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ASSESSMENT REPORT

describing

GEOLOGICAL MAPPING, PROSPECTING, GEOCHEMISTRY AND CLAIM SURVEYS

on the

ARENA PROPERTY

Arena 1-20 Claims YB77873-YB77892

Latitude 61°14' N; Longitude 130°19' W

NTS 105G/1

in the

WATSON LAKE MINING DISTRICT

YUKON TERRITORY

RECEIVED
MAR 17 1997

Prepared by

Archer, Cathro & Associates (1981) Limited

for

EXPATRIATE RESOURCES LTD.

093643

A. Burgert, B.Sc.
March, 1997

BOX 4127, 2054 SECOND AVENUE, WHITEHORSE, Y.T. Y1A 3S9 TEL (403) 667 - 4415

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 $ 8500.

M. Bach

For 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 Arena property which protects a previously unstaked volcanogenic massive sulphide (VMS) target selected from a regional geochemical data base documenting results of 1973 exploration by a joint venture managed by Archer, Cathro & Associates Limited. Twenty claims were staked in spring 1996 over soil sample sites that had yielded moderately to strongly anomalous copper and lead values. Prospecting in 1973 also discovered minor chalcopyrite- and malachite-bearing float on ground immediately east of the Arena claim block.

Field exploration was conducted during summer 1996 by crews working from Expatriate's base camp on Finlayson Lake. The work consisted of reconnaissance soil geochemistry, geological mapping, prospecting and claim surveys. The program was managed by Archer, Cathro & Associates (1981) Limited and the work was compiled 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 61°14'N and longitude 130°19'W on NTS map sheet 105G/1 (Figure 1). It is comprised of twenty 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 is listed below.

Claim Name	Grant Number	Expiry Date*
Arena 1-20	YB77873-YB77892	March 17, 2001

*Expiry date includes 1996 work filed for assessment credit but not yet accepted.

In 1996 the property was accessed by helicopter from Expatriate's base camp (Km 232 on the Robert Campbell Highway). The property lies 48 km south-southeast of the base camp and 263 km east-northeast of Whitehorse. Helicopter support was provided by a Bell 206B Jet Ranger contracted from Kluane Helicopters of Haines Junction, Yukon. The helicopter was stationed at Expatriate's base camp for the summer.

During the 1996 exploration program most claim post locations were surveyed using Trimble Geoexplorer GPS units. Field readings were corrected using base station data from Westmin Resources Limited's camp at Wolverine Lake. GPS survey data appears in Appendix II.

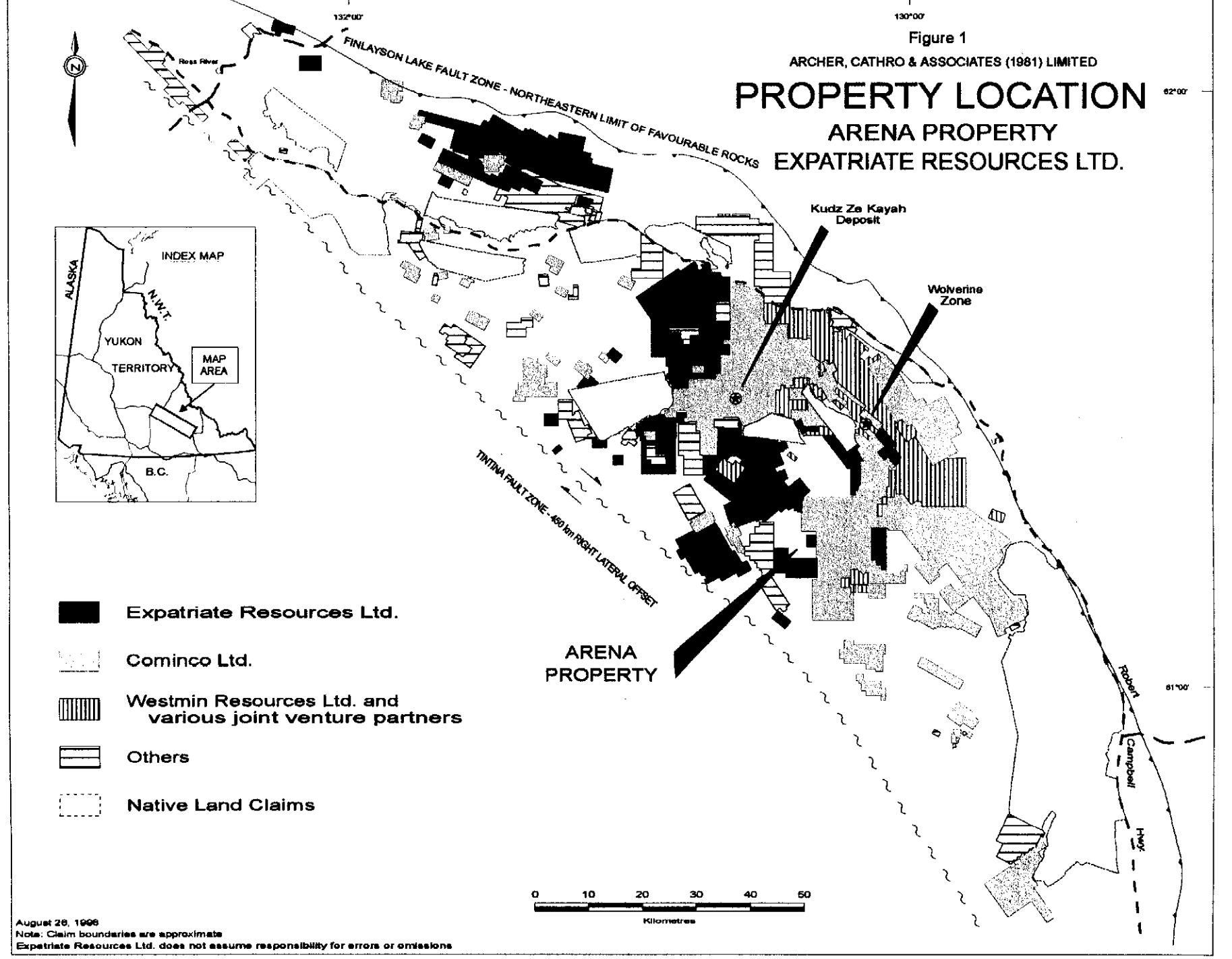
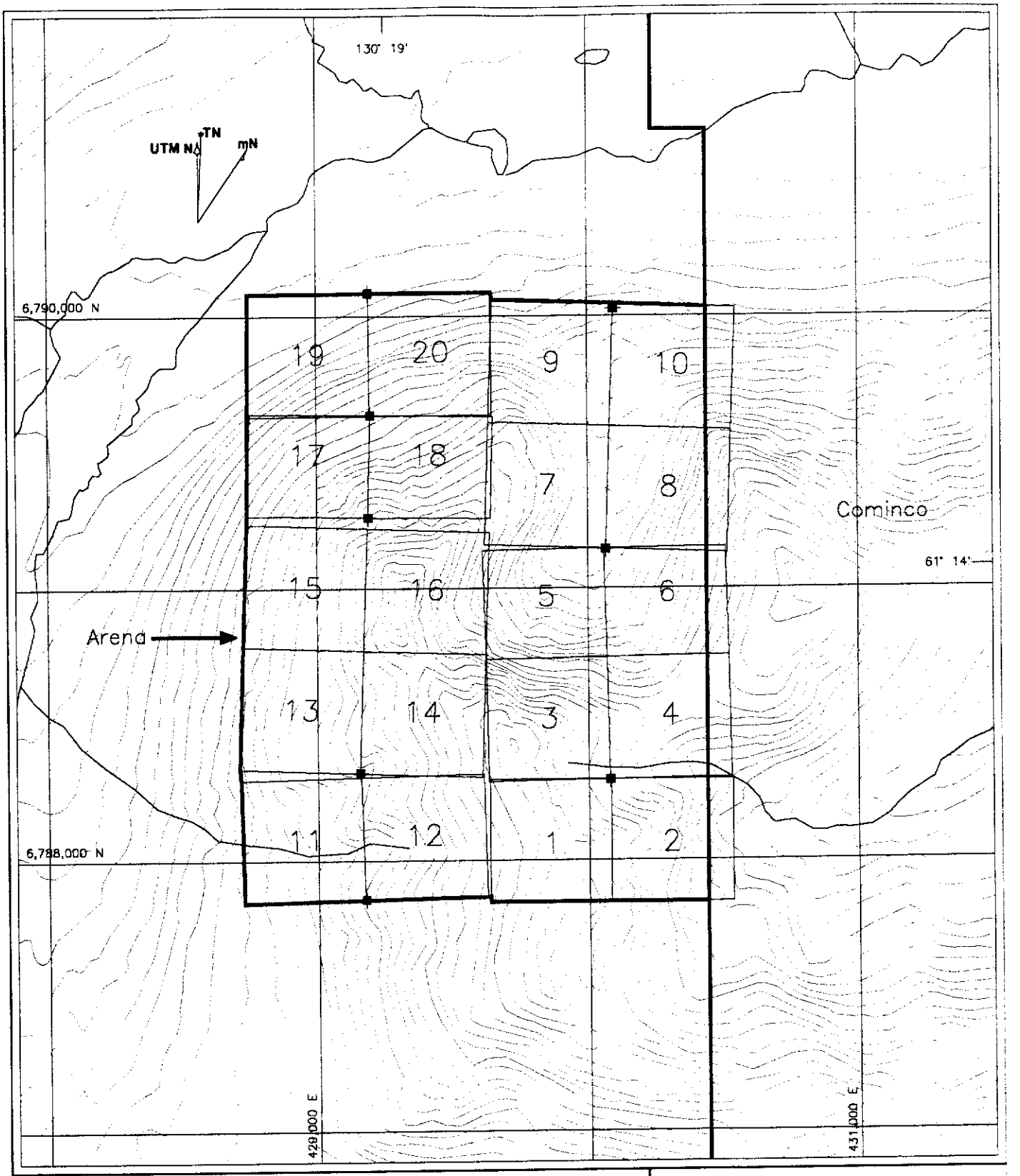


Figure 1
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
PROPERTY LOCATION
ARENA PROPERTY
EXPATRIATE RESOURCES LTD.
132°00'
130°00'
62°00'
61°00'
Ross River
FINLAYSON LAKE FAULT ZONE - NORTHEASTERN LIMIT OF FAVOURABLE ROCKS
Kudz Ze Kayah Deposit
Wolverine Zone
TINTINA FAULT ZONE - 450 km RIGHT LATERAL OFFSET
ARENA PROPERTY
Robert Campbell Hwy
INDEX MAP
ALASKA
N.W.T.
YUKON TERRITORY
MAP AREA
B.C.
Expatriate Resources Ltd.
Cominco Ltd.
Westmin Resources Ltd. and various joint venture partners
Others
Native Land Claims
0 10 20 30 40 50
Kilometres
August 26, 1996
Note: Claim boundaries are approximate
Expatriate Resources Ltd. does not assume responsibility for errors or omissions



Post location with standard GPS fix

0 100 200 400 600 800 1000 m

FIGURE 2

Archer, Cathro & Associates (1981) Limited

CLAIM LOCATION

ARENA PROPERTY

EXPATRIATE RESOURCES LTD.

