

DINGO

Enterprise Predictive Maintenance Software

We believe that, together, we can find a better way

2022



• **250+**
operations supported across the globe

• **6**
serving clients on six continents

• **\$13B+**
equipment under management

• **\$1B+**
savings in equipment and maintenance costs

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We are partnering with operations all around the globe 20

20% INCREASE
in components
operating in normal
condition

15% GAIN
in component
life

3:1 PROGRAM ROI
with typical
payback in 6
months or less

CONFIDENT DATA FOR CONFIDENT SOLUTIONS

Mining professionals such as Site GMs, Operations Personnel, and Maintenance and Reliability teams want to have confidence in their equipment data. Having access to properly prioritized data, in one place, facilitates obtaining quick insights to make smarter and more confident decisions about their assets possible.

While data harnesses the secrets to a healthy fleet, maintenance teams are often faced with the challenge of poorly collected, poorly prioritized, and/or inaccessible data. These problems can be further complicated by market dynamics (fluctuations in price or demand of their commodities), COVID, internal issues (ore grade decline, increased production goals, aging equipment), and/or corporate demands (deleveraging, etc).

You can't be expected to keep up with the constant expansion of data sets, augmented by the lack of interoperability of Original Equipment Manufacturer (OEM) data systems, while addressing the daily demands of running a mining operation. DINGO focuses on being adaptive to changing industry trends - providing customers with the latest in automated data transfer, data science and analytics, digital inspection tools, seamless workflow management and more!

All it takes is one piece of key equipment to breakdown to severely affect your site's productivity and even put an operator's life at risk.

We provide peace of mind to mining professionals, like you, through actionable insights to make smarter and more confident decisions about your costly equipment. Additionally, our team of Condition Intelligence experts will alert you of any priority actions.

With decades of experience working in the field with many of the largest global mining operations, DINGO appreciates the challenges and consequences mining professionals face every day. That is why we specialize in centralizing all relevant data to a single platform where it can be made available at a moment's notice.

As you advance down the path of digital maturity, DINGO is familiar with the journey - we have walked alongside many of our customers for more than 30 years from trending oil analysis results to predictive maintenance and more.

With a holistic view of current equipment health, your team can make smarter maintenance decisions faster — rapidly identifying the root cause of issues and actioning recommended corrective actions to keep your equipment running in optimal condition.



IMPROVE	REDUCE
Component life by acting faster	Unexpected failures and downtime
Confidence in planning component replacements	Repair costs as scheduling is optimized
Equipment availability and reliability	Loss of wasted potential in capital
Budgeting and the bottom line	Unnecessary maintenance activities
Business related processes such as procurement, logistics, and management	Personnel and process risk by creating a safer and more controlled environment

“With Trakka, I have the ability to see all of the important information in one place, which allows me to make better maintenance decisions. The system also integrates with our ERP system so that the corrective maintenance work identified flows directly into work orders. This type of end-to-end solution drives efficiency and helps us keep the focus on condition– not just tasks.”

SURFACE MAINTENANCE PLANNER
AT A LARGE GOLD MINING
OPERATION IN NEVADA



UNLOCK YOUR MAINTENANCE TEAM'S FULL POTENTIAL

Uniting people and proven technology, DINGO's industry leading predictive maintenance software, TRAKKA®, converts your data into powerful insights and actionable knowledge, allowing you to make confident decisions. The DINGO condition management system is low-risk, easy to implement, and helps maintenance managers improve asset productivity, profitability and performance.

TRAKKA® consolidates condition data to a single platform where it can be analyzed and then actioned for maintenance work. We make the data collection process simple, by using pre-configured interfaces to connect with your existing IT infrastructure, including:

 Condition monitoring data providers	 On board sensors and machine operating data	 ERP, CMMS and other enterprise management systems	 Mobile and field inspection devices
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TRAKKA® then helps you manage, analyze and act on your asset health data from one centralized and customizable platform.

DINGO IS FOCUSED ON HELPING YOU OVERCOME FINANCIAL AND RELIABILITY CHALLENGES

As the Global Leader in Predictive Maintenance, we provide actionable knowledge to asset-intensive operations, like yours. We want to help you reduce major component failures, improve the reliability of your assets and safely boost production while decreasing maintenance costs.



TRAKKA®
An award-winning, cloud-based, predictive maintenance software. TRAKKA® provides a single source of truth, seamless data curation, integrated workflow process and action tracking.



CONDITION INTELLIGENCE™
A DINGO analyst team with extensive experience in equipment insights and prescriptive actions. Our remote analyst expertise is at your disposal. We are available to coach and upskill your own team.



