FLEXIBLE, RELIABLE AND SECURE, GEOBANK IS THE IDEAL SOLUTION FOR THE RESOURCE INDUSTRY
“GBIS (Geobank) was installed on an exploration site in the early stages of the drilling program in 2010. As the data load has increased it has proven its worth many times over. Gone are the headaches about matching and versioning of data. Information about the program and the QAQC comes out faster and more accurately allowing more efficient planning.”

Michelle Stokes
Director, Kenex Pty Ltd

ARE YOU FACING CHALLENGES WITH YOUR DATA?
In a world where data management is crucial, investing in the appropriate data management system is essential to the successful future of any organisation. Companies around the globe invest millions in data collection and the decisions they make about this data directly affects the viability of their business. For this reason alone, the security and validity of your data should be a top priority to your business.

Most mining and exploration companies struggle to maintain the quality, integrity and usability of their essential data. Some of the problems with inaccurate data are visible, others unfortunately are not. Visible signs may include lost data, challenges with data access, integrity and reporting, plus endless quality control issues. The hidden implications are costing companies millions, through inaccurate modelling or decision making, loss of productivity and high Total Cost of Ownership just to name a few.

THE MICROMINE DATA MANAGEMENT SOLUTION
MICROMINE is one of the industry leaders in data management solutions for mining and exploration companies. We have been working in the sector for over 25 years and understand the limitations and restrictions a mining or exploration company operates within and the impact this has on its data management requirements. As a company, we are concerned about offering a solution that best fits your needs. Our solutions can be tailored to your organisation’s size, complexity and geographical diversity.

MICROMINE’s solutions focused approach has been developed to make your life easier. We offer a one stop shop, providing our customisable Geobank software with field data capture options, training and consultancy, plus a global footprint of local support on every continent, so you have confidence you will be maximising your software investment. Our solution includes:

- Field Data Capture options
- Customisable Geobank Software
- Tailored Training programs to suit the client
- Consultancy Services including Managed Data Services packages
- Global footprint of local support

Flexible, reliable and secure, MICROMINE’s Geobank is the ideal Data Management Solution for the resource industry.
DATA MANAGEMENT CONSULTING SERVICES

MICROMINE's Geological Data Management Specialists provide consulting services that span the entire data management spectrum, from development of a data management strategy, through to implementation, change management and maintenance services.

Consulting services consist of the following:

Implementation and Training Services - MICROMINE's professionally qualified team will ensure the necessary solution not only meets the required geological needs, but also fits the data management strategy and complies with best practice of IT governance. Our professionals provide custom database designs, database administration services, data management services, data migration, system integration and project management.

Post Implementation Maintenance Services - A variety of post-implementation maintenance and management services are available. These provide assurance that key data assets are safe, secure and available as required. Maintenance packages are customised based upon client limitations, complexities and needs.

THE GEOBANK SOFTWARE SOLUTION

Geobank is MICROMINE's flexible, reliable and secure Data Management Solution that captures, validates, stores and manages data from diverse sources. Our Geobank software has been designed and built specifically for the resource industry and is used by companies of all sizes, from single users on one site to large blue chip companies operating on multiple sites. The software is designed to scale as your business grows.

Geobank - Data Management Solution
This solution is for exploration companies who manage their information in-house and have the necessary infrastructure to do so. Fully scalable, the system can be operational in days, is easy to use, secure and ensures that information management workflows are standardised and enforced.

Geobank Premium - Multi-site Data Management Solution
Unique challenges arise when multiple operations are spread globally or across the country, whether they originate from IT corporate governance, or the reality of synchronising disparate information silos. This solution enables geological teams to concentrate their time on what they do best, whilst ensuring the integrity of information and the provision of global reporting capabilities. The system can be configured to specific geological or corporate requirements.

