



[Home](#) > [Case Studies](#) > Open pit copper mine saves \$1.4M USD in one year with Fuel Intensity Heat Mapping

CHALLENGE

- Difficult to capture gains from road network improvements
- No bandwidth to dedicate resources to analyze haul route data



OBJECTIVES

A world-leading copper producer knew that enhanced road maintenance could benefit overall profitability. They set out to provide road crews with the best technology to identify areas on the haul road that were contributing to excessive fuel consumption, increased emissions, and accelerated equipment wear.



TECHNOLOGY

Cascadia Scientific's SmartRView platform was selected because of its ability to combine high-accuracy fuel consumption data with measurements of road grade, vehicle speed, position, motion, and altitude. The visual representations of haul road networks would allow their crew to target corrective actions through heat mapping, in order to reduce fuel use, GHG emissions, and accelerated equipment wear. Cascadia Scientific continuously supports clients in identifying and correcting hot spots to maximize efficient and productive operation.



IMPLEMENTATION

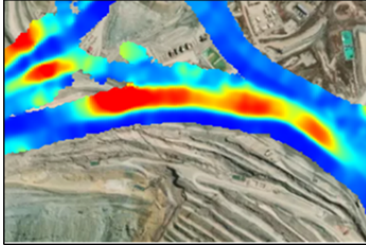
The technology began to collect robust haulage data to identify hot spots across the mine. Once corrective action was taken by mine road crews, pre- and post-analysis helped the site calculate the impacts of the change. During the first year of implementation, 4 hot

spots were uncovered and corrected, resulting in direct cost savings of USD \$1.4M with indirect benefits to equipment health and operator safety.

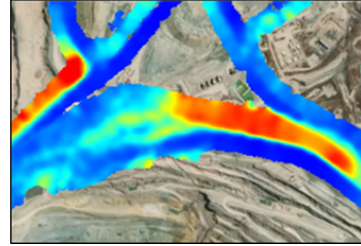
RESULTS

- Direct Cost: \$1.4M USD in savings through fuel reduction
- Indirect Cost: Benefits to equipment maintenance, Operator safety, Tire life
- Decreased CO2 emissions by over 9000 tons

Before



After



Before and after heat maps show improvement in the hot-spots that were causing unnecessary fuel usage and equipment wear.



Ask us a Question

CONTACT US

Find us at an Event

FIND US

Visit one of our Locations

VISIT US

Follow us in the News:



Subscribe to our Newsletter

Email Address

SUBSCRIBE