



Innovating for a better world

SUSTAINABILITY HIGHLIGHTS 2023

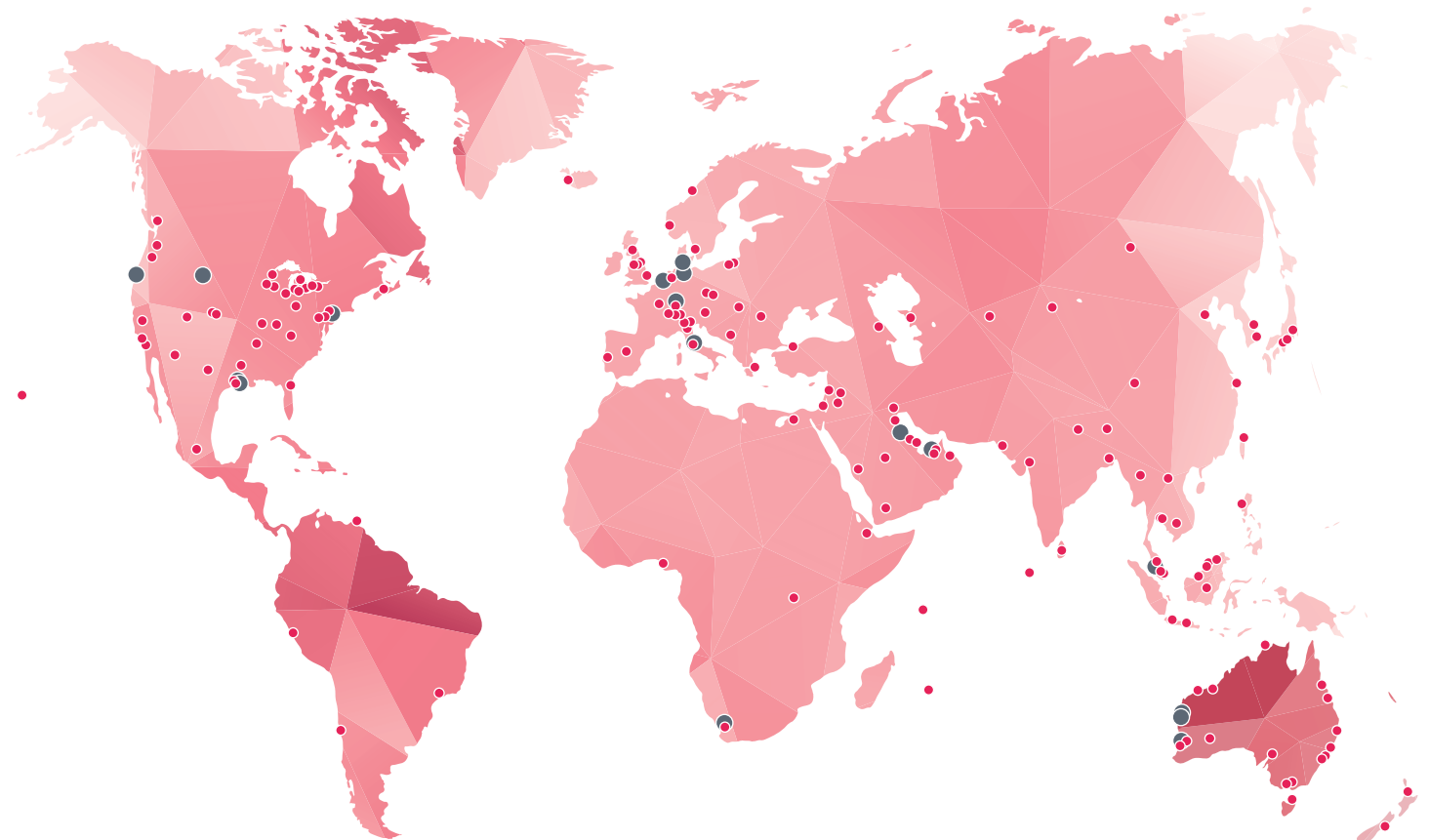


About GMA

GMA is the global leader in industrial garnet abrasives, specializing in high-quality solutions for the waterjet cutting and abrasive blasting industries. With over 40 years of experience, GMA is the only vertically integrated garnet supplier worldwide, controlling every stage of the supply chain from mining and processing to distribution. Our mines and processing facilities span Asia Pacific, Europe, Americas and the Middle East, supporting a broad supply network that includes alluvial, crushed, and recycled garnet.

GMA employs over 500 people worldwide, with operations across 15 offices, three mines, 11 processing plants, and five major recycling facilities. Our expert sales and technical teams provide tailored support, delivering premium abrasive products to customers in over 100 countries through our warehouses and an extensive network of over 180 distributors.

Pioneering in the industry, GMA has developed advanced technologies for both abrasive blasting and waterjet cutting, including sustainable recycling solutions for used garnet.



- Office, Mine and Processing Plants
- Distributors, Agents and Trading Partners

Our commitment

2023 Sustainability Highlights

At GMA, our dedication to sustainability spans across all our operations, where our initiatives underscore a steadfast commitment to being responsible stewards of natural resources. Guided by the Global Reporting Initiative (GRI) framework, we are committed to transparency and rigor in tracking our progress, ensuring that our actions are measurable and continually improving year on year.

In this 2023 Sustainability Highlights brochure, we invite you to explore the strides we've taken across our operations to enhance environmental stewardship, drive sustainable practices, and strengthen our local communities. We aim to create lasting, positive change by continuously reviewing and refining our objectives, comparing our results annually to assess growth and set new standards for the future.

We encourage you to reflect on our journey and to join us as we build a sustainable future together. For an in-depth look at our initiatives and achievements, please visit our website to view the full Sustainability Report.

"As stewards of natural mineral resources, we recognize the imperative to operate in a manner that is environmentally responsible, socially equitable, and economically viable. GMA is determined to be a leader in sustainable business practices. Throughout our 40+ years history, our commitments to sustainability have continued to evolve, allowing us to formalize our obligations and develop strategies in line with Environmental, Social and Governance principles."

Grant Cox,
CEO, GMA Garnet Group.





Our Actions for a Sustainable Future

In 2023, our initiatives across Asia Pacific, the Middle East, and America showcase our commitment to sustainable practices and positive community impact. Each action reflects our dedication to corporate responsibility, offering stakeholders a transparent view of GMA's progress and impact.

Sustainable investment categories		AUST	ME	US
	Air quality and dust management	✓	✓	✓
	Energy use and carbon emissions	✓	✓	✓
	Land Management and Rehabilitation	✓		✓
	Water Management	✓	✓	✓
	Waste Management	✓		✓
	Waste Recycling, Garnet re-processing and re-use		✓	✓
	Safety Performance	✓	✓	✓
	Employee Wellbeing	✓	✓	✓
	Local Business	✓	✓	
	Recognizing Cultural Heritage in Australia	✓		
	Community/Social Investment	✓	✓	✓
	Our People	✓	✓	✓
	Workforce Diversity	✓	✓	✓
	GMA Library of Governance Documents	✓	✓	✓



Environmental Stewardship at GMA

At GMA, we understand the critical importance of managing our environmental impact responsibly. Recognizing our role in conserving natural resources and protecting the environments in which we operate, we have established regulatory governance processes to manage and monitor key stages of our garnet operational lifecycle. Given the diversity of environmental regulations across our global operations, we adapt our monitoring processes and metrics to meet the specific requirements of each jurisdiction. We are proud that all GMA operational sites hold ISO 14001:2018 certification for Environmental Management Systems, reflecting our commitment to environmental excellence and accountability.

Utilizing Green Energy: Paving the Way for Sustainable Power

We acknowledge that a transition from fossil fuels to green energy sources is not just an environmental imperative but a keystone in building a sustainable future. Since 2020 we have been on the journey of harnessing green energy through wind and solar power, investing in solutions provided by our green energy provider, Advanced Energy Resources for green energy for our operational facility based in Port Gregory, Australia.

Air Quality and Dust Management

Due to the nature of mining and processing garnet, dust and atmospheric pollutants pose significant social and environmental risks. GMA's approach to dust management focuses on stringent, compliance-driven practices to ensure operations remain within regulatory thresholds. Continuous monitoring and auditing are conducted to maintain compliance across various jurisdictions, which have differing regulations. At mining and processing sites, dust and pollutants such as CO, VOC, NOx, PM10, PM2.5, and SO2 are generated. GMA systematically mitigates these risks through management strategies and internal environmental audits to avoid unacceptable environmental impacts.



