

*Z\* experience has shown that robust management and storage of data is essential for accurate mineral resource estimation.*

## DATA MANAGEMENT & SYSTEMS



Z\* have the capability to provide expert advice on data collection, management, storage and reporting. Typically mineral resource and reserve information encompasses a vast array of complex data types which all require consideration in terms of optimal data handling and, importantly, amalgamation into a combined, user-friendly database environment. It is critical that database information is independently verified against original hardcopy documents, a service that Z\* routinely provides to clients.

### MINERAL RESOURCE DATABASE VALIDATION

In particular, mineral resource databases house the key information required for reporting purposes, i.e. the data required for routine public disclosure of mineral resource and reserve figures. It is essential that this data is accurate and well managed. Z\* have the expertise to check and validate your mineral resource data to negate errors and provide assurance.

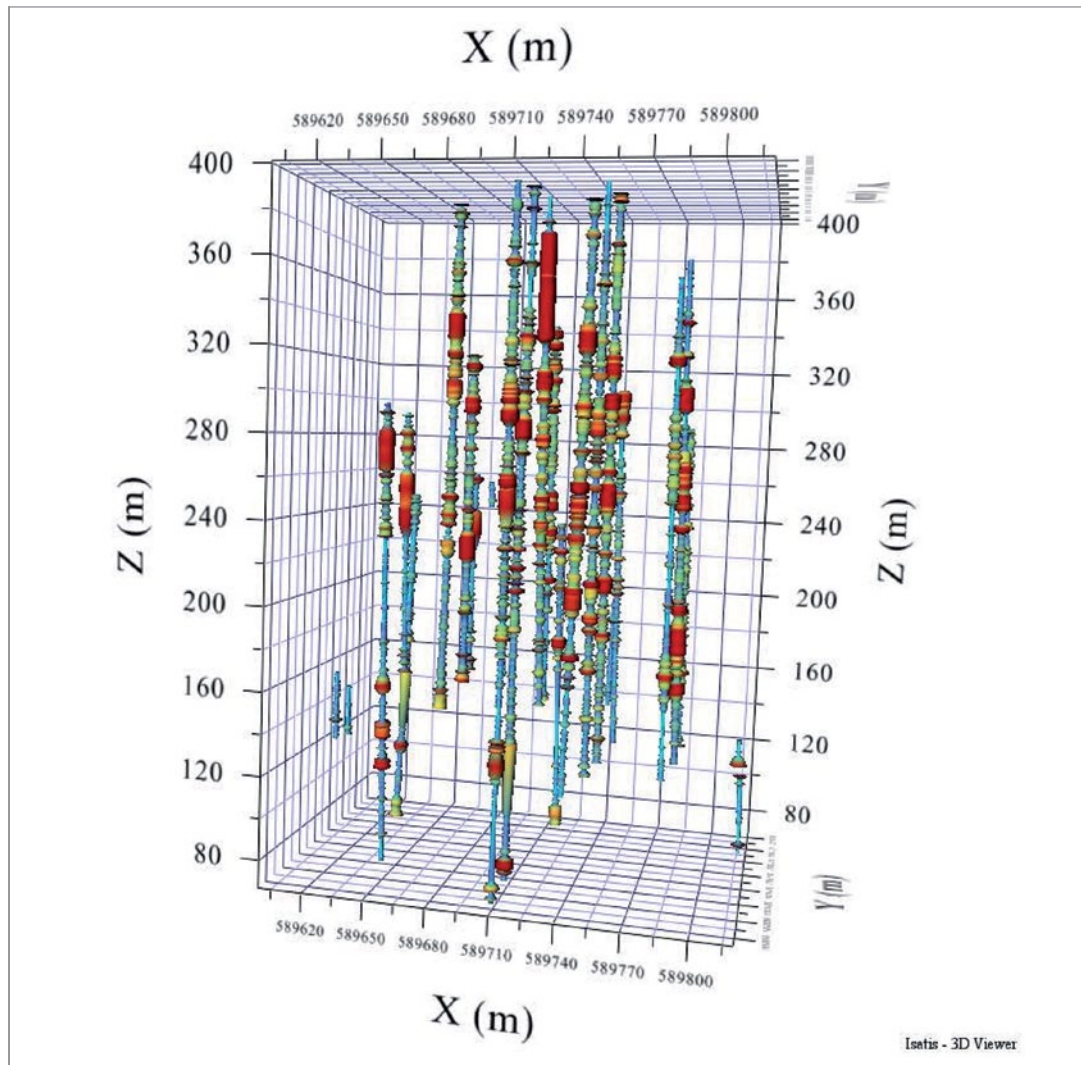
### EXPLORATORY DATA ANALYSIS (EDA)

Statistical and geostatistical analysis of variable data must be undertaken prior to mineral resource estimation. This is critical in terms of defining an estimation methodology and ensuring that the estimation dataset is valid. The EDA includes a correlation with the geological model and identifies potential anomalies that must be discussed in detail with the project geologists to “iron out” potential problems.

### DATABASE DESIGN

Z\* offer expert advice on optimal database design for storing raw or manipulated data. Correct design of the database allows rapid and efficient access by users.





Z Star provide robust assurance of mineral resource estimates and conduct risk analyses on existing mines or new projects. The company will undertake due diligence audits, resource performance analysis and provide governance advice.

**Services include:**

- comprehensive geostatistical estimation service
- mineral asset valuation
- Competent or Qualified Persons Reports
- classification of mineral resources
- size frequency distribution modelling
- geostatistical simulation
- sample optimisation
- data validation
- geological modelling
- statistical analysis

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