

**ASSESSMENT REPORT TITLE PAGE AND SUMMARY**

**TITLE OF REPORT** 2008 geological exploration of the Fly project area, Lac La Hache, Clinton Mining Division, B.C.

**TOTAL COST** \$7700.00

**AUTHOR(S)** David G. Bailey

**SIGNATURE(S)**



**NOTICE OF WORK PERMIT NUMBER(S)/DATE(S)**

**STATEMENT OF WORK EVENT NUMBER(S)/DATE(S)** 4247391 November 19, 2008

**YEAR OF WORK** 2008

**PROPERTY NAME** FLY

**CLAIM NAME(S)** (on which work was done) FLY 1 & 2: 528936, 528945

**COMMODITIES SOUGHT** Copper, gold

**MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN**

**MINING DIVISION** Clinton

**NTS / BCGS** 094P/14

**LATITUDE** \_\_\_\_\_° \_\_\_\_\_', \_\_\_\_\_"

**LONGITUDE** \_\_\_\_\_° \_\_\_\_\_', \_\_\_\_\_" (at centre of work)

**UTM Zone** 10 U      **EASTING** 615250      **NORTHING** 5754500

**OWNER(S)** Allen D. Harvey

**MAILING ADDRESS** PO Box 67, Clinton, BC, V0K 1K0

**OPERATOR(S)** [who paid for the work] GWR Resources Inc.

**MAILING ADDRESS** 650 St. Annes Road, Armstrong, BC, V0E 1B5

**REPORT KEYWORDS** (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude **do not use abbreviations or codes**) Triassic, basalt, conglomerate, sandstone, siltstone, Nicola Group, chalcopryrite, native copper.

**REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS** 23517, 25650

**BC Geological Survey  
Assessment Report  
30809**

**2008 GEOLOGICAL EXPLORATION  
OF THE FLY PROJECT AREA,  
LAC LA HACHE REGION  
CLINTON MINING DIVISION**

**Mineral Tenure No's. 528936, 528945**

**UTM ZONE 10U  
615250mE, 5754500mN  
NTS MAP SHEET 92P/14W**

**Event No. 4247391**

**TENEMENT HOLDER:**

**Allen D. Harvey  
Box 67  
Clinton BC  
V0K 1K0**

**OPERATOR:**

**GWR RESOURCES INC.  
650 St. Annes Road  
Armstrong BC  
V0E 1B5**

**Prepared By**

**David G. Bailey  
BAILEY GEOLOGICAL CONSULTANTS (CANADA) LTD.  
2695 Mountain Highway  
North Vancouver. B.C., Canada  
V7J 2N4**

**February 18, 2009**

---

**CONTENTS**

	<b>Page No.</b>
1. SUMMARY	1
2. INTRODUCTION	2
2.1 General statement	2
2.2 Location, access and physiography	2
2.3 Exploration history	2
2.4 Mineral tenements	6
3. GEOLOGY	8
3.1 Regional geology	8
3.2 Geology of the Fly project area	8
3.2.1 Lithologies	8
3.2.2 Structural geology	9
3.2.3 Metamorphism	9
3.2.4 Alteration and mineralization	9
4. DISCUSSION	13
5. REFERENCES AND BIBLIOGRAPHY	14
6. EXPENDITURE STATEMENT	15
7. CERTIFICATE	16

**TABLES**

1. Fly project: mineral tenures	6
---------------------------------	---

**FIGURES**

1. Location of the Fly project	4
2. Topography, access and location.	5
3. Mineral tenure disposition.	7
4. Regional geology	11
5. Geology of the Fly project area	12

## 1. SUMMARY

The Fly project area is located about 20 kilometres northeast of the village of Lac La Hache on Highway 97 of south central British Columbia. The project area lies within the southern part of the Cariboo Plateau at an average altitude of about 1,350, ASL, a region that is characterized by moderate to heavy amounts of precipitation (500-100mm annually) of which most is in the form of winter snow. Vegetation is typical of the wet interior climatic zone with conifer forest dominated by spruce, fir and pine in unlogged areas and alder and poplar as second growth over logged areas. The project area is serviced by an all-weather road (162 Road) built to facilitate logging operations.

The Fly mineral tenures totaling 996.5 ha in area that, for the most part, overlie Upper Triassic epiclastic and volcanoclastic sedimentary strata and volcanic rocks possibly of the Eocene Kamloops Group.

During the summer of 2008, GWR Resources Inc., the optionee, carried out geological mapping to of the Fly tenures to determine whether potential exists for the property to host copper-gold mineralization related to an alkalic pluton such as that of the adjoining Lac La Hache project area to the north and Mount Polley about 40 kilometres to the north northeast. Geological mapping suggests that the Fly mineral tenures are probably mostly underlain by two groups of sedimentary rocks, a maroon polyolithic conglomerate unit with interbedded sandstone and minor basaltic flow breccia and a felsic sandstone unit.

Mapping suggests that the property has low potential for the discovery of copper-gold mineralization relation to alkali intermediate plutons

## 2. INTRODUCTION

### 2.1 General Statement

In July 2008, GWR Resources Inc. undertook geological mapping on its optioned Fly claims in south central British Columbia held by Mr. Allen Harvey of Clinton, B.C. to determine whether potential exists for a body of copper mineralization of which minor amounts occur in exposed bedrock.

### 2.2 Location, Access and Physiography

The Fly project area is located within the Clinton Mining Division and is about 20 kilometres northeast of the village of Lac La Hache on British Columbia Provincial Highway 97 (Figure 1). The project area, centred at about 615250mE, 5754500mN (Zone 10U, NAD83), is reached via the Spout Lake and Timothy Mountain all weather roads from the Timothy Lake road (162 Road) (Figure 2). Within the project area a network of trails built for timber access and log hauling allow four-wheel-drive access to most parts of the project area.

The project lies within the southern Cariboo plateau of southcentral British Columbia, an upland region, characterized by mixed coniferous forest comprising pine and fir varieties along with birch, poplar and alder in cleared areas. The topography is subdued with an average elevation of about 1,400 metres above sea level (Figure 3). The climate of the area is typical for the southern Cariboo region with most precipitation falling in the winter months but rarely exceeding 1,000 mm annually.

Exploration activities can usually be carried out throughout the year although water supply for drilling purposes may be limited during the coldest winter months (December and January).

### 2.3 Exploration History

Evidence of early placer gold prospecting activities within the project area suggests that initial exploration of the area probably occurred during the late 1800's during the Cariboo gold rush. However, the first modern exploration within the claim group area was in 1994, carried out on behalf of PMA Resources Inc. (Newman, 1994). Newman's (1994) reported on the geology of the Fly project area and made recommendations for further work. This work also recognized the presence of copper mineralization, as native copper, chalcopyrite and malachite, known as the Cyan 1 and Cyan 2. In 1998 Blann, on behalf of Norian Resources Corporation, remapped part of the Fly project area over what was then known as the Cyan property. No work

appears to have been conducted over the property area until the current exploration programme described herein.

