Harris
EXPLORATION
SERVICES

MINERALOGY AND GEOCHEMISTRY

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Report for: R.U. Bruaset,
Chevron Canada Resources Ltd.,
Minerals Staff,
1900-1055 West Hastings St.,
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Summary:

Sample RB 68 is a dark brown, fine-grained crystalline rock; one end shows a sharp gradation to a slightly coarser, amygdaloidal variety. Both textural phases (referred to as types A and B respectively) are represented in the thin section. The rock is a basalt. It contains abundant deuteric products, but the silicates are fresh and free from hydrothermal alteration or weathering effects.

Petrographic description

Type A:

Estimated mode

Plagioclase	52
Augite	10
Carbonate	20
Chlorophaeite	8
Epidote	2
Opaques	8

The dominant constituent is plagioclase, as slender, elongate prisms, 0.5 - 2.0mm, showing sub-parallel orientation (probably flow banding). There are occasional larger, more equidimensional plagioclase phenocrysts, 2.0 - 5.0mm in size. Augite forms angular pockets interstitial to the plagioclase and, less commonly, coarser grains which partially enclose plagioclases in a sub-ophitic texture. Also occurring in an interstitial mode are fine-grained (often fibrous) carbonate, a yellow amorphous material (chlorophaeite), granular epidote, and small subhedral iron oxides (0.1 - 0.3mm). The feldspars and augite appear totally fresh.

Type B:

Estimated mode

Plagioclase	60
Augite	15

Opaques		8
Amphibole (?)		2
Carbonate)		
Chlorophaeite)	filling amygdules	15
Limonite)		

Compared with type A the plagioclase is slightly coarser, more blocky, non-oriented. The augite is rather equidimensional and forms subhedral grains 0.2 - 1.0mm in size. The feldspar contains slender, pale green, needle-like crystals of what is probably amphibole. The opaque oxides are often elongate, platy, on contacts of plagioclase and augite.

The rock contains irregular shaped amygdules filled with banded colloform alternations of fibrous carbonate, golden yellow chlorophaeite, and limonite. These same minerals also occur throughout, filling angular interstices.

J.F. Harris Ph.D.

NOvember 18th, 1983