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**ASSESSMENT REPORT**

describing

**SOIL GEOCHEMISTRY AND DIAMOND DRILLING**

on the

**SKATE PROPERTY**

Skate 1-54 YB68933-YB68986

Latitude 62°00' N; Longitude 132°08' W

NTS 105K/1 and 105F/16

in the

**WATSON LAKE MINING DISTRICT**

**YUKON TERRITORY**

Prepared by

Archer, Cathro & Associates (1981) Limited

for

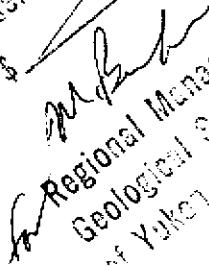
**EXPATRIATE RESOURCES LTD.**

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W.A. Wengzynowski, B.A.Sc.  
February, 1998

This report has been examined by  
the Geological Evaluation Unit  
under Section 53 (4) Yukon Quartz  
Mining Act and is allowed as  
representation work in the amount  
of \$ \$21,602.00

  
Regional Manager, Exploration and  
Geological Services for Commissioner  
of Yukon Territory.

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## INTRODUCTION

Expatriate Resources Ltd. has a 100% interest in the Skate property which protects previously discovered but relatively untested mineral occurrences, geophysical anomalies and soil geochemical targets. Fifty-four claims were staked in fall 1995 and subsequent work has focussed on massive sulphide potential. Expatriate's exploration program in 1996 consisted of geological mapping, prospecting, stream sediment sampling and soil sampling along claim lines.

This report describes exploration conducted by Expatriate in summer 1997. Work consisted of grid soil sampling and 556 m of ~~diamond~~ diamond drilling in three holes. The drilling was done with daily helicopter support from a trailer camp on the North Canal Road. The work was managed by Archer, Cathro & Associates (1981) Limited and supervised by the author. Appendix I contains the Author's Statement of Qualifications.

**PROPERTY, LOCATION AND ACCESS**

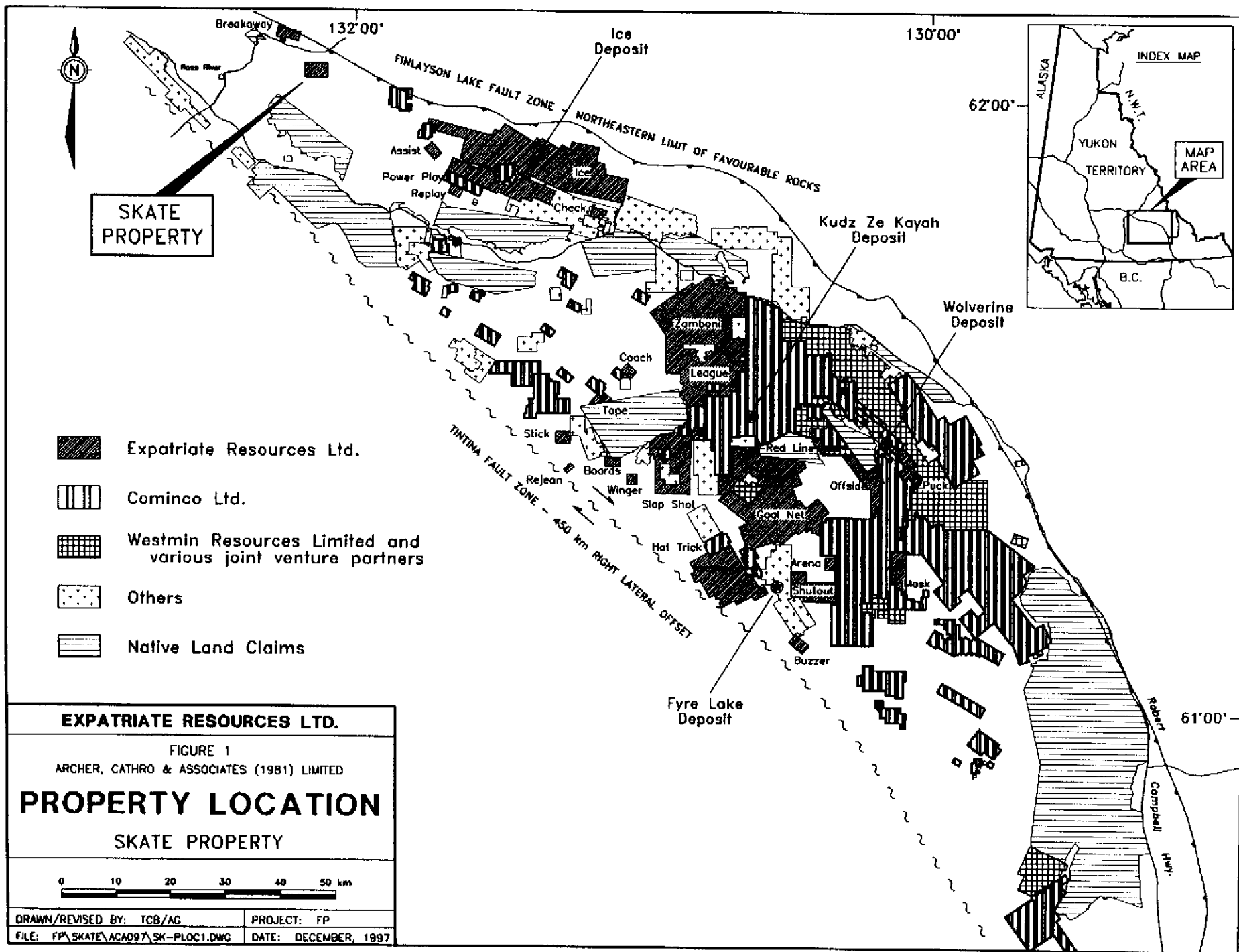
The property is located in southeastern Yukon at latitude 62°00'N and longitude 132°08'W on NTS map sheets 105K/1 and 105F/16 (Figure 1). It is comprised of fifty-four contiguous mineral claims (Figure 2) registered with the Watson Lake Mining Recorder in the name of Archer, Cathro & Associates (1981) Limited which holds them in trust for Expatriate Resources Ltd. Claim registration data are listed below.

<u>Claim Name</u>	<u>Grant Number</u>	<u>Expiry Date*</u>
Skate 1-54	YB68933-YB68986	March 17, 2004






\*Expiry date includes 1997 work filed for assessment credit but not yet accepted.


The property is situated 17 km due east of Ross River which is located some 360 km by road from Whitehorse. The 1997 drill program was supported by an Aerospatiale B1 contracted from Kluane Helicopters Ltd. The helicopter and crew were based at Expatriate's trailer camp located at Km 13 on the North Canal Road approximately 10 km northwest of the property.

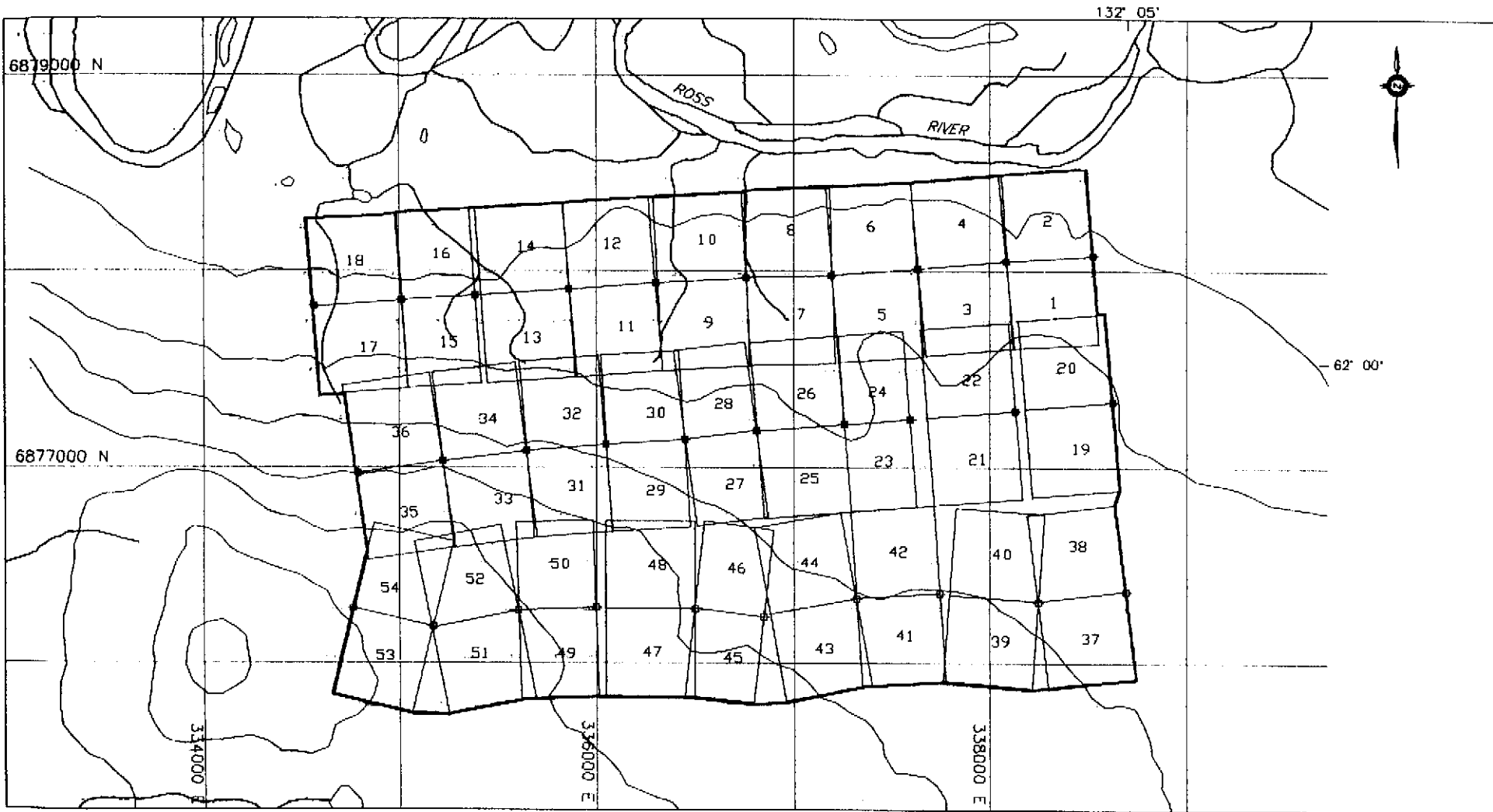
During the 1997 exploration program selected claim post locations were surveyed using Trimble Geoexplorer GPS units. Field readings were corrected using base station data obtained from the Department of Renewable Resources (Forestry) at Whitehorse. Corrected GPS survey data appears in Appendix II.



SKATE PROPERTY

-  Expatriate Resources Ltd.
-  Cominco Ltd.
-  Westmin Resources Limited and various joint venture partners
-  Others
-  Native Land Claims

<b>EXPATRIATE RESOURCES LTD.</b>	
FIGURE 1	
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED	
<b>PROPERTY LOCATION</b>	
SKATE PROPERTY	
	
DRAWN/REVISED BY: TCB/AG	PROJECT: FP
FILE: FP\SKATE\ACAD97\SK-PLOC1.DWG	DATE: DECEMBER, 1997



- ◆ Post location with standard GPS fix
- ⊕ Post location with poor or no GPS fix

<b>EXPATRIATE REBOURCERS LTD.</b>	
FIGURE 2 ARCHER, CATHRO & ASSOCIATES (1981) LIMITED	
<b>CLAIM LOCATION</b> SKATE PROPERTY	
SCALE 1:30,000 0 300 600 900 1200 1500m	
DRAWN/REVISED BY: AG	PROJECT: FP
FILE: FP\SKATE\ACAD97\SK97-CLL.DWG	DATE: DECEMBER, 1997

## HISTORY

The property was first staked in 1974 by AEX Minerals Corporation and the Anvil Range Syndicate (Teck Mining Corporation and DuPont of Canada Exploration Limited) which carried out reconnaissance magnetic and soil geochemical surveys plus prospecting. DuPont and Western Mines Limited continued to explore the property between 1976 and 1979 by conducting geological mapping, prospecting, grid soil sampling, gravity-magnetic-EM surveys and diamond drilling. The results from the gravity survey outlined a 1000 by 600 m anomaly similar to gravity highs over massive sulphide mineralization in the Anvil Range Deposits, 70 km to the northwest (Ager, 1977). Follow-up prospecting located several coarse grained, massive sulphide float boulders in the vicinity of the gravity anomaly as well as a 1.5 m wide massive sulphide vein some 600 m to the east with a deeply incised drainage. This prompted a 760 m drill program consisting of two holes. DDH 77-1 was drilled vertically in the centre of the gravity anomaly and intersected a 0.42 m thick massive sulphide horizon which reportedly assayed 5.95% zinc, 6.15% lead and 102 g/t silver (Maclean, 1977). DDH 77-2, located 200 m downslope from the first hole, failed to intersect the sulphide horizon.

Cyprus Anvil Mining Corporation optioned the claims in 1980 and DuPont's interest was transferred to CSA Minerals Inc. in 1984 then to Goldsearch Inc. in 1985. No further activity was reported until Expatriate restaked the area in 1995.

Expatriate's 1996 exploration program consisted of prospecting, stream sediment sampling and soil sampling along claim lines. Stream sediment and soil sampling returned scattered point anomalies up to 442 ppm zinc and 1015 ppm lead. Prospecting relocated the 1997 drill sites and core plus the previously discovered sulphide showings (Wengzynowski, 1997).

### GEOMORPHOLOGY

The Skate property lies 20 km northeast of the Tintina Trench. It covers a series of low, northerly-facing hills and ridges lying between the Ross and Pelly Rivers. Creeks draining the property flow northward into the Ross River, a tributary of the Yukon River watershed.

Local elevations range from 880 m on the banks of the Ross River to 1220 m at the crests of ridges situated along the southern edge of the property. Topographic relief is gentle from the river up to 1000 m and moderate over the remainder of the property, averaging 20°. Pleistocene valley glaciers deposited variable amounts of glacial and glaciofluvial material over most of the property. This material is covered by frozen black organic matter beneath thick moss. Small areas on hillsides are blanketed by talus.

The entire property is below treeline and vegetation consists of moderately dense growths of stunted black spruce, willow and buckbrush from the river to 1100 m giving way to thick stands of alder and buckbrush at higher elevations.

