

## **Groundwater Monitoring Telemetry Network**

## **GEMCO**

HydroTerra was responsible for the completion of the installation of a groundwater monitoring telemetry network for the Groote Eylandt Mining Company Pty Ltd (GEMCO). The project has involved the installation of Solinst LT and LTC loggers and Unidata Neon modems to capture vital water level, temperature and salinity data across 40 groundwater wells.

Groundwater measurements are captured and transmitted across the GEMCO Private LTC Network, and ingested into its Equis database to provide near realtime data. The project team had to work through a number of challenges including the design of an enclosure that was secure, capable of housing the instrumentation and would not be impacted by the extreme climate conditions experiences on site.

Data is captured every 4 hours and transmitted daily, minimising the strain on the internal lithium batteries and avoiding the need for costly auxiliary infrastructure (e.g. solar panel and additional batteries). Based on the logging and communication frequency, it is estimated that the internal batteries will not need to be replaced for 12 months.

Given the success of the project, GEMCO has also explored the option of expanding the network to encompass its other waterbodies on site. HydroTerra continue to provide remote support to the GEMCO team. It is pleasing that a project of this size and importance could be delivered so seamlessly.





HydroTerra's team includes experience, qualified environmental scientists, hydrogeologists and electrical engineers.

## To learn more: