



Leading Initiative to Mitigating Assaying Impacts

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Key Achievements

- Eliminated ~3 tonnes of hazardous waste per 10,000 samples by removing lead-based reagents
- Reduced greenhouse gas emissions by an estimated 4.6 tonnes CO₂e
- Saved an estimated 6.5-megawatt hours of electricity
- Reduced sample transport and associated Scope 3 GHG emissions
- Enhanced sample integrity through non-destructive analysis
- Improved on-site safety and reduced operational risks

Reducing Environmental Footprint Through Innovation

Pantoro Gold Limited ('Pantoro'), in collaboration with Intertek Minerals, is implementing a lower-impact assay methodology at the Norseman Gold Project in Western Australia's Eastern Goldfields. The initiative is delivering tangible outcomes—reducing hazardous waste, cutting Scope 3 emissions, improving energy efficiency, and enhancing on-site safety.

This approach aligns with Pantoro's broader operational strategy to improve process efficiency and minimise environmental and logistical impacts. The use of advanced, non-destructive analysis eliminates hazardous lead-based reagents and retains samples for further metallurgical testing, supporting more effective resource utilisation.

Pantoro recognises the value of strategic partnerships in accelerating performance improvements across key operational domains. Its collaboration with Intertek Minerals reflects a shared focus on innovation, risk reduction, and continuous improvement in mining practices.

Across a typical 10,000-sample cycle, the new improved on-site assay method delivers the following measured outcomes:

- Elimination of approximately 3 tonnes of hazardous waste
- Avoidance of 4.6 tonnes of CO₂e emissions
- Savings of nearly 6.5 megawatt hours of electricity

Unlocking Operational Benefits and Safety Improvements



Intertek Minerals – PhotoAssay Technolog. Source: <https://www.intertek.com/minerals/photon-assay/>

By bringing assay capabilities on-site, Pantoro has significantly reduced the need for external sample transport, improving efficiency, lowering logistical risks, and shortening turnaround times. The automated process minimises manual handling, reduces human error, and eliminates exposure to hazardous substances, enhancing both operational reliability and work site safety. These improvements support safer, more efficient working environments while maintaining high analytical precision and repeatability.

Shared Commitment to Responsible Gold Production

Pantoro recognises the critical role of collaboration in achieving meaningful environmental and social improvements. This partnership with Intertek Minerals reinforces both organisations’ shared commitment to innovation, transparency, and continuous improvement in resource production practices.

“We view this partnership as a strategic step towards responsible mineral processing. It demonstrates that operational improvement, and environmental stewardship can, and should, go hand in hand.

— Paul Cmrlec, Managing Director, Pantoro Limited

Sector Leadership

This initiative forms part of Pantoro’s broader commitment to reducing operational impacts and strengthening oversight across five key performance dimensions: Environment, Social Capital, Human Capital, Business Model & Innovation, and Governance & Leadership.

Together, these actions reflect Pantoro’s disciplined approach to operational improvement and its leadership in responsible resource development in the gold mining sector.