



Buenavista del Cobre Mine, Senora, Mexico

Case Study



MINING INDUSTRY

A comprehensive wash solution can significantly improve operational efficiency

BACKGROUND



The Buenavista del Cobre mine, located in Sonora, Mexico. The is an expansive open-pit site is known for its high volume of copper mining, with additional exports of silver and zinc also extracted from the region. Operated by Grupo México, the mine has undergone significant expansions and modernizations over the years to enhance its production capacity.

THE CHALLENGE



To support increasing production and align with environmental initiatives, the Buenavista site required wash systems capable of running reliably and efficiently for 12 or more hours per day.



AT A GLANCE

Client: Buenavista del Cobre, Sonora, Mexico

Industry: Copper Mining

Type: Open Pit

Challenge: Effective and efficient cleaning of a large, diverse fleet of vehicles and mining equipment operating in a harsh, high-demand environment.

To manage the continuous traffic and the daily accumulation of heavy mud and corrosive materials on their haul trucks, light vehicles, and other mining equipment, Buenavista needed a robust and effective wash system.

THE KEY



Automatic Haul Truck and Heavy Equipment Wash System



Light Duty Vehicle Wash System



High-Volume Water Recycling

THE SOLUTION



InterClean responded with a custom-engineered solution tailored to meet the unique demands of the Buenavista del Cobre site. The wash solution delivered to Buenavista featured:

Automatic Drive-Through Haul Truck Wash

6,4000 GPM of recycled water used to demuck 440 ton haul trucks

- (4) high pressure spray towers
- (4) underchassis wash modules
- (2) sets of water cannons and high-volume hose reels

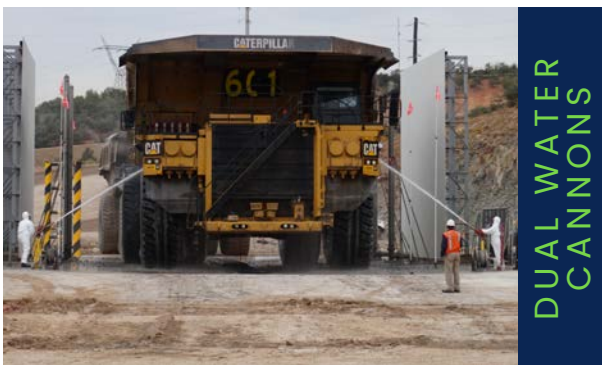
Demucking Station for Light Vehicles

- 15 ft heavy duty wheel wash cycling through 1,360 GPM of recycled wash water
- (4) front and rear tire and side spray bars
- Tire wash structures

Water Reclaim System & Oil Skimmer

- EQ Module and bioremediation water filtration system
- Wash water reclaim pit
- Oil skimmer
- 300 GPM flow rate per unit
- Low maintenance
- No consumables

These wash systems play a crucial role in maintaining equipment performance and extending vehicle lifespan by thoroughly cleaning heavy mud, dust, and corrosive materials from equipment. The implementation of these systems underscores the Buenavista's commitment to operational efficiency and proactive maintenance, ensuring that the fleet remains in optimal condition to support the mines high production demands.



THE RESULTS



The installation and start-up, completed in just two weeks, marked a significant transformation at the Buenavista site, evolving it from a basic mining area to a fully operational maintenance facility. InterClean's installation included an automatic drive-through haul truck wash, a manual wash bay, a light vehicle demucking station, and a reclaim pit for recycling used wash water.

The results were immediate, with improvements in operational efficiencies, such as faster and more frequent equipment cleaning, increased daily throughput, reduced maintenance time, and more vehicle uptime.



TRUCK 624 BEFORE



TRUCK 624 AFTER

BY THE NUMBERS

5 MINUTES

Automatic Haul Truck Wash Time

10-15 MINUTES

Avg wash time of 360° clean w/ manual water cannons & hoses

15-20 MINUTES

Total wash times observed to completely clean a 440T Haul Truck

Take a look at our [mining portfolio](#) to learn more about the solutions used at Buenavista and other sites around the world. Visit www.interclean.com or contact our team today and find out how InterClean's systems can benefit your mining operations.