PROGRAM SUPPORT EXPERTS
DINGO's maintenance experts are available to guide your maintenance journey through comprehensive product and process implementation, providing ongoing counsel to help you achieve technical and process efficiency.

“Trakka aids in the management of all of our key condition monitoring data with a well-defined work management tool inbuilt. DINGO's customer service has been excellent and their ability to adapt the software with our requests has been positive.”

ENGINEERING SUPERINTENDENT AT
A LARGE OPEN CUT COAL MINING
OPERATION IN AUSTRALIA



DATA CONNECTOR LIBRARY

A comprehensive list of data connections that are preconfigured to seamlessly connect and interface with condition monitoring data providers, ERP systems, and mobile field inspection devices.



DECISION SUPPORT

A powerful feature of Trakka is its proprietary rules-based decision-making engine built on a wealth of industry expertise & global equipment insights. Rules and alerts can be created and customized down to the component level to proactively identify issues and provide the optimal corrective actions.



WORKFLOW MANAGEMENT

The workflow management process is designed to improve production, increase asset availability, and optimize resource utilization. These results are achieved using an open-issue tracking system that manages issues from identification through resolution. Integration with ERP systems can automate the work order generation directly from Trakka.



GROUP TRENDING

The capability to track and trend multivariate data to help analyze condition monitoring data, determine the impact of maintenance work, and improve outcomes. Group trending allows the user to see where a value fits within the context of the overall fleet performance, providing broader insights into both the severity and practicality of potential solutions.



CUSTOMIZABLE REPORTING AND DASHBOARDS

A series of customizable asset health management reports are available from within the software, ranging from site planning reports to time in abnormal condition metrics. The Trakka Asset Health Dashboard provides a view into live condition data that allows users to quickly and easily track performance, while alerting team members to potential issues. This functionality is available from any web enabled device.



FINANCIAL TRACKING

A performance tracking system built to measure the immediate and longer-term financial impact of each maintenance decision. The financial benefits captured range from breakdown avoidance, including parts and downtime savings, to the extension of the budgeted life of components.



UNLIMITED USERS AT THE SITE LEVEL

We're in the business of breaking down silos – not creating them – so there are no seat licenses with DINGO. To ensure that your operation derives the maximum benefit from our suite of products, we provide visibility and access to anyone who needs it at the site level. For an enterprise level solution, your company will get unlimited access across offices, geographies, and operational sites to understand and optimize performance.



