



FOSTERVILLE PASTE BACKFILL PLANT

SCOPE OF WORK

GR Engineering was appointed by Kirkland Lake Gold (KLG) to undertake the engineering, design, procurement, construction and commissioning of a 65 m³/h Paste Plant at the Fosterville Gold Mine located near Bendigo, Victoria.

The scope of work comprised the design, supply, fabrication, installation, commissioning and handover of the paste plant including works at the existing Fosterville processing facility to transfer tailings, water and other services to the paste plant.

Works included:

- Design of the paste distribution system for the first four levels of underground operations, including the two main bore holes;
- A new tails hopper and pumping system at the Processing Plant that receives slurry from a modification (internal launder) to the existing Tails Hopper 303-TK04;
- Overland pipelines for the delivery of tailings and return of thickener overflow water, filtrate water and clean-up water between the process and paste plant sites;
- Allow for the installation of a dry tailings addition system at a possible future date;

- Design and installation of the required concrete works using free issued concrete from the Company's supplied on site batch plant;
- Structural steel, stairs, grating and handrail supply, surface treatment and erection;
- Plate work supply, surface treatment and installation;
- Procurement and installation of all the required Paste Plant equipment including housing in fully enclosed acoustic buildings to minimise noise impact;
- Piping supply including valves and instruments, surface treatment and installation;
- Electrical and control system supply and installation;
- Commissioning and vendor attendance at commissioning;
- Performance testing of the Paste Plant;
- A unique aspect of the project arose from the requirement to comply with stringent noise and height restrictions. The entire facility is enclosed using 100 mm thick acoustic cladding providing sound attenuation of up to 50dB.

GR Engineering completed the project in January 2020.

Commodity: Paste Backfill

Region: Australia

Location: 27 km East of Bendigo, Victoria

Project Type: Greenfields, EPC design and construct

Client: Kirkland Lake Gold

Award Date: August 2018

Completion Date: January 2020

Project Manager: Peter Yates

Process Manager: Bill Gosling