

A.B.N 91 383 829 253

BLACKROCK MINING SOLUTIONS PTY LTD

Providing technical services professionals to the mining industry

**Contracting Geologists, Geotechnical Engineers, Surveyors
Mining and Civil Engineers**

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Australia**

Introduction

Blackrock Mining Solutions is a small company which can provide your operation with professional technical consulting and contracting services. Our aim is to deliver quality solutions to our clients by providing a full range of services across the mining disciplines. Blackrock Mining Solutions provides a range of geological services, including exploration planning, exploration management, rig supervision, resource evaluation and mining reconciliation.

Blackrock Mining Solutions also provides a range of geotechnical services, strata characterisation and operational geology and geotechnical consulting. Along with mining method selection studies, mine planning and reserve optimisation. In addition we specialise in project management and delivery of project outcomes to the clients expectations.

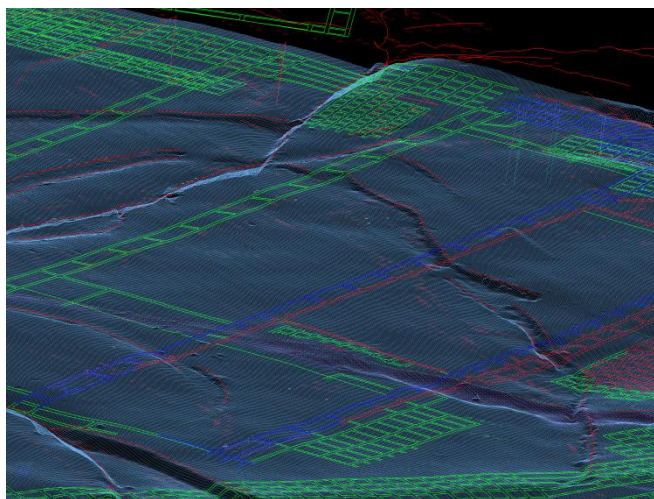
Blackrock Mining Solutions has senior level staff with many years of experience in the coal mining industry within Australia's Queensland, New South Wales and Western Australian coalfields, along with New Zealand's various coal basins.

Consulting Services

Blackrock Mining Solutions can provide the following services to your operation or mining project.

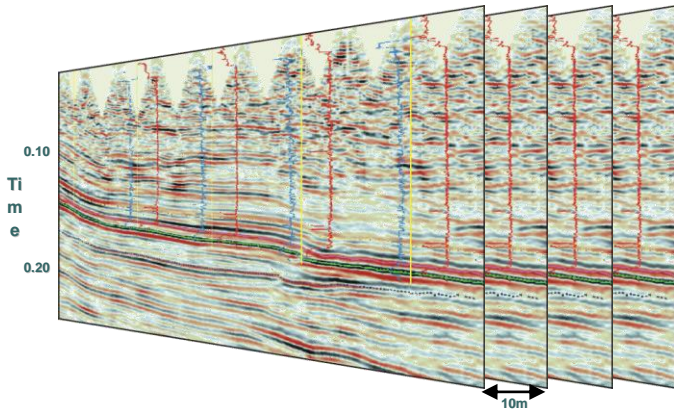
Geological Services

- Geological modelling and mine planning
- 3D seismic interpretation
- Vulcan 3D geological modelling



- Exploration and project management
- Drill rig supervision
- Geological logging and correlation
- Geophysical log analysis and correlation
- Data collection and interpretation
- Geological sampling and core processing
- Geological mapping, both in underground and opencast
- Longwall face and gate road mapping
- Geological hazard assessment and analysis
- Gas drainage planning and optimisation
- Training and mentorship of junior staff
- Workforce training
- Auditing of geological systems
- Resource analysis and reporting

- Coal quality characterisation
- Structural analysis
- Geological reporting for internal company and regulatory requirements
- Mining reserve reconciliation and maximisation



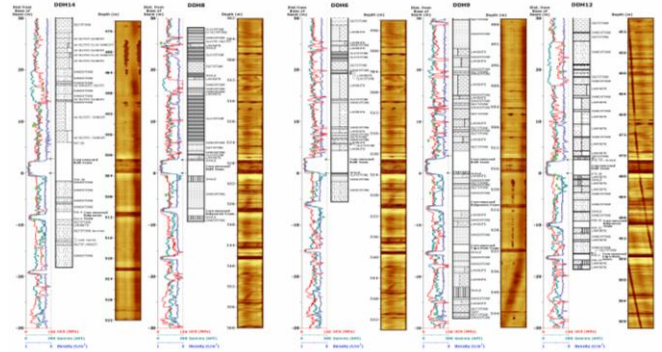
Geotechnical Services

- Geotechnical characterisation from exploration to operations
- Geotechnical hazard assessment
- Longwall recovery methods and hazard mitigation
- Longwall move geotechnical supervision of bolt up and monitoring of conditions.