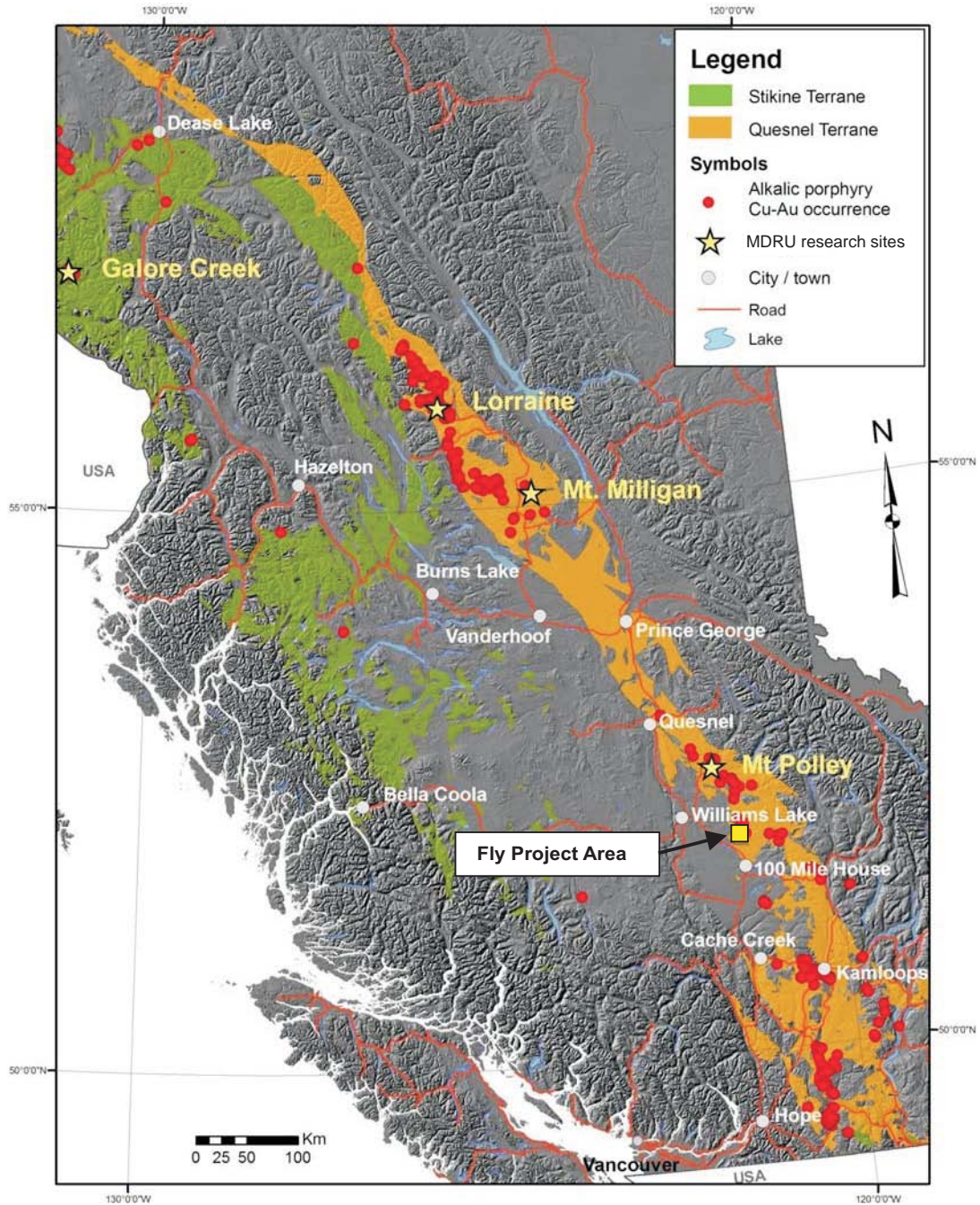


Figure 1. Distribution of the Quesnel Terrane (*Quesnellia*) in British Columbia, the location of alkaalic copper-gold porphyry deposits within the terrane and the location of the Fly project. Deposits denoted by stars are currently being researched by the Mineral Deposits Research Unit of the University of British Columbia.

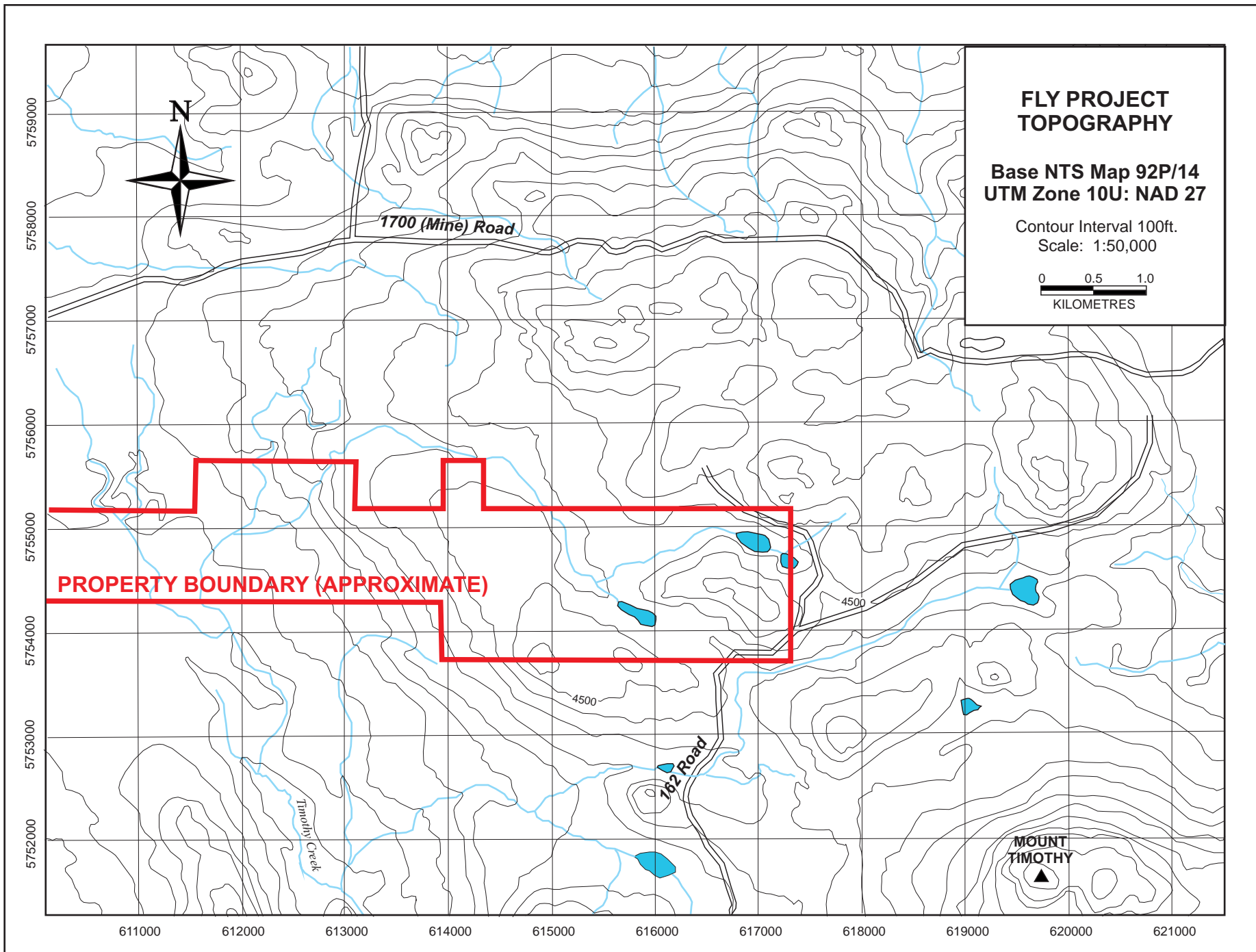


Figure 2. Topography of the Fly project area.



