ASSESSMENT REPORT OF 83/87
GEOLOGICAL AND GEOCHEMICAL SURVEYS
ON THE
JOE ANNE I-IV AND JOE ANNE 5 CLAIMS
NANAIMO MINING DIVISION
VANCOUVER ISLAND, BC

Latitude 49°44'N, Longitude 125°22'W
NTS 92/11W, 14W

Owned By:
IRON RIVER RESOURCES LIMITED

Operated By:
SELCO DIVISION-BP RESOURCES CANADA LIMITED

BPVR 86-1

R.H. Wong
March, 1986

19884
82/E/2

86-186-14889

ASSESSMENT REPORT OF

GEOLOGICAL AND GEOCHEMICAL SURVEYS

ON THE

JOE ANNE I-IV AND JOE ANNE 5 CLAIMS

NANAIMO MINING DIVISION

VANCOUVER ISLAND, B.C.

Latitude 49° 43.4' N, Longitude 125° 21.3' W
NTS 92/11W

Owned By:
IRON RIVER RESOURCES LIMITED

Operated By:
SELCO DIVISION - BP RESOURCES CANADA LIMITED

FILMED

GEOLOGICAL BRANCH
ASSESSMENT REPORT

14,889

BPVR 86-1

R.H. Wong

March, 1986

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF APPENDICES

SUMMARY

The JOE ANNE I-IV and JOE ANNE 5 claims, located on Forbidden Plateau approximately 24 km northwest of Courtenay and Vancouver Island, were staked in August and October of 1984 and are wholly-owned by Iron River Resources Ltd. Geological and geochemical surveys detailed in this report were conducted by Selco Division - BP Resources Canada Limited on behalf of Iron River Resources Ltd.

Focus of exploration on the JOE ANNE claims is a sill/breccia intrusive complex which cuts flat-lying to shallowly-dipping Cretaceous sedimentary units of the Nanaimo Group. The intrusive complex, considered to be Tertiary in age, is similar lithologically to pipe-like bodies of breccia at nearby Mt. Washington which are associated with epithermal-style gold, silver and arsenic mineralization. Preliminary surveys conducted by Selco Division - BP Resources Canada Limited in 1985 indicate that breccia on the JOE ANNE claims is similarly enriched in gold, silver and arsenic; grab samples of breccia yielding up to 1.4 g/t gold, 9.4 g/t silver, and 0.38% arsenic. Results of soil geochemistry indicate anomalous quantities of these metals over an area approximately 1000 m by 500 m. Additional work, specifically to determine the presence of replacement-type precious metal mineralization within favourable stratigraphy of the Nanaimo Group, was curtailed by heavy snowfall which effectively terminated the field season for the area.

A total of $6,000.00 has been applied as assessment on the JOE ANNE I, II, and 5 claims to maintain them to their due dates in 1987.

Based on results to date, the exploration potential on the JOE ANNE claims appears good. Additional work is warranted to fully delineate and evaluate the breccia complex and its associated precious metal mineralization. Systematic geologic mapping and geochemical sampling is required, not only in the vicinity of the complex but also in adjacent areas underlain by Nanaimo Group rocks, particularly where major structures are present.

A recommended two-stage program of work for the 1986 field season is as follows:

STAGE I

Additional gridding of 75 line-km:	
- 40 man days @ $160/day including accommodation	$6,400
- Truck rental - 20 days @ $40/day	$ 800
- Equipment and supplies	$ 300
	$7,500
Geochemical sampling:	
- 30 man days @ $160/day including accommodation	$4,800
- analysis for ICP plus geochemical Au; 700 samples @ $12/sample	$8,400
- Supplies	$ 200
	$13,400

Geologic mapping and prospecting:	
- 30 man days @ $240/day including accommodation	$7,200
- Supplies	$ 100
- Analysis for ICP plus Au: 100 samples @ $15/sample	$1,500
- Truck rental 30 days @ $40/day	$1,200
	$10,000
Geophysical survey:	
- 10 man days @ $200/day including accommodation	$2,000
- Equipment rental	$ 500
	$2,500
- **Drafting, reproduction, interpretation**	$1,600
STAGE I TOTAL	**$35,000**

STATE II

Contingent on favourable results of this first stage, the second stage of exloration would constitute a diamond drill program estimated to cost approximately $125,000.

Diamond drilling:	
- 2500 feet @ $50/ft (all inclusive)	$125,000
STAGE II	**$125,000**

GRAND TOTAL STAGE I AND II - $160,000

INTRODUCTION

1. Introduction

The JOE ANNE claim group was staked by Iron River Resources Ltd. in 1984 to cover an area underlain by a Tertiary intrusion/breccia complex and adjacent thermally-altered sedimentary rocks. This geologic environment is similar to that at Mt. Washington, located 6 km to the east, where

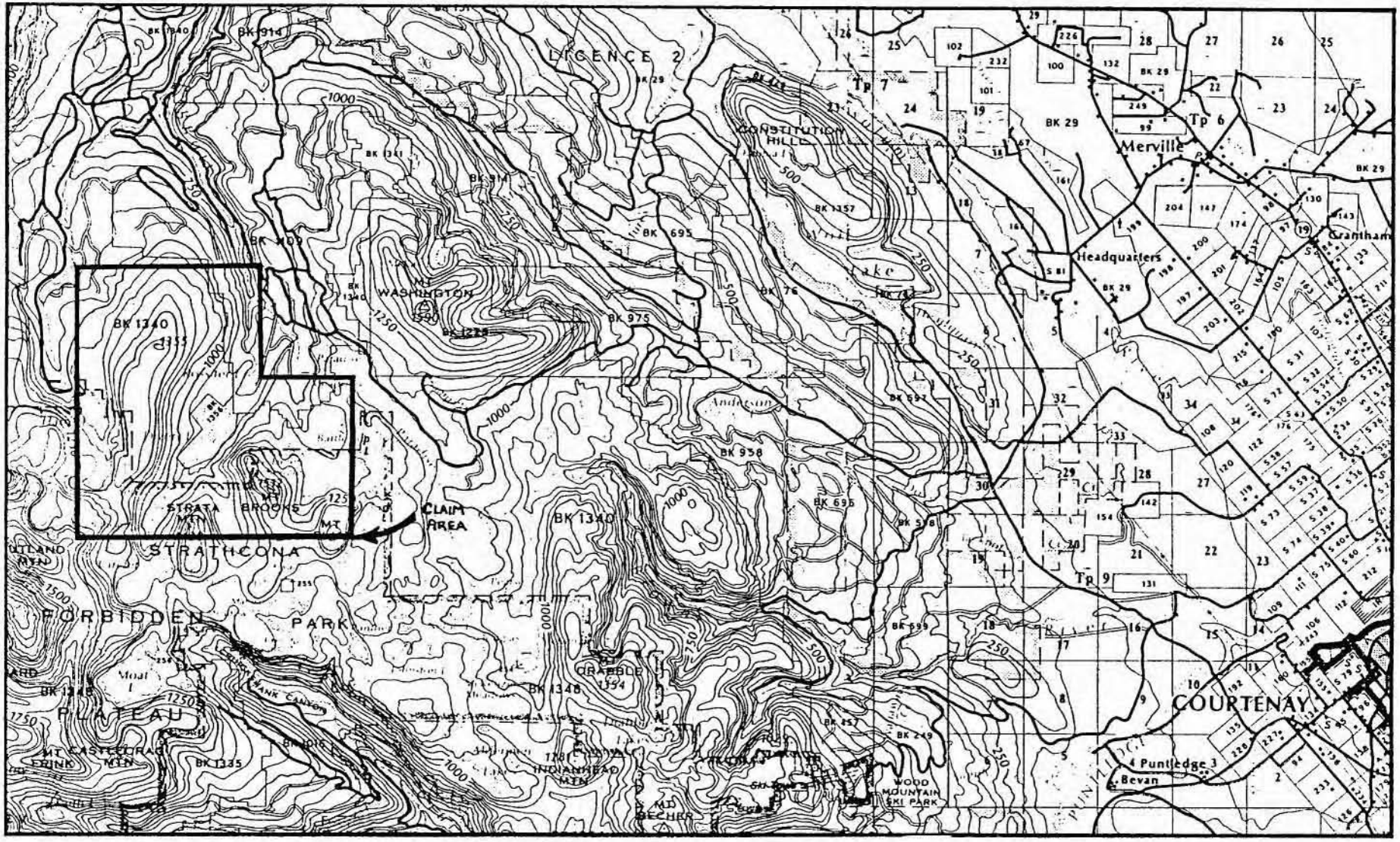
precious metal mineralization is associated with Tertiary breccia complexes. In the fall of 1985, preliminary geological and geochemical surveys were conducted by Selco Division - BP Resources Canada Limited on behalf of Iron River Resources Ltd. Field work took place from September 23rd to October 23rd and was carried out by the writer with assistance from W. Bleaney, geologist. This report details results of this work.