SCALE: 1: 20,000	FILE: AR-CLI.DWG	
DRAWN: TCB	PROJ: FP	DATE: FEB 17/97

GEOMORPHOLOGY

The Arena property covers rugged terrain in the Pelly Mountains about 18 km northeast of the Tintina Trench. Creeks draining the property flow into a tributary of Tuchitua Creek which is a part of the Liard River watershed.

Elevations range from 1280 m in a valley on the northern edge of the property to 1940 m atop a ridge near the centre of the claim block. Topographic relief is steep, typically 20 to 40°, with occasional impassable cliffs. The valley bottom is covered with Pleistocene glacial till deposits.

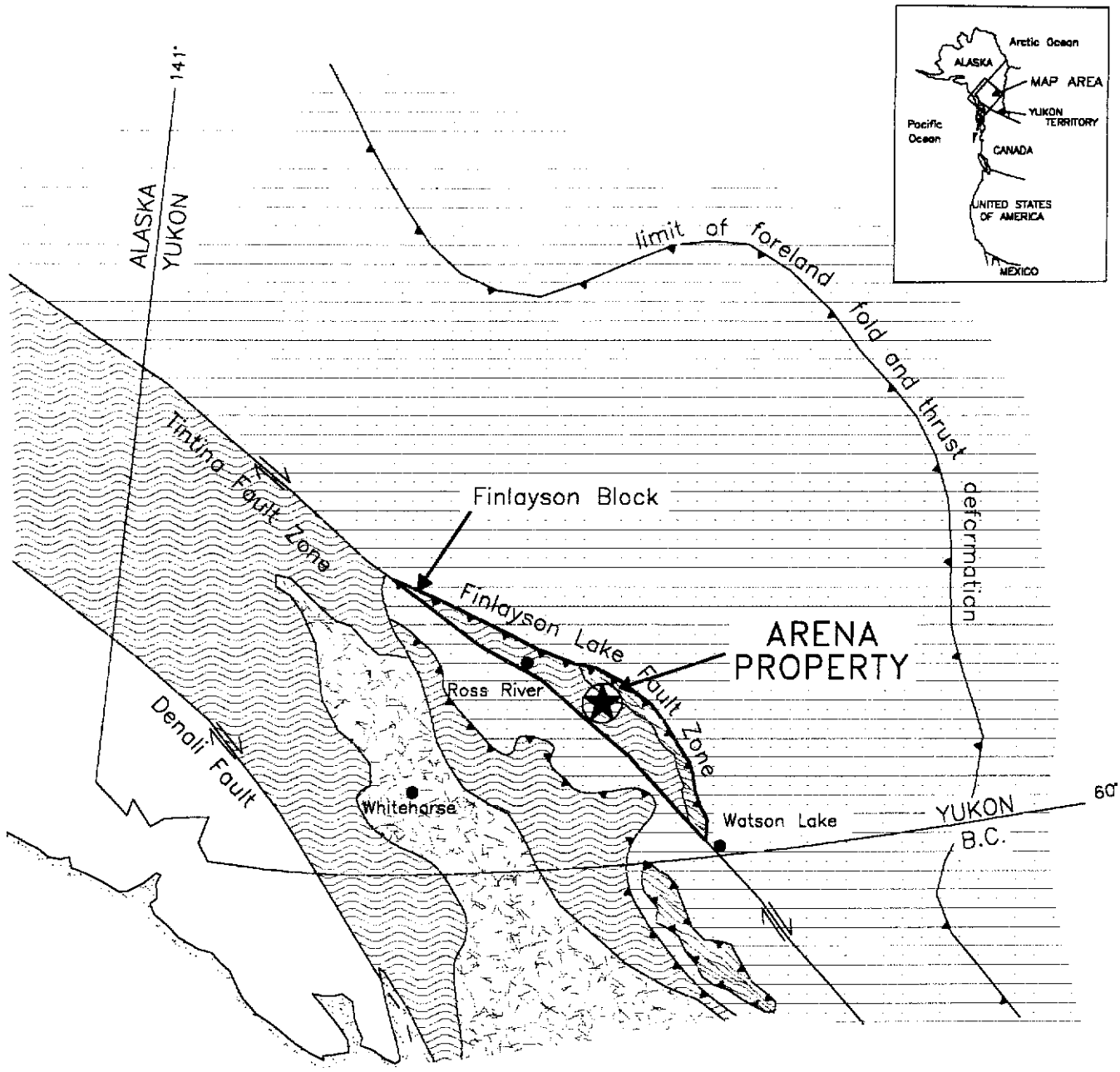
Vegetation consists of moderately dense stands of balsam and black spruce in the valley, giving way to buckbrush, willow and moss above 1500 m and eventually to scattered buckbrush, alpine grass and lichen at elevations exceeding 1700 m. Steep talus slopes and cliffs are vegetated only by lichen.

REGIONAL GEOLOGY

The Arena property is located within the Finlayson Block, a 380 by 60 km area comprised primarily of the Yukon-Tanana and Slide Mountain geologic terranes (Figure 3). These terranes 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, 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).

Regional mapping of the Finlayson Lake area was completed by the Geological Survey of Canada (GSC) in the mid to late 1970's (Tempelman-Kluit, 1977, 1979). More recent regional studies have been published by Mortensen and Jilson (1985) and Mortensen (1992). The following discussion of the regional geology (Figure 4) is based partly on the published work and partly on unpublished mapping completed in 1996 (Tempelman-Kluit, personal communication, 1996).

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. 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



Thrust fault

Steep fault

Yukon–Tanana Terrane

Slide Mountain Terrane

Stikinia and other Terranes

North American Miogeoclinal Strata

Modified after Mortensen and Jilson (1985), Mortensen (1992) and Johnston and Mortensen (1994).

FIGURE 3

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

TECTONIC SETTING

ARENA PROPERTY

EXPATRIATE RESOURCES LTD.

