

Quarry Site, Lenah Valley.

An examination was made of the area adjacent to and south of the present quarry site to determine if suitable geological conditions exist to resite the quarry workings away from the built up area and to give better working conditions.

Dolerite occurs outcropping over most of the area and where bedrock could not be seen trenches were cut by bulldozer to expose the underlying rock. Examination of these trenches shows that dolerite was encountered in all but one trench which is in Triassic sandstone and mudstone. This trench is approximately 200 feet south of the weather-board house shown on the plan and from the sandy nature of the soil developed on this type of rock the zone of sedimentary rocks can be traced NW until they pass out of the area just north of where the power line crosses the boundary.

The exact boundary between the dolerite and the sediments is difficult to establish as dolerite scree from the higher ground obscures the actual contact. As no trenches have been dug across this contact it is not possible to tell if the contact is an intrusive or faulted one. Depending on the nature of this contact, there are many possible interpretations of the geology of the area. Three such interpretations are shown on the accompanying section.

Figure 1. In this the sandstone block is shown as the result of faulting of the sediment into the dolerite sill. The faults are shown nearly vertical and if this is the case here then only a limited amount of sediment is present and the reserves of dolerite are adequate for future quarrying.

Figure 2. In this the block of sediment is shown detached from the once overlying Triassic strata and now forms a raft of sediment within the dolerite sill. If this is what has happened then the extent of the sediment under the dolerite is unknown and it may be much more extensive than is shown by surface outcrop.

Figure 3. Here the dolerite is shown as a faulted sill. This would have little effect on quarrying operations unless quarrying was later carried on to the SW of the house shown on the plan. Then the dip of the sediment would determine the amount of dolerite available in this area.

It must be emphasized that these are only three possible interpretations and the actual relationship may be one of these or a combination of them, it being impossible to tell from the present exposures.

To prove the extent of the dolerite in the area east of the semi permanent water hole it would be necessary to put in a drill hole to the depth of the lowest proposed quarry floor. One hole would probably be sufficient if no sediment is encountered.

Similarly it is considered that two more drill holes would be necessary in the SW of the area if it is intended to quarry in this area.

R Jack
(R. Jack)
GEOLOGIST.