## OPERATING AND FINANCIAL REVIEW

This significant project provides an integrated operational pathway for:

- converting the Pit 1 catchment area from process water to pond water;
- redirecting tailings from the processing mill away from the Tailings Storage Facility and directly into Pit 3;
- returning water from Pit 3 to the Tailings Storage Facility;
- directing the brine waste stream from the Brine Concentrator to Pit 3; and
- rehabilitation of the exhausted Pits 1 and 3.

The Tailings and Brine Management Project continued to achieve significant progress in 2016 building on the gains of 2015.

The dredge was commissioned in the first half of the year with performance testing commencing in May. Since performance testing, the dredge has performed well which has resulted in a forecast compression of the overall dredging schedule.

In the 12 months to 31 December 2016 the dredge transferred 3.0 million cubic metres of tailings from the Tailing Storage Facility to Pit 3.

The slurry which is pumped from the Tailings Storage Facility and the mill via primary and secondary pipelines has formed a beach in the base of Pit 3. This is designed to enhance consolidation of the tailings in the Pit and express process water. Pumping infrastructure then transfers process water from Pit 3 back to the Tailings Storage Facility. This process water is then directed to the Brine Concentrator for treatment.

The associated brine transfer pumping and injection infrastructure was commissioned in March 2016 enabling the concentrated brine waste stream from the Brine Concentrator to be injected into the base of Pit 3.

Total brine injected during the year was 95 megalitres.

### REHABILITATION OF PIT 3

Mining of Pit 3 was completed in late 2012 and in 2013 more than 33 million tonnes of waste rock were placed into the base of the pit along with five brine injection wells designed to enable injection of waste brine from the Brine Concentrator into the base of the pit.

In 2016 tailings from both the Tailings Storage Facility and from milling operations was transferred into the pit, while a water recovery drain and extraction pump system transfers excess water back to the Tailings Storage Facility.

The transfer of tailings to Pit 3 will continue until 2020 after which final rehabilitation of Pit 3 will continue.

### REHABILITATION OF PIT 1

ERA's progressive rehabilitation programme includes significant work on ERA's original Pit 1 mining operation.

ERA has stored mill tailings in Pit 1 as required by the Ranger Authority. In 2012, Pit 1 closure works saw the installation of over 7,700 dewatering wicks, a geotextile fabric layer and a pre-load rock layer to compress the tailings mass.

The rock pre-load activated the drainage wicks, forcing the water beneath the pit to travel to the surface where it was collected and pumped to the Tailings Storage Facility.

In 2016 work to cap the pre-load rock layer with an impervious layer of laterite was completed. ERA has sought permission from regulators to place the final bulk rock fill on top of the laterite layer in preparation for land forming and revegetation of the 39.3 hectare site.

### BRINE CONCENTRATOR

The Brine Concentrator treats process water which is stored in the Tailings Storage Facility and Pit 3.

Process water is heated to high temperatures and evaporated before being cooled, condensed and discharged to the environment as high quality, clean distilled water.

The Brine Concentrator produces high quality water suitable for release to ERA's constructed wetlands and then offsite, as well as concentrated brine.

During 2016 works to improve the reliability of the diesel power generators delivered an increased security of power supply to the Brine Concentrator resulting in more stable operations.

ERA continues to work with the Brine Concentrator equipment manufacturer HPD, a subsidiary of Veolia, to increase plant availability and address various technical issues. Significant improvement was made during the year to achieve improved availability and increase production rates of the Brine Concentrator.

During the year, the Brine Concentrator produced 1,306 megalitres of distillate and 95 megalitres of brine concentrate which was transferred to Pit 3 via the brine injection system.

### CLOSURE PLAN

ERA reviewed and updated the Ranger Closure Plan and submitted a draft for review by relevant stakeholders at the end of 2016.

This Closure Plan includes a works programme that meets with the closure objectives as stated in the Ranger Authority and associated Environmental Requirements. The plan also includes proposed closure criteria for the Ranger mine which have been developed in consultation with the Supervising Scientist Branch, the Northern Territory Department of Primary Industry and Resources, the Northern Land Council, the Gundjeihmi Aboriginal Corporation and the Commonwealth Department of Industry, Innovation and Science over several years.

The closure criteria address the key themes of closure which are landform, radiation, water, flora and fauna, soils and cultural.