

TR9-121-122

18 FOUNDATION INVESTIGATIONS FOR PROPOSED EXTENSIONS AT CADBURY'S FACTORY, CLAREMONT

by W. R. Moore

Ten test pits and four diamond drill holes were put in to examine the foundation conditions for a proposed extension to Cadbury's factory. The excavations and drill holes revealed a sequence of buried soil, gravel and clay underlain by Tertiary basalt (Figure 31).

The following generalized sequence was encountered in the test pits.

	Thickness.	Age.
Soil	4"-6"	Reclaimed ground
Gravel and sand	4"-12"	
Original soil layer	6"	Recent
Sub-soil horizon of brown organic clay	12"-2' 6"	Recent
River terrace gravel and sand (trenches 1 and 4)	4"-1' 8"	Pleistocene- Tertiary
White grey-green clay	3' 4"-7' 6"	
Basalt (trenches 1, 2 and 3)	1'-3'	Tertiary

The sub-soil horizon of brown clay contains a high proportion of organic material, occasional pebbles and thin gravel lenses. This horizon grades downwards transitionally into the underlying terrace gravels. The gravels are composed of well rounded, poorly sorted cobbles and pebbles averaging 1 to 3 inches in diameter but occasional larger boulders are also present. The pebbles are mainly of quartzite of varying colours but jasper, black slate and chert pebbles also are present. A few fragments of fine-grained dolerite or basalt, deeply weathered angular fragments of Permian siltstone and some weathered boulders of Triassic sandstone were also noted. The matrix of the gravel consists of coarse quartz sand and in trenches 1 and 4 fine, well sorted quartz sand 6-18 inches thick was encountered below the gravel bed.

Mottled white and green clay and silt occur sometimes separated by a sharp break and elsewhere transitionally below the gravel. This layer has been deeply oxidized and the original texture has been obscured. It may be a transported clay, a tuff bed, or basalt weathered in situ. Weathered basalt was encountered beneath this layer in trenches Nos. 1, 2 and 3.

Four diamond drill holes were put down to give information as to the thickness and distribution of the basalt and to determine the elevation of the top of the unweathered rock. The results of this drilling are summarized below.

Hole No. 1—

0-11'	Test pit
11'-11' 6" (approx.)	Sand
11' 6"-37' 8"	Irregularly weathered vesicular basalt.

Hole No. 2—

0-6'

Gravel—quartzites and dolerite fragments up to 1½".

6'-10' 4" (approx.)

Weathered basalt or tuff.

10' 4"-14' 3"

Poor recovery—8" of gravel composed of chalcedony, quartzite, silicified wood followed by 5" of basalt.

14' 3"-37' 4"

Weathered vesicular basalt becoming fresher at depth.

Hole No. 3—

0-11'

Test pit.

11'-11' 9" (approx.)

Pebbles of quartzite and 2" of travertine.

11' 9"-13' 7"

Weathered basalt or tuff.

13' 7"-26'

Weathered vesicular basalt, with zeolites and limonite along joints.

Hole No. 4—

0-10'