---

## 2.4 Mineral Tenements

The Fly project area is covered by mineral tenures totaling 996.5 hectares and which are listed in Table 1.

Figure 3 is a plan of mineral tenures of the Fly project area.

**Table 1**  
**Fly project mineral tenures**

<b>Tenure Number</b>	<b>Claim Name</b>	<b>Issue Date</b>	<b>Good to Date (Prior to this report)</b>	<b>Area (ha)</b>
528936	FLY 1	Feb. 25, 2006	Nov. 25, 2008	498.28
528945	FLY 2	Feb. 25, 2006	Nov. 25, 2008	498.25

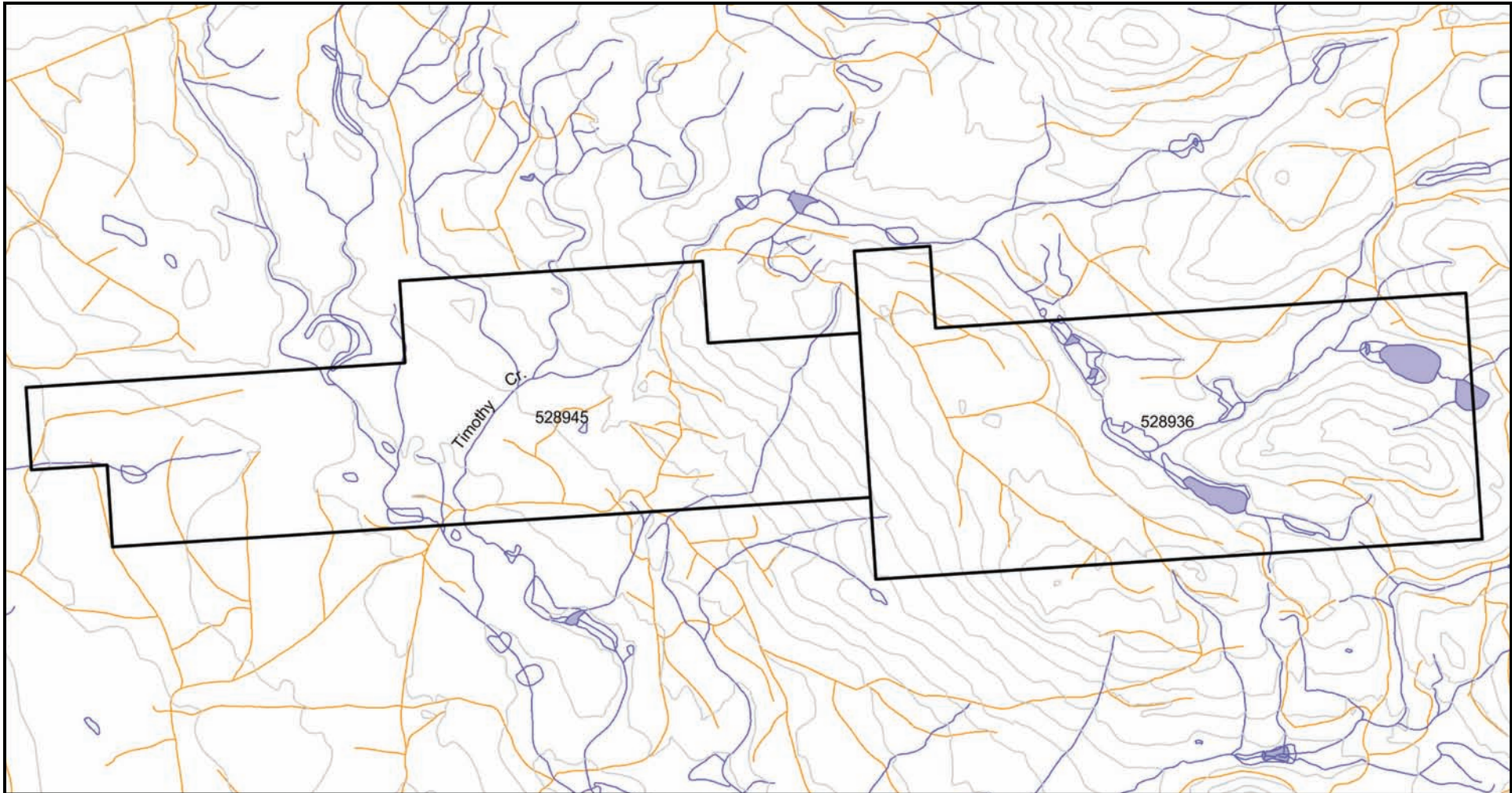


Figure 3 Fly Mineral Tenures

Mapsheet 092P.094



Scale 1:35,000

---

### 3. GEOLOGY

#### 3.1 Regional Geology

The geology of the region in which the Fly project is located has been mapped and described by Schiarizza and Bligh (2008) from which Figure 4 is taken. Oldest rocks of the region are those of the Upper Triassic Nicola Group which consists of an alkalic volcanic arc succession into which intermediate to felsic stocks have been emplaced. The Nicola Group volcanic stratigraphy in the region has been divided into three major units, a lower basaltic unit consisting of pyroxene-phyric basaltic breccia with volcanoclastic, epiclastic and calcareous strata, a polyolithic breccia unit with clasts of both basalt and intermediate to felsic intrusive rocks and a maroon and red volcanoclastic unit with local basalt and basaltic breccia. In gross nature, this stratigraphic succession mimics that described by Panteleyev *et al.* (1996) in the Horsefly-Likely region to the north.

