



MARGOSA
GRAPHITE LIMITED

A future global leader in the
production of high-grade,
crystalline vein graphite

2023

Project Information Pack

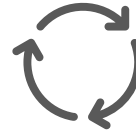
Project Highlights



Industry pioneers with a focus on value creation



Introduction of modern mining practices to Sri Lanka



Translating efficiencies into shareholder value



Pioneering Graphite's contribution to a smarter, cleaner future.

Largest known JORC (2012) compliant resource in Crystalline Vein Graphite
MRE 1.73M t average grading 76.32% TGC¹
(only c. 35% of resource measured)

Unique underground mining profile, amenable to bulk mechanisation. Shifting the dial to modern mining in Sri Lanka

NPV³:
Pre-Tax: USD\$446M IRR of 111%
Post Tax: USD\$382.9 IRR of 102%

ESG at the centre of our strategy – early engagement of experts and alignment to standards

2022 process results: 1.8% improvement in overall ROM recovery with 1.6% TGC grade²

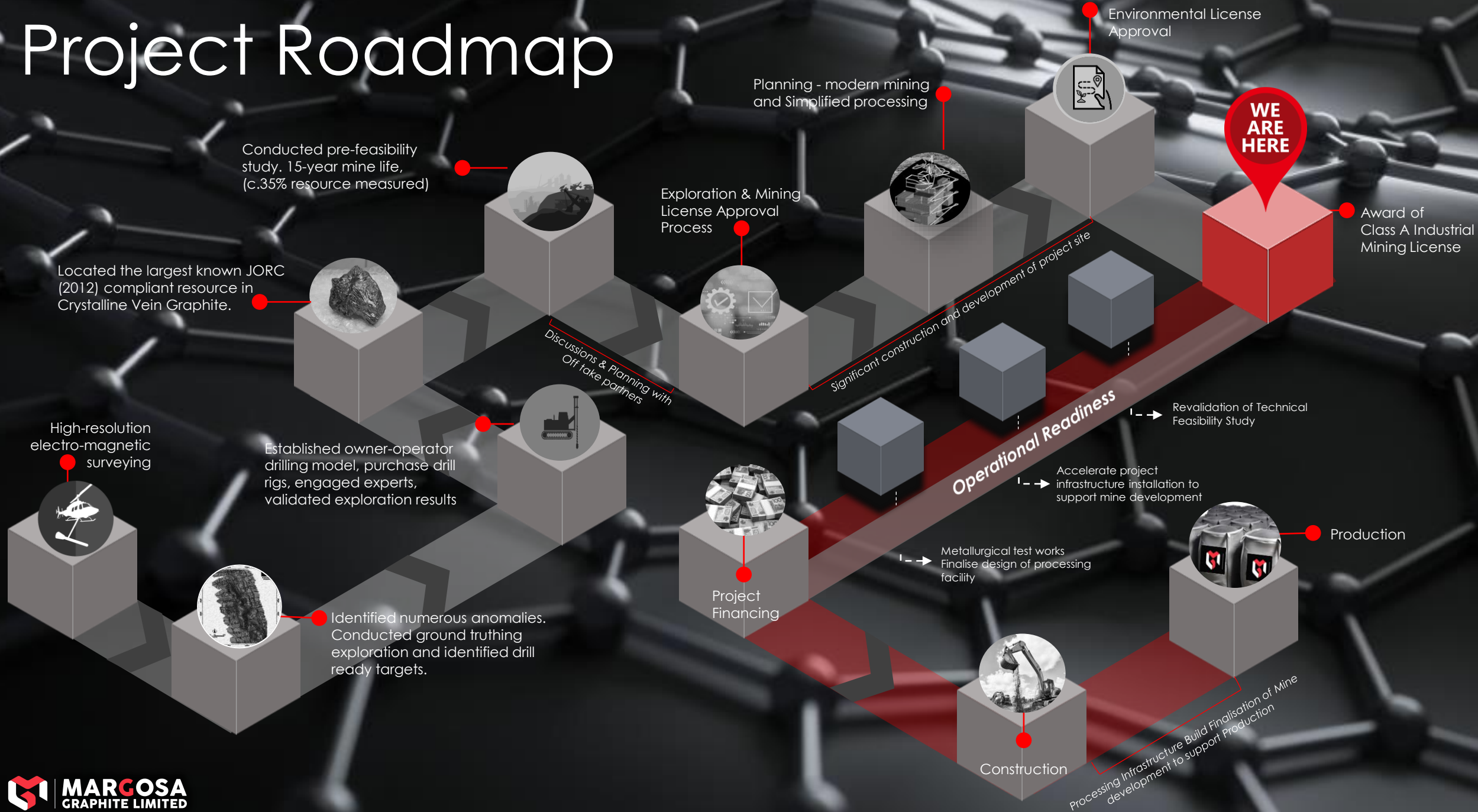
Metallurgical test work and conventional plant design indicates high recoveries, low working Capital and Capex

