



TotalEnergies

# Paving the way to a better future

[globalroadtechnology.com](http://globalroadtechnology.com)



1300 DUST FREE

12X





# Engineered Solutions for the Mining Industry



**3 GRT pit to port products can be used for:**

- Whole of site dust management
- Haul Road Management
- Drill and Blast
- Temporary LV access roads
- Underground, transfer and processing
- Broadscale dust and erosion control
- Transport and stockpiling



**With powerful environmentally friendly soil stabilization and dust suppressive qualities, GRT International is perfect for the following industries:**

- Mining and resources
- Forestry
- Civil construction
- Rail
- Livestock and farming
- Military
- Disaster relief

GRT are the specialists in dust suppression, soil stabilization, erosion control and water management.

We are an international engineering technology company. Our focus is on providing innovative site specific solutions for mining, civil, agriculture, resources, land development, and environmental management sectors.

GRT's industry leading technology delivers whole of site efficiencies. This in turn delivers sustainable infrastructure outcomes, while improving health and safety deliverables for workers and nearby communities.

**If you're not receiving an engineered solution, you're dealing with the wrong company.**



GRT's foundation is engineering excellence and innovation.



With highly experienced chartered engineers forming the core of our team, GRT can develop efficient, practical, site-specific solutions across mining, civil, environmental, and geotechnical disciplines, with application in the Roads, Rural, and Resource sectors.

**If you're not receiving an engineered solution, you're dealing with the wrong company.**

# Mine Road & Broad-scale Dust Control



## GRT: HAUL-LOC HAUL ROAD DUST CONTROL

A specially formulated liquid polymer added to water trucks to greatly improve the efficiency and efficacy of water sprayed for dust suppression. Extends dust-suppressing effects of water trucks up to 500% more than using water alone.



## GRT: ACTIVATE IONICALLY CHARGED DUST SUPPRESSION

Quickly alters the surface tension and charge of water to deliver industry best stripping of airborne coal and silica dusts.



## GRT: RUBBLE-LOC DEMOLITION & RECOVERY SITE DUST CONTROL

A cost-effective dust and wind erosion control technology specifically designed for demolition sites, contaminated sites, material stockpiles and natural disaster sites through both the emergency and recovery/reconstruction phases. Provides contractors, regulators and surrounding residents peace of mind that dust and potential contaminants can be locked down onsite.



## GRT: SOIL-LOC WIND EROSION TECHNOLOGY

Broad-Scale Dust Suppression Designed to Stop Broad-Scale Wind Erosion. GRT Soil-Loc is a cost effective, broad-scale wind erosion technology designed to protect sensitive exposed surfaces. High seasonal winds or storm events can remove as much as 50-100mm of materials from exposed surfaces causing land degradation and transportation of unwanted dust and contaminants.

# Underground Mining, Transfer & Processing



## GRT: ACTIVATE UG

### EFFECTIVE COAL DUST CONTROL

Used to super-activate water sprayed to control coal dust in longwall and continuous miner operations. Coal is by nature hydrophobic (water-hating) and at the microscopic level repels water – so despite the volumes used, the finest particles simply bounce off of sprayed water.



## GRT: ORE-LOC

### BULK MATERIAL LIQUID VENEERING

A robust, liquid polymer that provides an exceptional surface coating resistant to very high wind loadings. An inert material, it is compatible with all ore and material surface types. It can be applied directly to materials in rail cars, tipper trays or stockpiles using existing or specially designed spray-bar systems or water carts.



## GRT: 12X

### DRILL & BLAST DUST CONTROL

GRT: 12X super-activates drill water so it saturates and captures the fine, hazardous dust drilling can generate, preventing it from becoming an airborne hazard. GRT:12X has been independently verified by one of Australia's leading universities to be 12 times more effective at capturing dust than water alone.



## GRT: DC-BINDER

### BLAST PATTERN DUST CONTROL

GRT: DC Binder prevents dust generation from the hazardous piles of drill cuttings produced by drill & blast activities. These piles contain very fine, respirable dusts that lead to lung disease such as silicosis and coal workers pneumoconiosis.

# Improving Health, Safety & Environmental Outcomes



## GRT: DAM-SEALER

### DAM REPAIR & MAINTENANCE

A specifically formulated matrix of soluble and non-soluble polymers designed to find and seal leaks in earthen dams, using gel-blocking technology.



## GRT: WATER CLARIFICATION RANGE

### POLYMER COAGULANT & FLOCCULATION PRODUCTS

Designed to remove suspended particles from water storage basins and dams commonly used in the construction, mining, rural and land development sectors. All products are environmentally friendly concentrates that do not alter pH or salinity making them safe to release into downstream receiving waters.



## GRT: ENVIRO BINDER

### EROSION CONTROL SOLUTION

A unique erosion control product proven to outperform in any application and provide immediate results. Penetrates and binds to form a tough, interconnected structure with the soil particles. Once the polymer dries, a durable, weatherproof surface is formed binding the surface and preventing erosion.



## GRT: WET-LOC

### WATERLESS DUST CONTROL

An environmentally friendly, clear, and highly refined synthetic fluid independently verified to Australian and New Zealand Food Safety Standards (FSANZ). Designed to handle heavy and damaging traffic movements and is effective for at least 6 months. Easy to handle and can be applied by existing water trucks or farm sprayers, and is ready to be trafficked immediately after application.





CASE  
STUDY:

# Haul Road Dust Control

**GRT: HAUL-LOC**  
Dust Suppression



**Bowen Basin Coal Mine**  
QLD, Australia

## 01 > Problem

Our client is a global renowned mining and resource organisation that owns large scale, open-cut mines in central Queensland.

To transport this coal, this mining operation has over 70 kilometres of haul road, with an average width of 45 metres.

The dilemma is that water being sprayed for dust control is not working. Roads are either wet and slip hazards or dry and dusty. The reduction in visibility on haul roads caused by vehicle generated dust, preventing clear communication between drivers and increased risk of collision. On top of these risks is the respiratory and environmental impact of uncontrolled dust.

To try and achieve dust control and meet legislative requirements, the current cost of running water trucks and the potential need to purchase additional trucks to keep dust under control with water alone is not sustainable. Finally, the availability of water to manage dust, and pressure to not consume natural resources also in demand from local communities and farming.

## 02 > Solution

Water and fine coal and silica dust just don't mix! With global experience in dust suppression and dust control, our client approached GRT and commissioned for a small-scale dust control trial using GRT: Haul-Loc.

The success and effectiveness of GRT: Haul-Loc resulted in the product being rolled out to the rest of the mine as the backbone for dust control.

GRT: Haul-Loc is designed specifically for the conditions of the mining and resource sectors and can be applied using existing site water trucks, tankers, or sprinklers. GRT: Haul-Loc binds surface dust particles to the road surface and to themselves, creating a sustainable stable layer resistant to heavy traffic wear, wind erosion, and rainfall impact.

GRT: Haul-Loc is a specially formulated liquid polymer added to watering trucks used to reduce water required for continuous dust suppression by at least 50% and extend the dust suppressing effects four to five times longer than water alone.

## 03 > Conclusion

**The use of GRT: Haul-Loc has led to the following results for our client:**

Reduction in visibility hazard and respirable dust levels. The water used for dust suppression is actually doing its job – so it is not being wasted.

In addition, GRT staff assisted in tailoring spray systems to the optimal use of product and water to the site's coal type and water availability.

Improvements in the efficiency of the water trucks has led to financial and operational savings with operators freed up to be involved in production, rather than environmental and safety overheads.

**Engage with GRT to see how our proven technologies can deliver safer, healthier workplaces whilst also delivering operational and material savings.**



# Drill & Blast Dust Control

The quickest and most effective way to capture and control hazardous dust from drilling operations.

## 12X



12x more effective at dust capture than water alone



Saturates high velocity dust quickly to prevent it becoming an airborne hazard



Targets the cause of black lung and silicosis



Helps with drill hole stability



Safe for workers all day, everyday



Easy application through your existing water spray systems

## DCBINDER



Binds the surface of drill cuttings mounds stopping dust at the source



Produces a tough crust that binds hazardous dust particles in place – eliminating the cause of black lung & silicosis



Concentrated, polymeric additive dosed into and sprayed by your site water trucks



Eliminates the need for continual watering for dust control



Can also be used to improve dust control on site access roads

Team up the GRT: 12X with DC Binder to fully manage dust in your drill & blast operations

Designed & Built  
in Australia



# GRT International - Improving Mine Site Health & Safety Worldwide

Global Road Technology is an international company with a wealth of expertise and an unrivalled range of environmentally friendly products.

Developed for the mining industry as a cost-effective way to create safe, dust-free mine-sites and nearby communities.

## GRT - Designed, Developed, Tested, Proven

GRT's breadth and depth of expertise in dust suppression see's it deliver a range of products specifically designed for miners to provide whole-of-site solutions to reduce air pollution.

It began its journey as a company seeking to improve road safety in Australia and globally through its cost-effective road-building solutions. These products and engineering techniques have now been applied to the mining sector as they provide a cost-effective solution for dust suppression, soil stabilisation, erosion control and water management.

In addition to the mining sector, GRT's client base includes the civil infrastructure, agricultural and construction industries.



## Working for the World Wide Community

We provide solutions to the global challenge of delivering affordable, dust free, safe roads and infrastructure. Our clients include government, industry, and communities everywhere.



## Quality Assured

All GRT Products are manufactured to ISO9001 standards and have been comprehensively reviewed by leading independent testing institutions and major companies worldwide.



Designed & Built  
in Australia



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Approving and supporting regulatory compliance practices and principles