2. Location and Access

The JOE ANNE claim group is located on Forbidden Plateau approximately 29 km southwest of Campbell River and 24 km northwest of Courtenay on Vancouver Island (Figure 1). The claims extend from the northern boundary of Strathcona Park and cover the headwaters of Piggott Creek. Access to the general area is via numerous logging roads which lead west from Highway 19. Trails have been established by Iron River Resources to provide access from the ends of logging roads to the interiors of the JOE ANNE II and 5 claims.

3. Land Status

The JOE ANNE claim group consists of 5 claims of 20 units each (Figure 2). Portions of the JOE ANNE II, IV and 5 claims extend into Strathcona Park and are excluded from the



Scale 1:125 000

(1 Centimetre = 1.25 Kilometres)

2 1 0 2 4 6 8 10 12 14 16 18

Figure 1 - Location Map

March, 1986

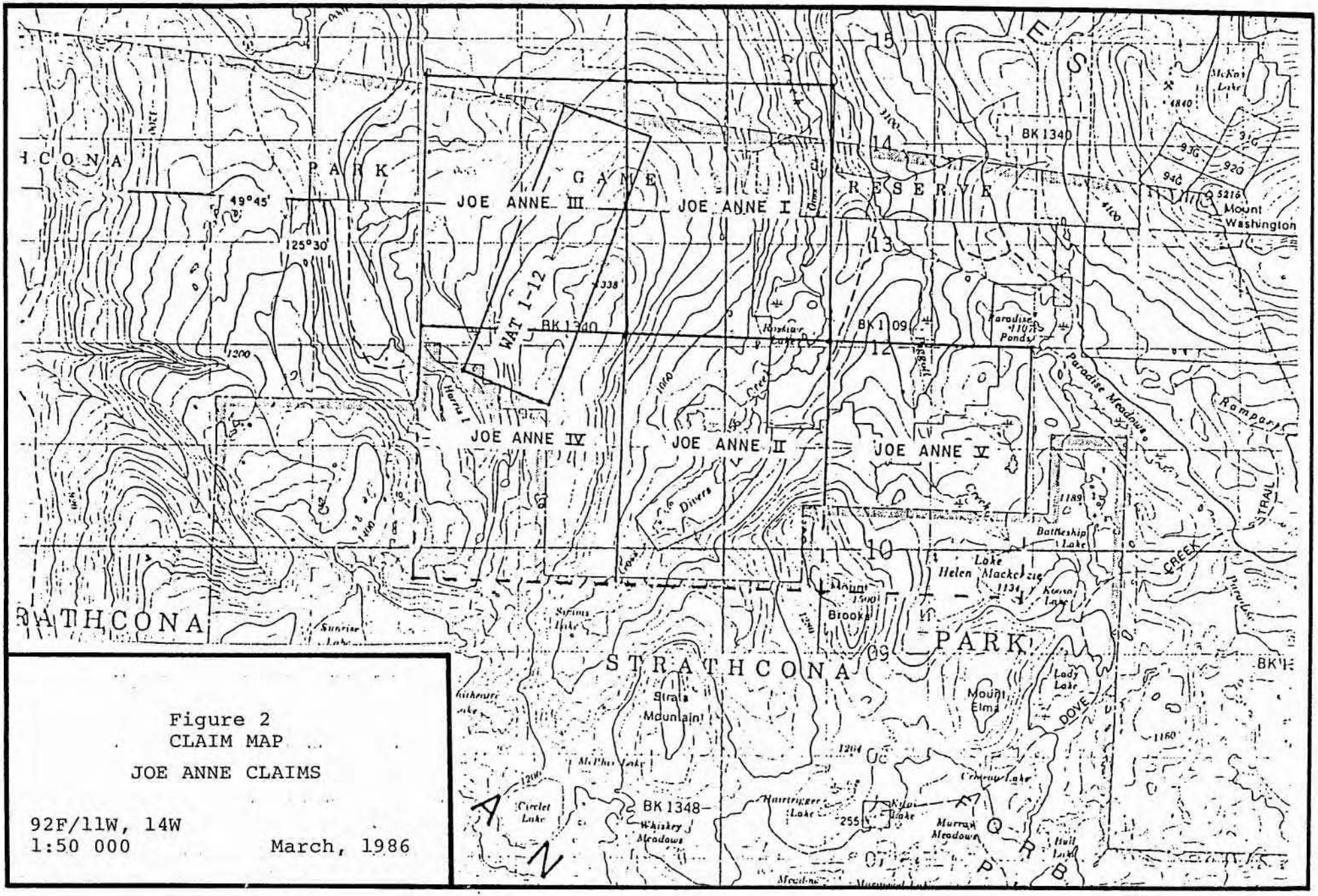


Figure 2
CLAIM MAP

JOE ANNE CLAIMS

92F/11W, 14W
1:50 000 March, 1986

claim group, although in terms of assessment requirements, each claim is considered to constitute a full 20 unit block. The following table summarizes claims status:

TABLE I

JOE ANNE GROUP

CLAIM NAME	UNITS	RECORD NO.	ANNIVERSARY DATE	APPLIED ASSESSMENT	NEW EXPIRY DATE**
JOE ANNE I	20	1838(8)	Aug.8/86	$2000	Aug. 8/87
JOE ANNE II	20*	1839(8)	Aug.8/86	$2000	Aug. 8/87
JOE ANNE III	20	1840(8)	Aug.8/86	--	--
JOE ANNE IV	20*	1841(8)	Aug.8/86	--	--
JOE ANNE 5	20*	1939(10)	Oct. /86	$2000	Oct. /87

*These claims extend into Strathcona Park and are therefore less than 20 units each.

**New expiry date upon approval of this report.

The WAT 1-12 claims predate and are overstaked by JOE ANNE I, III, and IV claims. This ground is not held by Iron River Resources Ltd.

4. Topography and Vegetation

The claim area lies between the southwesterly and southeasterly branching headwaters of Piggott Creek. Elevations range from 1380 m on the north end of Mount Brooks to 720 m on the southeast branch of Piggott Creek. While much of the surrounding area has undergone relatively recent

clear-cut logging, much of the claim area is covered by virgin stands of cedar, fir and hemlock.