0 100 200 300 400

KILOMETRES

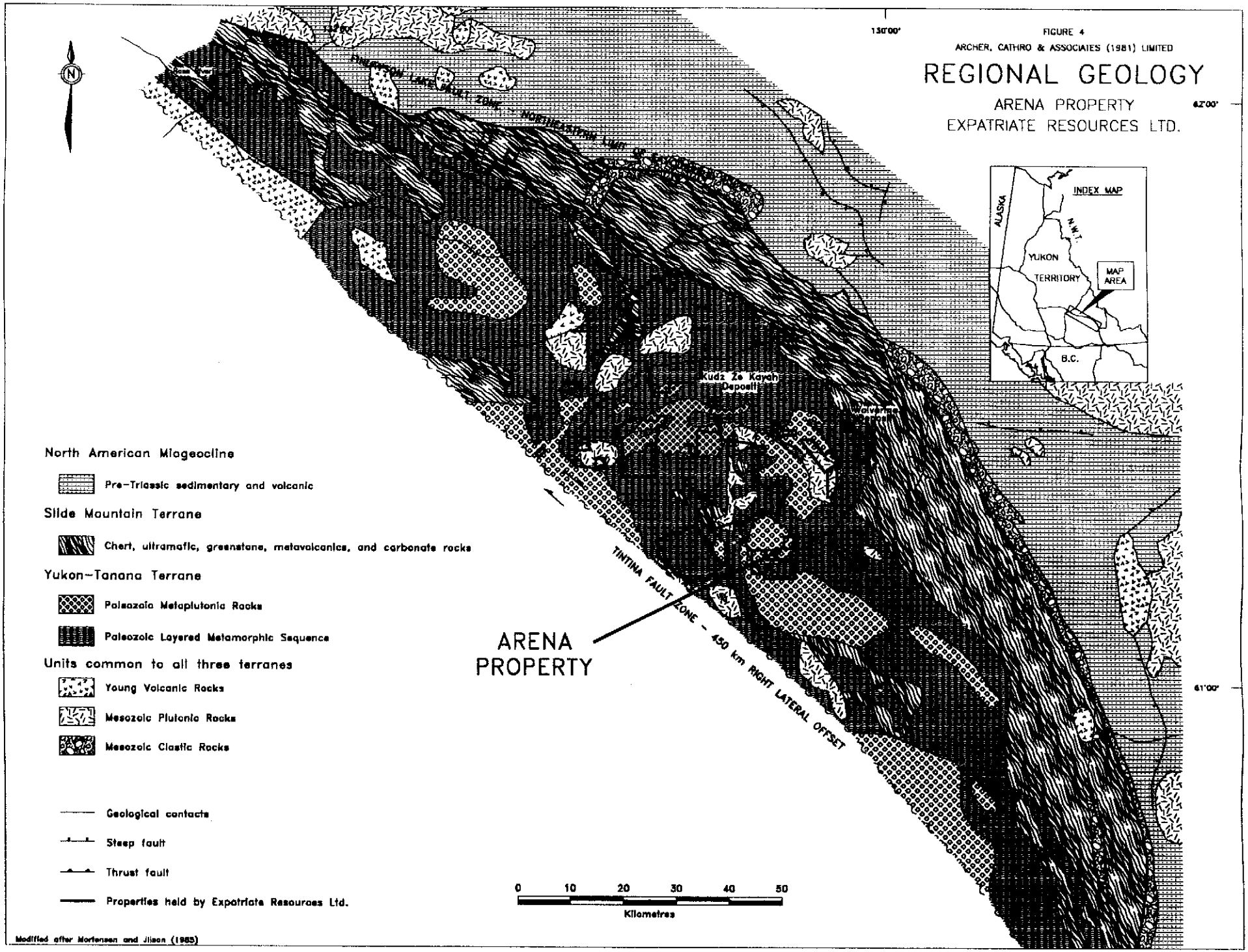


FIGURE 4
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
REGIONAL GEOLOGY
ARENA PROPERTY
EXPATRIATE RESOURCES LTD.
130°00'
62°00'
61°00'
INDEX MAP
ALASKA
N.W.T.
YUKON
TERRITORY
MAP AREA
B.C.
Kudz Ze Kayah Deposit
Wolverine Deposit
TINTINA FAULT ZONE - 450 km RIGHT LATERAL OFFSET
ARENA PROPERTY
North American Miogeocline
Pre-Triassic sedimentary and volcanic
Slide Mountain Terrane
Chert, ultramafic, greenstone, metavolcanics, and carbonate rocks
Yukon-Tanana Terrane
Paleozoic Metaplutonic Rocks
Paleozoic Layered Metamorphic Sequence
Units common to all three terranes
Young Volcanic Rocks
Mesozoic Plutonic Rocks
Mesozoic Clastic Rocks
Geological contacts
Steep fault
Thrust fault
Properties held by Expatriate Resources Ltd.
0 10 20 30 40 50
Kilometres
Modified after Mortensen and Jilson (1985)

Pennsylvanian to Early Permian (Tempelman-Kluit, 1979) form the uppermost unit of the Yukon-Tanana Terrane.

This sequence of units is generally correlative with a similar stratigraphic sequence in ancestral North America (Mortensen and Jilson, 1985; Tempelman-Kluit, personal communication, 1996). The lowermost is correlated with the Lower Cambrian Atan Group and the middle carbonaceous assemblage is correlated with the offshelf, Silurian-Devonian Nasina quartzite assemblage. The felsic volcanics are most similar to locally extensive Mississippian siliceous volcanics in the North American stratigraphy. Local calcareous phyllites and massive greenstones near the top of the lower unit are lithologically similar to the Kechika Group and Lower Paleozoic alkalic and potassic greenstones, respectively.

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, 1996) mapped the suite as an allochthonous slice emplaced on top of the structural pile.

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

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 volcaniclastic deposits. They are usually found in close proximity to the Tintina Fault Zone.

Mesozoic intrusive activity in the Finlayson Block 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).

Structurally Yukon-Tanana schists and gneisses contain a pervasive, flat- to gently-dipping foliation. Close examination of this fabric indicates that it commonly is a closely spaced crenulation cleavage. Large-scale folds related to this fabric can rarely be mapped in the field. In most cases bedding and earlier fabrics are transposed into near parallelism with this dominant fabric. Later crenulation cleavages are present only locally. Some of the Cretaceous intrusions have a mild deformation fabric, others are massive and do not contain a foliation.

Thrust faults within the Finlayson Block juxtapose lithologic sequences with similar deformation fabrics. Thrusting postdates the Late Paleozoic Slide Mountain lithologies and predates the Cretaceous intrusives. Recent mapping also suggests, but does not definitively prove, the presence of major late extensional faults juxtaposing differing sequences (Tempelman-Kluit, personal communication, 1996). East-northeast trending, steep normal faults disrupt all earlier deformation fabrics.

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

Metamorphism and deformation are tentatively correlated with transpressive suturing of these 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.

The discovery of the Kudz Ze Kayah and Wolverine VMS deposits within the Finlayson Block in the last few years (Johnston and Mortensen, 1994) has refocussed exploration activities in the area. Both deposits occur within metasedimentary and metavolcanic sequences of the Yukon-Tanana Terrane and are associated with felsic volcanics present in the middle unit of that terrane.

REGIONAL MINERALIZATION

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 appears to be 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 in the district and are briefly described below.

The Kudz Ze Kayah (ABM) Deposit lies within Yukon-Tanana Terrane near the centre of the block (Cominco Exploration, 1995; Whiteway, 1995). It is a VMS 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 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 Zone is blanketed by glacial till. Westmin has traced the deposit 700 m along strike and up to 450 m downdip and it is still open. The mineralization averages 6.1 m thick and dips shallowly to the north. Both zones contain significantly more zinc and precious metals than Kudz Ze Kayah. The current geological inventory is reported to be 5,311,000 tonnes grading 12.96% zinc, 1.41% copper, 1.53% lead, 359.1 g/t silver and 1.81 g/t gold (Westmin News Release, November 30, 1996). 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 80 m up-section from the massive sulphide horizon. Interpretation of electromagnetic results is complicated by the presence of graphite within the argillite.

REGIONAL GEOCHEMISTRY

Published geochemical data for the Finlayson Lake area are limited to reconnaissance scale stream sediment sampling conducted in the late 1980's by the GSC (Hornbrook and Friske, 1988; Friske et al, 1990). The sampling was done at an approximate density of one sample per 10 sq km. Each sample was analyzed for twenty elements including common indicator elements for VMS deposits such as copper, lead, zinc, silver and arsenic. Anomalous results were obtained from creeks draining some previously known VMS occurrences (DIAND, 1995, Yukon Minfile 105G/32, 34 and 40) but many others, including the streams draining the Wolverine Deposit, produced near background values. Anomalous results were also obtained from several drainages where there were no known mineral occurrences. Follow-up exploration has since located showings in many of the anomalous creeks with the most significant discovery to date being the Kudz Ze Kayah Deposit.

Expatriate was able to supplement the published reports with private data summarizing results of 1973 exploration managed by Archer Cathro on behalf of a joint venture (Cathro, 1973). The reconnaissance prospecting and geochemical sampling program explored for lead-zinc mineralization in the lower unit of the Layered Metamorphic Sequence but because the data provides relatively uniform coverage over the entire region, it is also suitable for evaluating areas underlain by the favourable middle unit. The Archer Cathro samples included approximately 5000 soils and stream sediments collected at a density of approximately one sample per sq km. They were all analyzed for lead, zinc, copper and molybdenum. As might be expected, this closer spaced sampling outlined many more areas of anomalous geochemical response than the

government survey. Almost all of the known volcanogenic occurrences showed up as anomalies on this survey, including Kudz Ze Kayah and Wolverine.

The following table illustrates regional geochemical backgrounds for the metals and anomalous thresholds used for target selection.

GEOCHEMICAL BACKGROUNDS AND ANOMALOUS THRESHOLDS

		Anomalous Thresholds (ppm)			Peak
	Background	Weak	Moderate	Strong	Value
Copper	25	50	100	200	1720
Lead	30	50	100	200	>4000
Zinc	80	200	500	1000	>4000
Molybdenum	<1	2	5	10	65

The Arena property was staked to protect a target selected from the Archer Cathro data. Peak values from 1973 sampling at Arena were 480 ppm copper, 350 ppm lead, 520 ppm zinc and 4 ppm molybdenum.

Copper, lead and zinc are major metals in most VMS occurrences in the Finlayson Lake area and are obvious indicator elements. Molybdenum is present in anomalous quantities in the banded iron formation overlying the Wolverine Deposit (Meade, personal communication, 1995) and appears to be slightly enriched in the felsic metavolcanic rocks. Based on the geochemical signature in the vicinity of known occurrences its presence can be used to distinguish copper anomalies associated with volcanogenic mineralization from those derived from ultramafic rocks.

REGIONAL GEOPHYSICS

The only published geophysical data for the Finlayson Lake area resulted from airborne magnetic surveys conducted in 1961 by the GSC on behalf of the Department of Mines and Technical Surveys. The surveys were flown with fixed-wing aircraft at a nominal elevation of 300 m above ground level on east-west lines spaced approximately 1.6 km apart. Results are presented on a 1:250,000 scale map (DMTS, 1961) and in more detail on a series of 1:50,000 maps.

The largest, most intense areas of positive magnetic response are associated with obducted ultramafic rocks belonging to the Slide Mountain Terrane. Within the Campbell Range Belt where dips are usually moderate to steep, the anomalies are narrow and elongate while in the remainder of the block where the ultramafic rocks occur along shallowly-dipping thrust faults, they are much broader.

A series of secondary positive anomalies was also recorded over Yukon-Tanana rocks but until recently they had no obvious explanation. Prospecting and mapping have now shown that magnetite occurs locally within schists of the middle unit of the Layered Metamorphic Sequence. The greatest documented concentration of magnetite is found in the hanging wall of the Wolverine Deposit where it forms several thin horizons approximately 80 m up-section from the massive sulphide mineralization. Magnetite is also a significant constituent of the mineralization at Kudz Ze Kayah. The Arena property lies in an area of low aeromagnetic response.

