



Geological Survey Branch  
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[ARIS11A]

ARIS Summary Report

Regional Geologist, Cranbrook

Date Approved: 1998.10.26

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**ASSESSMENT REPORT: 25652**

Mining Division(s): Fort Steele

Property Name: Intrepid-Tick

Location: NAD 27 Latitude: 49 33 00 Longitude: 116 08 00 UTM: 11 5488741 562691  
NAD 83 Latitude: 49 33 00 Longitude: 116 08 04 UTM: 11 5488959 562609  
NTS: 082F09E

Camp: 001 Purcell Belt (Sullivan)

Claim(s): Intrepid 1-7, Tick 1-6

Operator(s): Kiewchuk, Peter

Author(s): Kennedy, Craig

Report Year: 1998

No. of Pages: 10 Pages

**Commodities**

Searched For: Gold, Lead, Zinc, Silver, Copper

General PROS

**Work Categories:**

Work Done: Prospecting

PROS Prospecting (325.0 ha.)

Keywords: Aldridge Formation, Helikian, Pegmatites, Quartz monzonites, Quartz veins, Quartzites

Statement Nos.: 3120395

MINFILE Nos.:

Related Reports: 00661, 13011, 21263

ASSESSMENT REPORT

on

PROSPECTING

INTREPID & TICK CLAIMS

Angus Creek Area

|                       |       |
|-----------------------|-------|
| MINERAL TITLES BRANCH |       |
| Rec'd.                |       |
| SEP 21 1998           |       |
| L.I.#                 | _____ |
| File                  | _____ |
| VANCOUVER, B.C.       |       |

FORT STEELE MINING DIVISION

NTS 82 F/9 E

Latitude 49° 33' N  
Longitude 116° 08' W

By

CRAIG KENNEDY, Prospector

September, 1998

GEOLOGICAL SURVEY BRANCH  
ASSESSMENT REPORT

25,652

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## 1.00 INTRODUCTION

This report describes a program of prospecting completed on the Intrepid and Tick claims in the Angus Creek drainage south of St. Mary Lake in 1997.

### 1.10 Location and Access

The Intrepid and Tick claims are located approximately 28 kilometers southwest of Kimberley, B.C., and 6 kilometers southeast of St. Mary Lake, on the east side of Angus Creek at about 1850 meters elevation (Figs. 1 and 2). The claims are centered near 49° 33' N latitude and 116° 08' W longitude.

Access to the property is via forest access roads from Kimberley or Cranbrook along the St. Mary River and up Angus Creek.

### 1.20 Property

The Intrepid and Tick claims are a contiguous block of 13 two-post claims owned by Peter Klewchuk of Kimberley, B.C. (Fig. 2).

### 1.30 Physiography

The Intrepid and Tick claims occur within the Moyie Range of the Purcell Mountains, in moderately rugged mountainous terrain on the eastern slopes of Angus Creek. Mountains in the immediate vicinity of the claims range up to about 2300 meters. Forest cover is a mixed assemblage of mostly Pine, Fir and Larch, with portions of the property clear-cut logged.

### 1.40 History of Previous Exploration

A narrow north to northeast trending gold- and copper-bearing quartz vein on the Intrepid 1 mineral claim has been the focus of a number of previous exploration programs. Geological Survey of Canada Memoir 76 (1915) refers to the property as the Mascot and Eclipse. B.C. Ministry of Mines reports for 1915 (p.113), 1936 (p.102) and 1950 (p.155) describe work on the property. The claims which formerly covered this area were the Wellington and Leader and the vein is commonly referred to by either of those names. A thorough review of the available assessment reports has not been made. Work on the claims has included soil geochemistry, ground geophysics (VLF-EM and magnetics), road building and trenching, and diamond drilling (eg. Assessment Reports 661, 4459, 13,011, 16,009, 14,079 and 14,112).