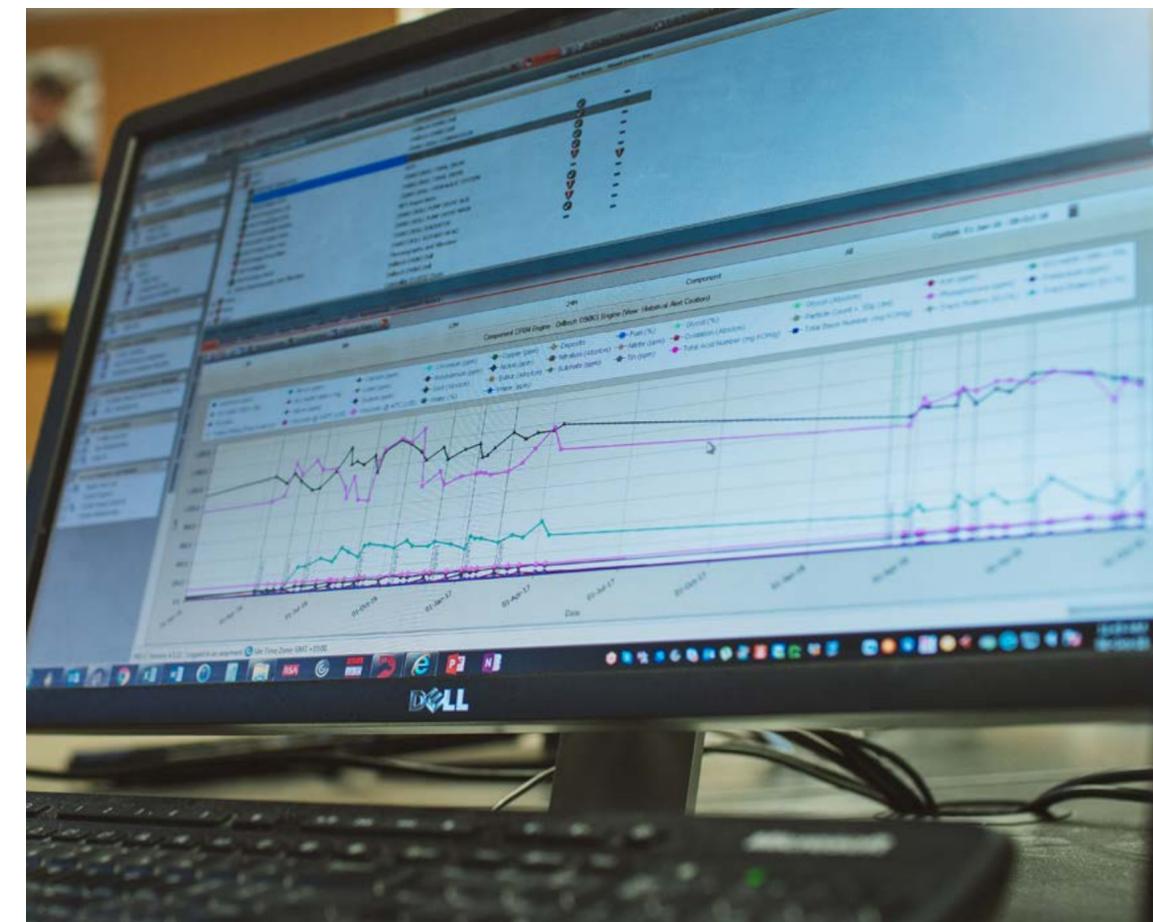
SECURE, WEB BASED SOFTWARE AND UPDATES

DINGO is continuously innovating and improving the Trakka platform to provide enhanced functionality and a better user experience. To ensure customers have seamless access to the latest technology, releases are automatically updated and/or available over the web for instant download.



ERP INTEGRATION

Trakka serves as a powerful complement to your ERP system – it can be directly integrated with your existing system or operate in parallel. Either way, it's designed to deliver asset predictability, productivity, and performance.



1. CAPTURE INSPECTION DATA



TRAKKA DELIVERS THE INSIGHTS YOU NEED, WHEN YOU NEED THEM

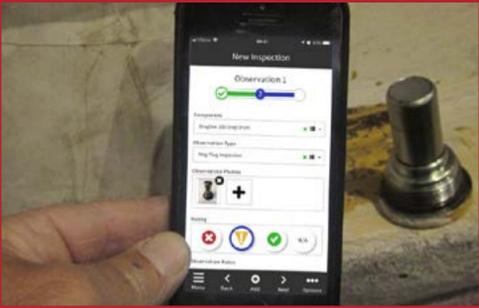
Trakka Asset Health Manager™ (TAHM) app INSPECT and INSIGHTS Modules

Our innovative app is a mobile, end-to-end solution for field inspection data capture and analysis. It consists of two distinct, but equally important functions: **INSIGHTS** and **INSPECT**.



The app enables technicians to use their mobile devices to capture images, along with notes and ratings while physically inspecting equipment. It functions online and offline, allowing users to collect data from any location. This observation data then integrates directly with Trakka®, DINGO's proprietary condition management software, allowing a centralized expert to review and analyze this information.

2. SYNC WITH TRAKKA®



INSIGHTS

MONITOR YOUR SITE'S HEALTH
Easily see the site's overall health at a glance for the last 6 months of recorded data

INVESTIGATE HOT SPOTS
Review your site locations to see which require immediate attention

REVIEW WHAT NEEDS TO BE DONE
For each site location, quickly evaluate equipment condition and current reviews

GET IN-APP SUPPORT
Hints are provided on each screen, allowing users to rapidly become proficient and gain the maximum benefit

INSPECT

STANDARDIZED EVALUATIONS
Offers a consistent format and approach for capturing field inspection data

INCREASED EFFICIENCY
Provides a mobile, paperless platform to capture data in the field

BROADER VISIBILITY
Maintenance technicians and subject matter experts are able to evaluate observation data

ACTIONABLE INSIGHTS
Offers more accurate insights into equipment condition to help your team quickly identify corrective actions

DATA UTILIZATION
Data is stored in Trakka® for future reference and analysis

3. ANALYZE IN TRAKKA®



CONDITION INTELLIGENCE™

WE HELP YOUR TECHNICIANS MAKE BETTER MAINTENANCE DECISIONS

When technicians have maintenance challenges, our team of experienced Condition Intelligence experts are ready to guide them. Our CI team will work side-by-side with your maintenance department to quickly and cost-effectively implement a world-class maintenance program that will drive real results of increased availability, reduced maintenance costs, and extended component life.