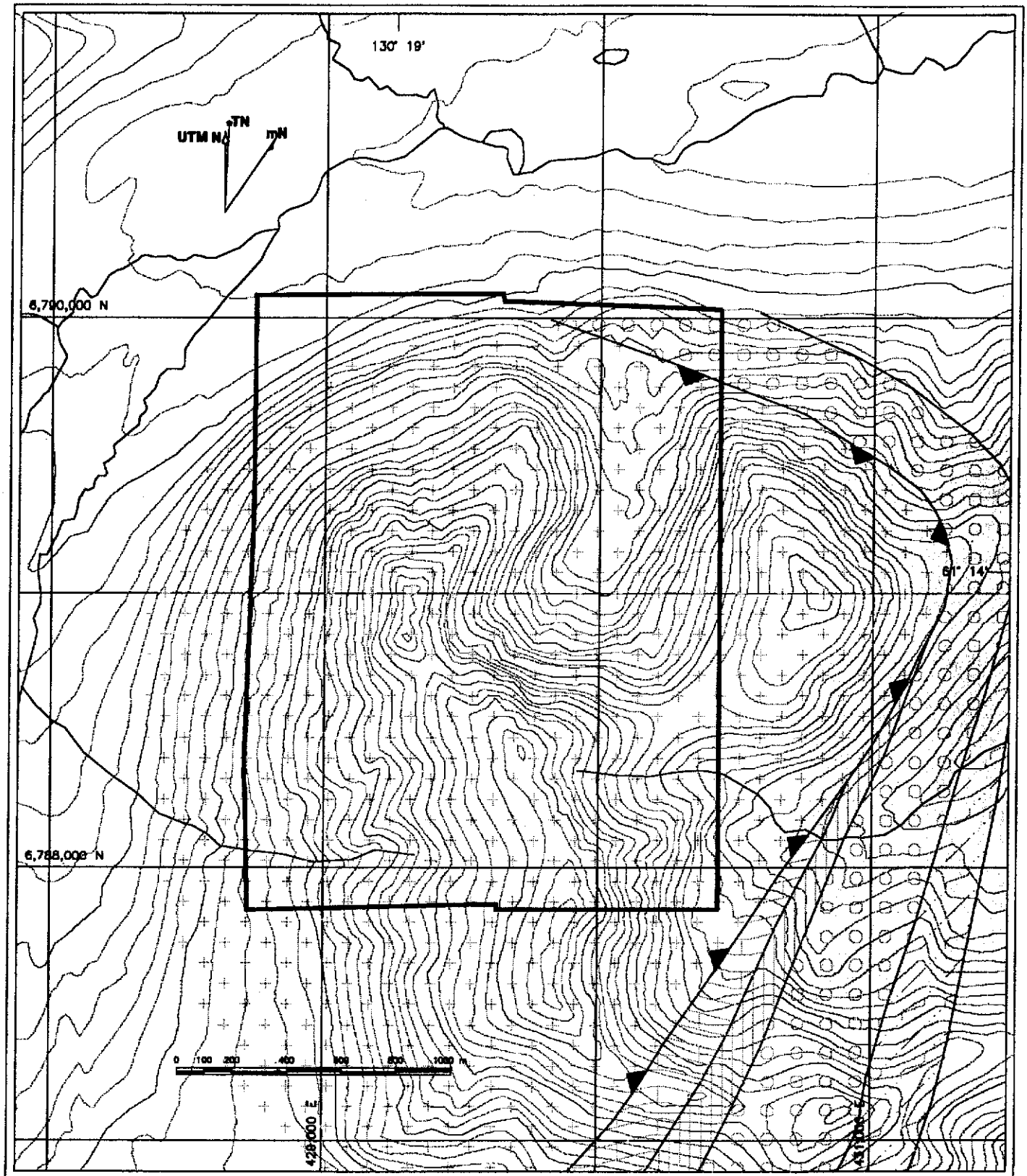
PROPERTY GEOLOGY AND MINERALIZATION

Bedrock exposure is excellent on north-facing slopes and along the ridge crests. Property geology is shown on Figure 5 while the five main rock types in the vicinity of the property are described below. The first belongs to the Mesozoic Plutonic Suite while the other are part of the Paleozoic Layered Metamorphic Sequence.

The main rock type encountered on the property is massive biotite granite, blocks of which form extensive felsenmeer. Biotite constitutes 5 to 10% of the granite and quartz about 20%. Minor epidote and saussurite alteration were observed locally. The granite bears occasional veins of quartz and amphibole. Its lower contact is a thrust fault which is mineralized with pyrite and chalcopyrite locally comprising up to 15% of the rock. A sample (N110032) of granite containing minor malachite and azurite was sent to Chemex Labs Ltd. of North Vancouver for Induced Coupled Plasma (ICP) technique 32 element rock geochemical analysis and returned an assay of 0.8% copper. A piece of granite cobble float bearing 15% interstitial pyrite assayed 0.17% copper. Certificates of Analysis appear in Appendix III while sample locations are shown on Figure 6.

The granite is underlain by light grey weathering limestone. Near the fault contact both the limestone and granite contain pyrite disseminations and exhibit pervasive silicification. The limestone unit is about 15 m thick.

The limestone unit is underlain by black phyllite. It strikes northeasterly and dips moderately to the northwest.



Granite

Limestone

Phyllite

Biotite–chlorite gneiss

Chlorite Schist

Lake, stream

Claim boundary

Geology boundary

Thrust fault

FIGURE 5

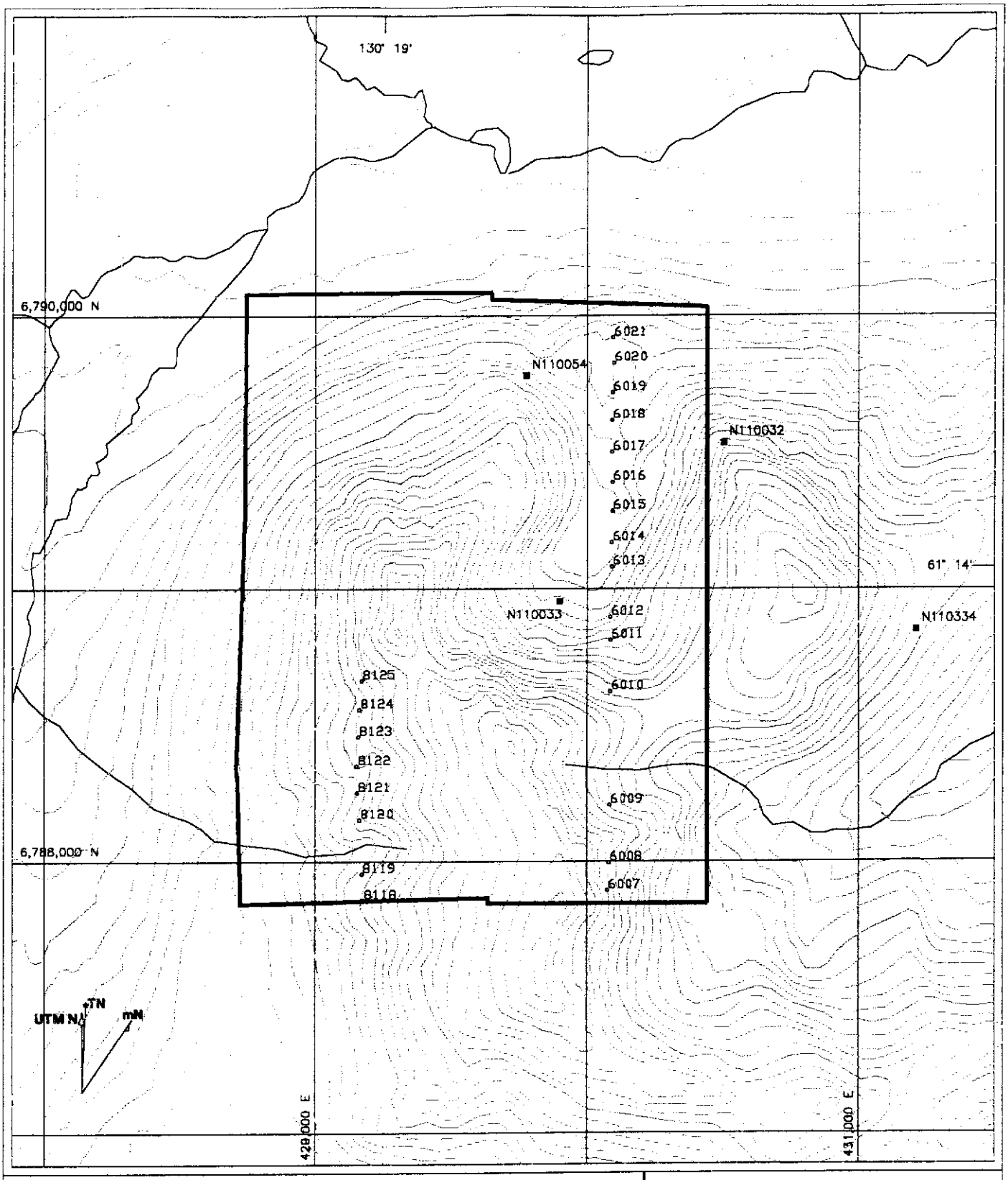
Archer, Cathro & Associates (1981) Limited

PROPERTY GEOLOGY

ARENA PROPERTY

EXPATRIATE RESOURCES LTD.

SCALE: 1: 20,000	FILE: AR–GEOL.DWG	
DRAWN: TCB	PROJ: FP	DATE: FEB 17/97



.95 Soil sample location with sample number
All samples prefixed with BB

N110334 Rock sample location with sample number

0 100 200 400 600 800 1000 m

FIGURE 6

Archer, Cathro & Associates (1981) Limited

SAMPLE LOCATION

ARENA PROPERTY

EXPATRIATE RESOURCES LTD.

SCALE: 1: 20,000	FILE: AR-SNO.DWG	
DRAWN: TCB	PROJ: FP	DATE: FEB 18/87

Below the phyllite is a thick unit of fine-grained biotite-chlorite gneiss. It weathers dark green to grey and is conformable with the phyllite. Fine-grained feldspar and quartz grains occur throughout this rock with the highest concentrations found along foliation planes. Hornblende occurs as sparsely dispersed laths up to 1 cm long and in rare narrow veins.

The lowest stratigraphic unit observed is thinly foliated chlorite schist. It is medium green on fresh surfaces and weathers dark green-grey. The rocks strike northeasterly and are conformable with the overlying units.

