

**GEOLOGICAL AND GEOCHEMICAL REPORT  
ON THE**

**MT. CARMACKS**

**INTRUSION-RELATED GOLD PROJECT,  
WEST-CENTRAL YUKON TERRITORY**

**DAWSON MINING DISTRICT**

**116C/8**

**LATITUDE: 64°25' N  
LONGITUDE: 140°15' W**

**094070**

**CLAIMS**

**T 1-30**

**K 1-20**

**O 1-10**

**BIGO 1-20**

**FOR:**

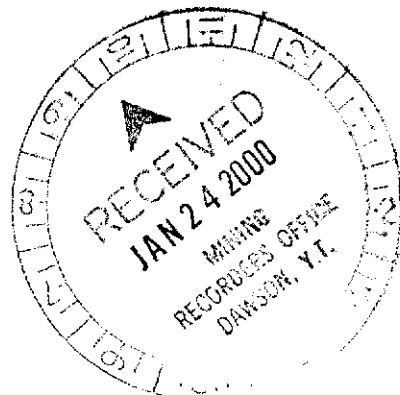
**PROSPECTOR INTERNATIONAL RESOURCES INC.**

**530-800 West Pender St.  
Vancouver, British Columbia  
V6C 2V6**

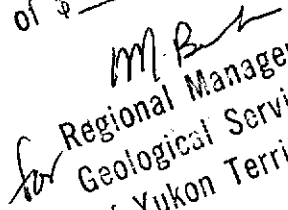
**BY:**

**Bart J. Jaworski, G.I.T.  
Brian Meyer, P.Geol.**

**January 2000**



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 \$ 3000.

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

## **SUMMARY**

An extensive research effort focussed on finding 'Pogo-style' and other intrusion-related gold targets within the western portion of the Yukon Tanana Terrane of the Yukon Territory was conducted during the period February to March, 1999. The study resulted in the staking of 16 claim blocks within six target areas located in west central Yukon. The T, K, O, and BIGO claims, located approximately 60 kilometers northwest of Dawson City, comprise one of the target areas.

Target area selection was based on regional similarities to 'Pogo-style' and other intrusion-related gold mineralization using a combination of the following primary criteria:

- Regional stream sediment sampling values anomalous in Au, As, W, Sn, Sb, Hg, and Mo (Bi, Te not available in database).
- Mid-late Cretaceous intrusives, preferably felsic in composition, with coincident magnetic low anomalies and associated schist and gneiss country rocks.
- Associated northwesterly and northeasterly trending structures.

The Mt. Carmacks target area consists of eight (8) geochemically anomalous creeks (sampled by the G.S.C.) that drain the northern, northwestern, and southwestern margin of the mid-Cretaceous Mt. Carmacks granodiorite and quartz monzonite pluton. The T, K, O, and BIGO claims, which are non-contiguous and total 80 claims, cover portions of the northwestern and southwestern margin of the pluton.

The pluton appears to exhibit geochemical zonation with the northern margin strongly anomalous in W, and the northwestern margin moderately to strongly anomalous in As, Sb, Mo, and Hg. Weak to moderate Au anomalies occur near the northern, northwestern, and southwestern margins of the pluton.

A news release dated April 28, 1999 by Expatriate Resources Ltd. and Nordac Resources Ltd., states that specimens of creek float collected from the TRACK 1-68 claims, located adjacent to the T claims, yielded moderate Au values (2.7 and 1.2 g/t Au) with uncommonly high bismuth values (1530 and 2140 ppm, respectively).

The Mt. Carmacks target area occurs within a broad, northwest oriented, trend of magnetic lows that extends from Dawson City to Forty Mile, and parallels the Tintina Fault.

The target area was previously explored in 1995 by Cominco Exploration for Cu/Pb/Zn mineralization and in the late 1970's and early 1980's by Noranda Exploration Ltd. for W skarn mineralization. Quartz veining was encountered in drilling conducted in the 1980's by Noranda Exploration Co. Ltd. However, it does not appear that any systematic gold exploration has occurred in the area.

As part of their overall exploration program covering all six (6) target areas, Prospector International conducted a first-pass exploration program on the Mt. Carmacks property, on August 21<sup>st</sup> and 22<sup>nd</sup> 1999. The program identified an open-ended 600-metre wide soil anomaly, located on the T claims, locally containing arsenopyrite-pyrite quartz float with elevated Au and As, as well as, local Sb, Te and Cu. Approximately 500 metres west of this anomaly, rock chip samples from quartz veins and surrounding wallrock returned elevated Au, Bi, W, as well as, As, Cu and Te. Fluid inclusion analysis from quartz float within the soil anomaly has identified carbonic fluids trapped at 3.5 km depth.

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## **(1) INTRODUCTION**

The Pogo Deposit, located in the Goodpaster District, East-Central Alaska, is a significant new gold discovery containing a geological resource of 9.98 million tons at an average grade of 0.52 oz/ton (The Northern Miner, March 15, 1999). The deposit appears to be, at least in part, genetically related to an arcuate belt of rocks known as the 'Tintina Gold Belt' (see Figure 1), which extends from southeastern Alaska to southwestern Yukon Territory, and contains the Donlin Creek, Fort Knox, Brewery Creek, and other deposits.

The discovery is of significance as the area was relatively unexplored with only limited placer mining and/or exploration conducted prior to the discovery. The deposit is spatially associated with the mid-Cretaceous Goodpaster batholith and occurs within the Yukon Tanana Terrane, which underlies much of east central Alaska, as well as, central and western Yukon. Considering that west-central Yukon contains numerous mid-Cretaceous plutons that intrude Yukon Tanana Terrane, it is not unreasonable to expect 'Pogo-style' mineralization on the Canadian side of the border.

The staking rush that ensued in Alaska following the initial discovery of the Pogo deposit has begun to spread to the Yukon. In addition to favourable geology, there exists considerable cost advantages to conducting mineral exploration in the Yukon versus Alaska. These include: (1) the currency exchange rate, (2) the newly introduced 22% rebate on exploration by the Yukon government, (3) relative ease of raising flow-through funds possible only with Canadian projects, and (4) government-industry cooperatives with organizations such as NATMAP and NATGAM which contribute to companies, a percentage of the cost of geophysical work in the southwestern Yukon region.

An extensive research effort focussed on finding 'Pogo-style' and other intrusion related gold targets within the western portion of the Yukon Tanana Terrane of the Yukon Territory was conducted by Prime Properties Syndicate during the period February to March, 1999. The study resulted in staking 16 claim blocks within six target areas in west-central Yukon (see Figure 2). The T, K, O, AND BIGO claims, located in the Mt. Carmacks area, comprise one of the target areas (see Figure 2).

As part of their overall exploration program covering all six (6) target areas, Prospector International conducted a first-pass exploration program on the Mt. Carmacks property, on August 21<sup>st</sup> and 22<sup>nd</sup>, 1999. The program consisted of 5.5 mandays and included 5 silt samples, 81 soil samples and 2 rock samples. The following report summarizes pertinent features of the Pogo deposit and other intrusion related Au mineralization, describes the characteristics of the Mt. Carmacks target area and summarizes the results of the Company's 1999 field season.

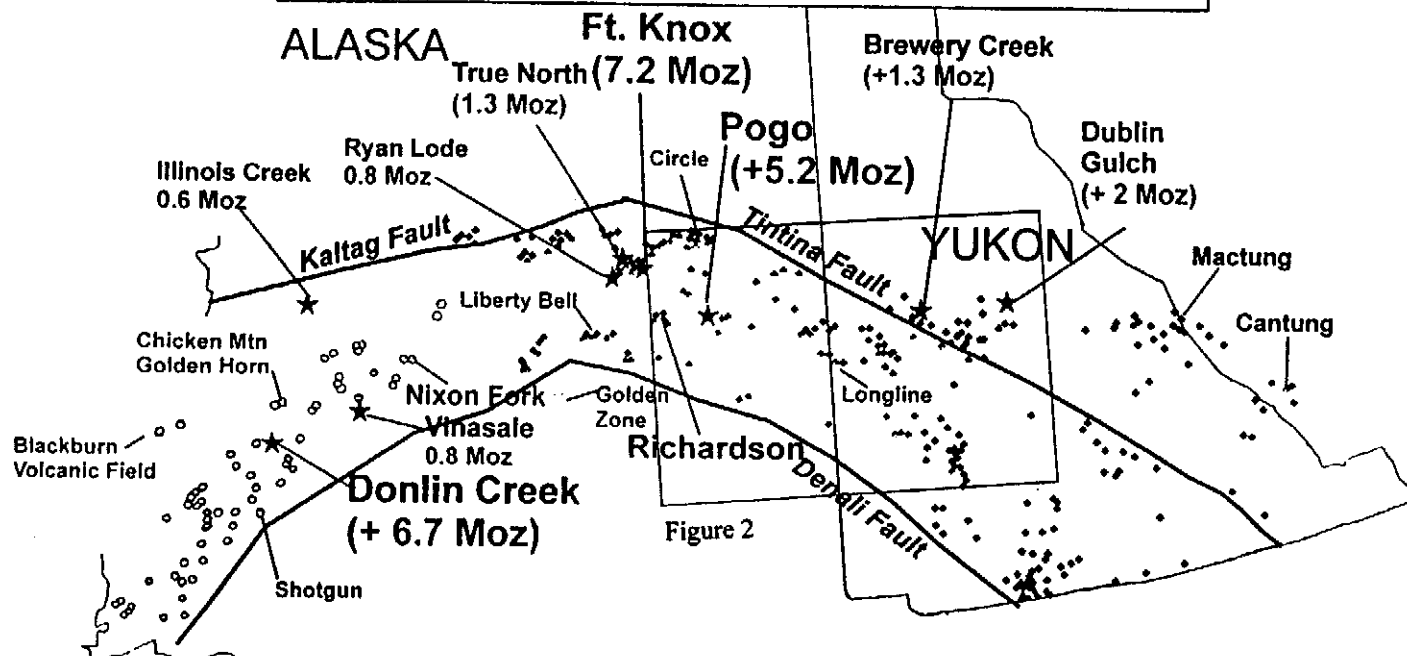
## **(2) INTRUSION-RELATED GOLD DEPOSITS**

The Pogo Deposit appears to represent a deep-seated manifestation of the 'plutonic-related gold' deposit type, which includes Fort Knox, True North, Brewery Creek and Dublin Gulch deposits (Smith, Cordilleran Abstract, 1999). Plutonic-related gold



# PRIME PROPERTIES

## TINTINA GOLD BELT - "WIDE SEARCH"



### EXPLANATION

- Au Occurrences in or near Mid K intrusions (~85-110 Ma)
- Au Occurrences in or near Late K igneous rocks (~66-73 ma)
- ★ Deposits with + 0.5 Million ounces of Drill-Indicated Resource/Reserves

— Major Faults

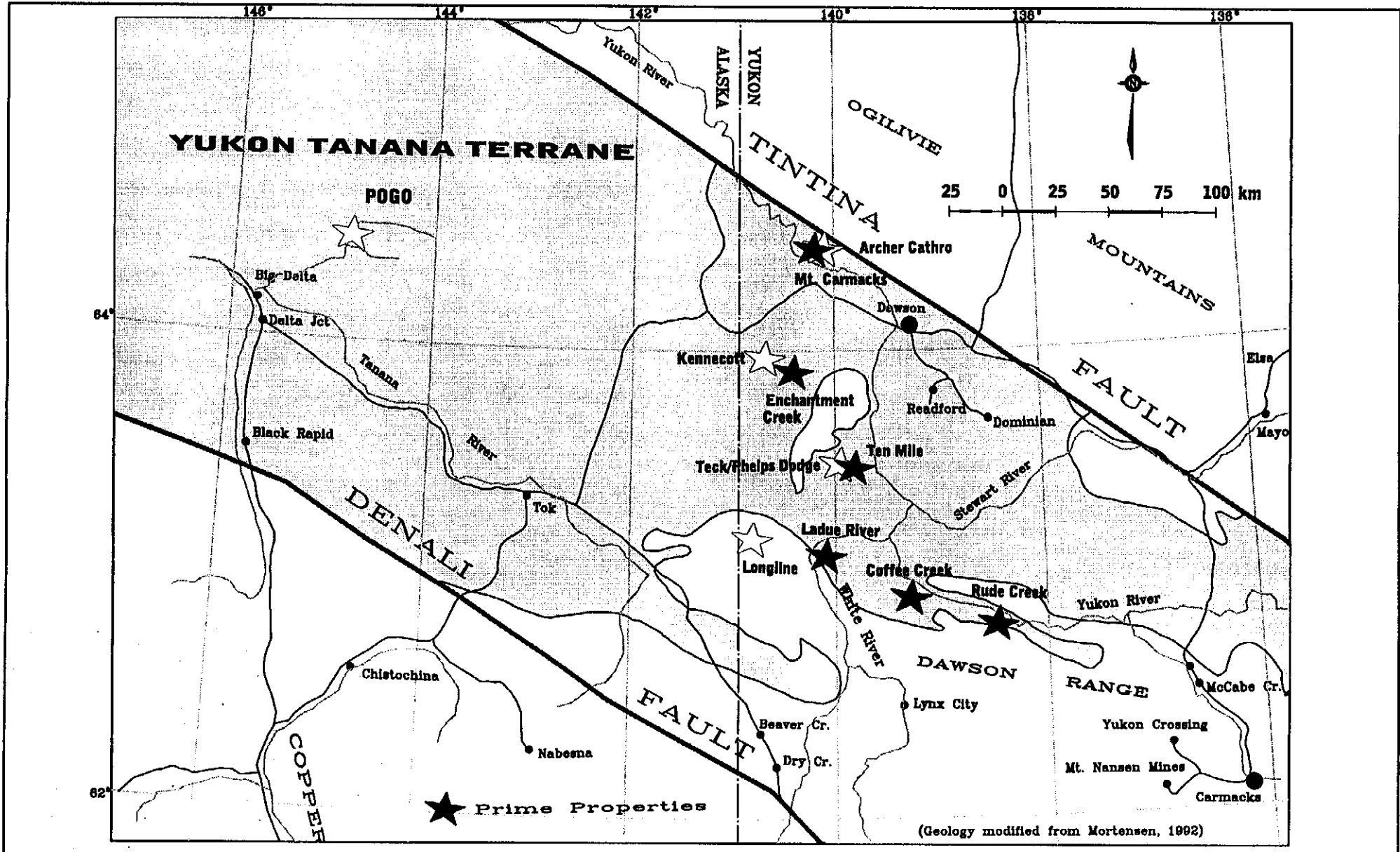
Figure 1





# PRIME PROPERTIES

Figure 2. Location Map



mineralization, or, 'intrusion-related' as per more current nomenclature, represents a suite of mineralization encountered throughout the Tintina Gold Belt (see Figure 1). The belt, which extends from southwestern Alaska to east central Yukon Territory, is estimated to contain in excess of 39 million ounces of Au in current resources (The Northern Miner, November 30, 1999) with past production totaling 29.9 million ounces.

