



ALBION PROCESS™ the demonstrated alternative for refractory gold projects

- **Bankable** – combination of industry-standard IsaMill™ fine grinding and atmospheric leaching technologies means simple process characteristics which readily support bankability.
- **Guaranteed** – performance guarantees (process and mechanical) available from Glencore Technology.
- **Low Capital Cost** – no autoclave, no CCD circuit, no long bacterial leach residence times, and no exotic materials of construction – capital cost is less than 70% of equivalent Pressure Oxidation (POx) plant.
- **Demonstrated** – in 2018 installed in six operations globally, with more to follow.
- **Effective** – proven to increase gold recoveries from refractory ores to as much as 98%.
- **Environmentally-friendly** – stable residues – no jarosites in final tailings, reduced risk of heavy metal mobility in the environment. Excellent filterability for dry stacking of tailings.
- **Fast Development** – simple testwork and design process, short equipment lead times, rapid commissioning and fast operational ramp-up.
- **Robust and flexible** – tolerates highly variable sulphur grades, throughputs, carbonate grades and other impurities. Can use saline process waters.
- **Sulphide minerals oxidation** can be varied and controlled to meet process and economic parameters.
- **Supported** – Core and Glencore Technology provide support services to enable rapid implementation. On-site operator training can be provided at existing reference sites.

The Albion Process™ is a demonstrated technology with the potential to significantly increase the value of your refractory gold or base metal project, whilst at the same time reducing the complexity and risk of your processing plant. Lower capital costs and fast implementation means projects can realise economics benefits and advantages in early stages of the project lifecycle, to maximise returns.

▶ **FEATURED SITE**
GPM Gold Albion Process™
Gold Plant, Armenia
120,000 oz pa | >95% Au Recovery



The Albion Process™: Demonstrated Technology, Proven Recoveries

The Albion Process™ is the proven low cost alternative to POx, Roasting and BIOX® for the treatment of refractory gold concentrates.

In 2018, six Albion Process™ plants operate globally- two gold plants, three zinc plants and one copper plant.

The GPM Gold Albion Process Plant in Armenia demonstrates the effectiveness of the Albion Process™ on refractory gold ores:

- Stable 95–98% gold recoveries across highly variable sulphur grades and throughputs – up from a baseline 20% gold recovery without the Albion Process™.
- Operates autothermally through the Armenian winter – no heating required.
- High oxygen utilisation of +90%.
- Plant operates at up to 130% of nameplate capacity, without reduction in gold recovery.

"The use of atmospheric pressure leaching offers considerable capital cost savings over alternative technologies." – GPM Gold, 'A new lease of life', Mining Magazine, September 2013

Superior & Simple Technology

Simplicity is the key to the success of the Albion Process™ technology. Employing a combination of ultrafine grinding and atmospheric oxidative leaching, the plant is low cost and simpler to operate than alternative technologies.

The Albion Process™ is a demonstrated solution with significant advantages, including:

	Albion Process™	POx
Demonstrated high recoveries	✓	✓
Demonstrated in current operations	✓	✓
Low capital costs	✓	✗
Simple equipment + low skills requirement	✓	✗
Short commissioning/ramp-up period	✓	✗
Can treat high carbonate material	✓	✗
No CCD required for gold applications	✓	✗
Lower operational & maintenance risk	✓	✗
Tolerates variable feed quality and rate	✓	✗

A Partnership between Core and Glencore Technology The Albion Process™ is owned and patented globally by Glencore Technology. Core Resources partners with Glencore Technology to provide testwork and study management services for Albion Process™ projects. Testwork programmes for the Albion Process™ are conducted at Core's laboratories in Brisbane, Australia, under license from Glencore Technology. Glencore Technology provides key equipment supply and technical and operational support. In 2017 Core and Glencore were awarded the METS Ignited Collaboration Award for their delivery of the GPM Gold Albion Project.

Interested?

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About Core Resources Core Resources is an award-winning process engineering and metallurgical testing business based in Brisbane, Australia. Core Resources services a global customer base, enabling the world's mining projects with innovative metallurgical flowsheet solutions.



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