

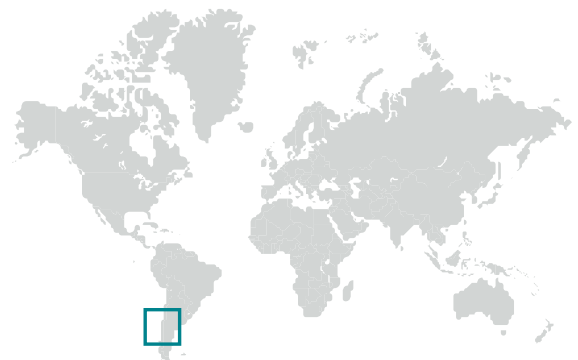
AMC Surface SRU™ saved 147,000L of water in 20 days.

CASE STUDY

An exploration drilling project, located in a mountainous site east of Taltal, Chile was hindered with limited water supply and high logistical costs. Water had to be carted by trucks 240km to the project site. The AMC Surface Solids Removal Unit™ (AMC Surface SRU™) was implemented to assist operations and reduce water, mud and cartage costs.

Background

AMC's customer had two exploration drill rigs operating at a project east of Taltal, some 3,900m above sea-level on the western edge of the Domeyko Mountain. Water was scarce and had to be carted by trucks 240km to the project site. Two AMC Surface SRU™ units were trialled – one operating with each rig.



Results

- US \$36,120* minimum saving (20 day trial period)
- 60% reduction in water usage (147,500L in 20 days)
- 65% reduction in cartage costs
- 70% reduction in mud usage
- Enhanced operational efficiency and productivity.

* Rental is not included as rates may vary depending on the terms of the contract.

AMC Surface SRU™ CASE STUDY

Saved 147,000 litres of water in 20 days at the Aspromin Drilling Site in Taltal, Chile.



TRIAL OVERVIEW

Date	December 2013
Location	Taltal, Chile
Activity	Exploration drilling – two rigs.
Access / drill pads	Good access
Water	Carted by water trucks 240km to site
Drill hole information	280m, HQ
Mud information	Before AMC Surface SRU™: AMC GEL XTRA™, AMC DET™, AMC CR 650™, AMC SUPERLUBE™ and MAGMA FIBER FINE. With AMC Surface SRU™: SODA ASH and AMC CR 650™.
Geology	Sedimentary breccia, tuff, sandstones.

Water Usage Reduced by 60%

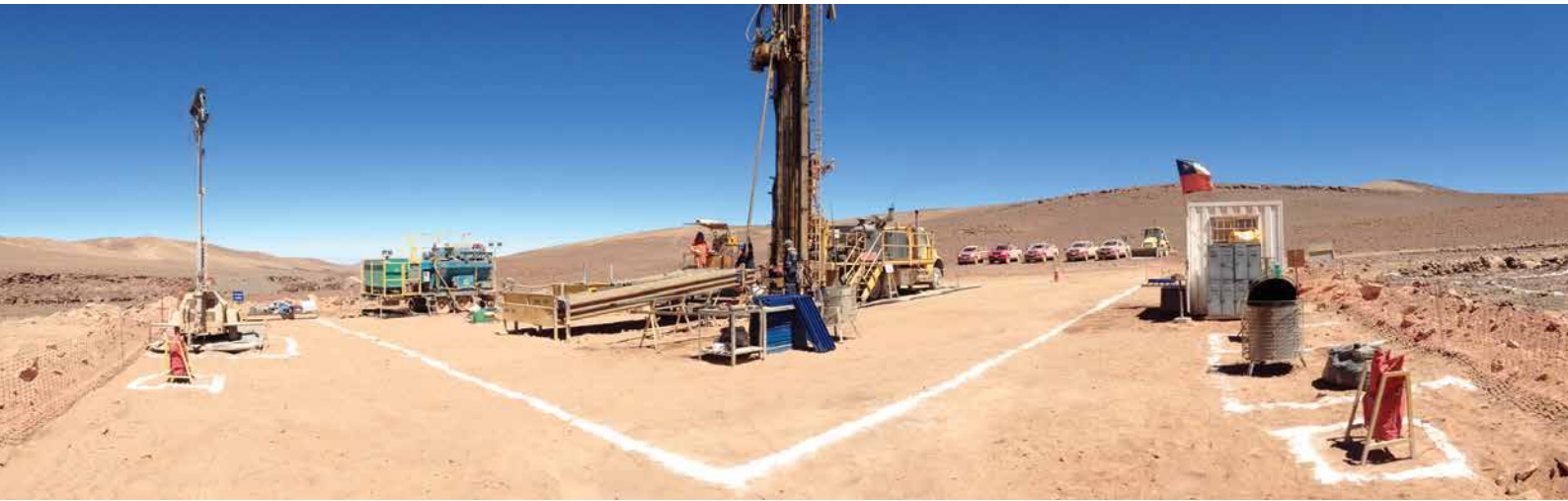
Prior to the AMC Surface SRU™ trial, water was carted 240km via truck to site. Approximately 12,500 litres per day were needed. During the initial twenty days of drilling with the AMC Surface SRU™, water usage reduced by 60% to 5,125 litres per day (102,500 litres versus 250,000 for the length of the trial).