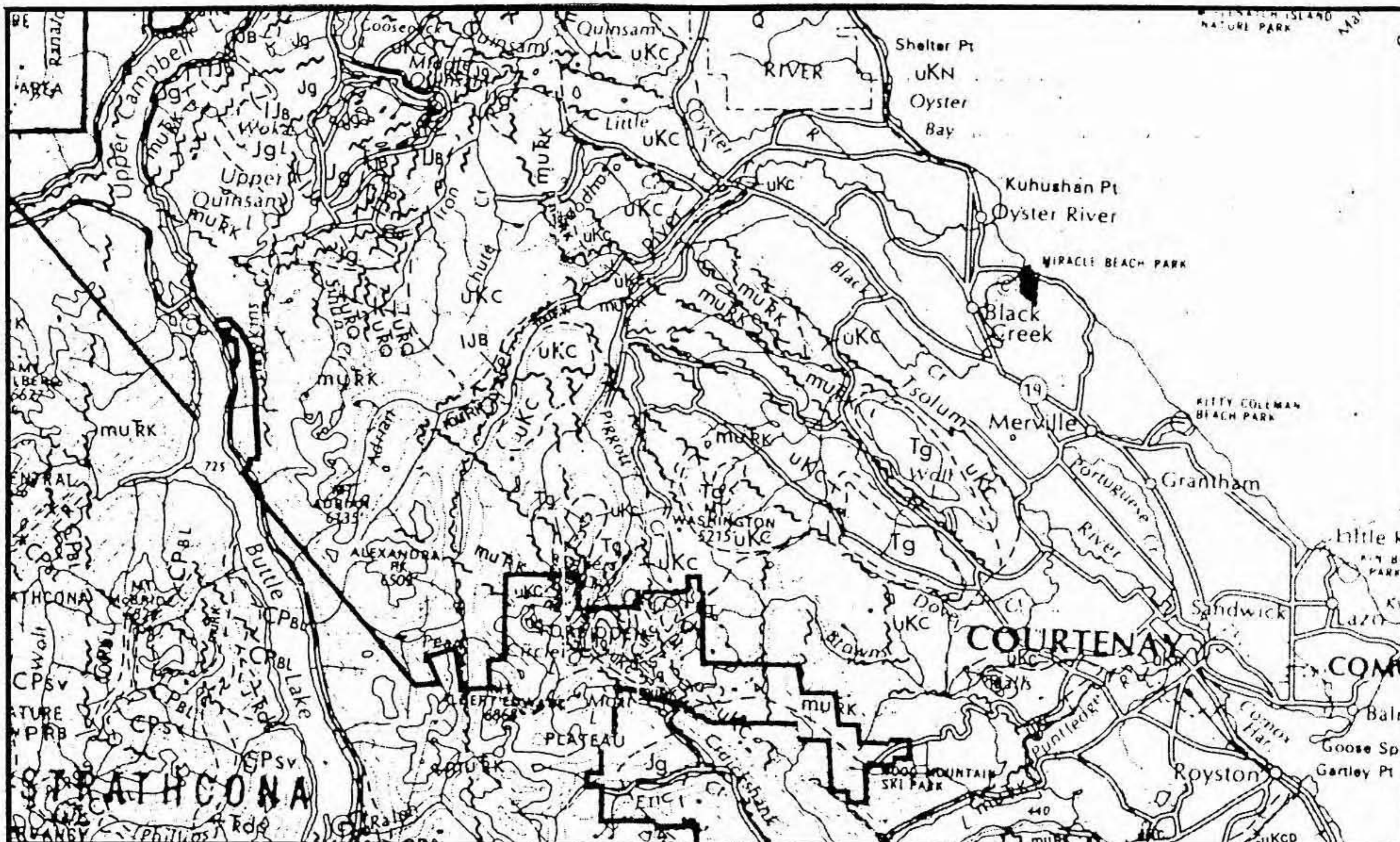
5. Previous Work

Staking by Iron River Resources in 1984 appears to have been the first time mineral claims were made in the area. Coarse gold was, however, recovered from placer operations in the Oyster River-Piggott Creek drainage in the period from 1920-1940. No lode occurrences are listed in MEMPR's Minfile for the area of the JOE ANNE claims. Work by Iron River Resources Ltd. since 1984 is detailed in a Prospecting Report by D.P. Berkshire (September 18, 1984) and in Geological Reports by K.E. Northcote (February 10, 1985 and October 20, 1985).

REGIONAL GEOLOGY

The Forbidden Plateau area is underlain predominantly by mafic flows of the Triassic Karmutsen Formation (Figure 3). These rocks are submarine basaltic flows, pillow lavas, and pillow breccias with minor intercalated tuff, argillite and limestone near the top of the formation.

Unconformably overlying the Karmutsen Formation are Cretaceous sedimentary rocks of the Nanaimo Group. These rocks occur mainly as erosional remnants preserved on hilltops and ridges in the



GEOLOGICAL LEGEND (after Muller, 1977)	Figure 3 REGIONAL GEOLOGY FORBIDDEN PLATEAU
Tg 32-59 m.y. quartz diorite uKc Nanaimo Group (Comox Fm.) sst, cong, shale, coal lJB Bonanza Volcanics basalt to rhyolite tuff, flow breccia uTRQ Quatsino Fm. limestone muTRK Karmutsen Fm basalt Jg 141-181 m.y. granodiorite	1:250 000 March, 1986

area from Forbidden Plateau to Courtenay. The Comox Formation of the Nanaimo Group is the primary stratigraphic unit present. It consists of basal conglomerate, sandstone, siltstone, mudstone, and coal of non-marine or near-shore deltaic origin. Common association of these Nanaimo Group rocks with Tertiary intrusions is probably due to thermal metamorphic effects which have increased the degree of induration in the sediments, thus rendering them more resistant to erosion.

The Tertiary intrusions, composed primarily of quartz diorite and quartz diorite porphyry with associated hydrothermal breccia, occur as dyke, plug and sill-like bodies predominantly intruding the Cretaceous rocks. Carson (1973) suggests that these intrusions represent subvolcanic eruption centres, aligned on three subcrustal fracture zones radiating from the Tofino area respectively towards Zeballos, Mt. Washington and the upper Nanaimo River (Figure 4).

Pre-Cretaceous tectonics, perhaps related to Jurassic plutonism, resulted in structural uplift and faulting accompanied by some flexuring of the Karmutsen rocks. In the Forbidden Plateau area, this effect appears to have been minimal as bedding within the Karmutsen generally displays shallow dips. Pre-Cretaceous erosion has removed all but a few structurally-preserved wedges

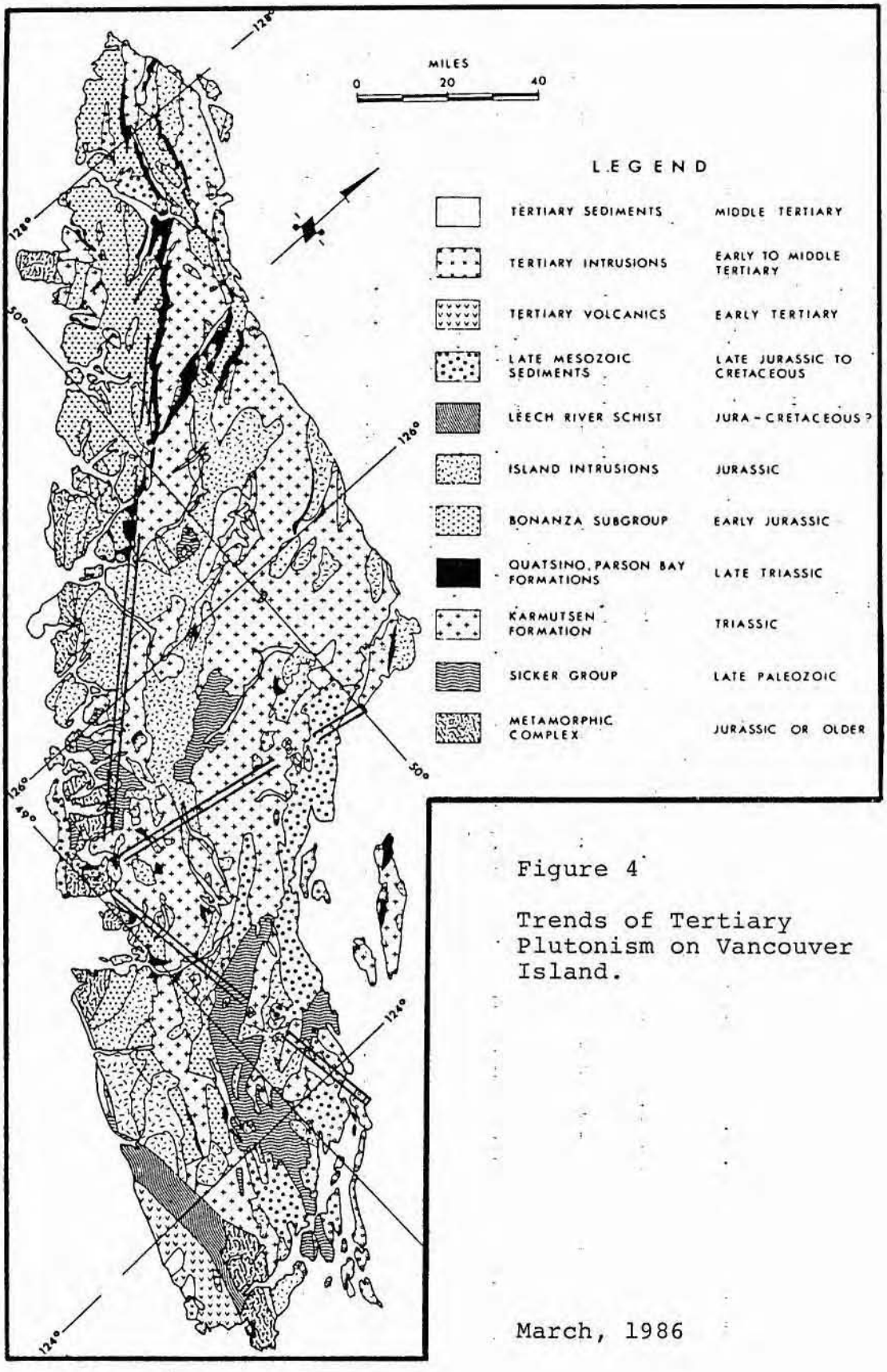


Figure 4

Trends of Tertiary Plutonism on Vancouver Island.

