

5.4 Air Quality

Why it Matters to Orla

Mining's potential impact on air quality, from activities that produce dust or gaseous emissions, is both a local and global issue. For example, dust generated by blasting, crushing and hauling rock, as well as diesel particulate matter from engines, can adversely affect ecosystems and human health, if left unmitigated. Addressing Orla's impact on air quality is essential for meeting our social license to operate and living up to our purpose to transform resources into a net-positive benefit for all of our stakeholders.

For clarity, this section refers to non-GHG emissions resulting from our activities, the most significant of these emissions being sulphur oxides (SOx), nitrogen oxides (NOx) and particulates. For details about Orla's GHG emissions, please refer to the Climate Change section.

Our Approach: Minimizing Emissions

Our commitment to protecting people and responsibly managing Orla's environmental impacts on air quality is guided by our [Environmental, Sustainability, Health & Safety Policy](#), our Environmental Management System and our Sustainability Strategy. We have practices in place to mitigate our impacts on air quality and to meet obligations set out in our permits and environmental regulations.

As part of our pre-mine planning and environmental baseline studies, we collect air quality data, conduct environmental impact assessments and identify areas and processes that may potentially impact air quality. Based on these insights, we develop and implement programs

to reduce the impact to the lowest extent possible. These measures include:

- Air quality control systems installed at our premises to measure and mitigate emissions.
- Dust suppression controls such as water trucks to curb dust from hauling material on gravel roads. Where feasible, roads are paved to eliminate dust emissions altogether.
- Maintaining a modern fleet of vehicles that we service routinely to ensure they operate efficiently. The vehicle engines have pollution controls to minimize particulate matter emitted and are compliant with Tier 4 standards, which emit up to 90% less particulate matter and NOx compounds.



Pit, ramp and haul road to the crushing circuit

Air Quality Monitoring

Our site-level teams closely monitor the performance of our operations on air quality, and Camino Rojo has an ongoing air quality monitoring program in local communities. This due diligence helps prevent worker health, public health, and the environment from being adversely affected by poor air quality, while ensuring Orla complies with relevant air quality standards.

We use sophisticated monitoring instruments that measure total dust, as well as particulate dust matter of a size less than 10 microns (PM₁₀)¹ and 2.5 microns particles (PM_{2.5}), at designated monitoring stations. This regular assessment helps us understand air quality at our nearest neighbours and our boundaries. We also monitor the chemical characteristics (such as metals) of the captured dust. We use meteorological data to identify areas upwind and downwind from our site to ensure that we can differentiate dust from the site and dust created from other regional activities.

Orla's local teams also listen to and engage with community members, including through our community response mechanism, to identify and respond to any concerns or grievances related to air quality and pollution across our operations.

In our South Railroad and Cerro Quema projects, air pollution control measurements are part of our environmental permitting applications and site environmental management plan.

Accountability

The Chief Executive Officer has ultimate responsibility for overseeing Orla's management of and impact on air quality. The ESH&S Committee of the Board reviews any issues raised related to air quality and approves mitigation measures. Our Chief Operating Officer is responsible for reporting identified risks and opportunities related to air quality, and ensuring the sites identify and implement practices to preserve or improve air quality. In addition, each operation is responsible for implementing programs and procedures to protect air quality.



Thunderstorm at Camino Rojo

2022 Highlights

- During 2022, the results of our air quality monitoring demonstrated compliance with relevant air quality regulations and no incidents. We understand that mining is a dynamic industry and we continuously seek to improve our processes. We will continue to monitor our impacts on air quality as well as listen to any concerns from our neighbouring communities and, where necessary, make improvements to our practices with additional mitigations.
- Our operations generated minor quantities of nitrogen oxide (NO₂ emissions = 0.68 tonnes) and methane (CH₄ emissions = 0.85 tonnes) during 2022.

2023 Focus

- Complete the construction of the Camino Rojo crushed ore stockpile dome to minimize dust pollution. The operation will invest \$1.8 million in this project, in addition to investments related to civil works.
- Continue to work with communities near Camino Rojo to evaluate any air quality concerns and inform them about mitigation initiatives to minimize dust generated during operation.

2022
Highlights

Full compliance
with relevant air quality regulations

0.68
tonnes of NO_x emissions

0.85
tonnes of CH₄ emissions

¹ The PM 10 fraction of dust (dust less than 10 microns in diameter) is the inhalable fraction that is emitted from dusty roads, vehicle exhausts, and some industrial processes and can impact respiratory and cardiovascular systems if not managed.