Obtain a 3:1 ROI by achieving major savings within the first 6 months of implementation. Feel confident that your team(s) will have the right data to prioritize the right work. Reduce unexpected failures, decreasing your anxiety due to the fear of the unknown.

LET US SUPPORT YOUR QUEST TO GET THE MOST OUT OF YOUR FLEET

With your fleet list, we can deliver an initial diagnostic and savings estimate based on our extensive benchmark database.

Let's organize a discussion with your reliability team to better understand their challenges and current processes so that we can help them become fully confident in harnessing the available data.



"DINGO is the industry leader and has set the new benchmark in what a true asset management support service should be delivering."

MAINTENANCE MANAGER AT A LEADING U.S. COAL MINING OPERATION

DINGO'S REMOTE ASSET HEALTH MANAGEMENT SYSTEM CAN HELP YOUR TEAM MAXIMIZE PRODUCTION WHILE DECREASING THE ALL-IN-SUSTAINING-COSTS

CHALLENGES FACING MINERS



Finding specialized experts to work onsite is becoming increasingly difficult



In the midst of economic uncertainty, cost control is more critical than ever



With staff shortages onsite, maintenance is becoming reactive leading to unplanned breakdowns



As employees work from home, operations can lose focus and discipline



Building out a remote capability internally takes significant time, effort, and resources

BENEFITS OF USING A REMOTE ASSET HEALTH CENTER

DINGO's centralized maintenance professionals have a broad range of expertise and can be utilized anytime, anywhere

Costs are minimized as you only pay for the resources you need, when you need them

Easy and cost-effective way to implement predictive maintenance remotely and keep equipment running - maximizing productivity and helping to mitigate supply chain risk

Routine virtual meetings and ongoing performance reporting can provide the necessary structure and focus to keep things on track

With DINGO and Trakka® Enterprise Predictive Maintenance Software, a remote asset health center can be operational & improving outcomes in weeks - not years

Our team has deep expertise across OEMs, equipment types, and operating environments. We provide enterprise level solutions for the world's leading miners and are here to provide immediate support.

CASE STUDY 1

A LARGE CANADIAN MINE PARTNERS WITH DINGO TO IMPLEMENT A HOLISTIC ASSET HEALTH PROGRAM AND HIT BEST-IN CLASS AVAILABILITY & LIFE TARGETS

CHALLENGES

One of the world's largest mines had been condition monitoring with oil analysis, vibration and thermography for years. Their fleet health and life were not achieving desired targets. The plan was to purchase two new trucks to supply the production capacity needed.

SOLUTION

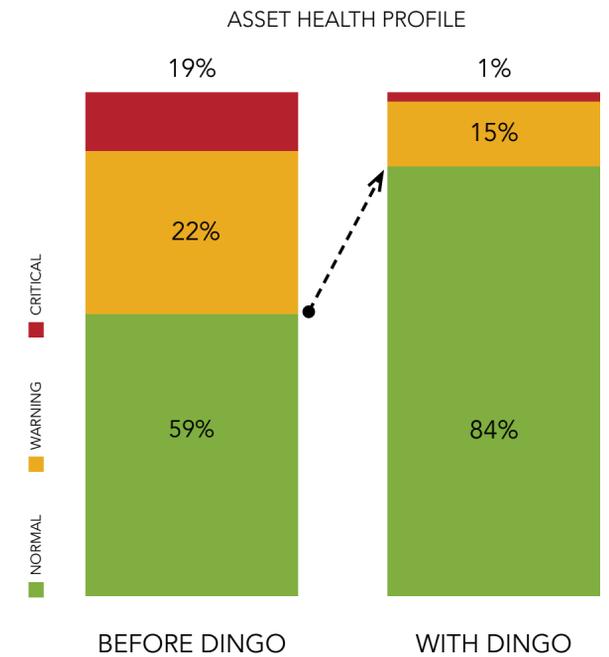
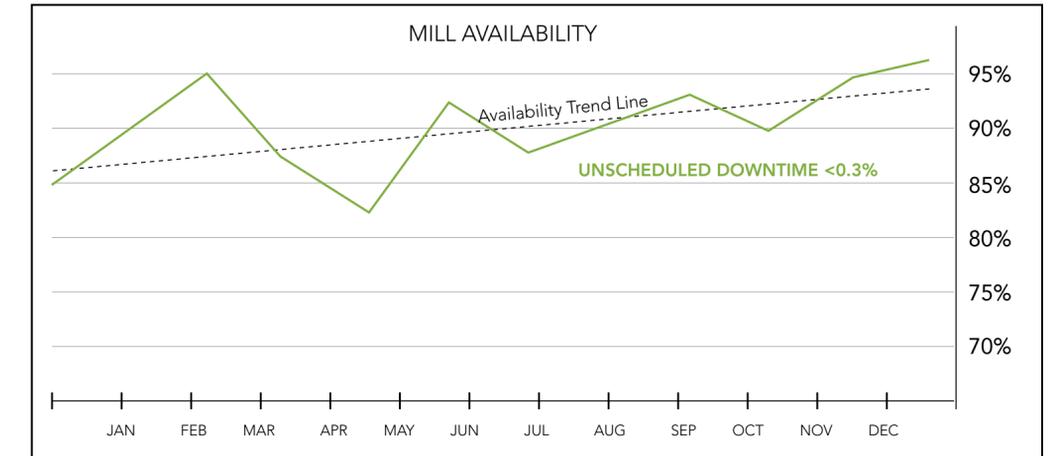
To address these challenges, the mine partnered with DINGO to implement a holistic condition management program that would deliver world-class results.

