



GEOS MINING DATA MANAGEMENT SERVICES

DRILLING PROJECT MANAGEMENT RESOURCE & RESERVE ESTIMATIONS JORC COMPLIANT STATEMENTS

A geological model is only as dependable as the data on which it is based. To ensure a quality product, Geos Mining offers data management services to complement any geological solution we provide.

Sound knowledge of project data is the key to making good geological decisions. This requires well organised, well maintained and reliable source data.

Geos Mining custom-builds complete systems to suit clients' current and future data requirements from the outset of a project.

Significant inefficiencies and unnecessary costs are often incurred when data management is not well planned. Costs are often much higher in the longer term when attention is not spent on data management in the early stages of a project. As a project proceeds, reporting, planning and resource estimation all benefit from a consolidated and well-planned database.

Geos Mining uses Microsoft SQL Server 2008, a modern enterprise class relational database management system (RDBMS) for data storage. SQL Server databases assist in preserving data integrity and are designed to scale to suit a client's growing requirements, making it a popular RDBMS globally. Because SQL Server is a Microsoft product, compatibility is ensured within the Microsoft Windows environment and clients can be confident their data is universally supported.

Field data is obtained through a variety of different field data acquisition programs, each specifically chosen to suit the intended purpose. These programs can be configured by Geos Mining to integrate seamlessly with your database and can be deployed on field laptops or PDA's. Geos Mining custom designs import engines for efficient data transfer between field and database ensuring valid data in the database.

Data is handled by geologists using professionally designed IT systems to ensure that data manipulation is geologically sound and has an additional layer of validation.



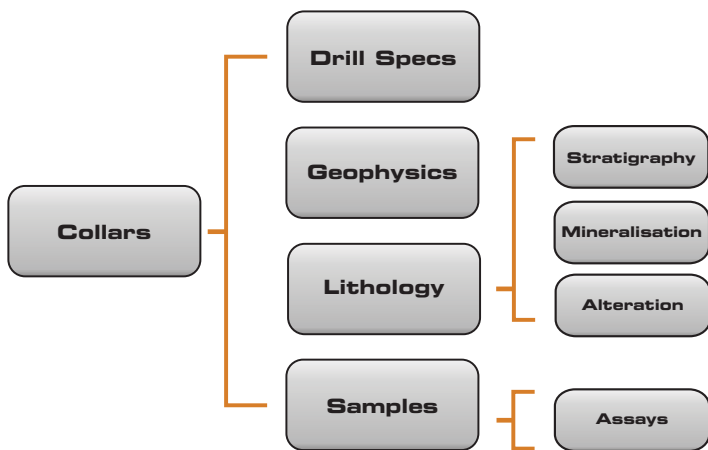
GEOS MINING DATA MANAGEMENT SERVICES ENSURES:

- Data maintenance costs are minimised in the long term
- Seamless integration occurs between field data and project database
- All data is validated entering and residing in the system
- The database is consolidated & centralised
- The database system is scalable to match project requirements
- There is greater efficiency in all client applications:
 - Live gis
 - Resource estimation
 - Dynamic office documents & spreadsheets

- Data is secure:
 - Emergency database restoration to specified date and time
 - Daily database backups
 - Structured access of Geos Mining personnel to client data
- Data is portable and universal:
 - Output to many formats
 - Easily transferred between other rdbms vendor systems
 - SQL server format includes all information used, not just source tables

CONTACT US for a **FREE** initial data review and consultation. We have highly skilled personnel to design systems that suit your requirements.

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EXCEL

- Many individual files
- No referential integrity
- Imprecise data types
- Limited programmability
- Single user
- No validation or auditing

ACCESS

- Single database
- Optional referential integrity
- Imprecise data types
- Limited programmability
- Limited multi-user
- Limited validation & audit capabilities. No database restore

SQL SERVER

- Single database
- Compulsory referential integrity
- Precise, pre-designed data types
- Fully programmable
- Many concurrent users
- Sophisticated validation, full auditing & restoerability

GEOS MINING'S TYPICAL DRILLING DATABASE STRUCTURE

DIFFERENCES BETWEEN COMMON METHODS OF DATA STORAGE

(Note that worksheets are not designed for long term data storage and Geos Mining recommends SQL server for most of its projects)

