

**Check-Mate 2 Mineral Claim Tenure #363029 Geological Assessment Report on 2003 Field Work Dealing with Selected Rocks collected for Petrographic Studies.**

**Atlin Mining Division, British Columbia, Canada**

**Claim Tag 209662**

**NTS 104K; Mineral Title Claim Map series M104K 047**

**Coordinates: Latitude 58 degrees 30 minutes**

**Longitude: 132 Degrees 45 minutes**

**Annual work application for Check-Mate 2 Mineral Claim**

**SMI-2003-0101683-165**

GEOLOGICAL SURVEY BRANCH  
ASSESSMENT REPORT

27, 10

**By**

**N.C. Aspinall, M.Sc., P.Eng**

**Pillman Hill Road Box 22. Atlin, B.C. Canada, V0W 1A0**

**Tel: 250-651-0001; Fax: 250-651-0002. E-mail: [aspinall@atlin.net](mailto:aspinall@atlin.net)**

**Field Work Dates: 12<sup>th</sup> July 2003.**

**Date of Report: 16<sup>th</sup> April 2004**

## 1.0 SUMMARY

In the summer of 2003 five rock samples were collected from the from Check-Mate 2 mineral claim, Atlin MD for petrographic studies.

These studies included five thin section and three polished section studies.

All microscopic work was carried out by Vancouver Petrographics Ltd, Langley, BC.

These petrographic studies reveal that low grade gold-copper-zinc-arsenic-antimony and silver mineralization is sourced to leucocratic feldspathic rocks, weakly altered, associated within a distal package of auto brecciated andesitic rocks, exhibiting strong carbonate, chlorite and chert-quartz chalcedony associations, of possible sinter or other unclear origin.

This low grade mineralization is reflected by a 1,200 metre by 300 metre geochemical anomaly, after 1984 Chevron Minerals data, as well as supported by this writers 1998 field work.

Located 7 km south of the Thorn silver-gold Property, the Inlaw property warrants more investigations.

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## 2.0 INTRODUCTION

### 2.1 LOCATION AND ACCESS

The Check-Mate 2 mineral claim is located in North West British Columbia, Canada. The claim falls within the Atlin Mining Division, covered by the Tulsequah 1:250,000 scale map sheet 104K, the 1:50,000 scale NTS Trapper Lake (104K/7) sheet, and the 1:20,000 scale Mineral Titles Map Sheet M104K 047. Location and infrastructure are shown on Figure 1.

UTM co-ordinates to the Check-Mate 2 claim Legal Corner Post, (LCP) are:

8V

0632700 East

6483600 North

The un-incorporated community of Atlin, population 450 residents, is located 125 kilometres to the Northwest, and Telegraph Creek the same distance to the Southeast. The Tulsequah mining camp lies 40 kilometres to the west, the Golden Bear Mine 40 kilometres to the Southeast.

Present day access can be gained from Atlin to King Salmon, Lake Tunjony Lake or Trapper Lake by float plane, and then by helicopter to the prospecting area. Helicopter and float plane service is available from Atlin. Grocery and hardware stores, hotel accommodation, post office are also available.

During this program, access was made by helicopter from Tulsequah.

A good all weather road links Atlin with Whitehorse and the Alaska Highway in the Yukon Territory. The road distance from Atlin to Whitehorse is 160 Kilometres. Whitehorse, the capital of the Yukon Territory, has growing population of 23,000, and supports mining facilities, including a modern airport and twice daily airline service to and from Vancouver.

### 2.2 PHYSIOGRAPHY, CLIMATE AND WILDLIFE

The mineral claim area is located near the edge of the Taku Plateau and the Boundary Ranges of the Coast Range Mountains. Topography consists of wide glaciated valleys, steep mountain slopes and alpine meadows. Elevation ranges from 975 metres to 2,100 metres, (ASL). Vegetation between 975 metres and 1,200 metres (ASL) consists of spruce, balsam, poplar; underbrush consists of willow and buck-brush. Deadfalls are common on the north lower slopes of Tunjony Lake. Devil's club is minor.

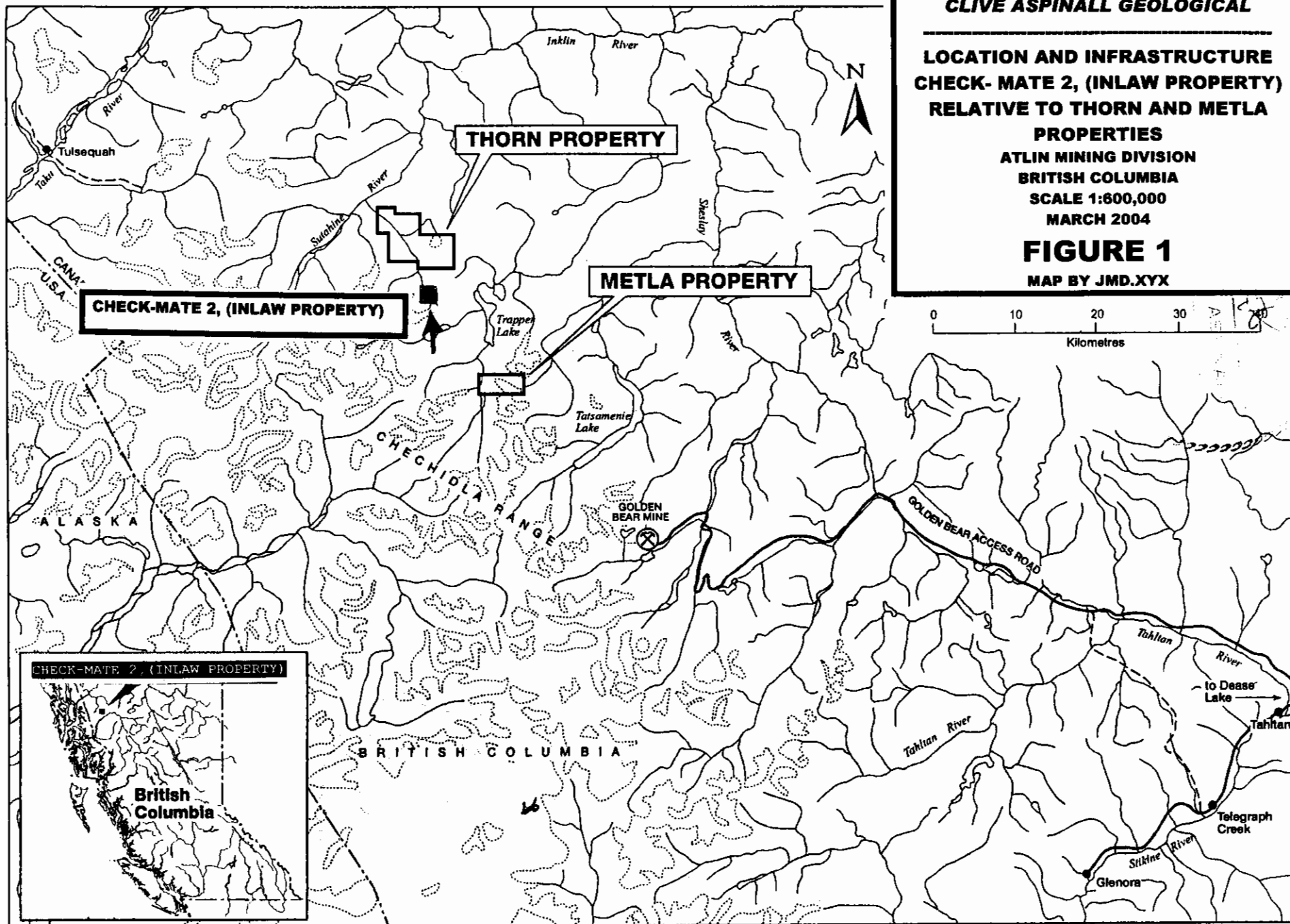
**CLIVE ASPINALL GEOLOGICAL**

**LOCATION AND INFRASTRUCTURE  
CHECK-MATE 2, (INLAW PROPERTY)  
RELATIVE TO THORN AND METLA**

**PROPERTIES  
ATLIN MINING DIVISION  
BRITISH COLUMBIA  
SCALE 1:600,000  
MARCH 2004**

**FIGURE 1**

**MAP BY JMD.XYX**



Above 1,200 metres, alpine meadows prevail with numerous varieties of wild flowers during the summer months.

The area has an alpine climate, and is snow free during July and August. Summer rain showers are common, and invariably associated with wind and hail. It is estimated the area has about 50 frost free days per year, and summer temperatures reach up to 10 degrees centigrade.

While on the property during early Spring and Summer months sightings of grizzly bear with cubs as well as numerous signs of bear are common at both lower and higher elevations. Goats on the cliffs overlooking Trapper and Tunjony Lakes are also common .

Numerous wild birds such as Canada geese, ducks and snipe were sighted at the east end of Tunjony Lake during late Spring.

### 2.3 PROPERTY STATUS AND OWNERSHIP

The Check-mate 2 Mineral lies both within traditional territories claimed by the Taku River Tlingit and the Tahltan First Nations. These traditional boundaries have not yet been agreed by the Treaty commissions.

*Mineral holdings claimed by the Tahltan during the 1989s-1990s were noted in the area, but the similar holdings or any signs of land use occupation by the Tlingit have never been noted outside the main Atlin valley, the Taku River valley, the Nakina River and Silver Salmon valleys by the writer, who has prospected these regions since 1966.*

As a result of 2003 geological, geochemical and petrographic work Check-Mate 2 claim one year of work is recorded and applied for against \$4000.00 with \$500.86 being deposited into Clive Aspinall's PAC account. This work would therefore extend the status date of this claim from 31<sup>st</sup> MAY 2004 to 31<sup>st</sup> MAY 2005.

Table 1: Check-Mate 2 Claim Status

Claim Name	Tenure	Status - Before	Status - Applied For	Owner (100%)	FMC
Check-Mate 2	363029	31 <sup>st</sup> May 2004	31 <sup>st</sup> May 2005	Clive Aspinall,	101024

### 2.4 HISTORY OF EXPLORATION IN THE PROSPECTING AREA.

The Check-Mate 2 mineral claim was originally the Inlaw Claim, and first staked in 1983 by Chevron Minerals Ltd.

Geological and geochemical work and limited trenching was carried out in August 1983 and 1984 by Chevron Minerals Ltd. Gold-arsenic-antimony anomalies were found associated with an extensive Fe-carbonate zone.

Trenching samples returned the following values in 1984:

Table 2: 1984 Trenching Results

Sample No	width (m)	Ag g/tonne	As g/t
MT4T1-419	ONE	17.8	3.1
420	"	14.5	4.3
421	"	4.9	1.9
422	"	5.7	1.1
423	"	7.0	0.5
424	"	5.4	6.2
425	"	12.6	1.1
426	"	9.6	1.4
427	"	3.8	0.3
428	"	8.9	0.3
429	"	8.9	0.7

Gold within these anomalies were noted to include "very high spotty values", and considered to be characteristic of vein style deposit.

The Inlaw claim was re-staked by the writer as Check-Mate 2, assisted by his wife Julie, on 31<sup>st</sup> May 1998. With the help of a \$7,500 BC Prospectors grant the writer and his wife carried a prospecting and sampling program in the summer of 1988 which kept the Inlaw claim in good standing to 31 May 2004.

During the summer of 2003 a one day sampling program collected the five petrography samples described in this report.

### 3.0 GEOLOGY AND MINERALIZED ROCKS OF CHECK-MATE 2.

Predominant rock units within the region and Check-Mate 2 mineral claim are Stuhini Group and Sloko Group rocks, as mapped by Souther, 1971.

According to Souther the Stuhini volcanic rocks within the region are either subaerial flows, pyroclastic with sedimentary derivatives or entirely of submarine origin. In the latter case, pillow lavas, breccias and agglomerates of dark grey to black basaltic andesite are the principle types.

Within the Check-Mate 2 area an estimated 500 metres section of exposed submarine lavas are present.



Although more work has to be done to differentiate these rocks, exposures of these rocks include Fe-carbonated auto breccias lying below a thick sequence of andesite basalts.

These rocks have been intruded by limited sized Sloko feldspar porphyry stocks.

Dyke rocks up to 10 metres thick of rhyolite composition interface within the contact zones between the fragmental rocks and the basalt, (ref: Inlaw petrographic samples #1, #2, and #3 below). It is these rocks which are mineralized on Check-Mate 2. Their full extent on the property is still unknown.

An interpretation (by this writer) of Chevron Minerals Ltd 1984 soil sampling work suggests rhyolite mineralized dykes may underlie an irregular 1200 metre by 300 metre anomalous gold (with arsenic-antimony) anomaly. This soil anomaly circles the northern contact of a feldspar porphyry stock of assumed Sloko age.

This soil anomaly trends east-west across the centre of Check-Mate 2 mineral claim, and entirely contained within the claim, Figures 2, 3, 4, and 5.

