Mineralography of selected samples from FLAN Showing

on part of the

Flan-Consolidated Group of Claims
(Tenures 509012 and 553495)

in the

Nanaimo Mining Division

in

092L/01

at 50 deg 07 min North and 126 deg 15 min 30 sec West

for

Mikkel Schau, owner

by

Mikkel Schau, P.Geo.
For
March 3, 2008

(Submitted June 10, 2008)
with permission

SUMMARY

The gold bearing Flan Showing is found in tenure 50912 within the Flan-Consolidated Claims located in the Vancouver Island Ranges on Northern Vancouver Island, within the Nanaimo Mining District jurisdiction. The center of Flan-Consolidated Group claims is located in the Schoen Creek valley at the foot of the western flank of Mount Adam, about 30 km east-southeast of Woss, at about 680 m elevation in partially logged Douglas fir forest. The property is within NTS 092L/01 and is centered at approximately 50 07 10 N and 126 15 10 W. (Figs.1, and 2).

A mineralographic survey by Dr P.LeCouteur, P.Eng. for 4 polished thin section samples of gold bearing sulphides from FLAN showing in 509012. The samples were examined using a reflected light microscope and minerals of interest were analyzed on an AMRAY 1810 scanning electron microscope equipped with an EDAX "Genesis" energy dispersive X-ray analyzer producing semi-quantitative mineralographic data. A survey of six polished slabs of witness pieces of high grade ore (from which the four samples above were taken) located and determined the paragenesis of chalcopyrite using a binocular microscope,

LeCouteur (appendix A) found that samples with high gold assays carried very small grains of **electrum** trapped principally **in chalcopyrite**.

Examination of polished slabs suggest that the samples were derived from a faulted and mineralized vein system located near gabbro sills.

Further, it is likely that mineralization was syn faulting. The high grade samples come from a pyrrhotite rich vein with fault fragments of gabbroic country rock. The exact location of this source is still uncertain. The faulting created local openings into which later quartz and sulphides were deposited. Pyrrhotite mineralization preceded chalcopyrite (sphalerite) mineralization, Pyrrhotite altered to a cellular aggregate of marcasite and pyrite. Some chalcopyrite cuts the alteration. **Electrum** and BiTe crystallized within the chalcopyrite. The electrum is very fine grained (about 15 microns) and mainly seen in chalcopyrite. Later limonite alteration and veining cuts across the mineralized sulphide rocks. Gossan development removes gold, silver and copper from the sample.(see AR 29360)

The mineralogy of the high grade vein material contains pyrrhotite and is quite conducive to standard exploration geophysical techniques

The mineralogy of the high grade veins suggest that gold grains are minuscule and that free gold is *unlikely* to be found, hence geochemical exploration techniques should focus of finding **copper** anomalies.

The target for ongoing prospection is anomalous copper rich regions near faults, veins, and lineaments.

The occurrence has local high grade assays. ***The property has merit but no mineral accumulations of economic proportions have been located***. Hence low cost, reconnaissance prospective methods are recommended.

These include geochemical surveys for copper, and Beepmat search for magnetic and conductive materials in the near surface.

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Introduction

Ongoing work at the FLAN showing in Flan-Consolidated Claim Block near Schoen Lake Provincial Park, on Northern Vancouver Island has focused on locating gold within previously reported high grade samples.

Dr. P. LeCouteur, P.Eng was asked to locate the gold in four polished thin sections derived from grab samples from the FLAN showing that had previously recorded high grade assay values. Six polished slabs were prepared and described the distribution of the gold bearing mineral.

A prospecting plan based on the results has been formulated.

Property location, access and title

The Flan Showing is found in tenure 50912 within the Flan-Consolidated Claims located in the Vancouver Island Ranges on Northern Vancouver Island, within the Nanaimo Mining District jurisdiction. The center of Flan-Consolidated Group claims is located in the Schoen Creek valley at the foot of the western flank of Mount Adam, about 30 km east-southeast of Woss, at about 680 m elevation in partially logged Douglas fir forest. The property is within NTS 092L/01 and is centered at approximately 50 07 10 N and 126 15 10 W. (Figs.1, and 2).

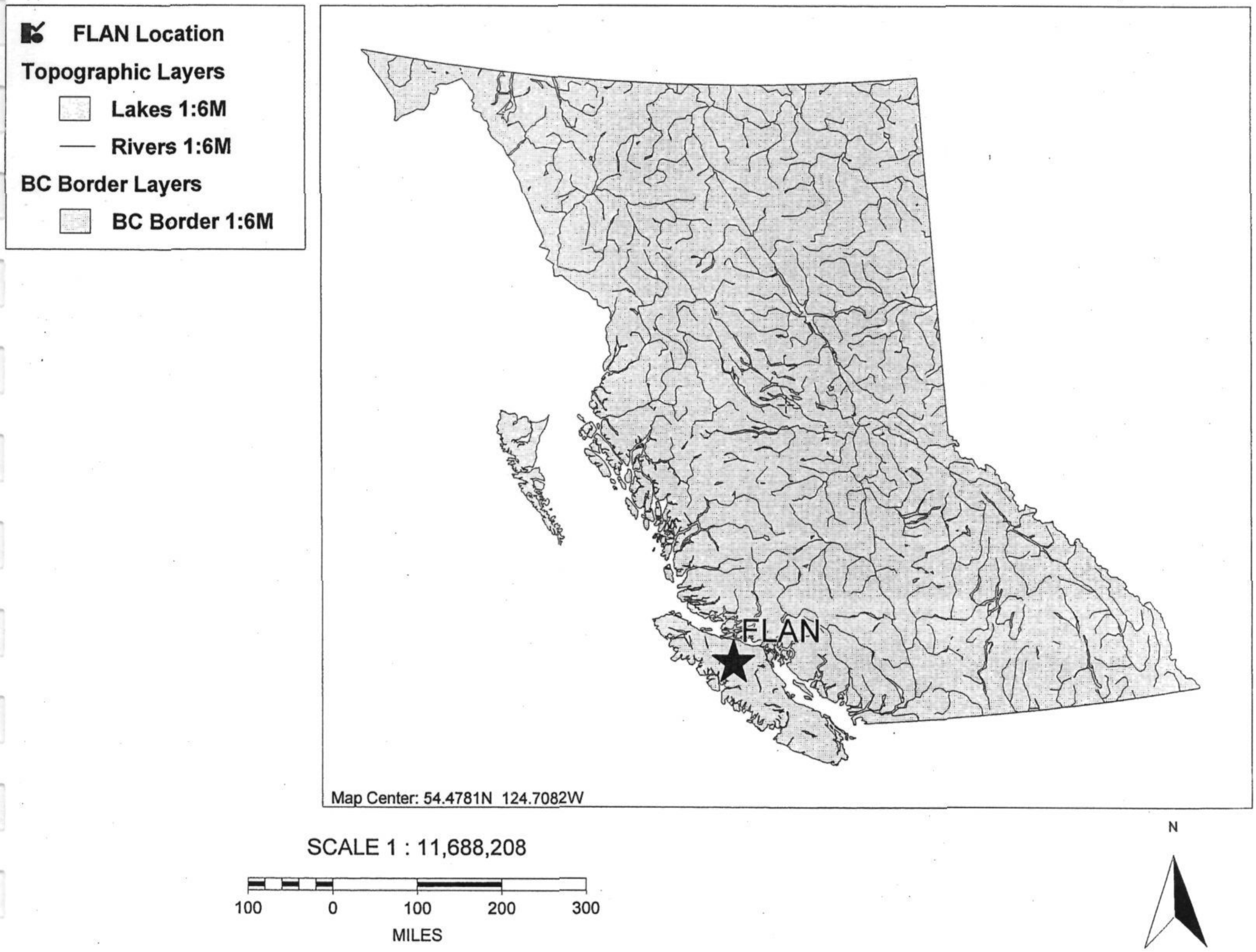
Access to the claims is via a logging main branching off the Island Highway to Gold River and at a junction marked Schoen, (with the label, "this is not the road to Schoen Lake Provincial Park") the road passes along the south of the Davies River and through the Park into the headwaters of Schoen Creek. This road proceeds upstream along the west side of the creek until, several km along, the required road splits and one (SC10) descends to the floor of the valley and crosses the creek over a bridge. This road continues upstream along the east side of the creek past another bridge. It continues south and passes through some cut blocks before it splits and one ascends the hill by way of a hairpin. The showing is at the outcrop near the termination of this spur road.

All claims in group, including the tenure holding the showing are owned 100% by Mikkel Schau.

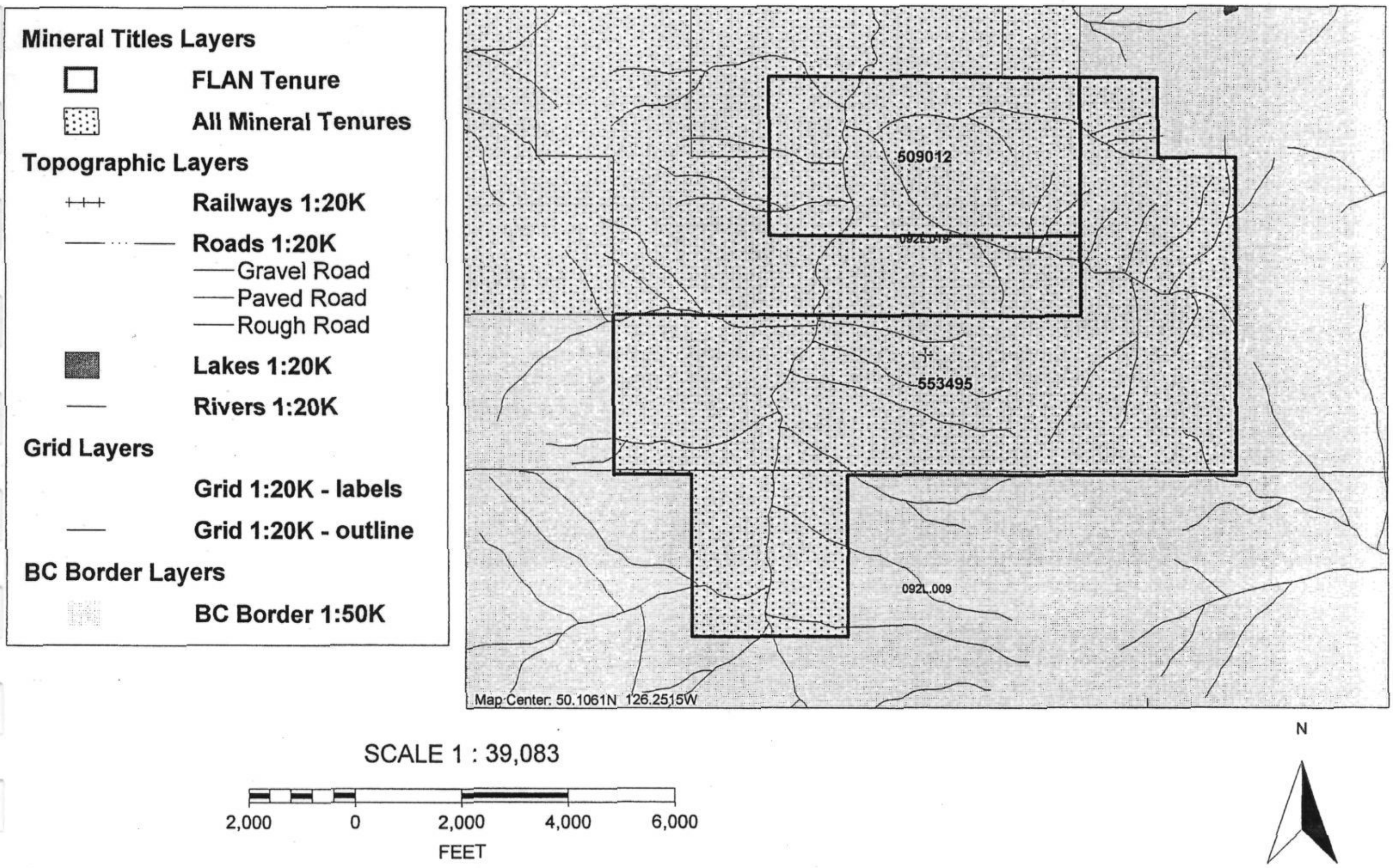
Tenure number	Owner	Due date	Area. In ha.
509012	142134	2012/nov/08	165.75
553485	142134	2008/oct/20	518.11

The land situation is typical of BC; I have claimed the mineral rights in a lawful manner. To the best of my knowledge the Land Claim Treaty Process has not directly discussed these lands although they are under general claim by several groups. There has been no barrier to my claiming or working the land to time of writing. Local people have told me they would like there to be more exploration, and possibly mining in region, to shore up their local economy.

FLAN Location Map



FLAN Claim Map



Previous work

The general area has had a sparse history of mineral exploration. Previous mapping by government sponsored regional mapping programs conducted by J.E. Muller et al. (1974) (Fig. 4) and made available in digital form by N.W. Massey (1995, 2004). Government sponsored regional geochemical surveys indicate that creeks in the Schoen Lake watershed are anomalous, showing values up to 160 ppb Au. (MapPlace, 2000/2003/2006/2008). An adjacent creek valley and a hill crest to the west of the Schoen Creek valley were staked in 1993 and shown to carry anomalous concentrations of several economic elements, including Cu, Zn, Ag, Pb, Mo and Au (AR 23546). Those claims have since lapsed.

In 2000 gold was found at the Flan showing by the current owner, prospecting for precious metals under the Prospector's Assistance Program, and was staked in late 2000 based on results of initial assay reports. The a 2 mica granite was recognized in the course of mapping and an area staked to cover the apparent edges of the granite.

The original Flan showing is seen to be a thin, steep, gold-bearing vuggy quartz-pyrite-chalcopyrite veins cutting steeply across a 30 centimetre thick epidote-chlorite, pyrite, sphalerite, chalcopyrite bearing vein with local development of bull quartz stringers, in a fault zone, cutting a gabbro sill, emplaced in the middle Triassic "Daonella beds" below the Karmutsen Basalts. Subsequent work done by owner on the legacy claims are listed below:

AR Number	Date off confidential	Operator
In review	*To be determined*	Self
29360	2008-07-28	Self
28382	2007-02-14	Self
27311	2004-08-26	Self
26793	2002-11-15	Self

Maquilla Ridge was the site of moss mat sampling by Bradshaw, 1994 (AR23546). Au, Ag, Cu, Pb, Zn and Mo was locally present in anomalous amounts in sampled moss mats. The highest gold tenor in the mats was 300 ppb. The operator also disclosed that a rock sample of a vein with 1 gm/t Au was recovered.