Intrusion-related gold mineralization is defined by its distinct association with reduced, I-type, calc-alkalic and/or alkalic intrusions (McCoy, Cordilleran Roundup Abstract, 1999). These intrusions are part of two subduction-related magmatic arcs: one that formed between 105-85 Ma in Interior Alaska and the Yukon, and the other between 73 and 67 Ma in southwest Alaska (McCoy Abstract, 1999). The types, sizes, and grades of gold deposits depends on the (1) proximity and size of the gold source, i.e. porphyritic granitoid bodies, (2) physio-chemical controls on hydrothermal fluids and cooling rock bodies (e.g. pressure and temperature gradients controlled by emplacement depth) and (3) local lithologies and structures (McCoy, Cordilleran Roundup, Abstract, 1999).

Gold deposited at high (>400°C) temperatures is only preserved or originally present in the more deeply emplaced gold deposits in Interior Alaska and the Yukon (McCoy, Cordilleran Abstract, 1999). This mineralization shows evidence of early, very low-sulfidation state with characteristic mineral assemblages containing pyrrhotite±pyrite, arsenopyrite-loellingite, native Bi, and low-S Bi-Te minerals.

### **(3) PROFILE OF THE POGO DEPOSIT**

As the Pogo-deposit is a relatively new discovery, information pertaining to its characteristics is limited. A model for the deposit does not currently exist, at least in the public domain. The information contained herein was collected from The Northern Miner (articles dated August 3, November 30, 1998 and March 15, 1999), as well as, from an abstract from the Cordilleran Roundup by Moira Smith, Project Geologist at Teck Corp. As more information pertaining to the deposit becomes available, exploration parameters are subject to modification.

#### **(3.1) Property Location, Access, and Physiography**

The Pogo Deposit occurs in the far-northwestern corner of the Stoneboy property, 90 miles east-southeast of Fairbanks and 40 miles north of the town of Delta Junction in the Goodpaster district of east-central Alaska (see Figure 1 and 2). The property is accessible by helicopter and small fixed-wing aircraft, with road access limited to winter months.

The terrain consists of rolling, tundra-covered and lightly timbered hills, with a vertical relief of about 3,000 feet (915 meters). The property boundaries enclose approximately 72 square miles (18,648 ha).

#### **(3.2) Area History**

Little placer mining has occurred in the area, and until the discovery of the Pogo deposit, limited systematic exploration work had been undertaken.

In 1981, the Alaskan subsidiary of Watts Griffis & McQuat (WGM) conducted regional stream sediment-sampling and found that Pogo Creek, and to a lesser extent, Liese Creek, returned weak Au (35 ppb) and multi-element anomalies. Follow-up work revealed some gold-mineralized quartz float. Working on behalf of Sumitomo Metals, WGM returned to the area 10 years later, in 1991, and carried out a grid soil-sampling program that identified a 1 sq-mile gold anomaly with greater than 100 ppb Au. In 1994, three holes were drilled, followed by 13 more the next year. To date, 176 holes have intersected the Liese zone.

Teck Corp., which signed a joint venture deal with Sumitomo in late 1997, has carried out geophysical work on the Liese zone, however, geochemical sampling has been found to be the most effective exploration tool. Regional reconnaissance work has identified an 8-mile-long trend of anomalous gold in rocks and soils, extending to the southeast. In particular, quartz boulder trains, found in four separate areas, have yielded multi-ounce gold values, including 13- and 28-oz. grab samples from Tan Creek Ridge and 3 oz. samples from Sonora Creek Ridge.

### **(3.3) Regional Geology**

The deposit is underlain by highly deformed, amphibole-grade paragneiss and minor orthogneiss of the late Proterozoic to mid-Paleozoic Yukon-Tanana terrane. Both sedimentary and volcanic sequences comprise the protolith of the gneisses.

### **(3.4) Local Geology**

The Pogo deposit consists of two or more, tabular, gently dipping subparallel quartz bodies hosted by Proterozoic to early Paleozoic gneisses of the Yukon Tanana Terrane. It occurs approximately 1 mile (1.6 kilometers) south of the southern margin of the mid-Cretaceous Goodpaster Batholith.

The deposit is divided into an upper zone and a lower zone. The upper is referred to as the Main Liese, or L1, whereas, the lower, as the Lower Liese or L2. The two zones are spaced about 500 feet (152 meters) apart. The bodies range in thickness from 1 to 70 feet (0.30 meters to 21.3 meters), and averaging 20 feet (6.1 meters) thick. The Main zone is 4,500 feet (1372 meters) long and 2,000 feet (610 meters) wide. A possible third zone has been intersected by two deep drill holes 400 feet (122 meters) below the Lower Liese. A quartz body occurs above the L1, however it is discontinuous.

A distinct spatial association with mid-Cretaceous intrusions, combined with a lithophile (Sn, W, Mo) metal signature suggest that gold mineralization within the deposit was derived from fluids that came from the mid-Cretaceous Goodpaster Batholith granitoid bodies.

Quartz veins contain 3% ore minerals consisting of pyrite, pyrrhotite, loellingite ( $\text{FeAs}_2$ ), and arsenopyrite, with lesser amounts of chalcopyrite, bismuthinite, maldonite ( $\text{Au}_2\text{Bi}$ ), native bismuth and native gold. The gold occurs uniformly fine-grained.

### **(3.5) Structure**

Northwest-trending structures that are parallel to the Tintina and Denali fault systems, as well as, northeast-trending structures are present on the property. The Pogo is divided along a flexure point, where half the deposit dips to the northwest and the other half dips to the north.

### **(3.6) Alteration**

Early biotite and later quartz-sericite stockwork and sericite-dolomite alteration is spatially associated with the Liese Zone, suggesting both vein and replacement types of mineralization. This alteration indicates the deposit was emplaced fairly deep in the crust and under very high temperatures.

### **(3.7) Geochemistry**

Strong correlation exists between Au and Bi, and weaker correlation exists between Au and other elements such as Te, As, W, Sn, Mo, (Hg, Sb).

### **(3.8) Aeromagnetic Signature**

Regional aeromagnetic and geologic surveys have revealed linear magnetic low anomalies, which coincide with a series of small plutons. The Pogo deposit occurs along one of these linear magmatic features, known as 'the Pogo Trend'. A second linear feature, defined by similar parameters has been interpreted to the south of Pogo and is known as the "Big Swede Trend".

Local aeromagnetic signature consists of a magnetic low with an adjacent magnetic high. It is interpreted that the magnetic low is a result of low oxidation state plutons that have low magnetite abundance. The magnetic high is interpreted to be a result of a pyrrhotite-bearing hornfels within the aureole of the pluton.

## **(4) 1999 EXPLORATION PROGRAM**

### **(4.1) Scope of Program**

The 1999 Mt.Carmacks exploration program, consisting of 5.5 mandays, was conducted by Bart Jaworski, G.I.T., Brian Meyer, P.Geol. and Michael Glynn, under contract to Prospector International Resources during August 21<sup>th</sup> and 22<sup>nd</sup> 1999. This program involved stream sediment (silt) sampling of secondary drainages, contour and ridgeline reconnaissance soil sampling, rock sampling of available outcrop and prospecting. The program was helicopter supported from Dawson City, YT.

### **(4.2) Sampling**

Soil samples were collected in kraft bags at 100 to 200 metre spacing along ridgelines and topographic contours. In anticipation of loess cover, soil samples were typically collected from pits at least 30-60 centimetres deep in order to attain the 'C' soil horizon.

Each soil sample was described using a standard fill-out form with topography, vegetation, soil characteristics, and rock fragment lithology categories.

Silt samples were collected in plastic bags in order to retain fine particle size fractions that may have been in solution. In-field sieving was not conducted.

Samples were identified using the following system: e.g. '99XBM010' – where '99' is the year of sample collection, 'X' is type of sample ('X' is soil, 'S' is silt, 'R' is rock), 'BM' is the sampler's initials, and '010' is the tenth sample.

#### **(4.3) Analytical Procedures**

Field samples were shipped to ACME Analytical Laboratory located at 852 E. Hastings in Vancouver, BC. Soil samples were sieved to -80 mesh and silt samples were sieved to two fractions: -150 +230 mesh and -230 mesh. Rock samples were crushed to -10 mesh, split and then pulverized to -100 mesh. All samples were analyzed using Group 1F (30 grams) ICP-MS.

#### **(4.4) Geochemical Evaluation**

Results from the Company's silt samples were compared to geochemical thresholds (see Table 4) used by Geological Survey of Canada (G.S.C.) surveys of the region (Regional Geochemical Reconnaissance Map 100-1986; Stewart River area, NTS: 115O and 115N E1/2, Open File 1364).

Soil samples collected by the Company were evaluated using geochemical thresholds derived from qualitative inspection of the Company's data set, as well as, threshold values being used by companies working in Alaska within the Yukon Tanana Terrane (as per Western Keltic Mines' news release dated September 9,1999, and Northern Miner Article "Pogo area gold play mixed bag for juniors" dated November 1, 1999). These thresholds, representing 'elevated' elemental values, are listed in Table 1, below:

Table 1. Thresholds for Elevated Values in Soil

|    |         |
|----|---------|
| Au | 10 ppb  |
| As | 50 ppm  |
| Bi | 0.5 ppm |
| Te | 0.1 ppm |
| Sb | 4 ppm   |
| Hg | 100 ppb |
| Ag | 0.5 ppm |
| Pb | 100 ppm |
| Cu | 100 ppm |
| W  | 1 ppm   |

Rock values collected by the Company were evaluated using thresholds derived from qualitative inspection of the Company's data set only. The following thresholds, representing elevated values in rock, are listed in Table 2, below:

Table 2. Thresholds for Elevated Values in Rock

|    |         |
|----|---------|
| Au | 95 ppb  |
| As | 100 ppm |
| Bi | 0.5 ppm |
| Te | 0.1 ppm |
| Sb | 4 ppm   |
| Hg | 100 ppb |
| Ag | 0.5 ppm |
| Pb | 100 ppm |
| Cu | 100 ppm |
| W  | 1 ppm   |

## (5) MT. CARMACKS PROPERTY

### (5.1) Location, Access, Physiography

The Mt. Carmacks target area is situated approximately 60 kilometers northwest of Dawson City, YT and approximately 5-10 kilometers northwest of the confluence of Cassiar Creek with the Yukon River. The site of Forty Mile is located 10 kilometers west of the claims.

Access to the property is by helicopter from Dawson City. The area may also be accessed by driving to the Forty Mile River via the Top of the World Highway and Clinton Creek road and then barging to Coal Creek via the Yukon River. A road exists on Coal Creek, located approximately 2.5 kilometers north of the claims.

The area is unglaciated with local relief characterized generally by steeply incised stream valleys and rounded hilltops. Elevation ranges from about 600 meters to 1,250 meters. The claim area is heavily vegetated with moss-mat, buck-brush and black spruce.

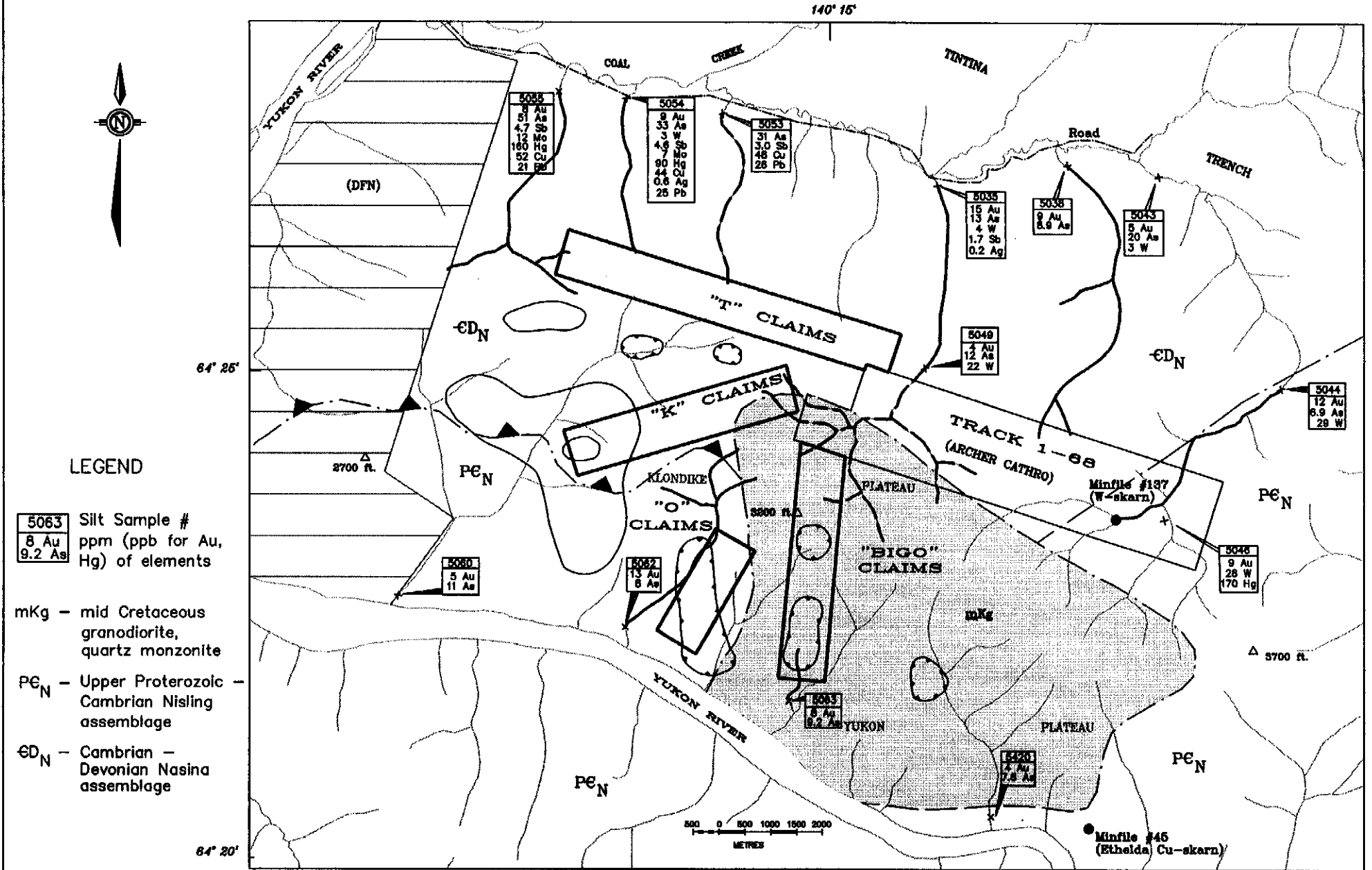
### (5.2) Property Description

The project area occurs within the Dawson Mining District and consists of 4 non-contiguous claim groups totaling 80 claims (1672 hectares) approximately centered at geographic coordinates 64°25'N latitude and 140°15'W longitude (see Figure 3). The claims are 100% owned by Prime Properties c/o Terry King. The project area is located on NTS map sheet 116C/8. Claim information is summarized in Table 3, below:

Table 3. Claim Information.

| Claim Name   | Grant No.       | Number of Claims | Area           | Expiry Date |
|--------------|-----------------|------------------|----------------|-------------|
| T            | YC13269-YC13298 | 30               | 627 ha         | 2000/03/22  |
| K            | YC13299-YC13318 | 20               | 418 ha         | 2000/03/22  |
| O            | YC13319-YC13328 | 10               | 209 ha         | 2000/03/22  |
| BIGO         | YC13329-YC13348 | 20               | 418 ha         | 2000/03/22  |
| <b>Total</b> | -               | <b>80</b>        | <b>1672 ha</b> | -           |

Prospector International has the option to earn 70% interest in any of the six properties owned by the Syndicate by spending \$52,000 on exploration in 1999 (fulfilled) and an additional \$120,000 in 2000. The Company has until November 1, 2000 to decide in



LEGEND

5063 Silt Sample #  
8 Au  
9.2 As  
9.2 Hg) of elements

mKg - mid Cretaceous  
granodiorite,  
quartz monzonite

PE<sub>N</sub> - Upper Proterozoic -  
Cambrian Nisling  
assemblage

ED<sub>N</sub> - Cambrian -  
Devonian Nasina  
assemblage

- geochemically anomalous creek

- Au-poor anomalous creek

magnetic low

magnetic high

(Geology modified from Mortensen, 1988 and  
Wheeler & McFeely, 1991)

Thrust Fault

assumed geological boundary

PROSPECTOR INTERNATIONAL

Regional Silt Geochemistry  
Mt. Carmacks Area  
116C/8

December 1999 SCALE: 1:100,000 Figure: 3

which of the six properties to acquire an interest. To acquire 70% interest, the Company must issue 100,000 shares by November 1, 2000, pay \$100,000 before June 1, 2001, obtain a favourable preliminary feasibility report within six years and issue an additional 1,000,000 shares and pay an additional \$1,000,000 within 30 days of receipt of a preliminary feasibility report. The Company's interest will be subject to a 3% net smelter return royalty, which can be bought-out up to 50% for US\$1,500,000.

### **(5.3) Area History**

Recent work conducted in the area was by Cominco Ltd. during August 16 and 22, 1995. In total, 82 soil and silt samples were collected from 4 traverses designed to follow-up Cu/Pb/Zn anomalous drainage basins highlighted by a 1978 RGS stream sediment survey. The samples were not assayed for Au. No anomalies were obtained and the source of the RGS anomalies remains unknown. Soil sampling across 4 airborne magnetic-EM geophysical features failed to obtain Cu/Zn/Pb anomalies indicating that base metal sulphides did not source these anomalies. Additional soil geochemistry and geological mapping was recommended along strike of the geophysical anomalies.

Two Minfile occurrences are reported in the vicinity of the pluton. These are Track W-skarn showing (Minfile #137) on the northeastern margin of the pluton, and the Ethelda Cu-skarn showing (Minfile #45) on the southeastern margin of the pluton (see Figure 2).

The Track showing was staked as the RAIL & ROAD claims (YA32570) in June-August 1979 by Noranda Exploration Company. Noranda conducted geochemical and magnetometer surveys in 1979; geochemical sampling, airborne geophysical surveys and 4 diamond drill holes (466 meters) in 1980; mapping, ground geophysical and geochemical surveys and trenching in 1981; bulldozer trenching and 9 holes (719 m) in 1982; and magnetic and geochemical surveys in 1983. The best intersection, averaging 0.34% WO<sub>3</sub> across 12.8 meters, was drilled in a conformable roof pendant above a gently dipping intrusive contact. The 1983 survey outlined two strong magnetic anomalies extending along strike several kilometers to the west. B. Kreft staked the KEL 1-2 claims (YB45215) in August 1993.

The Track showing contains scheelite ( $\pm$  powellite) with minor chalcopyrite, molybdenite and sphalerite within garnet-diopside-epidote-tremolite-pyrrhotite skarn that has developed locally in limy beds of the Nasina Assemblage near the margin of a porphyritic stock. MacDonald (1980) reports up to 50% pyrrhotite in diopside skarn. Skarn has developed in zones up to 120 meters thick along a strike length of 6 kilometers.

The Track showing was recently restaked in February 1999 by Archer Cathro as the Track 1-68 claims. A news release dated April 28, 1999 by Expatriate Resources Ltd. and Nordac Resources Ltd., states that specimens of creek float collected from the TRACK 1-68 claims (located adjacent to the T claims) yielded moderate Au values (2.7 and 1.2 g/t Au) with uncommonly high bismuth values (1530 and 2140 ppm, respectively).

Grapes and MacDonald (1981) report quartz vein stock works along the periphery of the intrusive which occur as barren, white, coarsely crystalline quartz and as tourmaline-rich veins. Some of the veins contain sulfides and prove anomalous in tungsten and gold.



The Ethelda Cu skarn showing was staked at the turn of the century and restaked by Noranda Exploration Co. Ltd as part of a large block of the Rail, Road & Track claims (YA32570) in June-August 1979. Noranda undertook geochemical and geophysical surveys on these claims in 1979, 1980 and 1981, and conducted 300 meters of trenching over a 1980 airborne magnetometer anomaly. Unmineralized quartz feldspar porphyry was uncovered.

#### **(5.4) Area Activity**

Recent staking in the area includes the TRACK 1-68 claims, which were staked in February, 1999 by Nordac Resources Ltd. on the northern margin of the pluton. Expired claims in the area include the COAL1-196, KEL1-2, RAIL and RIVER1-24.

#### **(5.5) Regional Geology**

The project area occurs within the Yukon Tanana Terrane, which underlies much of central and western Yukon and east central Alaska. There has been considerable debate as to whether the Yukon Tanana Terrane represents autochthonous North American strata, or a truly allochthonous terrane not directly related to North American margin or both (J.K. Mortensen, 1992). A compilation of the Yukon Tanana Terrane by Wheeler et. al. (1988), considers a large part of the terrane to represent a fragment of displaced North American continental margin.

→ The Yukon Tanana Terrane consists mainly of a poorly exposed assemblage of poly-deformed metamorphic rocks derived from a variety of igneous and sedimentary protoliths. The following assemblages, described by J.O. Wheeler & P. McFeely (1991), belong to the Yukon Tanana Terrane within the study area and are listed from oldest to youngest:

- The Upper Proterozoic to Cambrian Nisling assemblage, which represents a metamorphosed passive continental margin assemblage consisting of muscovite-biotite schist, phyllite, slate, micaceous quartzite, marble, skarn, greenstone and amphibolite.
- The Cambrian to Devonian Nasina assemblage, which is a partly metamorphosed carbonaceous and siliceous offshore sedimentary package. It consists of dark grey to black graphitic and micaceous quartzite with interfoliated graphitic, biotite muscovite schist.
- The Upper Proterozoic to Triassic Nisutlin subterrane, which consists of cataclastic sediments and volcanics of the pericratonic Kootney Terrane. The Kootney Terrane is correlated with the Yukon Tanana Terrane.

#### **(5.6) Local Geology**

The claim area is centered on the Mid-Cretaceous 'Mt. Carmacks' pluton, which is described as a massive unfoliated hornblende-biotite granodiorite and quartz monzonite

(Mortensen, 1988). The geochronologic age of this pluton is  $111 \pm 1.7$  Ma (personal communication J. K. Mortensen).

The pluton intrudes the Nasina assemblage predominantly north of the pluton, and the Nisling assemblage, located predominantly south of the pluton. Nasina assemblage within this area is undifferentiated and mainly consists of locally garnetiferous, grey to black graphitic quartzite and quartz-muscovite ( $\pm$  biotite) schist (Mortensen, 1988).

The Nisling assemblage within the area consists of tan to pale green to medium brown weathering quartz-muscovite-chlorite schist, micaceous fine-grained quartzite, and banded quartz-feldspar amphibolite gneiss. Locally abundant chlorite schist, metagabbro and marble exist within the package (Mortensen, 1988).

### (5.7) Regional Aeromagnetics

There appears to be a regional northwest-oriented, magnetic low trend within the Dawson area, which extends from approximately Dawson City to the Yukon / Alaska border parallel to, and immediately south of, the Tintina fault (see Figure 2). The project area occurs within this trend. This trend represents the only distinguishable regional feature within the Dawson, Stewart, and Snag map sheets. The reader is referred to 1:250,000 scale, Map 7868G (Dawson), Map 7854G (Stewart River), and 7840G (Snag) from the Geological Survey of Canada Aeromagnetic Map Series (1965-1968).

### (5.8) Regional Geochemical Thresholds

Regional silt geochemistry data was used as one of the main exploration parameters for selecting targets during the study. This information was gathered from Geological Survey of Canada Open File 2365 (National Geochemical Reconnaissance Stream Sediment and Water Data, West Central Yukon; NTS 116B; parts of 116C, 116F and 116G; 1991). Concentrations and corresponding percentile ranges of pertinent elements from this Open File, are summarized below:

Table 4. Regional Geochemistry concentrations and percentiles.

| Element  | (>98 percentile) | (>95 percentile) | (>90 percentile) | (percentile as shown) |
|----------|------------------|------------------|------------------|-----------------------|
| Au (ppb) | 28-1050          | 15-28            | 9-15             | 6-9 (>80%)            |
| As (ppm) | 65-670           | 34-65            | 23-34            | 14-23 (>70%)          |
| Mo (ppm) | 25-63            | 12-25            | 7-12             | 3-7 (>70%)            |
| W (ppm)  | 6-29             | 3-6              | 2.0-3.0          | 0.9-2 (>83%)          |
| Sb (ppm) | 8.6-84           | 5.2-8.60         | 3.3-5.20         | 1.6-3.30 (>70%)       |
| Hg (ppb) | 250-1250         | 180-250          | 150-180          | 90-150 (>70%)         |
| Ag (ppm) | 1.2-5.0          | 0.7-1.2          | 0.4-0.7          | 0.2-0.4 (>80%)        |
| Pb (ppm) | 82-680           | 52-82            | 34-52            | 14-34 (>70%)          |
| Cu (ppm) | 90-228           | 67-90            | 52-67            | 31-52 (>70%)          |
| Ba (ppm) | 9500-99,999      | 6299-9500        | 3750-6299        | 1640-3750 (>70%)      |

The reader should be aware that important pathfinder elements such as Bi, Te, and Sn, are not reported in Open File 2365. No known Bi, and Te data is available for the Dawson, Stewart and Snag map sheets and no known Sn data exists within the Dawson map sheet. Additionally, the reader should be aware that percentile ranges for elements reported in

Open File 2365, do not discriminate between lithologies, and hence represent the map sheet as a whole. This may obscure certain anomalies.

In addition to possible internal inconsistencies, geochemical variations occur between map sheets. For example, when interpreting geochemical data within the Dawson map sheet, anomalous values for As and other important pathfinder elements, appear to be significantly higher than those in the Stewart and Snag map sheets to the south. The threshold for the >90 percentile for As in the Dawson map sheet is 23 ppm, whereas in the Stewart map sheet the same threshold is 6.1 ppm (7.1 ppm in the Snag). Similarly, the threshold for the >98 percentile for Mo in the Dawson map sheet is 25 ppm, whereas in the Stewart map sheet, the same threshold is 3 ppm (5 ppm in the Snag area). For reference, summary concentration and percentile tables for the Stewart and Snag map sheets are provided in Appendix A and B, respectively.

For the purposes of this report, As values between 6.1 ppm and 14 ppm are reported in brackets and interpreted as values which appear to be anomalous for lithologies that occur south of the Tintina fault, predominantly within the Stewart and Snag map sheets.

Geochemical anomalies are regarded by the author as strongly anomalous if within the >95 percentile range, moderately anomalous if within the 90-95 percentile range, and weakly anomalous if within the 70-90 percentile range.

### (5.9) Regional Silt Geochemistry

Geochemically anomalous G.S.C. silt samples collected from creeks within the target area are shown in Figure 3 and summarized in Table 5, below:

Table 5. Silt geochemistry of the Mt. Carmacks target area.

| Sample # | 5035 | 5038 | 5043 | 5044 | 5046 | 5049 | 5053 | 5054 | 5055 | 5062 | 5063 |
|----------|------|------|------|------|------|------|------|------|------|------|------|
| Au (ppb) | 15   | 9    | (5)  | 12   | 9    | (4)  | (3)  | 9    | 8    | 13   | 8    |
| As (ppm) | 13   | 8.9  | 20   | 6.9  | -    | 12   | 31   | 33   | 51   | 8    | 9.2  |
| W (ppm)  | 4    | -    | 3    | 29   | 28   | 22   | -    | 3    | -    | -    | -    |
| Mo (ppm) | -    | -    | -    | -    | -    | -    | -    | 7    | 12   | -    | -    |
| Sb (ppm) | 1.7  | -    | -    | -    | -    | -    | 3.0  | 4.6  | 4.7  | -    | -    |
| Hg (ppb) | -    | -    | -    | -    | 170  | -    | -    | 90   | 160  | -    | -    |
| Cu (ppm) | -    | -    | -    | -    | -    | -    | 48   | 44   | 52   | -    | -    |
| Pb (ppm) | -    | -    | -    | -    | -    | -    | 26   | 25   | 21   | -    | -    |
| Ag (ppm) | 0.2  | -    | -    | -    | -    | -    | -    | 0.6  | -    | -    | -    |

Samples 5038, 5043, 5044, 5046 were collected from creeks that do not drain the T, K, O, or BIGO claims. They are summarized above to illustrate geochemical signature and zonation of the entire target area.

