

Success Story

Quarry - Dust, Spillage, Carryback & Asset Protection

KINDER KTM
EXPERIENCE INNOVATION PRODUCTIVITY

40
YEARS
OF INNOVATION



Kinder Australia Products:

Product Category:

Location:

Conveyed Materials:

Conveyor Belt Width / Speed:

Various Conveyor Componentry Solutions

Belt Cleaning, Skirting, Support, Idler Frames & Covers

Victoria

Quarry Rock

750BW / 1.2 m/s

OVERVIEW

Our quarry client has been a cornerstone of regional development in North East Victoria for decades. Known for its consistent supply of high-quality crushed rock and aggregates, the quarry has supported countless infrastructure projects, from roadworks and bridges to commercial and residential developments.

As regional construction activity surged and industry standards evolved, the quarry faced a pivotal moment: scale up operations to meet demand, or risk falling behind. The decision was made to expand production capacity through the installation of two new conveyor systems — one horizontal and one incline to streamline material handling and improve throughput.

CHALLENGE

- Increased production demands.
- Recurring dust, spillage and carryback issues.
- Minimise production downtime and asset damage.
- Improve safety and streamline operations.



The expansion wasn't just about adding new equipment, it was about solving long-standing operational pain points that had become more pronounced with increased production.

Transfer points and conveyor lines were generating significant airborne dust, posing health risks to workers and raising environmental compliance concerns. Dust accumulation also impacted visibility and housekeeping, creating a less safe and less efficient worksite.

CHALLENGE Continued...

Spillage was particularly problematic on inclined conveyors and at transfer zones. This led to material loss, increased clean-up efforts, and potential slip hazards. Spilled material also contributed to wear and tear on surrounding equipment.

Residual material clinging to the return side of the belt caused build-up on return rollers, leading to misalignment, premature wear, and frequent maintenance shutdowns. Generic belt cleaners previously installed were ineffective and created spare parts sourcing issues due to inconsistent compatibility.

The quarry's existing systems required frequent intervention, resulting in unplanned downtime and increased labour costs. Spare parts management was inefficient, with multiple suppliers and inconsistent product performance. The quarry needed a unified, reliable, and low-maintenance solution that could handle increased throughput while improving safety, reducing environmental impact, and streamlining operations.



Before (left) and After (right) K-AllShelter® Conveyor Covers installation.



SOLUTION

Having previously partnered with Kinder on successful upgrades to older sections of the plant, the quarry turned once again to Kinder for a comprehensive, engineered solution that would not only meet operational goals but also address persistent challenges around productivity, safety, maintenance, and environmental compliance.

Kinder delivered a fully integrated conveyor system tailored to the quarry's expansion needs. Each component was selected to address specific operational challenges and engineered for durability, ease of installation, and long-term performance.

PROBLEM SOLVED	KINDER SOLUTION	BENEFITS
Dust & Spillage	K-Sure® Belt Support System	Stabilises the belt at critical transfer points, reducing sag and spillage while improving sealing efficiency.
	K-Containment® Seal	Prevents material from escaping the belt path, minimising spillage and enhancing workplace safety.
	K-Snap-Loc® Dust Seal System	Forms a tight seal to contain dust emissions, improving air quality and reducing environmental impact.
Carryback	Eraser™ Primary Belt Cleaner	Effectively removes carryback from the belt surface, preventing build-up and reducing maintenance frequency.
	K-Safeguard® Vee Plough Belt Cleaner	Clears debris from the return belt before it reaches the tail pulley, protecting critical components from damage.
Asset Protection	K-SkirtSupport® System	Provides continuous support to K-Containment® Seal on inclines, preventing rollback and fugitive material loss.
	K-Conveyor Pulleys with Rubber Diamond Groove Lagging	Enhances belt traction, reduces slippage, and extends the lifespan of both belt and pulley systems.
	K-AllShelter® Conveyor Covers	Custom-painted to match the natural surroundings, these covers protect materials from weather and reduce visual impact for the local community.
	Conveyor Idler Frames	Provide consistent belt support, reducing misalignment, vibration, and wear across the conveyor system.

All components were supplied in flat-pack, retrofit-friendly formats to simplify logistics, reduce installation time, and minimise disruption to ongoing operations. Kinder's technical field team also provided on-site commissioning support to ensure optimal performance from day one.

RESULTS

- Dust, spillage and carryback issues significantly reduced.
- Environmental and community benefits achieved.
- Consolidation of belt cleaner spare parts for consistency and reliability.
- Zero maintenance on belt cleaners.



K-Containment® Seal installed to minimise spillage.

The quarry expansion was more than a capacity upgrade, it was a strategic transformation and huge success story. By partnering with Kinder, the quarry implemented a cohesive, low-maintenance conveyor system that tackled long-standing operational challenges while supporting future growth.

Quarry maintenance teams report dust and spillage levels have been significantly reduced, resulting in cleaner workspaces, improved air quality, and enhanced safety for onsite personnel.

K-Safeguard Vee Plough Belt Cleaner helps clear debris.



K-SkirtSupport allowed K-Containment® Seal to be installed.

Carryback was virtually eliminated, thanks to the Eraser™ Primary Belt cleaner and K-Safeguard Vee Plough System, which reduced roller build-up and extended equipment life. Maintenance demands dropped sharply, with belt cleaners and seals operating continuously without requiring changeouts or frequent servicing.

By consolidating belt cleaner and conveyor component supply with Kinder, the quarry streamlined procurement, eliminated spare parts shortages, and improved inventory management. Standardised components across the site reduced complexity and improved reliability, allowing maintenance teams to focus on proactive system checks rather than reactive repairs.

The custom-painted K-AllShelter® Conveyor Covers blended seamlessly into the surrounding landscape, reducing visual impact and addressing community concerns about industrial expansion. Improved dust control helped the quarry meet environmental compliance standards and demonstrated a commitment to sustainable operations.

The result? A safer, cleaner, and more efficient site that meets the demands of modern infrastructure development — without compromising on environmental responsibility or community trust.

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