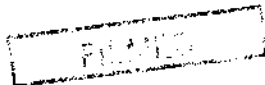


DIAMOND DRILLING, GEOLOGY, GEOPHYSICAL AND GEOCHEMICAL  
SURVEYS

ON THE



B L A S T E R   M I N E R A L   C L A I M

FOR

NATIONWIDE GOLD MINES CORPORATION

AND

GOLDEN SPINNAKER MINERALS CORPORATION

NTS 92 F/3 W  
ALBERNI MINING DIVISION  
BRITISH COLUMBIA

NORTH LATITUDE: 49 degrees 11'  
WEST LONGITUDE: 125 degrees 25'

18,218

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

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## SUMMARY

From October 1987 to February 1988 a program of trenching, sampling, very low frequency electromagnetic (VLF-EM) surveying, petrographic descriptions and diamond drilling was performed on the Blaster mineral claim held by Nationwide Gold Mines Corporation and Golden Spinnaker Minerals Corporation.

Blaster mineral claim is situated approximately 35 km northeast of Ucluelet, British Columbia. Triassic Karmutsen Formation volcanic rocks have been intruded by granitic rocks. Tertiary silver- and gold-bearing quartz-sulphide veins are found primarily along faults within the area.

The quartz-sulphide Elite Vein trends easterly to northeasterly, dips steeply to the north and northeast and is 35 to 75 cm wide at surface. A discontinuously exposed section of this vein contains an average of 1.28 oz/ton gold across 54 cm for a strike length of 27 m. At Elite II Vein area disseminated pyrite occurs in bleached and silicified rock with irregular quartz lenses and pods; rock samples from here assay up to 0.508 oz/ton gold across 110 cm.

The results of diamond drilling show that Elite Vein extends downward to a depth of at least 52 m below surface and is open along strike to the northeast. Elite Vein samples from drill cores generally do not contain as much gold as vein samples from surface.

Geological mapping, prospecting, geophysical surveying, diamond drilling and bulk sampling should be performed at Blaster and Titanic mineral claim. This work is estimated to cost \$150,144.00.

## INTRODUCTION

From October 1987 to February 1988 a program of trenching, sampling, very low frequency electromagnetic (VLF-EM) surveying, petrographic descriptions and diamond drilling was performed on the Blaster mineral claim held by Nationwide Gold Mines Corporation (50%) and Golden Spinnaker Minerals Corporation (50%). The author worked on the Blaster mineral claim during January and February 1988.

The purpose of this exploration program was to evaluate the economic potential of the mineral claim by examining and testing the silver- and gold-bearing Elite and Elite II veins.

### LOCATION AND ACCESS

Blaster mineral claim is situated approximately 35 km northeast of Ucluelet, British Columbia within N.T.S. map-area 92F/3W (Figure 1). The mineral claim is 55 km west of Port Alberni; the paved highway between Port Alberni and Tofino passes 800 m from the eastern side of the Blaster mineral claim. A logging road is presently being constructed through the central part of the area along the south side of Olympic Creek valley (Figure 18). A hydro-electric powerline parallels the Alberni-Tofino highway.

The topography of the project area is rugged with elevations ranging from 110 to 1060 m a.s.l. Abundant water is available from Olympic Creek and Kennedy River. The climate of the project area is mild with little snow at lower elevations, permitting year-round exploration work.

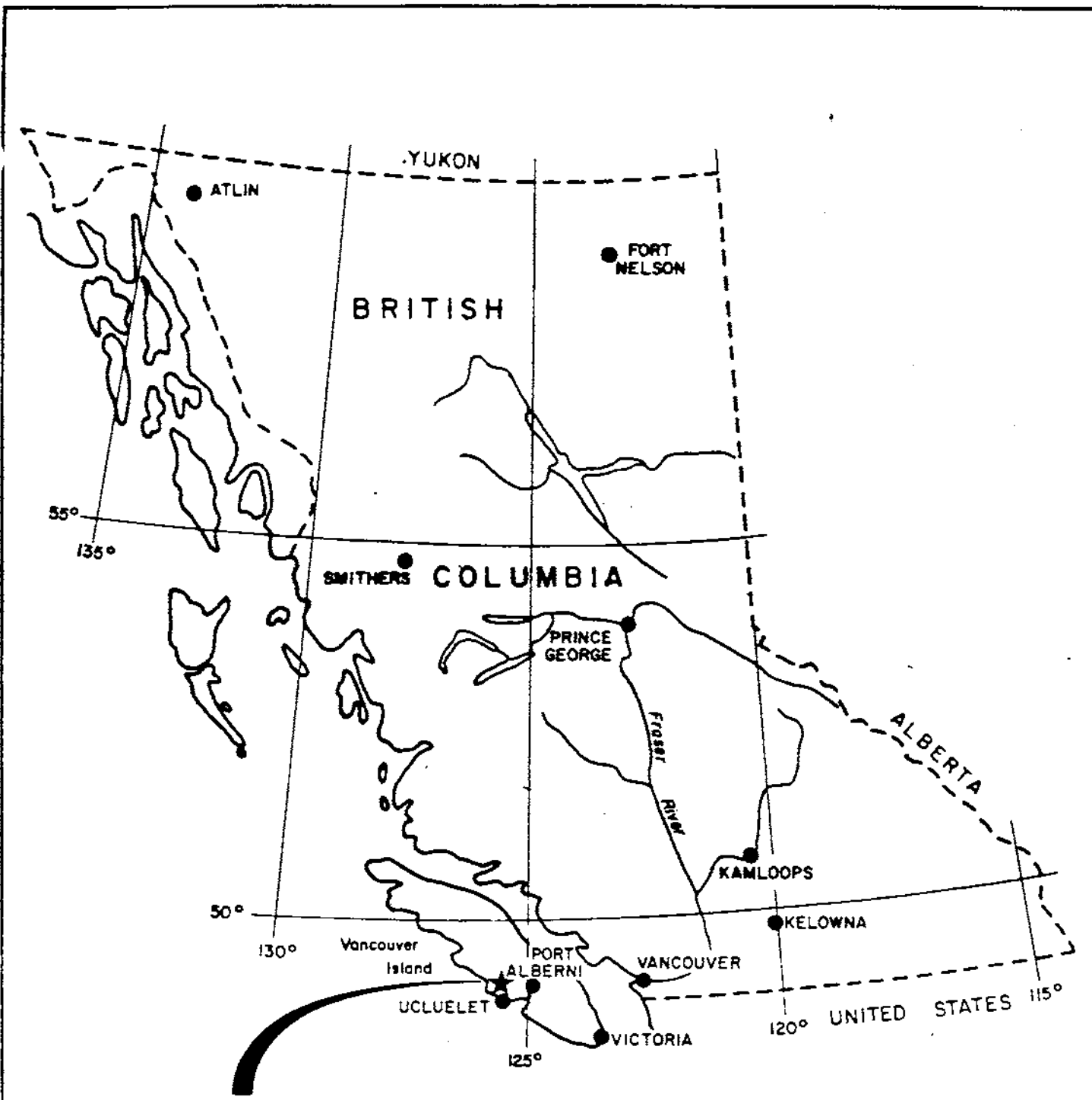
### PROPERTY STATUS

Blaster mineral claim, record number 2899, is recorded in the Alberni Mining Division (Figure 2). The Blaster mineral claim is owned by Nationwide Gold Mines Corporation (50%) and Golden Spinnaker Minerals Corporation (50%).

### PREVIOUS EXPLORATION

Gold was discovered within Kennedy River district at the turn of the century.

Blaster mineral claim was acquired to cover the probable source area for geochemical silt samples with high gold concentrations of up to 90 parts per billion (ppb), and to cover part of the Canoe Creek Fault structure (Henneberry, 1987 a, 1987 b).



**BLASTER  
MINERAL CLAIM**



NATIONWIDE GOLD MINES CORPORATION / GOLDEN SPINNAKER MINERALS CORPORATION	
<b>PROPERTY LOCATION</b>	
Drawn By : D J P.	
Date : July 1988	Figure 1

To accompany a report by David J. Pawliuk, P. Geol.

49° 11' N

Blaster  
2899

Titanic  
1578

Giant Bear  
2862

Captain Hook  
1455

Tommy  
1029

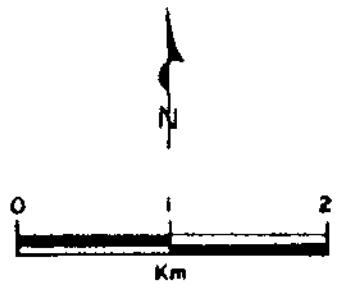
1601 1599 1580 1522

Golden Gate  
1035

Esther  
1470

2882

CLAIM INDEX	
1522	- Black Bear
1580	- Cinnamon Bear
1599	- Grizzly Bear
1601	- Ironsides
2882	- Bear Fraction



**CLAIM MAP**  
(Part of M92F / 3W)

Drawn By: D.J.P.	Scale 1:50,000
Date: July 1988	Figure

River  
HIGHWAY

Kennedy

TOFINO

ALBERNI

125° 25' W

KENNE. LAKE



The silver- and gold-bearing quartz-sulphide Elite Vein was discovered on Blaster mineral claim. The Elite Vein was stripped, trenched, mapped and sampled from October 1987 to January 1988 (Henneberry, 1987 c, e, f, h; Epp 1987 a,b, 1988). By early January 1988 the Elite Vein had been discontinuously exposed for a strike length of 85 m. Chip(?) samples of the Elite Vein from two high grade sections each 10 m long returned assay results of 0.866 oz/ton gold across 0.62 m, and 0.78 oz/ton gold across 0.39 m (Epp, 1987 a). Ten bulk samples were collected from eastern Elite Vein. These bulk samples contain an average of 2.82 oz/ton gold (Epp, 1988). The Elite Vein surface sampling is depicted on figure 6; assay certificates for these samples are included in this report within appendix F.

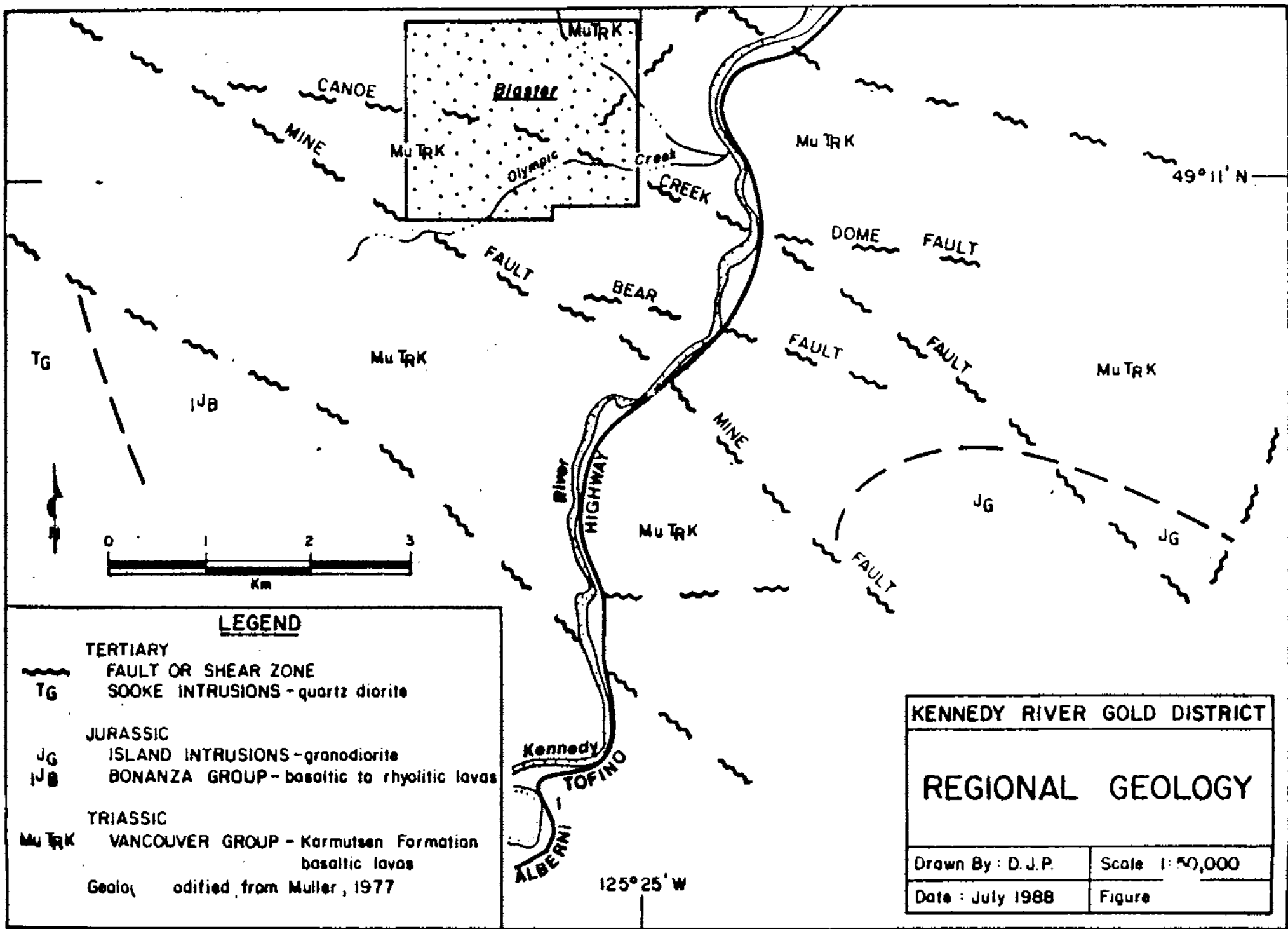
The silver- and gold-bearing Elite II Vein was discovered during 1987 geochemical silt sampling along Olympic Creek (Henneberry, 1987b). Elite II Vein was sampled by Henneberry (1987f). The results of vein sampling and of geochemical silt sampling are presented on figure 7. Samples of Elite II Vein contain up to 0.508 oz/ton gold and 0.38 oz/ton silver across 110 cm (Figure 7). A select sample of rock from Elite II Vein area assays 3.566 oz/ton gold and 2.38 oz/ton silver (Figure 7). Assay certificates for Henneberry's sampling of Elite II Vein are included within appendix E. The geochemical analysis certificates for the silt samples are included as appendix G.

#### REGIONAL GEOLOGY






Blaster mineral claim is within a tectonically active part of Vancouver Island (Figure 3). Triassic Karmutsen Formation volcanic rocks of the Vancouver Group and Jurassic Bonanza Group volcanic rocks have been intruded by granitic rocks. These granitic rocks are the Jurassic Island Intrusions granodiorite, and the Tertiary Sooke Intrusions quartz diorite (Muller, 1977).

Contacts between the intrusives and the wallrocks are usually discrete; the contacts are faulted in a few places. The rocks have been transected by west-northwesterly to westerly trending, generally steeply dipping faults. Most of these faults are of Tertiary age (Henneberry, 1987 d). Certain of the larger faults, such as the Mine Fault, are probably older and may have been active since Jurassic time. Mine Fault has a strike length of 45 km.

Gold-bearing quartz-sulphide veins within the district are found primarily along faults, therefore the veins are likely of Tertiary age. The Canoe Creek Fault, which passes through the central part of Blaster mineral claim, is a splay of the Mine Fault. Canoe Creek Fault has a strike length of 12 km (Figure 3).



**LEGEND**

-  TERTIARY FAULT OR SHEAR ZONE
  -  SOOKE INTRUSIONS - quartz diorite
  -  JURASSIC ISLAND INTRUSIONS - granodiorite
  -  JURASSIC BONANZA GROUP - basaltic to rhyolitic lavas
  -  TRIASSIC VANCOUVER GROUP - Karmutsen Formation basaltic lavas
- Geology modified from Muller, 1977

**KENNEDY RIVER GOLD DISTRICT**

**REGIONAL GEOLOGY**

Drawn By : D.J.P.	Scale 1:50,000
Date : July 1988	Figure

## PROPERTY GEOLOGY

Karmutsen Formation andesite and andesite porphyry have been intruded by quartz diorite of the Sooke Intrusions at Blaster mineral claim. The Canoe Creek Fault passes through central Blaster mineral claim. This fault structure is about 20 m wide and includes sheared, brecciated rock that has been locally silicified and bleached.

Blaster mineral claim covers the silver- and gold-bearing Elite and Elite II veins (Figure 18).

The Elite Vein is emplaced along an easterly to northeasterly trending shear or fault which is likely a splay of Canoe Creek Fault. This quartz-sulphide vein is 35 to 75 cm wide at ground surface and dips steeply to the north and northwest (Figure 6). A discontinuously exposed section of eastern Elite Vein contains an average of 1.28 oz/ton gold across 54 cm for a strike length of 27 m (Epp, 1987 b). A more complete description of Elite Vein is included in this report within the section on diamond drilling.

At Elite II Vein area, 2 to 6 per cent disseminated pyrite occurs in a zone of bleached and silicified rock which includes irregular quartz lenses and pods. The quartz lenses and pods contain much of the pyrite. Rock samples from Elite II Vein area that contain the most pyrite also contain the most gold and silver (Henneberry, 1987 f). Elite II Vein is discontinuously exposed for 200 m along strike (Henneberry, 1987 f).

### 1987/1988 EXPLORATION PROGRAM

#### Geophysical Survey

Delta Geoscience Limited of Tsawwassen, British Columbia performed very low frequency electromagnetic (VLF-EM) surveying across the Elite and Elite II veins during late 1987 (Figures 4, 5, and 18). Readings were taken at 12.5 m intervals along the survey lines. Note that grid station numbers on the figures are negative for grid stations south of the baseline.

Survey results indicate that a series of poorly defined, generally northerly dipping VLF-EM conductors exist north of the surface trace of Elite Vein (Figure 4).

VLF-EM survey results show that two moderately strong conductors with Fraser-filter values of 18 and 13 exist at Elite II Vein area (Figure 5). These conductors dip at about 70 degrees to the north.

## Petrographic Description

Vancouver Petrographics Ltd., Fort Langley, British Columbia petrographically examined four thin sections made from two samples of Elite Vein material (Appendix E; Figure 6).

Vancouver Petrographics Ltd. states that the sulphides in Elite Vein are pyrite, pyrrhotite, chalcopyrite and sphalerite. Native gold occurs as grains from 5 to 150 microns across within pyrite, pyrrhotite and chalcopyrite, and also as free grains within the vein quartz. The vein material is texturally and mineralogically simple, therefore extracting gold from this rock should be relatively easy and straightforward.

## Diamond Drilling

Drilcor of Delta, British Columbia performed a total of 819.15 m of diamond drilling at Blaster mineral claim between January 15 and February 17, 1988. A diamond drill custom built by Drilcor was used to recover NDB (56 mm diameter) core. Drill core was lithologically logged; the drillhole logs are included as Appendix C. Most of the drill core is stored in coreboxes at the drillsites except for vein intersections which were transported to Ucluelet, British Columbia to be sawn before the core samples were sent for assay. One half of the sawn drill core was sent for assay; the remaining half was stored at Ucluelet. Fire assays of the drill cores were performed by Vangeochem Lab Limited, Vancouver, British Columbia and by Bondar - Clegg & Company Ltd., North Vancouver, British Columbia. Assay certificates form Appendix D.

Diamond drill holes EL - 88 - 1, EL - 88 - 2 and EL - 88 - 3 were drilled to test the central part of eastern Elite Vein (Figure 6).

The quartz-sulphide Elite Vein was cored over an interval of 64 cm in diamond drill hole EL - 88 - 1 (Figure 8). The vein contains 5 to 10 per cent combined pyrite and pyrrhotite with minor chalcopyrite and arsenopyrite(?). Weighted assay results for Elite Vein samples are 0.201 oz/ton gold and 0.615 oz/ton silver across 64 cm (Appendix C).

The Elite quartz-sulphide vein was cored over an interval of 40 cm in diamond drill hole EL - 88 - 2 (Figure 8). The upper half of the vein assays 0.106 oz/ton gold and 0.10 oz/ton silver across 20 cm. A quartz vein 35 cm wide (the Rachel Vein) cored at the top of hole EL - 88 - 2 contains limonite along fracture surfaces and lining vugs. No sulphides were observed in this vein and it contains no gold or silver (Appendix C).

The Rachel Vein was cored over an interval of 82 cm in drill hole EL - 88 - 3 (Figure 8); it contains 0.005 oz/ton gold and 0.05 oz/ton silver across 52 cm.

Drill hole EL - 88 - 4 was drilled to test the western part of eastern Elite Vein (Figure 6). The Elite quartz-sulphide vein was cored over an interval of 35 cm which contains 0.227 oz/ton gold and 0.14 oz/ton silver (Figure 9).

Drill hole EL - 88 - 5 was drilled to intersect both the Rachel Vein and also the two splays of the Elite Vein (Figure 6). Only one quartz-sulphide vein, the Elite Vein, was cored over an interval of 28 cm which contains 0.326 oz/ton gold and 0.37 oz/ton silver (Figure 10; Appendix C).

Drill hole EL - 88 - 6 was drilled to test the western part of the Elite Vein (Figure 6). The Elite Vein was cored over an interval of 73 cm which contains 0.280 oz/ton gold and 0.33 oz/ton silver (Figure 11; Appendix C). A second, lower quartz vein 40 cm wide is incorporated within an interval 53 cm wide which assays 0.047 oz/ton gold and 0.15 oz/ton silver.

Drill holes EL - 88 - 7 and EL - 88 - 8 were drilled to test the Rachel Vein (Figures 6 and 8). No vein was cored in hole EL - 88 - 7. The Rachel(?) Vein cored over 13 cm in hole EL - 88 - 8 contains 0.004 oz/ton gold and 0.02 oz/ton silver.

Drill hole EL - 88 - 9 was drilled to test western Elite Vein (Figure 6). Quartz veinlets up to 1 cm wide likely represent the Elite Vein in this hole; the veinlets contain 0.087 oz/ton gold and 0.57 oz/ton silver (Figure 12; Appendix C).

Drill hole EL - 88 - 10 was drilled to test western Elite Vein (Figure 6). Elite Vein was cored over 66 cm, and is incorporated within an interval 74 cm wide which contains 0.033 oz/ton gold and 0.12 oz/ton silver (Figure 13; Appendix C).

Drill hole EL - 88 - 11 was drilled to test western Elite Vein (Figure 6). Elite Vein was cored over 100 cm and is incorporated within a 105 cm wide interval which contains 0.074 oz/ton gold and 0.08 oz/ton silver (Figure 13; Appendix C).

The Elite Vein cored over an interval of 55 cm in drill hole EL - 88 - 12 contains 0.108 oz/ton gold and 0.12 oz/ton silver (Figures 6 and 14; Appendix C).

The Elite Vein was cored for 47 cm in drill hole EL - 88 - 13; the vein is incorporated within a 50 cm interval which contains 0.032 oz/ton gold and 0.18 oz/ton silver (Figures 6 and 15; Appendix C).

The Elite(?) Vein was cored for 13 cm in drill hole EL - 88 - 14 (Figures 6 and 16). This vein contains 0.020 oz/ton gold and 0.02 oz/ton silver (Appendix C).

The results of diamond drilling at Elite Vein project area show that Elite Vein extends downward to a depth of at least 52 m below surface. The vein dips between about 55 and 80 degrees to the north and extends at least 85 m along strike.

### Elite Vein

The eastern part of Elite Vein strikes northeasterly along an azimuth of 060 degrees and dips 60 degrees to the northwest; the western part of this vein strikes easterly and dips 75 degrees to the north (Figure 6). At ground surface the vein is from 35 to 75 cm wide; it is composed of 75 to 90 per cent quartz and 10 to 25 per cent sulphide minerals.

The Elite Vein is composed of off-white to locally pale grey or pale greenish white quartz with brown, greyish brown or brass coloured patches where sulphides are abundant. The vein quartz is fractured; chlorite and sulphides line some of the fracture surfaces.

The vein quartz is often weakly brecciated and locally banded on a mm scale over a couple of cm along both hangingwall and footwall contacts; these bands are composed of chlorite, wispy wallrock inclusions or sulphides. The sulphides occur as bands up to 1.5 mm wide within the topmost 2 cm of Elite Vein in diamond drill hole EL - 88 - 11.

Sulphide minerals within Elite Vein are mainly pyrite and pyrrhotite in the ratio of about three quarters pyrite and one quarter pyrrhotite. The pyrite may be mainly secondary after pyrrhotite (Appendix E). Lesser amounts of chalcopyrite, sphalerite, galena and arsenopyrite(?) occur locally. Chalcopyrite often occurs as rims around pyrite and pyrrhotite masses. The sulphides occur as irregular masses filling vugs, elongate lenses, blebs and as irregular hairline veinlets along discontinuous fractures. Vugs parallel fractures in Elite Vein quartz from drillhole EL - 88 - 4 (Appendix C).

The sulphides are mostly concentrated along vein margins, especially the hangingwall contact. The vein material has been well oxidized on surface where sulphides are most abundant.

Elite Vein locally contains 1 percent carbonate, up to 6 per cent sericite, traces biotite and traces jarosite (Appendix E). Chlorite locally occurs along fractures, and as pods and seams up to 5 mm wide that strike parallel the vein margins.

The contacts between the Elite Vein and the wallrocks are discrete or locally faulted with up to 2 cm of fault gouge along vein margins in the diamond drill holes.

The hangingwall contact of the Elite Vein in drill hole EL - 88 - 11 is marked by finely broken core and mud, and is probably faulted. Epp (1987 b) noted a zone of intensely clay altered and sheared material 1 to 5 cm wide along the Elite Vein hangingwall at the surface exposure.

#### Elite Vein Wallrocks

Karmutsen Formation andesite or andesite porphyry is the Elite Vein wallrock on surface and in 7 of the drillholes. Quartz diorite is the vein wallrock in 4 of the drillholes and in drillhole EL - 88 - 4 andesite porphyry forms the vein hangingwall, and quartz diorite forms the footwall (Appendix C; Figure 9).

The andesite or andesite porphyry wallrock is green to grey-green, fine grained and massive with traces of disseminated pyrite. The rock is brecciated and altered for distances of up to 6.45 m from vein margins (Appendix C). The rock is generally moderately to intensely brecciated with abundant fractures filled by quartz, carbonate and/or sulphides.

The andesite or andesite porphyry is usually bleached to a light grey colour over distances of up to 1.18 m from vein margins where feldspars have been altered to clay minerals. The andesite or andesite porphyry is generally moderately to locally intensely silicified along vein margins. The rock here also contains chlorite which has likely formed as an alteration product of hornblende. In places andesite and andesite porphyry contain up to 3 per cent both pervasive and veinlet carbonate. The rock locally contains sericite as well. The andesite or andesite porphyry contains up to 5 per cent irregular, discontinuous and randomly oriented quartz veinlets.

Quartz diorite wallrock at Elite Vein area is light greenish grey to locally pale green, greenish white or pale grey-brown. The quartz diorite is medium to fine grained and massive. The rock is generally moderately altered within about 1 to 1.5 m of the Elite Vein contact. Here the rock is brecciated, and up to 25 per cent of the feldspars have been altered to clay minerals. Hornblende has been altered to chlorite and sericite is locally present. The quartz diorite locally contains up to 2 per cent pervasive carbonate. Disseminated pyrite and pyrrhotite locally form up to about 0.5 per cent of the rock volume. The rock is generally moderately silicified over distances ranging up to several metres from the Elite Vein. The quartz diorite in drill hole EL - 88 - 9 includes approximately 2 per cent irregular quartz-carbonate veinlets.

## Rachel Vein

Rachel Vein is an irregular, discontinuous quartz vein which exists north of eastern Elite Vein (Figure 6). This vein was cored in diamond drill holes EL - 88 - 2, -3, -4, and -8(?) (Appendix C). Rachel Vein locally contains up to 3 per cent pyrite, 5 per cent carbonate, 1 per cent chlorite and also locally contains limonite along fracture surfaces and lining vugs.

The highest assay value obtained from Rachel Vein material is 0.005 oz/ton gold and 0.05 oz/ton silver across 52 cm in drill hole EL - 88 - 3 (Figure 8).

## CONCLUSIONS

The results of VLF-EM surveying at Elite Vein show that generally northerly dipping conductors exist north of the surface trace of Elite Vein. The source of these conductors is probably either the fault structure which hosts Elite Vein, the Elite Vein itself, or, possibly, parallel fault structures which may host other quartz-sulphide veins.

Two moderately strong VLF-EM conductors which dip at about 70 degrees to the north are present at Elite II Vein area. The source of these conductors is likely the Canoe Creek Fault which hosts Elite II Vein.

Sulphides are associated with gold and silver at Elite and Elite II veins.

The Elite Vein material is texturally and mineralogically simple, therefore extracting gold from it should be relatively easy and straightforward.

Elite Vein is open at depth and along strike to the northeast; it may also be open along strike to the west. Elite Vein samples from drill cores generally do not contain as much gold as Elite Vein samples from surface (Figures 6 and 17).



## RECOMMENDATIONS

Geological mapping, prospecting, geophysical surveying, diamond drilling and bulk sampling should be performed at Blaster mineral claim. The recommended work is outlined below, and can be performed at an estimated cost of \$150,144.00. A detailed cost estimate forms Appendix A.

Systematic, detailed geological mapping and prospecting should be performed in Olympic Creek valley at southeastern Blaster mineral claim. This work should cover the Elite Vein, Elite II Vein and Canoe Creek Fault areas. Any quartz veins discovered during this work should be sampled and evaluated.

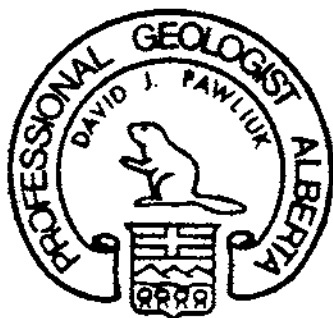
Additional VLF-EM surveying should be performed at both Elite and Elite II vein areas to delineate the conductors found during the initial VLF-EM survey. Induced polarization (IP) surveying should be performed over selected VLF-EM conductors to better define the source of these conductors. The IP survey should determine if sulphides exist within the conductors. Sulphides are associated with gold and silver at Elite and Elite II veins.

About six diamond drill holes should be drilled at eastern Elite Vein area to test the vein along strike to the northeast and at depth. More drilling may later be required to define the limits of Elite Vein occurrence.

In addition, certain of the geophysical anomalies outlined by the recommended VLF-EM and IP surveys may warrant testing with diamond drill holes, especially at Elite II Vein area.

Elite Vein material should be bulk sampled. Bulk sampling will provide a more accurate grade estimate than can be obtained from chip samples and drill hole intersections.

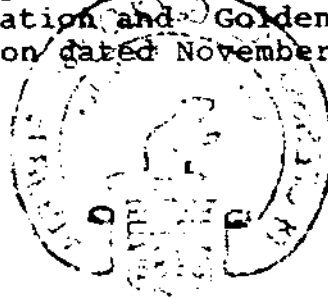
Respectfully submitted at Vancouver, British Columbia



*David J. Pawliuk*  
David J. Pawliuk, P. Geol.

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Henneberry, R.T. (1987 f) Blaster Claim Elite II Vein Sampling; unpublished, private memorandum to Nationwide Gold Mines Corporation and Golden Spinnaker Minerals Corporation dated November 25, 1987.

Henneberry, R.T. (1987 g) Blaster Claim Elite Vein Sampling; unpublished, private memorandum to Golden Spinnaker Minerals Corporation (GSM) and Nationwide Gold Mines Corporation (NGM) dated November 26, 1987.

Henneberry, R.T. (1987 h) Blaster Claim Examination; unpublished, private memorandum to Golden Spinnaker Minerals Corporation and Nationwide Gold Mines Corporation dated December 7, 1987.

Muller, J.E. (1977) Geology of Vancouver Island; Open File 463, Geological Survey of Canada.

APPENDIX A  
COST ESTIMATE

COST ESTIMATE  
BLASTER MINERAL CLAIM

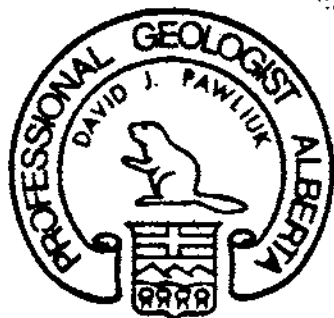
Diamond Drilling	
Drillsite preparation/tree falling	10,000.00
Mobilization/Demobilization	2,500.00
Helicopter 8 hours @ \$600.00	4,800.00
Drilling 350 m @ \$120.00/m	42,000.00
Personnel	
Geologist 18 days @ \$350.00/day	6,300.00
Prospector 3 days @ \$250.00/day	750.00
Blaster - trencher 6 days @ \$250.00/day	1,500.00
Assistant 27 days @ \$180.00/day	4,860.00
Geophysical surveying	
VLF-EM survey (3 days)	1,350.00
IP survey (2 days)	3,200.00
Accommodation - 55 days @ \$60.00/day	3,300.00
Transportation, telephone, shipping	1,400.00
Assays 90 samples @ \$20.00/each	1,800.00
Supplies	1,800.00
Explosives	1,000.00
Drill and heavy equipment rental for bulk sampling	2,000.00
Bulk sample processing (150 tonnes @ \$250.00/tonne)	37,500.00
Report	
Geologist 10 days @ \$300.00/day	3,000.00
Drafting, typing, printing	1,500.00
	<hr/>
Subtotal:	130,560.00
Contingency (15%):	19,584.00
	<hr/>
Total:	150,144.00
	=====

APPENDIX B  
CERTIFICATE

CERTIFICATE

I, David J. Pawliuk of the Municipality of Delta in the Province of British Columbia, do hereby certify:

- I) I am a consulting geologist residing at 4820 - 48th Avenue, Delta, British Columbia, V4K 1V1.
- II) I graduated in 1975 from the University of Alberta, Edmonton, Alberta, and hold a Bachelor of Science degree with Specialization in Geology.
- III) I am a registered member, in good standing, of the Association of Professional Engineers, Geologists and Geophysicists of Alberta.
- IV) I have practised my profession continuously since graduation.
- V) This report is based upon field work performed by myself from January 31st to February 17, 1988, upon field work performed by R.T. Henneberry, W.R. Epp, C. Ditson and others from October 1987 to February 1988, and upon a study of published and unpublished data.
- VI) I hold no direct nor indirect interest in the property, or in any securities of Nationwide Gold Mines Corporation or Golden Spinnaker Minerals Corporation, nor do I expect to receive any such interest.
- VII) This report may be utilized by Nationwide Gold Mines Corporation or Golden Spinnaker Minerals Corporation for inclusion in a Prospectus or Statement of Material Facts.



David J. Pawliuk  
David J. Pawliuk, P. Geol.

September 15, 1988  
Date

APPENDIX C

NOTE: Drill collar elevations, northings and eastings are all relative to an arbitrary point of origin established during the survey of the Elite Vein area in January, 1988.



## APPENDIX C

### Abbreviations used in diamond drill hole logs

A	alteration
M	mineralization
V	veins
H	hardness
S	structure
w	weak
m	moderate
s	strong
c.a.	core axis
CIA	core incidence angle (angle of geologic feature relative to core axis)
CB, carb	carbonate
cp, cpy, chalco	chalcopyrite
arsenopy	arsenopyrite
po	pyrrhotite
py	pyrite
gn	galena
si	silica
sp	sphalerite
Apo	andesite porphyry
BX, bx	breccia
f	fine
F/W	footwall
gr	grained
H/W	hanging wall
pheno	phenocrysts
Qd	quartz diorite
rel	relatively
Tr	trace
:	increase

# PROJECT

ITE \_\_\_\_\_  
**D.D.HOLE No.** EL - 88 - 01

**LOCATION** \_\_\_\_\_  
**HOLE STARTED** January 15, 1988  
**HOLE COMPLETED** January 19, 1988  
**CORE RECOVERY** \_\_\_\_\_ %  
**DRILLED BY** Drilcor  
**LOGGED BY** W.R. Epp  
**OBJECTIVE** intersection Elite Vein at 15 m down dip.

**COLLAR** **LAT.** 1021.9 N  
**LONG.** 975.6 E  
**ELEV.** 1007.9 **LENGTH** 43.58 m  
**AZIMUTH** 125° **DIP** -46°  
**DIP TESTS** NONE TAKEN  
**HOR. PROJ.** 30.2 **VERT. PROJ.** 31.4

## ABBREVIATIONS

- A = alteration
- M = Mineralization
- V = Veins
- H = Hardness (1-5)
- S = Structure

INTERVAL (M)		DESCRIPTION	SAMPLING			AU OZ/TON
FROM	TO		SAMPLE NO.	FROM	TO	
0.00	2.13	CASING				
2.13	31.39	SILICIFIED QUARTZ DIORITE - A = 2.13 - 5.2 m oxidized - limonitic along fracture planes and selvage rims of fractures. - (w) bleaching - sericite, silicification. M = Trace disseminated py - rarer blebs. V = 1 cm wide quartz veinlets ± carbonate stingers/coatings CIA = 30° - 60°. S = dominant fracture at 45° CIA secondary fractures at 30° and 60°. H = 5 Displays intrusive textures or this could be a silicified crystal tuff.				
31.90	34.54	SILICIFIED, BRECCIATED ANDESTIC VOLCANIC - Contact at 75° A = (m) - (s) matrix silicification, chlorite, ± (w)-(m) sericite - (m) bleached	T.S. #1	28.34		

PROJECT \_\_\_\_\_

PAGE 2 OF 3

D.D.HOLE No. EL-88 - 1

## ABBREVIATIONS

LOCATION \_\_\_\_\_

COLLAR LAT. \_\_\_\_\_

HOLE STARTED \_\_\_\_\_

LONG. \_\_\_\_\_

HOLE COMPLETED \_\_\_\_\_

ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_

CORE RECOVERY \_\_\_\_\_ %

AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_

DRILLED BY \_\_\_\_\_

DIP TESTS \_\_\_\_\_

LOGGED BY \_\_\_\_\_

HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING			OZ/TON	
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU
		M - (w) disseminated py and po (<2%) - predominantly along fracture planes.					
		V= Minor quartz veinlets (<1 cm wide)	10002	34.04	34.54	.5	<.005 <
		S=Competent; healed micro fractures abundant.	10003	34.54	34.86	.32	.390 1.
		- low matrix / clast ratio of brecciation.	10004	34.86	35.18	.32	.012
		- brecciation appears hydrothermal	10001	35.19	35.69	.5	<.005 <
		H = 5					
		- Darker f. grained micro-brecciated andesite appears to be flooded with quartz; healed, pervasive silicification - minor pyrite occurs proximal to fracture planes.					
34.54	35.18	QUARTZ-SULPHIDE VEIN					
		- upper contact at 60°; lower contact at 65°					
		1-2 cm clay gouge on upper contact.					
		A = (m) chlorite along 60° narrow linears along the vein.					
		M = 5-10% py, po ± Arsenopy					

# PROJECT \_\_\_\_\_

D.D.HOLE No. EL-88 - 1

## ABBREVIATIONS

LOCATION \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_ %  
 DRILLED BY \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

COLLAR LAT \_\_\_\_\_  
 LONG. \_\_\_\_\_  
 ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DIP TESTS \_\_\_\_\_  
 HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING			OZ/TON		
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU	AG
		- blebs, wisps and clots of chalco						
		- sulphides preferentially along hanging wall contact -						
		34.54 - 34.86 contains 90% of all sulphides in vein.						
		34.86 - 35.18 - Contains 3 cm splashes of py, po ± chalco but hosts 10% of vein sulphides.						
		- Mineralization is coarse, vuggy and linear at 60° to core axis.						
35.19	43.58	SILICIFIED, BRECCIATED ANDESITE	T.S. #2	39.52				
		A = (m) sericite, silica in matrix - bleached	10280	42.83	43.33	.5	<.005	.0
		M = <1% disseminated py - splash chalco at 43.08 m	T.S. #3	41.83				
		V = 37.49 - 0.3 cm wide quartz-carbonate vein at 30°.						
		40.6 - as above.						
		S = joint planes at 30°						
		H = 5 - brecciated intermediate volcanic that shows a hint of crystal tuff textures.						
	43.58	END OF HOLE						

# PROJECT

ELITE

D.D.HOLE No. EL - 88 - 02

## ABBREVIATIONS

LOCATION \_\_\_\_\_  
 HOLE STARTED January 19, 1988  
 HOLE COMPLETED January 23, 1988  
 CORE RECOVERY \_\_\_\_\_ %  
 DRILLED BY Drilcor  
 LOGGED BY W.R. Epp C. Ditson  
 OBJECTIVE TEST ELITE VEIN

COLLAR LAT. 1021.9 N  
 LONG. 975.6 E  
 ELEV. 1007.9 LENGTH 49.55  
 AZIMUTH 125° DIP -65°  
 DIP TESTS NONE TAKEN  
 HOR. PROJ. 21.2 VERT. PROJ. 44.4

INTERVAL (M)		DESCRIPTION	SAMPLING			OZ/TON		
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU	AG
0.00	1.52	Casing						
1.69	2.04	Oxidized vuggy quartz vein filled by quartz stringer <.2 cm wide	10031	1.69	2.04	.35	<.005	<.0
		A = Chlorite linear at 45° CIA - Limonite along fractures within vugs.						
		M = Limonite after py.						
		H = 4                      H = 5						
		S = (w) Foliation/ orientation of chlorite at 45°.						
2.04	6.71	LIGHT GREY SILICIFIED QUARTZ DIORITE - A= Silicification (w-m), moderately bleached.						
		- Oxidized, chloritized mafic pheno's.						
		- Minor fracture, randomly oriented,						
		S = Moderately broken.						
		V = Minor fracture filling <.2 cm wide.						
6.71	18.	Brecciated porphyritic andesite/ quartz diorite.						
		A = Light grey silicified (w-m) chlorite along fractures						

# PROJECT \_\_\_\_\_

D.D.HOLE No. EL-88- 2

## ABBREVIATIONS

LOCATION \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_ %  
 DRILLED BY \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

COLLAR LAT. \_\_\_\_\_  
 LONG. \_\_\_\_\_  
 ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DIP TESTS \_\_\_\_\_  
 HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING			AU GZ/TON
FROM	TO		SAMPLE NO.	FROM	TO	
		and as fracture filling. (w) CB in micro quartz-carbonate veinlets (<.2 cm wide) M= Rare speck disseminated py <1%				
		V = 7.61 - .5 cm wide quartz veinlet - barren at 45°.				
		9.00 - .5 cm wide quartz veinlet - barren at 45°.				
		S = 16.85 - 80% Broken core - fault gouge at 40°-lower cm bounded by .5 cm wide quartz-carbonate veinlet.				
		H = 4 Micro-brecciated (hydrothermal?) High clast/matrix ratio.				
		- Relatively uncertainty H/W - fault zone (s) chlorit&c.				
		M = 23.97 - 1 cm quartz vein - + disseminated sulphides 1 py as contact stringer at 60°.				
		24.39 - 1 cm wide yellowish quartz vein ± 1-2% pyrite.				
		28.80 - increase in density of quartz-filled breccia fracture zones				
		29.20 - 1 cm wide quartz vein at 45° toc.a. in 5 cm wide chlorite envelope.				

PROJECT \_\_\_\_\_

PAGE 3 OF 6

D.D.HOLE No. EL-88-2

## ABBREVIATIONS

LOCATION \_\_\_\_\_

COLLAR LAT. \_\_\_\_\_

HOLE STARTED \_\_\_\_\_

LONG. \_\_\_\_\_

HOLE COMPLETED \_\_\_\_\_

ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_

CORE RECOVERY \_\_\_\_\_ %

AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_

DRILLED BY \_\_\_\_\_

DIP TESTS \_\_\_\_\_

LOGGED BY \_\_\_\_\_

HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING			AU 02/10
FROM	TO		SAMPLE NO.	FROM	TO	
		(S- 24.61 - broken core)				
		32.90 - 2 cm quartz-carbonate veinlet.				
		32.65 - Vertical quartz ± (w) bleb py vein - < 1 cm. Silicification increases around veinlets.				
		V = as above				
		H = 4-5				
18.80	23.85	Darker f. grained porphyritic andesite; quartz replacement of pseudo pheno's.				
		A = (w) brecciated - chlorite/si in matrix.				
		M - (w) ± rare disseminated py along fracture surfaces.				
		H = 4.5				
		V = Micro wisps + discontinuous micro veinlets, quartz-carbonate, randomly oriented.				
		18.67 - broken core (m) fault gouge.				
		21.35 - 22.25 - Increase				

PROJECT \_\_\_\_\_

D.D.HOLE No. EL-88-2

**ABBREVIATIONS**

LOCATION \_\_\_\_\_ COLLAR LAT \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_ LONG. \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_ ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_ % AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DRILLED BY \_\_\_\_\_ DIP TESTS \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_ HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING			AU GZ/TD
FROM	TO		SAMPLE NO.	FROM	TO	
		in bleaching and lighter colour, and also increase				
		in silicification. - still BX + high clast to matrix ratio				
23.85	35.04	Pale grey-green brecciated quartz diorite/ porphyritic andesite.				
		A - (m) silicification/ bleaching ± chlorite clots.				
		- linear, multidirectional follows fractures at quartz-carbonate micro veinlets.				
35.04	39.32	F/gr grey-green andesite ( micro fractures ); no sulphides seen.				
		A = rel. fresh carbonate in fractures + matrix 1 - 3%.				
		V = 38.5 < 1 cm wide H = 4				
		vein at 40° to c.a.; barren.				



D.D.HOLE No. EL - 88 - 2

## ABBREVIATIONS

LOCATION \_\_\_\_\_ COLLAR LAT \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_ LONG. \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_ ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_ % AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DRILLED BY \_\_\_\_\_ DIP TESTS \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_ HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING				OZ/TON	
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU	AG
39.32	39.72	QUARTZ - SULPHIDE VEIN - Sulphides predominantly in topmost	10007	39.32	39.52	.2	0.106	0.
		20.3 cm. Chlorite filling linear fractures at approx. 45°	10008	39.52	39.72	.2	4.005	<.1
		to c.a. Discrete, sharp H/W and F/W contacts at 45° to c.a.;						
		coarse euhed ral py in vugs aligned at 45° to c.a.						
		1 - 2% po as blebs.						
39.72	44.95	F/W same as H/W. Fine grained andesite with increase in						
		brecciation and bleaching to (m) grey quartz.						
44.95	49.55	Brecciated, porphyritic andesite/quartz diorite. Increase						
		in chlorite near veinlets; also increase in silicification,						
		carbonate and sericite. Possible ankerite in vein.						
		V = 45.35 - 46.78 - Increase in quartz veinlets locally						
		containing minor disseminated py.						



PROJECT ELITEGE 1 OF 4D.D.HOLE No. EL - 88 - 3**ABBREVIATIONS**

LOCATION \_\_\_\_\_

COLLAR LAT 1021.9 NHOLE STARTED January 23, 1988LONG. 975.6 EHOLE COMPLETED January 24, 1988ELEV. 1007.9 LENGTH 60.35

CORE RECOVERY \_\_\_\_\_ %

AZIMUTH 125° DIP - 85°DRILLED BY DrilcorDIP TESTS NONE TAKENLOGGED BY W.R. EppHOR. PROJ. 5.0 VERT. PROJ. 59.9OBJECTIVE Drill under hole to intersect ELITE at 50 m down dipA = Alteration  
M = Mineralization  
V = Veins  
H = Hardness (1-5)  
S = Structure

INTERVAL (M)		DESCRIPTION	SAMPLING			OZ/T
FROM	TO		SAMPLE NO.	FROM	TO	
0.00	1.82	Casing				
1.82	2.29	Oxidized, broken, grey-green volcanic. - vuggy, limonite, highly broken.				
2.29	3.11	Oxidized white quartz vein. A = Chlorite in fracture <1%. M = up to 2 - 3% py as coarse blebs, and disseminations H = 5 S = Broken core - fractures predominantly oriented at 20° to c.a.	10029	2.29	2.59	.30 .005 <.1
3.11	12.8	QUARTZ DIORITE - Silicified. A = Some chlorite clots after mafics. - (w-m) silicification/ bleaching M = 8.38 - 8.69 - quartz breccia zone with local 1 - 2% py in matrix and local sp.	10030	2.59	3.11	.52 .005 .1

## PROJECT \_\_\_\_\_

GE 2 OF 4

D.D.HOLE No. EL - 88 - 3

## ABBREVIATIONS

LOCATION \_\_\_\_\_

COLLAR LAT \_\_\_\_\_

HOLE STARTED \_\_\_\_\_

LONG. \_\_\_\_\_

HOLE COMPLETED \_\_\_\_\_

ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_

CORE RECOVERY \_\_\_\_\_ %

AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_

DRILLED BY \_\_\_\_\_

DIP TESTS \_\_\_\_\_

LOGGED BY \_\_\_\_\_

HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING			OZ/TON		
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU	AG
		- sulphides occur as micro veinlets and as patches within healed fracture zones.						
		4.57 - Quartz vein 2.5 cm wide at 25 <sup>0</sup>	10018	8.53	8.76	.23	.020	.02
		9.45 - Three generations of cross cutting quartz veinlets; veinlets multidirectional with preferred orientation at 30 - 45 <sup>0</sup> .	10019	10.29	10.59	.30	.026	.02
		10.06 - 11.28 - Quartz vein 4 cm wide at 15 - 20 <sup>0</sup> to c.a. Rock strongly bleached, bleaching increasing in stringer zone. Disseminated py in matrix and in veinlets. Most quartz veinlets ar 20 <sup>0</sup> to c.a. Hairline fractures; brecciated rock.	10020	11.98	12.79	.81	.020	.12
12.8	21.03	ANDESITE - Fine grained to aphanitic, relatively fresh but oxidized along fracture surfaces.						
		A - selvage chlorite along fractures and micro veinlets.						



PROJECT \_\_\_\_\_

GE 3 OF 4

D.D.HOLE No. \_\_\_\_\_ - 3 \_\_\_\_\_

## ABBREVIATIONS

LOCATION \_\_\_\_\_

COLLAR LAT. \_\_\_\_\_

HOLE STARTED \_\_\_\_\_

LONG. \_\_\_\_\_

HOLE COMPLETED \_\_\_\_\_

ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_

CORE RECOVERY \_\_\_\_\_ %

AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_

DRILLED BY \_\_\_\_\_

DIP TESTS \_\_\_\_\_

LOGGED BY \_\_\_\_\_

HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING				AU OZ/TON
FROM	TO		SAMPLE NO.	FROM	TO	M.	
21.03	25.54	Porphyritic andesite / Quartz Diorite					
		A = (w-m) Silicification - quartz replaced pheno's					
		- chlorite along fracture planes. M = rare speck py.					
		V = at 21.18 <1 cm wide quartz. H = 4-5. S = fractures at 20°					
		rel. competent					
25.54	48.74	Porphyritic andesite - Green-grey med. colour; f. grained fresh, c					
		competent andesite with cream coloured feldspar pheno's.					
		Minor wisps and micro veinlets at: 39.01, 39.62, 44.50, 47.24.					
		Homogeneous and consistently porph. andesite throughout.					
48.78	53.34	Brecciated Andesite - A= chlorite in matrix and associated with					
		fractures. f. gr. andesite to 49.68 - $\uparrow$ in brecciation below 49.68.					
		M= 52.88 - 2 cm quartz vein - No py.					
		S = core broken between 49.68 - 52.73, Probable multiple					
		minor faults. H = 4					

PROJECT \_\_\_\_\_

D.D.HOLE No. \_\_\_\_\_ - 3 \_\_\_\_\_

**ABBREVIATIONS**

LOCATION \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_ %  
 DRILLED BY \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

COLLAR LAT. \_\_\_\_\_  
 LONG. \_\_\_\_\_  
 ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DIP TESTS \_\_\_\_\_  
 HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING				AU 02/10
FROM	TO		SAMPLE NO.	FROM	TO	M.	
53.34	53.46	Quartz vein - Upper and lower contact at 30° - chlorite oriented at 30° in fracture fill linears. - clay gouge (1-2 cm) along each contact - rel. barren white quartz vein.					
53.46	60.35	Brecciated porphyritic andesite / quartz diorite A = chlorite clots as before. - (w-m) silicification - appears crystalline yet is very microbrecciated. M = rare fracture-controlled pyrite (< 1%) as smears along fracture planes. V = at 53.77 (.7 cm wide) at 45° at 59.38 (<.5 cm wide) at 45° S = competent; minor fractures. H = 4					
	60.35	END OF HOLE					

## PROJECT

ITE

1 : 1 OF 4

D.D.HOLE No. EL - 88 - 04

LOCATION \_\_\_\_\_

COLLAR LAT. 1021.9 NHOLE STARTED January 24, 1988LONG. 975.6 EHOLE COMPLETED January 25, 1988ELEV. 1007.9 LENGTH 49.68 M

CORE RECOVERY \_\_\_\_\_ %

AZIMUTH 158<sup>0</sup> DIP - 66<sup>0</sup>DRILLED BY DrilcorDIP TESTS NONE TAKENLOGGED BY Carol DitsonHOR. PROJ. 20.2 VERT. PROJ. 45.6OBJECTIVE Intersect Elite vein at 30 down dip from surface exposure and small waterfall in creek that crosses path from camp to drill site.

## ABBREVIATIONS

A = Alteration

M = Mineralization

V = Veins

H = Hardness (1-5)

S = Structure

INTERVAL (M)		DESCRIPTION	SAMPLING			OZ/TON		
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU	AG
0.00	2.16	CASING						
2.16	3.46	Silicified quartz diorite and quartz veins	10011	2.16	2.76	0.6	<.005	.02
		A = 30% of section is limonitic	10012	2.76	3.46	0.7	<.005	.01
		- some chloritized stringers and wallrock fragments in quartz vein at top of section.						
		M = up to 5% po as stringers and blebs, trace cp.						
		V = first 300 cm predominantly vein quartz.						
		- two other 3 - 4 cm wide at centre and botom of section.						
		H - 5						
		S = CIA variable 45 <sup>0</sup> , 30 <sup>0</sup> , 60 <sup>0</sup> ( in descending order)						
3.46	8.64	SILICIFIED QUARTZ DIORITE (partially brecciated)						
		A = limonitic fractures, silicification, chloritization of mafics.						
		M = py, po, sp ± gn present as blebs, fine disseminations	10013	7.25	7.85	0.6	.014	.01
		+ stringers.						



PROJECT \_\_\_\_\_

2 OF 4

D.D.HOLE No. EL-88-4**ABBREVIATIONS**

LOCATION \_\_\_\_\_

COLLAR LAT \_\_\_\_\_

HOLE STARTED \_\_\_\_\_

LONG. \_\_\_\_\_

HOLE COMPLETED \_\_\_\_\_

ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_

CORE RECOVERY \_\_\_\_\_ %

AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_

DRILLED BY \_\_\_\_\_

DIP TESTS \_\_\_\_\_

LOGGED BY \_\_\_\_\_

HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING				AU G/T/O
FROM	TO		SAMPLE NO.	FROM	TO	M.	
		- up to 2% of sulfides in bx section.					
		- One stringer at 7.35 m of soft aphanitic bright green mineral (diopside coloured)					
		V = fine quartz and sulfide stringers form bx matrix.					
		H = 5					
		S = Lower half of interval brecciated with volcanic clasts present just above lower contact. Clast/matrix ratio very high.					
8.64	40.45	ANDESITE PORPHYRY - (Sporadically altered and brecciated)					
		- Plagioclase phenocrysts average 1 - 2 cm in size.					
		A = Patchy limonite, chloritization ( m), vein envelope carbonatization ( M-W), silicification (M-S) from 3 40 to end of section.					
		M = Trace finely disseminated py, minor fine stringers.					
		V = Few marrow quartz and carbonate stringers (+py) at					

# PROJECT \_\_\_\_\_

D.D.HOLE No. EL-88- 4

## ABBREVIATIONS

LOCATION \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_ %  
 DRILLED BY \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

COLLAR LAT \_\_\_\_\_  
 LONG. \_\_\_\_\_  
 ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DIP TESTS \_\_\_\_\_  
 HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING				OZ/TON	
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU	AG
		30° to 45° CIA.						
		H = 3 - 5						
		S = Some sections are brecciated ( + silicified) CIA's of stringers 30° to 45°.	10014	39.95	40.45	0.5	<.005	<.0
0.45	40.80	MINERALIZED QUARTZ VEIN	10015	40.45	40.80	0.35	0.227	0.14
		A = Chloritization along fractures						
		M = 20% sulphide content present as massive vug fillings and stringers. Vugs parallel fractures at 50° CIA. Sulphides py, po, + blebby cpy.						
		H = 5						
		S = Upper and lower contacts 50° CIA.						
		Chloritic fractures with spacing up to 2 cm at 50° CIA.						
		Second weak set of fractures at 0° CIA.						
		- Upper contact has 0.5 cm of fault gouge.						

PROJECT \_\_\_\_\_

D.D.HOLE No. EL-88-4

**ABBREVIATIONS**

LOCATION \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_ %  
 DRILLED BY \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

COLLAR LAT \_\_\_\_\_  
 LONG. \_\_\_\_\_  
 ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DIP TESTS \_\_\_\_\_  
 HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING				OZ/TON	
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU	AC
40.80	49.68	SILICIFIED BRECCIATED QUARTZ DIORITE	10016	40.80	41.30	0.5	0.005	<
		A = (m-g) silicification, (w) chloritization and sericite, patches carbonatization.						
		M = Disseminated and blebby py - fine stringers py (±aspy?) in brecciated sections.						
		V = One 3 cm wide quartz-sulphide (30% , py, po, cpy) vein at 42.1 m depth (contact 48°)	10017	41.85	42.35	0.5	.046	.
		- fine quartz stringers at 50° to 10° CIA						
		H - 5						
		S = Predominant fracture set at 45 - 50° CIA; second set at 0 - 15°.						
		- Fault with 0.5 to 1 cm fault gouge at 42.2 parallels core axis for 200 cm						
	49.68	END OF HOLE						

## PROJECT

ELITE

BE 1 OF 5

D.D.HOLE No. EL - 88 - 5

LOCATION \_\_\_\_\_

COLLAR

LAT. 1027.7 NHOLE STARTED January 26, 1988LONG. 967.1 EHOLE COMPLETED January 28, 1988ELEV. 1009.1 LENGTH 93.88 m

CORE RECOVERY \_\_\_\_\_ %

AZIMUTH 164° DIP - 61°DRILLED BY DrilcorDIP TESTS NONE TAKENLOGGED BY Carol DitsonHOR. PROJ. 44.6 VERT. PROJ. 82.7OBJECTIVE intersect Rachel + 2 splays of ELITE vein

## ABBREVIATIONS

A = Alteration

M = Mineralization

V = Vein

H = Hardness

S = Structure

INTERVAL (M)		DESCRIPTION	SAMPLING			AU OZ/TON
FROM	TO		SAMPLE NO.	FROM	TO	
0.00	1.83	CAS ING				
1.83	11.00	SILICIFIED, BRECCIATED QUARTZ DIORITE				
		A = (m - s) Silicified & sericitic				
		= (w - m) Patchy limonite				
		M = Pyrite as fine disseminations, blebs and stringers - py increases with increased silicification (tr to 1%).				
		V = Quartz + py stringers rare - CIA = 45°				
		H = 5				
		S = Predominant fracture set at 45° CIA = Fault at 4.3 m, CIA = 45° (fault gouge + 1 cm quartz stringers + tr py.				
11.00	12.20	ANDESITE PORPHYRY - (feldspar phenocrysts)				
		A = Limonite on fracture surfaces				
		(m) silicification, sericitization + chloritization				
		M = tr - 3% euhedral disseminated pyrite (often clustered)				

# PROJECT \_\_\_\_\_

PAGE 2 OF 5

D.D.HOLE No. EL-88- 5

## ABBREVIATIONS

LOCATION \_\_\_\_\_

COLLAR LAT \_\_\_\_\_

HOLE STARTED \_\_\_\_\_

LONG. \_\_\_\_\_

HOLE COMPLETED \_\_\_\_\_

ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_

CORE RECOVERY \_\_\_\_\_ %

AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_

DRILLED BY \_\_\_\_\_

DIP TESTS \_\_\_\_\_

LOGGED BY \_\_\_\_\_

HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING				OZ/TON	
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU	AG
		V = numerous fine (often anastomosing) quartz veinlets.						
		H = 4						
		s - Upper contact and strong fractures at 35° CIA.						
		- Lower contact is brecciated with fault gouge ( no angle).						
2.20	16.50	SILICIFIED QUARTZ DIORITE - (brecciated)						
		- See description of first section (1.83 - 11 00)						
		S = Lower contact 35° CIA.						
6.50	24.00	ANDESITE PORPHYRY - As previous section (11.00 - 12.20) except	10021	16.00	16.55	.55	0.006	0.4
		- more chloritic.						
		- quartz carbonate stringers stronger - up to 2.5 cm						
		contain chlorite and pyrite.						
		- Pyrite content higher - up to 4% in vicinity of stringers.						
4.00	43.50	SILICIFIED QUARTZ DIORITE - As above except:	10022	31.85	32.35	.50	<.005	<.1
		- Patchy moderate carbonatization at top of section (most						
		intense at 31.75 m)						

# PROJECT \_\_\_\_\_

D.D.HOLE No. EL-88-5

## ABBREVIATIONS

LOCATION \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_ %  
 DRILLED BY \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

COLLAR LAT. \_\_\_\_\_  
 LONG. \_\_\_\_\_  
 ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DIP TESTS \_\_\_\_\_  
 HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING			OZ/TON		
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU*	AG
		- Upper contact is gradational - silicified Apo → Quartz diorite.						
		( - Some stringers and feldspars stained yellow on core surface - from Chemicals ?)						
		- Py up to 3% in carbonatized sections.						
3.5	43.6	ANDESITE PORPHYRY - Numerous multi-directional carbonate stringers. Contacts: at 20° - 25° (slightly wavy and altered)						
3.6	43.80	SILICIFIED QUARTZ DIORITE	10023	43.60	43.80	.20	<.005	<.0
3.80	44.08	QUARTZ VEIN WITH SULFIDES - A = chlorite seams at 60° CIA minor limonite. M = 20% sulfides as linear vugs and stringers CIA = 60° = Sulphides are po and py with trace cpy. H = 5	10024	43.80	44.08	.28	0.326	0.3

## PROJECT \_\_\_\_\_

PAGE 4 OF 5

D.D.HOLE No. EL-88-5

## ABBREVIATIONS

LOCATION \_\_\_\_\_

COLLAR LAT \_\_\_\_\_

HOLE STARTED \_\_\_\_\_

LONG. \_\_\_\_\_

HOLE COMPLETED \_\_\_\_\_

ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_

CORE RECOVERY \_\_\_\_\_ %

AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_

DRILLED BY \_\_\_\_\_

DIP TESTS \_\_\_\_\_

LOGGED BY \_\_\_\_\_

HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING				OZ/TON	
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU	AG
		S = contacts at 60° CIA						
4.08	56.2	BRECCIATED SILICIFIED QUARTZ DIORITE -						
		A = silicification, sericitization, chloritization	10025	44.08	44.58	.50	.005	
		M = Tr disseminated pyrite - heavier on serpentized						
		fracture surfaces ( up to 8% at end of section).	10026	55.78	56.18	.40	.005	
		V = Stringers up to 1 cm at all angles ( quartz-carbonate)						
		H = 4.5						
		S = micro breccia, well cemented prominent fractures at						
		45° and 30° CIA.						
6.2	64.58	ANDESTIE ( aphanitic)						
		A = silicified and chloritized						
		M = tr blebby py.						
		V = narrow, branching carb (± quartz) stringers and						
		stronger set ( up to 0.6 cm) at 30° CIA.						
		H = 4						

# PROJECT \_\_\_\_\_

5 OF 5

D.D.HOLE No. EL-88-5

## ABBREVIATIONS

LOCATION \_\_\_\_\_ COLLAR LAT \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_ LONG. \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_ ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_% AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DRILLED BY \_\_\_\_\_ DIP TESTS \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_ HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING			OZ/TON		
FROM	TO		SAMPLE NO.	FROM	TO	M.	AG	AG
		S = fracture set at 45°						
64.58	71.02	BRECCIATED QUARTZ DIORITE IN SHEAR ZONE - 2 major shear zones with bx Qd and fault gouge at 64.92 m - 65.75 m 67.32 m - 67.97 m	10027	67.47	67.97	.5	<.005	<.01
71.02	80.80	ANDESITE (SLIGHTLY PORPHYRITIC) - Same as andesite section above (44.58 - 64.58) - Increase py content in 1/2 m section below 74.07. - contacts: upper at 45° ; lower at 35° CIA	10028	74.07	74.57	.50	0.014	0.01
80.80	93.88	SILICIFIED QUARTZ DIORITE - - Riddled with stringers of quartz and carbonate and serpentine. - A few andesite xenoliths.						
	93.88	END OF HOLE						



D.D.HOLE No. EL - 88 - 6

## ABBREVIATIONS

LOCATION \_\_\_\_\_

COLLAR LAT. 1027.7 N

HOLE STARTED January 29, 1988

LONG. 967.1 E

HOLE COMPLETED January 30, 1988

ELEV. 1009.1 LENGTH 60.35

CORE RECOVERY \_\_\_\_\_ %

AZIMUTH 205° DIP -50°

DRILLED BY Drilcor

DIP TESTS NONE TAKEN

LOGGED BY O.J. Pawliuk

HOR. PROJ. 42.2 VERT. PROJ. 45.7

OBJECTIVE Test Western Elite Vein.

A = alteration

M = mineralization

V = vein

H = hardness

S = structure

INTERVAL (M)		DESCRIPTION	SAMPLING			AU OZ/TON
FROM	TO		SAMPLE NO.	FROM	TO	
0.00	2.45	CASING - Quartz diorite - Greenish grey, fine to medium grained, moderate to intense brecciation. Faint crystal boundaries.				
2.45	8.03					
		2.45 - 6.50 - Patchy (20-30%) feldspars altered to pale green mineral.				
		3.50 - Finely broken core and mud 3 cm thick along fracture at 50° to core axis. Possible fault.				
		4.02 - Pale grey quartz veinlet 2 mm thick at 45° to core axis.				
		5.22 - Finely broken core 1 cm thick on fracture at 35° to core axis.				
		5.45 - Possible fault. 4cm thick yellow-brown mud and finely broken core.				
		5.64 - 5.90 - Irregular, discontinuous quartz veinlets randomly oriented, to 3 mm.				

## PROJECT \_\_\_\_\_

2. OF 10  
GE \_\_\_\_\_D.D.HOLE No. EL-88-6

## ABBREVIATIONS

LOCATION \_\_\_\_\_

COLLAR LAT \_\_\_\_\_

HOLE STARTED \_\_\_\_\_

LONG. \_\_\_\_\_

HOLE COMPLETED \_\_\_\_\_

ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_

CORE RECOVERY \_\_\_\_\_ %

AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_

DRILLED BY \_\_\_\_\_

DIP TESTS \_\_\_\_\_

LOGGED BY \_\_\_\_\_

HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING				AU OZ/TON
FROM	TO		SAMPLE NO.	FROM	TO	M.	
		5.95 - Up to 2% disseminated py as subhederal cubes.					
		5.98 - Probable fault. 1.5 cm grey mud and finely broken core at about 45 <sup>0</sup> to core axis.					
		6.00 - 6.34 - Finely to moderately broken core and mud with local yellow-brown staining throughout probably due to weathered pyrite.					
		7.15 - 7.42 - Fewer pale grey quartz veinlets 3 to 6 mm thick at 50 <sup>0</sup> to core axis offset 3 mm by hairline fracture fault subparallel core axis. Veinlets locally contain brown-red vugs where sulphide (comprising up to 50% of veinlets) has been weathered out.					
		7.47 - 7.67 - Medium to dark grey quartz diorite.					
8.03	9.66	Green andesite. Wispy, randomly oriented, discontinuous quartz veinlets throughout comprise 2% rock volume. Upper contact at 50 <sup>0</sup> to core axis; lower contact at 47 <sup>0</sup> porphyritic					

## PROJECT \_\_\_\_\_

PAGE 3 OF 10

D.D.HOLE No. EL-88-6

## ABBREVIATIONS

LOCATION \_\_\_\_\_ COLLAR LAT. \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_ LONG. \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_ ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_ % AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DRILLED BY \_\_\_\_\_ DIP TESTS \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_ HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING				AU OZ/10'
FROM	TO		SAMPLE NO.	FROM	TO	M.	
		in lower half.					
9.66	13.26	Quartz diorite. Local weak brecciation; pale greyish green. Medium to fine grained with faint crystal boundaries.					
		10.15 - Quartz vein 7 mm wide at 25° to c.a.					
		10.28 - 1% po blebs.					
		10.61 - Brown weathering limonitic coating on fracture at 60° to c.a.					
		11.10 - As above at approx. 25° to c.a. Quartz and pale yellow carbonate veinlet 4 m m wide at 20° to c.a.					
		11.58 - Quartz veinlet 9 mm wide at 25° to c.a.					
13.26	13.82	Grey porphyritic andesite with rare trace py.					
13.82	21.65	Quartz diorite - Pale greenish grey with local wispy quartz veinlets. Dark grey chlorite (?) lining fracture surfaces.					
		14.90 - Trace to 0.5% disseminated py cubes.					
		15.80 - Quartz-carbonate veinlets to 3 mm subparallel c.a.					

# PROJECT \_\_\_\_\_

D.D.HOLE No. EL-88-6

## ABBREVIATIONS

LOCATION \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_ %  
 DRILLED BY \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

COLLAR LAT \_\_\_\_\_  
 LONG. \_\_\_\_\_  
 ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DIP TESTS \_\_\_\_\_  
 HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING				OZ/TON	
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU	AG
		17.55 - Pale grey quartz vein 1.5 cm wide at 30° to c.a. contains bright green chlorite and local 1% py.						
18.50	19.80	Moderately broken core with brown limonite along fracture subparallel c.a. Tr to 0.5% py disseminated and along fractures.						
21.65	22.08	Green aphanitic andesite.						
22.08	22.68	Quartz diorite. Fine to medium grained.						
22.68	22.83	Quartz VEIN - Off-white to pale grey, slightly granular, banded by grey elongate quartz diorite lenses in upper 3 cm. Upper contact 38° to c.a.; smear of mud; possible fault. Centre vein has 2% bright green chlorite along fractures. trace po blebs.	10041	22.50	23.00	0.5	0.002	<0.02
22.83	36.65	QUARTZ DIORITE- Greenish grey, medium to coarse grained, generally massive with local weakly brecciated sections. Creamy white subround feldspar phenocrysts to 6 mm;						

D.D.HOLE No. EL-88-6

## ABBREVIATIONS

LOCATION \_\_\_\_\_

COLLAR LAT. \_\_\_\_\_

HOLE STARTED \_\_\_\_\_

LONG. \_\_\_\_\_

HOLE COMPLETED \_\_\_\_\_

ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_

CORE RECOVERY \_\_\_\_\_ %

AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_

DRILLED BY \_\_\_\_\_

DIP TESTS \_\_\_\_\_

LOGGED BY \_\_\_\_\_

HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING			AU GZ/ID
FROM	TO		SAMPLE NO.	FROM	TO	
		average 2-3 mm diameter.				
		23.55 - 0.5% po as, blebs.				
		24.95 - 1% py .				
		26.68 - Pale yellow quartz - carbonate veinlet within silicified section with 1% disseminated py cubes along fracture surfaces.				
		27.25 - Quartz veinlets at 28° to c.a.				
		27.95 - Quartz veinlets at 10° to c.a. contain 1% py.				
		30.34 - Finely broken core, possible fault on fracture at 48° to c.a.				
		32.35 - White quartz veinlet 3 mm wide at 16° to c.a.				
		33.10 - Traces disseminated py.				
		34.12 - Quartz veinlet 4 mm at 22° to c.a.				
		34.67 - Andesite band 7 cm wide at 60° to c.a.				
		35.00 - Orange limonite on randomly oriented fracture surfaces.				

PROJECT \_\_\_\_\_

3E 6 OF 10

D.D.HOLE No. EL-88-6

## ABBREVIATIONS

LOCATION \_\_\_\_\_

COLLAR LAT. \_\_\_\_\_

HOLE STARTED \_\_\_\_\_

LONG. \_\_\_\_\_

HOLE COMPLETED \_\_\_\_\_

ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_

CORE RECOVERY \_\_\_\_\_ %

AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_

DRILLED BY \_\_\_\_\_

DIP TESTS \_\_\_\_\_

LOGGED BY \_\_\_\_\_

HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING			AU OZ/TON
FROM	TO		SAMPLE NO.	FROM	TO	
		35.10 - Quartz veinlet 5 mm wide at 15° to c.a.				
		35.45 - 0.5% py thin sheets coating fractures.				
		36.50 - 36.65 - Probable fault. Mud and finely broken core on fracture at 26° to c.a.				
36.65	45.33	Light grey-green, massive, fine grained andesite. Randomly oriented wispy quartz veinlets to 2.5 mm wide throughout.				
		41.45 - Very pale grey-green mud, probable fault, on fracture at 40° to c.a.; 2 cm wide quartz vein parallel fault and immediately below fault.				
		43.30 - 45.33 - Porphyritic andesite with pale green feldspar phenos averaging 1.5 mm.				
		45.33 - Lower andesite contact at 30° to c.a.				
45.33	46.50	Quartz diorite as for 22.83 - 36.65 Lower contact at 43° to c.a.				

## PROJECT \_\_\_\_\_

PAGE 7 OF 10

D.D.HOLE No. EL-88-6

## ABBREVIATIONS

LOCATION \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_ %  
 DRILLED BY \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

COLLAR LAT \_\_\_\_\_  
 LONG. \_\_\_\_\_  
 ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DIP TESTS \_\_\_\_\_  
 HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING			OZ/TON		
DM	TO		SAMPLE NO.	FROM	TO	M.	AU	AG
46.50	47.72	Greyish green very fine grained massive andesite.						
47.72	48.75	Quartz diorite. Medium to coarse grained, massive. Upper contact at 50 <sup>0</sup> to c.a.						
48.75	50.63	Andesite as for 46.50 - 47.72.						
		50.38 - Off-white quartz vein 8 mm wide at 40 <sup>0</sup> to c.a.						
		50.51 - 50.63 - Bleached light grey, silicified, moderately brecciated andesite contains vein quartz fragments with faint boundaries up to 1.5 cm diameter.	10032	50.07	50.57	0.5	<.005	0.1
		50.58 - Pale grey quartz veinlet 2 cm wide contains 25 to 40% py in lowermost half. Smear grey-green mud on fracture at 55 <sup>0</sup> to core axis.	10033	50.57	50.97	0.4	0.270	0.1
		50.59 - 50.63 - 1 - 2% disseminated very fine py.						
50.63	51.30	QUARTZ VEIN - Off-white weakly to moderately brecciated quartz containing 0.5-1% py along hairline fractures throughout. Upper contact with wallrock at 45 <sup>0</sup> to core axis.	10034	50.97	51.30	.33	0.293	0.4

PROJECT \_\_\_\_\_

D.D.HOLE No. - 6 EL - 88 - 6

**ABBREVIATIONS**

LOCATION \_\_\_\_\_ COLLAR LAT. \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_ LONG. \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_ ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_ % AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DRILLED BY \_\_\_\_\_ DIP TESTS \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_ HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING				OZ / TON	
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU	AG
		Fractures at 50° to-c.a.						
		50.65 - 50.70 - Subhederal py crystals within vugs up to 1.2 cm diameter. Also irregular masses po up to 5 mm across (po 2% vein here ; py 4%).						
		50.78 - Po 3%, py 2% irregular masses up to 25 mm long X 3 - 8 mm wide.						
		50.99 - 51.11 - 25% po, 2% py, 0.5% cpy.						
		51.11 - 51.30 - 4% py; 2% po.						
		51.23 - 51.27 - 1% gn, 3% red sphalerite. Lowermost third of vein only weakly fractured. lower vein contact at 55° to core axis; possible movement along this contact. H=6-5						
51.30	52.15	Andesite. Moderately brecciated upper third section contains traces py. Abundant chlorite.	10035	51.30	51.80	0.5	<.005	<.0
		51.82 - White quartz veinlet 8 mm wide at 40° to c.a.						
2.15	53.30	QUARTZ DIORITE - Fine grained, massive, local weak brecciated throughout.	10036	52.67	53.17	.5	0.006	0.00



# PROJECT \_\_\_\_\_

D.D.HOLE No. EL-88-6

## ABBREVIATIONS

LOCATION \_\_\_\_\_ COLLAR LAT \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_ LONG. \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_ ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_% AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DRILLED BY \_\_\_\_\_ DIP TESTS \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_ HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING				OZ/TON	
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU	AC
		53.17 - 53.30 - Moderately brecciated section has local traces py and approx. 30% off-white to pale grey vein quartz. Upper contact of bracciated section quartz veinlet 4 mm wide at 50° to c.a.	10037	53.17	53.70	.53	0.047	0.
.30	53.70	Quartz vein. Off-white, local faint banding. Upper contact at 60° to c.a.; lower contact at 47° to c.a.; both contacts discrete; grey mud and finely broken core 2 mm wide along fracture surface forming lower vein contact; possible movement has occurred.						
		53.37 - 53.44 - 1% po as irregular masses to 1 cm across; traces galena as subangular blebs to 2 m m across.						
		53.53. - 5% po as irregular masses up to 1.5 cm across; po also along fractures .						
53.70	58.9	Quartz diorite; intensely brecciated to 55.45 depth where few quartz veinlets up to 8 mm wide at approx. 35°	10038	53.70	54.70	0.5	.005	<.1

PROJECT \_\_\_\_\_

D.D.HOLE No. EL-88-6

**ABBREVIATIONS**

LOCATION \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_ %  
 DRILLED BY \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

COLLAR LAT \_\_\_\_\_  
 LONG. \_\_\_\_\_  
 ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DIP TESTS \_\_\_\_\_  
 HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING				OZ/TON	
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU	AG
		to 60° to c.a. Local 0.5% py disseminated along fracture surfaces. No carbonate present where tested with acid.	10039	54.20	54.70	.5	<.005	<.0
		55.00 - 3% orange-brown iron oxides where sulphides have weathered out. Sulphides as veinlets to 3 mm wide at 23° to c.a. Smear of orange-brown mud (probable fault) along fracture at 41° to c.a. at 55.00 within intensely brecciated quartz diorite.	10040	54.70	55.30	.6	<.005	<.0
		58.52 - Pale yellow quartz carbonate veinlets to 6 mm wide at 40° to c.a.						
58.92	60.35	ANDSITE - As for 46.50 - 47.72 with wispy pale grey quartz veinlets.						
	60.35	END OF HOLE						

## PROJECT

ELITE

PAGE 1 OF 3

D.D.HOLE No. EL - 88 - 07

## ABBREVIATIONS

LOCATION \_\_\_\_\_  
 HOLE STARTED January 31, 1988  
 HOLE COMPLETED January 31, 1988  
 CORE RECOVERY \_\_\_\_\_ %  
 DRILLED BY Drilcor  
 LOGGED BY D.J. Pawliuk  
 OBJECTIVE Rachel vein

COLLAR LAT 1027.7 N  
 LONG. 967.1 E  
 ELEV. 1009.1 LENGTH 19.20 m  
 AZIMUTH 125° DIP -51°  
 DIP TESTS NONE TAKEN  
 HOR. PROJ. 12.8 VERT. PROJ. 14.7

INTERVAL (M)		DESCRIPTION	SAMPLING			OZ/TON		
FROM	TO		SAMPLE NO.	FROM	TO	M	AU	AX
0.00	1.82	CASING						
1.82	18.75	QUARTZ DIORITE - Green-grey, medium grained, local weakly brecciated throughout. Feldspar average 3 mm. Faint crystal boundaries.						
		4.24 - Pale brown mud and finely broken rock few mm wide on fractures at 43° to 26° to c.a.; possible fault.						
		4.70 - 5.20 - Few cream coloured quartz - carbonate veinlets to 4 mm wide at approx. 30° to c.a.						
		5.04 - Pale grey banded quartz veinlet 6 mm wide at 21° to c.a.						
		5.80 - As above at 18° to c.a. Traces py lining hairline fractures in quartz diorite.						
		7.50 - 8.20 - Moderately brecciated quartz diorite with 2% randomly oriented, irregular quartz veinlets to 8 mm wide. One veinlet at 15° to c.a. Local trace py along veinlet margins.	10042	7.50	8.20	.7	<002	<

PROJECT \_\_\_\_\_

PA 2 OF 3D.D.HOLE No. EL-88-7

## ABBREVIATIONS

LOCATION \_\_\_\_\_

COLLAR LAT. \_\_\_\_\_

HOLE STARTED \_\_\_\_\_

LONG. \_\_\_\_\_

HOLE COMPLETED \_\_\_\_\_

ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_

CORE RECOVERY \_\_\_\_\_ %

AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_

DRILLED BY \_\_\_\_\_

DIP TESTS \_\_\_\_\_

LOGGED BY \_\_\_\_\_

HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING				OZ/TON	
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU	AG
		9.00 - Quartz vein 1 cm wide at 80° to c.a.						
		9.58 - Vuggy pale grey quartz veinlet 4 mm wide at 68° to c.a.						
		10.70 - Finely broken core and mud 1.5 cm thick on fracture at 50° to c.a.; possible fault.						
		10.93 - 11.11 - Local limonite stain on fracture surfaces.						
		11.30 - 11.45 - As above; local trace py along fractures.	10043	12.92	13.52	.60	<.002	.00
		12.92 - 13.52 - Traces to locally 3% py along fractures and as irregular masses up to 1 cm across.						
		13.08 - Quartz vein 1.2 cm wide at 48° to c.a. has py masses filling fractures; here 2% py.						
		13.30 - Quartz vein 4 cm wide at 80° to c.a.; 3% py, traces chlorite in fractures at vein margins.						
		13.67 - 14.97 - Silicified; somewhat bleached.						
		15.60 - Pale grey quartz veinlet 5 mm wide at 35° to c.a. has chlorite along margins.						

# PROJECT \_\_\_\_\_

PAGE 3 OF 3

D.D.HOLE No. EL-88-7

## ABBREVIATIONS

LOCATION \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_ %  
 DRILLED BY \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

COLLAR LAT \_\_\_\_\_  
 LONG. \_\_\_\_\_  
 ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DIP TESTS \_\_\_\_\_  
 HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING			OZ/TON		
OM	TO		SAMPLE NO.	FROM	TO	M.	AU	AG
		16.15 - 16.40 - Rounded pebble-size pieces core; few different rock types; probably some ground core.						
		17.82 - 17.93 - Cream coloured quartz carbonate veinlets up to 15 mm wide at 35° to c.a. 1% py as blebs to few mm across. Wallrock here bleached, silicified.	10044	17.60	18.10	0.5	0.015	0.1
		18.20 - 18.75 - Irregular grey quartz-carbonate veinlets approx. subparallel c.a.						
18.75	19.20	ANDESITE - Green, very fine to fine grained, somewhat porphyritic, massive, few hairline quartz veinlets.						
	19.20	END OF HOLE						

# PROJECT

NOTE  
**D.D.HOLE No.** EL - 88 - 08

## ABBREVIATIONS

**LOCATION** \_\_\_\_\_  
**HOLE STARTED** February 1, 1988  
**HOLE COMPLETED** February 3, 1988  
**CORE RECOVERY** \_\_\_\_\_ %  
**DRILLED BY** Drilcor  
**LOGGED BY** D.J. Pawliuk  
**OBJECTIVE** Test extent Rachel Vein.

**COLLAR** **LAT** 1027.7 N  
**LONG.** 967.1 E  
**ELEV.** 1009.1 **LENGTH** 30.78  
**AZIMUTH** 125° **DIP** -68°  
**DIP TESTS** NO  
**HOR. PROJ.** 11.5 **VERT. PROJ.** 28.7

INTERVAL (M)		DESCRIPTION	SAMPLING			OZ/TON		
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU.	AC
0.00	1.52	CASING						
1.52	3.45	QUARTZ DIDRITE - Greyish green, fine grained (Cream, blocky feldspar phenos to 2 mm) massive. More distinct grain boundaries than for other quartz diorite in previous holes and less quartz.						
		2.44 - 3.45 - Approx. 85 cm ground core. Diorite in part.						
3.45	7.91	QUARTZ DIORITE - Pale green-grey, somewhat bleached, silicified, weakly to locally moderately brecciated. Local traces disseminated py. Quartz diorite has faint grain boundaries, fine to medium grained.						
		4.51 - Pale grey quartz veinlet 7 mm wide at 24° to c.a. has orange-brown iron oxides on fracture surface along veinlet margins. No sulphides seen.	10049	4.25	4.75	.5	<.002	<.0
		6.05 - Finely broken core and smear mud 2 mm thick on irregular fracture subparallel c.a.						

## PROJECT \_\_\_\_\_

2 OF 4

D.D.HOLE No. EL-88-8

## ABBREVIATIONS

LOCATION \_\_\_\_\_ COLLAR LAT \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_ LONG. \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_ ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_ % AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DRILLED BY \_\_\_\_\_ DIP TESTS \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_ HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING				OZ/T AU
FROM	TO		SAMPLE NO.	FROM	TO	M.	
		6.60 - 7.01 - As above. Possible minor fault.					
		7.91 - Grey mud 6 mm tick on smooth fracture at 23° to c.a. Possible fault.					
7.91	8.04	QUARTZ VEIN Banded Pale grey and white on mm scale. Vein 6.5 mm wide at 22° to c.a. Possible Rachel Vein. 5% carbonate; 1% average, locally 2% pyrite. Local tt po. Local 1% green chlorite.	10050	7.41	7.91	.5	<.002 <
			10251	7.91	8.04	.13	0.004 <
			10252	8.04	8.84	.8	<.002 <
3.04	17.03	QUARTZ DIORITE - as for 3.45 - 7.91					
		8.04 - 8.23 - 1% disseminated py.					
		8.32 - Discontinuous quartz veinlet 7 mm wide at 45° to c.a.					
		8.32 - 8.53 - Fault, Soft (H-3), intensely brecciated, finely broken core. At 8.51 2 cm grey mud on fracture at about 40° to c.a.					
		10.57 - 11.17 - Traces to 0.5% py along hairline fracture and quartz veinlets to 3 mm wide at 10°, 50° to c.a.	10253	10.57	11.17	.6	<.002 <

# PROJECT

D.D.HOLE No. EL-88-8

P. 3 OF 4

## ABBREVIATIONS

LOCATION \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_ %  
 DRILLED BY \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

COLLAR LAT. \_\_\_\_\_  
 LONG. \_\_\_\_\_  
 ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DIP TESTS \_\_\_\_\_  
 HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING				OZ/TON	
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU	AG
		16.00 - 17.03 - Trace to 1% py disseminated and lining hairline fractures within moderately silicified and brecciated quartz diorite.	10254	16.30	17.03	.73	<.002	<.002
7.03	18.96	ANDESITE - Light greenish grey, aphanitic to very fine grained rock with 2% white quartz veinlets along irregular, discontinuous fractures throughout.	10255	17.03	17.63	.6	<.002	0.0
		17.03 - 17.63 - Approx. 5% quartz veinlets with minor carbonate to 2% py, local trace po. Veinlets to 15 mm wide at about 30° to c.a. Chlorite along vein fractures.						
8.96	23.95	ANDESITE PORPHYRY - Greenish cream subround feldspar phenocrysts approx. 7% rock volume, average 1 to 3 mm diameter. Massive rock with wispy pale grey quartz veinlets throughout.						
		19.60 - 19.78 - 2% py, local 1% po as blebs and irregular masses; 5% irregular carbonate - quartz veinlets.	10256	19.40	20.00	.6	0.009	0.0



PROJECT \_\_\_\_\_

GE 4 OF 4

D.D.HOLE No. EL-88-8

## ABBREVIATIONS

LOCATION \_\_\_\_\_ COLLAR LAT. \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_ LONG. \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_ ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_% AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DRILLED BY \_\_\_\_\_ DIP TESTS \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_ HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING			AU GZ/IO
FROM	TO		SAMPLE NO.	FROM	TO	
		21.97 - Carbonate - quartz veinlet 4 mm wide at 60° to c.a.				
		22.60 - As above; about 40° to c.a.				
		23.95 - Lower unit contact at 13° to c.a.				
23.95	24.33	ANDESITE - As for 17.03 - 18.96 Lower contact at about 25° to c.a., discrete.				
24.33	30.78	QUARTZ DIDRITE - As for 3.45 - 7.91				
		25.30 - Fault, 23 mm of grey mud and finely broken core between fractures at 25° to c.a.				
		28.20 - Carbonate-quartz veinlet 3 mm wide subparallel core axis. Trace py.				
	30.78	END OF HOLE				

PROJECT ELITE

D.D.HOLE No. EL - 88 - 9

**ABBREVIATIONS**

LOCATION \_\_\_\_\_  
 HOLE STARTED February 3, 1988  
 HOLE COMPLETED February 5, 1988  
 CORE RECOVERY \_\_\_\_\_ %  
 DRILLED BY Drilcor  
 LOGGED BY [Redacted] Pawliuk  
 OBJECTIVE Test Elite Vein 50 m below surface

COLLAR LAT 1001.7 N  
 LONG. 941.8 E  
 ELEV. 1000.2 LENGTH 71.02  
 AZIMUTH 173° DIP -80°  
 DIP TESTS NO  
 HOR. PROJ. 12.7 VERT. PROJ. 70.1

INTERVAL (M)		DESCRIPTION	SAMPLING			OZ/TON		
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU	AG
0.00	1.52	CASING						
1.52	3.72	QUARTZ DIORITE - Pale greyish green, medium grained, massive with faint crystal boundaries. Somewhat bleached; weathered appearance.						
		3.60 - Dark brown iron oxides line vein surface where sulphides (?) have been weathered out. Vein 4 mm wide at 10° to c.a.	10257	3.42	3.72	.3	<.002	0.
5.72	28.37	ANDESITE Light greyish green, very fine grained, massive. 0.5% white quartz veinlets to 4 mm wide throughout; veinlets usually along hairline fracture, discontinuous and irregular. 6.50 1% po as blebs.						
		7.72 - 8.36 - Local orange iron oxides stain fracture surface subparallel c.a.						
		8.50 - 11.65 - Andesite slightly to moderately silicified.						
		9.52 - 10.11 - Orange iron oxides on fracture surfaces.						

PROJECT \_\_\_\_\_

PA 2 OF 9

D.D.HOLE No. -9 \_\_\_\_\_

## ABBREVIATIONS

LOCATION \_\_\_\_\_

COLLAR LAT. \_\_\_\_\_

HOLE STARTED \_\_\_\_\_

LONG. \_\_\_\_\_

HOLE COMPLETED \_\_\_\_\_

ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_

CORE RECOVERY \_\_\_\_\_ %

AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_

DRILLED BY \_\_\_\_\_

DIP TESTS \_\_\_\_\_

LOGGED BY \_\_\_\_\_

HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING			QZ/TO		
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU	A
		10.43 - Irregular quartz-carbonate veinlet 8 mm wide at 30°	10258	9.50	10.00	.5	<.002	0.
		at c.a. contains py (1%) po (0.5% locally), sphalerite	10259	10.00	11.10	1.1	.005	0.
		and galena traces.	10260	11.10	11.60	.5	.005	0.
			10261	11.60	12.50	.9	<.002	<
		10.65 - Smear grey mud on fracture at 17° to c.a.						
		10.87 - Off-white carbonate veinlet 5 to 35 mm wide,						
		orientation not measureable. 3% py along veinlet margins and						
		disseminated along fracture surfaces. Sp locally 0.5%, local 1% gn.						
		11.40 - 12.50 - 1% py as cubes along fractures 10° to 30°						
		to c.a.						
		13.30 - 13.70 - Cream coloured carbonate- quartz veinlets to	10262	13.20	13.70	.5	<.002	0.
		8 mm wide at about 50° to c.a. Pyrite locally 2% as masses						
		to few mm. Brown iron oxides on fracture surfaces						
		15.27 - 28.37 - Fine grained andesite. Locally porphyritic						
		with feldspar phenocrysts to 2 mm.						

PROJECT \_\_\_\_\_

D.D.HOLE No. -9 \_\_\_\_\_

ABBREVIATIONS

LOCATION \_\_\_\_\_ COLLAR LAT. \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_ LONG. \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_ ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_% AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DRILLED BY \_\_\_\_\_ DIP TESTS \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_ HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING			QZ/TON AU	FAC
FROM	TO		SAMPLE NO.	FROM	TO		
		21.80 - Hairline quartz veinlets subparallel c.a.					
		23.85 - Pale grey carbonate veinlet 3 mm wide at 10° to c.a.					
		25.46 - 26.67 - Carbonate - quartz veinlets 2% of rock volume, along hairline fractures.					
28.37	28.90	QUARTZ DIORITE - Grey, medium grained with faint crystal boundaries. Silicified and carbonized (about 5%). Lower contact at 32° to c.a. Possibly some fault movement has occurred along upper contact; Smear mud and finely broken core over 4 mm. Trace to 0.5% po as disseminated blebs throughout.	10263	28.30	29.20	.9	<.002 <.0
3.90	37.32	ANDESITE - Pale grey-green, aphanitic to fine grained. Discontinuous hairline carbonate-quartz veinlets. About 1 or 2% pervasive carbonate throughout unit.					
		31.30 - 32.55 - Local green chlorite(?) along fractures.					

PROJECT \_\_\_\_\_

P. : 4 OF 9

D.D.HOLE No. - 9 \_\_\_\_\_

## ABBREVIATIONS

LOCATION \_\_\_\_\_ COLLAR LAT \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_ LONG. \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_ ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_ % AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DRILLED BY \_\_\_\_\_ DIP TESTS \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_ HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING				QZ/TOP AU	/
FROM	TO		SAMPLE NO.	FROM	TO	M.		
		33.10 - Mud 2 mm thick on fracture at about 10° to c.a.; possible fault.						
7.32	38.38	QUARTZ DIORITE - Greenish grey to steel grey, fine to medium grained, carbonatized ( 2 to locally 5%), brecciated, silicified. Local trace to 1% disseminated py. Contacts with wallrock wispy, gradational. Wispy andesite inclusions throughout form about 10% of unit volume.						
8.38	42.51	ANDESITE - As for 28.90 - 37.32 38.38 - 42.01 - Py and po 3% to locally 6% combined; finely disseminated as blebs and lining short, irregular fractures. 38.53 - Possible fault. Finely broken core 5 cm wide between fractures at 48° to c.a. 38.91 - Fault, Mud and finely broken core approx. 3 cm wide between fractures at about 50° to c.a.	10264	38.38	39.38	1.0	<.002	<

# PROJECT \_\_\_\_\_

D.D.HOLE No. \_\_\_\_\_ - 9

## ABBREVIATIONS

LOCATION \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_ %  
 DRILLED BY \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

COLLAR LAT \_\_\_\_\_  
 LONG. \_\_\_\_\_  
 ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DIP TESTS \_\_\_\_\_  
 HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING			OZ/TON		
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU	AG
42.51	42.76	QUARTZ DIDRITE - As for 37.32 - 38.38. Upper contact at 45° to c.a.						
42.76	43.27	ANDESITE - As for 28.90 - 37.32 - Moderately to intensely brecciated.						
43.27	68.01	QUARTZ DIORITE - Greenish grey with local pale green and dark grey sections. Medium grained with faint grain boundaries. Generally moderately brecciated, silicified. Unit often carbonized with up to 1% carbonate filling hairline fractures. Bleached.						
		Elite(?) Vein 43.88 - 44.22 - Fault. Finely broken core and mud within intensely brecciated rock. Irregular quartz veinlets to 10 mm wide form 2% fault interval; veinlets probably are part of Elite Vein.	10265	43.90	44.40	.5	0.087	0.5
		45.15 Po 2% as round masses to few mm diameter within pale grey quartz veinlet 4 mm wide at 21° to c.a.						
		44.08 - Py 3-5% as subhederal crystal masses to 3 mm across.						

## PROJECT \_\_\_\_\_

PART <sup>6</sup> OF 2D.D.HOLE No. EL-88-9

## ABBREVIATIONS

LOCATION \_\_\_\_\_

COLLAR LAT \_\_\_\_\_

HOLE STARTED \_\_\_\_\_

LONG. \_\_\_\_\_

HOLE COMPLETED \_\_\_\_\_

ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_

CORE RECOVERY \_\_\_\_\_ %

AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_

DRILLED BY \_\_\_\_\_

DIP TESTS \_\_\_\_\_

LOGGED BY \_\_\_\_\_

HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING				OZ/TOTAL	
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU	A
		48.30 - 48.85 - Py 1-2% as patches of crystals on fracture surfaces at 10° to c.a.; local trace po. Moderately to intensely brecciated.	10266	48.40	49.10	.7	<.002	<
		49.77 - 50.38 - Py 2%, traces po along fractures in pale green quartz diorite; local carbonate.	10267	49.70	50.3	.6	<.002	<
	50.87 - 51.51	Fault. Grey, intensely brecciated rock. Finely broken core and mud on fractures at 37° to c.a. at 51.47.						
		51.92 - 55.17 - Pale green to greenish white, intensely altered silicified, brecciated quartz diorite, irregular quartz-carbonate veinlets approx. 2% rock volume throughout. Py average about 0.5% disseminated along irregular fractures.	10268	51.92	52.42	.5	<.002	<
		51.97 - Local 3% py, traces po as irregular masses along fractures.	10269	52.42	52.82	.4	<.002	<
		52.52 - 5% carbonate within irregular veinlet few mm wide.	10270	52.82	53.62	.8	<.002	<

PROJECT \_\_\_\_\_

D.D.HOLE No. EL - 88 - 9

**ABBREVIATIONS**

LOCATION \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_ %  
 DRILLED BY \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

COLLAR LAT \_\_\_\_\_  
 LONG. \_\_\_\_\_  
 ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DIP TESTS \_\_\_\_\_  
 HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING			OZ/TON		
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU	AG
		52.58 - 52.70 - Py 3%, traces po along fractures.						
		52.95 - Pale grey quartz (90%) - carbonate (10%) veinlet 4 mm wide at 13° to c.a. Local 5% py as subhederal cubes to 1.5 mm along fracture surfaces; few specks gn.						
		52.95 - 53.58 - Four quartz - carbonate - chlorite banded veinlets up to 2 cm wide at 12° to 15° to c.a. Local 5% py as disseminated cubes and irregular masses. Local traces po, rare traces gn.						
		53.58 - 54.26 - Py 1% along fractures.	10271	53.62	54.22	.6	<.002	<.0
		53.72 - Trace gn.						
		53.86 - Moderately chloritized breccia fragments (bright green rims 1 mm wide on fragments) within band 3 cm wide at 66° to c.a.						
		55.22 - Cream coloured quartz - carbonate veinlet 3 mm wide at 54° to c.a.						



# PROJECT \_\_\_\_\_

PA. 3 OF 9

D.D.HOLE No. EL-88-9

## ABBREVIATIONS

LOCATION \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_ %  
 DRILLED BY \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

COLLAR LAT. \_\_\_\_\_  
 LONG. \_\_\_\_\_  
 ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DIP TESTS \_\_\_\_\_  
 HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING			OZ/TON	
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU
		55.84 - As above.					
		55.91 - As above.					
		55.59 - 55.96 - Dark core; possible fault, fine grained, dense rock probably intensely brecciated quartz diorite; dark grey rock.					
		59.65 - Pale grey quartz veinlet 3 mm wide at 15° to c.a.					
		60.15 - 60.45 - Fault, Mud and finely broken core few mm wide on fractures at 21 - 25° to c.a.					
		61.60 - Py 2% lining fracture surface at 11° to c.a.	10272	61.27	61.87	.6	<.002 <
		62.50 - 64.10 - Local 2% smokey blue mineral along fracture surfaces; similar mode of occurrence to chlorite.					
		63.40 - 63.72 - Po, py combined 3 to locally 7% diss.	10273	63.30	63.80	.5	<.002 <
		65.63 - 68.01 - Intensely brecciated, probable fault zone. Steel grey to grey - green rock. Often 1% to 3% py along fracture surfaces. Broken core,					

PROJECT \_\_\_\_\_

D.D.HOLE No. EL - 88 - 9

ABBREVIATIONS

LOCATION \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_ %  
 DRILLED BY \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

COLLAR LAT \_\_\_\_\_  
 LONG. \_\_\_\_\_  
 ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DIP TESTS \_\_\_\_\_  
 HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING				OZ/TON AU. GAG
FROM	TO		SAMPLE NO.	FROM	TO	M.	
68.01	71.02	ANDESITE - Green, very fine grained, weakly brecciated throughout; locally intensely brecciated. 1 - 3% very finely disseminated po, top-most 37 cm intensely brecciated; fault contact with overlying quartz diorite.					
		68.82 - 69.20 - Intensely brecciated, steel grey section.					
		69.21 - Pale grey banded quartz (60%) - carbonate (40%) vein 12 mm wide at 32° to c.a.; chlorite along vein margins. Vein wallrocks contain 5% py filling fractures over 2 cm.	10274	68.99	69.49	.5	0.003
	71.02	END OF HOLE					

PROJECT ELITE

P. 1 OF 7

D.D.HOLE No. EL - 88 - 10

## ABBREVIATIONS

LOCATION \_\_\_\_\_

COLLAR LAT 1001.7 NHOLE STARTED February 5, 1988LONG. 941.8 EHOLE COMPLETED February 6, 1988ELEV. 1000.2 LENGTH 54.25 m

CORE RECOVERY \_\_\_\_\_ %

AZIMUTH 200° DIP -71°DRILLED BY DrilcorDIP TESTS NOLOGGED BY D.J. PawliukHOR. PROJ. 18.1 VERT. PROJ. 51.3OBJECTIVE Test ELITE VEIN 30 m below WE-15 sample site.

INTERVAL (M)		DESCRIPTION	SAMPLING			OZ/TON		
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU	AG
0.00	2.13	CASING						
2.13	13.11	ANDESITE - Green, very fine grained, massive rock with occasional off-white quartz veinlets throughout. Generally carbonatized (traces up about 0.5% locally) throughout carbonate pervasive and filling hairline fractures.						
		6.23 - Carbonate-quartz veinlet 5 to 30 mm wide at 20° to c.a. contains py 2%, traces po, trace gn, sp (?).	10275	6.00	6.50	0.5	0.003	0
		9.10 - 9.60 - White carbonate veinlet average 10 mm wide subparallel c.a., local trace pyrite along veinlet margins.						
		9.91 - 10.26 - Pale grey medium grained silicified quartz diorite. Upper contact at 35° to c.a., lower contact at about 40°.						
		10.20 - Pale grey quartz veinlet 5 mm wide at 15° to c.a.						
		10.47 - 13.11 - Porphyritic andesite; hairline quartz veinlets at 40° to 50° to c.a.						

# PROJECT \_\_\_\_\_

D.D.HOLE No. EL-88-10

## ABBREVIATIONS

LOCATION \_\_\_\_\_ COLLAR LAT \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_ LONG. \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_ ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_% AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DRILLED BY \_\_\_\_\_ DIP TESTS \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_ HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING			
FROM	TO		SAMPLE NO.	FROM	TO	M.
13.11	29.87	ANDESITE - As above. Logged as separate interval because core footage markers incorrectly placed throughout. For example there is about 3.2 m of core between marker at 13.11 m depth (43 ft.) and next marker at 14.63 m depth (48 ft.) Also two lengths of core 20 cm and 12 cm long placed on top of other core instead of being laid properly in core box. New helper on nightshift.				
29.87	36.41	ANDESITE - As above. Dayshift pulled rods to ensure beginning shift at 98 ft. (29.87 m) after mistake with core markers observed. 31.66 - Carbonate-quartz-chlorite veinlet 3 mm wide at 27° to c.a. 33.30 - Carbonate - quartz vein mass few cm across; ? orientation; no sulphides seen.				

## PROJECT \_\_\_\_\_

( 2 OF 7 )

D.D.HOLE No. EL - 88 - 10

## ABBREVIATIONS

LOCATION \_\_\_\_\_ COLLAR LAT \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_ LONG. \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_ ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_% AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DRILLED BY \_\_\_\_\_ DIP TESTS \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_ HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING			OZ/T AU
FROM	TO		SAMPLE NO.	FROM	TO	
		35.04 - Pale grey quartz (75%) - white carbonate (25%) veinlet 5 mm wide at 34° to c.a. No sulphides seen.				
		35.56 - 36.11 - 1 to locally 3% py disseminated and along fracture surfaces. Also local traces galena along pyrite rims. Probably minor amount of ground core in this interval at 35.96 m marker (end run).	10283	35.56	36.06	.5 < 0.0024
		36.11 - Banded quartz vein 14 mm wide at 46° to c.a. contains 5% po as masses to 8 mm across, 36.32 - Carbonate-quartz vein 5 mm wide at 30° to c.a. contains 5% py as masses to 20 mm X 3 mm, and 1% po.	10284	36.06	36.41	.35 0.0034
6.41	37.07	ELITE VEIN - Off-white quartz locally banded with chlorite and wispy wall rock inclusions. Upper contact at 50° to c.a., lower contact at 45°. Vein contains py 10% over 3 cm along upper wallrock contact; py as irregular wispy masses along discontinuous fractures. Local 1% cp, po and traces gn. Fractures filled by sulphides at 35° to 47° to c.a.	10285	36.41	37.15	.74 0.033 0

PROJECT \_\_\_\_\_

D.D.HOLE No. EL-88-10

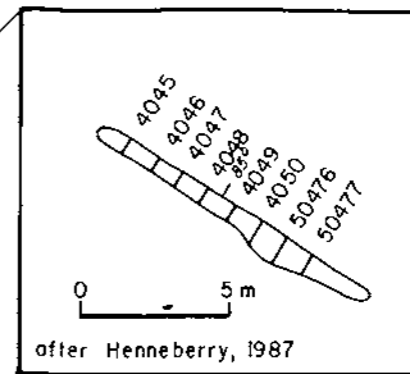
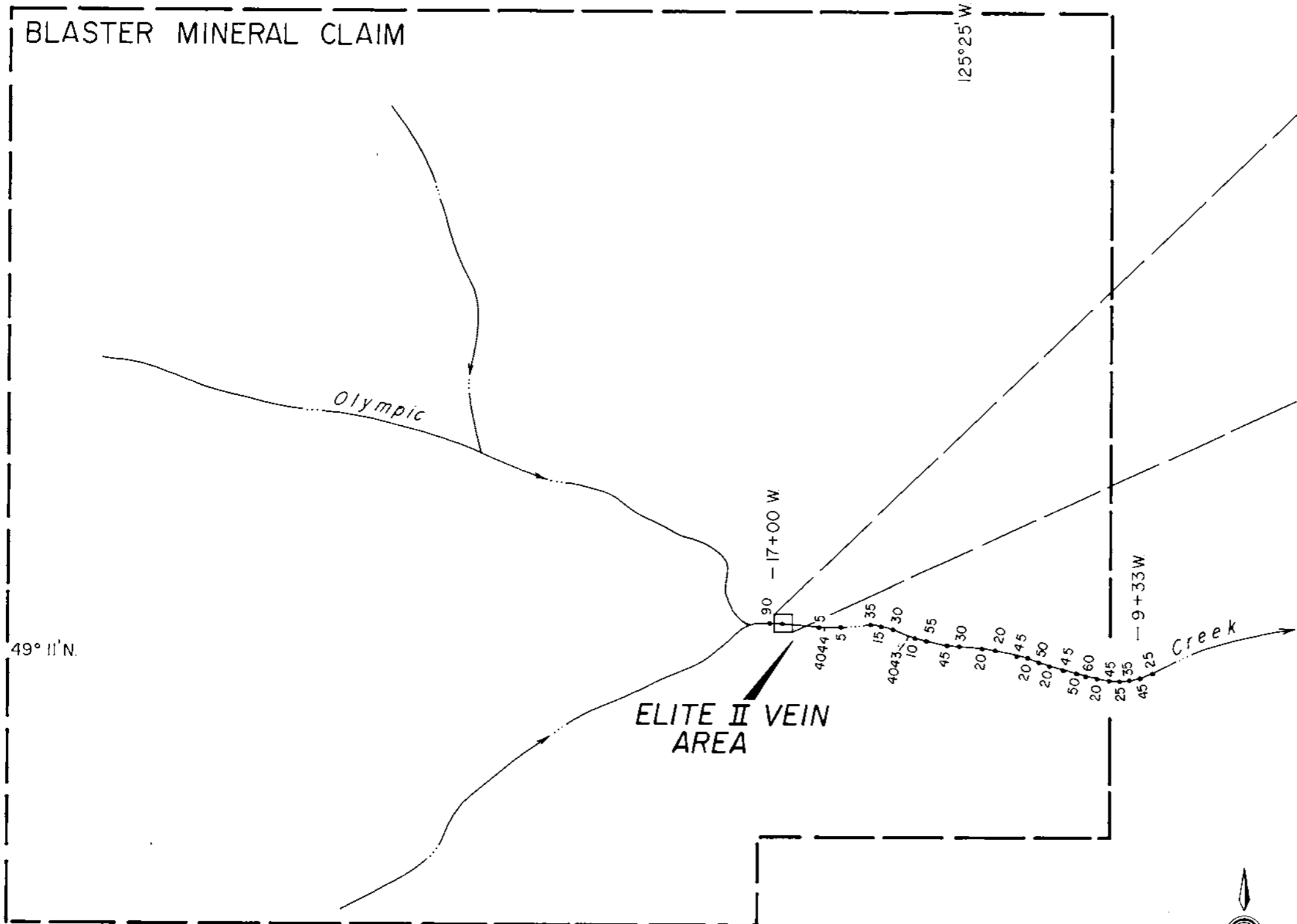
ABBREVIATIONS

LOCATION \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_ %  
 DRILLED BY \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

COLLAR LAT \_\_\_\_\_  
 LONG. \_\_\_\_\_  
 ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DIP TESTS \_\_\_\_\_  
 HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING				OZ/TON	
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU	AG
		36.70 - Po 5% as masses to about 12 mm across, cp 2% locally, traces gn as specks to 1 mm, 1 to 2% py. All sulphides as irregular masses along fractures or as wispy veinlets.						
36.70	38.70	ANDESITE - Pale greyish green, very fine grained with few quartz-carbonate veinlets to 5 mm wide throughout.						
		37.07-38.25 Moderately brecciated somewhat bleached section.	10286	37.15	38.00	.85	0.005	0.01
		37.15 - Quartz (87%) - carbonate (10%) veinlet 3 mm wide at 25° to c.a. contains about 3% po and 0.5% cp as rounded masses up to few mm across.	10287	38.00	38.50	.5	<.002	<.02
		37.35 - Veinlet as above at 60° to c.a. with locally 2% combined py, po and cp.						
		37.53 - As above at 45° to c.a.						
		37.70 - 37.96 - Silicified ( 15%), carbonatized (2%), intensely brecciated interval with abundant orange-brown iron oxides lining irregular fracture surfaces. 5% combined						

BLASTER MINERAL CLAIM



Sample No.	Width (m)	Gold oz/ton	Silver oz/ton
4045	0.30	0.064	0.02
4046	0.60	Trace	Trace
4047	0.60	0.014	0.01
4048	0.70	0.028	0.02
4049	0.75	0.038	0.04
4050	1.00	0.237	0.23
50476	1.10	0.508	0.38
50477	0.70	0.488	0.70
4043	SELECT	0.020	0.06
4044	SELECT	3.566	2.38

49° 11' N

125° 25' W

90 - 17+00 W

9 - 33 W

ELITE II VEIN AREA



m 0 100 200 300 400 500 m  
SCALE 1:10,000

SYMBOLS

- Chip sample site and number
- Geochemical silt sample site; gold in ppb
- Creek

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**18,218**

To accompany a report by David J. Pawliuk, P. Geol.

NATIONWIDE GOLD MINES CORPORATION/  
GOLDEN SPINNAKER MINERALS CORPORATION

**ELITE PROJECT  
ELITE II VEIN SAMPLING,  
SILT SAMPLING**

Drawn by: D.J.P.      N.T.S. 92 F/3W  
Date: July, 1988      Figure: 7

# PROJECT \_\_\_\_\_

D.D.HOLE No.       -10      

## ABBREVIATIONS

LOCATION \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_ %  
 DRILLED BY \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

COLLAR LAT \_\_\_\_\_  
 LONG. \_\_\_\_\_  
 ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DIP TESTS \_\_\_\_\_  
 HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING			OZ/TON		
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU.	AI
		py, po, cp over 1.5 cm at 37.70; traces py throughout where sulphides not weathered. Lower contact of intensely brecciated interval at 63° to c.a.						
37.70	38.87	QUARTZ VEIN- Core broken into pieces few cm diameter throughout. Off-white quartz (98%) - carbonate (2%) vein similar appearance to Elite Vein. Sulphide veinlets to 1 mm wide at 53° to c.a. near both upper and lower wallrock contacts. Upper vein contact at 38° to c.a. 5% combined py,po, cp within 10 mm of upper wallrock contact, and within about 3 mm of lower wallrock contact. Striated py crystals to 1.5 mm along fracture at lower wallrock contact. Lower wallrock contact probably small fault; finely broken core and mud 5 mm thick on fracture at 52° to c.a.	10288	38.50	39.00	.5	<.002	0.
			10289	39.00	39.50	.5	.002	0.
38.87	43.5	QUARTZ DIORITE - Light grey, fine to medium grained with faint grain boundaries; moderately brecciated.						



PROJECT \_\_\_\_\_

PP 6. OF 7

D.D.HOLE No. EL-88-10

## ABBREVIATIONS

LOCATION \_\_\_\_\_

COLLAR LAT \_\_\_\_\_

HOLE STARTED \_\_\_\_\_

LONG. \_\_\_\_\_

HOLE COMPLETED \_\_\_\_\_

ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_

CORE RECOVERY \_\_\_\_\_ %

AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_

DRILLED BY \_\_\_\_\_

DIP TESTS \_\_\_\_\_

LOGGED BY \_\_\_\_\_

HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING				OZ/TON	
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU	AG
		41.06 - Cream-yellow veinlet 6 mm wide at 18° to c.a.						
		42.65 - 43.51 - Quartz (85%) - carbonate (10%) - chlorite (5%) veinlet 10-15 mm wide subparallel to c.a. About 0.5% py and traces po lining fractures and along veinlet margins throughout.	10290	42.65	43.45	.8	<.002	0.0
3.57	47.09	ANDESITE - As for 2.13 - 13.11	10291	43.75	44.75	1.0	0.006	0.0
		43.57 - 44.75 - Moderately to intensely brecciated, usually bleached pale greenish brown. Py 1 to locally 5% as crystals to 3 mm within veinlets lining fracture surfaces; local 0.5% po as specks up to 0.5 mm diameter.						
7.09	54.25	QUARTZ DIORITE - Light grey to pale greenish grey locally, generally medium grained with faint grain boundaries; fine grained sections throughout. Upper contact discrete at 35° to c.a.						



## PROJECT

ELITE

IE 1 OF 6

D.D.HOLE No. EL - 88 - 11

## ABBREVIATIONS

LOCATION \_\_\_\_\_

COLLAR

LAT. 1001.7 N

HOLE STARTED February 6, 1988

LONG. 941.8 E

HOLE COMPLETED February 7, 1988

ELEV. 1000.2 LENGTH 66.45 m

CORE RECOVERY \_\_\_\_\_ %

AZIMUTH 200<sup>0</sup> DIP -85<sup>0</sup>

DRILLED BY Drilcor

DIP TESTS NO

LOGGED BY O.J. Pawliuk

HOR. PROJ. 5.7 VERT. PROJ. 66.2

OBJECTIVE Test Elite Vein 50 m below surface below WE-15 sample site.

INTERVAL (M)		DESCRIPTION	SAMPLING			AU OZ/TON
FROM	TO		SAMPLE NO.	FROM	TO	
0.00	1.52	CASING				
1.52	41.46	ANDESITE - Greyish green, very fine grained, massive rock with occasional pale grey to off-white carbonate veinlets up to few mm wide throughout; veinlets usually filling irregular hairline fractures. Often pervasive carbonatization (traces to 0.5%) throughout.				
		6.90 - Carbonate veinlets to 3 mm wide at 44 <sup>0</sup> to c.a.; rare py to 1% as short veinlet along fracture.				
		9.64 - 13.13 - Hairline carbonate veinlets subparallel core axis contain local traces pyrite.				
		11.20 - Few carbonate veinlets up to 4 mm wide at about 43 <sup>0</sup> to c.a.				
		13.15 - 29.09 - Porphyritic andesite with pale green "snowflake"				

## PROJECT \_\_\_\_\_

PAGE 2 OF 6

D.D.HOLE No. -11

## ABBREVIATIONS

LOCATION \_\_\_\_\_

COLLAR LAT \_\_\_\_\_

HOLE STARTED \_\_\_\_\_

LONG. \_\_\_\_\_

HOLE COMPLETED \_\_\_\_\_

ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_

CORE RECOVERY \_\_\_\_\_ %

AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_

DRILLED BY \_\_\_\_\_

DIP TESTS \_\_\_\_\_

LOGGED BY \_\_\_\_\_

HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING			AU OZ/TON
FROM	TO		SAMPLE NO.	FROM	TO	
		feldspar phenocrysts up to about 3 mm diameter.				
		15.35 - Bleached pale green-cream patch about 4 cm across				
		15.39 - Off-white carbonate veinlet 4 mm at 53° to c.a.				
		22.66 - Quartz (85%) - carbonate (15%) veinlet 8 mm wide at 37° to c.a.				
		22.66 - 22.97 - Possible fault. Core broken into pieces up to few cm diameter. Smear of mud on fracture at 38° to c.a. Brown iron oxides coat fracture surfaces of broken core pieces.				
		23.86 - Pale grey carbonate veinlet 7 mm wide at 25° to c.a.; wispy chlorite inclusions within veinlet.				
		33.08 - White carbonate veinlets to 10 mm wide from 0° to 10° to c.a.				
		34.92 - White quartz (95%) - carbonate (5%) veinlet 9 mm wide at 54° to c.a.				

# PROJECT \_\_\_\_\_

## D.D.HOLE No. EL-88-11

### ABBREVIATIONS

LOCATION _____	COLLAR _____	LAT _____	
MOLE STARTED _____		LONG. _____	
MOLE COMPLETED _____		ELEV. _____	LENGTH _____
CORE RECOVERY _____%		AZIMUTH _____	DIP _____
DRILLED BY _____		DIP TESTS _____	
LOGGED BY _____		HOR. PROJ. _____ VERT. PROJ. _____	
OBJECTIVE _____			

INTERVAL (M)		DESCRIPTION	SAMPLING				OZ/TON	
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU	AG
		35.19 - as above						
		36.22 - 36.33 - Pale green bleached andesite.						
		36.30 - 36.72 - Core broken into pieces up to few cm long.						
		36.46 - White quartz (70%) - carbonate (30%) vein about 3 cm wide; 1% py crystals coating fracture surfaces in wallrock at vein margins. Wallrock brecciated; angular andesite fragments within vein. Vein at 60° to c.a.	10292	36.3	36.8	.5	0.033	0.0
		36.64 - Vein as above but orientation cannot be determined.						
		38.62 - 41.46 - Numerous randomly oriented, off-white quartz-carbonate veinlets up to 3 mm wide.						
		39.27 - Quartz-carbonate veinlet 3 mm wide at 27° to c.a. contains local 1% py and traces po.						
		41.46 - Lower andesite contact fairly discrete at 18° to c.a.						
		37.70 - 38.87 - Steel grey brecciated andesite (?).						

## PROJECT \_\_\_\_\_

PAGE 4 OF 6

D.D.HOLE No. EL - 88 - 11

## ABBREVIATIONS

LOCATION \_\_\_\_\_

COLLAR LAT \_\_\_\_\_

HOLE STARTED \_\_\_\_\_

LONG. \_\_\_\_\_

HOLE COMPLETED \_\_\_\_\_

ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_

CORE RECOVERY \_\_\_\_\_ %

AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_

DRILLED BY \_\_\_\_\_

DIP TESTS \_\_\_\_\_

LOGGED BY \_\_\_\_\_

HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING				OZ/TON	
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU	AG
41.46	45.74	QUARTZ DIORITE - Light to medium grey, fine grained with faint grain boundaries, few hairline quartz veinlets at about 60° to c.a. throughout.						
		43.91 - Py, po 1% combined along quartz veinlet.						
		45.46 - 45.74 - Pale green-grey bleached, silicified quartz diorite with about 0.5% po and py combined. Elite Vein hanging wall.	10293	45.24	45.74	.5	<.005	0.
45.79	46.79	ELITE VEIN - Off-white to greyish brown to pale greenish white. Banded over 3 cm at both upper and lower contacts.	10294	45.74	46.24	.5	0.094	0.
		Upper contact at 33° to c.a.; lower contact at 25°. 6 mm of finely broken core and mud at upper vein contact; probable minor fault. 5% po and py as bands up to 1.5 mm wide within top 2 cm of vein. Irregular hairline fractures throughout vein usually lined with py and po; most of these fractures are at about 37° to 45° to c.a.	10295	46.24	46.97	.55	0.056	0.

PROJECT \_\_\_\_\_

P E 6 OF 6

D.D.HOLE No. EL-82-11

ABBREVIATIONS

LOCATION \_\_\_\_\_

COLLAR LAT. \_\_\_\_\_

HOLE STARTED \_\_\_\_\_

LONG. \_\_\_\_\_

HOLE COMPLETED \_\_\_\_\_

ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_

CORE RECOVERY \_\_\_\_\_ %

AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_

DRILLED BY \_\_\_\_\_

DIP TESTS \_\_\_\_\_

LOGGED BY \_\_\_\_\_

HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING			AU OZ/TON
FROM	TO		SAMPLE NO.	FROM	TO	
		46.79 - 48.45 - Light greenish grey, somewhat bleached and altered; Elite Vein footwall.				
		47.16 - Pale grey carbonate (60%) - quartz (40%) veinlet 3 mm wide at 28° to c.a.				
		47.41 - As above at 36° to c.a.				
		47.83 - Veinlets as above 4 mm wide at 28° and 70° to c.a.				
		49.46 - Po and py 1% combined along fracture at 45° to c.a.				
		50.55 - 51.75 - Off-white quartz veinlets 11 mm wide at about 10° to c.a.				
		51.61 - Carbonate veinlet 15 mm at 64° to c.a.				
		51.73 - 54.36 - Creamy orange coloured quartz (?) veinlets to 2 mm wide at about 70° to c.a.				
		62.18 - 63.03 - Light greyish green bleached interval contains trace pervasive carbonate.				
66.45		END OF HOLE				

# PROJECT \_\_\_\_\_

D.D.HOLE No. EL-88-11

## ABBREVIATIONS

LOCATION \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_ %  
 DRILLED BY \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

COLLAR LAT \_\_\_\_\_  
 LONG. \_\_\_\_\_  
 ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DIP TESTS \_\_\_\_\_  
 HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING				AU OZ/TC
FROM	TO		SAMPLE NO.	FROM	TO	M.	
		45.91 - 46.03 - Po 20%, cp 0.5% to locally 2%.					
		46.15 - 46.26 - Py 5%, po 2%, cp traces.					
		46.20 - Cavity 15 mm by 6 mm lined by pale grey quartz crystals and pyrite and black minerals (chlorite) 2.5 mm wide on fractures at 43 <sup>0</sup> to c.a.					
		46.22 - Visible gold (?) as speck 0.5 mm long lining small fracture within Elite Vein quartz.					
		46.37 - 46.48 - Po 50%, cpy 3% as irregular masses within band about 4.5 cm wide at about 45 <sup>0</sup> to c.a.					
46.79	66.45	QUARTZ DIORITE - Grey to light greenish grey, medium to fine grained, generally weakly brecciated and weakly silicified rock. Occasional quartz-carbonate veinlets up to few mm wide at 70 to 40 <sup>0</sup> to c.a. in upper half of interval.					
		46.79 - 50.42 - Weakly carbonatized (trace to 2%).					



PROJECT ELITE

IE 1 OF 6

D.D.HOLE No. EL-88-12

## ABBREVIATIONS

LOCATION \_\_\_\_\_

COLLAR LAT. 1001.7 NHOLE STARTED February 8, 1988LONG. 941.8 EHOLE COMPLETED February 8, 1988ELEV. 1000.2 LENGTH 45.11 m

CORE RECOVERY \_\_\_\_\_ %

AZIMUTH 146<sup>0</sup> DIP -68<sup>0</sup> collarDRILLED BY DrilcorDIP TESTS NOLOGGED BY D.J. PawliukHOR. PROJ. 16.7 m VERT. PROJ. 41.7 mOBJECTIVE Test ELITE VEIN between holes EL - 88 - 5 and EL - 88 - 6

INTERVAL (M)		DESCRIPTION	SAMPLING				AU G/TDN
FROM	TO		SAMPLE NO.	FROM	TO	M.	
0.00	1.52	CASING					
1.52	33.87	QUARTZ DIORITE - Light grey to light greyish green, medium grained, usually faint crystal boundaries. Rock often has about 5% of feldspar altered to green-white clay minerals throughout .					
		1.52 - 9.40 - Brown-orange iron oxides on weathered fracture surfaces.					
		2.30 - White quartz vein 17 mm wide at 20 <sup>0</sup> to c.a.					
		4.08 - White quartz vein with traces carbonate 13 mm wide at 23 <sup>0</sup> to c.a.					
		5.60 - White to pale brown quartz veinlet 6 mm wide at 13 <sup>0</sup> to c.a.					
		5.77 - White quartz vein 8 mm wide at 32 <sup>0</sup> to c.a.					
		6.48 - Pale brownish yellow mud 3 mm thick with finely broken core on fracture at 44 <sup>0</sup> to c.a.					

## PROJECT \_\_\_\_\_

PAGE <sup>2</sup> OF 6D.D.HOLE No. EL-88-12

## ABBREVIATIONS

LOCATION \_\_\_\_\_ COLLAR LAT \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_ LONG. \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_ ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_ % AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DRILLED BY \_\_\_\_\_ DIP TESTS \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_ HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING			AU OZ/TQT
FROM	TO		SAMPLE NO.	FROM	TO	
		7.08 - 8.38 - Carbonate 2% as pale grey, wispy, randomly oriented veinlets throughout.				
		8.95 - 9.62 - Probable fault. Broken core; mud smears on fractures at 33° and 28° to c.a. and feldspars about 20% altered to clay minerals.				
		9.72 - 10.01 - Traces py as thin film on fracture surfaces.				
		10.15 - Pale grey quartz (97%) - carbonate (3%) veinlet 5 mm wide at 24° to c.a.				
		12.65 - Quartz (90%) - carbonate (10%) veinlet 7 mm wide at 15° to c.a.				
		13.76 - Quartz veinlet 11 mm wide at 36° to c.a. contains 1% py along veinlet margins.				
		14.85 - 16.32 - Few irregular carbonate veinlets at about 40° to c.a; about 0.5% carbonate over interval.				

# PROJECT \_\_\_\_\_

D.D.HOLE No. EL - 88 - 12

## ABBREVIATIONS

LOCATION \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_ %  
 DRILLED BY \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

COLLAR LAT \_\_\_\_\_  
 LONG. \_\_\_\_\_  
 ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DIP TESTS \_\_\_\_\_  
 HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING			AU OZ/TON
FROM	TO		SAMPLE NO.	FROM	TO	
		17.20 - 17.30 - Py 1% within quartz (90%) - carbonate (10%) veinlet 8 mm wide about subparallel c.a.				
		19.35 - Quartz (70%) - carbonate (30%) veinlet 3 mm wide at 18° to c.a.				
		20.24 - 21.23 - Pale green section with about 50% of feldspars altered to clay minerals.				
		21.06 - White carbonate veinlet 14 mm wide at 28° to c.a. contains chlorite traces as wisps.				
		21.87 - Carbonate veinlet 15 mm wide at 15° to c.a. contains traces py along veinlet margins.				
		23.20 - Carbonate veinlet 1.5 mm wide at 5° to c.a.				
		27.50 - 28.20 - Carbonate veinlet to 3 mm wide subparallel c.a.				

# PROJECT \_\_\_\_\_

D.D.HOLE No. -12

## ABBREVIATIONS

LOCATION \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_ %  
 DRILLED BY \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

COLLAR LAT \_\_\_\_\_  
 LONG. \_\_\_\_\_  
 ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DIP TESTS \_\_\_\_\_  
 HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING			OZ/TO		
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU	A
		29.02 - Carbonate 2% as hairline veinlets at about 30° to c.a.						
		29.15 - Py 1% as patches of subhederal cubes along fracture surfaces.						
		30.55 - 33.87- Traces pervasive carbonate throughout; carbonate content increases to about 1% towards bottom of interval.						
33.87	34.43	ANDESITE Light greyish green, fine grained. Contact with overlying quartz diorite gradational over 20 cm; wispy quartz diorite inclusions within andesite. Pale grey to off-white carbonate veinlet 5 mm wide at 5° to c.a. is present throughout andesite interval. Andesite contains traces pervasive carbonate throughout. Andesite is ELITE Vein hanging wall.	10297	33.93	34.43	.5	<.002	<0.
34.43	34.98	ELITE VEIN - Off-white with bands of steel grey and brown patches. Upper contact at 37° to c.a.; lower contact at 56°. Fractures mainly at 41° to 55° to c.a.	10298	34.43	34.98	.55	.108	.12



# PROJECT \_\_\_\_\_

D.D.HOLE No. EL - 88 - 12

## ABBREVIATIONS

LOCATION \_\_\_\_\_ COLLAR LAT \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_ LONG. \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_ ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_% AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DRILLED BY \_\_\_\_\_ DIP TESTS \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_ HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING				OZ/TON	
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU	A
		37.44 - Possible minor fault. Smear of green-grey mud on fracture at 37 <sup>0</sup> to c.a.						
34.98	44.34	ANDESITE - Medium green to pale green to greenish grey, generally very fine grained. Weakly to moderately brecciated throughout with wispy carbonate veinlets along irregular hairline fractures. Elite Vein footwall.	10299	34.98	35.48	.5	<.002	<0.1
		34.98 - 39.00 - Pervasive weak carbonatization as well as carbonate veinlets.						
		36.74 - Pale grey quartz (80%) - carbonate (20%) veinlet 4 mm wide at 18 <sup>0</sup> to c.a. contains 0.5% py along margins.						
		38.54 - 38.96 - Probable fault zone. Finely broken core and mud on fractures at 48 <sup>0</sup> and 66 <sup>0</sup> to c.a.						

# PROJECT \_\_\_\_\_

D.D.HOLE No. EL-88-12

## ABBREVIATIONS

LOCATION \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_ %  
 DRILLED BY \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

COLLAR LAT. \_\_\_\_\_  
 LONG. \_\_\_\_\_  
 ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DIP TESTS \_\_\_\_\_  
 HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING			AU OZ/TON
FROM	TO		SAMPLE NO.	FROM	TO	
		39.48 - 41.85 - Porphyritic andestie with cream-green "snowflake" feldspar phenocrysts to 3 mm across.				
		41.75 - 42.60 - Probable fault. Core broken into pieces up to few cm diameter throughout. Broken core and mud on fractures at 32° to c.a. at top of intercal, at 26° to c.a. at bottom of interval.				
		43.76 - Po 1% as masses to few mm diameter within irregular quartz (95%) - carbonate (5%) veinlet 3 mm wide.				
44.34	45.11	QUARTZ DIORITE - Pale greenish grey, medium to coarse grained with subrounded off-white feldspars to 7 mm across.				
	45.11	END OF HOLE				

PROJECT ELITE

1 OF 8

D.D.HOLE No. EL - 88 - 13

## ABBREVIATIONS

LOCATION \_\_\_\_\_

COLLAR LAT. 1002.3 NMOLE STARTED February 9, 1988LONG. 940.6 EMOLE COMPLETED February 14, 1988ELEV. 1000.2 LENGTH 61.26 m

CORE RECOVERY \_\_\_\_\_ %

AZIMUTH 234° DIP -83°DRILLED BY DrilcorDIP TESTS NOLOGGED BY D.J. PawliukHOR. PROJ. 7.3 VERT. PROJ. 60.7OBJECTIVE Test ELITE VEIN 5 m west of D.D.H. 11 intersection

INTERVAL (M)		DESCRIPTION	SAMPLING				AU OZ/TON
FROM	TO		SAMPLE NO.	FROM	TO	M.	
0.00	0.61	CASING					
0.61	33.07	ANDESITE - Green to greyish green to locally grey, generally very fine grained to aphanitic. Occasional quartz-carbonate veinlets to 3 mm wide throughout.					
		0.61 - 6.72 - Very dark brown iron oxides on weathered fracture surfaces.					
		0.61 - 4.67 - Generally broken core with most pieces 1 to 3 cm diameter.					
		5.01 - 6.72 - Fracture subparallel c.a.					
		6.72 - 7.58 - Carbonate veinlets 1 mm wide subparallel c.a.					
		8.27 - Smear of mud on fracture at 38° to c.a.					
		8.79 - 13.06 - Porphyritic andesite with creamy green to off-white feldspar phenocrysts av. about 2 mm diameter.					
		9.05 - 13.20 - Core broken along fractures subparallel c.a.; fractures often lined with carbonate.					



# PROJECT \_\_\_\_\_

D.D.HOLE No. EL-88-13

## ABBREVIATIONS

LOCATION \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_ %  
 DRILLED BY \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

COLLAR LAT. \_\_\_\_\_  
 LONG. \_\_\_\_\_  
 ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DIP TESTS \_\_\_\_\_  
 HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING				AU OZ/TON
FROM	TO		SAMPLE NO.	FROM	TO	M.	
		15.15 - Possible fault. Finely broken core and mud 5 mm thick on fracture at 30° to c.a.					
		19.40 - 20.14 - Weakly brecciated; carbonate fills irregular hairline fractures throughout.					
		20.28 - Possible fault; finely broken core and mud 8 mm thick on fracture at 43° to c.a.					
		20.30 - 20.41 - Orange-brown iron oxides on fracture surfaces of broken (to few cm) core.					
		20.64 - Carbonate veinlet 3 mm wide at 31° to c.a.					
		20.72 - 21.03 - Traces py as subhedral cubes on fracture surfaces.					
		21.72 - 21.84 - Carbonate 5% as irregular veinlets and pervasive throughout.					

PROJECT \_\_\_\_\_

PAGE 3 OF 8

D.D.HOLE No. EL-88-13

## ABBREVIATIONS

LOCATION \_\_\_\_\_ COLLAR LAT \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_ LONG. \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_ ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_% AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DRILLED BY \_\_\_\_\_ DIP TESTS \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_ HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING			AU OZ/TON
FROM	TO		SAMPLE NO.	FROM	TO	
		22.56 - 22.92 - Andesite approx. 40% bleached to greenish cream coloured rock.				
		22.66 - Carbonate veinlet 2 mm wide at 20° to c.a.				
		22.75 - Yellow-orange iron oxides on fracture surfaces.				
		24.10 - Carbonate veinlet 1.5 mm wide at 7° to c.a.				
		29.03 - 31.64 - Porphyritic andesite as for 8.79 - 13.06				
		31.84 - 32.51 - Few carbonate veinlet up to 3 mm wide at 49° to c.a.				
33.07	35.58	QUARTZ DIORITE - Steel grey to greenish grey, fine grained. Weakly brecciated, weakly silicified, about 1% carbonate as wispy irregular veinlets throughout. Upper contact discrete at 33° to c.a.				
		33.08 - Cream white carbonate vein 22 mm wide at 33° to c.a.				
		33.10 - 33.51 - Trace to 0.5% pyrite.				

PROJECT \_\_\_\_\_

4 OF 8

D.D.HOLE No. EL-88-13**ABBREVIATIONS**

LOCATION \_\_\_\_\_

COLLAR LAT. \_\_\_\_\_

HOLE STARTED \_\_\_\_\_

LONG. \_\_\_\_\_

HOLE COMPLETED \_\_\_\_\_

ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_

CORE RECOVERY \_\_\_\_\_ %

AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_

DRILLED BY \_\_\_\_\_

DIP TESTS \_\_\_\_\_

LOGGED BY \_\_\_\_\_

HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING				AU OZ/TON
FROM	TO		SAMPLE NO.	FROM	TO	M.	
33.58	37.17	ANDESITE - Green to greyish green, very fine grained to aphanitic, moderately brecciated throughout. Upper contact at about 8° to c.a., lower contact at about 22°.					
		36.31 - 36.48 - Quartz veinlets up to 7 mm wide at approximately 17° to c.a. form 5% of rock volume.					
37.17	49.49	QUARTZ DIORITE - grey to greenish grey, medium to fine grained with feldspars up to few mm diameter. Rock often weakly brecciated.					
		37.35 - 37.91 - Broken core. Moderately brecciated rock, possible fault zone. Mud 1.5 mm thick on fracture at 30° to c.a.					
		40.21 - Carbonate (90%)-quartz (10%) veinlet 4 mm wide at 35° to c.a.					
		43.79 - 45.92-Light greyish green interval with traces nervasive carbonate.					

PROJECT \_\_\_\_\_

PAGE 5 OF 8

D.D.HOLE No. EL-88-13

## ABBREVIATIONS

LOCATION \_\_\_\_\_

COLLAR LAT \_\_\_\_\_

HOLE STARTED \_\_\_\_\_

LONG. \_\_\_\_\_

HOLE COMPLETED \_\_\_\_\_

ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_

CORE RECOVERY \_\_\_\_\_ %

AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_

DRILLED BY \_\_\_\_\_

DIP TESTS \_\_\_\_\_

LOGGED BY \_\_\_\_\_

HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING			OZ/TO		
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU	A
		45.94 - Quartz (60%) - carbonate (40%) veinlet 8 mm wide at 30° to c.a.						
		48.28 - 49.49 - Light grey to light green-grey, carbonatized (traces to 3%); carbonate pervasive and as veinlets up to 3 mm wide .						
		49.04 - 49.49 - Weak to moderately pervasive silicification has occurred (up to 20% rock volume). Quartz vein hangingwall.	10300	48.99	49.49	.5	<002	0.
49.49	50.29	QUARTZ VEIN - Faintly mottled off-white to pale grey, hairline fractures throughout lined by chlorite at about 23° to 30° to c.a. Upper contact probable minor fault with grey mud and finely broken core along fracture at 33° to c.a.	10276	49.49	50.29	.8	0.006	0.
		49.49 - 49.51 - Py 5% as subhedral cubes up to 1 mm within brecciated quartz vein.						
		49.66 - Local po 1% as irregular mass.						
		49.89 - 49.94 - Po, py 1% combined as irregular masses up						

# PROJECT \_\_\_\_\_

D.D.HOLE No. EL-88-13

## ABBREVIATIONS

LOCATION \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_ %  
 DRILLED BY \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

COLLAR LAT \_\_\_\_\_  
 LONG. \_\_\_\_\_  
 ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DIP TESTS \_\_\_\_\_  
 HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING				OZ/TON	
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU	AG
		to 11 mm by 4 mm along fractures.						
		50.18 - Py 1%, trace gn.						
		50.27 - 50.29 - Py 5% within lowermost 2 cm of quartz vein, lining irregular fractures and as masses up to about 7 mm across.						
		50.29 - Lower vein contact at 33° to c.a.						
50.29	51.00	QUARTZ DIORITE - Light greenish grey, fine grained, moderately to locally intensely silicified. Rare trace interstitial carbonate. Footwall of upper quartz vein and hanging wall of Elite Vein. Quartz veinlets up to 4 mm wide at 37°, 22° and 40° to c.a. Contact with underlying Elite Vein discrete at 23° to c.a.	10277	50.29	51.00	.71	0.002	0.0
51.00	51.47	ELITE VEIN - Off-white to pale grey with local brown to brass coloured sulphide patches. Vein banded by hairline fractures lined with sulphides and chlorite at approx.	10278	51.00	51.50	.5	0.032	0.1

PROJECT \_\_\_\_\_

1E 7 OF 8

D.D.HOLE No. EL-88-13

## ABBREVIATIONS

LOCATION \_\_\_\_\_ COLLAR LAT. \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_ LONG. \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_ ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_ % AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DRILLED BY \_\_\_\_\_ DIP TESTS \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_ HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING			OZ/TON		
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU	Ag
		37 <sup>0</sup> to c.a. No carbonate where tested.						
		51.06 - 51.42 - Py and po 5% to locally 10% combined as irregular patchy masses up to a couple of cm across.						
		Sulphides say 65% py and 35% po. Local traces cp along rims py and po masses.						
		51.47 - Lower vein contact at 17 <sup>0</sup> to c.a.						
51.47	59.72	QUARTZ DIORITE - Steel grey to light greenish grey, medium grained, generally moderately brecciated with randomly oriented quartz veinlets to 2 mm wide throughout.	10279	51.50	52.56	1.06	0.008	0.
		51.47 - 52.50 - Bleached pale grey-brown section where feldspars about 25% altered to clay minerals and also rock moderately silicified; footwall Elite Vein.						
		52.22 - 52.53 - Rock stained brown by pervasive iron oxides.						
		52.70 - Py 1% as cubes along fracture surfaces.						

# PROJECT \_\_\_\_\_

D.D.HOLE No. EL-88-13

## ABBREVIATIONS

LOCATION \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_ %  
 DRILLED BY \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

COLLAR LAT. \_\_\_\_\_  
 LONG. \_\_\_\_\_  
 ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DIP TESTS \_\_\_\_\_  
 HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING			OZ/TON		
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU	AC
		NOTE: Extra 1.01 m core between 52.73 m (173 foot) marker on February 10, 1988 when drill broke down and 52.73 m (173 foot) marker on February 13, 1988 when drilling resumed. Therefore this hole likely 61.26 m deep.						
		55.99 - 56.72 - Py 0.5% to 1% along fracture surfaces within pale greyish green silicified quartz diorite.	DP-1	54.39	54.89	.5	<.005	0.1
		57.40 - Pale grey quartz veinlet 3 mm wide at 21° to c.a.						
		59.74 - Off-white quartz veinlet 12 mm wide at 79° to c.a.						
60.63	61.26	ANDESTIE - Dark green, very fine grained, weakly brecciated. Contact with overlying quartz diorite discrete at 34° to c.a.						
	61.26	END OF HOLE.						

PROJECT ELITE

D.D.HOLE No. EL - 88 - 14

**ABBREVIATIONS**

LOCATION \_\_\_\_\_

COLLAR LAT. 1002.3 N

HOLE STARTED February 14, 1988

LONG. 940.6 E

HOLE COMPLETED February 17, 1988

ELEV. 1000.2 LENGTH 113.69

CORE RECOVERY \_\_\_\_\_ %

AZIMUTH 254<sup>0</sup> DIP -45<sup>0</sup>

DRILLED BY Drilcor

DIP TESTS No

LOGGED BY D.J. Pawliuk

HOR. PROJ. 80.4 VERT. PROJ. 80.4

OBJECTIVE Test western ELITE VEIN and shear zone underlying Olympic Creek

INTERVAL (M)		DESCRIPTION	SAMPLING				AU (G/100)
FROM	TO		SAMPLE NO.	FROM	TO	M.	
0.00	2.44	CASING - No core RECOVERY					
2.44	4.09	QUARTZ DIORITE - Light grey-brown, bleached, weathered appearance. Fine grained, massive rock.					
4.09	7.01	ANDESITE PORPHYRY - Light greenish-grey, fine grained, massive rock mottled by creamy white feldspar phenocrysts forming about 7% of the rock volume. Phenocrysts have subround to blocky shapes often with faint boundaries. Very dark brown iron oxides along weathered fracture surfaces.					
		6.85 - Quartz vein 6 mm wide at about 5 <sup>0</sup> to c.a. contains cavities up to 3 mm diameter where sulphides (?) have been weathered out.					
7.01	8.56	QUARTZ DIORITE - Light greyish brown, mottled, medium grained massive rock with feldspar crystals up to few mm.					
		7.42 - Quartz vein 3 mm wide at 43 <sup>0</sup> to c.a. contains abundant					



# PROJECT \_\_\_\_\_

D.D.HOLE No. -14

## ABBREVIATIONS

LOCATION \_\_\_\_\_

COLLAR LAT. \_\_\_\_\_

HOLE STARTED \_\_\_\_\_

LONG. \_\_\_\_\_

HOLE COMPLETED \_\_\_\_\_

ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_

CORE RECOVERY \_\_\_\_\_ %

AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_

DRILLED BY \_\_\_\_\_

DIP TESTS \_\_\_\_\_

LOGGED BY \_\_\_\_\_

HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING			AU COZTION
FROM	TO		SAMPLE NO.	FROM	TO	
		( 30% of vein) cavities where sulphides (?) have been weathered out.				
8.56	11.36	ANDESITE - Light greenish grey, fine to very fine grained, massive rock. Abundant hairline quartz veinlets filling irregular, randomly oriented fractures throughout.				
		8.56 - Contact with overlying quartz diorite discrete at 40° to c.a.				
		10.42 - Pale grey quartz veinlet 3 mm wide at 50° to c.a.				
		10.81 - 11.36 - Moderately silicified, weakly brecciated.				
11.36	13.11	QUARTZ DIORITE - Light grey, mottled, medium grained rock; often weakly brecciated.				
		12.04 - Vuggy [sulphides(?) weathered out] quartz veinlet about 5 mm wide at 80° to c.a.				
		12.99 - Quartz veinlet 2 mm wide at 26° to c.a.				

PROJECT \_\_\_\_\_

D.D.HOLE No. -14

**ABBREVIATIONS**

LOCATION \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_ %  
 DRILLED BY \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

COLLAR LAT. \_\_\_\_\_  
 LONG. \_\_\_\_\_  
 ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DIP TESTS \_\_\_\_\_  
 HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING			AU OZ/10
FROM	TO		SAMPLE NO.	FROM	TO	
13.11	13.50	ANDESITE - Light green, very fine grained to aphanitic, weakly brecciated. Contact with underlying quartz diorite discrete at 42° to c.a.				
13.50	27.74	QUARTZ DIORITE - Light greenish grey to light grey to grey, generally medium grained rock with subround off-white feldspar crystals up to 7 mm diameter. Faint crystal boundaries. Occasional hairline quartz veinlets throughout.				
		13.50 - 14.14 - Orange-brown iron oxides on fracture subparallel c.a.				
		14.95 - Quartz veinlet 4 mm wide at 28° to c.a.				
		17.29 - 18.09 - Rock 70% stained by pervasive orange iron oxides; traces py.				
		19.38 - 20.07 - Rock moderately brecciated and weakly silicified with irregular, discontinuous quartz veinlets. Possible fault at 19.81 m. Local 0.5% py as subhedral crystals along				

PROJECT \_\_\_\_\_

D.D.HOLE No. -14

**ABBREVIATIONS**

LOCATION \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_ %  
 DRILLED BY \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

COLLAR LAT. \_\_\_\_\_  
 LONG. \_\_\_\_\_  
 ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DIP TESTS \_\_\_\_\_  
 HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING			OZ/TON		
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU	AG
		fractures.						
		19.70 - 19.98 - Rock stained by pervasive orange-brown iron oxides.	DP-2	19.60	20.10	.5	0.005	0.0
		21.04 - 22.16- Quartz diorite 30% stained by pervasive brown iron oxides.						
		21.45 - Traces carbonate within quartz veinlet.						
		24.15 - 26.08 - Quartzveinlets up to 3 mm wide and subparallel c.a. contain rare traces carbonate.						
		26.40 - Intensely brecciated zone about 15 mm wide at 30° to c.a.; possible healed fault.						
		27.74 - Contact with underlying andesite discrete at 65° to c.a.						
27.74	34.44	ANDESITE POROXYRY - Green to greyish-green, fine grained, massive, with greenish cream blocky to subrounded feldspar						

PROJECT \_\_\_\_\_

15<sup>5</sup> OF 17D.D.HOLE No. -14**ABBREVIATIONS**

LOCATION \_\_\_\_\_

COLLAR LAT \_\_\_\_\_

HOLE STARTED \_\_\_\_\_

LONG. \_\_\_\_\_

HOLE COMPLETED \_\_\_\_\_

ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_

CORE RECOVERY \_\_\_\_\_ %

AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_

DRILLED BY \_\_\_\_\_

DIP TESTS \_\_\_\_\_

LOGGED BY \_\_\_\_\_

HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING			AU GZ/TQI
FROM	TO		SAMPLE NO.	FROM	TO	
		phenocrysts averaging about 2 mm diameter comprising about 10% of the rock volume. Wispy, irregular, pale grey quartz veinlets throughout. Patches of rock bleached pale creamy green up to few cm wide in upper half of unit.				
		31.39 - 31.89 - Core finely broken into pieces up to a few cm long; orange-brown iron oxides coat fracture surfaces. Possible fault at 31.72 where yellow-brown mud balls up to about 1 cm in diameter present.				
		31.92 - 32.25 weakly brecciated with quartz (95%)-carbonate (5%) veinlets up to 3 mm wide, randomly oriented. Py 2% finely disseminated along fractures.				
		33.70 - Quartz veinlet 4 mm wide at 32° to c.a.				
		34.44 - Discrete contact with underlying quartz diorite at 28° to c.a.				

PROJECT \_\_\_\_\_

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D.D.HOLE No. -14

## ABBREVIATIONS

LOCATION \_\_\_\_\_

COLLAR LAT. \_\_\_\_\_

HOLE STARTED \_\_\_\_\_

LONG. \_\_\_\_\_

HOLE COMPLETED \_\_\_\_\_

ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_

CORE RECOVERY \_\_\_\_\_ %

AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_

DRILLED BY \_\_\_\_\_

DIP TESTS \_\_\_\_\_

LOGGED BY \_\_\_\_\_

HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING			OZ/TON		
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU	AG
34.44	35.74	QUARTZ DIORITE - Orange- brown to light greenish grey (about 90% of unit stained by pervasive iron oxides), medium grained, weakly silicified, massive rock. Traces to locally 1% disseminated py throughout.						
		34.82 - Quartz veinlet 7 mm wide at 60° to c.a.	DP-3	34.74	35.74	1.0	0.006	0.0
		35.52 - 35.62 - Probable fault. Finely broken core between fractures at 35° to c.a.						
		35.74 - Discrete contact with underlying quartz diorite at 46° to c.a.						
35.74	36.02	ANDESITE PORPHYRY - Green to brownish green, aphanitic groundmass with greenish cream to brown feldspar phenocrysts up to 3 mm long. Local 5% disseminated py along fracture surfaces. Lower contact discrete at 30° to c.a.	DP-4	35.74	36.54	.8	0.006	0.0

PROJECT \_\_\_\_\_

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D.D.HOLE No. \_\_\_\_\_ -14 \_\_\_\_\_

## ABBREVIATIONS

LOCATION \_\_\_\_\_ COLLAR LAT \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_ LONG. \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_ ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_ % AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DRILLED BY \_\_\_\_\_ DIP TESTS \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_ HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING				AU GZ/TG
FROM	TO		SAMPLE NO.	FROM	TO	M.	
36.02	36.11	QUARTZ DIORITE - Grey, medium grained, weakly brecciated. Lower contact discrete at 38° to c.a.					
36.11	38.49	ANDESITE PORPHYRY - Green to locally brownish green; greenish cream feldspar phenocrysts up to 4 mm across comprise about 2% of rock volume. Ground mass very fine grained. Occasional quartz veinlets up to 1.5 mm wide at about 30° to c.a. throughout. Local traces disseminated py along fracture surfaces.					
		37.12 - 37.25 - Rock 40% bleached pale creamy green colour.					
		38.49 - Discrete contact with underlying quartz diorite at 26° to c.a. Quartz veinlet 4 mm wide within andesite porphyry cut-off by (older than) intrusive contact between quartz diorite and andesite porphyry.					

PROJECT \_\_\_\_\_

D.D.HOLE No. -14 \_\_\_\_\_

**ABBREVIATIONS**

LOCATION \_\_\_\_\_

COLLAR LAT. \_\_\_\_\_

HOLE STARTED \_\_\_\_\_

LONG. \_\_\_\_\_

HOLE COMPLETED \_\_\_\_\_

ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_

CORE RECOVERY \_\_\_\_\_ %

AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_

DRILLED BY \_\_\_\_\_

DIP TESTS \_\_\_\_\_

LOGGED BY \_\_\_\_\_

HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING			AU OZ/TON
FROM	TO		SAMPLE NO.	FROM	TO	
38.49	42.74	QUARTZ DIORITE - Grey to greenish grey, medium grained, feldspar crystals to few mm.				
		40.57 - Pale grey quartz veinlet 3 mm wide at 21° to c.a.				
		41.27 - Possible fault. Orange iron oxides and smear of mud on fracture at 45° to c.a.				
		42.74 - Discrete contact with underlying andesite at 47° to c.a.				
42.74	43.52	ANDESITE - Green, aphanitic to very fine grained, weakly silicified. Contact with underlying quartz diorite discrete at 75° to c.a.				
		43.40 - Quartz veinlet 3 mm wide at 20° to c.a.				
43.52	45.62	QUARTZ DIORITE - Greyish green, medium grained, moderately silicified, H=6, contact with underlying andesite discrete at 52° to c.a.				

PROJECT \_\_\_\_\_

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D.D.HOLE No. -14 \_\_\_\_\_

**ABBREVIATIONS**

LOCATION \_\_\_\_\_ COLLAR LAT. \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_ LONG. \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_ ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_ % AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DRILLED BY \_\_\_\_\_ DIP TESTS \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_ HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING				OZ/TON	
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU	A
		44.51 - Quartz (70%) - chlorite (30%) veinlet 5 mm wide at 31° to c.a.						
45.62	46.91	ANDESITE - Green to brownish green, very fine grained, weakly brecciated with white-quartz veinlets up to 5 mm wide throughout at 43° to c.a. Contact with underlying quartz diorite discrete at 20° to c.a.						
46.91	53.91	QUARTZ DIORITE - Light greenish grey, medium grained with local, weak alteration of feldspars to clay minerals. Contact with underlying andesite discrete at 58° to c.a.						
		48.59 - White quartz veinlet 2 mm wide at 27° to c.a.						
		48.84 - As above at 41° to c.a.						
		49.55 - 49.69 - Andesite; green aphanitic, lower contact with quartz diorite at about 35° to c.a.						
		50.75 - Quartz veinlet 3 mm wide with chlorite along margins,	DP-5	50.60	50.75	.5	0.020	0



# PROJECT \_\_\_\_\_

D.D.HOLE No.     -14    

## ABBREVIATIONS

LOCATION _____	COLLAR	LAT. _____
HOLE STARTED _____		LONG. _____
HOLE COMPLETED _____		ELEV. _____ LENGTH _____
CORE RECOVERY _____ %		AZIMUTH _____ DIP _____
DRILLED BY _____		DIP TESTS _____
LOGGED BY _____		HOR. PROJ. _____ VERT. PROJ. _____
OBJECTIVE _____		

INTERVAL (M)		DESCRIPTION	SAMPLING			OZ/TON		
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU	AG
		at 21 <sup>0</sup> to c.a., contains po masses up to few mm across.						
		Local 1% disseminated py in wallrock.						
		53.71 - Quartz veinlet 3 mm wide subparallel c.a.						
53.91	55.82	ANDESITE - Light grey-green, fine grained, moderately to weakly brecciated with abundant (5%) irregular, discontinuous, randomly oriented quartz veinlets. About 0.5% py and po combined throughout as irregular masses within quartz veinlets and speckled on fracture surfaces. Somewhat porphyritic in upper half of interval.						
		54.70 - 54.87 - Py 10%, po 1% as irregular masses somewhat oriented along fractures at about 10 <sup>0</sup> to c.a.	DP-6	54.60	55.10	.5	4.005	0.0
		54.83 - Quartz veinlet 9 mm wide at 40 <sup>0</sup> to c.a.						
		55.82 - Contact with underlying quartz vein discrete at 49 <sup>0</sup> to c.a.	OP-7	55.10	55.82	.72	4.005	0.0

PROJECT \_\_\_\_\_

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D.D.HOLE No. -14

## ABBREVIATIONS

LOCATION \_\_\_\_\_ COLLAR LAT. \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_ LONG. \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_ ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_ % AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DRILLED BY \_\_\_\_\_ DIP TESTS \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_ HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING			OZ/TG		
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU	A
55.82	55.95	ELITE (?) QUARTZ VEIN - Mottled off-white to grey-brown. py 10% as irregular masses throughout and filling fractures; py slightly weathered to brown iron oxides throughout. Po about 0.5% as subround masses. Local traces cp. Wispy bands of chlorite within vein along lower contact with andesite wallrock; smears of chloritic mud along contact indicate it probably is healed minor fault. Lower contact at 40° to c.a.	DP-8	55.82	55.95	.13	0.020	0.
55.95	64.26	ANDESITE PORPHYRY - Light grey-green, fine grained; quartz veinlets contain rare traces carbonate. Greenish cream "snowflake" feldspar phenocrysts, with faint boundaries, up to 4 mm diameter form 10 to 20% of rock volume in lower 2/3 of interval.	DP-9	55.95	56.45	.5	<.005	0.1
		59.21 - 60.40 - Moderately brecciated; 10% irregular quartz veinlets throughout.						

# PROJECT \_\_\_\_\_

D.D.HOLE No. \_\_\_\_\_ -14 \_\_\_\_\_

## ABBREVIATIONS

LOCATION \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_ %  
 DRILLED BY \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

COLLAR LAT. \_\_\_\_\_  
 LONG. \_\_\_\_\_  
 ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DIP TESTS \_\_\_\_\_  
 HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING				OZ/TON	
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU	AG
		59.66 - Fault. Grey mud and finely broken core 20 mm thick on fracture at 30° to c.a.						
		59.80 - White quartz vein 5.3 cm wide at 38° to c.a. Py 1% within lowermost cm of vein as elongate wisps parallel vein margin.	DP-10	59.55	60.05	.5	<.005	<.0
		61.48 - Quartz vein 11 mm wide at 47° to c.a.						
		62.30 - 64.26 - Brown-orange iron oxides coat fracture surfaces and spot core; poQ5% throughout.						
		64.26 - Contact with underlying quartz diorite at about 10° to c.a.						
64.26	68.79	QUARTZ DIORITE - Light grey to light green-grey, medium grained often weakly brecciated, weakly silicified. Hairline quartz veinlets throughout. Contact with underlying andesite discrete at 7 3° to c.a.						

PROJECT \_\_\_\_\_

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D.D.HOLE No. \_\_\_\_\_ -14

## ABBREVIATIONS

LOCATION \_\_\_\_\_ COLLAR LAT \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_ LONG. \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_ ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_ % AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DRILLED BY \_\_\_\_\_ DIP TESTS \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_ HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING			OZ/TON		
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU	IA
68.79	69.47	ANDESITE - Light greyish green, aphanitic, weakly brecciated.	DP-11	68.97	69.47	.5	<.005	<
69.47	69.73	QUARTZ VEIN- Off-white to mottled grey and green. Upper contact at 37 <sup>0</sup> to c.a.; lower contact at 38 <sup>0</sup> .	DP-12	69.47	69.73	.26	0.008	0
		69.48 - Probable minor fault. Soft, chloritic, broken core 7 mm thick on fracture at about 25 <sup>0</sup> to c.a.						
		69.49 - 69.67 - Py 5% as irregular masses which are generally subparallel vein margins.						
		69.61 - Py 10% as mass 20 X 27 mm.						
		69.72 - Py 2%, traces po, rare trace cp and gn (?)						
69.73	74.88	ANDESITE - Green to greenish brown, very fine grained, irregular hairline quartz veinlets throughout. Lower contact at 53 <sup>0</sup> to c.a.						
		69.73 - 70.16 - Weakly brecciated, moderately silicified, similar in appearance to quartz diorite.						

# PROJECT \_\_\_\_\_

D.D.HOLE No.       -14      

## ABBREVIATIONS

LOCATION \_\_\_\_\_

COLLAR LAT \_\_\_\_\_

HOLE STARTED \_\_\_\_\_

LONG. \_\_\_\_\_

HOLE COMPLETED \_\_\_\_\_

ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_

CORE RECOVERY \_\_\_\_\_ %

AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_

DRILLED BY \_\_\_\_\_

DIP TESTS \_\_\_\_\_

LOGGED BY \_\_\_\_\_

HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING			OZ/TON		
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU.	AG.
		70.53 - 71.34 - Quartz diorite as for 64.26 - 68.79, moderately to intensely (at 70.57) brecciated. Upper contact of brecciated zone at 68° to c.a.; lower at 46°.						
		71.50 - 71.82 - Py 1% disseminated						
		72.16-72.28 - Steel grey intensely brecciated interval; possible healed fault.						
		72.66 - 74.40 - Andesite porphyry with greenish cream feldspar phenocrysts comprising 5% of rock volume.						
74.88	79.58	QUARTZ DIORITE - Light grey to steel grey to light greenish grey, medium grained. Locally weakly brecciated throughout. Often weakly silicified.						
		75.96 - Quartz (95%) - carbonate (5%) veinlet with about 1% chlorite, 6 mm wide at 40° to c.a.						
		76.60 - Few quartz veinlets 1.5 mm wide at 24° to c.a.						
		79.30 - 79.75 - Po 1 - 2% as disseminated blebs up to 3 mm across; no sulphides within quartz vein.	OP-13	79.28	79.78	.5	<.005	0.1

PROJECT \_\_\_\_\_

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D.D.HOLE No. -14

## ABBREVIATIONS

LOCATION \_\_\_\_\_ COLLAR LAT. \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_ LONG. \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_ ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_% AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DRILLED BY \_\_\_\_\_ DIP TESTS \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_ HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING			AU GZ/TG
FROM	TO		SAMPLE NO.	FROM	TO	
79.58	79.65	QUARTZ Vein - white with wispy inclusions of steel grey wallrock, No sulphides seen. Upper contact at 48° to c.a.; lower contact at 50°.				
79.65	89.22	QUARTZ DIORITE - As for 74.88 - 79.58. 82.61 - Quartz (97%) - chlorite (3%) veinlet 10 mm wide at 43° to c.a. 83.75 - Quartz veinlet 1 mm wide at 25° to c.a. 83.95 - As above at 32° to c.a. 86.75 - Quartz (95%) - carbonate (5%) veinlet 2 mm wide at 31° to c.a. 87.14 - Feldspars 25% altered to pale greenish cream clay minerals over 3 cm X 2 cm area. 87.23 - As above. 87.60 - As above.				
		88.30 - Pale grey quartz (97%) - carbonate (3%) vein 10 mm				

# PROJECT \_\_\_\_\_

D.D.HOLE No.       -14      

## ABBREVIATIONS

LOCATION \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_ %  
 DRILLED BY \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

COLLAR LAT. \_\_\_\_\_  
 LONG. \_\_\_\_\_  
 ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DIP TESTS \_\_\_\_\_  
 HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING			OZ/TON		
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU*	AG
		wide at 27 <sup>0</sup> to c.a. contains 1% disseminated po.	DP-14	88.10	88.60	.5	<.005	0.
89.22	113.69	ANDESITE - light greyish green to green with local grey intervals, generally very fine grained rock with crystals averaging < 1 mm length. Weakly brecciated throughout with dark grey mineral (chlorite?) lining irregular, randomly oriented, discontinuous fractures. Occasional quartz veinlets up to 2 mm wide at about 40 <sup>0</sup> to c.a.						
		89.22 - 91.00 - Moderately brecciated; possible healed minor fault at 90.15.						
		97.93 - 108.72 - Pale green to pale greyish green to pale grey intensely brecciated section, weakly silicified throughout. Olympic Creek shear zone. Abundant irregular hairline quartz veinlets. Intensely fractured. Rare traces carbonate along fracture surfaces. Foliation at about 43 <sup>0</sup> to c.a.						

PROJECT \_\_\_\_\_

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D.D.HOLE No. -14 \_\_\_\_\_

## ABBREVIATIONS

LOCATION \_\_\_\_\_ COLLAR LAT. \_\_\_\_\_  
 HOLE STARTED \_\_\_\_\_ LONG. \_\_\_\_\_  
 HOLE COMPLETED \_\_\_\_\_ ELEV. \_\_\_\_\_ LENGTH \_\_\_\_\_  
 CORE RECOVERY \_\_\_\_\_ % AZIMUTH \_\_\_\_\_ DIP \_\_\_\_\_  
 DRILLED BY \_\_\_\_\_ DIP TESTS \_\_\_\_\_  
 LOGGED BY \_\_\_\_\_ HOR. PROJ. \_\_\_\_\_ VERT. PROJ. \_\_\_\_\_  
 OBJECTIVE \_\_\_\_\_

INTERVAL (M)		DESCRIPTION	SAMPLING				OZ/TON	
FROM	TO		SAMPLE NO.	FROM	TO	M.	AU	Ag
		98.74 - 99.52 - Py 1%, po traces; disseminated throughout moderately silicified section.	DP-15	98.74	99.52	.78	<.005	0.
		100.42 - 101.22 - Andesite porphyry.						
		100.80 - 101.50 - Py 1% as cubes along fractures within bleached pale green andesite.	DP-16	100.80	101.50	.7	<.005	<0.
		104.30 - 108.72 - Moderately silicified with py 1% to 3% as disseminated cubes along fractures.	DP-17	104.30	104.80	.5	<.005	0.
			DP-18	104.80	105.30	.5	<.005	0.
			DP-19	105.80	106.30	.5	0.008	0.
		108.72 - 110.64 - Brown, very fine grained, weakly brecciated andesite.						
		110.64 - 113.69 - Moderately brecciated, weakly silicified andesite.						
		111.00 - Po(?) about 0.5%, very finely disseminated sulphide .						
	113.69	END OF HOLE						
		Mislatches last 2 runs (110.64-112.17 and 112.17 - 113.69) so poor core recovery this part of hole						



APPENDIX D  
ASSAY CERTIFICATES  
DRILL CORE SAMPLES

VANGEOCHEM LAB LIMITED

MAIN OFFICE: 1521 PEMBERTON AVE. N. VANCOUVER B.C. V7P 2S3 PH: (604)986-5211 TELEX: 04-352578  
 BRANCH OFFICE: 1630 PANDORA BT. VANCOUVER B.C. V5L 1L6 PH: (604)251-5656

ICAP GEOCHEMICAL ANALYSIS

A .5 GRAM SAMPLE IS DIGESTED WITH 5 ML OF 3:1:2 HCL TO HNO3 TO H2O AT 95 DEG. C FOR 90 MINUTES AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR SN, HM, FE, CA, P, CR, MG, BA, PD, AL, NA, K, V, PT AND SR. AU AND PD DETECTION IS 3 PPM.  
 IS= INSUFFICIENT SAMPLE, ND= NOT DETECTED, -= NOT ANALYZED

COMPANY: INP EXPL & DEVELOP  
 ATTENTION:  
 PROJECT:

REPORT#: 880063PA  
 JOB#: 880063  
 INVOICE#: 880063NA

DATE RECEIVED: 88/01/21  
 DATE COMPLETED: 88/01/26  
 COPY SENT TO:

ANALYST *[Signature]*

PAGE 1 OF 1

SAMPLE NAME	AG PPH	AL %	AS PPH	AU PPH	BA PPH	BE PPH	CA %	CD PPH	CO PPH	CR PPH	CU PPH	FE %	K %	MG %	HM PPH	MO PPH	NA %	NI PPH	P %	PB PPH	PD PPH	PI PPH	SB PPH	SM PPH	SR PPH	U PPH	V PPH	ZN PPH	
10001	.1	.96	22	ND	42	ND	1.78	.2	5	37	20	1.83	.08	.48	431	2	.01	14	.04	9	ND	ND	ND	ND	ND	38	ND	ND	31
10002	.1	1.06	64	ND	44	ND	2.21	.4	5	42	18	2.21	.08	.43	472	2	.01	14	.04	6	ND	ND	ND	ND	ND	35	ND	ND	35
10003	27.6	.12	2933	5	7	3	.11	5.6	98	140	2769	9.70	.09	.05	132	4	.01	46	.01	53	ND	ND	ND	ND	2	ND	ND	147	
10004	.7	.12	350	ND	6	ND	.32	.1	3	130	42	.73	.05	.05	85	2	.01	11	.01	10	ND	ND	ND	ND	5	ND	ND	6	
10280	.1	.91	25	ND	58	ND	4.63	.5	4	56	163	1.61	.08	.49	762	4	.01	11	.03	9	ND	ND	ND	ND	70	ND	ND	36	
DETECTION LIMIT	.1	.01	3	3	1	3	.01	.1	1	1	1	.01	.01	.01	1	1	.01	1	.01	2	3	5	2	2	1	5	3	1	

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130 Pemberton Ave.  
North Vancouver, B.C.  
Canada V7P 2R5  
Phone: (604) 985-0681  
Telex: 04-352667



Certificate  
of Analysis

REPORT: V88-00525.4 ( COMPLETE )

REFERENCE INFO:

CLIENT: INP EXPLORATION AND DEVELOPMENT  
PROJECT: NONE GIVEN

SUBMITTED BY: AUGUST OLSEN  
DATE PRINTED: 2-FEB-88

ORDER	ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Au	2	0.001 OPT		Gold - FIRE ASSAY
2	Ag	2	0.01 OPT		Silver

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
R ROCK OR BED ROCK	2	2 -150	2	SAMPLE SPLIT	2
				PULVERIZING	2

NOTES: † indicates ERRATIC RESULTS

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REPORT: V86-00525.4

PROJECT: NONE GIVEN

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Ag OPT
K2 10003		0.463*	1.18
K2 10004		0.006	<0.02

Registered Assayer, Province of British Columbia



# VANGEOCHEM LAB LIMITED

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BRANCH OFFICE  
1630 PANDORA ST.  
VANCOUVER, B.C. V5L 1L6  
(604) 251-5656

REPORT NUMBER: 880101 AA

JOB NUMBER: 880101

INP EXPLORATION DEV.

PAGE 1 OF 1

SAMPLE #	Ag oz/st	Au oz/st
10005	<.01	<.005
10006	.01	.006
10007	.10	.106
10008	<.01	<.005
10011	.02	<.005
10012	.01	<.005
10013	.01	.014
10014	<.01	<.005
10015	.14	.227
10016	<.01	<.005
10017	.03	.046

### DETECTION LIMIT

1 Troy oz/short ton = 34.28 ppm

.01

1 ppm = 0.0001%

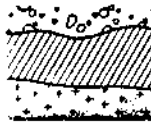
.005

ppm = parts per million

< = less than

signed: \_\_\_\_\_

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 North Vancouver, B.C.  
 Canada V7P 2R5  
 Phone: (604) 985-0681  
 Telex: 04-352667



**BONDAR-CLEGG**

**Certificate  
 of Analysis**

REPORT: V88-00539.4 ( COMPLETE )

REFERENCE INFO:

CLIENT: INP EXPLORATION AND DEVELOPMENT  
 PROJECT: NONE GIVEN

SUBMITTED BY: AUGUST OLSEN  
 DATE PRINTED: 5-FEB-88

ORDER	ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Au Gold - FIRE ASSAY	11	0.001 OPT		
2	Ag Silver	11	0.01 OPT		

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
R ROCK OR BED ROCK	11	2 -150	11	ASSAY PREP	11

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REPORT: V88-00539.4

PROJECT: NONE GIVEN

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Au OPT	Ag OPT
R2 10005		<0.002	<0.02
R2 10006		0.008	0.03
R2 10007		0.071	0.13
R2 10008		<0.002	0.02
R2 10011		<0.002	0.03
R2 10012		<0.002	<0.02
R2 10013		0.013	0.04
R2 10014		<0.002	0.02
R2 10015		0.161	0.24
R2 10016		<0.002	<0.02
R2 10017		0.054	0.05



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**BRANCH OFFICE**  
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 VANCOUVER, B.C. V5L 1L6  
 (604) 251-5656

9/02/88

REPORT NUMBER: 880144 AA

JOB NUMBER: 880144

IMP EXPLORATION DEV.

PAGE 1 OF 2

SAMPLE #	Ag oz/st	Au oz/st
1A	.01	<.005
1B	.36	1.078
10009	.01	.012
10010	.09	.104
10018	.02	.020
10019	.02	.026
10020	.12	.020
10021	.40	.006
10022	<.01	<.005
10023	<.01	<.005
10024	.37	.326
10025	.01	.005
10026	<.01	<.005
10027	<.01	<.005
10028	.03	.014
10029	<.01	<.005
10030	.05	.005
10031	<.01	<.005
10032	.01	<.005
10033	.24	.270

**DETECTION LIMIT**

1 Troy oz/short ton = 34.28 ppm

.01

1 ppm = 0.0001%

.005

ppm = parts per million

< = less than

signed: \_\_\_\_\_





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REPORT NUMBER: 880144 AA

JOB NUMBER: 880144

INP EXPLORATION DEV.

PAGE 2 OF 2

SAMPLE #	Ag oz/st	Au oz/st
10034	.44	.293
10035	<.01	<.005
10036	.02	.006
10037	.15	.047
10038	<.01	<.005
10039	<.01	<.005
10040	<.01	<.005
10045	.03	<.005
10046	.30	1.007
10047	<.01	<.005
10048	.15	.018
10281	<.01	<.005
10282	.01	.010

DETECTION LIMIT

1 Troy oz/short ton = 34.28 ppm

.01

1 ppm = 0.0001%

.005

ppm = parts per million

< = less than

signed: \_\_\_\_\_





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(604) 251-5656

22/02/88

REPORT NUMBER: 880225 AA

JOB NUMBER: 880225

IMP EXPLORATION DEV.

PAGE 1 OF 2

SAMPLE #	Ag oz/st	Au oz/st
10278	.18	.032
10279	.03	.008
10293	.01	<.005
10294	.10	.094
10295	.07	.056
10296	.02	.006
10298	.12	.108
DF - 1	.02	<.005
DF - 2	.07	.005
DF - 3	.01	.006
DF - 4	.01	.006
DF - 5	.01	.020
DF - 6	.01	<.005
DF - 7	.01	<.005
DF - 8	.02	.020
DF - 9	.01	<.005
DF - 10	<.01	<.005
DF - 11	<.01	<.005
DF - 12	.01	.006
DF - 13 A	.01	<.005

### DETECTION LIMIT

1 Troy oz/short ton = 34.28 ppm

.01

1 ppm = 0.0001%

.005

ppm = parts per million

< = less than

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BRANCH OFFICE  
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VANCOUVER, B.C. V5L 1L6  
(604) 251-5656

REPORT NUMBER: 880225 AA

JOB NUMBER: 880225

IMP EXPLORATION DEV.

PAGE 2 OF 2

SAMPLE #	Ag oz/st	Au oz/st
DF - 13 B	.01	<.005
DF - 14	.01	<.005
DF - 15	.01	<.005
DF - 16	<.01	<.005
DF - 17	.02	<.005
DF - 18	.01	<.005
DF - 19	.02	.008

### DETECTION LIMIT

1 Troy oz/short ton = 34.28 ppm

.01

1 ppm = 0.0001%

.005

ppm = parts per million

< = less than

signed: \_\_\_\_\_

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**Certificate  
 of Analysis**

REPORT: V88-00672.4 ( COMPLETE )

REFERENCE INFO:

CLIENT: TNP EXPLORATION AND DEVELOPMENT  
 PROJECT: NONE GIVEN

SUBMITTED BY: UNKNOWN  
 DATE PRINTED: 17-FFA-88

ORDER	ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Au Gold - FIRE ASSAY	6	0.001 OPT		

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
X OTHER	6	2 -150	6	ASSAY PREP	6

NOTE: ALL INDICATES FROTTIC RESULTS.

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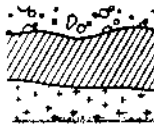
REPORT: V88-00677.4

PROJECT: NONE GIVEN

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Au OPT
X2 10018		0.006
X2 10019		0.023
X2 10020		0.012
X2 10033		0.360
X2 10034		0.269*
X2 10037		0.025

*Paul R. Bondar*



REPORT: U28-00694.4 ( COMPLETE )

REFERENCE INFO:

PATIENT: TNP EXPLORATION AND DEVELOPMENT  
 PROJECT: NONE GIVEN

DEPARTMENT: ANALYTICAL CHEMISTRY  
 DATE RECEIVED: 05/07/88

ORDER	ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	REMARKS
1	Au Gold - FIRE ASSAY	50	0.001 OPT		
2	Ag Silver	50	0.01 OPT		

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
R ROCK OR HF0 ROCK	3	2 -150	50	ASSAY PREP	50
D DRILL CORE	47				

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REPORT: U88-00494.4

PROJECT: MONE GLEN

PAGE: 1

SAMPLE NUMBER	ELEMENT UNITS	As	Ag	SAMPLE NUMBER	ELEMENT UNITS	As	Ag
		OPT	OPT			OPT	OPT
02 KG-R-1-29		<0.002	<0.02	02 10286		0.005	0.03
02 KG-R-1-30		<0.002	<0.02	02 10287		<0.002	<0.02
02 KG-R-1A-29		<0.002	<0.02	02 10288		<0.002	0.03
02 10041		0.002	<0.02	02 10289		0.002	0.02
02 10042		<0.002	<0.02	02 10290		<0.002	0.02
02 10043		<0.002	0.02	02 10291		0.006	0.06
02 10044		0.015	0.08	02 10292		0.033	0.05
02 10049		<0.002	<0.02	02 10297		<0.002	<0.02
02 10050		<0.002	<0.02	02 10299		<0.002	<0.02
02 10251		0.004	0.02	02 10300		<0.002	0.02
02 10252		<0.002	<0.02				
02 10253		<0.002	<0.02				
02 10254		<0.002	<0.02				
02 10255		<0.002	0.03				
02 10256		0.009	0.03				
02 10257		<0.002	0.05				
02 10258		<0.002	0.04				
02 10259		0.005	0.07				
02 10260		0.005	0.02				
02 10261		<0.002	<0.02				
02 10262		<0.002	0.02				
02 10263		<0.002	<0.02				
02 10264		<0.002	<0.02				
02 10265		0.057	0.57				
02 10266		<0.002	<0.02				
02 10267		<0.002	<0.02				
02 10268		<0.002	<0.02				
02 10269		<0.002	<0.02				
02 10270		<0.002	<0.02				
02 10271		<0.002	<0.02				
02 10272		<0.002	<0.02				
02 10273		<0.002	<0.02				
02 10274		0.003	<0.02				
02 10275		0.003	0.02				
02 10276 "A"		<0.002	<0.02				
02 10276 "B"		0.006	0.03				
02 10277		0.002	0.05				
02 10283		<0.002	<0.02				
02 10284		0.003	<0.02				
02 10285		0.033	0.12				



APPENDIX E  
PETROGRAPHIC DESCRIPTIONS



# Vancouver Petrographics Ltd.

JAMES VINNELL, Manager  
JOHN G. PAYNE, Ph.D. Geologist  
A.L. LITTLEJOHN, M.Sc. Geologist  
JEFF HARRIS, Ph.D. Geologist

P.O. BOX 39  
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FORT LANGLEY, B.C.  
VOX 1J0

PHONE (604) 888-1323

Invoice #7053

January 8th, 1987

Report for: August Olsen,  
INP Explorations Development,  
Ste. 1950, Park Place,  
666 Burrard St.,  
Vancouver, B.C.  
V6C 2X8

Samples: Taken from Elite Vein on Blaster-owned by N.G.M. & G.S.M. Corps.

Two rock samples for sectioning and petrographic description.

The samples were arbitrarily designated #1 (the smaller piece) and #2 (the larger specimen). In order to maximise the chances of finding Au, and to better represent variations in mineralization type within the samples, two polished thin sections (numbered A and B) were prepared from #1 and the same from #2.

These slides are described individually in the attached petrographic descriptions.

#### Summary:

The material submitted for study consists of vein-type quartz containing about 10% sulfides as irregular pockets, streaks and fine intergranular networks.

The sulfides consist of pyrrhotite, pyrite, chalcopyrite and traces of sphalerite. The pyrite may be largely secondary after pyrrhotite.

The sulfides form coarse pockets up to several mm in size, but also range down to threads and flecks of 10 to a few hundred microns in size, within the compact quartz.

Gold, in the form of the native metal, was observed in unusual abundance. It exhibits varied associations and was seen, as grains ranging in size from 5 - 150 microns, within pyrite, pyrrhotite and chalcopyrite. It also occurs as free grains in quartz, unassociated with sulfides.

This appears to be a texturally and mineralogically simple material which should present no particular problems in treatment. The gold is relatively coarse and a portion of it should be recoverable in a gravity circuit. However, fine grinding and cyanidation will probably be necessary to achieve full recovery.

A set of photomicrographs illustrating the form of the gold will be provided as an appendix to this report.

J.F. Harris Ph.D.

Sample 1: Slide A

Estimated mode

Quartz	88
Sericite	trace
Carbonate	trace
Jarosite	trace
Pyrite	6
Pyrrhotite	3
Chalcopyrite	3
Sphalerite	trace
Gold	trace

The matrix consists of essentially monomineralic quartz as a compact, anhedral aggregate of grain size 0.1 - 2.0mm. This exhibits no preferred orientation and shows a degree of strain polarization typical of most vein-type quartz.

The only accessory gangue constituents are sericite, as rare, random flecks and clusters (possibly representing remnants of assimilated xenoliths), and carbonate and jarosite as occasional intergrowths with sulfides, especially at the margins of sulfide segregations.

Sulfides form irregular pockets up to several mm in size, grading to fine intergranular networks and hairline fracture fillings in quartz. The fine-grained interstitial threads and pockets of sulfides are in the size range 10 - 200 microns.

The principal sulfide in this slide is pyrite. This is a minutely fine-grained, mottled/speckled, compact variety, typical of secondary formation from pyrrhotite. Fringing patches of recognizable altered pyrrhotite are sometimes present, and small inclusions of fresh pyrrhotite in pyrite are seen.

The characteristic altered (brownish, blobby, colloform) form of pyrrhotite also occurs as substantial segregations in its own right, as does chalcopyrite.

These three constituents mainly occur well-segregated from one another, though simple intergrowths (especially of chalcopyrite and pyrrhotite) are also seen.

Chalcopyrite typically contains sparse exsolution inclusions of sphalerite, and occurs intergrown with sphalerite in some of the smaller pockets in quartz.

Gold was seen in several different associations. These include individual grains, 10 - 25 microns in size, in pyrite and in the adjacent quartz; a 10 micron bleb in altered pyrrhotite; and sulfide-free grains, 25 - 50 microns, in quartz.

Sample 1: Slide B

Estimated mode

Quartz	84
Carbonate	1
Sericite	trace
Pyrite	13
Pyrrhotite	2
Chalcopyrite	trace
Sphalerite	trace
Gold	trace

The matrix in this slide is quartz, of similar textural style to that described in Slide A. It includes rare, tiny, random flecks of sericite. Carbonate is an accessory gangue constituent strongly localized marginal to the pockets of sulfides, especially altered pyrrhotite - with which it is sometimes intimately intergrown.

Chalcopyrite is notably rarer in this slide than in Slide A, but the general textural mode and grain size of the sulfides is similar.

Fine-grained secondary-type pyrite, sometimes minutely dusted with Fe-oxide inclusions, is by far the predominant sulfide. Altered pyrrhotite occurs as a few discrete segregations, to 1 or 2mm in size, and as sparse, small flecks around the margins of pyrite pockets.

Sphalerite is relatively more abundant compared with chalcopyrite in this slide. These two components are confined to small threads and pockets, 10 - 200 microns in size, in quartz. They often show close association with pyrrhotite.

Gold noted in this slide was almost entirely as clusters of free grains in quartz. It ranges in grain size from 10 - 150 microns.

Sample 2: Slide A

Estimated mode

Quartz	82
Sericite	6
Biotite	trace
Carbonate	1
Pyrite	7
Pyrrhotite	2
Chalcopyrite	1
Sphalerite	trace
Gold	trace
Limonite	1

This slide has a matrix of anhedral quartz similar to that of Sample 1, predominantly in the grain size range 0.2 - 1.0mm, but with some streaks and patches of much finer grain.

It is distinctive in including a sharply defined elongate zone composed largely of very fine-grained, felted sericite. A little green biotite occurs within and marginal to this zone, commonly impregnated with limonite derived from partial oxidation of adjacent sulfides. Rare, individual, tiny wisps of sericite are also seen elsewhere in the quartz aggregate.

Carbonate is, as in the other slides, localized as pockets of intimate inter-growth with sulfides.

The sulfides occur in similar style and comparable proportions to those in Slide 1 A. The pyrite in this case appears somewhat better crystallized than in the other sample. It occurs as irregular to elongate pockets up to several mm in size.

Pyrrhotite (typically altered) and chalcopyrite are less abundant than pyrite and mainly occur in close association, well-segregated from the pyrite. Traces of sphalerite are also seen in this association.

Gold was seen relatively commonly and in varied associations. Examples are a 60 micron grain in pyrite; a 30 micron grain on the contact of pyrite and quartz; 5 - 10 microns specks within a pocket of chalcopyrite; specks and threads of 5 - 100 micron size in quartz; and specks and threads, 5 - 20 microns in size, within a small wisp of sericite in the quartz.

Sample 2: Slide B

Estimated mode

Quartz	90
Pyrrhotite	7
Pyrite	1
Chalcopyrite	2
Sphalerite	trace
Gold	trace

The matrix in this particular portion of the specimen appears to be monomineralic quartz, without accessory sericite or carbonate.

The sulfide proportions are also notably different to the other slides, pyrrhotite being by far the most abundant component. This is strongly altered, in characteristic fashion, to brownish, mottled, colloform/cellular masses. These form irregular/elongate pockets, to several mm in size, grading to intergranular networks. Some of the cellular structures in the altered pyrrhotite are occupied by quartz, but many are empty (or have been plucked during polishing).

The pyrrhotite occasionally shows simple intergrowth with chalcopyrite, and/or has minor included grains of pyrite.

Some of the finer grained threads and pockets of sulfides in quartz are composed of segregated chalcopyrite.

Gold was seen in this slide as a group of grains, 50 - 120 microns in size, in pyrrhotite - partly intergrown with an enclave of fresh pyrrhotite within the predominant altered form. Some of these gold grains are composite with an unidentified creamy-pink phase (another native metal, or a telluride?).

Gold was also seen as a group of smaller grains, 5 - 50 microns in size, in another area of altered pyrrhotite and in an adjoining small pocket of chalcopyrite.



# Vancouver Petrographics Ltd.

JAMES VINNELL, Manager  
JOHN G. PAYNE, Ph.D. Geologist  
A.L. LITTLEJOHN, M.Sc. Geologist  
JEFF HARRIS, Ph.D. Geologist

P.O. BOX 39  
8887 NASH STREET  
FORT LANGLEY, B.C.  
VOX 1J0

PHONE (604) 888-1323

Invoice #7053

January 11th, 1988

August Olsen,  
INP Explorations Development,  
Ste. 1950, Park Place,  
666 Burrard St.,  
Vancouver, B.C.  
V6C 2X8

Dear Mr. Olsen,

Enclosed is a set of photomicrographs illustrating typical modes of occurrence and grain size range of gold in the sample studied (report January 8th, 1988).

Policy in regard to photomicrographs is that I retain the negatives. Additional prints, colour slides or enlargements to any desired size will gladly be provided on request.

This is the basis on which I have always operated, and clients appear quite satisfied with it. This way the negatives are kept permanently on file for ready access at any time in the future, and prints supplied to clients (and possibly used for reports or promotional purposes) meet my required standards as regards quality and colour rendering.

Should you wish me to identify the unknown phases associated with gold in Slide 2B (and illustrated in photo 108-5) this can readily be done by the use of scanning electron microprobe analysis. Please let me know.

I have retained the slides for the time being pending your instructions in this regard.

Yours truly,

J.F. Harris

PHOTOMICROGRAPHS

All photos are by reflected light at a scale of 1 cm = 42 microns.

Slide 1A: Neg. 108-0: 2 grains of native gold, 25 - 30 microns in size (circled) at or near contact of secondary-type pyrite (creamy white) and quartz (dark grey-black).

Neg. 108-1: Native gold as threads and specks, 5 - 50 microns in size, in quartz (brownish-grey matrix) with pockets and networks of altered pyrrhotite (patchy, cellular, brown and cream). The gold (in left half of photo) is distinguishable from chalcopyrite (yellow, intergrown with the pyrrhotite e.g. lower centre, right centre) by rougher surface and stronger golden colour.

Slide 1B: Neg. 108-7: Coarse gold in quartz (dark grey) adjacent to secondary pyrite (creamy white, lower right). Gold grains range in size from about 25 to at least 130 microns. Patch of glints and diffuse reflections between the grains at upper centre indicates probable continuity of the gold below the plane of polishing. i.e. this grain could be 200 microns or more in size.

Neg. 108-9: Coarse gold (140 microns) within quartz. Note also scattered, much smaller gold (7 - 30 microns) in quartz surrounding the large grain. Creamy white mineral at right is pyrite, intergrown with carbonate (slightly different grey from the predominant quartz).

Slide 2A: Neg. 108-11: Small (10 micron) bleb of gold (circled) within chalcopyrite (yellow). Right half of slide consists of altered pyrrhotite/ secondary pyrite (cream) with cellular structure of quartz-filled and open vugs (dark). Light grey mineral (in pyrrhotite, bottom right, and as two small specks in chalcopyrite, near the gold bleb) is sphalerite.

Neg. 108-12: Individual 60 micron grain of native gold in vuggy secondary pyrite/altered pyrrhotite (buff colour), at contact with quartz matrix (dark grey-black).

Neg. 108-13: Example of fine-grained gold (2 - 25 microns) in quartz (dark matrix) peripheral to threads of altered pyrrhotite (centre), and (bright specks) in an elongate wisp of sericite (darker grey than the quartz) at upper left.

Neg. 108-14: Native gold, without associated sulfides, as microfracture or grain boundary filling in quartz (dark matrix). Occurrence of the gold as intermittent threads and flecks may be characteristic; or the gold may originally have been more extensive, having been partially lost by plucking during slide preparation. Slightly darker grey phase filling the fissure is epoxy mounting medium.

Slide 2B: Neg. 108-3: Native gold (high reflectivity) as grains, 5 - 60 microns in size, within chalcopyrite (yellow, left) and in periphery of pocket of secondary pyrite (cream, right). Dark background is quartz matrix.

Neg. 108-4: Discrete grain of coarse (150 micron) gold in compact quartz matrix (dark).

Neg. 108-5: Coarse gold (25 - 110 microns) in vuggy, speckled, altered pyrrhotite (cream colour) and associated with a patch of fresh pyrrhotite (smooth surface, pinky-buff colour; right). Some small grains of less well polished gold in the quartz matrix (dark) peripheral to the pyrrhotite (top right). Note higher reflectivity of gold compared with patch of chalcopyrite (yellow) at top left. Two of the gold grains with the fresh pyrrhotite are composite with unidentified light grey and brownish-grey phases.



APPENDIX F  
ASSAY CERTIFICATES  
SURFACE CHIP(?) AND BULK SAMPLES



VANOCO CHEM LAB LTD.  
 Main Office  
 1321 Pemberton St.  
 North Vancouver, B.C. V7P 2S3  
 Telex: 04 352578  
 Branch Lab  
 1800 Parkside St.  
 Vancouver, B.C.  
 Sample Preparation  
 Facilities  
 Paradeck, Newboundry  
 Thunder Bay, Ontario  
 Bafford, New Brunswick  
 Reno, Nevada



REPORT NUMBER: 871668 AA

JOB NUMBER: 871668

IMP EXPLORATION DEV.

PAGE 1 OF 1

SAMPLE #	Ag oz/st	Al oz/st
4031	2.17	1.438
4032	.69	.132
4033	.36	.086
4034	4.01	1.400
4035	2.36	1.566
4036	.19	.534

DETECTION LIMIT

1 Troy oz/short ton = 34.28 ppm

.01

1 ppm = 0.00012

.005

ppm = parts per million

< = less than

signed: \_\_\_\_\_



**YANGEOTHEM LAB LTD.**  
 Main Office  
 1521 Pemberton St  
 North Vancouver  
 B.C. V7V 2S3  
 604 966 3211  
 Fax: 64 352578  
 Branch Lab  
 1600 Pembroke St.  
 Vancouver, B.C.  
 Sample Preparation  
 Facilities  
 Tsunshih Bay, Ontario  
 Babine, New Brunswick  
 Park, Nevada



REPORT NUMBER: 871668 GA

JOB NUMBER: 871668

IMP EXPLORATION DEV.

PAGE 1 OF 1

SAMPLE #	As ppm
4031	1468
4032	955
4033	472
4034	2704
4035	2143
4036	75

DETECTION LIMIT

2

nd = none detected

-- = not analysed

is = insufficient sample



VANGOCHEM LAB LTD.  
 Main Office  
 1521 Pemberton St  
 North Vancouver  
 B.C. V7P 2S3  
 604 985 5211  
 Telex: 04 352578  
 Branch Lab  
 1630 Pandora St  
 Vancouver, B.C.  
 Sample Preparation  
 Facilities  
 Passadena, New Brunswick  
 Thunder Bay, Ontario  
 Baharal, New Brunswick  
 Reno, Nevada



REPORT NUMBER: 871697 AA

JOB NUMBER: 871697

IMP EXPLORATION DEV.

PAGE 1 OF 1

SAMPLE #	Ag oz/st	Au oz/st
4037	1.08	1.560
4038	.69	.454
4039	2.24	1.416
4040	.57	.786
4041	.60	.328
4042	.44	1.438

DETECTION LIMIT

1 Troy oz/short ton = 34.28 ppm

.01

1 ppm = 0.0001%

.005

ppm = parts per million

< = less than

signed: \_\_\_\_\_

VGC

VGC

VANOCHEM LAB LTD.  
 Main Office  
 1521 Pemberton St  
 North Vancouver  
 B.C. V7P 2S9  
 604.966.5211  
 Telex: 04262278  
 Branch Lab  
 1630 Parkside St  
 Vancouver, B.C.  
 Sample Preparation  
 Facilities  
 Pacifica, Newfoundland  
 Toronto, Ontario  
 Barbours, Newfoundland  
 Reno, Nevada

VGC

VGC

REPORT NUMBER: 871701 AA

JOB NUMBER: 871701

IMP EXPLORATION DEV.

PAGE 1 OF 1

SAMPLE #	Ag oz/st	Au oz/st
4043	.06	.020
4044	2.38	3.566

DETECTION LIMIT

1 Troy oz/short ton = 34.28 ppa

.01

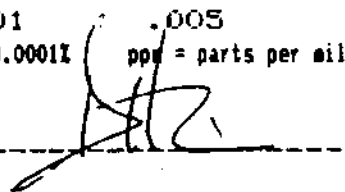
1 ppa = 0.0001%

.005

ppm = parts per million

< = less than

signed: \_\_\_\_\_



A handwritten signature in black ink, appearing to be 'H.R.', is written over a dashed horizontal line.



# VANGEOCHEM LAB LIMITED

MAIN OFFICE  
1521 PEMBERTON AVE.  
NORTH VANCOUVER, B.C. V7P 2S3  
(604) 988-5211 TELEX: 04-352578

BRANCH OFFICE  
1830 PANDORA ST.  
VANCOUVER, B.C. V6L 1L8  
(604) 251-5858

REPORT NUMBER: 871833 AA

JOB NUMBER: 871833

IMP EXPLORATION DEV.

PAGE 1 OF 1

SAMPLE #	Ag oz/st	Au oz/st
4045	.02	.064
4046	<.01	<.005
4047	.01	.014
4048	.02	.028
4049	.04	.038
4050	.24	.230 / .244
50476	.39	.500 / .516
50477	.47	.498 / .478
50478	.43	.504 / .572
50480	.09	.252 / .248
50481	.57	1.280 / 1.314
50482	.21	1.574 / 1.494
50483	.88	1.242 / 1.228
50484	.10	.274 / .260
50485	.36	.392 / .376
50486	.15	.486 / .502
50487	.10	.258 / .282

### DETECTION LIMIT

1 Troy oz/short ton = 34.28 pps

.01

1 pps = 0.0001%

.005

pps = parts per million

< = less than

signed: \_\_\_\_\_



# VANGEOCHEM LAB LIMITED

MAIN OFFICE  
1521 PEMBERTON AVE.  
NORTH VANCOUVER, B.C. V7P 2S3  
(604) 986-5211 TELEX: 04-352578

BRANCH OFFICE  
1630 PANDORA ST.  
VANCOUVER, B.C. V5L 1L6  
(604) 251-5656

REPORT NUMBER: 871891 AA

JOB NUMBER: 871891

IMP EXPLORATION DEV.

PAGE 1 OF 1

SAMPLE #	Ag oz/st	Au oz/st
50543	.70	.538
50544	.64	.282

### DETECTION LIMIT

1 Troy oz/short ton = 34.28 ppm

.01

1 ppm = 0.0001%

.005

ppm = parts per million

< = less than

signed: \_\_\_\_\_



# VANGEOCHEM LAB LIMITED

MAIN OFFICE  
1521 PEMBERTON AVE.  
NORTH VANCOUVER, B.C. V7P 2S3  
(604) 986-5211 TELEX: 04-352578

BRANCH OFFICE  
1630 PANDORA ST.  
VANCOUVER, B.C. V5L 1L6  
(604) 251-5656

Dec 21/87

REPORT NUMBER: 871963 AA

JOB NUMBER: 871963

IMP EXPLORATION DEV.

PAGE 1 OF 1

SAMPLE #	Ag oz/st	Au oz/st
WE - 1	1.25	1.688
WE - 2	.41	.460
WE - 3	.88	.538
WE - 4	1.57	3.359
WE - 5	.96	2.256
WE - 6	2.66	6.027
WE - 7	.67	1.902
WE - 8	1.25	2.345
WE - 9	.60	.648
WE - 10	.74	.476
WE - 11	1.17	1.178
WE - 1 - G	.55	.099
WE - 2 - G	.42	1.224

### DETECTION LIMIT

1 Troy oz/short ton = 34.28 ppa

.01

1 ppa = 0.0001%

.005

ppm = parts per million

< = less than

signed: \_\_\_\_\_



VANGEOCHEM LAB LIMITED

MAIN OFFICE: 1521 PEMBERTON AVE. N. VANCOUVER B.C. V7P 2B3 PH: (604) 986-5211 TELEX: 04-352578  
 BRANCH OFFICE: 1630 PANDORA ST. VANCOUVER B.C. V5L 1L6 PH: (604) 251-5656

ICAP GEOCHEMICAL ANALYSIS

A .5 GRAM SAMPLE IS DIGESTED WITH 5 ML OF 3:1:2 HCL TO HNO3 TO H2O AT 95 DEG. C FOR 90 MINUTES AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR SM, NH, FE, CA, P, CR, MO, BA, Pb, AL, NA, K, U, PT AND SR. AU AND PD DETECTION IS 3 PPM.  
 10= INSUFFICIENT SAMPLE, ND= NOT DETECTED, - = NOT ANALYZED

COMPANY: INP EXPL. & DEV.  
 ATTENTION:  
 PROJECT: *ELI-6*

REPORT#: 871963PA  
 JOB#: 871963  
 INVOICE#: 871963NA

DATE RECEIVED: 87/12/17  
 DATE COMPLETED: 87/12/22  
 COPY SENT TO:

ANALYST: *[Signature]*

PAGE 1 OF 1

SAMPLE NAME	AG	AL	AS	AU	BA	BI	CA	CB	CO	CR	CU	FE	K	MO	NH	NI	NA	NI	P	PB	PD	PT	SB	SM	SR	U	V	ZN
	PPM	%	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	PPM	%	%	%	PPM	PPM	%	PPM	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM
ME-1	29.5	.13	466	33	10	13	.05	349.1	57	119	1682	6.35	.06	.02	50	4	.07	26	.01	42	ND	ND	ND	ND	1	ND	4	11346
ME-2	14.3	.07	127	13	4	ND	.01	15.2	56	145	3330	8.60	.06	.01	31	7	.01	28	.01	5	ND	ND	6	ND	ND	ND	ND	424
ME-3	22.5	.30	218	27	11	ND	.03	107.0	83	71	2201	9.37	.00	.09	154	3	.02	32	.01	7	ND	ND	10	ND	1	ND	ND	3559
ME-4	48.8	.09	50	66	3	ND	.02	121.6	80	141	6487	10.63	.09	.03	133	12	.02	36	.01	8	ND	ND	9	ND	ND	ND	ND	4309
ME-5	22.0	.09	604	42	3	ND	.01	8.8	42	149	3703	5.13	.05	.03	53	1	.01	23	.01	57	ND	ND	4	ND	ND	ND	ND	236
ME-6	73.8	.17	50	135	7	9	.01	42.1	78	154	9487	7.61	.07	.05	68	10	.01	27	.01	46	ND	ND	ND	ND	ND	ND	ND	1042
ME-7	19.5	.20	47	48	9	6	.02	66.2	78	87	1851	8.25	.00	.05	93	1	.01	32	.01	14	ND	ND	3	ND	ND	ND	ND	2033
ME-8	31.0	.07	118	62	2	ND	.02	41.5	71	158	2566	9.14	.00	.02	108	1	.01	30	.01	97	ND	ND	3	ND	ND	ND	ND	1151
ME-9	8.8	.03	96	11	2	ND	.01	7.4	58	189	2259	5.61	.06	.01	43	11	.01	25	.01	11	ND	ND	ND	ND	ND	ND	ND	141
ME-10	18.5	.12	11593	10	12	ND	.02	.1	42	91	961	7.98	.00	.03	41	1	.01	30	.01	157	ND	ND	13	ND	7	ND	ND	46
ME-11	28.7	.06	5042	19	7	ND	.02	.1	27	130	1356	5.35	.06	.01	37	6	.01	22	.01	104	ND	ND	4	ND	2	ND	ND	44
ME-1-4	16.4	.30	918	5	15	ND	.03	.1	28	128	288	9.11	.00	.06	45	3	.01	32	.01	17	ND	ND	18	ND	1	ND	ND	10
ME-2-4	14.0	.35	61	31	16	ND	.01	1.4	12	80	357	6.21	.07	.04	93	8	.01	25	.02	7	ND	ND	6	ND	ND	ND	159	128
DETECTION LIMIT	.1	.01	3	3	1	3	.01	.1	1	1	1	.01	.01	.01	1	1	.01	1	.01	2	3	5	2	2	1	5	3	1



# VANGEOCHEM LAB LIMITED

MAIN OFFICE  
1521 PEMBERTON AVE.  
NORTH VANCOUVER, B.C. V7P 2S3  
(604) 866-5211 TELEX: 04-352578

BRANCH OFFICE  
1830 PANDORA ST.  
VANCOUVER, B.C. V5L 1L6  
(604) 251-5656

*7 Jan / 88*

REPORT NUMBER: 880002 AA

JOB NUMBER: 880002

IMP EXPLORATION DEV.

PAGE 1 OF 1

SAMPLE #	Ag oz/st	Au oz/st
ELIT 2 - G	.97	1.096
WE 4 - A	.76	1.869
WE 4 - B	.99	1.934
WE 7 - A	.41	.817
WE 7 - B	.77	2.854
WE 13	2.11	1.606
WE 14	.22	.393
WE 15	.63	1.071
WE 16	.46	.604
WEL 2 #1	.04	.022
WEL 2 #2	.17	.191
WEL 2 #3	.07	.008

### DETECTION LIMIT

1 Troy oz/short ton = 34.28 pps

.01

1 pps = 0.00012

.005

pps = parts per million

(< = less than

signed: \_\_\_\_\_

*[Signature]*



# VANGEOCHEM LAB LIMITED

MAIN OFFICE  
1521 PEMBERTON AVE.  
NORTH VANCOUVER, B.C. V7P 2S3  
(604) 986-5211 TELEX: 04-352578

BRANCH OFFICE  
1630 PANDORA ST.  
VANCOUVER, B.C. V5L 1L8  
(604) 251-5656

*5 Jan 1988*

REPORT NUMBER: 880003 AA

JOB NUMBER: 880003

INP EXPLORATION DEV.

PAGE 1 OF 1

SAMPLE #	Ag oz/st	Au oz/st
BULK # 1A	1.89	3.609
BULK # 1B	1.64	3.112
BULK # 2A	1.59	3.441
BULK # 2B	1.82	3.149
BULK # 3A	1.20	2.724
BULK # 3B	1.34	2.444
BULK # 4A	1.21	2.261
BULK # 4B	1.28	2.538
BULK # 5A	1.27	2.449
BULK # 5B	1.26	2.531

### DETECTION LIMIT

1 Troy oz/short ton = 34.28 ppm

.01

1 ppm = 0.00012

.005

ppm = parts per million

< = less than

signed: \_\_\_\_\_

*Pl. Catel*

**APPENDIX G**  
**GEOCHEMICAL ANALYSIS CERTIFICATES**  
**BLASTER MINERAL CLAIM**  
**SILT SAMPLES**



VANGUARD LAB LTD.  
 Main Office  
 1521 Pemberton St.  
 North Vancouver  
 B.C. V7P 2S3  
 604 286 3211  
 Telx: CA 352578  
 Branch Lab  
 1835 Parolova St.  
 Vancouver B.C.  
 Sample Preparation  
 Facilities  
 Pasadena, New Brunswick  
 Thunder Bay, Ontario  
 Montreal, New Brunswick  
 Reno, Nevada



13 Nov 1987

REPORT NUMBER: 871704 GA

JOB NUMBER: 871704

IMP EXPLORATION DEV.

PAGE 1 OF 1

SAMPLE #	Au ppb
1+00	25
9+33	45
9+50	35
9+75	25
10+00	45
10+25	20
10+50	60
10+75	50
11+00	45
11+25	20
11+50	50
11+75	20
12+00	45
12+50	20
12+75	20
13+25	30
13+50	45
14+00	55
14+35	10
14+75	30
15+00	15
15+25	35
15+75	5
16+25	5
17+00	90

DETECTION LIMIT

5

nd = none detected

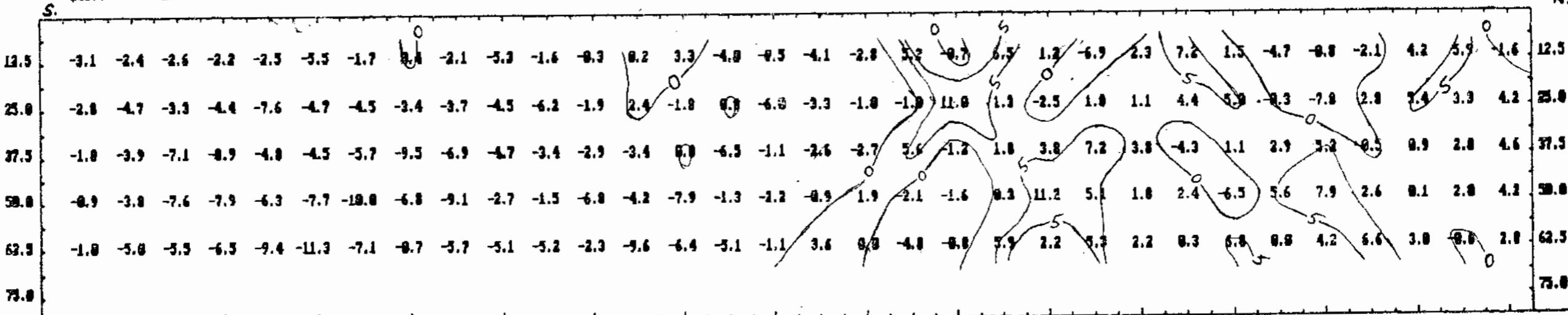
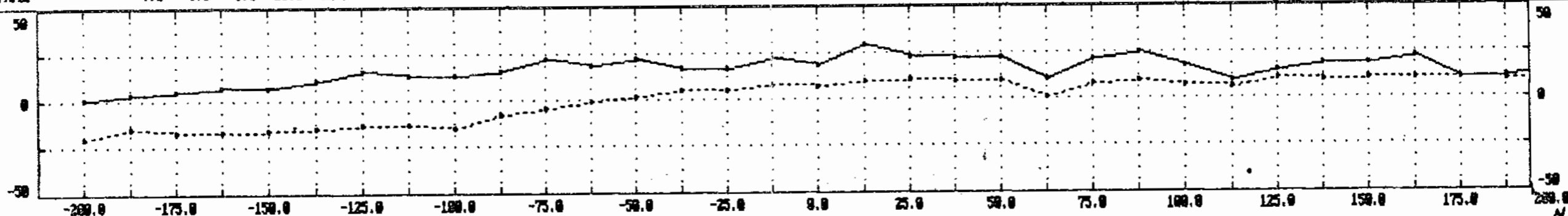
-- = not analysed

is = insufficient sample

# UCLULET PROJECT, ULF DATA (24.8 KHZ)

LINE 1004.

OX	-20.0	-15.0	-17.0	-17.0	-16.0	-15.0	-13.0	-13.0	-15.0	-8.0	-4.0	-1.0	2.0	5.0	5.0	8.0	7.0	10.0	11.0	10.0	10.0	1.0	8.0	10.0	7.0	6.0	11.0	10.0	11.0	11.0	11.0	10.0	12.0
IX	1.0	4.0	5.0	7.0	7.0	11.0	16.0	13.0	13.0	16.0	22.0	19.0	22.0	17.0	17.0	22.0	19.0	29.0	23.0	22.0	22.0	11.0	21.0	25.0	10.0	10.0	15.0	19.0	19.0	22.0	11.0	12.0	14.0
DEPTH	-7.0	-5.0	-6.0	-13.0	-11.0	1.0	0.0	-12.0	-12.0	-3.0	2.0	7.0	0.0	-7.0	-9.0	-11.0	3.0	0.0	12.0	12.0	-13.0	-11.0	10.0	10.0	-6.0	-13.0	-7.0	5.0	10.0	7.0			

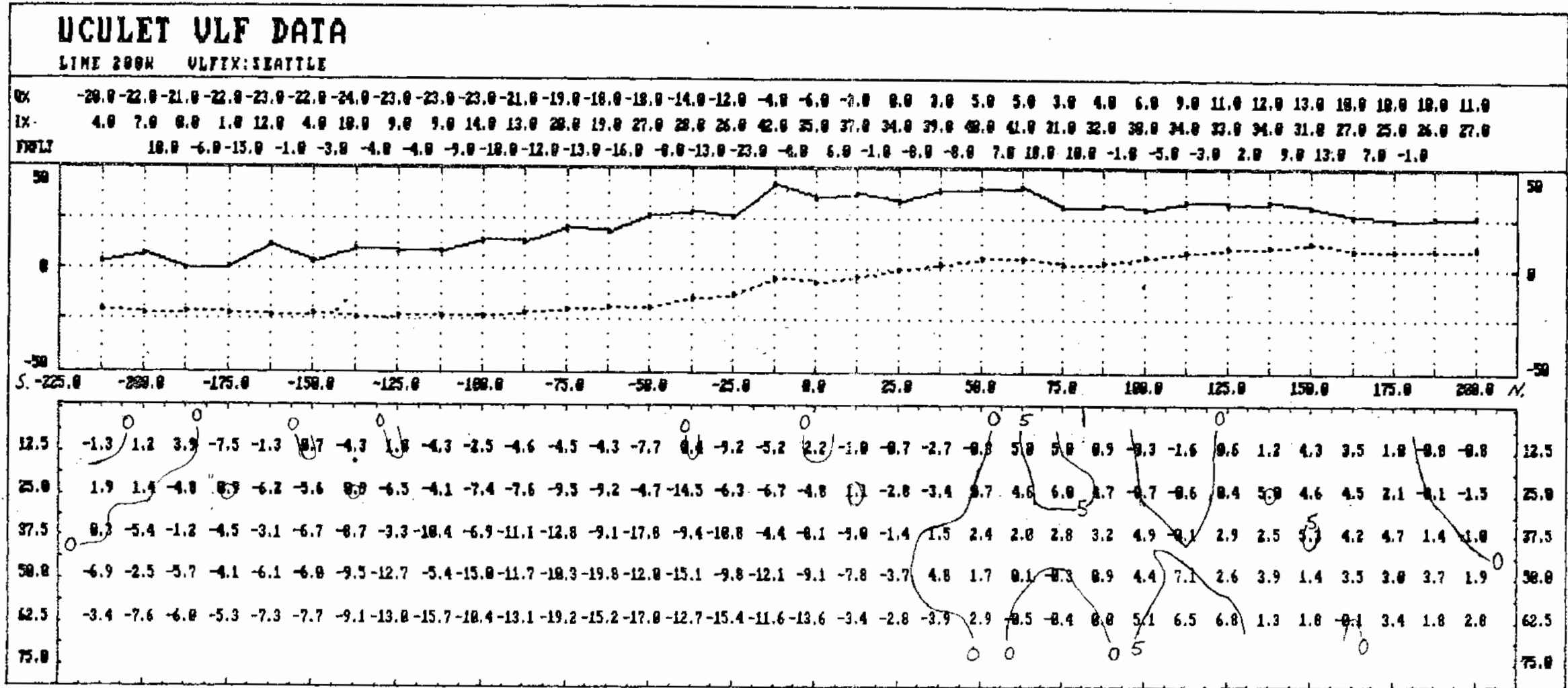


Contour levels: 0 and 5

Contoured by D.J.P.

GEOPHYSICAL SURVEY PROFILE  
ACROSS ELITE VEIN

Figure 4



Contour levels: 0 and 5

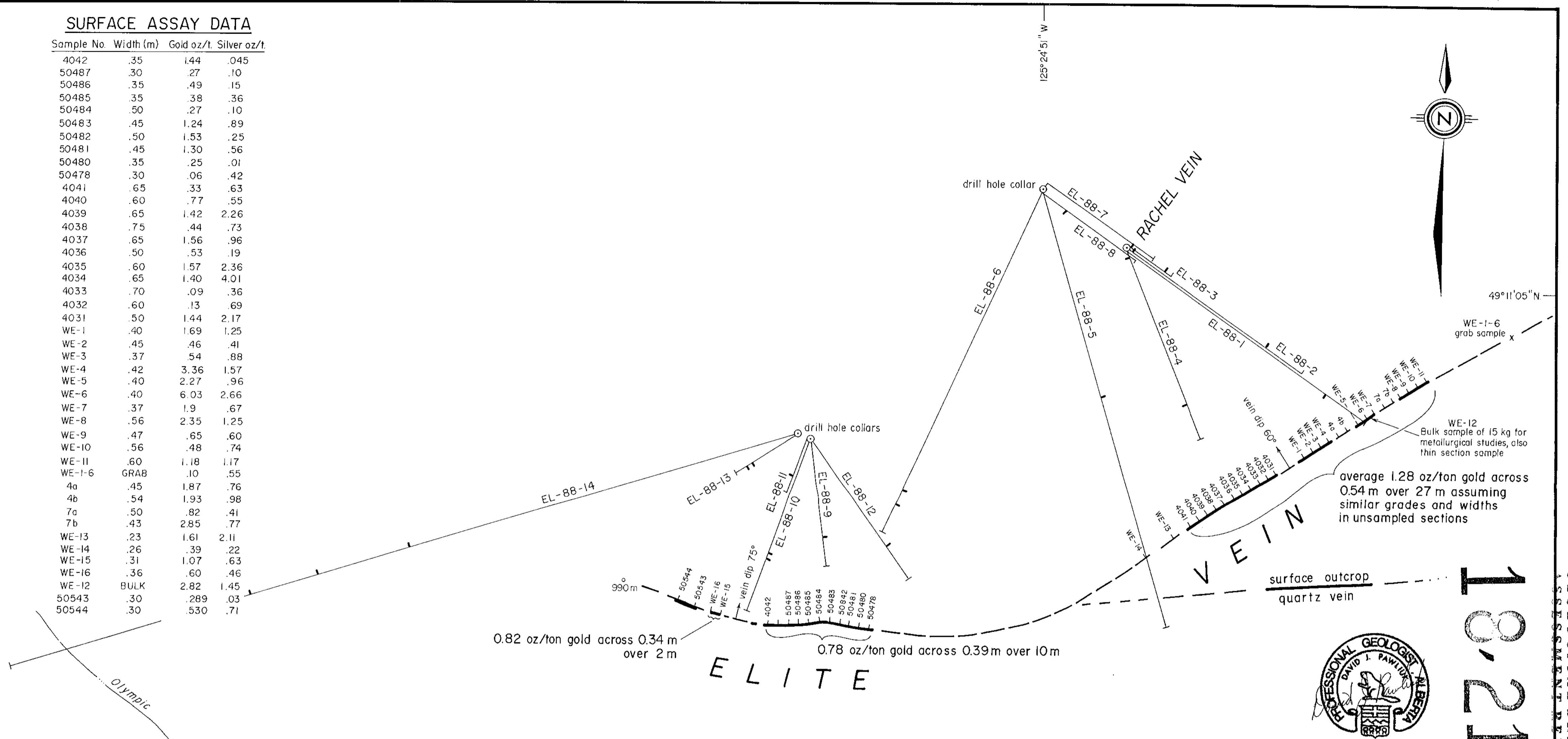
Contoured by D.J.P.

GEOPHYSICAL SURVEY PROFILE  
ACROSS ELITE II VEIN

Figure 5

**SURFACE ASSAY DATA**

Sample No.	Width (m)	Gold oz/t.	Silver oz/t.
4042	.35	1.44	.045
50487	.30	.27	.10
50486	.35	.49	.15
50485	.35	.38	.36
50484	.50	.27	.10
50483	.45	1.24	.89
50482	.50	1.53	.25
50481	.45	1.30	.56
50480	.35	.25	.01
50478	.30	.06	.42
4041	.65	.33	.63
4040	.60	.77	.55
4039	.65	1.42	2.26
4038	.75	.44	.73
4037	.65	1.56	.96
4036	.50	.53	.19
4035	.60	1.57	2.36
4034	.65	1.40	4.01
4033	.70	.09	.36
4032	.60	.13	.69
4031	.50	1.44	2.17
WE-1	.40	1.69	1.25
WE-2	.45	.46	.41
WE-3	.37	.54	.88
WE-4	.42	3.36	1.57
WE-5	.40	2.27	.96
WE-6	.40	6.03	2.66
WE-7	.37	1.9	.67
WE-8	.56	2.35	1.25
WE-9	.47	.65	.60
WE-10	.56	.48	.74
WE-11	.60	1.18	1.17
WE-1-6	GRAB	.10	.55
4a	.45	1.87	.76
4b	.54	1.93	.98
7a	.50	.82	.41
7b	.43	2.85	.77
WE-13	.23	1.61	2.11
WE-14	.26	.39	.22
WE-15	.31	1.07	.63
WE-16	.36	.60	.46
WE-12	BULK	2.82	1.45
50543	.30	.289	.03
50544	.30	.530	.71

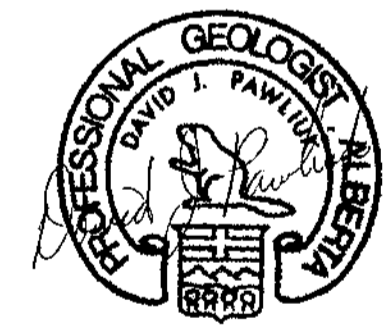


**SYMBOLS**

- Exposed gold-bearing quartz vein, assumed projection of vein; chip (?) sample site and number
- Surface projection of diamond drill hole, hole number; surface projection of quartz vein intersection

Note: Geology and sampling modified after Epp (1987b)

To accompany a report by David J. Pawliuk, P. Geol.



NATIONWIDE GOLD MINES CORPORATION/  
GOLDEN SPINNAKER MINERALS CORPORATION

**ELITE PROJECT**

**DIAMOND DRILLING  
GEOLOGY, SAMPLING**

BLASTER MINERAL CLAIM

Drawn by: D. J.P.	Scale: 1:250
Date: June 1988	Figure: 6

GEOLOGICAL BRANCH  
ASSESSMENT REPORT



# LEGEND

## TERTIARY

QV Quartz vein

## SOOKE INTRUSIONS

Qd Quartz diorite

## TRIASSIC

VANCOUVER GROUP  
KARMUTSEN FORMATION

A, Apo Andesite, andesite porphyry

## SYMBOLS

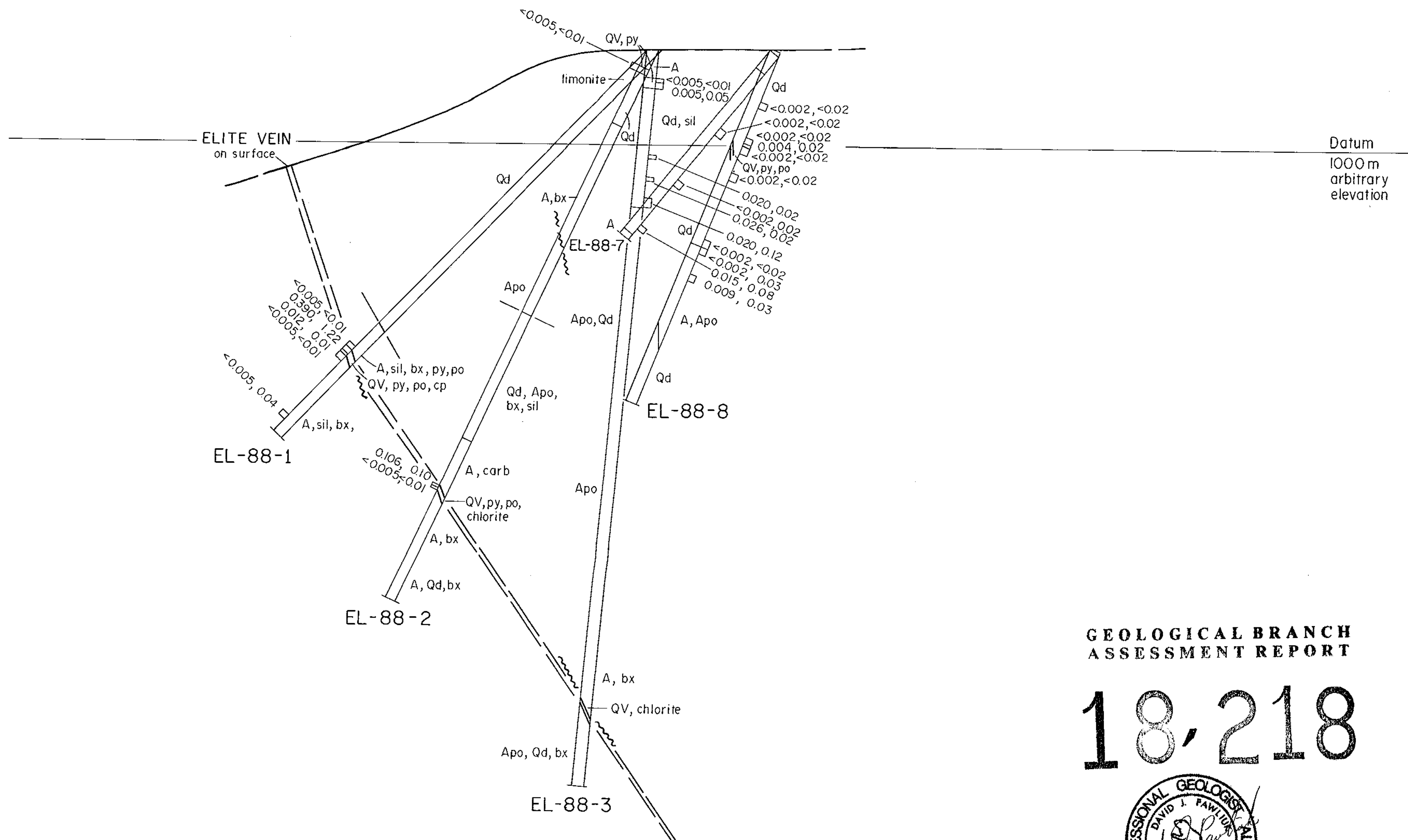
- py Pyrite
- po Pyrrhotite
- cp Chalcopyrite
- gn Galena
- sp Sphalerite
- carb Carbonate
- sil Silicified
- bx Brecciated

0.227, 0.14 Assay: gold and silver in oz/ton

Geological contact

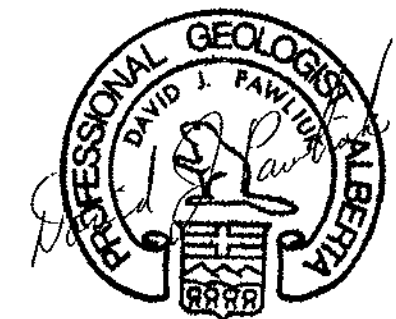
Fault; defined, possible

DRILL HOLE AZIMUTH 125° SECTION LOOKING SOUTHWEST



GEOLOGICAL BRANCH  
ASSESSMENT REPORT

# 18,218



0 5 10 15 20 m

NATIONWIDE GOLD MINES CORPORATION/  
GOLDEN SPINNAKER MINERALS CORPORATION

ELITE PROJECT  
CROSS-SECTION  
DIAMOND DRILL HOLES  
EL-88-1, 2, 3, 7 & 8

Drawn by: D.J.P. Scale: 1:250  
Date: June 1988 Figure: 8

To accompany a report by David J. Pawliuk, P. Geol.

**LEGEND**

**TERTIARY**

QV Quartz vein

**SOOKE INTRUSIONS**

Qd Quartz diorite

**TRIASSIC**

VANCOUVER GROUP  
KARMUTSEN FORMATION

A, Apo Andesite, andesite porphyry

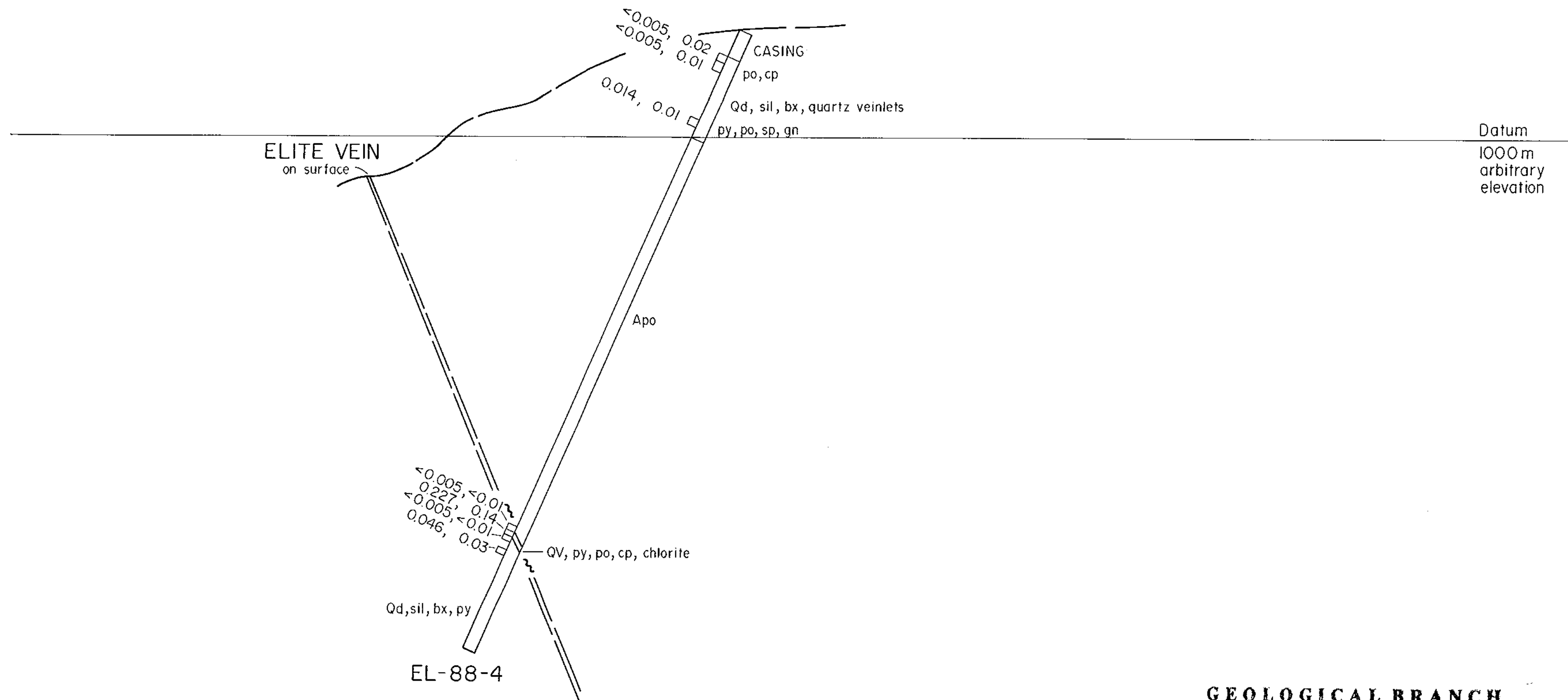
**SYMBOLS**

- py Pyrite
- po Pyrrhotite
- cp Chalcopyrite
- gn Galena
- sp Sphalerite
- carb Carbonate
- sil Silicified
- bx Brecciated

0.227, 0.14 // Assay : gold and silver in oz/ton

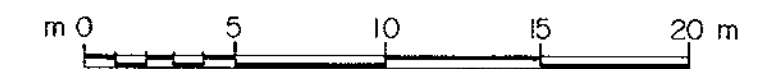
--- Geological contact

~ Fault; defined, possible



**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**18,218**



NATIONWIDE GOLD MINES CORPORATION/  
GOLDEN SPINNAKER MINERALS CORPORATION

**ELITE PROJECT  
CROSS-SECTION  
DIAMOND DRILL HOLE  
EL-88-4**

Drawn by: D.J.P.	Scale: 1:250
Date: June 1988	Figure: 9

**LEGEND**

**TERTIARY**

QV Quartz vein

**SOOKE INTRUSIONS**

Qd Quartz diorite

**TRIASSIC**

VANCOUVER GROUP  
KARMUTSEN FORMATION

A,Apo Andesite, andesite porphyry

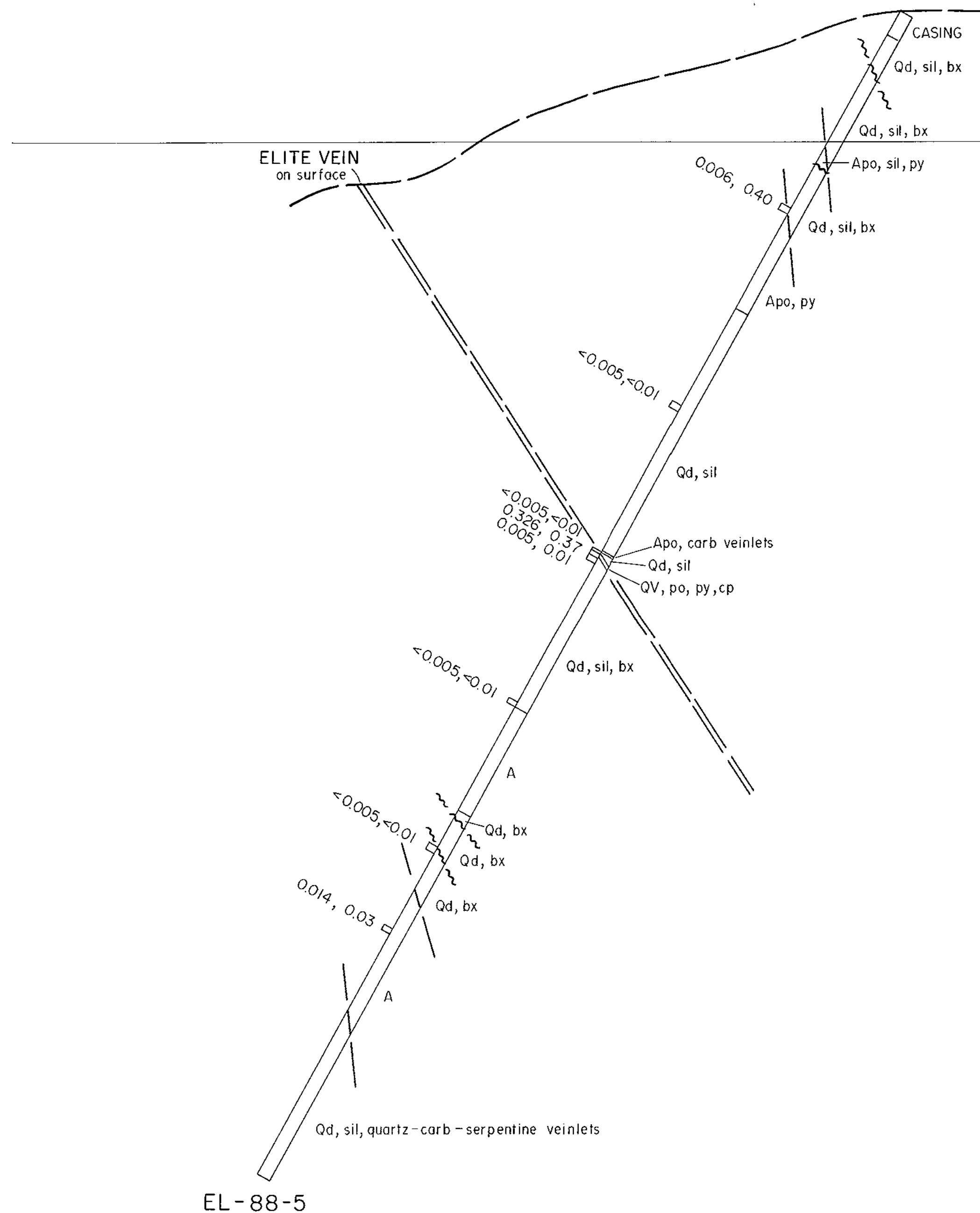
**SYMBOLS**

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- po Pyrrhotite
- cp Chalcopyrite
- gn Galena
- sp Sphalerite
- carb Carbonate
- sil Silicified
- bx Brecciated

0.227,0.14 Assay: gold and silver in oz/ton

Geological contact

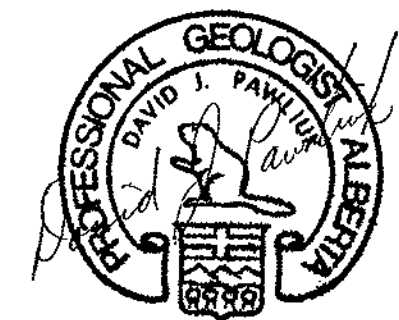
Fault; defined, possible



Datum  
1000 m  
arbitrary  
elevation

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**18,218**



m 0 5 10 15 20

NATIONWIDE GOLD MINES CORPORATION/  
GOLDEN SPINNAKER MINERALS CORPORATION

**ELITE PROJECT  
CROSS-SECTION  
DIAMOND DRILL HOLE  
EL-88-5**

Drawn by: D. J.P. Scale: 1:250  
Date: June 1988 Figure: 10

To accompany a report by David J. Pawliuk, P. Geol.

**LEGEND**

**TERTIARY**

QV Quartz vein

**SOOKE INTRUSIONS**

Qd Quartz diorite

**TRIASSIC**

VANCOUVER GROUP  
KARMUTSEN FORMATION

A,Apo Andesite, andesite porphyry

**SYMBOLS**

- py Pyrite
- po Pyrrhotite
- cp Chalcopyrite
- gn Galena
- sp Sphalerite
- carb Carbonate
- sil Silicified
- bx Brecciated

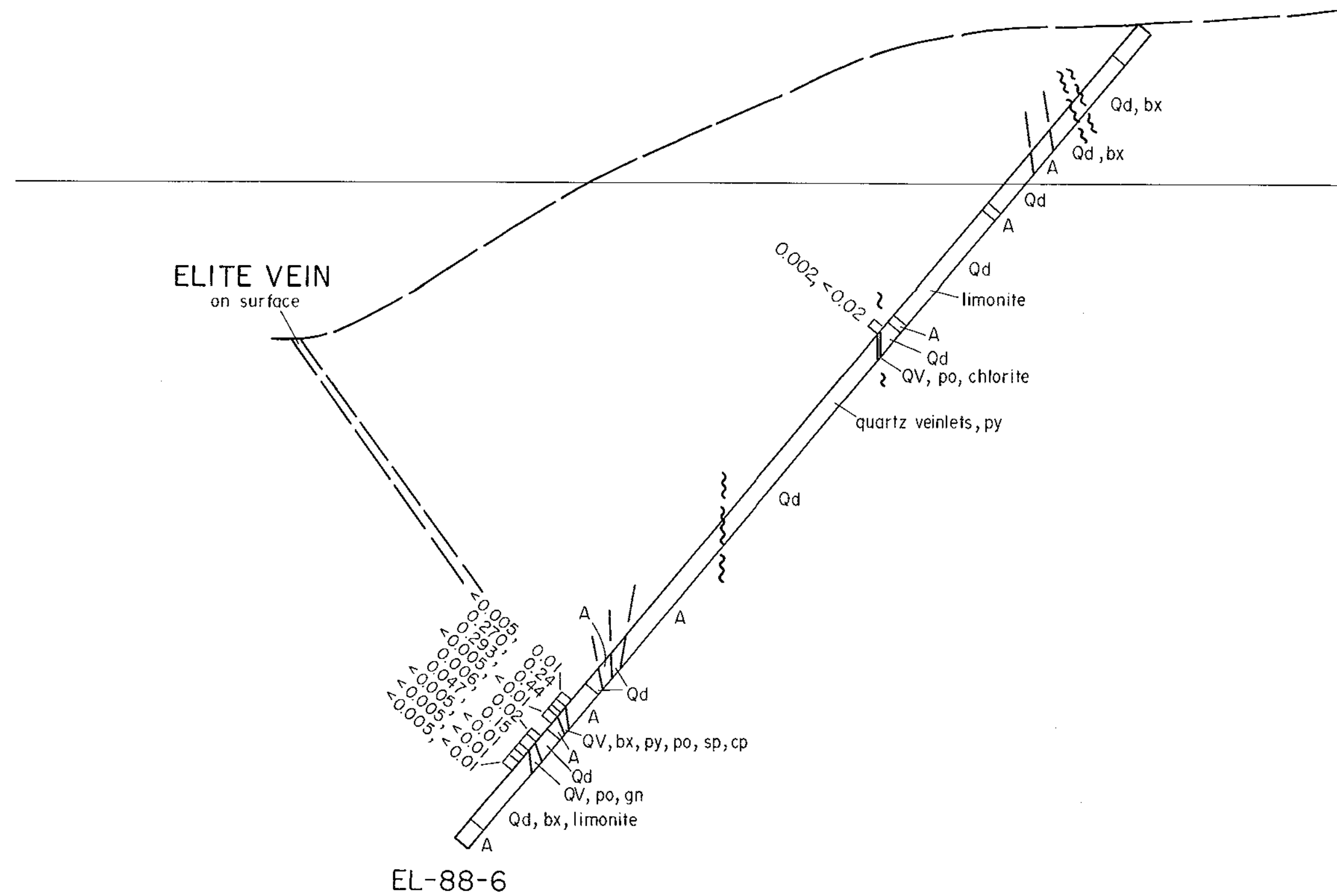
0.227,0.14 // Assay : gold and silver in oz/ton

--- Geological contact

~~~~~ Fault ; defined, possible

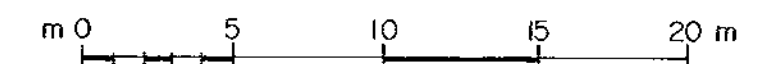
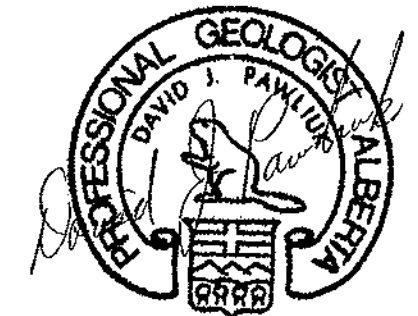
DRILL HOLE AZIMUTH 205° SECTION LOOKING NORTHWEST

Datum  
1000 m  
arbitrary  
elevation



**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**18,218**



NATIONWIDE GOLD MINES CORPORATION/  
GOLDEN SPINNAKER MINERALS CORPORATION

**ELITE PROJECT  
CROSS-SECTION  
DIAMOND DRILL HOLE  
EL-88-6**

|                  |              |
|------------------|--------------|
| Drawn by: D.J.P. | Scale: 1:250 |
| Date: June 1988  | Figure: 11   |

To accompany a report by David J. Pawliuk, P. Geol.

**LEGEND**

**TERTIARY**

QV Quartz vein

**SOOKE INTRUSIONS**

Qd Quartz diorite

**TRIASSIC**

VANCOUVER GROUP  
KARMUTSEN FORMATION

A,Apo Andesite, andesite porphyry

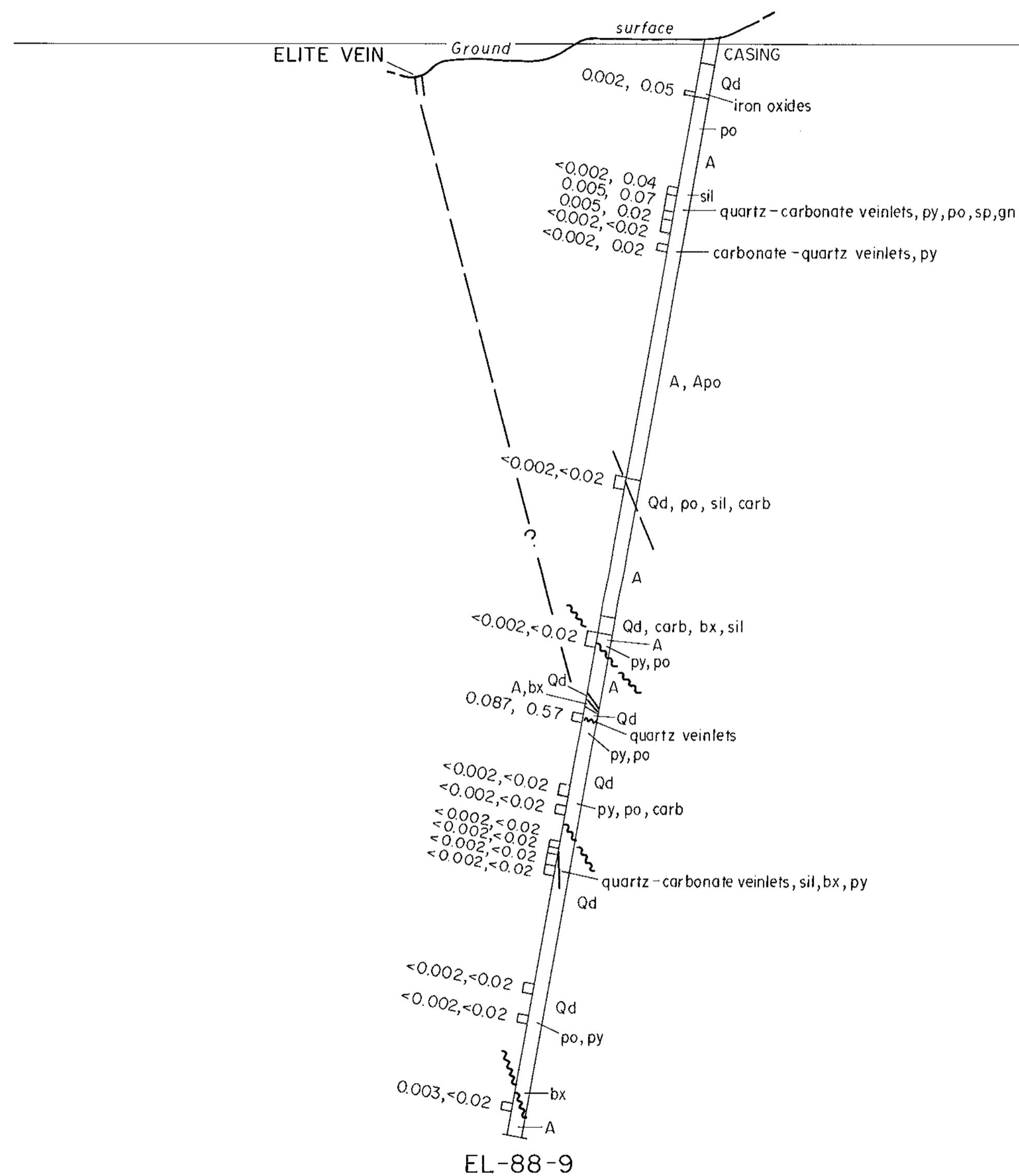
**SYMBOLS**

- py Pyrite
- po Pyrrhotite
- cp Chalcopyrite
- gn Galena
- sp Sphalerite
- carb Carbonate
- sil Silicified
- bx Brecciated

0.227,0.14 // Assay : gold and silver in oz/ton

Geological contact

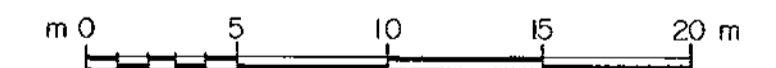
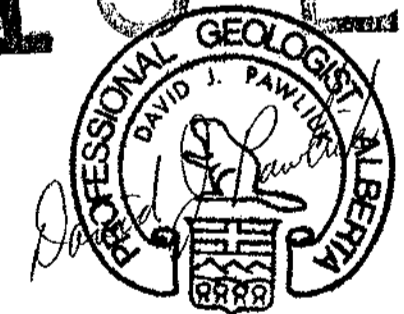
Fault ; defined, possible



Datum  
1000 m  
arbitrary  
elevation

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**18,218**



NATIONWIDE GOLD MINES CORPORATION/  
GOLDEN SPINNAKER MINERALS CORPORATION

**ELITE PROJECT  
CROSS-SECTION  
DIAMOND DRILL HOLE  
EL-88-9**

Drawn by: D.J.P. Scale: 1:250  
Date: June 1988 Figure: 12

**LEGEND**

**TERTIARY**

QV Quartz vein

**SOOKE INTRUSIONS**

Qd Quartz diorite

**TRIASSIC**

VANCOUVER GROUP  
KARMUTSEN FORMATION

A, Apo Andesite, andesite porphyry

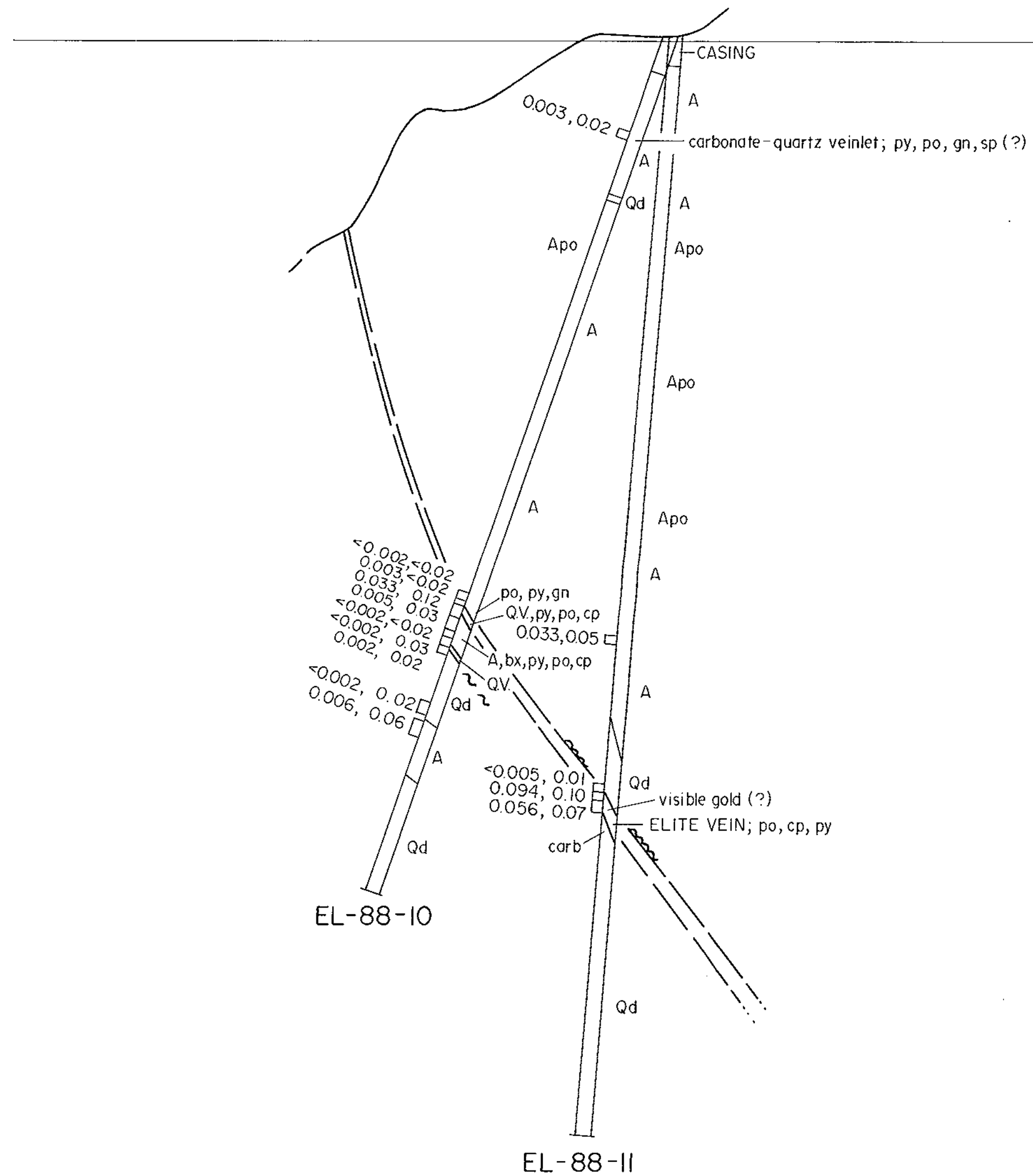
**SYMBOLS**

- py Pyrite
- po Pyrrhotite
- cp Chalcopyrite
- gn Galena
- sp Sphalerite
- carb Carbonate
- sil Silicified
- bx Brecciated

0.227, 0.14 // Assay: gold and silver in oz/ton

--- Geological contact

~ Fault; defined, possible



Datum  
1000 m  
arbitrary  
elevation

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**18,218**



m 0 5 10 15 20

NATIONWIDE GOLD MINES CORPORATION/  
GOLDEN SPINNAKER MINERALS CORPORATION

**ELITE PROJECT  
CROSS-SECTION  
DIAMOND DRILL HOLES  
EL-88-10,11**

Drawn by: D. J.P. Scale: 1:250  
Date: June 1988 Figure: 13

**LEGEND**

**TERTIARY**

QV Quartz vein

**SOOKE INTRUSIONS**

Qd Quartz diorite

**TRIASSIC**

VANCOUVER GROUP  
KARMUTSEN FORMATION

A, Apo Andesite, andesite porphyry

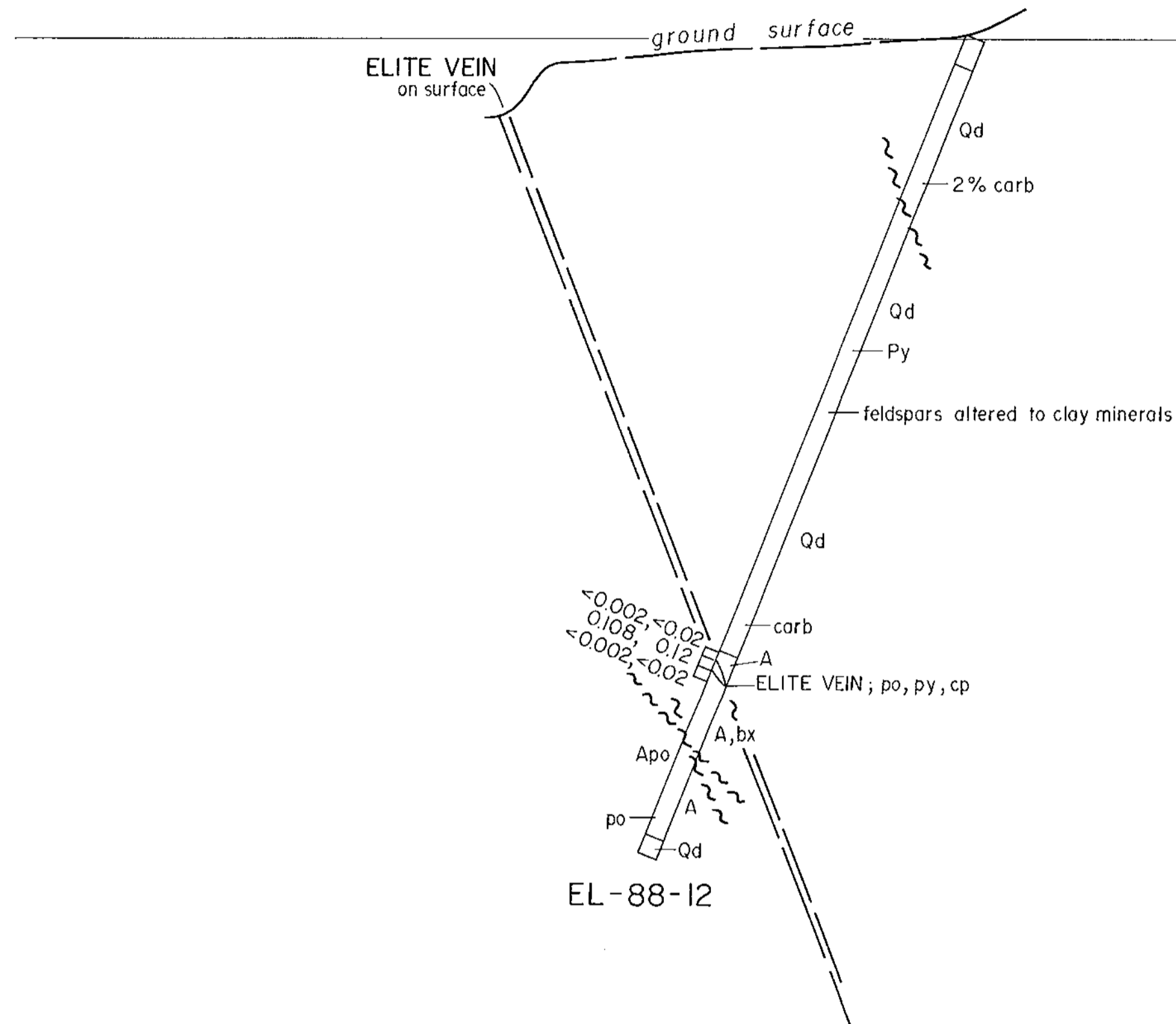
**SYMBOLS**

- py Pyrite
- po Pyrrhotite
- cp Chalcopyrite
- gn Galena
- sp Sphalerite
- carb Carbonate
- sil Silicified
- bx Brecciated

0.227, 0.14 // Assay : gold and silver in oz/ton

— Geological contact

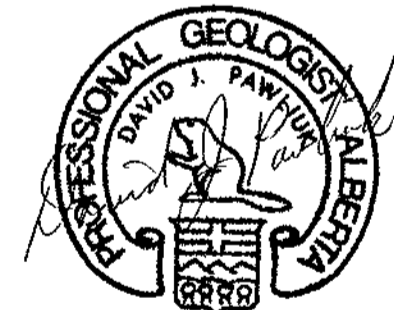
~ Fault ; defined, possible



Datum  
1000 m  
arbitrary  
elevation

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**18,218**



m 0 5 10 15 20 m

NATIONWIDE GOLD MINES CORPORATION/  
GOLDEN SPINNAKER MINERALS CORPORATION

**ELITE PROJECT  
CROSS-SECTION  
DIAMOND DRILL HOLE  
EL-88-12**

|                   |              |
|-------------------|--------------|
| Drawn by: D. J.P. | Scale: 1:250 |
| Date: June 1988   | Figure: 14   |

To accompany a report by David J. Pawliuk, P. Geol

**LEGEND**

DRILL HOLE AZIMUTH 234° SECTION LOOKING NORTHWEST

**TERTIARY**

QV Quartz vein

**SOOKE INTRUSIONS**

Qd Quartz diorite

**TRIASSIC**

VANCOUVER GROUP  
KARMUTSEN FORMATION

A, Apo Andesite, andesite porphyry

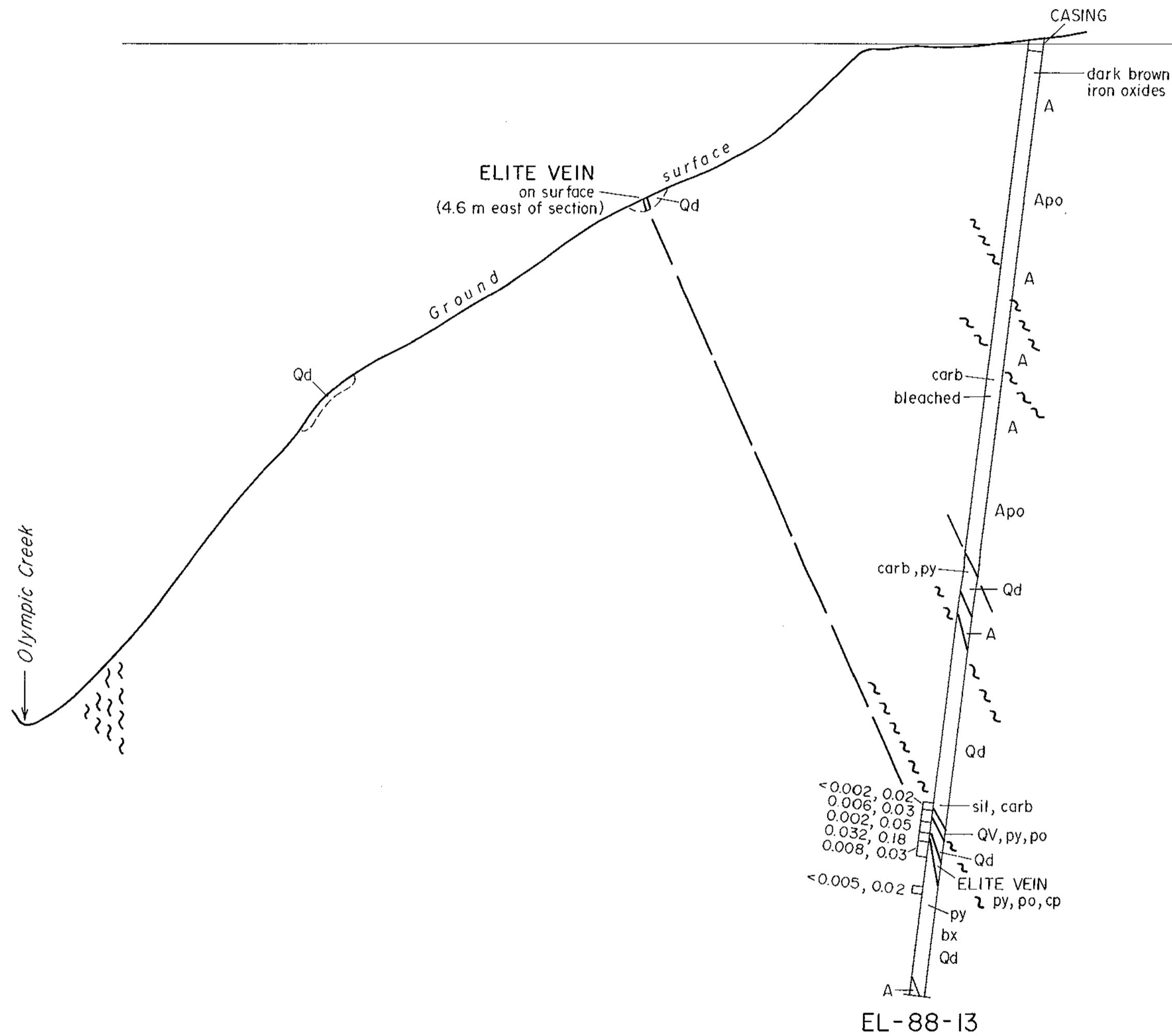
**SYMBOLS**

- py Pyrite
- po Pyrrhotite
- cp Chalcopyrite
- gn Galena
- sp Sphalerite
- carb Carbonate
- sil Silicified
- bx Brecciated

0.227, 0.14 // Assay: gold and silver in oz/ton

--- Geological contact

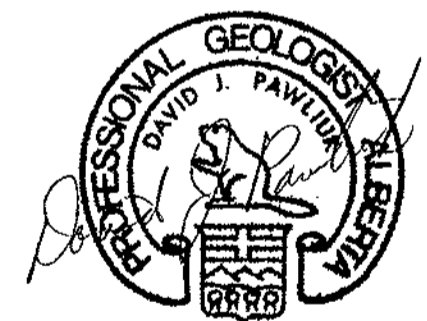
~ Fault; defined, possible



Datum  
1000 m  
arbitrary  
elevation

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**18,218**



m 0 5 10 15 20 m

NATIONWIDE GOLD MINES CORPORATION/  
GOLDEN SPINNAKER MINERALS CORPORATION

**ELITE PROJECT  
CROSS-SECTION  
DIAMOND DRILL HOLE  
EL-88-13**

Drawn by: D. J.P. Scale: 1:250  
Date: June 1988 Figure: 15

To accompany a report by David J. Pawliuk, P. Geol.





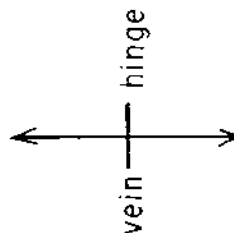
W

NE

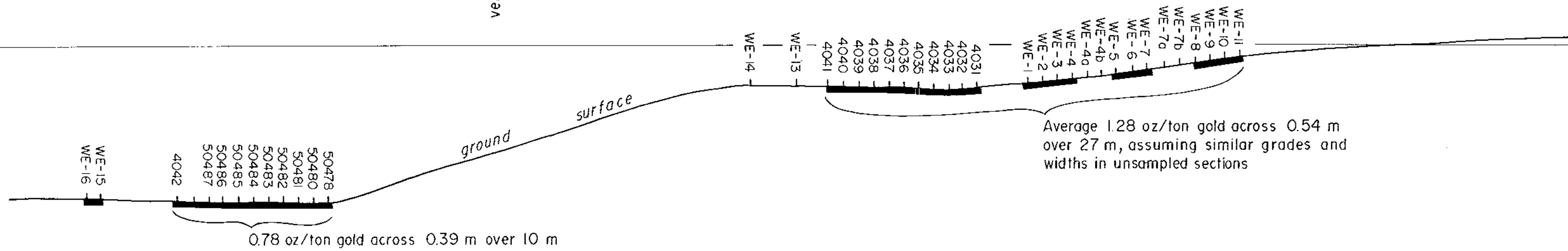
SECTION LOOKING NORTHWARD

WESTERN ELITE VEIN

EASTERN ELITE VEIN



datum 1000 m a.s.l  
arbitrary elevation



- EL-88-1  
0.201, 0.62 / .64
- EL-88-2  
0.106, 0.10 / .2
- EL-88-3  
not assayed - no sulphides observed
- EL-88-4  
0.227, 0.14 / .35
- EL-88-5  
0.326, 0.37 / .28
- EL-88-6  
0.280, 0.33 / .73
- EL-88-9  
0.087, 0.57 / .5
- EL-88-10  
0.033, 0.12 / .74
- EL-88-12  
0.108, 0.12 / .55
- EL-88-13  
0.032, 0.18 / .5
- EL-88-14  
0.020, 0.02 / .13  
ELITE ? VEIN

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

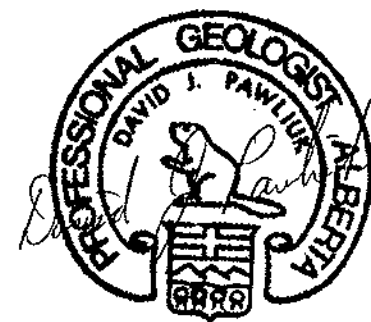
18,218  
m 0 5 10 15 20

SYMBOLS

WE-2 Elite Vein on surface; chip (?) sample site, chip (?) sample number

EL-88-6 Diamond drill hole intercept through Elite Vein; drill hole number, 0.280, 0.33 / .73 gold in oz/ton, silver in oz/ton, intersection width in metres

Notes:- Section looking north  
- See Figure 6 for details of surface sampling

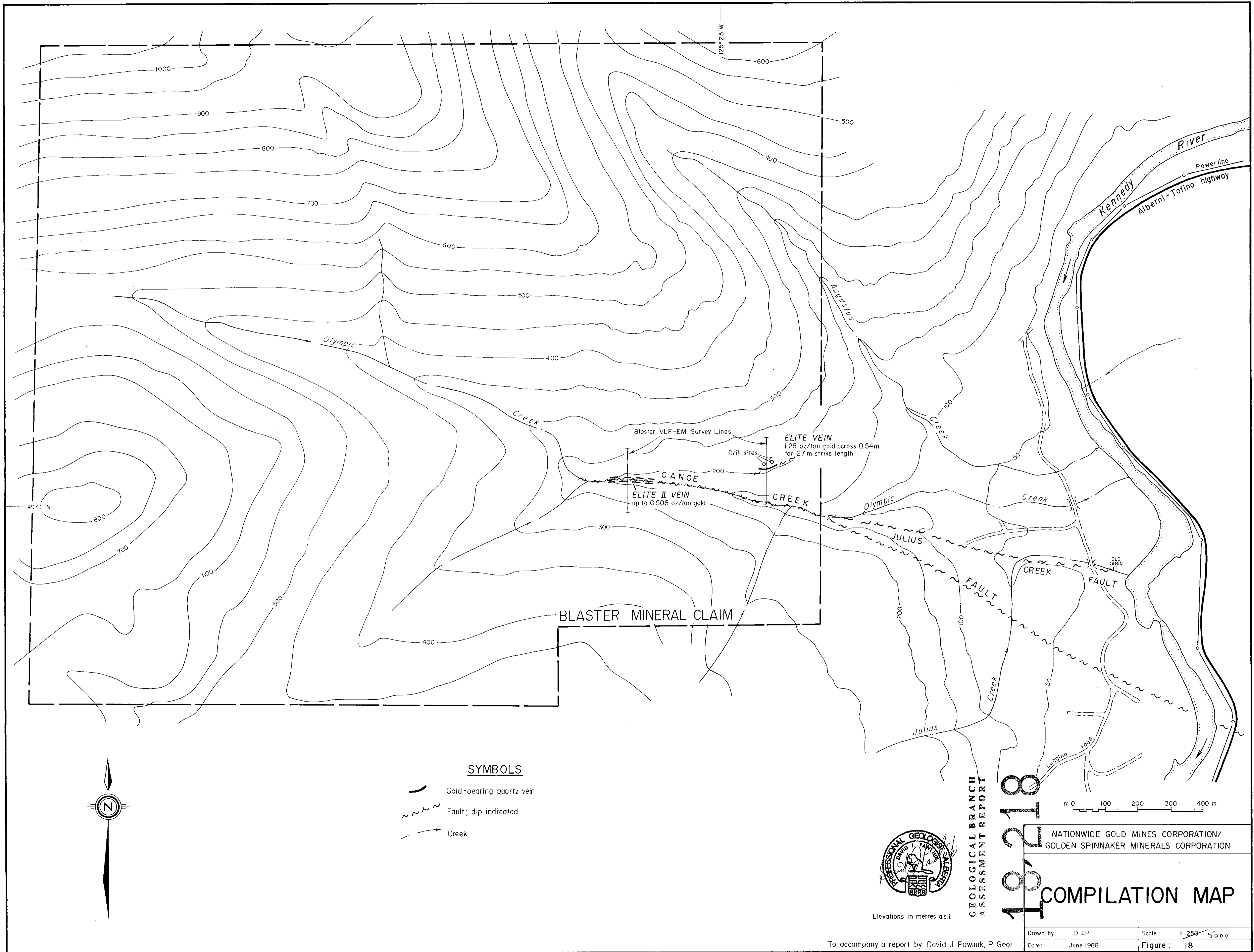


NATIONWIDE GOLD MINES CORPORATION/  
GOLDEN SPINNAKER MINERALS CORPORATION




ELITE PROJECT  
LONGITUDINAL SECTION  
ELITE VEIN  
BLASTER MINERAL CLAIM

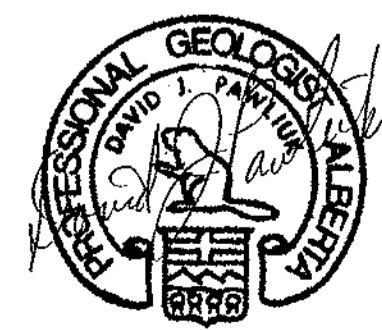
|                  |              |
|------------------|--------------|
| Drawn by: D.J.P. | Scale: 1:250 |
| Date: June 1988  | Figure: 17   |

To accompany a report by David J. Pawliuk, P. Geol.



**SYMBOLS**

-  Gold-bearing quartz vein
-  Fault; dip indicated
-  Creek



Elevations in metres a.s.l.

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

18218

NATIONWIDE GOLD MINES CORPORATION/  
GOLDEN SPINNAKER MINERALS CORPORATION

**COMPILATION MAP**

|                  |                   |
|------------------|-------------------|
| Drawn by: D.J.P. | Scale: 1:250 5000 |
| Date: June 1988  | Figure: 18        |

To accompany a report by David J. Pawliuk, P. Geol.