

# Midwest delivers **the most extreme results**, even in the most extreme conditions.

**MineKleen® Plus** — and its proprietary binder system — eliminates dust and saves money.

Midwest leads the industry because we don't make claims we can't back up with scientifically supported proof of effectiveness. Here are some highlights from a real underground mining operation that switched to the MineKleen® system (see details on reverse):

DUST REDUCTION

95%



COST SAVINGS

35%



LABOR SAVINGS

73%



# The MineKleen® System delivered extreme dust control and dramatically improved performance.

MINING CASE STUDY

**PARTNER:** A non-ferrous underground metal mine in the western region of the United States.

**CHALLENGE:** The Midwest collaborative partner was seeking a more effective method of dust control than water or an ordinary product.

**BEFORE (using water):**

- > \$642,000 program cost annually
- > Applications needed multiple times per day
- > Unstable road surface required regular grading and other maintenance
- > Water trucks interfered with daily operations

**BEFORE (using an inferior dust control product):**

- > Used 50,000 to 70,000 gallons per year (24 totes per month)
- > Did not achieve desired stabilization on haulage areas, resulting in failing roads
- > Haulage operations treated roads (with more intense traffic loads and vehicle passes) every 3 days
- > Production crew/utilities (with lighter traffic loads and vehicle passes, but more areas to cover) treated every 2 weeks

**AFTER:** A successful test with significant improvements was expanded throughout the operation.

<b>DUST</b>	<b>95% REDUCTION</b>
<b>COST</b>	<b>35% REDUCTION</b>
<b>APPLICATION FREQUENCY</b>	<b>14 MORE DAYS BETWEEN APPLICATIONS (A 367% IMPROVEMENT)</b>
<b>APPLICATION TOTAL</b>	<b>2 APPLICATIONS PER MONTH (REDUCED TO 24/YR)</b>
<b>MANHOURS</b>	<b>73% DECREASE IN ANNUAL MANHOURS (REDUCED TO 133/YR)</b>
<b>EFFICIENCY</b>	<b>IMPROVED RUNNING SURFACE OF MINE ROADS</b>

**HOW: Midwest Diagnostic Analysis and Solution**

- > a full-site audit to identify critical areas of improvement
- > identified a critical need to cut back the total manhours dedicated to dust reduction from 487 to less than 250 per year
- > program also slashed the average annual number of required product applications from 122 to only two per month (total of 24/year)
- > crafted an all-embracing MineKleen® Underground Mine Dust Control System, accounting for every element of the company's mining operation, including performance tracking and full audits
- > started by testing MineKleen® Plus with binder dust control solution in the haulage main loop area
  - initial crew feedback was very positive after test application of 4 totes
  - applications were lasting 6-7 days, more than double the product effectiveness life being realized with the ordinary product

**PERFORMANCE THAT'S PROVEN.**

Midwest's MineKleen® system works. And there's nothing else like it. Midwest chemists have formulated compositions expressly for underground mines that are applied with proprietary equipment built for mine access and agility.

Get performance like this at your underground mine operation and contact Midwest today.



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