

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

13,441

EURO-PETROLEUM CORPORATION

A Reconnaissance Geochemical and Geological
Report on the Tranquil Claim, Alberni Mining Division,
B.C.

<u>Claim Name</u>	<u>Record No.</u>
Tranquil	1688(3)

NTS Reference: 92F/4

Longitude: 125° 40'W

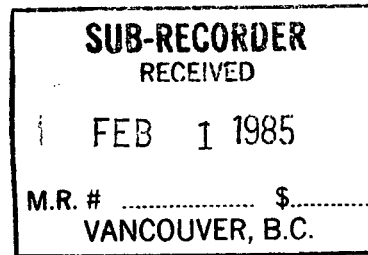
Latitude: 49° 13'W

Consultant: Nevin Sadlier-Brown Goodbrand Ltd.

Prepared by: Dwayne L. Melrose, Geologist

Work Dates: August 29 -- September 4, 1984

Date Submitted: December, 1984



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1. INTRODUCTION

1.1 Terms of Reference

Nevin Sadlier-Brown Goodbrand Ltd. was retained by Euro-Petroleum Corporation to carry out a small exploration program on the company's Tranquil claim in the Alberni Mining Division, B.C. The work included geological mapping, soil sampling for geochemical analyses and an attempt to locate the old "Yankee Boy" mine workings. Field work was performed by Dwayne L. Melrose and assisted by Ian Allen between August 30 and September 4, 1984.

The purpose of this work was to assess the claim in the light of renewed interest and staking activity in the area, apparently in response to reports of volcanogenic gold deposits within the Karmutsen volcanics. In addition, early records suggest that good gold grades were produced from the Yankee Boy mine from a quartz gangue. It was hoped that detailed sampling at the workings would clarify their significance as an exploration target.

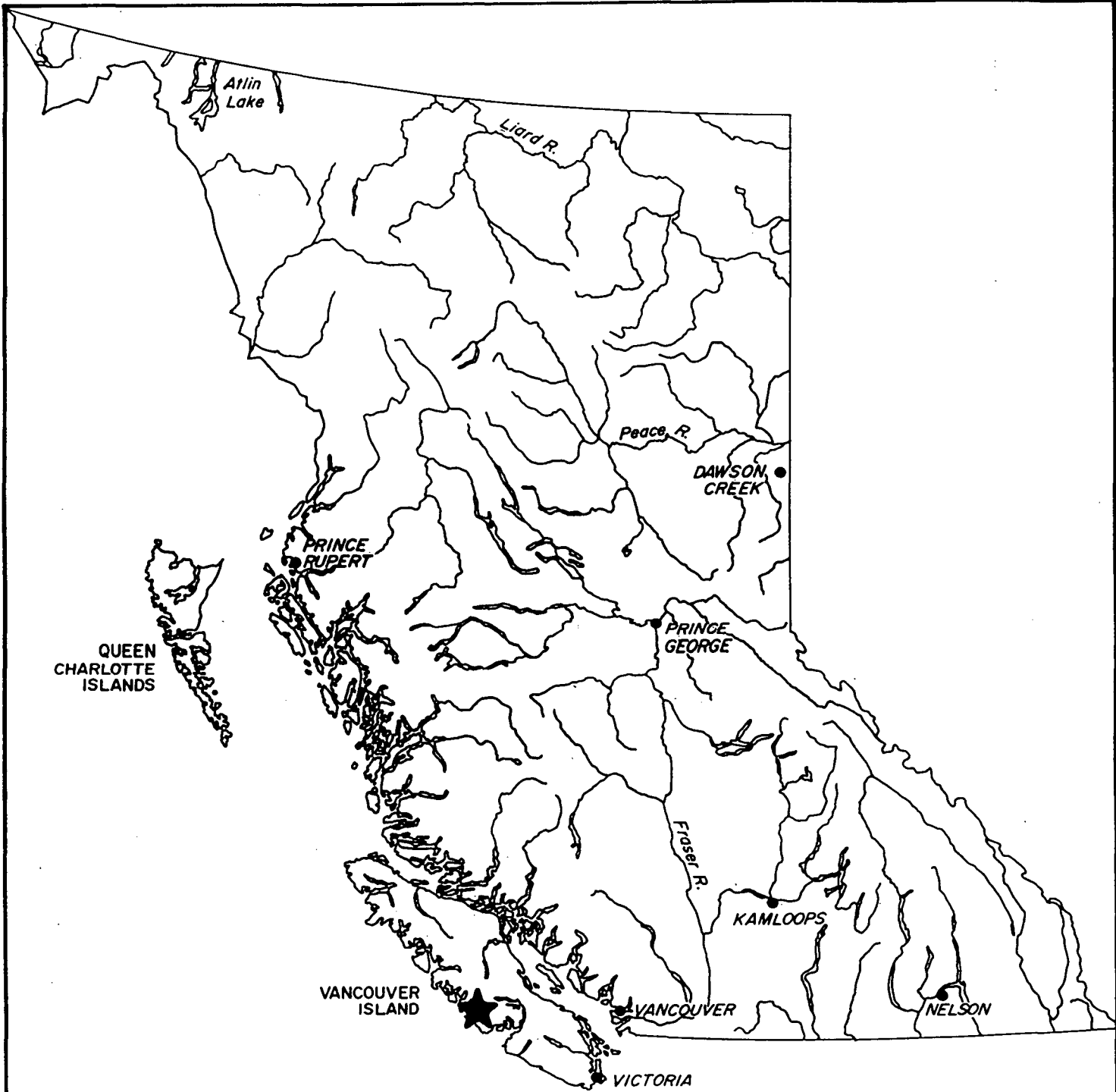
1.2 Location, Access and Physiography

The Tranquil claim is situated at the head of Tranquil Inlet on the west coast of Vancouver Island in the Alberni Mining Division (Figure 1). It is 20 kilometres northeast of the town of Tofino and 180 kilometres due west of Vancouver, B.C., at approximately 49° 13'N latitude and 125° 40'W longitude on NTS map sheet 92F/4.