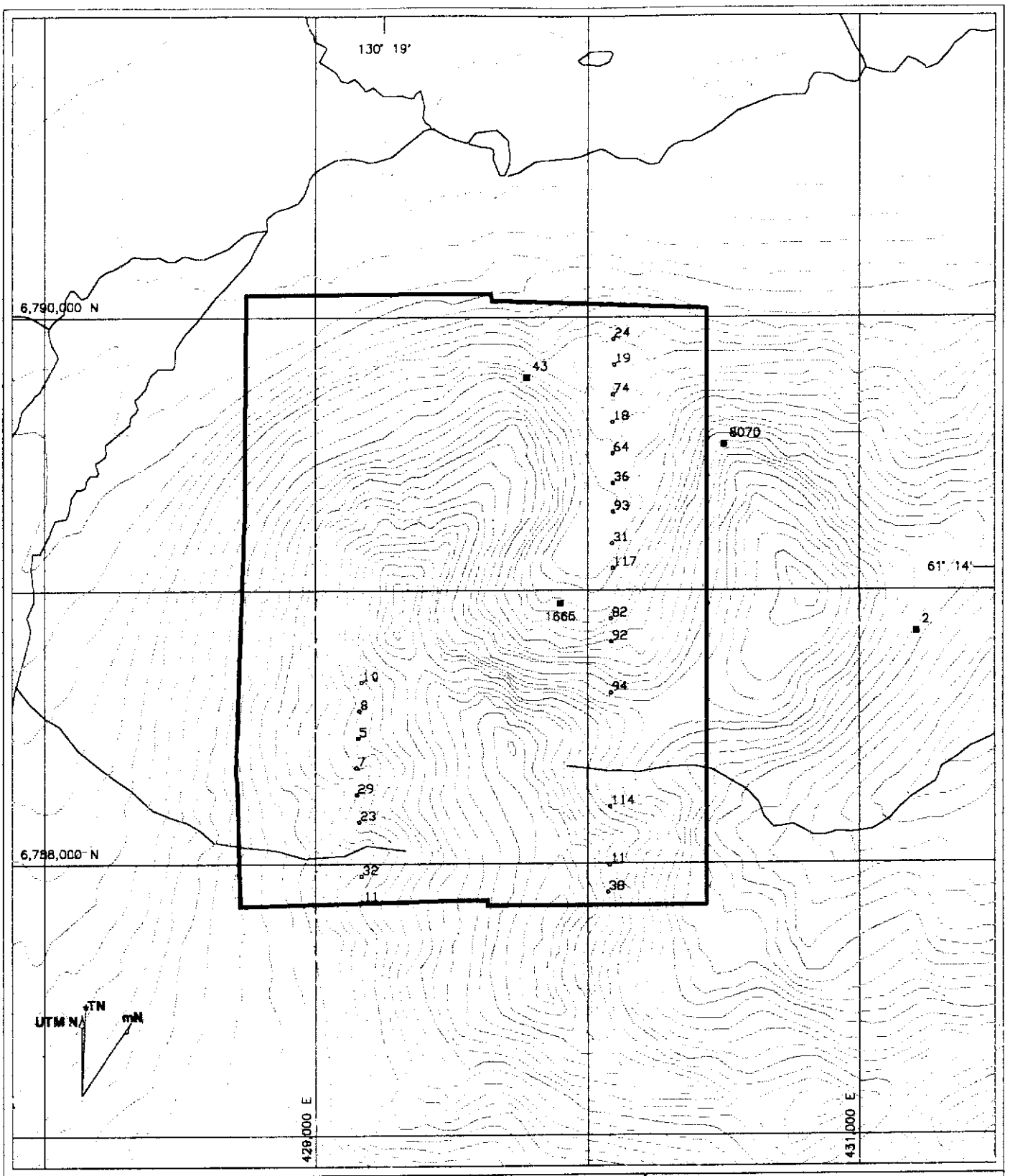
PROPERTY GEOCHEMISTRY

Reconnaissance soil sampling was carried out at 100 m intervals along claim lines as shown on Figure 6. The soil samples were sent to Chemex where they were screened to -80 mesh, digested in nitric-aqua regia and geochemically analyzed for 32 elements using the ICP technique. Certificates of Analysis are listed in Appendix III. Results for three indicator elements (copper, lead and zinc) are plotted on Figures 7 to 9 while anomalous thresholds and peak values for six VMS pathfinder metals are as follows.

	Threshold Values (ppm)		
Element	Weak	Moderate	Peak Value
Copper	50	100	117
Lead	NA*	NA*	26
Zinc	NA*	NA*	84
Silver	NA*	NA*	<0.2
Molybdenum	2	NA*	3
Cobalt	NA*	NA*	17

*NA = not applicable because property values did not reach regional thresholds.

All soil samples were collected in areas underlain by granite. A series of samples in the eastern portion of the property returned copper values in the weakly to moderately anomalous range, but values for other metals rarely exceeded background levels.



.98 Soil sample location with copper value in ppm

■ 1665 Rock sample location with copper value in ppm

0 100 200 400 600 800 1000 m

FIGURE 7

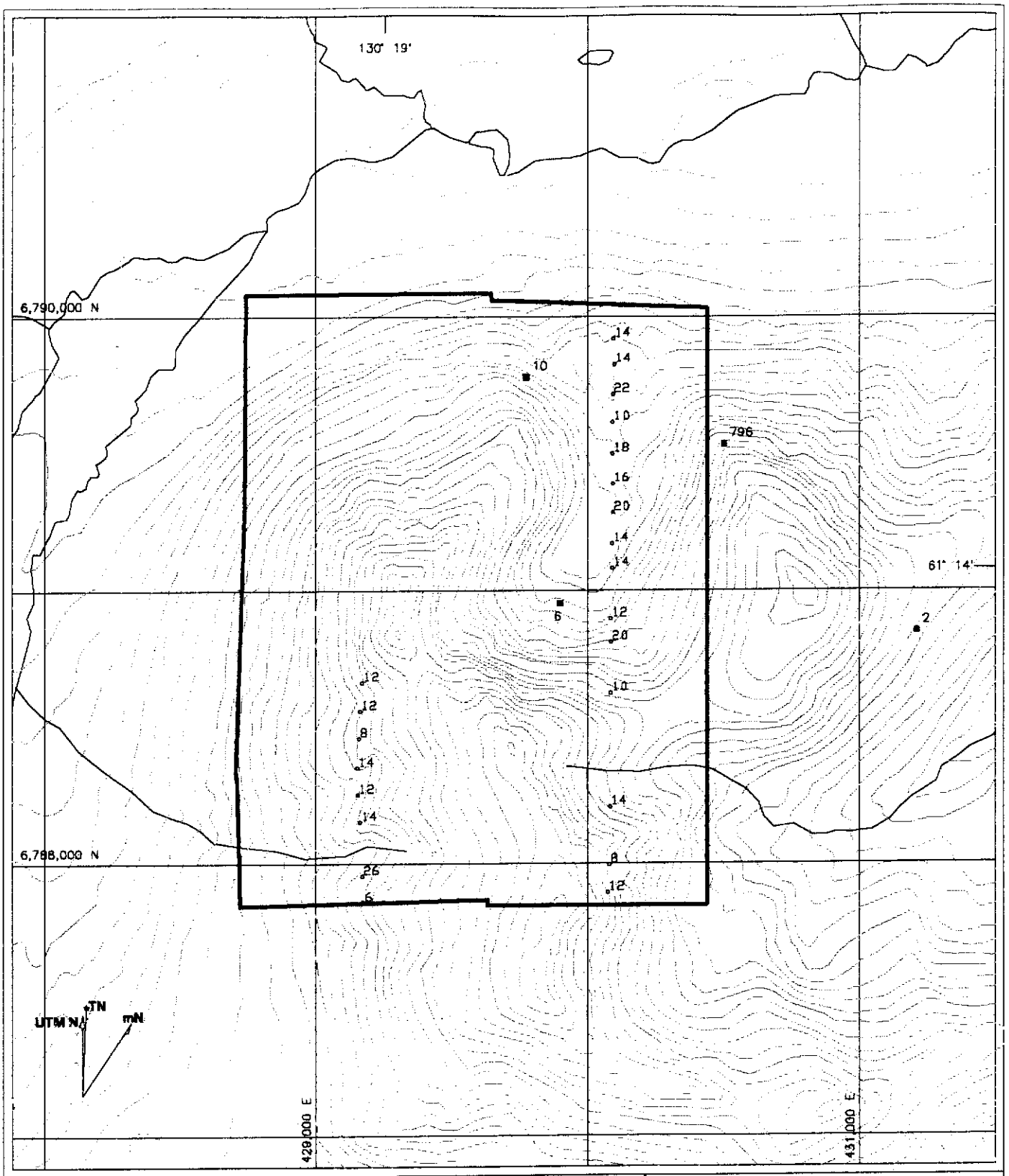
Archer, Cathro & Associates (1981) Limited

COPPER GEOCHEMISTRY

ARENA PROPERTY

EXPATRIATE RESOURCES LTD.

SCALE: 1: 20,000	FILE: AR-CU.DWG	
DRAWN: TCB	PROJ: FP	DATE: FEB 18/87



.98 Soil sample location with lead value in ppm

■ 796 Rock sample location with lead value in ppm

0 100 200 400 600 800 1000 m

FIGURE 8

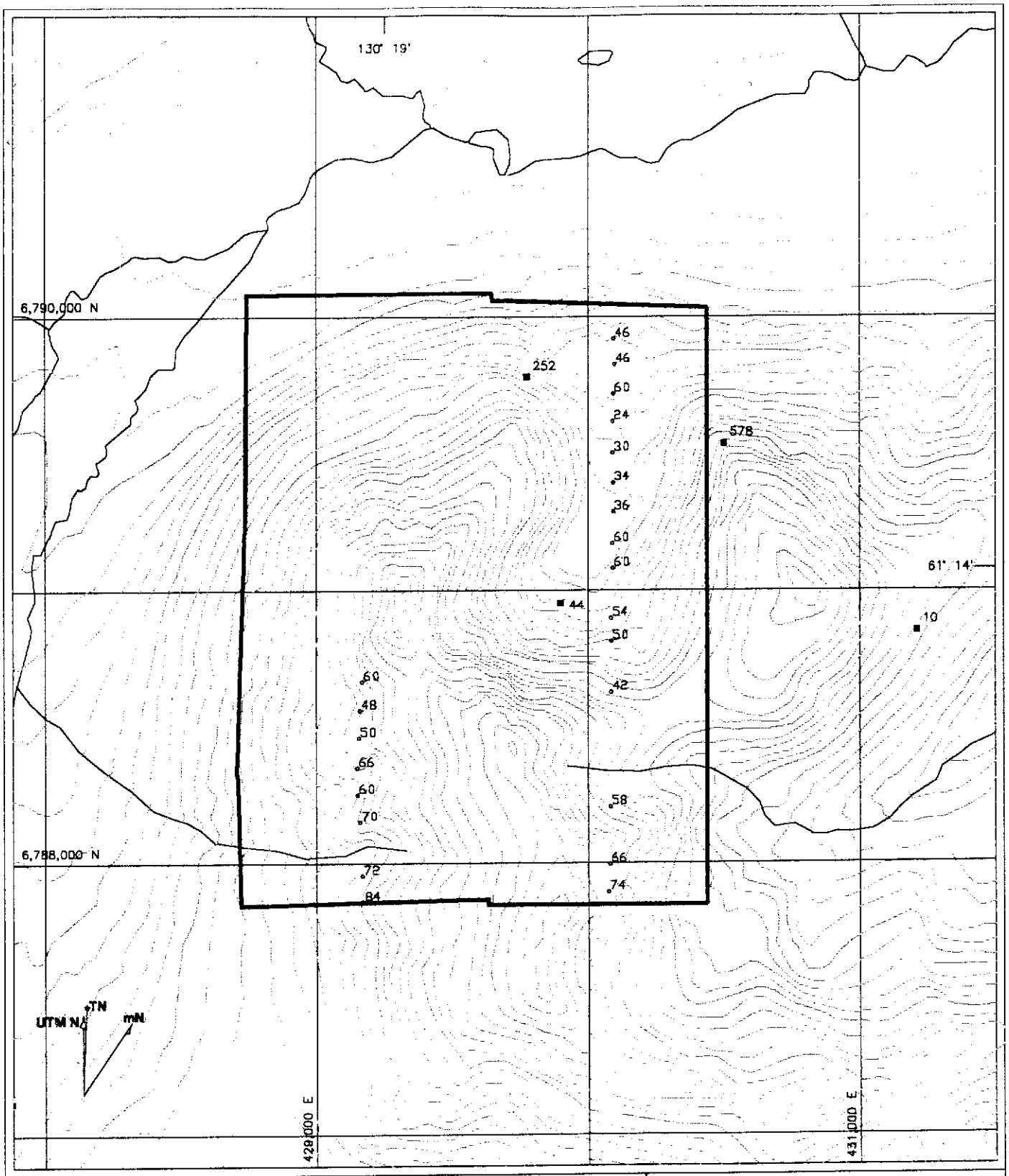
Archer, Cathro & Associates (1981) Limited

LEAD GEOCHEMISTRY

ARENA PROPERTY

EXPATRIATE RESOURCES LTD.

SCALE: 1: 20,000	FILE: AR-PB.DWG	
DRAWN: TCB	PROJ: FP	DATE: FEB 18/87



.98 Soil sample location with zinc value in ppm

■10 Rock sample location with zinc value in ppm

0 100 200 400 600 800 1000 m

FIGURE 9

Archer, Cathro & Associates (1981) Limited

ZINC GEOCHEMISTRY

ARENA PROPERTY

EXPATRIATE RESOURCES LTD.

SCALE: 1: 20,000	FILE: AR-ZN.DWG	
DRAWN: TCB	PROJ: FP	DATE: FEB 18/87

CONCLUSIONS AND RECOMMENDATIONS

The Arena property is underlain by Mesozoic granite but rocks of the Paleozoic Layered Metamorphic Sequence may be present beneath the granite. Reconnaissance soil geochemistry outlined a zone of weak to moderate copper response in the eastern portion of the property. Prospecting confirmed the presence of minor copper mineralization.

Further prospecting is recommended, particularly in the northeastern corner of the property where favourable Paleozoic Layered Metamorphic Sequence rocks may be present beneath the granite. The ground immediately north of the property is currently unstaked and should also be prospected and reconnaissance sampled. Although there is little chance of a surface discovery on the existing claims, Cominco is working on the adjoining ground. If possible the claims should be held until results of Cominco's work are known.

Respectfully submitted,

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

Arnold Burgert

A. Burgert, B.Sc.

SELECTED REFERENCES

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APPENDIX I

AUTHOR'S STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I, Arnd Burgert, geologist, with business addresses in Whitehorse, Yukon Territory and in Vancouver, British Columbia and residential address in White Rock, British Columbia, do hereby certify that:

1. I graduated from the University of British Columbia in 1995 with a B.Sc. in geology.
2. From 1989 to present, I have been actively engaged in mineral exploration in British Columbia, the Northwest Territories and the Yukon Territory and am presently employed with Archer, Cathro & Associates (1981) Limited.
3. I have personally participated in field work in the Finlayson Lake region in 1996 and have compiled the information reported herein.

Arnd Burgert

A. Burgert, B.Sc.

APPENDIX II

GPS DATA

Arena 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 meters 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 1	Posts 2	UTM Coordinates Northing	UTM Coordinates Easting	Data Quality	Base Station	Date
2323	Arena	1, 2	-	-	-	N/S	-	01-Aug-96
2324		3, 4	1, 2	6788295	430080	Standard	W	01-Aug-96
2325		5, 6	3, 4	-	-	N/S	-	01-Aug-96
2326		7, 8	5, 6	6789143	430067	Standard	W	01-Aug-96
2327		9, 10	7, 8	-	-	N/S	-	01-Aug-96
2328		-	9, 10	6790025	430099	Standard	W	01-Aug-96
2329	Arena	11, 12	-	6787857	429175	Standard	W	01-Aug-96
2330		13, 14	11, 12	6788322	429156	Standard	W	01-Aug-96
2331		15, 16	13, 14	-	-	N/S	-	01-Aug-96
2332		17, 18	15, 16	6789261	429190	Standard	W	01-Aug-96
2333		19, 20	17, 18	6789637	429199	Standard	W	01-Aug-96
2334		-	19, 20	6790085	429193	Standard	W	01-Aug-96

APPENDIX III

CERTIFICATES OF ANALYSIS

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
1016 - 510 W. HASTINGS ST.
VANCOUVER, BC
V6B 1L8

Project : ARENA
Comments:

Page Number : 1
Total Pages : 1
Certificate Date: 12-SEP-96
Invoice No. : I9631511
P.O. Number :
Account : MPO

CERTIFICATE OF ANALYSIS A9631511

SAMPLE	PREP CODE		Au ppb FA+AA									
BB06015	244	--	< 5									
BB06017	244	--	< 5									

CERTIFICATION: [signature]

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
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VANCOUVER, BC
V6B 1L8

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Page Number : 1-A
Total Pages : 1
Certificate Date: 15-SEP-96
Invoice No. : I9631072
P.O. Number :
Account : MPO

CERTIFICATE OF ANALYSIS A9631072

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
BB 08118	201	202	< 0.2	2.94	12	150	< 0.5	< 2	0.31	< 0.5	12	17	11	4.01	10	< 1	0.04	20	1.81	650	3
BB 08119	201	202	< 0.2	2.36	8	160	0.5	< 2	0.45	< 0.5	11	17	32	3.00	< 10	< 1	0.06	30	0.97	635	< 1
BB 08120	201	202	< 0.2	2.20	10	100	0.5	< 2	0.32	< 0.5	10	26	23	2.98	< 10	< 1	0.06	20	0.63	295	1
BB 08121	201	202	< 0.2	2.12	2	110	0.5	< 2	0.43	< 0.5	10	11	29	2.95	< 10	< 1	0.07	30	0.79	575	1
BB 08122	201	202	< 0.2	1.64	6	140	< 0.5	< 2	0.25	< 0.5	6	14	7	2.97	< 10	< 1	0.08	20	0.45	335	1
BB 08123	201	202	< 0.2	1.70	2	70	< 0.5	< 2	0.19	< 0.5	5	4	5	2.72	< 10	< 1	0.10	10	0.38	450	< 1
BB 08124	201	202	< 0.2	2.06	6	70	< 0.5	< 2	0.27	< 0.5	5	5	8	2.52	< 10	< 1	0.08	30	0.40	570	< 1
BB 08125	201	202	< 0.2	2.25	4	110	0.5	< 2	0.20	< 0.5	6	14	10	2.44	< 10	< 1	0.07	30	0.44	345	1

CERTIFICATION: Hart Bichler

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Certificate Date: 15-SEP-96
Invoice No. : I9631072
P.O. Number :
Account : MPO

CERTIFICATE OF ANALYSIS A9631072

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
BB 08118	201	202	< 0.01	7	430	6	< 2	6	27	0.09	< 10	< 10	98	< 10	84
BB 08119	201	202	< 0.01	9	640	26	< 2	5	38	0.07	< 10	< 10	66	< 10	72
BB 08120	201	202	< 0.01	18	660	14	< 2	3	27	0.09	< 10	< 10	56	< 10	70
BB 08121	201	202	< 0.01	6	570	12	< 2	4	44	0.05	< 10	< 10	56	< 10	60
BB 08122	201	202	< 0.01	8	380	14	< 2	2	28	0.06	< 10	< 10	51	< 10	66
BB 08123	201	202	< 0.01	2	600	8	< 2	1	27	0.03	< 10	< 10	35	< 10	50
BB 08124	201	202	< 0.01	2	700	12	< 2	1	31	0.04	< 10	< 10	38	< 10	48
BB 08125	201	202	0.01	7	690	12	< 2	1	27	0.04	< 10	< 10	40	< 10	60