CASE STUDY

Investing in Renewable Energy

We acknowledge that a transition from fossil fuels to green energy sources is not just an environmental imperative but a keystone in building a sustainable future. Since 2020 we have been on the journey of harnessing green energy through wind and solar power, investing in solutions provided by our green energy provider, Advanced Energy Resources (AER).

Our Electricity Supply Agreement with AER Retail Ltd, provides GMA access to green energy for our Port Gregory operational facility based in Western Australia. Our agreement includes three energy delivery and storage solutions:

- **Wind Energy:** A 2.5 MW wind farm achieve through five wind turbines.
- **Solar Energy:** A 1.5MW solar farm supplement energy needs.
- **Energy Storage:** A 2MW/ 0.6MWh world-first designed battery storage system (BESS).

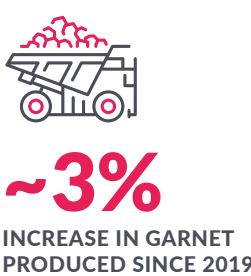
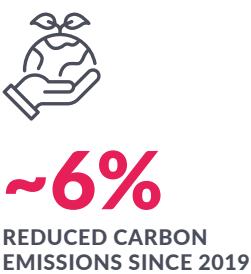
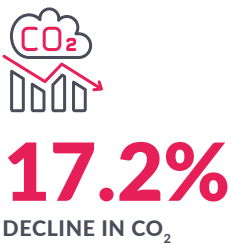
Combined, these sources contribute to approximately 70% of Port Gregory operations' energy requirements, which for 2023 was approximately 1.25MW.

Our green energy solution has the potential to deliver up to 150% of the plant's energy requirement when sufficient renewable energy supply is available (typically during the summer months which have abundant wind and solar potential). During these times, energy is exported back into the Western Power network.

Since 2021 up to 4,000t per annum of CO₂ emissions have been avoided.

"AER and GMA's joint vision and commitment to the project saw the development of WA's first grid-connected wind/solar/battery microgrid by two forward-thinking, agile, and innovative WA companies. The project showcased several renewable energy industry firsts for Western Australia including the use of refurbished wind turbines and the ability for a renewable energy system to provide uninterruptible, high penetration renewable energy supply to weak, fringe of grid areas. GMA's pioneering commitment to sustainability in the mining sector was evident as one of the first movers to incorporate high-penetration renewable energy into its Mid-West operations." *Luca Castelli, Advanced Energy Resources*

Tracking our carbon emissions



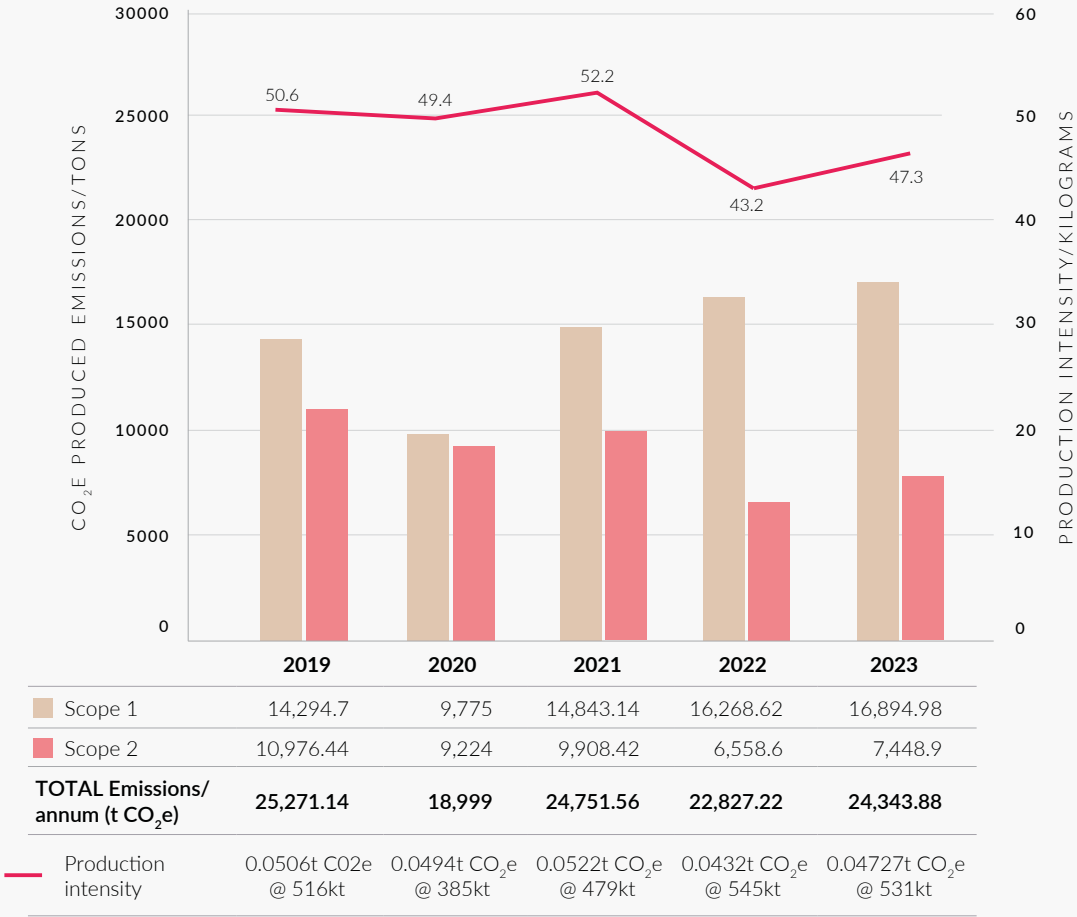
Our commitment to reducing our carbon footprint through renewable energy initiatives and emission reduction programs has seen a **17.2% decline in CO₂** emissions per tonne of garnet produced, exceeding our five-year targets, and underscoring our dedication to sustainable production practices.