AR 26793 verified the location and assays and provided details about the surrounds of the original gold discovery location (across Schoen creek from the above Maquilla work). AR 27311 discussed veins in a nearby, hitherto unknown 2 mica granite, thought then to be a possible source of the mineralization. AR 28382 added geological information on Karmutsen basalts on on the west side of Maquilla Ridge. AR 29360 focused on new high grade sulphide grab samples from frost heaved outcrop or basal till at the original location. Assays on 500 gm samples yielded up to 4 oz/mt gold from pyrrhotite rich copper bearing frost heaved/basal till boulders. The latest, (submitted, but not yet processed) AR, discussed alteration on the claims and concluded that low grade regional metamorphism affected the Triassic basalts and shales and that local phyllic alteration had affected the 2 mica pluton, showing a local chlorite rich zone and a sericite rich zone. The granite was thought to have been emplaced in a high strain zone. The possibility that the west of the creek was displaced with regard to the east side was proposed.

Summary of work done

A mineralographic survey by Dr P.LeCouteur, P.Eng. for **4 polished thin section** samples of gold bearing sulphides from FLAN showing in 509012. The samples were examined using a reflected light microscope and minerals of interest were analyzed on an AMRAY 1810 scanning electron microscope equipped with an EDAX "Genesis" energy dispersive X-ray analyzer producing semiquantitative mineralographic data.

A mineralographic survey to locate and determine the paragenesis of chalcopyrite using a binocular microscope, of **six polished slabs** of witness pieces of high grade ore (from which the four samples above were taken).

Detailed data and interpretation

Purpose

The work recorded herein is to present information on the location of gold in anomalous samples collected previously.

General surficial geology

The claims are situated on the edge of a U-shaped Schoen Creek valley, and the bottom of the valley is covered with till. The ridge is largely outcrop and the western edge repeats the pattern of outcrops up high and till in the bottom of the valley. The mapped road outcrops are technically subcrops; a few knobs of bedrock crop out on the lower slopes; only at the upper steeper slopes are cliff forming outcrops abundant.

Striae were noted on the southern most subcrops, where the surficial debris had been washed away, after the road had been pushed through. These striae indicated ice movement was parallel with the valley wall and to the north, down valley.

The Flan showing is on the western side of the Schoen Creek, on the northern edge of a small subsidiary creek. Glacial debris was likely carried by the smaller creek and would join with the main down valley ice flow somewhat to the west of the current surface. Hence the basal till is likely associated with the smaller creek subsidiary glacier. This is relevant, because the direction of ice flow is important tracing back the mineralized boulders to source.

The high grade samples are located in the interface between bedrock and basal till. The samples are loose and 866 and 868 are probably frost heaved bedrock whereas 872 extracted from till within two metres of the bedrock surface, but is definitely part of the basal till.

Regional geology

The regional geology has been mapped by Muller et al 1974, (Fig 4) prior to the construction of current logging roads, and as such, suffers from not having access to the outcrops now exposed. Observations gained while prospecting in the region after the roads were available, indicate that a small 2-mica granite stock occurs west of Schoen Creek. The borders of this stock are known in only one place, but its general shape can be deduced from road cuts in the region.

Regional geology of the immediate area is simple. Daonella beds, a middle Triassic black shale and siliceous tuffaceous cherts are overlain by the Karmutsen basalts, a thick pile of pillowed and massive sub-aqueous lavas. Intrusive rocks include early gabbro sills, followed by large Jurassic granodiorite plutons. Regional faulting, along with considerable alteration including argillic and hematitic alteration, affected area. The apparent sense of movement on the mostly north south faults is west side up, but associated slickensides indicate largely horizontal displacement. Other steep, later?, east west faults associated with abundant alteration and a possible dextral sense of displacement are locally important. Local, later, tertiary dykes and stocks are noted within the same 1:50,000 map sheet.

The geology in Schoen creek is incompletely known, and the deep till cover at the base of the U shaped creek valley precludes a detailed map of even this small claim group. Nevertheless, a cross-section from east to west, across the Schoen Creek valley, in the vicinity of Mt Adam, would include these features from east to west:

East

Mt Adam underlain by Karmutsen basalts (with shallow west dip)
western flanks of Mt Adam cut by a fault (steep and northerly trending)-shown on Muller's map.(west side up)
Middle Triassic (M.Tr.) black shales and cherts up against Karmutsen Basalts
Gabbro sills in tuffaceous cherts (c.f. FLAN Showing)
Schoen Creek valley, possibly underlain M.Tr black shales (Daonella beds) and local cherts
Across the Schoen Creek, and up the hill,
Unnamed (Schoen) 2 mica granitic Stock (SGS),
Karmutsen feldspar phyric basalt flows with shallow west? dip, near top of hill
Nimpkish Pluton intruding the western edge of the claims west of the ridge

West

Property geology

Age	Unit	Lithology	Relationship with unit below	Comments
Holocene (post glacial)	Alluvium	Country rock of high hills	unconformity	Thickness increases to valley bottom
Holocene (glacial	Moraine, basal till	Comminuted country rock, up ice	unconformity	Thickness increases to valley bottom, probably from nearby creek
Late Tertiary			UNCONFORMITY	
later Mesozoic or Tertiary		local alteration of 2 mica granite	Faulting ,	*(copper-gold mineralization event?)*
late Mesozoic or Tertiary	Unnamed granite in Schoen Creek (Tgr)	2 mica Granite,	intrudes shales, gabbro, and Karmutsen	Carries minor molybdenite in quartz veins
Early Mid Mesozoic	Island Intrusions (Mgd)	Magnetite bearing granodiorites	Intrudes all previous Units	Local metamorphic halos *(copper-gold mineralization event?)*
Mesozoic			Faulting affects all older units	*(copper-gold mineralization event?)*
Triassic (Karnian?)	Karmutsen sub-Group TrKb	Basalts with feldspar phenocrysts	unknown lower contact, conformable?	Thick section
Perhaps co-eval with Karmutsen	Unnamed gabbro TrGb	gabbro	Sills, intrusive	Widespread and thin
Mid Triassic	"Daonella" Beds TrDb	Black shale and Tuff	contact with Permian not in this area.	Recessive unit,

As shown on the preliminary map the geology of the claim group is relatively simple (see Figure 3):

to the east, and uphill of eastern part are cliffs formed in fine-grained gabbro of the sills

The subcrops exposed on the logging roads to the east of the creek are of gabbro, cut by major steeply dipping NS and minor EW faults and veins. Large truck sized talus pieces of Karmutsen pillow basalt locally abundant. Presumably these are from basalt on the East side of a major NS fault mapped along the flank of Mt Adam. The subcrops exposed by logging, show local NS faulting cut by later cross faults and veins are widely distributed.

The area from the road to the creek covered by till overlain by soil and talus. A few chips of black slate in the till, and chip fragments in the creek, raise the possibility that these slates (possibly Daonella Beds) may, as shown by Muller (op cit), underlie part of the valley.

Crossing the Schoen Creek and coming up the western slope, subcrops and abundant talus are of 2 mica granite, widely chloritic, locally phyllic/argillic, veined and faulted. In the northern part of the claims patches of metasediment and meta-gabbro crop out. The contact between Hb-Hornfels/metagabbro and granite is also marked by a fault in which metasediments are caught up as fragments.

High on the western slope, outcrops of Karmutsen basalts provide talus fragments to lower slopes. There is thus a contact near western edge of claims between metasediments and Karmutsen, as shown by Muller (op cit).

The lower western slopes are underlain by 2 mica granite. The fresh granite is a medium grained muscovite biotite granite with about equal amounts of quartz and microcline and minor normally zoned oligoclase to albite. The biotite and mica appear in small clots together, surrounding small accessory monazite and/or zircon and less abundantly, pyrite. The biotite is partially converted to chlorite, the plagioclase core is altered to very fine clay/white mica. Local very thin chlorite veins traverse the rock. In some instances thin carbonate veins cut the chlorite veins. Modal proportions of minerals indicate that it is peraluminous as would be expected from the micaceous nature. Portions of the stock are deformed by small faults sub-parallel to northerly trending steeply dipping regional ones, and these zones, and small subsidiary sets at right angels have been silicified, chloritized and locally epidotized. Ductile faulting, with the foliation merging into the high strain zone are noted in several locations. A later period of cataclastic faulting has also taken place, generating crush zones. The earlier ductile zones carry pyrite, whereas the later crush zones generate fault surfaces on which the sulphides are smeared. The surrounding granite has been argillically altered to various degrees. Pyrite, and minor amounts of other sulphides are locally present. Veining. is parallel and also normal to foliation; it is marked by chlorite, locally epidote, or quartz with or without small amounts of ankeritic carbonate. The veins are locally mineralized with pyrite and very minor amounts of other sulphides. Adjacent to the veins are argillically altered zones, in which feldspars, mainly plagioclase is reduced to clay or white mica. These zones are also barren. Some veins are a bluish colour and are composed of very fine grained quartz with very fine grained pyrite disseminated throughout. These veins are seen to have elevated lead concentrations. Chlorite veins cut the ductilely deformed quartz veins, and are cut carbonate carrying veins, and both are cut by the crush zones. A few veins, rich in iron and manganese, contain many pathfinder elements. The current state, ie a very dark plastic chlorite rich muck, is presumably due to near surface weathering of carbonate/ankerite/rhodochrosite/ chlorite. In the southern part, along an east west fault surfaces developed in the granite show several mm thick veins of rhodonite.

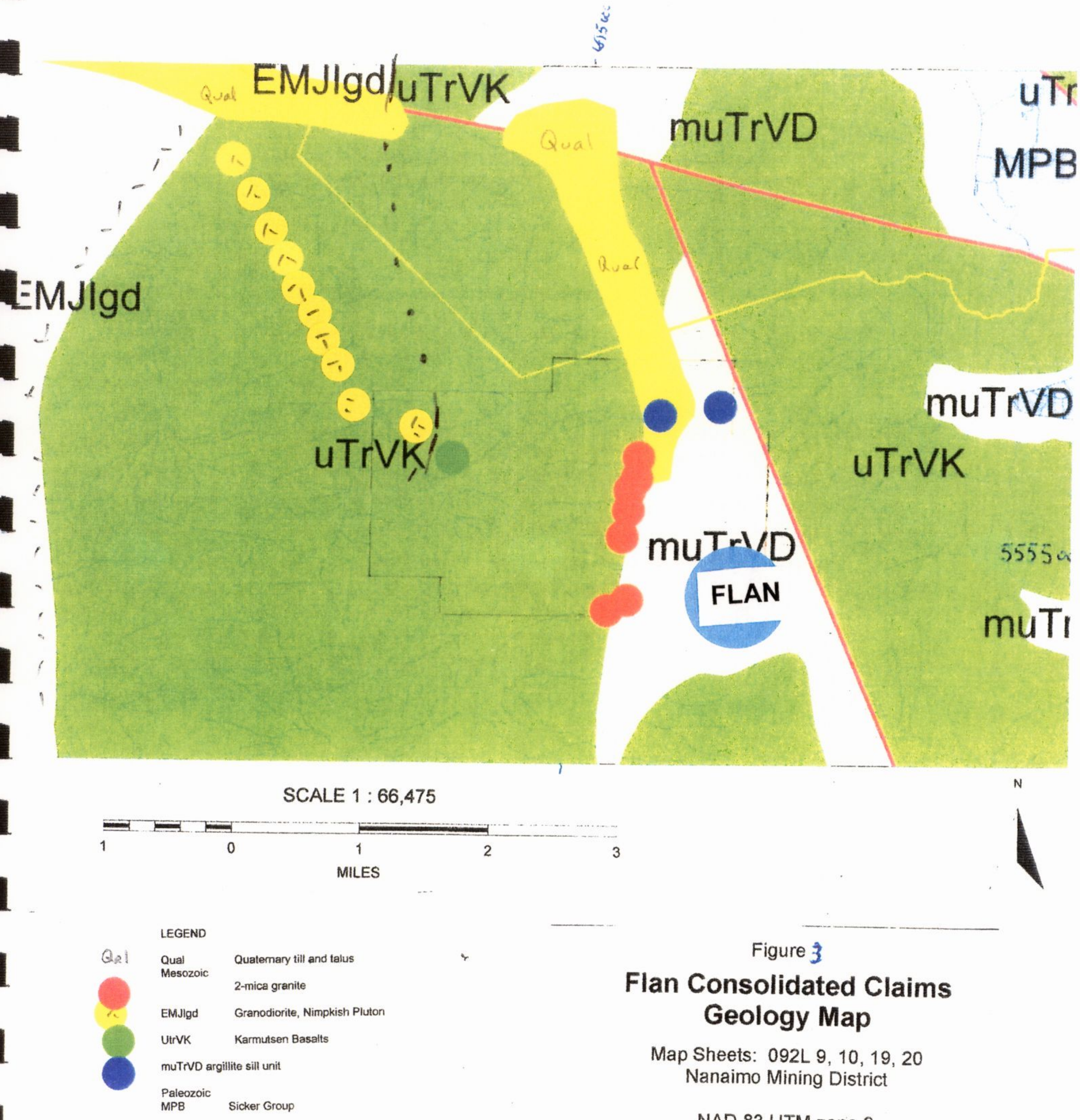


Figure 3 General geology of Flan consolidated;
from fig 4, AR 28382

Mineralization

The mineralization in the country rock, is divided by the creek:

At Flan showing, east of Schoen creek:

I/ Early, green, poly-metallic, epidote-chlorite-sulphide vein with irregular pods of quartz, and tens of cm wide, replacing a fault zone cutting a gabbro sill. Sphalerite, chalcopyrite and pyrite are common sulphides, but analyses suggest molybdenite and galena are present n small measure as well. Gold is variably anomalous.

