

**PROSPECTING AND GEOLOGICAL RECONNAISSANCE  
ASSESSMENT REPORT  
(Event Number: 4071461)**

**On The**

**NICOAMEN MINERAL CLAIMS**

**(Tenure Numbers: 534102-Amalgamated Claims and 507640)**

**Located In The**

**KAMPLOOPS AND NICOLA  
MINING DIVISIONS**

**LAT. 50° 9' 9" N and LONG. 121° 18' 9" W  
(Nicoamen River Area)  
NTS: 092I03W**

**Report Prepared By**

**D.G. CARDINAL, P. GEO.  
1883 AGASSIZ AVENUE  
AGASSIZ, BC V0M 1A2**

**MAY 22, 2006**



**TABLE OF CONTENTS**

	<b>Page No.</b>
<b>A. INTRODUCTION .....</b>	<b>1</b>
<b>B. LOCATION AND ACCESS .....</b>	<b>3</b>
<b>C. CLAIMS INFORMATION .....</b>	<b>3</b>
<b>D. PROPERTY BACKGROUND .....</b>	<b>4</b>
<b>E. REGIONAL GEOLOGY .....</b>	<b>5</b>
<b>F. PROPERTY GEOLOGY .....</b>	<b>6</b>
<b>F.1 Nicomen Group</b>	
<b>F.2 Nicomen 2</b>	
<b>G. FIELD PROCEDURES .....</b>	<b>7</b>
<b>H. SUMMARY AND CONCLUSION .....</b>	<b>8</b>
<b>I. COST STATEMENT .....</b>	<b>8</b>
<b>J. PROFESSIONAL CERTIFICATE .....</b>	<b>9</b>
<b>K. REFERENCES .....</b>	<b>10</b>

**FIGURES:**

**Figure 1. Location Map**

**Figure 2A. And Figure 2B. Claim Maps**

**Figure 3. Regional Geology Map**

**Figure 4. Nicoamen Group Reconnaissance Geology Map**

**Figure 5. Nicoamen Reconnaissance Geology and Prospecting Map**

## A. INTRODUCTION

The Nicoamen Claims (also the property) are located in southwestern BC along the northern portion of the Cascade Mountains and along an area referred to as the Nicoamen Plateau. The Zakwaski Mountain located on the property forms a divide between 3 watersheds: the Mohokam Creek which flow westerly and empties into the Fraser River; Prospect Creek that flows to the south and the Nicoamen River which flows north into the Thompson River.

The claims were accessed from the Trans Canada Highway by following the Mohokam Forestry Service road for 20 kilometers. The road can be reached from the hamlet of Boston Bar located on the highway, which is about 18 kilometers from the turnoff. The claims can also be accessed from the east via town of Merritt and following the Prospect Creek watershed by series of logging access roads.

The property covers an area totaling 2,526.09 hectares, but the claims are not contiguous. The main Nicoamen group consists of 4 claim units (Tenure numbers: 507630, 507634, 507654 & 507655), which were subsequently amalgamated under one tenure number: 534102 (Event Number: 4084086). These claims cover a 2,029.6 hectare area. The Nicoamen 2 claim (Tenure number 507640) is located 4 kilometers to the northwest.

The physiographic position of the property is on the NTS Map Sheet: 92I and on the BC Ministry of Energy and Mines – Mineral Titles Reference Map: 92I03W on a UTM coordinate system Zone 10 (NAD 83). The coordinate map centre for Nicoamen group is: Lat. 50° 9' 9" N and Long. 121° 18' 9" W and straddles the Kamloops and Nicola M.D. The Nicoamen 2 is: Lat. 50° 11' 19" N and Long. 121° 22' 0" W and occurs within the Kamloops M.D.

Although historically, the property and surrounding area has experienced sporadic prospecting and limited mineral exploration over the decades, there is little documented data. Placer gold is reported to have been found on the Nicoamen River near where it crosses the Trans Canada Highway before it empties into the Thompson River. This area is covered by the Nicoamen Indian Reserve 1. Prospectors have searched for the source of the placer gold, which may have originated somewhere near the headwaters of the Nicoamen. But to date the source for the gold has not been uncovered. Copper mineralization was also found near the lower section of the Nicoamen. Sporadic staking has taken place in the Zakwaski Mountain area near the headwaters of the Nicoamen but there are no assessment reports available. However, more recently the area received considerable attention when a Vancouver based company, Almaden Minerals Ltd. announced it discovered gold on

(A. Introduction cont'd.)

their Skoonka Creek and Prospect Valley properties. Gold is reported to be hosted in epithermal type system.

The Nicoamen claims are presently registered to Dan Cardinal (author of this report). The area was acquired in February 22<sup>nd</sup>, 2005 over favourable bedrock and geological structures. Also, a well mineralized chalcopyrite volcanic skarn float was found on one the small tributaries in the area, which may have derived from a near by source.

In July, 2005 a total of 10 days were spent on the property conducting reconnaissance geology and prospecting. This work consisted of a 2-man field crew: a geologist (the author) and experienced prospector. Two (2) main rock types were noted on the property, granitic rocks of the Mount Lytton Complex and greenstone (Nicola) volcanics of the Spences Bridge Group. Near Zakwaski Mountain rhyolitic rocks were observed intruding into the volcanics.