HOW OUR SOLUTION SAVES YOU TIME AND MONEY

• Cost Effective Solution - a solution to suit different sites and budgets. A choice of database options provides flexibility to suit all company budgets
• Saves Time - offers automation of data management processes and elimination of double handling
• Reduces the Risk - and cost of poor quality or lost data
• Dynamic Solution - easily tailored to suit an organisation's requirements
• Ease of Use - ease of data analysis, extraction and reporting provides a significant time saving for users when locating data, or generating required reports
• Timely Decisions - allows for timely decisions based on accessible and accurate real-time reports
• Confidence - have confidence when making decisions knowing they are based on data you can trust

“...The system provides a flexible and efficient environment for validating, storing and accessing data from diverse software, applications and sources.”
Grant Van Heerden
Principal Coal Geologist, SRK
With over 12,000 clients in more than 90 countries, MICROMINE is a leading provider of intuitive software solutions to the mining and exploration industry. From capturing, managing, visualising and understanding data to controlling and reporting on mine production, MICROMINE has a solution for every stage of the mining process.

MICROMINE understands the software and consultancy needs of exploration and mining operations around the world. Located in 20 of the world’s major mineral producing capitals, our team is close to your operation. This means MICROMINE can provide you with local support and services in your language and time zone.

MICROMINE’s intuitive solutions are delivered by a team of specialists who understand the software and how it can be integrated into your operation for maximum results.
WHY COMPANIES CHOOSE MICROMINE’S GEOBANK SOFTWARE

Geobank provides a solution for the entire mining process by offering a framework for data capture, manipulation, synchronisation, validation, geological information, drill hole management, Quality Assurance and reporting. If you need a software solution that’s flexible, scalable and reliable, then Geobank is your solution.

**Flexibility** - a fully configurable system offering clients the autonomy to make changes to suit their requirements. Geobank also offers flexible features, such as its import and export tools: facilitates conversation, validation and repair of data from disparate sources.

**Scalable** - as your business grows, so does your software solution. Geobank is used by companies of all sizes, from single users on one site to large blue chip companies operating on multiple sites.

**Reliable** - with Geobank you can be assured of having robust software you can rely on. With lost data being so expensive to a business, you can’t afford not to have a secure, reliable solution.

**Fully Configurable Validation Procedures** - benefit from knowing your data is accurate by setting up your own validation rules and seeing it work in action. Don’t risk relying on Excel, Access, or your own spreadsheets any longer.

**Centralised Control** - benefit from having all your data in one place. Have confidence you are always accessing the most reliable up-to-date data.

**Enhanced Security** - with the latest version of Geobank (2011), you benefit from a new security model with improved level of security based on Windows Users and Groups.

**Intuitive and Visual Tools** - Visual query tool, plan views, importing and exporting are just some of the new intuitive ways of working in Geobank 2011. Visual graphical reports, Quality result graphs and others can be generated by management and field staff at the push of a button.

**A module to suit you** - Core, Professional, Sample Tracker or Coal modules to suit your requirements.

“We were looking for a system that would be useful for us as we grow from being an explorer to being a producer. The software must grow with us in terms of both enhanced productivity and cost effectiveness.”

Dr Steve Hunns, Exploration Manager, Platinum Australia
SUPPORT IN YOUR LANGUAGE, YOUR TIME ZONE

OTHER MICROMINE SOLUTIONS

MICROMINE CONSULTING SERVICES (MCS)

Micromine Consulting Services provides geological and mining consulting services compliant with international reporting standards such as JORC; NI43-101; SAMREC; SEHK (Chapter 18, Hong Kong); and PERC (Pan-European Reserves and Resources Reporting Committee) Codes. Local standards compliance includes the China MLR and Russian, Ukraine and Central Asian GKZ (State Commission on Mineral Reserves) Standards.

All MCS consultants are experienced geologists, mining engineers, metallurgists, surveyors, database managers and GIS specialists with extensive backgrounds in metals, energy and construction.

FIELD MARSHAL

MICROMINE’s Field Marshal solution captures and manipulates exploration and mining geological field data. Compatible with most portable, or hand-held devices, Field Marshal ensures field data is valid and reliable, enabling informed decisions. Enter data directly into Field Marshal, saving time, reducing errors and increasing productivity. Inexpensive and easy to use, Field Marshal is a recognised industry standard field data collection solution.