DINGO provides critical support in these areas:

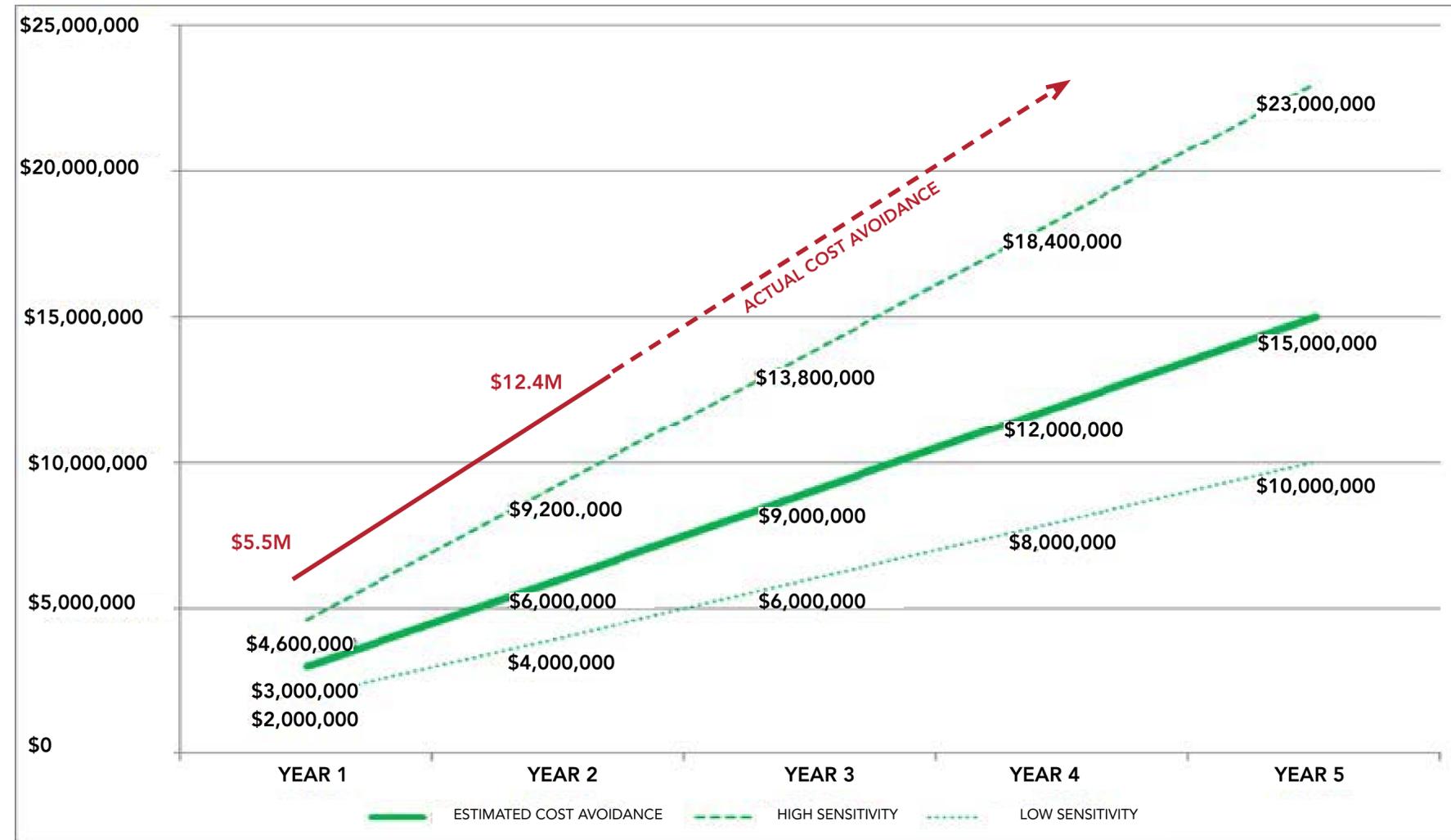
- Organizes information so the focus is on component health management and not just monitoring condition.
- Provides recommended corrective actions to local team and tracks issues through resolution
- Plans condition based work for mill maintenance windows
- Serves as a continuous source of expertise
- Provides structure and focus through dashboard KPIs, process control and benchmarking