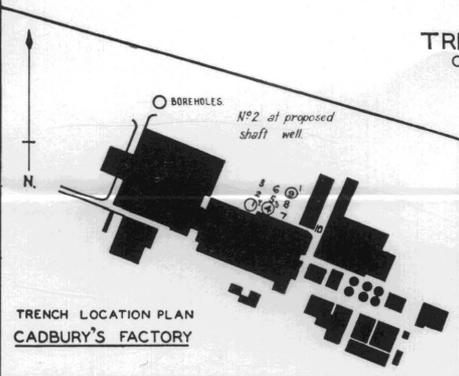
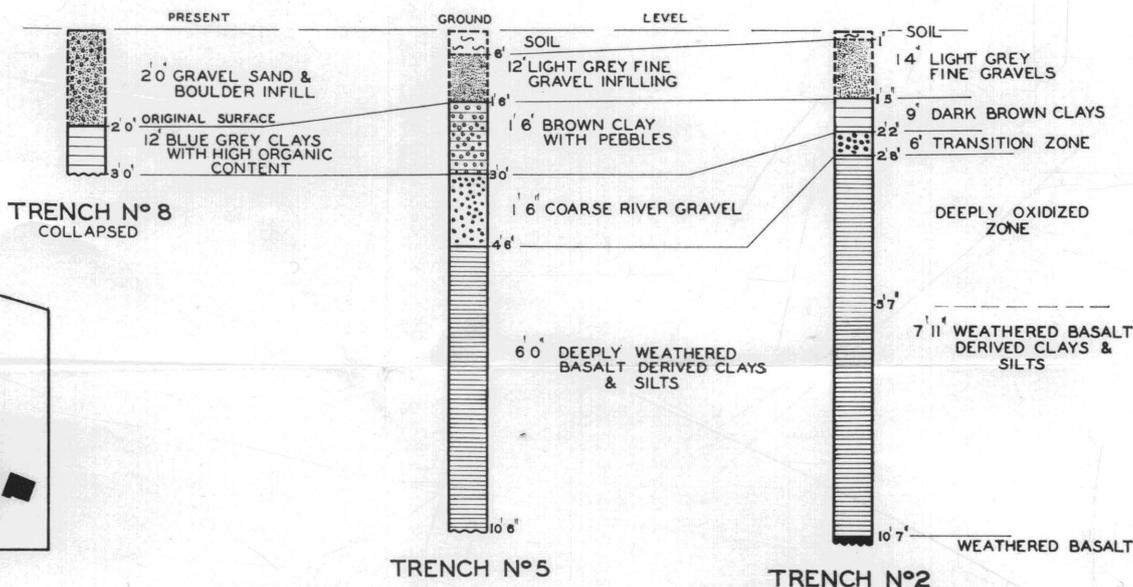
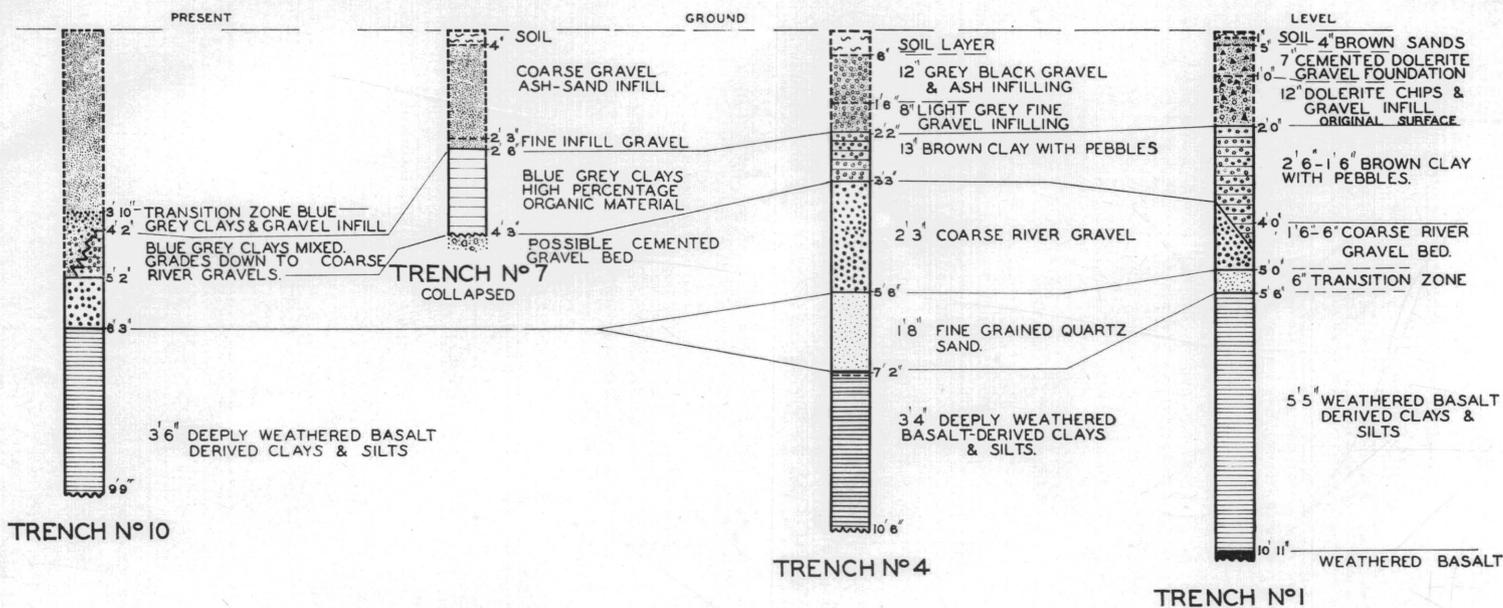
Test pit.