Within this anomaly, soil values peak at 8,350 ppb Au and 8,650 ppb Au, with one outcrop value peaking over 10,000 ppb Au.

Chevron Minerals Ltd in 1984, (Assessment Report #13,107) completed grid work and collected 700 soil and talus fines samples, in addition to the collection of 30 rock samples. At least 40% of these samples show anomalous gold-arsenic-antimony values within or adjacent to Check-Mate 2 mineral claim.

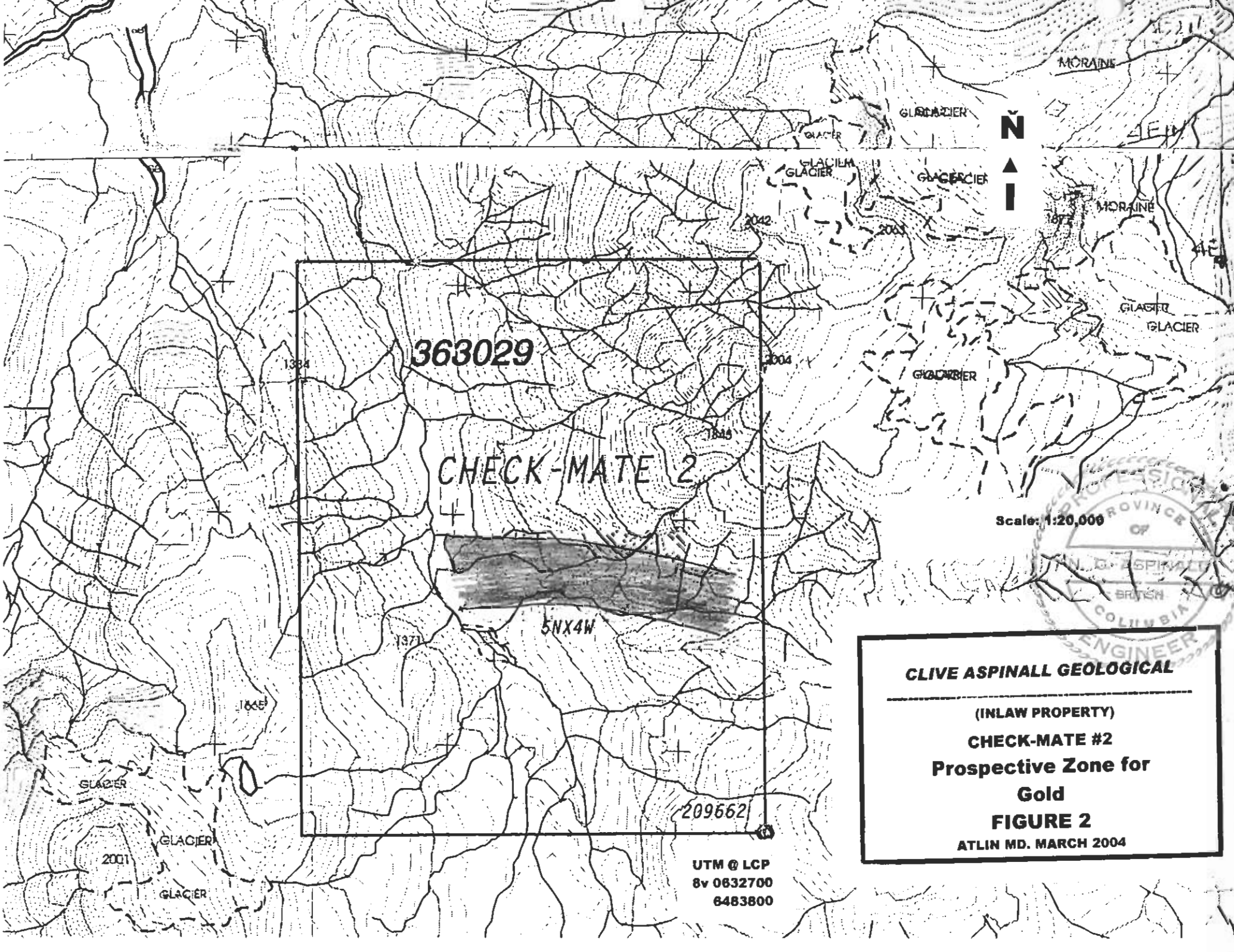
#### 4.0 OBJECTIVES OF 2003 FIELD WORK

Field work in 2003 on Check-Mate 2 was limited to one day by the writer, on 12th July 2003, share-chartering a helicopter out of Atlin.

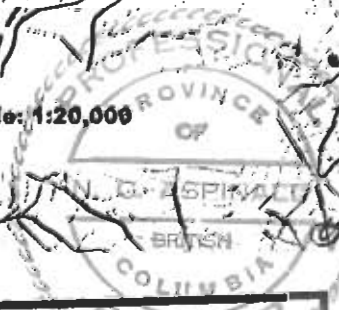
Objectives of 2003 field work was to collect mineralized samples from known gold areas, in addition to assumed Fe-carbonate andesite auto-breccias rocks from outside the known gold areas.

The main purpose was to hold the claim in good standing for one full year pending financing for further work in 2004, while further contributing to a petrographic data-base of this area, (See Aspinall. Assessment Report of 1994 work on the Thorn-Sutlahine Au-Ag-Cu Property in the Region of Tulsequah, Covered by the Check-Mate Mineral Claim, Tenure # 320695, Claim Tag #203160, November 1994).

Five rock samples were collected, five for thin section study and three for polished section only. These are Inlaw #1,#2,#3,#4, #5 (thin section study) and Inlaw #1, #2, #3, (polished section study), Figure 6.



Scale: 1:20,000



**CLIVE ASPINALL GEOLOGICAL**

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(INLAW PROPERTY)  
**CHECK-MATE #2**  
**Prospective Zone for**  
**Gold**  
**FIGURE 2**  
 ATLIN MD. MARCH 2004

UTM @ LCP  
8v 0632700  
6483800

These petrographic samples were sent to Vancouver Petrographics Ltd, 8080 Glover Road, Langley, B.C. V1M 3S3, (Tel. 604-888-1323) where work was subcontracted to Dr. J.F Harris of Harris Exploration , Services, 534 Ellis Street, N. Vancouver, B.C. V7H 2G6, (Tel: 604-929-5867)

In addition, five talus fine samples,(Inlaw#1 TF, Inlaw#2 TF, Inlaw#3 TF, Inlaw#5 and Inlaw#7 TF) two rock float samples,(Inlaw #4GSF, Inlaw#6GSF) and one grab sample from outcrop, (Inlaw#4 OCG) were collected from the above sites for geochemical analysis, Figure 7.

These seven samples were sent to Echo Tech Laboratory Ltd, 10041 Dallas Drive, Kamloops, BC. V2C 6T4, (Tel: 250-573-5700) for 29 element analysis. Correlation of locations of petrographic and analytical samples collected is shown in following table, together with important analytical returns.

Table 3: Correlation of Location of Analytical samples with Petrographic Samples

Geochem Sample	Au ppb Geochemist	Au Assay	Ag ppm	Bad ppm	Ca%	Fe%	Cu ppm	Pb ppm	Zn ppm	Petrography Samples
Inlaw#1 TF	25		<0.2	150	5.20	7.90	92	8	72	Inlaw #4
Inlaw#2TF	5		<0.2	70	2.17	5.50	71	12	53	
Inlaw#3TF	<5		<0.2	110	0.18	5.18	29	18	71	Inlaw#5
Inlaw#4GSF	<5		2.2	55	>10	5.63	97	54	83	
Inlaw#3OCG	>1000	2.18 g/t 0.064 oz/t	20.0	<5	0.48	>10	503	986	341	Inlaw#1 Inlaw#2 Inlaw#3
Inlaw#5TF	25		12	185	4.94	6.64	79	126	154	Inlaw#3
Inlaw#6GSF	760		16	<5	8.44	>10	539	90	185	
Inlaw#7TF	15		<0.2	135	5.13	5.86	65	20	76	

Table 4. Field Descriptions of Petrographic Samples group Inlaw#1 to Inlaw#5.

Petrographic Sample#	Description
Inlaw#1 Inlaw#2 Inlaw#3	In hand specimen, these three rocks consist of distinctive mafic-free feldspathic rocks. Source estimated up to 10 metres thick and dyke-like. Possibly associated with faulting. Thinly banded with quartz rich zones and hairline grey coloured zones. Disseminated with fine pyrite. Stock-work of hairline open fractures, hosting moderate pyrite, sphalerite, galena, trace malachite. This open stock-work cuts quartz veinlet system with grey selvages, originally identified as tetrahedrite. Rock has gossanous surfaces.
Inlaw#4 Inlaw#5	Fe-carbonate andesitic auto-brecca. Can be differentiated in the field from distant locations by distinctive tan weathering. Enclosed fragmental rocks are up to 15 centimeters and angular, and tan coloured while intervening spaces are chlorite rich with ubiquitous coarse lenses of white crystalline calcite. Inlaw # 4 and Inlaw #5 are feldspar free rocks of highly distinctive composition and character, consisting dominantly of carbonate, sometimes of apparent crustified, box-work like form. Intimately intergrown chlorite and chert occur as accessories. The chlorite/chert partly occurs as ovoid, amygdule like bodies. These rocks are un-mineralized.

487000

10'00"

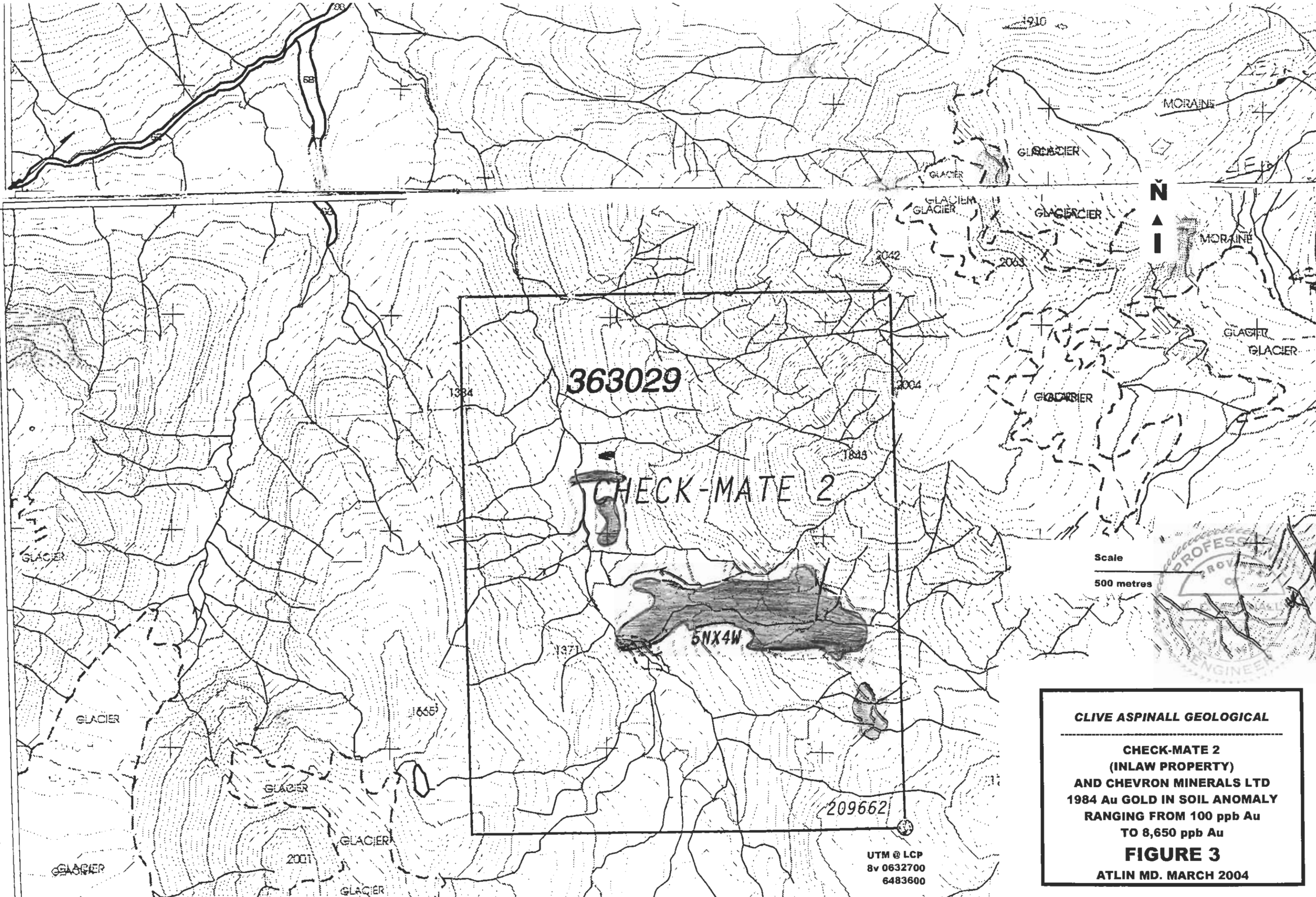
186000

485000

5484000

100 ± 34.50

Au



Scale  
500 metres



**CLIVE ASPINALL GEOLOGICAL**

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**CHECK-MATE 2  
(INLAW PROPERTY)  
AND CHEVRON MINERALS LTD  
1984 Au GOLD IN SOIL ANOMALY  
RANGING FROM 100 ppb Au  
TO 8,650 ppb Au**