RESULTS

- The mine didn't need to buy the two new trucks, saving \$9M
- Mill is operating with less than 1% unscheduled downtime in recent months.
- Increased availability & extended equipment life are saving the mine over \$5.5M per year



PARTNERING WITH A MINE TO IMPLEMENT DINGO'S ASSET HEALTH SOLUTION AND DELIVER REAL-WORLD COST SAVING RESULTS



CASE STUDY 2

PARTNERING WITH A MAJOR MINER TO MOVE AWAY FROM A COSTLY AND LIMITED ORIGINAL EQUIPMENT MANUFACTURER (OEM) MAINTENANCE AGREEMENT

CHALLENGES

A major miner was paying a large premium for a suboptimal OEM maintenance agreement. They also had extremely limited visibility of their equipment maintenance and performance information.

- Insufficient and disjointed OEM coverage (40 hr/week schedule didn't match mine's 24/7 operations)
- Inflated cost structure
- Limited visibility into OEM's maintenance plans, data, and performance

SOLUTION

DINGO partnered with the miner to provide the process, technology and expert insights to help the maintenance team implement an internal Asset Health system and successfully transition to Self-Maintenance, while reducing costs and increasing productivity.

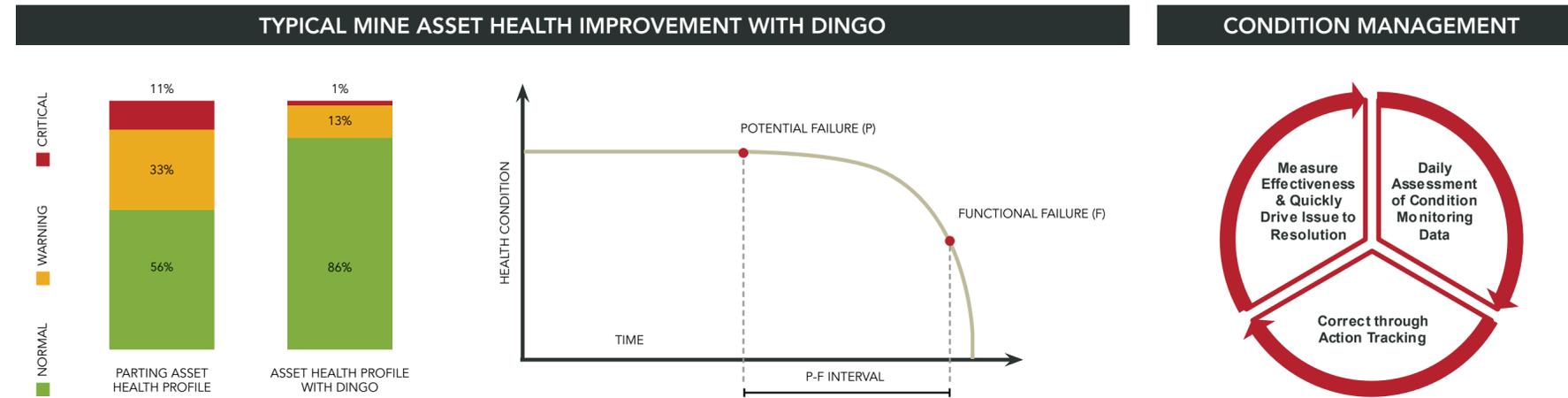
RESULTS

- Reduced maintenance costs by ~40%, which represented close to a 20% reduction to the total mine maintenance budget
- 10% Increase in availability for Haul Trucks, Dozers and Graders
- Maintenance operation is now under budget and setting new production records
- Based on results, customer is transitioning to a global enterprise solution



CASE STUDY 3
LARGE, OPEN-PIT MINE

DINGO's Predictive Maintenance Software and Services helps customers, like you, quickly return components in critical and warning condition to a normal state. Identification of a potential failure at an early stage increases the overall life of the asset (the difference between potential and functional failure is illustrated in the graph below):



