

Appendix 9d
Summary lithology Logs

(See Digital File EL20_2003_200605_14_Appendix9d.pdf)

DATE: 25 May 2006
TO: Irvine Hay
FROM: Nicholas Fitzpatrick
SUBJECT: Summary Log – NCT008.

0 – 81 m: Green patchy weak chl-ser altered feld-phyric massive andesitic lava. Feldspar phenocrysts typically medium size (1-5mm), moderately and to a lesser extent highly abundant. Includes clasts (10x10cm) of texturally variable andesitic lava, suspect derived from overlying/underlying lavas. Patchy typically ~0.5%, rarely up to 1% disseminated py.



Photo 1: Example of unit 0 – 81 m. Scale bar is 1cm

81 – 94 m: Cream grey, pervasive weak chl-ser altered, very thickly bedded, reverse graded moderately sorted, lithic rich volcanoclastic sandstone. Unit grades into cream-grey, pervasive weak chl-ser altered, very thickly bedded reverse graded, pumiceous lithic-rich volcanoclastic pebble conglomerate. Common ‘rip up’ clasts of underlying mudstone/shale. Trace disseminated py.



Photo 2: Example of unit 81 – 94 m. Scale bar is 1cm.

94 – 103 m: Black very thinly bedded, reverse graded, very fine grained mudstone. Trace py in ‘clots’ suspect diagenetic and lesser disseminated.

103 – 176 m: Green patchy weak chl-ser altered, feld-phyric massive andesitic lava as aforementioned. Feldspar phenocryst typically medium in size (1-3mm) and

moderately abundant. Feldspar phenocrysts predominantly sericitised and groundmass chloritised. Patchy typically ~0.5%, rarely up to 1% disseminated & lesser vein (\pm cb \pm Qtz) hosted py.

176 – 269 m: Green weak-moderate pervasive ser-chl \pm si \pm cb altered, massive to very thickly bedded, matrix supported, monomict coarse Qtz crystal rich volcanoclastic sandstones. Patchy typically ~0.5%, rarely up to 1% disseminated & lesser vein (\pm cb \pm Qtz) hosted py and very rare cpy.

269 – 491.7 m: Dark green grey, moderate chl-ser \pm si altered, massive to very thickly bedded, matrix supported polymictic coarse Qtz crystal rich pumiceous volcanoclastic sandstone. Qtz clasts medium in size (1-5mm), moderately to highly abundant and sub rounded. Pumice fragments subtle and not common.

–Includes 2.8 m from 331.5 m and 1 m from 347.3 m of dark green moderately pervasive chl-ser altered, medium sized moderately abundant pyx-amph phyric, with microcrystalline g/mass flow foliated andesite dyke. Patchy typically ~0.5%, rarely up to 1% disseminated & lesser vein (\pm cb \pm Qtz) hosted py and very rare cpy.

–Includes 2.6 m from 447.5 m and 1.2 m from 476 m: dark grey to black moderate pervasive to patchy chl-cb altered, feld-phyric with microcrystalline groundmass, massive flow foliated andesite lava.

Up to % amounts (369 – 371 m) of sph and lesser cpy have been intersected in milky Qtz-cb \pm chl veins & are interpreted to relate to post-mineralisation Devonian deformation.