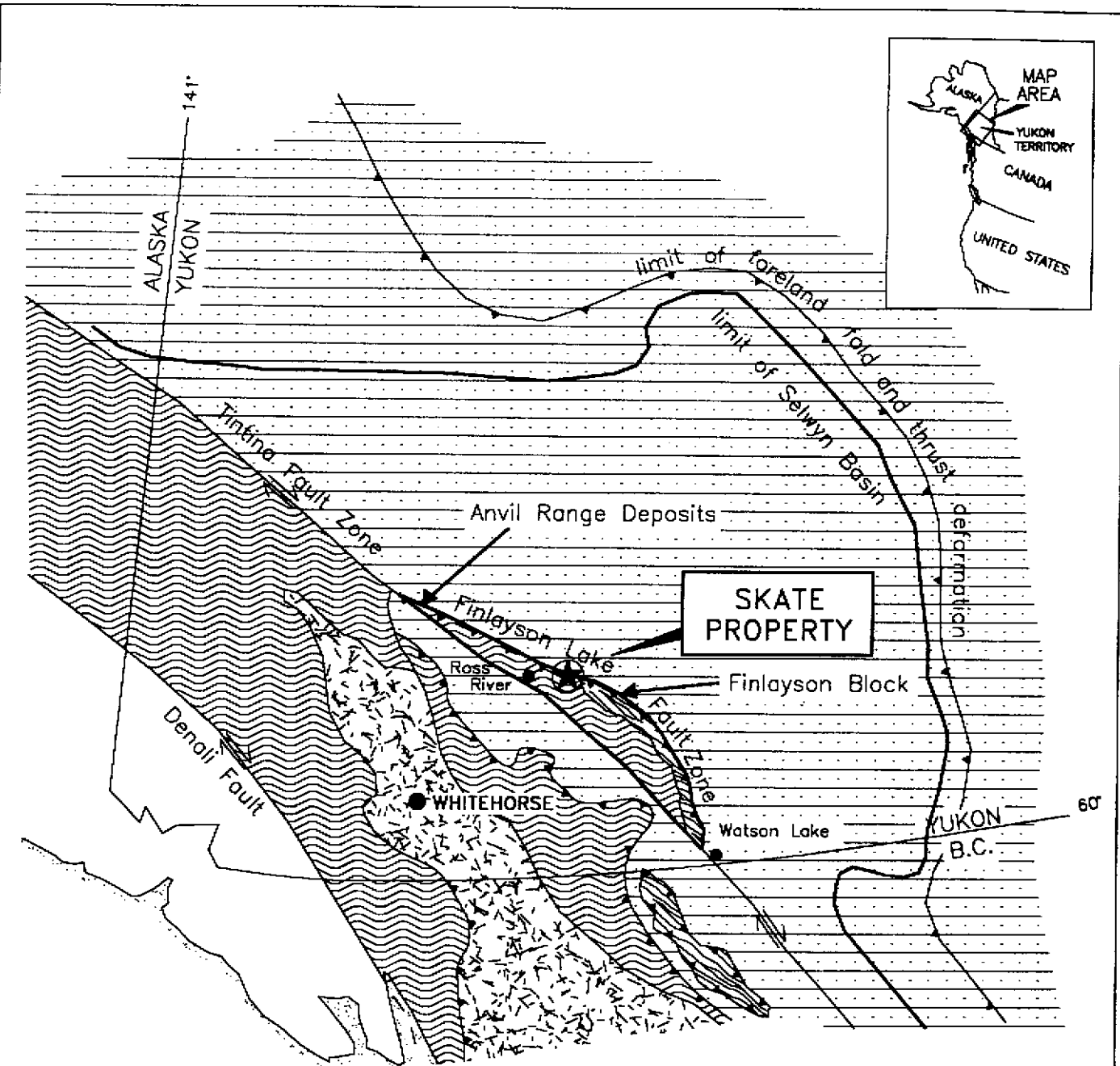
## REGIONAL GEOLOGY







The Skate property is located near the boundary between allochthonous rocks of the Finlayson Block and autochthonous strata belonging to the North American Miogeocline (Figure 3). The property appears to lie within the Finlayson Block which contains units of the Yukon-Tanana Terrane and Slide Mountain Terrane, however mapping by Gordey (1990) and a review of diamond drill core by consultant Lee Pigage (Pigage, 1997) suggests that the rocks are part of the North American Miogeocline (Figure 4). The following paragraphs describe the Finlayson Block, North American Miogeocline and units common to both regions. Regional mapping in the vicinity of the property was completed by the Geological Survey of Canada (GSC) and others as tabulated below.


<u>Area</u>	<u>Organization</u>	<u>Scale</u>	<u>Reference</u>
105F	GSC	1:250,000	Tempelman-Kluit, 1977
105G	GSC	1:250,000	Tempelman-Kluit et al, 1976
	Industry/University	1:125,000	Mortensen and Jilson, 1985
105J	GSC	1:250,000	Gordey and Irwin, 1987
105K	GSC	1:50,000	Gordey, 1990

### Finlayson Block

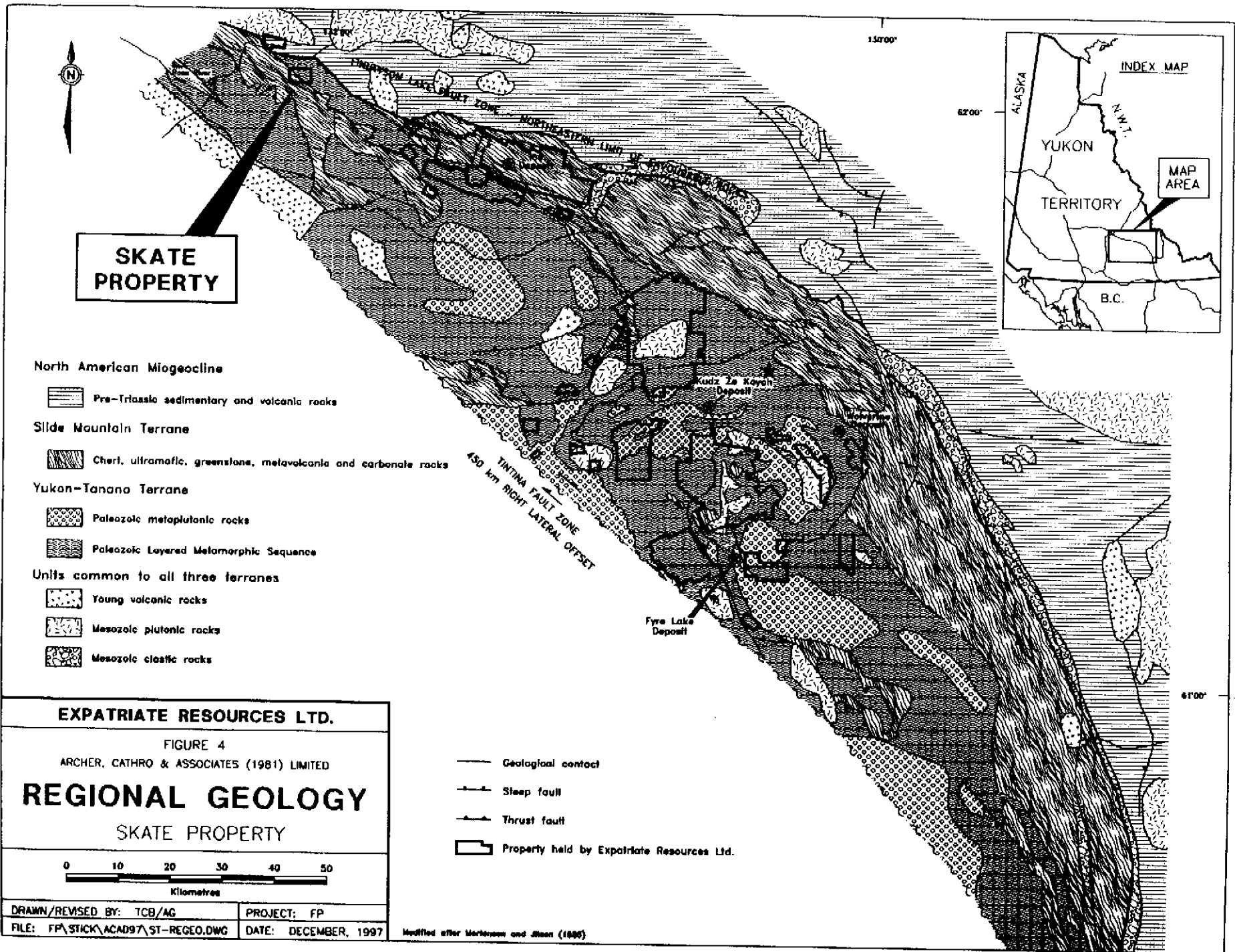
The Finlayson Block is a 380 by 60 km area comprised primarily of the Yukon-Tanana and Slide Mountain Terranes which represent the innermost of the accreted or "suspect" terranes in the Canadian Cordillera (Mortensen and Jilson, 1985). The northeastern margin of the block is the Finlayson Lake Fault Zone, a complex zone of steep and shallow faults related to transpressive suturing. The southwestern boundary of the block is the Tintina Fault Zone, a major strike-slip fault with at least 450 km of dextral displacement during Late Cretaceous and/or Early Tertiary time (Tempelman-Kluit et al, 1976).



-  Thrust fault
-  Steep fault
-  Yukon-Tanana Terrane
-  Slide Mountain Terrane
-  Stikinia and other Terranes
-  North American Miogeoclinal Strata

<b>EXPATRIATE RESOURCES LTD.</b>	
FIGURE 3 ARCHER, CATHRO & ASSOCIATES (1981) LIMITED	
<b>TECTONIC SETTING</b>	
SKATE PROPERTY	
 0      100      200      300      400 KILOMETRES	
DRAWN/REVISED BY: TCB/AG	PROJECT: FP
FILE: FP\SKATE\ACAD97\SK-TECTO.DWG	DATE: Feb 13, 1998

Modified after Mortensen and Jison (1985), Mortensen (1992) and Johnston and Mortensen (1984).



The Yukon-Tanana Terrane consists largely of Paleozoic continental margin and/or arc stratigraphy deposited on a continental basement of uncertain origin (Mortensen, 1992). The Yukon-Tanana Terrane in the Finlayson Lake area contains three major packages, collectively termed the Layered Metamorphic Sequence (Figure 4). The lowermost unit consists of garnet-mica schist with interbanded marbles, calc-silicates and calcareous schists near the top. The middle unit is a carbonaceous quartzite, schist or phyllite with rare conglomerates and locally extensive felsic and mafic volcanic interbands. Radiometric dating of the felsic metavolcanics in the Finlayson Block has consistently resulted in Late Devonian to Mississippian crystallization ages. Immediately south of Finlayson Lake, large isolated outcrops of marble and quartzite which are poorly dated as Early Pennsylvanian to Early Permian (Tempelman-Kluit, 1979) form the uppermost unit of the Yukon-Tanana Terrane.

Gneiss and augen gneiss invariably occur low in the Yukon-Tanana succession beneath either the lowermost calcareous unit or the middle carbonaceous unit. Mortensen and Jilson (1985) considered the gneisses to be metamorphosed Mid-Paleozoic plutonic rocks. Conversely, Tempelman-Kluit (personal communication, 1996) considers these gneisses to be at least in part recrystallization of earlier stratigraphy. Radiometric dating of the gneisses has consistently resulted in Late Devonian to Mississippian ages (Mortensen, 1992). The gneisses occur in structural culminations with diameters on the order of 10 km and structural relief up to about 1 km.

The Devonian-Mississippian Simpson Suite (Mortensen, 1992) forms thick intervals of hornblende granodiorite and quartz monzonite higher in the Yukon-Tanana stratigraphic sequence. Mortensen and Jilson (1985) interpreted this suite as intrusive. Tempelman-Kluit (1979, personal communication, 1996) mapped the suite as an allochthonous slice emplaced on top of the structural pile.

Metamorphic grades range from lower greenschist facies to middle amphibolite facies. Contact hornfels occur locally around plutonic units.

Metamorphism and deformation are tentatively correlated with transpressive suturing of suspect terranes with ancestral North America. Suturing is restricted to the time interval of post-Triassic continuing into the Cretaceous. Whether deformation is continuous or sporadic has not been fully verified at present.

### **North American Miogeocline**

North American Miogeocline rocks in the vicinity of the Skate property are part of the Selwyn Basin, a large area of central Yukon where deep water shales accumulated along the ancient North America continental margin (Figure 3). The basin is bounded on all sides by coeval carbonate platform rocks except to the southwest where it has been offset by both the Finlayson Lake Fault Zone and Tintina Fault Zone. The stratigraphic sequence of the Selwyn Basin ranges from Late Proterozoic to Triassic.

Near the Skate property the oldest rocks within the Selwyn Basin are Pre-Cambrian to Lower Cambrian clastic sedimentary rocks of the Hyland Group (Gordey, 1990). Overlying

these are non-calcareous phyllite and schists of the Lower Cambrian Gull Lake Formation (Mount Mye Formation). The Gull Lake Formation is overlain by calcareous phyllite and schists of the Rabbitkettle Formation (Vangorda Formation). Metabasite within the Gull Lake and Rabbitkettle Formations are conformable to the sedimentary rocks, however it is not clear if they are volcanic flows or dykes/sills (Jilson and Pigage, 1986). The youngest rocks in this area are the Road River Formation which is composed of pelitic sedimentary rocks with minor coarse clastics (Carne and Cathro, 1982).

The structural and metamorphic history of the North American Miogeocline is complex with up to six periods of Mid-Mesozoic deformation and concurrent metamorphism (Jilson and Pigage, 1986). Metamorphic grade ranges from middle amphibolite facies near the Late Cretaceous intrusive bodies to lower greenschist facies in less deformed areas.

#### **Units Common to Both Regions**

Slide Mountain Terrane consists of Late Devonian to Late Triassic disrupted oceanic crust (Mortensen, 1992). Lithologies include massive basalt, chert and mafic to ultramafic plutonic rocks occurring as fault-bounded slices along thrust faults and steep faults. These units occur in both regions but are most abundant near the northeastern edge of the Finlayson Block.

Younger units unconformably overlie units from Slide Mountain, Yukon-Tanana and North American Terranes. Mesozoic clastic rocks are Late Triassic, immature sediments containing cobbles from both Slide Mountain and Yukon-Tanana Terranes. Young volcanic rocks consist of Late Cretaceous to Tertiary felsic volcanic flows and volcanoclastic deposits. They are usually found in close proximity to the Tintina Fault Zone.

Mesozoic intrusive activity includes two suites. The first is comprised of several unmetamorphosed Early Jurassic mafic and intermediate composition plutons. The second suite consists of Late Cretaceous two-mica quartz monzonite and granite (Mortensen and Jilson, 1985).

## **REGIONAL MINERALIZATION**

Stratiform massive sulphide deposits occur in the North American Miogeocline and the Finlayson Block. The following is a description of the most important massive sulphide deposits in the vicinity of the Skate property.

### **Finlayson Block**

A total of fifty-one mineral occurrences have been reported within the Finlayson Block (DIAND, 1995). Of these, twenty-one are known or suspected to be volcanogenic in origin while veins, skarns and asbestos occurrences comprise most of the remainder. Although the better known volcanogenic occurrences are thought to be of the Kuroko-type, some Besshi-type mineralization is also present (Morin, 1981; Johnston and Mortensen, 1994) and the recently discovered Ice Deposit is Cyprus-type. Two occurrences have definite economic potential, the Kudz Ze Kayah and Wolverine Deposits (Figure 4). These Kuroko-type occurrences are the main "type-deposits" for Expatriate's exploration at the Skate property and are briefly described below.

The Kudz Ze Kayah (ABM) Deposit lies within Yukon-Tanana Terrane near the centre of the Finlayson Block (Cominco Exploration, 1995; Whiteway, 1995). It is a volcanogenic massive sulphide deposit hosted by an overturned assemblage of felsic pyroclastics, aphanitic massive rhyolites and metasiliclastic rocks belonging to the middle unit of the Layered Metamorphic Sequence. Although both the sulphides and wallrocks are highly strained and exhibit pervasive schistosity, compositional layering in the vicinity of the deposit is relatively undeformed with a consistent, shallow northerly dip.

Sphalerite, chalcopyrite and galena are the main economic minerals while the gangue includes various mixtures of magnetite, barite, pyrrhotite, pyrite and carbonate. The deposit averages about 18 m thick and has been traced 700 m along strike and up to 400 m downdip. Open pit mineable ore reserves are reported to be 11 million tonnes grading 5.9% zinc, 0.9% copper, 1.5% lead, 130 g/t silver and 1.3 g/t gold (Schultze, 1996). Preliminary studies suggest that satisfactory lead, zinc and copper concentrates can be produced using conventional flotation processes (Cominco Exploration, 1995). The mineralization responds well to magnetic and electromagnetic surveys but geochemical response is somewhat erratic because the entire deposit is covered by 2 to 10 m of glacial till.

The Wolverine Deposit is located 25 km east of the Kudz Ze Kayah property near a contact between Yukon-Tanana and overlying Slide Mountain rocks. It consists of the Wolverine, Sable and Lynx Zones which are hosted by rhyolitic metavolcanics and argillites lying within the middle unit of the Layered Metamorphic Sequence. The mineralization consists primarily of semi-massive to massive pyrite and sphalerite with varying amounts of galena, chalcopyrite, tetrahedrite and native gold. The surface expression of the Wolverine Zone is marked by a vegetation kill zone containing weakly malachite-stained argillite while the Lynx and Sable Zones are blanketed by glacial till. Westmin has traced the deposit 700 m along strike and up to 450 m downdip. The mineralization averages about 6 m thick and dips shallowly to the north. The Sable Zone, which lies about 1500 m to the southeast, was discovered in late 1997 when two holes yielded high grade intersections over narrow widths. All three zones contain significantly more zinc and precious metals than Kudz Ze Kayah. The most recent geological inventory is reported to be

6,237,000 tonnes grading 12.66% zinc, 1.33% copper, 1.55% lead, 370.9 g/t silver and 1.76 g/t gold (Westmin News Release, January 15, 1998). Soil geochemistry outlined weakly to moderately anomalous values along the projected surface trace of the deposit while magnetic surveys easily traced a laterally extensive, banded iron formation which occurs about 50 m up-section from the massive sulphide horizon. Interpretation of electromagnetic results is complicated by the presence of graphite within the argillite.

### **North American Miogeocline**

Sediment hosted, stratiform massive sulphide deposits, collectively known as the Anvil Range Deposits, occur in strata of the North American Miogeocline (Selwyn Basin), 70 km west of the Skate property. The shales of the Selwyn Basin host most of Canada's large stratiform lead-zinc deposits. The Anvil Range Deposits differ from those in the remainder of the Selwyn Basin because the host rocks and mineralization are metamorphosed and significantly recrystallized. This has resulted in coarser grain size with improved metallurgical response (Jilson and Pigage, 1986).

The Anvil Range Deposits occur in a 150 m thick stratigraphic interval straddling the Gull Lake/Rabbitkettle contact. Individual deposits range from a single thick lens of sulphide with little or no interbedded metasedimentary rocks to stacked sulphide horizons with substantial metasedimentary and metavolcanic interlayers. Mineralization consists of semi-massive to massive pyrite with sphalerite and galena in a gangue of barite, quartz carbonate, pyrrhotite, magnetite and chalcopyrite. A cumulative total geological reserve for this district is 120 Mt (DIAND, 1995).

The following table lists grades and tonnage for individual deposits.

<u>Deposit</u>	<u>Tonnes x 1,000,000</u>	<u>Lead (%)</u>	<u>Zinc (%)</u>	<u>Silver g/t</u>	<u>Lead+Zinc Cutoff (%)</u>
Faro	57.6	3.4	4.7	36	4
Grum	30.8	3.1	4.9	49	4
DY	20.3	5.7	7.0	82	9
Vangorda	7.1	3.4	4.3	48	4
Swim	4.8	3.8	4.7	42	7

## **PROPERTY GEOLOGY AND SURFACE MINERALIZATION**

Property geology and mineralization are illustrated on Figure 5. The following descriptions are based on mapping by Expatriate geologists (Wengzynowski, 1997). Although bedrock is generally obscured by glacial till, talus, or vegetation, outcrops are relatively abundant along ridge tops and where drainages are deeply incised. Geological contacts trend east to west across the property, however foliation attitudes are quite variable.

Six units have been recognized on the property. The most common rocks are four sedimentary and volcanic units that could belong to the Yukon-Tanana Terrane or North American Miogeocline. The other units are massive basalt of the Slide Mountain Terrane and a younger hornblende diorite which belongs to the Mesozoic Plutonic Suite.

### **LITHOLOGY**

**Biotite-Muscovite±Quartz Phyllite** is grey to black banded, moderately to well foliated and commonly rusty weathering. This unit is exposed in a creek canyon in the northern part of the property (Thunder Pickle Gorge). Quartz is present as fine laminae (1 to 5 mm) and comprises between 10 and 30% of the unit, in places resembling chert. Some sections are weakly to moderately calcareous.

**Siliceous Phyllite** is pale green to grey weathering, well foliated and weakly calcareous. The unit is composed of 2 to 20 cm wide siliceous intervals separated by 1 to 2 cm wide light green chlorite bands. The siliceous phyllite is occasionally interlayered black phyllite similar to the biotite-muscovite±quartzite phyllite and in drill holes contains interbedded calcareous siltstone exhibiting partial or complete calc-silicate metamorphism.

**Tuffaceous Rhyolite** is usually pale to medium green but is cream coloured where chlorite is absent. Some sections are buff to orange weathering. Outcrops are thinly banded to laminar and textures are sucrosic to aphanitic.

**Metabasalt** is dark green, weakly foliated and locally porphyritic. The unit is only seen in drill holes. It contains up to 5%, 1 to 2 mm long hornblende and feldspar phenocrysts. Near contacts this unit contains 0.5 to 3 m interbands of light green calc-silicates or brown phyllite.

**Massive Basalt** is medium green, blocky weathering and fine grained to aphanitic. This unit forms resistant knobs along the southern edge of property. Some outcrops exhibit weak autoclastic brecciation.

**Hornblende Diorite** is dark green to grey, medium to fine grained, massive to weakly foliated and blocky weathering. In places up to 40% of the hornblende is altered to chlorite.

## **STRUCTURE**

The contact between massive basalts and the sedimentary/volcanic units has not been observed. It appears to trend easterly across the southern section of the property and is likely a southerly-dipping thrust fault.

Most units exhibit well developed foliation which is subparallel to the compositional banding. Quartz±carbonate veins are found in most sedimentary rocks and show isoclinal folds and boudinage features.

Folding and faulting are best observed in Thunder Pickle Gorge. The gorge itself probably follows the trace of a northerly-trending fault (Wengzynowski, 1997). Numerous quartz±carbonate and siderite veins are visible on the canyon walls. They cut stratigraphy and are oblique to the trend of the suspected fault.

## SURFACE MINERALIZATION

Two types of mineralization have been recognized on the property. The most common is sphalerite-galena-chalcopryrite in quartz veins while the other consists of massive sulphide horizons in siliceous phyllite. Mineralized rock specimen locations and significant assays from 1996 and 1997 are illustrated on Figure 6. Specific showings are described below.

**Sphalerite-Galena-Chalcopryrite Quartz Veins** were first found by DuPont in 1977. The Discovery Showing is located approximately 125 m upstream from the mouth of Thunder Pickle Gorge. This vein strikes subparallel to the creek, dips steeply and is about 1.5 m wide. It consists of weakly brecciated, coarse-grained quartz with irregular pods of pyrite, sphalerite, galena, pyrrhotite and chalcopryrite. A 0.2 m wide manganiferous massive pyrite lens forms the core of the vein. The mineralization is only exposed on one wall of the canyon. In 1997 lead isotope analyses of galena samples from this showing yielded a Cretaceous model age implying an epigenetic origin (Godwin et al, 1988).

In 1996 sulphide-bearing cobbles and boulders were found near the mouth of Thunder Pickle Gorge and approximately 250 m upstream. Cobbles discovered near the mouth of the canyon are medium-grained aggregates of pyrite ( $\leq 40\%$ ), sphalerite ( $\leq 5\%$ ), galena ( $\leq 5\%$ ), chalcopryrite ( $\leq 3\%$ ) and arsenopyrite ( $\leq 3\%$ ) in a quartz-rich gangue. Specimens returned up to 2.82% lead, 1.18% zinc, 0.56% copper, 196 g/t silver and 0.10 g/t gold. A semi-massive pyrite boulder containing 5 to 10% sphalerite was located 250 m upstream and returned 4.70% zinc, 0.33% lead, 0.13% copper, 51 g/t silver and 0.14 g/t gold. The sulphides in this specimen are coarse grained and occur as blebby aggregates in a quartz-rich matrix.

**Massive Sulphide Horizons** are found in siliceous phyllite at the West Showing, 600 m west of Thunder Pickle Gorge. This showing consists of 2 to 20 cm wide foliaform massive pyrrhotite bands containing disseminated chalcopyrite. The mineralization could not be traced along strike because of till and vegetation cover. One specimen (934799) returned 0.28% copper and 0.20% zinc but low values for lead, silver and gold. The exposure is located approximately 100 m downhill from the collar of DDH 77-1, which intersected a massive sulphide horizon at a depth of 112 m below surface. All three 1997 holes were drilled near the West Showing. The results of the drill program are discussed in the Diamond Drilling section.

## GEOCHEMISTRY

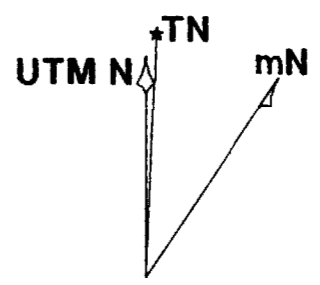
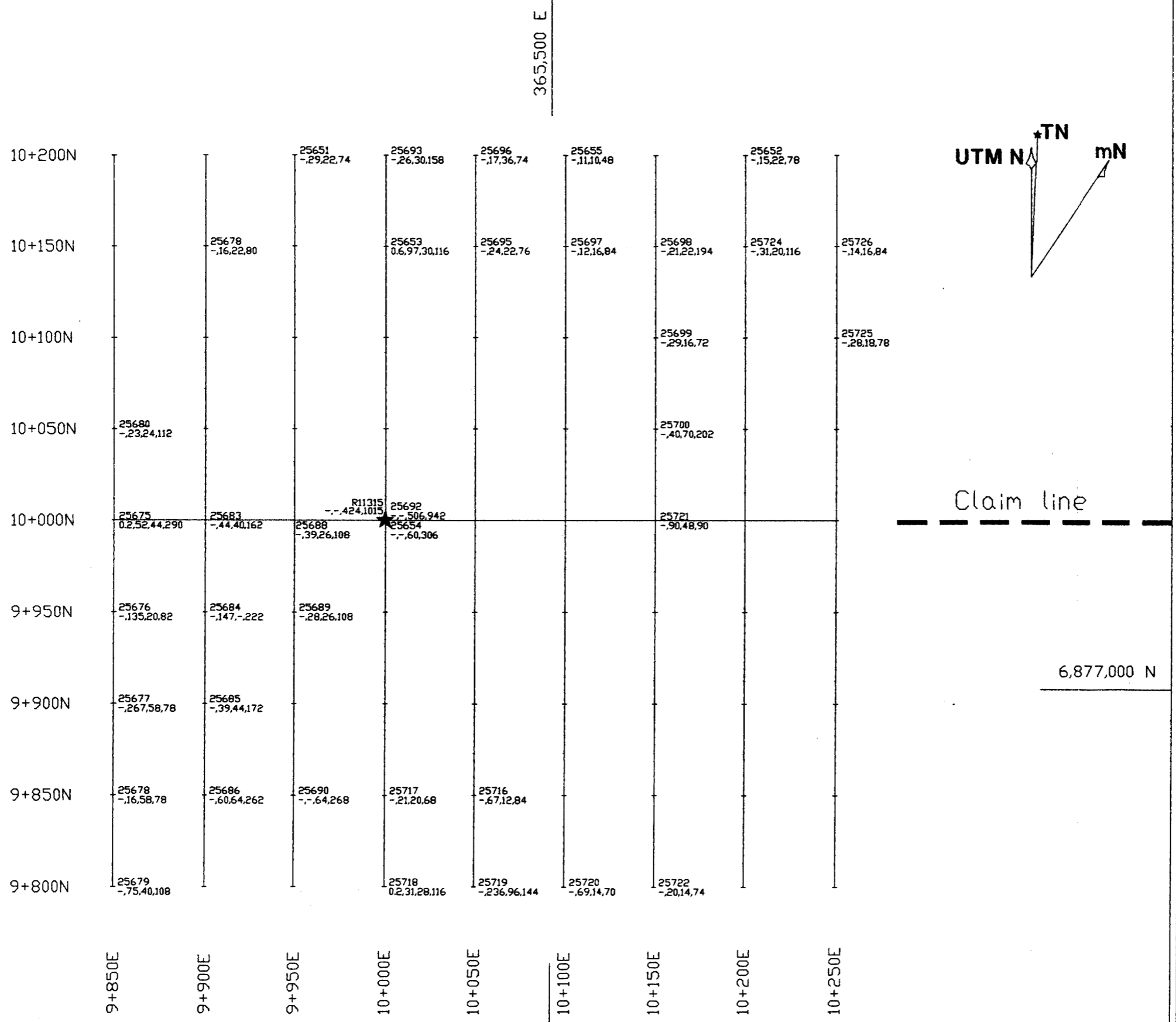
### General

In 1997 soil sampling was done on a 400 by 400 m grid centred on a 1996 reconnaissance soil sample site that returned 424 ppm lead and 1015 ppm zinc. A baseline was established along a pre-existing claim line and soil sample lines run perpendicular to it at 50 m spacings. Samples were taken at 50 m intervals along the lines and their locations were marked by 50 cm lath bearing aluminum tags inscribed with sample number and grid coordinates. Figure 7 shows the 1997 sample locations and results for silver, copper, lead and zinc.

