GROUNDHOG

MINE DIGITIZATION & AUTOMATION

CASE STUDY

HOW LHOIST REDUCED MSHA CITATIONS USING GROUNDHOG EHS

CUSTOMER OVERVIEW

The customer, Lhoist North America (LNA) is a major supplier of minerals but has a strong presence in a number of industries. Among their top products are lime, limestone and clay but they also produce products relevant to iron and steel along with a number of other non-mining hard hat industries. Thanks to connections between Lhoist and GroundHog, both companies were able to work collaboratively to create GroundHog EHS based on specific requirements and processes from a Regional Health and Safety Manager within Lhoist.

COMPANY

OBJECTIVE

Switch from a Paper, Excel, and PowerPoint system to Digital EHS system

OUTCOME

Improve safety performance and Reduce Citations by 80%

CHALLENGE

Managing inspections and compliance across multiple sites had proven to be labour intensive and clunky without available tools to simplify the process. LNA had been managing site inspections with a number of external tools, which was tedious and slow. It was also difficult to manipulate data effectively and efficiently without one dedicated tool.

This lack of data meant that hazards were not always rectified in a timely manner and were prone to being repeated.Furthermore, training was conducted on a general basis, unable to zone in on specific areas that needed to be improved to increase safety and reduce fines due to audits and a lack of compliance

Customer Requirements

Implement a Streamlined Approach to Existing Processes
Safety personnel are obviously the backbone of the building a safe workplace, but what happens when they are stuck spending half their time on backend data creation? Suddenly they aren't able to effectively do what matter most. Keeping people safe. For Lhoist, it was critical that their existing processes be streamlined and digitized to allow their safety personnel to focus on keeping people safe.

Portability and Ease of Use in the Field
LNA needed a system they could take with them anywhere and access anywhere, as they needed to effectively manage a number of sites.

The ability to conduct inspections easily and in a portable,-self-contained method and then to be able to view them immediately from anywhere else was a requirement when building a digital system with Lhoist.

Integrate Efficient Inspection Process Digitally
Thanks to the fine work of Safety personnel at Lhoist, the process of conducting inspections effectively was down to a science. The problem was that without the capabilities of a digital inspection system, the process was still incredibly difficult and lacked standardization despite being as optimized as possible without the aid of a better system.

Data Accessibility and Manipulation/Metrics
Being able to build a safe and compliant mine boils down to people, but to best assist those people, understanding data is key. When creating hard copy deliverables in Excel, the labour intensive process meant that compliance was harder to manage and violations were more common.

SOLUTION

Desktop and Mobile Applications

The seamless integration between the two GroundHog EHS applications fulfills the portability requirement perfectly. By allowing for digital inspections to be conducted on tablets and smartphones, safety management staff can always be equipped to report hazards.

Hazard Detection and Notifications

Paired with the portability of GroundHog EHS mobile, hazard notifications ensure that as when a threat is discovered it can easily be monitored by relevant personnel and scheduling corrective action is prioritized.

Fully Digitized Inspection Process

By taking the already fine-tuned inspection process created by Lhoist and digitizing it, GroundHog EHS allows for a completely tailorable and effective inspection system. Built to mirror regulatory agency inspection processes, GroundHog EHS ensures thorough, compliant inspections

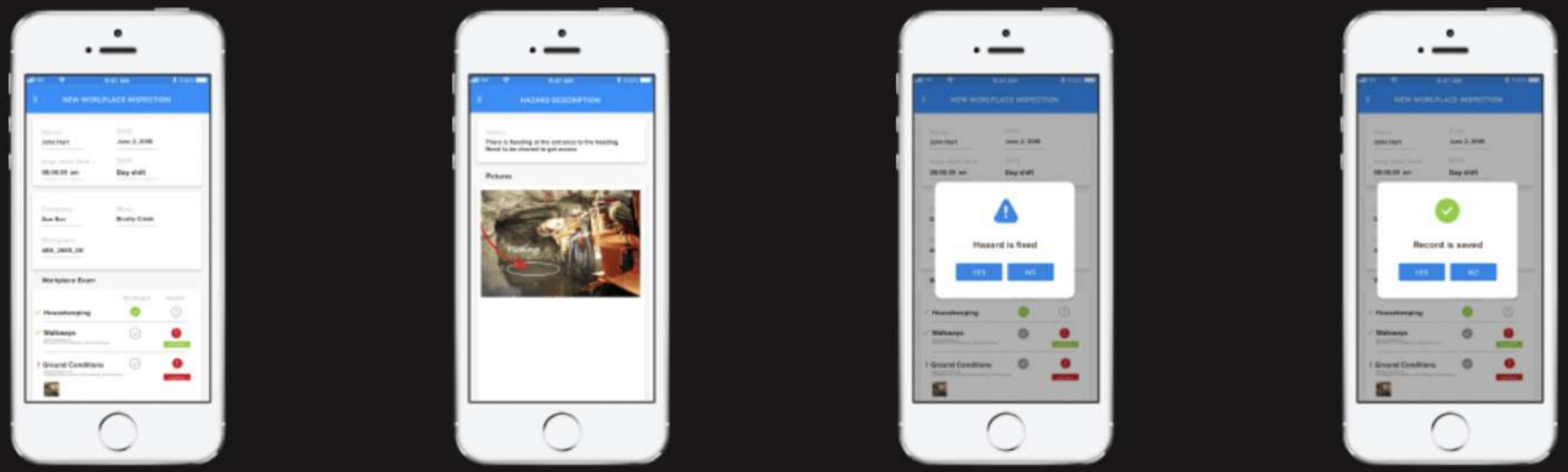
Safety Analytics and Exporting Capabilities