The property can be reached via water-taxi from Tofino or by private boat from Berryman Cove on the southwest side of Tofino Inlet. Although not directly accessible by truck from population and service centers, logging roads provide excellent local access to all parts of the property.

Tranquil Creek valley forms the central axis of the claim and is flanked on the east and west by moderate to steep slopes. Elevations range from sea level to 150m (1500 ft). Ridges trending northwest-northeast are primarily controlled by the structural fabric of bedrock. The flat valley floor is 600 metres (2000 ft) wide and underlain by glaciofluvial gravel and outwash deposits.

Climate is moderate and wet with mean annual precipitation greater than 250cm. Undergrowth on the low-lying areas, the valley floor is dense and around the area



QUEEN
CHARLOTTE
ISLANDS

VANCOUVER
ISLAND

VICTORIA

EURO-PETROLEUM CORP.

TRANQUIL CLAIM

LOCATION MAP

ALBERNI M.D., B.C.

NTS MAP 92F/4

FIGURE 1

SCALE : AS SHOWN

NEVIN SADLIER-BROWN GOODBRAND LTD.
OCTOBER 1984



of the reported showings, sidehills are heavily forested with commercial stands of cedar, hemlock, and fir.

1.3 Claims and Ownership

The Tranquil property is comprised of a 20 unit claim in the Alberni Mining Division (Figure 2). Data on the property, registered in the name of Euro-Petroleum Corporation, is summarized below:

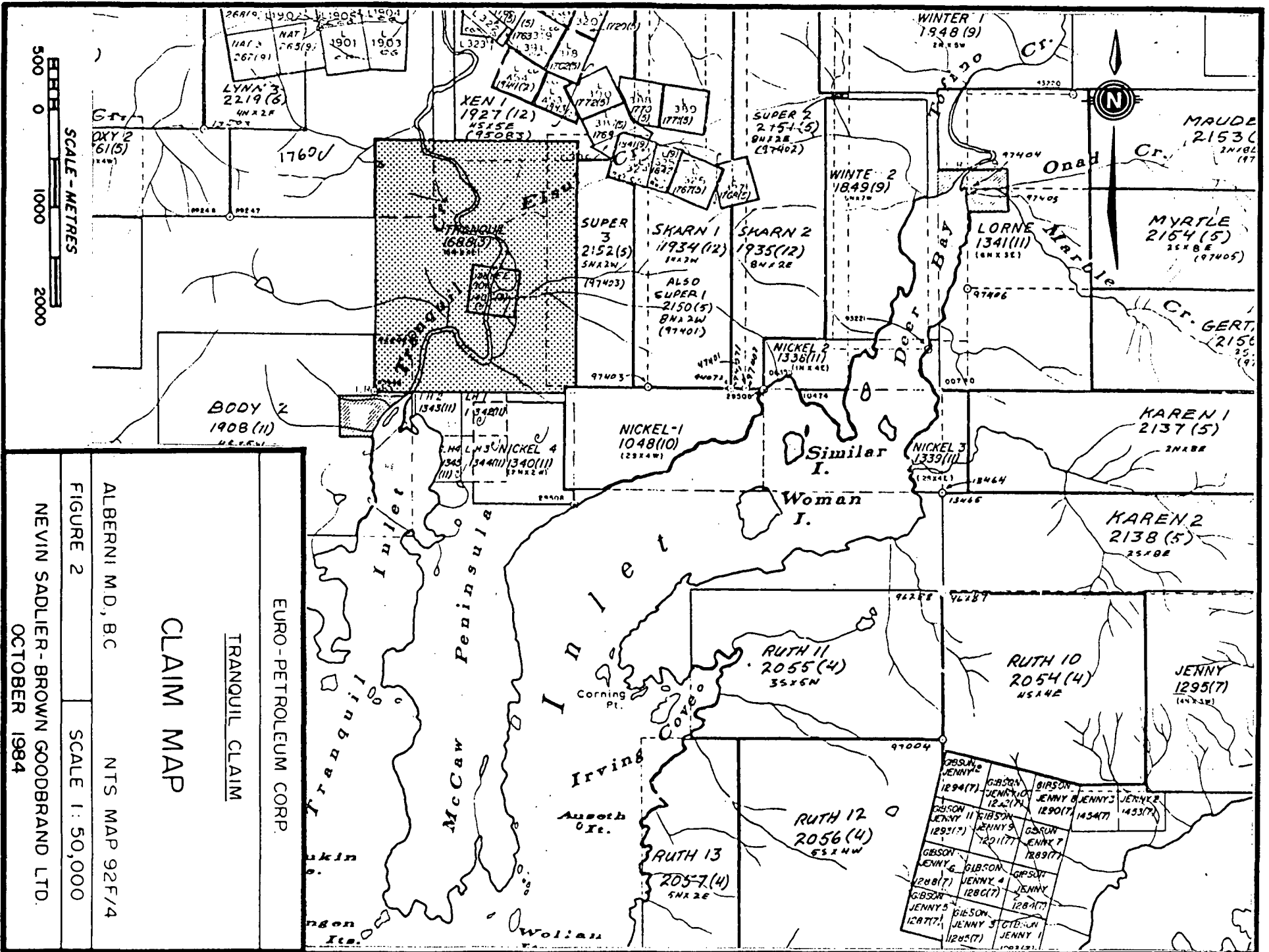
<u>Name</u>	<u>Units</u>	<u>Record No.</u>	<u>Date Recorded</u>
Tranquil	20	1688(3)	March 31, 1983

1.4 Previous Work

The Tranquil Inlet-Warn Bay region has been explored for minerals intermittently since the 1890s. Gold was first discovered in about 1899 at the head of Warn Bay (Figure 4), however, only minor development work was done at that time (MMAR, 1899).

