

**2008 PROSPECTING REPORT**

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VANCOUVER, B.C.

**ON THE**

**BC Geological Survey  
Assessment Report  
30950**

**MAMQUAM 5 CLAIM**

**IN THE PACIFIC RANGES OF THE COAST**

**MOUNTAINS, 92 G/10**

**NEW WESTMINSTER MINING DIVISION**

**122 DEGREES 55 MINUTES 25 SECONDS WEST**

**49 DEGREES 37 MINUTES 54 SECONDS NORTH**

**CLAIM: MAMQUAM 5**

**TENURE NUMBER: 558954**

**OWNER OPERATOR: KEN MACKENZIE**

**FMC# 116450**

**AUTHOR: KEN MACKENZIE**

**SQUAMISH, B.C.**

**JULY, 2009**

**EVENT NUMBER: 4282530**



**RECEIVED**  
SERVICE BC  
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JUL 07 2009  
NOT AN OFFICIAL RECEIPT  
TRANS #.....

*GEOLOGICAL SURVEY BRANCH  
ASSESSMENT REPORT  
30,950*

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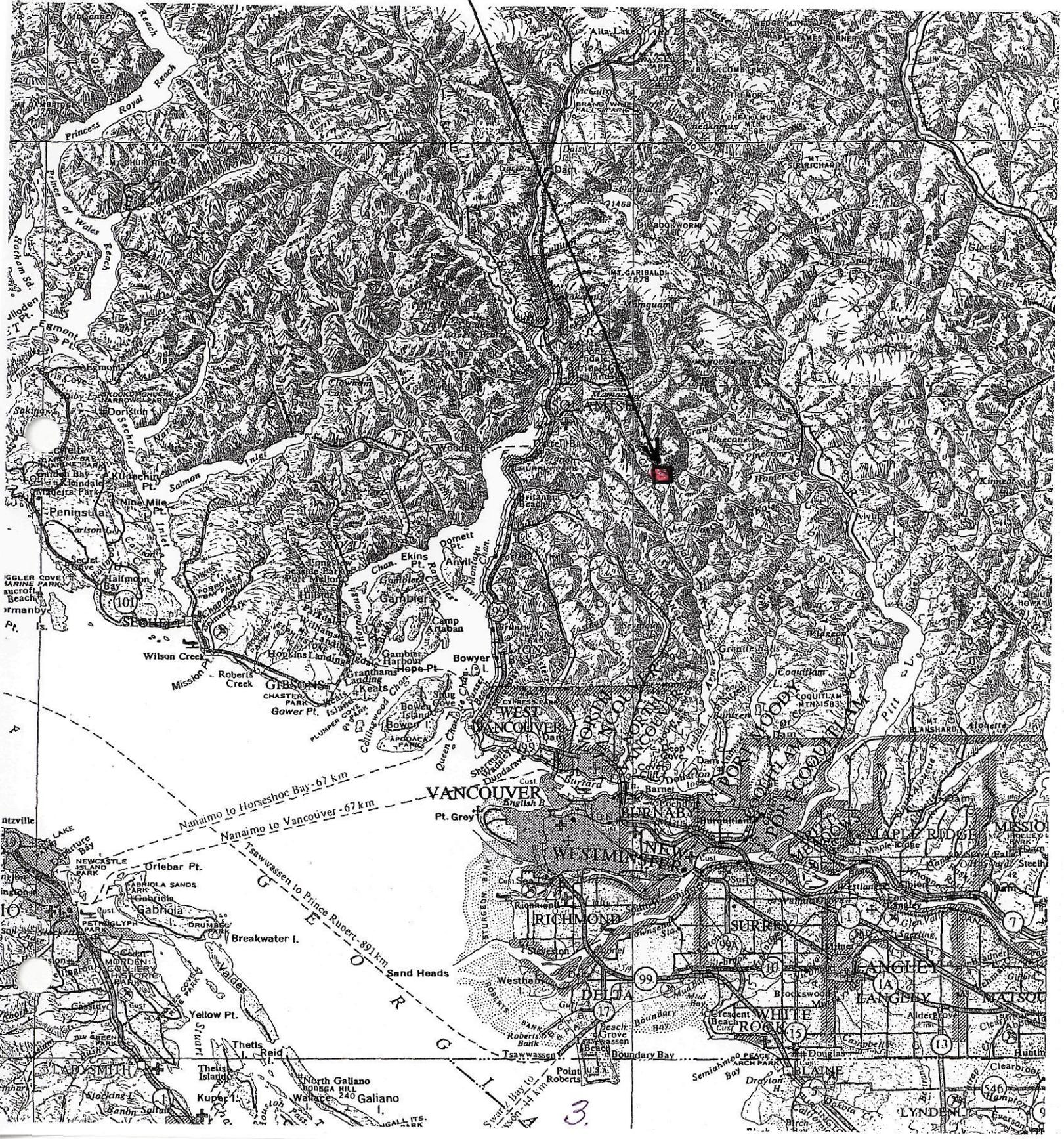
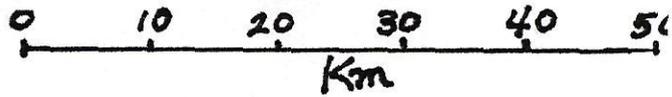
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# MAMQUAM CLAIMS

MAP #1

1:600,000



# MAMQUAM 5 CLAIM INTRODUCTION

The Mamquam 5 claim is located in the Pacific Ranges of the Coast Mountains near the headwaters of the Mamquam River. See Map #1 (the index map) for the location. The property can be accessed by road from Squamish. Drive south from Squamish on highway 99 to the Mamquam main logging road, which is reached just beyond a bridge over the Stawamus River near the base of the Stawamus Chief (a well-known rock climbing area). Turn left (east) off the highway and follow the main road, which is marked in miles rather than kilometers. Logging trucks or construction vehicles may be present on this road so drive carefully with your lights on and use a radio. The correct frequency is posted. At approximately 2 ½ miles the road crosses the Stawamus River, and continues on past a new run of the river electrical generating plant (mile 6 to 8). At mile 9 the road crosses a bridge over the Mamquam River and stays on the north and east side of the river until the headwaters are reached. At mile 15 the road narrows and becomes steep for a short section. I usually stop there and make more calls than usual on the radio to ensure there are no loaded logging trucks coming down that section of the road.

There is a fork in the road at mile 15 and the right hand fork used to provide access to the northeast end of the Mamquam 5 claim. Unfortunately, the bridge over the Mamquam was removed last summer (August, 2008) and it is now impossible to drive to the trail that was previously used. In addition, the short section of road from the Mamquam main road to the Mamquam River where the bridge used to be has been crossed ditched with very steep and deep moats that act as significant barriers to vehicle traffic.

Continuing along the main road, at mile 18 the logging road again heads uphill to the left, but you should continue straight ahead onto a decommissioned, cross-ditched road that soon crosses the Mamquam River near its headwaters. The road is easily drivable with a four-wheel drive vehicle that has sufficient clearance. Continue on the main road that parallels the Mamquam River. The southeast corner of the claim can be accessed from a road that climbs uphill from the main road at about UTM10: 505995 E, 5498310 N. The main road intersects the boundary of the Mamquam 5 claim at UTM10: 505769 E, 5498008 N. At about 600 meters along the road from the claim boundary, there is another junction. The right fork heads

downhill to the west and crosses the Mamquam River near its headwaters and is the main road used to access the Mamquam 1-4 claims. The left fork heads uphill to the south. This road is not drivable so we usually park at the junction and hike the road, which provides access to the south section of the Mamquam 5 claim. These roads and trails are shown on Map #2 (the 1:50,000 index map), which shows the property in relationship to the Mamquam River, Raffuse Creek, Clarion Lake, the Stawamus River and the town of Squamish.

There are numerous deer and black bears in the area, and in the Indian River drainage elk have recently been introduced, and are thriving. The animals use the roads and trails regularly so caution is advised. To date no signs of elk have been seen in the Mamquam River area but I expect them to cross over the easily negotiated passes in the near future.

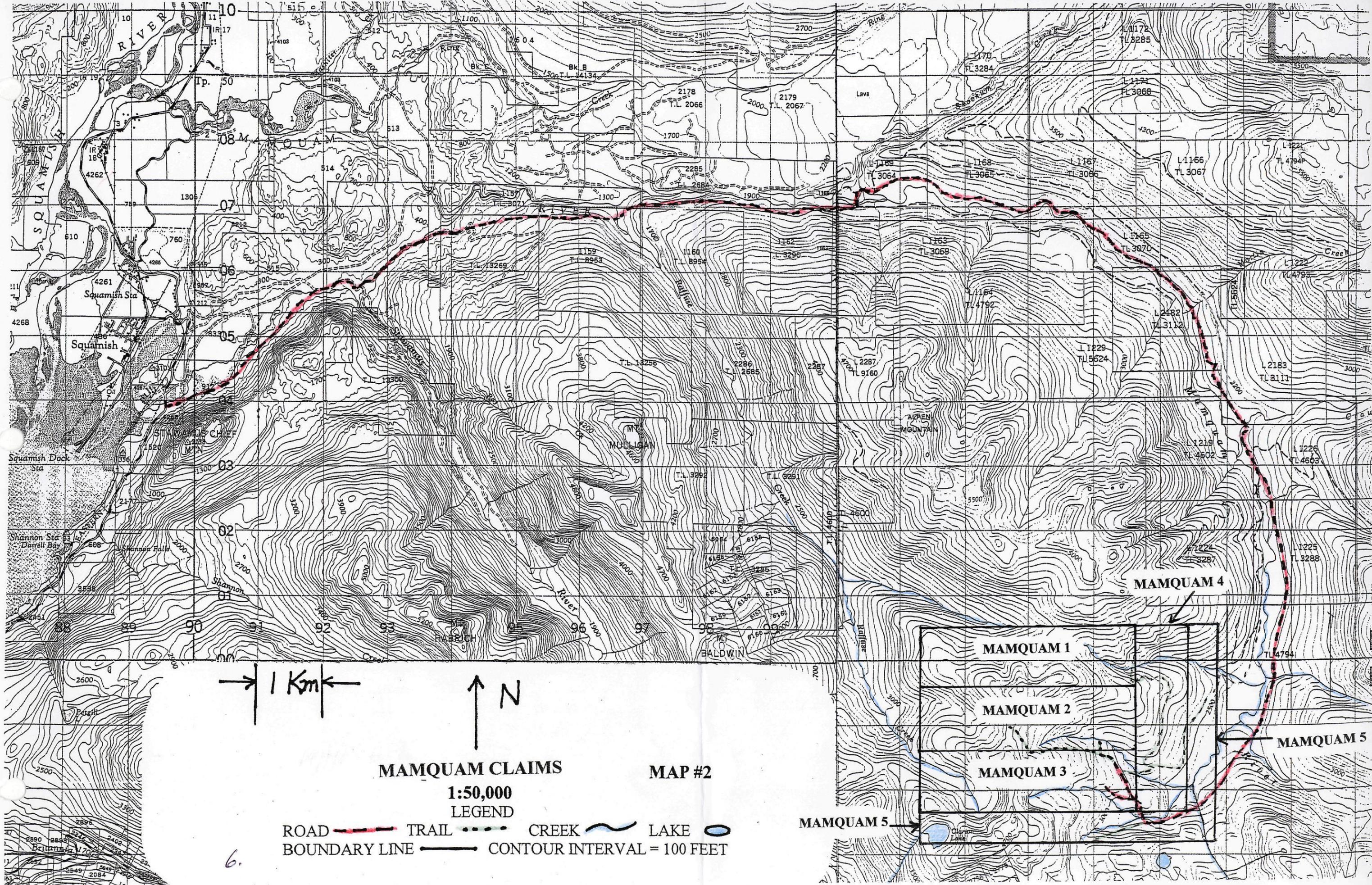
The tenure number for the Mamquam 5 claim is 558954.

Most of the property is covered with soil or glacial till so rock outcrops are infrequent. As a result, prospecting has been mainly done by following the stream sediment geochemistry, examining creek beds, and outcrops in the creek banks. Outcrops on or near old logging roads have also been prospected.

There are two main rock types found on the property, Gambier Group metamorphosed volcanics that contain rhyolites, andesites, cherts, tuffs and volcaniclastics, and intrusive rocks such as granodiorite and quartz diorite. These are the same rocks that are associated with the Britannia Mine; so the model originally used was of a volcanogenic massive sulphide type of mineralization. This model still applies, but now that some rock float containing chalcopyrite in silicified quartz diorite (which was analyzed to contain 1½% Copper) has been found, as well as other boulders that contain quartz veins, pyrite, galena and sphalerite, the model has been expanded to include a feeder zone.

Intrusive rocks and silicified andesites that contain disseminated chalcopyrite have also been found in various locations on the property, but the significance of these rocks is uncertain at this time.

To date no massive sulphide, feeder zone or area of disseminated chalcopyrite of commercial value has been identified on the Mamquam property.



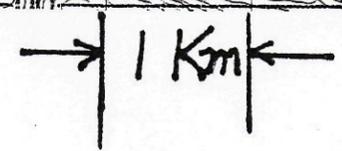
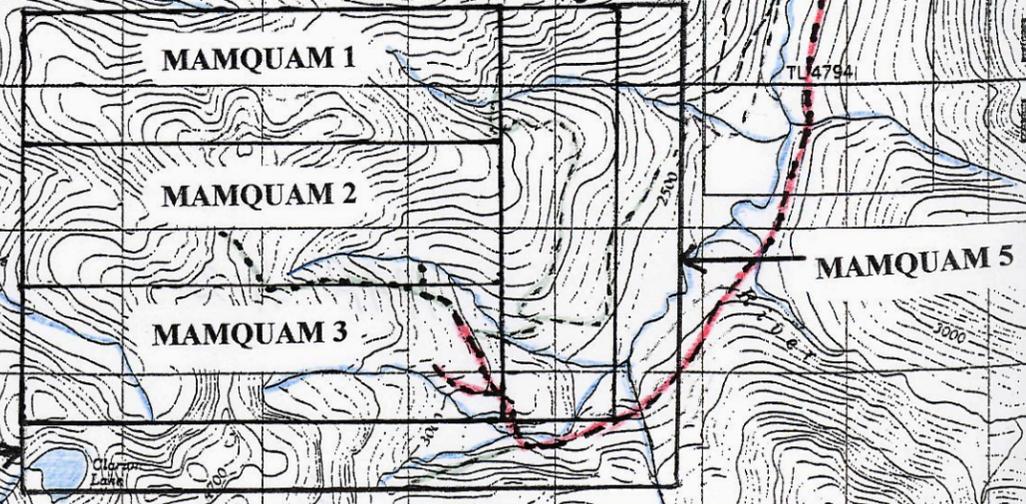
**MAMQUAM CLAIMS**

**MAP #2**

**1:50,000**

**LEGEND**

- ROAD TRAIL CREEK LAKE
- BOUNDARY LINE CONTOUR INTERVAL = 100 FEET



6.



# MAMQUAM CLAIMS

1:20,000

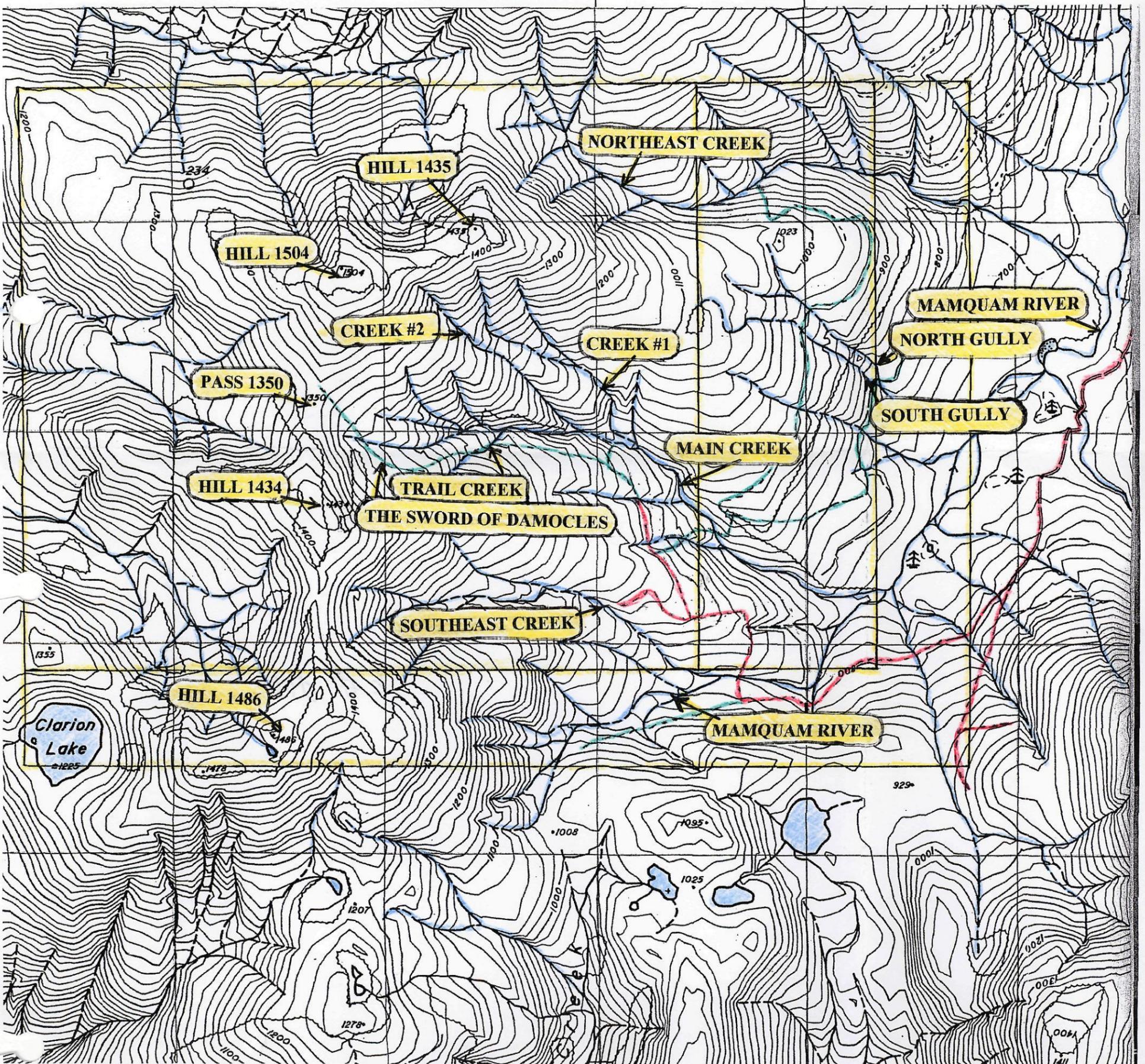
MAP # 3

## PLACE NAMES, ROADS AND TRAILS

### LEGEND

- ROAD  TRAIL  CREEK OR RIVER  LAKE 
- BOUNDARY LINE  CONTOUR INTERVAL = 20 METERS

← 1 Km →



# HISTORY OF THE MAMQUAM 5 CLAIM

A detailed history of the Mamquam claims was documented in my 2005 prospecting report. Please refer to that report for a more complete summary. This report on the history will be shorter and will provide only a brief description of the property, and the subsequent findings that led to the decision to stake the Mamquam 5 property on May 20, 2007.

This property was discovered in 1979 using a dithizone field test and stream sediment analyses performed in commercial labs. The original model was a volcanogenic massive sulphide type of deposit similar to that found in the nearby Britannia Mine. The highest geochemical values found at that time surrounding hill 5000 (this name refers to the elevation of the hill in feet, as shown on the 1:50,000 map. However, I am now using a 1:20,000 map that shows the elevations in meters and the new name is hill 1504). This area was thought to contain one or more massive sulphide lenses. This interpretation is still considered valid, but in 2005, other types of mineralized rock were found that indicated the presence of a feeder zone. In addition, chalcopyrite disseminated in quartz diorite intrusive rocks has been discovered on the Mamquam 3 claim, and high-grade chalcopyrite was found close to the eastern boundary of the Mamquam 4 claim.

On August 31, 2006, Rick Price and I traversed into the Indian River drainage system by hiking south and west along an old logging road (shown as a trail on Map # 2 and Map # 3) and then cut our way through an incredibly thick growth of salmon berry, devils club, blueberry bushes and logging slash to reach the mature forest. The traveling was much easier under the big trees and we quickly reached the headwaters of Caledonian Creek, which we ascended, crossed the divide into the next creek to the west and descended the first major branch until we were stopped by a large waterfall at about 1120 meters. We took a sediment sample from this site (M 44), which drains the ridge that lies to the south of the Mamquam 3 claim.

Significant results for M 44:

Au	0.011	ppm
Ba	200	ppm
Mn	1900	ppm
Pb	53	ppm
Zn	296	ppm

On October 17, 2006, I parked near the bridge that crosses the Mamquam near its headwaters (at about 780 meters) and hiked up the creek, passed the junction where the southeast creek enters the Mamquam and continued south and west up the Mamquam. I prospected the creek bed wherever bedrock was available and found some rusty rock but did not obtain a sample. Soon I came to a large waterfall that was too difficult to climb so I traversed around it to the south and then descended back into the creek where I obtained a sediment sample from just above the waterfall (M 60). The float in the creek contained a large number of rusty rocks that appeared to contain mainly pyrite.

Significant results for M 60:

Au	0.031	ppm
Ba	100	ppm
Cu	275	ppm
Mn	1625	ppm
Zn	284	ppm

Based on the findings of high-grade copper on the eastern boundary of the Mamquam 4 claim, the anomalous sediment geochemistry found below the southern boundary of the Mamquam 3 claim (M 44), and the anomalous sediment geochemistry found above the waterfall in the headwaters of the Mamquam (M 60), it was decided to stake a claim along both boundaries (Mamquam 5). The Mamquam 5 claim was recorded on May 20, 2007 and its tenure number is 558954.

Additional prospecting was done on this claim during the summer of 2007. Please see my 2007 prospecting report for the details and results.

## SUMMARY OF WORK PERFORMED ON THE MAMQUAM 5 CLAIM IN 2008 AND 2009

All the prospecting trips into the Mamquam property in 2008 were day trips. Although the end of the road as shown on Map # 2 is over 40 Km from Squamish, this is close enough to allow daily access. The road is severely potholed and is narrowing in many places as the trees grow on the shoulders and lean into the driving space. Each year work is required so that access to the claims can be maintained.

The Mamquam area experienced an exceptionally heavy snowfall in the winter of 2007 and 2008 with the result that considerably more work than usual was required to remove the trees.

The road and trail access work is apportioned to the various Mamquam claims according to the number of units in each claim.

Road and trail clearing that provided access to the Mamquam 5 claim was performed on May 21, 22, 26, 28, 29, June 2, 4, 11, 18, 19, 30, July 2, 7, 10, 16, August 4, 2008.

In addition, road and trail clearing in 2009 was performed on April 21, 28, May 4, 6, 12, and 14, 2009.

Linda Kowalski on May 29, 2008 and Reiner Schwarz on July 10, and 16, 2008 worked on the road and trail clearing with me. Their help was greatly appreciated.

On Wednesday, July 9, 2008 I drove to a road that branches off from the main road at about 0506000 E, 5498300 N, and ascended to the southeast corner of the Mamquam 5 claim. I prospected all the rock exposures that were on or near the roads in this area. In addition I traversed east to the nearby creek and obtained a sediment sample (M 102) at approximately 0505622 E, 5497470 N.

Significant results for M 102:

Ba	90	ppm
V	124	ppm
Zn	102	ppm

The vanadium level in M 102 is the highest found in a sediment sample on the Mamquam claims to date.

On Thursday, September 11, 2008 I drove to the road junction at approximately 0504675 E, 5497320 N, parked and then prospected southwest on the old logging road until I reached the end of the road.

From there I traversed northwest through thick blueberries, salmonberries and devils club, clearing the beginnings of a trail until I reached the mature timber near the creek that is the head of the Mamquam River. I descended into the creek and prospected upstream to an outcrop of rusty rock at about 0503775 E, 5497505 N. The rock was a silicified andesite that contained disseminated pyrite and possible chalcopyrite. A grab sample of the rock was obtained (M 117).

Significant results for M 117:

Au	0.017	ppm
Ba	70	ppm
Cu	107	ppm

I continued prospecting upstream to a small waterfall and then downstream until I could return to the road. No further samples were obtained.

On Wednesday, October 15, 2008 I drove to the last bridge over the Mamquam, parked there and then prospected downstream along the south side of the river looking for a way down the steep banks. I checked the exposed rocks along the top of the cliffs as well as the float found in the small streams that flowed over the edge. Ultimately I was able to descend into the Mamquam and traversed downstream until I was just above the southern boundary of the Mamquam 4 claim. At approximately 0505033 E, 5497809 N, I obtained a sediment sample (M 125) from the creek. Nearby I found a piece of float in the creek that looked similar to that found in and around trail creek. This rock was sampled (M 126).

Significant results for M 125 (Sediment):

Au	0.017	ppm
Ba	120	ppm
Cu	122	ppm
Mn	1625	ppm
Pb	23	ppm
Zn	216	ppm

Significant results for M 126 (Rock float):

Au	0.015	ppm
Ba	70	ppm
Cd	3.6	ppm
Cu	172	ppm
Mo	63	ppm
Pb	721	ppm
Zn	648	ppm

Map # 3 shows place names, roads and trails used on the Mamquam claims.

Map # 4 illustrates the main areas prospected in 2008, the related traverses and the sites where samples were obtained.

Map # 5 is a 1:10,000 enlargement of the southeast corner of the Mamquam 5 claim that shows the significant results and their locations.



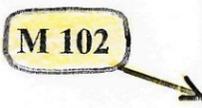
# MAMQUAM 5 CLAIM

1:20,000

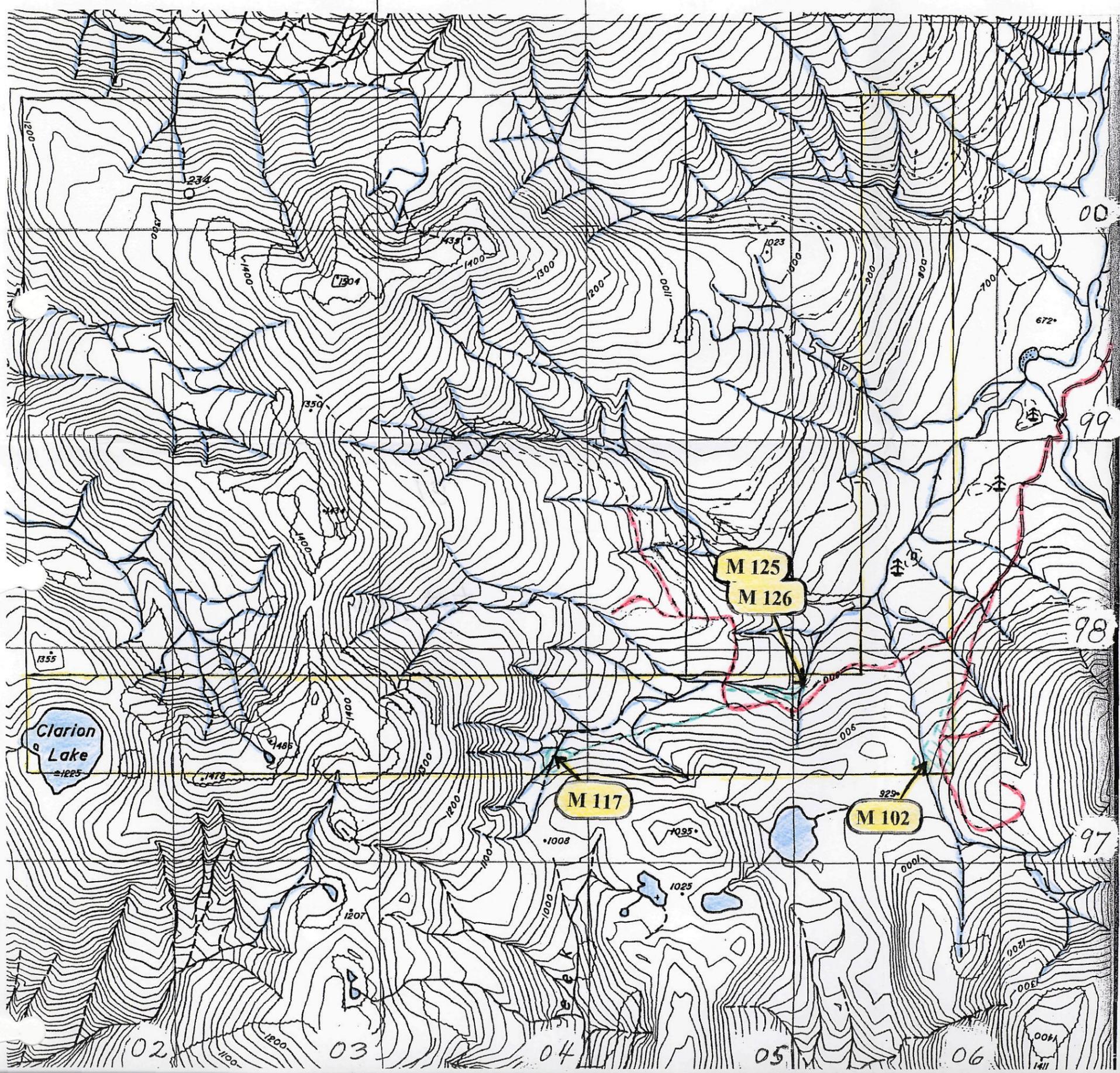
MAP # 4

## MAIN AREAS PROSPECTED IN 2008, RELATED TRAVERSES AND SAMPLE SITES

### LEGEND

- ROAD  TRAVERSE 
- MAIN AREA PROSPECTED 
- CONTOUR INTERVAL = 20 METERS
- CREEK 
- LAKE 
- CLAIM BOUNDARY LINE 
- SAMPLE SITE 

← 1 Km →





# MAMQUAM 5 CLAIM

1:10,000

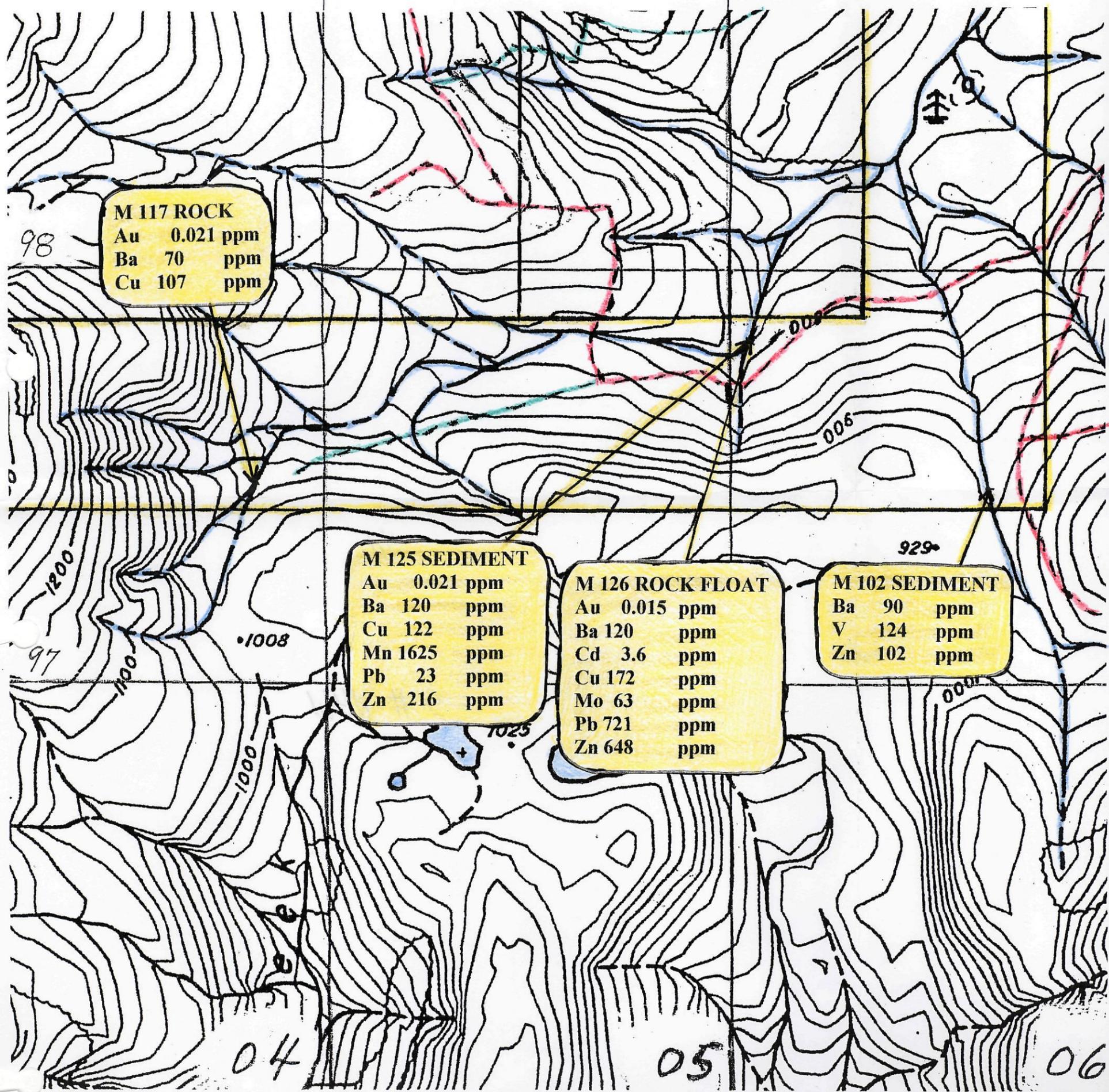
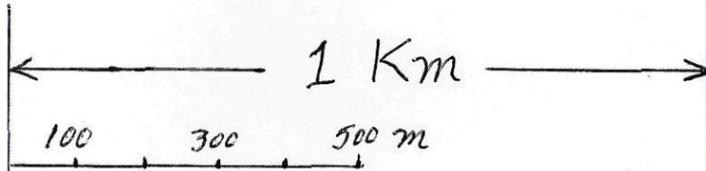
MAP # 5

## 2008 SIGNIFICANT RESULTS AND THEIR LOCATIONS

### LEGEND

- ROAD TRAIL
- CLAIM BOUNDARY
- CONTOUR INTERVAL = 20 METERS
- CREEK
- DATUM = NAD 83
- LAKE
- SAMPLE SITE

M 102 SEDIMENT		
Ba	90	ppm
V	124	ppm
Zn	102	ppm



M 117 ROCK		
Au	0.021	ppm
Ba	70	ppm
Cu	107	ppm

M 125 SEDIMENT		
Au	0.021	ppm
Ba	120	ppm
Cu	122	ppm
Mn	1625	ppm
Pb	23	ppm
Zn	216	ppm

M 126 ROCK FLOAT		
Au	0.015	ppm
Ba	120	ppm
Cd	3.6	ppm
Cu	172	ppm
Mo	63	ppm
Pb	721	ppm
Zn	648	ppm

M 102 SEDIMENT		
Ba	90	ppm
V	124	ppm
Zn	102	ppm

**MAMQUAM 5 CLAIM  
ITEMIZED COST STATEMENT FOR 2008**

**SCHEDULE**

FOOD COSTS/PERSON/DAY	\$10.00
VEHICLE TO MAMQUAM	\$60.00
VEHICLE TO VANCOUVER	\$40.00
PROSPECTORS/DAY	\$400.00

**ROAD AND TRAIL CLEARING, PRO-RATED = 4.54**

PROSPECTORS	4.54 DAYS @ \$400	\$1816.00
VEHICLE	4.54 TRIPS @ \$60	\$272.40
FOOD	4.54 DAYS @ \$10	\$45.40

**PROSPECTING EXPENSES**

PROSPECTORS	3 DAYS @ \$400	\$1200.00
VEHICLE	3 DAYS @ \$60	\$180.00
FOOD	3 DAYS @ \$10	\$30.00

**2007 PROSPECTING REPORT**

PROSPECTOR	4.375 DAYS @ \$400	\$1750.00
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**OTHER EXPENSES**

ANALYSES	1 @ \$29.00	\$29.00
	2 @ \$35.88	\$71.76
	1 @ \$27.64	\$27.64
EQUIPMENT (PRORATED), chainsaw, GPS, air horns		\$103.35
FILING FEE		\$133.91

**SAMPLES TO ALS/CHEMEX-NORTH VANCOUVER**

2 TRIPS PRO-RATED FOR THE NUMBER OF SAMPLES:

PROSPECTOR	0.3076 DAYS @ \$400	\$123.04
VEHICLE	0.3076 TRIPS @ \$40	\$12.30

**TOTAL** **\$5802.91**

## APPENDIX A

### AUTHOR'S QUALIFICATIONS

#### **K. R. MacKenzie, B.Sc., M.D.**

Dr. MacKenzie is a retired physician who graduated from the University of British Columbia in 1963 with a B.Sc. in Chemistry and Mathematics. Geology 105 was taken as part of his undergraduate studies. He spent three summers working for the Geological Survey of Canada under Dr. J. O. Wheeler.

After graduating from U.B.C. in 1968 with a medical degree, Dr. MacKenzie has continued to prospect as a hobby.

Recent reading by the author includes:

The Rocks and Minerals of the World by C. Sorrell and G. Sandstrom.

Exploration and Mining Geology by William C. Peters.

Ore Deposits by C.F. Park, Jr. and R. A. MacDiarmid

A Field Guide to Rocks and Minerals by Pough

The Geochemistry of Gold and its Deposits by R. W. Boyle

Case Histories of Mineral Discoveries, Volume 3, Porphyry Copper, Molybdenum, and Gold Deposits, Volcanogenic Deposits (Massive Sulphides), and Deposits in Layered Rock by V. F. Hollister, Editor.

Porphyry Copper and Molybdenum Deposits West-Central B.C. by N.C. Carter.

Geology of the Porphyry Copper Deposits of the Western Hemisphere by Victor F. Hollister.

ATLAS OF ALTERATION by A.J.B. Thompson and J.F.H. Thompson, Editors.

ORE MINERAL ATLAS by Dan Marshall, C.D. Anglin and Hamid Mumin.

PORPHYRY DEPOSITS OF THE CANADIAN CORDILLERA  
Editor: A. Sutherland Brown

THE GEOLOGY OF ORE DEPOSITS by John M. Guilbert and Charles F. Park, Jr.

GEOCHEMISTRY OF HYDROTHERMAL ORE DEPOSITS  
by H. L. Barnes

GEOCHEMISTRY by Arthur H. Brownlow

FIELD GEOPHYSICS by John Milsom

XXIV INTERNATIONAL GEOLOGICAL CONGRESS  
COPPER AND MOLYBDENUM DEPOSITS OF THE WESTERN  
CORDILLERA by C. S. Ney and A. Sutherland Brown

PRINCIPLES OF GEOCHEMICAL PROSPECTING  
by H. E. Hawkes

GEOCHEMICAL EXPLORATION  
by R. W. Boyle and J. I. Mcgerrigle

**APPENDIX B**

**ANALYSIS RESULTS FOR ALL SAMPLES**

**COLLECTED ON THE MAMQUAM 5**

**CLAIM DURING 2008.**



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GARIBALDI HIGHLANDS BC V0N 1T0

Page: 1  
Finalized Date: SEP-2008  
This copy reported on 19-SEP-2008  
Account: MACKEN

## CERTIFICATE VA08116504

Project: MAMQUAM  
P.O. No.:  
This report is for 13 Soil samples submitted to our lab in Vancouver, BC, Canada on 18-AUG-2008.  
The following have access to data associated with this certificate:

KEN MACKENZIE		
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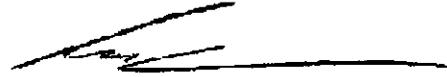
SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rod w/o BarCode
SCR-41	Screen to -180um and save both

ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
ME-ICP41	35 Element Aqua Regia ICP-AES	ICP-AES

19

To: MACKENZIE, KEN  
PO BOX 641  
GARIBALDI HIGHLANDS BC V0N 1T0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:   
Colin Ramshaw, Vancouver Laboratory Manager



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Page: 2 - A  
Total # 2 (A - C)  
Finalized Date: 18-SEP-2008  
Account: MACKEN

Project: MAMQUAM

## CERTIFICATE OF ANALYSIS VA08116504

Sample Description	Method Analyte Units LOR	WEI-21	Au-AA23	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
		Recvd Wt	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
		kg	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%
		0.02	0.005	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
M-102		0.50	0.009	<0.2	2.01	6	<10	90	<0.5	<2	0.47	<0.5	16	19	45	4.34

20.



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Page: 2 - B  
Total # . . . . . 2 (A - C)  
Finalized Date: 18-SEP-2008  
Account: MACKEN

Project: MAMQUAM

## CERTIFICATE OF ANALYSIS VA08116504

Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
Analyte	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr
Units	ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm
LOR	10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1
M-102	10	<1	0.20	10	1.24	687	1	0.01	8	690	12	0.04	<2	5	30

21.



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Page: 2 - C  
Total # : 2 (A - C)  
Finalized Date: 18-SEP-2008  
Account: MACKEN

Project: MAMQUAM

## CERTIFICATE OF ANALYSIS VA08116504

Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
Analyte	Th	Ti	Ti	U	V	W	Zn
Units	ppm	%	ppm	ppm	ppm	ppm	ppm
LOR	20	0.01	10	10	1	10	2
M-102	<20	0.21	<10	<10	124	<10	102

22.



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Page: 1  
Finalized Date: NOV-2008

Account: MACKEN

## CERTIFICATE VA08158242

Project: X, MAMQUAM

P.O. No.:

This report is for 9 Rock samples submitted to our lab in Vancouver, BC, Canada on 4-NOV-2008.

The following have access to data associated with this certificate:

KEN MACKENZIE

## SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize split to 85% <75 um

## ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP41	35 Element Aqua Regia ICP-AES	ICP-AES
Au-AA23	Au 30g FA-AA finish	AAS

23

To: MACKENZIE, KEN  
PO BOX 641  
GARIBALDI HIGHLANDS BC V0N 1T0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:

Colin Ramshaw, Vancouver Laboratory Manager



# ALS Chemex

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ALS Canada Ltd.

212 Brooksbank Avenue  
North Vancouver BC V7J 2C1

Phone: 604 984 0221 Fax: 604 984 0218 www.alschemex.com

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30X 641  
GARIBALDI HIGHLANDS BC V0N 1T0

2 - A  
Total # . A - C)  
Finalized Date: 14-NOV-2008  
Account: MACKEN

Project: X, MAMQUAM

## CERTIFICATE OF ANALYSIS VA08158242

Method	WEI-21	Au-AA23	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
Analyte	Recvd Wt.	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
LOR															
Sample Description	0.02	0.005	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
M-117	0.56	0.021	0.2	1.25	3	<10	70	<0.5	2	0.94	<0.5	19	2	107	5.05
[REDACTED]															
M-126	0.50	0.015	1.2	0.44	8	<10	70	<0.5	2	0.08	3.6	11	3	172	3.86
[REDACTED]															

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Sample Description	Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	
	Analyte	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	
Units		ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	
LOR		10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	
M-117		<10	<1	0.37	10	0.90	383	2	0.01	5	710	37	5.35	<2	2	8
M-126		<10	<1	0.21	<10	0.04	81	63	0.01	2	440	721	3.06	<2	1	2

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## CERTIFICATE OF ANALYSIS VA08158242

Sample Description	Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Th	Ti	Tl	U	V	W	Zn
Units		ppm	%	ppm	ppm	ppm	ppm	ppm
LOR		20	0.01	10	10	1	10	2
M-117		<20	<0.01	<10	<10	22	<10	53
M-128		<20	<0.01	<10	<10	10	<10	648

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This copy reported on 14-NOV-2008  
Account: MACKEN

## CERTIFICATE VA08158243

Project: X, MAMQUAM

P.O. No.:

This report is for 4 Soil samples submitted to our lab in Vancouver, BC, Canada on 4-NOV-2008.

The following have access to data associated with this certificate:

KEN MACKENZIE

## SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
SCR-41	Screen to -180um and save both

## ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA23	Au 30g FA-AA finish	AAS
ME-ICP41	35 Element Aqua Regia ICP-AES	ICP-AES

To: MACKENZIE, KEN  
PO BOX 641  
GARIBALDI HIGHLANDS BC V0N 1T0

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:

  
Colin Ramshaw, Vancouver Laboratory Manager



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**CERTIFICATE OF ANALYSIS VA08158243**

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt. kg	Au-AA23 Au ppm	ME-ICP41 Ag ppm	ME-ICP41 Al %	ME-ICP41 As ppm	ME-ICP41 B ppm	ME-ICP41 Ba ppm	ME-ICP41 Be ppm	ME-ICP41 Bi ppm	ME-ICP41 Ca %	ME-ICP41 Cd ppm	ME-ICP41 Co ppm	ME-ICP41 Cr ppm	ME-ICP41 Cu ppm	ME-ICP41 Fe %
		0.02	0.005	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
M-125		0.68	0.017	0.3	2.39	6	<10	120	0.5	3	0.51	0.8	21	18	122	4.37

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Sample Description	Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc
Units		ppm	ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm
LOR		10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1
M-125		10	<1	0.12	10	1.67	1625	3	0.02	15	950	23	0.10	<2	6

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