



WATER FOR A NEW JOURNEY

Abstract

Infosys BPM's expertise with sustainability programs and embedding sustainability consciousness in the sourcing approach helped a global mining giant implement an innovative solution for reusing its waste water from coal mining activities. Apart from launching the client on a new journey towards increased environmental responsibility, the project also delivered \$1.4 Mn in annual savings.



An extended arm

Infosys BPM's client is a multinational mining giant. For nearly a decade, Infosys BPM has been providing procurement operations and sourcing services to the client, including market intelligence & research, strategic planning, contract execution, and risk management activities.

Water, water, everywhere

Infosys BPM has had significant expertise with environmental sustainability programs and has been a recipient of the UN Climate Change Award 2019 and the 2020 Green Buildings Leadership Award by the US Green Building Council (USGBC). One of the client's mine sites sought to bring this expertise to bear on a unique problem they were facing, relating to their waste water. Typically, the waste water from the mining process was stored in a dam and eventually reutilized or released after treatment. However, local environmental regulations had restricted the mine site from regularly releasing

their waste water in large quantities. An effective solution was crucial as, especially for an open-cut coal-mine, proper water management is a prerequisite to efficient operations.

With excessive amounts of untreated, affected water needing to be stored, the problem was further aggravated by substantial rainfall which created a further strain on storage facilities. For over twelve months, the mine site had made consistent efforts through a variety of different methods to reuse the waste water as much as possible to lower the quantity on site. Yet the situation remained challenging.

The overcapacity of the storage facilities was a cause of rising safety and environmental concerns due to the risk of an uncontrolled release of untreated water in case the dams failed or overflowed. Moreover, the situation reduced access to the mining pits, and made mining activities difficult, as result reducing the productivity. To resolve these issues, the client approached the Infosys BPM team to conduct a market testing exercise on possible solutions and to engage the right service provider to help reduce the onsite inventory of mine-affected water.

Piping for a change

The Infosys BPM and client teams together brainstormed and developed a strategy for used water treatment and recycling, that would resolve the storage issue while also reducing the need for purchases of fresh industrial water for mining operations. The simple modification project would require installation of a new pipeline from the used and rain water reservoir dam to the raw water line. This arrangement ensured the utilization of mine affected water within the existing raw water line system.

After obtaining approval for the project from key stakeholders, the team set about identifying the right service provider. Infosys BPM conducted extensive market intelligence and cross industry research

to identify solution alternatives and as a next step, supported the sourcing exercise to engage the right service provider. This involved requirements gathering, vendor shortlisting, setting up and managing e-auctions, vendor finalization, and contract execution.

Once the team engaged the service provider, the 'changeover project' towards sustainability was set in motion. It included numerous civil, structural, mechanical equipment installations, and piping-work all of which Infosys BPM sourced in a time bound manner to ensure completion of the project as per the targeted milestones.



The benefits of recycling

The detailed market testing followed by meticulous sourcing efforts led to the project being signed off at a cost even lower than the initial budgeted quotes. After the delivery, the mine started operating almost exclusively with the recycled water, greatly reducing the need to purchase raw water for processing of the mine extracts.

Apart from the satisfaction of initiating the mine site's journey towards increased environmental responsibility, the project also delivered significant savings. Upfront, the client saved \$130k apart from the year-on-year savings of over \$1.4 million due to the reduction in raw water purchases.

The success of the project is yet another addition to Infosys BPM's remarkable track record of successfully managing environmental sustainability programs. The team remains committed to proactively finding further ways — using procurement as a key — to help the client improve operations and minimize environmental impact.



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