Advanced in construction
Advanced approvals for Environmental and Mining
15+ Year Mine Life⁴

Spectrum of specialist use cases across graphite market application segments
(including high-end Conductivity Enhancement Materials (CEM), Nano Tech, Lithium-ion Batteries, refractories, elastomers & polymers, lubricants)

1. Margosa Graphite Geology and Resource Estimate Report Ridee Ganga Vein Graphite Project April 2020 2. Margosa Graphite 7543 Ridee Ganga Equipment Selection Rev 0 3. Margosa Graphite Internal Finance Review November 2022 4. Margosa Graphite Technical Report Feasibility Study Rev0

Project Roadmap



Margosa's Graphite

Graphite is one of the three allotropic forms of carbon. It's a very versatile material and exists in **three natural states — Vein, Flake and Amorphous forms.**

Margosa's resource is Vein Graphite which means:

- Confidence in resource availability to the market due to
- Validated Resource
- Bulk delivery via modern mining methods
- Simple, low-cost processing methodology
- Smaller ESG footprint



Flake graphite is probably the most familiar of the natural graphite materials and makes up about 40% of the graphite market. It has a graphitic carbon range of 80-98%. Most conversations around graphite mining are centred on flake product as it is common and well-understood.



Vein graphite is the rarest and most valuable form of graphite. Vein graphite is the closest natural form of graphite to Synthetic Graphite and is highly sought after by both producers and manufacturers. For customers it offers flexibility in product applications and importantly, vein graphite properties open opportunity for market displacement Synthetic in the future. Limited supply options have restricted the growth of this type of Graphite and Margosa intends to change that. **This is Margosa's material.**



Amorphous graphite is the least valuable but most abundant form of graphite and makes up around 60% of the graphite market. Amorphous graphite is a seam mineral and is typically higher in ash than other forms of natural graphite. Amorphous graphite contains 70-75% carbon and is used in many lubricant products especially greases, forging lubricants, etc.

