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Tom Schwab  
Dec. 9/02

CANASIL RESOURCES INC.

883642

SUMMARY REPORT  
GRANITE BASIN PROPERTY  
SHEAR HOSTED GOLD/SILVER DEPOSIT

OMNIECA MINING DIVISION  
BRITISH COLUMBIA  
CANADA

N.T.S. 94C/5W  
Latitude 56° 29' N  
Longitude 125° 52' E

by  
P.J. WEISHAAPT

November, 1996

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## SUMMARY

Detailed mapping and sampling of the many shears and fractures on the Granite Basin property restrict and Au-Ag anomalies to two, as yet unconnected, structural zones: the eastern zone (Zone 1), in the vicinity of Cominco's 1937 adit, and a western zone, represented by Zones 2 and 3.

Chip samples from Zone 1 contained up to 9.44 gpt Au, 43.0 gpt Ag over 3.0 m and from Zone 2 up to 16.95 gpt Au, 492 gpt Ag over 0.5 m. Chip samples from Zone 3 returned 4.53 gpt Au, 26.3 gpt Ag over 5.0 m.

A previously unsampled outcrop of Zone 2 was discovered between the known Zone 2 outcrops at Canasil's 1992 trench and the rusty spine. This confirms an indicated east-west strike length of 240 meters.

Anomalies are restricted to a foliated, sericitic, mariposite(?) bearing altered volcanic or intrusive which lies in the footwall of a shallowly dipping brittle fault. This fault undulates in both the dip and strike direction.

Gold/silver anomalies are often associated with Pb and Zn anomalies.

At depth, but no exposed in outcrop, is a biotized dioritic intrusive with elevated levels of Pb, Zn and Cu, and locally Au-Ag, suggesting a potential porphyry system and needs further exploring.

DDH-HGB-95-1 intersected a series of foliated, fractured, clay and sericite altered volcanics and intrusives, but contained only one - 1 meter, slightly anomalous intersection (0.6 gpt Au and 4.0 gpt Ag).

DDH-HGB-95-2 intersected foliated and sericitic volcanics intruded by biotized intrusive diorites, the latter in turn intruded by an unaltered hornblende-feldspar porphyritic dyke. Anomalous Au-Ag was intersected from 3.0 - 12.1 meters and 57.0 - 61.5 meters (3.36 gpt Au, 11.7 gpt Ag and 1.67 gpt Au, 4.4 gpt Ag respectively).

Based on results from this hole the zone has a width of 9.1 meters. As hole 95-01 did not intersect the anomalous shear the relationship between the western and eastern zones is still unknown. If these zones do in fact connect at depth the strike length becomes at least 600 meters.

An aggressive exploration programme is warranted to fully assess the Granite Basin shear hosted gold/silver zones. The potential exists for a bulk mineable gold/silver deposit.

CANASIL RESOURCES

INDEX MAP  
of  
BRITISH COLUMBIA

\* GRANITE M.C.

160 120 80 40 0 80 160 240  
Kilometers

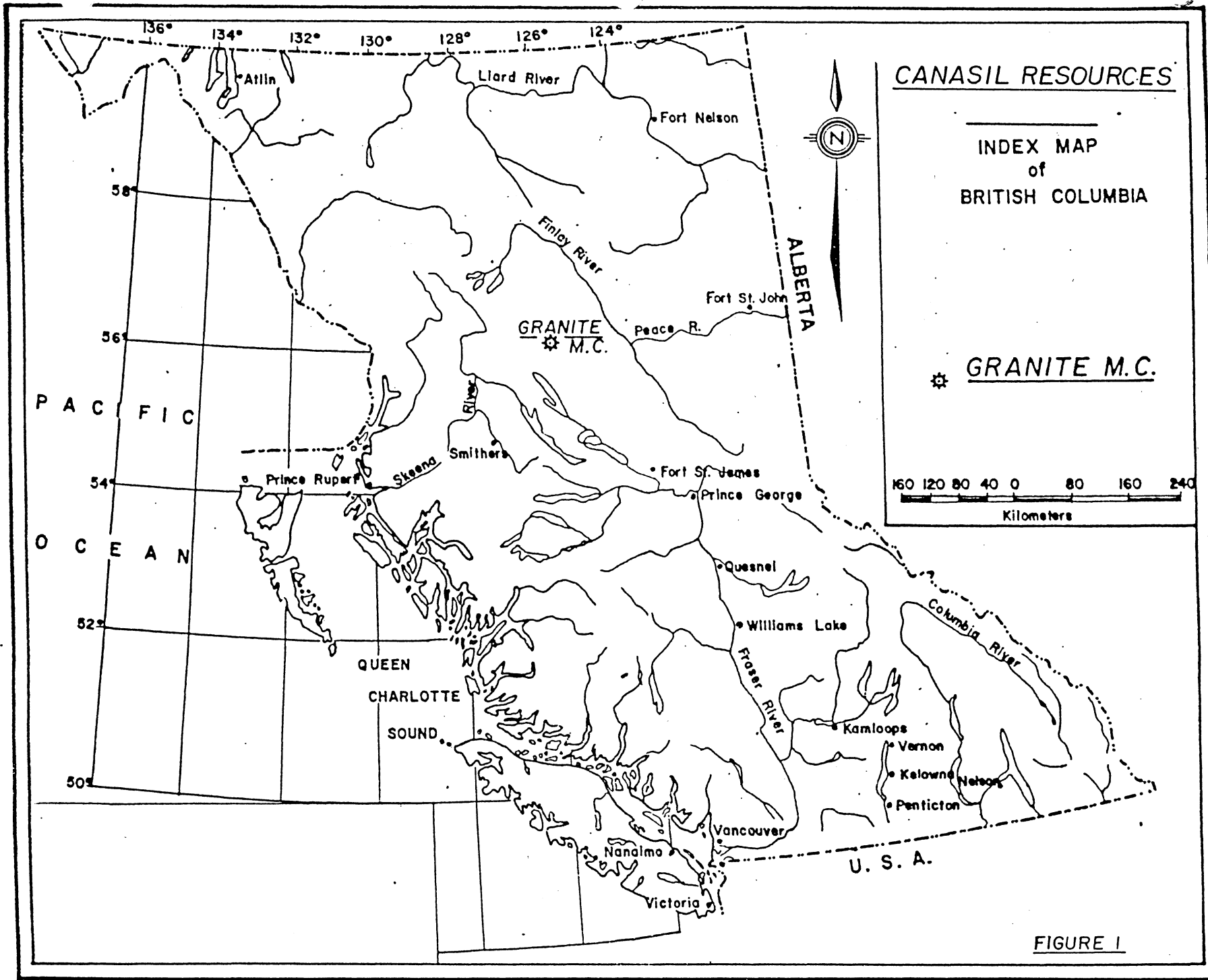


FIGURE 1

## **INTRODUCTION**

This Report is based on the writer's knowledge gained while conducting exploration programs on the Granite Basin property over the last few years, and many discussions with the late Emil Bronlund, P.Eng., the original staker of the property in 1935.