Samples were placed in pre-numbered kraft bags and sent to Chemex Labs Ltd. in North Vancouver, B.C. where they were screened to -80 mesh, digested in nitric-aqua regia and analyzed geochemically for 32 elements using the Induced Coupled Plasma (ICP) technique. Certificates of Analysis are in Appendix III.

### Results

The grid is located on a mossy northerly-facing slope and 50% of the stations could not be sampled due to permafrost and thick organic cover. Geochemical response shows a few weakly to moderately anomalous values for copper, lead and zinc but sampling density is too sparse to discern any significant pattern. At each sample station a 40 by 40 cm section of organic cover was removed to help melt the permafrost, with the intention that these sites could be sampled in the future to complete the geochemical coverage.



\* Sample number  
 † Ag,Cu,Pb,Zn in ppm Soil sample location  
 ★ 1996 soil sample location

Claim line

6,877,000 N

**EXPATRIATE RESOURCES LTD.**  
 FIGURE 7  
 ARCHER, CATHRO & ASSOCIATES (1991) LIMITED  
**SAMPLE LOCATION AND  
 GEOCHEMICAL RESULTS 1997 GRID**  
 SKATE PROPERTY

0 100 200 300 400 500m  
DRAWN/REVISED BY: AS PROJECT: FP  
 FILE: G:\P\BOTH\ADMT\BOLSONG DATE: Feb 28, 1998

## **DIAMOND DRILLING**

### **General**

The drill program was designed to test the lateral extent of a massive sulphide horizon intersected in DDH 77-01 which assayed 5.95% zinc, 6.15% lead and 102 g/t silver over 0.42 m at 112 m depth. The 1997 program consisted of three NQ/HQ sized diamond drill holes totalling 556 m. Drilling was done from May 25 to June 7 with a Longyear 38 contracted by E. Caron Diamond Drilling Ltd. of Whitehorse. All drill equipment was mobilized and demobilized from a trailer camp on the side of the North Canol Road, 10 km northwest of the property. Daily crew transportation and drill moves were done by helicopter. Drill sites were constructed by hand and all collars were marked with 1.5 m wooden plugs.

Drill core was flown to the camp where it was logged and split. Synoptic drill logs are contained in Appendix IV. The drill core is being stored in Caron's equipment yard at MacRae, 16 km south of Whitehorse.

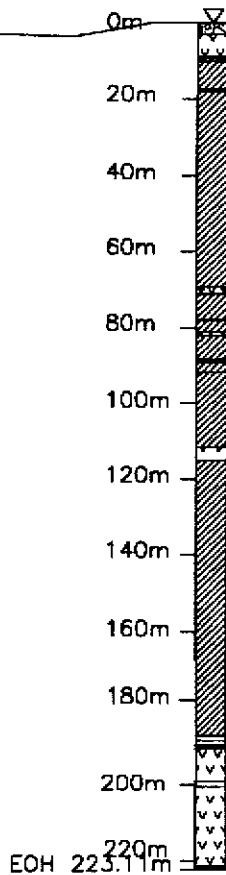
Intervals selected for analysis were split and one-half was sent to Chemex Labs. All samples were crushed and pulverized to -150 mesh using a chrome steel ring mill, digested in nitric-aqua regia and then geochemically analyzed for 32 elements using the ICP technique. Certificates of Analysis can be found in Appendix III.

## **Results**

No significant sulphides were intersected during the 1997 drill program. Mineralization is restricted to crosscutting quartz veins containing weak chalcopyrite, galena, sphalerite and pyrrhotite. The main rock types are a siliceous phyllite with siltstone interbeds and a locally porphyritic metabasalt. The following core descriptions are based on logging by Expatriate geologists and a review of the logging by consultant Lee Pigage (Pigage, 1997). Drill sections are shown on Figures 8 to 10. The three 1997 holes were all drilled vertically and are located approximately 100 m to the east, south and west of DDH 77-01.

Hole SK97-01 intersected a 2 to 4 mm wide quartz-calcite vein with traces of galena and sphalerite. This vein was not sampled. Hole SK07-02 cut a 1.5 cm wide quartz vein with minor chalcopyrite and pyrrhotite. A sample containing this vein returned 1500 ppm copper and 60 g/t silver over 2.95 m. Hole SK97-03 intersected a 30 cm zone of semi-massive pyrrhotite associated with a crosscutting quartz-carbonate vein which was not sampled.

The most common wallrock is siliceous phyllite with thin, calcareous, quartz siltstone interbeds. The siliceous phyllite bands are usually medium to dark silvery grey but occasionally become dark brown due to fine-grained metamorphic biotite. The siltstone bands are white to green and locally grade into thin limestone layers. These bands contain growths of calc-silicate minerals (actinolite and zoisite-clinozoisite?) which indicates the metamorphic grade is just into the amphibolite facies (Pigage, 1997). In Hole SK97-03 the biotite/calc-silicate assemblage gradually changes to a muscovite-chlorite phyllite/calcareous siltstone assemblage with increasing depth.



Overburden



Metabasalt



Silicious phyllite



Siltstone

**EXPATRIATE RESOURCES LTD.**

Figure 8

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

**CROSS SECTION**

**SK97-01**

SKATE PROPERTY

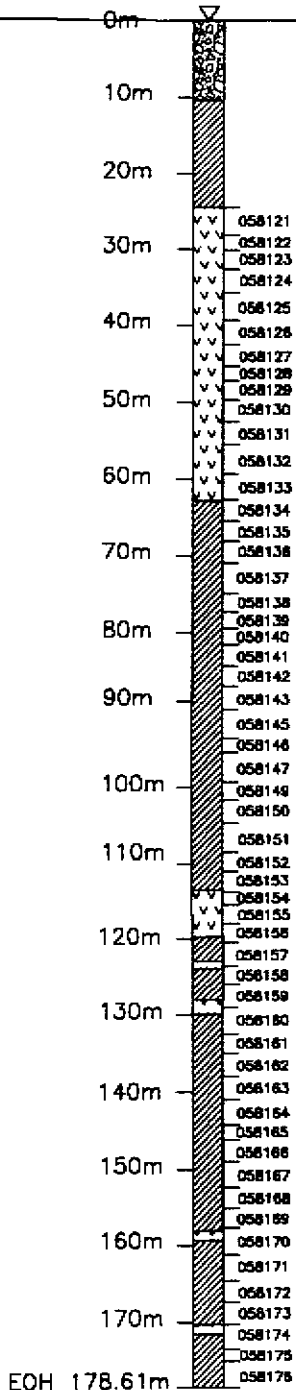


DRAWN/REVISED BY: SL/RCB

PROJECT: PP

FILED:\PP\SKATE\PP\CADIT\HOLE1.DWG

DATE: Feb 13, 1988



Overburden



Metabasalt



Silicious phyllite

058175 Sample interval and number

**EXPATRIATE RESOURCES LTD.**

Figure 9

ARCHER, CATIRO & ASSOCIATES (1981) LIMITED

**CROSS SECTION  
SK97-02**

SKATE PROPERTY

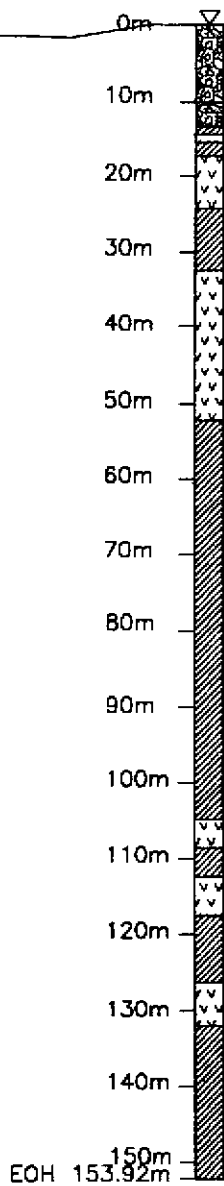





DRAWN/REVISED BY: SL/TCB

PROJECT: KP

FILE: G:\PP\SKATE\AC087\MOE\SL98

DATE: Feb 13, 1998

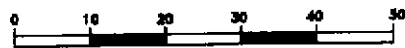


-  Overburden
-  Metabasalt
-  Silicious phyllite

**EXPATRIATE RESOURCES LTD.**

Figure 10  
 ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

**CROSS SECTION  
 SK97-03  
 SKATE PROPERTY**



DESIGN/REVISED BY: SL/TCS  
 FILE: CA/PP/SKATE/AC087/HOLE2.DWG

PROJECT: FP  
 DATE: Feb 13, 1988

The other common unit is dark green, locally porphyritic metabasalt containing brown biotite rich bands which locally develop a dark bluish-green colour due to the growth of hornblende. This assemblage confirms that the metamorphic grade is just into amphibolite facies.

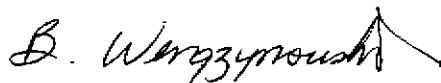
**DISCUSSION AND RECOMMENDATIONS**

The Skate property is mainly underlain by sedimentary and volcanic rocks of uncertain affinity. They could be equivalent to the Layered Metamorphic Sequence of the Yukon-Tanana Terrane or the middle unit of the Rabbitkettle Formation which occurs in the Selwyn Basin of the North American Miogeocline. Although both packages have potential to host stratiform massive sulphide mineralization, rock types and alteration characteristically found in the vicinity of such deposits have not been observed on the Skate property.

Soil sampling has returned weakly to moderately anomalous values for copper, lead and zinc. While these anomalies are encouraging they could be explained by quartz veins containing sphalerite, galena and chalcopyrite which have been found over narrow widths on surface and in drill core. A stratiform massive sulphide horizon reportedly intersected in DDH 77-01 could not be traced in any direction. No further drilling is recommended at this time.

Respectfully submitted,

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED



W.A. Wengzynowski, B.A.Sc.

**SELECTED REFERENCES**

- Ager, C.A.  
1977        Tenas Prospect Gravity Survey, C.A. Ager & Associates Ltd., August 2, 1977, p.18.
- Carne, R.C. and Cathro, R.J.  
1982        Sedimentary exhalative (sedex) Zn-Pb-Ag deposits, northern Canadian Cordillera; Can. Inst. Min. Metall., Bull. 75, No. 840, pp.66-78.
- Cominco Exploration  
1995        Kudz Ze Kayah Program, Yukon; Information handout from Cordilleran Roundup, Spring 1995.
- DIAND  
1995        Yukon Minfile, WP 5.1 Version, 20 Nov/95; Exploration and Geological Services, Indian and Northern Affairs Canada, Map 105K.
- Godwin, C.I., Gabites, J.E. and Andrew, A.  
1988        Lead Table: A Galena Lead Isotope Data Base for the Canadian Cordillera with a guide to its use by explorationists; Mineral Resources Division, Geological Survey Branch, Paper 1988-4, p.188.
- Gordey, S.P. and Irwin, S.E.B  
1987        Geology of Sheldon Lake (105J) and Tay River (105K) map areas, Yukon Territory; Geological Survey of Canada, Map 19-1987.
- Gordey, S.P.  
1990        Geology of Tenas Creek (105K/1), Swim Lakes (105K/2) and Faro (105K/3) map areas, Yukon Territory; Geological Survey of Canada, OF 2249.
- Jilson, G.A. and Pigage, L.C.  
1986        Field Guide to the Anvil Range Pb Zn Ag District, Yukon for Curragh Resources.
- Johnson, S.T. and Mortensen, J.K.  
1994        Regional setting of porphyry Cu-Mo deposits, volcanogenic massive sulphide deposits, and mesothermal gold deposits in the Yukon-Tanana Terrane, Yukon; Yukon Metallogeny: Recent Developments, Canadian-Yukon Economic Development Agreement, pp.30-34.

**Maclelan, K.A.**

1977 Location of Drill Holes, Tenas Project; DuPont of Canada Exploration, October, 1977.

**Morin, J.A.**

1981 Volcanogenic iron and base metal occurrences in Klondike Schist, Yukon Geology and Exploration 1979-80, Department of Indian and Northern Affairs, pp.91-97.

**Mortensen, J.K. and Jilson, G.A.**

1985 Evolution of the Yukon-Tanana Terrane: Evidence from southeastern Yukon Territory; Geology, V13, pp.806-810.

**Mortensen, J.K.**

1992 Pre-Mid-Mesozoic Tectonic Evolution of the Yukon-Tanana Terrane, Yukon and Alaska; Tectonics, Vol.11, No.4, pp.836-853.

**Pigage, L.C.**

1997 Memo to Expatriate Resources Ltd. re: Skate Property 1997 Drill Core, L.C. Pigage Consulting Ltd., Whitehorse, Yukon, June 10, 1997.

**Schultze, H.C.**

1996 Summary of the Kudz Ze Kayah Project, volcanic hosted massive sulphide deposit Yukon Territory; *in*: Yukon Exploration and Geology, 1995, Exploration and Geological Services Division, Yukon; Indian and Northern Affairs Canada, pp.29-32.

**Tempelman-Kluit, D.J. Gordey, S.P. and Read, B.C.**

1976 Stratigraphic and Structural Studies in the Pelly Mountains, Yukon Territory; Geological Survey of Canada, Paper 76-1A, pp.97-106.

**Tempelman-Kluit, D.K.**

1977 Geology of the Quiet Lake and Finlayson Lake map areas, Yukon Territory (105F and G); Geological Survey of Canada, OF-486.

1979 Transported Cataclasite, Ophiolite and Granodiorite in Yukon: Evidence of Arc-Continent Collision. Geological Survey of Canada, Paper 79-14, 27 pages.

**Wengzynowski, W.A.**

1997 Assessment Report describing 1996 Soil Geochemistry and Diamond Drilling on the Skate Property, Watson Lake Mining District for Expatriate Resources Ltd., January, 1997.


**APPENDIX I**

**AUTHOR'S STATEMENT OF QUALIFICATIONS**

## **STATEMENT OF QUALIFICATIONS**

I, William A. Wengzynowski, geological engineer, with business addresses in Whitehorse, Yukon Territory and Vancouver, British Columbia and residential address in North Vancouver, British Columbia, do hereby certify that:

1. I graduated from the University of British Columbia in 1993 with a B.A.Sc. in geological engineering, option 1, mineral and fuel exploration.
2. From 1983 to present, I have been actively engaged in mineral exploration in the Yukon Territory and am presently employed with Archer, Cathro & Associates (1981) Limited.
3. I have personally participated in and supervised the field work reported herein.

  
W.A. Wengzynowski, B.A.Sc.

**APPENDIX II**

**GPS DATA**

**Skate Property**  
**GPS Survey Coordinates**

**Data Quality:** Standard = The surveyed positions were recorded in 3D mode and were differentially corrected. The reported UTM coordinates are within 1 to 5 metres of their actual locations; Poor = >25% of the surveyed positions were recorded in 2D mode; Uncorrected = The surveyed positions were not differentially corrected; N/S = No survey data available.

**Base Station:** W = Westmin Resources Limited base station at Wolverine Lake; WL = Ministry of Environment, Lands and Parks base station at Williams Lake; DL = Ministry of Environment, Lands and Parks base station at Dease Lake; RR = Department of Renewable Resources (Forestry) at Whitehorse.

