DEPARTMENT OF MINES
SOUTH AUSTRALIA

GEOLOGICAL SURVEY
NON FERROUS METALS SECTION

GEOLOGICAL REPORT ON TANK SITE,
PT. SECTION 201, HD. OF NOARLUNGA (SEACOMBE PARK)

- E. & W. S. DEPARTMENT -

by

W. Johnson
Senior Geologist

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E. & W. S. Dept.

Test pits were inspected and logged on 20/10/61.

LOCATION & TOPOGRAPHY:

The tank site is situated on half of a small reserve (Lot 78) between Don Avenue and Aboyne Avenue, Seacombe Park a few chains from Brighton Road. Seacombe Park is built on the piedmont slope mantling the scarp of the Eden Burnside fault at its southern end where its course is south-west.

ENGINEERING GEOLOGY:

The surface is formed of pebbly and bouldery soil which the test pits show to have formed from typical piedmont deposits of silty and sandy boulder and pebble beds and boulder and pebble silts and sands. These beds are only partially compacted and quite unconsolidated. None of the test pits reached the underlying bedrock and from other sources this could be at a depth exceeding 50 feet. It can be assumed to be sufficiently deep to have no influence on the tank site.

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The test pits (logs attached) show that the tank, if built on the site as proposed, will be founded in a light to dark brown silty sand or sandy silt with pebbles and small boulders scattered erratically throughout either individually or in pockets.

The material at foundation level is a soil in the engineering sense and appears to be relatively uniform. The content of boulders and pebbles is insufficient to affect its properties significantly. Surface run-off should be kept away from the foundations as the material will consolidate under load, to a greater extent when wet.

CONCLUSIONS & RECOMMENDATIONS:

The Seacombe Park tank site foundations are in a bouldery sandy silt or silty sand and a soil design is required.

Surface run off should be kept away from the foundations to prevent differential settlement consequent on non-uniform wetting of the soil.

W. Johnson
Senior Geologist

NON-FERROUS METALS SECTION

WJ:CERF
24/10/61

SEACOMBE PARK TANK SITE

TEST PIT LOGS

Pit No. 1

0'0" - 1'2"	Red brown clayey silty soil with pebbles and small boulders.
1'2" - 5'0"	Whitish limey boulder bed with limy silt matrix.
5'0" - 8'4"	Light buff-brown to brown abundant boulders in silty sand matrix. Some lime particularly towards bottom. Slightly damp.
8'4" - 11'2"	Brown to chocolate brown silty sand with sparse boulders and numerous coarse to very coarse ironstone grains.
11'2" - 11'10"	Angular pebble and boulder beds - abundant pebbles some with lime coating - chocolate brown silty sand matrix.
11'10"- 14'9"	Brown silty sand with some pebbles and boulders in pockets.

14'9" - Bottom of Pit

Pit No. 2

0'0" - 1'2"	Brown to dark brown clayey soil.
1'2" - 4'6"	White to buff highly limy boulder and pebble bed in silty sand matrix. Lime content falls off sharply at 3'4" and then gradually to 4'6". Pebbles abundant.
4'6" - 17'0"	Brown to chocolate brown silty sand with sparse to numerous pebbles and small boulders. Slightly damp to damp below 4'6". Boulders tend to occur in pockets.

17'0" - Bottom of Pit

Pit No. 3

0'0" - 2'0"	Red-brown clayey sandy soil with boulders and pebbles.
2'0" - 6'11"	Abundant sub-angular to rounded pebbles of slate and quartzite with lime coatings in light red-brown sandy silt matrix slightly clayey in part - some lime in patches in top two feet - damp from 5' depth.
6'11"- 11'6"	Red brown slightly clayey sandy silt to silty sand - some lime - sparse grit or rounded coarse sand and ironstone grains - sparse pebbles and small boulders.

Sassenim Park Test Site - Test Pit Logs (Contd.)

Pit No. 3 (Contd.)

11'6" - 18'6"	Chocolate red brown pebbles and boulders in slightly clayey sandy silt matrix, pockets of silt and clay - free course ironstone and quartz grains.
18'6" - 19'9"	Light brown mottled buff brown clayey silt with some small pebbles.

19'9" - Bottom of Pit

Pit No. 4

0'0" - 1'0"	Brown clayey soil with boulders.
1'0" - 3'2"	Whitish buff limey pebble and boulder bed - mostly pebbles.
3'2" - 7'2"	Buff brown silty sand pebble bed - some lime.
7'2" - 9'7"	Light brown mottled brown sandy silty to silty sand with pebbles. Damp.
9'7" - 17'3"	Whitish buff mottled light brown gritty to pebbly silt and sandy silt becoming drier downwards.

17'3" - Bottom of Pit