GMA measures and offsets direct scope 1 and 2 greenhouse gas emissions generated from our locations in Australia, Americas and Middle East. We invest in several climate projects facilitated via our partner, South Pole. Projects supported have included: Song Tranh Hydropower, Hong Phong Solar, Mount Sandy Conservation applying Verra Methodologies.

GMA uses National Greenhouse and Energy Reporting methodology in calculating our carbon footprint.

Our carbon emissions intensity related to per tonne of garnet produced has reduced by ~ 6% since 2019, against an ~ 3% increase in garnet produced.

GMA TOTAL CO₂e PRODUCED



Scope 1 (Direct Emissions) incorporates onsite material transportation, electricity generation, GMA owned and operated transportation and plant operations.

Scope 2 (Indirect emissions) relates to GMA's electricity use.

Land Management and Rehabilitation



39ha

OF LAND REHABILITATED



48ha

WEED MANAGEMENT



10,000

TUBESTOCK



154kg

PELLETIZED SEEDS

GMA is firmly invested to rehabilitating its footprint, maintaining a greater ratio of 'rehabilitated to land' disturbance.

Our commitment to environmental stewardship goes beyond maximizing mining outputs. We prioritize minimizing our environmental footprint and ensure we restore land to as near as practical to its original contour in accordance with governmental environmental legislation, regulations and conditions.

GMA's most significant environmental impact is land clearing in Port Gregory, Australia and Alder, Montana, USA. As such, we are dedicated to minimizing the clearing extent and ensuring we progressively rehabilitate mine operations and exploration activities.

To date, our land management programs has seen 39 hectares of land rehabilitated across mining operations.



CASE STUDY Research driving our rehabilitation efforts

GMA is committed to improving our rehabilitation practices through researching and refining rehabilitation processes. A summary of the findings of trials conducted between 2020 and 2023 is summarized below:



Tubestock planting has shown success.



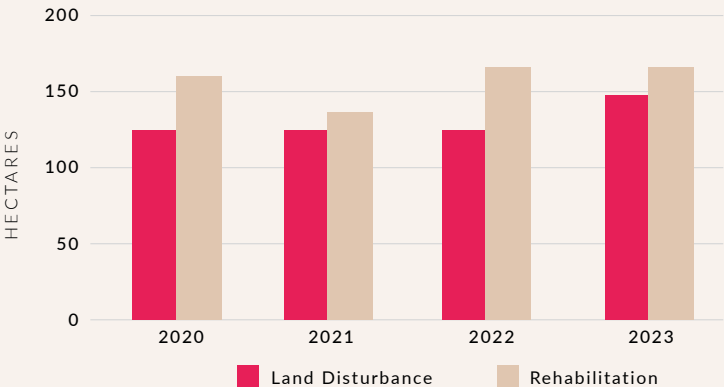
Seed application success is limited to larger seed species such as Eucalyptus and Wattle.



Vegetation brushing has shown some success with the germination of Eucalyptus.

