

Maximize your mine's potential



Improving the **profitability** and **sustainability** of mining through **first-of-its-kind** technology.

ShovelSense® creates ore characterization data that unlocks the profitability of your mine operations and extends mine life.

Real-time ore characterization and routing decisions reduce both ore losses and dilution.

Our proven technology is a complete System with proprietary hardware, software and AI algorithms that measures ore grade and characteristics bucket-by-bucket.

This happens in real-time using the mine's existing mobile fleet. Our System is extremely fast, reading in milli-seconds, ensuring precise and accurate measurements.

The ShovelSense System is the only one that work with run-of-mine (ROM) material at the face and at any mine throughput. This maximizes the value of ore and waste classification where the heterogeneity is greatest, at the extraction face.

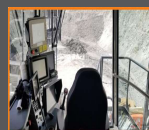
ShovelSense®

ShovelSense Systems are installed on all mobile equipment typically used either on the surface or underground - cable shovels, front end loaders, hydraulics shovels and scoops/LHDs.

The System is designed to withstand extreme environmental conditions and the shock and vibration of shovel operations. It is easily installed on existing mobile equipment during regular planned maintenance.

The System integrates directly into the fleet management system for automated routing decisions and includes an HMI to provide the operator with full information within each dig cycle.

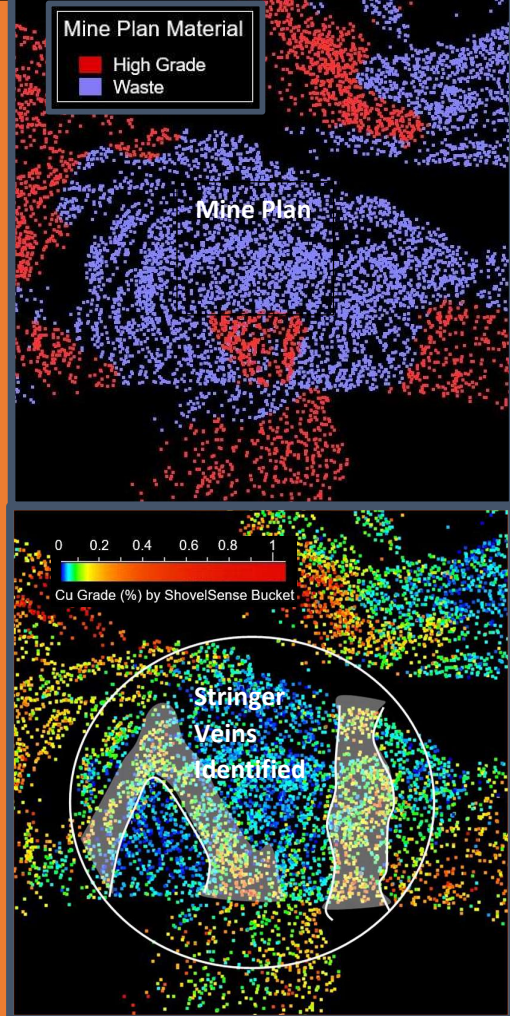
ShovelSense provides the greatest value at the mine extraction face, as well as in surge and stockpiles.



Operator Interface



On-Board Grade Processing



Value You Can See

The MineSense System generates thousands of data points have never been available before, achieving real-time operational impact and drastically improved continuous characterization of the mine's ore body.

In addition to bucket grade and ore characterization, our GNSS capability provides exact bucket location. This combination provides first-of-its-kind spatial resolution of the ore body. Digitally aggregated, this data add value in areas from improved mine planning to predictive analytics for various downstream operations.

MineSense data analytics offer:

- Real-time ore and waste monitoring on a bucket-by-bucket basis at the mine face
- Identification of differences in mineralogy not reflected in the mine plan
- Trends that optimize and create new ore body knowledge, as well optimize downstream mill performance and recovery
- Post blast movement ore characteristics

ShovelSense Provides Value Through Pioneering Precision Data Reflecting Each Mine's Unique Ore Body

