

Tailings Management – Copper

It is a global reality that copper grades in mining operations are reducing and increasing the volume of tailings that are being produced. With increasing community awareness, pressure continues to mount on mining companies to show environmental leadership and responsible management that minimises operational footprints, maximises water return will reducing cost.

Phibion's Accelerated Mechanical Consolidation Process (AMC) has been successfully applied to copper tailings operations to improve water recovery rates reducing the tailings volume and increasing residual strength.



AMC operations in fine copper tailings

In copper tailings AMC can deliver:

- Up to a 50% reduction in tailings volume and operational footprint;
- A vane shear strength >35 kPa in < 42 days;
- A >30% increase in water recovery improving recycle rates, reducing demand on precious virgin water resources; and
- Final landforms that can mimic natural topography and can be closed from the moment operations cease.



Day 1



Day 14



Day 31



Day 43

Timelapse of AMC from start to finish

Phibion can provide AMC services to your organisation. We will provide the customised MudMaster®, employ and train local operators, manage maintenance/sparing and monitor performance. Additionally, we can provide supporting works, strategic planning and reporting.

Our services will reduce tailings management risk with no capital expenditure and none of the operational/financial risks of filtration or centrifugation. This approach is safe, infinitely scalable and can be sustained under all conditions.

Phibion can deliver this performance at a fraction of the cost of other potential alternatives and allow your operation to realise its potential today, without compromising the future.

Munro, L.D. and Smirk, D.D. 'How thick is thick enough?' Paste 2018, Perth, Australia