

## Stoney Creek Property

Field work 1987 : geology.

The rocks exposed on Stoney Creek Prop. belong to the Middle Aldridge Formation which consist of siltstones and minor mudstone layers (turbidite sequence)

(conformable)

Gabbroic sills, Moyle Sills, occur in the sequence.

### Structure

The sediments form a large gently NW plunging anticline. The sequence is cut through by a WSW-ESE trending fault - the Moyle River Fault.

The southern block is down thrown in relation to the northern one.

The faulting has led to disturbances in dip and strike directions of the beds.

Less spectacular faulting (?) can be traced on air photographs, but no geological evidence for these were found during the mapping.

### Rock types.

The dominating rock type in the area is siltstone, often argillaceous. Thin interbeds of mudstone occur. The siltstone builds up in up to meter thick beds, usually a few tens of centimeters thick. Sedimentary textures such as graded bedding, cross bedding, ripple marks and sole marks were found.

The rock is light - medium grey in colour, with dark grey, sandy interbeds. Weathered rock is grey to rusty brown. In some places the weathered surface is very rusty, mostly because of oxidized pyrite (?)

Two very pyrite-rich beds were found during the mapping (samples YK-87-95 and -180.) Pyrite make up approximately 10-30% of these about 10 cm thick beds.

The mudstone layers are a few mm's thick, usually a few centimetres. They are made up of normally mm-thick beds. The mudstone is dark grey and often rusty brown when weathered. Mudstone beds can be found throughout the formation (of minor importance)

The gabbro sills occur more or less conformably with the turbidite beds. The highest peaks are covered by a gently SE-dipping sill, a few tens of meters thick at maximum. The sill probably stretches to the NW corner of the property (S. of Moyie River)

The gabbro is dark grey and medium to coarse grained, sometimes ophitic. In the coarse grained gabbro on the mountain tops on the central-eastern side of the property pale green spots (or blebs) max 2m across occur. They were probably formed because of interaction between wet sediment and the magma. Quartz grains were found in some of these. The weathering of the gabbro is rusty in some places, especially the green parts.

A couple of silicified massive samples of siltstone were found. A certain increase in the amount of sericite is apparent

in the siltstone in some places.

Light grey fine - medium grained  $\text{SiO}_2$  rich gabbro was found near the base of the 'sill' (one location, sample #YK-87-44)

No turmaline could be identified during the field work.

The rocks north of Moyie River tend to have a more rusty weathering than the rest.

No alteration patterns could be established within this work. Plotting the results of the chemical analysis might reveal some pattern.

Silice filled joints occur all over the area in all rock types. Rusty quartz veins 10-30 cm wide were found in some places (assay samples)

Vancouver 8/7 1987  
Gunter Gromann.

COMINCO LTD.

EXPLORATION

GEOPHYSICS

July 28, 1987

File: 871-09

FILE NOTE

SUBJECT: CORRELATION - GSC LOG AND CORE DESCRIPTIONS, HOLE CHH-6423

Relogging of the top portion of Hole CHH-6423 surveyed by the GSC during 1986 was done by the staff of the Cranbrook office.

Two general comments apply:

1. There is a +50 cm discrepancy between the GSC and geology depths with the former being the deepest.
2. Individual sedimentary beds in this area are often only millimetres thick. Attempting to interpret slight compositional changes can be misleading. Beds are therefore grouped together somewhat subjectively, even though a classification is used.

QW = quartzwacke : relatively pure quartzite, >75% quartz

QcW = quartzitic wacke : more matrix, 30-75% quartz

W = wacke : 30-60% matrix (argillaceous) (also labelled AS)

M.b = medium beds : 10-30 cm thick

t.b = thin beds : 3-10 cm thick

The thicker and more quartzite rich beds show the highest resistivities (e.g., 72-73, 79.4-81.5 and especially 95.4-97.1 m, the latter carries 95% quartzwacke).

The Concentrator Hill Horizon (CHH) consists of several argillaceous siltstone (AS) beds separated by pyrrhotite/AS beds. Overall sulphides 8-10%. The semi-massive pyrrhotite beds are up to 50 cm thick.

The overall pyrrhotite concentration above the CHH is somewhat higher than below it. This is better shown in the Magnetic Suscept. log than in the IP log.

Correlation - GSC Log and Core Descriptions cont'd  
July 28, 1987

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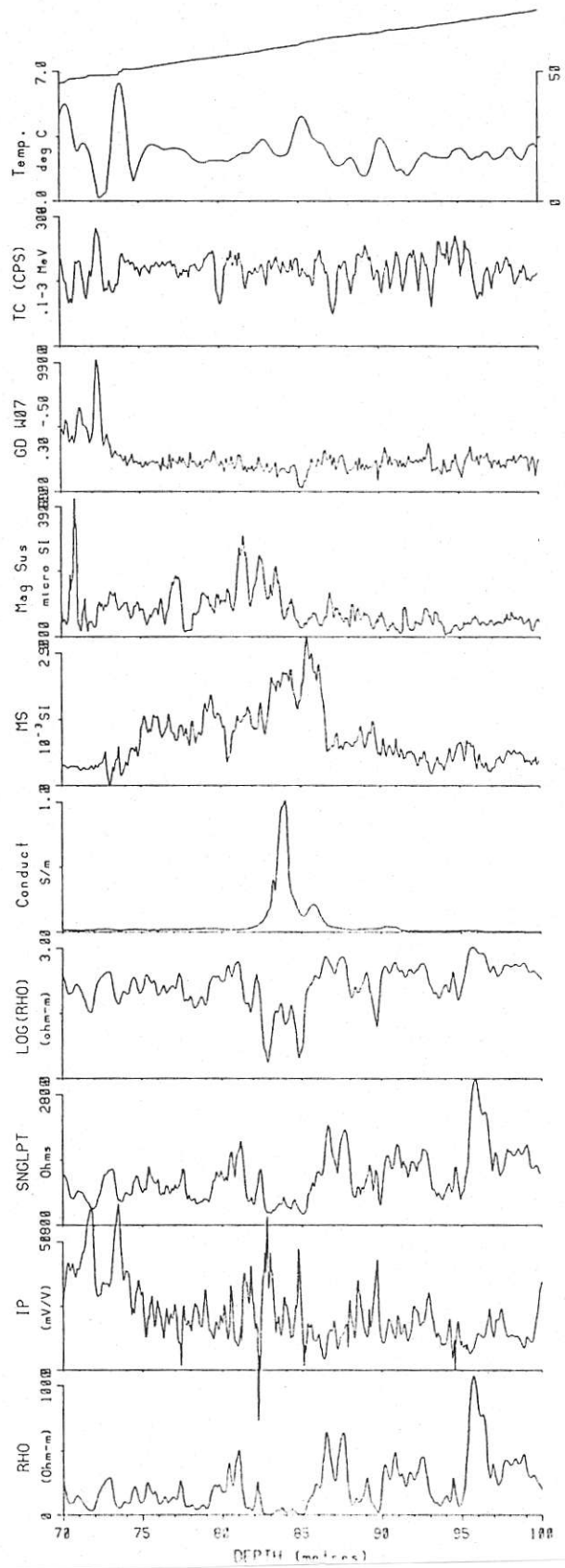
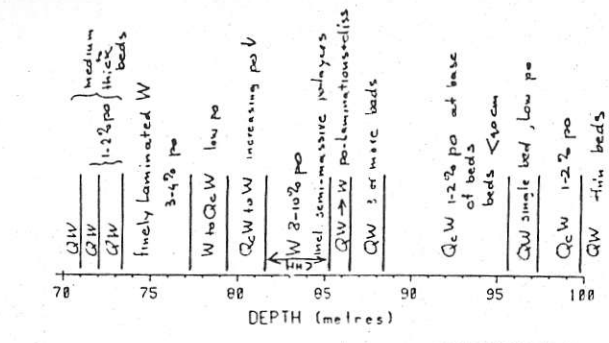
The natural gamma lows correlate as is to be expected with the quartzite rich bands (e.g., 70.5, 71.5, 73, 80, 87 and 96 m). The repetitious nature of quartzite rich and argillite rich bands is well demonstrated in the natural gamma log between 88.3 and 95.4 m.

The disseminated nature of the pyrrhotite is well shown at 71.5 m. Most pyrrhotite is, however, present as laminae.

Summary: There is a close correlation between natural gamma and percent argillite. The thicker quartzite beds also reflect in the resistivity logs. Sulphide content is well reflected in the IP and Suscept. logs. Highest IP correlate with disseminated pyrrhotite, while more massive beds respond in the conductivity log.

Jan

JK/jel



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