II/ Scarce later, thin, white weathering, apparently cross cutting, quartz-sulphide (pyrite and chalcopyrite) vein assemblage with local Au concentration developed in gabbro. Adjacent frost heaved/basal till fragments of pyrrhotite, chalcopyrite, pyrite, quartz and chlorite veins apparently cutting gabbro carry electrum.

West of Schoen creek

A polymetallic vein with pyrite, chalcopyrite, sphalerite, and galena and anomalous gold cuts Karmutsen country rock near the northern and western contact of 2 mica granite and Karmutsen Basalts..

In the 2-mica granite the mineralization is of four types

i/ pyrite in altered granite with no elevated gold values
ii/ pyrite, minor galena in blue quartz veining with elevated gold values
iii/ rusty manganiferrous alteration zones/weathered veins
iv/ molybdenite bearing quartz veins.

Detailed sampling results

Previous results, setting the stage

Previous results from the FLAN group show the tenor of the vein mineralization,.

Polymetallic veins in country rock and gabbro.(east of Schoen Creek)

As has been mentioned before, the Flan showing is in polymetallic veins in sheared gabbro. The highest gold assays encountered came from loose (transposed?) fragments of a pyrrhotite-chalcopyrite bearing quartz chlorite vein cutting gabbro.

In place green polymetallic veins in N-S fault zone in gabbro sill (most recent compilation of assay results AR29360)

gold	up to 407 ppb
palladium:	up to 9 ppb
silver:	up to 9.6 ppm

nickel	up to 32 ppm
cobalt:	up to 187 ppm
copper	up to 4115 ppm
molybdenum	up to 173 ppm
zinc:	up to 5566 ppm
bismuth	up to 1.6 ppm

White quartz veins in pyritic gabbro:(loose, but probably in place, from AR26793)

gold:	up to **61.04** gm/mt
palladium:	up to 16 ppb
silver:	up to 15.3 gm/mt
nickel:	up to 36 ppm
copper:	up to 5536 ppm
molybdenum:	up to 113 ppm
zinc:	up to 5489 ppm

Frost heaved /basal till sulphide samples (from AR29360)

gold:	up to **135.09** gm/mt
palladium:	up to 22 ppb
silver:	up to **71.4** gm/mt
nickel:	up to 45 ppm
copper:	up to **3.89%**
molybdenum:	up to 11 ppm
zinc:	up to 1750 ppm
bismuth	up to 60 ppm

Mineralization and alteration in Granite.(west of Schoen Creek)

Blue quartz veins (pyrite-galena quartz veins) were noted cutting the 2-mica granite. Chloritic and sericitic alteration zone affect the granite. Molybdenite has been found along selvages of cm thick quartz veins. Elevated gold has been noted in quartz veins along with elevated lead and arsenic. Veins a few cm thick of plastic black-brown clayey and chloritic material are manganese rich (1+%) with As up to 5069 ppm as well as elevated lead (338 ppm) (AR27311)..

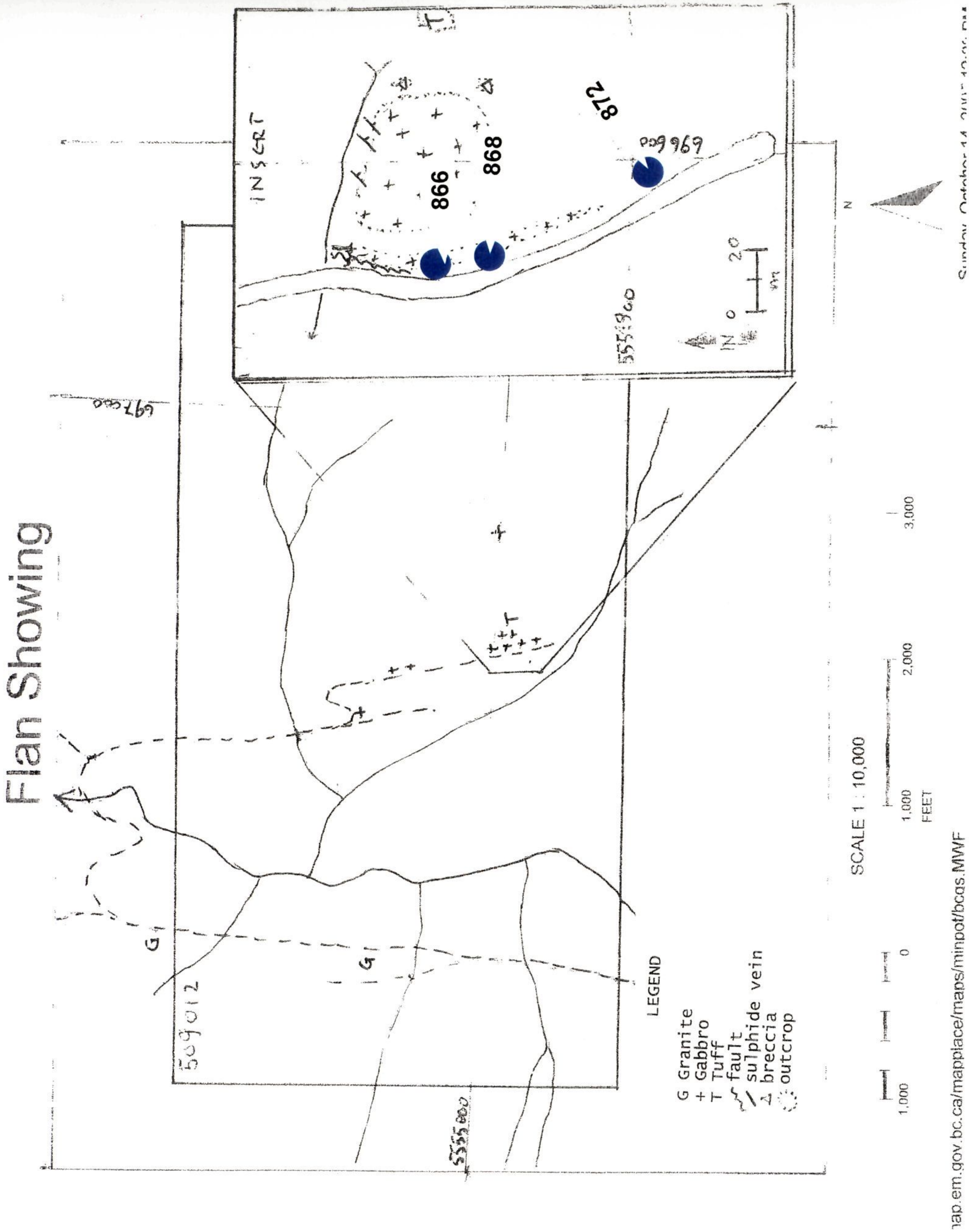


Figure 4 Geology of Flan Claim with detail inset of showing area

New Results, Mineralography at FLAN

Dr P Lecouteur P.Eng. was contracted to locate and characterize the gold in four high grade samples (see AR29360). His complete report is included as Appendix A. The location of the samples is indicated in Figure 4.

A summary of the his results is extracted from his report below:

Gold is present as electrum, a gold silver alloy. Gold is about 75-80% by weight.

Electrum is in very small grains. Sizes measured varied from 5 microns to 70 microns, the mode being 15 microns.

The electrum is largely in chalcopyrite as inclusions; a small number of smaller grains are seen in sphalerite and a very few solitary grains were seen in pyrrhotite.

Associated with the electrum are small grains of BiTe (Tellurbismuthite

Pyrrhotite alteration is seen to be annular marcasite and local pyrite

A previous study using optical methods (AR29360) had come to similar conclusions regarding the major minerals; and the new minor minerals and elements and a few updates are noted below :

Mineral	Old report AR29360	LeCouteur's report	Comment this report
pyrrhotite	present	present	Major component
pyrite	present	present	Minor early pyrite and local in later alteration
marcasite	"pyrrhotite alteration"	present	pyrite/marcasite alteration of pyrrhotite documented
melnikovite	mis"identified"	Not seen	Black powder on surfaces, see below
melanterite		SO4 reported	Probably melanterite (as latest alteration)
limonite	present	No comment	Local veins, breccia texture
chalcopyrite	present	present	Important component, late
sphalerite	present	present	Less frequent component, with cpy
electrum	Not seen	present	5 to 77 microns, (mode 15 microns) in cpy,
BiTe	Not seen	present	Few tens of microns

POLISHED SLABS

After receiving and evaluating the above report, six polished slabs taken from same witness samples, which were inspected to better understand the distribution of chalcopyrite in the samples with a view to establish a paragenesis of the sulphides and understand the distribution of gold..

Sample	Area	Comment
866A	30 sq cm	Mainly pyrrhotite with chalcopyrite veins, magnetic
866C-a	40 sq cm	Mainly altered pyrrhotite, only weakly magnetic
866C-b	60 sq cm	Mainly altered pyrrhotite, only weakly magnetic
868	30 sq cm	Mainly pyrrhotite with fragments and chalcopyrite veins and rims, magnetic
872-big	90 sq cm	Blebs of pyrrhotite in complex silicate matrix, magnetic
872-small	50 sq cm	Chalcopyrite more abundant than in above sample, magnetic

Specimen 866A UTME 696561, UTMN 5554957

From a witness sample from a large boulder with assay values about 1 to 2 oz/t Au in fresh rock and much less in gossany portions.(see AR29360)

Small slab with limonite vein (gossan)(N=50)

Minerals	%	Comment
Matrix	14%	Fragments account for 1/2 of matrix, rest quartz and chlorite
Sulphide	56%	Mainly crackled pyrrhotite, about 1/10 pyrite
Veins	20 %	Veins and rims of chalcopyrite, about 1 mm thick
Limonite vein	10%	Much later gossany vein, no sulphides left

Figure 5A shows the pyrrhotite and altered portions of cellular pyrrhotite. Pyrrhotite shows a sub parallel fabric, and veins of pyrite and local chalcopyrite traverse the sample.

Specimen 866C UTME 696561, UTMN 5554957

Two slabs from the same witness sample taken from the same boulder as above, but with assay values about 1 to 2 oz/t Au in fresh rock and much less in gossany portions.(see AR29360)

Slab a, (N=86)

Minerals	%	Comment
Matrix	13%	Fragments account for 1/2 of matrix, rest quartz and chlorite
Sulphide	72%	Mainly altered pyrrhotite, minor new white alteration
Chalcopyrite veins	9%	Small irregular veins
Pyrite	6%	Local grains and minor veins

Slab b, (N= 81)

From same witness sample as above; a boulder with assay values` about 1 to 2 oz/t Au in fresh rock and much less in gossany portions.(see AR29360)

Minerals	%	Comment
Matrix	21%	Fragments account for 2/3 of fragments, rest mainly quartz and chlorite. Fragments up 1 cm in diameter.
Sulphide	65%	Mainly pyrrhotite, and altered cellular pyrrhotite, including a white newly formed alteration of marcasite?
Pyrite	4%	Locally concentrated in crystal aggregates
Veins	10%	Irregular accumulations of chalcopyrite

Figure 5B shows the dark fragment set in a matrix of altered (cellular) pyrrhotite. The white is very recent alteration of the marcasite in a semi humid house environment. Yellow veins of chalcopyrite is seen in pull apart veins.

Specimen 868B UTME 696571, UTMN 5554949

A frost heaved/basal till boulder with assay values` up to 3 oz/t Au in fresh rock and much less in gossany portions.(see AR29360)

Selected slab (N=78)

Minerals	%	Comment
Matrix	18%	Fragments account for 2/3 of matrix, dark fragment up to 2 ½ by 1 ½ cm.; rest mainly quartz and chlorite
Sulphide	42%	Mainly pyrrhotite, some altered (cellular)
Pyrite	10%	Mainly as a cm wide vein, with chalcopyrite
Veins and rims	30%	Mainly chalcopyrite, as pull apart veins in fragments

Figure 5C shows the fragment rimming chalcopyrite and veins, including pull apart veins (the yellow material) set in an altered (cellular) pyrrhotite (textured browner material). Local fragment of quartz can be seen as well.

Specimen 872 UTME 696561, UTMN 5554877

Two samples from basal till boulder with assay values about ½ oz/t Au in fresh rock and much less in gossany portions.(see AR29360)

Big slab (N=100)

Minerals	%	Comment
Matrix	61	Fragments account for 2/3 of matrix, rest mainly quartz and chlorite
Sulphide	27	Mainly pyrrhotite, about 1/10 pyrite scattered globules 1 ½ by 2 ½ cm across.
Veins	12	About 4/5 pyrite (through going) and the rest chalcopyrite. Thin (1 mm across)

Small slab (N=75)

Minerals	%	Comment
Matrix	57	Fragments account for 1/2 of matrix, rest mainly quartz and chlorite
Sulphide	32	Mainly pyrrhotite scattered globules 1 by 1 ½ cm across.
Veins	11	About a third pyrite (through going) and the rest chalcopyrite in small discontinuous veins. Thin (1 mm across)

Figure 5D shows the pyrrhotite globule and nearby veins of mainly pyrrhotite cutting a quartz and chlorite rich matrix with fragments of gabbro.

Specimen 872 comes from a large boulder with variable sulphide content. Two different specimens from same boulder returned 6.77% and 8.37 % S. Copper varies from 6824 to 6311 ppm.(that would be equal to about 2% chalcopyrite: a value much less than is seen in the small slabs above).

The matrix of 872 contains marble sized fragments of chlorite altered materials. One fragment was seen to have been gabbro. The feldspars are 1mm long and appear to be porphyritic.(AR *newly submitted*). Comparison with previously described thin sections (AR26793) suggests that the above fragment came from the outer parts of the gabbro sill. (Feldspars in the center of the sill are seen in poikiloblastic augites, a characteristic texture. The edges of the gabbro are fine grained with a few feldspar phenocrysts).

The sulphide (chalcopyrite) veinlets are 1 mm wide and sinuous and up to 3 cm long. They are roughly normal to a faint structural; fabric seen in the slab.

Reexamination of a thin section of the contact between tuff and chilled gabbro (see AR) indicates that a faint tectonic fabric has affected the tuff, suggesting (ductile?) faulting. The presence of a chill border in the gabbro indicates that the gabbro was emplaced more or less in situ. Later thin rusty veins cross the contact.

