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The purpose of the grid was to permit uniform geophysical and geochemical coverage of the prospective Wart Hill Pyroclastics. Grid lines were spaced at 200m intervals for dipole-dipole IP coverage and to permit a 200m x 25m soil sampling density.

The gridded area is low lying and has a southerly sloping surface which has been dissected by southerly flowing creeks, the major one being Stoney Creek in the central part of the grid. Remnant Tertiary gravel terraces can be observed in the south-eastern quadrant of the area. Vegetation cover is sparse and mainly restricted to open button grass plains promoting easy access throughout the area.

The geology will be described from the east to west since the balance of evidence suggests the whole sequence is westerly facing and dipping. On the eastern margin of the grid adjacent to the main lighthouse track a sequence of massive porphyritic lavas outcrop extensively. At least two lava units are present, the most easterly is a medium-grained biotite-quartz-orthoclase? porphyry. Euhedral quartz-feldspar crystals, up to 3mm in diameter are set in a fine-grained, creamy-buff groundmass. Black biotite flakes form up to 10 modal % of the rock. The feldspars are commonly sericitised and rodded defining a southerly plunging lineation. The lava crops out on the eastern part of the area between 8600N and 8200N and has a conformable, but locally faulted, contact against a homogeneous bedded fine-grained crystal tuff.

The tuff unit attains a maximum thickness of 200m and is overlain to the west by another, more leucocratic, porphyritic lava. In this unit the biotite content is lower compared to its eastern counterpart. It extends onto the V22 grid to the north and was also observed to the south of the gridded area making a minimum strike length of 3km. Outcrop width varies from 1km to 200m with an overall thickening to the south. However, due to the isolated outcrops of tuffaceous material it is probable the lava has interbedded 'pyroclastic phases' which is characteristic of the massive lavas on the V19-V29 grids. Quartz lapilli crystal tuffs and chloritic quartz crystal tuffs increase in volume towards Stoney Creek.