



TECHNICAL REPORT  
RED RUPERT CLAIM  
Tenure No. 507582  
NTS 104M  
Atlin Mining Division  
British Columbia  
Canada

59° 30' North Latitude  
133° 30' West Longitude

Registered Owner: Alexander Long

Operators: Alexander Long and Peter Burjoski

Report prepared by: Peter Burjoski

Event No. 4121447.

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GEOLOGICAL SURVEY BRANCH  
ASSESSMENT REPORT

29,131

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## 1.0 INTRODUCTION

The Red Rupert mineral tenure is located in Atlin Mining Division, northwestern British Columbia, Canada, and its center is at approximately 59° 30' North Latitude, 133° 30' West Longitude (Figures 1 and 2). The tenure is owned 100% by Alexander Long.

The Red Rupert mineral tenure is located in the Intermontane Physiographic Belt, immediately east of the Coast Mountains of northwestern British Columbia and experiences a severe climate. Consequently the field season during which field work, including prospecting, can be completed is short: starting in June, following spring breakup, and continuing until snow returns in September. Mr. Long was unable to perform field exploration work on the Red Rupert tenure in a timely manner during the latter part of 2006 and early 2007 and commissioned the writer to research the mineral potential of the tenure using satellite imagery and related information available in data files provided on-line by the British Columbia Geological Survey Branch. A GIS provider was engaged to retrieve that imagery. The cost of that work was subsequently filed as assessment work (Event no. 4121447).

## 2.0 PROPERTY DESCRIPTION, LOCATION AND ACCESS

The Red Rupert mineral claim, tenure no. 507582, is located in the valley of Bighorn creek, southwest of Fantail Lake and west of Taku Arm of Tagish Lake in the Coast Mountains of Atlin Mining Division, northwestern British Columbia, Canada (Figure 3). It comprises 722.9 hectares and lies 44 km due west of Atlin, B. C.

The north boundary of the claim lies immediately north of Buckhorn Creek and it extends southerly across the valley of that creek to the upper part of Chicken Creek, a tributary stream. The area is generally rugged and lacks all infrastructure. Vegetation includes scrub evergreen trees, slide alder and grassy slopes. Access by helicopter from Atlin, B. C. requires a 30 minute flight but weather is often unsuitable for such flying.

## 3.0 HISTORY

The Atlin Mining District has a long history of mineral exploration and production. Earliest operations were directed to the rich gold placers in the vicinity of the present town of Atlin and subsequently several small but rich gold mines were operated, the most significant of which was the Engineer mine, located on Taku Arm of Atlin Lake, 13 km east of the Red Rupert claim. That mine produced more than 500,000 grams of gold in the period 1900 to 1952. Subsequent efforts to locate additional rich gold mineralization have met with mixed success and although a small resource is reported to have been identified and attempts were made to operate as a mine, no further production has been recorded.

The bedrock sources of the placer gold in the Atlin placers also have been sought and that search continues in the area, particularly between Atlin and Surprise Lakes.