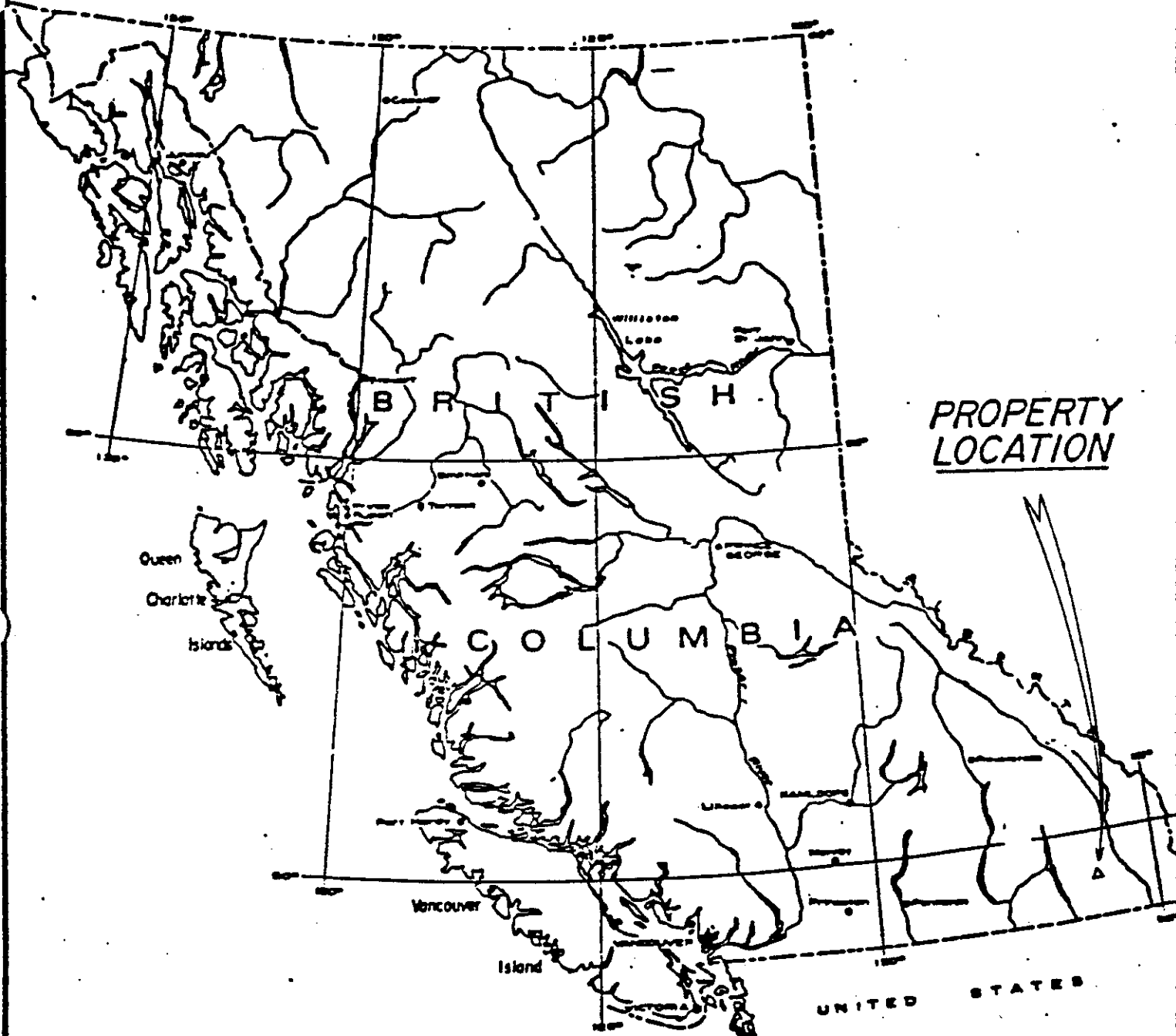
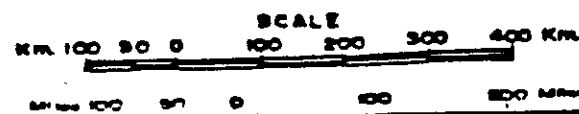
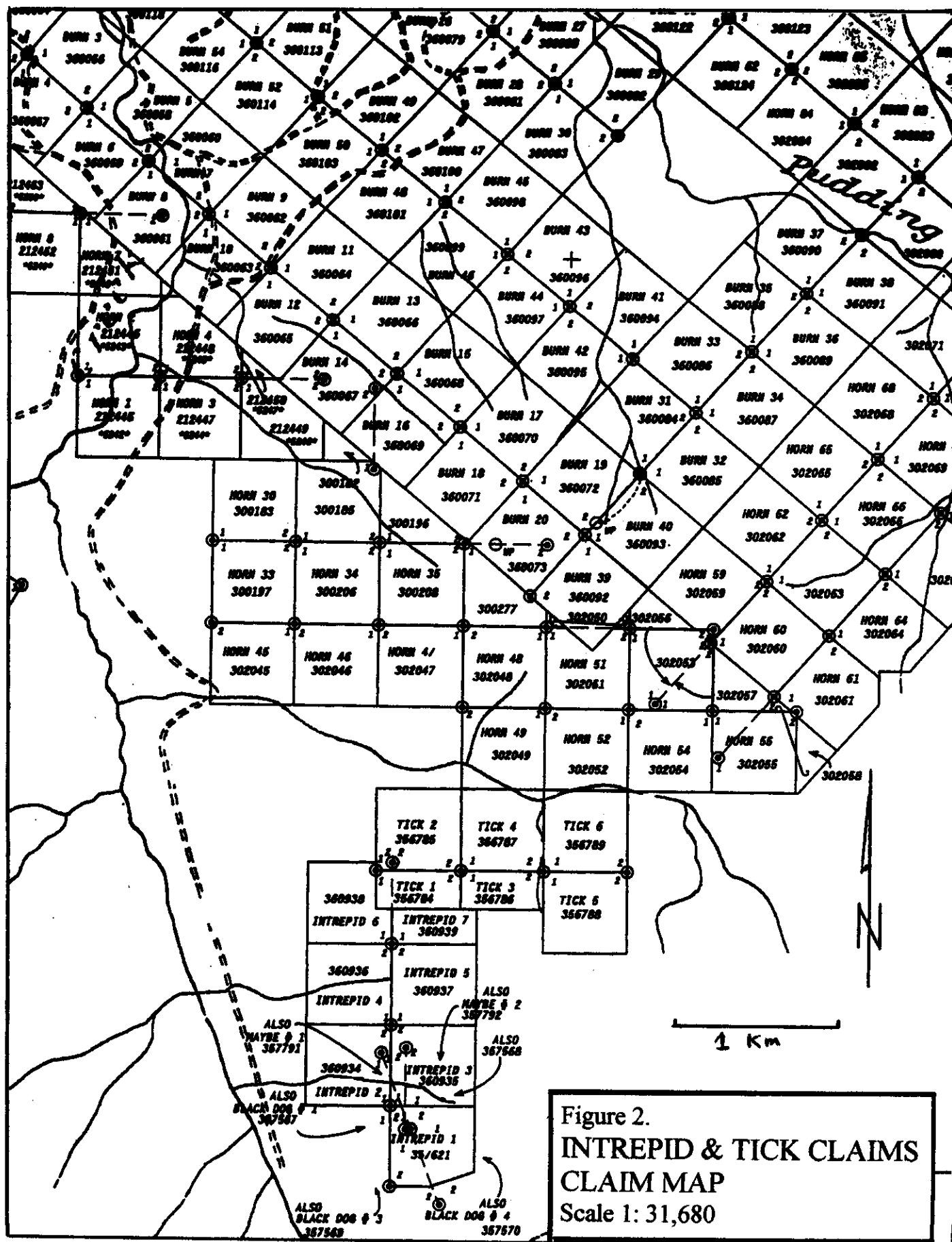


Figure 1.  
INTREPID & TICK CLAIMS  
PROPERTY LOCATION MAP





### 1.50 Purpose of Work

The objective of the 1998 prospecting program was to ground proof a strong magnetic anomaly high-lighted by the 1996 East Kootenay Geophysical Survey (Open File 1996-23).

## 2.00 GEOLOGY

### 2.10 Regional geology

The Intrepid and Tick claims are underlain by Precambrian age Purcell Supergroup rocks of the Aldridge, Creston and Kitchener Formations. The oldest rocks in the region are of the Aldridge Formation and consist predominantly of thick basinal turbidites. They are progressively overlain by shallower water quartzites and siltstones of the Creston Formation and siltstones and silty carbonates of the Kitchener Formation.

These formations are intruded by Precambrian gabbroic sills and dikes, pegmatite and aplite dikes related to the Precambrian Hellroaring Creek stock and a Cretaceous granitic stock and its associated syenitic dikes.

### 2.20 Property Geology

A major east striking fault, the St. Mary Fault, crosses the north central part of the claim block (Fig. 3). To the north is the Aldridge Formation while Creston and Kitchener rocks are exposed south of the fault. Geological Survey of Canada Map 15-1957, St. Mary Lake, puts the Leader (Wellington) showing on a northeast-striking fault between the Creston Formation on the west and the Kitchener Formation to the east.

According to assessment reports, the gold-bearing quartz vein has near-surface widths of 15 cm to 1 meter and has been traced for 600 m along strike. It has been exposed by a series of open cuts and subsequently by a long vein-parallel trench. An old shaft tested the vein to a depth of 16 meters and a 38 meter long adit is reported. Samples analyzed have values up to 4.8 oz/ton gold, 6.8 oz/ton Ag, 57.8% Pb, and 4.12% Cu. Diamond drilling done by Donnex Resources Ltd. in 1985 (258.5 meters in 5 holes; A.R. 14,112) tested the vein to a depth of about 50 meters with gold values up to 0.338 oz/ton over 60 cm reported.

**Figure 3.**  
**INTREPID & TICK CLAIMS**  
**PROSPECTING MAP**  
Scale 1:10,000



### 3.00 PROSPECTING

Four main features of interest exist on and adjoining the claim block; Structure, trends and character, Intrusive rocks, Alteration and Mineralization.