The geological reconnaissance survey and prospecting conducted on the Nicoamen group covers approximately 5 square kilometers and within UTM coordinates: 5555000N – 5558000N and 620000E – 622000E. Limited prospecting was also conducted on the Nicoamen 2 over an area of about 4 square kilometers. A hand held GPS garmin model was used for reconnaissance mapping control and any outcrops encountered plotted on a base map. A number of samples were collected both stream silts and rock and are yet to be forwarded to an analytical laboratory for chemical analysis. Several of the small streams were also panned.

This field work has been applied for assessment work and recorded February 22, 2006 as Event Number: 4071461.

## B. LOCATION AND ACCESS

The property is situated in southwestern BC about 38 road kilometers northeast of the community of Boston Bar. It is geographically situated at the headwaters of the Nicoamen River and covers Zakwaski Mountain, which forms part of northern Cascade Mountain range.

The property is position on NTS map sheet 92I03W at coordinates: Latitude 50° 9' 9" N and Longitude 121° 18' 9" W.

The claims can be access 18 kilometers north of Boston Bar on the Trans Canada Highway. From the highway a well maintained seasonal access road – the Mohokam Forestry Service road – turns right and heads easterly. At about 20 kilometers the road enters and cuts cross the northern end of the Nicoamen claims. From this point there are a series of former interconnecting logging haul roads which can be utilized to examine the property.

## C. CLAIMS INFORMATION

The Nicoamen property consists of 2 separate claim units. The Nicoamen group consists of 4 contiguous units with tenure numbers: 507630, 507634, 507654, 507655. These claims have subsequently been amalgamated under one tenure number: 534102 (event number: 4084086). Nicoamen 2 claim with tenure number: 507640 is located 4 kilometers northwest of the Nicoamen group.

The Nicoamen group covers a 2,029.6 hectare area with the Nicoamen 2 covering 496.49 hectare area.

The claims were filed for assessment work on February 22<sup>nd</sup>, 2006 under event number: 4071461. The pertinent claim information is as follows:

<b>Claim Name</b>	<b>Tenure No.</b>	<b>Area</b>	<b>Issue Date</b>	<b>Expiry Date</b>
(No Name)	507630	517.53	2005/FEB/22	2007/FEB/22
Nicoamen	507634	497.06	2005/FEB/22	2007/FEB/22

(C. Claims Information cont'd.)

Nicoamen 2	507640	496.49	2005/FEB/22	2007/FEB/22
Nicoamen 3	507654	517.83	2005/FEB/22	2007/FEB/22
Nicoamen 4	507655	497.18	2005/FEB/22	2007/FEB/22

Total hectares 2,526.09

**D. PROPERTY BACKGROUND**

The property has experienced limited mineral exploration. A 1992 Mineral Titles Reference Map (Map 092103W) show 3 claim units were staked in the Zakwaski Mountain area, referred to as the Shep 1, Shep 2 and Muffin. Title search was on Mineral Titles Online using the ARIS Search however no such assessment reports on file for these properties. Immediately adjacent to the Nicoamen group are the Zak 3-4, 511667 and 511671 mineral tenure claims owned by Almaden Minerals Ltd.. In 2005 an assessment report numbered 28146 was filed on these claims by the company, but this report is currently under review by Mineral Titles and is not available. There appears to have been very little documented prospecting or exploration on ground currently covered by Nicoamen claims.

Approximately 8-10 kilometers north of the claims along the Nicaomen River some copper mineralization was discovered hosted in skarn volcanic rocks (Assessment rpt no. 23116). In early part of the 1990s systematic exploration work was conducted, which included geochemical, geophysical followed by limited diamond drilling to evaluate the mineralization.

More recently in 2005, Almaden Minerals Ltd. discovered gold along Prospect Creek, several kilometers to the south of the Nicoamen claims. The Prospect Valley gold property covers what is reported to be an epithermal environment. Based on Almaden's press release March 30, 2006 the company states....."exploration on the property indicated the presence of a large, low-sulphidation epithermal gold system". Drilling is being proposed for the spring 2006.

Based on this discovery the area has experience considerable attention. To day, much of surrounding area is now covered by claims.

In the past years the author has had the opportunity to visit the Nicoamen River area to briefly examine bedrock in the area. A well mineralized copper-skarn float was found on

(Property Background cont'd.)

one of the small tributaries near the headwaters of the Nicoamen River, which caught the interest of the author. This, and also the recent gold discovery by Almaden Minerals Ltd. caused the author to acquire ground now covered by the Nicoamen claims.

## **E. REGIONAL GEOLOGY**

The Nicoamen claims lie in the southwestern part of the Intermontane Belt. The Nicoamen group straddle a structural contact between 2 main rock types. To west is the Triassic/Jurassic age Mount Lytton Complex, which predominately consists of granodiorite and diorite and to the east, is the middle and Late Cretaceous Spences Bridge Group of volcanic rocks of the Spius Creek Formation (Parrish, R.R. and Monger, J.W.H., GSC Paper 91-2).

The Spius Creek Formation consists of reddish andesitic flows and pyroclastics with lesser sandstone, shale and conglomerate. Mount Lytton Complex has been interpreted as part of the roots of the Late Triassic Nicola arc (Parrish and Monger, 1992). The complex is fault bounded, on the west by the Fraser River fault system and on the east by normal faults along the Thompson River. The Mount Lytton Pluton, which is part of the complex has been age dated at 212 +/- Ma. The isotopic age of the Spius Creek Formation, using whole rock potassium/argon method, is 82 Ma +/- 3.2 Ma.

