

GEOLOGY AND GEOCHEMISTRY

of

FANNY #1 - 4 Mineral Claims

Skeena Mining Division  
NTS 103 B/3E

Latitude 52°08'N Longitude 131°12'W

OWNER: James S. Christie

OPERATOR Chevron Standard Ltd.  
JMT Services Corp.

WRITTEN BY: Gordon G. Richards, P.Eng.  
James S. Christie, Ph.D.

SUBMITTED:

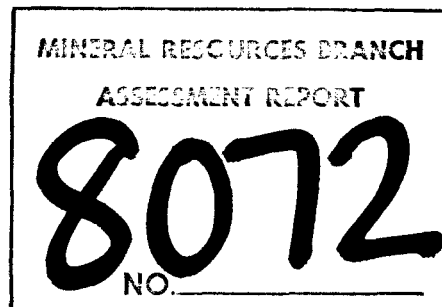


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## INTRODUCTION

During the spring of 1979 G. Richards, C. Harivel, Tim Oliver and J.S. Christie located a major north westerly trending fault in the big creek one kilometre east of Cape Fanny. A section of Kunga Formation limy argillite was also found further east. The claims Fanny #1 - #4 were staked and reconnaissance silts were collected to test the area. Several silts were highly anomalous in gold and some were anomalous in arsenic and mercury. Chevron Standard Ltd. put a crew on the property in late November to soil sample the area of highest gold anomalies. A major storm prevented much of the work from being completed. More soil sampling and mapping is required to evaluate the mineral potential of the claims.

## LOCATION AND ACCESS

The property lies 132 kilometres east south east from Sandspit at the most southern extremity of Moresby Island. Sandspit has daily jet service from Vancouver and is the base for fixed wing aircraft - Trans Provincial Airlines has Otters and Beavers available for charter. Sandspit also has two helicopter bases Vancouver Island Helicopters and Queen Charlotte Helicopters. Access to the property is possible by helicopter or fixed wing aircraft although fixed wing aircraft has fewer choices of landing because of the strong swells that exist along the coastline. Only Small Cove can be relied on with any certainty for a landing spot. Boats can also provide access to the property in several of the bays.

