

## Tomago Gas Tank

Tomago, NSW

Learn how our vibro compaction solution strengthened potentially liquefiable sand layers at the Tomago project site.



### The project

A new 60m diameter LNG tank, with its accompanying 14m diameter firewater tank, were to be built on a greenfield site in Tomago as a gas distribution centre. Site investigations had revealed potentially liquefiable sands down to 8m below the site, which needed to be improved before construction could begin.

## The challenge

Ground improvement was specified as needing to increase the CPT cone resistance of the sand to between 10MPa and 15MPa, to ensure post-construction settlement was limited to tank tolerances and to mitigate the potential for earthquake-induced liquefaction.

## The solution

Keller designed the layout and spacing of ground treatment, which involved vibro compaction of 4,000m<sup>2</sup> of very loose to loose sand to depths of 8m, at the two tank locations. Work was carried out by Keller on a square grid over a six week programme, with treatment verified by ongoing CPT testing.

## Project facts

### Owner(s)

CBandI Constructors

### Keller business unit(s)

Keller Australia

### Main contractor(s)

AGL Energy Pty Ltd

### Solutions

Bearing capacity / settlement control

### Markets

Industrial

### Techniques

Vibro compaction