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Page Number : 1-A
Total Pages : 1
Certificate Date: 29-AUG-96
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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
BB06007	201	202	< 0.2	3.75	8	290	0.5	< 2	1.26	< 0.5	17	15	38	4.41	< 10	< 1	0.15	50	1.55	1470	< 1
BB06008	201	202	< 0.2	3.74	4	1710	0.5	< 2	0.98	< 0.5	14	14	11	4.01	10	< 1	0.06	30	1.33	980	1
BB06009	201	202	< 0.2	2.42	6	270	0.5	< 2	0.34	< 0.5	9	13	114	3.51	< 10	< 1	0.09	30	0.69	805	< 1
BB06010	201	202	< 0.2	1.98	4	80	0.5	< 2	0.36	< 0.5	6	4	94	2.16	< 10	< 1	0.08	30	0.54	555	< 1
BB06011	201	202	< 0.2	2.37	2	620	0.5	< 2	0.96	< 0.5	7	3	92	2.72	< 10	< 1	0.14	60	0.69	765	1
BB06012	201	202	< 0.2	2.28	< 2	530	0.5	< 2	0.58	< 0.5	9	10	82	3.31	< 10	< 1	0.11	40	0.73	660	1
BB06013	201	202	< 0.2	2.27	4	220	0.5	< 2	0.45	< 0.5	8	10	117	3.10	< 10	< 1	0.09	40	0.66	705	< 1
BB06014	201	202	< 0.2	2.29	6	240	0.5	< 2	0.71	< 0.5	9	9	31	3.55	< 10	< 1	0.10	60	0.70	760	1
BB06015	201	202	< 0.2	2.30	14	170	< 0.5	20	0.08	< 0.5	5	6	93	4.66	< 10	< 1	0.14	10	0.34	345	3
BB06016	201	202	< 0.2	1.97	6	150	< 0.5	2	0.16	< 0.5	4	18	36	3.48	< 10	< 1	0.08	10	0.30	240	1
BB06017	201	202	< 0.2	2.44	6	160	< 0.5	20	0.05	< 0.5	4	5	64	3.19	< 10	< 1	0.09	10	0.28	295	1
BB06018	201	202	< 0.2	1.83	6	140	< 0.5	< 2	0.09	< 0.5	3	9	18	2.11	< 10	< 1	0.05	10	0.20	175	< 1
BB06019	201	202	< 0.2	2.61	2	230	< 0.5	8	0.11	< 0.5	7	21	74	3.48	< 10	< 1	0.07	30	0.65	425	1
BB06020	201	202	< 0.2	1.80	6	90	< 0.5	< 2	0.14	< 0.5	6	26	19	2.79	< 10	< 1	0.05	10	0.45	290	1
BB06021	201	202	< 0.2	2.05	6	80	< 0.5	< 2	0.12	< 0.5	5	15	24	3.30	< 10	< 1	0.05	10	0.40	455	1

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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
BB06007	201	202	< 0.01	6	510	12	< 2	13	81	< 0.01	< 10	< 10	99	< 10	74
BB06008	201	202	0.01	6	410	8	< 2	12	63	< 0.01	< 10	< 10	92	< 10	66
BB06009	201	202	< 0.01	8	590	14	< 2	5	28	0.01	< 10	< 10	62	< 10	58
BB06010	201	202	0.04	2	570	10	< 2	3	39	0.03	< 10	< 10	36	< 10	42
BB06011	201	202	< 0.01	2	410	20	< 2	4	104	0.04	< 10	< 10	33	< 10	50
BB06012	201	202	< 0.01	6	560	12	< 2	6	56	0.10	< 10	< 10	54	< 10	54
BB06013	201	202	< 0.01	6	540	14	2	5	43	0.09	< 10	< 10	50	< 10	60
BB06014	201	202	< 0.01	5	520	14	< 2	7	42	0.15	< 10	< 10	59	< 10	60
BB06015	201	202	< 0.01	4	190	20	< 2	3	11	< 0.01	< 10	< 10	35	< 10	36
BB06016	201	202	< 0.01	6	220	16	< 2	3	31	0.06	< 10	< 10	80	< 10	34
BB06017	201	202	0.01	2	630	18	< 2	1	12	< 0.01	< 10	< 10	32	< 10	30
BB06018	201	202	< 0.01	3	250	10	< 2	1	20	0.02	< 10	< 10	44	< 10	24
BB06019	201	202	< 0.01	6	500	22	< 2	3	18	0.02	< 10	< 10	50	< 10	60
BB06020	201	202	< 0.01	10	240	14	< 2	3	18	0.06	< 10	< 10	58	< 10	46
BB06021	201	202	< 0.01	4	340	14	< 2	3	21	0.04	< 10	< 10	61	< 10	46

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Total Pages : 1
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Invoice No. : I9627863
P.O. Number :
Account : MPO

CERTIFICATE OF ANALYSIS A9627863

SAMPLE	PREP CODE		Au ppb FA+AA	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
N110334	205	226	< 5	< 0.2	0.82	2	80	< 0.5	< 2	1.84	< 0.5	4	128	2	1.35	< 10	< 1	0.22	10	0.08	195

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Total Pages : 1
Certificate Date: 21-AUG-96
Invoice No. : I9627863
P.O. Number :
Account : MPO

CERTIFICATE OF ANALYSIS A9627863

SAMPLE	PREP CODE		Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
N110334	205	226	1	< 0.01	3	130	2	2	< 1	4	< 0.01	< 10	< 10	5	< 10	10

CERTIFICATION: Hart Bichler

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

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V6B 1L8

Project : ARENA
Comments:

Page Number : 1-A
Total Pages : 1
Certificate Date: 21-AUG-96
Invoice No. : I9627856
P.O. Number :
Account : MPO

CERTIFICATE OF ANALYSIS A9627856

SAMPLE	PREP CODE		Au ppb FA+AA	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
N110032	205	226	20	13.6	2.17	30	80	< 0.5	18	1.20	3.5	21	167	8070	4.57	< 10	2	0.15	10	1.49	835
N110033	205	226	< 5	0.2	1.55	< 2	30	< 0.5	< 2	0.71	< 0.5	10	156	1665	2.59	< 10	< 1	0.11	30	0.80	535
N110054	205	226	< 5	< 0.2	2.77	< 2	150	0.5	< 2	2.65	< 0.5	15	172	43	3.77	< 10	< 1	0.33	20	1.84	760

CERTIFICATION: Hart Bichler

Chemex Labs Ltd.

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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
1016 - 510 W. HASTINGS ST.
VANCOUVER, BC
V6B 1L8

Project : ARENA
Comments:

Page Number : 1-B
Total Pages : 1
Certificate Date: 21-AUG-96
Invoice No. : I9627856
P.O. Number :
Account : MPO

CERTIFICATE OF ANALYSIS A9627856

SAMPLE	PREP CODE		Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	Sb ppm	Sc ppm	Sr ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Zn ppm
N110032	205	226	30	0.01	16	280	796	2	9	41	0.10	< 10	< 10	79	< 10	578
N110033	205	226	< 1	0.04	3	280	6	< 2	5	53	0.10	< 10	< 10	42	< 10	44
N110054	205	226	< 1	0.03	20	370	10	2	12	54	0.01	< 10	< 10	80	< 10	252

CERTIFICATION: Hart Bichler

QA24912

ARCHER, CATHRO
& ASSOCIATES (1981) LIMITED

CONSULTING GEOLOGICAL ENGINEERS

BOX 4127, 2054 SECOND AVENUE, WHITEHORSE, Y.T. Y1A 3S9 TEL (403) 667 - 4415

AFFIDAVIT

I, Joan Mariacher, of WHITEHORSE, YUKON make oath and say:

That to the best of my knowledge the attached Statement of Expenditures for exploration work on the ARENA mineral claims on Claim Sheet 1-20 is accurate.

Joan Mariacher

Sworn before me at WHITEHORSE, YUKON
this 16TH day of
DECEMBER, 1996

Notary, Yukon Territory

RECEIVED
DEC 16 1996
MINING RECORDER
WATSON LAKE, Y.T.
I.N.A.C.

1016 - 510 WEST HASTINGS STREET, VANCOUVER, B.C. V6B 1L8 TEL (604) 688 - 2568 • FAX (604) 688 - 2578

Statement of Expenditures
Arena 1-20 Mineral Claims
December 10, 1996

Labour

A. Burgert, geologist - 1 day December - @ $247.50/day	$ 264.83
K. Sax, geologist - August 1 - 1 day @ $270/day	288.90
G. Bell, geologist - August 1 - 1 day @ $210/day	224.70
D. Robinson, field assistant - August 1 - 1 day @ $187.50/day	200.63
K. Wojcik, field assistant - August 1 - 1 day @ $180/day	192.60
S. Schneider, field assistant - August 1 - 1 day @ $165/day	176.55
	$1,348.21
Less claim tagging costs - .5 mandays @ $187.50/day plus room and board @ $110/day	159.16
	$1,189.05

Expenses

Field room and board - 5 days @ $110/day	588.50
Kluane Helicopters - 2.6 hrs Bell 206B @ $585/hr, plus fuel	1,944.62
Chemex Labs Ltd.	253.74
Supervision, claim surveys & data entry - pro rated	4,611.56
	$7,398.42
TOTAL	$8,587.47

RECEIVED
MAR 24 1997
MINING RECORDER
WATSON LAKE, Y.T.
L.R.A.C.