Nicola Group rocks are overlain by the Skull Hill Formation of the Eocene Kamloops Group, an assemblage of basalt, andesite, dacite and, locally, rhyodacite, with associated epiclastic sediments, and minor amounts of olivine basalt of the Miocene Chilcotin Group. Quaternary glacial and fluvio-glacial deposits obscure much of the bedrock geology to the west of the project area and within parts of the project area itself.

The eastern part of the region in which the Fly project is located is underlain dominantly by granodiorite of the Upper Triassic - Lower Jurassic Takomkane Batholith. Intrusive rocks of alkalic composition and consisting of diorite, monzodiorite and monzonite and which are coeval with, or slightly younger than, Nicola Group volcanic rocks, occur to the north of the Fly project area.

#### 3.2 Geology of the Fly Project Area

##### 3.2.1 Lithologies

The Fly project area appears to be underlain by Upper Triassic - Lower Jurassic rocks of the Nicola Group and Eocene volcanic strata of the Skull Hill Formation, a division of the Kamloops Group. The dominant lithology is red and maroon polymictic conglomerate with interbedded sandstone and which appears to underlie much of the Fly property area. This unit has a similar composition to Unit 3 of Panteleyev *et al.* (1996) in the Mount Polley area but appears to be an epiclastic reworked equivalent, i.e. it appears to be a distal equivalent unit in that it comprises more finer grained sedimentary rocks than the dominantly coarse volcanoclastic nature of the Mount Polley area breccias.

Minor interbedded basaltic breccia (flow breccia (?)) occurs within this unit.

A mappable unit of white and grey sandstone that occurs in the northeastern part of the project area is probably derived from the erosion of felsic plutonic rocks such as monzonite and monzodiorite that outcrop to the north of the map area. Its age relationship to the maroon epiclastic unit is uncertain but, based on a single bedding attitude within the maroon unit, is possible older.

Syenite (or monzonite), mapped as such by Newman (1994) and included in the Mount Timothy map sheet by Schiarizza and Bligh (2007), was not recognized as such during the mapping programme described herein.

Kamloops Group volcanic rocks crop out in the northeastern part of the map sheet and are correlated with andesite flows and breccia that occur immediately to the north in GWR's Lac La Hache project area.

### **3.2.2 Structural Geology**

Within the project area only a single bedding attitude was obtained, suggesting that the maroon conglomerate unit strikes west northwest and dips shallowly to the south southwest. This accords with the regional pattern (Schiarizza and Bligh, 2007).

Northeasterly-striking faults are inferred from magnetic patterns to cut the project area and, in the eastern part of the area, a zone of fracturing and limonite staining is interpreted as marking such a fault.

### **3.2.3 Metamorphism**

Regional metamorphic grade of the rocks of the project area is probably of prehnite-pumpellyite facies as zeolite minerals are common throughout the stratigraphy. This is the case throughout the belt (e.g. Panteleyev *et al.*, 1996). Where greenschist facies assemblages are recognized, such assemblages can be ascribed to hydrothermal alteration rather than to regional metamorphism.

### **3.2.4 Alteration and Mineralization**

The project area hosts minor copper mineralization known as the CYAN showings (MINFILE No. 092P 121) in scattered occurrences within the maroon sedimentary unit. Consisting of minor native copper and, in one case, chalcopyrite in interbedded basaltic flow breccia within the maroon unit, these occurrences have been described by Newman (1994) and Blann (1998). This type of occurrence is not

uncommon within basaltic units of Quesnellia (Panteleyev *et al.*, 1996).

Hydrothermally altered bedrock has not been recognized within the project area.