# Red Rupert Location Map

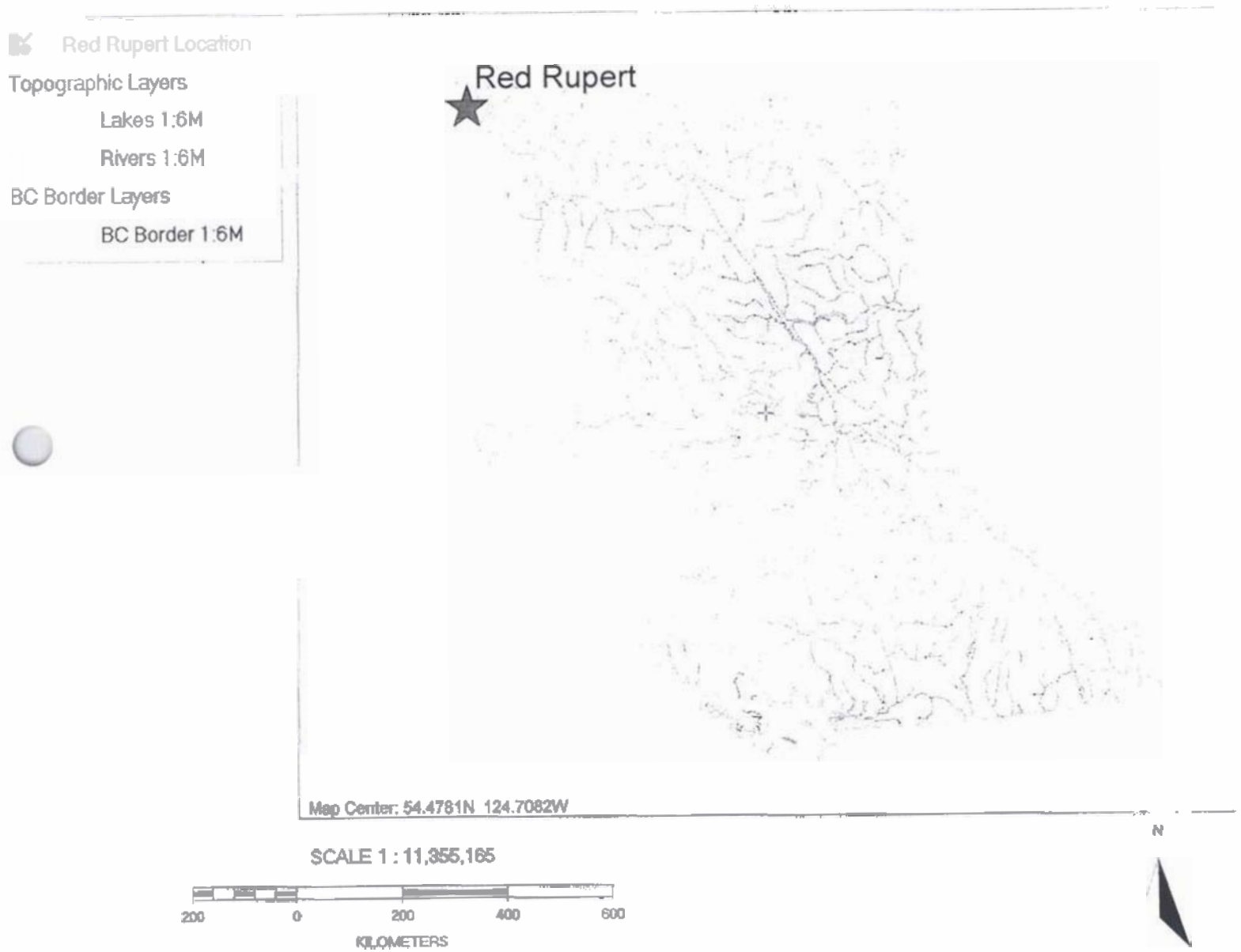


Figure 1. Red Rupert Property Location - British Columbia



# RED RUPERT CLAIM 44 Km From Atlin

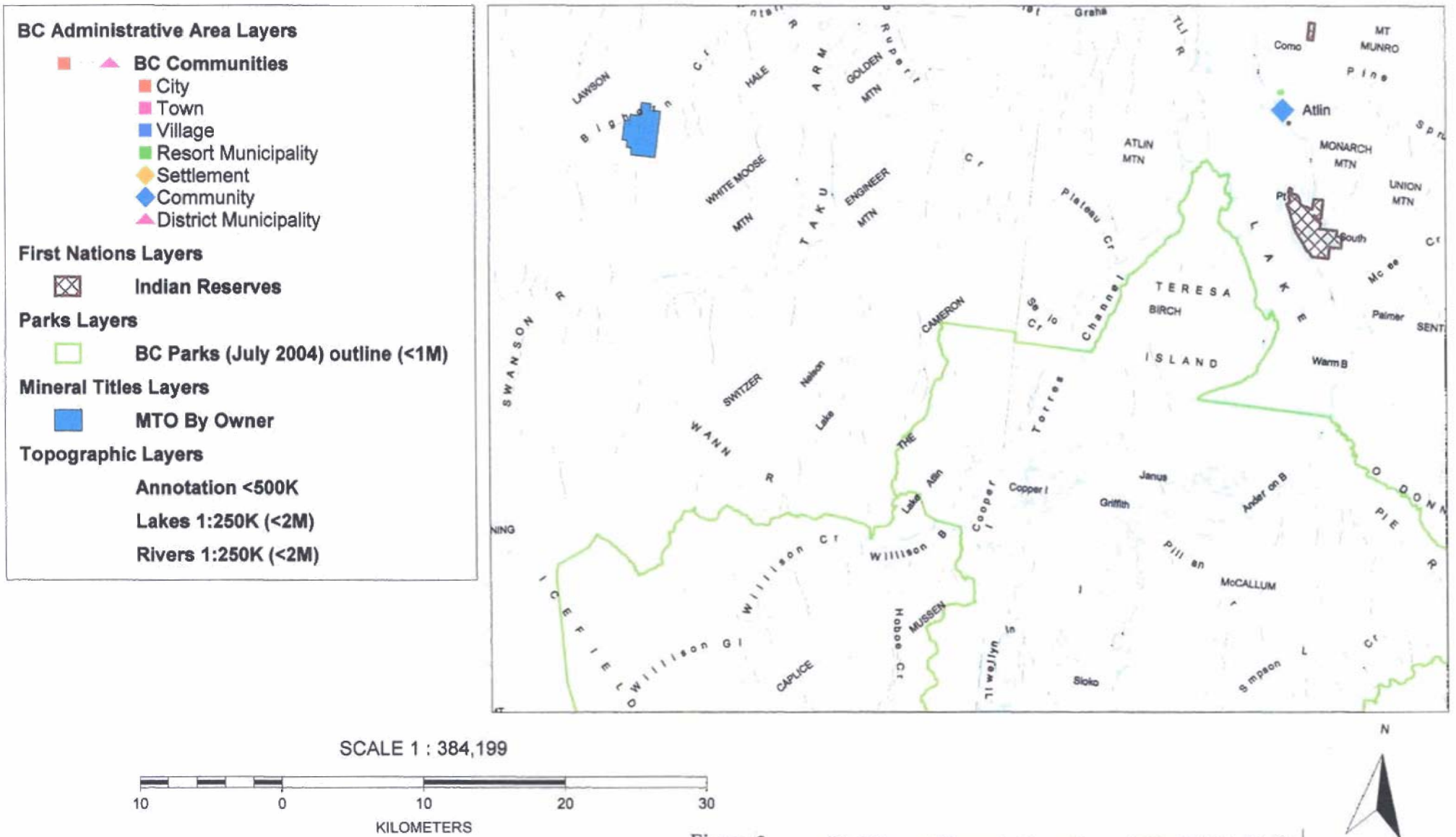




Figure 2. Red Rupert Property Location - Atlin M. D., B. C.

# Red Rupert Claim Map

## Mineral Titles Layers

-  Red Rupert Tenure
-  All Mineral Tenures

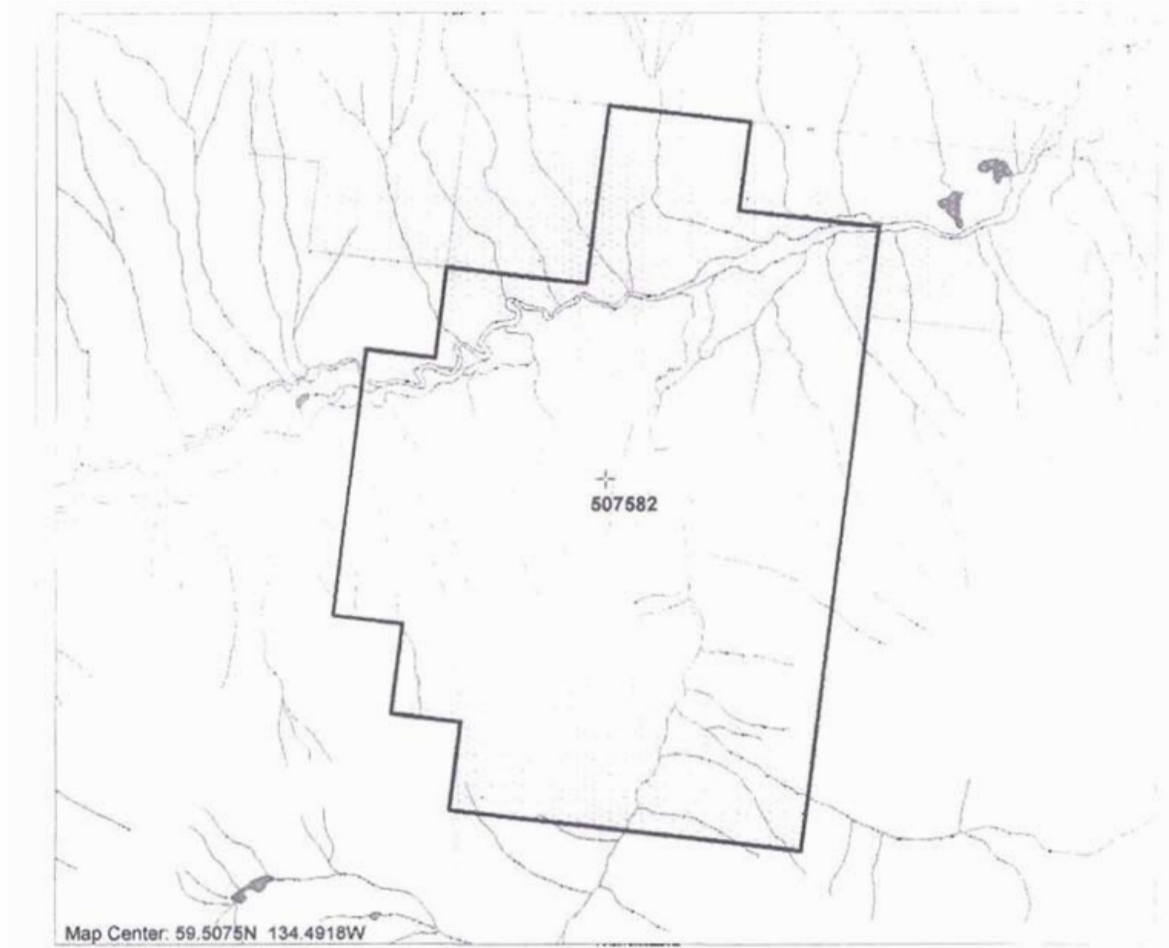
## Topographic Layers

-  Railways 1:20K
-  Roads 1:20K
  - Gravel Road
  - Paved Road
  - Rough Road

-  Lakes 1:20K
-  Rivers 1:20K

## BC Border Layers

-  BC Border 1:50K



SCALE 1 : 89,197



N



Figure 3. Red Rupert - Mineral Tenure 507582, Atlin M. D., B. C.

The Atlin Mining District was prospected by modern methods in the 1960s and '70s when helicopters became available for such purposes. The Cordillera-wide search for porphyry-style deposits of copper and molybdenum using tools that included, in particular, geochemistry, extended to the area and several such deposits were found. The Adanac deposit which was found at that time is currently being brought into production as a large low-grade molybdenum mine.

The Red Rupert claim is located in a broad valley surrounded by rugged alpine terrain. Due to its remote location, it likely has not received the same attention as areas closer to major lakes and streams but has no doubt been prospected. British Columbia Geological Survey personnel carried out field mapping work in the area in recent years (reference: Mihalynuk, 1999).

The present owner of the Red Rupert claims in 2005 obtained a comprehensive property review complete with recommendations for evaluating its mineral potential. That report includes a summation of the regional and structural geology of the district and brief descriptions of nearby mineral properties and was intended to be guidance for the 2007 program of field work (Ostensoe, 2005). Parts of the following sections of this report are quoted from that report, other important references are to the several publications of Mihalynuk, et al., as listed in the References section.

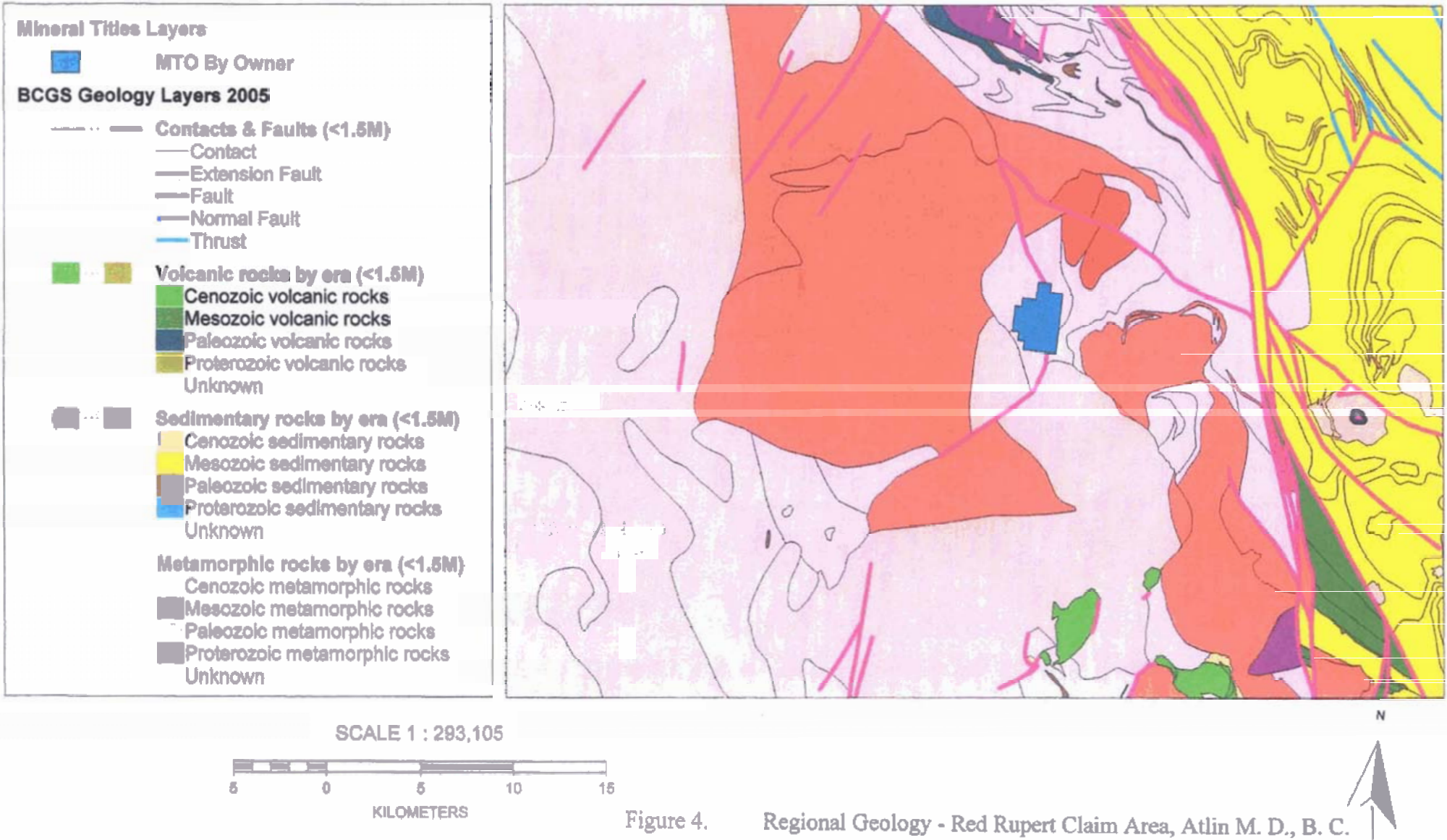
#### 4.0 REGIONAL GEOLOGY

The Red Rupert claim is situated in one of the smaller ranges of the Boundary Ranges of the Coast Mountains. It lies in the transition area between the Coast and Intermontane tectonic belts and is a short distance, ~10 km, south of the Llewellyn Fault, an important major crustal feature. The area has been interpreted as geologically complex due to proximity to areas of crustal plate collisions and subsequent adjustments.

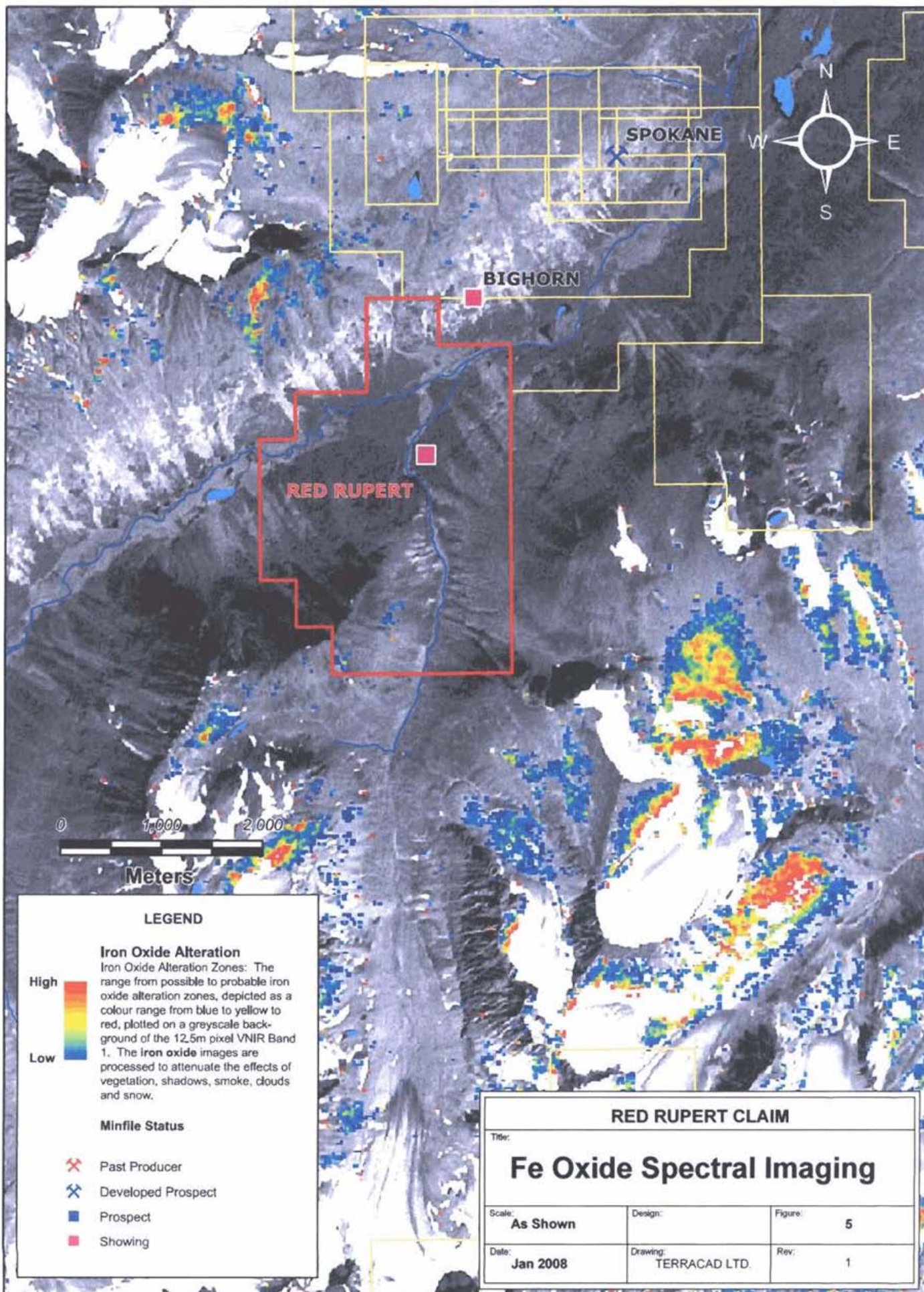
Granitic and granodioritic rocks of the Coast Crystalline Belt are present in the near vicinity of the Red Rupert claim but the dominant geological formations are sedimentary and volcanoclastic rocks that were given by Mihalynuk a Late Paleozoic age. Regional metamorphism of intermediate intensity is assumed to have been initiated in mid-Mesozoic time and may have continued into the Tertiary.

The Llewellyn Fault Zone, a major structural feature that trends northwesterly, passes a short distance to the north of the Red Rupert claim and extends northwesterly into Yukon. It is accompanied, according to Mihalynuk, et al. (1988), by geochemically anomalous zones of hydrothermally altered formations that were shown in the Regional Geochemical Survey to be enriched in gold, mercury and fluorine. Mihalynuk, Currie and Rouse (1988) stated that "*The area has long been recognized as part of an anomalous antimony-arsenic province hosting significant gold occurrences*". (Mihalynuk and Rouse (1999, p. 103) suggested that "*Alunite-kaolinite (acid sulphate)*

# REGIONAL GEOLOGY







**LEGEND**

**Iron Oxide Alteration**  
 Iron Oxide Alteration Zones: The range from possible to probable iron oxide alteration zones, depicted as a colour range from blue to yellow to red, plotted on a greyscale background of the 12.5m pixel VNIR Band 1. The iron oxide images are processed to attenuate the effects of vegetation, shadows, smoke, clouds and snow.