Hosted in the Spences Bridge Group volcanics are localized, late stage Kamloops Group volcanics of Eocene age consisting of basalt, andesite, rhyolite, breccia and tuffaceous units. This group consisting mainly of rhyolitic volcanics also occurs on the property, which makes up a good part of Zakwaski Mountain. Mineral exploration presently being carried out by various mining companies in the area, have identified some of the Eocene rhyolitic volcanics as potential epithermal gold-bearing systems.

## **F. PROPERTY GEOLOGY**

### **F.1 Nicoamen Group**

Reconnaissance mapping and prospecting carried out along the northern and eastern parts of the Nicoamen group have identified rocks believed to be of the Spius Creek Formation. These rocks are typically reddish-marooned in color and appear to be andesitic in composition and show flow banding and pyroclastic features. Some sections of the andesite are altered carrying apple green epidote and blotches of purplish, fine garnet.

Some traverses conducted along the western parts of the property noted bedrock outcrops of medium grained granodiorite. In some areas, the rock contained more mafic constituents predominately hornblende with lesser quartz, which appears to be a dioritic phase.

Traverses were conducted across the contact of the 2 rock types but the contact boundary between the andesitic and older granitic rocks was not evident due to the overburden. Follow-up surveys to the southwest and higher elevations where bedrock exposure is more evident should identify the contact relationship between the 2 rock types (see Figure 4.).

Reconnaissance surveys were also carried out adjacent to and along western side of Zakwaski Mountain. Creamy, partly oxidized rhyolite was noted sub-out cropping in some areas. Occasional vuggy quartz with fine secondary hydrothermal quartz veins were noted. Follow-up exploration for the 2006 season is planned with concentration in the Zakwaski Mountain area.

Some of the andesitic flows mapped also showed pillowed textures. The trend of the volcanics is northwest and the foliation is usually steeply dipping.

### **F.2 Nicoamen 2**

Brief prospecting carried out on the Nicoamen 2 claims encountered extensive alluvium along a small tributary which makes up the western branch of the Nicoamen River. Some panning was done along the creek as well as searching additional mineralized float. Float was previously on this creek that carried interesting copper skarn mineralization. Prospecting done along the western side of the creek encountered outcrops of andesitic volcanic flows, granodiorite and localized rhyolitic intrusive (see Figure 5.).

Following-up mapping and sampling is planned for the 2006 season.



## **G. FIELD PROCEDURES**

A small, 2-man base camp was setup along the main Mohokam Forestry Service road near 19 kilometer, about half way between the Nicoamen group and the Nicoamen 2 claim. From here, 4x4 truck was used to reach the claims daily. Most of the traverses were conducted along creek beds and logging roads. A total of ten (10) days were spent in the field.

Reconnaissance geology and prospecting were conducted on both properties. On the Nicoamen 2, much of the area surveyed was concentrated along the western side of the claim at higher elevation above the creek valleys. Since most of the rock exposure occurs along this area. To the east, extensive alluvium covers much of the claim. As a result, some panning was done along the creeks and heavy metal samples collected for future analysis. Prospecting was also carried out along the creeks in search for copper mineralized skarn float. It is along this upper reaches of the Nicoamen River tributaries that well mineralized copper-rich skarn was initially found during previous prospecting surveys.

On the Nicoamen group, reconnaissance geology was conducted along road sections and higher elevations adjacent to Zakwaski Mountain. In some areas bedrock was well exposed.

All bedrock outcrops encountered were noted and a GPS reading observed to fix the position of each outcrop. A hand held Garmin was utilized. The readings were also noted in a field book. All recorded mapping notes were transferred daily and plotted on a base maps. A 1:20,000 and 1:15,000 scale maps were used for the Nicoamen group and Nicoamen 2 claim respectively.

The area surveyed on the Nicoamen 2 is approximately 2km x 2km and the Nicoamen group area surveyed is about 2.5km x 2km.

## H. SUMMARY AND CONCLUSION

The Nicoamen claims are underlain by granitic rocks of Mt. Lytton Complex, Triassic/Jurassic in age. These rocks are in contact with the Late Cretaceous Spences Bridge Group volcanics. Intruding into the volcanics unit are younger, localized, Eocene age rhyolitic volcanics.

Gold was recently discovered in Eocene age rhyolite volcanics on neighboring ground.

The rhyolite volcanics appear to host epithermal environments favourable for carrying gold.

Reconnaissance surveys have identified rhyolite volcanics on the Nicoamen claims.

Fellow-up geological and sampling surveys and prospecting are planned for the 2006 field season on the property. The program will be orientated to searching for auriferous-bearing epithermal systems.

## I. COST STATEMENT

Reconnaissance geological and prospecting surveys:	Cost Incurred
Field Crew:	
Geologist, 10 days @ \$350 per day	\$ 3,500.00
Prospector, 10 days @ \$250 per day	2,500.00
Camp Expenses:	
2 men, 10 days @ \$60 per day	600.00
Transportation:	
4x4 Truck, 10 days @ \$75 per day plus gas	750.00
Compiling field data and report writing	2,800.00
Total cost incurred:	<b><u>\$ 10,150.00</u></b>

Respectfully submitted




D. G. Cardinal, P.GEO

## J. PROFESSIONAL CERTIFICATE

I, Daniel G. Cardinal of the District of Kent, British Columbia, do hereby certify that:

- I am a Professional Geoscientist and reside at 1883 Agassiz Avenue, Agassiz, BC postal code: V0M 1A2
- I am a graduate of the University of Alberta, city of Edmonton and hold a BSc degree in Geology (1978).
- I am a member in good standing with the Association of Professional Engineers and Geoscientists (P.Geo.) of British Columbia, membership number: 18455 and; a member in good standing with the Association of Professional Engineers, Geologists and Geophysicists (P.Geol.) of Alberta, membership number: M29405.
- I have practiced my profession continuously for the past 27 years.

and that,

- I am the owner of the Nicoamen claims and I conducted the field surveys as herein described and author of this report.