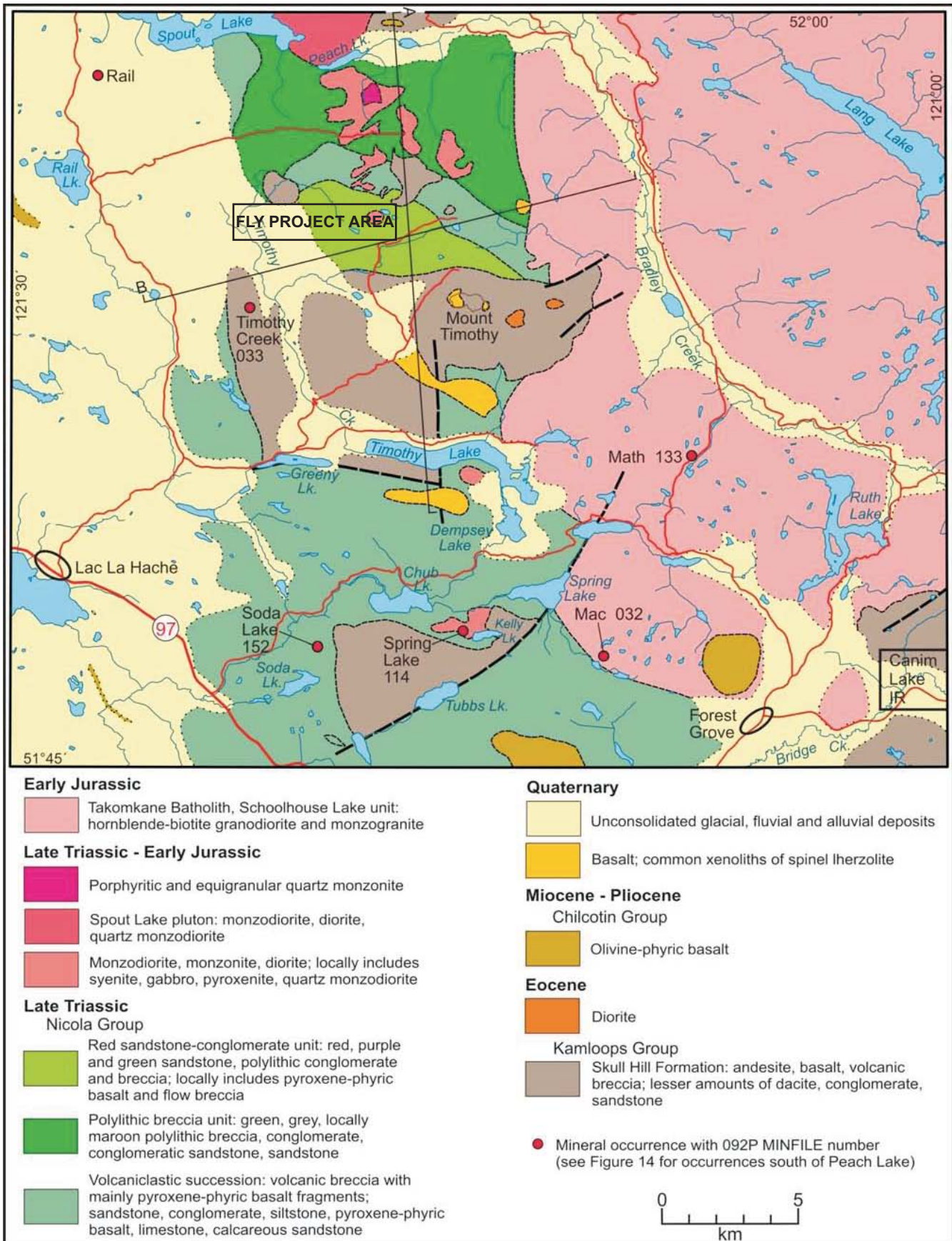
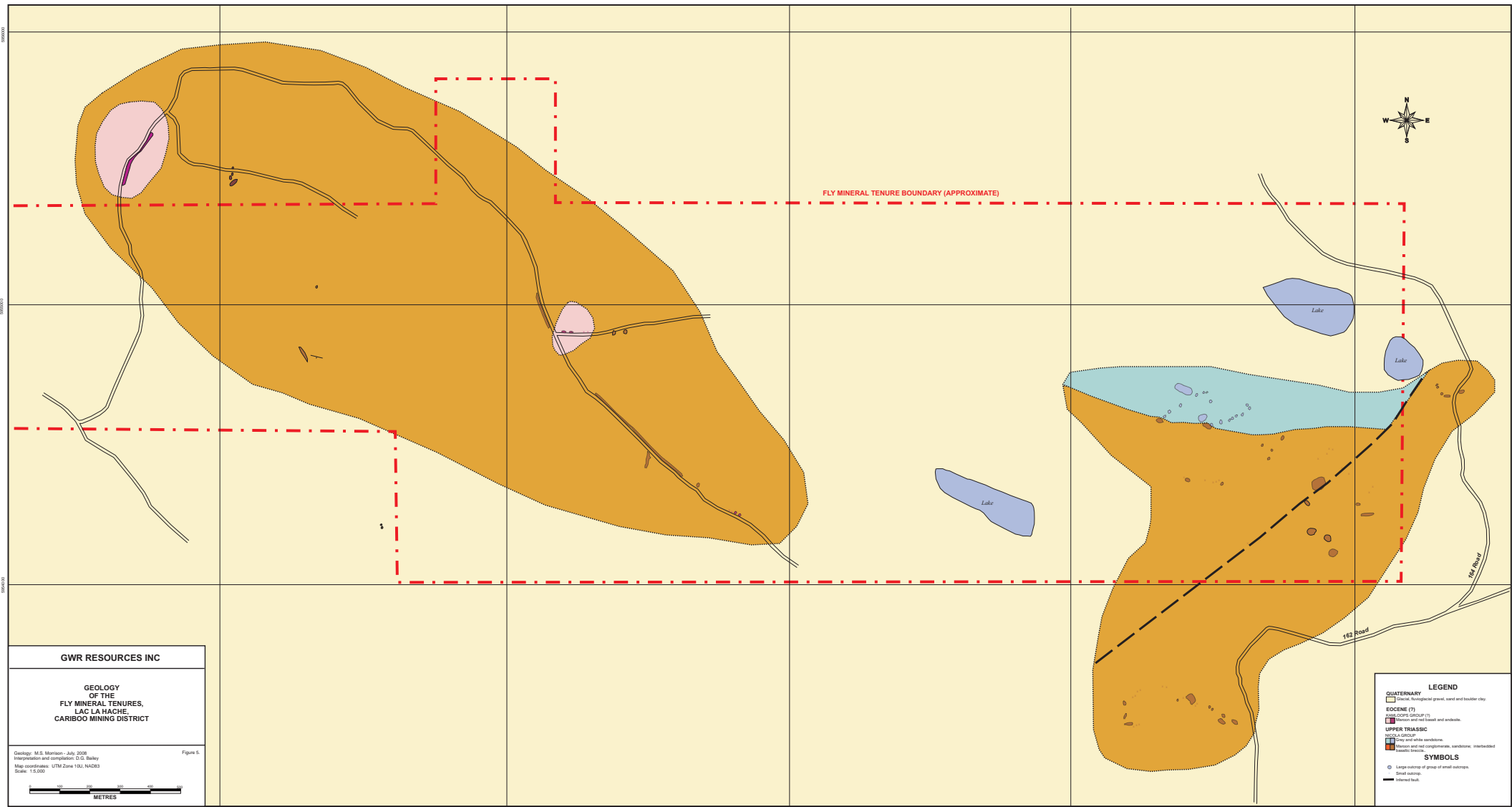