Summary

The main sulphide is pyrrhotite. Sporadic pyrite occurs as isolated crystals or as veins. Chalcopyrite is later, in the form of rims and later veins. Many of the veins are short and irregular, some are sinuous, others are in pull apart positions near fragments.

The specimens are thought to be from a mineralized fault zone/active vein system.

Alteration of pyrrhotite is now a complex of cellular mixture of pyrite and marcasite. It appears that some chalcopyrite veins the altered pyrrhotite.

The chalcopyrite is the carrier for gold, silver, bismuth, tellurium and zinc. It appears late in the paragenesis.

Mineral	Sequence oldest to youngest	Comments
pyrrhotite	Early in fault history	Main phase
pyrite	Probably about same time	Local patches
chalcopyrite	Seen to cut some alteration in veins. In part in fill in local openings in evolving fault structure	Also as veins in pull-aparts in silicate fragments
sphalerite	Small patches, some in chalcopyrite	Perhaps exsolved? From chalcopyrite
alteration	In part older than chalcopyrite	Irregularly distributed, mainly marcasite, local pyrite veinlets
electrum	Small grains in chalcopyrite and less so in sphalerite	Exsolved? From chalcopyrite
tellurbismuthite	Co-eval with electrum	Exsolved? From chalcopyrite
limonite	Vein with breccia fill. Cuts all above	Late in history
Recent black powdery alteration	Late weathering event	Possibly melanterite

Figure 5A FOV 5 cm # 866A See text

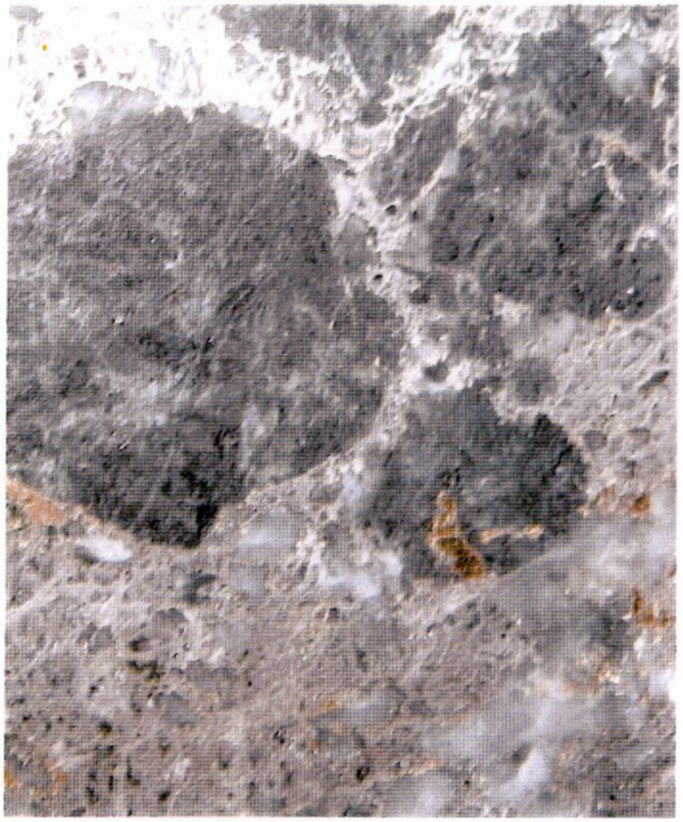


Figure 5B, FOV 3 cm # 866C See Text

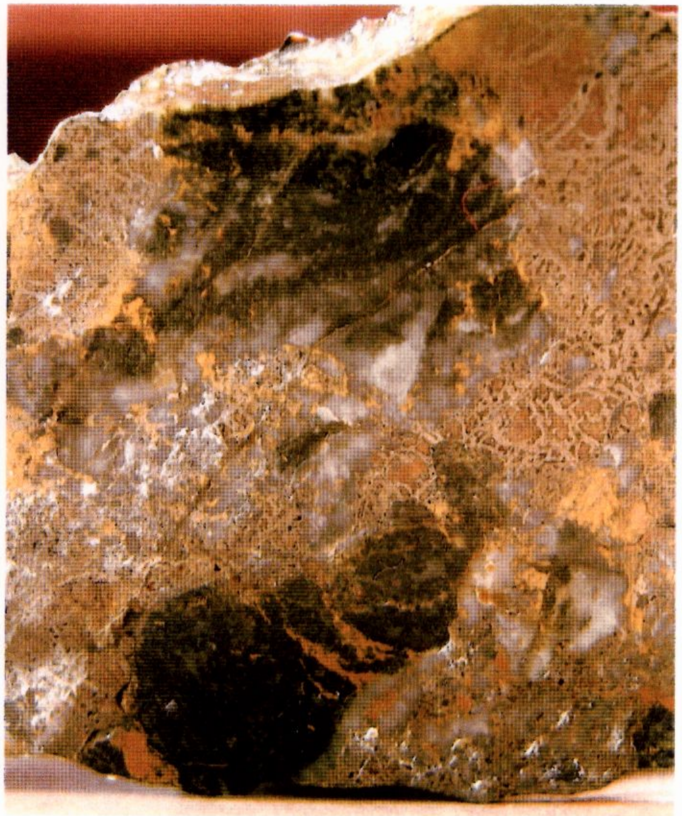


Figure 5C FOV 4 cm # 868B See text

Figure 5A, FOV 4 cm # 872, See Text

Interpretations and conclusions

LeCouteur (appendix A) found that samples with high gold assays carried very small grains of electrum trapped principally in chalcopyrite.

Examination of polished slabs suggest that the samples were derived from a faulted and mineralized vein system located near gabbro sills.

Further, it is likely that

The mineralization was syn faulting. The high grade samples come from a pyrrhotite rich vein with fault fragments of gabbroic country rock. The exact location of this source is still uncertain.

Faulting created local openings into which later quartz and sulphides were deposited.

Pyrrhotite mineralization preceded chalcopyrite (sphalerite) mineralization

Pyrrhotite altered to a cellular aggregate of marcasite and pyrite. Some chalcopyrite cuts the alteration.

Electrum and BiTe crystallized within the chalcopyrite. The electrum is very fine grained (about 15 microns) and mainly seen in chalcopyrite.

Later limonite alteration and veining cuts across the mineralized sulphide rocks. Gossan development removes gold, silver and copper from the sample.(see AR 29360)

The mineralogy of the high grade vein material contains pyrrhotite and is quite conducive to standard exploration geophysical techniques

The mineralogy of the high grade veins suggest that gold grains are minuscule and that free gold is ***unlikely*** to be found, hence geochemical exploration techniques should focus of finding copper anomalies.

The target for ongoing prospection is anomalous copper rich regions near faults, veins, and lineaments.

The occurrence has local high grade assays. ***The property has merit but no mineral accumulations of economic proportions have been located***. Hence low cost, reconnaissance prospective methods are recommended.

Recommendations for future work

Some low cost methods include:

Geochemical survey for copper anomalies: The presence of gold in very small particles within the chalcopyrite focuses further exploration to the task of finding copper. The presence of altering pyrrhotite insures an acid weathering environment and release of copper into the weathering environment. Hence standard geochemical procedures can be used to outline resultant copper anomalies in streams and/or soils.

Magnetic and electromagnetic surveys: The presence of pyrrhotite also indicates that geophysical methods will be useful. Pyrrhotite is mildly magnetic, and would show up in a magnetic survey. Pyrrhotite is also conductive and any, of a variety, of electromagnetic methods should work.

Hand based technologies: A prospector based exploration program could include a Beepmat survey to outline near surface conductors, a small soil survey within such an area, and hand trenching on the most prominent anomaly.

A junior company would perform larger, more systematic geochemical and geophysical surveys on well established grids to find anomalous regions.

No budget is provided for either alternative, as each project type can be configured in many different ways.

References

Anon, 2002
RGS23, NTS092L/102I, BCGS, available at BCGS website

MapPlace, available at BCGS website

Bradshaw, P.M.D., 1994
Assessment Report; Maquilla Property; BC Gov., Geological Branch Assessment Report 23546.

Hicock S.R. 1986
Pleistocene Glacial Dispersal and History in the Buttle Valley, Vancouver Island: A feasibility Study for Alpine Drift Studies; Can Journ Earth Sciences, vol 23, pg 1867-1879.

Massey, N.W.D., compiler, with Desjardin and Grunsky, 1994,
Vancouver Island Digital Geology, BCGS OF 1994-6

Massey NWD, 2004
Vancouver Island Digital BCGS Open File 2005

Muller, J.E., Northcote, K.E., and Carlisle, D. 1974
Geology and mineral deposits of Alert-Cape Scott map-area, Vancouver Island, BC;Geological Survey of Canada, Paper 74-8, 77pg., 1 map, 1:250000.

Schau, Mikkel, 2001
Prospector's Report on PAP2000-95, unpublished manuscript lodged with BCGS

Schau, Mikkel, 2002
Prospector's Report on PAP2001-91, unpublished manuscript lodged with BCGS

Schau, Mikkel, 2003
Preliminary Geology, Petrography and Petrophysics of the Flan Group; BC Gov., Geological Branch Assessment Report 26793

Schau, Mikkel, 2004
Preliminary Geology, Petrography and Petrophysics of the Xanga Group; BC Gov., Geological Branch Assessment Report 27311

Schau, Mikkel, 2006
Prospector's Report on part of the Flan-Consolidated Group of claims(507295 and 513281).BC Gov., Geological Branch Assessment Report 28382.

Schau, Mikkel, 2007
New Results from the FLAN showing on part of the Flan-Consolidated Group of Claims (Tenure 509012) in the Nanaimo Mining Division;; Geological Branch Assessment Report; 29360.

Schau, Mikkel, 2007
Alteration Studies on the Flan Consolidated Claims (Tenures 507295, 509012, 513281, 543699). BC Gov., Geological Branch Assessment Report; *Newly submitted report In Review.*

Author's qualifications

I, Mikkel Schau

have been a rock hound, prospector and geologist for over 50 years. My mineral exploration experience has been with Shell, Texas Gulf Sulfur, Kennco, Geophoto, Cogema and several public and private mining juniors. I have worked 10 years in southern BC and spent 23 years with the GSC as a field officer focused on mapping in northeastern Arctic Canada. For the last 12 years I have prospected and mapped in Nunavut, Nunavik, Yukon, Ontario and BC.

I reside at 1007 Barkway Terrace, Brentwood Bay, BC, V8M 1A4

My formal education is that of a geologist, I graduated with an honours B.Sc. in 1964 and Ph.D. in Geology in 1969, both, from UBC.

I am a P.Geol. licensed (L895) in Nunavut and NT, and a P.Geo. (25977) in BC and Ontario (1047). I am currently a BC Free Miner, # 142134.

I have 100% interest in the claims in question.

I am an author of the report entitled "Mineralography of selected samples from Flan showing on part of the Flan-Consolidated Group of Claims (Tenures 509012 and 553495)." and dated June 10, 2008.

Signed

Mikkel Schau, P. Geo.
(APEGBC 25977)

, dated June 10, 2008

Itemized cost statement

Petrography Report by Dr P.LeCouteur		235.00
Investigations of six polished slabs	4hrs @ 65.00	260.00
Report Writing and production	7 hrs @ 65.00	455.00
	Total	**950.00**

Appendix A: Petrography report by Dr P. LeCouteur, P.Eng.

PETROGRAPHIC REPORT

AN EXAMINATION FOR GOLD IN 4 SAMPLES

F866A
F866C
F868
F872

Gold was observed to occur as fine-grained particles in F866A and F868 in the form of **electrum**. It occurs mainly as inclusions in **chalcopyrite**, but was also found as a few inclusions in **sphalerite**, and rare solitary grains associated with **pyrrhotite** . **Tellurbismuthite** was also observed, some in intimate association with electrum. Other minerals noted include **marcasite** (after pyrrhotite) and **pyrite.**

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Vancouver, BC,
Dec 30, 2007

INTRODUCTION

Four sulphide-rich rock samples were submitted as polished thin sections by M. Schau with a request to examine them microscopically with the objective of locating and photographing the nature of gold mineralization, indicated as present from assays.

The four rock samples (Table 1) were examined in polished thin-section by reflected light microscope and minerals of interest analyzed on an AMRAY 1810 scanning electron microscope equipped with an EDAX "Genesis" energy dispersive X-ray analyzer. As no standards were used and surfaces were not carbon-coated these analyses ("EDX" analyses) are semi-quantitative. Every attempt was made to avoid small inclusions, inhomogeneities, and neighbouring minerals, but these and invisible phases in the analyzed volume just below the surface can contribute to the analysis and give misleading results. Small amounts of elements that are incompatible with the composition of a mineral (eg Si in a sulphide) may be such contaminants.

Table 1 Samples examined in polished thin section

Sample No
F866A
F866C
F868
F872

Abbreviations used in photomicrographs are as follows: **BSE**=back-scattered electron image, **REF**=reflected light, **FOV** =field of view (the width of the photo in mm). Areas referred to in the figures are marked on the slides and should allow relocation of the grains under the microscope by comparison with the photographic figures.

A useful feature of **BSE** images (which show only shades of grey) is that minerals of high average atomic number (eg Au) appear in lighter shades of grey while lower atomic number minerals are darker grey.

SUMMARY OF RESULTS

1 Gold was initially observed in samples **F866A** and **F868** and most attention was paid to these. No gold was observed in a brief examination of sections F866C and F872, but an exhaustive search was not made on these sections.

2. Gold was found to occur exclusively as an alloy with Ag, typically with 20 to 25% Ag. Although gold and silver form a continuous substitution series, alloys with more than 20% Ag have traditionally been called **electrum** and this has the status of a "variety", with the formula $(Au)_{5\text{-}8}$ $(Ag)_{2\text{-}5}$

Typical analyses of electrum from F866A and F868 are shown in Table 2 and graphically in Figure 2. A typical electrum spectrum is shown as Figure 1.

3. Electrum was found in three mineral associations.

a In F866A and F868 most electrum was observed as **inclusions in chalcopyrite**. Measurements of the size of 44 of these grains showed a range *from 6 to 70 microns, with the distribution in Figure 1. Figures 5 to 13 and 19-20* illustrate this principal mode of occurrence.

b As rare **separate grains in altered pyrrhotite** in F866A, to 0.15 mm long. *(figures 14 and 15).*

c As rare **minute inclusions in sphalerite** in F866A. Four of these were measured at between 2 and 4 microns. See figures 16 to 18.

4. Sometimes intergrown with the electrum is **tellurbismuthite (Bi_2Te_3),** which may also occur as solitary grains. Typical analyses are listed in Table 2, *and shown graphically in Figure 4. A spectrum is shown as Figure 3, and some* examples are illustrated in Figures 10,14,15, and 19.

5 Pyrrhotite *is a principal sulphide constituent in several sections (see Figure* 22 and 23). It commonly shows extensive alteration to secondary Fe-sulphide, which has a strong tendency to tarnish. This secondary sulphide is composed of *about equal amounts of Fe and S. The identity of the Fe-S mineral has not been* determined, but from literature references it likely consists of pyrite or marcasite or both. The composition and the tarnishing suggest it is mainly **marcasite.**

6 As the purpose of examining the sections was only to locate gold, no effort was made to identify other minerals, but minerals noted incidentally include *significant* **chalcopyrite**, *minor* **sphalerite** and **pyrite**, *as well as major* **pyrrhotite** and **marcasite** previously noted.

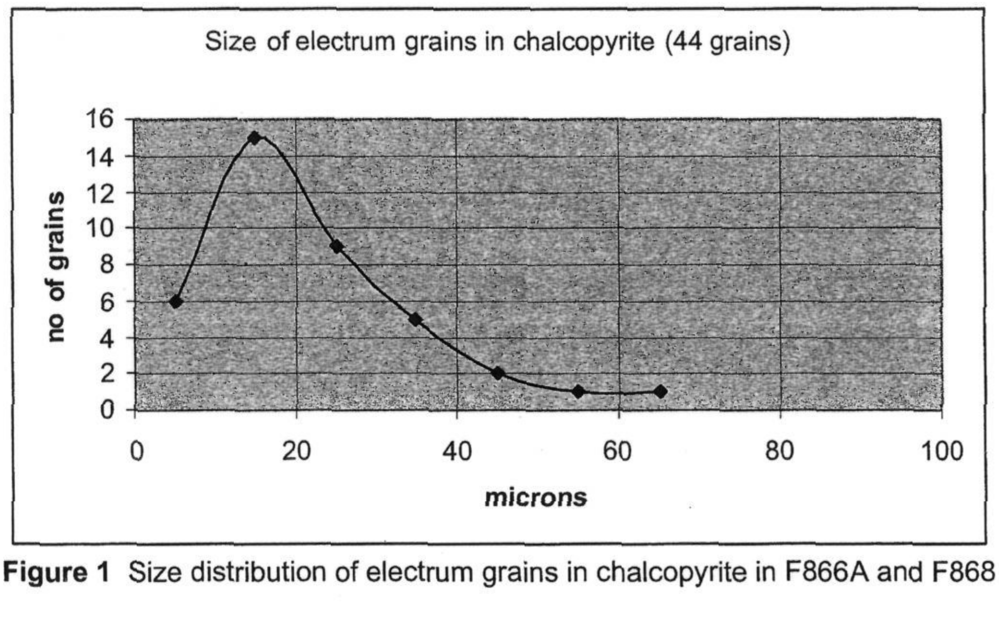

Figure 1 Size distribution of electrum grains in chalcopyrite in F866A and F868

Table 2 Typical analyses of electrum and tellurbismuthite

Sample	Area	Analysis	Te %	Bi %	Ag %	Au %	Fe %
F866A	6	1	39	60			2
		2			21	78	1
	2	10			24	77	
	3	1			23	77	
		2			26	74	
		5	41	59			
		1			19	81	
		2	39	61			
		3	39	61			
F868	1	1			23	77	
		2			24	76	
	2	1			23	77	
		2	51	48			2
	3	4			25	75	

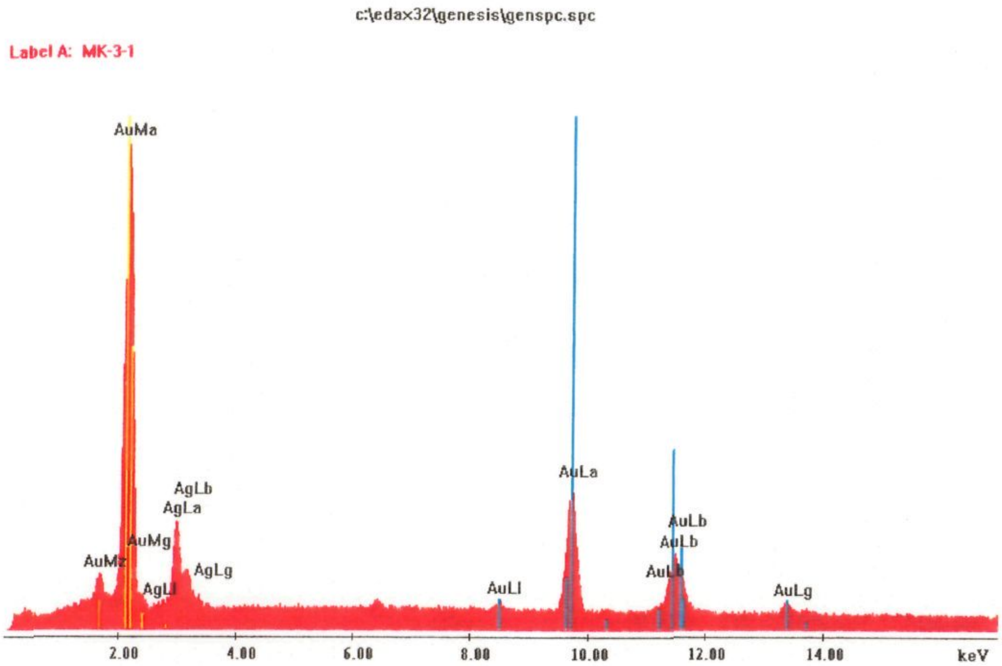

Figure 1 Xray spectrum of electrum F868, area 1, grain 1

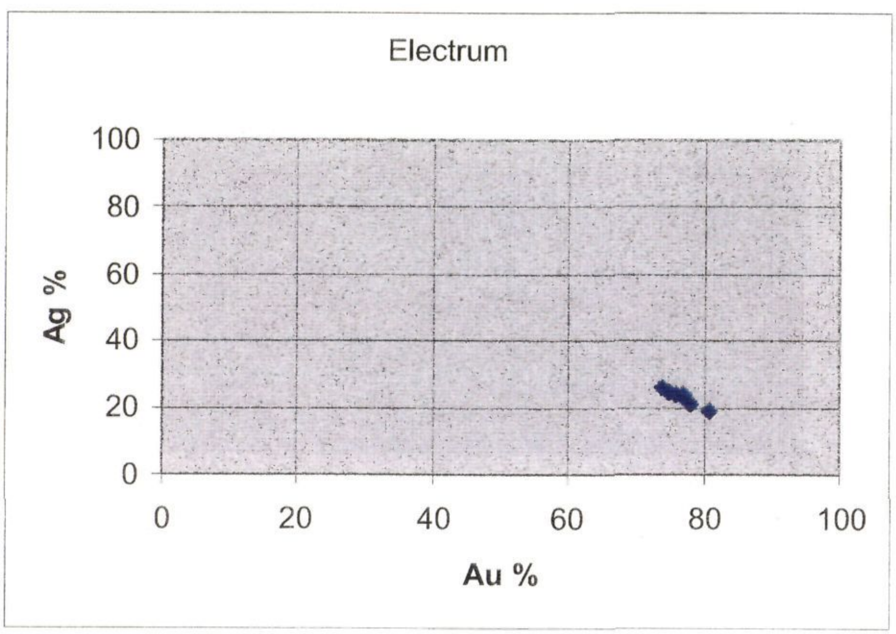

Figure 2 Composition of electrum from Table 2

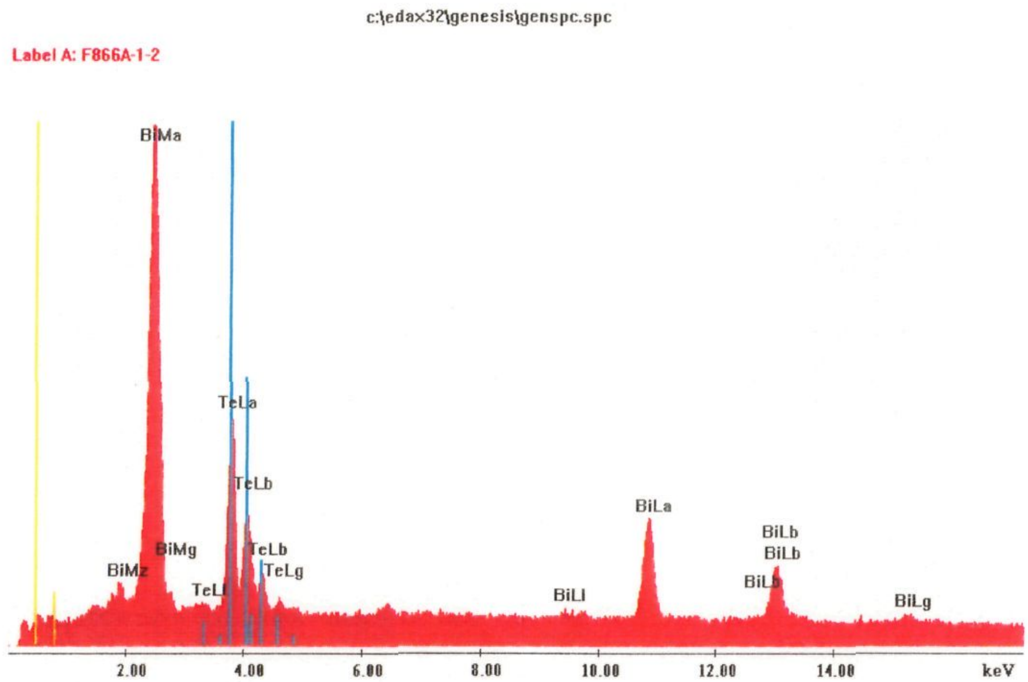

Figure 3 Xray spectrum of tellurbismuthite, F868, area 2, grain 2

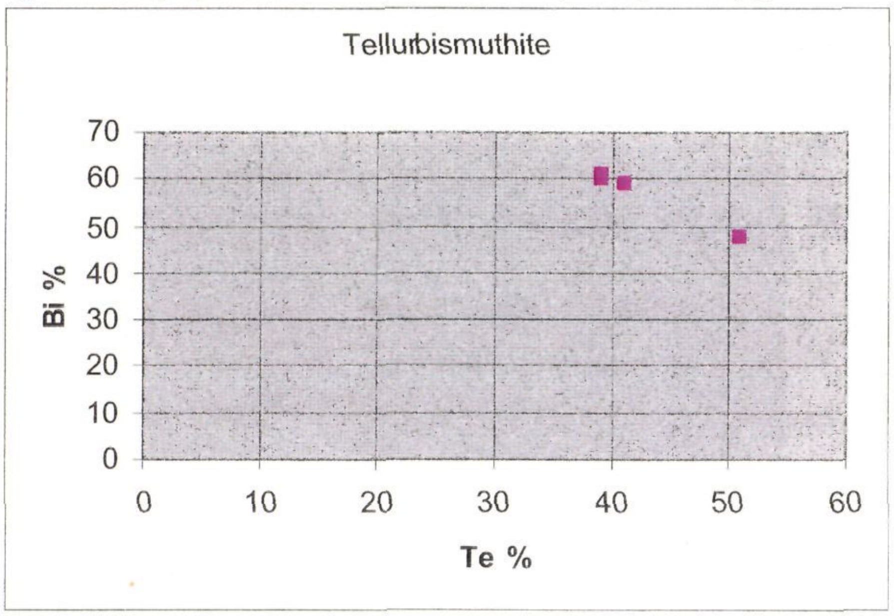

Figure 4 Composition of tellurbismuthite from Table 2

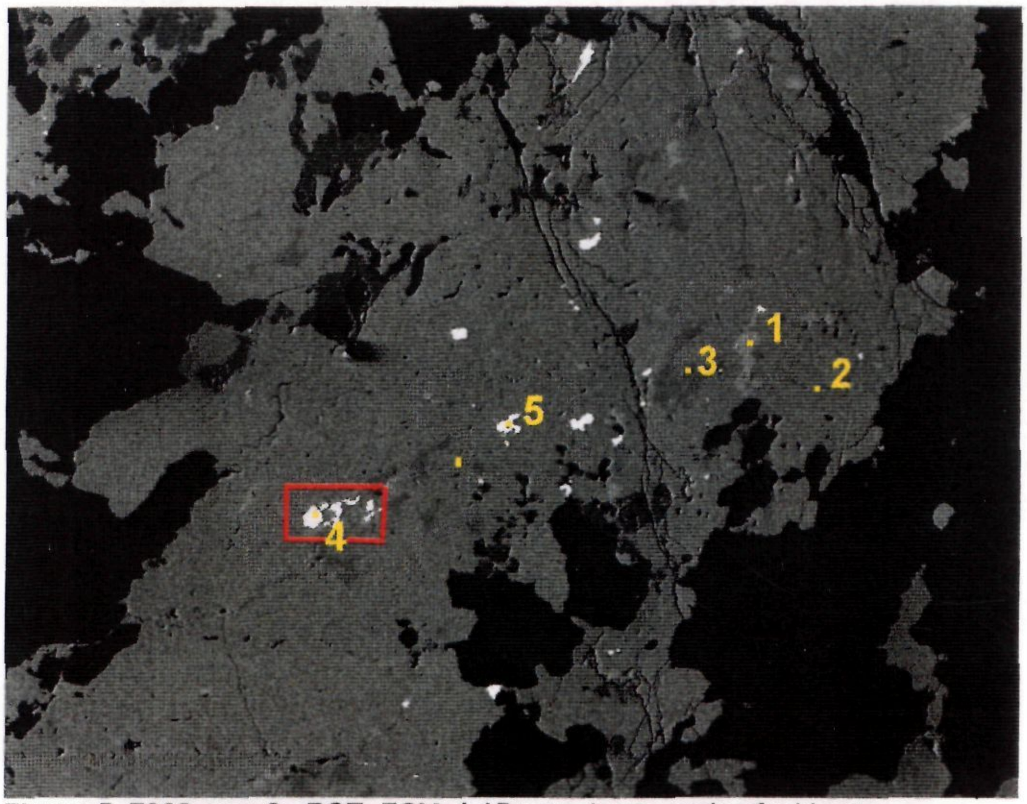

Figure 5 F868 area 3. BSE, FOV=1.15 mm. Large grain of mid-grey chalcopyrite (2) contains bright white inclusions of electrum (4,5), pale grey sphalerite (1) and darker grey pyrrhotite (3). Area in red box shown in more detail in Figures 5, 6, 7.

Analyses (in weight %) at marked locations listed below.

Site	Mineral	Cu	Fe	S	Zn	Au	Ag
1	**Sphalerite**		6	35	59		
2	**Chalcopyrite**	34	31	35			
3	**Pyrrhotite**		61	39			
4	**Electrum**					75	25
5	**Electrum**					95	26

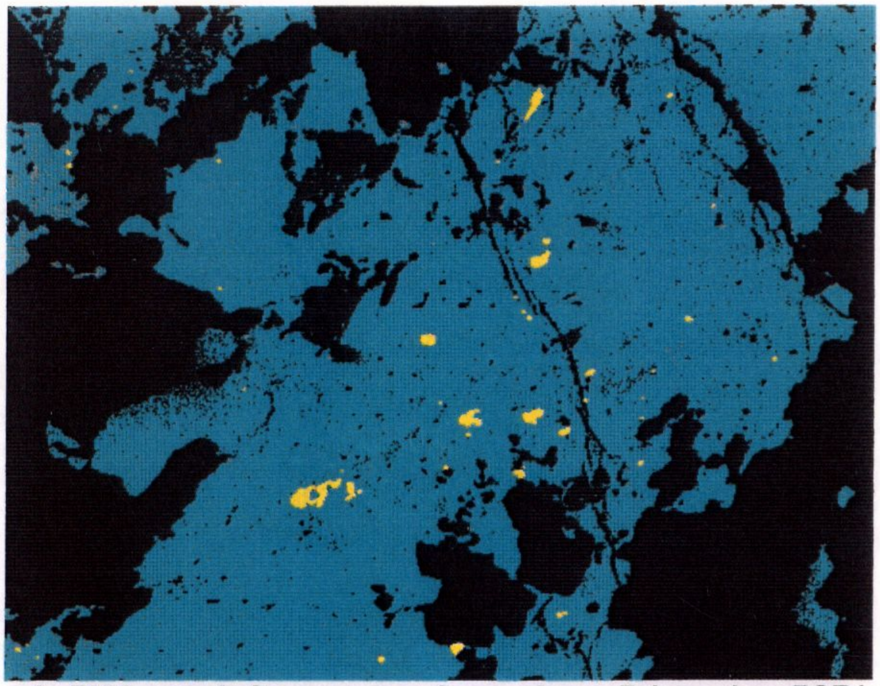

Figure 6 F868, area 3. Same area as figure above. False colour BSE image with electrum particles shown as a gold colour in matrix of mainly chalcopyrite (but including some pyrrhotite and sphalerite inclusions) shown as blue-green.

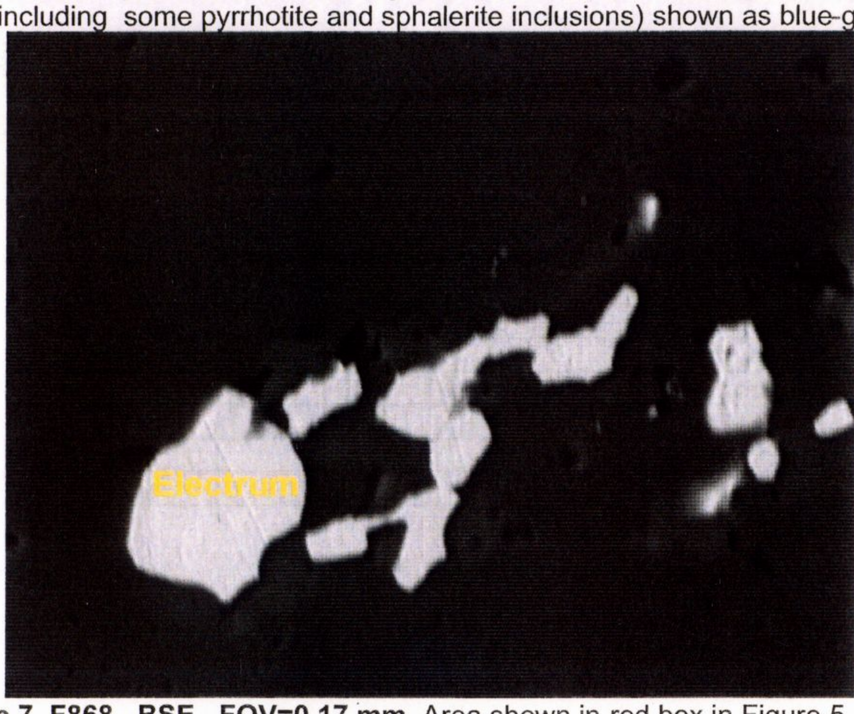

Figure 7 F868, BSE , FOV=0.17 mm. Area shown in red box in Figure 5. Bright grey electrum in a dark matrix of mainly chalcopyrite. Analysis #4 (Fig 5).

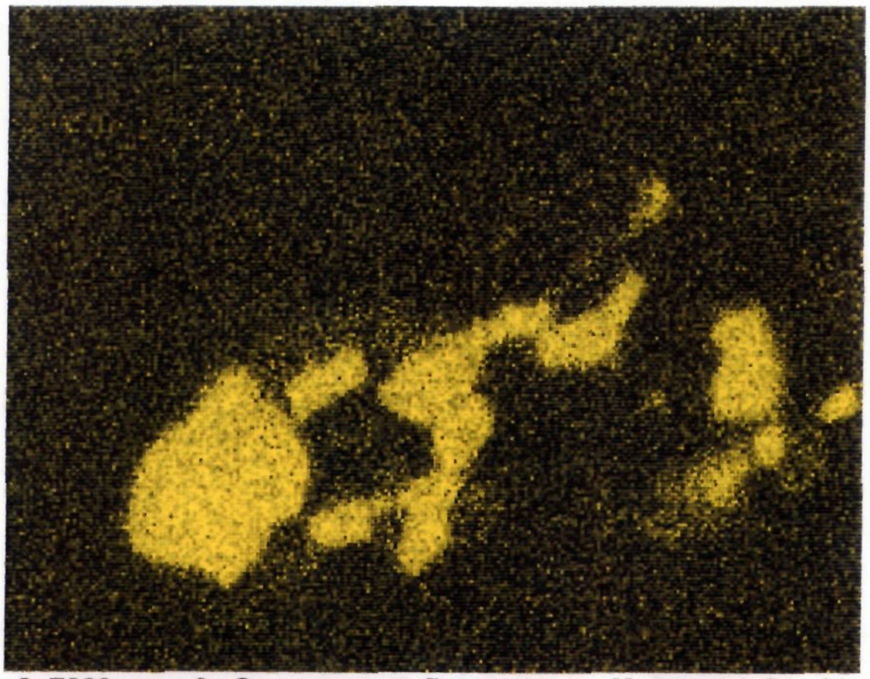

Figure 8 F868, area 3. Same area as figure above. Xray map of Au M and L series X-ray emissions. Electrum shown as gold colour in matrix of mainly chalcopyrite.

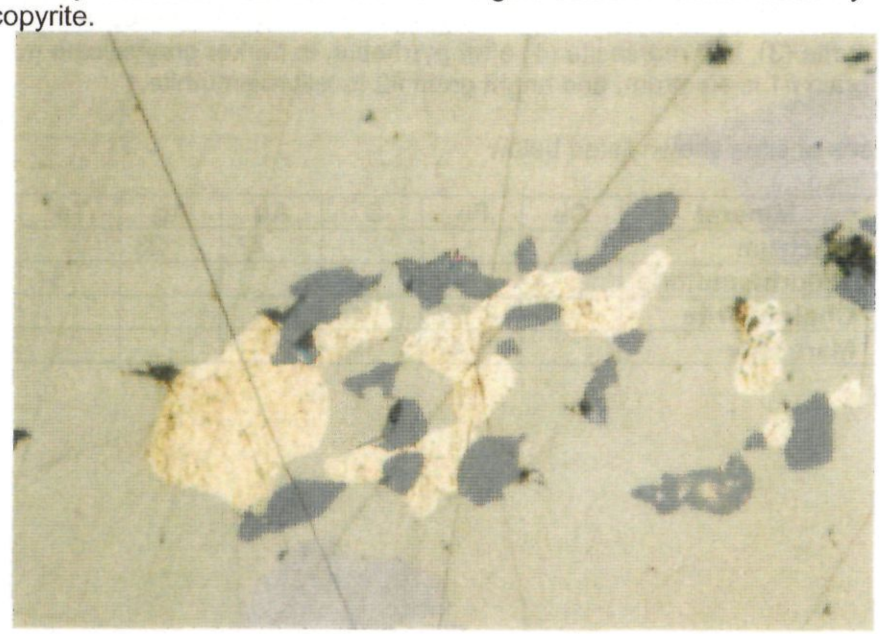

Figure 9 F868, area 3. REF. Same area as figures above. Pale gold-coloured electrum in yellowish chalcopyrite, with inclusions of dark grey sphalerite and purplish-grey pyrrhotite.

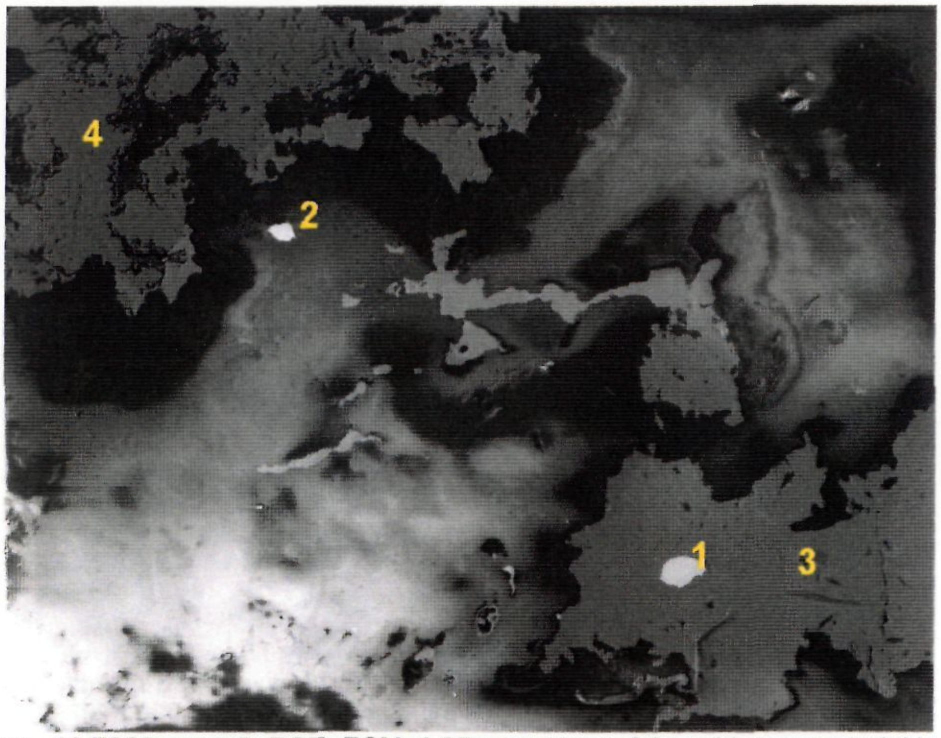

Figure 10 F868, area 2, BSE, FOV=1.25 mm. Most of the mid grey material is chalcopyrite (3), and marcasite (4) after pyrrhotite, in darker grey silicate matrix. Bright grain #1 is electrum, and bright grain #2 is tellurbismuthite.

Analyses at sites shown listed below

Site	Mineral	Cu	Fe	S	Au	Ag	Te	Bi
1	**Electrum**				77	23		
2	**Tellurbismuthite**		2				51	48
3	**Chalcopyrite**	25	27	48				
4	**Marcasite**		47	52				

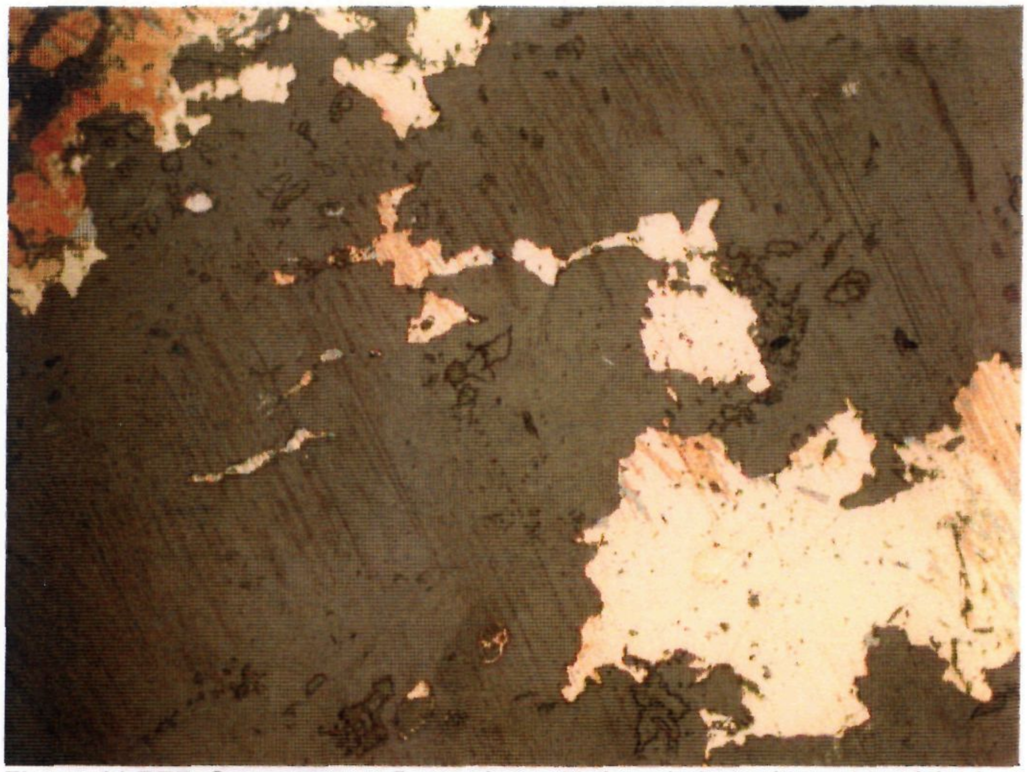

Figure 11 REF, Same area as figure above. Yellow chalcopyrite and tarnished marcasite after pyrrhotite in grey silicate. Yellowish inclusion of electrum in chalcopyrite, and grey tellurbismuthite in silicate.

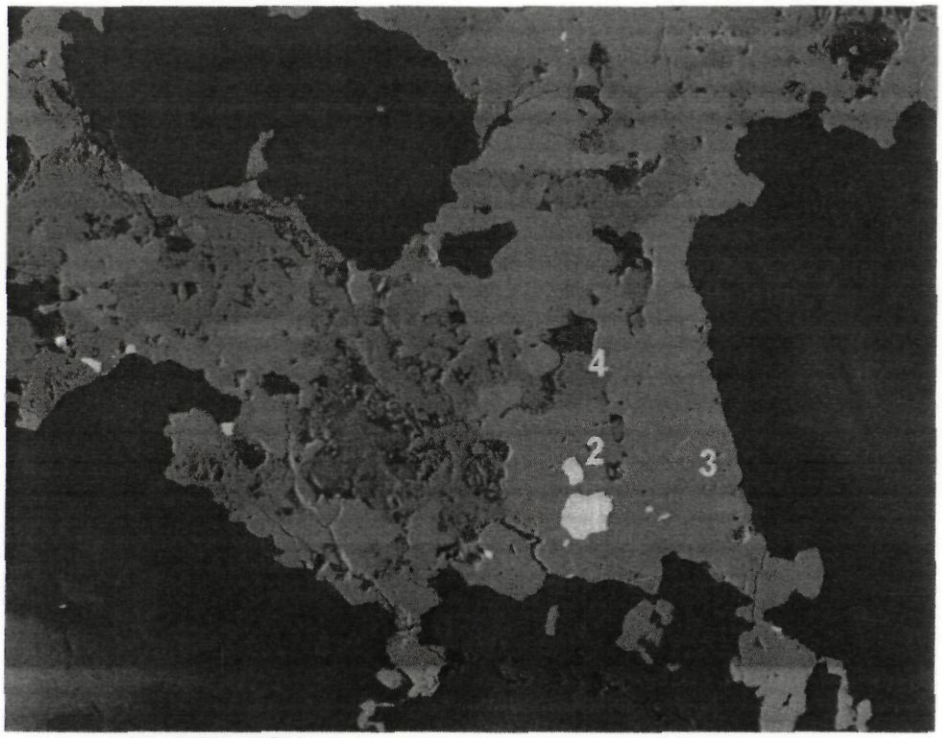

Figure 12 F868, BSE, FOV= 0.9 mm. Bright grey grains (1,2) are electrum in mid-grey chalcopyrite (3), with darker grey marcasite (4) after pyrrhotite .

Analyses at labelled sites below.

Site	Mineral	Cu	Fe	S	Au	Ag
1	**Electrum**				77	23
2	**Electrum**				76	24
3	**Chalcopyrite**	34	31	35		
4	**Marcasite**		47	53		

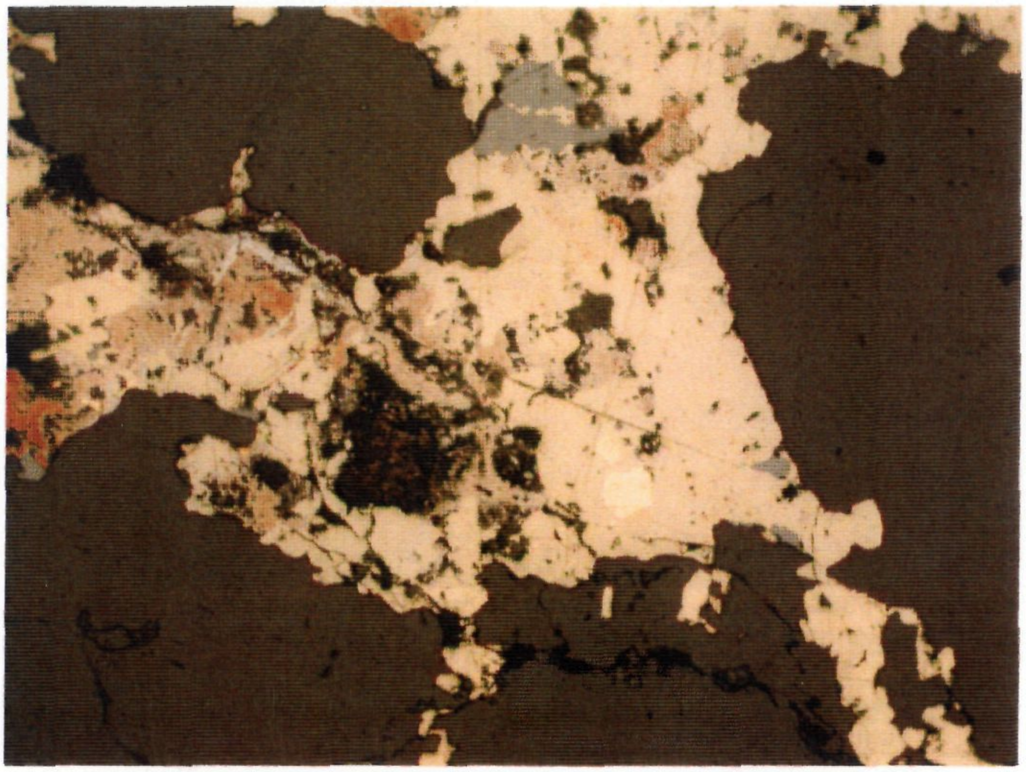

Figure 13. F868 , REF. Same area as figure above. Yellowish chalcopyrite and tarnished marcasite (after pyrrhotite) with grey sphalerite inclusions and 2 bright yellow electrum inclusions.

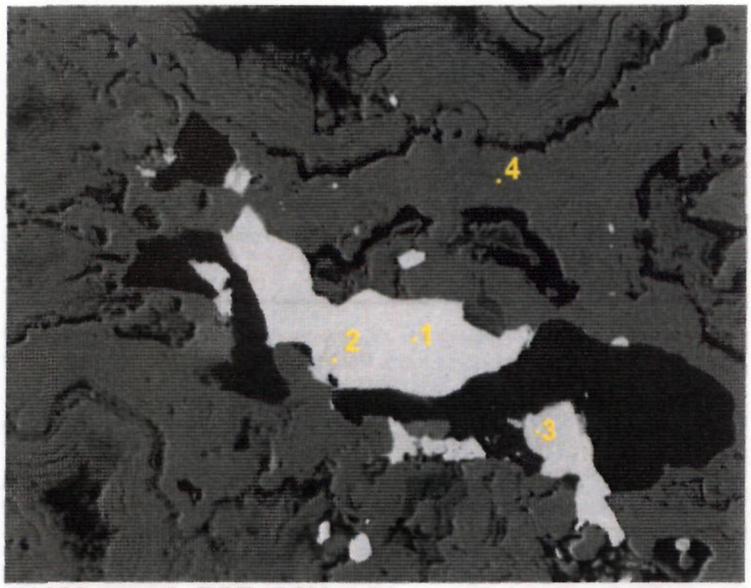

Figure 14 F866A, area1. BSE, FOV=0.35 mm. Pale grey electrum (1) and slightly darker grey tellurbismuthite (2,3) in dark grey marcasite (4).

Site	Mineral	Fe	S	Au	Ag	Te	Bi
1	**Electrum**			81	19		
2	**Tellurbismuthite**					39	61
3	**Tellurbismuthite**					39	61
4	**Marcasite**	47	53				

Figure 15 F866A, REF. Same area as above figure . Yellow electrum intergrown with pale grey tellurbismuthite , surrounded by tarnished marcasite after pyrrhotite.

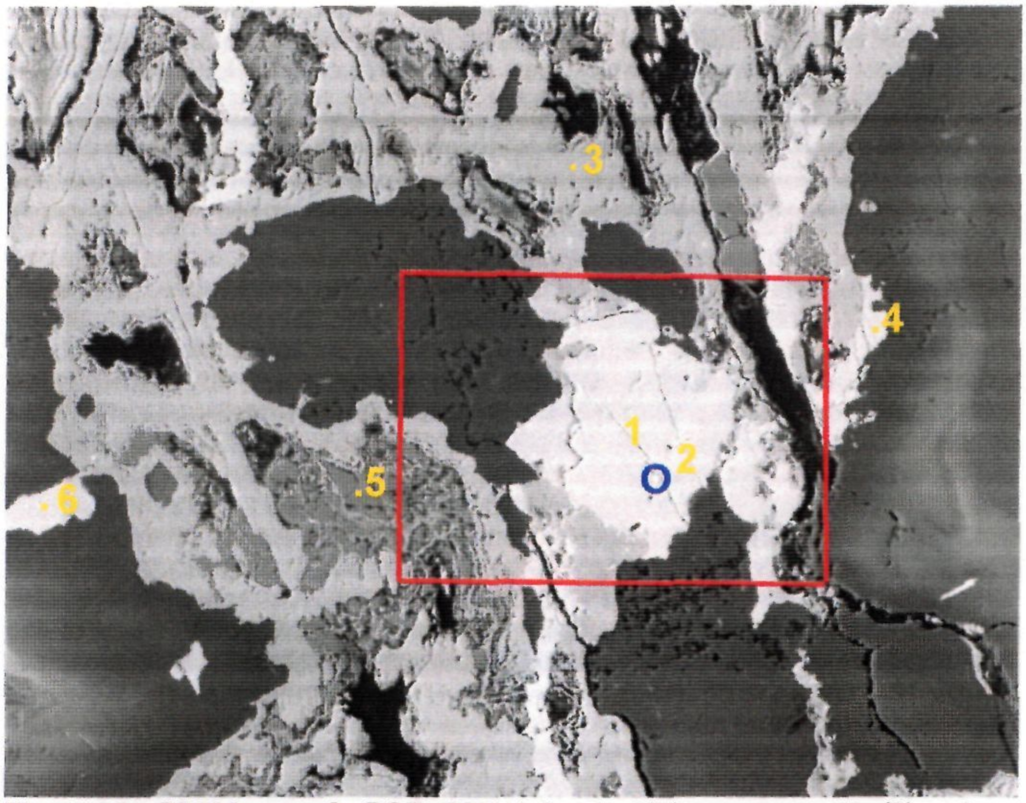

Figure 16. F866A, area 2. BSE, FOV=0.6 mm. Mid grey marcasite (3) and darker Fe-oxide (5) after pyrrhotite, brighter grey chalcopyrite (6), bright grey sphalerite (1,4) with pyrite inclusions (not obvious here-see Figure 17 and 18) and four electrum (2) inclusions (largest circled in blue-see Figure 18) . Dark grey is silicate matrix (mostly quartz).

Detail of area in red rectangle shown as figure 18.

Analyses at marked locations listed below.

Site	Mineral	Fe2O3	SO3	Cu	Fe	S	Zn	Au	Ag
1	**Sphalerite**				7	34	58		
2	**Electrum**							77	23
3	**Marcasite**				47	53			
4	**Sphalerite**				9	33	59		
5	**Fe oxide**	93	7						
6	**Chalcopyrite**			34	33	33			

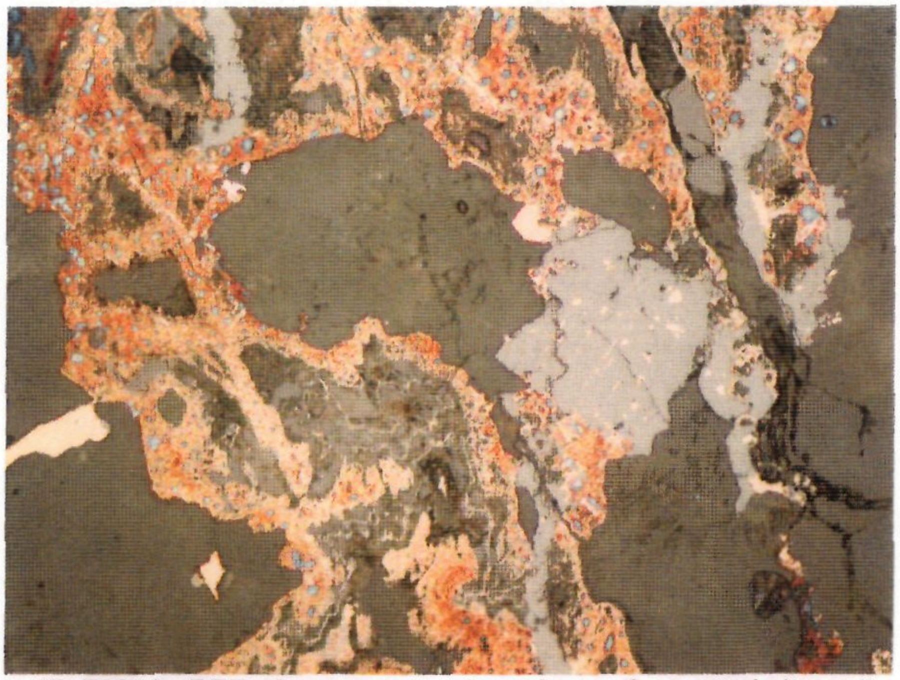

Figure 17 F866A , REF. Same area as above figure. Grey sphalerite, yellow chalcopyrite, tarnished marcasite.