In 1931 gold exploration began in earnest along the whole of the west coast of Vancouver Island following the discovery of the Privateer Mine in the Zeballos area, about 100km north from Tranquil Inlet. This activity, resulted in the location of gold showings shown on Figure 4 (MMAR; 1940, 1941, 1946). All these prospects are currently being reassessed and, in particular, the Pandora Prospect, one kilometre north of the Tranquil claim, is being explored by underground development.

Little is known regarding the area covered by the Tranquil claim. References to the Yankee Boy prospect in the Minister of Mines Report of 1946 states: "in 1940 production of approximately 35 oz of gold and some silver was recorded from three properties, the Gold Flake, Maple Leaf, and the Yankee Boy". Results of tonnage lot sample shipments from the Yankee Boy to the Department of Mines sampling plant in Prince Rupert are summarized below (MMAR; 1940, 1941).



Production History - Yankee Boy Prospect

Year	Shipper	Dry tons	Gold	Silver	Copper	SiO ²
1940	T.A. Smith	0.38 tons (0.35 tonnes)	12.4 oz (387 gr)	5.6 oz (1786 gr)	0.5%	78.9%
1941	W. Morris	0.47 tons (0.43 tonnes)	3.5 oz (110 gr)	1.5 oz (48 gr)	0.2%	88.7%
TOTAL		0.85 tons (0.77 tonnes)	16.0 oz (497 gr)	7.3 oz (226 gr)		

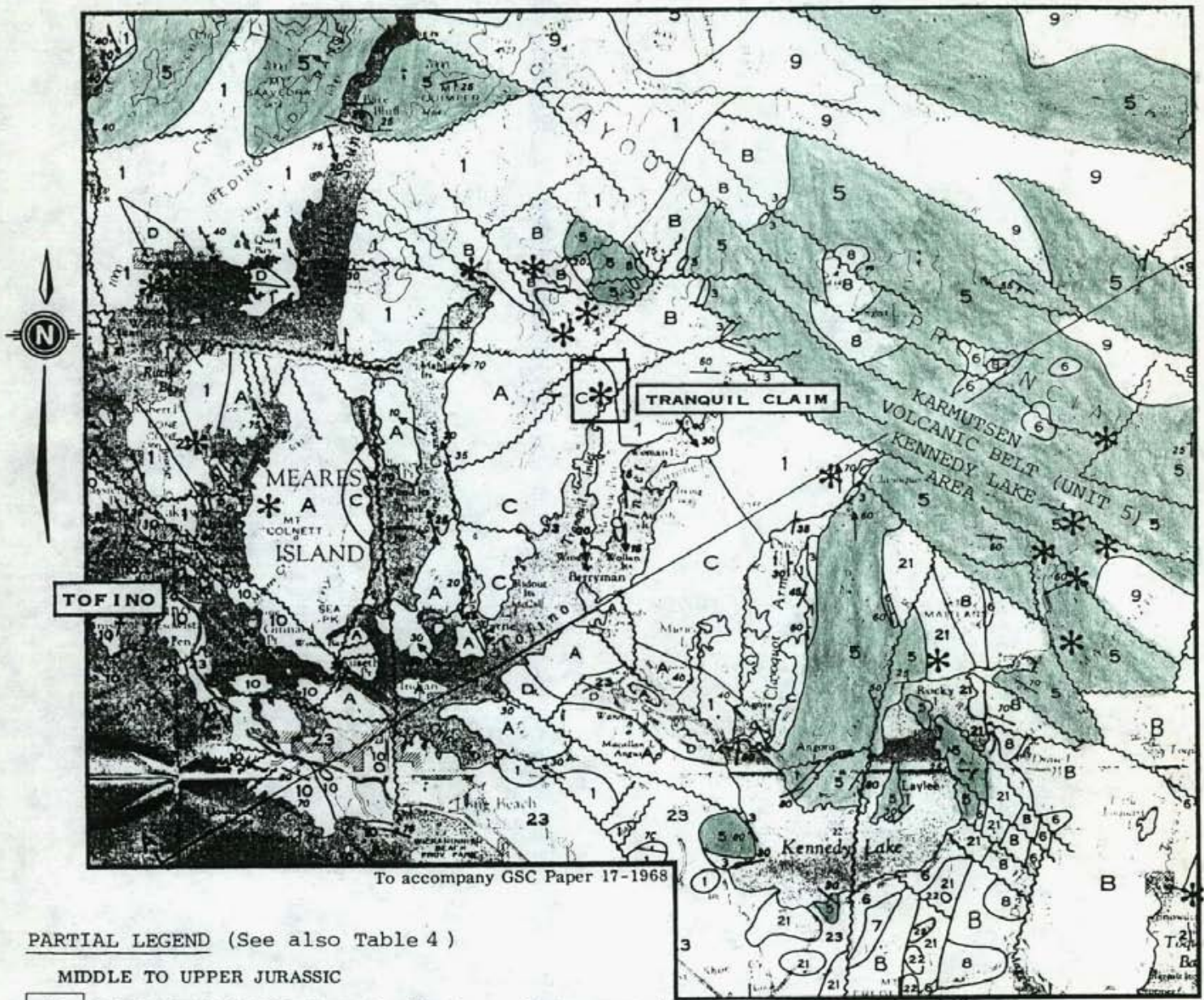
According to the Minister of Mines (1946), the samples are from gold bearing veins from workings on the Tranquil claim. Loggers report the discovery of an old shaft during the course of their activity in the valley, however, the shaft was not found during recent site inspections by Euro-Petroleum Corporation.

2. REGIONAL GEOLOGY (Figure 3)

The oldest rocks in the claim area are, the lower Permian and older, basal volcanic formation (Unit 1). These rocks, termed the Sicker Group, are exposed in fault bounded uplifts and include flows, breccias, tuffs, greenstone and related andesite dykes. Small exposures of Buttle Lake Formation limestone (Unit 3) occur northwest of the Tranquil property and elsewhere along the margins of the uplifted area where Sicker Group rocks are overlain by Karmutsen Formation basaltic volcanics (Unit 5) of upper Triassic age and older.

