

TRIA-111

## 24. Drainage problems at the Area School, Collinsvale

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At the request of the Education Department a brief geological examination of the area in the vicinity of the school was carried out on the afternoon of 5 September 1969. The Department wished to establish if the rocks underlying the school grounds were suitable, when shattered by explosives, for underground drainage and for the disposal of the sullage water and sewerage from the school and the headmaster's residence.

### GEOLOGY

The area is underlain by interbedded mudstone and subordinate siltstones of Permian age. The mudstones weather to a puggy clay which overlies the sediments.

Siltstones and mudstones are poorly exposed in the road bank opposite the school where they are overlain by 3-4 ft of clay with angular blocks of sandy siltstone. Mudstone interbedded with sandy siltstone is well exposed in another road bank 220 yd W of the school. There are boulders and possibly small outcrops of sandy siltstone in the school playground. A water-saturated grey clay is exposed in some deep drains along the Collinsvale Road, and in the driveway to a homestead, N of the school.

The sandy siltstones, which are muddy and ill-sorted, have a low porosity and permeability, whereas the mudstone and clay are impermeable. Little jointing occurs in either rock type.

### UNDERGROUND WATER

The school grounds are situated on the break of the slope where the steep valley sides flatten to form the floor of the Collinsvale valley. Seepages were found at several places at this change of slope; it appears that the water table has risen to ground level in the school grounds in the present wet winter.

### CONCLUSION

The use of explosives is unlikely to improve the underground drainage. Any improvement would be temporary since cracks would soon become sealed by clay.