

IMPROVING MINING SAFETY AND PRODUCTIVITY:

9 WAYS

Mobile Technology and Big Data
Can Help



For most mining safety professionals, the same drive that gets them up and going in the morning is also keeping them up at night. While most love what they do (reducing accidents, saving lives, and continually improving workplace health and safety), many are frustrated with their inability to implement strategic safety measures that really make a difference

“

Natural resource companies spend just 1% of their revenue on technology, compared with 5–7% for most industries. ¹

”

But with mobile technology and a willingness to learn from data, mining operations can quickly start generating thoughts and conversations where real learning can happen. Over time, this learning can spark better ideas, smarter decisions, and strategic initiatives that not only move the needle for safety professionals, but fundamentally change the direction of the company.



“

Collecting data is one thing; **doing something meaningful with it** is another.

”

Here are 9 ways mobile technology and big data can help:

React in real-time

Collecting data is one thing; doing something meaningful with it is another. Mobile technology allows for the seamless transfer of data between remote mining operations and decision-makers in central offices. So instead of waiting up to nine months to review actionable data, colleagues can share and interpret data in real time.



Today's mines use less than 1% of the information they collect ^{II}

This real-time intelligence brings newfound agility to mining operations, enabling them to make faster, more informed decisions (from the office or the jobsite) in just hours or days instead of weeks or months. These strategic adjustments can drive efficiencies throughout the entire operation; everywhere from predicting safety hazards and asset maintenance needs to forecasting market demand, optimizing supply, and identifying optimal drill locations.



Mobile technology allows for the seamless transfer of data between remote mining operations and decision-makers

Drive operational efficiency

Mining companies that leverage technology to continually monitor and analyze the data collected from various processes and procedures quickly discover whether their operations are running as expected or not, whether employees are executing procedures as planned, and whether they're filling out the proper paperwork to document completed tasks.

With this data, GMs and safety leaders can make operational tweaks and adjustments to drive efficiencies and improvements. These adjustments often lead to increased productivity, fewer unplanned shutdowns, and most importantly, fewer injuries, illnesses, and deaths.

With data, GMs and safety leaders can make operational tweaks and adjustments to drive efficiencies and improvements.

3 Save Money

Investing in mobile technology can help mining operations save money in a variety of ways. First, data-driven preventative actions can lead to improved conditions and fewer injuries and illnesses, not to mention a reduction in site downtime (which can lead to millions of dollars a day in losses).

Second, access to the right data can help companies identify measures to extend equipment life and reduce maintenance costs. For example, fuel and tires are two of the largest costs facing today's mining operations. Data gathered from haul road inspections (slope hazards, surface conditions, stopping distances), combined with data captured from vehicle inspections (tire pressure, scheduled repairs, faults, driver information) can help companies identify patterns, trends, and preemptive measures they can take to maximize fuel efficiency and extend tire life.



Data can help companies identify measures to extend equipment life and reduce maintenance costs.

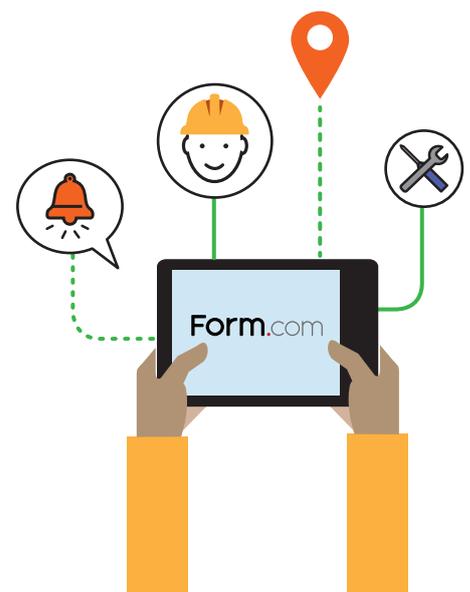
4 Establish and maintain accountability

Safety processes and procedures are in place for a reason. And while most operations would love to believe that their employees are always doing everything they should be doing, ongoing auditing takes any question out of the equation.

Regular audits performed with mobile technology not only ensure that all safety procedures are being followed, but they also generate embedded data that can prove compliance. Safety leaders and GMs can easily identify who did what, when, and how. And if anything goes wrong, companies have the proof they need to keep employees responsible for their actions.

5 Reduce errors

Capturing data with mobile devices eliminates the need for office staff to manually enter data from a paper-based form or checklist, reducing the risk for human error that can lead to disastrous implications in the form of accidents, illnesses, and environmental disasters.



6 Improve Morale

In an industry as dangerous as goldmining, positive morale starts with safety. After all, nothing rattles a crew more than witnessing (or even worse, experiencing) a serious accident while on the job. Workers want to come into work each day trusting that their safety is a top priority. But to truly gain their trust, mining companies must first prove that the health and safety of their employees are their top priority.

“

Mining operations investing in technology and using the data they gather to make life-saving changes

”

To do this, mining operations are investing additional time and resources in training programs that increase awareness and vigilance. They're establishing operations that prove they won't tolerate anything less than safe work processes. But perhaps most importantly, they're investing in technology and using the data they gather to make life-saving changes, proving to their workers that safety is their top concern.



In an industry as dangerous as goldmining, positive morale starts with safety

7 Drive Continuous Improvement

In mining, the idea of continuous improvement refers to the ongoing process of improving mining production, safety, and efficiency over time with incremental improvements based on data gathered from inspection and auditing programs.

When consistently analyzed and refined, data from continuous improvement initiatives can have a huge impact on mining productivity and efficiency, helping companies understand what's most important to their day-to-day operations, how they can focus their attention to improving in those areas, and how those improvements can ultimately drive the bottom line.



Stay Compliant (and prove it)

Mining is one of the most highly-regulated industries in the world, with complicated guidelines, restrictions, and standards that vary from country to country. Managing accurate data is critical to confirming compliance with these standards, whether operations are in the US, Canada, or spread across the globe in countries like South Africa, Australia, Chili, Argentina, and Peru.

Maintaining compliance for large-scale global operations, especially those operating in many of the countries mentioned above, can be a challenging task as well. But with mobile technology (especially software with photo capture/markup capabilities) companies can ensure that all data is captured correctly and being provided to regulators with the speed, depth, and accuracy needed to prove guidelines are being met.

Finally, with the MSHA set to start enforcing their Final Rule on Workplace Examinations in Metal/Nonmetal mining operations in the United States, companies are scrambling to find the right technology to facilitate compliance. Because come July 24, 2017, a new group of inspection, notification, and corrective action requirements is set take effect, and companies still operating with paper or spreadsheet-based data collection methods will soon find themselves overwhelmed with documentation and unable to meet the new regulations.

With the MSHA set to start enforcing their Final Rule on Workplace Examinations in Metal/Nonmetal mining operations, companies are scrambling to find the right technology to facilitate compliance

I. <https://www.cdc.gov/features/foodborne-diseases-data/>

II. http://nodirtygold.earthworksaction.org/impacts/worker_rights_and_safety#.WO_xjmnyvIU



Got questions? We can help!

Form.com is a flexible platform designed to take time-consuming procedures done on paper and spreadsheets and turn them into user-friendly forms. Our mobile and offline app allows you to access and complete forms from anywhere, even while offline, and our team of experts will work with you every step of the way to create your ideal solution.

For more information

Call **1-888-708-8118**

or email info@worldapp.com