As part of the clearing permit obligations, GMA ceded approximately 130 hectares as a vegetation offset to the Department of Biodiversity, Conservation and Attractions (DBCA) for conservation and rehabilitated another 27 hectares of previously cleared area. GMA is firmly committed to rehabilitating its footprint, maintaining a greater ratio of rehabilitated to land disturbance.

OVERALL LAND DISTURBANCE AND REHABILITATION



Water Management

At GMA, we recognize water as a vital shared resource and understand the importance of minimizing our impact on both natural ecosystems and the communities around us. Through thoughtful water management practices, we strive to balance our operational needs with our commitment to environmental stewardship.

PORT GREGORY, WESTERN AUSTRALIA

GMA's Port Gregory site near Hutt Lagoon and Utcha Swamp adheres to strict environmental standards. In FY23, it drew 575,851 kiloliters for garnet processing with full compliance, using recycled water and storing remaining ore in tailings ponds or stockpiles.

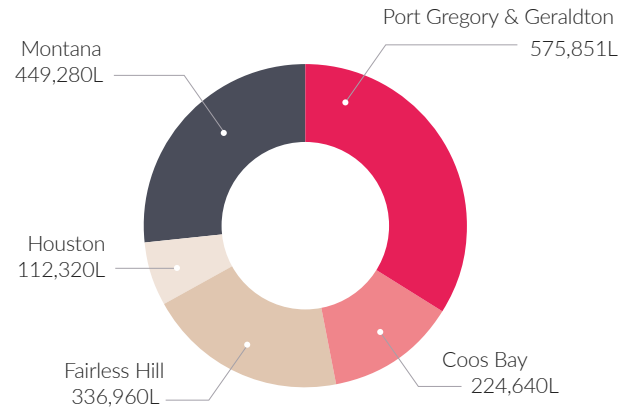
COOS BAY, OREGON

Water is essential to GMA's Coos Bay operations, supporting dust suppression, garnet processing, and domestic needs. Sourced from the Coos Bay-North Bend Water Board, the facility uses 1,703 liters per minute under an NPDES permit for controlled discharge into local waters. Annual toxicity tests ensure effluent safety, with all tests passing during the current permit term.

ALDER, MONTANA

The Alder Gulch plant uses 6,257 liters of water per minute for garnet separation, sourced from a freshwater pond. Water is treated to remove solids, then directed to lined ponds for sediment settling across 4.7 acres. This closed-loop system recycles water back into the plant, with minimal freshwater added for losses, ensuring zero discharge and no interaction with surrounding waters.

TOTAL WATER USE PER ANNUM 2023



CASE STUDY Groundwater Monitoring in Montana

GMA has developed a surface water and groundwater quality monitoring plan at our Alder Gulch processing plant site and at the pit. The plan was developed to establish a water quality baseline and allow a comparison of future water quality compared to current conditions and identify potential leakage from the two lined process ponds. At the Alder Gulch Processing site, GMA collects quarterly surface water samples from Alder Creek, quarterly groundwater samples from five monitoring wells and monthly samples from the freshwater pond. At the pit location, groundwater quality data is collected quarterly from nine groundwater wells. Water quality data is submitted on a quarterly basis to the Montana Department of Environmental Quality and an annual water quality report is submitted which identifies water quality trend analysis.



CASE STUDY Wastewater recovery at Port Gregory

GMA is continually seeking opportunities to improve water management in particular reusing wastewater produced from wet plant operations and decrease groundwater abstraction. In FY23, we installed an impermeable concrete sump replacing a permeable pond to capture water runoff from stockpiled coarse waste and garnet on the ROM. The wastewater recovered is reused within the plant or water cart for dust suppression.

Wastewater recovery system at Port Gregory, Western Australia.

Waste Recycling, Reprocessing, and Reuse

GMA is committed to advancing sustainable waste management across our operations and empowering our customers to reduce their environmental footprint. Our tailored programs offer solutions to minimize waste and promote responsible recycling and reuse practices.

TABLE OF REPROCESSED GARNET

	2023	2022	2021	2020	2019
Jubail, Saudi Arabia	22,333	12,500	12,170	Regional breakdown not available.	Regional breakdown not available.
Jebel Ali, Dubai	7,148	11,100	12,431		
Coos Bay, Houston, Fairless Hills	15,291	10,600	7,434		
TOTAL (kT)	44,772	34,200	32,000	28,600	35,600

MIDDLE EAST: GMA GARNET REWARDS

This initiative encourages sustainable practices by rewarding Middle Eastern customers who actively participate in waste reduction and recycling efforts. Through the program, customers are recognized for responsible waste management, contributing to a regional culture of sustainability and demonstrating our shared commitment to minimizing environmental impact.