### (5.10) T Claims

#### (5.10.1) Property Geology

The T (1-30) claims are located approximately 0.5 kilometers to 3 kilometers north and northwest, respectively, from the northern margin of the mid-Cretaceous 'Mt. Carmacks'

pluton. Cambrian to Devonian Nasina assemblage quartzite and schist underlie the claims. A west-northwest trending thrust fault is located approximately 2 kilometers south of the claims.

#### *(5.10.2) Property Silt Geochemistry*

The T claims cover a west-northwest trending ridge that is drained on the northwest and east sides by four multi-element anomalous creeks (see Figure 3). The three creeks that drain the north side of the claim block contain silt samples 5053, 5054, and 5055 (see Table 3, Figure 3). These samples contain strongly anomalous As (51 ppm, 33 ppm, 31 ppm), moderately to strongly anomalous W (3 ppm), and weakly to strongly anomalous Mo (12 ppm, 7 ppm). Gold anomalies for this locality range from weak to moderate (8 ppb, 9 ppb).

This locality also contains moderately anomalous Sb (3.0 ppm, 4.6 ppm, 4.7 ppm) and Ag (0.6 ppm), as well as, weakly to moderately anomalous Hg and Cu.

The eastern portion of the T claims is partially drained by a creek containing samples 5035 and 5049 (see Table 3, Figure 3). Silt sample 5049, more proximal to the claims, contains strongly anomalous W (22 ppm) and weakly anomalous As. Silt sample 5035 contains moderately to strongly anomalous Au (15 ppb), strongly anomalous W (4 ppm), as well as, weakly anomalous As, Sb, and Ag.

#### *(5.10.3) Aeromagnetic Signature*

The T claims are approximately parallel to two east-west trending, magnetic low (57,670 gamma) anomalies located 0.5 kilometers south of the claims (see Figure 3). These magnetic lows may represent differentiated felsic igneous plugs related to the 'Mt. Carmacks' pluton, and could be related to mineralization in the area.

A combined helicopter-borne magnetic and electromagnetic survey, conducted by Cominco Exploration in 1995, revealed a west-northwest trending, up to 800 meter wide area containing several parallel zones of conductivity. This area was found to correlate with a magnetic low in the west and a broad magnetic gradient in the east. The T claim block is parallel to the anomaly and covers the northern section of the trend.

#### *(5.10.4) 1999 Exploration Results*

1999 Fieldwork on the T claims consisted of 1 manday and included 16 soil samples and 2 rock samples. Soil samples, collected at 200 metre spacing, identified a 600 metre wide area containing anomalous Au (up to 24.8 ppb), As (up to 488.9 ppm), Sb (up to 34.57 ppm), as well as, Te and Cu (see samples '99XBJ028'-'99XBJ031' in Figure 4a). Sporadic results were attained in the remainder of the samples. The results are shown in Figure 4a and summarized in Table 6a, below:

140° 25'

140° 15'

64° 28'

64° 28'

COAL

CREEK



5055  
8 Au  
51 As  
4.7 Sb  
12 Mo  
160 Hg  
52 Cu  
21 Pb

99RBJ025  
121.7 Au  
10.32 Bi  
0.18 Te  
114.5 As  
2.2 W

(schist; 35cm chip)

99XBJ028  
24.8 Au  
455.9 As  
34.57 Sb  
0.10 Te  
100.82 Cu

(schist, aspy-py quartz vein)

5054  
9 Au  
33 As  
3 W  
4.6 Sb  
7 Mo  
90 Hg  
44 Cu  
0.6 Ag  
25 Pb

99XBJ030  
71.1 As

(quartzite)

5053  
31 As  
3.0 Sb  
48 Cu  
26 Pb

99RBJ024  
12.1 W  
0.95 Bi

(quartz vein; 35cm chip)

99XBJ029  
10.1 Au

(quartzite, quartz vein)

99RBJ031  
14.3 Au  
163.2 As

(quartzite, quartz vein)

99XBJ019  
0.593 Ag

(phyllite, quartz vein)

5035  
15 Au  
13 As  
4 W  
1.7 Sb  
0.2 Ag

99XBJ018  
5.02 Sb  
0.11 Te  
0.457 Ag

(phyllite)

600m long anomalous zone

-CD<sub>N</sub>-CD<sub>N</sub>

T CLAIMS

5049  
4 Au  
12 As  
22 W

(Archer Cathro)

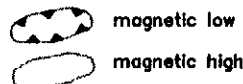
K CLAIMS

## LEGEND

mKg - mid Cretaceous granodiorite, quartz monzonite

PG<sub>N</sub> - Upper Proterozoic-Cambrian Niiling assemblage

6D<sub>N</sub> - Cambrian-Devonian Nasina assemblage



magnetic low

magnetic high



- Geochemically anomalous creek

- Au-poor anomalous creek

- assumed geological boundary

500 0 500 1000 1500 2000

METRES

(Geology modified from Mortensen, 1988 and Wheeler &amp; McFeely, 1991)

5055  
8 Au  
51 As  
4.7 Sb  
12 Mo  
160 Hg  
52 Cu  
21 Pb

- G.S.C. Silt Sample

- ppm (ppb for Au, Hg) of elements

99RBJ024  
12.1 W  
0.95 Bi

(quartz vein; 30cm chip)

- Sample (Prospector) ('X'-soil, 'R'-rock)

- ppm (ppb for Au, Hg) of elements

- lithology of rock sampled / lithology of fragments in soil

## PROSPECTOR INTERNATIONAL

1999 FIELD SEASON RESULTS  
T CLAIMS

Mt. Carmacks Area (116-C-8)

December 1999

SCALE: as shown

Figure 4a



Table 6a. 1999 Soil Geochemistry on the T claims.

| Sample   | Au (ppb) | As (ppm) | Sb (ppm) | Te (ppm) | Ag (ppm) | Cu (ppm) | Fragment Lithology  |
|----------|----------|----------|----------|----------|----------|----------|---|
| 99XBJ018 | -        | -        | 5.02     | 0.11     | 0.457    | -        | Dark green-black phyllite, quartz                                       |
| 99XBJ019 | -        | -        | -        | -        | 0.593    | -        | Phyllite, rusty pyrite-quartz vein                                      |
| 99XBJ022 | -        | -        | -        | 0.11     | -        | -        | Graphitic schist  |
| 99XBJ026 | -        | -        | 4.19     | 0.18     | -        | -        | Quartz phyllite, quartz   |
| 99XBJ028 | 24.8     | 488.9    | 34.57    | 0.10     | -        | 100.82   | Quartz veins; quartz-mica schist with disseminated arsenopyrite-pyrite; |
| 99XBJ029 | 10.1     | -        | -        | -        | -        | -        | Rusty quartz vein; phyllitic quartzite                                  |
| 99XBJ030 | -        | 71.1     | -        | -        | -        | -        | Micaceous quartzite   |
| 99XBJ031 | 14.3     | 163.2    | -        | -        | -        | -        | Quartz vein; micaceous quartzite  |

Rock chip samples collected from an outcrop (see photo) located approximately 500 metres to the west of the above mentioned soil anomaly returned elevated Au (121.7 ppb), Bi (10.32 ppm), W (12.1 ppm), with minor amounts of As and Te. These results are shown in Figure 4a and summarized in Table 6b, below:

Table 6b. 1999 Rock Geochemistry on the T claims.

| Sample   | Au (ppb) | As (ppm) | Bi (ppm) | Te (ppm) | W (ppm) | Sample Description  |
|----------|----------|----------|----------|----------|---------|---|
| 99RBJ024 | -        | -        | 0.91     | -        | 12.1    | Chip of two massive, white quartz veins (10cm and 20 cm wide, 40cm apart)         |
| 99RBJ025 | 121.7    | 114.5    | 10.32    | 0.18     | 2.2     | 35 cm chip of quartz-biotite schist (hangingwall of 10 cm wide quartz vein above) |



Photograph of outcrop containing elevated Au, Bi, Te, As and W in quartz veins and surrounding schist.

### *(5.10.5) Fluid Inclusion Analysis*

Fluid inclusion analysis was conducted by Cadence Mineral Resources on samples 99XBJ028 and 99XBJ029 (see Appendix F), collected from the above-described 600-metre long soil anomaly located on the T claims (see Figure 4a). Sample 99XBJ028, quartz breccia float, contained high salinity inclusions similar to fluids found in intrusion-related systems. Sample 99XBJ029, quartz vein float, was shown to contain an early stage of carbonic fluids at greater than 1Kbar pressure (3.5 km depth) and one or more later lower temperature stages.

## **(5.11) K Claims**

### *(5.11.1) Property Geology*

The K claims are underlain by the hanging wall of a regional-scale, east-west trending thrust fault, west of the Mt. Carmacks pluton. The hanging wall consists of Nasina assemblage schists and quartzites. The southeastern portion of the K claims is underlain by granodiorite of the Mt. Carmacks pluton.

### *(5.11.2) Property Silt Geochemistry*

The claim area is situated on a ridgeline drained by two multi-element anomalous creeks. A creek partially draining the south margin of the claims contains a silt sample moderately anomalous in Au (13 ppb Au) and weakly anomalous in As (8 ppm).

The eastern edge of the claim block is partially drained by a creek containing a silt sample strongly anomalous in W (22 ppm) and weakly anomalous in As (12 ppm).

### *(5.11.3) Aeromagnetic Signature*

The K claims are approximately 1 kilometre south of two east-west trending magnetic lows (57,670 gamma). The western portion of the claims cover a magnetic high (57,800 gamma), which occurs within the Nasina schist and quartzite footwall of the regional-scale thrust fault.

### *(5.11.4) 1999 Exploration Results*

1999 Fieldwork consisted of 2 mandays and included 26 soil samples collected within the K claims. These samples returned sporadic elevated Bi and W values. Three silt samples were collected from tributaries draining the southern portion of the K claims. One of these silt samples (99SMG022), returned elevated Bi (2.01 ppm) and As (22.32 ppm).

## **(5.12) O Claims**

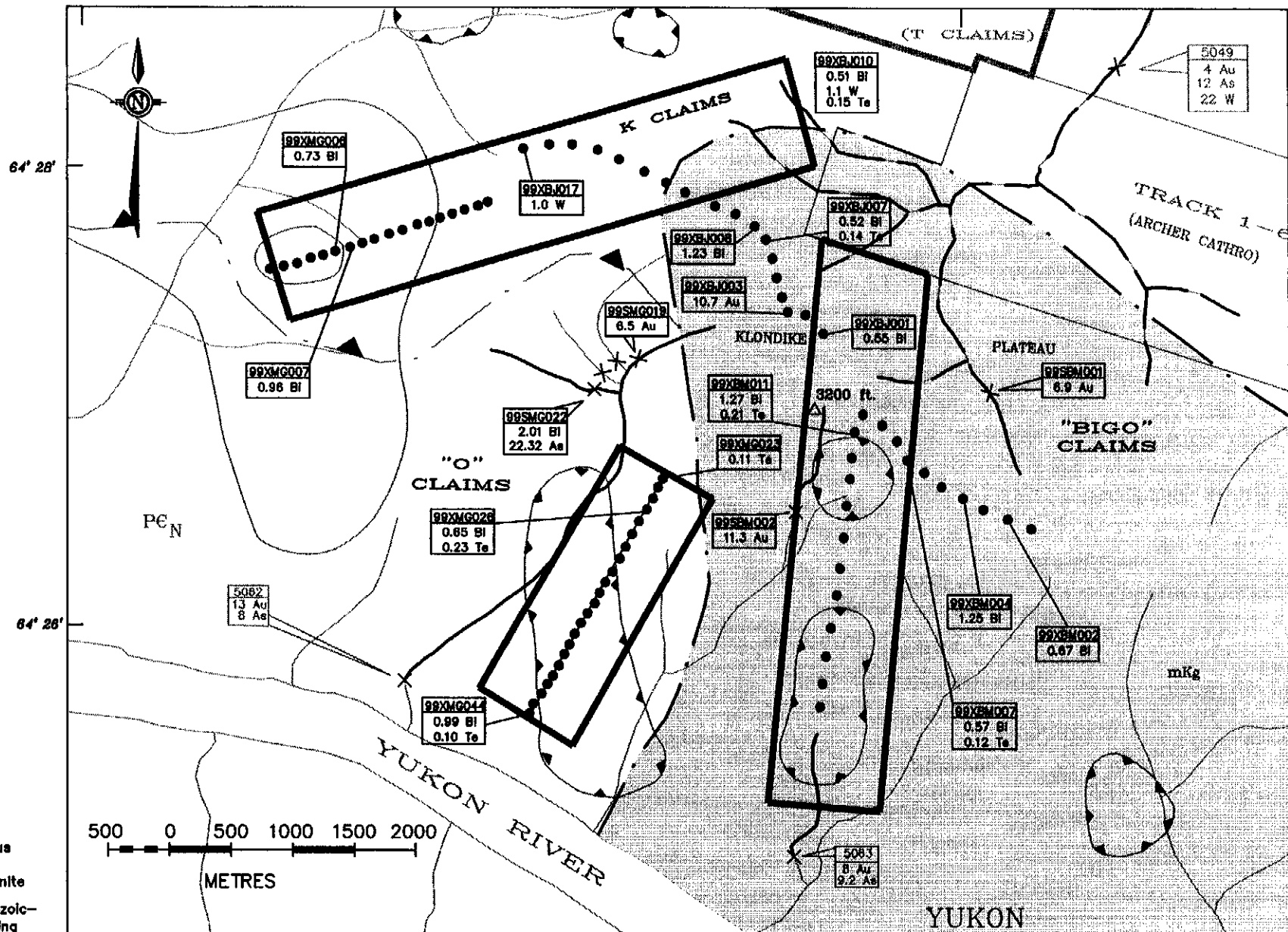
### *(5.12.1) Property Geology*

The O claims lie within schist and gneiss of the Nisutlin assemblage and are oriented subparallel to the western margin of the mid-Cretaceous 'Mt. Carmacks' granodiorite and



140° 28'

140° 15'



(Geology modified from Mortensen, 1988 and Wheeler &amp; McFeely, 1991)

## LEGEND

mKg - mid Cretaceous  
granodiorite,  
quartz monzonitePC<sub>N</sub> - Upper Proterozoic-  
Cambrian Nisling  
assemblageGD<sub>N</sub> - Cambrian-  
Devonian Naasina  
assemblage
 magnetic low  
 magnetic high

 - Geochemically  
anomalous creek  
 - Au-poor anomalous  
creek  
 - assumed geological  
boundary

|        |                      |
|--------|----------------------|
| 5055   | - G.S.C. Silt Sample |
| 8 Au   |                      |
| 51 As  |                      |
| 4.7 Sb |                      |
| 12 Mo  |                      |
| 180 Hg |                      |
| 52 Cu  |                      |
| 21 Pb  |                      |

- ppm (ppb for Au,  
Hg) of elements

|          |                                       |
|----------|---------------------------------------|
| 99R0J024 | - Sample (Prospector)                 |
| 12.1 W   | ('X'-soil, R'-rock)                   |
| 0.95 Bi  | - ppm (ppb for Au,<br>Hg) of elements |

(quartz vein;  
30cm chip)

- lithology of rock  
sampled / lithology of  
fragments in soil

## PROSPECTOR INTERNATIONAL

1999 EXPLORATION RESULTS  
K, O & BIGO CLAIMS  
Mt. Carmacks Area (116-C-8)

December 1999

SCALE: as shown

Figure 4b



quartz monzonite pluton. The claim boundary ranges from 0-500 metres from the western edge of the pluton.

