Warning:

Do not climb into the small hole behind the safety fence on the surface. This small hole frequently contains leaf-litter and branches which can partly hide a dangerous hole above a 10 m drop into the main cave. The main cave can be entered by following the walking track south and then doubling back into the entrance.

Note that although you can view the first part of the cave by natural light from the entrance, you should bring a strong torch if you want to travel through it or see the detailed structures of the lava layers on the walls.

The floor of the cave has a lot of damp slippery rubble and there is no formed track. So move carefully and keep your children under control.

As your eyes adapt to the twilight you will notice a greenish tinge to the rocks. A range of small plants are managing to survive on the limited light that comes through the entrance. These include small ferns, mosses, liverworts and algae. You will see that there is a marked change in colour from green on the sides facing the entrance to black on the shaded side.

Features of the cave.

As you approach the entrance note the contorted lava layering on the wall to the left. This is the result of slumping of the layers while they were still hot and soft. Inside the cave you will see further examples of these wrinkled layers where blocks have broken away from the walls. Look up at the roof. The walls come together at a sharp angle and in places leave a narrow slot where the banks did not quite meet as they grew together. It is this angular arched roof that gives the cave its other name: *Gothic Cave*.

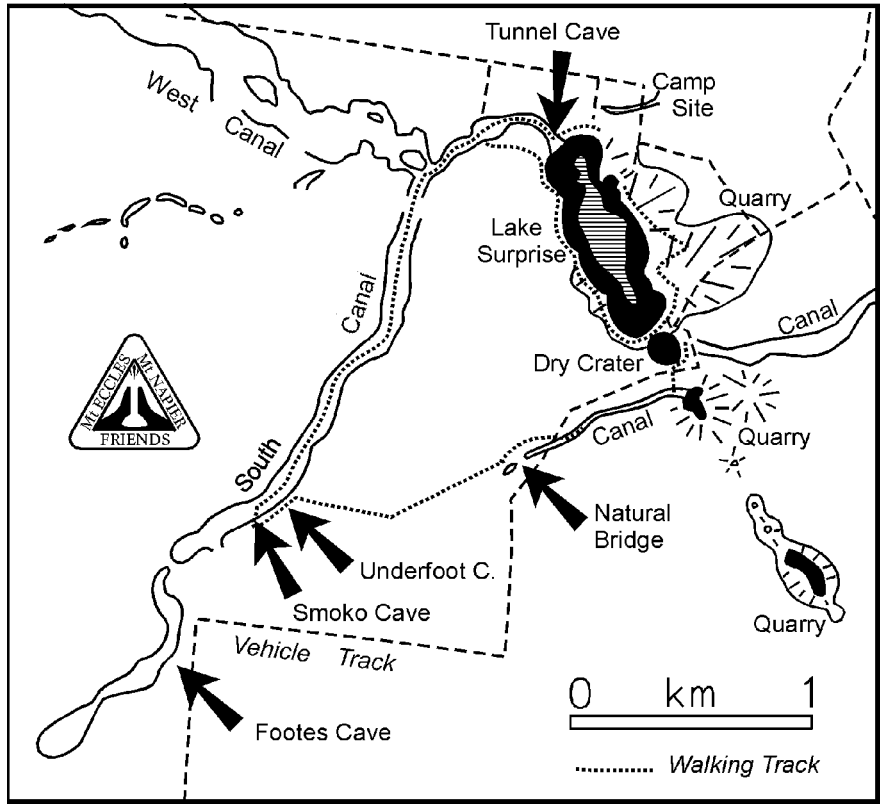
Near cross-section X4 the wall has a smooth surface with scattered horizontal grooves. These formed where slabs of crust, floating on a past lava stream, have scraped against the soft lava lining on the wall.

Produced by the Friends of Eccles and Napier,
PO Box 591, Hamilton, Vic 3300. *March 2000*

NATURAL BRIDGE MOUNT ECCLES

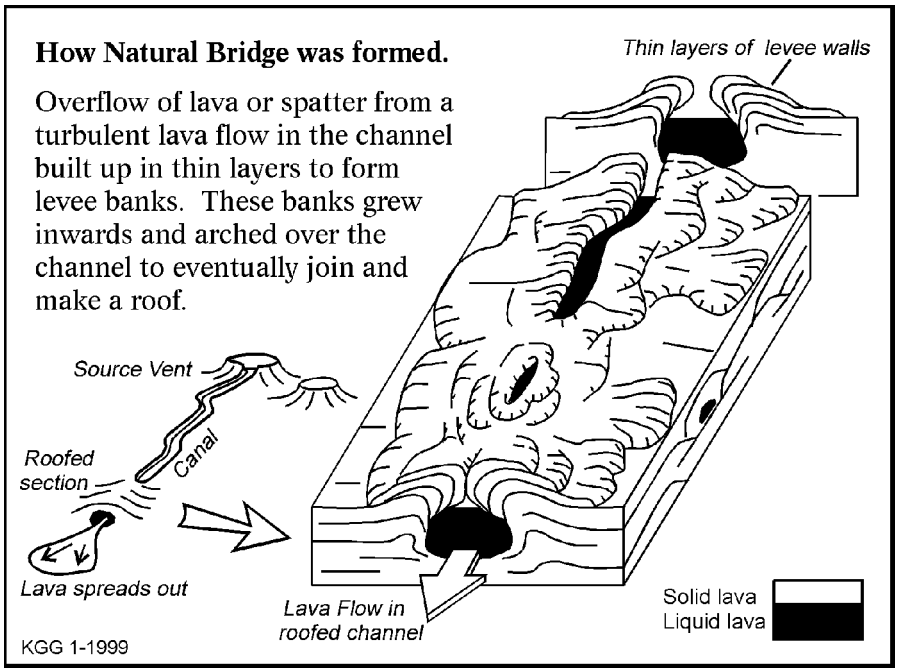
Compiled by Ken Grimes for the Friends of Eccles and Napier

Natural Bridge is a small but interesting cave found at the far end of a small lava channel (or canal) south of Mount Eccles. A walking track follows the channel from its small source vent down to the cave, and this is the most interesting approach. Alternatively, you can drive along a dirt road and park 100m from the cave. In the final section the channel become more narrow and deeper and eventually becomes roofed over with lava to form the cave. From the far side of the cave the walking track continues across to the South Canal and one can return to Mount Eccles by that route.



The origin of the Cave.

The cave formed by a special type of roof development - different from that of Tunnel Cave (described in a separate leaflet). Here the lava flow appears to have been more turbulent or more variable in height and so we had a lot of splashing and periodic brief overflows of the channel. These built up levee banks composed of successive thin sheets of lava. As the sheets accumulated they not only built upward but also spread inwards from the edges until they eventually met to form a roof over the lava stream. While the layers were still hot and soft they sagged downwards into the cave and we can see these wrinkled layers exposed where parts of the cave walls have fallen away. Molten lava continued to flow in a tunnel left beneath the crust and, at the end of the eruption, that liquid partly drained away from the end of the channel to leave the cave we now see.



The cave environment

Cave environments are characterised by darkness, dampness and a stable temperature with little air movement. In a small cave such as this the light from the entrance prevents complete darkness. The cave generally has a pool of cool air, most noticeable in summer.