Signed in Agassiz, BC this 22<sup>nd</sup> day of May, 2006.

  
D. G. Cardinal, P.GEO.



## **K. REFERENCES**

Almaden Minerals Ltd. Press Release, March 30, 2006:

“Almaden Minerals Ltd.: New Programs Announced on Spences Bridge Gold Properties”

Monger, J.W.H., 1989:

GSC, Geology Map 42-1989 and accompanying notes.

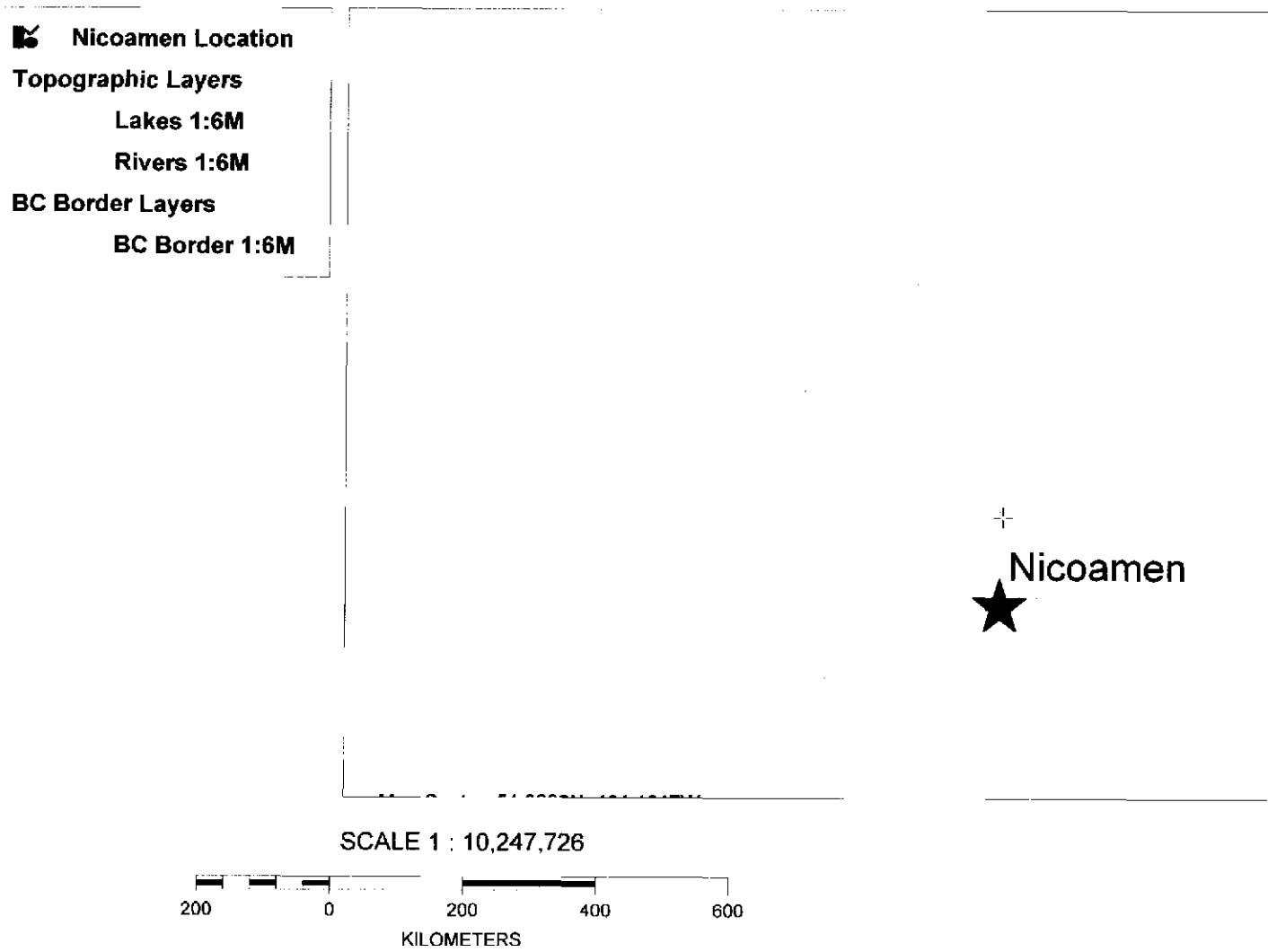
Parrish, R.R. and Monger, J.W.H., 1992:

New U-Pb dates from southwestern British Columbia; in Radiogenic Age and Isotopic Studies: Report 5; GSC Paper 91-2, p. 87-108.

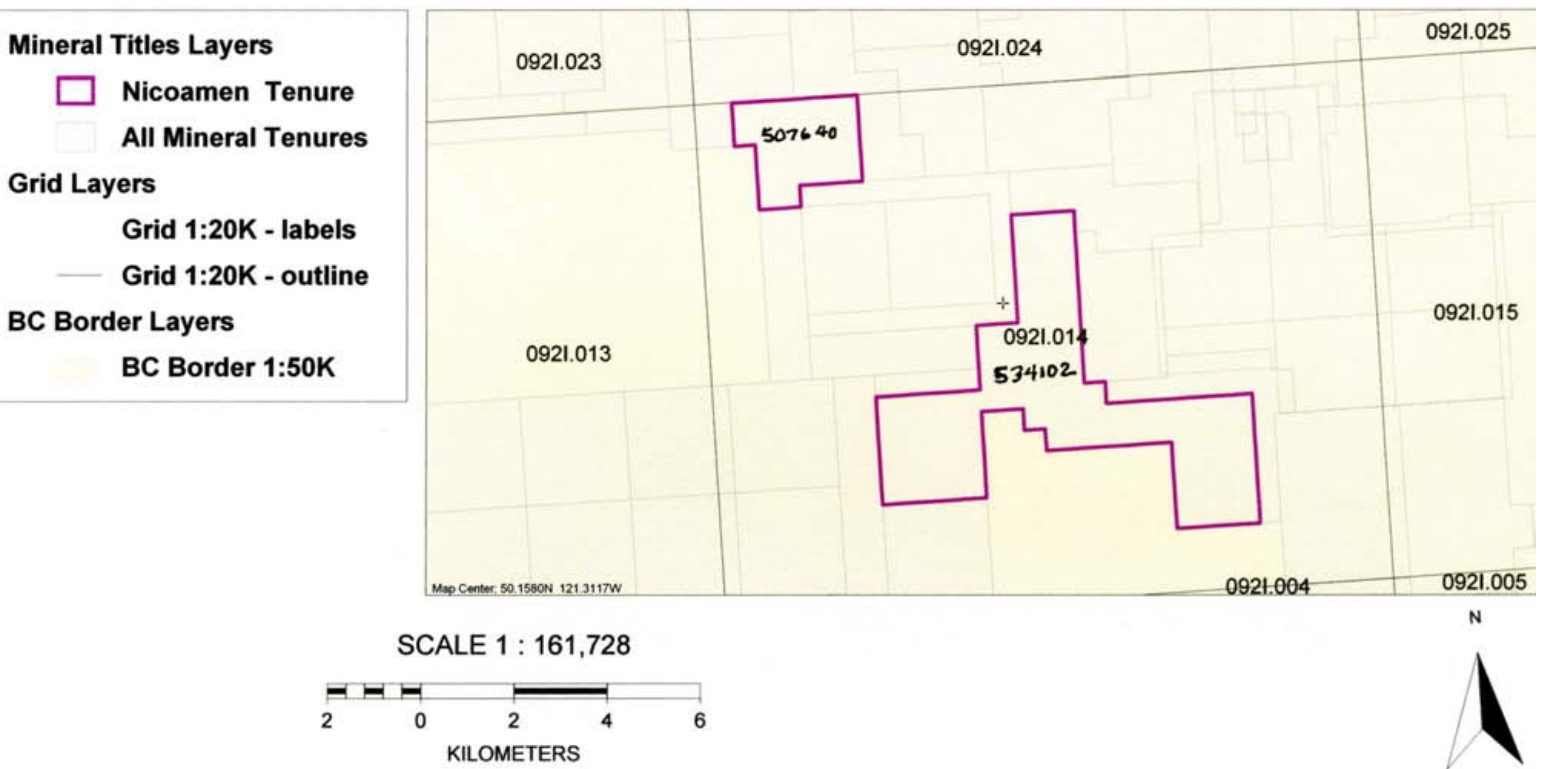
Smith, S.W., 1993:

Geochemical Sampling and Geophysical Survey On The Ashton Property  
(Rebecca 1-6, Sheryl, Mellisa and Rachel 1-4 claims)  
Assessment Report Number: 23116.

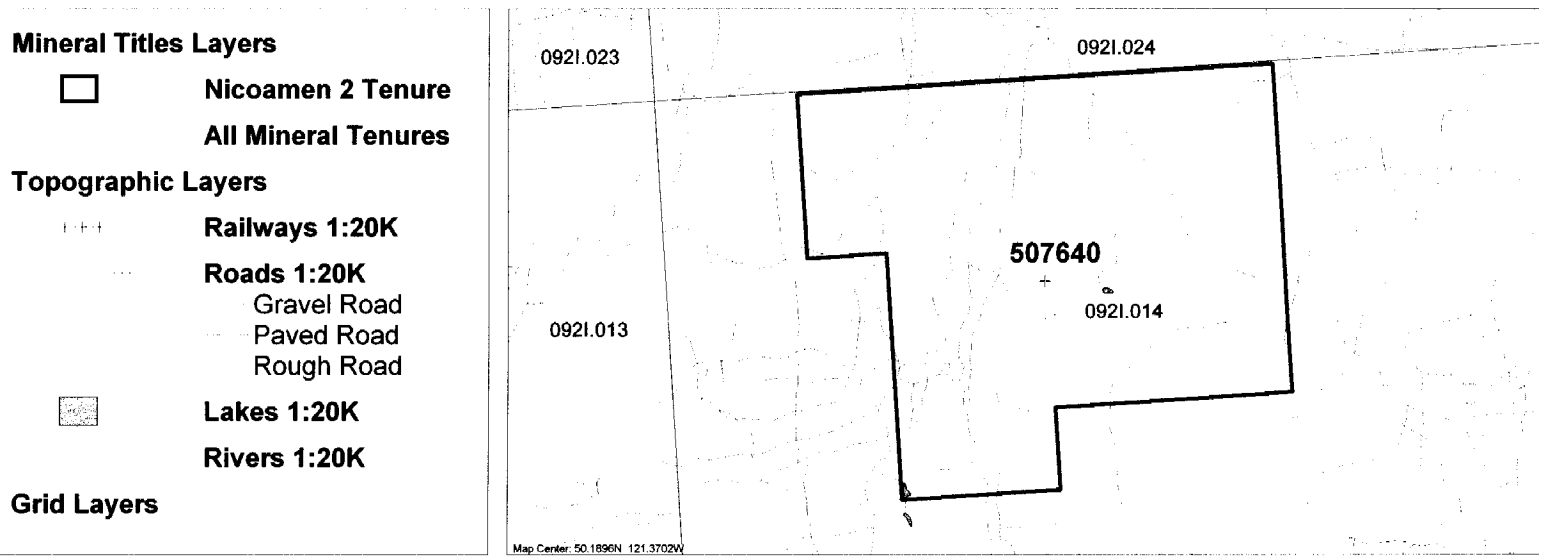
# Nicoamen Location Map - FIGURE 1.



# Nicoamen Claim Map - FIGURE 2A.

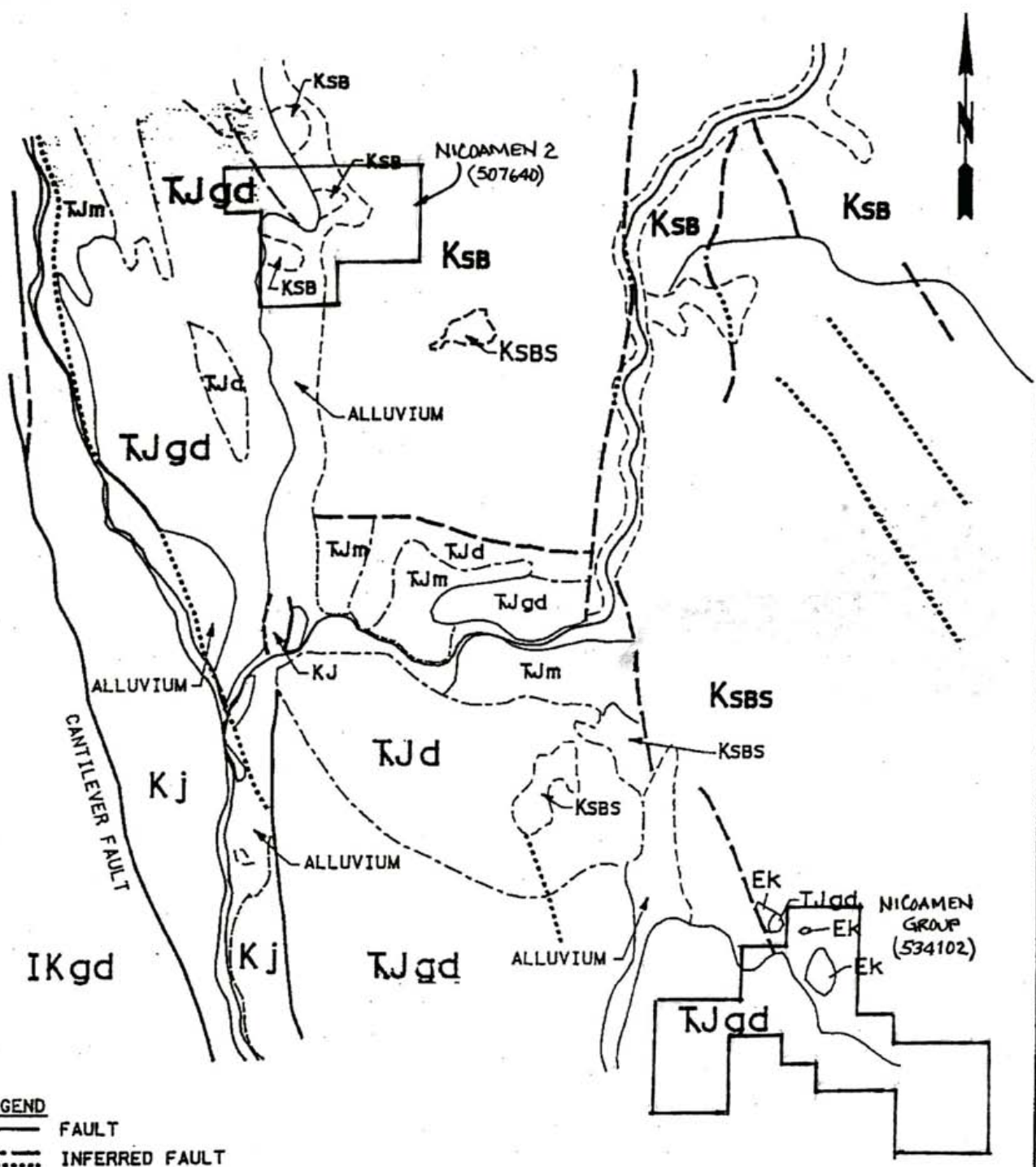


# Nicoamen 2 Claim Map - FIGURE 2B.



SCALE 1 : 42,534





**LEGEND**  
 ——— FAULT  
 ..... INFERRED FAULT

**LATE CRETACEOUS**

IKgd - GRANODIORITE, QUARTZ MONZONITE  
 SPENCES BRIDGE GROUP

KsB - FELSIC, MAFIC FLOWS AND SANDSTONE - SHALE  
 KsBS - MAFIC VOLCANICS - CONGLOMERATE

**EARLY AND MIDDLE CRETACEOUS**

**JACKASS MOUNTAIN GROUP**

KJ SANDSTONE, ARGILLITE, CONGLOMERATE

**TRIASSIC AND/OR JURASSIC**

Tjd - DIORITE, AMPHIBOLITE MT. LYTTON COMPLEX

Tjgd - GRANODIORITE, QUARTZ MONZONITE MT. LYTTON BATHOLITH

Tjm - LAYERED OF ROCK, AMPHIBOLITE, MYLONITE MT. LYTTON BATHOLITH