# BRITISH COLUMBIA

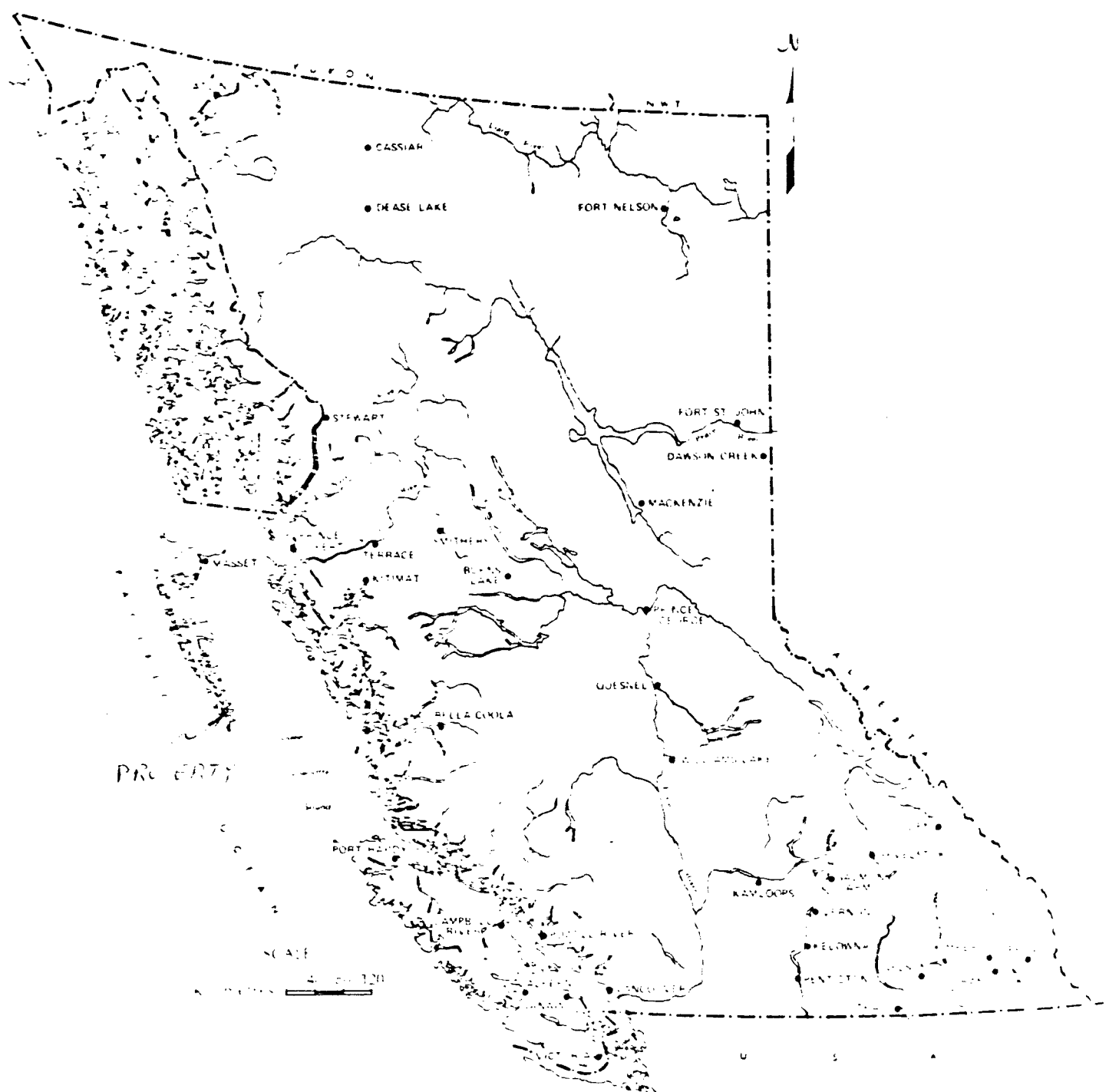


FIGURE 1 PROPERTY LOCATION MAP

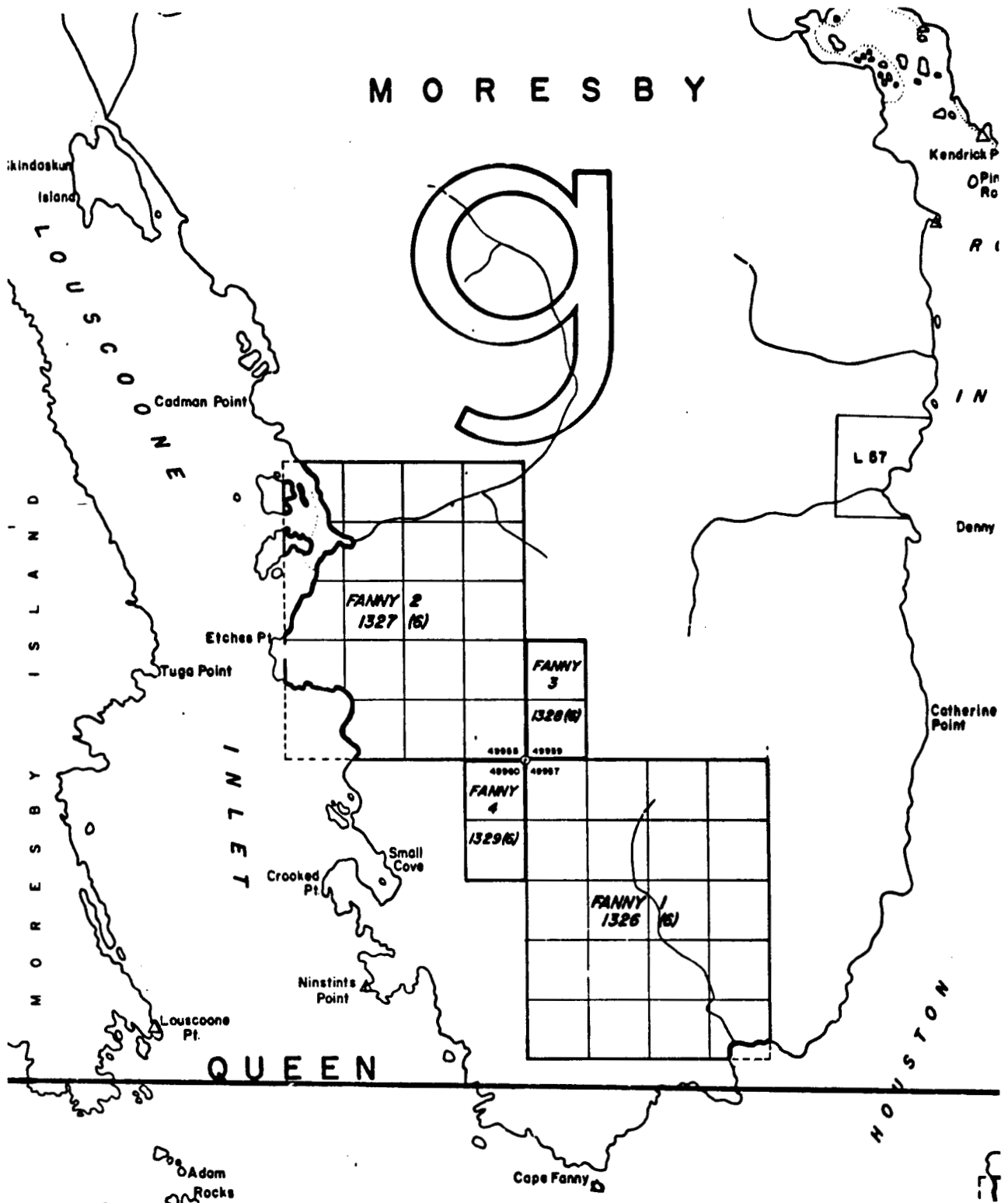


FIGURE 2 CLAIM MAP

TOPOGRAPHY AND VEGETATION

High winds from winter gales have stunted the forest cover. The valley and steep hillsides are variably covered in spruce-hemlock forest and a thick tangle of cypress trees with small swampy openings.

The shoreline is very rocky having been swept clean of dirt and humus to an elevation of fifty feet or more by the sea.

The main southwesterly flowing creek Fanny Creek provides the best access to the main areas of interest all of which lie within Fanny #1.

MINERAL CLAIMS

<u>Name</u>	<u>Units</u>	<u>Record #</u>	<u>Record Date</u>
FANNY #1	20	1326	June 14, 1979
FANNY #2	20	1327	June 14, 1979
FANNY #3	2	1328	June 14, 1979
FANNY #4	2	1329	June 14, 1979

Owner: James S. Christie

GEOLOGYGeneral

The oldest rocks on the property are massive lava flows, pillow lavas and breccias of the Triassic Karmutson Formation. These rocks typically contain abundant chlorite and epidote, locally carbonate and quartz and are referred to as greenstone. Many of these outcrops are variably hydrothermally altered as described below.

Faulted or folded into the greenstones is the upper Triassic to lower Jurassic Kunga limestone and limy argillite Formation. These rocks form a ribbon like outcrop pattern indicative of their probable preservation within the Karmutson Formation along a major northwesterly trending structure. These rocks are poorly exposed because of their more recessive weathering compared to the greenstones but chips of these rocks in the soils together with a few outcrops have served to define their distribution.