UNITED STATES: GMA GARNET RETURNS

Designed to support responsible disposal and recycling, this program allows U.S. customers to return used GMA Garnet™ for reprocessing and reuse. By offering a circular solution, GMA Garnet Returns provides customers with a cost-effective, sustainable alternative to landfill disposal, promoting broader waste reduction and supporting environmental protection goals outlined by the Environmental Protection Agency (EPA).

80% 
OF SPENT GARNET CAN BE
REPROCESSED / RECYCLED

175k+ METRIC TONNES
RECYCLED
GLOBALLY IN THE
LAST 5 YEARS

UP TO
18%
ALTERNATIVE
RAW MATERIAL

AS LOW AS
2%
WASTE GOES
TO LANDFILL

RECYCLE UP TO
5 TIMES 5 RECYCLING
PLANTS



CASE STUDY

GMA Middle East Honors McDermott as First Platinum Member in the Used Garnet Return Rewards Program

GMA Garnet Group proudly celebrates McDermott Middle East as the first company to achieve Platinum Membership in the GMA Garnet Rewards Program. This milestone underscores McDermott's commitment to sustainable practices by actively participating in our used garnet return and recycling initiatives, setting an industry benchmark for responsible resource management.

The GMA Garnet Rewards Program, tailored for our Middle Eastern customers, incentivizes companies to return spent garnet for reprocessing rather than disposing of it as waste. Through this program, participants can reduce their environmental impact, lower disposal costs, and contribute to a circular economy, where valuable resources are continually reused rather than relegated to landfills.

McDermott achieved Platinum status by demonstrating a high level of engagement, returning significant volumes of used garnet to GMA for processing and reuse. Their commitment not only helps to reduce waste but also serves as a model for others in the industry, showcasing how sustainable practices can be seamlessly integrated into large-scale operations.

GMA's Rewards Program tiers—Bronze, Silver, Gold, and Platinum—provide recognition based on the volume of garnet returned and the consistency of participation. Each tier offers benefits, including financial incentives, recognition

awards, and positive brand alignment with environmental stewardship.

McDermott's Platinum Membership exemplifies the impact of our rewards program on fostering a sustainable future within the abrasive blasting industry. By choosing to recycle used garnet, McDermott is contributing to a cleaner environment, preserving natural resources, and inspiring other companies to adopt similar practices.

Through programs like GMA Garnet Rewards, we continue to strengthen our partnerships and enable customers to play a proactive role in sustainability—together creating a greener future across the Middle East and beyond.



Richard Taylor, Senior Director Fabrication Operations at McDermott (left), receives the Platinum Member Award from GMA CEO Grant Cox (right).

Social

A focus on Safety: For Our People and Our Customers

At GMA, safety is a core priority, based on three beliefs: protecting health, preventing injuries, and ensuring everyone returns home safely. Our commitment to zero harm includes resources, training, and employee participation in safety programs, guided by the CEO-endorsed Health and Safety Policy. GMA is ISO 45001:2018 certified and meets regulatory standards with regular audits across all operations. Our Occupational Health and Safety Management System reflects our values of care, trust, teamwork, and excellence, fostering a shared commitment to a safe workplace.



Our Commitment to Our Customers

At GMA, our commitment to sustainability prioritizes customer and worker safety, focusing on reducing dust, ensuring product consistency, and utilizing inert materials to prevent soil contamination. We uphold rigorous standards to protect both people and the environment.

SAFETY AND DUST REDUCTION

Through advanced screening and rigorous safety standards, we maintain low dust levels across our processes, creating cleaner, safer environments for workers and communities alike. This commitment supports a healthier workplace, reduces airborne contaminants, and minimizes exposure risks.

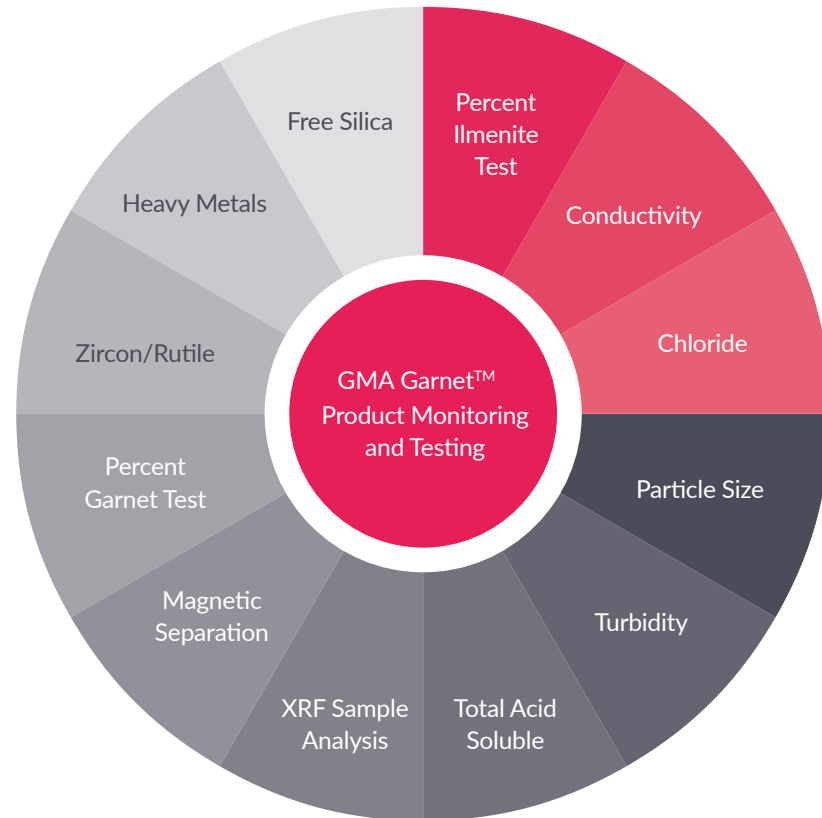
EFFICIENT RESOURCE USE

We emphasize productivity and reduced consumption, working toward lower resource use while still achieving high performance. This approach minimizes waste, promotes profitability, and supports sustainable growth across industries and regions.

ENVIRONMENTAL STEWARDSHIP AND WASTE REDUCTION

Our naturally inert garnet, combined with robust recycling and reprocessing initiatives, reduces potential environmental impacts, including soil contamination and waste generation. Programs like the Garnet Return Program allow us and our customers to responsibly reuse materials, aligning with best environmental practices and regulatory standards.

Through these commitments, GMA fosters a safer, more efficient, and environmentally conscious approach that benefits workers, communities, and the broader ecosystem, supporting sustainable outcomes at every level.



Product monitoring and testing of 12 inspection points taken every two hours.



CASE STUDY

Promotion of worker health in Australia - Wellbeing Initiative

Commencing in April 2023, this wellbeing initiative offers our employees a GMA funded Voluntary Health Assessment. This was done in partnership with our local preferred medical provider Mid-West Aero Medical.

The results of the assessments remain confidential between the medical provider and the employee, with GMA receiving statistical information from the assessments.

- During 2023 eighteen of our operational personnel took up the offer (13 % of the workforce).

- Two of the participants found out that they had a moderate and high cardiovascular disease (CVD) risk, prompting immediate intervention.
- Participants were given advice on how they can improve their health based on the finding of the assessments.
- Based on the feedback from those who participated, there are identified areas in which GMA and Aero Medical can further improve this initiative.

Governance: Investing in People and Culture

GMA is dedicated to building a workplace that inspires, empowers, and supports its people. Guided by core values—Determination, Care, Trust, Entrepreneurship, Excellence, and Teamwork—we strive to provide meaningful work that fosters both personal growth and professional development. Regular engagement surveys inform leadership on employee needs and drive continuous improvement in culture, safety, and productivity. As we continue to grow as a company, we seek to enhance consistency, leverage technology, and develop leadership practices that integrate our sustainability commitments.

With a diverse workforce representing over 15 nationalities, GMA fosters an inclusive environment where all team members feel valued and respected. Our commitment to the well-being of our people is central to our success, supported by strong safety practices and comprehensive well-being programs.