10'-11' (approx.)

Gravel and travertine.

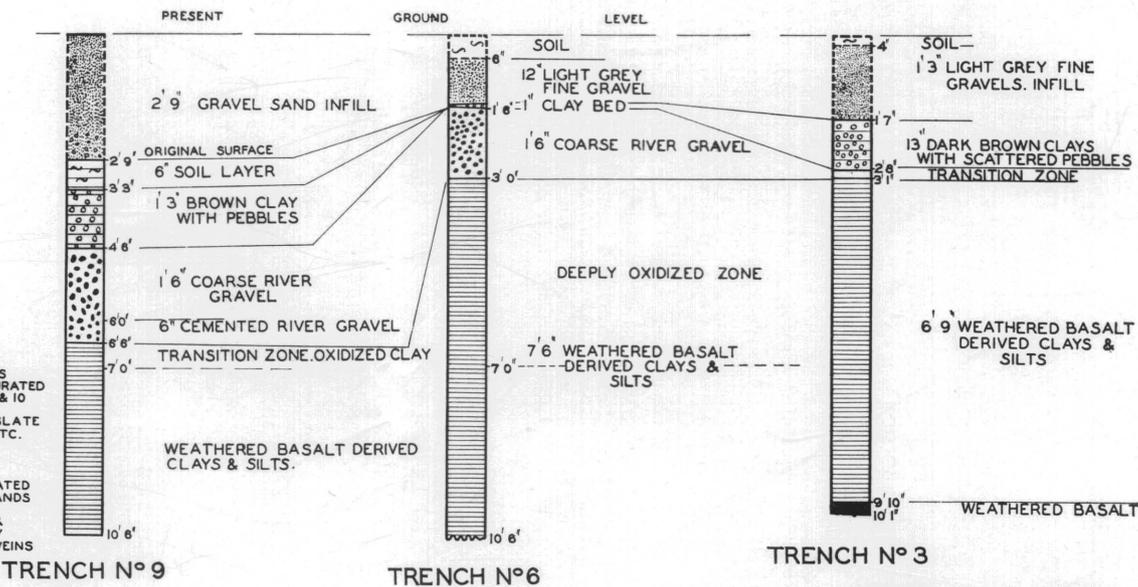
11'-27' 3"

Slightly weathered vesicular basalt.



LITHOLOGY

- INFILL SOIL
- INFILL SAND
- INFILL GRAVEL
- ORIGINAL SOIL HORIZON
- BROWN CLAY WITH HIGH PERCENTAGE OF ORGANIC MATERIAL. OFTEN CONTAINS PEBBLES. CORRELATED WITH WATER SATURATED BLUE-GREY CLAY IN TRENCHES N° 7, 8 & 10
- COARSE RIVER TERRACE GRAVELS OF SLATE, DOLERITE, QUARTZITE, GRANOPHYRE, ETC.
- FINE QUARTZ FELDSPATHIC UNCONSOLIDATED SANDS
- FLECKED WHITE & GREY GREEN CLAYS & SILTS WITH MAGNETITE FLECKS - DEEPLY WEATHERED FELDSPATHIC & ZEOLITIC VEINS PRESENT. ALSO BASALTIC VESICLE TYPE OF TEXTURE APPEARS PRESENT. CARBONACEOUS REMAINS COMMON
- BASALT: HARD & PARTIALLY WEATHERED BUT RETAINING VESICULAR TEXTURE



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DEPARTMENT OF MINES - TASMANIA	
LOGS OF EXPLORATORY TRENCHES AT THE SITE OF EXTENSIONS AT CADBURY'S FACTORY TASMANIA	
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