#### *(5.12.2) Property Silt Geochemistry*

The claims cover a northeasterly trending ridge that is drained to the west by a geochemically anomalous creek. Silt sample 5062 (see Table 3) contains strongly anomalous Au (13 ppb) and weakly anomalous As (8 ppm).

#### *(5.12.3) Aeromagnetic Signature*

The claims cover the central portion of a 2.4 kilometre long by 0.8 kilometre wide north-northwest trending magnetic low (57,600 gamma), located adjacent and subparallel to the western margin of the pluton. This anomaly may represent a late-stage, felsic intrusive that may be related to mineralization in the area. The geochemically anomalous creek described above intersects this feature.

#### *(5.12.4) 1999 Exploration Results*

1999 Fieldwork on the O claims consisted of 1 manday and included 23 soil samples. These samples returned sporadic elevated Bi and Te.

### **(5.13) BIGO Claims**

#### *(5.13.1) Property Geology*

The BIGO claims are situated within the western portion of the Mid-Cretaceous 'Mt. Carmacks' granodiorite and quartz monzonite pluton.

#### *(5.13.2) Property Silt Geochemistry*

Two geochemically anomalous creeks partially drain the claim block. Silt sample 5063 (see Table 3, Figure 2) collected from a creek draining the south end of the property is weakly anomalous in Au (8 ppb) and As (9.2 ppm). The northern end of the property is partially drained by a creek containing sample 5049 (see Table 3, Figure 2), which contains strongly anomalous W (22ppm) and weakly anomalous As (12 ppm).

#### *(5.13.3) Aeromagnetic Signature*

The claim block covers two north-south trending magnetic lows (57,600 gamma) that occur within the pluton. The southern low is approximately 1.5 kilometre long and less than 0.6 kilometres wide, whereas, the northern anomaly is spherical and 0.7 kilometres in diameter. These lows may represent younger, differentiated phases of the pluton that may be related to mineralization in the area.

#### *(5.13.4) 1999 Exploration Results*

1999 Fieldwork on the BIGO claims consisted of 2.5 mandays and included 16 soil samples and 2 silt samples. An additional 11 soil samples were collected on the flanks of the claim boundary. Soil samples returned sporadic elevated Au, Bi and Te. Two silt

samples collected from creeks draining the northwest side of the claims returned regionally anomalous Au (up to 11.3 ppb) (see '99SMG019' and '99SBM002' in Figure 4b). A creek partially draining the east of the claims returned 6.9 ppb Au.

## **(6) CONCLUSIONS**

The Mt. Carmacks target area contains good potential to host 'Pogo-style' and other intrusion related Au mineralization as evidenced by the following:

- The Mt. Carmacks pluton appears to exhibit geochemical zonation with the northern margin strongly anomalous in W, and the northwestern margin strongly anomalous in As, and moderately to strongly anomalous in Sb, Mo and Hg. Weak to moderate Au anomalies occur near the northern, northwestern, and southwestern margins of the pluton.
- A news release dated April 28, 1999 by Expatriate Resources Ltd. and Nordac Resources Ltd., states that specimens of creek float collected from the TRACK 1-68 claims, located adjacent to the T claims, yielded moderate Au values (2.7 and 1.2 g/t Au) with uncommonly high bismuth values (1530 and 2140 ppm, respectively).
- The area exhibits evidence of a compressional stress regime, with the presence of a regional-scale thrust fault on the northwestern margin of the pluton. Map-scale crosscutting relationships suggest thrusting occurred prior to the emplacement of the pluton. The presence of thrust faulting in the area suggests potential structural preparation favourable for hosting gently dipping quartz veins.
- The target area was previously explored in 1995 by Cominco Exploration for Cu/Pb/Zn mineralization and in the late 1970's and early 1980's by Noranda Exploration Ltd. for W skarn mineralization. Quartz veining was encountered in drilling conducted in the 1980's by Noranda Exploration Co. Ltd. However, it does not appear that any systematic gold exploration has occurred in the area.

Our 1999 Fieldwork shows that the Mt. Carmacks area appears to have a geochemical signature similar to that of the Pogo and other intrusion-related deposits, in that soil and rock samples collected from the property contain anomalous Au, Bi, Te and W. Limited work on the property has intersected an open-ended 600-metre wide soil anomaly, located on the T claims, containing elevated Au (up to 24.8 ppb) and As (up to 455.9 ppm), with local Sb (34.57 ppm), Te and Cu, as well as, arsenopyrite-pyrite quartz float.

Approximately 500 metres to the west of this anomaly, rock chip samples from quartz veins and surrounding wallrock returned anomalous Au (121.7 ppb), Bi (10.32 ppm), W (12.1 ppm), as well as, As, Cu and Te. Fluid inclusion work from quartz float within the soil anomaly identified carbonic fluids trapped at 3.5 km depth.

## (7) RECOMMENDATIONS

Further exploration on the Mt. Carmacks project is recommended for the T claims and consists of silt sampling secondary drainages, gridded soil sampling, prospecting, rock sampling on available outcrop and further reconnaissance soil sampling. The budget for the recommended field program is shown in Table 7, below. No further work is recommended for the K, O and BIGO claims.

Table 7. Budget of Recommended Field Program.

| Item              | Quantity          | Cost per unit | Sub-Total      |
|-------------------|-------------------|---------------|----------------|
| Project Geologist | 1                 | \$250.00      | \$250          |
| 2 Samplers        | 1                 | \$200.00      | \$400          |
| Soil Samples      | 40                | \$17.40       | \$696          |
| Rock Samples      | 10                | \$19.60       | \$196          |
| Silt Samples      | 5                 | \$34.96       | \$175          |
| Helicopter (wet)  | 1 days @ 2 hr/day | \$785.00      | \$1,570        |
| Truck Rental      |                   |               | \$133          |
| Camp, food, etc.  | 1 days            | \$65/man/day  | \$195          |
| Assessment Report | -                 | -             | \$500          |
| Filing Fees       |                   | \$10/claim    | \$300          |
| <b>Total</b>      | -                 | -             | <b>\$4,415</b> |

Contingent upon the success of this work, further work would consist of follow-up gridded soil sampling and ground geophysical surveys consisting of magnetics and induced polarization, followed by trenching.

## (8) STATEMENT OF WORK

**Prospector International Resources Inc.**

**Mt. Carmacks Project**

**August 21 and 22, 1999**

### T CLAIMS

|                          |                                       |                   |
|--------------------------|---------------------------------------|-------------------|
| Labour                   | 1 manday @ \$300/day                  | 300.00            |
| Workers Compensation     |                                       | 24.59             |
| Helicopter               | 2.6 hrs @ \$700/hr                    | 1947.40           |
| Assays                   | 16 soils @ \$17.40, 2 rocks @ \$19.60 | 339.83            |
| Shipping samples         |                                       | 51.84             |
| Truck Rental             | 1 truck @ \$2,000/mo                  | 87.78             |
| Airfare                  |                                       | 38.93             |
| Field Supplies           |                                       | 241.16            |
| Fluid Inclusion Analysis |                                       | 214.00            |
| Report                   | (\$2,000/15 claimblocks*)             | 133.33            |
|                          |                                       | <b>\$3,378.87</b> |

\*(T,K,O,BIGO,LOTO-JOJO,LOGO,MOJO,PREMO,GOGO,OHGO,OREGO,YOGO,BINGO, HIHO,EIO)

### K CLAIMS

|                      |   |                   |
|----------------------|---|-------------------|
| Labour               | 1.5 mandays @ \$300/day                   | 450.00            |
| Workers Compensation |   | 16.39             |
| Helicopter           | 0.9 hrs @ \$700/hr                        | 973.70            |
| Assays               | 26 soils @ \$17.40ea, 3 silts @ \$34.96ea | 596.29            |
| Shipping             |   | 80.91             |
| Truck Rental         | 1 truck @ \$2,000/mo                      | 58.52             |
| Airfare              |   | 25.96             |
| Field Supplies       |   | 160.78            |
| Report               | (\$2,000/15 claimblocks*)                 | 133.33            |
|                      |   | <b>\$2,495.87</b> |

\*(T,K,O,BIGO,LOTO-JOJO,LOGO,MOJO,PREMO,GOGO,OHGO,OREGO,YOGO,BINGO, HIHO,EIO)

### O CLAIMS

|                      |                           |                   |
|----------------------|---------------------------|-------------------|
| Labour               | 1 manday @ \$300/day      | 300.00            |
| Workers Compensation |                           | 8.20              |
| Helicopter           | 0.3 hrs @ \$700/hr        | 224.70            |
| Assays               | 23 soils @ \$17.40ea      | 428.21            |
| Shipping             |                           | 63.63             |
| Truck Rental         | 1 truck @ \$2,000/mo      | 29.26             |
| Airfare              |                           | 12.98             |
| Field Supplies       |                           | 80.39             |
| Report               | (\$2,000/15 claimblocks*) | 133.33            |
|                      |                           | <b>\$1,280.70</b> |

\*(T,K,O,BIGO,LOTO-JOJO,LOGO,MOJO,PREMO,GOGO,OHGO,OREGO,YOGO,BINGO, HIHO,EIO)

**BIGO CLAIMS**

|                      |   |                   |
|----------------------|---|-------------------|
| Labour               | 1.5 mandays @ \$300/day                   | 450.00            |
| Workers Compensation |   | 16.39             |
| Helicopter           | 1.3 hrs @ \$700/hr                        | 973.70            |
| Assays               | 16 soils @ \$17.40ea, 2 silts @ \$34.96ea | 372.70            |
| Shipping             |   | 50.92             |
| Truck Rental         | 1 truck @ \$2,000/mo                      | 58.52             |
| Airfare              |   | 25.96             |
| Field Supplies       |   | 160.78            |
| Report               | (\$2,000/15 claimblocks*)                 | 133.33            |
|                      |   | <b>\$2,242.30</b> |

\*(T,K,O,BIGO,LOTO-JOJO,LOGO,MOJO,PREMO,GOGO,OHGO,OREGO,YOGO,BINGO, HIHO,EIO)

## **(9) STATEMENT OF QUALIFICATIONS**

I, **Bart J. Jaworski**, of Vancouver, British Columbia, hereby certify that:

1. I am a graduate of the University of British Columbia with a Bachelor of Science (Hons.) Degree (1996) in Geology.
2. I have practiced my profession as a geologist in Canada, continually since graduation.
3. I am a Consulting Geologist with offices at 4042 W 27th Ave, Vancouver, British Columbia.
4. I am a registered member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia and hold the title of 'Geoscientist-In-Training' (Reg #112628).
5. I am the author of this report. The information in this report is based on a personal examination of the property during Prospector's 1999 field season and an overview of published reports and maps on the property and the surrounding area.
6. I have a 10% direct interest in Prime Properties. I expect to receive 100,000 options (at 15 cents/share) of Prospector International Resources Inc. by the end of January 2000.
7. I have not received nor do I expect to receive, any additional interest, direct or indirect, in the properties and securities of Prime Properties and/or Prospector International.
8. Prime Properties and its affiliates are hereby authorized to use this report in any prospectus, statement of material facts, or other public document.

**DATED in Vancouver, British Columbia, this 5<sup>th</sup> day of January 2000.**

  
\_\_\_\_\_  
Bart J. Jaworski, G.I.T.

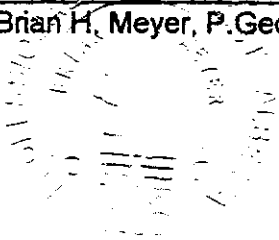
## STATEMENT OF QUALIFICATIONS

I, Brian H. Meyer, of the city of Burnaby in the province of British Columbia do hereby certify that:

- 1) I am a Professional Geologist registered with the Association of Professional Engineers, Geologists and Geophysicists of Alberta.
- 2) I am a graduate of the University of Alberta (1979) with a B.Sc. degree in geology.
- 3) I have practiced my profession as a geologist since graduation in 1979.
- 4) I have participated in the field examination of the **Mt. Carmacks property** from August 21 to August 22, 1999, and having reviewed the related report titled **Geological And Geochemical Report On The Mt. Carmacks Intrusion-Related Gold Project, West-Central Yukon Territory**, verify its authenticity and the professional quality as prepared by Bart Jaworski G.I.T.
- 5) I have no interest, directly or indirectly, nor do I expect to receive any interest, directly or indirectly in the Mt. Carmacks property, or any other property of Prime Properties or Prospector International Resources Inc. or any affiliate, nor do I beneficially own, directly or indirectly, any securities of Prime Properties or Prospector International Resources Inc. or any affiliate.
- 6) Permission is hereby granted to Prime Properties or Prospector International Resources Inc. to use this report in any prospectus, statement of material facts, or other public document.

Dated this fourth day of January, 2000.

