+357 96 030922
info@marketpublishers.com

Global Green Mining Market: Analysis By Mining Type (Surface and Underground), By Technology (Power Reduction, Fuel and Maintenance Reduction, Toxicity Reduction, Emission Reduction and Water Reduction), By Region Size and Trends with Impact of COVID-19 and Forecast up to 2029

https://marketpublishers.com/r/GA3562B3F2A8EN.html
Date: December 2024
Pages: 150
Price: US$ 2,250.00 (Single User License)
ID: GA3562B3F2A8EN

Abstracts

The global green mining market in 2023 stood at US$12.11 billion and is likely to reach US$21.32 billion by 2029. Green mining refers to the practices and technologies applied in the mining industry aimed at reducing its environmental impact while improving operational efficiency. This concept integrates sustainable practices throughout the mining process, from exploration to mineral extraction, to processing, and ultimately, waste management.

The growth of the global green mining market is driven by increasing environmental regulations and the growing demand for sustainable mining practices. Governments and organizations worldwide are emphasizing the reduction of greenhouse gas emissions, water usage, and land degradation caused by traditional mining activities. Advances in technologies, such as renewable energy integration, water recycling, and precision mining, are enabling mining companies to adopt eco-friendly processes while improving operational efficiency. Additionally, the rising awareness among investors and consumers about environmentally responsible practices has prompted mining firms to implement greener methods to enhance their corporate social responsibility (CSR) credentials. The market is further supported by the surging demand for sustainably sourced minerals in industries like renewable energy, electric vehicles, and electronics, aligning with global decarbonization goals. The global green mining market is projected to grow at a CAGR of 9.88% during the forecast period of 2024-2029.

+357 96 030922
info@marketpublishers.com

Market Segmentation Analysis:

By Mining Type: The report has segmented the global green mining market into two segments namely, surface and underground. In 2023, the surface segment dominated the market share due to its cost-effectiveness, operational simplicity, and ability to extract large volumes of minerals with minimal resource input. Surface mining techniques, such as open-pit and strip mining, are easier to implement with green technologies like renewable energy, water management systems, and dust suppression methods. Additionally, advancements in equipment automation and precision mining technologies have made surface mining more efficient and environmentally friendly, further driving its dominance in the market. On the other hand, underground segment is expected to grow the fastest during forecasted period due to increasing investments in advanced technologies that enhance safety, efficiency, and sustainability in subsurface operations. Innovations such as automated mining equipment, real-time monitoring systems, and low-emission ventilation solutions are making underground mining more viable and environmentally friendly. Additionally, the growing demand for high-value minerals located in deeper deposits and the need to minimize surface disruption are encouraging the adoption of underground mining.

By Technology: The global green mining market can be divided into five segments according to application: power reduction, fuel and maintenance reduction, toxicity reduction, emission reductions and water reduction. Power reduction segment holds the largest market share in 2023 due to the growing emphasis on energy efficiency and cost savings in mining operations. Mining companies are increasingly adopting renewable energy sources, energy-efficient equipment, and smart grid technologies to reduce electricity consumption and operational expenses. The rising costs of conventional energy and the push to meet stringent carbon reduction targets have further incentivized investments in power reduction strategies. On the other hand, emission reduction segment is expected to grow the fastest during forecasted period due to increasing regulatory pressure to curb greenhouse gas emissions and the global shift toward decarbonization. Mining companies are adopting cleaner technologies, such as electric and hybrid mining equipment, carbon capture and storage (CCS), and renewable energy integration, to reduce their carbon footprint.

By Region: According to this report, the global green mining market can be divided into four major regions: Asia Pacific (China, Japan, India, South Korea and Rest of Asia Pacific), North America (The US, Canada and Mexico), Europe (Germany, UK, France, Italy and Rest of Europe) and Rest of the world. In 2023, Asia Pacific dominated the

+357 96 030922
info@marketpublishers.com

global green mining market and is expected to grow at the fastest CAGR from 2024 to 2029 due to rapid industrialization, urbanization, and the region's abundant mineral resources. Countries like China and India are heavily investing in sustainable mining practices to meet increasing domestic demand while addressing environmental concerns. Government initiatives promoting green technologies, stricter environmental regulations, and the adoption of renewable energy and advanced mining equipment are driving growth in the region. Additionally, the rising demand for sustainably sourced minerals in industries such as electronics and renewable energy further boosts the market’s expansion in Asia Pacific.

Global Green mining Market Dynamics:

Growth Drivers: Rising green finance is a significant growth driver of the global green mining market, as it provides the necessary capital for companies to transition toward more sustainable practices. Green bonds, loans, and investment funds dedicated to environmental initiatives enable mining firms to adopt advanced eco-friendly technologies, such as renewable energy integration, waste recycling systems, and emission control solutions. Financial institutions and investors are increasingly prioritizing projects with strong environmental, social, and governance (ESG) criteria, aligning with global sustainability goals. This access to green finance not only reduces the financial burden of implementing costly green technologies but also enhances the competitiveness and reputation of mining companies, accelerating the market's growth. Further, the market is expected to grow owing to increased demand for critical minerals, increasing environmental regulations, growing focus on sustainability and ESG goals, rising public and corporate awareness, economic benefits of sustainable practices etc. in recent years.

Challenges: High initial investment cost is a significant challenge in the global green mining market, as implementing sustainable technologies and practices often requires substantial upfront capital. Transitioning to green mining involves expenses for advanced equipment, renewable energy systems, waste management technologies, and compliance with stringent environmental regulations. These costs can be a deterrent, especially for small and medium-sized mining companies with limited financial resources. Additionally, the lengthy payback period for these investments can further discourage adoption. Additionally, factors like difficulty in reporting sustainability impact etc. are other challenges to the market.

Market Trends: The expansion of circular economy practices is a key trend driving the global green mining market, as it emphasizes resource efficiency, waste minimization,

+357 96 030922
info@marketpublishers.com

and sustainable production cycles. Circular economy approaches encourage recycling and reusing mining waste, reducing dependency on virgin raw materials and lowering environmental impact. Mining companies are adopting technologies to recover valuable materials from tailings and scrap, promoting a closed-loop system. This not only reduces costs but also aligns with consumer and regulatory demands for sustainable practices. As industries increasingly prioritize circularity, the demand for eco-friendly mining practices will continue to grow, fostering long-term market expansion. More trends in the market are believed to grow the green mining market during the forecasted period, which may include the increased use of automation and AI, adoption of renewable energy in mining operations, focus on carbon neutrality, digital twin technology in mining, advancements in bio-mining etc.

Impact Analysis of COVID-19 and Way Forward:

The COVID-19 pandemic initially disrupted the global green mining market, causing delays in projects, halting supply chains, and impacting investments due to economic uncertainty. Mining operations faced challenges in maintaining workforce safety, resulting in production slowdowns. However, the post-COVID period has seen a rebound, with a heightened focus on sustainability and eco-friendly practices, as the pandemic underscored the importance of building resilient, environmentally responsible industries.

Competitive Landscape and Recent Developments: vv
The global green mining market is characterized by a mix of large multinational corporations, medium-sized enterprises, and a growing number of technology-focused startups. These players are involved in the development and adoption of sustainable mining practices, offering solutions in areas like renewable energy integration, water management, emissions reduction, waste recycling, and eco-friendly mining technologies. The competitive landscape is marked by intense rivalry among players.

Further, key players in the green mining market are:

BHP Group Limited
Rio Tinto
Vale S.A.
Anglo American
Glencore
Tata Steel (Tata Steel Mining Limited)
Freeport-McMoRan Inc.

+357 96 030922
info@marketpublishers.com

Newmont Corporation
Dundee Precious Metalsv Sumitomo Metal Mining Co., Ltd.
ArcelorMittal etc.

Companies focus on R&D to create innovative technologies, invest in modern production technology, and employ novel marketing techniques emphasizing customer awareness and education. Strategic partnerships, mergers, and acquisitions are common as firms seek to expand their product offerings and market presence. An example of this is on February 29, 2024, Anglo American partnered with EDF Renewables to develop a renewable energy ecosystem in South Africa, targeting at least 500 megawatts of solar and wind capacity by 2030 and in 2022, Anglo American plc unveiled a prototype of the world’s largest hydrogen-powered mine haul truck designed to operate in everyday mining conditions at its Mogalakwena PGMs mine in South Africa.

+357 96 030922
info@marketpublishers.com

Contents

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

12. LIST OF FIGURES

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

I would like to order

Product name: Global Green Mining Market: Analysis By Mining Type (Surface and Underground), By Technology (Power Reduction, Fuel and Maintenance Reduction, Toxicity Reduction, Emission Reduction and Water Reduction), By Region Size and Trends with Impact of COVID-19 and Forecast up to 2029

Product link: https://marketpublishers.com/r/GA3562B3F2A8EN.html

Price: US$ 2,250.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:
info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/GA3562B3F2A8EN.html