These sedimentary and volcanic rocks are intruded by the "Tofino Inlet Pluton" (Unit C), "West Coast Diorites" (Unit B) and the Island Intrusions (Unit 9). Muller (1977) groups these intrusive units together as Island Intrusions of Jurassic age. He considers that the West Coast Gneiss Complex (Unit A) is also genetically related to the Island Intrusions. Gneiss, amphibolite and hornfels of Unit A are derivatives of Sicker Group and probably Karmutsen Formation rocks. The West Coast Crystalline Complex (Units B and C) of the Island Intrusions are the mobilized granitoid equivalents of the Gneiss Complex.

Historically, gold exploration on western Vancouver Island, has taken the form of a search for gold-bearing,



To accompany GSC Paper 17-1968

PARTIAL LEGEND (See also Table 4)

MIDDLE TO UPPER JURASSIC

9 ISLAND INTRUSIONS: biotite-hornblende granodiorite, quartz diorite

UPPER TRIASSIC AND OLDER

5 KARMUTSEN FORMATION: pillow-basalt and pillow-breccia, massive basalt flows; minor tuff volcanic breccia. Jasperoid tuff, breccia and conglomerate at base

PENNSYLVANIAN, PERMIAN AND OLDER

LOWER PERMIAN
SICKER GROUP (1-3)

3 BUTTLE LAKE FORMATION: limestone, chert

PENNSYLVANIAN AND OLDER

1 Volcanic breccia, tuff, argillite; greenstone, greenschist; dykes and sills of andesite-porphry

'WESTCOAST CRYSTALLINE COMPLEX'
'TOFINO INLET PLUTON'

C Hornblende-biotite quartz diorite, granodiorite

'WESTCOAST DIORITES'

B Hybrid hornblende diorite, quartz diorite, agmatite; includes masses of hornfelsic volcanic rocks

'WESTCOAST GNEISS COMPLEX'

A Hornblende-plagioclase gneiss, amphibolite, hornfels

* Gold Prospect



EURO-PETROLEUM CORP.	
<u>TRANQUIL CLAIM</u>	
REGIONAL GEOLOGY	
ALBERNI M.D., B.C.	NTS MAP 92F/4
FIGURE 3	SCALE 1: 250,000
NEVIN SADLIER-BROWN GOODBRAND LTD.	
OCTOBER 1984	

quartz veins. A few significant producers of this kind have been located along with numerous small showings. Recently attention has been given, by companies such as Multi-national, Noranda, Tech and others, to investigating volcanic terranes for the presence of low-grade, exhalative or volcanogenic gold deposits. The primary target has been the Karmutsen Formation north and east of the Tranquil claim.

2.2 Geology of the Tranquil Claim Area

Figures 4 and 5 shows the geology of the Tranquil claim and the surrounding area. The claim is underlain by variably gneissic, medium to coarse grained, biotite quartz diorite of the Tofino Inlet Pluton which intrudes massive, altered andesites of the Sicker Group. Intrusive lithologies are well fractured and are propylitically altered in most outcrops.

Plutonic and volcanic rocks are transected by northeast trending faults which are strongly reflected by topographic lineaments. Likewise, several northwest trending lineaments are interpreted as an indication of cross faults or joints.

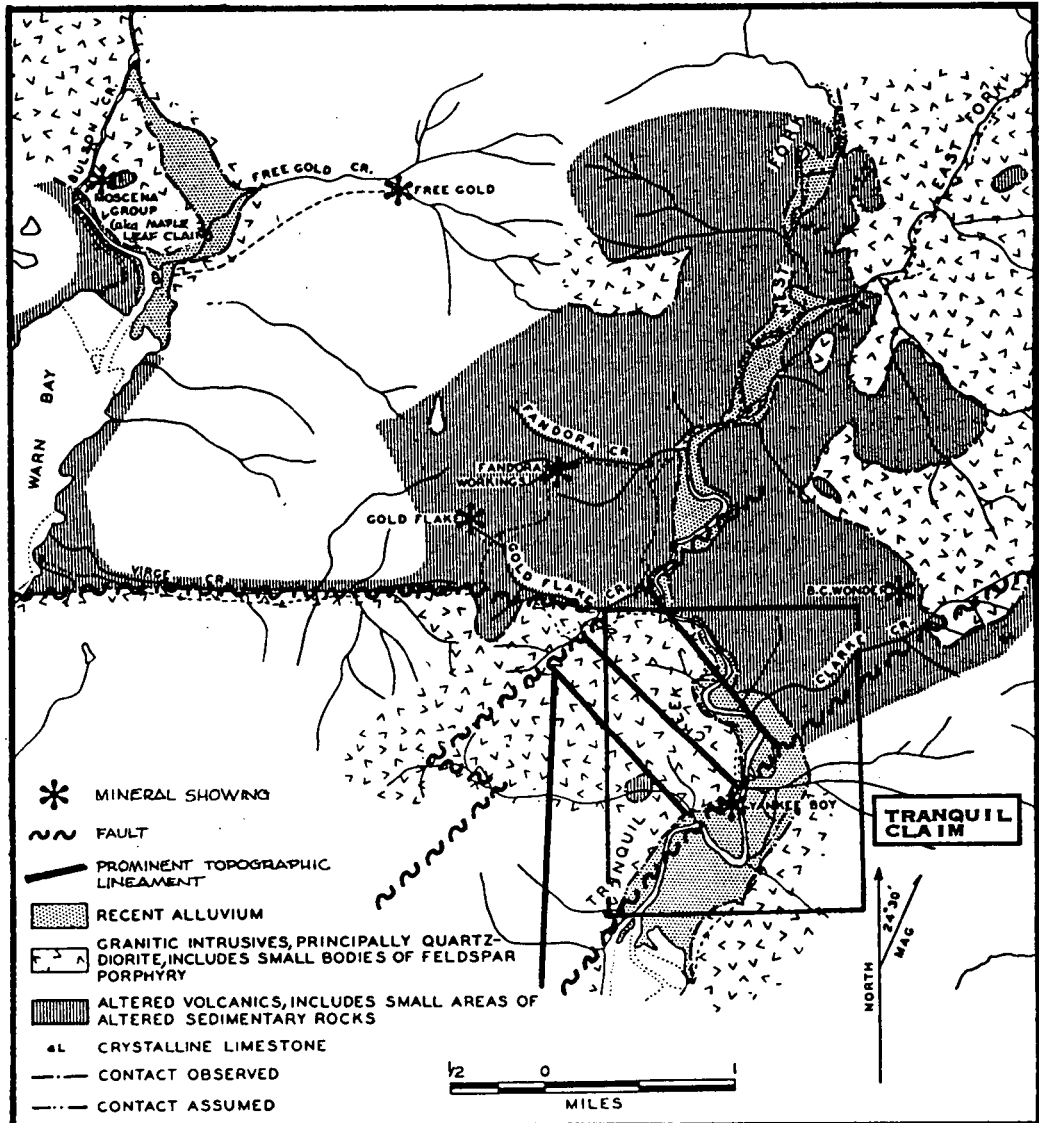
The Yankee Boy mine is reported to lie near the valley floor west of Tranquil Creek. This area is underlain by the quartz diorite of the Tofino Inlet Pluton. The presumed model for a gold deposit at this location is one of auriferous quartz veins. Gold may have been derived from the Sicker volcanics in the northeast claim corner and north of the claim. These rocks host several other prospects.