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

In Account With

Project — FINLAYSON PROJECT

Date — AUGUST 31, 1996

LABOUR		
Field A. ARCHER - 49 HRS AT 60/HR	2940.00	
R. CARNE - 13 HRS AT 50/HR	650.00	
D. EATON - 152 HRS AT 50/HR	7600.00	
T. BECKER - 200 HRS AT 40/HR	8000.00	
B. WENGZYNOWSKI - 92 HRS AT 40/HR	3680.00	
G. LOWEY - 1 DAY AT 300/DAY	300.00	
G. MCDOUGALL - 20½ DAYS AT 300/DAY	6150.00	
K. SAX - 31 DAYS AT 270/DAY	8370.00	
A. BURGERT - 31 DAYS AT 247.50/DAY	7672.50	
M. BEDARD - 26 DAYS AT 232.50/DAY	6045.00	
J. O'ROURKE - 31 DAYS AT 225/DAY	6975.00	
G. BELL - 31 DAYS AT 210/DAY	6510.00	
I. GIBSON - 3 DAYS AT 202.50/DAY	607.50	
J. OWERKO - 22 DAYS AT 202.50/DAY	4455.00	
D. ROBINSON - 21½ DAYS AT 187.50/DAY	4031.25	
R. CHARRON - 21 DAYS AT 180/DAY	3780.00	
J. MCPHEE - 25 DAYS AT 180/DAY	4500.00	
K. WOJCIK - 22 DAYS AT 180/DAY	3960.00	
C. COWAN - 21 DAYS AT 172.50/DAY	3622.50	
P. GLOMBICK - 3 DAYS AT 172.50/DAY	517.50	
P. MOORES - 10 DAYS AT 172.50/DAY	1725.00	
R. BAINES - 20 DAYS AT 165/DAY	3300.00	
R. BROWN - 10 DAYS AT 165/DAY	1650.00	
C. NOBLE - 8 DAYS AT 165/DAY	1320.00	
B. NODWELL - 28 DAYS AT 165/DAY	4620.00	
D. REGEHR - 28 DAYS AT 165/DAY	4620.00	
T. RESZAT - 22 DAYS AT 165/DAY	3630.00	
S. SCHNEIDER - 28 DAYS AT 165/DAY	4620.00	
J. YOUNG - 26 DAYS AT 165/DAY	4290.00	
S. DE LA BARRE - 31 DAYS AT 262.50/DAY	8137.50	
N. EDELSON - 31 DAYS AT 165/DAY	5115.00	
Office M. COOKE - 50½ HRS AT 33/HR	1666.50	
Accounting & Expediting J. MARIACHER - 169½ HRS AT 42.50/HR	7203.75	142264.00
OTHER SERVICES		
Room & Board in Whitehorse 38 DAYS AT 60/DAY	2280.00	
Field equipment from AC stock	2140.60	
Printing 50.70 Photocopies 2689 @ .25 - 672.25	722.95	
Rentals from AC AUGUST 1-31 - 4 SBX 11's AT 750/MO. BINOC SCOPE AT 360/MO; HONDA HYD PUMP AT 75/MO; ROCK SAW AT 120/MO; 12 KVA GENSET AT 1410/MO 2 ICOM'S AT 200/MO; ½ D. EATON ICOM AT 100/MO; 1000 & 5000 GENSETS AT 600/MO	3565.00	
1000 & 5000 GENSETS FOR APRIL TO JULY - MISSED - AT 600/MO	2400.00	
Drafting, hrs at $ /hr.		
LOOMIS COURIER - 4 @ 12.50/EA	50.00	11158.55

KLUANE

CHARTER TICKET: KH 0706

HELICOPTERS A DIVISION OF 528470 ALBERTA LIMITED
P.O. BOX 2128, HAINES JUNCTION, YUKON TERRITORY, CANADA Y0B 1L0
TELEPHONE: (403) 634-2224 • FAX: (403) 634-2226

CHARTERER: EXPATRIATE RES.

ADDRESS:

DATE:	A/C TYPE	A/C REG.	PURCHASE ORDER #	FORESTRY TICKET No.
08-01-96	B206	FHUY		

FLIGHT DESCRIPTION	TIME UP	TIME DOWN	HOURS	RATE	SUB-TOTAL
CAMP → CARMENS, D.O. 2Px	0727				
P.U. 1Px RELOCATE SET OUT					
3Px.		0827	1.0		
RELOCATE 6Px RTRN TO FIRE	0840				
LK. MOVE CAMP & WAIT					
@ FIRE LK.		1056	1.2		ARENA
SLING FUEL & EMPTY DRUMS	1541				
PICK UP 6Px & SAMPLES					
MOVE DIRKS CAMP RTRN TO					
FIRE LK.		1749	1.4		ARENA
D.O. 1Px & FOOD @ KELL'S	2109				
THEN P.U. 4Px RTRN TO CAMP		2146	.5		
	TOTAL		4.1		2398.50

CONTRACT No.	CONTRACT DAYS	MINIMUM HOURS	DAILY MINIMUMS	FUEL: SUPPLIED BY CLIENT

CHARTERER FUEL:	COMPANY FUEL:	OIL:	
DRUMS:	GALLONS $ /GAL.	MEALS:	
GALLONS	LITRES: $ /LTR.	LODGING:	
LITRES:			
		G.S.T. REG. 132709809	167.89

CHARTERER AUTHORIZATION: T.C. Buck

PILOT:

TOTAL: $ 2566.39

SIGNING OF THIS TICKET BY AUTHORIZED REPRESENTATIVES CONSTITUTES THE RIGHT BY THE CARRIER TO CHARGE 3% PER MONTH INTEREST ON ALL ACCOUNTS OVER 30 DAYS.

Chemex Labs Ltd.

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

To: EXPATRIATE RESOURCES LTD.
C/O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016 - 510 W. HASTINGS ST.
VANCOUVER, BC
V6B 1L8

INVOICE NUMBER I 9 6 2 7 8 5 6

BILLING INFORMATION

Date: 22-AUG-96
Project: ARENA
P.O. No.:
Account: MPO

Comments:

Billing: For analysis performed on Certificate A9627856

Terms: Payment due on receipt of invoice 1.25% per month (15% per annum) charged on overdue accounts

Please Remit Payments to:

CHEMEX LABS LTD.
212 Brooksbank Ave.,
North Vancouver, B.C.
Canada V7J 2C1

# OF SAMPLES	ANALYSED FOR CODE - DESCRIPTION	UNIT PRICE	SAMPLE PRICE	AMOUNT
3	205 - Geochem ring to approx 150 mesh	2.50		
	0-3 Kg crush and split	2.60		
	ICP-32	7.00		
	983 - Au ppb FA+AA	9.75	21.85	65.55

Total Cost $	65.55
Client Discount (25%) $	-16.39
Net Cost $	49.16
(Reg# R100938885) GST $	3.44
TOTAL PAYABLE (CDN) $	**52.60**

Chemex Labs Ltd.

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

To: EXPATRIATE RESOURCES LTD.
C/O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016 - 510 W. HASTINGS ST.
VANCOUVER, BC
V6B 1L8

INVOICE NUMBER I9627863

BILLING INFORMATION

Date: 22-AUG-96
Project: ARENA
P.O. No.:
Account: MPO

Comments:

Billing: For analysis performed on Certificate A9627863

Terms: Payment due on receipt of invoice 1.25% per month (15% per annum) charged on overdue accounts

Please Remit Payments to:

CHEMEX LABS LTD.
212 Brooksbank Ave.,
North Vancouver, B.C.
Canada V7J 2C1

# OF SAMPLES	ANALYSED FOR CODE - DESCRIPTION	UNIT PRICE	SAMPLE PRICE	AMOUNT
1	205 - Geochem ring to approx 150 mesh	2.50		
	0-3 Kg crush and split	2.60		
	ICP-32	7.00		
	983 - Au ppb FA+AA	9.75	21.85	21.85

Total Cost $	21.85
Client Discount (25%) $	-5.46
Net Cost $	16.39
(Reg# R100938885) GST $	1.15
TOTAL PAYABLE (CDN) $	**17.54**

Chemex Labs Ltd.

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

To: EXPATRIATE RESOURCES LTD.
C/O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016 - 510 W. HASTINGS ST.
VANCOUVER, BC
V6B 1L8

INVOICE NUMBER I9628918

BILLING INFORMATION

Date: 29-AUG-96
Project: ARENA
P.O. No.:
Account: MPO

Comments:

Billing: For analysis performed on Certificate A9628918

Terms: Payment due on receipt of invoice 1.25% per month (15% per annum) charged on overdue accounts

Please Remit Payments to:

CHEMEX LABS LTD.
212 Brooksbank Ave.,
North Vancouver, B.C.
Canada V7J 2C1

# OF SAMPLES	ANALYSED FOR CODE - DESCRIPTION	UNIT PRICE	SAMPLE PRICE	AMOUNT
15	201 - Dry, sieve to -80 mesh	1.25		
	202 - save reject	0.85		
	ICP-32	7.00	9.10	136.50

Total Cost $	136.50
Client Discount (25%) $	-34.13
Net Cost $	102.37
(Reg# R100938885) GST $	7.17
TOTAL PAYABLE (CDN) $	**109.54**

Chemex Labs Ltd.

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

TO: EXPATRIATE RESOURCES LTD.
C/O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016 - 510 W. HASTINGS ST.
VANCOUVER, BC
V6B 1L8

INVOICE NUMBER I9631072

BILLING INFORMATION

Date: 16-SEP-96
Project: ARENA
P.O. No.:
Account: MPO

Comments:

Billing: For analysis performed on Certificate A9631072

Terms: Payment due on receipt of invoice 1.25% per month (15% per annum) charged on overdue accounts

Please Remit Payments to:

CHEMEX LABS LTD.
212 Brooksbank Ave.,
North Vancouver, B.C.
Canada V7J 2C1

# OF SAMPLES	ANALYSED FOR CODE - DESCRIPTION	UNIT PRICE	SAMPLE PRICE	AMOUNT
8	201 - Dry, sieve to -80 mesh	1.25		
	202 - save reject	0.85		
	ICP-32	7.00	9.10	72.80

Total Cost $	72.80
Client Discount (25%) $	-18.20
Net Cost $	54.60
(Reg# R100938885) GST $	3.82
TOTAL PAYABLE (CDN) $	**58.42**

Chemex Labs Ltd.

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

To: EXPATRIATE RESOURCES LTD.
C/O ARCHER, CATHRO & ASSOCIATES (1981) LIMITED
1016 - 510 W. HASTINGS ST.
VANCOUVER, BC
V6B 1L8

INVOICE NUMBER I9631511

BILLING INFORMATION

Date: 12-SEP-96
Project: ARENA
P.O. No.:
Account: MPO

Comments:

Billing: For analysis performed on Certificate A9631511

Terms: Payment due on receipt of invoice 1.25% per month (15% per annum) charged on overdue accounts

Please Remit Payments to:

CHEMEX LABS LTD.
212 Brooksbank Ave.,
North Vancouver, B.C.
Canada V7J 2C1

# OF SAMPLES	ANALYSED FOR CODE - DESCRIPTION	UNIT PRICE	SAMPLE PRICE	AMOUNT
2	244 - Pulp; prev. prepared at Chemex	0.00		
	983 - Au ppb FA+AA	9.75	9.75	19.50

Total Cost $	19.50
Client Discount (25%) $	-4.88
Net Cost $	14.62
(Reg# R100938885) GST $	1.02
TOTAL PAYABLE (CDN) $	15.64