**A. Expatriate Resources Ltd. Claim Posts**

Claim	Posts		UTM Coordinates		Data Quality	Base Station	Date
	Post 1	Post 2	Northing	Easting			
Skate	1,2	-	6878101	652530	Standard	RR	02-June-97
	3,4	1,2	6878073	652088	Standard	RR	02-June-97
	5,6	3,4	6878034	651641	Standard	RR	02-June-97
	7,8	5,6	6877999	651199	Standard	RR	02-June-97
	9,10	7,8	6877987	650764	Standard	RR	02-June-97
	11,12	9,10	6877959	650306	Standard	RR	02-June-97
	13,14	11,12	6877926	649866	Standard	RR	02-June-97
	15,16	13,14	6877896	649389	Standard	RR	02-June-97
	17,18	15,16	6877870	649017	Standard	RR	02-June-97
	-	17,18	6877844	648572	Standard	RR	02-June-97
Skate	19,20	-	6877358	652630	Standard	RR	01-June-97
	21,22	19,20	6877312	652134	Standard	RR	01-June-97
	23,24	21,22	6877268	651602	Standard	RR	01-June-97
	25,26	23,24	6877246	651285	Standard	RR	01-June-97
	27,28	25,26	6877210	650817	Standard	RR	01-June-97
	29,30	27,28	6877168	650453	Standard	RR	01-June-97
	31,32	29,30	6877142	650054	Standard	RR	01-June-97
	33,34	31,32	6877108	649650	Standard	RR	01-June-97
	35,36	33,34	6877057	649225	Standard	RR	01-June-97
	-	35,36	6876994	648795	Standard	RR	01-June-97
Skate	37,38	-	6876316	652260	Uncorrected	-	28-May 96
	39,40	37,38	6876333	652250	Uncorrected	-	28-May 96
	41,42	39,40	6876376	651751	Uncorrected	-	28-May 96
	43,44	41,42	6876350	651327	Uncorrected	-	28-May 96
	45,46	43,44	6876258	650850	Uncorrected	-	28-May 96
	47,48	45,46	6876296	650505	Uncorrected	-	28-May 96
	49,50	47,48	6876305	650001	Uncorrected	-	28-May 96
	51,52	49,50	6876290	649607	Uncorrected	-	28-May 96
	53,54	51,52	6876206	649174	Uncorrected	-	28-May 96
	-	53,54	6876299	648769	Uncorrected	-	28-May 96

**B. Geological Stations**

Claim	Station	UTM Coordinates		Data Quality	Base Station	Date
		Northing	Easting			
Skate	Thunder Pickle Gorge	6878501	650696	Poor	WL	30-May 96
	SK97-1	6878263	650184	Standard	RR	03-Jun-97
	SK77-1	6878327	650103	Standard	RR	03-Jun-97

**APPENDIX III**  
**CERTIFICATES OF ANALYSIS**



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 Certificate Date: 22-JUN-97  
 Invoice No. : I9727873  
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 Account : MPO

Project: SKATE  
 Comments:

## CERTIFICATE OF ANALYSIS A9727873

SAMPLE	PREP CODE	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm
58121	205 294	< 0.2	4.99	16	< 10	< 0.5	4	1.70	< 0.5	38	175	167	5.20	< 10	< 1	0.01	10	4.63	315	< 1
58122	205 294	< 0.2	4.99	24	< 10	< 0.5	2	1.49	< 0.5	40	188	155	4.94	< 10	< 1	< 0.01	10	5.37	370	< 1
58123	205 294	0.2	3.70	8	10	< 0.5	< 2	4.76	< 0.5	25	143	111	4.18	< 10	< 1	0.03	< 10	2.91	660	< 1
58124	205 294	< 0.2	3.53	2	110	< 0.5	< 2	1.80	< 0.5	18	115	23	4.32	< 10	< 1	0.19	20	3.30	425	< 1
58125	205 294	< 0.2	3.88	10	70	< 0.5	< 2	1.71	< 0.5	31	157	144	5.65	< 10	< 1	0.15	10	3.23	585	< 1
58126	205 294	< 0.2	2.87	20	40	< 0.5	< 2	2.85	< 0.5	28	140	93	4.32	< 10	< 1	0.10	10	2.02	540	< 1
58127	205 294	< 0.2	2.83	18	20	< 0.5	< 2	2.78	< 0.5	26	123	149	3.95	< 10	< 1	0.06	10	1.63	465	< 1
58128	205 294	< 0.2	2.93	26	40	< 0.5	< 2	4.19	< 0.5	30	127	124	5.84	< 10	< 1	0.10	10	2.35	880	< 1
58129	205 294	< 0.2	3.04	34	30	< 0.5	< 2	2.51	< 0.5	34	108	134	5.33	< 10	< 1	0.09	10	1.95	530	< 1
58130	205 294	< 0.2	3.34	56	30	0.5	< 2	4.54	< 0.5	32	98	71	5.36	< 10	< 1	0.09	10	1.82	730	< 1
58131	205 294	0.2	3.54	40	80	< 0.5	< 2	2.99	< 0.5	26	106	211	3.85	< 10	< 1	0.27	10	1.64	380	< 1
58132	205 294	0.2	3.40	48	10	< 0.5	6	4.04	< 0.5	33	61	236	5.83	10	< 1	0.07	< 10	2.14	605	< 1
58133	205 294	< 0.2	2.77	12	50	< 0.5	< 2	2.34	< 0.5	31	10	142	5.46	10	< 1	0.22	10	1.73	400	< 1
58134	205 294	< 0.2	4.59	12	190	0.5	< 2	4.23	< 0.5	20	59	41	4.42	< 10	< 1	0.71	10	3.30	430	< 1
58135	205 294	< 0.2	4.90	22	110	0.5	< 2	5.15	< 0.5	13	65	36	2.15	10	< 1	0.72	30	1.12	240	< 1
58136	205 294	< 0.2	3.77	24	40	0.5	< 2	7.40	< 0.5	11	69	15	3.09	< 10	< 1	0.36	30	1.74	465	< 1
58137	205 294	< 0.2	4.55	28	30	0.5	< 2	5.01	< 0.5	13	61	26	2.66	< 10	< 1	0.30	30	1.03	275	< 1
58138	205 294	< 0.2	5.55	28	50	1.0	< 2	5.48	< 0.5	15	84	19	2.67	10	< 1	0.54	30	1.06	275	< 1
58139	205 294	< 0.2	3.73	30	40	0.5	< 2	7.73	< 0.5	14	74	17	2.76	< 10	< 1	0.41	20	1.04	465	< 1
58140	205 294	< 0.2	6.64	32	80	1.5	< 2	5.54	< 0.5	17	82	25	2.99	10	< 1	0.57	30	1.12	280	< 1
58141	205 294	< 0.2	5.09	24	80	1.0	< 2	8.21	< 0.5	12	65	22	2.16	< 10	< 1	0.39	20	1.07	355	< 1
58142	205 294	< 0.2	5.40	188	60	1.0	< 2	5.67	< 0.5	26	83	47	3.03	10	< 1	0.43	20	1.29	280	< 1
58143	205 294	0.2	6.87	20	50	1.5	< 2	4.53	< 0.5	16	72	52	2.61	10	< 1	0.28	30	1.05	185	< 1
58144	-- --	NotRed	NotRed	NotRed	NotRed	NotRed	NotRed	NotRed	NotRed	NotRed	NotRed	NotRed	NotRed	NotRed	NotRed	NotRed	NotRed	NotRed	NotRed	NotRed
58145	205 294	< 0.2	7.14	40	70	1.5	< 2	5.22	< 0.5	16	76	30	2.27	10	< 1	0.34	30	0.94	185	< 1
58146	205 294	< 0.2	6.51	40	60	1.0	< 2	5.00	< 0.5	16	73	30	2.22	10	< 1	0.32	30	0.92	180	< 1
58147	205 294	< 0.2	5.59	32	60	1.0	< 2	5.22	< 0.5	16	74	91	3.13	10	< 1	0.42	30	1.12	280	< 1
58148	-- --	NotRed	NotRed	NotRed	NotRed	NotRed	NotRed	NotRed	NotRed	NotRed	NotRed	NotRed	NotRed	NotRed	NotRed	NotRed	NotRed	NotRed	NotRed	NotRed
58149	205 294	< 0.2	6.57	44	60	1.5	< 2	4.94	< 0.5	15	69	31	2.27	10	< 1	0.31	30	1.02	195	< 1
58150	205 294	< 0.2	6.34	22	60	1.0	< 2	4.51	< 0.5	22	68	107	3.20	10	< 1	0.44	30	0.76	140	< 1
58151	205 294	< 0.2	5.68	30	40	1.0	< 2	4.78	< 0.5	16	75	67	3.43	10	< 1	0.28	30	1.24	295	< 1
58152	205 294	< 0.2	4.78	24	80	0.5	< 2	3.38	< 0.5	15	84	21	3.63	10	< 1	0.59	30	1.66	285	< 1
58153	205 294	< 0.2	3.26	26	60	< 0.5	< 2	1.43	< 0.5	16	99	31	3.59	< 10	< 1	0.14	10	2.38	290	< 1
58154	205 294	< 0.2	3.25	82	< 10	< 0.5	< 2	3.72	< 0.5	29	180	75	3.83	< 10	< 1	0.05	< 10	2.19	480	< 1
58155	205 294	< 0.2	2.90	36	110	< 0.5	< 2	2.89	< 0.5	23	123	91	4.09	< 10	< 1	0.21	10	1.94	395	< 1
58156	205 294	< 0.2	2.85	10	190	< 0.5	< 2	1.32	< 0.5	16	89	31	3.48	10	< 1	0.33	20	2.01	280	< 1
58157	205 294	0.2	4.45	560	50	0.5	< 2	3.36	< 0.5	12	57	68	2.82	< 10	< 1	0.59	30	1.24	215	< 1
58158	205 294	6.0	3.78	390	50	0.5	< 2	3.11	0.5	12	82	1500	4.93	< 10	< 1	0.52	30	1.47	235	< 2
58159	205 294	0.2	4.58	72	30	0.5	2	4.08	< 0.5	21	79	140	4.59	10	< 1	0.28	10	1.88	290	< 1
58160	205 294	< 0.2	4.72	22	40	0.5	< 2	4.44	< 0.5	16	74	29	3.38	< 10	< 1	0.27	20	3.22	210	< 1

CERTIFICATION:

*Hart Buchler*



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 Invoice No. : 19727873  
 P.O. Number :  
 Account : MPO

Project: SKATE  
 Comments:

## CERTIFICATE OF ANALYSIS A9727873

SAMPLE	PREP CODE	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
58121	205 294	0.09	87	1110	10	< 2	17	95	0.32	< 10	< 10	157	< 10	66
58122	205 294	0.04	81	930	10	< 2	18	64	0.29	< 10	< 10	151	< 10	70
58123	205 294	0.11	75	980	6	< 2	14	238	0.26	< 10	< 10	112	< 10	84
58124	205 294	0.05	43	590	16	< 2	11	50	0.25	< 10	< 10	88	< 10	80
58125	205 294	0.09	89	1260	4	< 2	6	48	0.35	< 10	< 10	132	< 10	106
58126	205 294	0.19	75	970	8	< 2	10	122	0.31	< 10	< 10	115	< 10	90
58127	205 294	0.22	66	950	10	< 2	9	178	0.30	< 10	< 10	105	< 10	82
58128	205 294	0.16	69	1030	6	< 2	11	151	0.27	< 10	< 10	122	< 10	100
58129	205 294	0.20	85	1170	6	< 2	13	169	0.27	< 10	< 10	128	< 10	92
58130	205 294	0.33	76	1020	4	< 2	15	292	0.22	< 10	< 10	120	< 10	90
58131	205 294	0.37	69	940	2	< 2	10	201	0.35	< 10	< 10	137	< 10	62
58132	205 294	0.23	72	870	6	< 2	12	145	0.40	< 10	< 10	226	< 10	82
58133	205 294	0.19	11	1080	12	< 2	9	86	0.33	< 10	< 10	141	< 10	74
58134	205 294	0.14	27	500	6	< 2	10	161	0.11	< 10	< 10	119	< 10	80
58135	205 294	0.40	26	310	10	< 2	5	231	0.15	< 10	< 10	32	< 10	48
58136	205 294	0.15	25	290	< 2	< 2	5	181	0.03	< 10	< 10	38	< 10	38
58137	205 294	0.27	25	340	18	< 2	5	160	0.08	< 10	< 10	31	< 10	48
58138	205 294	0.27	30	280	14	< 2	5	245	0.10	< 10	< 10	33	< 10	74
58139	205 294	0.20	30	300	12	< 2	6	194	0.03	< 10	< 10	32	< 10	52
58140	205 294	0.47	34	310	16	< 2	7	315	0.09	< 10	< 10	37	< 10	64
58141	205 294	0.35	26	340	14	< 2	5	277	0.09	< 10	< 10	29	< 10	52
58142	205 294	0.41	33	280	12	< 2	6	225	0.09	< 10	< 10	36	< 10	54
58143	205 294	0.58	31	340	32	< 2	5	279	0.17	< 10	< 10	36	< 10	62
58144	-- --	NotRed	NotRed	NotRed	NotRed	NotRed	NotRed	NotRed	NotRed	NotRed	NotRed	NotRed	NotRed	NotRed
58145	205 294	0.60	29	240	12	< 2	5	334	0.15	< 10	< 10	35	< 10	38
58146	205 294	0.44	31	320	20	< 2	4	286	0.16	< 10	< 10	31	< 10	50
58147	205 294	0.38	34	350	10	< 2	6	219	0.10	< 10	< 10	37	< 10	40
58148	-- --	NotRed	NotRed	NotRed	NotRed	NotRed	NotRed	NotRed	NotRed	NotRed	NotRed	NotRed	NotRed	NotRed
58149	205 294	0.43	33	370	10	< 2	5	283	0.14	< 10	< 10	35	< 10	40
58150	205 294	0.42	35	320	14	< 2	4	254	0.15	< 10	< 10	30	< 10	36
58151	205 294	0.34	37	310	16	< 2	6	202	0.15	< 10	< 10	43	< 10	42
58152	205 294	0.26	33	320	8	< 2	8	108	0.18	< 10	< 10	55	< 10	52
58153	205 294	0.13	45	440	22	< 2	9	46	0.21	< 10	< 10	59	< 10	54
58154	205 294	0.16	79	890	< 2	< 2	8	191	0.30	< 10	< 10	111	< 10	70
58155	205 294	0.16	59	820	4	< 2	6	91	0.28	< 10	< 10	94	< 10	86
58156	205 294	0.11	35	340	16	< 2	8	54	0.18	< 10	< 10	56	< 10	144
58157	205 294	0.28	27	570	16	< 2	6	144	0.16	< 10	< 10	59	< 10	52
58158	205 294	0.15	37	380	8	< 2	8	125	0.16	< 10	< 10	50	< 10	132
58159	205 294	0.18	43	780	6	< 2	9	145	0.28	< 10	< 10	92	< 10	46
58160	205 294	0.12	29	480	6	< 2	6	138	0.15	< 10	< 10	44	< 10	48