3. SOIL GEOCHEMISTRY

3.1 Sampling and Analytical Method

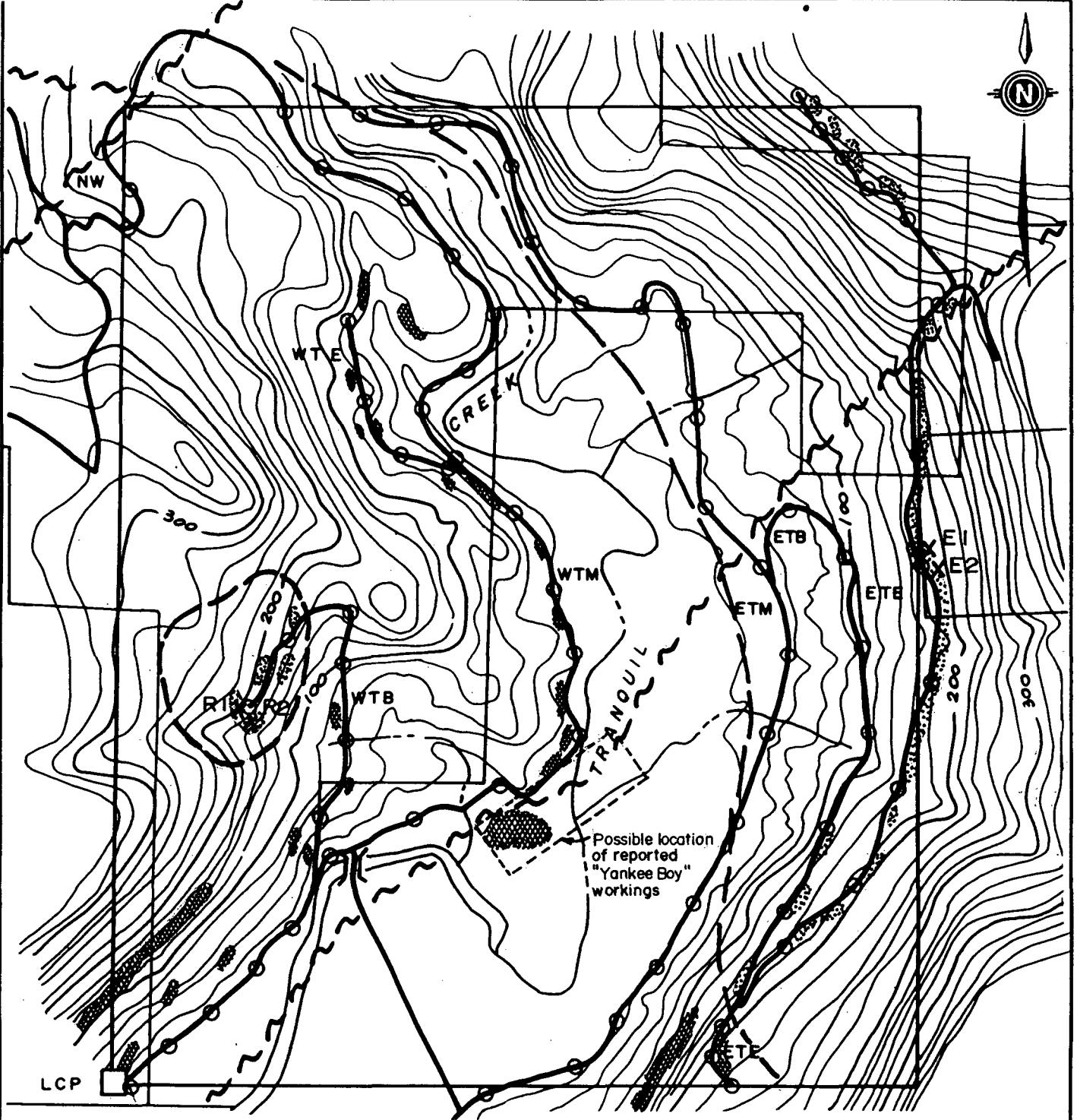
A reconnaissance geochemical soil survey was carried out along logging roads that traverse the Tranquil claim (Figure 6). The program was designed to locate any significant gold mineralization in the easily accessible claim area. The area of the reported Yankee Boy showing was not soil sampled due to the lack of suitable soil horizons in swampy flood plain and otherwise soil-free outcrop. Samples were collected every 200 metres for 17km along logging roads covering most of the Tranquil claim.







