

Introducing the World's First Real-Time Density Sensor (RDS) for Safer, Smarter Tailings Management

Phibion launches the world's first real-time density sensor for tailings dams—enhancing safety, water recovery, and AMC® performance.

AUSTRALIA, QUEENSLAND, AUSTRALIA, June 4, 2025 /EINPresswire.com/ -- Phibion, the global leader in Accelerated Mechanical Consolidation (AMC®) for tailings management, has launched the world's first fully automated, [real-time density sensor for tailings](#) dams. This groundbreaking technology eliminates the need for manual sampling, enhancing safety while providing immediate, high-precision data to optimise AMC® operations.

"AMC® is at the core of our mission to make tailings dams safer, smaller, and more sustainable," said Jacques Janse, CEO at Phibion. "This sensor doesn't replace AMC® – it makes it even more effective. It ensures that the water recovery, consolidation, and stability outcomes we already deliver through AMC® are measured in real time, driving even greater value for our customers."

The sensor's ability to provide live density and moisture readings will supercharge the performance of Phibion's fleet of MudMasters®, including the fully autonomous DART MudMaster®. By integrating real-time data into AMC® workflows, operators can dynamically



Real time density sensor attached to the MudMaster in Western Australia



Phibion logo for tailings management

adjust dewatering and dry stacking operations in response to site-specific conditions — no more waiting weeks for lab results.

Key Benefits of the Real-Time Density Sensor:

- Instant Density and Moisture Readings – Removes delays and supports continuous operational improvement.
- Zero Human Interaction – No need for manual sampling in hazardous areas.
- Seamless Integration – Real-time insights feed directly into AMC® service operations, both manned and autonomous.
- Enhanced AMC® Performance – Drives more effective dewatering and dry stacking, faster volume reduction, and better shear strength outcomes.
- Scalable Across All AMC® Deployments – Works seamlessly with the DART Autonomous MudMaster and manned MudMasters®.
- Improved Water Recovery – Boosts site-level water reuse and reduces environmental impact.
- Engineered for Reliability – Built to withstand the world's most challenging tailings environments.

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Phibion

Phibion's AMC® service has already demonstrated the ability to reduce tailings volume by up to 50%, extend the lifespan of existing facilities, and improve shear strength for earlier, safer dam access. Now, with real-time data from the RDS, AMC® operations can achieve even better performance, adapting dynamically to site conditions and optimising dewatering and dry stacking without interrupting ongoing mining activities.



The sensor's ability to provide live density and moisture readings will supercharge the performance of Phibion's fleet of MudMasters®, including the fully autonomous DART MudMaster®.

The sensor will be officially unveiled at the Brisbane Life Of Mine conference on July 29-30, with live demonstrations highlighting how it integrates with AMC® services to deliver superior tailings performance and environmental stewardship.

For more information on AMC® services and the new RDS, visit www.phibion.com or contact info@phibion.com.

About Phibion: Phibion is the global leader in tailings storage facility optimisation, dedicated to developing innovative solutions for tailings management, environmental sustainability, and operational efficiency. "Making tailings dams safer, smaller and more sustainable"

Images attached.

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