SibanyeGOLD
We are One

Case Study

TECHNOLOG
AMETEK

Water Conservation and Demand Management



South Africa

- ✓ Water Resource Management
- ✓ Rapid return in product investment
- ✓ Improved network efficiency
- ✓ Reduction in operating costs
- ✓ Easy to implement







Project Overview

Sibanye's Gold Division purchased 12,350Ml of drinking water from utilities in 2016 at a cost of R141 million.

An automated metering system was successfully rolled out at the Driefontein, Kloof and Cooke operations in June 2016 with more than 200 potable water meters now being monitored continuously. This system enables management to monitor water consumption and water distribution networks daily, assists in identifying water leaks or excessive consumption and provides functionality for automated reporting at required intervals, with alarms and notifications being given to highlight issues. This automated system serves as the vital backbone of water conservation and water demand management. For example: the system identified potential water leaks in Sibanye's Randfontein Estates distribution system. As a result, consumption at this specific metering point was reduced by more than 2.5Ml a day during 2016, translating to a daily cost saving of more than R26,000.

A Cello 6s was used to analyse flow and consumption patterns to identify leaks and water wastage throughout the distribution system. The Sibanye's water management team was able to take corrective action to reduce water consumption.

Key Elements

- Requirement to use alternative available underground water sources to replace purchased water
- To identify and reduce water losses through improved metering and water balance management
- Necessity to reduce water wastage through optimisation strategies
- Optimising water quality management

Key Outcomes

- **Volume of water purchased for consumption fell by more than 15% in 2016, year-on-year**
- **Water consumption dropped from 58.35Ml to 51.86Ml, reflecting 12 % decrease**
- **Improved water conservation and water demand management**
- **Better Identification of leaks and reduction in water wastage**

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