Soil was collected from the B horizon. Seventy-nine samples were assayed for gold by Chemex Laboratories Ltd. of North Vancouver, B.C. (see Appendix C). the geochemical testing procedures are described in Appendix B.



FROM: MINISTER OF MINES - ANNUAL REPORT 1946

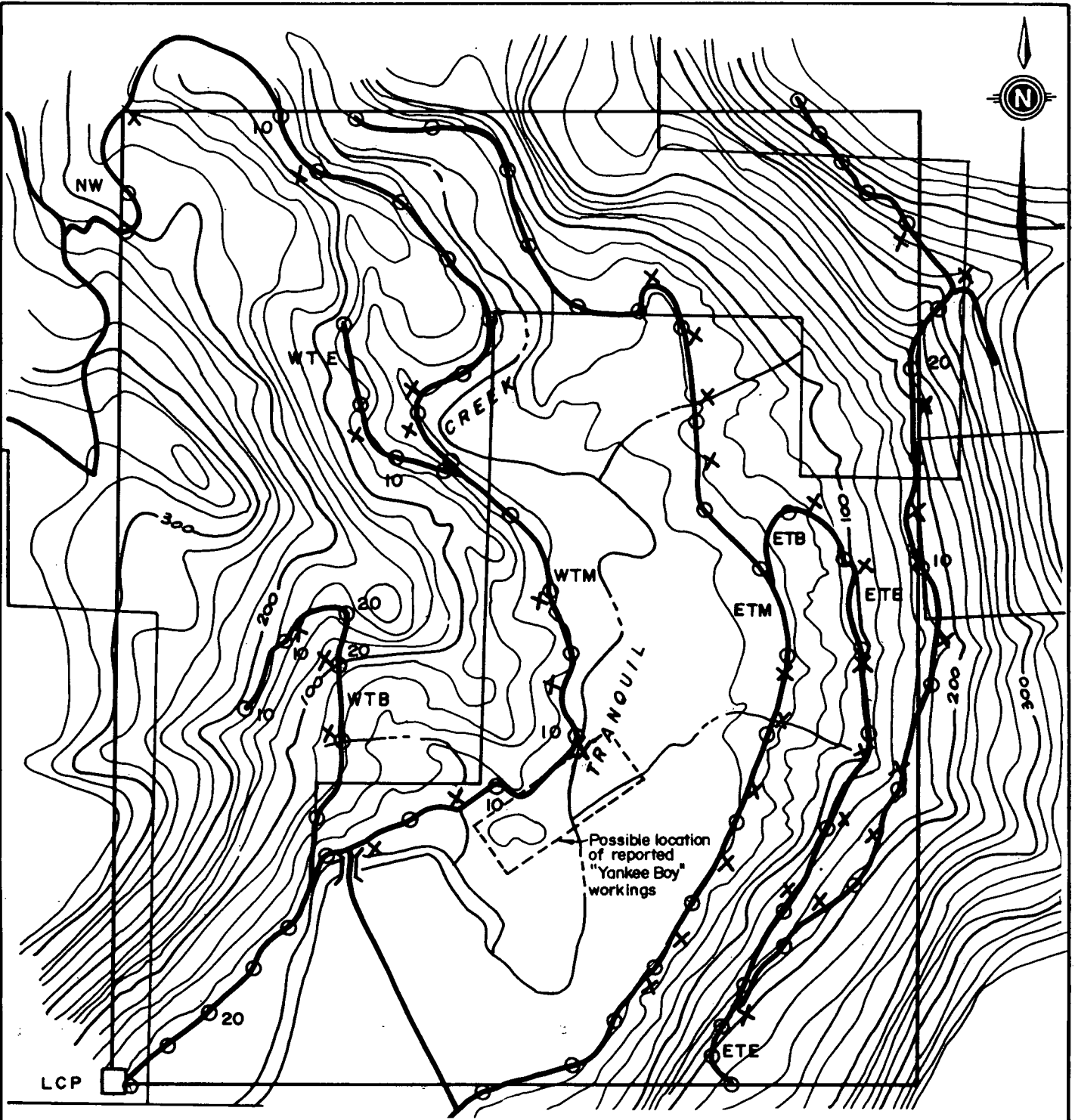
EURO-PETROLEUM CORP.	
TRANQUIL CLAIM	
GEOLOGY OF THE TRANQUIL CLAIM AREA	
ALBERNI M.D., B.C.	NTS MAP 92F/4
FIGURE 4	SCALE 1:62,500
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-  QUARTZ DIORITE
-  ANDESITE
-  WTM LOGGING ROAD
-  ASSUMED CONTACT
-  FAULT
-  X ROCK SAMPLE



EURO-PETROLEUM CORP.	
<u>TRANQUIL CLAIM</u>	
GEOLOGY MAP	
ALBERNI M.D., B.C.	NTS MAP 92F/4
FIGURE 5	SCALE : AS SHOWN
NEVIN SADLIER-BROWN GOODBRAND LTD. OCTOBER 1984	



W T M LOGGING ROAD
 X PANNED TEST LOCATIONS
 O²⁰ SOIL SAMPLE LOCATION, PPB GOLD
 (LESS THAN 10 PPB AU NOT PLOTTED.)



EURO-PETROLEUM CORP.	
<u>TRANQUIL CLAIM</u>	
Au SOIL GEOCHEMISTRY	
ALBERNI M.D., B.C.	NTS MAP 92F/4
FIGURE 6 °	SCALE : AS SHOWN
NEVIN SADLIER-BROWN GOODBRAND LTD. OCTOBER 1984.	

3.2 Results

Gold values range from less than detectable (10 ppb) to as high as 20 ppb. Logging road WTB (Figure 6) has the only concentration of gold values on the claim. This area is underlain by plutonic quartz diorite and andesite containing sparse disseminated pyrite. It is likely that the gold is sourced in trace quantities within the small cap of Sicker Group exposed along the road.

