

TO DIRECTOR GENERAL

THROUGH CHIEF ENGINEER.

Foundation of proposed Hotel Building Corner Liverpool Street and North Terrace, Adelaide.

After discussions with the Deputy Director and Mr. Farrent, Department of Civil Engineering, University of Adelaide, Mr. G. J. H. Kingsbury, Assistant Geologist was directed to supervise drilling and log samples from foundation bore.

Drilling logs and contents are attached for forwarding to the Architects.

Copies have been made for

File

Re order

Engineering Geology and Mineral Resources Section
Department of Civil Engineering (Mr. Farrent) Mr. Farrent is consultant to the Architects, Messrs. Macoll & Macoll, 163 North Terrace, Adelaide.

Graham Whitten
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SENIOR GEOLOGIST.

Engineering Geol. and Mineral Resources
Section.

OFN/JAN.
7.4.55.

FOUNDATION TEST BORED HOLE AND BORER BIT LOG.

Corner of North Terrace, Liverpool Street, Adelaide.

Allotment 101' (N-S) x 96' (E-W) on south west corner of North Terrace and Liverpool Street.

Holes were bored by 4 inch hand auger under supervision of C. J. R. Kingsbury Assistant Geologist, who also logged the samples (7 and 8 February, 1955).

Moisture contents were determined by the Civil Engineering Department of the University (Mr. F. A. Verrent) and are expressed as a percentage of the dry weight of the sample. In logging, the moisture content has been expressed as "Dry, damp, moist, wet", by visual inspection only.

No. 1. Bore.

Length 17½'

Location: 26' from South boundary
13' " East "

Footage		Geological Description	Moisture Content		
From	To		Visual	Footage	%
0	1	Red brown friable clay loam	Dry		
1	4	Friable limy mallee clay	Damp	3'	21.5
4	5½	ditto, becoming stiffer	"	5'	23.0
5½	7	Grey brown mottled clay, stiff. Shows shiny cleave & planes and some ironstone nodules	Damp		
7	9½	ditto - no nodules. Moist below 8'	"		
9½	13	Red and white mottled clayey sand, becoming yellow in depth	"	10'	13.5
13	14	White sand, less clay	Moist	13'	6.7
14	17½	Lumps of concretion at 14, 15, 17 in white clayey sand. Less clay with depth.	Damp	17½'	8.1
17½	17½	Hard stone (sandstone?) Used chopping bit.			

Hole abandoned as too hard.

2½' of water entered the hole over-night (heavy rain) and was probably rainwater as no seepage into the hole occurred during 4 hours after bailing out.

Suggested foundation depth 10'

No. 2. Bore

Length 27'

Location 18' from North Boundary
14' from West "

Footage		Geological Description	Moisture Content	
From	To		Visual Footage	%
0	1	Hard ground		
1	4	Limy malice clay	Damp	4 24.4
4	5	ditto, becoming stiffer	Damp	
5	8	Stiff grey brown mottled clay Shows silty cleavage planes and some iron stone nodules. Becoming sandy after 7'	Damp	7 22.4
8	10	Stiff range very clayey sand. Less clay below 9'	Damp	9 12.0
10	11	Yellow-orange clayey sand becoming red and white in depth.	Damp	
11	20	Pale pink and white clayey sand becoming patchy, yellow, red and white	Damp	15 6.2
20	21	Orange sand little clay	Wet	20 11.0
21	22	Red and white clayey sand	Moist	22 14.9
Hole stopped over-night (heavy rain) Water rose to 20'.				
22	24	White and yellow clayey sand	Wet	
24	26	Sandstone lumps in compacted sand. Hard boring. Red and white bands 1/2" + in thickness.	Wet	
26	26	Sandy clay, brown, very stiff.	Moist	
26	27	Compact red sand	Moist	26 11.9

Hole stopped at limit of tools.

Hole estimated to take 1/2 gallon water/hour rising to 20'.

No taste of salt or smell of sulphides.

Suggested foundation depth 10'

No. 3. Hole Length 16'

Location 23' from South Boundary
11' " East "

Footage		Geological Description	Moisture Content	
From	To		Visual Footage	%
0	1	Hard ground		
1	3	Limy malice clay	Damp	3 24.4
3	5	ditto - more lime	Damp	

5	6	ditto - more clayey and grading into friable sandy clay.		
6	7	Stiff sandy limy clay	6	26.2
7	9	Very stiff slightly sandy, grey-light brown mottled clay showing shiny cleavage planes	Damp 8	25.0
9.	10	Stiff range sandy clay	Damp	
10	11	Orange and white very clayey sand.	Damp	
11	16½	Orange and white clayey sand	Damp 12	9.8
			15	7.0
			16½	9.3

Hard band at bottom. Hole stopped through lack of time.

Suggested foundation depth - 11'

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