Acid to intermediate dykes have also been recognized in outcrop. They are not shown on figure 3 because they are too small to show but they occur along the northwesterly trend of the major fault and Kunga Formation outcrop pattern. Their attitudes are unknown.

#### Structure:

A major fault zone some 100 metres wide outcrops in the lower section of the Fanny Creek (figure 3). Extreme shearing of greenstones has produced a sericite(?) schist with carbonate, chlorite and minor quartz and hematite. Other greenstone outcrops along the general northwesterly trend display similar shearing and alteration. Another major fault probably exists along at least one side of the Kunga Formation section although none has been recognized in outcrop.

#### Mineralization and Alteration

The sericite(?) schist near the mouth of Fanny Creek is probably part of the Rennell-Louscoone fault system described by Athol Sutherland-Brown in Bulletin 54 of the B.C. Department of Mines and Petroleum Resources. Ankeritic(?) carbonate and to a much lesser extent quartz forms lenses and veins parallel to schistosity. Silicification is local but pronounced where present. Minor disseminated pyrite (<1%) occurs with the sericite. In less



altered portions of the schist, chlorite with minor hematite is prominent with some sericite. Similar mineralization - alteration occurs along strike with these outcrops.

Silicification of greenstones has been noted in many of the outcrops shown in figure 3 but is so variable in intensity and occurrence that no attempt has been made to map its occurrence. More detailed mapping is needed before distribution of alteration can be mapped.

Alteration of the Kunga argillites and limestones is most commonly local silicification with up to 10% pyrite. Much of this pyrite could be primary.

#### GEOCHEMISTRY

Geochemical results of reconnaissance silt sampling over the claim area and of soil sampling on a grid with lines spaced two hundred metres apart and sample intervals of 100 metres are shown in figure 3. Sporadic high gold and arsenic values occur throughout the property.

A total of 101 silt, soil and rock chip samples were collected from the property. Silt samples were collected with a spoon from active silts in creeks. Soil samples were collected with mattock from the B horizon. Rock chip samples were made from three to five rock chips.

Geochemical Analyses were done at three labs on the various samples series as listed below:

Bondar Clegg	- R226 - R239	Au, As, Hg
1500 Pemberton Ave.	C77 - C82	As, Hg.
North Vancouver, B.C.	C83 - C88	Au, As, Hg.

Gold: Fire Assay and Hot Aqua Regia - Atomic Absorption

Arsenic: Perchloric Nitric - Colormetric

Mercury: Controlled Aqua Regia - Closed Cell Atomic Absorption

Chemex Labs Ltd.  
212 Brooksbank Ave.  
North Vancouver, B.C.

- All grid samples

Gold: Fire Assay and Hot Aqua Regia - Atomic Absorption  
Arsenic: Perchloric Nitric - Atomic Absorption  
Mercury: Controlled Aqua Regia - Closed Cell Atomic  
Absorption

Vangeochem Lab Ltd.  
1521 Pemberton Ave.  
North Vancouver, B.C.

- H430 - H451 Au, As, Hg  
C77 - C82 Au  
T17 - T35 Au, As, Hg

Gold: Organic Acid Extraction - Atomic Absorption  
Arsenic: Perchloric Nitric - Atomic Absorption  
Mercury: Controlled Aqua Regia - Closed Cell Atomic  
Absorption

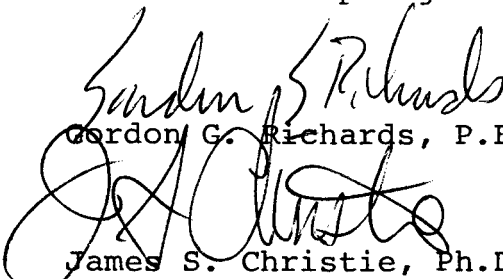
The most consistent pattern of anomalous gold geochemistry occurs in the drainage of Fanny Creek from samples R232 to R235. Sample R227 at the mouth of Fanny Creek ran 970 ppb Au.