**Minfile Status**

- Past Producer
- Developed Prospect
- Prospect
- Showing

**RED RUPERT CLAIM**

Title:		
<b>Fe Oxide Spectral Imaging</b>		
Scale:	Design:	Figure: 5
Date: Jan 2008	Drawing: TERRACAD LTD.	Rev: 1

*alteration and proximal adularia-sericite alteration with manganese mineralization are indicators of fertile hydrothermal systems".*

## 5.0 SATELLITE IMAGERY AND Fe OXIDE SPECTROMETRY

Figure 5 of this report is also included in a CD that is attached. This illustration was prepared by Terracad GIS Ltd. from that company's database and the BCDM Exploration Assistant website. The figure illustrates the satellite-based Fe Oxide spectrometry superimposed on an earth satellite mosaic.

Figure 5 reveals strong Fe oxide spectrometric responses in the higher elevation areas immediately southeast of the Red Rupert claim and north of Bighorn creek. Other spectra were examined.

## 6.0 CONCLUSIONS AND RECOMMENDATIONS

The Red Rupert claim has not been effectively prospected and mapped using current methods. It is situated in a tectonically active area with good mineral potential. Work to date has principally been satellite imagery-based. Iron oxide spectra show strong responses in areas both immediately south of and north of the Red Rupert claim. These may be expressions of hydrothermal activity related to valuable mineral occurrences. Parts of the intervening area on the Red Rupert claim may have less well-defined or masked areas with "interesting" mineral potential. Further field work and further spectrometric investigations should be undertaken.

## 7.0 REFERENCES

The following sources were consulted in the preparation of this report:

Bostock, H. S., (1948), Physiography of the Canadian Cordillera, with special reference to the area north of the fifty-fifth parallel, Geol. Surv. Canada, Memoir 247, 101 p.

Christie, R. L., (1957), Bennett, Cassiar District, British Columbia, Geol. Surv. Canada, preliminary series map 19-1957

Davidson, G. S. (1988), Exploration Report on the Golden Partridge Property, Atlin Mining District, NTS 104M-14, Assessment Report 18176, report for Doron Explorations Inc.

Jakobsen, D. E., Bradford, J. and Mihalynuk, M. G., (1993) Skagway mineral occurrence data, NTS 104M, B. C. Ministry of Energy and Mines, Minfile

Mihalynuk, M. G., 1999, Geology and Mineral Resources of the Tagish Lake Area, (NTS 104M/8,9,10E,15 and 104N/12W) Northwestern British Columbia, Bulletin 105, Geol. Surv. Branch, Ministry of Energy and Mines, Victoria, B. C.

Mihalynuk, M. G., Currie, L. D. and Rouse, J. N. (1988) A Closer Look at the Llewellyn Fault - Tectonic Implications and Economic Mineral Potential, in Guidebook to accompany Workshop, 1988, Smithers Exploration Group and G.A.C. Cordilleran Section

Mihalynuk, M. G. and Rouse, J. N. (1988) Geology and Regional Geochemical Survey of the Tutshi Lake Map Area (NTS 104M/15), Open File 1988-05, Geol Surv. Branch, Ministry of Energy and Mines, Victoria, B. C.