Figure 4. Geology of the regional containing the Fly project area (from Schiarizza and Bligh, 2007).



FLY MINERAL TENURE BOUNDARY (APPROXIMATE)



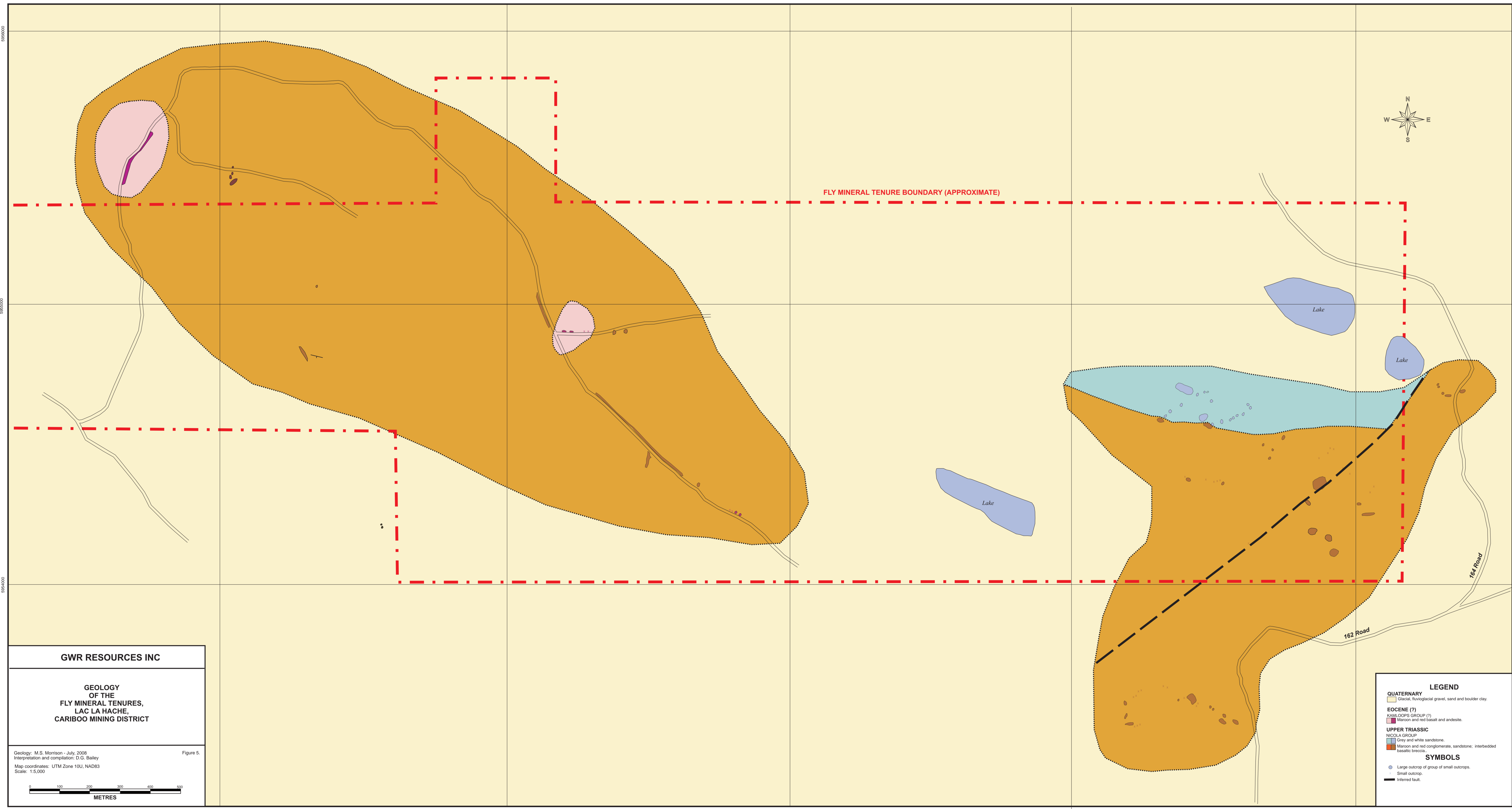
GWR RESOURCES INC

**GEOLOGY  
OF THE  
FLY MINERAL TENURES,  
LAC LA HACHE,  
CARIBOO MINING DISTRICT**

Geology: M.D. Morrison - July 2008  
 Interpretation and compilation: D.G. Bailey  
 Map coordinates: UTM Zone 19U, NAD83  
 Scale: 1:5,000

Figure 5

- QUATERNARY**
- Glacial, fluvio-glacial gravels, sand and boulder clay
- Eocene (?)**
- MICA GROUP (?)
  - Grouse and Red Creek and ashfalls
- UPPER TRIASSIC**
- MCCA GROUP**
- Grey and white sandstone
  - Brown and red conglomerate, sandstone, interbedded with shales
- SYMBOLS**
- Large outline of group of small outcrops
  - Small outcrop
  - Internal fault





#### 4. DISCUSSION

Geological mapping of the Fly project area suggests that the area contains little potential to host copper-gold deposits related to intermediate to felsic plutons such as at Mount Polley to the northeast in that no indications of the presence of this type of mineralization have been observed in this, admittedly, poorly exposed area. The rather flat aeromagnetic pattern of the property suggests that magnetite alteration, common within and adjacent to alkalic copper-gold porphyry deposits, has not developed, supporting the conclusion of poor potential for this type of deposit within the property area.

A syenite body, mapped as such by Newman (1994) and as monzodiorite by Schiarizza and Bligh (2007) map was not recognized during the current programme.

## 5. REFERENCES AND BIBLIOGRAPHY

**Blann, D.E., 1998:** Assessment report on the Cyan property, Lac La Hache, British Columbia. *Assessment Report 25650.*

**Newman, Kevin M, 1994:** Summary report on reconnaissance geological mapping, Bear group, Lac La Hache, British Columbia. *Assessment Report 23517.