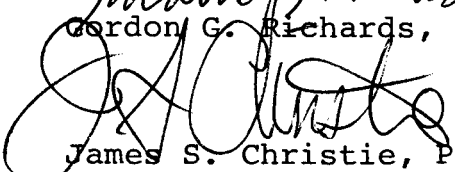
Arsenic geochemistry is low over most of the property with a few highly anomalous values collected from the west side of Fanny Creek (R228 and R230).

Mercury results are uniformly low.

#### CONCLUSIONS AND RECOMMENDATIONS

Results of the preliminary surveys are encouraging. A coarse sample grid for geological mapping and soil sampling is required to delineate particular areas for detailed sampling and mapping.

  
Gordon G. Richards, P.Eng.

  
James S. Christie, Ph.D.

STATEMENT OF COSTS1. May 19, 1979 to June 30, 1979

a) Wages:	J.S. Christie	1 day	150.00
	C. Harivel	1 day	150.00
	T. Oliver	1 day	100.00
	G. Richards	1 day	150.00
b) Food:	4 men X \$20/day X 1 day		80.00
Accommodation:	1 motel		40.00
c) Transportation:	4 1/2 fares Vancouver to Sandspit		300.00
	Fixed wing to Small Cove		400.00
d) Geochem:	Vangeochem		431.60
	Bondar Clegg		223.75

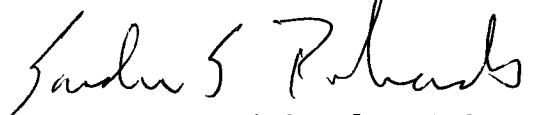
2. November 19 - 27, 1979

a) Wages:	Paul Dupras		
	Eric Havard		
	Conrad Nunweiller		3,320.62
b) Expenses			1,730.32
c) Equipment Rental			144.08
d) Helicopter			1,953.00
e) Supervision:	D. Arscott		150.00
f) Report and Draughting			400.00
g) Analyses:	Chemex		392.26
			<u>\$ 10,115.63</u>

STATEMENT OF QUALIFICATIONS

I, Gordon G. Richards of Vancouver, British Columbia do hereby certify that,

1. I am a Professional Engineer of the Province of British Columbia, residing at 818 West 68th Ave., Vancouver, B.C., V6P 2V2.
2. I am a graduate of the University of British Columbia B.A.Sc. 1968, M.A.Sc. 1974.
3. I have practised my profession as a mining exploration geologist, continuously since 1968.
4. This report is based on my personal knowledge of the district, and mapping of the geology at the property.

  
Gordon G. Richards, P.Eng.