Additionally, the Geological Reports (1994 by D.G. Gill (P.Geo) 1995 by L. Erdman M.Sc.), commissioned by Noranda personnel acting as agents for Hemlo Gold Mines Inc., the optionee of the Granite Basin property in 1994 and 1995 was of great help.

Government and industry reports pertaining to the property and other nearby pertinent properties have been reviewed.

This Report describes the claim holdings, exploration history, geology and mineral occurrences on the property.

Recommendations are made to conduct exploration on the prospective Granite Basin gold/silver shear zones.

## **LOCATION, ACCESS AND PHYSIOGRAPHIC SETTING**

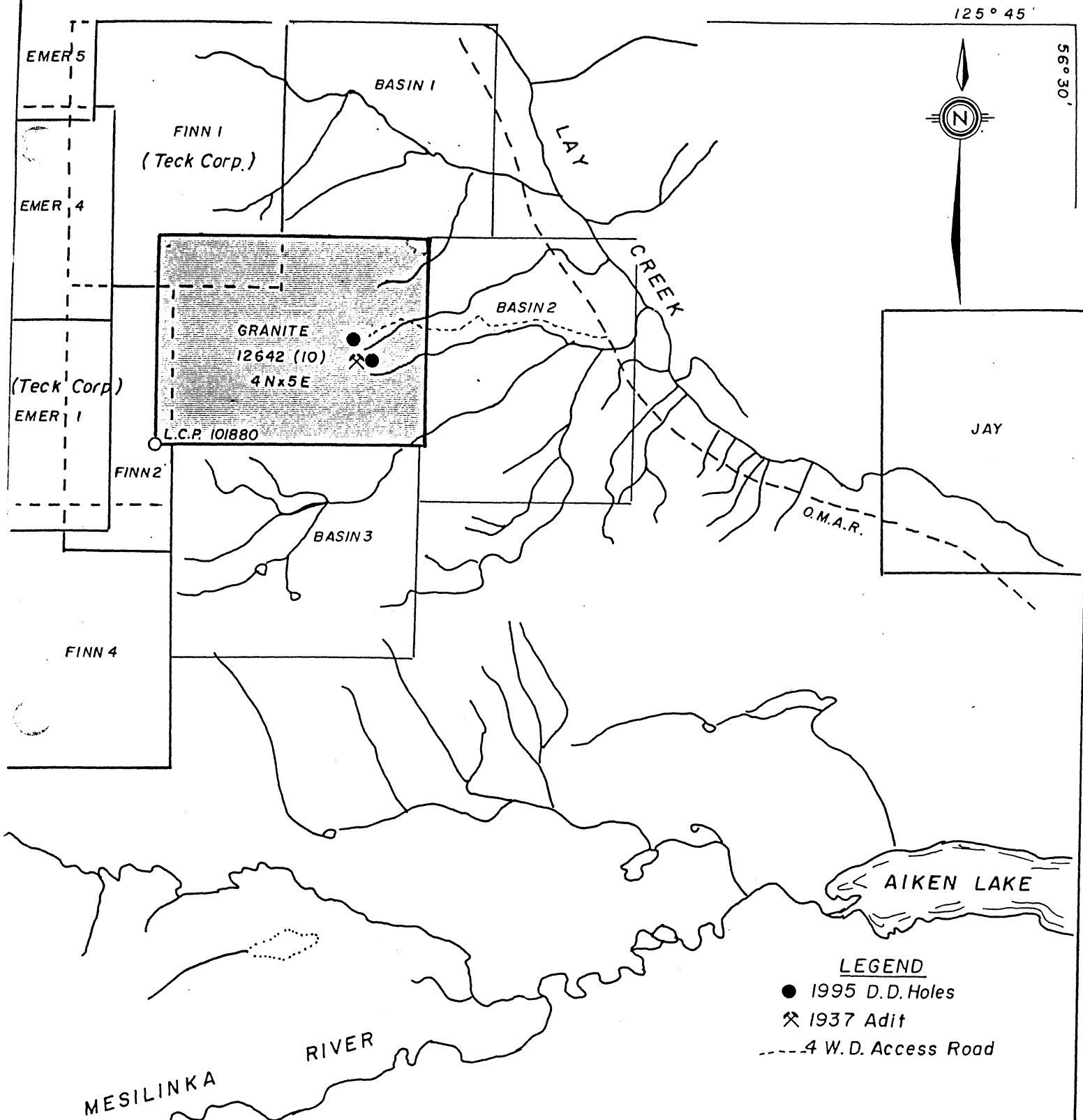
The Granite Basin property is centered at latitude 56° 29' N and 125° 52' E on N.T.S. Mapsheet 94C/05W. It lies to the northwest of Aiken Lake in the Omineca Mining Division of British Columbia (Drawing 1).

The Omineca Mine Access Road (O.M.A.R.) and all weather mainline logging roads provide access to within 3.6 km of the property. This last 3.6 km is strictly a 4 wheel drive road. The distance from Ft. St. James via Germansen Landing to the junction of the 4 wheel drive road is 365 km. From Prince George via Windy Point to the junction is approximately 438 km.

The Granite Basin property is situated within the Osilinka Ranges and covers 2 northeast trending ridges separated by a cirque valley as well as several northeasterly trending drainages flowing into Lay Creek. Topography is steep to precipitous over the ridged areas, but is subdued to fairly flat in creek valleys and towards Lay Creek. Elevations range from 1200 meters in the valley of Lay Creek to 2180 m on the western edge of the property. The higher elevations are devoid of vegetation or covered by grasses and mountain willow. At lower elevation the vegetation comprises a mix of sub-alpine lodge pole pine and spruce. The climate is generally moderate with temperatures ranging from +30 to -30 celcius, typical of the interior of the province with precipitation of 900 mm per year. Ample water is available for diamond drilling and mine development. The exploration season can begin around June 1 and continue to the end of September. Snow remains on the north facing cirque until July.

125° 45'

56° 30'



**LEGEND**

- 1995 D.D. Holes
- ⊗ 1937 Adit
- 4 W.D. Access Road

**CANASIL RESOURCES INC.**

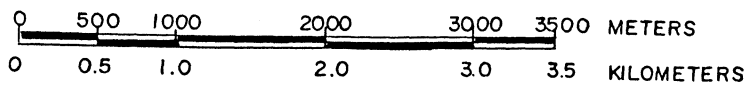
DRAWN BY: P.J.W.

**GRANITE M.C.**

DATE: January 1996

**CLAIM MAP**

SCALE  
1:50,000



MT. ELSIE

FIG 2

## CLAIM DATA

The Granite Basin property is comprised of three 20 unit claim blocks and one 16 unit claim block. Following is a list of the claims with corresponding tenure number, anniversary date and owner (Drawing 2).

<u>Claim Number</u>	<u>Tenure No.</u>	<u>Units</u>	<u>Anniversary Date</u>	<u>Owner</u>
Basin 1	321854	16	October 9, 1997	Canasil Resources Inc.
Basin 2	321855	20	October 10, 1997	Canasil Resources Inc.
Basin 3	321856	20	October 10, 1997	Canasil Resources Inc.
Granite	242792	20	October 8, 2005	Canasil Resources Inc.

## EXPLORATION HISTORY

Below is a brief outline of work performed on the Granite Basin property in chronological order:

- 1936: The area was staked by Cominco and 1,142 linear feet of hand trenching was completed. A drift of 100 feet was driven without reaching bedrock.
- 1937: A 158 foot drift with 2 crosscuts of 66 feet and 10 feet respectively was driven at a higher elevation and good gold grades were intersected (6.86 gpt/12.2 m).
- 1939: Douglas Lay of the Department of Mines visited the property, collected samples and wrote a summary report.
- 1962: Prospecting by Emil Bronlund located new showings to the west of the adit workings and the area was restaked.
- 1963: Kerr Addison Gold Mines Ltd. sampled the area.
- 1971-73: Union Minere and Stellace Exploration conducted a soil geochemical survey and collected rock samples.
- 1974-75: Susie Gold Mines conducted geochemical soil and rock chip surveys, road access was constructed and trenching was completed to the southeast of the 1936 trenching.
- 1979-80: Mark V. Petroleum Ltd. conducted EM and magnetometer surveys and collected chip samples along the access road.

- 1990-92: Paul Weishaupt re-staked the area (Granite claim), conducted a soil survey, collected rock samples, and blasted trenches into the cliff face.
- 1993-94: Noranda Exploration Co. Ltd., as agents for Hemlo Gold Mines Inc., staked the surrounding ground (Basin 1-3), conducted a geochemical soil survey, collected rock samples, and completed reconnaissance style mapping.
- 1995: Hemlo Gold Mines Inc. conducted a programme of detailed mapping, rock sampling and diamond drilling of two holes.

### **ECONOMIC POTENTIAL**

The Granite Basin property is considered promising for hosting an economic shear hosted gold/silver deposit. Early work concentrated on 5 porphyritic diorite sills which produce a strong colour anomaly (gossan), but overall results were poor. Later work has shown the Au-Ag mineralization to be hosted in shears which cut across all rock types and contacts. Previous results of 9.4 gpt Au/439 gpt Ag over 3 m and 7.54 gpt/271 gpt Ag over 3 m suggest the potential exists for a bulk mineable gold/silver deposit.

### **REGIONAL GEOLOGY**

The Granite Basin property is situated within the Intermontane Belt. In the vicinity of the Granite Basin property this is comprised of Upper Triassic to Lower Jurassic island arc volcanics, volcanoclastics and minor sediments of the Takla Group. The dominantly volcanic package has been intruded by Jura-Cretaceous aged diorites, monzonites and syenites associated with the Hogem batholith. In fault contact to the east are volcanics and sediments of the Mississippian Cache Creek Group, intruded by ultramafics of the Triassic Trembleur intrusions.

### **PROPERTY GEOLOGY**

Geology mapping was done at a scale of 1:200 and was confined to the central part of the Granite claim, in the vicinity and to the west and south of the 1937 Cominco Adit.

The following geological descriptions are relevant for the property as a whole, not all of the rock types below were observed during the 1995 mapping programme.

The dominant rock type is a fine to medium grained augite porphyritic andesite. It is composed of up to 15% 0.5 mm to 3 mm pyroxene crystals in a dark to medium green groundmass. It may also contain, in equal abundance, phenocrysts of feldspar to 0.5 mm in diameter.



Higher in the section black silstones, impure limestones and volcanoclastics are intercalated in the augite porphyry. These rocks have been hornfelsed where they are in contact with bodies of feldspar porphyry (see below).

Dioritic intrusives are of two types - a porphyritic and a generally non-porphyritic type. Both types are leucocratic, fine to medium grained, have a sugary texture, and contain hornblende as well as feldspar. The porphyritic diorite contains feldspar phenocrysts up to 3 mm in diameter and hornblende crystals to 5 mm in length. It most likely had the same magmatic source as the non-porphyritic diorite, but followed a different cooling path. Both types are present as sills.

Isolated outcrops of quartz-feldspar or hornblende only porphyritic diorite are also present in outcrop but could not be followed for any distance. The former was included with the porphyritic diorite, the latter with the non-porphyritic diorite.