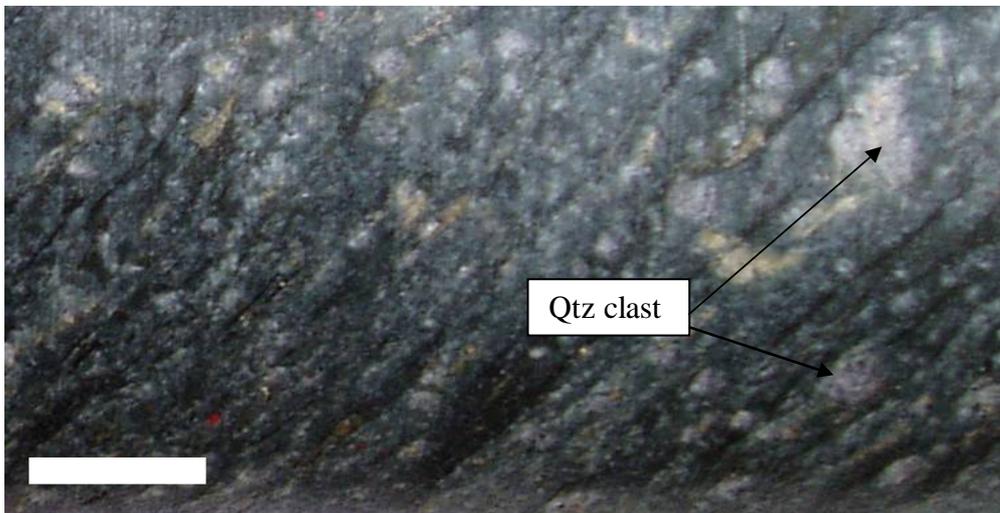


Photo 3: Example of unit 269 – 491.7 m. Scale bar is 1cm.

491.7 – 510.5 m: Dark green black weak to moderately pervasive chl-cb \pm ser altered aphanitic massive andesitic lava. Trace py and lesser cpy in Qtz-cb-chl veins. Differs from andesite intersected at top of hole, granular/sandy texture, therefore difficult to distinguish from surrounding volcanoclastics. Likely an affect of subtle pervasive chl alteration.

510.5 – 539.3 m: Dark green black, moderately pervasive chl and patchy ser altered, massive matrix supported well sorted, monomict coarse qtz crystal rich, volcanoclastic sandstone. Weak patchy kspar-he alt. below 524 m, suspect related to fault at 524m. Trace disseminated and lesser vein hosted py.

539.3 – 548.8 m: Green moderately pervasive chl and patchy ser altered, aphanitic massive andesite lava. Trace rarely to 1% disseminated and lesser cb vein hosted py and lesser cpy.

548.8 – 569.65 m: Pale green mod patchy ser-chl ± si altered, massive sub rounded clast supported well sorted coarse qtz crystal rich, monomict volcanoclastic sandstone and rare granule conglomerate. Trace disseminated py, note decreasing down hole.

569.65 – 604.4 m: Green moderately pervasive chl altered massive to very thickly bedded ?reverse graded sub angular clast supported monomict lithic-rich fine grained volcanoclastic sandstone. Note differing composition (not qtz-phyric), alteration assemblage and finer grain size to surrounding sandy units. Rare trace disseminated py.

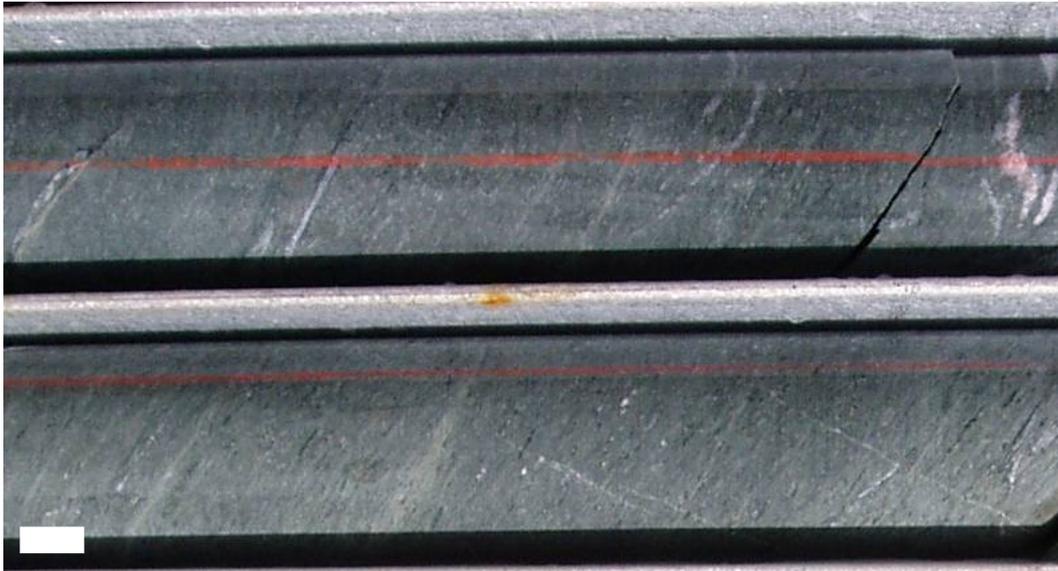


Photo 4: Example of unit 569.65 – 604.4 m. Scale bar is 1cm

604.4 - 665 m: Pale to dark green moderate to weak pervasive chl and patchy ser altered massive sub rounded clast supported well sorted monomict coarse qtz crystal rich volcanoclastic sandstone. Becoming slightly polymictic with depth through addition of rare qtz-feld and cb clasts. Includes a 2.3 m from 611.3 qtz-cb-rf-chl-cpy-py vein and a 3.7 m from 665 m qtz-cb-rf-py vein. Trace disseminated py.

665 – 698 m: Pale to dark green moderately pervasive and patchy ser ± cb ± alb altered massive ?normal graded sub rounded clast supported coarse crystal rich pumiceous volcanoclastic pebble conglomerate to sandstone. Rare ~1cm pumice clasts now altered to ser. Includes 5.4 m from 672 m qtz-cb-rf veins. Trace disseminated and cb vein hosted py.

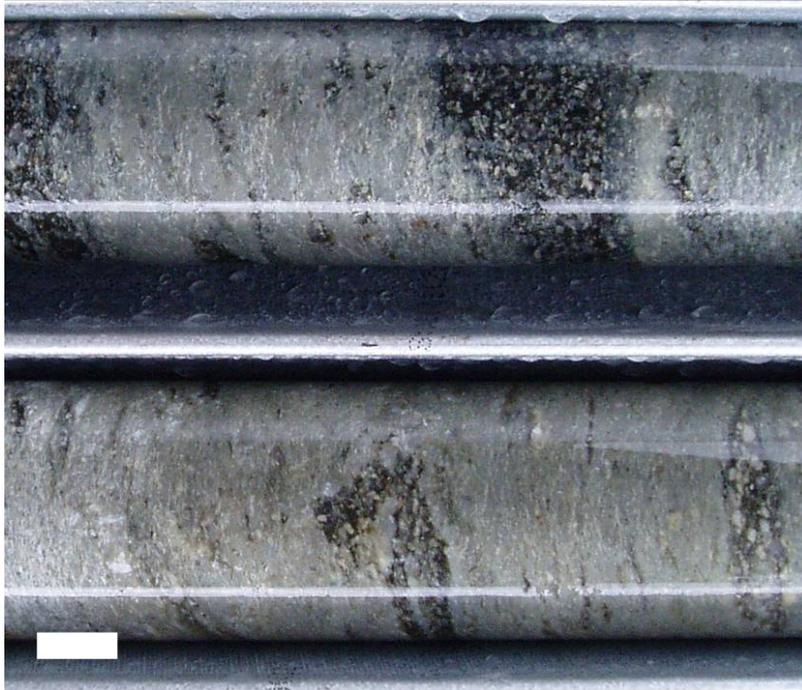


Photo 5: Example of unit 665 – 698m. Scale bar is 1cm

698 – 701.2 m (EOH): Green moderately weak pervasive ser-cb \pm chl altered massive sub angular clast supported ?monomict lithic rich volcaniclastic sandstone. Note not qtz phytic. Trave cb vein hosted py.

The most noticeable difference between this hole and those mineralised to the north (GAR001 and GAR002) is the lack of moderate to strong schistose ser alteration and accompanying Cu mineralisation. Therefore NCT008 supports the major fault as interpreted by RGC in the 1980's to have displaced mineralisation. The displacement amount and direction remains unknown. Much of the volcaniclastic units were judged to be of Tyndal Group due to the high quartz component.