

Sirius Tailings Storage Facility

Value \$18M



Works completed as Watpac Civil & Mining

Director's involvement – Tim Malseed – Operations Manager

FACTS

Client	Sirius Resources	Division	Civil and Mining
Contract	Schedule of Rates	Commenced	March 2015
Location	Fraser Range (250km east of Norseman), WA	Completion	July 2015

PROJECT OVERVIEW

The Sirius Resources Nova Nickel Project is located approximately 250km east of Norseman situated within the West Australian Fraser Range.

The contract was to construct a fully lined HDPE clay Tailings Storage Facility (TSF) with the approximate circumference of 3000 metres. The works involved was clearing, grubbing, cut to fill operations from the internal basin to construct the embankment walls (max height 14m), HDPE lining to embankment walls and basin, Geocomposite installation, underdrainage, associated road works, diversion channels, diversion bunding, sump piping, fencing and sundry earthworks.

SPECIFICATIONS

EARTHWORKS

- Clearing, Grubbing & Topsoil Strip – 630,000m²
- Cut to Fill Conditioned Clay – 960,000m³
- Drainage Sump Detailed Excavation – 1,200m³
- Drainage Slot Detailed Excavation – 10,000m³
- Foundation works to Embankment & Basin – 620,000m²
- Embankment Construction – 850,000m³
- Inner Slope Detailed Placement – 27,000m³
- Inner Slope Detailed Trimming – 91,944m²
- Diversion Channel Excavation – 6,200m³
- Diversion Bunding – 2,500m³

GEOMEMBRANE / GEOCOMPOSITE MEDIA

- 2.00mm HDPE Lining to Embankment Walls – 104,000m²

- 2.00mm HDPE Lining to Basin – 460,000m²
- Geocomposite Drainage Media (Flownet) Installation – 230,000m²
- Underdrainage Piping – 8,500m

SUNDRY

- Road Works – 50,000m²
- Fencing – 3,750m
- Pad Works – 15,000m³
- Outer Embankment Rock Works – 175,000m³ Stabilised Culvert Installation – 150m
- Installation of Monitoring Equipment – Settlement Beacons, Monitoring Bores & Vibrating Wire Piezometers