  
\_\_\_\_\_  
Brian H. Meyer, P.Geol.



## **(11) REFERENCES**

- Aeromagnetic Series 1965-1968: Dawson, Yukon Territory (Sheet 116B, 116C E1/2), Geological Survey of Canada, Airborne Magnetic Survey Map 7868 G, scale 1:253,440.
- Aeromagnetic Series 1965-1968: Snag River, Yukon Territory (Sheet 115J, 116K E1/2), Geological Survey of Canada, Airborne Magnetic Survey Map 7840 G, scale 1:253,440.
- Aeromagnetic Series 1965-1968: Stewart River, Yukon Territory (Sheet 115O, 115N E1/2), Geological Survey of Canada, Airborne Magnetic Survey Map 7854 G, scale 1:253,440.
- Baker, T, et. al., (in press): Characteristics of Mineralization Associated with Intrusions of the mid-Cretaceous Tombstone-Tungsten Magmatic Belt, Yukon, Mineral Deposit Research Unit, Department of Earth and Ocean Science, University of British Columbia, Canada.
- Dawson Minfile Map 1993: (NTS 116B, 116C), Yukon, Canada.
- Friske, P.W.B. et. al., 1991: National Geochemical Reconnaissance Stream Sediment and Water Data, West Central Yukon, (NTS 116B; Parts of 116C, 116F, and 116G) Geological Survey of Canada Open File 2365.
- Gower, S.C. (Gower Thompson & Associates Ltd) 1996: Proposed Exploration Program, Dawson City and Mayo Areas; Internal Report for Bill Chornobay & Associates Ltd.
- Grapes, K., and MacDonald, G., 1981: Assessment Report 90928, , (NTS 116C/8), Noranda Exploration Company Limited, Coal Creek Area, Yukon.
- LeBarge, W.P., 1996a: Placer Deposits of the Yukon: Overview and Potential for New Discoveries; in LeBarge W.P. (ed.) 1996. Yukon Quaternary Geology Volume 1, Exploration and Geological Services Division, Northern Affairs Program, Yukon Region, p. 1-12.
- Lefebure, D.V., Fournier, M.A., and Jackman, W  
1999: Prospective Areas in British Columbia for Intrusion-Related Gold-Tungsten-Bismuth veins; British Columbia Ministry of Energy and Mines, Energy and Minerals Division, Geological Survey of Canada, Open File 1999-3, scale 1:2,000,000.
- L.H. Green & J.A. Roddick, 1961: Geology, Dawson, Yukon Territory, Map 1284A, scale 1:250,000.
- MacDonald, G., and Sleath, A, 1980: Assessment Report 90660 (NTS 116C/8), Noranda Exploration Company Limited, Cassiar Creek Area, Yukon.



- Meade, H. and Eaton, D. (1999): Expatriate Resources and Nordac Resources: Eureka Joint Venture Formed and Tintina Gold Belt Properties Acquired. News release dated April 28, 1999.
- McCoy, D. (Placer Dome), 1999: Regional Overview of the Geological Setting of the Tintina Gold Belt, Abstract, The Cordilleran Roundup, Vancouver, BC, Canada.
- McInnes, D., 1999: Western Keltic Mines Inc. News Release: "Three Gold Zones Discovered on Alaska Properties Phase 2 Program Commences" 9/09/99.
- Mortensen, J.K., 1988: Geology of southwestern Dawson map area, Yukon Territory; in Current Research, Part E, Geological Survey of Canada, Paper 88-1E, p. 73-78.
- Mortensen, J.K., 1988: Geology, southwestern Dawson map area, Yukon (116B,C), scale 1:250,000; Geological Survey of Canada, Open File 1927.
- Mortensen, J.K., 1992: Pre-Mid-Mesozoic Tectonic Evolution of the Yukon Tanana Terrane, Yukon and Alaska; in Tectonics, Vol. 11, No. 4, pp. 836-853.
- Northern Miner (March 29-April 4, 1999): Expatriate expands Yukon position. Volume 85, No. 7, pp C24.
- Pride, K.R., 1996: Assessment Report 93480 (NTS 116C/8), Combined Helicopter-Borne Magnetic and Electromagnetic Survey and Soil Geochemical Survey, COAL Property, Dawson Area, Yukon.
- Regional Geochemical Reconnaissance, Western Yukon (NTS 115O and 115N E1/2), Geological Survey of Canada Open File 1364, Map 100-1986, scale 1:250,000.
- Regional Geochemical Reconnaissance, South-West Yukon (NTS 115J and 115K E1/2) Geological Survey of Canada Open File 1363, Map 99-1986, scale 1:250,000.
- Robertson, R., November 1, 1999: "Pogo area gold play mixed bag for juniors", The Northern Miner Volume 85, No. 36, pp. 11-14.
- Robertson, R., 1998: Pogo property in Alaska the latest feather in Teck's cap; The Northern Miner, Volume 84, No. 23, pp. C1-C2.
- Robertson, R., 1998: Pogo adds fuel to Alaskan Exploration Boom, The Northern Miner, Volume 84, No. 40, pp. C1-C11.
- Robertson, R., March 15, 1999: Juniors converge near Teck's Pogo gold play, The Northern Miner.
- Rogers, R.S., 1982: Assessment Report 91413 (NTS 116C/8), Noranda Exploration Company Limited, Dawson City Area Yukon.

- Smith, M. (Teck Exploration, Sumitomo Metal Mining Co. Ltd), 1999: Gold Mineralization on the Pogo Claims, East-Central Alaska, Abstract, The Cordilleran Roundup, Vancouver, BC, Canada.
- Thompson J.F.H., et. al., (in press): Intrusion-Related Gold Deposits Associated with Tungsten-Tin Provinces, Mineral Deposit Research Unit, Department of Earth and Ocean Science, University of British Columbia, Canada.
- Wheeler, J.O. and McFeely, P. (comp.)  
1991: Tectonic Assemblage Map of the Canadian Cordillera and Adjacent Parts of the United States of America; Geological Survey of Canada, Map 1712A, scale 1:2,000,000.
- Yukon Minfile 1996: IMS Ltd., Hyperborean Productions Inc., for Ministry of Indian and Northern Affairs.

## APPENDIX A

**Table A. Silt Geochemical Anomaly Thresholds for the Stewart map sheet.**

| Element  | Percentiles as shown | Percentiles as shown | Percentiles as shown | Percentiles as shown |
|----------|----------------------|----------------------|----------------------|----------------------|
| Au (ppb) | 21-1328 (98.1%)      | 14-20 (95.6%)        | 9-13 (91%)           | 4-8 (76%)            |
| As (ppm) | 17.1-91 (98%)        | 11.1-17 (95.6%)      | 6.1-11.0 (90.1%)     | 3.1-6 (71.5%)        |
| Mo (ppm) | 3-7 (98.9%)          | 2 (97.7%)            | n/a                  | n/a                  |
| W (ppm)  | 5-24 (98.8%)         | 3-4 (97.2%)          | n/a                  | n/a                  |
| Sn (ppm) | 6-25 (98.9%)         | 5 (95.2%)            | 3-4 (80.1%)          | n/a                  |
| Sb (ppm) | 1.2-58 (98%)         | 0.9-1.1 (95.8%)      | 0.7-0.8 (90.9%)      | 0.5-0.6 (76.8%)      |
| Hg (ppb) | 111-390 (98%)        | 81-110 (95.3%)       | n/a                  | n/a                  |
| Ag (ppm) | 0.5-1.1 (98.2%)      | 0.4 (95.8%)          | n/a                  | n/a                  |

## APPENDIX B

**Table B. Silt Geochemical Anomaly Thresholds for the Snag map sheet.**

| Element  | Percentiles as shown | Percentiles as shown | Percentiles as shown | Percentiles as shown |
|----------|----------------------|----------------------|----------------------|----------------------|
| Au (ppb) | 35-800 (98%)         | 17-34 (95.2%)        | 11-16 (91.1%)        | 5-10 (74.5%)         |
| As (ppm) | 18.1-190 (98.1%)     | 11.1-18.0 (95.3%)    | 7.1-11.0 (90.4%)     | 4.1-7 (80.3%)        |
| Mo (ppm) | 5-37 (98.4%)         | 3-4 (96.6%)          | 2 (90.7%)            | n/a                  |
| W (ppm)  | 13-60 (98.2%)        | 7-12 (96.4%)         | 3-6 (91.0%)          | n/a                  |
| Sn (ppm) | 6-25 (98.1%)         | 5 (94.5%)            | -                    | 3-4 (71.5%)          |
| Sb (ppm) | 2.2-13 (98.2%)       | 1.5-2.1 (95%)        | 1.0-1.4 (90.2%)      | 0.6-0.9 (74.4%)      |
| Hg (ppb) | 111-375 (98.3%)      | 86-110 (95.5%)       | 66-85 (91%)          | 36-65 (72.0%)        |
| Ag (ppm) | 0.6-3.3 (98.8%)      | 0.5 (97.6%)          | 0.4 (94.2%)          | 0.2-0.3 (78.9%)      |
| Pb (ppm) | 31-694 (98.2%)       | 18-30 (95%)          | 14-17 (90.2%)        | 10-13 (83.6%)        |

**APPENDIX C**

**CERTIFICATE OF ANALYSES (ROCK SAMPLES)**

GEOCHEMICAL ANALYSIS CERTIFICATE



Prospector International Resources Inc. PROJECT MOUNT CARMACKS File # 9903374  
 c/o International Kodiak, Vancouver BC V6C 3A6 Submitted by: Bart Jaworski

| SAMPLE#      | Mo   | Cu     | Pb   | Zn    | Ag  | Ni   | Co   | Mn   | Fe    | As    | U   | Au    | Th  | Sr   | Cd  | Sb   | Bi    | V   | Ca  | P    | La   | Cr   | Mg   | Ba     | Ti   | B   | Al   | Na   | K   | W    | Tl  | Hg  | Se  | Te  | Ga  | S   |
|--------------|------|--------|------|-------|-----|------|------|------|-------|-------|-----|-------|-----|------|-----|------|-------|-----|-----|------|------|------|------|--------|------|-----|------|------|-----|------|-----|-----|-----|-----|-----|-----|
|              | ppm  | ppm    | ppm  | ppm   | ppb | ppm  | ppm  | ppm  | %     | ppm   | ppm | ppb   | ppm | ppm  | ppm | ppm  | ppm   | ppm | %   | %    | ppm  | ppm  | %    | ppm    | %    | ppm | %    | %    | %   | ppm  | ppm | ppb | ppm | ppm | ppm | %   |
| 99RBJ-024    | 2.59 | 27.04  | 6.70 | 33.4  | 124 | 33.5 | 10.3 | 898  | 1.84  | 35.4  | .4  | 2.5   | 2.7 | 4.0  | .08 | .97  | .95   | 16  | .10 | .025 | 9.7  | 34.7 | .38  | 270.0  | .041 | 1   | .74  | .013 | .14 | 12.1 | .03 | 15  | .3  | .03 | 2.2 | .02 |
| 99RBJ-025    | 1.27 | 166.44 | 6.23 | 131.6 | 324 | 65.5 | 14.2 | 2443 | 12.09 | 114.6 | 1.6 | 114.0 | 5.7 | 55.4 | .20 | 2.36 | 9.54  | 60  | .25 | .055 | 14.3 | 63.8 | 1.18 | 1193.6 | .111 | 1   | 2.34 | .017 | .40 | 1.9  | .03 | 44  | 2.6 | .15 | 7.4 | .26 |
| RE 99RBJ-025 | 1.31 | 168.07 | 6.63 | 131.6 | 328 | 66.1 | 14.2 | 2467 | 12.18 | 114.5 | 1.7 | 121.7 | 6.0 | 56.7 | .21 | 2.50 | 10.32 | 61  | .25 | .055 | 15.1 | 66.8 | 1.26 | 1258.0 | .122 | 1   | 2.48 | .018 | .40 | 2.2  | .03 | 42  | 2.7 | .18 | 7.6 | .26 |

GROUP 1F30 - 30.00 GM SAMPLE LEACHED WITH 180 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 600 ML, ANALYSED BY ICP/ES & MS.  
 UPPER LIMITS - AG, AU, HG, W, SE, TE, TL, GA, SN = 100 PPM; MO, CO, CD, SB, BI, TH, U, B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.  
 - SAMPLE TYPE: ROCK Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: SEP 9 1999 DATE REPORT MAILED: *Sept 17/99* SIGNED BY: *C. Leong* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

**APPENDIX D**

**CERTIFICATE OF ANALYSES (SOIL SAMPLES)**

GEOCHEMICAL ANALYSIS CERTIFICATE

Prospector International Resources Inc. PROJECT MOUNT CARMACKS File # 9903372 Page 1  
c/o International Kodiak, Vancouver BC V6C 3A6 Submitted by: Bart Jaworski



Table with columns for elements (Mo, Cu, Pb, Zn, Ag, Ni, Co, Mn, Fe, As, U, Au, Th, Sr, Cd, Sb, Bi, V, Ca, P, La, Cr, Mg, Ba, Ti, B, Al, Na, K, W, Hg, Se, Te, Ga, S) and rows for samples (99XBJ-001 to 99XBJ-033 and STANDARD 052). Values are in ppm or ppb.

GROUP 1F30 - 30.00 GM SAMPLE, 180 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 600 ML, ANALYSIS BY ICP/ES & MS.  
UPPER LIMITS - AG, AU,, HG, W, SE, TE, TL, GA, SN = 100 PPM; MO, CO, CD, SB, BI, TH, U, B = 2000 PPM; CU, PB, ZN, NI, MN, AS,V, LA, CR = 10,000 PPM.  
- SAMPLE TYPE: SOIL Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: SEP 9 1999 DATE REPORT MAILED: Sept 17/99 SIGNED BY: C.L. TOYE, C.LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of the analysis only.

