

**HARMONY GOLD PROPERTY**  
**1996 PROSPECTING ASSESSMENT REPORT**

**SHI 1 - 3 CLAIMS**

**SKEENA MINING DIVISION  
BRITISH COLUMBIA  
CANADA**

**N.T.S. 103F/8W  
Latitude 53°19'N  
Longitude 132°25'W**

**RECEIVED**  
**JUL 23 1996**  
**Gold Commissioner's Office  
VANCOUVER, B.C.**

<b>GEOLOGICAL SURVEY BRANCH ASSESSMENT REPORTS</b>
<b>DATE RECEIVED AUG 08 1996</b>

**MINERAL CLAIMS**

CLAIM NAME

SHI 1 - 3

TENURE NUMBER

335719 - 335721

Prepared for

**FILMED**

**Misty Mountain Gold Limited  
1020-800 West Pender St.  
Vancouver, B.C.  
V6C 2V6**

July 23, 1996

by

**GEOLOGICAL SURVEY BRANCH  
ASSESSMENT REPORT**

**C.M. Rebagliati, P. Eng.  
T. Case**

**24,497**

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## 1.0 SUMMARY

The SHI mineral claims, contained within the Harmony Gold Property, are located on Graham Island, the largest and most northern of the Queen Charlotte Islands, 779 km north of Vancouver, British Columbia. The SHI claims total three claim units that are owned by Misty Mountain Gold Limited.

The SHI claims, are accessible by well maintained logging roads from Queen Charlotte City, Port Clements, and Masset, British Columbia.

The focus of the Harmony Gold Property is the Specogna Deposit, a large epithermal gold resource located 18 km south of the town of Port Clements on Graham Island. Due to the presence of the mineral rich Specogna Deposit, in addition to the dilational tectonic regime of the region, the Harmony Gold Property is considered to be a prime precious and base metal exploration target area.

The SHI claims which border the southeast shore of Shields Bay on Rennell Sound in southwestern Graham Island, were prospected from October 5 to 7, 1995 to assess the precious and base metal potential of the area.

## **2.0 INTRODUCTION**

The SHI mineral claims are located in the Skeena Mining Division on Graham Island, one of the Queen Charlotte Islands, British Columbia. The SHI claims, owned by Misty Mountain Gold Ltd., are part of the Harmony Gold Property which consists of 265 mineral claims covering approximately 444 km<sup>2</sup> on Graham Island. The Property area is considered to be a prime exploration target for precious and base metal deposits.

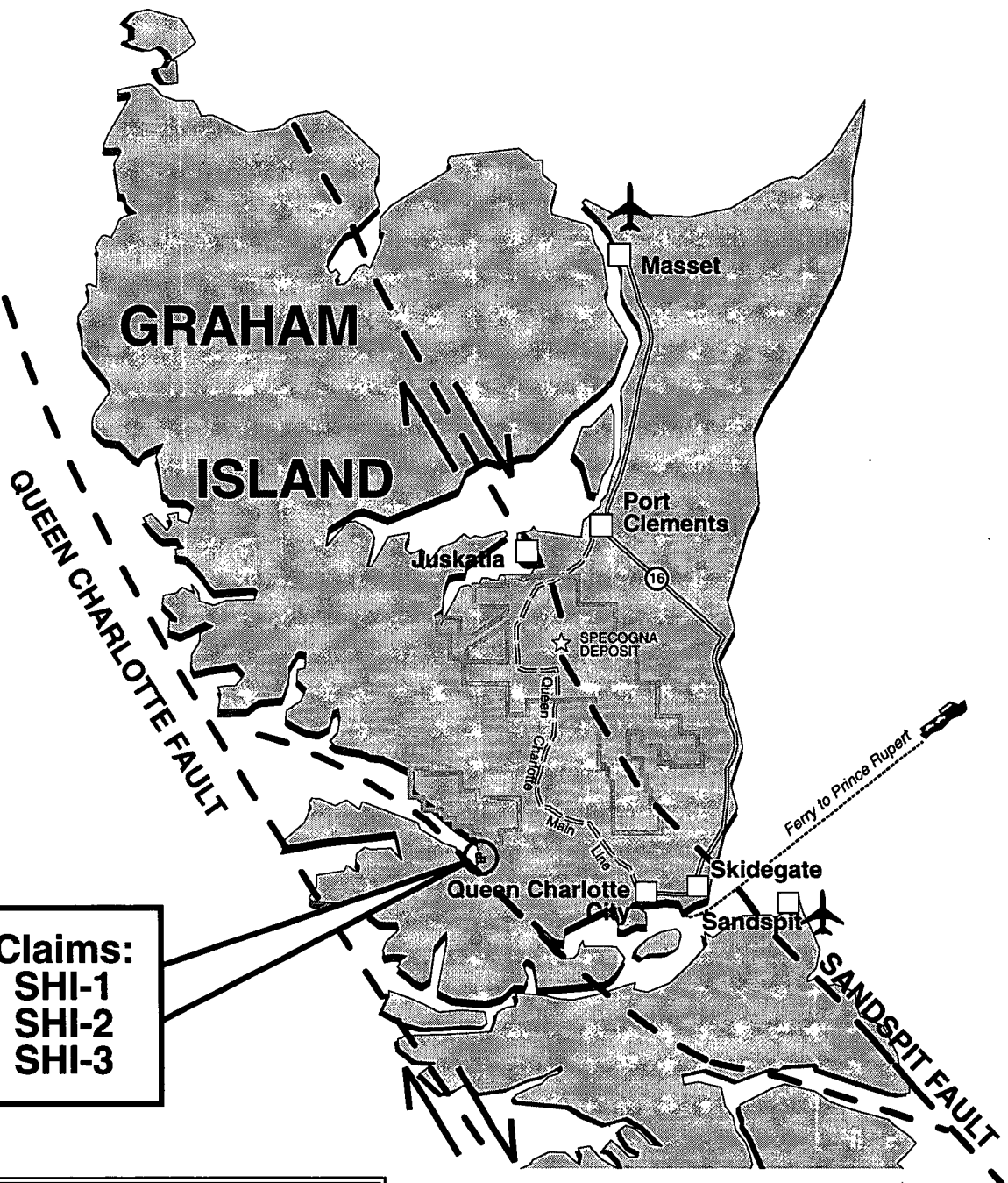
From October 5 to 7, 1995, Misty Mountain Gold Ltd. prospected the SHI 1 - 3 mineral claims, located in southwestern Graham Island proximal to Shields Bay. Lithology types and mineralization were identified.

## **3.0 LOCATION AND ACCESS**

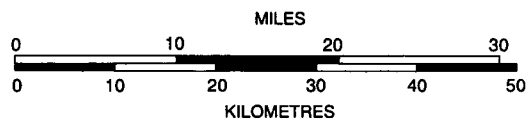
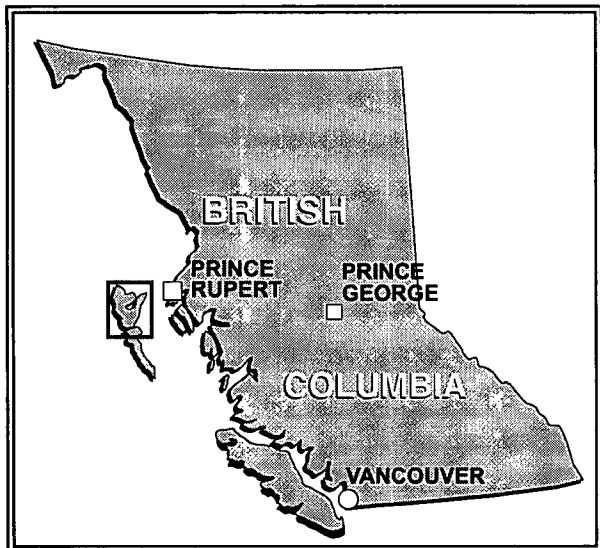
The SHI claims are located in the Skeena Mining Division on central Graham Island, one of the Queen Charlotte Islands in north coastal British Columbia, approximately 779 km northwest of Vancouver (Figures 1 and 2). The claims are located at approximately latitude 53°19' north and 132°25' longitude west on N.T.S. map sheet 103 F/8W.

The Queen Charlotte Islands may be reached by regularly scheduled Canadian Airlines jet service from Vancouver to Sandspit, or via twice weekly ferry service from Prince Rupert to Skidegate.

The SHI claims and most areas of the Harmony Gold Property are accessible by well maintained logging roads from the towns of Masset, Queen Charlotte City, and Port Clements. The most direct route to the SHI claims is from Queen Charlotte City. Access to the Queen Charlotte Main Line is from the MacMillan Bloedel Ltd. Skidegate Shop

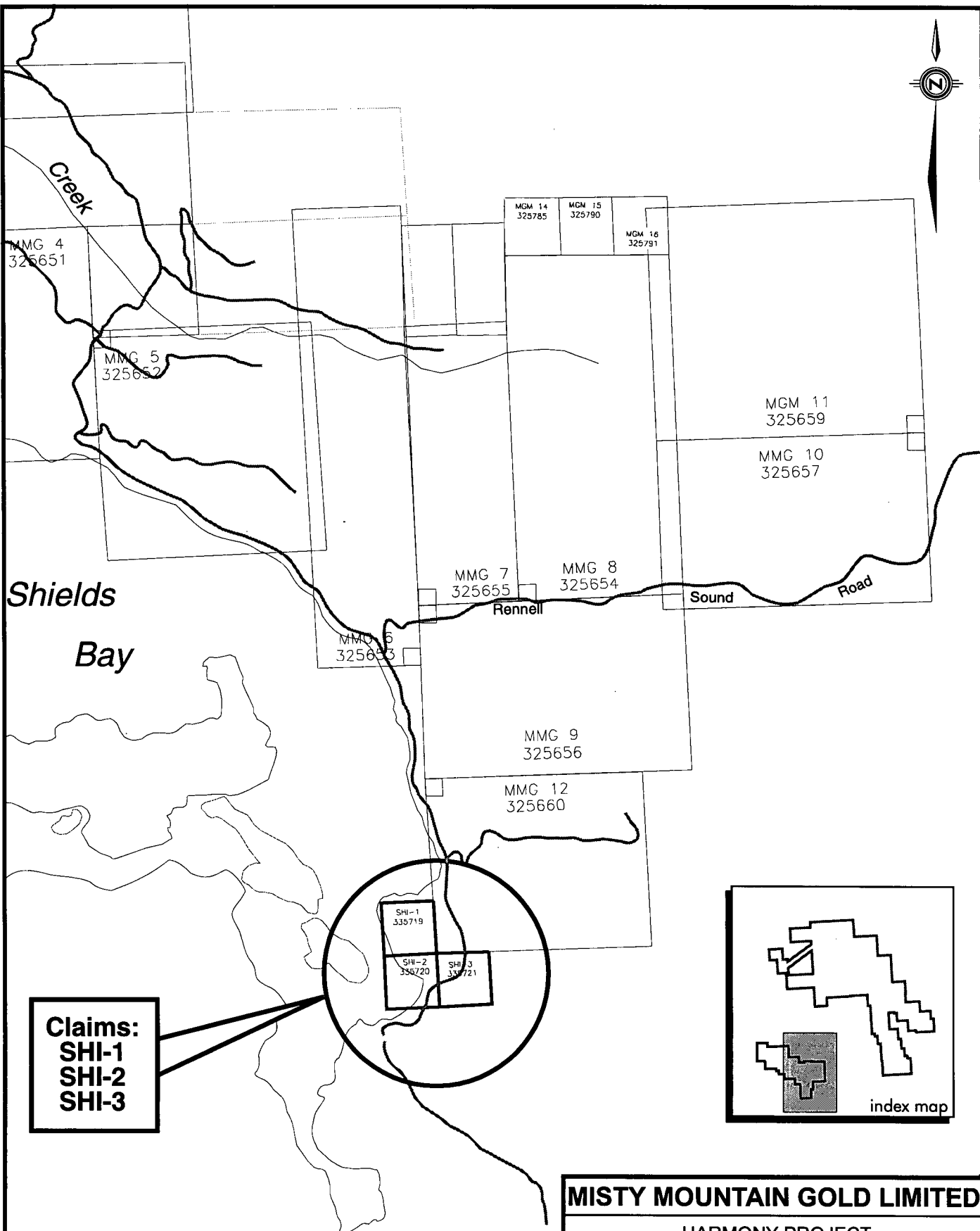


**Claims:**  
 SHI-1  
 SHI-2  
 SHI-3



**MISTY MOUNTAIN GOLD LIMITED**  
 HARMONY PROJECT  
**SHI 1-3 CLAIMS**  
**General Location Map**

Scale	1:750 000	Date	July 1996	Figure <b>1</b>
N.T.S.		By	J.h.t	



Creek

MMG 4  
325651

MMG 5  
325652

MMG 14  
325785

MMG 15  
325790

MMG 16  
325791

MMG 11  
325659

MMG 10  
325657

Shields  
Bay

MMG 7  
325655

MMG 8  
325654

Rennell  
Sound  
Road

MMG 6  
325653

MMG 9  
325656

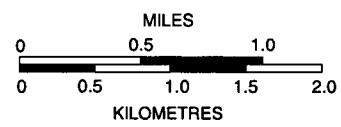
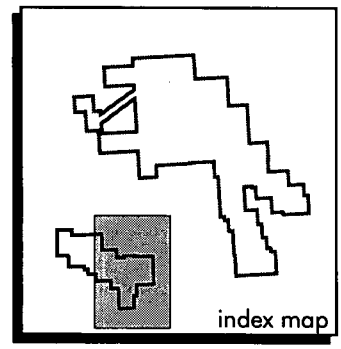
MMG 12  
325660

SHI-1  
335719

SHI-2  
335720

SHI-3  
335721

**Claims:**  
SHI-1  
SHI-2  
SHI-3



<b>MISTY MOUNTAIN GOLD LIMITED</b>					
HARMONY PROJECT					
<b>SHI 1-3 CLAIMS</b>					
<b>Claim Map</b>					
Scale	1:100 000	Date	July 1996	Figure	<b>2</b>
N.T.S.		By	J.h.t		

located on the west side of Queen Charlotte City. Travelling northwest on the Queen Charlotte Main Line to approximately kilometre 22.5 S, a left hand turn is made to the Rennell Sound Road which heads west for about 12 kilometres to the coastline of Shields Bay, Rennell Sound. The Rennell Sound Road branches just before the coastline and the south branch accesses the SHI mineral claims, at a distance of approximately three kilometres from the fork in the road.

#### **4.0 PHYSIOGRAPHY AND CLIMATE**

The SHI claims border the southeast shore of Shields Bay, Rennell Sound. The claims cover elevations ranging from sea level to less than 300 metres. Outcrop occurs along the shoreline and at higher elevations. Most of the SHI claims have been clear-cut logged, with low-lying areas covered by dense second growth.

The climate of the Queen Charlotte Islands is typical of British Columbia maritime areas, being moderated by a counter-current of the great Kuroshio (Japan Current). Average monthly temperatures range from 1.7°C for January to 14.5°C for August. Annual average precipitation is 1390 mm (53.4") with the wettest month, October, receiving an average of 200 mm (7.9") of precipitation. On average, rain falls on 213 days and snow falls on 18 days each year.

#### **5.0 CLAIM DATA**

The SHI 1 - 3 mineral claims total 3 claim units covering 0.75 square kilometres. The claims are 100% owned by Misty Mountain Gold Ltd. Relevant claim data is listed in Table 1.

TABLE 1.0  
Mineral Claims Referenced

Claim Name	Record Number	Units	Expiry Date
SHI-1	335719	1	29-April-98
SHI-2	335720	1	29-April-98
SHI-3	335721	1	29-April-98



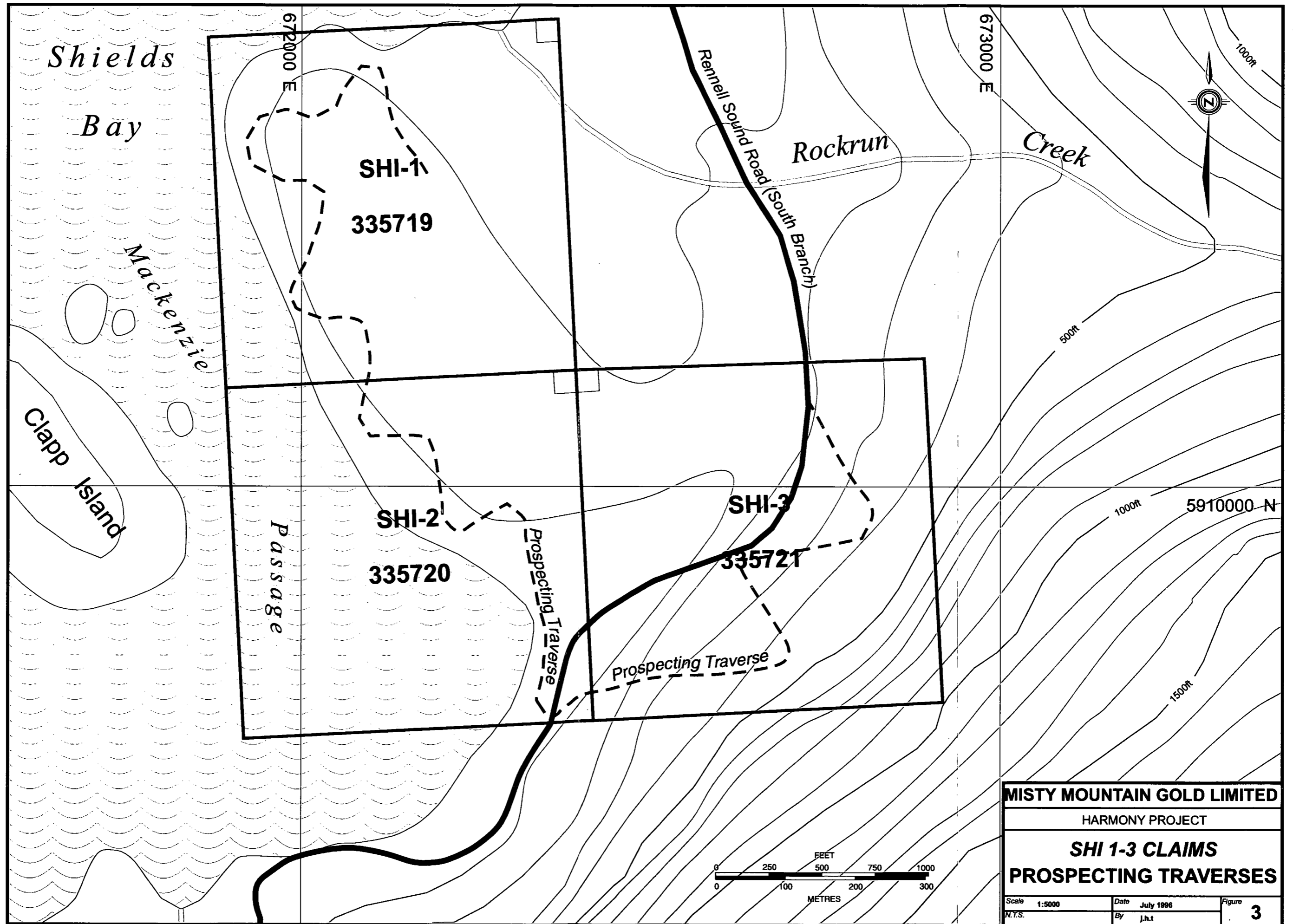
The prospecting work of October 1995 is being applied as assessment to the SHI 1 - 3 claims.

## **6.0 REGIONAL GEOLOGY**

The Queen Charlotte Islands are part of the Insular Belt of the Canadian Cordillera and are separated from the Pacific Ocean floor by the Queen Charlotte Transform Fault (Figure 1). The Islands are included within the Pacific Continental Shelf physiographic region and they are divided into three units: Queen Charlotte Ranges, Skidegate Plateau and Queen Charlotte Lowlands. Boundaries between the physiographic units follow major northwest trending fault zones. The SHI claims are situated in the region of the Queen Charlotte Ranges.

The general geology of the Queen Charlotte Islands has been mapped by A. Sutherland-Brown and documented in the British Columbia Department of Mines Bulletin No. 54 (1968).

Regional mapping covering the SHI claims was done by the Geological Survey of Canada (C.J. Hickson) at 1:50,000 scale in 1987 and 1988 (Map 6-1990). Three main rock formations were identified by Hickson in the area of the SHI claims: Upper Triassic Peril Formation of dark grey, medium bedded limestone; Upper Triassic Sandilands Formation of fine grained sandstone, limestone, and tuffaceous sandstone; and Upper Jurassic and Lower Cretaceous Longarm Formation of sandstone, conglomerate and shale.



Shields Bay

Mackenzie Passage

Clapp Island

Remell Sound Road (South Branch)

Rockrun Creek

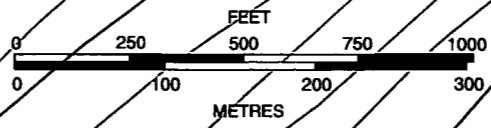
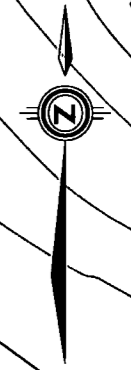
SHI-1  
335719

SHI-2  
335720

SHI-3  
335721

Prospecting Traverse

Prospecting Traverse



<b>MISTY MOUNTAIN GOLD LIMITED</b>		
HARMONY PROJECT		
<b>SHI 1-3 CLAIMS</b>		
<b>PROSPECTING TRAVERSES</b>		
Scale 1:5000	Date July 1996	Figure 3
N.T.S.	By J.H.T	

## 7.0 PROSPECTING RESULTS

The SHI claims were prospected on field traverse as outlined in Figure 3. Outcrops were prospected for lithology, alteration and mineralization.

Outcrops of Peril Formation medium to dark grey limestone, often interbedded with subordinate black calcareous argillite were seen. The sediments were occasionally cut by medium grained, equigranular, narrow (less than 1.5 metres wide) granitic dikes, striking northeast.

The limestone was essentially sulphide-free, with minor pyrite (<1%) in rare argillaceous partings. The calcareous argillite was variably pyritic, with pyrite ranging from 0.5% to 3%. Trace arsenopyrite and pyrite occur along contacts of the sediments with the intrusive granitic dikes.

No outcrops seen were considered worthy of sampling for assaying.

## 8.0 RECOMMENDATIONS

The prospecting conducted in October 1996 provided preliminary reconnaissance of the mineral claim area. Further prospecting in conjunction with a stream sediment geochemical sampling program would assist in assessing any precious and/or base metal potential.

## 9.0

## REFERENCES

Brommeland, L.K. and Rebagliati, C.M., Harmony Property Assessment, 1995/96 Specogna Deposit Diamond Drilling Program, May 29, 1996.

Christie, A.B., Cinola Gold Deposit, Queen Charlotte Islands; *in* British Columbia Ministry of Energy, Mines and Petroleum Resources, Geological Fieldwork, Paper 1989-1, 1988.

Deighton, J., Froc, N., and Borschneck, T., Interim Report on the geology of the Cinola Gold Deposit, 1989.

Rebagliati, C.M., Case, T., and DeLong, C., Harmony (Cinola) Property Assessment Report, 1995 Geochemical Exploration Program, May 11, 1995

**10.0 STATEMENT OF COSTS**

**SHI 1 - 3 Mineral Claims  
Harmony Gold Property  
October, 1995 Exploration Expenditures**

Prospecting

Misty Mountain Gold Staff 2 days at \$400.00 per man per day	\$	800.00
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Report Preparation

Misty Mountain Gold Staff 2 days at \$300.00 per day	\$	600.00
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Sub-Total	\$	<u>1400.00</u>
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Travel Expenses

Vancouver to Sandspit and return (\$720.84) Maximum Transportation Allowable (20% of \$1400.00)	\$	280.00
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<b>October 1995 Exploration Expenditures on SHI 1-3 claims</b>	<b>\$</b>	<b><u>1,680.00</u></b>
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## 11.0 STATEMENT OF QUALIFICATIONS

I, Clarence Mark Rebagliati, of the City of Vancouver, Province of British Columbia, DO HEREBY CERTIFY THAT:

1. I am a consulting Geological Engineer with a business office at Suite 1020 - 800 West Pender Street, Vancouver, British Columbia.
2. I am a graduate of the Provincial Institute of Mining, Haileybury, Ontario (Mining Technology, 1966).
3. I am a graduate of the Michigan Technological University, Houghton, Michigan, U.S.A. (B.Sc., Geological Engineering, 1969).
4. I am a registered member, in good standing, of the Association of Professional Engineers and Geoscientists of British Columbia.
5. I have practiced my profession continuously since graduation.
6. I conducted the prospecting on the SHI 1 - 3 Mineral Claims on the Harmony Gold Property in October, 1995.

*Sara Case for*

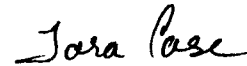
\_\_\_\_\_  
C.M. Rebagliati, P.Eng.

Dated at Vancouver, British Columbia, this 23rd day of July, 1996.

## 11.0 STATEMENT OF QUALIFICATIONS

I, Tara Therese Case, of the City of Vancouver, Province of British Columbia, DO HEREBY CERTIFY THAT:

1. I am a Geologist employed by Misty Mountain Gold Limited at Suite 1020 - 800 West Pender Street, Vancouver, British Columbia.
2. I am a graduate of the University of British Columbia, with a Bachelor of Science in Geology, 1993.
3. I have practiced my profession continuously since graduation.
4. I am a registered Geoscientist in Training, in good standing, of the Association of Professional Engineers and Geoscientists of British Columbia.
5. I reviewed the data from the prospecting on the SHI 1 - 3 Mineral Claims on the Harmony Gold Property during October 1995.



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Tara Case

Dated at Vancouver, British Columbia, this 23rd day of July, 1996.