March, 1986

of the overlying Upper Triassic and Jurassic rocks (i.e., Quatsino Formation, Bonanza Volcanics). Cretaceous Nanaimo Group rocks generally display shallow east to northeasterly dips but in the area of Tertiary intrusions bedding has been locally upwarped.

Tertiary faulting, generally in a north to northwesterly direction, is prominent from Forbidden Plateau east to the coast. These steeply-dipping normal(?) faults appear to both pre- and post-date the Tertiary intrusions.

PROPERTY GEOLOGY

Geologic mapping and prospecting with accompanying lithogeochemical sampling was conducted at a scale of 1:10 000. Control was partially by use of grid established by Iron River Resources and partially by use of compass, topofil and altimeter. Lithologies encountered, described in order of decreasing age, are as follows (Figure 5, in pocket).

1. Karmutsen Formation

Rocks of the Karmutsen Formation are best exposed in the canyon of Piggott Creek at the northern end of the JOE ANNE I claim. Interbedded massive, dark green to black, amygdaloidal basalt and pillow basalt flows from 1-5 m thick

dip gently (8-15°) to the northwest. White-weathering, fossiliferous, limestone beds up to 30 cm in width occur locally as interbeds.

At the far northern end of Divers Lake is outcrop of black to maroon flow and flow breccia. This rock is considered to be part of the Karmutsen Formation based primarily on its apparently basaltic composition.

On the southeast branch of Piggott Creek at an elevation of approximately 1000 m is outcrop of black-weathering, limestone breccia consisting of amygdaloidal basalt, limestone and shell fragment clasts in a limestone matrix. Beds range from 10-100 cm in width and dip to the northwest at 25°. Calcareous nature of this rock and general orientation of stratigraphy suggests that this represents the upper portion of the Karmutsen Formation.

2. Nanaimo Group

Rocks of the Comox Formation of the Nanaimo Group are best exposed on Mount Brooks, on the east slope of the southwest branch of Piggott Creek, and in the upper portion of the southeast branch of Piggott Creek.

On Mount Brooks, conglomerate, with minor sandstone and siltstone interbeds, comprises the upper 220 m of the mountain. The base of this unit, marked by a large sill-like intrusion, is at approximately 1280 m elevation on the north slope with beds dipping due south at approximately 10^{o}. White to buff-weathering conglomerate is generally massive with well-rounded heterolithic cobbles and pebbles in a sandstone matrix.

Comox Formation rocks are exposed intermittently in the area outlined by the southwest and southeast branches of Piggott Creek. Here they consist of buff-weathering impure interbedded sandstone and siltstone. Beds dip gently at less than 20^{o} and strike in a northwest to northeast direction. Variation in strike is probably due to local warping or faulting of these units. The southeast branch of Piggott Creek is seen to follow the unconformity between the Karmutsen Formation and the overlying sediments. The southwest branch of the creek probably also follows this contact, although this is not well-exposed.

Hornfelsing of the sedimentary rocks is related to emplacement of the Tertiary intrusive complex and is evidenced by presence of disseminated sulphides, which often

results in a rusty weathered surface, and by increased induration of the rock. Finer-grained rocks commonly show a good development of pale brown metamorphic biotite. The metamorphic aureole extends up to .5 km from the intrusive complex.

3. Tertiary Intrusions

The Tertiary intrusive complex is centred on the northern end of Mount Brooks. The main intrusive unit is interpreted to comprise a sill approximately 300 m thick based on the position of its upper and lower contacts, and also on the fact that narrow bodies of similar material occur within overlying conglomerate in definite sill form. The rock consists of biotite-hornblende quartz diorite and is generally medium-grained and equigranular. Mafic content is locally variable ranging from 10-30%.

Within this sill are zones of hydrothermal breccia ranging in nature from crackle breccia to truly heterolithic breccia. Crackle breccia consists of shattered quartz diorite and is made up of angular clasts of quartz diorite with a fracture-filling matrix of chlorite, calcite, quartz, pyrite, chalcopyrite and open cavities. Outcrops of heterolithic breccia examined were made up of subangular to subrounded

clasts of sandstone, argillite, quartz diorite and vein(?) quartz. In some of the breccia seen, clasts of breccia were tentatively identified suggesting more than one episode of brecciation. Matrix consists of chlorite, quartz, minor sulphides, and open cavities.

No definite pattern to the distribution of breccia within the sill could be determined but it is probably that crackle breccia is more prevalent at the margins of the sill and heterolithic breccia more prevalent in the interior of the sill. Outcrop exposure was insufficient to determine whether breccia comprises a single body or constitutes numerous isolated zones.

Immediately east of the south end of Divers Lake is an intrusive body which appears to cut the main sill-breccia complex. It is comprised of massive, unaltered and unmineralized hornblende quartz diorite. Dykes of this rock are seen to cut altered and mineralized portions of the sill-breccia complex, thus would appear to be post-mineral in age.

4. Structure

On a regional scale, the Mount Brooks - Mt. Washington - Constitution Hill intrusive centres are aligned along the north-northeast trend of Tertiary plutonism shown in Figure 4.

Major faults do not appear to pass through the claim area. The Mt. Washington structure, a north-northwest trending normal(?) fault passes within 4 km of Mount Brooks. The southeast branch of Piggott Creek parallels this structure but does not appear to represent a fault.

Conglomerate, which caps Mount Brooks and which should represent the base of the Comox Formation, occurs topographically and apparently structurally above sandstones and siltstones of the same formation. This suggests that uplift of the Cretaceous country rock locally accompanied emplacement of the Tertiary intrusions.

5. Mineralization and Lithogeochemical Results

Two styles of mineralization are found on the property. Most prevalent is disseminated to massive pyrrhotite, pyrite and chalcopyrite in hornfelsed Comox Formation sediments. Float of this material, hand samples of which may contain up to 50% sulphides, is readily evident in most stream beds north of Mount Brooks. It was noted in place at two localities, 2+50W/1+50N and 5+00W/2+00S, where the sulphides were seen to occur as small conformable lenses of mineralization within hornfelsed interbeds of sandstone and siltstone. Grab samples of this material, submitted for multi-element ICP and

geochemical gold and mercury analysis, yield up to 3946 ppm coper, 25% iron, and 105 ppb gold.

The other type of mineralization is found within the sill/breccia complex. Crackled quartz diorite locally contains pyrite and chalcopyrite disseminated within the porous matrix in association with chlorite, quartz, and calcite. Copper content ranges up to 0.5% with up to 10 ppm silver and 200 ppb gold. Also noted to occur within crackle breccia, as well as within heterolithic breccia, is cavity-filling crystalline quartz, pyrite and arsenopyrite mineralization. Samples of this material have yielded up to 1400 ppb gold, 9.4 ppm silver and 3869 ppm arsenic as well as enhanced levels of zinc, copper, and lead. This cavity-filling mineralization is considered to be epithermal in origin and similar in nature to the gold-bearing mineralization at Mt. Washington.

Descriptions of selected hand-specimens collected from the claim area are given in Appendix I.

A complete listing of analytical results from lithogeochemical sampling is shown in Appendix III.

GEOCHEMISTRY

1. Sample Collection and Analytical Technique

Preliminary soil sampling at 150 m sample intervals was conducted on contour traverses around the northern portion of Mount Brooks and on the eastern slope of the valley of Divers and Rossiter Lakes. A total of 26 samples, each weighing approximately 500 grams, was collected from the B-horizon where possible. The samples were placed in numbered Kraft envelopes and sample sites marked by red flagging tape with the sample number written in felt pen.

Sample preparation follows the routine procedures of Acme. Soil samples were air dried at ambient temperatures and sieved to minus 80-mesh. All samples were analyzed for a variety of trace, minor and major elements, by ICP. Gold and mercury were determined geochemically using an aqua regia digestion. Analytical methods are reported in Appendix II. Analtyical results are included in Appendix III.

2. Results

Results of soil sampling clearly show anomalous contents of gold, silver, and arsenic in soils collected from the northern portion of Mount Brooks. Samples containing coincidentally enhanced gold (20-665 ppb), silver (.5-7.1

ppm), and arsenic (93-702 ppm) define an area approximately 1000 m long by 500 m wide which is spatially associated with the sill/breccia complex. Copper and zinc are also moderately enhanced in this zone (copper up to 819 ppm, zinc up to 946 ppm).

Samples collected over the hornblende quartz diorite plug show no metal enrichment supporting the interpretation that the plug is post-mineral in age.

Away from the sill/breccia complex, only one sample (101279) yielded coincident anomalies (.5 ppm silver, 1154 ppm copper, 219 ppm zinc, 132 ppm arsenic). Results of this sample however, which was collected from an area presumed to be underlain only by Comox Formation sediments, warrant additional follow-up in this area.