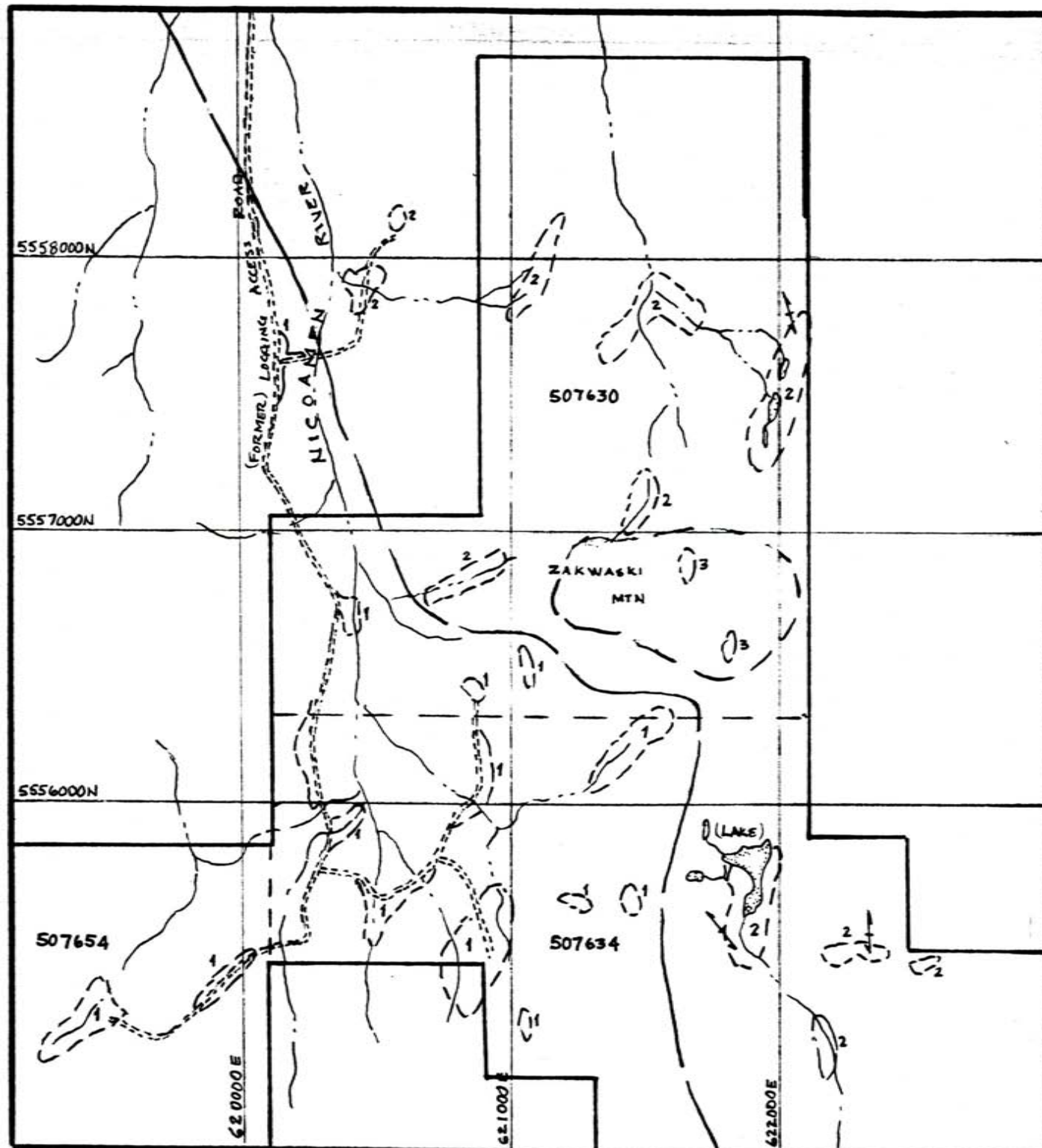
SCALE 1:200000  
 4 0 4 8 km

FIGURE 3

**REGIONAL GEOLOGY**

MODIFIED AFTER J. W. H. MONGER GSC MAP 42-1989





### NICOAMEN CLAIM GROUP

TENURE NOS. 507630, 507634, 507654 &  
507655  
(AMALGAMATED CLAIM NO. 534102)

UTM COORDINATES NAD 83 ZONE 10

NTS: 092I03W

PROPERTY GEOLOGY

(RECONNAISSANCE PROSPECTING & GEOLOGY)

#### LEGEND:

- 1 EQUIGENULAR GRANODIORITE & HORNBLENDE QUARTZ DIORITE.
- 2 REDDISH, GREEN-MAROON ANDESITIC-BASALTIC VOLCANICS, PYROCLASTIC/BRECCIA FRAGMENTS, PILLOW TEXTURES.
- 3 LIGHT COLORED, PARTLY OXIDIZED RHYOLITIC VOLCANICS ASSOCIATED W/ SECONDARY QUARTZ VEINS.