- Strata reinforcement design
- Site geotechnical monitoring
- Strata control monitoring
- Installation of instrumentation
- Stress and conditions mapping
- Training and mentoring of junior staff
- Workforce strata control training
- Development of TARPs and Strata Management Plans

- Auditing of installed reinforcement against TARPs
- Incident investigation and reporting
- Auditing of reinforcement installation methods
- Consumable selection and testing
- Audit of geotechnical systems
- Geotechnical data analysis and interpretation
- Fall recovery strategies
- Risk assessment



Mining Engineering Services

- Reserve calculations and reconciliation – OB volumes, coal tonnes & dilution
- Auto Cad/Vulcan design work
- Mine Planning
- Underground mine design and scheduling
- Open Cut design and scheduling
- Reserve maximisation
- Mining method selection studies

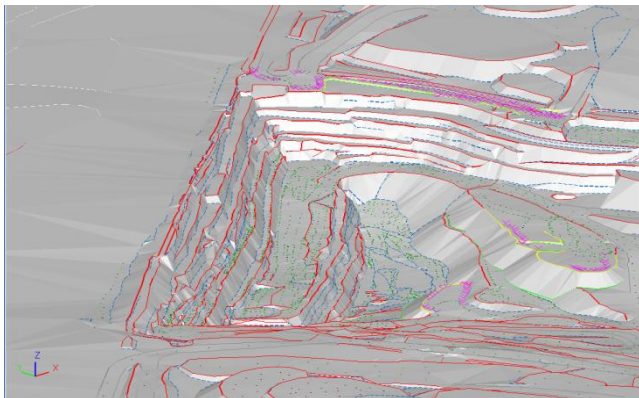


Project Management

A significant portion of Blackrock Mining Solutions resources are devoted to project management services for various clients. A range of projects from minor strata reinforcement support selection studies to major drift recovery and longwall move type projects have recently been completed.

Project management experience includes:

- Tail gate support optimisation studies
- Secondary support contract management
- Mining through faulted ground
- Recovery and rehabilitation of falls of ground
- LW move, bolt up and monitoring
- Drift recovery and rehabilitation
- Ventilation shaft sinking geotechnical analysis
- Ground consolidation programs
- Stone drirage operations
- Drift development
- Roadheader operations



Additional Services

In addition to the above specific skills and services Blackrock Mining Solutions can also provide cover for leave purposes, and for peak periods when the workloads cannot be effectively managed by site personnel, for both operations and projects.

Client Base

Blackrock Mining Solutions has recently undertaken work for the following clients;

Anglo Coal – Moranbah North

Vale Australia – Carborough Downs

BMA

BHPB – projects group

Solid Energy New Zealand

Rey Resources

Vale Australia - Integra Coal

Coal Mine Services

Mastermyne

BHPB Dendrobium Mine

Peabody Energy – North Goonyella Coal Mine

Our People

Blackrock Mining Solutions employs only quality staff who are industry proven professionals, and the company has a firm belief that our staff is our greatest resource. The management structure is such that each employee is supported to ensure they can and do deliver to the client's expectations or better.

Blackrock Mining Solutions has experience in all forms of underground coal mining from bord and pillar, place change, longwall and hydraulic extraction of very thick seams, along with open pit mining in multi seam truck and shovel environments.

We bring a vast and diverse range of experience from both a technical and operations background and can provide quality best practice services for your projects.

Additional Information

The principal of Blackrock Mining Solutions is a Registered Professional Engineer in Queensland and Chartered Professional Engineer, and as such all work is done under supervision, as required by the current legalisation. In addition professional supervision of clients employees/contractors can be undertaken as part of the services provided.

Blackrock Mining Solutions Pty Ltd carries \$20,000,000 Public Liability and Product Liability Insurance and \$1,000,000 Professional Indemnity Insurance for all consulting and contracting services.

Contact us

If you would like to discuss Blackrock Mining Solutions capability or how we can assist your project or operation feel free to contact us at r.campbell@blackrockmining.net, or call us on 04396-93266 to arrange a meeting at a convenient time.