

Earthworks sent ***Filtered Tailings in Indonesia: The Catastrophic Failure of a Disruptive Technology*** by Dr. Steven Emerman and **Summary, analysis, and recommendations based on the report: *Filtered Tailings in Indonesia: The Catastrophic Failure of a Disruptive Technology*** by Earthworks to the following mining, processing and purchasing companies, offering an opportunity to respond to or comment on the embargoed reports:

- Harita Nickel/Trimegah Bangum Persada
- Zhejiang Huayou Cobalt Co., Ltd.
- GEM Co. Ltd.
- SRK Consulting
- Hatch Consulting
- PT Lapi ITB
- BMW
- Mercedes-Benz
- Ford
- General Motors
- Honda
- Tesla
- Toyota
- Volkswagen
- Volvo

Earthworks did not receive responses from:

- Harita Nickel/Trimegah Bangum Persada
- GEM Co. Ltd.
- SRK Consulting
- Hatch Consulting
- PT Lapi ITB
- Ford
- Honda
- Tesla
- Toyota
- Volkswagen

The responses received from BMW, General Motors, Mercedes-Benz, Volvo Cars, Volvo Group, and Zhejiang Huayou Cobalt Co., Ltd. are below.

BMW

- The BMW Group currently does not have any direct supply relationships with nickel suppliers. Our direct suppliers, the battery cell manufacturers, source nickel independently and autonomously.
- According to our purchasing terms and conditions, direct suppliers are obliged to comply with legal requirements, as well as comprehensive environmental and social standards, and must also pass these on to their subcontractors.
- If there are any indications of possible violations in the supply chain, we investigate these indications.
- We are also involved in initiatives dedicated to developing standards for responsible raw material extraction, with the aim of certifying raw material supply chains and thus verifying compliance with ESG requirements. In the case of nickel, for example, we are an active member of the Initiative for Responsible Mining Assurance (IRMA) and the Responsible Minerals Initiative (RMI).
- In conjunction with the German "Gesellschaft für Internationale Zusammenarbeit" (GIZ, Agency for International Cooperation) and other industry partners, the BMW Group launched the on-site project "Nickel Impact Programme Indonesia (NIPI)" in September 2025, aimed at mitigating potential negative impacts on the local population associated with nickel production in the Weda Bay region on the Halmahera peninsula in Indonesia.

Mercedes-Benz:

Thanks for giving Mercedes-Benz the opportunity to comment.

For Mercedes-Benz, social responsibility and respect for human rights are the pillars of responsible corporate governance and key factors for our long-term success. We are working to ensure that our products only contain raw materials and other materials that were obtained and produced without violating human rights and environmental standards.

We use a variety of measures and concepts for the management of our supply chain. We work closely with our direct suppliers and oblige them to pass on our [Responsible Sourcing Standards](#) within their supply chain. Further information with regards to measures taken can be found on our [website](#), the [Mercedes-Benz Sustainability Report](#) and the Mercedes-Benz Raw Material Report.

With regard to your statements that you are going to publish, we would like to refer to the [Mercedes-Benz Raw Material Report 2024](#), where we state that Indonesia has become the world's largest producer of nickel. We currently do not source Nickel directly. However, we map our Nickel supply chains in great details. This is an ongoing process, as supply chains are dynamic and complex. Indonesia is part of the Mercedes-Benz supply chain.

As part of its Nickel supply chain approach, Mercedes-Benz focuses on working conditions, including occupational health and safety, community and indigenous rights and environmental risks with a potential impact on human rights. In terms of environmental risks in particular, the disposal of toxic tailings from HPAL processing facilities is a relevant topic.

Mercedes-Benz supports responsible tailings management. We ask our suppliers of battery cells to prioritize Nickel from IRMA audited mine sites – Harita Nickel is currently conducting an IRMA audit – and are actively involved in the Responsible Minerals Initiative - PT Hufei (IWIP) has only recently finalized the RMI facility standard audit.

As an active member of the RMI we are following this process closely. Furthermore, Mercedes-Benz has been in contact with different stakeholders with regards to Nickel sourcing and processing in Indonesia.

Please do not hesitate to get back to us if any questions come up.

Volvo Cars

Volvo Cars is aware of the concerns raised in the Earthworks report regarding environmental and human-rights risks linked to certain HPAL nickel operations in Indonesia.

Volvo Cars does not operate or directly source from mines or smelters. We require our battery suppliers to follow international standards, such as the OECD Due Diligence Guidance and the EU Battery Regulation, and we monitor their compliance through structured oversight and risk-based due-diligence processes, including onsite audits and supplier trainings. Our due diligence framework covers areas such as tailings facility stability, water management, worker safety, biodiversity impacts, and Indigenous rights, including Free, Prior and Informed Consent (FPIC), and prohibits unsafe waste disposal practices. While audits are not a substitute for public regulatory frameworks, they play an important role in reinforcing alignment with international standards and providing independent assurance of responsible practices in complex operating environments.

All our suppliers and their subcontractors must adhere to our [Code of Conduct for Business Partners](#). When risks are identified, we investigate, seek independent verification, and require corrective action. Volvo Cars also uses a blockchain-based chain of custody program that traces raw materials, including nickel, through the battery supply chain to the mine level. This improves transparency, supports risk identification, and strengthens our ability to engage suppliers on specific sites and issues.

Volvo Cars remains committed to promoting responsible and transparent sourcing of the materials in our vehicles. We are actively engaging with our battery suppliers to further strengthen risk mitigation in the nickel supply chain, and we will keep evolving our due-diligence approach to reflect our values, our sustainability commitments, and the expectations we set for all our partners.

For more information about our responsible sourcing work and human rights due diligence approach, we invite you to consult our latest [Annual and Sustainability Report](#) (p 189-194), our [Human Rights Statement](#) and our [Position on Responsible Sourcing](#).

Volvo Group

Thank you for your clarification and for confirming that your publication will reference both Volvo Group AB and Volvo Cars AB. We appreciate the opportunity to respond and do so here on behalf of Volvo Group. The Volvo Group recognizes your concerns of environmental and human rights risks linked to certain HPAL nickel operations in Indonesia.

The Volvo Group is committed to upholding the highest ethical business standards globally. Our commitment to respect human rights covers not only our own operations and employees, but also communities near our operations, supply partners, and people potentially impacted by the use of our products and solutions. We believe that behaving responsibly is the only foundation on which a sustainable business can be built. In this respect, we do not tolerate any forms of modern slavery or forced labor. Neither is any discrimination or unfair treatment tolerated, e.g., due to gender, ethnicity, cultural background, religion, or belief. For these reasons, the principles in the [Volvo Group Code of Conduct](#) and the [Volvo Group Supply Partner Code of Conduct](#) are applied in all our purchasing processes.

The Volvo Group Supply Partner Code of Conduct sets the standards for collaboration with our supply partners to build sustainable supply networks. It defines how we do business and sets out mandatory sustainability requirements in the areas of people, resources, climate, and business ethics and compliance. These requirements are embedded in all contracts with direct supply partners and e.g. include compliance with applicable regulations, adherence to ethical sourcing practices, and implementation of robust risk management systems. In 2025, we further strengthened this framework by introducing a [Sustainable Materials Sourcing and Due Diligence Policy](#), which complements our Supply Partner Code of Conduct. This policy further ensures that our sourcing practices align with internationally recognized human rights and labor standards and comply with applicable legal regulations. It reinforces our expectations on supply partners regarding traceability, responsible sourcing, and robust risk assessment across the supply chain.

The Volvo Group does not operate mines or smelters and does not source raw materials such as nickel directly. Our battery supply partners, as all our supply partners, are expected to commit to and cascade the requirements of the Supply Partner Code of Conduct and to meet the expectations set out in our Sustainable Materials Sourcing and Due Diligence Policy. Given the elevated sustainability and human rights risks associated with battery materials, we place particular emphasis on monitoring battery supply partners' due diligence, governance, and ESG performance. Compliance is monitored through regular business reviews, joint sustainability workstreams, and risk-based due-diligence activities, including on-site due diligence and ESG audits. These assessments focus not only on operational conditions, but also on supply partners' ability to identify, prevent, mitigate, and address risks in their own supply networks. Where gaps are identified, we engage with supply partners to drive corrective actions and continuous improvement.

In addition to our supplier-focused due-diligence activities, we also engage at a broader systemic level. To contribute to more responsible and sustainable nickel value chains, we have actively participated in the business consultation on Indonesia's proposed mandatory Human Rights Due Diligence Bill (Uji Tuntas HAM), organized by the Responsible Business Alliance (RBA). We welcome the Government of Indonesia's initiative to introduce a national human-rights due-diligence framework as a constructive step toward promoting responsible business conduct and strengthening societal well-being.

More information about the Volvo Group's work on sustainable purchasing and human rights due diligence is available in the [Volvo Group Annual Report](#) published February 26, 2025.

General Motors

Thank you for sharing your report, *Filtered Tailings in Indonesia: The Catastrophic Failure of a Disruptive Technology*, and for providing General Motors (GM) the opportunity to respond.

GM takes concerns about potential environmental and human rights impacts in our supply chain very seriously and remains committed to responsible sourcing. We recognize that the report raises serious questions about tailings management, water contamination, worker safety, and community impacts that may be associated with Indonesian nickel operations. The report and associated materials are additional inputs to our ongoing diligence activities.

As part of our supply chain diligence, we actively engage with suppliers to identify salient environmental and human rights risks in accordance with our Supplier Code of Conduct; and we require our suppliers to proactively address such risks. We are assessing how the issues raised in this report relate to those requirements.

We appreciate the chance to provide this perspective and remain committed to responsible business practices and to the standards set out in our Supplier Code of Conduct.

Response to Earthworks' Forthcoming Report on Tailings in Indonesia

Dear Earthworks,

Thank you for your letter dated March 4, 2026, sharing the upcoming report and related summary, and providing Huayou Cobalt with the opportunity to respond. Upon receiving your letter, Huayou took it very seriously and immediately organized a team to conduct a thorough review.

Huayou Cobalt has always adhered to an open, transparent and responsible approach. We have made sustainability one of our core corporate strategies and have fully integrated ESG principles into our corporate governance and day-to-day operations. We have referred to international frameworks such as the "United Nations Guidelines on Business and Human Rights", the "OECD Guidelines for Responsible Business Conduct of Multinational Enterprises", the International Labour Core Conventions, the Global Compact Ten Principles, and the Performance Standards of the International Finance Corporation (IFC) to continuously improve our ESG management policies and systems. We fully agree that tailings management is a critical issue for mining sustainability and ESG practice, and we are committed to minimizing environmental and social impacts across all phases - planning, construction, operation and closure - through systematic management.

Huayou has formally issued the Huayou Cobalt Tailings Management Policy, drawing upon the internationally widely recognized standards for tailings and good practices. Based on this Policy and the laws and regulations of the countries in which we operate, each of Huayou's operating entities has developed relevant tailings management procedures and operational guidelines to ensure standardized full-lifecycle management of tailings. This includes the following phases:

I.Planning and Design Phase

In the early stages of a project, Huayou engages professional institutions to conduct site selection studies for the tailings storage facility, ensuring that the site is located in a geologically stable area to maintained at a safe distance from residential areas and water bodies. During the design phase, we strictly comply with applicable regulatory requirements, complete environmental impact assessments and technical permits, and focus on implementing environmental protection designs such as seepage control, drainage systems, and groundwater monitoring.

II. Construction Stage

During this stage, independent supervision units are engaged to oversee construction quality, ensuring that construction meets design requirements and relevant specifications. Upon project completion, an operational permit issued by the government must be obtained before the facility can be put into use.

III. Operation and Monitoring Stage

During the operational stage, a professional management team is established to implement standardized management of key processes, including tailings pressure filtration, transportation, and stacking. Tailings are stacked in layers and compacted layer by layer to ensure stack stability.

We regularly conduct environmental monitoring in accordance with legal requirements and engage qualified third-party laboratories to test groundwater. Through safety monitoring and

regular drone inspections, we maintain real-time awareness of the tailings facility's operational status. We have developed emergency response plans and conduct regular drills to enhance our capacity to respond to unexpected events.

IV. Closure and Post-Closure Management

After a tailings storage facility reaches the end of its service life, we implement closure and ecological restoration in accordance with host country regulations and with reference to international good practices. Following closure, we continue to conduct environmental monitoring, including groundwater testing, and submit regular reports to the government, fulfilling our long-term management responsibilities.

Huayou Cobalt has committed to continuously improving its ESG management system, strengthening internal management, and striving to promote all aspects such as tailings management towards greater safety, environmental friendliness, and sustainability, thereby contributing to the sustainable development of the industry. For more information on Huayou's systematic practices and performance in environmental, social, and governance areas, please refer to Huayou Cobalt's annually published Environmental, Social and Governance (ESG) Report.

Thank you again for your attention. Should you have any further questions, please contact CSR@huayou.com.

Zhejiang Huayou Cobalt Co., Ltd.
March 10, 2026