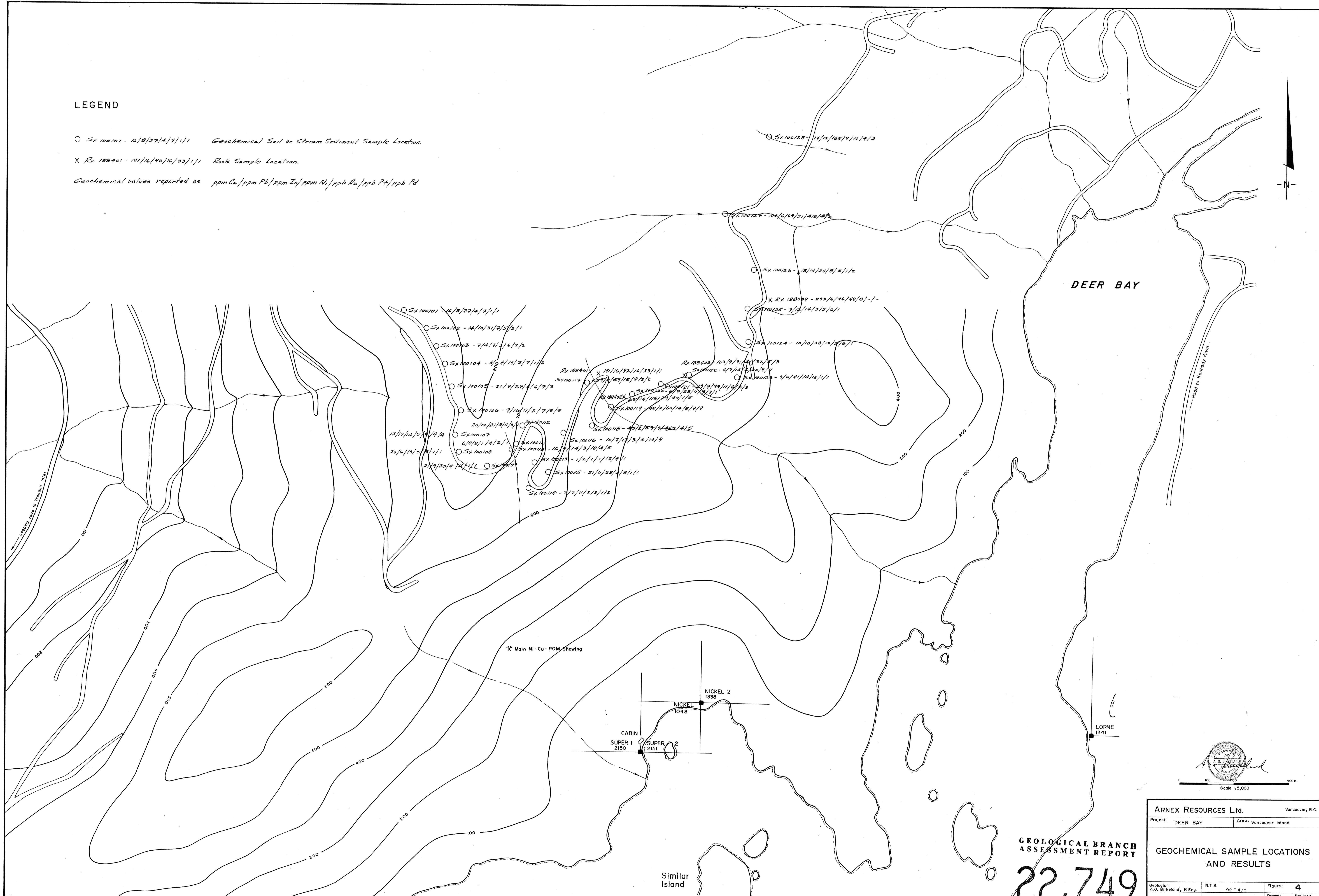


**22,749**

<b>ARNEX RESOURCES Ltd.</b>		Vancouver, B.C.
Project: DEER BAY	Area: Vancouver Island	
<b>GEOLOGY COMPILATION MAP</b>		
<b>DEER BAY PROPERTY</b>		
Geologist: A.C. Birkehead, P.Eng.	N.T.S. 92 F 4/5	Figure: 3
Date: December, 1992	Drawn: E.F.	Revised:

**LEGEND**

- Sx 100101 - 16/8/27/4/7/1/1 Geochemical Soil or Stream Sediment Sample Location.
  - X Rk 100401 - 19/16/92/16/33/1/1 Rock Sample Location.
- Geochemical values reported as ppm Cu/ppm Pb/ppm Zn/ppm Ni/ppb Ru/ppb Pt/ppb Pd



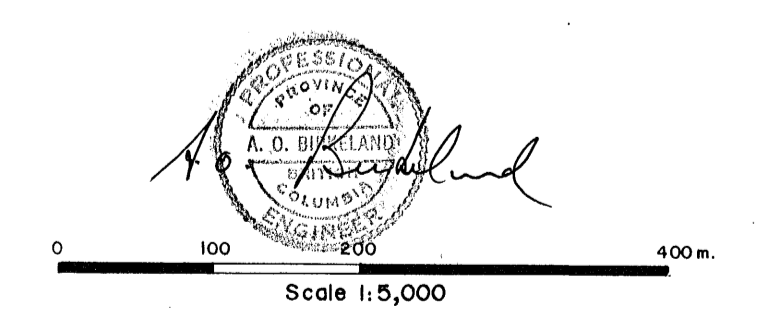
DEER BAY

Main Ni-Cu-PGM Showing

CABIN SUPER I 2150  
 SUPER 2 2151  
 NICKEL 1048  
 NICKEL 2 1338

LORNE 1341

Similar Island



**GEOLOGICAL BRANCH  
 ASSESSMENT REPORT**  
 22,749

ARNEX RESOURCES Ltd. Vancouver, B.C.	
Project: DEER BAY	Area: Vancouver Island
<b>GEOCHEMICAL SAMPLE LOCATIONS AND RESULTS</b>	
Geologist: A.O. Birkeland, P.Eng.	N.T.S. 92 F 4/5
Date: December 1992	Figure: 4
Drawn: F.F.	Revised: