

INDONESIA - Design work continues for pig iron project

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1

The basic engineering design (BED) of the beneficiation plant for Indo Mines' pig iron project at Kulon Progo is expected to be completed by the end of the month. The work is being carried out by Ferrostaal Indonesia.

This is a key element for the BED of the iron plant - as concentrate produced by the beneficiation plant over the life of mine must be consistent in terms of its chemical and physical properties, such as iron, silica and phosphorous content.

Indo Mines spent much of the first quarter of 2015 focusing on completion of phase I of the definitive feasibility study (DFS) at the pig iron project.

After significant test work carried out by MBE labs in Germany and CRL in New Zealand, a process flow diagram (PFD) has been agreed by all parties. This PFD is based on a one stage rougher magnetic separator, followed by a three stage lower gauss 'cleaner' magnetic separator. To grind the raw material to an optimal level of magnetic iron liberalization, a ball mill and vertimill configuration is utilized to achieve a 45 micron sizing.

Taking the average iron grade of the deposit (13.6% iron) as head feed, the PFD is able to achieve a 12% yield, which is better than initially modelled. This is based on producing a concentrate between 58% and 59% iron, with acceptable silica and phosphorous content. Obviously the yield will depend on head feed grade, but plant capacity is based on a head feed grade as low as 9%, as iron grade quality over life of project will vary. The ability for the plant to adjust according to the head feed grade, but still produce consistent concentrate for iron plant is critical for project success.

Very recently the fencing of the acquired land was completed. This has been an important task to not only secure the land, but also begin socialising with local villages in surrounding areas. The local Korporasi (CSR team), was hired to develop and build the fence, an endeavour that is seeing young locals learn new skills in cement and construction, from the main contractor.

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