Date FA







| SAMPLE#      | Mo<br>ppm | Cu<br>ppm | Pb<br>ppm | Zn<br>ppm | Ag<br>ppb | Ni<br>ppm | Co<br>ppm | Mn<br>ppm | Fe<br>% | As<br>ppm | U<br>ppm | Au<br>ppb | Th<br>ppm | Sr<br>ppm | Cd<br>ppm | Sb<br>ppm | Bi<br>ppm | V<br>ppm | Ca<br>% | P<br>% | La<br>ppm | Cr<br>ppm | Mg<br>% | Ba<br>ppm | Ti<br>% | B<br>ppm | Al<br>% | Na<br>% | K<br>% | W<br>ppm | Tl<br>ppm | Hg<br>ppb | Se<br>ppm | Te<br>ppm | Ga<br>ppm | S<br>% |
|--------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|---------|--------|-----------|-----------|---------|-----------|---------|----------|---------|---------|--------|----------|-----------|-----------|-----------|-----------|-----------|--------|
| 99XMG-013    | .70       | 22.37     | 9.90      | 66.9      | 27        | 41.2      | 14.5      | 331       | 2.88    | 8.6       | .9       | 1.5       | 4.0       | 44.4      | .06       | .67       | .22       | 70       | .36     | .074   | 14.0      | 47.9      | .87     | 280.2     | .073    | 1        | 2.05    | .015    | .06    | .3       | .16       | 35        | .6        | .03       | 6.6       | <.01   |
| 99XMG-014    | .84       | 23.44     | 10.12     | 64.1      | 21        | 32.9      | 15.4      | 357       | 3.35    | 10.6      | .8       | 1.2       | 6.4       | 16.5      | .10       | .68       | .21       | 68       | .21     | .043   | 14.3      | 50.7      | .79     | 234.6     | .076    | 1        | 2.40    | .011    | .23    | .2       | .19       | 28        | .8        | .03       | 6.8       | .01    |
| 99XMG-015    | .99       | 32.15     | 9.00      | 62.5      | 50        | 35.7      | 18.4      | 630       | 3.36    | 10.1      | 1.1      | 3.2       | 6.1       | 20.1      | .07       | .66       | .19       | 64       | .21     | .050   | 15.2      | 50.1      | .78     | 278.1     | .089    | 1        | 2.27    | .012    | .36    | .3       | .23       | 41        | .8        | .04       | 6.7       | .01    |
| 99XMG-016    | .55       | 39.51     | 11.19     | 56.4      | 15        | 51.9      | 20.4      | 384       | 3.97    | 6.2       | .7       | 8.2       | 4.7       | 21.3      | .09       | .37       | .21       | 77       | .21     | .038   | 15.8      | 56.7      | 1.06    | 260.2     | .155    | 1        | 2.78    | .013    | .69    | .2       | .32       | 25        | .6        | .03       | 9.1       | .01    |
| 99XMG-017    | .98       | 15.35     | 112.02    | 170.2     | 64        | 19.3      | 8.7       | 338       | 2.89    | 11.4      | 1.1      | 3.8       | 2.2       | 16.7      | .22       | .84       | .24       | 58       | .20     | .052   | 13.8      | 36.7      | .47     | 162.0     | .046    | 1        | 1.71    | .011    | .04    | .4       | .15       | 45        | .8        | .03       | 5.3       | .01    |
| 99XMG-023    | .76       | 17.20     | 9.36      | 54.6      | 50        | 17.3      | 7.9       | 259       | 2.42    | 8.3       | 1.0      | 4.1       | 4.8       | 21.5      | .11       | .68       | .46       | 58       | .25     | .042   | 14.9      | 34.0      | .45     | 242.8     | .085    | 1        | 1.60    | .013    | .05    | .2       | .14       | 35        | .7        | .11       | 5.3       | .01    |
| 99XMG-024    | .96       | 17.57     | 10.52     | 58.6      | 38        | 17.7      | 7.6       | 243       | 2.68    | 9.0       | .8       | 3.7       | 5.1       | 18.6      | .12       | .87       | .25       | 65       | .21     | .033   | 13.0      | 34.0      | .51     | 190.6     | .105    | 1        | 1.81    | .012    | .07    | .2       | .15       | 21        | .5        | .03       | 6.2       | <.01   |
| 99XMG-025    | .79       | 9.22      | 10.77     | 32.7      | 28        | 11.7      | 5.9       | 163       | 2.47    | 8.2       | .4       | 1.8       | 2.8       | 11.4      | .05       | .49       | .19       | 70       | .12     | .020   | 8.1       | 25.0      | .28     | 164.7     | .054    | <1       | 1.49    | .009    | .03    | .2       | .12       | 16        | .3        | .03       | 5.6       | <.01   |
| 99XMG-026    | 1.07      | 14.91     | 10.91     | 44.8      | 14        | 18.5      | 8.5       | 222       | 2.88    | 11.5      | .8       | 1.8       | 4.6       | 13.0      | .09       | .79       | .65       | 68       | .13     | .027   | 10.2      | 37.8      | .42     | 166.2     | .071    | 2        | 1.94    | .011    | .05    | <.2      | .17       | 30        | .5        | .23       | 5.8       | <.01   |
| 99XMG-027    | 1.05      | 17.24     | 10.13     | 48.6      | 18        | 20.0      | 9.7       | 324       | 2.62    | 9.6       | 1.1      | 1.5       | 4.7       | 20.2      | .06       | .75       | .24       | 68       | .19     | .018   | 14.7      | 39.9      | .47     | 306.8     | .065    | 1        | 1.82    | .013    | .03    | .3       | .13       | 29        | .4        | .07       | 5.4       | <.01   |
| 99XMG-028    | .86       | 20.39     | 9.61      | 52.7      | 12        | 24.9      | 9.6       | 252       | 2.79    | 13.2      | 1.2      | 3.5       | 5.1       | 17.7      | .06       | .90       | .19       | 64       | .14     | .019   | 15.2      | 41.9      | .48     | 231.1     | .071    | 1        | 1.68    | .009    | .04    | .2       | .09       | 24        | .4        | .05       | 4.5       | <.01   |
| RE 99XMG-028 | .91       | 20.82     | 10.02     | 54.3      | 15        | 25.0      | 9.9       | 258       | 2.85    | 13.1      | 1.2      | 3.6       | 5.3       | 17.9      | .07       | 1.00      | .18       | 66       | .15     | .020   | 15.8      | 46.5      | .50     | 233.6     | .073    | 1        | 1.74    | .010    | .04    | .2       | .09       | 31        | .4        | .04       | 4.8       | <.01   |
| 99XMG-029    | .92       | 19.35     | 10.55     | 55.0      | 10        | 27.8      | 11.6      | 308       | 2.98    | 12.9      | .7       | 3.4       | 5.1       | 16.5      | .07       | .91       | .18       | 69       | .14     | .020   | 9.3       | 45.1      | .52     | 276.5     | .073    | 1        | 2.07    | .011    | .04    | .2       | .11       | 35        | .4        | .05       | 4.8       | <.01   |
| 99XMG-030    | .74       | 16.21     | 9.47      | 42.6      | 13        | 18.8      | 7.7       | 246       | 2.56    | 9.3       | .9       | 2.5       | 4.5       | 16.6      | .04       | .77       | .16       | 62       | .15     | .012   | 11.7      | 39.3      | .49     | 235.1     | .063    | 1        | 1.69    | .011    | .03    | .2       | .10       | 28        | .5        | .03       | 4.6       | <.01   |
| 99XMG-031    | .69       | 14.82     | 10.88     | 59.5      | 33        | 16.2      | 7.2       | 302       | 2.44    | 6.2       | .8       | 2.1       | 4.2       | 19.8      | .11       | .59       | .27       | 60       | .27     | .052   | 13.5      | 29.2      | .53     | 222.4     | .143    | 1        | 1.59    | .017    | .09    | .2       | .17       | 20        | .3        | .02       | 7.1       | <.01   |
| 99XMG-032    | .73       | 16.38     | 8.93      | 47.8      | 23        | 18.1      | 7.2       | 223       | 2.37    | 8.3       | .5       | 3.5       | 3.7       | 17.4      | .09       | .71       | .16       | 55       | .21     | .030   | 11.2      | 28.3      | .45     | 193.6     | .067    | <1       | 1.39    | .010    | .04    | .2       | .10       | 20        | .4        | .03       | 4.7       | <.01   |
| 99XMG-033    | .81       | 12.76     | 9.97      | 43.7      | 13        | 19.2      | 8.4       | 186       | 2.68    | 10.1      | .9       | 3.1       | 4.0       | 12.5      | .04       | .72       | .17       | 65       | .12     | .017   | 10.0      | 38.9      | .42     | 188.2     | .061    | 1        | 1.85    | .010    | .03    | .2       | .11       | 27        | .4        | .03       | 5.2       | <.01   |
| 99XMG-034    | 1.34      | 11.56     | 11.44     | 38.2      | 19        | 14.9      | 6.9       | 161       | 3.22    | 12.3      | .5       | 1.7       | 3.9       | 10.8      | .07       | .84       | .22       | 77       | .11     | .036   | 8.7       | 35.9      | .37     | 144.4     | .068    | <1       | 2.33    | .010    | .04    | .2       | .16       | 22        | .3        | .05       | 6.8       | <.01   |
| 99XMG-035    | 1.23      | 13.07     | 10.60     | 56.7      | 13        | 19.3      | 8.7       | 237       | 2.82    | 10.7      | .8       | 2.6       | 4.6       | 13.9      | .06       | .81       | .21       | 71       | .13     | .021   | 10.9      | 43.9      | .45     | 234.3     | .063    | 1        | 1.99    | .012    | .03    | .3       | .13       | 22        | .4        | .05       | 5.6       | <.01   |
| 99XMG-036    | .55       | 13.01     | 7.72      | 41.4      | 29        | 12.1      | 5.3       | 220       | 2.00    | 5.2       | 1.1      | 1.5       | 3.2       | 20.8      | .08       | .46       | .29       | 44       | .28     | .068   | 11.5      | 21.7      | .43     | 178.8     | .076    | 1        | 1.35    | .014    | .10    | .2       | .17       | 29        | .5        | <.02      | 5.3       | <.01   |
| 99XMG-037    | .91       | 10.23     | 10.55     | 36.3      | 31        | 13.0      | 5.7       | 139       | 2.41    | 9.1       | .7       | 2.8       | 3.2       | 13.8      | .05       | .57       | .22       | 67       | .14     | .020   | 10.9      | 35.8      | .35     | 175.1     | .064    | 1        | 1.63    | .012    | .03    | .2       | .14       | 42        | .5        | .03       | 5.8       | <.01   |
| 99XMG-038    | .67       | 8.88      | 11.11     | 45.3      | 11        | 13.0      | 6.5       | 217       | 2.49    | 6.4       | .7       | 4.8       | 4.5       | 14.8      | .06       | .58       | .19       | 49       | .21     | .058   | 13.4      | 24.8      | .42     | 157.8     | .029    | 1        | 1.77    | .010    | .08    | .2       | .19       | 20        | .4        | .03       | 6.4       | <.01   |
| 99XMG-039    | 1.03      | 10.36     | 10.13     | 38.4      | 26        | 12.7      | 5.9       | 165       | 2.43    | 8.6       | .7       | 3.7       | 3.5       | 13.1      | .05       | .60       | .20       | 68       | .14     | .016   | 9.8       | 32.5      | .32     | 164.6     | .066    | 1        | 1.58    | .010    | .03    | .2       | .13       | 19        | .3        | .04       | 5.7       | <.01   |
| 99XMG-040    | .93       | 15.79     | 9.50      | 51.1      | 66        | 19.8      | 8.8       | 298       | 2.51    | 9.6       | .6       | 2.0       | 3.8       | 24.9      | .38       | .79       | .19       | 64       | .22     | .015   | 9.2       | 41.2      | .47     | 411.3     | .067    | 1        | 1.75    | .014    | .04    | .3       | .11       | 26        | .5        | .04       | 5.2       | <.01   |
| 99XMG-041    | 1.51      | 12.86     | 11.06     | 48.4      | 79        | 18.0      | 10.5      | 380       | 2.66    | 9.5       | .5       | 1.9       | 2.9       | 14.6      | .12       | .68       | .23       | 71       | .15     | .035   | 8.0       | 35.2      | .38     | 288.7     | .057    | 1        | 1.98    | .009    | .04    | .3       | .13       | 30        | .4        | .04       | 6.1       | <.01   |
| 99XMG-042    | .82       | 8.99      | 12.65     | 30.7      | 31        | 9.7       | 3.2       | 105       | 1.56    | 6.8       | .5       | 1.4       | 1.0       | 11.6      | .10       | .37       | .32       | 52       | .12     | .022   | 7.9       | 26.3      | .25     | 134.7     | .058    | 1        | 1.20    | .010    | .04    | .2       | .10       | 17        | .3        | .03       | 5.6       | <.01   |
| 99XMG-043    | .73       | 10.59     | 9.70      | 41.7      | 9         | 16.1      | 5.8       | 132       | 2.65    | 11.0      | .6       | 2.8       | 1.4       | 12.1      | .06       | .58       | .23       | 66       | .15     | .033   | 9.1       | 30.0      | .41     | 148.4     | .049    | 1        | 1.61    | .009    | .03    | .3       | .11       | 36        | .5        | .03       | 5.3       | <.01   |
| 99XMG-044    | 1.32      | 44.18     | 8.77      | 56.4      | 57        | 26.1      | 10.3      | 310       | 3.45    | 6.7       | .4       | 7.8       | 1.9       | 14.7      | .09       | .56       | .99       | 104      | .16     | .031   | 6.6       | 60.8      | .61     | 269.9     | .152    | <1       | 2.16    | .012    | .05    | .5       | .19       | 15        | .5        | .10       | 8.3       | .01    |
| STANDARD DS2 | 14.34     | 131.77    | 31.78     | 166.3     | 260       | 36.9      | 13.0      | 824       | 3.20    | 63.8      | 19.7     | 203.5     | 3.4       | 31.9      | 11.61     | 10.30     | 10.94     | 83       | .55     | .083   | 14.0      | 183.4     | .62     | 145.5     | .116    | 4        | 1.77    | .040    | .17    | 7.3      | 2.06      | 244       | 2.7       | 1.82      | 6.2       | .04    |