Complete listing of analytical results is given in Appendix III.

CONCLUSIONS AND RECOMMENDATIONS

Preliminary surveying on the JOE ANNE claims has partly delineated a gold, silver, arsenic-mineralized sill/breccia complex within an aureole of hornfelsed, sulphide-rich

sedimentary rocks. The geologic environment appears favourable for the presence of widespread epithermal-type precious metal mineralization and results of initial geochemistry lends support to this concept.

While the sill/breccia complex should be considered the priority target for detailed follow-up, areas underlain by sedimentary rocks should also be investigated for possible replacement-type precious metal mineralization.

The first stage of systematic exploration of the property should be a program of gridding with subsequent geological mapping and geochemical soil sampling. The existing grid, with lines 200 m apart and soil sampling stations every 50 m, should be expanded to cover an area 1 km by 2 km between the southeast and southwest branches of Piggott Creek which is underlain by the sill/breccia complex and adjacent altered sedimentary rocks. For the remainder of the property, lines should be at a maximum of 300 m apart with stations every 150 m. This will constitute approximately 75 line-km of additional gridding over which approximately 700 soil samples should be collected. Geologic mapping and prospecting should be completed along the entire grid as well as along all stream and road cuts.

An air photo interpretation should be undertaken to determine any faults and/or structural intersections on the property. These areas would represent favourable zones for exploration. Confirmation of these structures on the ground could be aided by the use of geophysical techniques such as a combined magnetometer - VLF survey.

This first stage of exploration, estimated to cost approximately $35,000, is as follows:

Gridding of 75 line-km:	
- 40 man days @ $160/day including accommodation	$6,400
- Truck rental - 20 days @ $40/day	$ 800
- Equipment and supplies	$ 300
	$7,500
Geochemical sampling:	
- 30 man days @ $160/day including accommodation	$4,800
- analysis for ICP plus geochemical Au; 700 samples @ $12/sample	$8,400
- Supplies	$ 200
	$13,400
Geologic mapping and prospecting:	
- 30 man days @ $240/day including accommodation	$7,200
- Supplies	$ 100
- Analysis for ICP plus Au: 100 samples @ $15/sample	$1,500
- Truck rental 30 days @ $40/day	$1,200
	$10,000
Geophysical survey:	
- 10 man days @ $200/day including accommodation	$2,000
- Equipment rental	$ 500
	$2,500

Drafting, reproduction, interpretation	$1,600
STAGE I TOTAL	**$35,000**

Contingent on favourable results of this first stage, the second stage of exloration would constitute a diamond drill program estimated to cost approximately $125,000.

Diamond drilling:	
- 2500 feet @ $50/ft (all inclusive)	$125,000
STAGE II	**$125,000**

GRAND TOTAL STAGE I AND II - $160,000

REFERENCES

Carson, D.J.T., 1973, The Plutonic rocks of Vancouver Island, GSC Paper 72-44, pp. 70.

Muller, J.E., 1977, Geology of Vancouver Island, GSC Open File 463, Map East and West Half and Marginal Notes.

Northcote, K.E., Geological Report on the Joe Anne Group of Mineral Claims, Assessment Report Prepared for Iron River Resources Ltd., October 20, 1985.

APPENDIX I

HAND-SPECIMEN DESCRIPTIONS

HAND SPECIMEN DESCRIPTION OF ROCKS FROM

JOE ANNE CLAIMS

Samples submitted by D. Berkshire:

JA1-8510-1F	Semi-massive chalcopyrite-pyrrhotite in a dark grey-green hornfelsed quartzite.
JA1-8510-2F(A)	Fine-grained biotitic intrusive(?) rock with 5% disseminated pyrrhotite and disseminated K-feldspar; may be potassic-altered sediment or volcanic.
JA1-8510-2F(B)	Single piece of weakly magnetic, possibly banded/bedded meta-sediment; central dense black weakly magnetic band enclosed by dark grey quartz grit.
JA2-858-1	Disseminated chalcopyrite (5-10%) in biotite-bearing, leucocratic, weakly miarolitic quartz diorite.
JA2-858-2	Hornblende-biotite quartz diorite to granodiorite with molybdenite disseminated along quartz vein selvedge.
JA2-8510-1	Fine-grained medium to dark grey-brown hornfelsed quartzite with $\geq$ 10% fine-grained disseminated pyrrhotite; cut by two subparallel 1-2 cm wide calcite veins.
JA5-859-1P	Medium to dark grey, locally fragmental(?) crystalline black calcite.
JA5-859-1F	Semi-massive chalcopyrite-pyrrhotite mineralization in hornfelsed grey-green quartzite.
JA5-859-2F	Pervasively sericitized biotite quartz diorite containing chloritized volcanic xenoliths and trace disseminated chalcopyrite.
JA5-859-3F	Moderately pervasively clay-altered quartz diorite with 5-10% disseminated pyrrhotite and trace chalcopyrite.
JA5-859-4F	Conglomerate with sandy pyritic matrix.

JA5-589-5F Same as JA5-859-1F.

JA5-859-6F Questionable rock type; contains subangular to subrounded thoroughly clay-altered sedimentary (?) clasts; matrix appears to be fine-grained quartz-pyrite-sericite with 5-10% pyrite (may be quartz diorite originally).

This is the most interesting rock of the suite owing to alteration and content of Cu (5355 ppm), Ag (17.4 ppm), As (245 ppm), and Au (80 ppb).

Samples collected by R. Wong:

100235 Pyrrhotite-chalcopyrite mineralized, northwest-trending, vertical fracture in hornfelsed argillite-quartzite.

100236 Grab sample of pyrrhotite-pyrite-chalcopyrite lenses in hornfelsed rusty argillite.

100237 Basaltic black to maroon flow brecccia at northern end of Divers Lake (not analyzed).

100238 Breccia containing clasts of sandstone, diorite, argillite and quartz vein material in matrix of quartz diorite with vuggy chlorite pervasively disseminated (not analyzed).

100239 "Crackled" quartz diorite with vuggy fracture filling of chlorite, quartz, calcite, chalcopyrite and pyrrhotite (not analyzed).

100244 Limestone breccia on upper Piggott Creek (top of Karmutsen?) (not analyzed).

101268 Intrusive breccia with clasts of quartz diorite and fine-grained sediments; chloritic matrix.

101269 Talus float of brecciated quartz diorite with cavities lined with quartz crystals.

100251 Quartz diorite cut by 2 mm wide, locally vuggy quartz veins.

100252 Subangular breccia float; angular intrusive (quartz diorite to aplitic) clasts locally with quartz veining and rare fine-grained sedimentary(?) clasts in a dense chloritic matrix (no sulphides).

100253 Carbonate-veined low angle fracture zone in hornfelsed, pyrrhotite-bearing argillite.

100254 Subangular breccia float (same site as 100252); strongly crackled, locally quartz-veined quartz diorite with narrow zones of chloritic heterogeneous breccia similar to 100252; vuggy quartz filling locally.

APPENDIX II

ANALYTICAL PROCEDURES

ACME ANALYTICAL LABORATORIES LTD.
Assaying & Trace Analysis
852 E. Hastings St. Vancouver, B.C. V6A 1R6
Telephone : 253 - 3158

GEOCHEMICAL LABORATORY METHODOLOGY - 1984

Sample Preparation

1. Soil samples are dried at 60°C and sieved to -80 mesh.
2. Rock samples are pulverized to -100 mesh.

Geochemical Analysis (AA and ICP)

0.5 gram samples are digested in hot dilute aqua regia in a boiling water bath and diluted to 10 ml with demineralized water. Extracted metals are determined by :

A. Atomic Absorption (AA)

Ag*, Bi*, Cd*, Co, Cu, Fe, Ga, In, Mn, Mo, Ni, Pb, Sb*, Tl, V, Zn
(* denotes with background correction.)

B. Inductively Coupled Argon Plasma (ICP)

Ag, Al, As, Au, B, Ba, Bi, Ca, Cd, Co, Cu, Cr, Fe, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Sr, Th, Ti, U, V, W, Zn.

Geochemical Analysis for Au*

10.0 gram samples that have been ignited overnite at 600°C are digested with hot dilute aqua regia, and the clear solution obtained is extracted with Methyl Isobutyl Ketone.

Au is determined in the MIBK extract by Atomic Absorption using background correction (Detection Limit = 5 ppb direct AA and 1 ppb graphite AA.)

Geochemical Analysis for Au**, Pd, Pt, Rh

10.0 - 30.0 gram samples are subjected to Fire Assay preconcentration techniques to produce silver beads.