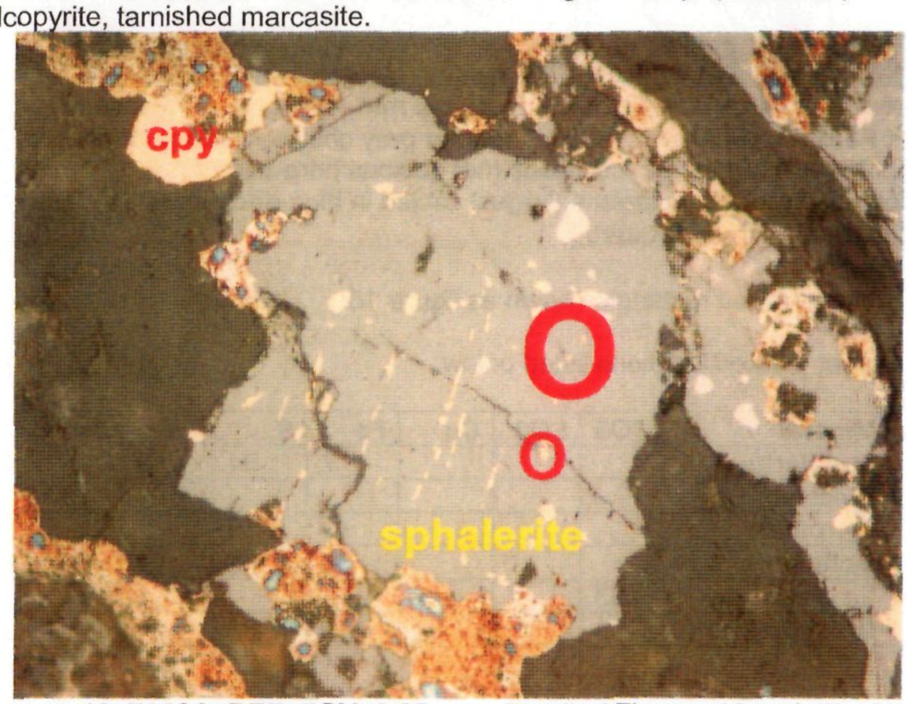

Figure 18 F866A, REF, FOV=0.25 mm. Detail of Figures 16 and 17. Grey sphalerite grain contains inclusions of yellow pyrite and 4 small grains of gold-coloured electrum (red-circled, see analysis 2 , Figure 16)

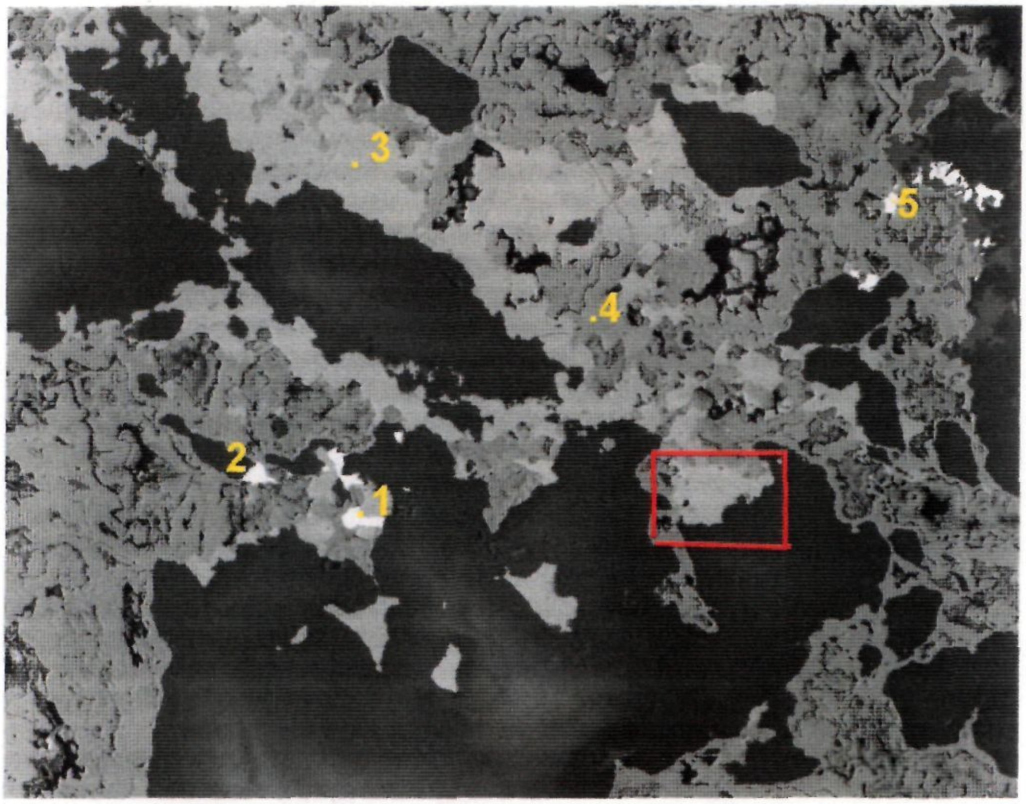

Figure 19 , F866A, area 3. BSE, FOV=1.5 mm. Mid-grey chalcopyrite (3) and sphalerite (rectangle, see detail Figure 21), with darker grey marcasite (4), and very dark silicate. Bright grains are mostly electrum (eg 1, 2) and rare tellurbismuthite (5).

Analyses below .

Site	Mineral	Cu	Fe	S	Au	Ag	Te	Bi
1	**Electrum**				77	22		
2	**Electrum**				74	26		
3	**Chalcopyrite**	33	31	36				
4	**Marcasite**		46	54				
5	**Tellurbismuthite**						41	59

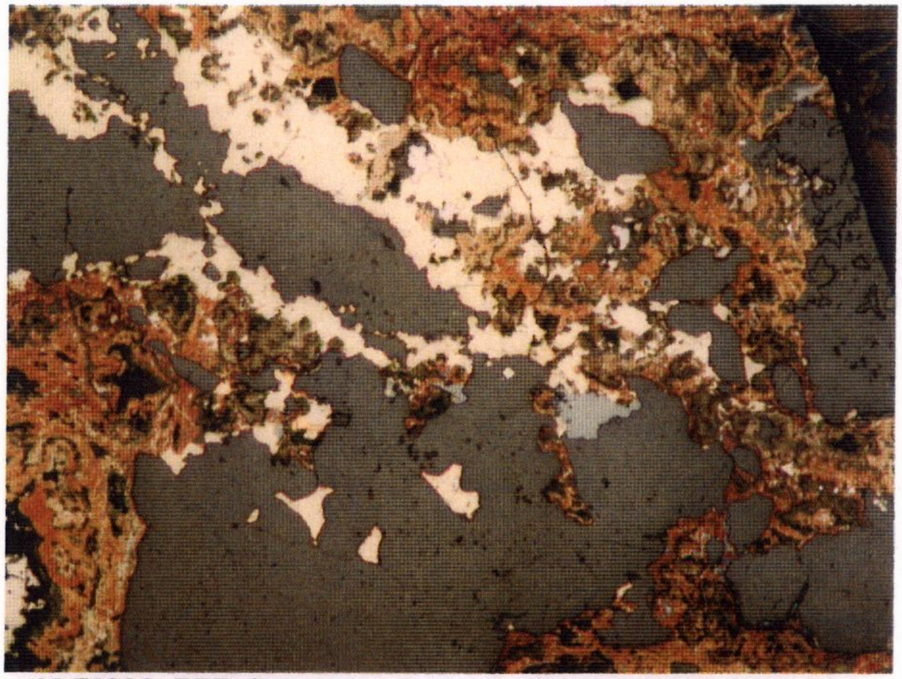

Figure 20 F866A, REF. Same area as above. Mid-grey sphalerite, yellow chalcopyrite, tarnished marcasite after pyrrhotite, yellow electrum

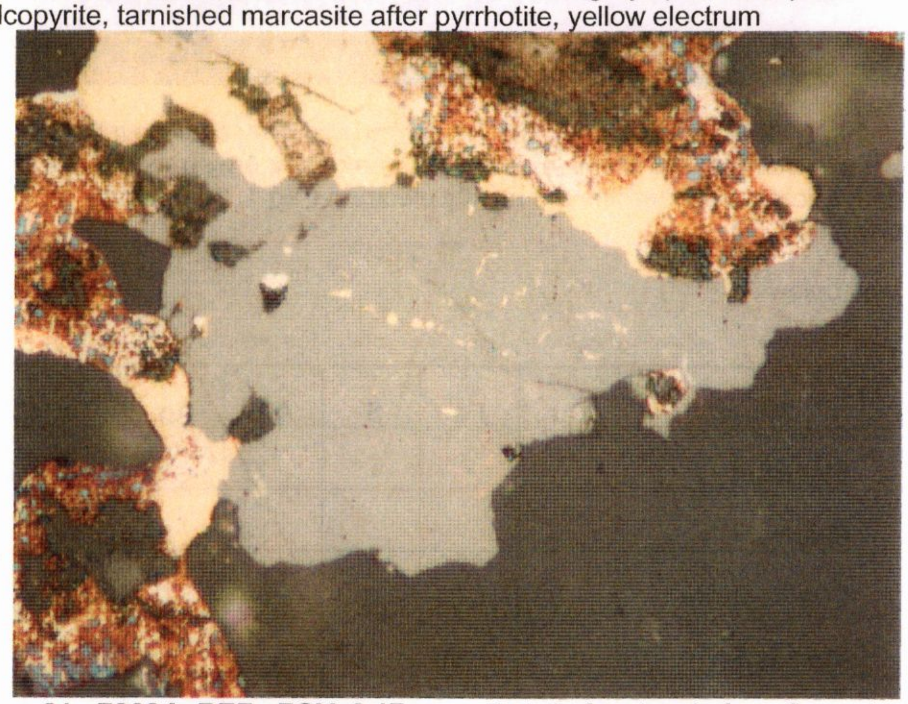

Figure 21 , F866A, REF , FOV=0.17 mm. Detail of rectangle from figure 19. Grey sphalerite with inclusions of yellow pyrite, surrounded by yellow chalcopyrite and tarnished marcasite.

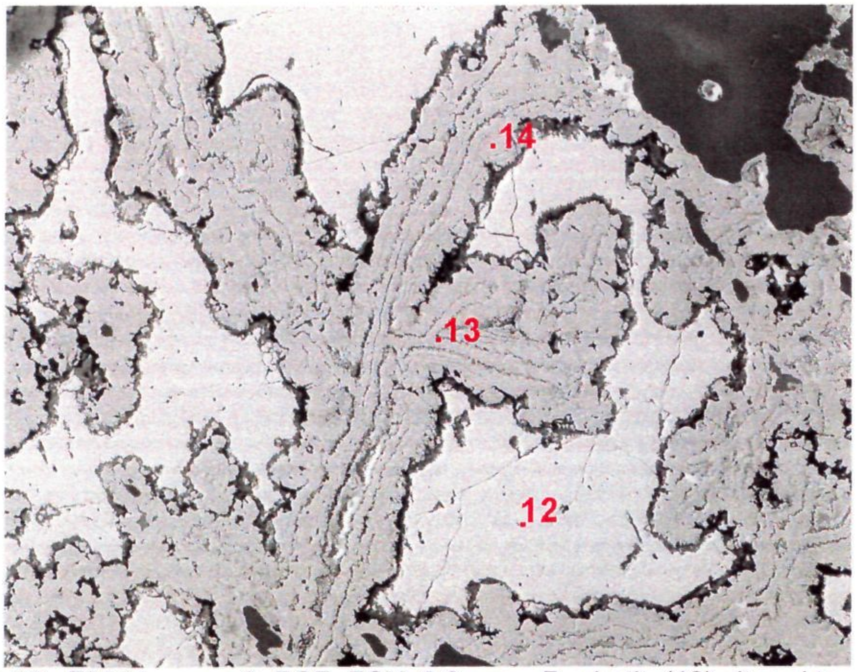

Figure 22 . F866A , area 3, BSE, FOV=2.2 mm .Pyrrhotite(12) altered to marcasite(13,14). Analyses :(**12**) S%=39, Fe=61% (**13**) S=53%, Fe=47% (**14**) S=52%, Fe=48%

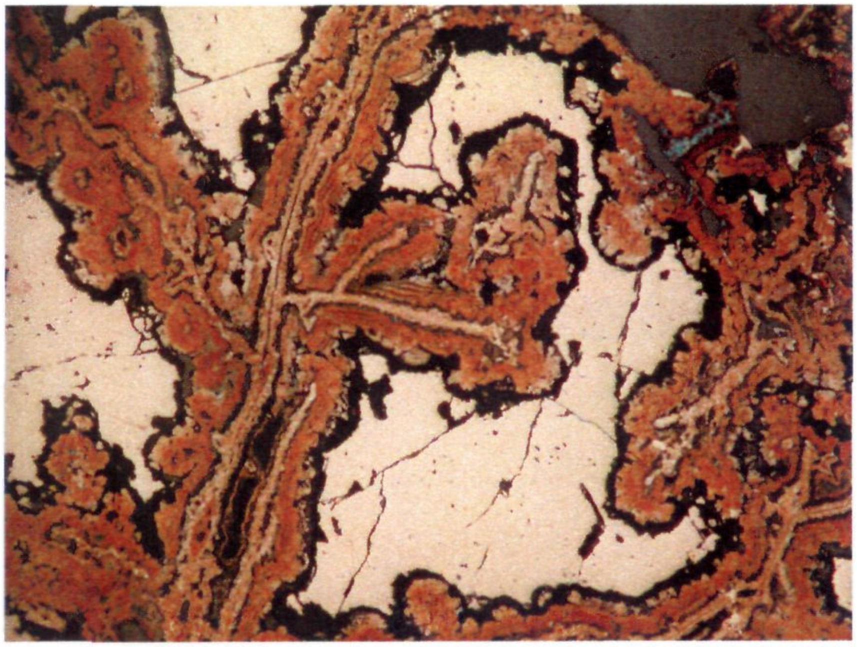

Figure 23 , F866A, REF. Same area as figure above. Pink-grey pyrrhotite altering to tarnished and yellow ?marcasite.