( ) APPROXIMATE GPS POSITION OF BEDROCK OUTCROP.

--- PROBABLE CONTACT

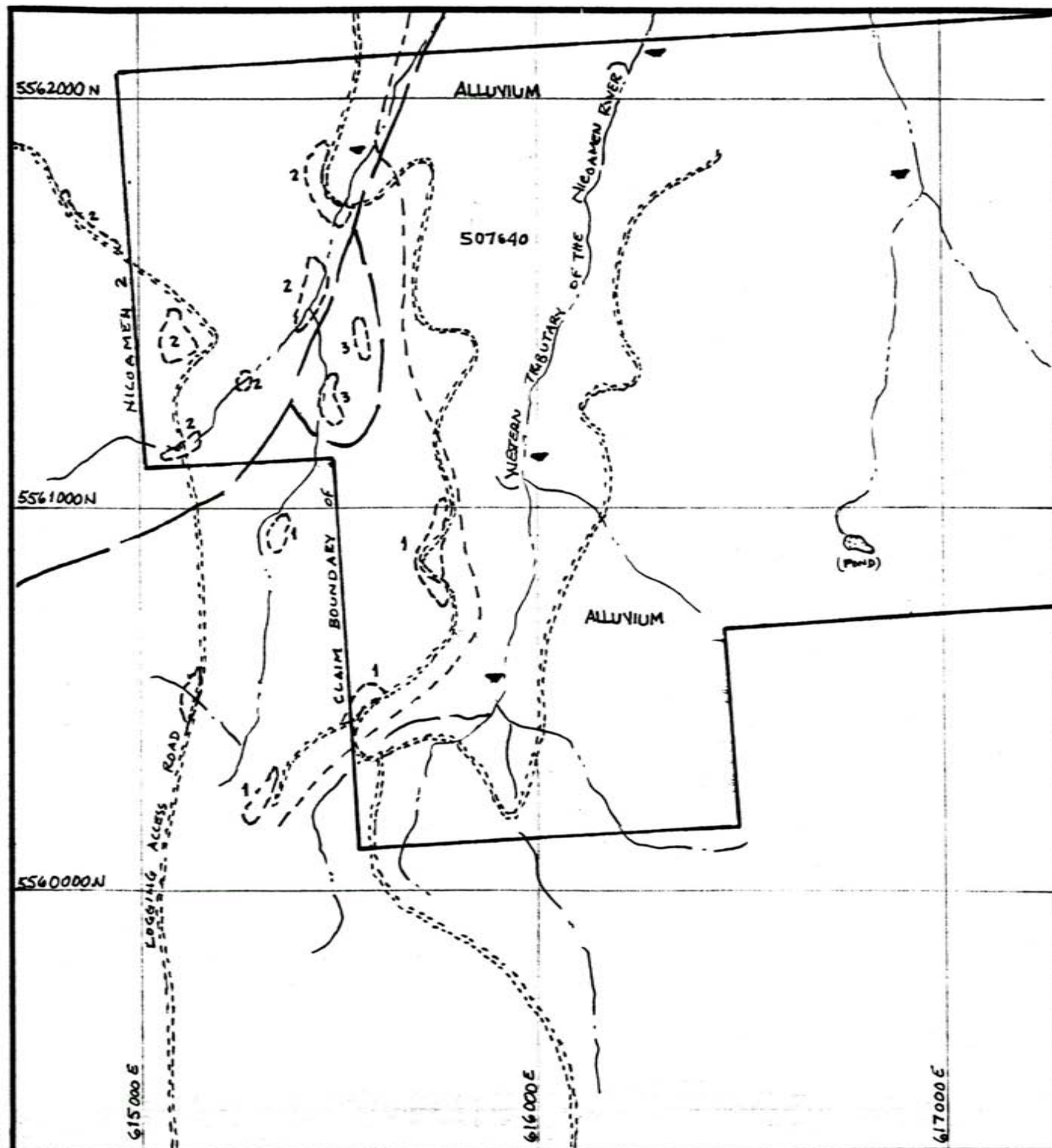
↓ TREND OF FOLIATION - FLOW TEXTURES

SCALE 1:20,000



FIGURE 4

PLOTTED BY:  
D.G. CARDINAL, P.GEO.



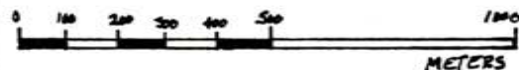
**NICOAMEN 2 CLAIM**  
(TENURE NO. 507640)

RECONNAISSANCE GEOLOGY & PROSPECTING  
MAP

UTM COORDINATES - NAD 83 ZONE 10  
NTS: 092103W

LEGEND:

- 1 EQUIGRANULAR GRANODIORITE & HORNBLENDE QUARTZ DIORITE
- 2 REDDISH, GREEN-MAROONED ANDESITIC-BASALTIC VOLCANICS, PYROCLASTIC & PILLLOW TEXTURES
- 3 LIGHT-CREAMY COLOURED RHYOLITIC VOLCANICS
- (1, 2) APPROXIMATE GPS POSITION OF BEDROCK OUTCROP
- PROBABLE CONTACT
- - - - - LIMIT OF ALLUVIUM
- ▼ PANNED SAMPLE SITE



SCALE 1:15,000

PLOTTED BY:

FIGURE 5.

D.G. CARDINAL, P.GEO.