4. STREAM SEDIMENT PANNING (Figure 6)

As the soil geochemistry survey progressed most of the drainage courses with running water were panned. Gold concentrates in stream sediments and gold detected in this fashion reflects the presence of gold within the catchment and thus broadens the sampling base area. The results of the panning were negative. No colours or sulphides were observed and only minimal black sand panned out.

5. PROSPECTING

Two days were spent trying to locate the old Yankee Boy showing. The approximate area of the showing is indicated on Minfile Map 92Fl. Discussion with a local prospector who was familiar with the workings confirmed the Minfile location. The area was prospected in detail during the current examination, but the showing was not found. Thick underbrush groutly obscures the ground surface making exploration difficult. It is unlikely that the mine workings are very extensive.

Four rock samples were taken in areas of rusty weathering indicating the presence of sulphides. Gold grades of minor significance were obtained in samples ETB-E1 and ETB-E2 just east of the eastern claim boundary. These samples, grading 0.10 and 0.012 oz/ton respectively, were taken from the vicinity of a shear zone. The relevance of these zones is not known at this time.

6. CONCLUSIONS AND RECOMMENDATIONS

The results of the recent examination of the Tranquil claim have not revealed the presence of significant gold mineralization. Soil geochemistry is notably unsuccessful in identifying any indication of anomalous gold. Panning of streams was likewise disappointing. Detailed prospecting in

- 12 -

the area of the Yankee Boy mine has failed to locate the workings or any other sign of extensive mineralization that would suggest a deposit worthy of further evaluation.

In the light of these results no further work is recommended on the Tranquil claim. It may be that certain major companies may be interested in assessing the claim particularly that underlain by the Sicker Group for low-grade gold mineralization but such "grass roots" exploration would be inherently high risk and expensive.

Respectfully submitted,

NEVIN SADLIER-BROWN GOODBRAND LTD.



for Dwayne L. Melrose, Geologist

December, 1984

7. REFERENCES

BCDMPR Mineral Inventory, Map 92F and Mindep File.

B.C. Minister of Mines Annual Reports

1899	p779	Maple Leaf
	p789	American Wonder
1940	p 42	Yankee Boy and Others
1941	p 44	Yankee Boy and Others
1942	p 66	Maple Leaf, Fandora, Gold Flake
1946	p183-191	Tranquil Creek-Warn Bay Area; Fandora Moscena
1949		Fandora
1958		Fandora, Gold Flake
1964		Fandora, Gold Flake

Melrose, D.L. and Fairbank, B.D., 1984: A Prospecting Report on the Tranquil Claim, Assessment Report for Euro-Petroleum Corporation.

Muller, J.E. and Carson, D.J.T., 1969: Geology and Mineral Deposits of Alberni Map-Area, British Columbia (92F); GSC Paper 68-50, Map 17-1968.

Muller, J.E., 1977: Geology of Vancouver Island, GSC Open File 463, 3 map sheets and geological notes.

APPENDIX A
Statement of Qualifications

APPENDIX A

Statement of Qualifications

I, Dwayne L. Melrose hereby certify that:

1. My residence address is 323 Seymour River Place, North Vancouver, B.C. V7H 1S6.
2. I am a consulting geologist with the firm of Nevin Sadlier-Brown Goodbrand Ltd., #401-134 Abbott Street, Vancouver, B.C. V6B 2K4.
3. I hold a B.Sc. in Honours Earth Science from the University of Waterloo, Waterloo, Ontario. I have been practicing my profession since 1981.
4. I am an Associate Member of the Geological Association of Canada.


Dwayne L. Melrose, Geologist

December 1984

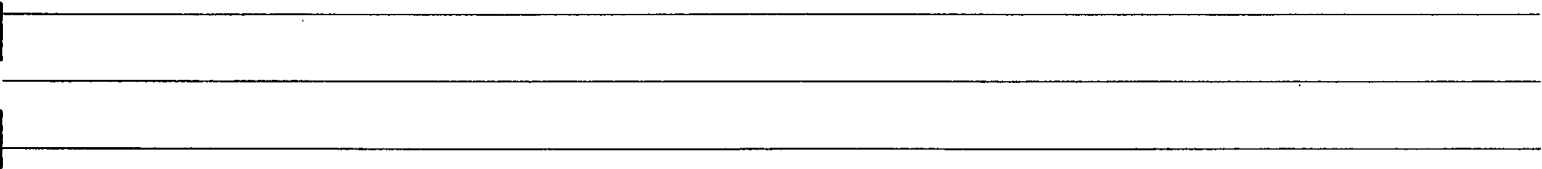
APPENDIX B

Soil Geochemistry Analytical Method

PPB Gold: 5 gram samples ashed @ 800°C for one hour, digested with aqua-regia- twice to dryness - taken up in 25% HCl-, the gold then extracted as the bromide complex into MIBK and analyzed via A.A.

Detection Limit - 10 PPB

APPENDIX C
Certificate of Analysis





Chemex Labs Ltd.