MICROMINE

Micromine is a modular solution that takes you from exploration through to scheduling and planning. For an exploration geologist, Micromine allows you to capture, manage and interpret critical mining and exploration data. It provides you with an in-depth understanding of your project so you can target prospective regions more accurately, increasing the chance of your project’s success. For miners, Micromine gives you easy-to-use modelling, estimation, and design tools to simplify your day-to-day design and production tasks. As a mining engineer, or short-term planner, Micromine’s scheduling module provides a smart, integrated solution to enable the optimum mineral extraction process necessary to meet corporate objectives.

Micromine comprises eight modules giving you the flexibility to choose what you need as you need it, as your operation expands or your requirements change.

PITRAM

Pitram is a real-time mine production control solution that records and manages mine site operations.

Pitram’s powerful planning functionality provides users with a snapshot of their mine. With access to maintenance plans, crew schedules and mining plans, users have tools needed within a single environment to make informed decisions.

From risk management and asset tracking to grade optimisation and stockpile management, Pitram’s real-time viewing environment helps you visualise your operations so that you have a complete production overview. Pitram’s reporting, analysis and integration platform is also vital to ensuring that the data obtained from disparate sources is presented in an organised and integrated fashion.

Flowing from intuitive and flexible planning functionality, through to short interval control and open pit and underground optimisation, Pitram drives a continual improvement process.

MICROMINE SUPPORT SERVICES

ANNUAL LICENCE

Your Geobank Annual Licence provides you with ongoing technical support and advice. It gives you access to a suite of tools that allow you to realise the full potential of your software investment. These include free software upgrades and patches, as well as new version complimentary training, discounted training and a quarterly support services bulletin. Your Annual Licence qualifies you to participate in the ongoing development of Geobank by participating in beta programs and client focus groups.

MICROMINE TRAINING

MICROMINE offers a full suite of training modules ensuring you derive the maximum value from your software. Structured to grow with your MICROMINE investment, MICROMINE training builds on your product knowledge and expertise.

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MICROiNTELLIGENT MINEiNG SOLUTiONs
FLEXIBLE, RELIABLE AND SECURE, MICROMINE’S GEOBANK SOFTWARE IS THE IDEAL DATA MANAGEMENT SOLUTION FOR THE RESOURCE INDUSTRY

Geobank is a data management software solution that provides a flexible and efficient environment for capturing, validating, storing and managing data from diverse sources. It is a dynamic solution that uses a scalable data model, which can be tailored to meet specific exploration and mining requirements. The software has been designed and built specifically for the resource industry and is used by companies of all sizes, from single users on one site to large blue chip companies operating on multiple sites.

Possessing powerful data manipulation and report generation tools, Geobank allows numerous members of an organisation to track operational progress. Information is centrally available, allowing users access to all of their data. Most Geobank processes are highly configurable, allowing for seamless integration of existing data, database procedures and business rules.

MICROMINE’s Geobank is comprised of five modules:

- ADMINISTRATOR
- PROFESSIONAL
- SAMPLE TRACKER
- CORE
- COAL

The newly released software version of Geobank (GBIS 8) offers enhancements to all modules.

- Sample Tracker has new functionality and an improved User Interface
- The Professional module has improvements to depth adjustment usability and correlation diagrams
- The Coal module makes your life easier with further standardization
- The Administrator module has been introduced offering tightened security through a new security model based on Windows Users and Groups and a streamlined User Interface offering enhanced usability

ADMINISTRATOR

The Administrator module is a secure section within Geobank that contains the tools for the creation and management of key Geobank functions. Key features include:

- Configuration and preview of data sources, tools and components
- The ability to manage Users and Groups for increased security
- Managing Profiles and Task Lists
- Importing GBIS 7 Profiles and Symbology
- The ability to import Micromine Hatch-sets
- Import / Export Tools for sharing configuration

COAL

The Coal module offers functionality aimed at dealing more effectively with the added complexity of coal data. Key features include:

- Provision for fractional and cumulative washability data at multiple size fractions
- Routines to compile a standardised wash matrix by interpolating values from disparate washability data sets
- Basic compositing tools with the option to view wash curves
- Ability to calculate and export wash tables

