UR1973_25

Location of sewerage treatment lagoons at Richmond.

W.C. Cromer

The Richmond Council requested an investigation of the suitability of two proposed sewerage treatment sites on L.J. Lazenby's property, 'Lowlands', at Richmond. It is proposed that the treatment of sewerage be done by means of oxidation lagoons, and it is desirable that the site finally selected would allow no infiltration of material through the subsoil. Seven holes ranging in depth from 1.5-2.0 m were drilled by the Department of Mines; two holes were sunk on the more northerly site nearest the township, and five on the southern site. Permeability tests were carried out on each.

DRILLING RESULTS

The following logs were obtained:

	Depth (m)	*Description*
Hole A	0-0.75	Black loamy clay.
	0.75-1.0	Brown clay.
	1.0 -2.0	Yellow clayey sand.
Hole B	0-0.70	Black loamy clay.
	0.70-2.0	Yellow clayey sand.
Hole C	0-0.75	Black loamy clay.
	0.75-2.0	Light brown clay.
Hole D	0-0.60	Black loamy clay.
	0.60-1.1	Light brown-grey clay.
	1.10-1.3	Yellow clayey sand.
Hole E	0-0.75	Black loamy clay.
	0.75-0.90	Light brown clay.
	0.90-1.5	Clayey sand (decreasing in clay content with depth).
Hole F	0-0.6	Black loamy clay.
	0.60-1.5	Light brown clay.
Hole G	0-0.75	Black loamy clay.
	0.75-1.5	Light grey clay.
	1.5 -1.7	Sandy clay.

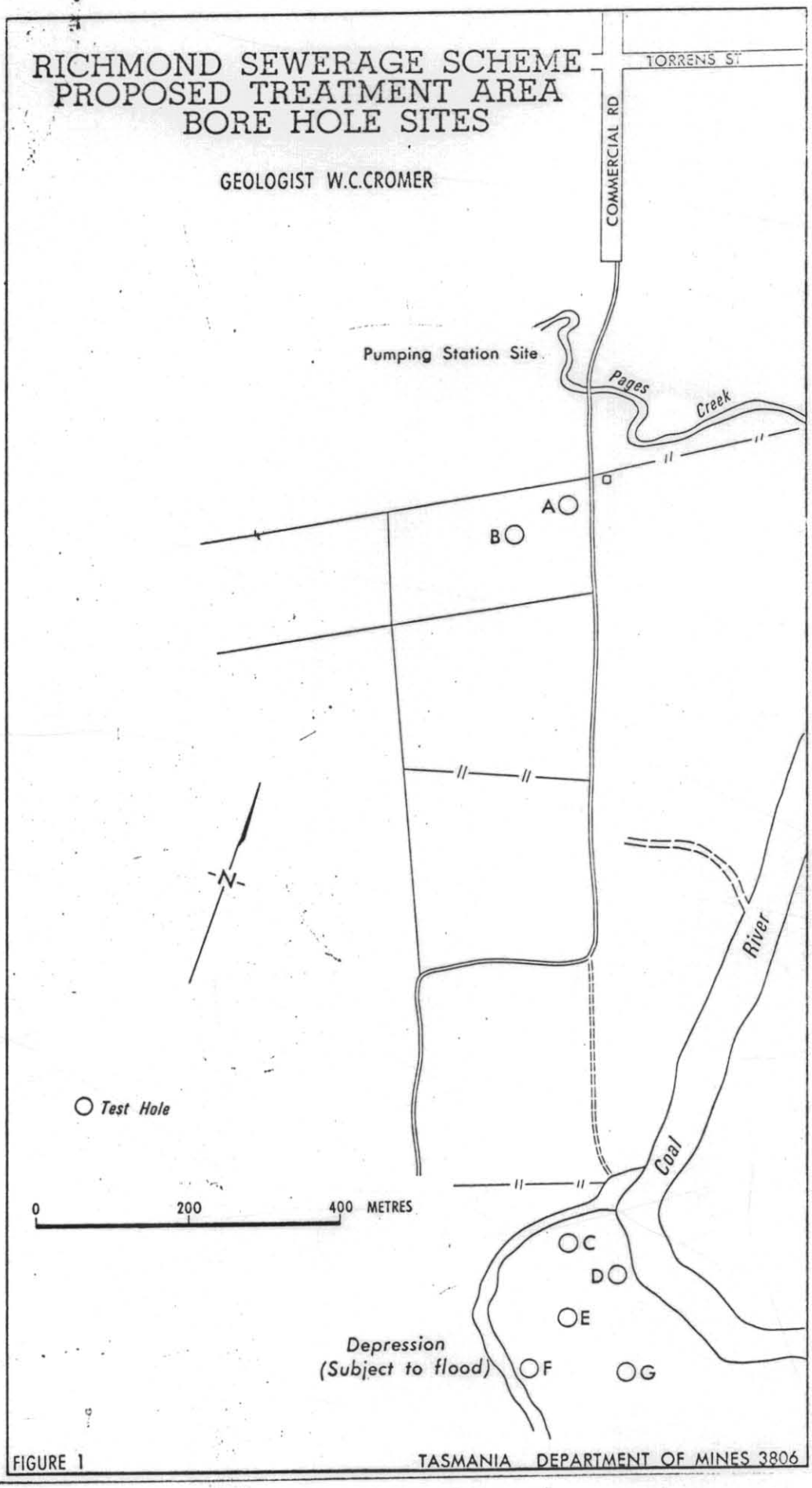
Each hole was filled with water. In all but two holes (F and G) seepage occurred, and water levels had dropped considerably over a period of two hours. From these observations (and the above logs) it is apparent that from the seepage aspect, the more southerly site is the more suitable for oxidation lagoons.

However, the sand and clay units appear to be variable in thickness and extent, and excavation of either site to a depth of about one metre may expose the more permeable clayey sand. It would probably be necessary, therefore, to seal such areas with clayey material.

CONCLUSIONS

From the point of view of infiltration, the southern site appears to be more suitable. This may not be the most important factor, however, when other aspects such as areal extent, excavation difficulties, cost of piping and pumping, are considered.

[8 March 1973]


RICHMOND SEWERAGE SCHEME
PROPOSED TREATMENT AREA
BORE HOLE SITES
GEOLOGIST W.C.CROMER
TORRENS ST
COMMERCIAL RD
Pumping Station Site
Pages
Creek
A
B
N
River
Coal
Test Hole
0
200
400 METRES
C
D
E
Depression
(Subject to flood)
F
G
FIGURE 1
TASMANIA DEPARTMENT OF MINES 3806

5 cm