Analytical Chemists • Geochemists • Registered Assayers

212 Brooksbank Ave.
North Vancouver, B.C.
Canada V7J 2C1
Telephone: (604) 984-0221
Telex: 043-52597

CERTIFICATE OF ANALYSIS

TO : NEVIN SADLIER-BROWN GOODBRAND LTD.,

401 - 134 ABBOTT ST.
VANCOUVER, B.C.
V6B 2K4

CERT. # : A8415844-001-
INVOICE # : I8415844
DATE : 13-SEP-84
P.O. # : NONE
222

RECEIVED SEP 17 1984

ATTN: DWAYNE MELROSE

Sample description	Prep code	AU-AA ppb						
ETB-0S	201	<10	--	--	--	--	--	--
ETB-1S	201	<10	--	--	--	--	--	--
ETB-2S	201	<10	--	--	--	--	--	--
ETB-3S	201	<10	--	--	--	--	--	--
ETB-4S	201	<10	--	--	--	--	--	--
ETB-2W	201	<10	--	--	--	--	--	--
ETB-06E	201	<10	--	--	--	--	--	--
ETB-08E	201	<10	--	--	--	--	--	--
ETB-10E	201	<10	--	--	--	--	--	--
ETB-12E	201	<10	--	--	--	--	--	--
ETB-14E	201	<10	--	--	--	--	--	--
ETB-16E	201	<10	--	--	--	--	--	--
ETB-18E	201	<10	--	--	--	--	--	--
ETB-20E	201	<10	--	--	--	--	--	--
ETB-22E	201	<10	--	--	--	--	--	--
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ETB-26EA	201	<10	--	--	--	--	--	--
ETB-26EB	201	<10	--	--	--	--	--	--
ETB-28EB	201	20	--	--	--	--	--	--
ETB-30E	201	<10	--	--	--	--	--	--
ETE-2S	201	<10	--	--	--	--	--	--
ETE-4S	201	<10	--	--	--	--	--	--
ETE-6S	201	<10	--	--	--	--	--	--
ETM-00S	201	<10	--	--	--	--	--	--
ETM-02S	201	<10	--	--	--	--	--	--
ETM-04S	201	<10	--	--	--	--	--	--
ETM-06S	201	<10	--	--	--	--	--	--
ETM-12S	201	<10	--	--	--	--	--	--
ETM-14S	201	<10	--	--	--	--	--	--
ETM-16S	201	<10	--	--	--	--	--	--
ETM-18S	201	<10	--	--	--	--	--	--
ETM-22S	201	<10	--	--	--	--	--	--
ETM-26S	201	<10	--	--	--	--	--	--
ETM-28S	201	<10	--	--	--	--	--	--
ETM-30S	203	<10	--	--	--	--	--	--
ETM-32S	201	<10	--	--	--	--	--	--
ETM-34S	201	<10	--	--	--	--	--	--
NW-0	203	<10	--	--	--	--	--	--
NW-2	201	<10	--	--	--	--	--	--
WTB-00W	201	<10	--	--	--	--	--	--

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CERTIFICATE OF ANALYSIS

TO : NEVIN SADLIER-BROWN GOODBRAND LTD.,

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CERT. # : A8415844-002-1
INVOICE # : I8415844
DATE : 13-SEP-84
P.O. # : NONE
222

ATTN: DWAYNE MELROSE

Sample description	Prep code	AU-AA ppb						
WTB-02W	201	<10	--	--	--	--	--	--
WTB-04W	201	<10	--	--	--	--	--	--
WTB-06W	201	20	--	--	--	--	--	--
WTB-08W	201	20	--	--	--	--	--	--
WTB-10W	201	10	--	--	--	--	--	--
WTB-12N	201	<10	--	--	--	--	--	--
WTB-12NB	201	10	--	--	--	--	--	--
WTE-2N	201	10	--	--	--	--	--	--
WTE-4N	201	<10	--	--	--	--	--	--
WTE-6N	201	<10	--	--	--	--	--	--
WTM-00S	203	10	--	--	--	--	--	--
WTM-02S	201	<10	--	--	--	--	--	--
WTM-04S	201	<10	--	--	--	--	--	--
WTM-06S	201	<10	--	--	--	--	--	--
WTM-08S	201	<10	--	--	--	--	--	--
WTM-10S	201	<10	--	--	--	--	--	--
WTM-12S	201	<10	--	--	--	--	--	--
WTM-14S	201	<10	--	--	--	--	--	--
WTM-16S	201	<10	--	--	--	--	--	--
WTM-18S	201	<10	--	--	--	--	--	--
WTM-20S	201	<10	--	--	--	--	--	--
WTM-22S	201	10	--	--	--	--	--	--
WTM-24S	201	10	--	--	--	--	--	--
WTM-28S	201	<10	--	--	--	--	--	--
WTM-30S	201	<10	--	--	--	--	--	--
WTM-32S	201	<10	--	--	--	--	--	--
WTM-34S	201	20	--	--	--	--	--	--
WTM-36S	201	<10	--	--	--	--	--	--
WTM-38S	201	<10	--	--	--	--	--	--

Certified by Hart Bichler





Chemex Labs Ltd.

Analytical Chemists • Geochemists • Registered Assayers

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Telephone: (604) 984-0221
Telex: 043-52597

CERTIFICATE OF ASSAY

TO : NEVIN SADLIER-BROWN GOODBRAND LTD.,

401 - 134 ABBOTT ST.
VANCOUVER, B.C.
V6B 2K4

CERT. # : A8415843-001-
INVOICE # : 18415843
DATE : 13-SEP-84
P.O. # : NONE
222

RECEIVED SEP 17 1984

ATTN: DWAYNE MELROSE

Sample description	Prep code	Au FA oz/T		
ETB-E1	207	0.010	-- chip sample	over 21 feet
ETB-E2	207	0.012	-- chip sample	over 7 feet
WTB-R1	207	0.008	-- grab sample	--
WTB-R2	207	0.008	-- chip sample	over 4 feet

.....
Registered Assayer, Province of British Columbia



APPENDIX D

Itemized Cost StatementLabour

D. Melrose (7 days @ \$255/day)	\$ 1,785.00
I. Allen (6 days @ \$158/day)	948.00
B. Fairbank (2 hours @ \$59/hr)	<u>118.00</u>
Sub Total	<u>\$ 2,851.00</u>

Disbursements

Truck Rental (includes mileage) 2 days @ \$79.52/day	\$ 159.05
Boat Rental, 6 days @ \$60/day	360.00
Motorcycle Rental, 1 week @ \$100/wk	100.00
Travel, meals, accommodation 13.25 man-days @ \$55.77/man/day	739.02
Ferry	96.00
Field Supplies	70.29
Assays	442.20
Drafting and Report Preparation	<u>1,216.50</u>
Sub Total	<u>\$ 3,183.06</u>
GRAND TOTAL	<u>\$ 6,034.06</u>