CORE

The CORE module is fundamental to the Geobank application. It provides all the tools required to build a robust, yet flexible data management system. Data collection, validation, browsing and reporting functions can all be tailored to meet the requirements of any individual, or group within an organisation. Key features include:

- Data views and queries
  - Connectivity to Microsoft SQL Server allows all corporate data to be integrated
  - Sophisticated graphic report generator
  - Flexible import and export tools facilitate the conversion, validation and repair of data from disparate sources
  - Feature-rich data entry screens with extended support for barcode scanners
  - Fully configurable data validation procedures
  - Macro functionality

Geobank is distinguished from other Data Management solutions because it is highly configurable. It features Graphic Reporter, a powerful report generator, which allows the geologist to not only view and print a report in a familiar format (e.g. downhole strip log), but also to browse the database using the same graphical format. This means that users can navigate from one hole to the next and see a live, current view of the data in a predefined graphical format.
PROFESSIONAL

The Professional module provides extended functionality designed specifically for exploration and mining. It includes specialised utilities for displaying and managing drillhole data.

Key features include:

- Management of tenement, drillhole and other exploration data on a project basis
- Specialised drillhole utilities ensure accurate desurveying, correlating and compositing of downhole data
- Unique graphical editing tool for adjusting depth intervals based on reference data such as geophysical logs
- Plan view interface to visually build drillhole lists for use in reporting and other processes
- Built-in coordinate transformations to deal with survey data in multiple coordinate systems. This allows the user to do ‘on the fly’ datum conversions during the Plan view display
- Import geophysical files

WHY COMPANIES CHOOSE MICROMINE’S GEOBANK SOFTWARE

Flexibility - a fully configurable system with an open structure offering clients the autonomy to make changes to suit their requirements. Geobank also offers flexible features, such as its import and export tools: facilitates conversation, validation and repair of data from disparate sources.

Scalable - as your business grows, so does your software solution. Geobank is used by companies of all sizes, from single users on one site to large blue chip companies operating on multiple sites.

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A module to suit you - Administrator, Core, Professional, Sample Tracker, or Coal modules to suit your requirements.

SAMPLE TRACKER

The Sample Tracker module stores and manages data that relates to the collection, preparation and analysis of samples. Key features include:

- Ability to customise procedures for individual laboratories
- Perform full reconciliation of despatch vs. receipt which allows full verification that information is as requested, and if not, ascertain whether data is still acceptable
- Handling of quality control samples submitted by the client or introduced by the laboratory
- In-line quality control procedures to allow early rejection of suspect data. Using Shewhart charts and scatter plots, users can reject a consignment before committing the data to the database
- Extensive reporting in HTML format
- QA/QC Reporting

Multi site implementation diagram
MICROMINE's Geological Data Management specialists provide consulting services that span the complete data management spectrum, from the development of a data management strategy through to implementation, change management and maintenance services.

GEOLOGICAL DATA MANAGEMENT

A data management strategy is crucial to ensuring that maximum value is returned on data collected. The type of approach relevant to a company depends on many factors, such as the company’s size, availability of in-house expertise and geographic distribution.

MICROMINE has extensive experience in working with organisations to design and implement plans to maximise benefits and meet corporate objectives.

Initially, a ‘needs analysis’ of the systems currently in place is conducted with a skills assessment of current staff. From this point, key data management objectives are determined and a data management strategy developed.

This includes:
- Systems and Skills Health check
- Business process analysis and workflow design
- Database design
- Data management and IT operational policy and procedure establishment
- Change management and continuous improvement
- Legacy data migration

WHY COMPANIES CHOOSE MICROMINE’S DATA MANAGEMENT CONSULTANTS

- **Database specialists** - our consultants are geological data management specialists, not simply IT specialists. They have an in-depth understanding of Geobank, as well as various database platforms, such as SQL Server and its corresponding tools and utilities.

- **System Integration** - our consultants are able to seamlessly link Geobank to other MICROMINE systems, such as Field Marshal and MICROMINE. They are also skilled at integrating Geobank to third party software.