Water Consumption – litres per day



AMC Surface SRU™ CASE STUDY

Saved 147,000 litres of water in 20 days at the Aspromin Drilling Site in Taltal, Chile.



Mud Usage Reduced by 70%

During the trial drilling fluid usage reduced by 70%, demonstrating better performance and efficient use of additives. The average drilling fluid cost per metre reduced from approximately US\$5 to US\$1.6.

Environmental Benefits

The AMC Surface SRU™ significantly reduced water consumption and eliminated the need to dig traditional fluid sumps, which reduced the site footprint and impact on the immediate environment.

“Local communities feel less threatened because a solution has been put in place to protect water resources and there is no harm or contamination” – Driller

Operational Efficiency (KPIs) Improved by at Least 10%

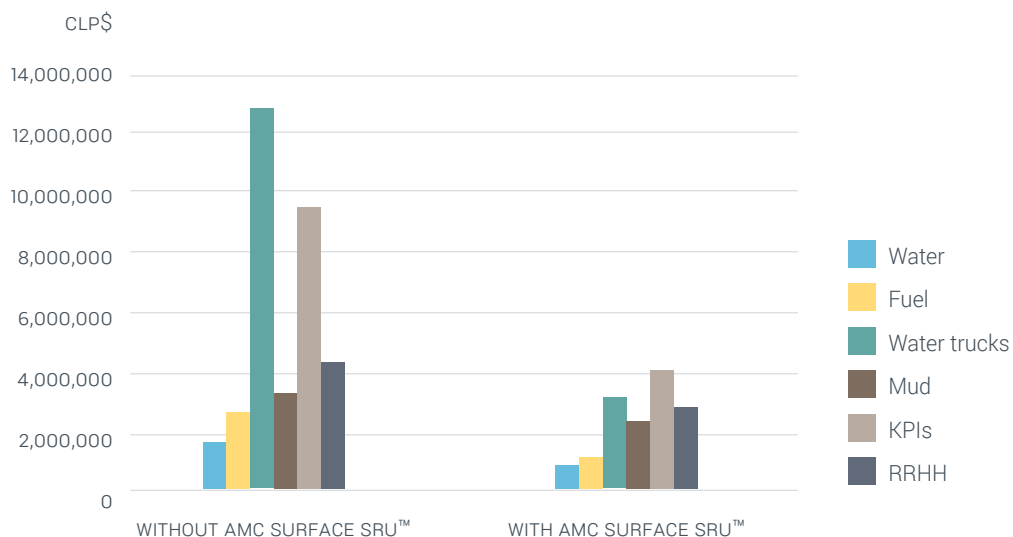
The trial demonstrated the AMC Surface SRU™ improved drilling KPIs by at least 10%, with the hole advancing more quickly. During the trial, costs relating to the feed rate; water trucks; fuel; personnel (drivers, mechanics and welders); wear-and-tear to tools; earth moving equipment; and unproductive standby times all reduced.

Safety Benefits

The customer also noted the AMC Surface SRU™ decreased the level of operating labour and therefore the risk of an accident occurring on site.

“It lowers the risk of carrying the cost of drilling delays due to an accident” – Driller

Principal Drilling Expenses



AMC Surface SRU™ CASE STUDY

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Project Outcome

Sumless operations were achieved within fourteen days. The trial also demonstrated a significant reduction in water and mud consumption, together with other operating costs, when utilising the AMC Surface SRU™.

The AMC Surface SRU™ addressed the key challenges experienced at this site, where water access was limited and expensive. A minimum saving of US\$36,120 (CLP 20012808) was achieved during the trial period.

Further Information

For more information about this case study, please contact amc@imdexlimited.com or your local AMC representative.



Check out our website or YouTube to watch a video on this product. youtube.com/amcdrillingfluid

Key Benefits for Resource Company

- Increased drilling productivity
- Reduced project costs, including water consumption and mud usage, and associated costs
- Minimised impact on local water supplies
- Improved relationships with local communities.

Key Benefits for Drilling Company

- Reduced water consumption and cartage costs
- Reduced project impact on local water supplies
- Reduced mud usage and associated costs
- Reduced slurry volume, waste cartage and disposal
- Improved productivity
- Reduced wear and tear on drill components
- Reduced drill downtime, no mechanical failures experienced
- Reduced manual handling and labour required
- Improved on-site health and safety, reducing slips and hazards due to mud and water spills
- Saved time managing and mixing mud.

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