CERTIFICATION:

*North Boulder*



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
 212 Brooksbank Ave., North Vancouver  
 British Columbia, Canada V7J 2C1  
 PHONE: 604-984-0221 FAX: 604-984-0218

To: EXPATRIATE RESOURCES LTD.  
 C/O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED  
 P.O. BOX 4127  
 WHITEHORSE, YT  
 Y1A 3S9

Page 1 of 2-A  
 Total Pages : 2  
 Certificate Date: 22-JUN-97  
 Invoice No. : 19727873  
 P.O. Number :  
 Account : MPO

Project : SKATE  
 Comments:

## CERTIFICATE OF ANALYSIS A9727873

SAMPLE	PREP CODE	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm
58161	205 294	< 0.2	3.60	34	120	0.5	< 2	6.12	< 0.5	12	72	35	2.53	< 10	< 1	0.36	20	1.46	260	3
58162	205 294	< 0.2	4.78	46	210	1.0	< 2	2.52	< 0.5	13	82	26	3.28	< 10	< 1	0.95	40	2.04	195	1
58163	205 294	< 0.2	5.42	26	150	1.0	< 2	2.41	< 0.5	15	84	37	3.25	10	< 1	1.20	20	1.68	135	< 1
58164	205 294	< 0.2	6.12	14	160	1.0	< 2	3.06	< 0.5	14	77	24	2.77	10	< 1	1.01	20	1.69	90	1
58165	205 294	< 0.2	4.88	30	200	1.0	< 2	3.62	< 0.5	13	71	29	2.66	< 10	< 1	1.20	20	1.82	135	1
58166	205 294	< 0.2	5.44	100	70	1.5	< 2	5.14	< 0.5	7	53	5	0.89	10	< 1	0.25	30	0.64	130	3
58167	205 294	< 0.2	6.32	34	140	1.5	< 2	4.32	< 0.5	13	81	48	2.34	10	< 1	0.79	20	1.39	110	2
58168	205 294	< 0.2	5.87	16	210	1.0	< 2	6.09	< 0.5	12	78	26	2.60	10	< 1	1.14	20	1.47	230	1
58169	205 294	< 0.2	4.94	12	130	1.0	< 2	7.83	< 0.5	9	57	23	1.85	10	< 1	0.56	30	0.94	290	3
58170	205 294	< 0.2	4.54	26	180	0.5	< 2	2.51	< 0.5	18	128	55	2.86	< 10	< 1	0.57	10	2.13	200	1
58171	205 294	< 0.2	5.76	12	250	1.0	< 2	3.46	< 0.5	15	90	66	3.52	10	< 1	1.17	10	1.81	215	1
58172	205 294	< 0.2	5.99	12	420	1.5	< 2	2.52	< 0.5	15	99	41	3.19	10	< 1	1.28	10	2.21	165	1
58173	205 294	< 0.2	4.62	8	190	0.5	< 2	2.48	< 0.5	12	82	25	2.82	< 10	< 1	0.63	20	2.05	185	< 1
58174	205 294	< 0.2	4.83	76	220	0.5	< 2	2.07	< 0.5	26	227	51	3.28	< 10	< 1	0.59	10	2.82	175	< 1
58175	205 294	< 0.2	6.16	10	240	1.5	< 2	3.02	< 0.5	13	85	29	2.96	10	< 1	1.16	20	1.91	170	1
58176	205 294	< 0.2	5.06	6	310	0.5	< 2	3.80	< 0.5	13	87	37	3.07	< 10	< 1	1.25	10	2.18	240	1

CERTIFICATION:

*Handwritten signature*



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
 212 Brooksbank Ave., North Vancouver  
 British Columbia, Canada V7J 2C1  
 PHONE: 604-984-0221 FAX: 604-984-0218

To: EXPATRIATE RESOURCES LTD.  
 C/O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED  
 P.O. BOX 4127  
 WHITEHORSE, YT  
 Y1A 3S9

Page Number : 2-B  
 Total Pages : 2  
 Certificate Date: 22-JUN-97  
 Invoice No. : 19727873  
 P.O. Number :  
 Account : MPO

Project : SKATE  
 Comments:

## CERTIFICATE OF ANALYSIS

### A9727873

SAMPLE	PREP CODE	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
58161	205 294	0.13	26	380	6	< 2	4	163	0.11	< 10	< 10	27	< 10	32
58162	205 294	0.25	30	490	4	< 2	6	106	0.11	< 10	< 10	35	< 10	38
58163	205 294	0.33	30	400	8	< 2	6	116	0.14	< 10	< 10	38	< 10	44
58164	205 294	0.38	25	360	8	< 2	5	155	0.13	< 10	< 10	39	< 10	36
58165	205 294	0.24	26	470	2	< 2	4	160	0.12	< 10	< 10	28	< 10	38
58166	205 294	0.48	17	410	14	< 2	3	223	0.14	< 10	< 10	15	< 10	28
58167	205 294	0.45	28	550	14	< 2	5	177	0.13	< 10	< 10	54	< 10	30
58168	205 294	0.39	24	410	4	< 2	6	213	0.12	< 10	< 10	43	< 10	42
58169	205 294	0.34	21	520	6	< 2	4	250	0.14	< 10	< 10	24	< 10	44
58170	205 294	0.27	53	700	2	< 2	7	115	0.13	< 10	< 10	57	< 10	54
58171	205 294	0.38	25	340	6	< 2	6	158	0.13	< 10	< 10	42	< 10	38
58172	205 294	0.47	29	410	6	< 2	7	138	0.14	< 10	< 10	56	< 10	42
58173	205 294	0.33	26	400	6	< 2	7	132	0.13	< 10	< 10	44	< 10	50
58174	205 294	0.30	124	650	2	< 2	9	164	0.17	< 10	< 10	75	< 10	48
58175	205 294	0.47	33	380	6	< 2	7	188	0.13	< 10	< 10	50	< 10	46
58176	205 294	0.27	27	420	4	< 2	6	216	0.12	< 10	< 10	55	< 10	50

CERTIFICATION:

*Handwritten signature*



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers

212 Brooksbank Ave., North Vancouver  
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P.O. BOX 4127  
WHITEHORSE, YT  
Y1A 3S9

Page Number : 1-A  
Total Pages : 1  
Certificate Date: 05-JUL-97  
Invoice No. : 19729932  
P.O. Number :  
Account : MPO

Project : F.P. SKATE  
Comments :

## CERTIFICATE OF ANALYSIS A9729932

SAMPLE	PREP CODE		Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	La	Mg	Mn	Mo
			ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	%	ppm	ppm
BB25651	201	202	< 0.2	1.65	24	330	< 0.5	< 2	0.31	< 0.5	12	66	29	3.16	< 10	< 1	0.08	20	1.01	265	< 1
BB25652	201	202	< 0.2	1.60	14	480	< 0.5	< 2	0.23	< 0.5	11	52	15	2.97	< 10	< 1	0.06	10	0.86	285	< 1
BB25653	201	202	0.6	1.83	28	580	0.5	< 2	1.39	0.5	19	75	97	3.66	< 10	< 1	0.13	20	1.27	820	< 1
BB25654	201	202	< 0.2	2.67	26	240	< 0.5	< 2	0.14	1.5	12	50	25	3.73	< 10	< 1	0.04	20	1.17	160	< 1
BB25655	201	202	< 0.2	0.68	6	220	< 0.5	< 2	0.26	< 0.5	5	16	11	1.17	< 10	< 1	0.05	< 10	0.20	165	< 1
BB25675	201	202	0.2	2.41	20	410	0.5	< 2	0.47	2.0	20	71	52	3.94	< 10	< 1	0.03	10	1.10	1280	< 1
BB25676	201	202	< 0.2	1.43	26	210	< 0.5	< 2	0.45	< 0.5	15	48	135	2.86	< 10	< 1	0.04	10	0.82	460	< 1
BB25677	201	202	< 0.2	2.02	62	90	< 0.5	< 2	1.80	< 0.5	25	80	267	4.02	< 10	< 1	0.02	10	1.73	520	< 1
BB25678	201	202	< 0.2	1.59	10	460	< 0.5	< 2	0.27	0.5	9	33	16	2.69	< 10	< 1	0.02	10	0.41	215	< 1
BB25679	201	202	< 0.2	2.06	88	560	0.5	< 2	0.26	< 0.5	25	64	75	5.12	< 10	< 1	0.04	10	1.15	415	< 1
BB25680	201	202	< 0.2	1.61	8	300	< 0.5	< 2	0.24	0.5	13	51	23	3.17	< 10	< 1	0.02	10	0.63	295	< 1
BB25683	201	202	< 0.2	2.63	20	650	0.5	< 2	0.38	0.5	23	72	44	4.38	< 10	< 1	0.03	10	1.07	445	< 1
BB25684	201	202	< 0.2	2.06	8	370	0.5	< 2	0.48	0.5	30	41	147	3.46	< 10	< 1	0.03	10	0.79	1640	< 1
BB25685	201	202	< 0.2	2.78	58	420	< 0.5	< 2	0.37	< 0.5	17	91	39	4.32	< 10	< 1	0.02	10	1.69	330	< 1
BB25686	201	202	0.2	2.13	72	280	0.5	< 2	1.24	1.0	20	83	60	4.43	< 10	< 1	0.05	10	1.21	925	< 1
BB25687	201	202	0.2	1.83	44	480	0.5	< 2	0.83	< 0.5	16	61	53	4.87	< 10	< 1	0.08	10	1.24	720	8
BB25688	201	202	< 0.2	2.26	18	240	0.5	2	0.37	< 0.5	15	54	39	4.00	< 10	< 1	0.05	20	1.37	455	< 1
BB25689	201	202	< 0.2	2.01	22	380	0.5	< 2	0.52	0.5	15	45	28	3.63	< 10	< 1	0.03	10	1.14	870	< 1
BB25690	201	202	0.2	2.25	22	280	< 0.5	< 2	0.42	< 0.5	16	81	26	4.00	< 10	< 1	0.03	10	1.04	400	< 1
BB25691	201	202	< 0.2	1.94	34	440	0.5	< 2	0.37	< 0.5	16	82	71	3.96	< 10	< 1	0.13	30	1.20	445	1
BB25692	201	202	0.2	1.75	10	120	< 0.5	< 2	0.15	4.0	9	33	18	3.03	< 10	< 1	0.03	10	0.73	140	< 1
BB25693	201	202	< 0.2	2.02	8	680	0.5	< 2	0.33	0.5	20	46	26	3.39	< 10	< 1	0.06	10	0.59	705	< 1
BB25694	201	202	< 0.2	1.33	6	380	< 0.5	< 2	0.28	< 0.5	9	47	8	2.80	< 10	< 1	0.07	10	0.59	255	< 1
BB25695	201	202	< 0.2	1.62	46	250	< 0.5	< 2	0.24	< 0.5	12	55	24	3.10	< 10	< 1	0.08	10	0.85	240	< 1
BB25696	201	202	< 0.2	2.15	6	120	0.5	< 2	0.24	0.5	9	40	17	3.54	< 10	< 1	0.01	10	1.20	135	1
BB25697	201	202	< 0.2	1.24	10	310	< 0.5	2	0.27	0.5	8	36	12	2.17	< 10	< 1	0.07	10	0.53	150	< 1
BB25698	201	202	< 0.2	1.74	20	550	0.5	< 2	0.31	< 0.5	14	56	21	2.96	< 10	< 1	0.10	10	0.69	695	< 1
BB25699	201	202	< 0.2	1.72	16	230	< 0.5	< 2	0.55	0.5	10	47	29	3.07	< 10	< 1	0.03	10	0.93	245	< 1
BB25700	201	202	< 0.2	3.44	30	310	0.5	< 2	0.29	< 0.5	18	73	40	4.69	< 10	< 1	0.04	10	1.67	455	< 1
BB25716	201	202	< 0.2	2.98	196	330	0.5	< 2	0.44	< 0.5	22	51	67	5.72	< 10	< 1	0.04	10	1.86	450	< 1
BB25717	201	202	< 0.2	1.86	22	400	< 0.5	< 2	0.29	< 0.5	11	52	21	2.99	< 10	< 1	0.02	10	1.17	215	< 1
BB25718	201	202	0.2	2.40	24	230	0.5	2	0.76	< 0.5	19	94	31	4.18	< 10	< 1	0.01	10	1.47	380	< 1
BB25719	201	202	0.2	2.00	346	260	< 0.5	< 2	1.24	< 0.5	36	91	236	5.30	< 10	< 1	0.05	20	1.78	680	< 1
BB25720	201	202	< 0.2	2.24	28	260	< 0.5	< 2	0.21	< 0.5	12	64	69	3.04	< 10	< 1	0.04	20	1.22	170	< 1
BB25721	201	202	< 0.2	2.32	54	270	0.5	< 2	0.69	< 0.5	22	54	90	4.35	< 10	< 1	0.03	40	1.85	250	1
BB25722	201	202	< 0.2	2.10	6	140	< 0.5	< 2	0.11	< 0.5	8	24	20	3.00	< 10	< 1	0.04	10	0.60	115	< 1
BB25723	201	202	< 0.2	1.90	24	180	< 0.5	2	0.13	< 0.5	9	41	9	3.52	< 10	< 1	0.04	10	0.61	120	< 1
BB25724	201	202	< 0.2	1.86	20	500	0.5	< 2	0.33	< 0.5	14	53	31	3.65	< 10	< 1	0.09	20	0.99	315	1
BB25725	201	202	0.2	1.36	14	400	< 0.5	< 2	0.51	< 0.5	10	42	28	2.78	< 10	< 1	0.07	10	0.69	210	1
BB25726	201	202	< 0.2	1.19	8	450	< 0.5	< 2	0.32	0.5	11	25	14	2.20	< 10	< 1	0.04	< 10	0.33	335	< 1

CERTIFICATION:

*Hart Buchler*



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
 212 Brooksbank Ave., North Vancouver  
 British Columbia, Canada V7J 2C1  
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Page Number : 1-B  
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 Certificate Date: 05-JUL-97  
 Invoice No. : 19729932  
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Project : F.P. SKATE  
 Comments:

## CERTIFICATE OF ANALYSIS A9729932

SAMPLE	PREP CODE	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
BB25651	201 202	< 0.01	36	280	22	< 2	3	23	0.03	< 10	< 10	48	< 10	74
BB25652	201 202	< 0.01	25	240	22	< 2	3	17	0.05	< 10	< 10	53	< 10	78
BB25653	201 202	0.01	78	620	30	< 2	6	125	0.03	< 10	< 10	55	< 10	116
BB25654	201 202	< 0.01	26	160	60	< 2	4	14	0.02	< 10	< 10	63	< 10	306
BB25655	201 202	0.05	8	270	10	< 2	1	20	0.02	< 10	< 10	26	< 10	48
BB25675	201 202	0.01	43	190	44	< 2	5	33	0.06	< 10	< 10	69	< 10	290
BB25676	201 202	0.01	34	300	20	< 2	4	32	0.05	< 10	< 10	44	< 10	82
BB25677	201 202	0.01	63	610	58	< 2	11	86	0.10	< 10	< 10	72	< 10	78
BB25678	201 202	0.01	18	150	22	< 2	2	21	0.01	< 10	< 10	48	< 10	80
BB25679	201 202	< 0.01	55	220	40	4	6	23	0.05	< 10	< 10	55	< 10	108
BB25680	201 202	0.01	23	180	24	< 2	2	17	0.04	< 10	< 10	59	< 10	112
BB25683	201 202	< 0.01	41	330	40	< 2	4	25	0.04	< 10	< 10	76	< 10	162
BB25684	201 202	0.02	47	220	24	< 2	4	25	0.04	< 10	< 10	63	< 10	222
BB25685	201 202	< 0.01	39	400	44	< 2	5	21	0.15	< 10	< 10	82	< 10	172
BB25686	201 202	0.04	42	260	64	2	6	71	0.09	< 10	< 10	76	< 10	262
BB25687	201 202	< 0.01	43	400	26	< 2	5	105	0.02	< 10	< 10	52	< 10	78
BB25688	201 202	0.01	34	190	26	2	8	22	0.02	< 10	< 10	54	< 10	100
BB25689	201 202	< 0.01	28	110	26	< 2	3	25	0.02	< 10	< 10	48	< 10	108
BB25690	201 202	< 0.01	38	120	64	2	4	33	0.07	< 10	< 10	78	< 10	268
BB25691	201 202	0.01	64	540	24	< 2	7	30	0.04	< 10	< 10	58	< 10	118
BB25692	201 202	0.01	18	210	506	2	2	11	0.02	< 10	< 10	53	< 10	942
BB25693	201 202	0.01	29	270	30	< 2	3	27	0.03	< 10	< 10	64	< 10	158
BB25694	201 202	0.01	18	250	28	< 2	1	20	0.04	< 10	< 10	52	< 10	122
BB25695	201 202	< 0.01	32	230	22	< 2	3	16	0.03	< 10	< 10	51	< 10	76
BB25696	201 202	0.01	17	120	36	< 2	4	15	0.03	< 10	< 10	74	< 10	74
BB25697	201 202	0.01	17	250	16	< 2	2	17	0.04	< 10	< 10	44	< 10	84
BB25698	201 202	0.01	30	330	22	2	4	27	0.04	< 10	< 10	54	< 10	194
BB25699	201 202	0.01	22	170	16	< 2	4	35	0.10	< 10	< 10	63	< 10	72
BB25700	201 202	< 0.01	34	210	70	2	6	22	0.05	< 10	< 10	75	< 10	202
BB25716	201 202	< 0.01	34	430	12	< 2	9	28	0.11	< 10	< 10	97	< 10	84
BB25717	201 202	0.01	26	180	20	< 2	4	19	0.07	< 10	< 10	48	< 10	68
BB25718	201 202	< 0.01	37	160	28	< 2	5	40	0.24	< 10	< 10	84	< 10	116
BB25719	201 202	< 0.01	72	1190	96	< 2	10	71	0.10	< 10	< 10	72	< 10	144
BB25720	201 202	< 0.01	31	200	14	< 2	3	18	0.05	< 10	< 10	56	< 10	70
BB25721	201 202	< 0.01	47	320	48	< 2	9	38	0.04	< 10	< 10	51	< 10	90
BB25722	201 202	0.03	10	200	14	< 2	3	13	0.02	< 10	< 10	64	< 10	74
BB25723	201 202	< 0.01	17	140	28	< 2	3	12	0.02	< 10	< 10	62	< 10	90
BB25724	201 202	< 0.01	39	260	20	2	5	26	0.01	< 10	< 10	57	< 10	116
BB25725	201 202	0.01	30	230	18	< 2	4	36	0.01	< 10	< 10	47	< 10	78
BB25726	201 202	0.01	19	300	16	< 2	1	24	0.02	< 10	< 10	41	< 10	84

CERTIFICATION:

*Hant/Bichler*

**APPENDIX IV**  
**SYNOPTIC DRILL LOGS**

**SYNOPTIC LOG**  
**EXPATRIATE RESOURCES LTD.**

Property: SKATE

Hole: SK97-01 Section:

Easting: Northing: Elevation: Depth: Logger: G. Duso

650,695.81 6,878,283.11 798.00 223.11 Drilling Dates: May 25-29, 1997

From (m)	To (m)	Interval (m)	*	Unit	Comments	From (m)	To (m)	Interval (m)	Sample No.	REC %	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)
0.00	3.00	3.00		CSDH	casing										
3.00	5.70	2.70		OBDH	overburden										
5.70	7.72	2.02		MTBS	metabasalt with calc-silicate bands										
7.72	8.72	1.00		MTBS	metabasalt with calc-silicate bands										
8.72	9.18	0.46		CASI	calc-silicate										
9.18	10.17	0.99		SIPH	siliceous phyllite										
10.17	15.15	4.98		SIPH	siliceous phyllite										
15.15	17.32	2.17		GPPH	black phyllite										
17.32	18.06	0.74		SCPH	siliceous phyllite / calc-silicate										
18.06	35.68	17.60		SCPH	siliceous phyllite / calc-silicate										
					-pyrrhotite and trace chalcopyrite in quartz vein at 34.59										
35.68	64.91	29.25		SCPH	siliceous phyllite / calc-silicate										
64.91	66.54	1.63		SCPH	siliceous phyllite / calc-silicate										
66.54	69.10	2.56		SCPH	siliceous phyllite / calc-silicate										
69.10	71.00	1.90		MTBS	metabasalt										
71.00	77.70	6.70		SIPH	siliceous phyllite / calc-silicate										
77.70	77.90	0.20		MTBS	tuffaceous metabasalt										
77.90	79.16	1.26		SIPH	siliceous phyllite / calc-silicate										
79.16	80.83	1.67		SIPH	siliceous phyllite / calc-silicate										
80.83	81.85	1.02		MTBS	metabasalt										
81.85	86.60	4.75		SIPH	siliceous phyllite										
					-pyrrhotite bands 0.5cm wide at 86.50										
86.60	88.07	1.47		SIPH	siliceous phyllite										
88.07	88.85	0.78		QZVN	quartz vein with 2-3% pyrrhotite and trace chalcopyrite										
88.85	91.45	2.60		SIPH	siliceous phyllite / calc-silicate										
					-crosscutting fractures with pyrrhotite infilling										
91.45	94.17	2.72		GPPH	banded black / grey phyllite										
94.17	105.70	11.53		GPPH	banded black phyllite										
105.70	109.86	4.16		GPPH	banded black / grey phyllite										

\*S-strong weathering, T-transitional weathering, F-fresh

**SYNOPTIC LOG**  
**EXPATRIATE RESOURCES LTD.**
Property: SKATEHole: SK97-01

From (m)	To (m)	Interval (m)	*	Unit	Comments	From (m)	To (m)	Interval (m)	Sample No.	REC %	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)
109.86	113.32	3.46		GPPH	black phyllite										
113.32	116.88	3.56		MTBS	metabasalt										
					-trace pyrrhotite in quartz rich laminae										
					-galena & sphalerite in calcite veins at 113.65 and 113.90										
116.88	120.39	3.51		GPPH	siliceous black phyllite										
120.39	131.36	10.97		GPPH	siliceous black phyllite										
131.36	136.19	4.83		GPPH	siliceous grey / black phyllite										
136.19	141.00	4.81		GPPH	siliceous black phyllite with pyrrhotite lenses										
141.00	154.00	13.00		GPPH	siliceous black phyllite with pyrrhotite lenses										
154.00	159.10	5.10		GPPH	siliceous black phyllite with pyrrhotite lenses										
159.10	166.50	7.40		GPPH	siliceous black phyllite										
					-contorted pyrrhotite band, 5cm wide, at 162.72										
166.50	171.29	4.79		GPPH	banded black phyllite										
171.29	178.90	7.61		GPPH	banded black / grey phyllite										
178.90	184.50	5.60		GPPH	banded black phyllite										
					-occasional siliceous bands with disseminated pyrrhotite										
184.50	188.90	4.40		GPPH	banded black / grey phyllite										
188.90	189.70	0.80		SCPH	banded calc-silicate										
189.70	191.30	1.60		MTBS	metabasalt										
191.30	192.30	1.00		SCPH	foliated calc-silicate with trace pyrrhotite										
192.30	199.50	7.20		MTBS	metabasalt										
199.50	200.25	0.75		QZVN	quartz vein										
200.25	222.10	21.85		MTBS	metabasalt										
222.10	223.11	1.01		SCPH	calc-silicate										
					-discontinuous pyrrhotite band at 222.80										
					EOH										

\*S-strong weathering, T-transitional weathering, F-fresh

**SYNOPTIC LOG**  
**EXPATRIATE RESOURCES LTD.**

Property: SKATE

Hole: SK97-02 Section:

Easting: Northing: Elevation: Depth: Logger: G. Duso

650,555 6,878,242

178.61

Drilling Dates: May 30 - Jun 2, 1997

Depth	0.00	178.70			
Azimuth	-	n/a			
Dip	-90	-86			
Method	Brunton	Acid			

From (m)	To (m)	Interval (m)	* Unit	Comments	From (m)	To (m)	Interval (m)	Sample No.	REC %	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)
0.00	10.37	10.37	OBDH	overburden										
10.37	17.47	7.10	SCPH	grey siliceous phyllite										
17.47	18.90	1.43	SCPH	phyllite/calc-silicate										
18.90	20.72	1.82	GPPH	grey/green phyllite										
20.72	24.45	3.73	GPPH	phyllite/schist										
24.45	28.52	2.07	MTBS	metabasalt										
28.52	29.57	3.05	MTBS	metabasalt										
					24.43	27.39	2.96	058121		167	10	66	<0.2	n/a
					27.39	30.37	2.98	058122		155	10	70	<0.2	n/a
29.57	36.80	7.23	MTBS	metabasalt										
					30.37	33.54	3.17	058123		111	6	84	0.2	n/a
					33.54	36.66	3.12	058124		23	16	80	<0.2	n/a
					36.66	39.61	2.95	058125		144	4	106	<0.2	n/a
36.80	46.90	10.10	MTBS	metabasalt										
					39.61	42.30	2.69	058126		93	8	90	<0.2	n/a
					42.30	45.08	2.78	058127		149	10	82	<0.2	n/a
46.90	49.88	2.98	MTBS	metabasalt										
					45.08	47.85	2.77	058128		124	6	100	<0.2	n/a
					47.85	49.88	2.03	058129		134	6	92	<0.2	n/a
49.88	52.90	3.02	MTBS	brecciated metabasalt										
					49.88	53.51	3.63	058130		71	4	90	0.2	n/a
52.90	62.90	10.00	MTBS	metabasalt (with black mineral)										
					53.51	56.52	3.01	058131		211	2	62	0.2	n/a
					56.52	59.38	2.86	058132		236	6	82	<0.2	n/a
					59.38	62.89	3.51	058133		142	12	74	<0.2	n/a
62.90	64.50	1.60	SIPH	sheared phyllite										
					62.89	65.80	2.91	058134		41	6	80	<0.2	n/a
64.50	70.91	6.41	SIPH	siliceous phyllite										
					65.80	68.83	3.03	058135		36	10	48	<0.2	n/a

\*S-strong weathering, T-transitional weathering, F-fresh

**SYNOPTIC LOG  
EXPATRIATE RESOURCES LTD.**
Property: **SKATE**Hole: **SK97-02**

From (m)	To (m)	Interval (m)	*	Unit	Comments	From (m)	To (m)	Interval (m)	Sample No.	REC %	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)
						68.83	71.53	2.70	058136		15	<2	38	<0.2	n/a
70.91	72.43	1.52		SCPH	calcareous phyllite										
						71.53	74.38	2.85	058137		26	18	48	<0.2	n/a
72.43	76.80	4.37		SCPH	siliceous phyllite/calc-silicate										
						74.38	77.23	2.85	058138		19	14	74	<0.2	n/a
76.80	79.85	3.05		SCPH	calcareous phyllite										
						77.23	79.81	2.58	058139		17	12	52	<0.2	n/a
79.85	84.52	4.67		SCPH	siliceous grey phyllite/calc-silicates										
						79.81	82.61	2.80	058140		25	16	64	<0.2	n/a
						82.61	85.42	2.81	058141		22	14	52	<0.2	n/a
84.52	95.09	10.57		SCPH	siliceous grey phyllite/calc-silicates										
						85.42	88.25	2.83	058142		47	12	54	<0.2	n/a
						88.25	91.08	2.83	058143		52	32	62	0.2	n/a
						91.08	94.05	2.97	058145		30	12	38	<0.2	n/a
95.09	113.50	18.41		SCPH	siliceous phyllite/calc-silicates										
						94.05	96.89	2.84	058146		30	20	50	<0.2	n/a
						96.89	99.71	2.82	058147		91	10	40	<0.2	n/a
						99.71	102.58	2.87	058149		31	10	40	<0.2	n/a
						102.58	105.52	2.94	058150		107	14	36	<0.2	n/a
						105.52	108.42	2.90	058151		67	16	42	<0.2	n/a
						108.42	111.25	2.83	058152		21	8	52	<0.2	n/a
						111.25	113.90	2.65	058153		31	22	54	<0.2	n/a
113.50	119.70	6.20		MTBS	metabasalt										
						113.90	114.90	1.00	058154		75	<2	70	<0.2	n/a
						114.90	117.80	2.90	058155		91	4	86	<0.2	n/a
119.70	123.00	3.30		GPPH	grey phyllite										
						117.80	120.87	2.87	058156		31	16	144	<0.2	n/a
						120.87	123.43	2.76	058157		68	16	52	0.2	n/a
123.00	124.00	1.00		MTBS	metabasalt										
						123.49	126.44	2.95	058158		1500	8	132	6.0	n/a