*

**Panteleyev, A., Bailey, D.G., Bloodgood, M.A, and Hancock, K.D., 1996:** Geology and mineral deposits of the Quesnel River-Horsefly map area, central Quesnel Trough, British Columbia. *BC Ministry of Energy, Mines and Petroleum Resources, Bull. 97, 155 pages.*

**Schiarizza, P. and Bligh, J.S., 2008:** Geology and mineral occurrences of the Timothy Lake area, south central British Columbia (NTS092P/14). *BC Ministry of Mines and Petroleum Resources, Geological Fieldwork 2007, p. 191-212.*

**6. EXPENDITURE STATEMENT**

Geological mapping:	
5 days @ \$750/day	3750.00
Vehicle hire:	
6 days @ \$85/day	510.00
Food, accommodation:	
6 days @ \$75/day	450.00
Project management/supervision:	
2 days @ \$800/day	1600.00
Drafting:	190.00
Report preparation:	
1.5 days @ \$800/day	1200.00
	<hr/>
<b>Total</b>	<b>7700.00</b>

## 7. CERTIFICATE

I, David Gerard Bailey of 2695 Mountain Highway, North Vancouver, British Columbia, hereby certify that:

1. I am a geological consultant and Principal of Bailey Geological Consultants (Canada) Ltd., with offices at the above address;
2. I hold degrees in geology from Victoria University of Wellington, New Zealand (B.Sc.(Hons.), 1973) and Queen's University, Kingston, Ontario (Ph.D., 1978);
3. I have practised the profession of geologist continuously since graduation;
4. I am a member of the Association of Professional Engineers and Geoscientists of British Columbia;
5. I hold memberships in the Society of Economic Geologists, the Geological Association of Canada, the Association of Exploration Geochemists, the Geological Society of America, the Canadian Institute of Mining and Metallurgy and the Australasian Institute of Mining and Metallurgy;
6. I supervised the work described in this report.

Dated at Lac La Hache this 18<sup>th</sup> day of February, 2009.

A circular professional seal for a geoscientist in the Province of British Columbia. The seal contains the text: "PROFESSIONAL PROVINCE OF D. G. BAILEY BRITISH COLUMBIA GEOSCIENTIST". Below the seal is a handwritten signature in black ink that reads "D. G. Bailey".

David G. Bailey, Ph.D., P.Geo