The silver beads are dissolved and Au, Pd, Pt and Rh are determined in the solution by graphite furnace Atomic Absorption.

Geochemical Analysis for As

0.5 gram samples are digested with hot dilute aqua regia and diluted to 10 ml. As is determined in the solution by Graphite Furnace Atomic Absorption (AA) or by Inductively Coupled Argon Plasma (ICP).

Geochemical Analysis for Barium

0.1 gram samples are digested with hot NaOH and EDTA solution, and diluted to 10 ml.

Ba is determined in the solution by Atomic Absorption or ICP.

Geochemical Analysis for Tungsten

1.0 gram samples are fused with KCl, KNO_3 and Na_2CO_3 flux in a test tube, and the fusions are leached with 20 ml water. W in the solution determined by ICP with a detection of 1 ppm.

ACME ANALYTICAL LABORATORIES LTD.
Assaying & Trace Analysis
852 E. Hastings St. Vancouver, B.C. V6A 1R6
Telephone : 253 - 3158

Geochemical Analysis for Uranium

0.5 gram samples are digested with hot aqua regia and diluted to 10 ml.

Aliquots of the acid extract are solvent extracted using a salting agent and aliquots of the solvent extract are fused with NaF, K_2CO_3 and Na_2CO_3 flux in a platinum dish.

The fluorescence of the pellet is determined on the Jarrel Ash Fluorometer.

Geochemical Analysis for Fluorine

0.25 gram samples are fused with sodium hydroxide and leached with 10 ml water. The solution is neutralized, buffered, adjusted to pH 7.8 and diluted to 100 ml.

Fluorine is determined by Specific Ion Electrode using an Orion Model 404 meter.

Geochemical Analysis for Tin

1.0 gram samples are fused with ammonium iodide in a test tube. The sublimed iodine is leached with dilute hydrochloric acid.

The solution is extracted with MIBK and tin is determined in the extract by Atomic Absorption.

Geochemical Analysis for Chromium

0.1 gram samples are fused with Na_2O_2. The melt is leached with HCl and analysed by AA or ICP.

Geochemical Analysis for Hg

0.5 gram samples is digested with aqua regia and diluted with 20% HCl.

Hg in the solution is determined by cold vapour AA using a F & J Scientific Hg assembly. An aliquot of the extract is added to a stannous chloride / hydrochloric acid solution. The reduced Hg is swept out of the solution and passed into the Hg cell where it is measured by AA.

Geochemical Analysis for Ga & Ge

0.5 gram samples are digested with hot aqua regia with HF in pressure bombs.

Ga and Ge in the solution are determined by graphite furnace AA.

Geochemical Analysis for Tl (Thallium)

0.5 gram samples are digested with 1:1 HNO_3. Tl is determined in the extract by graphite AA.

Geochemical Analysis for Te (Tellurium)

0.5 gram samples are digested with hot aqua regia. The Te extracted in MIBK is analysed by AA graphite furnace.

APPENDIX III

LISTING OF ANALYTICAL RESULTS
(Prefix of 50 Refers to Soil Sample)
(Prefix of 81 Refers to Rock Chip Sample)

ACME ANALYTICAL LABORATORIES LTD. 852 E.HASTINGS ST.VANCOUVER B.C. V6A 1R6 PHONE 253-3158
DATA LINE 251-1011

RECEIVED
OCT 15 1985
SELCO: BP RESOURCES
VANCOUVER, B.C.

GEOCHEMICAL ICP ANALYSIS

.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.CA.P.CR.MG.BA.TI.B.AL.NA.K.W.SI.ZR.CE.SN.Y.NB AND TA. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: P1-ROCKS P2-SOILS -80 MESH & REJECT SAVED AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE. HG ANALYSIS BY FLAMLESS AA.

DATE RECEIVED: SEPT 30 1985 DATE REPORT MAILED: Oct 8/85 ASSAYER. D. Toye. DEAN TOYE OR TOM SAUNDRY. CERTIFIED B.C. ASSAYER

SELCO - A DIVISION OF BP PROJECT - 542 . FILE # 85-2599 PAGE 1

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	Hg PPB
8185542 100235	1	1151	13	47	.5	58	74	298	11.97	18	5	ND	1	14	1	2	2	14	.77	.10	8	13	.21	2	.08	2	.52	.01	.01	10	14	5
8185542 100236	10	4752	9	55	1.9	101	150	198	13.03	16	5	ND	1	21	1	2	2	130	1.04	.19	7	47	1.13	15	.14	4	3.31	.07	.14	1	16	5
8185542 101268	5	250	2	43	.3	64	24	621	3.67	8	5	ND	2	54	1	2	2	73	.88	.09	5	75	1.17	73	.04	5	2.79	.21	.14	1	3	50
8185542 101269	2	1349	156	1296	9.4	5	11	545	3.70	3869	5	12	1	8	13	9	2	17	.48	.06	2	9	.57	21	.01	2	1.14	.01	.13	1	1400✓	90
STD C/AU-0.5	20	61	39	136	7.1	68	30	1204	3.95	41	19	8	39	54	17	15	20	58	.48	.15	38	58	.88	183	.08	40	1.72	.06	.11	12	520	1400

✓ AA Au data checked.

28.

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	Hg PPB
5085542 101253	2	32	2	32	.1	11	6	122	4.52	10	5	ND	1	10	1	2	2	97	.07	.07	2	29	.31	18	.07	2	3.26	.01	.02	1	2	120
5085542 101254	11	100	13	40	.5	8	10	76	4.52	93	5	ND	1	6	1	2	2	74	.04	.05	2	19	.22	12	.01	2	2.31	.01	.02	1	26	40
5085542 101255	26	819	20	946	3.8	19	14	370	5.82	344	5	ND	1	20	2	2	2	57	.68	.08	3	26	.74	26	.01	2	2.93	.01	.04	1	245	60
5085542 101256	9	770	9	43	7.1	8	9	351	5.94	49	5	ND	1	4	1	2	3	66	.04	.08	4	16	.59	20	.01	2	2.37	.01	.02	1	315	40
5085542 101257	13	175	5	34	2.0	8	12	192	3.59	9	5	ND	1	4	1	2	2	64	.02	.04	3	16	.56	16	.01	2	2.32	.01	.03	1	2	40
5085542 101258	26	56	5	156	.3	10	7	110	4.01	187	5	ND	1	3	1	2	2	79	.03	.03	4	23	.08	7	.01	2	1.36	.01	.02	1	65	20
5085542 101259	11	202	2	50	.4	38	20	540	4.26	13	5	ND	1	37	1	2	6	68	.16	.06	2	86	1.26	61	.06	2	3.27	.03	.02	1	3	80
5085542 101260	3	139	4	28	5.2	5	11	190	3.05	10	5	ND	1	8	1	2	2	57	.04	.04	2	16	.33	26	.01	2	1.93	.01	.01	1	210	30
5085542 101261	11	543	46	140	3.1	13	18	676	7.36	702	5	ND	1	9	1	61	3	32	.05	.12	6	22	.40	29	.01	2	2.00	.01	.04	1	665	70
5085542 101262	5	562	25	261	3.1	17	18	668	5.91	212	5	ND	2	6	1	2	2	38	.05	.10	6	25	.48	33	.01	2	3.50	.01	.03	1	125	60
5085542 101263	14	124	20	69	.4	11	23	2758	6.99	66	6	ND	1	7	1	2	2	51	.05	.15	4	31	.43	48	.01	2	2.40	.01	.03	1	2	40
5085542 101264	7	105	22	95	.1	21	13	395	3.85	33	5	ND	1	16	1	2	2	60	.10	.06	5	39	.41	56	.03	2	4.26	.01	.03	1	9	50
5085542 101265	9	17	5	22	.1	6	3	83	2.66	3	5	ND	1	29	1	2	2	56	.15	.04	2	14	.19	35	.03	2	1.47	.01	.01	1	1	40
5085542 101266	46	62	8	22	.3	18	11	128	5.40	2	5	ND	1	7	1	2	2	206	.11	.05	3	102	.11	20	.06	5	1.42	.01	.02	1	3	30
5085542 101267	19	25	2	14	.1	4	4	58	2.29	2	5	ND	1	8	1	2	2	47	.09	.03	2	15	.24	12	.17	3	.90	.02	.02	1	2	40
STD C/AU-0.5	21	61	39	138	6.9	69	31	1185	3.94	38	19	8	38	53	16	15	21	60	.48	.15	38	60	.88	177	.08	41	1.72	.06	.11	12	485	1300

ACME ANALYTICAL LABORATORIES LTD. 852 E.HASTINGS ST.VANCOUVER B.C. V6A 1R6 PHONE 253-3158 DATA LINE 251-1011

RECEIVED
OCT 31 1985
SELCO - BP
VANCOUVER, B.C.