\*S-strong weathering, T-transitional weathering, F-fresh

**SYNOPTIC LOG**  
**EXPATRIATE RESOURCES LTD.**
Property: SKATEHole: SK97-02

From (m)	To (m)	Interval (m)	*	Unit	Comments	From (m)	To (m)	Interval (m)	Sample No.	REC %	Cu (ppm)	Co (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)
124.00	128.10	4.10		SIPH	siliceous phyllite										
						126.44	129.45	3.01	058159		140	6	46	0.2	n/a
128.10	129.90	1.80		MTBS	metabasalt										
129.90	131.81	1.91		GPPH	grey black phyllite	129.45	132.41	2.96	058160		29	6	48	<0.2	n/a
131.81	132.58	0.77		GPPH	black argillaceous phyllite										
132.58	134.62	2.04		SCPH	siliceous calcareous phyllite/calc-silicate										
						132.41	135.05	2.64	058161		35	6	32	<0.2	n/a
134.62	141.70	7.08		GPPH	argillaceous phyllite										
						135.05	137.95	2.90	058162		26	4	38	<0.2	n/a
						137.95	140.86	2.91	058163		37	8	44	<0.2	n/a
141.70	146.40	4.70		GPPH	black siliceous phyllite/calc-silicates										
						140.86	143.80	2.94	058164		24	8	36	<0.2	n/a
						143.80	146.66	2.86	058165		29	2	38	<0.2	n/a
146.40	158.10	11.70		SIPH	siliceous phyllite										
						146.66	149.59	2.93	058166		5	14	28	<0.2	n/a
						149.59	152.46	2.87	058167		48	14	30	<0.2	n/a
						152.46	155.45	2.99	058168		26	4	42	<0.2	n/a
						155.45	158.42	2.97	058169		23	6	44	<0.2	n/a
158.10	159.41	1.31		MTBS	grey-green metabasalt										
159.41	161.54	2.13		GPPH	phyllite										
						158.42	161.21	2.79	058170		55	2	54	<0.2	n/a
161.54	164.60	3.06		SIPH	siliceous banded phyllite										
						161.21	164.04	2.83	058171		66	6	38	<0.2	n/a
164.60	165.40	0.80		GPPH	black phyllite										
165.40	170.34	4.94		SIPH	siliceous phyllite										
						164.04	166.93	2.89	058172		41	6	42	<0.2	n/a
						166.93	170.00	3.07	058173		25	6	50	<0.2	n/a
170.34	171.60	1.26		MTBS	metabasalt										
						170.00	172.82	2.82	058174		51	2	48	0.2	n/a

\*S-strong weathering, T-transitional weathering, F-fresh



**SYNOPTIC LOG  
EXPATRIATE RESOURCES LTD.**

Property: SKATE

Hole: SK97-3 Section:

Easting: 650,532

Northing: 6,878,310

Elevation:

Depth: 153.82

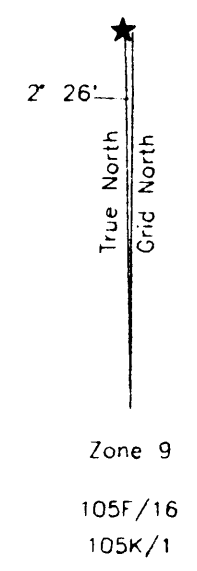
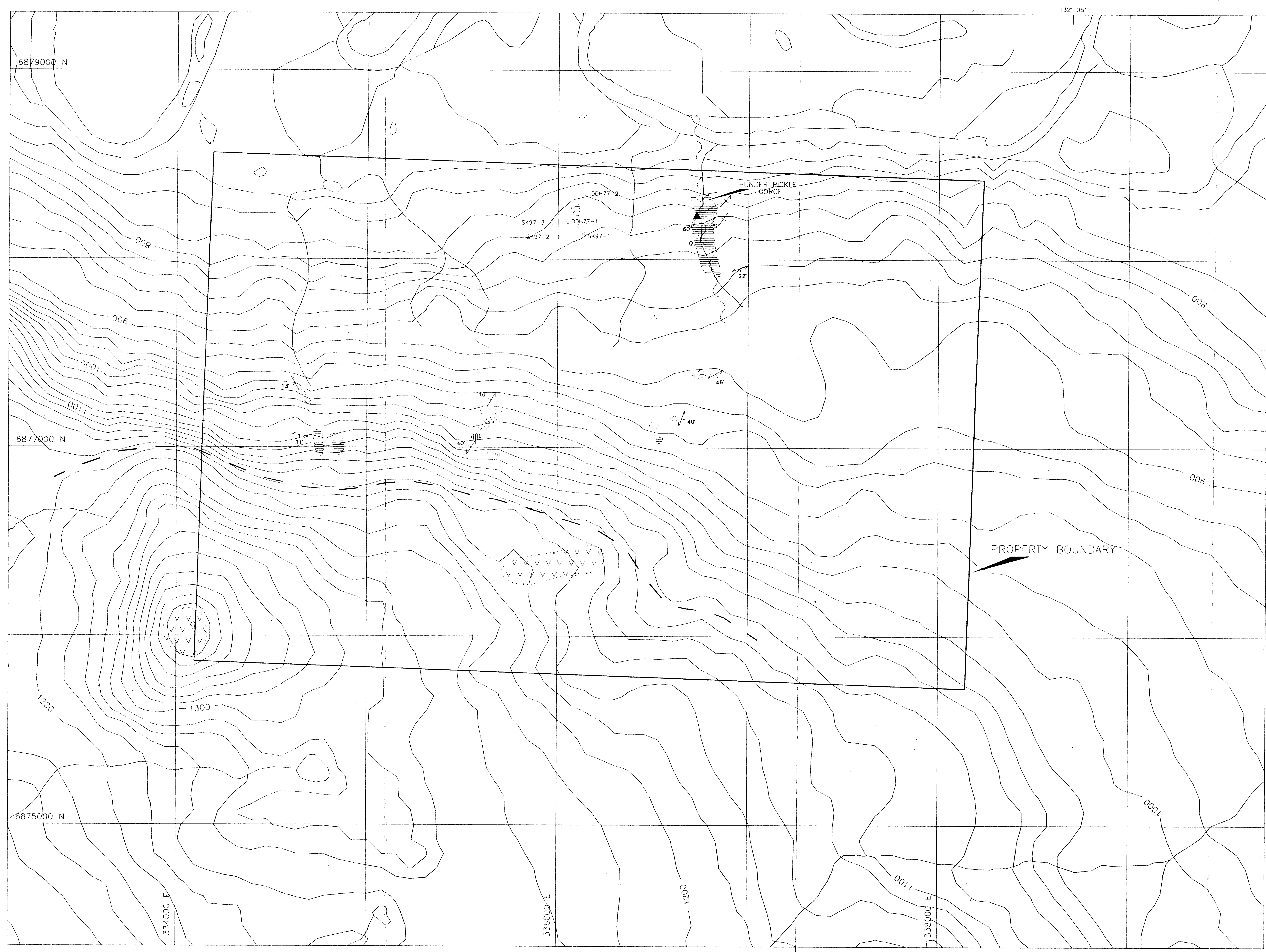
Logger: G. Duso

Drilling Dates: June 3-7, 1997

Depth	0.00	152.40			
Azimuth	-	n/a			
Dip	90	87			
Method	Brunton	Acid			

From (m)	To (m)	Interval (m)	*	Unit	Comments	From (m)	To (m)	Interval (m)	Sample No.	REC %	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppb)
0.00	10.06	10.06		CSDH	casing										
10.06	13.40	3.34		OBDH	overburden										
13.40	14.02	0.62		GPPH	phyllite										
14.02	15.84	1.82		MTBS	metabasalt										
15.84	18.15	2.31		GPPH	grey phyllite										
18.15	28.80	10.65		MTBS	green metabasalt										
28.80	31.89	3.09		CASI	calc-silicate phyllite										
31.89	42.70	10.81		MTBS	metabasalt										
42.70	43.00	0.30		QCVN	quartz-carbonate vein										
					-50% massive pyrrhotite										
					-trace chalcopyrite										
43.00	52.43	9.43		MTBS	foliated green metabasalt										
52.43	55.36	2.93		CASI	calc-silicate										
55.36	58.10	2.74		CASI	calc-silicate										
58.10	69.18	11.08		CASI	calc-silicate/phyllite										
69.18	76.80	7.82		SCPH	siliceous phyllite/calc-silicate										
76.80	85.95	9.15		SCPH	siliceous phyllite/calc-silicate										
85.95	94.10	8.15		SCPH	banded siliceous phyllite/calc-silicate										
94.10	104.90	10.80		GPPH	phyllite/calc-silicate										
104.90	108.20	3.30		MTBS	metabasalt										
108.20	111.85	3.65		SIPH	phyllite/calc-silicate										
111.85	117.95	6.10		MTBS	metabasalt										
117.95	127.40	9.45		SIPH	phyllite/calc-silicate										
127.40	131.90	4.50		MTBS	metabasalt										
131.90	140.20	8.30		SIPH	calc-silicate/phyllite										
140.20	153.92	13.72		SIPH	phyllite/calc-silicate										
					EOH										

\*S-strong weathering, T-transitional weathering, F-fresh

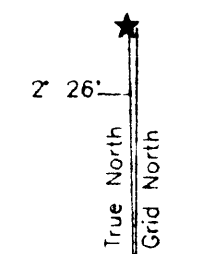
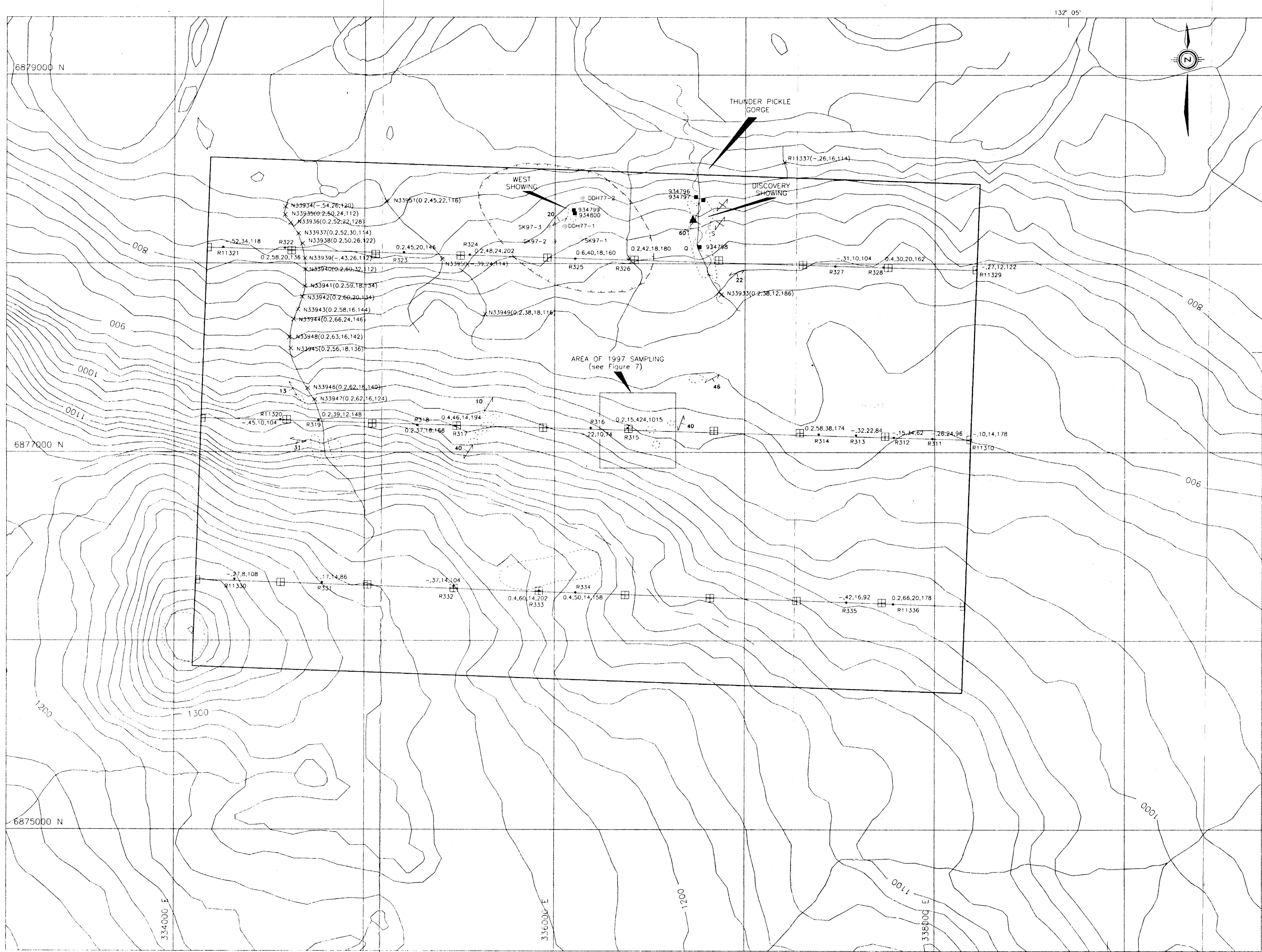


- Mesozoic Plutonic Suite
  - Hornblende Diorite
- Slide Mountain Terrane
  - Massive Basalt
- Sedimentary and Volcanic Units
  - Biotite-Muscovite ± Quartz Phyllite
  - Siliceous Phyllite
  - Tuffaceous Rhyolite
  - Metabasalt
- DDH77-2 1977 diamond drill hole location
- Outcrop
- 45° Foliation orientation
- Fault trace, inferred
- Vein
  - = quartz
  - = siderite
- Geological contact, inferred
- DuPont showing

093784

<b>EXPATRIATE RESOURCES LTD.</b>	
FIGURE 5 ARCHER, CATHRO & ASSOCIATES (1981) LIMITED	
<b>PROPERTY GEOLOGY</b>	
SKATE PROPERTY	
SCALE 1:10,000 	
DRAWN/REVISED BY: AG	PROJECT: FP
FILE: FP:SKATE\ACAD97\SK97-GEO.DWG	DATE: March 10, 1998

# 1



Zone 8  
105F/16  
105K/1

- +---+--- Gravity anomaly boundary >2.0 mgal
- o Drill hole location
- o Outcrop
- 45 Foliation orientation
- ~ Fault trace, inferred
- o Vein  
o = quartz  
s = siderite
- Geological contact, inferred

- (-10,14,178) Soil sample location and number with Ag, Cu, Pb and Zn values in ppm
- x N33947(0.2,62,16,124) Stream sediment sample location and number with Ag, Cu, Pb and Zn values in ppm
- Below detection limit
- 934796 Rock sample location and number
- ▲ DuPont showing

SAMPLE #	SILVER (g/t)	LEAD (%)	ZINC (%)	COPPER (%)	GOLD (g/t)
N934796	196	2.82	1.18	0.56	0.10
N934797	163	1.28	0.64	1.01	0.02
N934798	51	0.33	4.70	0.13	0.14
N934799	4	0.02	0.24	0.28	0.00
N934800	4	0.01	0.06	0.23	-
DDH77-01 (0.42m)	102	6.15	5.95	0.08	not analysed

093784

**EXPATRIATE RESOURCES LTD.**

FIGURE 6  
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

**SAMPLE LOCATION  
AND GEOCHEMICAL RESULTS**

SKATE PROPERTY

SCALE 1:10,000  
0 100 200 300 400 500m

DRAWN/REVISED BY: AG	PROJECT: FP
FILE: FP:SKATE:ACAD97:SK-SL-CH.DWG	DATE: March 10, 1998

#2