DINGO's Condition Based Component Change (CBCC) program helps site planning and reliability teams move from planned maintenance to changing out components based on condition. This customer example shows the savings on a haul truck fleet:

ANALYSIS	COMPONENT = ENGINE	793 100K LIFE CYCLE	793 125K LIFE CYCLE
CONDITION ASSESSMENT	2018 average life 12,641 hours	7.9 total engine changes	9.9 total engine changes
RISK ASSESSMENT	2021 average life 16,164 hours	6.2 total engine changes	7.7 total engine changes
FINANCIAL ASSESSMENT	Component/engine changes saved per asset life cycle	1.5	2
COMPONENT DECISION	Count of assets in fleet	13	13
	Parts cost per component (USD)	\$396,000	\$396,000
	Fleet parts cost savings (USD)	\$7,722,000	\$10,296,000

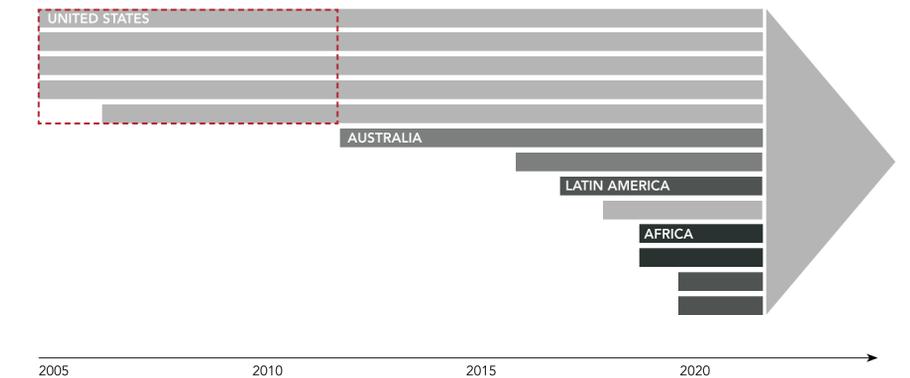
CASE STUDY 4
A MAJOR MINER PARTNERS WITH DINGO TO IMPLEMENT AN ENTERPRISE-LEVEL ASSET HEALTH PROGRAM

WORKING TOGETHER TO DRIVE RESULTS DINGO and one of the world's leading miners have been working together for more than 15 years to develop a holistic, enterprise-level asset health solution for its mining operations across the globe. This practical and proven program has been built on a foundation of trust and collaboration, a mindset of continuous improvement, and the delivery of real-world results.

SOLUTIONS UTILIZED

- Multi-factor condition monitoring & analysis
- Condition Intelligence
- Workflow Management
- Onboard data solution
- ERP integration
- Condition-based Component Change
- Asset Health Performance Dashboard
- Asset Health & Field Inspection Apps

GLOBAL PROGRAM BUILT ON INITIAL SUCCESS IN KEY REGIONS



MORE THAN US\$83 MILLION SAVED. IMPROVED ASSET HEALTH. INCREASED AVAILABILITY. EXTENDED ASSET LIFE.

BENEFITS REALIZED

- ✓ Extracting full value from condition monitoring data
- ✓ Increased level of standardization, structure and focus
- ✓ Predictive maintenance software enables teams to identify impending issues and proactively resolve them
- ✓ Decision-making guided by unbiased, third-party experts using an OEM independent decision platform
- ✓ Increase in planned maintenance and improved asset availability
- ✓ Global performance Insights across operations, OEMs, and equipment improve decision-making
- ✓ Ability to capitalize on centralized expertise
- ✓ Data-driven confidence to extend equipment life
- ✓ Greater planning and maintenance staff efficiencies

INTRODUCING

intelligence

intelligence is DINGO's latest data analysis, insights and reporting app. Designed to help maintenance teams quickly visualize fleet health and deliver deeper data insights into the most important issues, critical maintenance work and actions impacting their fleet. Including multi-site comparison abilities and unrestricted data export capability.

