



Area: Kalgold is an open-pit mine situated 55 kilometres southwest of Mahikeng in North West Province of South Africa

Background: Harmony Kalgold came to Soil & Dust Solutions looking for a cost effective environmentally compliant sustainable solution for dust suppression on the Tailings Storage Facility (TSF).

The management of Mine Tailings Storage Facilities is a critical part of any mining operation and forms one of its largest future liabilities. Therefore effective management is critical long after the mining operations have ceased, the Tailings Storage Facilities remain.

To minimize current and future liabilities, Soil & Dust Solutions has devised a number of specialized applications for use on Mine Tailings Storage Facilities, which will reduce water usage, eliminate dust and help prevent erosion.

Project Name: Tailings Storage Facility (TSF) Dust Suppression

Location: North-West Province, South Africa

Client: Harmony Kalgold

Application: EBS Surface Application



Project Description: The areas were treated using a Finn Hydroseeding machine with a specialized spray nozzle



Result: The treatment of the TSF will provide a long-term sustainable solution with respect to dust abatement, without the continuous use of water or expensive and ineffective irrigation systems. Effective Tailings Management will ensure decreased liability, environmental compliance, reduced effect on neighbouring communities and an over all decreased environmental impact.

Benefits of Mine Tailings application with EBS include the following:

- Product application without disruption to the integrity of the TSF structure
- Elimination of expensive and maintenance intensive irrigation systems
- Substantial reduction in water usage
- PM₁₀ and PM_{2.5} compliant in terms of dust suppression
- Decreased liability along with complete environmental compliance
- Improved community relations
- Safer and healthier working environment

EBS COMPLETELY ELIMATES THE NEED FOR EXPENSIVE AND MAINTENANCE INTENSIVE SHADE CLOTH BARRIERS OR IRRIGATION SYSTEMS – NO FURTHER WATER USE FOR DUST SUPPRESSION REQUIRED.

Our solutions, which are customized to incorporate the current design and accessibility of the Tailings Facility, allow for specialized effective application procedures and methodology. One Application is all that will be required and can last up to 10 years.

