The first phase of explosive activity is followed by continued deposition of ~40m of sand sized sedimentary material, which appears to contain a fairly large percentage of volcanic material, consisting of pumiceous fragments, crystals and lithics. These are interbedded with and grade into fine sands and siltstones. These sand units appear to be tubiditic in origin, with graded bedding being common. Bed thicknesses usually average ~1.0m, with some considerably thicker units. The massive nature of these thicker units may be a function of silicification obscuring the original depositional texture.

The next indicator of a change of volcanic style is found at and ~42.5 m. It is represented by the deposition of several thick mud supported volcaniclastic breccias. The first of these occurs at 42.5 m and consists of mud supported clasts of feldspar and quartz phyric sericite altered pumice. The matrix is also rich in fragmented crystals and lithics. This unit is ~2.0m thick, and is followed by 1.0m of black shale with a thin lens of crystal sandstone. This is followed by a 14.0m thick interval of crystal pumice breccia. Examples of these units are shown in figure 5. An interval of 4.0m consisting of black shales and crystal lithic sandstones is overlain by 14.0m thick unit of similar appearance.

The major volcanic components of these breccias are large, poorly vesicular pumice clasts (up to 20cm thick in core) with large feldspar and fractured quartz crystals. These units are distinctive in that they contain intensely fractured embayed quartz grains (fig. 6), both as individual disaggregated fragments, and as whole original grains with internal fracture patterns. These grains may be useful in that they appear to be confined to these thick mass flow units and so represent good stratigraphic marker horizons. The embayments and rounded edges of the grains truncate fractures, implying that fracturing has occurred before or during the resorption of the grain boundaries within the magma chamber. The regular shape of the fragments and the lack of crystallographic lattice misorientation across grain boundaries suggests that fracturing has occurred in an isotropic stress field. The fractures are probably the result of thermal shocking of xenocryts incorporated into the magma chamber or conduit. This is further supported by the presence of glassy magmatic material within some of the larger fractures.

These units are frequently matrix supported, indicating a mass flow mode of deposition, although in places they are clast supported. The units may vary considerably in their appearance, corresponding to the amount of mud matrix . This feature may be in part due to alteration of the matrix to give a more massive appearance. Examples of these differing textures are shown in figure 7.

Another feature of the depositional style of this lower part of the sequence is the presence of large mudstone intraclast breccias with shale clasts of up to 20cm in diameter (e.g. at ~43m in HL62). These units may be up to 1m thick in core. They usually contain some fraction of sandy material as matrix, and represent disruption of the basin floor. This is possibly caused by volcanic related seismic activity, or