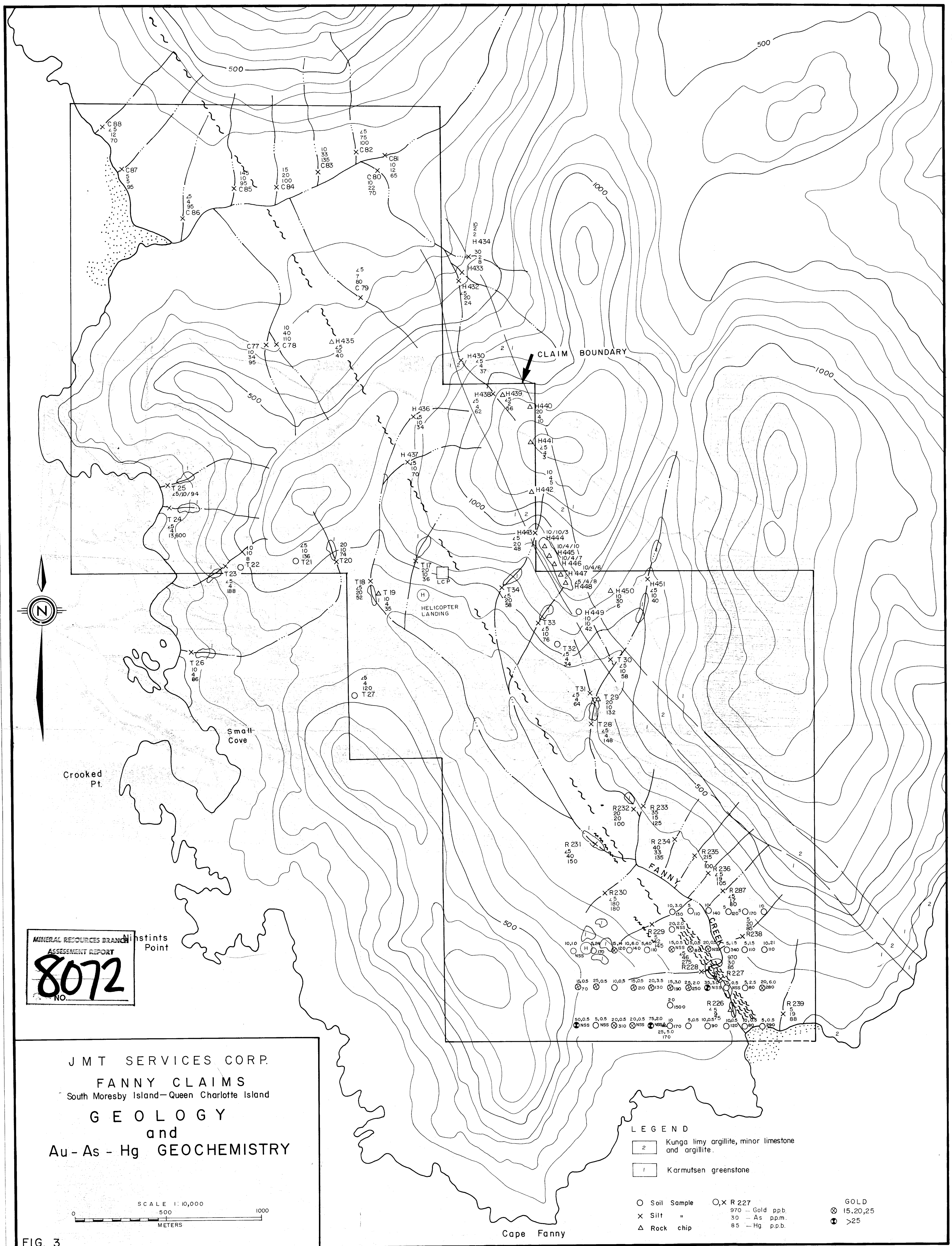
STATEMENT OF QUALIFICATIONS

I, James S. Christie of Vancouver, British Columbia do hereby certify that,

1. I am a Professional Geologist residing at 3921 W. 31st Ave., Vancouver, B.C. V6S 1Y4.
2. I am a graduate of the University of British Columbia B.Sc. Honours Geology - 1965, Ph.D. Geology - 1973.
3. I have practiced my profession as a mining exploration geologist, continuously since 1965.
4. I am a Fellow of the Geological Association of Canada.
5. This report is based on my personal knowledge of the district, and mapping of the geology at the property.

James S. Christie, Ph.D.

A handwritten signature in cursive script, appearing to read 'J. Christie', written in black ink.



MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
**8072**  
NO.

Instants Point

JMT SERVICES CORP.  
FANNY CLAIMS  
South Moresby Island—Queen Charlotte Island  
**GEOLOGY**  
and  
**Au - As - Hg GEOCHEMISTRY**

SCALE 1:10,000  
500 1000  
METERS

- LEGEND**
- 2 Kunga limy argillite, minor limestone and argillite.
  - 1 Karmutsen greenstone
  - Soil Sample
  - × Silt
  - △ Rock chip
  - , × R 227
  - 970 - Gold ppb.
  - 30 - As pp.m.
  - 85 - Hg pp.b.
  - GOLD
  - ⊗ 15,20,25
  - >25

FIG. 3

Cape Fanny