ELIAS
CONSULTING ENGINEERS

# PROJECT PORTFOLIO

2026




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# PREVIOUS **PROJECTS**

## HAUL TRUCK REBUILD

**Haul Truck Rebuild** – Exxaro Full rebuild of heavy haul trucks at Exxaro mining operations. This project involved complete mechanical disassembly, component refurbishment, and structural restoration of large earth moving equipment, including tyre and wheel assembly replacement, returning all units to full operational service in compliance with OEM specifications and mine safety standards.







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# PREVIOUS **PROJECTS**

## SCREEN AND SCRAPER CONVEYOR REPLACEMENT

**Scraper Conveyor and Screen Replacement** - Exxaro Complete replacement of scraper conveyor system and screening equipment at Exxaro mining operations. This project involved removing existing worn equipment and installing new conveyor and screening systems to optimize material handling efficiency and restore reliable coal processing operations.



## SCRAPER CONVEYOR MAINTENANCE



**Scraper Conveyor Component Renewal** - Exxaro Comprehensive replacement of critical scraper conveyor components including flights, chains, and protective liners at Exxaro facilities. The project focused on restoring operational reliability and extending equipment service life through the installation of high-quality replacement parts.

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# PREVIOUS **PROJECTS**

## UPS MAINTENANCE

**UPS System Maintenance** - RAF Repair and maintenance services for Uninterruptible Power Supply (UPS) systems at RAF facility. This critical infrastructure support ensured continuous power reliability and system availability for essential operations.



## MAGNETIC SEPARATOR REPLACEMENT



**Magnetic Separator replacement**- Exxaro Wet Coal Plant Installation of new magnetic separator system at Exxaro's wet coal processing plant. This project enhanced coal quality control and improved separation efficiency by removing magnetic contaminants from the coal processing stream.

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# PREVIOUS **PROJECTS**

## CONVEYOR MAINTENCE

**Coal Conveyor Maintenance** - Exxaro Preventive maintenance and repair of coal conveyor systems at Exxaro operations, including roller replacement and structural repairs. This comprehensive maintenance program ensured continuous conveyor operation and minimized production downtime.



## CHUTE MAINTENANCE



**Chute Maintenance and repair services** for material handling chutes across mining processing facilities. These services optimize product flow, reduce material spillage and minimize operational downtime through proactive maintenance strategies.

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# PREVIOUS PROJECTS

## DRONE MILL INSPECTION

**Ball Mill Inspection Using ELIOS3 Drone Technology at Anglo American** Advanced inspection and scanning of ball mill equipment utilizing cutting-edge ELIOS3 drone technology. This innovative approach enabled safe, comprehensive internal inspection of grinding mill components without requiring equipment shutdown, providing detailed condition assessment and maintenance planning data through state-of-the-art aerial inspection capabilities.



## MOTOR CONTROL CENTRE PROTECTION AUDIT



**Motor Control Centre Protecttion Audit** - Exxaro Systematic audit and assessment of Motor Control Centre (MCC) systems at Exxaro facilities. This project evaluated electrical control systems, identified potential issues, and provided recommendations for improving operational reliability, safety standards, and regulatory compliance.

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# PREVIOUS **PROJECTS**

## MAINTENANCE STRATEGY

**Heavy Mobile Equipment Maintenance Plan and Strategy Improvement - Matsamba Colliery**
This project involved analyzing existing maintenance practices, optimizing maintenance schedules and establishing strategic maintenance frameworks to enhance equipment reliability, reduce operational costs, and maximize fleet availability through improved preventive maintenance programs.



## ROOT CAUSE FAILURE ANALYSIS



**Root Cause Analysis for Motor Failures** - Exxaro Detailed Root Cause Analysis (RCA) investigation into recurring motor failures at Exxaro operations. This analytical project identified underlying causes of equipment failures, developed corrective action plans, and implemented preventive measures to reduce future motor breakdowns and associated downtime.

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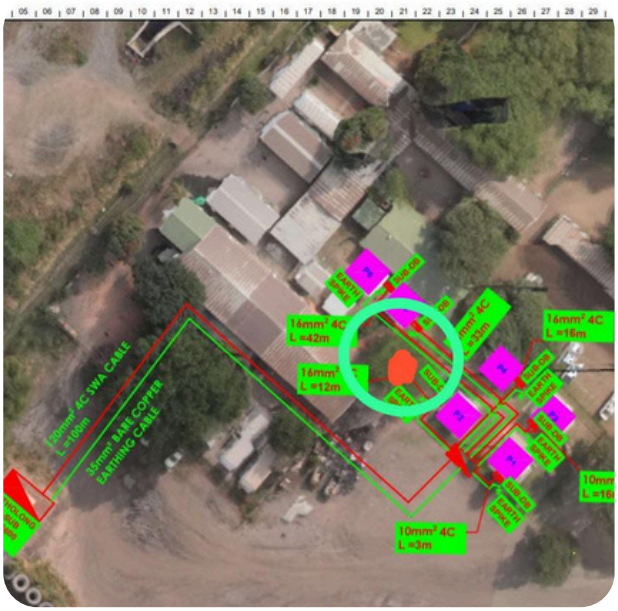
# PREVIOUS PROJECTS

## MCC ONLINE CONDITION MONITORING

MCC Online Condition Monitoring Using Samotics SAM4 Implementation of advanced online condition monitoring system for Motor Control Centre (MCC) operations utilizing Samotics SAM4 technology. This project involved installing and configuring cutting-edge monitoring equipment to provide real-time analysis of motor and electrical system performance, enabling predictive maintenance strategies, early fault detection, and optimized equipment reliability through continuous data analytics and intelligent monitoring capabilities.



## ELECTRICAL DESIGN AND IMPLEMENTATION




**Electrical Supply Design for Parkhomes Design and engineering of electrical supply systems for parkhomes development.** This project involved creating comprehensive electrical infrastructure plans, load calculations, and distribution system layouts to provide safe, reliable, and code-compliant electrical services for residential parkhome facilities, ensuring adequate power supply for all residential requirements and future expansion needs.

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