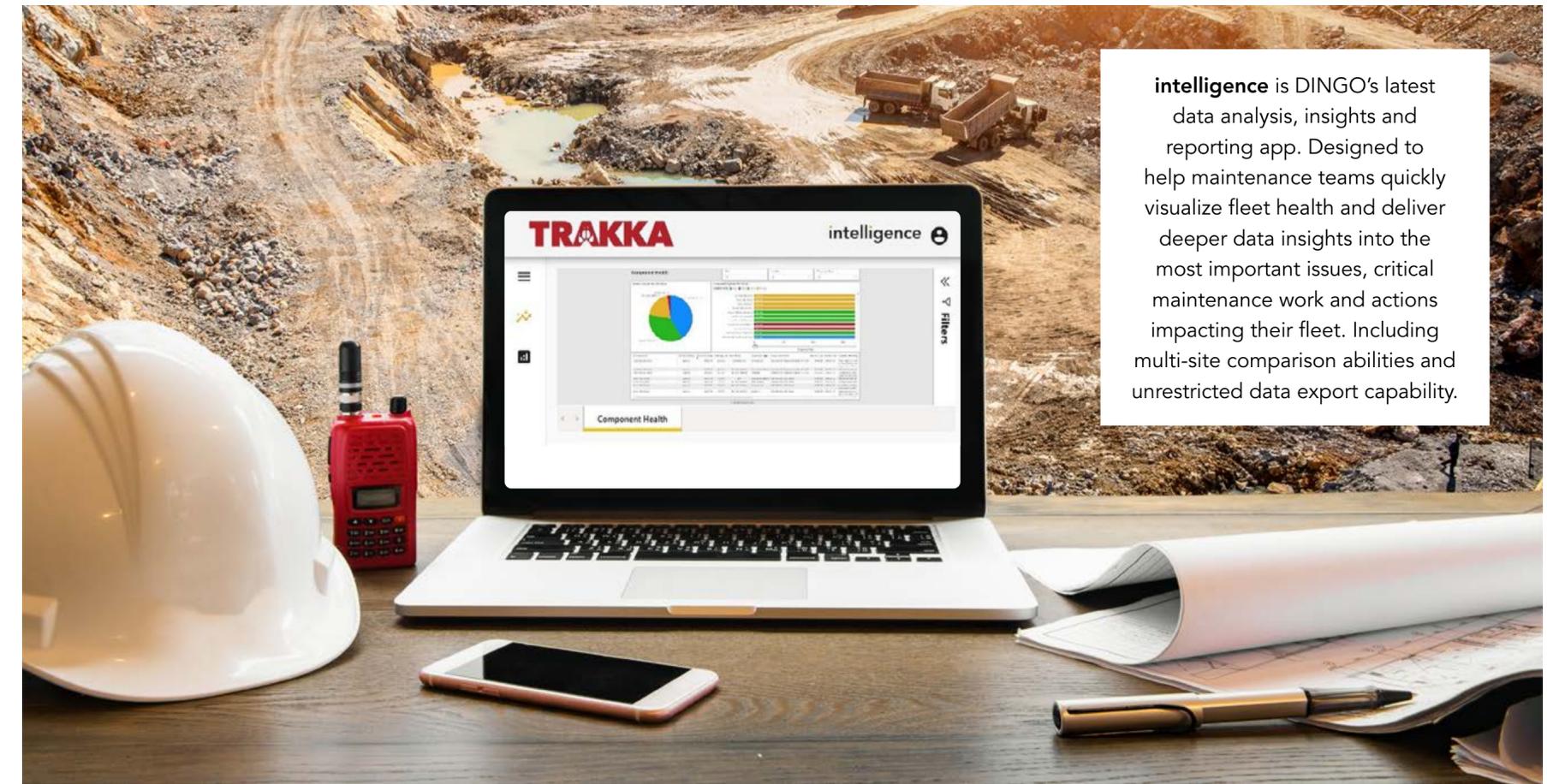
intelligence

- Intelligence
- Standard Reports
 - Component Health
 - Review Summary
 - Action Counts
 - Open Actions
 - Action Completion
- Premium Reports
 - Component Life Achieved
 - Breakdown Avoidance
 - Component Life Savings

intelligence consists of five Standard Reports, at no additional charge for current Trakka license holders, and three Premium Reports. Access to Premium Reports depends on customer contractual agreements.

All reports are insightful and interactive, while the underlying data is refreshed hourly, giving customers the opportunity to visualize their data on their terms, helping them detect and solve problems at any level in the organization.

These reports facilitate intelligence-driven decision-making.



STRATEGIC INDUSTRY ALLIANCES



ລ້ານຊ້າງ ມິເນໂຣນສ໌ ລິມິເຕັດ
万象矿业有限公司
CHIFENG LXML SEPN



GOLD FIELDS



SOCOTEC



*We want to help you avoid breakdowns
and extend your component life*



TALK TO US ABOUT HOW WE CAN HELP YOU ACHIEVE A FUTURE-PROOF, HEALTHY AND PROFITABLE MINE OPERATION

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