**FIGURE 3**  
ATLIN MD. MARCH 2004

363029

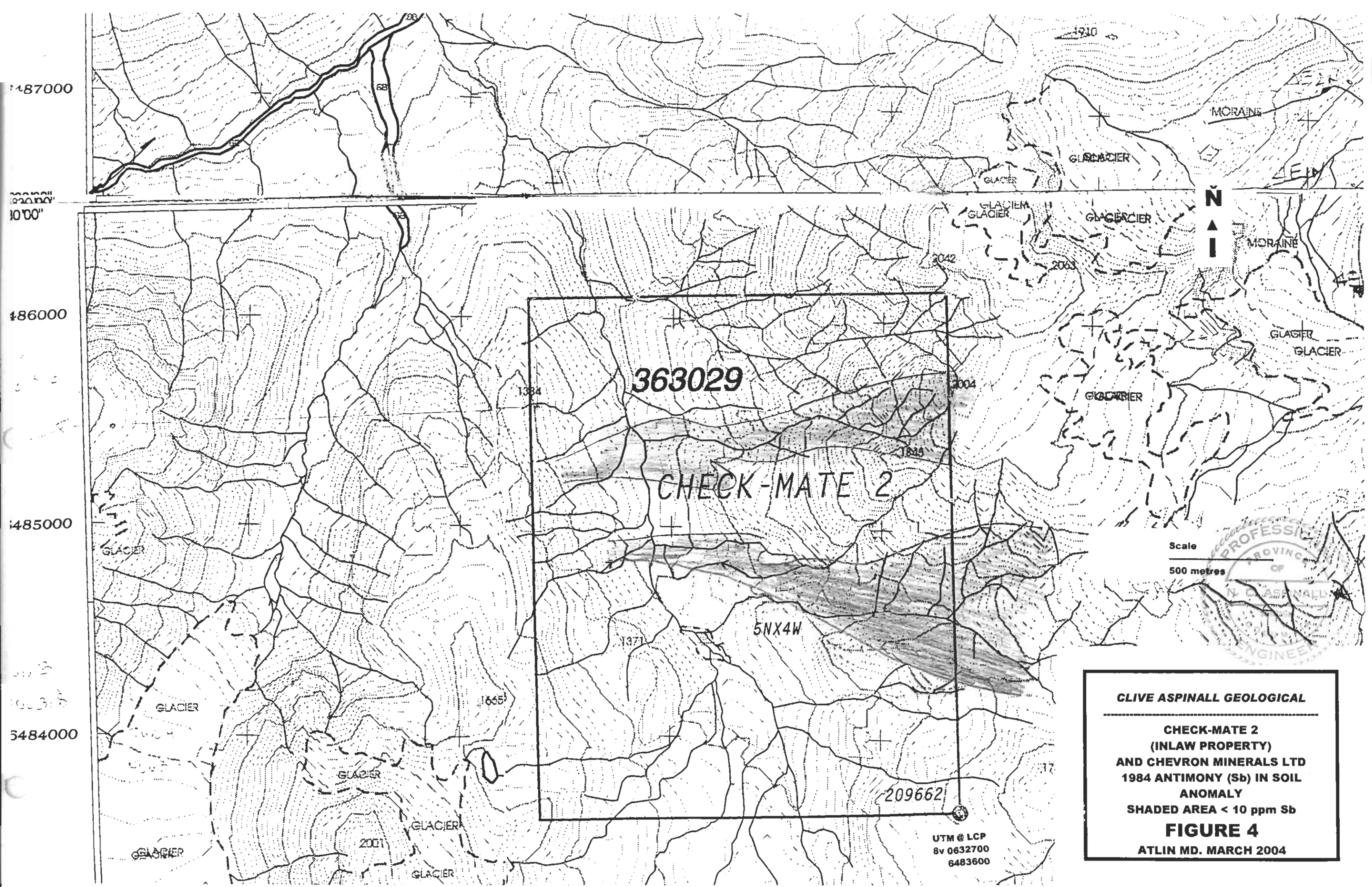
CHECK-MATE 2

5NX4W

209662

UTM @ LCP  
8v 0632700  
6483600





487000

3000'  
1000'

486000

485000

484000

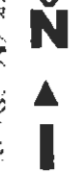
**363029**

**CHECK-MATE 2**

5NX4W

209662

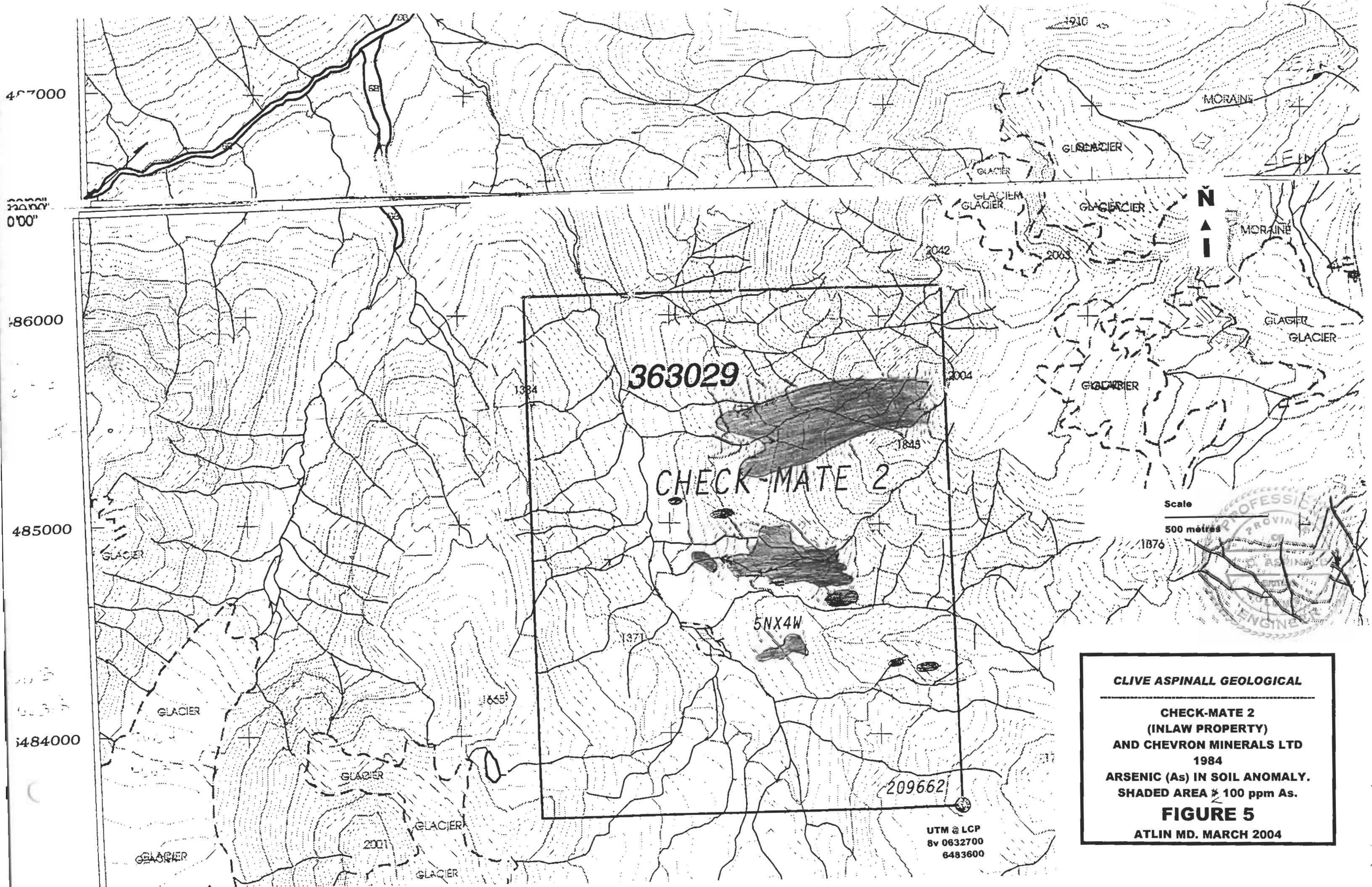
UTM @ LCP  
8v 0632700  
6483600



Scale  
500 metres



**CLIVE ASPINALL GEOLOGICAL**  
**CHECK-MATE 2**  
**(INLAW PROPERTY)**  
**AND CHEVRON MINERALS LTD**  
**1984 ANTIMONY (Sb) IN SOIL**  
**ANOMALY**  
**SHADED AREA < 10 ppm Sb**  
**FIGURE 4**  
**ATLIN MD. MARCH 2004**



487000

486000

485000

484000

363029

CHECK-MATE 2

5NX4W

209662



Scale

500 metres

**CLIVE ASPINALL GEOLOGICAL**

**CHECK-MATE 2  
(INLAW PROPERTY)  
AND CHEVRON MINERALS LTD  
1984**

**ARSENIC (As) IN SOIL ANOMALY.  
SHADED AREA ≥ 100 ppm As.**

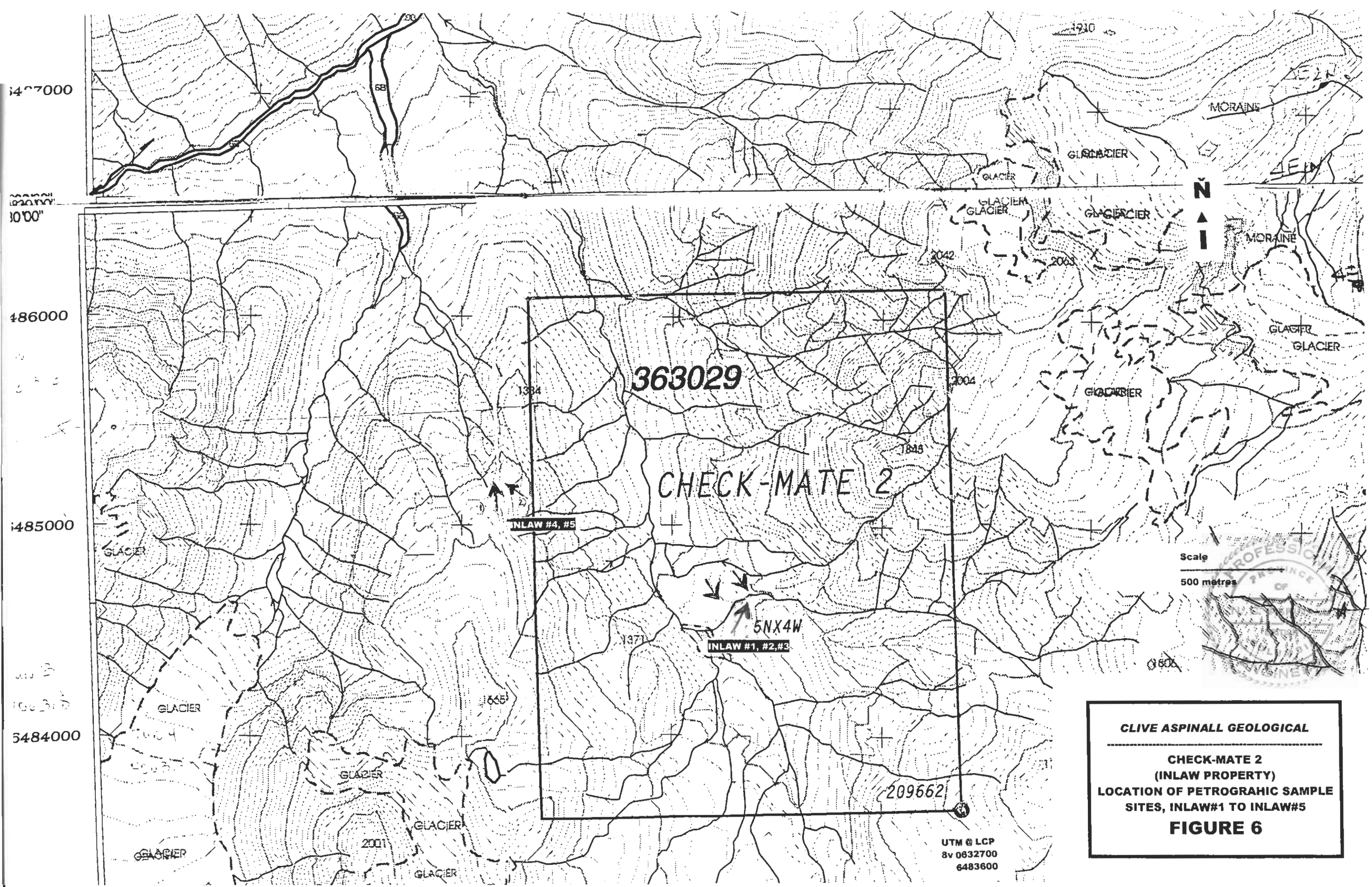
**FIGURE 5**

**ATLIN MD. MARCH 2004**

UTM @ LCP  
8v 0632700  
6483600







1477000

1477000

1486000

1485000

1484000

1483000

1484000

363029

CHECK-MATE 2

INLAW #4, #5

5NX4W

INLAW #1, #2, #3

209662

Scale  
500 metres



**CLIVE ASPINALL GEOLOGICAL**  
**CHECK-MATE 2**  
**(INLAW PROPERTY)**  
**LOCATION OF PETROGRAPHIC SAMPLE**  
**SITES, INLAW#1 TO INLAW#5**  
**FIGURE 6**