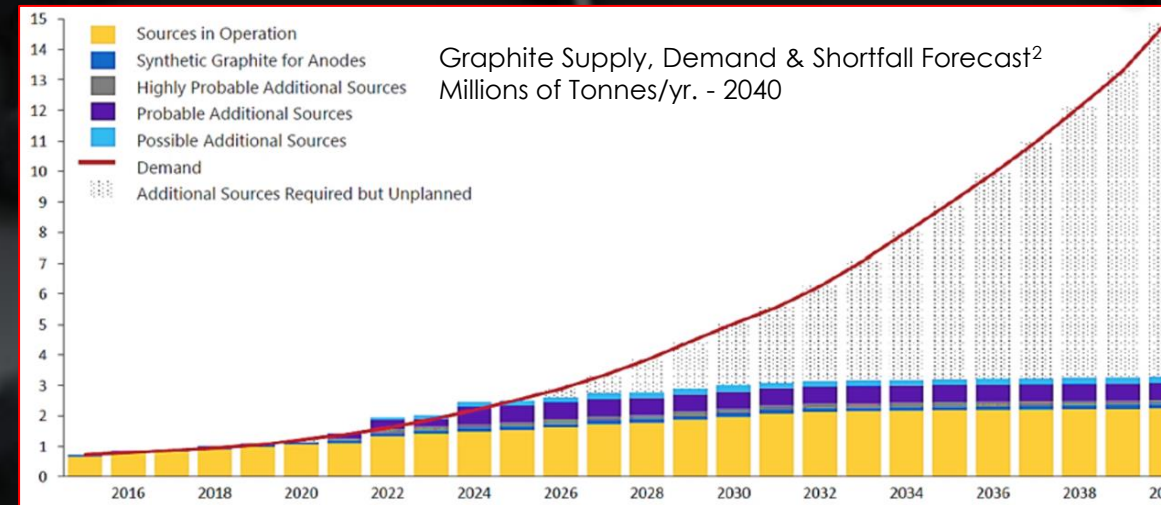
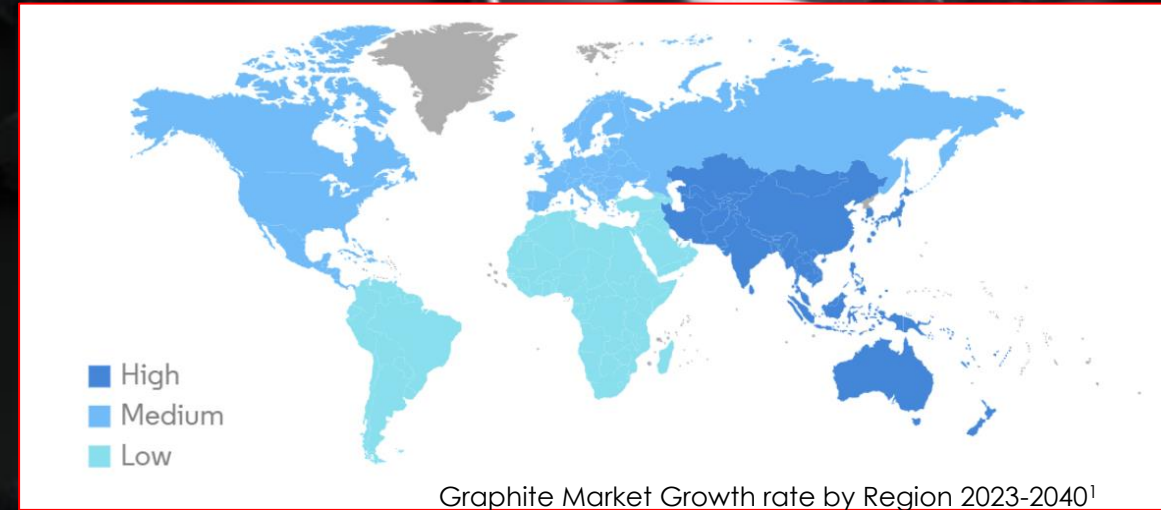


Synthetic graphite is a manufactured material made by high-temperature treatment of carbon sources such as petroleum coke. Synthetic graphite is purer in terms of carbon content and tends to behave more predictably. Synthetic graphite can be significantly more expensive to produce than natural graphite, as the process is fairly energy intensive. The cost can be double or triple the standard price for natural graphite.

Global Graphite Market

A Strategic Critical Mineral

- China controls 70-80% of world graphite supply and alternative sources are needed
- The Global Graphite Market size is estimated at USD 3.45 billion in 2023, and is expected to reach USD 4.41 billion by 2028, growing at a CAGR of 5% during the forecast period (2023-2028)¹
- Asia-Pacific is estimated to witness healthy growth due to the wide usage of graphite in end-use application
- Over the short term, augmenting demand from the lithium-ion battery industry and an increase in steel production in Asia and the Middle East are significant factors driving the growth of the market
- Graphite is the largest component in Lithium-Ion Batteries and requires the largest production increase of any battery mineral
- Currently, the world is bracing for a graphite shortage as growing demand outstrips the expected supply from all known projects. Existing and potential supply cannot meet implied demand ²
- Both the EU and USA have named graphite a supply critical mineral
- Increasing application of graphite in green technologies is likely to create lucrative growth opportunities for the global market



1. Mordor Intelligence Report - Graphite Market Size & Share Analysis - Growth Trends & Forecasts (2023 - 2028)
2. Benchmark Minerals Intelligence Forecast Report - 2021

Surveys

Culmination of ground, downhole and high resolution airborne electromagnetic surveys led to