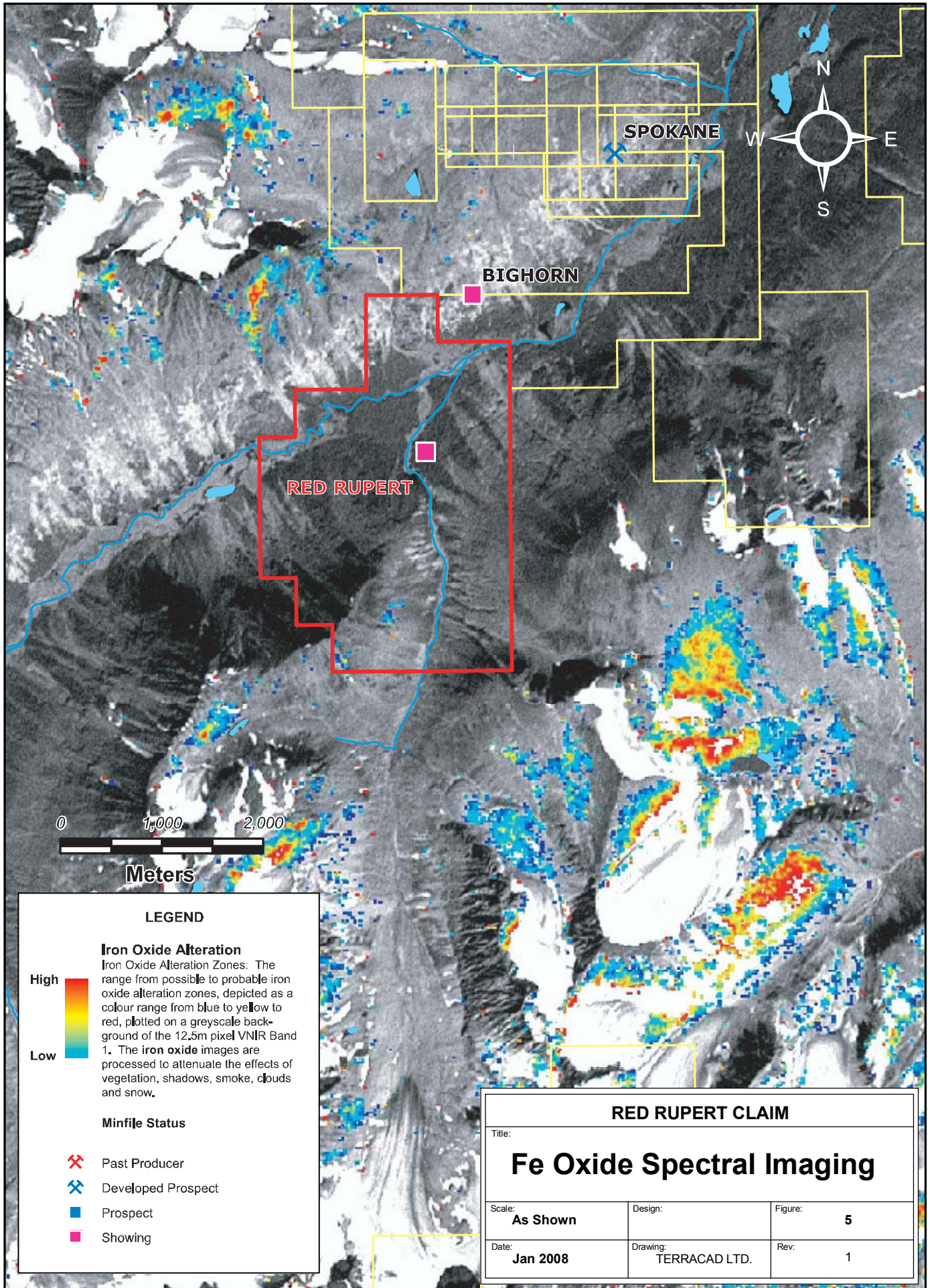
## 8.0 STATEMENT OF EXPENDITURES

The following expenditures were incurred in 2007 in satellite imagery studies of the Red Rupert claim:

Satellite downloads and overlays per attached DVD, preparation of two 3' X 4' laminated posters (not included) for display purposes as an aid to financing field work:

Terracad GIS Limited, Vancouver, B. C.....	\$3500.00
6% GST.....	<u>210.00</u>
Total imagery costs.....	\$3710.00
Report preparation.....	\$ 500.00
Total expenditures re Red Rupert mineral tenure 507582	<u>\$4210.00</u>





**LEGEND**

**Iron Oxide Alteration**

Iron Oxide Alteration Zones: The range from possible to probable iron oxide alteration zones, depicted as a colour range from blue to yellow to red, plotted on a greyscale background of the 12,5m pixel VNIR Band 1. The iron oxide images are processed to attenuate the effects of vegetation, shadows, smoke, clouds and snow.

High



Low

**Minifile Status**

- Past Producer
- Developed Prospect
- Prospect
- Showing

**RED RUPERT CLAIM**

Title:

**Fe Oxide Spectral Imaging**

Scale: **As Shown**

Design:

Figure: **5**

Date: **Jan 2008**

Drawing: **TERRACAD LTD.**

Rev: **1**