GEOCHEMICAL ICP ANALYSIS

.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.CA.P.CR.MG.BA.TI.B.AL.NA.K.W.SI.ZR.CE.SN.Y.NB AND TA. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: P1-SOIL -80 MESH & REJECT SAVED P2-ROCKS AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE. HG ANALYSIS BY FLAMLESS AA.

DATE RECEIVED: OCT 25 1985 DATE REPORT MAILED: Oct 30/85 ASSAYER ..... DEAN TOYE OR TOM SAUNDRY. CERTIFIED B.C. ASSAYER

SELCO - A DIVISION OF BP PROJECT - AEP-905 FILE # 85-2943 PAGE 1

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	Hg PPB
5085542 101270	5	114	79	184	.9	14	17	1269	4.87	546	5	ND	1	15	1	3	4	41	.11	.08	3	27	.76	44	.01	4	2.04	.01	.05	1	215	50
5085542 101271	7	210	42	104	1.9	8	15	745	4.21	189	5	ND	1	16	1	2	2	33	.31	.05	2	17	.64	24	.01	3	1.33	.01	.04	1	115	30
RE 5085542 101276	12	75	6	63	.3	15	15	299	5.49	34	5	ND	1	17	1	2	2	123	.29	.07	4	51	.48	31	.06	4	2.90	.01	.05	1	10	50
STD C	22	60	41	139	7.2	67	30	1223	4.06	37	16	9	35	49	19	16	22	59	.50	.16	39	58	.90	172	.08	39	1.77	.06	.11	12	-	-
5085542 101272	31	207	18	89	.3	10	13	192	5.89	376	5	ND	1	23	1	3	2	90	.54	.05	4	30	.25	25	.03	6	1.52	.01	.02	1	55	10
5085542 101273	25	695	28	254	1.8	16	20	1689	5.30	331	5	ND	1	28	1	5	2	52	.74	.09	5	28	.58	35	.01	3	1.92	.01	.04	1	24	40
5085542 101274	69	568	14	62	.7	33	47	440	5.34	43	5	ND	1	19	1	2	2	75	.52	.11	6	39	.41	32	.03	5	3.71	.01	.04	1	6	40
5085542 101275	5	84	3	21	.2	4	10	64	5.60	12	5	ND	1	10	1	3	4	105	.10	.03	2	29	.38	10	.17	5	2.54	.03	.03	1	4	30
5085542 101276	12	75	7	63	.2	15	14	307	5.60	34	5	ND	1	18	1	3	2	126	.30	.07	7	53	.48	32	.06	8	2.93	.01	.05	1	6	40
5085542 101277	4	62	2	50	.2	9	10	134	6.28	43	5	ND	1	10	1	2	3	158	.07	.05	2	48	.48	58	.22	7	2.21	.01	.09	1	2	90
5085542 101278	6	121	16	34	.2	17	13	196	10.92	24	5	ND	2	4	1	18	2	143	.06	.10	4	86	.41	25	.16	9	4.06	.01	.05	1	5	110
5085542 101279	5	1154	3	219	.5	115	24	304	4.55	132	5	ND	1	64	1	4	2	41	2.48	.13	71	55	.20	47	.01	7	3.85	.01	.05	1	1	40
5085542 101280	3	63	8	22	.1	8	9	126	8.94	11	5	ND	1	4	1	2	2	221	.09	.06	4	67	.16	19	.14	3	1.52	.01	.02	1	9	20
8185542 100251	1	11	3	32	.2	8	5	416	1.91	2	6	ND	1	26	1	2	2	17	.55	.03	2	9	.84	13	.02	6	1.16	.09	.02	1	1	5
8185542 100252	1	1	6	91	.1	17	6	1228	3.39	2	5	ND	2	27	1	2	2	40	1.76	.07	6	32	1.32	31	.01	5	1.70	.02	.10	1	1	5
8185542 100253	1	307	4	36	.2	30	28	639	7.90	16	5	ND	7	94	1	2	2	205	8.89	.04	15	55	.84	17	.11	12	1.83	.12	.11	1	3	5
8185542 100254	1	31	2	49	.1	9	6	932	4.05	2	5	ND	1	7	1	2	2	38	.36	.05	4	27	.95	52	.01	5	1.84	.02	.15	1	1	5

30

ACME ANALYTICAL LABORATORIES LTD. 852 E.HASTINGS ST.VANCOUVER B.C. V6A 1R6 PHONE 253-3158 DATA LINE 251-1011

GEOCHEMICAL ICP ANALYSIS

.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.CA.P.CR.MG.BA.TI.B.AL.NA.K.W.SI.ZR.CE.SN.Y.NB AND TA. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: ROCK CHIPS AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE.

DATE RECEIVED: OCT 21 1985 DATE REPORT MAILED: Oct 25/85 ASSAYER. D. Toye. DEAN TOYE OR TOM SAUNDRY. CERTIFIED B.C. ASSAYER

SELCO-A DIVISION OF BP PROJECT - AEP-905 FILE # 85-2871 PAGE 1

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
JA1-8510-1F	3	3042	9	38	.3	86	76	186	20.78	8	5	ND	1	1	1	2	5	32	.13	.06	7	4	.09	3	.01	2	.06	.01	.01	1	105
JA1-8510-2F(A)	1	97	7	22	.1	27	17	192	4.06	2	5	ND	1	33	1	2	6	105	.83	.05	3	50	.46	11	.23	2	1.00	.16	.05	1	4
JA1-8510-2F(B)	1	11	6	31	.1	130	47	1521	9.40	11	5	ND	1	19	1	2	10	331	.16	.01	7	99	.82	29	.38	2	1.64	.08	.04	1	1
JA2-858-1	15	51061 ✓	8	1158	35.9	173	1	87	11.78	2	5	ND	1	10	8	4	7	7	.21	.65	5	7	.04	13	.01	2	.50	.04	.04	1	210
JA2-858-2	2247	133	2	26	.1	10	8	222	1.66	2	5	ND	1	49	1	2	6	30	.43	.04	3	16	.61	55	.07	2	.90	.09	.12	1	2
JA2-8510-1	6	904	22	50	.3	52	48	639	17.47	9	5	ND	7	89	1	2	9	227	8.22	.06	25	47	.54	18	.14	2	1.43	.08	.08	1	4
JA5-859-1P	8	77	2	80	.1	54	32	1565	7.66	13	5	ND	3	27	1	2	11	152	6.02	.08	11	72	1.78	28	.30	2	3.17	.03	.04	1	22
JA5-859-1F	2	3946	17	74	1.1	64	108	276	25.54	5	5	ND	2	25	1	2	8	113	1.16	.12	16	90	1.34	9	.05	2	3.60	.09	.08	1	12
JA5-859-2F	4	1591	136	714	5.8	16	17	632	4.03	588	5	ND	1	17	6	3	6	24	1.39	.08	7	12	.58	14	.01	2	.97	.01	.16	1	30
JA5-859-3F	1	1674	12	116	1.1	64	59	369	22.51	6	5	ND	1	2	1	2	12	47	.17	.09	5	65	.71	6	.04	2	1.55	.01	.04	1	3
JA5-859-4F	1	160	2	30	.1	50	22	250	4.09	7	5	ND	1	106	1	2	9	66	2.22	.06	4	44	.46	28	.13	4	3.42	.45	.02	1	1
JA5-859-5F	3	4050	9	67	1.2	79	132	214	30.00	2	5	ND	2	26	1	2	12	77	1.23	.12	4	75	.89	8	.05	2	3.14	.10	.07	1	14
JA5-859-6F	3	5355	16	62	17.4	251	215	508	9.27	215	5	ND	1	2	1	2	7	66	.05	.07	6	43	.88	12	.01	2	1.36	.01	.05	1	80
STD C/AU-0.5	20	61	40	135	7.7	67	30	1236	3.98	39	18	8	36	50	18	14	22	56	.48	.15	39	56	.88	189	.08	38	1.72	.07	.12	12	505

Rock Samples

✓ Assay required for correct result —

RECEIVED
OCT 29 1985
SELCO-BP R...
VANCOUVER, B.C.