#### 3.10 Structure, Trends and Character

The major structural control on the claim block is the transform St. Mary Fault (Fig. 3). This fault separates lower Aldridge rocks (north) from Creston and Kitchener rocks (south) and strikes east-west across the property. On the claim block the fault is easily recognized as a zone of quartz flooding. The quartz flooded zone can reach widths of more than 30 meters. Another important character of this fault on the property is that it hosts dikes of Precambrian pegmatite and aplite.

The other major structural trend noted is a shallow northeast orientation. This preference can be recognized in limonite-rich quartz veins in the Creston Formation. This trend also appears as the trace for narrow syenite type dikes on the southeast corner of the property

#### 3.20 Intrusive Rocks

Five different types of intrusive rocks are recognized outcropping on and adjacent to the claim block. Three of these are Precambrian in age, the others are younger.

The five intrusives are:

1. A wide gabbro sill which outcrops on the western boundary of the property.
2. Pegmatite dikes which outcrop within the St. Mary Fault on the claim block.
3. Aplite dikes existing within the central part of the property within the St. Mary Fault system.
4. A Cretaceous quartz monzonite stock underlying an intense magnetic high. The stock is recognized in outcrop on the southwest portion of the property.
5. Syenite type dikes, located in the southeast corner of the property.

### 3.30 Alteration

There are two major zones of alteration exposed on the property:

1. A limonite-rich quartz-flooded zone containing varying amounts of hematite and magnetite. This zone delineates the St. Mary Fault and hosts very altered pyrite- and chlorite-rich aplite dikes.
2. A clay altered limonite-rich syenite dike and altered Cretaceous stock at the southeast corner of the property.

As a general observation, epidote, chlorite and magnetite alteration are quite widespread across the claim block.

### 3.40 Mineralization

The most prominent mineralization noted is iron pyrite and limonite, the majority of which exists in the above mentioned alteration zones.

Galena was noted in two areas, one north of the property in a pegmatite dike. Lead occurs here as small clusters of galena and as a pyromorphite coating. The other galena occurrence is with bull quartz float near the northeast corner of the property. The Leader vein, where galena occurs with gold and copper mineralization, was not prospected.

Malachite coating was noted on fractures within the gabbro sill where it contacts the St. Mary Fault.

Nine rock samples were collected while prospecting; their locations are shown on Figure 3. Descriptions of the samples are as follows, although these samples have not as yet been geochemically analyzed.

|          |  |
|----------|--|
| TK 98-01 | Altered pegmatite dike. Large mica, some quartz with limonite cubes.             |
| TK 98-02 | Quartz breccia, abundant thick limonite.   |
| TK 98-03 | Leached pyrite-rich quartz material, old workings.                               |
| TK 98-04 | Pyrite-rich aplite with chlorite.  |
| TK 98-05 | Pyrite-rich aplite with chlorite.  |
| TK 98-06 | Pyrite-rich aplite with chlorite.  |
| TK 98-07 | Pyrite-rich aplite with chlorite.  |
| TK 98-08 | Narrow quartz veins, vugs, manganese and limonite in altered syenite.            |
| TK 98-09 | Narrow quartz vein material with vugs and abundant limonite (Creston Formation). |

## 4.00 CONCLUSIONS

The government airborne geophysical survey shows a strong northeast trend of magnetic highs. This northeast trend mimics the Leader structure which hosts copper and gold in the Kitchener Formation. The intersection of this structure with the St. Mary Fault provides a strong exploration target area for both base and precious metals.

## 5.00 STATEMENT OF EXPENDITURES

|                           |               |                       |                  |
|---------------------------|---------------|-----------------------|------------------|
| Prospecting:              | Craig Kennedy | 4 days @ \$250.00/day | \$1000.00        |
|                           | Tom Kennedy   | 4 days @ \$225.00/day | 900.00           |
|                           | Mike Kennedy  | 2 days @ \$210.00/day | 420.00           |
| Report                    | Craig Kennedy | 1 day @ \$250.00      | 250.00           |
| 4X4 Truck                 |               | 4 days @ \$75.00/day  | 300.00           |
| Field and report supplies |               |                       | 47.00            |
| <b>TOTAL COST</b>         |               |                       | <b>\$2917.00</b> |

## 6.00 AUTHOR'S QUALIFICATIONS

As author of this report, I Craig Kennedy certify that:

1. I am an independent prospector residing at 2290 De Wolfe Avenue, Kimberley, B.C.
2. I have been actively prospecting in the east Kootenay district of B.C. for the past 25 years, and have made my living by prospecting for the past 10 years.
3. I have been employed as a professional prospector by major and junior mineral exploration companies.
4. I own and maintain mineral claims in B.C. and have optioned numerous claims to various exploration companies.

Dated at Kimberley, B. C. September 15, 1998

*Craig Kennedy*  
Craig Kennedy, Prospector