Margosa's maiden project: Ridee Ganga

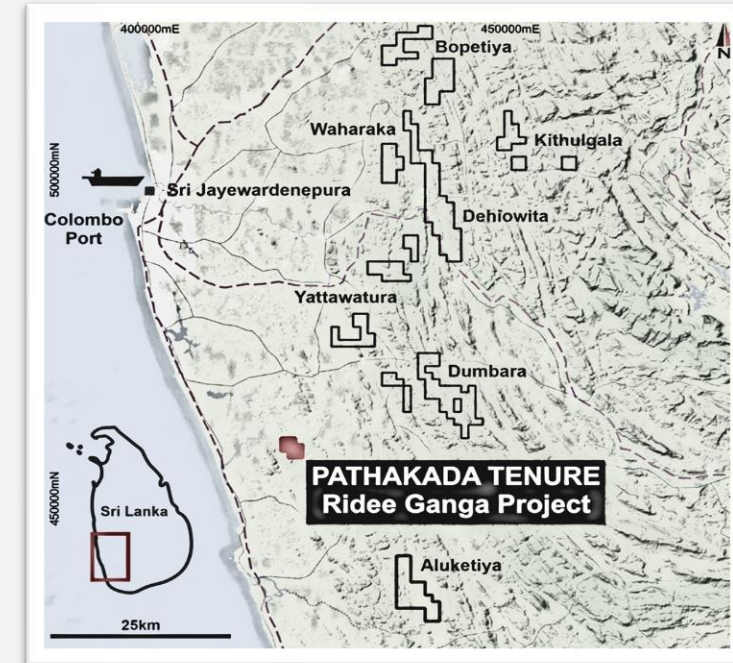
- Commissioned and partnered with internationally-respected geophysical and local specialized companies -
 - New Resolution Geophysics (NRG),
 - Southern Geoscience Pty Ltd
 - Air Senok,
 - to carry out the high resolution HTDEM survey.
- Specialized Ground EM surveys completed.
- Specialized Downhole EM Surveys completed.
- Identified numerous anomalies that led to ground truthing exploration activities.
- Have identified numerous drill ready targets across a number of the Company tenure.



The Journey

Positioning Sri Lanka on the world stage with **modern mining techniques**, training and knowledge transfer

- Compiled one of the largest prospective tenure holdings in Sri Lanka
- Established first world exploration and procedural methods
- Established first world principals in engaging with both Government Authorities and private sector partners
- Developed strong and ethical relationships with consultants, contractors and mining peers.
- Developed a comprehensive IP data base to assess all Project areas.
- Built a professional team with independent partners assembled to assess projects for international recognition and validation.
- Vein Graphite resource recognized by USGS (United States Geological Survey) in 2020 for Sri Lanka.



Exploration

Located the largest known **JORC (2012) compliant resource** in Crystalline Vein Graphite.



- Established owner operator drilling company
- Purpose built drilling rigs for Sri Lankan terrain conditions along with expat supervised drilling crews.
- International independent experts for analysis.
- Internationally validated results

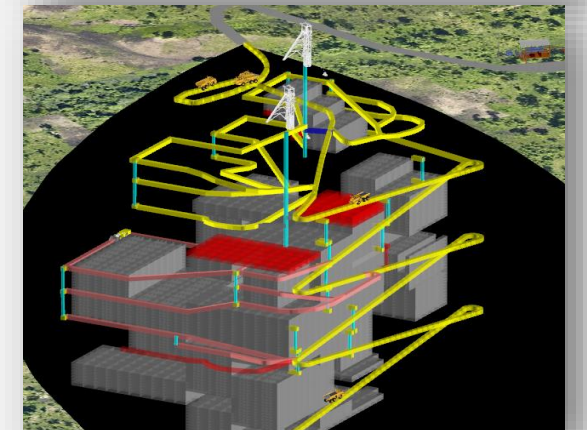
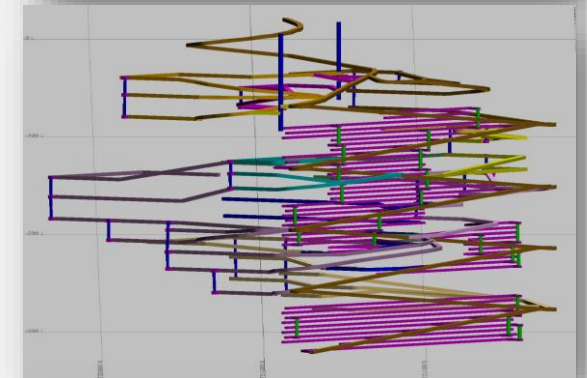
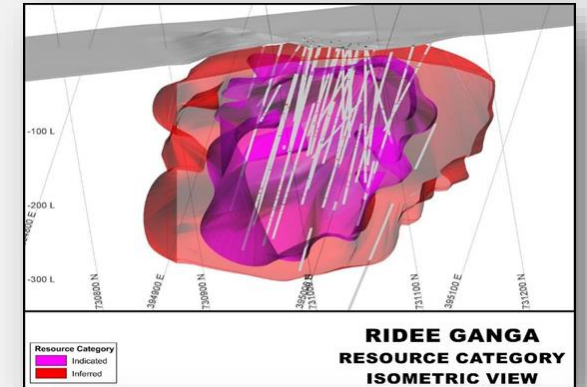
Mineral resources (April 2020)			
	Tonnes	TGC%	Contained Graphite (Tonnes)
Indicated	582,610	75.83	441,790
Inferred	1,142,000	76.57	874,400
Total	1,724,610	76.32	1,316,190

