

# RESOURCE EVALUATION AND GEOLOGICAL MODELLING

Add value to your operation, add confidence  
to your investment decision



Exploration Management  
Due Diligence and Technical Reviews  
Project, Concept and Feasibility Studies  
Environmental Planning and Approvals  
Risk, Insurance and Safety Management  
Infrastructure and Project Management  
Operations Planning, Design and Scheduling  
Resource Evaluation and Geological Modelling  
Business Optimisation, Financial Modelling and Cost Reduction

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XENITH PROVIDES A FULL MULTI-DISCIPLINARY ADVISORY SERVICE FROM INITIAL RESOURCE TARGET GENERATION AND EXPLORATION MANAGEMENT, THROUGH TO FEASIBILITY STUDIES AND DETAILED MINE PLANNING, INFRASTRUCTURE, FINANCIAL ANALYSIS, APPROVALS, PROJECT DEVELOPMENT AND MINE OPERATIONAL SUPPORT.

Xenith has a highly motivated and experienced team of resource geologists in all offices. The resource development team in Brisbane has completed numerous publicly reported resource estimates to the various reporting codes (including JORC) across assorted commodities, with a proven reputation as coal specialists.

Here at Xenith, we have combined state-of-the-art modelling software and tools with our prior experience in the major coal basins around the world to accomplish our important assignments. Our passion for fit-for-purpose solutions and working closely with our clients, ensures that the combined geological knowledge of the team assessing a deposit is as strong as possible.

In recent times, the Xenith group has undertaken projects in Australia, USA, Indonesia, Mongolia, South Africa and Mozambique.

## Commodities Expertise

Our team offers expertise in:

- Database Builds and Management
- Geological Modelling
- Conceptual Mining Studies
- Asset Valuations (to Valmin Code)
- Public Reports
- Resource Estimation.

## Technology

Our team has expertise in the following software:

- Minescape • Vulcan • Minex • Surpac
- GDB and other specialist database packages

## CASE STUDY: JORC Resource Estimate – Minescape Modelling

A global diversified energy company based in Queensland, Australia, was looking to raise capital for a potential coal mine located in central Queensland. In order to raise the capital, the company required their existing JORC Resource Estimate to be updated on completion of the \$5M drilling program.

The company engaged Xenith prior to completion of the drilling program to

- oversee the finalisation of the program,
- plan in-fill holes based on initial results,
- review the final exploration dataset, and
- update the JORC Resource Estimate.

Over 8 months, Xenith worked in close collaboration with the client's team, building up specific knowledge of the resource, while using Minescape software for the preliminary models. The updated JORC Resource Estimate was completed and resulted in a 300% increase of the indicated category tonnes compared to the previous estimate.



BRISBANE  
Level 6, 40 Creek Street,  
Brisbane Qld 4000, Australia  
GPO Box 993, Brisbane QLD 4001 Australia  
p: +61 7 3835 3900 f: +61 7 3835 3999  
www.xenith.com.au info@xenith.com.au

SYDNEY  
Level 26, 259 George Street  
Sydney NSW 2000  
p: +61 2 8248 1264  
m: +61 408 969 917  
www.xenith.com.au

HUNTER VALLEY  
Suite 4, 106 John Street  
P O Box 1169  
Singleton NSW 2330  
p: +61 2 6572 2878  
www.xenith.com.au

JOHANNESBURG  
2nd Floor, West Tower,  
Maude Street, Nelson Mandela Square  
PO Box 785553, Sandton 2146, South Africa  
p: +27 11 881 5677 f: +27 11 881 5611  
www.xenith.com.au