SAMPLE: 562691

SUMMARY: This sample is a strongly carbonate-chlorite-altered augite+ plagioclase-phyric basaltic pumice breccia.

HAND SPECIMEN:

This is a dark green basaltic lava breccia with fragments varying from highly vesicular to massive, up to several cm long.

THIN SECTION DESCRIPTION:

This sample is composed of numerous rather large fragments of augite+plagioclase-phyric basaltic lava that vary from almost massive to almost totally vesiculated. The rock is intensely calcite-chlorite-altered, and the original texture of many fragments is obliterated. Former augite phenocrysts are replaced by calcite and minor chlorite, and reach almost 3mm long, although their original modal abundance is difficult to estimate. Plagioclase phenocrysts were about equally as abundant, but are much smaller (mainly <1mm long) and albitized; most are totally sericitized. Most of the highly vesicular fragments were clearly pumiceous, but are now composed of calcite, chlorite in the vesicles, and rims of Fe oxide or hydroxide often rim the chlorite-filled vesicles. Thin meandering quartz veinlets are overprinted by calcite, but several generations of carbonate alteration are probably present.

This sample was a highly vesicular and glassy augite+plagioclase-phyric basaltic lava breccia or pumice breccia. An identical unit was noted in Placer hole BRD-05 near the top of the Hellyer basalt. The extensive alteration is likely due to the originally highly glassy and porous nature of the pumice breccia.