Pre-feasibility

The Feasibility Study¹ and modelling currently spans a **15-year mine life – based on c.35% of the resource valued**

1. Margosa Graphite Technical Report Feasibility Study_Rev0_2020
2. Margosa Graphite Pathakada Mineral Resource Statement April 2020

- Metallurgical test work and conventional plant design *indicates high recoveries, low working Capital and Capex*
- Only 35% of *current resource valued*^{1,2}
- AERP (Shaft No1) Mining License *approved* - will allow the Company to extract bulk samples for offtake, Value Add metallurgical and analytical testing.
- Modern day mining study completed, and methods adopted to *produce quality and quantity supply* production levels
- Sales and marketing study complete – Offtake discussions into *advance stage* along with research into product development



Mining

Modern Approach

Unique underground mining profile using modern techniques to create efficiency and assist in enhancing Sri Lanka's mining industry knowledge/expertise

- Advancement in infrastructure development,
- Development of future focused, modern mining and processing methodologies centered on creating efficiencies and value
- Continued investment in highly motivated and skillfully trained teams of international and Sri Lankan skilled labour.
- Consistent and constructive engagement with GSMB to ensure knowledge transfer, education and situational awareness.
- Maintained Health and Safety a consistent priority focus area



Shifting to modern mining techniques

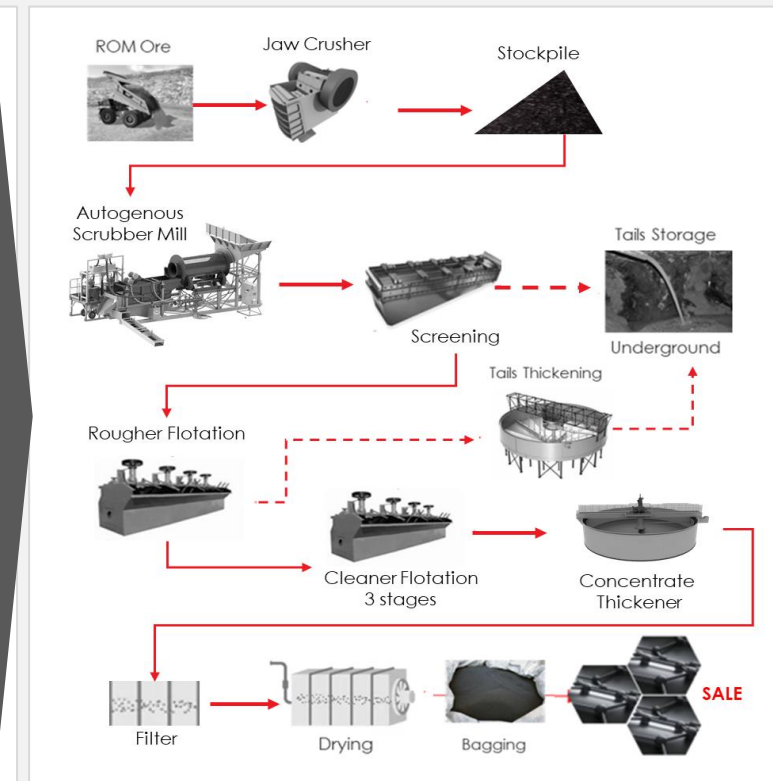
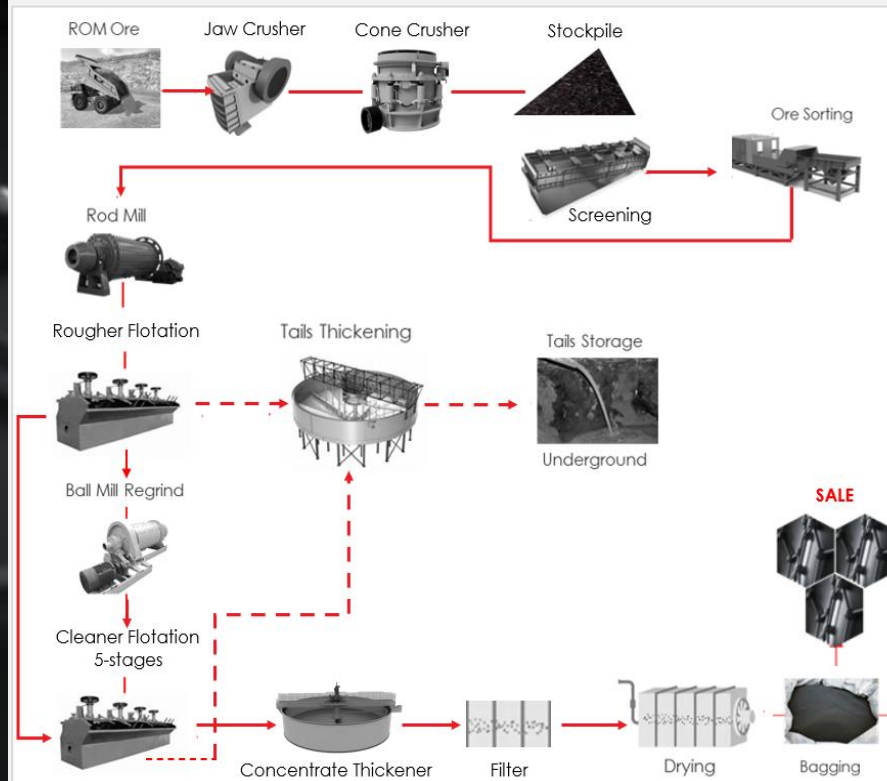
Processing

Simplification

Pioneering approach to processing with 2022 process results showing **1.8% improvement in overall ROM recovery** with **1.6% TGC grade improvement**¹

1. Margosa Graphite 7543 Ridee Ganga Equipment Selection Rev 0

- The processing plant will be able to handle up to circa. 800,000 t/year of ROM ore and produce in excess of 40,000 t/year of graphite concentrate for value addition products