UTM @ LCP  
8v 0632700  
6483600

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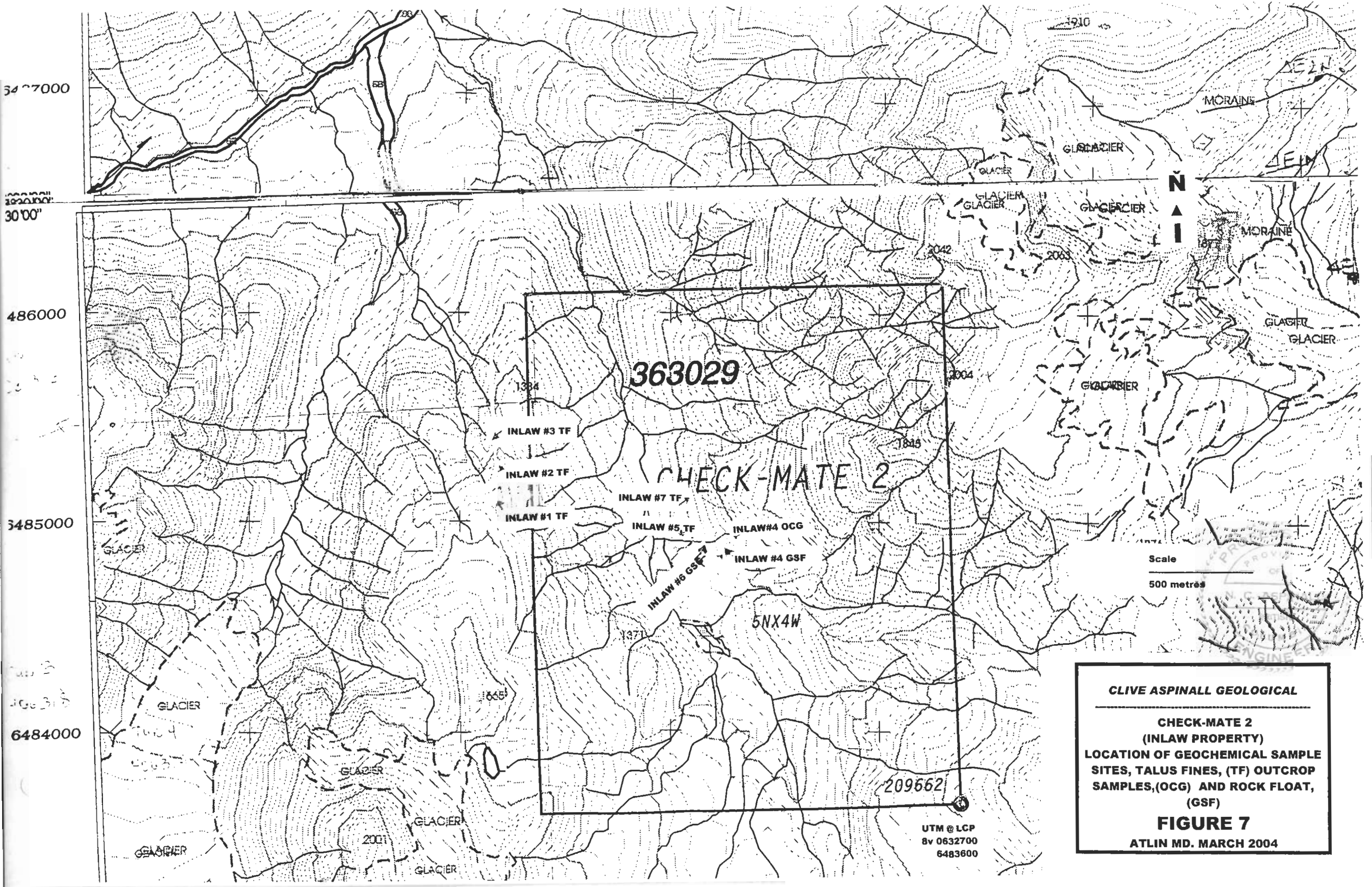
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547000

30'00"

486000

5485000

6484000

363029

CHECK-MATE 2

5NX4W

209662

UTM @ LCP  
8v 0632700  
6483600

Scale  
500 metres

**CLIVE ASPINALL GEOLOGICAL**

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**CHECK-MATE 2  
(INLAW PROPERTY)**  
**LOCATION OF GEOCHEMICAL SAMPLE  
 SITES, TALUS FINES, (TF) OUTCROP  
 SAMPLES, (OCG) AND ROCK FLOAT,  
 (GSF)**

**FIGURE 7**  
 ATLIN MD. MARCH 2004

## 5.0 SUMMARY DESCRIPTION OF ROCKS FROM CHECK-MATE 2 AND AREA, (AFTER J.F HARRIS, PhD)

Five rock samples were submitted for examination to Vancouver Petrographics Ltd at 8080 Glover Road, Langley, B.C. V1M 3S3 and examined by Dr. J.F Harris. The following are extracts from Dr. Harris Summary petrographic examination.

Five rock samples, numbered as below, were submitted to Vancouver Petrographics Ltd for sectioning and examination.

Inlaw #1 Polished/thin section  
Inlaw# 2 Polished/thin section  
Inlaw#3 Polished/thin section  
Inlaw #4 Thin section  
Inlaw #5. Thin Section

As already stated, locations of these rocks, are located on Figure 6.

These rock samples were collected from two distinct areas, thus fall into two distinct groups Inlaw #1,#2,#3 and Inlaw #4 and #5.

Details of these rocks are enclosed in appendices 1. Micro visible modes of samples Inlaw#1, 2 and #3 include ranges:

- Alkali Feldspar 67-88
- Quartz 1-10
- Sericite 1-10
- Zeolite 0.5
- Carbonate 0.5
- Rutile 1
- Pyrite 4-10
- Arsenopyrite 2
- Chalcopyrite trace
- Chalcocite trace
- Sphalerite trace
- Limonite 1
- Gold, assumed.

Micro-visible modes of samples Inlaw#4-#5 ranges include:

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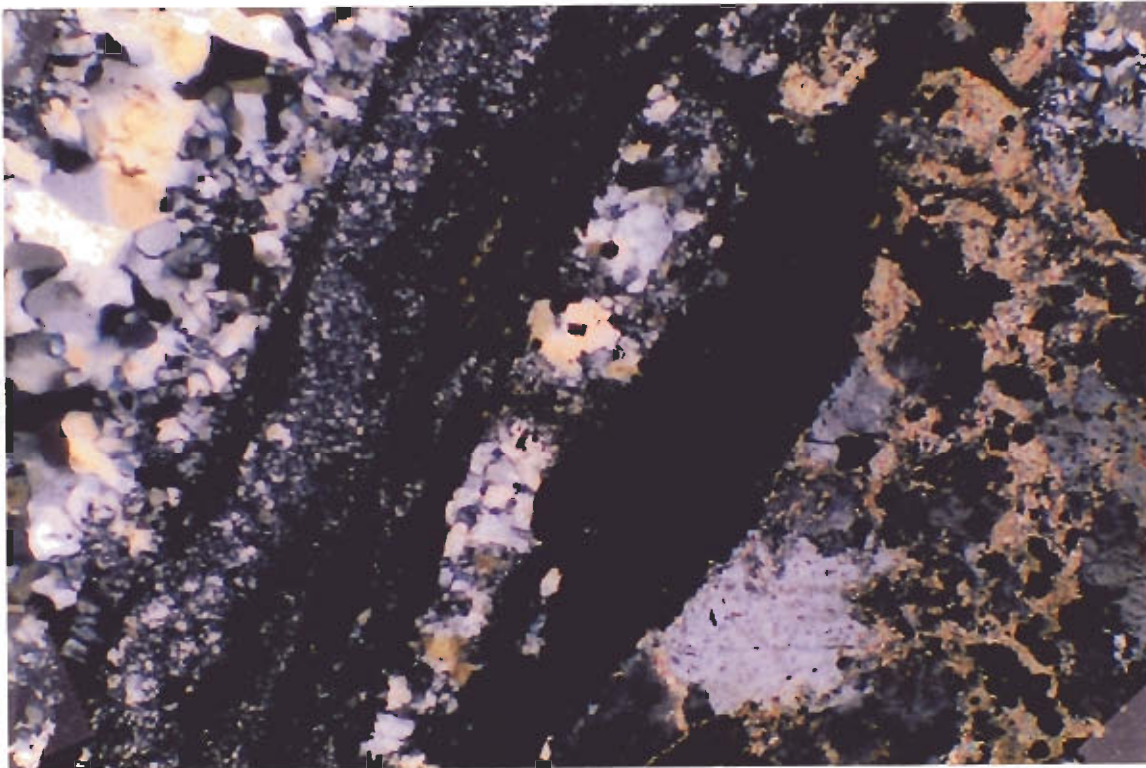
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- ◆ Quartz 1-10
- ◆ Sericite 1-10
- ◆ Zeolite 0.5
- ◆ Carbonate 0.5
- ◆ Rutile 1
- ◆ Pyrite 4-10
- ◆ Arsenopyrite 2
- ◆ Chalcopyrite trace
- ◆ Chalcocite trace
- ◆ Sphalerite trace
- ◆ Limonite 1
- ◆ Gold, assumed.

Micro-visible modes of samples Inlaw#4-#5 ranges include:

- ◆ Carbonate 53-54
- ◆ Chlorite 12-33
- ◆ Chert –Quartz-Chalcedony 12-24
- ◆ Opaques and Sub-opaques 1
- Limonite

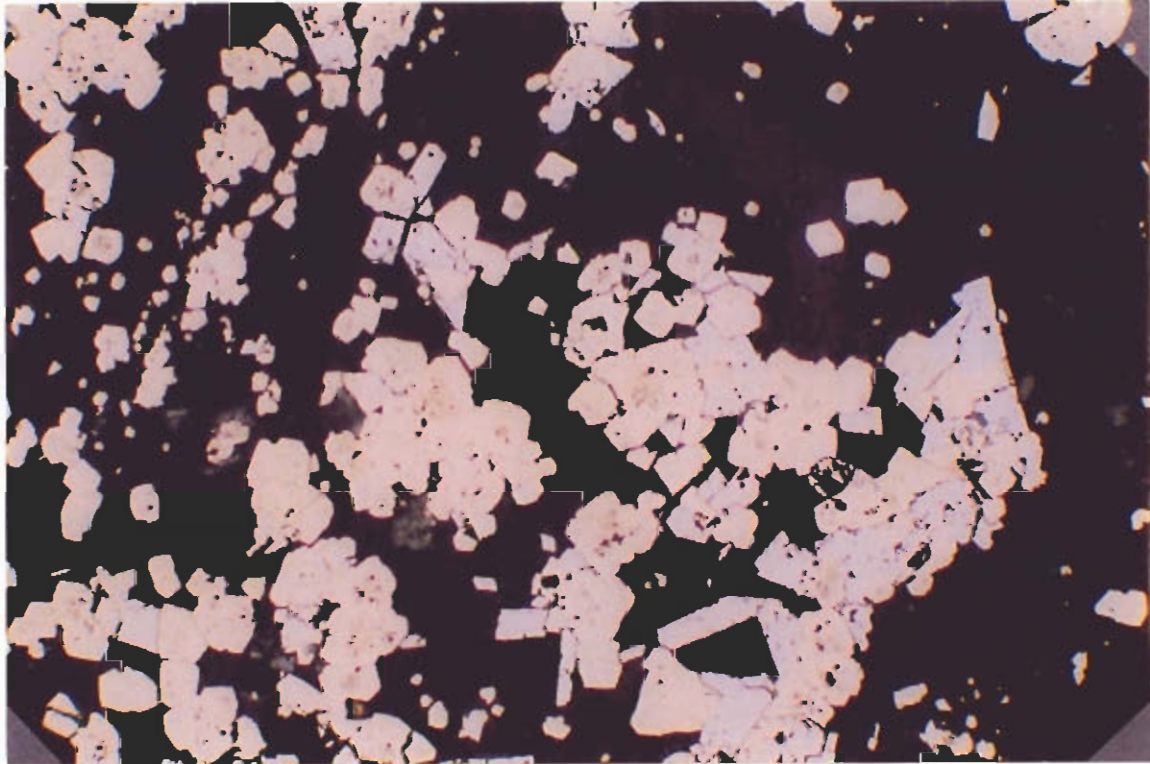
## 5.2. PHOTOMICROGRAPHS.



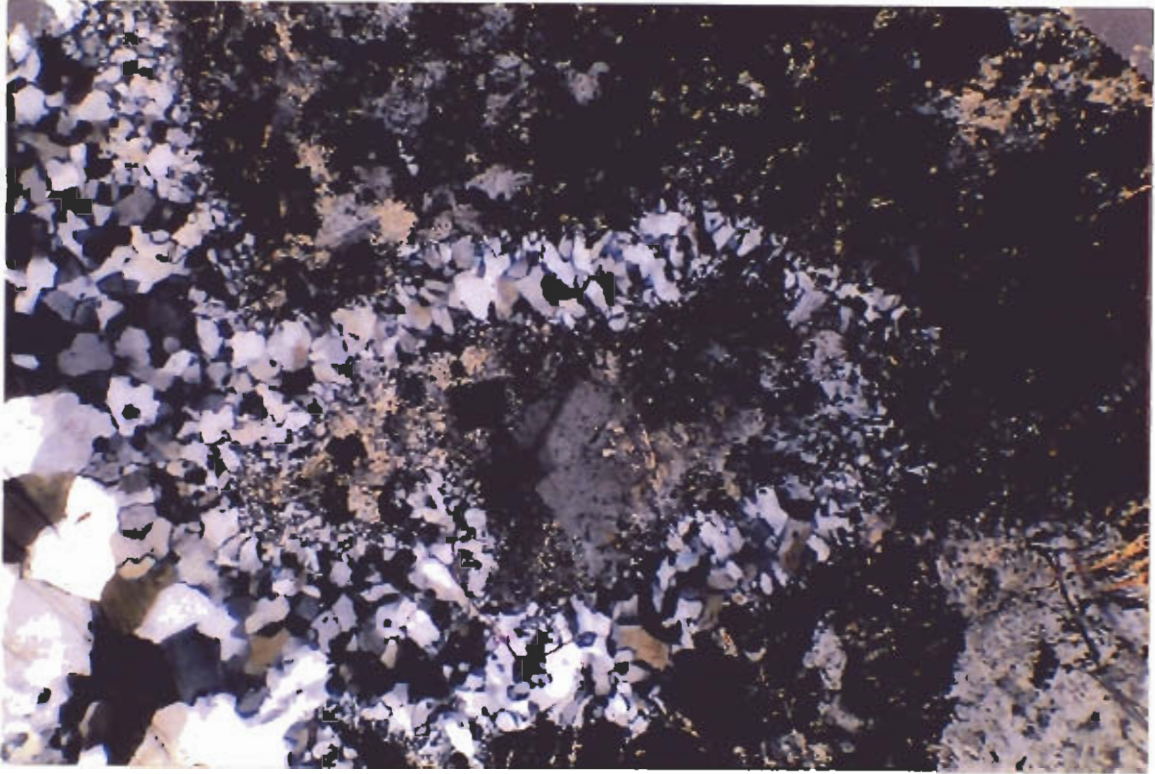
Inlaw#1 Neg. 528-7(After: Harris Exploration Services, Vancouver)

Cross-polarized transmitted light. Scale 1cm=170nmicrons. Shows part of the central composite vein zone. Area at top left is part of a comb-textured quartz veinlet. This grades laterally to a fine grained cherty variant, (grey speckled). Another coarse granular quartz veinlet can be seen at the centre of the field. The black (opaque) zones are thin stringers of compact sulphides, following the contacts of different quartz vein textural variants. The portion of the field to the right of the thickest sulphide zone represents the feldspathic host rock. Note the granular texture, untwined character and essential absence of pervasive alteration. The tan-coloured constituent (right) is sericite, showing mantling relationship to a cluster of disseminated sulphides (black) in the host rock.





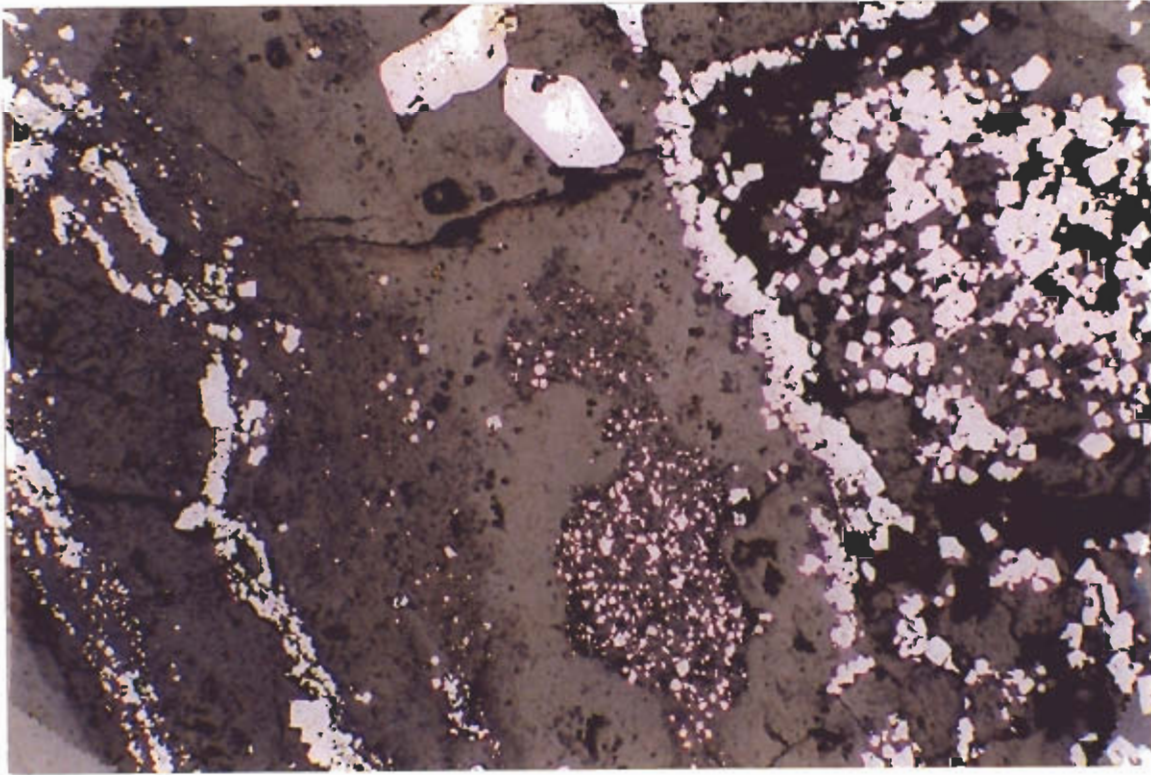
Inlaw#1. Negative 528-8 (After: Harris Exploration Services, Vancouver)  
Reflected Light. Scale 1 cm=85 microns. Typical field of disseminated sulphides. Cream colour (dominant) is pyrite; whiter (e.g. in cluster of grains at lower right) is pyrite.



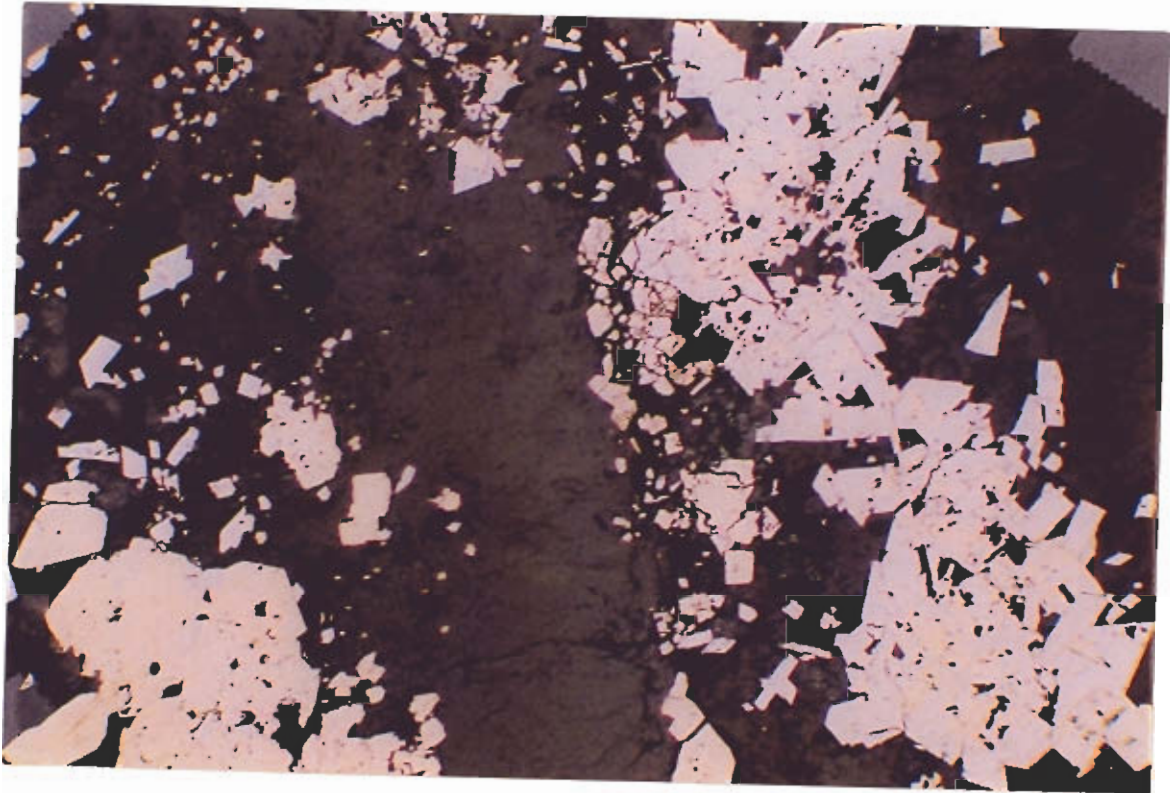
Inlaw #2. Negative 528-9 (After: Harris Exploration Services, Vancouver)

Cross-polarized transmitted light. Scale 1cm=170 microns. Shows vein quartz (left) in contact with feldspathic host rock heavily impregnated with sulphides (opaque; black). Remnants of fresh feldspar (grey) includes part of a coarser, sub-phenocrystic grain, (bottom right). Note discordant quartz veining (centre), apparently superimposed on the disseminated mineralization. Sporadic tan coloured flecks are fine-grained sericite.

Inlaw#2. (After: Harris Exploration Services, Vancouver)  
Negative 529-10. Reflected Light. Scale 1 cm=85 microns. Example of varied modes of occurrence of sulphides. Includes semi-massive disseminations (left); thin stringers or selvages of sulphides (one left centre is marginal to quartz vein; Those in right half of field are in the feldspathic host); concentrations of very fine grained sulphides mantled by sericite, ("upper island within the central quartz vein); and coarser individual pyrite euhedra in the quartz vein, (bottom centre).

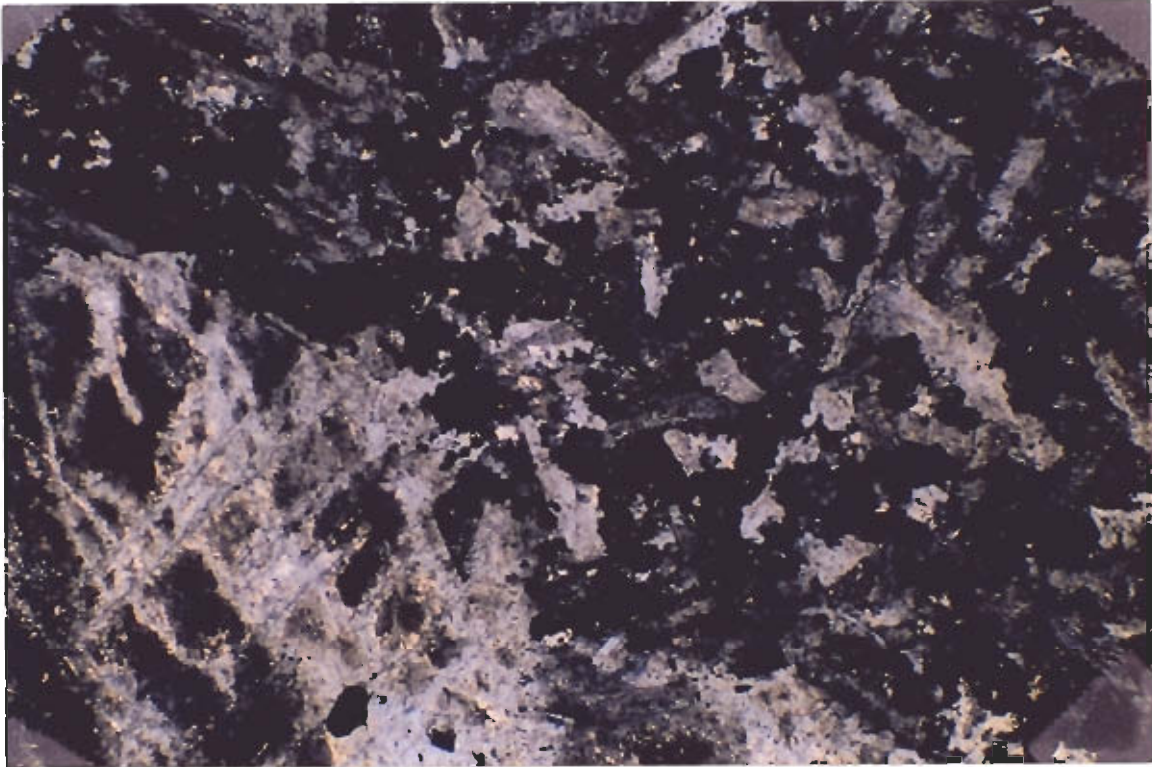






Inlaw #2. ( After: Harris Exploration Services, Vancouver)  
Negative 528-11. Reflected Light. Scale 1 cm=85 microns. Intergrowths of pyrite (cream colour) and arsenopyrite (whiter) in a host rock marginal to a quartz vein, (light grey band at left centre).

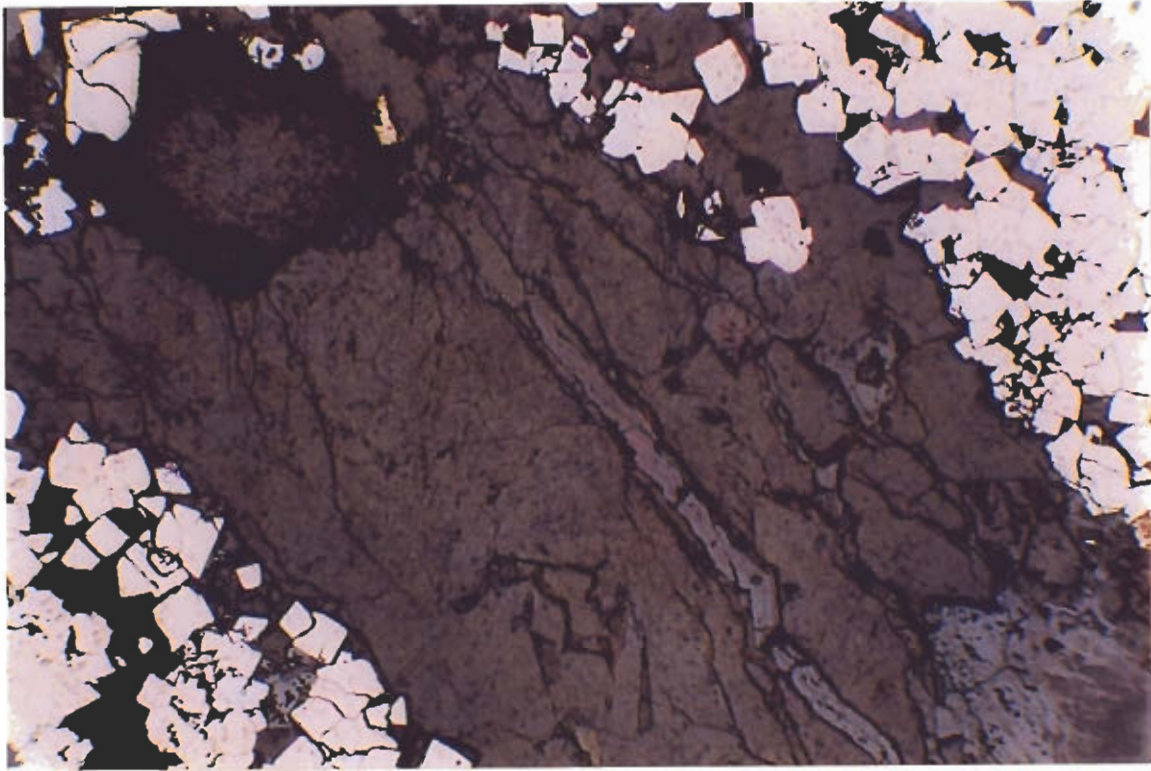




Inlaw #3. (After: Harris Exploration Services, Vancouver)

Negative 528-12. Cross-polarized transmitted light. Scale 1cm=170 microns.

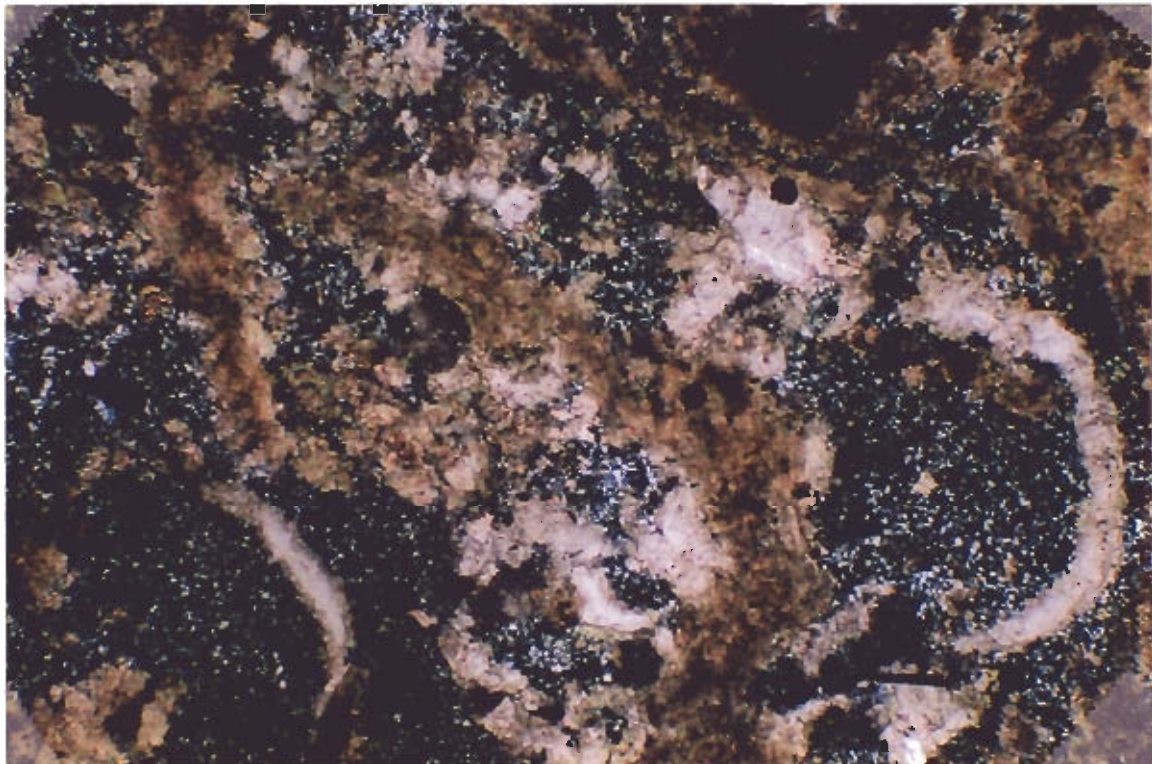
Shows typical texture of feldspathic host rock. Lower left part of a coarse phenocryst. Remainder of field exemplifies the meshwork-textured ground mass with minor disseminated sulphides ("opaque-black). Note i. absence of lamellar twinning in feldspar and ii) absence of veining or pervasive sericitization.



Inlaw #3. ( After: Harris Exploration Services, Vancouver)

Negative 528-13. Reflected Light. Scale 1 cm=85 microns.

Centre is a vein infilled with zeolite (grey). The bluish area at extreme bottom right and the central seam within the vein are limonite. The rectangular dark-rimmed area at the upper left is a hole resulting from plucking during polishing. The small bright yellow grain on the edge of the hole has the appearance of native gold. The cream-coloured and whitish grains at the top right and bottom left are concentrations of pyrite and arsenopyrite in the feldspathic host rock. The sulphides are cemented interstitially by cherty silica and carbonate.

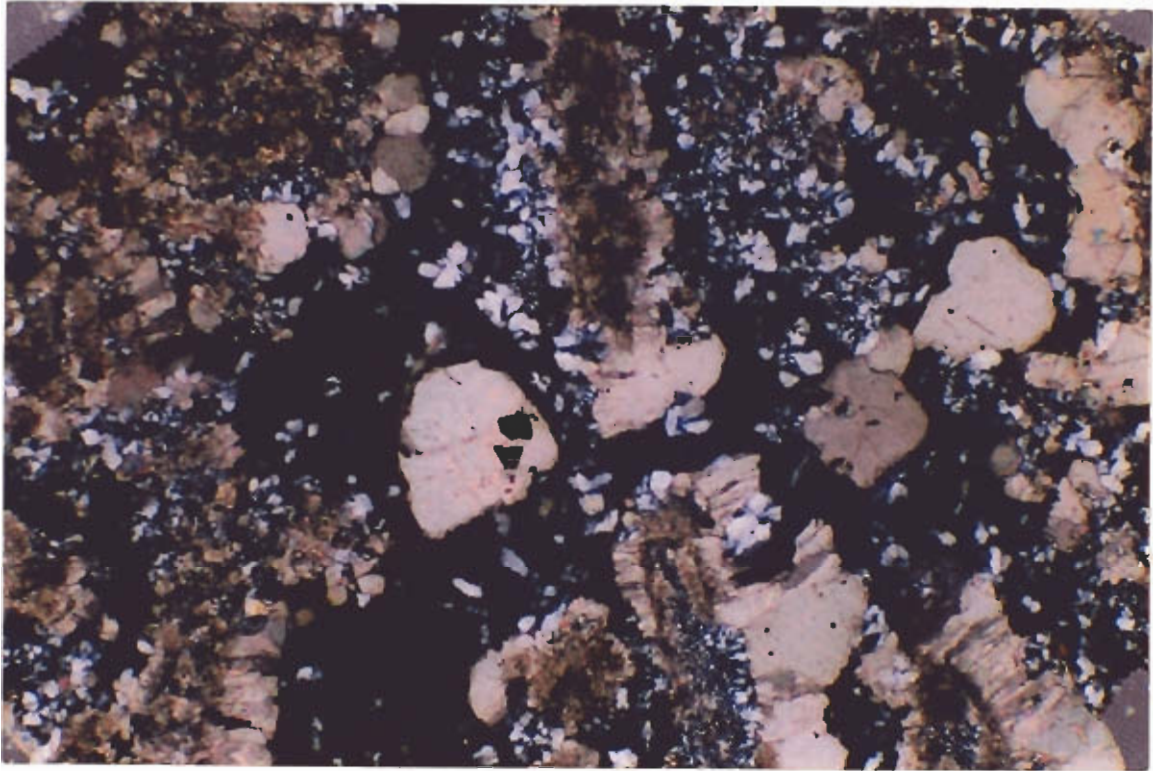


Inlaw#4. ( After: Harris Exploration Services, Vancouver)

Negative 528-14. Cross-polarized transmitted light. Scale 1cm=170 microns

Typical field. Dark areas speckled with white are pockets of inter-grown chlorite and cherty silica. The brownish nodular areas are turbid micritic carbonate. The pinkish area is the clear, sparry carbonate variant.





Inlaw #5(After: Harris Exploration Services, Vancouver)

Negative 528-14. Cross-polarized transmitted light. Scale 1cm=170 microns

Typical field, showing carbonate as crustified bands (brownish) and discrete grains (pinkish, tan) intergrown with pockets of chlorite (dark) and chalcedony (grey flecks). The carbonate locally contains intergrown silica, (e.g. centre bottom; bottom left).

## 6.0 CONCLUSIONS

1). The petrographic samples Inlaw #1,2,and #3 support geochemistry samples series Inlaw#4, #5, #6, and #7 showing elemental source of :

- ◆ Arsenic
- ◆ Copper
- ◆ Zinc
- ◆ gold

2) The petrographic samples Inlaw#4 and #5 support geochemistry sample series Inlaw#1, #2 and #3 in showing elemental source of:

- ◆ Carbonate
- ◆ Chlorite

3) Although not conclusive, mineralization of elemental arsenic, copper, zinc and gold appears to be associated with leucocratic feldspar rich rock cut by quartz veinlets, with plagioclase showing weak alteration within Check-Mate 2. On the surface these rocks appear to be dykes, and may be associated with adjacent Sloko age stocks

4) Assumed gold mineralization appears free of sulphides but associated with limonite. Analytical returns during this survey and previous surveys show surface rock values consistent in the 2 g/t range, within the central portion of the Check-Mate 2 claim.

5) This work and previous work suggest the main belt of sulphide and gold mineralization lies within the central area of Check-Mate 2, within an east-west zone of 1200 metres by 300 metres. This zone is an exposed zone on the north rim of an east-west cirque.

## 7.0 RECOMMENDATIONS

Given the Inlaw property location and remoteness, analytical returns in gold of 2 g/t range would most probably not be economic at a \$420 per ounce gold price. However these grades could simply be “smoke” to a zone with higher gold values. Further exploration is therefore recommended on the Check-Mate 2 Claim.

Since assessment work was completed, the Inlaw property has been expanded with additional staking, to the north and east, and contiguous with Check-Mate 2. These new claims now consist of Check-Mate 3, 4, and 5 (60 units), or 8 units when including Check-Mate 2.

The following is recommended for this new four claim group.

1. Re-valuation of 1983-1984 Chevron data
2. Geological mapping and geochemical rock sampling of the gold anomalous zone within Check-Mate 2.
3. Diamond drilling if deemed necessary by results.
4. Geological and geochemical reconnaissance within and outside of this property.
5. Close cooperation with owners of Thorn Property 7 km to the North.



**Clive Aspinall, M.Sc., P.Eng**

Geologist



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## **Appendices 1. Petrographic Descriptions**



# Vancouver Petrographics Ltd.

8080 GLOVER ROAD, LANGLEY, B.C. V1M 3S3  
PHONE (604) 888-1323 • FAX (604) 888-3642  
email: vanpetro@vancouver.net

Report for: Clive Aspinall Geological,  
Box 22, Pillman Hill,  
Atlin, B.C.  
V0W 1A0

Report 030773

January 26, 2004

## PETROGRAPHIC EXAMINATION OF ROCKS FROM THE INLAW PROPERTY, TULSEQUAH AREA

### Introduction:

5 rock samples, numbered as below, were submitted for sectioning and examination.

Inlaw #1	Polished thin section
#2	Polished thin section
#3	Polished thin section
#4	Thin section
#5	Thin section

### Summary:

These samples fall into two distinct groups. Inlaw 1, 2 and 3; and Inlaw 4 and 5.

The three samples making up the first group consist of a mafic-free feldspathic igneous rock of distinctive type. This shows porphyritic texture, with prismatic phenocrysts of feldspar up to 5 or 6 mm in size set in a finer meshwork-textured groundmass. The phenocrysts and groundmass appear to be mineralogically identical, consisting of feldspar which, although only weakly potassic in composition (judging from the cobaltinitrite stain reaction), is devoid of the lamellar twinning characteristic of plagioclase. The feldspar shows only mild pervasive alteration.

The host rock is cut by vari-directional veinlets of quartz, and mineralized with fine-grained sulfides (pyrite plus accessory arsenopyrite). The sulfides occur as crudely banded concentrations of disseminated character (often with associated sericite) and as hairline veinlets. The latter partly run parallel to, or coincide with, some quartz veinlets but, for the most part, the quartz veining and sulfides appear independent.

Rare traces of chalcopyrite and sphalerite were noted in these samples, and a single grain of probable native Au was seen in Sample #3 (the least strongly veined and sulfidized of the three).

These rocks are described in the covering letter as "altered Stuhini andesite flows". Their mafic-free character and specialized feldspar variety is atypical of normal andesites, and it would be interesting to compare them with specimens representing unaltered Stuhini volcanics.

The second group (Inlaw #s 4 and 5) are feldspar-free rocks of highly distinctive composition and texture, consisting dominantly of carbonate, sometimes of apparent crustified, boxwork-like form, with intimately intergrown chlorite and chert as accessories. The chlorite/chert partly occurs as ovoid, amygdale-like bodies.

These rocks are also described in your letter as Stuhini andesitic volcanics, but they bear little resemblance to normal andesites - nor do they exhibit recognizable relict features suggestive of that protolithic derivation. They appear unmineralized.

Individual sample descriptions and illustrative photomicrographs are attached.



J.F. Harris Ph.D.

## PHOTOMICROGRAPHS

### Inlaw #1

**Neg. 528-7:** Cross-polarized transmitted light. Scale 1 cm = 170 microns. Shows part of the central composite vein zone. Area at top left is part of a comb-textured quartz veinlet. This grades laterally to a fine-grained, cherty variant (grey speckled). Another coarser granular quartz veinlet can be seen at the centre of the field. The black (opaque) zones are thin stringers of compact sulfides, following the contacts of the different quartz vein textural variants. The portion of the field to the right of the thickest sulfide zone represents the feldspathic host rock. Note the granular texture, untwinned character and essential absence of pervasive alteration. The tan-coloured constituent (right) is sericite, showing mantling relationship to a cluster of disseminated sulfides (black) in the host rock.

**Neg. 528-8:** Reflected light. Scale 1 cm = 85 microns. Typical field of disseminated sulfides. Cream colour (dominant) is pyrite; whiter (e.g. in cluster of grains at lower right) is arsenopyrite.

### Inlaw #2

**Neg 528-9:** Cross-polarized transmitted light. Scale 1 cm = 170 microns. Shows vein quartz (left) in contact with feldspathic host rock heavily impregnated with sulfides (opaque; black). Remnants of fresh feldspar (grey) include part of a coarser, sub-phenocrystic grain (bottom right). Note discordant quartz veining (centre) apparently superimposed on the disseminated mineralization. Sporadic tan-coloured flecks are fine-grained sericite.

**Neg. 529-10:** Reflected light. Scale 1 cm = 170 microns. Example of varied modes of occurrence of sulfides. Includes semi-massive disseminations (left); thin stringers or selvages of sulfides (one at left centre is marginal to a quartz vein; those in right half of field are in the feldspathic host); concentrations of very fine-grained sulfides mantled by sericite (upper centre, as an island within the central quartz vein); and as coarser individual pyrite euhedra in the quartz vein (bottom centre).

**Neg. 528-11:** Reflected light. Scale 1 cm = 85 microns. Intergrowths of pyrite (cream colour) and an arsenopyrite (whiter) in host rock marginal to a quartz vein (lighter grey band at left centre).

### **Inlaw #3**

**Neg. 528-12:** Cross-polarized transmitted light. Scale 1 cm = 170 microns. Shows typical texture of the feldspathic host rock. Lower left shows part of a coarse phenocryst. Remainder of field exemplifies the meshwork-textured groundmass with minor disseminated sulfides (opaque; black). Note i) absence of lamellar twinning in the feldspar, and ii) absence of veining or pervasive sericitization.

**Neg. 528-13:** Reflected light. Scale 1 cm = 85 microns. Central area is a vein infilled with granular zeolite (grey). The bluish area at extreme bottom right, and the thin central seam within the vein are limonite. The rectangular dark-rimmed area at upper left is a hole resulting from plucking during polishing. The small, bright yellow grain on the edge of the hole has the appearance of native Au. The cream-coloured and whitish grains at top right and bottom left are concentrations of pyrite and arsenopyrite in the feldspathic host rock. The sulfides are cemented interstitially by cherty silica and carbonate.

### **Inlaw #4**

**Neg. 528-14:** Cross-polarized transmitted light. Scale 1 cm = 170 microns. Typical field. Dark areas speckled with white are pockets of intergrown chlorite and cherty silica. The brownish nodular areas are turbid micritic carbonate. The pinkish areas are the clear, sparry carbonate variant.

### **Inlaw #5**

**Neg. 528-15:** Cross-polarized transmitted light. Scale 1 cm = 170 microns. Typical field, showing carbonate as crustified bands (brownish) and discrete grains (pinkish, tan) intergrown with pockets of chlorite (dark) and chalcedony (grey flecks). The carbonate locally contains intergrown cherty silica (e.g. centre bottom; bottom left).

**SAMPLE: INLAW #1 VEINED, SILICIFIED AND MINERALIZED FELDSPATHIC ROCK**

Estimated mode

Alkali feldspar	67
Sericite	10
Quartz	10
Carbonate	trace
Rutile	1
Pyrite	10
Arsenopyrite	2
Chalcopyrite	trace
Sphalerite	trace

The off-cut corresponding to the sectioned portion of this sample appears to represent a leucocratic, feldspar-rich rock, cut by quartz veinlets and mineralized with fine-grained sulfides as disseminations and thin veniform concentrations. The distribution of yellow cobalinitrite stain on the off-cut suggests the presence of K-feldspar as a diffusely intergrown minor accessory, with local concentrations marginal to the central vein zone.

Thin section examination confirms that the rock is composed dominantly of feldspar; however, the precise variety is uncertain. The lamellar twinning characteristic of plagioclase is totally lacking, and the coarser grains often show simple twinning and/or minutely cryptoperthitic texture - features more characteristic of K-feldspar. However, the low overall level of cobaltinitrite stain development suggests that, for the most part, this mineral is dominantly of sodic rather than potassic composition. It could be a form of albite, or possibly a variety such as sodic sanidine or anorthoclase.

The textural form of the feldspars is dominantly a rather fine-grained, monomineralic, meshwork aggregate of more or less elongate, sub-prismatic grains, 0.05 - 0.5 mm in size. Coarser, prismatic grains of the same mineral, up to 5 mm or more in size, occur sporadically within the meshwork aggregate.

The plagioclase shows generally weak alteration to dustings of minutely fine-grained sericite. Localized patches or specific feldspar grains show relatively stronger sericitization.

The rock is traversed by a central composite veinlet, 5 mm or so in thickness. This consists of parallel zones of granular comb-textured quartz, minutely fine-grained cherty quartz, and thin stringer-like concentrations of sulfides.

An alteration envelope, 3 - 4 mm in thickness, developed in the host rock marginal to this vein system takes the form of enhanced sericitization, sometimes associated with concentrations of fine-grained disseminated sulfides. This sericitization often appears to

Sample #1 cont.

be controlled by plagioclase grain boundaries, but is also seen as elongate, prismatic, often skeletal forms of porphyroblastic aspect, which cross-cut the host rock granularity. The thin concentrations of K-feldspar marginal to the vein system indicated by the stain distribution in the off-cut are not distinguishable in thin section.

Similar veining/mineralization features are observable elsewhere in the sectioned area. These include vari-directional hairline veinlets and vuggy pockets of micro-comb quartz, sometimes flanked by a cherty variant, and occasionally incorporating clumps of sulfides (but generally lacking sericitic envelopes); thin, quartz-free stringers of compact sulfides; and vari-sized concentrations of disseminated sulfides. The latter generally show no consistent relation to the veinlets, but sometimes show elongation parallel to them. The sulfide grain clusters commonly show more or less strong associated sericitization.

The sulfides consist dominantly of pyrite, as individual euhedral grains, 10 - 200 microns in size, locally coalescing to vari-sized clumps and strings. Arsenopyrite (of similar grain size) is a sporadic minor intergrown accessory - showing increasing abundance relative to pyrite towards one end of the sectioned area. Traces of chalcopyrite occur in interstitial relation to some of the pyrite clusters. A single example of sphalerite was noted, as grains moulded onto pyrite in a vuggy pocket of quartz.

**SAMPLE: INLAW #2 VEINED, SILICIFIED AND MINERALIZED FELDSPATHIC ROCK**

Estimated mode

Alkali feldspar	68
Sericite	5
Quartz	12
Carbonate	1.5
Rutile	1
Pyrite	11
Arsenopyrite	1.5
Chalcopyrite	trace

The off-cut of this sample is closely similar in appearance to Inlaw #1, being a white-etched, diffusely yellow-stained rock matrix of apparent feldspar-rich composition, cut by multidirectional quartz veinlets. Fine-grained sulfides occur as banded segregations and stockwork-like impregnations, or are associated with quartz veinlets.

Thin section examination confirms the essentially identical general character of this sample and the previous one. Both consist of varigranular aggregates of mildly altered Na-rich alkali feldspar, including some coarse phenocryst-like grains up to 5 mm or more in size. This matrix is heterogenously pervaded by hairline veinlets of quartz and concentrations of disseminated sulfides (pyrite plus minor accessory arsenopyrite). The sulfide concentrations show a crudely banded configuration which is paralleled by some of the quartz veining; however, a significant proportion of the quartz veinlets are discordant to that trend.

Minor differences from Sample 1 are a lower overall proportion of sericite; the presence of a little carbonate (as diffuse alteration, and as a rare interstitial accessory in quartz veinlets); and a relatively higher proportion of quartz of minutely cherty form (diffuse silicification), marginal to the comb-textured veinlets.



## Estimated mode

Alkali feldspar	88
Quartz	1
Sericite	2
Zeolite	0.5
Carbonate	0.5
Rutile	1
Pyrite	4
Arsenopyrite	2
Chalcopyrite	trace
Chalcocite	trace
Sphalerite	trace
Limonite	1

The white-etched, diffusely yellow-stained appearance of the off-cut corresponding to the sectioned portion of this sample suggests that it is of generally similar type to Samples 1 and 2. However, the overall proportion of sulfides is considerably lower, and veining is less extensive.

Thin section examination confirms this impression. The rock is another essentially monomineralic aggregate of untwinned feldspar, of grain size 0.05 - 1.0 mm, within which are developed coarse prismatic phenocrysts of the same mineral, ranging up to 5 or 6 mm in size. In this case the feldspar only rarely shows sericitization, but exhibits a more or less strong overall turbidity (argillization).

Mineralization consists partly of diffuse disseminations of euhedral pyrite grains, 5 - 150 microns in size, with relatively abundant intergrown accessory arsenopyrite - locally aggregated as small, semi-compact clumps; and partly of fracture-controlled strings of coarser pyrite grains (0.1 - 0.5 mm in size) associated with limonite-coated fractures, which are sometimes infilled by quartz and/or zeolites.

Traces of chalcopyrite (in one case associated with apparent chalcocite) and sphalerite (partly replaced by limonite) were also noted.

A single grain of apparent native Au, 50 microns in size was located in this slide. It is on a limonitized fracture zone, independent of sulfides.

Diffuse limonite also occurs interstitially cementing some of the fine-grained disseminated pyrite/arsenopyrite clusters, though the individual sulfide grains still appear fresh. As in Samples 1 and 2, grains of rutile are sometimes spatially associated with the disseminated sulfides.

## Estimated mode

Carbonate	54
Chlorite	33
Chert	12
Opagues)	1
Sub-opagues)	

The macroscopic appearance of the off-cut indicates that this sample is of quite different type to the previous three. It shows no white etch or yellow stain reaction, and appears to consist of a heterogenous, mottled/clumpy intergrowth of two components - one greenish and the other brownish-grey in appearance. The sectioned area includes some irregular, rather ill-defined, pinkish veinlets, and is transected by open fractures.

Thin section examination reveals that the greenish phase consists of compact, minutely fine-grained intergrowths of varied proportions of chlorite and cherty quartz; and the brownish-grey one is turbid, minutely micritic carbonate. The pinkish veinlets are a transparent, more coarsely crystallized form of carbonate - which also occurs sporadically throughout the rock matrix as small flecks and clusters of crustified shard-like bodies.

Textural relationships between the two principal phases are distinctive and of uncertain origin. The micritic carbonate forms a featureless or locally cellular boxwork-like matrix to ovoid, amygdale-like bodies and sub-angular pockets of the chlorite/chert phase. Small shard-like fragments of the more sparry variety of carbonate sometimes occur within, or marginal to, the chlorite/chert bodies, or form ill-defined clusters in their own right within the dominant turbid micrite. In some areas the chlorite/chert component dominates and forms a matrix to tiny spherulites of carbonate.

Both forms of carbonate are unreactive to dilute HCl, and are most likely of dolomitic or ankeritic origin. Additional information in this regard could be obtained by X-ray diffraction analysis.

Disseminated, equant or elongate grains of opaques, 10 - 100 microns in size (plus rare examples to 300 microns), occur as randomly scattered individuals and small clusters. This sample was prepared as a standard thin section, so the mineralogy of these opaques could not be determined.

This sample may be some form of totally altered and texturally modified rock, within which no recognizable protolithic features survive. Alternatively, it could represent a specialized form of exhalite (hydrothermal chemical sediment).

**SAMPLE: INLAW #5****CARBONATE-SILICA-CHLORITE ROCK**

## Estimated mode

Carbonate	53
Chlorite	12
Chert)	
Quartz)	24
Chalcedony)	
Opagues)	
Sub-opagues)	1
Limonite)	

This sample appears, from macroscopic examination of the off-cut, to be made up of the same components as Sample 4, but in different proportions and with stronger development of crustified boxwork-like textures.

Thin section examination confirms the general resemblance to the previous sample. However, the present one differs in several details.

The ratio of chlorite to silica is reversed relative to #4. The silica associated with chlorite is typically in the form of tiny pellets of chalcedony, whilst a fine cherty form of silica is widely distributed as intimate intergrowths with the dominant carbonate - sometimes as inter-banded alternations with silica-free carbonate.

The carbonate in this sample is almost all of a more or less well-crystallized form (the turbid, micritic type which dominates in Sample 4 being essentially absent). Here the carbonate typically occurs as more or less close-packed aggregates of equant grains, 0.05 - 0.3 mm or so in size, with chalcedony and/or chlorite as minor interstitial constituents. Carbonate also occurs in segregated form as comb-textured or cross-laminated bands of grain size up to 1.0 mm.

This texturally heterogenous alternation of bands, box-works and fragment-like bodies of carbonate, intimate intergrowths of carbonate and silica, and vari-sized pockets of chlorite/chalcedony is - as in Sample 4 - of uncertain origin. In some respects it resembles a sinter-like exhalite, or is possibly a metasomatic rock formed by replacement of a brecciated(?) protolith. No evidence of the nature of the latter survives.

## **Appendices II. Analytical Data**

12-Aug-03

ECO TECH LABORATORY LTD.  
10041 Dallas Drive  
KAMLOOPS, B.C.  
V2C 6T4

ICP CERTIFICATE OF ANALYSIS AK 2003-280

CLIVE ASPINALL GEOLOGICAL  
Pillman Hill, Box 22  
Atlin, BC  
VOW 1A0

Phone: 250-573-5700  
Fax : 250-573-4557

ATTENTION: Clive Aspinall

No. of samples received: 8  
Sample type: Rock  
Project #: Dispatch #1  
Shipment #: None Given

Values in ppm unless otherwise reported

Et #.	Tag #	Au(ppb)	Ag	Al %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Mo	Na %	Ni	P	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn
1	Inlaw#1 TF	25	<0.2	1.88	450	150	<5	5.20	<1	93	256	92	7.90	10	4.04	2979	<1	0.01	601	750	8	<5	<20	345	<0.01	<10	174	<10	11	72
2	Inlaw#2 TF	5	<0.2	3.25	<5	70	<5	2.17	<1	70	349	71	5.50	10	>10	1104	<1	0.01	481	730	12	<5	<20	112	<0.01	<10	122	<10	7	53
3	Inlaw#3 TF	<5	<0.2	2.84	<5	110	<5	0.18	<1	36	200	29	5.18	10	2.48	1182	<1	0.02	73	1110	18	<5	<20	8	0.01	<10	160	<10	4	71
4	Inlaw#4 GSF	65	2.2	0.23	970	55	<5	>10	<1	54	249	97	5.63	10	7.48	2962	<1	0.02	293	310	54	<5	<20	229	<0.01	<10	113	<10	8	83
5	Inlaw#4 OCG	>1000	20.0	0.47	>10000	<5	<5	0.48	<1	36	84	503	>10	20	0.42	<1	<1	<0.01	10	2030	986	95	<20	16	<0.01	<10	67	<10	19	341
6	Inlaw#5 TF	25	1.2	2.70	70	185	<5	4.94	<1	66	326	79	6.54	10	8.06	1683	<1	0.01	318	740	126	<5	<20	294	<0.01	<10	172	10	7	154
7	Inlaw#6 GSF	760	16.0	0.49	>10000	<5	<5	0.44	<1	36	79	539	>10	20	0.47	36	<1	<0.01	10	1950	90	105	<20	12	<0.01	<10	110	<10	16	195
8	Inlaw#7 TF	15	<0.2	2.19	5	135	<5	5.13	<1	51	202	65	5.86	20	5.86	1004	<1	0.01	242	1070	20	<5	<20	226	<0.01	<10	139	<10	9	76

QC DATA:

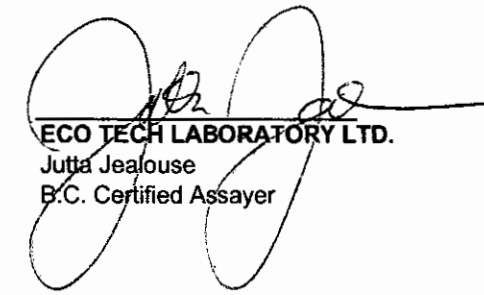
Repeat:

1	Inlaw#1 TF	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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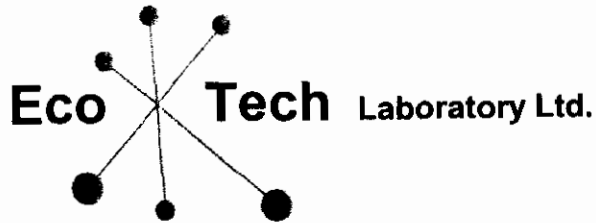
Standard:

GEO '03		130	1.0	1.67	65	140	<5	1.65	<1	20	60	84	3.60	10	0.99	636	<1	0.02	29	710	24	<5	<20	40	0.09	<10	72	<10	9	71
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JJ/kk  
dt/278  
XLS/03



ECO TECH LABORATORY LTD.  
Jutta Jealous  
B.C. Certified Assayer



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GEOCHEMISTRY  
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ENVIRONMENTAL TESTING

10041 Dallas Drive, Kamloops, BC V2C 6T4  
Phone (250) 573-5700 Fax (250) 573-4557  
E-mail: info@ecotechlab.com  
www.ecotechlab.com

## CERTIFICATE OF ASSAY AK 2003-280

**CLIVE ASPINALL GEOLOGICAL**

Pillman Hill, Box 22

Atlin, BC

V0W 1A0

11-Aug-03

**ATTENTION: Clive Aspinall**

*No. of samples received: 8*

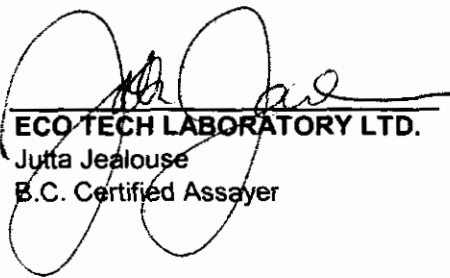
*Sample type: Rock*

*Project #: Dispatch #1*

*Shipment #: None Given*

ET #.	Tag #	Au (g/t)	Au (oz/t)
5	Inlaw#4 OCG	2.18	0.064

JJ/kk  
XLS/03

  
**ECO TECH LABORATORY LTD.**  
Jutta Jealous  
B.C. Certified Assayer

**Appendices III.**

**Statement of Costs**

<b>Helicopter Atlin-Inlaw Property Return Discovery Helicopter Invoice 10961-7/12/03</b>	<b>\$1,259.63</b>
<b>Vancouver Petrographics LTD Invoice: 030773-31/01/2004</b>	<b>\$848.38</b>
<b>Echo teck Laboratories Ltd Invoice AK 03-280 &amp; 281</b>	<b>\$209.29</b>
<b><u>Work by writer:</u></b>	
<b>One day Field work</b>	<b>\$500.00</b>
<b>Three days and half days report &amp; compilation</b>	<b>\$1,750.00</b>
<b>Total</b>	<b><u>\$4,567.30</u></b>

**Appendices VI.**  
**Statement of Qualifications**

I, N. Clive Aspinall, of Pillman Hill, the community of Atlin, British Columbia, do hereby certify that:

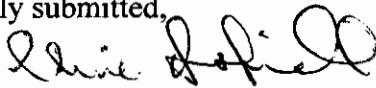
- I am a geologist with offices at the above address, and also work as a consultant from a registered office in Jakarta, Indonesia.
- I am a graduate of McGill University, Montreal, Quebec, with B. Sc degree in Geology (1964), and a Masters degree (1987) from the Camborne School of Mines, Cornwall, England, in Mining Geology.
- I am registered Professional Engineer in the province of British Columbia.
- I have practiced oil and gas, but mainly mineral exploration for 40 years, in countries such as Libya, Saudi Arabia, North Yemen, Morocco, Indonesia, Mexico, Peru, USA, and in the provinces and territories of Canada.
- At the time of writing this report, I am the registered owner (100%) of Check-Mate 2 mineral claim tenure# 363029.

I am author of report titled:

**Check-Mate 2 Mineral Claim Tenure #363029 Geological Assessment Report on 2003 Field Work. Selected Rocks collected for Petrographic Studies. Atlin Mining Division, British Columbia, Canada**

Signed and sealed in Atlin, British Columbia, Canada on the 16<sup>th</sup> day of April 2004.

Respectfully submitted,



**N. CLIVE ASPINALL, M.Sc, P.Eng.**  
**Geologist**