Sample type: SOIL. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

**APPENDIX E**

**CERTIFICATE OF ANALYSES (SILT SAMPLES)**



GEOCHEMICAL ANALYSIS CERTIFICATE

Prospector International Resources Inc. PROJECT MOUNT CARMACKS File # 9903373 Page 1  
 c/o International Kodiak,, Vancouver BC V6C 3A6 Submitted by: Bart Jaworski



| SAMPLE#               | Mo    | Cu     | Pb    | Zn    | Ag  | Ni   | Co   | Mn   | Fe   | As   | U    | Au    | Th   | Sr    | Cd    | Sb    | Bi    | V   | Ca    | P    | La   | Cr    | Mg  | Ba    | Ti   | B   | Al   | Na   | K   | W   | Hg   | Se  | Te  | Ga    | S    |       |
|-----------------------|-------|--------|-------|-------|-----|------|------|------|------|------|------|-------|------|-------|-------|-------|-------|-----|-------|------|------|-------|-----|-------|------|-----|------|------|-----|-----|------|-----|-----|-------|------|-------|
|                       | ppm   | ppm    | ppm   | ppm   | ppb | ppm  | ppm  | ppm  | ppm  | ppm  | ppm  | ppb   | ppm  | ppm   | ppm   | ppm   | ppm   | ppm | ppm   | ppm  | ppm  | ppm   | ppm | ppm   | ppm  | ppm | ppm  | ppm  | ppm | ppm | ppm  | ppm | ppm | ppm   | ppm  | ppm   |
| 99SBJ-036 -150*230    | .70   | 29.44  | 6.53  | 56.2  | 111 | 27.8 | 9.2  | 1435 | 2.12 | 5.5  | 2.3  | 1.6   | 1.4  | 614.7 | .62   | .67   | .18   | 30  | 12.05 | .056 | 5.5  | 24.3  | .67 | 269.3 | .038 | 5   | .69  | .022 | .09 | < 2 | 07   | 44  | 2.2 | 12    | 2.3  | .37   |
| 99SBM-001 -150*230    | .27   | 10.77  | 5.29  | 45.1  | 44  | 13.1 | 5.5  | 159  | 1.38 | < 1  | 2.0  | 2.3   | 3.2  | 23.3  | .13   | .32   | .18   | 30  | .40   | .061 | 10.4 | 14.9  | .37 | 163.4 | .058 | 1   | .86  | .015 | .06 | < 2 | 08   | 30  | < 1 | < 0.2 | 2.9  | .04   |
| 99SBM-002 -150*230    | .44   | 8.20   | 7.69  | 54.4  | 40  | 11.1 | 5.8  | 366  | 1.81 | 2.7  | 26.3 | 5.6   | 13.8 | 33.5  | .13   | .16   | .23   | 34  | 64    | 150  | 30.9 | 18.1  | 44  | 131.9 | .086 | 1   | 1.10 | .013 | .14 | .4  | .16  | 48  | < 1 | 0.2   | 4.8  | .03   |
| 99SMG-018 -150*230    | 60    | 17.83  | 8.17  | 77.0  | 68  | 22.4 | 10.7 | 392  | 2.31 | 3.4  | 1.0  | 2.4   | 3.6  | 26.1  | .27   | .26   | .20   | 45  | .43   | .066 | 20.8 | 30.1  | 54  | 158.9 | .046 | 1   | 1.35 | .017 | .13 | < 2 | 10   | 31  | .2  | 0.2   | 4.8  | .03   |
| 99SMG-019 -150*230    | .45   | 16.15  | 6.18  | 54.8  | 60  | 18.0 | 7.5  | 264  | 1.80 | 3.9  | 11.9 | 1.2   | 3.8  | 33.7  | .19   | .46   | .13   | 39  | 53    | .076 | 12.8 | 23.0  | 51  | 197.5 | .077 | 2   | .96  | .018 | .09 | < 2 | 11   | 27  | .3  | < 0.2 | 3.6  | .02   |
| 99SMG-020 -150*230    | .54   | 15.32  | 7.14  | 53.5  | 47  | 18.4 | 8.4  | 327  | 1.98 | 7.1  | 4.3  | .8    | 3.8  | 33.3  | .13   | .37   | .14   | 39  | .50   | .068 | 11.1 | 24.4  | 48  | 171.1 | .076 | 1   | 1.11 | .014 | .13 | .2  | .13  | 30  | 3   | 0.2   | 4.2  | .03   |
| 99SMG-021 -150*230    | .94   | 17.89  | 6.01  | 50.0  | 62  | 18.6 | 8.0  | 323  | 1.81 | 9.6  | .8   | 1.4   | 2.7  | 30.5  | .20   | .57   | .16   | 41  | .55   | .059 | 9.6  | 29.0  | 43  | 229.3 | .060 | 1   | .99  | .015 | .05 | < 2 | .05  | 34  | 4   | 0.2   | 3.7  | .03   |
| 99SMG-022 -150*230    | 1.39  | 14.46  | 22.21 | 97.2  | 20  | 10.8 | 7.9  | 796  | 2.97 | 5.0  | 4.7  | .9    | 13.0 | 21.0  | .05   | .28   | 1.13  | 51  | .50   | .097 | 23.6 | 16.6  | 71  | 780.2 | .193 | 1   | 2.34 | .013 | .62 | .2  | .47  | 11  | < 1 | < 0.2 | 12.2 | .02   |
| RE 99SMG 022 -150*230 | 1.40  | 14.52  | 22.01 | 96.1  | 20  | 10.7 | 8.2  | 788  | 2.94 | 2.2  | 4.7  | .8    | 12.9 | 21.4  | .07   | .27   | 1.06  | 51  | .50   | .099 | 24.2 | 16.5  | 71  | 784.6 | .192 | 1   | 2.38 | .013 | .60 | .2  | .46  | 9   | < 1 | < 0.2 | 11.9 | < 0.1 |
| STANDARD 052          | 12.93 | 128.31 | 29.82 | 162.7 | 256 | 36.3 | 12.6 | 826  | 3.15 | 65.9 | 18.5 | 197.0 | 3.1  | 29.3  | 11.10 | 10.18 | 10.26 | 79  | .55   | .081 | 15.1 | 170.7 | .59 | 142.3 | .114 | 2   | 1.77 | .037 | .16 | 6.5 | 2.01 | 235 | 2.6 | 1.91  | 6.2  | .02   |

GROUP 1F30 - 30.00 GM SAMPLE LEACHED WITH 180 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 600 ML, ANALYSED BY ICP/ES & MS.  
 UPPER LIMITS - AG, AU, HG, W, SE, TE, TL, GA, SN = 100 PPM; MO, CO, CD, SB, BI, TH, U, B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.  
 - SAMPLE TYPE: SILT Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: SEP 9 1999 DATE REPORT MAILED: *Sept 17/99* SIGNED BY: *C. Leong* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS



| SAMPLE#           | Mo    | Cu     | Pb    | Zn    | Ag  | Hg   | Co   | Mn  | Fe   | As   | U    | Au    | Th   | Sr   | Cd    | Sb    | Bi    | V   | Ca  | P    | La   | Cr    | Mg   | Ba    | Ti    | B    | Al   | Na   | K    | W   | Tl   | Hg  | Se  | Te   | Ga  | S   |     |
|-------------------|-------|--------|-------|-------|-----|------|------|-----|------|------|------|-------|------|------|-------|-------|-------|-----|-----|------|------|-------|------|-------|-------|------|------|------|------|-----|------|-----|-----|------|-----|-----|-----|
|                   | ppm   | ppm    | ppm   | ppm   | ppb | ppm  | ppm  | ppm | %    | ppm  | ppm  | ppb   | ppm  | ppm  | ppm   | ppm   | ppm   | ppm | %   | %    | ppm  | ppm   | ppm  | ppm   | ppm   | ppm  | ppm  | ppm  | ppm  | ppm | ppm  | ppm | ppm | ppm  | ppm | ppm |     |
| 99SBJ-036 -230    | .64   | 20.05  | 5.92  | 61.6  | 80  | 26.5 | 9.9  | 898 | 2.12 | 4.7  | 1.4  | 2.0   | 1.9  | 289  | 1     | .38   | .66   | .20 | 35  | 6.07 | .067 | 6.9   | 30.1 | 55    | 188.1 | .047 | 3    | .78  | .024 | .09 | <.2  | .07 | 23  | 1.0  | .04 | 2.6 | .18 |
| 99SBM-001 -230    | .33   | 11.98  | 7.12  | 47.1  | 53  | 14.1 | 6.3  | 162 | 1.45 | 4.3  | 2.2  | 6.9   | 3.9  | 26.8 | 15    | .55   | .31   | 34  | 47  | .090 | 14.4 | 21.8  | 35   | 186.6 | .066  | 1    | .89  | .017 | .05  | .4  | .07  | 38  | .1  | .02  | 2.9 | .04 |     |
| 99SBM-002 -230    | .45   | 8.41   | 7.86  | 47.7  | 54  | 11.2 | 5.6  | 335 | 1.53 | 3.9  | 29.9 | 11.3  | 6.8  | 35.3 | .15   | .30   | .30   | 33  | .64 | .126 | 23.4 | 18.1  | .35  | 124.2 | .067  | 1    | .98  | .015 | .08  | .7  | .11  | 57  | <.1 | <.02 | 3.7 | .03 |     |
| 99SMG-018 -230    | .63   | 19.34  | 10.31 | 78.8  | 84  | 22.9 | 11.5 | 378 | 2.26 | 4.0  | 1.3  | 3.3   | 4.7  | 29.5 | .25   | .42   | .32   | 46  | 47  | .065 | 26.6 | 29.3  | 53   | 171.0 | .051  | 1    | 1.40 | .014 | .12  | .5  | .11  | 39  | <.1 | .03  | 4.9 | .03 |     |
| 99SMG-019 -230    | .49   | 15.80  | 7.83  | 57.4  | 67  | 17.5 | 7.7  | 240 | 1.86 | 5.0  | 12.8 | 6.5   | 4.5  | 35.3 | .20   | .63   | .24   | 42  | .60 | .098 | 15.6 | 24.2  | 47   | 245.2 | .075  | 2    | .96  | .020 | .08  | .4  | .09  | 39  | .3  | .02  | 3.5 | .04 |     |
| 99SMG-020 -230    | .50   | 14.30  | 7.51  | 50.1  | 52  | 17.6 | 7.9  | 241 | 1.78 | 4.0  | 3.9  | 3.0   | 4.3  | 33.7 | .14   | .50   | .19   | 40  | .55 | .085 | 14.0 | 22.4  | 40   | 170.3 | .069  | 1    | 1.01 | .017 | .07  | .4  | .08  | 26  | .1  | .03  | 3.3 | .03 |     |
| 99SMG-021 -230    | .78   | 14.68  | 6.65  | 52.1  | 56  | 17.9 | 7.6  | 250 | 1.76 | 4.2  | .7   | 4.5   | 3.2  | 29.1 | .16   | .58   | .21   | 40  | .55 | .077 | 12.4 | 24.3  | 39   | 226.2 | .064  | 1    | 1.00 | .018 | .05  | .3  | .05  | 32  | .2  | .02  | 3.1 | .03 |     |
| 99SMG-022 -230    | 1.40  | 15.53  | 20.78 | 65.5  | 25  | 11.9 | 6.6  | 672 | 2.22 | 4.7  | 5.5  | 2.6   | 17.6 | 21.7 | .08   | .36   | 1.85  | 43  | .78 | .214 | 36.7 | 15.4  | 42   | 714.9 | .116  | 1    | 1.92 | .010 | .30  | .2  | 24   | 14  | <.1 | <.02 | 8.2 | .02 |     |
| RE 99SMG-022 -230 | 1.44  | 15.69  | 22.32 | 65.2  | 27  | 12.2 | 6.7  | 671 | 2.18 | 4.1  | 5.5  | 3.0   | 18.2 | 21.6 | .07   | .37   | 2.01  | 42  | .78 | .214 | 36.3 | 19.9  | 43   | 735.7 | .118  | 1    | 1.95 | .012 | .33  | .3  | .24  | 21  | .1  | .02  | 8.5 | .02 |     |
| STANDARD DS2      | 13.37 | 125.71 | 29.63 | 161.3 | 243 | 36.2 | 13.1 | 805 | 3.13 | 62.1 | 18.9 | 194.8 | 3.1  | 29.2 | 10.96 | 10.09 | 12.80 | 78  | .54 | .082 | 15.0 | 160.0 | 57   | 136.6 | .116  | 2    | 1.71 | .039 | .16  | 6.7 | 2.02 | 231 | 2.5 | 1.83 | 5.9 | .02 |     |

Sample type: SILT. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

**APPENDIX F**

**FLUID INCLUSION ANALYSIS**

J.J. Irwin, Ph.D.  
Cadence Mineral Resources Inc.  
1720 Balsam St., #803, Vancouver, B.C., Canada V6K3M2  
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December 14, 1999

Mr. B. Jaworski  
Prospector International Resources Inc.  
530-800 West Pender St.  
Vancouver, B.C. V6C 2V6

**Re: Petrographic examination of fluid inclusions**

Sample 99XBJ028, contains clasts within breccia. Sample contains high salinity inclusions suggestive of intrusion-related systems. These clasts have been recrystallized/metamorphosed presumably by the breccia-forming stage. There are also some later low temperature aqueous inclusions.

Sample 99XBJ029, contains quartz vein which is slightly deformed, and appears to have a complex history that includes an early stage of carbonic fluids at greater than 1 kb (3.5 km) and one or more later lower temperature stages.

**99XBJ028**

- Rusty, semi opaque matrix containing "clasts" of quartz
- Not clear if sediment or breccia
- Messy slide, clasts contain FI, look like they are early and pre-date a metamorphic/recrystallization event.

|   |                  |
|---|------------------|
| (1) Locally abundant vap + liquid FI, small to moderate bubble  | Locally Abundant |
| (2) Within clasts there are many irregular FI that appear to have multiple DMs with small vapor bubble, these FI occur randomly, as if along annealed fractures | Locally Common   |

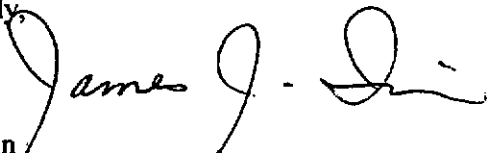
**99XBJ029**

- Quartz vein
- Most of sample contains abundant very small FI in murky quartz that appears deformed,
- Some clear quartz

|  |          |
|--|----------|
| (1) Small bubble FI, many with some CO <sub>2</sub> , larger ones with DB, | Abundant |
| (2) liquid rich FI without DM, with CO <sub>2</sub>                        | Common   |
| (3) vapor rich FI, probably with CO <sub>2</sub>                           | Common   |
| (4) moderate bubble FI with small DM                                       | Rare     |

DM means "daughter mineral", DB means "double bubble", indicates presence of liquid CO<sub>2</sub>  
Inclusions are classified as "rare", "common" or "abundant", based on the number present in the slide.

Sincerely,



J.J. Irwin