- **Global support** - our consultants offer global expertise and local support on every continent.

- **Customisable User Interface and database back-end** - the Geobank front-end User Interface as well as the database back-end can be easily customised to meet individual requirements due to the flexible database model.

- **Managed Data Services** - there are numerous benefits of our Managed Data Services package, from receiving an immediate cost saving by purchasing upfront to priority access to our consultants.

- **Experienced data management strategists** - our consultants have worked with companies of varying commodities in mining capitals around the world, researching and designing solutions tailored to meet varying needs.
MICROMINE: GEOLOGICAL DATA MANAGEMENT CONSULTING

GEOLOGICAL DATA MANAGEMENT CONSULTING

MICROMINE’s Geological Data Management Consulting services consist of the following:

- **Implementation Services** - MICROMINE’s professionally qualified team will ensure the necessary solution not only meets the required geological needs, but also fits the data management strategy and complies with best practice of IT governance.

  Our team of professionals provide custom database designs, database administration services, data management services, data migration, system integration and project management.

- **Post Implementation Maintenance Services** - A variety of post-implementation maintenance and management services are available. These provide assurance that key data assets are safe, secure and available as required.

  Maintenance packages are customised based upon client limitations, complexities and needs.

- **Training Services** - MICROMINE’s Training Services provide the appropriate type of training, when and where required.

  Our professionally developed training courses are developed by product experts, ensuring that best practices are captured and passed on.

Regardless of an organisation’s experience with Geobank, MICROMINE tailors its courses to meet the specific needs of the client, including training on the client’s own data.

"Peabody has found MICROMINE’s assistance and guidance invaluable. The consultants were readily available and their advice helped us recognise the database configuration that was needed. MICROMINE’s support and guidance will help Peabody achieve some good outcomes for the company and we look forward to working with MICROMINE more in the future".

Kane Maxwell - Geologist
(Projects & Operational Support)
Peabody Energy Australia

"They have made our purchase and implementation of GBIS (Geobank) and Micromine incredibly easy and seamless. We look forward to growing our business relationship with MICROMINE”.

Charles Lord
Resource Geologist, Endocoal

"I have been happily using Micromine for many, many years now and with the current version and the ease of integrating GBIS (Geobank) data, it is a very powerful and useful setup”.

Michelle Stokes
Director, Kenex Pty Ltd

[Contact information for MICROMINE worldwide locations]
### TECHNICAL DATA: SYSTEM REQUIREMENTS

**GEOBANK - MICROMINE’S DATA MANAGEMENT PRODUCT FOR THE RESOURCE INDUSTRY**

For optimal Geobank performance, your computer system should meet the minimum configuration requirements described below.

<table>
<thead>
<tr>
<th>DATABASE SERVER</th>
<th>GEOBANK CLIENT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Recommended</strong></td>
<td><strong>Minimum</strong></td>
</tr>
<tr>
<td>OPERATING SYSTEM</td>
<td>Windows Server 2008</td>
</tr>
<tr>
<td>CPU</td>
<td>2GHz or higher - dependent on database size and usage</td>
</tr>
<tr>
<td>MEMORY (RAM)</td>
<td>2Gb or higher - dependent on database size and usage</td>
</tr>
<tr>
<td>FREE HARD DISK SPACE</td>
<td>3Gb</td>
</tr>
<tr>
<td>SCREEN RESOLUTION</td>
<td>N/A</td>
</tr>
<tr>
<td>GEObANK CLIENT</td>
<td><strong>Recommended</strong></td>
</tr>
<tr>
<td>OPERATING SYSTEM</td>
<td>Windows XP, Vista or Windows 7</td>
</tr>
<tr>
<td>CPU</td>
<td>2GHz</td>
</tr>
<tr>
<td>MEMORY (RAM)</td>
<td>1Gb</td>
</tr>
<tr>
<td>FREE HARD DISK SPACE</td>
<td>2Gb</td>
</tr>
<tr>
<td>SCREEN RESOLUTION</td>
<td>N/A</td>
</tr>
</tbody>
</table>

(1) Only required if running local Geobank databases.