

GLENCORE TECHNOLOGY

NEWS UPDATE

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GPM More Than Quadruple Plant Recovery From Sulphide Concentrates Using Glencore Technology's Albion Process™

GeoProMining LLC, or GPM, have successfully increased recovery from sulphide concentrates in their Ararat plant from 20% to over 95%, defying expectations and targets. The plant was commissioned in June 2014 and achieved full capacity after three months.

GPM own and operate the Zod Gold Mine and Ararat Processing Plant in Armenia to produce gold and silver bullion.

In order to expand, GPM needed to treat the underlying sulphide material at the Zod mine which achieved around 20 to 30% gold recovery through their existing conventional CIL flowsheet.

In 2010, GPM approved a refurbishment project at the Zod Mine and Ararat Processing Plant – in increased crushing capacity to deal with the harder ore and a refurbishment and re-commissioning of the existing flotation plant.

They added to this the installation of a new Albion Process™ plant for the oxidation of the sulphide concentrate prior to its treatment in the existing Carbon in Leach plant. The new flowsheet would be configured such that the CIL would treat flotation tailings and oxidised residue from the Albion Process™.

The Albion Process™ is an atmospheric leaching process developed and owned by Glencore Technology. It uses ultrafine grinding to reduce the activation energy needed in oxidation of the sulphides, so that it can occur under atmospheric conditions. The leaching occurs in an agitated tank that uses HyperSparge™ supersonic gas injectors to boost oxygen capture efficiency.

Glencore Technology was engaged to design, supply and commission the Albion Process™ and to provide installation supervision assistance.

The design basis for the Albion Process™ at GPM was oxidation of 100,000 tpa of concentrate to give an overall production of 100,000 TOz of gold per annum from concentrate and flotation tailings. The design recovery of gold from the Albion residue was 92% but the plant frequently achieves over 95% recovery with an overall plant-wide design recovery of 86% but commonly achieving 88%.

The refurbishment project was commissioned in June 2014, with ramp-up occurring for the remainder of 2014.

The plant has achieved and exceeded nameplate production, treating in fact 120,000 tpa concentrate with an overall production of 120,000 TOz per annum.

Further, GPM successfully achieved an overall 88% plant-wide recovery exceeding the 86% design target due to better than design performance in the Albion Process™.

The grade of concentrate has been more or less stable, and increased production might normally be expected to decrease as equipment is stretched. But in GPM's case, they've successfully kept the recovery above design using the Albion Process.

GPM are currently evaluating an expansion project comprising a second line of an Albion Process™ Plant.

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Notes to editors

About Glencore Technology

Headquartered in Australia, Glencore Technology utilise a global network to develop and market leading metallurgical processing technologies for the benefit of our customers around the world.

Our technologies provide critical value-add solutions that transform raw commodities into the purest metals efficiently and sustainably. Many of these technologies have been developed and proven at our own sites, like ISASMELT™ and IsaMill™, which were pioneered by Mount Isa Mines and helped revolutionise mining and smelting processes all over the world.

Our approach is premised on a technology partnership to provide a full product and service offering, including process flow design, engineering, equipment supply, commissioning and operational expertise, and ongoing process and maintenance support.