- Overall recovery from ROM ore feed projected to be 92% to a concentrate with a grade of 96%+ TGC¹
- Processing path considered to be robust, operable and maintainable



Simplification of Processing improving overall ROM recovery by 1.8% and TGC grade by 1.6%

Operational Approach

Margosa adopts contemporary good practice & aligns to International Standards

- International standard of safety and operational procedures adopted.
- International standard of accommodation and infrastructure for workforce.
- Traceable supply chain and confirmation of ethical sourcing
- Modern underground mining techniques focused on safety and efficiency.



ESG

Environment, Social & Governance

Margosa aims to **quantifiably measure** the company's **impact on society and the environment**, using metrics that will assist us in **delivering long-term value** to Sri Lanka

- Environmental and Community impact studies completed
- Strong community engagement and support
- Resettlement program in place
- Focus on building appropriate, long term sustainable relationships
- Water Well Project – construction of a well and storage facility. Pumping and piping to feed local system, supplying water to local households
- Modern mining techniques focused on efficiency, are less invasive on the environment and significantly reduce environmental footprint - more socially responsible
- Development of Carbon Neutral Plan for 2050 with international partners
- High level of governance, operational standards and principles
- Margosa understands the strategic importance of ESG and has engaged with independent experts to build a framework and roadmap early with the intent of alignment to international standards



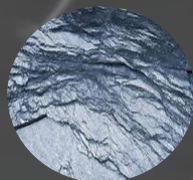
Generating Product Value

Generating purity and value

Margosa's material has generated interest from a large cross-section of the graphite market. Test works continue and indicate qualities suited to the extended graphite market and 'high-end' use cases across a spectrum of industries and sectors.

1. Mining

Extraction of Graphite to produce Graphite Ore



Vein Graphite material has a higher-grade of carbon than other types of graphite meaning we can achieve optimal results quicker with lower production costs. We can sell from the Run of Mine and can produce a 96+ TGC concentrate from a very simplified process.

2. Micronization

Process which transforms the material to extremely fine grades that are measured in microns.



Micronized graphite is a type of graphite that has been reduced to a very small particle size. It is used in the production of battery anode material (BAM). Micronized graphite also has its own industrial uses in polymers, adhesives, ceramics and lubricants.

3. Purification

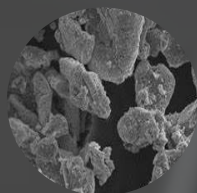
Process which removes impurities in the graphite material.



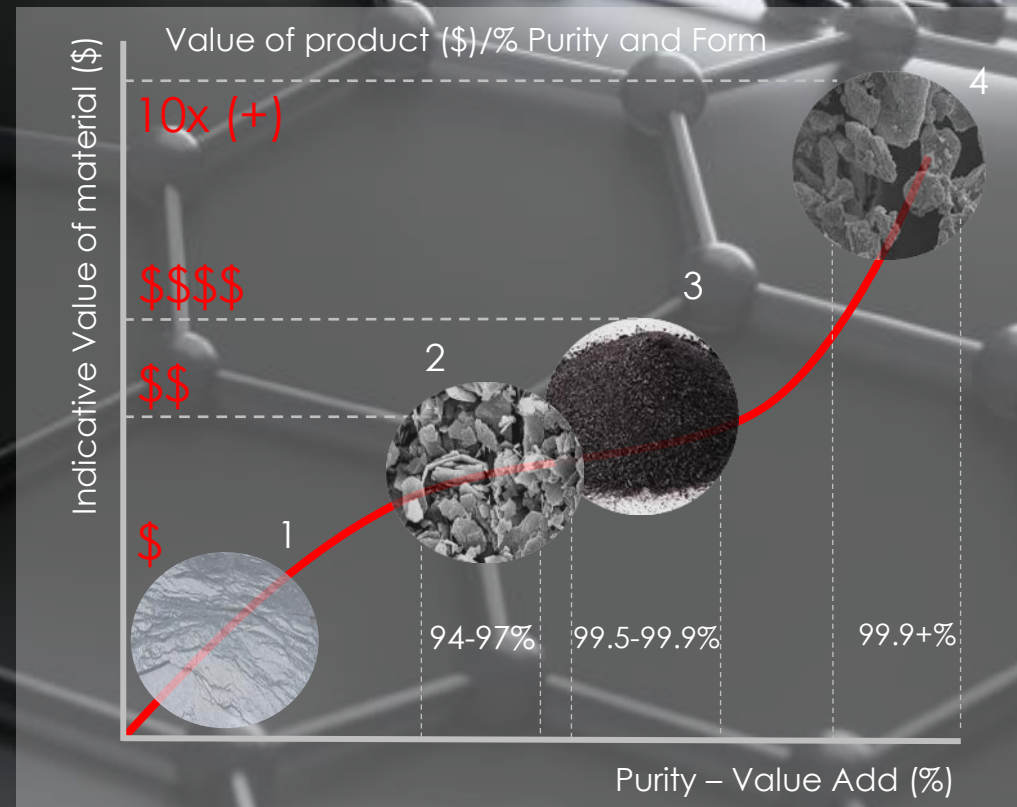
The Project samples are rich in graphite assaying (TGC). The impurities in the graphite are mainly SiO_2 and Fe_2O_3 . With these three components making up more than 98.6% of the total analysis. The purification process is designed to remove these impurities. The purified material is suited to high-end Conductivity Enhancement Materials (CEM).

4. Shaping/Coating

Manipulation of the material for preparation and use in various applications. High efficiency and reliability.



