



# South of Embley project

## Expression of interest

## Samplers

Package Number: 25977-000-MRA-MHS0-00001

Package Title: Samplers

### General Description

Rio Tinto's South of Embley project is located approximately 40 km south-west of Weipa in far North Queensland, Australia. The site will require Samplers. The scope includes design, manufacture, factory acceptance testing and supply of the Stockpile Feed Sampler, Export Sampler, Tailings Samplers and Reject Ore Samplers, as well as providing technical support during construction and commissioning.

The operating conditions are as follow:

Location: Unprotected outdoors  
Environment: Humid, dusty, marine environment  
Duty: 24 h/day, 365 days/year  
Design life: 25 years

### Specific Scope Requirements

All samplers and associated components shall be electromechanically driven rather than hydraulic or pneumatic.

#### 1. Stockpile Feed Sampler

The purpose of the Stockpile Feed Sampler is to determine the grade of product bauxite prior to stockpiling. It is located in the stockpile feed transfer tower. This sampler system includes a primary cross stream sampler, a sample belt feeder, a secondary sampler, a final sample container, a final sample carousel and interconnecting and rejects chute-work. The sample collector shall contain an automatically indexing carousel. The full weight of each container should be around 12kg. The design of the sampler shall conform to AS 2806.1 Sampling of Aluminium Ores. All instruments shall be connected to a junction box, for connection to the Rio Tinto's PLC.

- Belt width – 1500mm
- Capacity – 4,000 t/hr

## 2. Export Sampler.

The purpose of the Export Sampler is to determine the grade of product bauxite prior to ship loading. It is located in the shiploader feed transfer tower. This sampler includes a primary cross stream sampler, a sample belt feeder, a secondary sampler, a final sample container, a final sample carousel, an interconnecting and a reject chute-work. The sample collector shall contain an automatically indexing carousel. The full weight of each container should be around 12kg in a 10L bucket. Provisions shall be made for the possibility of upgrading the Export Sampler to a three staged sampling system in the future. The design of the sampler shall conform to AS 2806.1 Sampling of Aluminium Ores. All instruments shall be connected to a junction box, for connection to the Rio Tinto's PLC.

- Belt Width – 2400mm
- Capacity – 12,000 t/hr

## 3. Tailings Sampler

The tailings sampler shall be a vezin type sampler with a single moving cutter to take samples from the flow. During operation, the sampler shall be fully enclosed to prevent the spillage of slurry samples. The sampling system will automatically sample from the main stream at a regular frequency to allow a representative sample of the tailings to be collected over a 2 hours period. All instruments shall be connected to a junction box, for connection to Rio Tinto's PLC.

## 4. Reject Ore Sampler.

The reject ore sampler shall be a cross belt sampler which is manually operated. The sampler shall be a complete assembly including cross belt sampler, drive motor, contouring idlers, enclosure, safety guards, local control station (for manual operation) and discharge chute connected to a Rio Tinto supplied chute.

- Belt Width – 1200mm
- Capacity – 1,300 t/hr

## Delivery Schedule

### Forecast Award Date: Q1, 2016

In 2015, Rio Tinto is undertaking a detailed feasibility study that will inform a final investment decision. A decision is expected to be received in the final quarter of 2015. Future procurement decisions are dependent on board approval.

Construction of associated mine infrastructure is anticipated to take 36 months once final board approval is granted.

## Instructions to Suppliers

If your business possesses the capability and capacity to perform the stated scope of work, please submit a registration of interest via the ICN Gateway at [www.southofembley.icn.org.au](http://www.southofembley.icn.org.au).

Please ensure that:

- Your company profile on ICN Gateway is complete, up-to-date and accurate
- You register your interest as a Full Scope or Partial Scope supplier (where applicable), and
- You respond to all project-specific questions via the ICN Gateway.

## More Information

Please contact the Industry Capability Network Queensland on +61 (7) 3364 0676 should you have any enquiries regarding this scope of work.

More information about the South of Embley Project can be found on the Rio Tinto website [www.riotinto.com](http://www.riotinto.com).

## Disclaimer

Scope of Work is indicative only and is intended to be used as a summary description of work which may be required by Rio Tinto and may be subject to change. Full scopes of work will be made available to parties that are invited to tender. There is no undertaking to contract or proceed to a competitive process implied by this form. Further contact with interested suppliers will be at Rio Tinto's discretion.