Our Workforce at a Glance

(31 Dec 2023)



457 =
Employees Globally
**excluding Europe*



40%
Australia (181)



36%
United States (166)



24%
Middle East (110)*
**includes 14 casual employees*



128
New Hires



14%
(64) Voluntary
Turnover

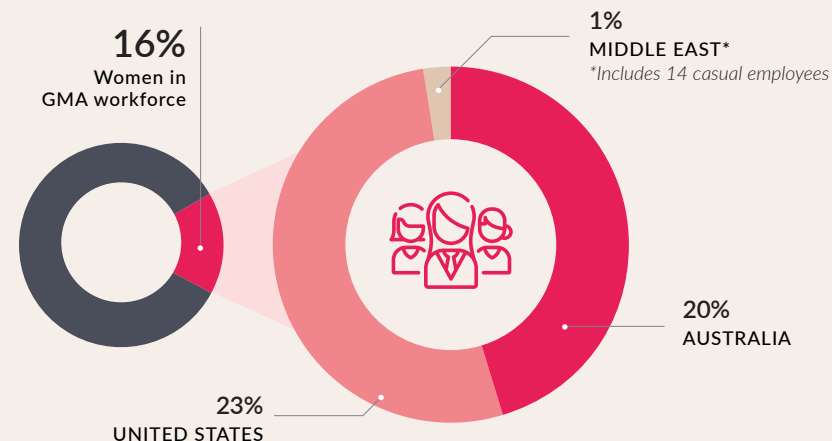


15+
Different
Nationalities

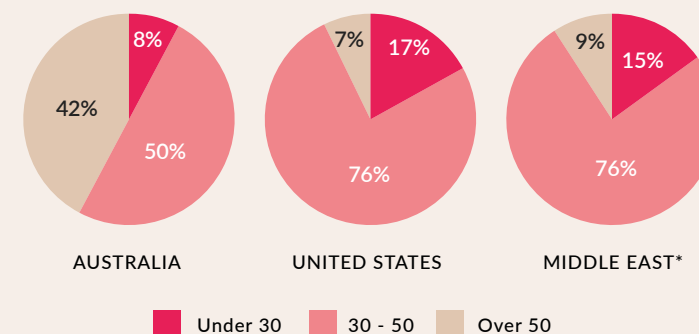


14hrs
Per Employee Spent
on Development (Average)

WORKFORCE DIVERSITY



AGE DISTRIBUTION



**Excludes 14 casual employees*



CASE STUDY First Female Employee in the Middle East

In mid-2023, Farrel De Souza commenced as GMA's People & Sustainability Manager in the Middle East. "I'm a firm believer in the importance of business in stewarding and safeguarding both people and the planet; I'm glad to have the chance to be part of this at GMA," she said.

"In our sustainability commitments to make our business more diverse and inclusive, I am extremely proud that we have made a significant step forward in appointing Farrel, our first female employee into the Middle East. Farrel will bring in a breath of fresh air to our office environments in both locations and we welcome her to the team," said GMA's General Manager Middle East, Soni John, at the time of her appointment.

People & Sustainability Manager Farrel De Souza - our first female employee for GMA Middle East.

Ethics, Integrity and Governance

At GMA, our commitment to ethics and integrity is central to creating a workplace that respects and protects employee rights. Through robust processes, procedures, and tools, we work to identify and mitigate any adverse impacts, informed by internal risk assessments, evolving legislation, and continuous improvement initiatives. Our 2024 People and Sustainability Group Business Plan introduces a unified Learning Management System across all regions, enabling consistent and efficient compliance training and keeping our teams informed on key governance practices. As we review our policies, we are identifying areas for standardization while respecting region-specific requirements where necessary.

GMA Library of Governance Documents

(31 Dec 2023)

	AUST	US	ME
Anti-Bribery & Anti-Corruption	✓		✓
Code of Business Conduct	✓	✓	
Health & Safety Policy	✓	✓	✓
Whistleblower Policy	✓	✓	✓
Modern Slavery Statement	✓	✓	✓
Workplace Discrimination, Bullying & Harassment Procedure	✓	✓	✓*
Family and Domestic Violence Guideline	✓		
Employee Support & Wellbeing Guideline	✓	✓	✓*
GMA Garnet Grievance Procedure	✓	✓	✓*
Health and Wellbeing Program	✓		
GMA Lifesaving Rules Standard	✓	✓	✓
Equal Employment Opportunity Policy	✓	✓	✓*
Sexual Harassment Policy	✓	✓	✓*

*Applicable to Saudi Arabia



Innovating for a better world

Download full 2023 GMA Sustainability Report



GMAGARNET.COM