Crystalline Vein graphite has the most cohesive qualities of all natural graphite ores, and therefore, is the most amenable to shaping and coating properties and performance in various applications.



With the development of expanded graphite and anode materials industry, there is much requirement on high purity graphite product.

Margosa continues to study and plan for advance processing and value-add activity. We are focussing on continued off-take discussions with potential partners across industries to determine the material's future potential use-cases.

Value-add: Graphene

Researching Margosa's input into a cleaner, smarter future

Graphene can be synthesised from Graphite to create the thinnest, strongest and most conductive material on the planet. The market for the introduction of graphene is huge and **Margosa's research and strategy team have advanced discussions with global experts based in the UK. The discussions are centred on the use of Margosa's material in the latest research and testing activity** which will advance understanding of how graphene will assist in the development of future industrial materials, advanced thermal and electrical conductivity and technology.

Unique properties of Graphene

2-dimensional

1 million times thinner than a human hair. The thinnest material on the planet at 1-atom thick.

Strong

200X stronger than steel

Conductive

Carries 1000X the density of electrical current compared to copper

Flexible

20% elasticity

Impermeable

No gas or liquid can cross it

Thermal conductivity

5x more conductive than diamond

Multifunctional

Integrated with another material, graphene will increase multiple properties

Graphene's use-cases

Aerospace - composites

Super-capacitors

Wind Power - blade surfaces

Construction materials

Flame/heat retardant materials

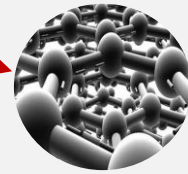
Sensors and nano-tech

Nano-chips

Market Entry Strategies

Product

Strategy



ROM Ore for Graphene Manufacturing

Ore is shipped as mined, from the ROM, with no post-treatment, to a graphene manufacturing facility, where it is directly converted into graphene products.

Pioneering strategy

Ongoing discussions with UK University and imminent testing of our product. Ore is shipped in natural, hand graded state. Less environmentally intrusive process being developed to purify graphitic ore to high-end product compatibility.



ROM Ore

Margosa PFS defines the production of c. 40,000t/year of graphitic ore. A percentage of this ore can be hand graded (97%+ TGC) and sold as "Lump". The modern age mining techniques adopted allows the Company to reduce its overall average grade of ROM feed stock to 5% TGC and simplified processing reject 80%+ waste in a first pass.

Short-term strategy

Based on offtake partners acceptance of the Ore grade and impurities. Margosa Graphite has natural silica impurities which add value to some organisations wanting to use the material to produce brush gear for electric motors. An option of short term cashflow.

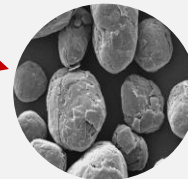


Primary Processing, Micronised Graphite

An improved, simplified Primary processing facility will deliver a product range of 80%+ TGC with 80%+ rejection of waste to be send back underground. This 80%+TGC product is transferred to the Secondary Processing facility that will produce a basic concentrate of 96%+ TGC. Overall *recovery from ROM ore feed* projected to be 92% to a concentrate.

Medium-term strategy

Margosa will develop processing facilities to produce a basic concentrate, (saleable) and further improve the concentrate to meet customer requirements for early cashflow. Process facility size, type and timelines are subject to manufacturer requirements and market demand. Processing facilities will be developed to process graphite into a varied size and range.

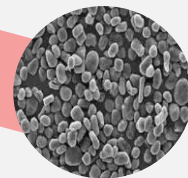


Micronised, Purified Graphite

Advanced secondary processing of 96%+ TGC graphite to 99%+ products to meet high-end manufacturer requirements. Margosa will tailor a product size and range to meet specific qualities of strategic partners in graphite product.

Medium to longer term – strategy

Along with its pioneering strategy above, Margosa will develop processing facilities to meet the higher –end and future product ranges both in country and globally.



Advanced Value-Add Processing

Margosa to long term goal to establish a fully integrated business in the supply and manufacture of graphitic products within Sri Lanka and around the globe. High-value and lucrative products will be developed using graphite produced from several of the Margosa Project areas.

Margosa's current testing and analytical philosophy, partnering with academic experts, is focussed on taking this unique graphite product (Vein Graphite), to a more advanced, established market that requires graphite of this quality.

Thank you

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