Feldspar porphyry is present as dykes and sills cutting both the volcanosedimentary package as well as both phases of diorite. It varies in colour from light grey to dark green, and contains up to 20% light grey feldspar phenocrysts up to 3 mm in size. It contains little to no hornblende. This rock type appears to be restricted to the vicinity of the gossanous central area.

Structural measurements on bedded sediments or volcanoclastics located on ridge tops indicate an approximate north-south strike ( $172^{\circ}$  to  $192^{\circ}$ ) with dips to the west from  $25^{\circ}$  to  $40^{\circ}$ . Further to the north the strike becomes more westerly (approximately  $220^{\circ}$ ), however the angle of dip remains the same.

Prior to the work by Noranda in 1994 exploration programmes had identified three zones of shearing, identified as Zones 1 to 3. Zone 1, the easternmost zone, strikes at  $310^{\circ}$  and dips steeply to the northeast of  $75^{\circ}$ . This is the zone intersected by Cominocs 1937 adit and is reported to have a width of 12 meters. Zones 2 and 3 lie to the southwest, are higher in elevation by 85 m and 182 m respectively and have similar strikes and dips  $266^{\circ}/40^{\circ}$  N (Zone 2) and  $262^{\circ}/58^{\circ}$  N (Zone 3). These latter two zones are now believed to be outcrops of the same shear, with the steep talus slope between Zones 2 and 3 covering an irregular dip slope exposing the upper limits and hanging wall of the shear. Although the footwall of this second zone is never exposed it is at least 5 meters wide, as measured at the previously named Zone 3.

## **MINERALIZATION**

The augite porphyritic andesite and associated sediments are generally non-mineralized, or may be sparsely mineralized with fine grain disseminated pyrite. However in contact with the porphyritic diorite these rocks may be heavily pyritized.

the gold content was negligible except in the vicinity of the adit where a pyritic horizon is coincident with the Zone 1 shear.

In 1975 it was recognized that it was the shears which hosted the Au-Ag mineralization and that these shears cut across all rock types. Rocks within the shears are foliated, altered to a fine grain, white to light blue colour, and contain cryptocrystalline quartz veinlets, patchy carbonate, sericite, minor mariposite(?), and pyrite, both as wavy laminations as well as disseminated. Two generations of pyrite are clearly visible: 1. An early fine grain silvery phase often observed as a film along fracture planes, and 2. A later coarser grained yellowish phase occurring along foliation planes and as irregular pods. Very rarely trace amounts of galena are associated with the quartz veinlets.

Detailed mapping by Hemlo in 1995 (Drawing 3) shows that the sheared foliated outcrops always occur in the footwall of a 5 cm wide brittle fault generally striking from 310° to 330° and dipping shallowly to the northeast. Rocks exposed in the hanging wall are unaltered andesites or limy sediments, and may or may not contain pyrite. This fault does not have a flat planar surface but undulates in both the dip and strike direction, as evidenced by the dip slope connecting Zones 2 and 3, and in outcrop above the trench blasted by Canasil in 1992.

### DIAMOND DRILLING

The focus of the two hole drilling programme was to establish the lateral extent and thickness of the gold anomalous horizon. Hole 95-01 was drilled in an attempt to intersect the gold anomalous zone sampled by Cominco and D. Lay in the underground workings. Only one of the 47 sample intervals contained anomalous values of Au-Ag (0.65 gpt Au and 4.0 gpt Ag).

Hole 95-02 was targeted to test the width of a mineralized horizon, exposed by Canasil in a trench in 1992. This hole intersected two Au-Ag anomalous sections from 3.0 to 12.1 m and 57.0 to 60.3 m respectively. The former averaged 3.36 gpt Au, 11.7 gpt Ag over 9.1 meter, the latter 1.67 gpt Au, 4.4 gpt Ag over 4.5 meters (Drawing No. 3).

### SOIL AND ROCK GEOCHEMISTRY

#### **Soil Sampling Programme**

Of the 227 soils and talus fines collected over the property the lowest value of gold returned was 5 ppb while the highest value was 250 ppb. The highest values trend in a roughly northwest-southeast direction for a distance of 2.4 km, and extend 400-500 m to the east of the showings (shear zones). Several of the anomalous soils also contain anomalous silver, up to 3.0 ppm.

The southern end of the anomalous zone most probably reflects an extension of the mineralized shear zones to the south and east of the showings. The northern

end of the anomalous zone, across the cirque valley on the northern ridge, could be caused by a series of related shears.

### Rock Sampling Programme

As both the non-anomalous pyritic horizons and the Au-Ag mineralized shears display the same "gossanous" weathering surface, and the pyritic horizons themselves are locally sheared and brittle fractured it was decided to chip sample the many shear and fracture directions to better delineate which direction was anomalous. Chip sample widths correspond to shear/fracture sample widths and range in size from 0.05 m to 1.5 m. Locally chip samples were also collected from either the hanging wall or footwall or both, to determine if mineralization extends beyond the boundaries of the sampled shear or fracture.

Forty two chip samples were collected in the adit area, extending from the road, upslope to the south (Drawing 3 (blow-up 4)). Of these, only one area was found to be highly anomalous in Au and Ag, with values from 1.3 gpt Au, 7.2 gpt Ag/0.7 m to 10.7 gpt Au, 14.8 gpt Ag/0.4 m. Although all of these anomalous samples were collected within a single outcrop the attitudes of the sampled shears ranged from  $130^{\circ}/40^{\circ}$  to  $330^{\circ}/68^{\circ}$ , suggesting that there are several shear directions within a major structure. Of interest is the fact that several of the anomalous samples contained "spots" of a bright green mineral, tentatively identified as mariposite.

Ten chip samples were collected from the 1992 Canasil trench of Zone 2 which previously returned values of (Drawing 3 (blow-up 1)). Samples from the immediate hanging wall of the shallowly dipping fault are only weakly anomalous in Au-Ag whereas those collected from the foliated (average  $275^{\circ}/60^{\circ}$ ) mariposite(?) bearing rock in the footwall of the fault are anomalous in both Au and Ag (Au from 0.3 gpt to 3.7 gpt and Ag from 10.2 gpt to 88.0 gpt). Locally trace amounts of galena occur, associated with quartz in thin veinlets.

Twenty six samples were collected from a prominent rusty spine of the west edge of the grid (Drawing 3 (blow-up 3)). This outcrop is well fractured, locally exhibits argillic alteration, and displays varying intensities of oxidation. Only one Au-Ag anomalous horizon was discovered, on the west side of the spine and bounded by shears to both the north ( $265^{\circ}/80^{\circ}$ ) and south ( $200^{\circ}/80^{\circ}$ ). Within this horizon, foliated mariposite(?) bearing rocks returned values from 1.0 gpt Au, 82.4 gpt Ag/0.2 m to 16.95 gpt Au, 492.0 gpt Ag/0.5 m. This horizon is also part of the Zone 2 shear structure.

During the course of the detailed sampling programme a previously unreported outcrop of foliated (average  $277^{\circ}/55^{\circ}$ ) mariposite(?) bearing rock was discovered. This lies to the west and slightly higher in elevation than Canasil's 1992 trench and lies to the east of the rusty spine described above. It is in the footwall of a thin fault ( $310^{\circ}/28^{\circ}$ ) (Drawing 2 (blow-up 2)), and from it's position on the ground

and lies to the east of the rusty spine described above. It is in the footwall of a thin fault ( $310^{\circ}/28^{\circ}$ ) (Drawing 2 (blow-up 2)), and from its position on the ground is believed to be another outcrop of the Zone 2 shear. Ten samples were collected from this location. Values for Au and Ag are only weakly anomalous (160 to 270 ppb Au, 1.8 to 3.6 ppm Ag), a fact which may be attributed to the oxidized nature of the sampled material.

The remainder of the samples were collected from shears/fractures located in isolated outcrops within the area of the grid (Drawing 3). Only two of these samples were anomalous, sample numbers GM0270 and LE0645, with values of 975 ppb Au and 335 ppb Au respectively. These two samples are from foliated outcrops and are thought to be part of the same structure as the one sampled in Zones 2 and 3.

Foliated, mariposite(?) bearing outcrops of Zone 2 outcrop discontinuously in an east-west direction over a distance of approximately 240 meters, suggesting the mineralized structure has an east-west strike.

### **CONCLUSION**

The Granite Basin property is host to a gold/silver +/- base metal anomalous structure which outcrops in two areas of the property, an eastern and a western zone. This structure is a ductile shear cutting across all lithologies and is evidenced by foliated, mariposite(?) bearing, sericitic rocks. The shearing is restricted to the footwall of a shallowly dipping brittle fault, perhaps of regional extent. The western zone (Zone 2) has a confirmed strike length of at least 240 meters in an approximate east-west direction, and extends from 250 meters upslope to connect with Zone 3. Based on results from DDH-HGB-95-2 the zone has a width of 9.1 m. As DDH-HGB-95-1 did not intersect the anomalous shear the relationship between the western and eastern zones is still unknown. If these zones do in fact connect at depth the strike length becomes at least 600 meters.

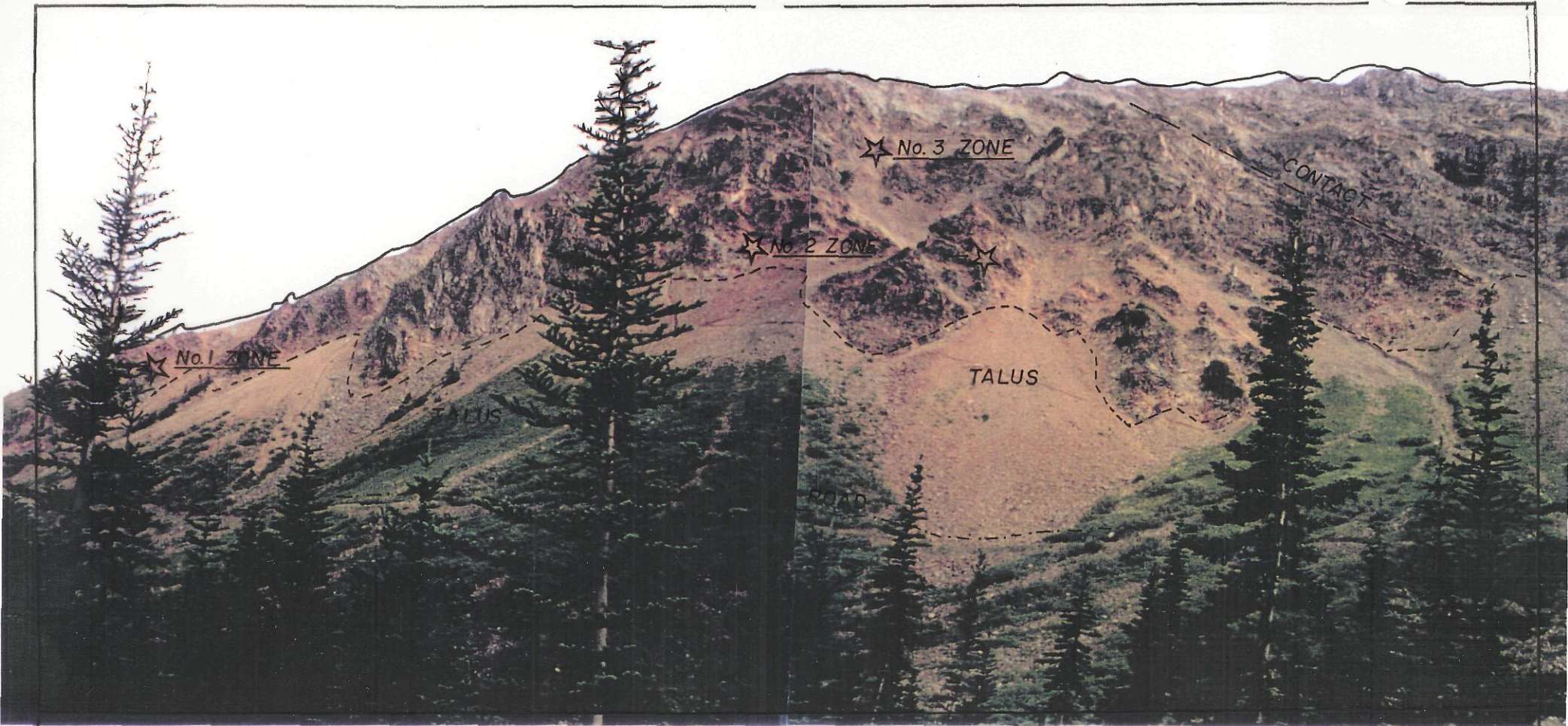
In addition the discovery of a biotized diorite at depth suggests a potential porphyry system and should be explored further.

### **RECOMMENDATIONS**

Further drill testing should be pursued, with a vertical hole collared above the anomalous outcrop at Zone 1 (testing the width of this Zone), a second hole placed on the road down slope from DDH-HGB-95-2 (testing the downdip extension of Zone 2), and a third upslope and to the west of the newly discovered Zone 2 outcrop (testing the western extent and thickness of Zone 2). A fourth hole, downslope from Zone 3, would test the updip extent and thickness of Zone 2 and would confirm that Zone 2 and 3 are part of the same structure.

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D.G. Gill, 1995:

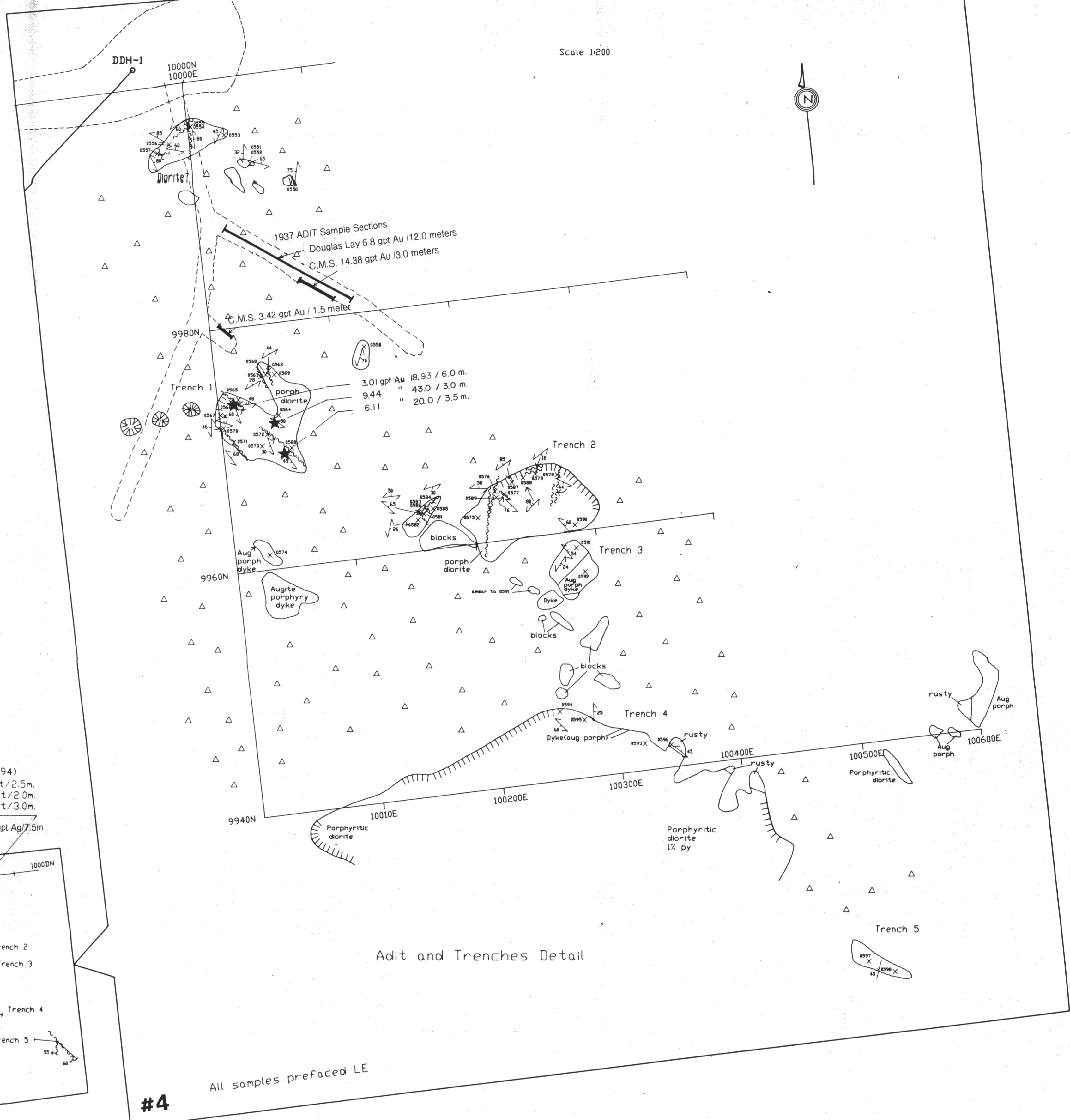
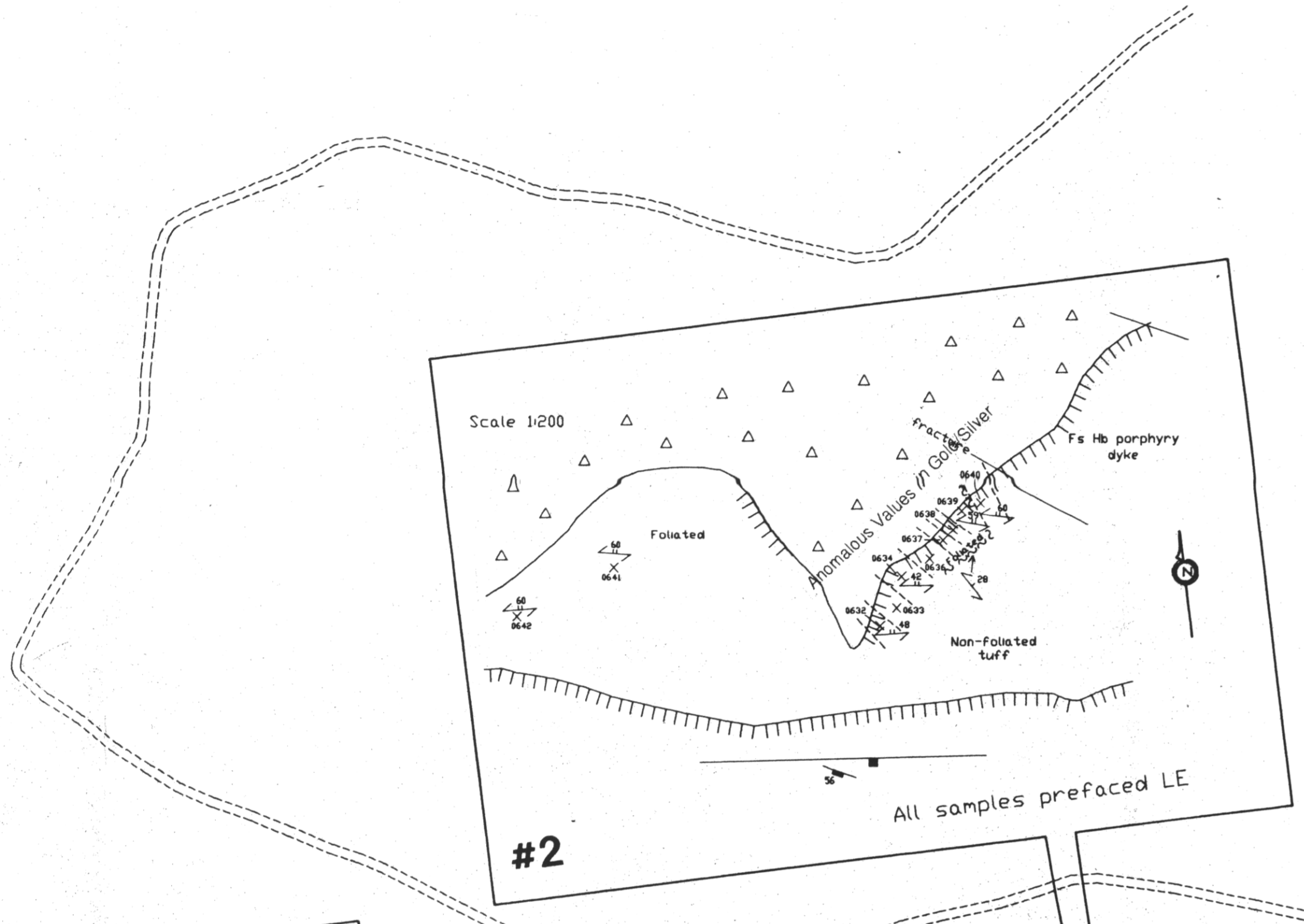


GRANITE BASIN

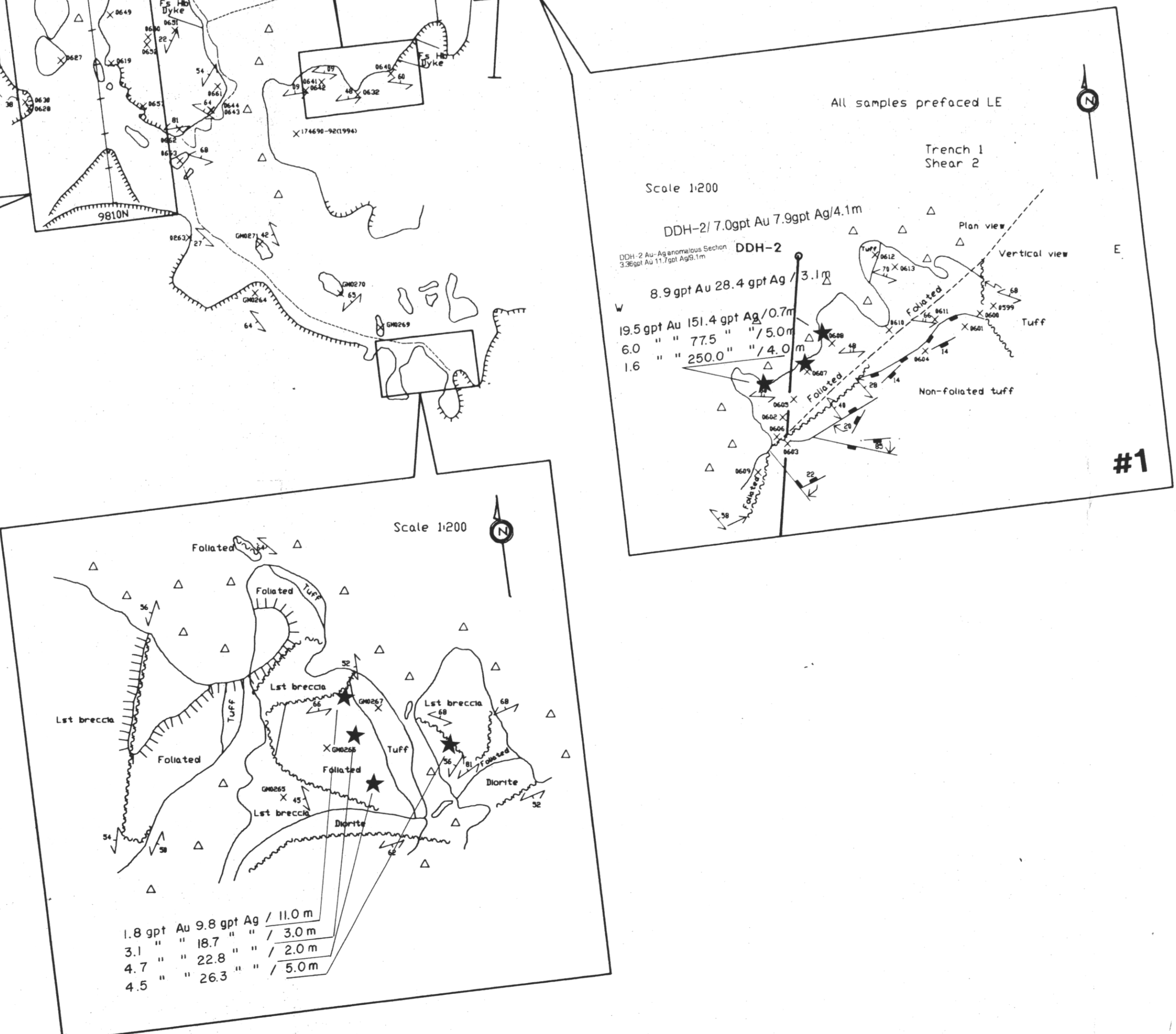
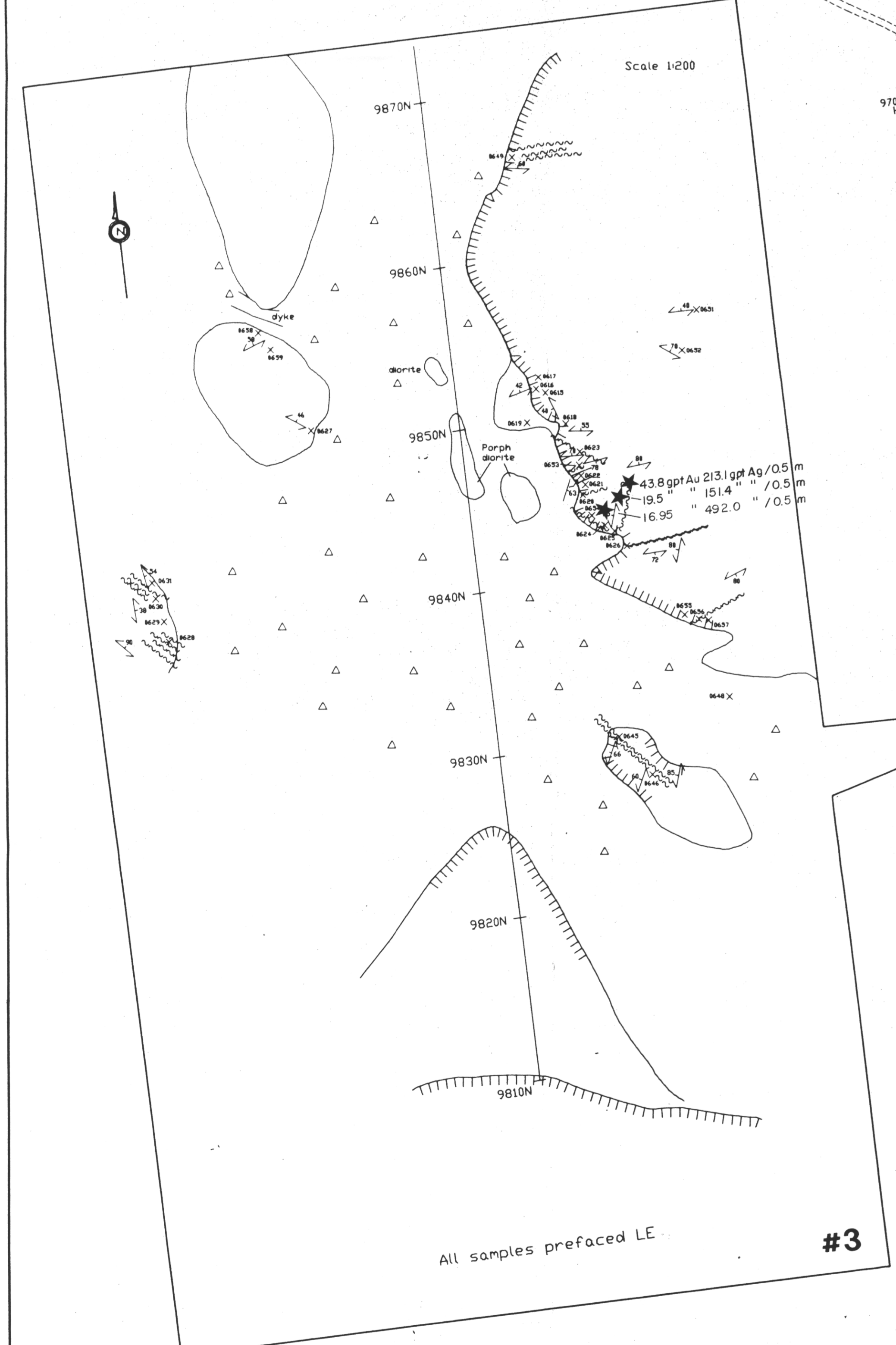
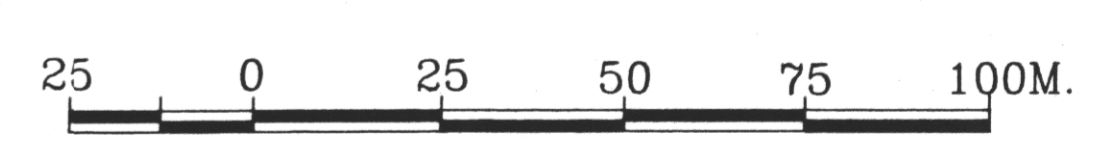
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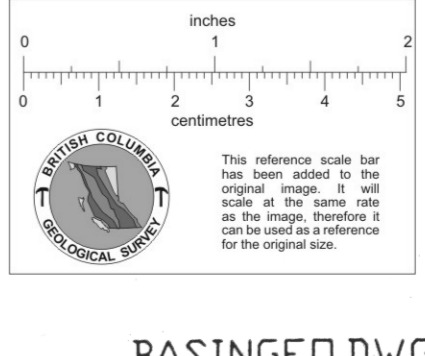
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- SYMBOLS
- Fault/shear
  - Schistosity
  - Foliation
  - Fracture
  - Bedding tops known
  - Chip boundary
  - Talus
  - Station location/number



REVISED		GRANITE BASIN	
DEC 1996 P.J.W.			
		GEOLOGY and STRUCTURE	
		With significant Gold/Silver Values	
PROJ. No. 176	SURVEY BY LERDMAN	DATE NOV 6 1995	
N.T.S. 94C/5	DRAWN BY G.MARTIN	SCALE 1:1000	
DWG No.	HEMLO GOLD MINES INC.		
DWGNO 3	OFFICE VANCOUVER		



BASINGED.DWG