In order to better understand inspection data and leverage it to create a safer mining environment GroundHog EHS fulfilled Lhoist's data requirements by ensuring that the application interface presents data in a simple, understandable manner while allowing it to be manipulated however the user sees fit.

This paired with an easy data export process ensures that GroundHog EHS truly ensures mines can harness their data and reduce violations along with enhancing their safety training and overall productivity.

IMPLEMENTATION

As GroundHog EHS was created in collaboration with Lhoist as a nonstandard product the implementation was a long process. Going from an idea to a fully implemented product involved a lot of back and forth and tweaking and a process of mutual learning. Thanks to this cooperative process and the responsiveness of both GroundHog and Lhoist, there were never any major hurdles to implementation with the exception of the time it required.



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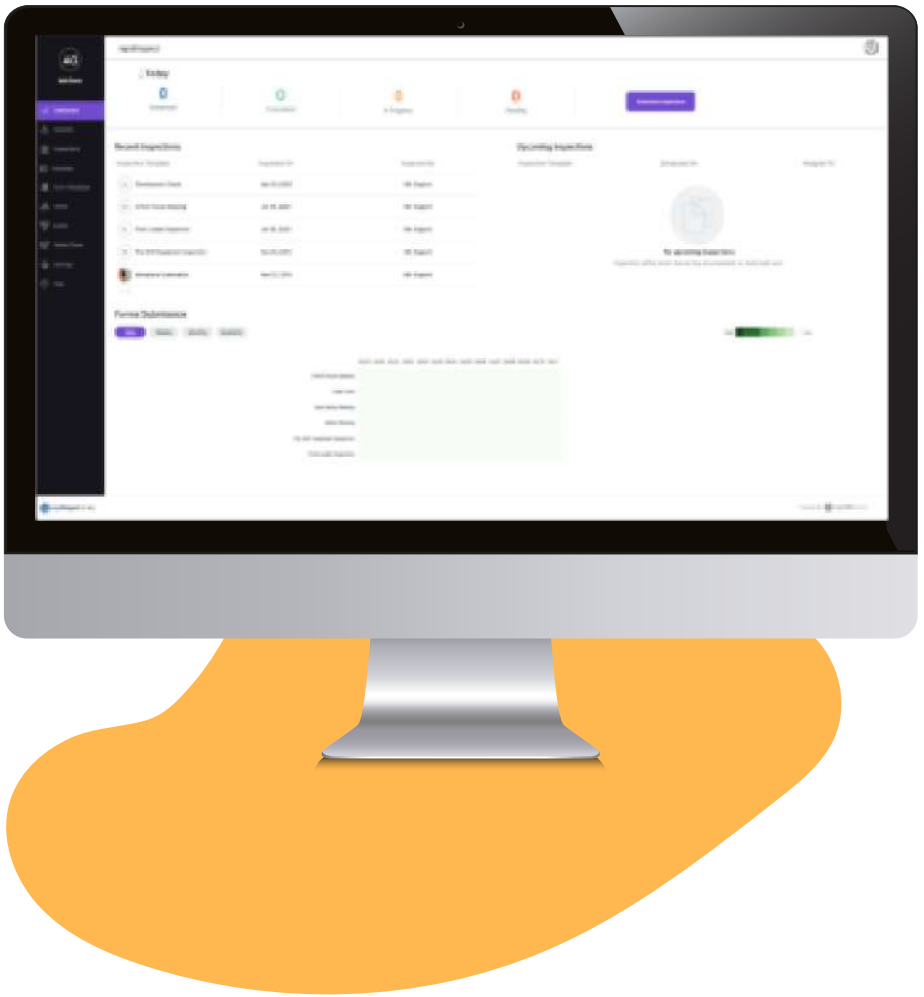
RESULTS

This solution has reduced violations by an average of 76% and increased efficiency by revealing which safety competencies need to be improved upon, allowing for more effective training.

Furthermore, the level of violations being reported has been reduced, while seriously threatening violations hadn't necessarily been a problem, other citable offenses were reduced. Especially with regards to conditional violations, those caused by the process itself, which chewed up large chunks of valuable time.

Lastly, by allowing safety personnel to focus more on physical auditing and less on back end data creation they were able to spend their time in the field, where they are capable of truly adding the most value.



We've seen a 76% reduction in violations.

- Collin Rogers, Regional Safety and Health Manager

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Collin Rogers

Regional Safety and Health Manager
Lhoist

"The application has dramaticallychanged how we conduct compliance audits, with the added benefit of allowing our safety staff to keep their boots on the ground instead of behind a desk."