

SRK CONSULTING: A GEOBANK AND MICROMINE CASE STUDY



SOLUTIONS TO IMPROVE EFFICIENCIES IN COAL PRODUCTION

SRK Consulting (SRK) is a South African founded global group of consulting engineers and scientists. They were established in 1974 to serve the South African mining industry.

The company has since grown to become a global player, not only in exploration and mining, but also in other sectors. These include water, environmental management, geotechnical, civil and structural engineering. In the mining sector, SRK has specialist skills in projects involved in exploration, mine planning, mine closures and site remediation.

They are playing a leading role in the exploration and mining industry by using the latest MICROMINE computer software to ensure reliable reports.

PROBLEM

Global demand for coal and an increase in coal exports through Richards Bay has resulted in many coal mines re-focusing their plans on optimising production to ensure adequate coal reserves. SRK is utilising MICROMINE's suite of software solutions to achieve the production goals of coal mines throughout Africa.

Grant Van Heerden, principal coal geologist in SRK's Johannesburg office, is currently involved in an exploration project in South Africa for an international mining company. SRK is managing the exploration process, including data management, providing field staff and liaising with local communities.

Van Heerden explains "SRK is also involved with an exploration project in Mozambique. This is essentially a data management project that requires building geological models, and ultimately, writing Competent Persons Reports (CPRs). A CPR is a public report compiled for a client in accordance with a set of reporting standards, like the SAMREC Code for example. These reports are necessary for companies to list on various international stock exchanges".

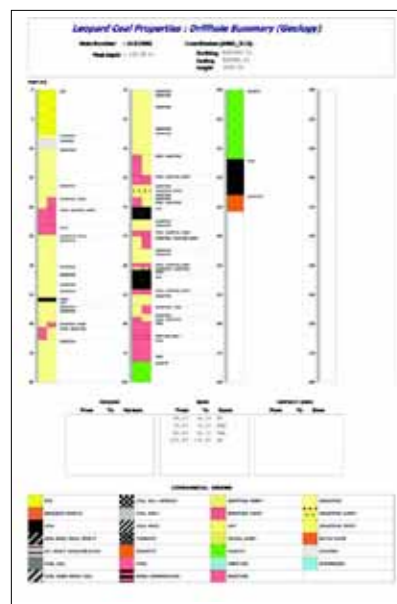
SRK has generated reports for junior mining companies to enable them to list on the local Johannesburg Stock Exchange. They have produced Independent Technical Reports which are required for listing on the Toronto Stock Exchange (TSX). SRK also conducts due diligence work for large and small companies.

SOLUTION

Van Heerden notes that the Micromine software provides a tool for geological modeling and mine design, ensuring that solutions are cost-effective, auditable and sustainable.

"We began using Micromine around two years ago," he says. At the time, I was using a simple package that gave me one aspect of the model I needed to create. We saw the Micromine modeling package and were impressed with the multiple ways it could display, validate and interpret data."

Van Heerden explains that his coal team were already using MICROMINE's Geobank software for data management, however to supplement and visualise this data, SRK has now decided to use the complete Micromine suite of modules.



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**Grant Van Heerden,
Principal Coal
Geologist, SRK**

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“SRK uses Geobank because the data management system provides a flexible and efficient environment for validating, storing and accessing data from diverse software, applications and sources. It has a flexible and scalable data model that can be tailored to meet any exploration or mining requirement.

Geobank has powerful tools for configuring database systems to user requirements, sophisticated, specialised sub-systems and industry specific functions for manipulating data and generating reports. These tools allow SRK to produce documents that stand up to stringent validation standards required by the mining industry”, Van Heerden says.

“Geobank can be audited throughout the data management process, starting at the point of data capture. The system allows you to determine human error and identify where it occurred. Issues will be identified and flagged by the system to prevent any ongoing errors”, Van Heerden adds.

“Upon completion of the Geobank database and validation process by the database specialist, we came out tops.”

Grant Van Heerden, Principal Coal Geologist, SRK



OUTCOME

“Recently, a client needed an audit by a third party that validated the integrity of the data used to create the resource report for investors. Upon completion of the Geobank database and validation process by the database specialist, we came out tops,” Van Heerden explains.

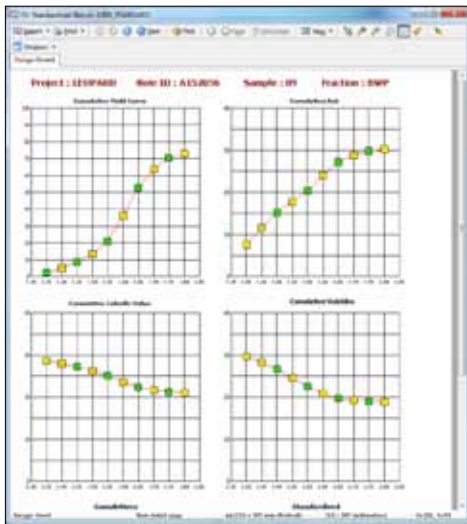
He says that all its coal modeling packages tie in seamlessly with Geobank. “It has the correct mathematical algorithms for coal, and offers assistance, even if you don’t understand coal seams. Micromine has also recently incorporated additional functionality for stratigraphic modeling in the coal industry, as ‘block modeling’ used for hard rock mines doesn’t work too well for coal.”

“Geobank and Micromine take us to a point where we can estimate, based on verified geological data, volumes and tonnages in a mine plan. Variability allows us to treat the data properly, and build a geological model the way we want it to be built. We can also build a mine plan on top of that model,” Van Heerden notes.

“My levels of confidence are very high when I sign off,” he says. “To be defined legally as a ‘Competent Person’ requires me to be able to stand up in front of a group of my peers and offer data that is accurate, repeatable and reliable.”

The demand for consulting services in the coal industry has been substantial, which has led to a growth in staff, income and workload over the past two years. “We expect to be kept busy for the foreseeable future,” concludes Van Heerden.

The current level of demand for coal will see a continuation in exploration projects within Africa. With exploration comes the need for independent consultancy services and mining software to optimise production and meet demand.



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