APPENDIX IV

STATEMENT OF COSTS

STATEMENT OF COSTS

JOE ANNE CLAIMS

1.	**LABOUR**	
	Geologist - R. Wong: Sept. 23-26, Oct. 21-23, Nov. 5, Mar. 10-12 10 days @ $220/day	$2,200.00
	Geologist - W. Bleaney: Sept. 23-26, Oct. 21-23 6.5 days @ $110/day	$ 715.00
	Prospector - D. Berkshire: Sept. 23, 1 day @ $150/day	$ 150.00
2.	**ACCOMMODATION**	
	10 man days @ $40/day	$ 400.00
3.	**TRANSPORTATION**	
	7 days truck rental @ $40/day	$ 280.00
	4 Ferry trips @ $26/trip	$ 104.00
4.	**ANALYSIS**	
	21 Lithogeochemical samples for ICP + geochemical Au, Hg, @ $14.50/sample	$ 304.50
	26 Geochemical samples for ICP + geochemical Au, Hg, @ $12.50/sample	$ 325.00
5.	**CONSUMABLE SUPPLIES AND MATERIALS**	$ 100.00
6.	**DRAFTING AND TYPING**	$ 250.00
	TOTAL	**$ 4828.50**

APPLY TOTAL $4828.50 PLUS $1171.50 (PAC WITHDRAWAL FROM BP-SELCO ACCOUNT) AS ASSESSMENT FOR JOE ANNE I, II, AND JOE ANNE 5 CLAIMS.

APPENDIX V

STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

R.H. WONG

I, Russell H. Wong of #700 - 890 West Pender Street, in Vancouver, in the Province of British Columbia, do hereby state:

1. That I am a graduate of the University of British Columbia, Vancouver, B.C., where I obtained a B.Sc., in Geology in 1975.

2. That I have been active in mineral exploration since 1973.

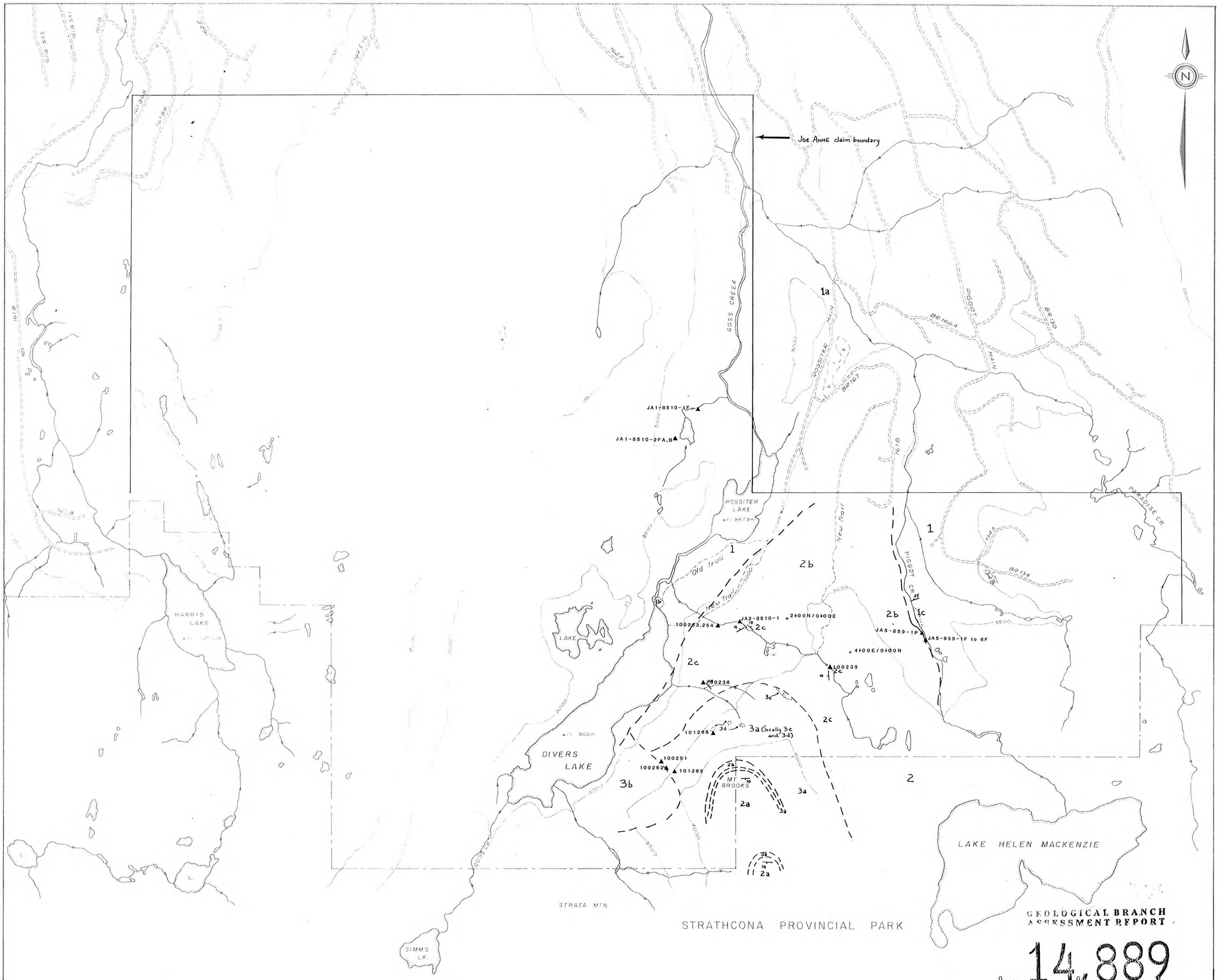
3. That I am a member, in good standing, of the Northwest Mining Association and Association of Exploration Geochemists.

4. That I have practised my profession continuously as a staff geologist for Selco Division - BP Resources Canada Limited, since 1979.

Russell H. Wong

Russell H. Wong
BP Geologist

March, 1986
Vancouver, B.C.



GEOLOGIC LEGEND

TERTIARY	3	INTRUSIVE ROCKS: a - hornblende-biotite quartz diorite, b- hornblende quartz diorite, c- crackle breccia of quartz diorite, d- heterolithic intrusive breccia
CRETACEOUS	2	NANAIMO GROUP: a- conglomerate, b- sandstone, siltstone, argillite. c- hornfelsed sandstone, siltstone, argillite locally with up to 50% sulphides
TRIASSIC	3	KARMUTSEN FORMATION: a- basalt, pillow basalt, minor limestone, b- basalt breccia, c- limestone breccia

- Geologic contact: definite, inferred
- Bedding: strike, dip
- ▲ Rock chip sample location
- ● Soil sample location

GEOLOGICAL BRANCH ASSESSMENT REPORT

14,889

0 1 KM

SELCO DIVISION - BP RESOURCES CANADA LIMITED

GEOLOGY
JOE ANNE CLAIMS
ROCK CHIP SAMPLE LOCATIONS

SCALE 1 : 10,000		DRAWN BY:	FIG. 5
DATE MARCH 1986		DRAFTED BY: E. B. W.	
N.T.S. 92F/11,14	PROJ.		REPORT

Joe Anne claim boundary

GOSS CREEK

HARRIS LAKE

DIVERS LAKE

MT BROOKS

STRATA MTN.

SIMMS LK.

LAKE HELEN MACKENZIE

STRATHCONA PROVINCIAL PARK

Old Trail

RASSITER LAKE

PIGGOT CR.

PARADISE CR.

MAIN

BR 166A

BR 130

BR 167

BR 134

1a

1

2a

2b

2c

3a (locally 3c and 3d)

3b

3c

GEOLOGICAL BRANCH
ASSESSMENT REPORT

14,889

0 .5 KM

GEOLOGIC LEGEND

TERTIARY 3 INTRUSIVE ROCKS: a - hornblende-biotite quartz diorite, b- hornblende quartz diorite, c- crackle breccia of quartz diorite, d- heterolithic intrusive breccia

CRETACEOUS 2 NANAIMO GROUP: a- conglomerate, b- sandstone, siltstone, argillite. c- hornfelsed sandstone, siltstone, argillite locally with up to 50% sulphides

TRIASSIC 3 KARMUTSEN FORMATION: a- basalt, pillow basalt, minor limestone, b- basalt breccia, c- limestone breccia

Geologic contact: definite, inferred

Bedding: strike, dip

Rock chip sample location

Soil sample location

SELCO DIVISION -
BP RESOURCES CANADA LIMITED

GEOLOGY
JOE ANNE CLAIMS

SOIL SAMPLE LOCATIONS

SCALE 1 : 10,000		DRAWN BY:	FIG. 6
DATE MARCH 1986		DRAFTED BY: E. B. W.	
N.T.S. 92F/11,14	PROJ.		REPORT