

Case Study

Project Title

Real-Time Air Quality and Wind Direction Monitoring at PT Citra Palu Minerals

Project Snapshot

Klien: PT Citra Palu Minerals (CPM) | **Lokasi:** Central Sulawesi, Indonesia

Sektor: Gold Mining | **Periode / status:** 2026 / Ongoing

Layanan Ganeca: Air Quality Monitoring System (AQMS), real-time air quality monitoring, wind direction monitoring, and environmental data analysis.

Project Overview

As part of its environmental management activities, PT Citra Palu Minerals (CPM) requires continuous air quality monitoring to support regulatory compliance, protect worker health, and manage potential environmental impacts associated with mining operations. Ganeca Environmental Services supports this requirement through the implementation of an Air Quality Monitoring System (AQMS) integrated with wind direction monitoring, providing real-time visibility into air quality and meteorological conditions.

The Challenge

Mining activities can generate particulate matter and emissions that require continuous monitoring to provide an accurate understanding of air quality conditions across operational areas. However, air quality data needs to be evaluated alongside meteorological conditions, particularly wind direction, as wind patterns can influence the movement and potential dispersion of particulate matter and pollutants. CPM therefore requires continuously available air quality and wind direction data to improve environmental visibility and provide supporting information for evaluating and managing potential environmental impacts.

Our Solution

Ganeca Environmental Services implemented an Air Quality Monitoring System (AQMS) to automatically and continuously monitor air quality parameters in real time across CPM's operational area. The system is complemented by wind direction monitoring, providing meteorological data that helps support the assessment of potential pollutant dispersion patterns. Air quality and wind direction data are monitored and analyzed together to provide a more comprehensive understanding of air quality conditions and the surrounding operational environment.

Results & Value

The AQMS implementation provides continuous, real-time air quality data, giving CPM greater visibility into air quality conditions across its operational area. Integrating air quality data with wind direction provides additional meteorological context to support the understanding of potential pollutant dispersion and environmental conditions. By combining air quality monitoring, wind direction monitoring, and environmental data analysis, the solution supports more responsive environmental management, regulatory compliance, worker health protection, and data-driven decision-making.

Project Photos



Layanan terkait: [Technology-Enabled Environmental Monitoring](#)