



Asia

# Settlement of China Resources Oil Terminal Tsing Yi Island

## ***Description of Work***

China Resources (CR) has an existing oil terminal facility at Tsing Yi Island, constructed on a 40m thick reclamation that was constructed in the early 1990's – one of the deepest reclamation fills constructed at that time. The facility includes 40m diameter storage tanks and is a major supplier of oil-based products in Hong Kong. The location of the (new) 70-ha container terminal (CT9) borders the north and eastern site boundaries of the CR site over ground conditions that included thick deposits of soft marine clay.

GCG (Asia) Ltd was commissioned to predict the magnitude and extent of movement of the oil terminal facility due to the construction of CT9 immediately adjacent to the CR site. Detailed recording of movement of the site formation, retaining walls and the oil tanks was carried out. GCG provided detailed assessment of the instrumentation data, periodic condition surveys and detailed analysis to investigate the mechanism of movement that was compatible with the measured survey results including consolidation and creep. Advice was also provided for remedial works and repair that included pavements, walls and a 400 diameter fire-main.

***Client:*** China Resources

***Dates:*** 2003 – 2005

***Estimated Project Cost:***

HK\$600,000



**Monitoring with tell-tales**



**View northwards from Oil Tank**