



CRITICAL MINERALS ASSOCIATION

MARCH 2022

APPG CRITICAL MINERALS HOLDS THE VERY FIRST
ROUNDTABLE ON GRAPHITE SUPPLY CHAINS
WELCOMING SOVEREIGN METALS & URBIX GROUP TO
THE ASSOCIATION
THE GEOLOGICAL SOCIETY OF LONDON: ENERGY
TRANSITION EVENT - 26-27 APRIL 2022
US, CANADA, AUSTRALIA ACTION ON CRITICAL
MINERALS



March 2022

01

Welcome to our March Critical Minerals Association monthly newsletter & updates on the critical minerals space.

Read on for:

- APPG Critical Minerals: Graphite Roundtable
- UKRI Reveals 2022-2027 Strategy
- Join CMA at the MMTA Conference 11-13th April
- US Senators Urge Action on Critical Minerals
- Biden May Invoke Defence Act on Critical Minerals
- Australian Government Awards \$243M in Grants to Critical Mineral Projects
- South Korea and Australia Bonding on Critical Minerals
- Ontario Unveils Critical Minerals Strategy
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- E-Tech Resources Reports Diamond Drilling Assay Results
- Minviro and Maptek Collaborate on Life Cycle Analysis for Mines
- Pensana Project Update on Saltend and Longonjo
- Circulor Partners with Rock Tech Lithium

This month's newsletter has been put together by Olimpia Pilch, CMA's Business Development & Communications Associate!

Kirsty & Jeff

SUBSCRIBE TO OUR NEWSLETTER UNDER 'CONTACT'

*Got a suggestion? Want to feature in next month's newsletter? Contact
olimpia@criticalmineral.org*

*Want to learn more? Check out our website: <https://www.criticalmineral.org/> & follow us
on Twitter @CMA_Minerals*



APPG Critical Minerals: Graphite Roundtable

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On 30th March 2022, the All-Party Parliamentary Group (APPG) on Critical Minerals held the very first roundtable focused on the supply chain of graphite. The roundtable was moderated by Cherilyn Mackrory, MP for Truro and Falmouth and, the Chair of APPG Critical Minerals.

Key speakers included:

- Jeff Amrish Ritoe, The Hague Centre for Strategic Studies
- Paridhi Poddar & Christian Dennis, Tirupati Graphite
- Ben Stoikovich, Sovereign Metals
- Nicolas Cuevas-Gomez, Urbix

READ ON HERE

**READ HCSS GRAPHITE
PAPER HERE**





UKRI Reveals 2022-2027 Strategy



UK Research & Innovation's first five-year strategy outlines how the organisation will support the UK's world class research and innovation system, fuel an innovation-led economy and society and drive up prosperity across the UK.

The 2022-2027 strategy is based on four principles of change:

- Diversity: we will support the diverse people, places and ideas needed for a creative and dynamic system
- Connectivity: we will build connectivity and break down silos across the system, nationally and globally
- Resilience: we will increase the agility and responsiveness of the system
- Engagement: we will help to embed research and innovation in our society and economy

READ ON HERE

READ THE STRATEGY HERE



UKRI Strategy 2022–2027

Transforming tomorrow together



Join CMA at the MMTA Conference 11-13th April

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The MMTA's International Minor Metals Conference will be held at the Cutlers Hall, Sheffield 11-13 April 2022.

Wednesday April 13

Session 3 - New markets and the supply chain

- 11:00 | "An update on tantalum - supply chain developments", by **William Millman, Mines, Minerals, Metals & Markets Ltd, UK**
- 11:30 | "Indium and supply chain structures", by speaker **TBA, Indium Corp, USA**
- 12:00 | "Alternative supplies of critical minerals", by **Jeff Townsend, Founder, Critical Materials Association, UK**

MORE INFO [HERE](#)





US Senators Urge Action on Critical Minerals

Senators called on Biden to invoke the Defense Production Act in order "to rebuild the capacity of key sectors and value-chains by domestically producing and processing critical minerals, such as battery metals like lithium and graphite."

"Allowing our foreign mineral dependence to persist is a growing threat to U.S. national security, and we need to take every step to address it," a letter sent by the Senators to Biden says.

"The time is now to grow, support, and encourage investment in the domestic production of graphite, manganese, cobalt, lithium, nickel, and other critical minerals to ensure we support our national security, and to fulfil our need for lithium-ion batteries - both for consumers and for the Department of Defense," it stated.

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Biden Invokes Cold War Statute to Boost Critical Mineral Supply

The action aims to enhance American production of crucial materials for electric vehicles, defense systems and other technologies.

President Biden took steps on Thursday to try to increase domestic production of critical minerals and metals needed for advanced technologies like electric vehicles, in an attempt to reduce America's reliance on foreign suppliers.

Mr. Biden invoked the Defense Production Act, a move that will give the government more avenues to provide support for the mining, processing and recycling of critical materials, such as lithium, nickel, cobalt, graphite and manganese. Those are used to make large-capacity batteries for electric cars and clean-energy storage systems. Yet except for a handful of mines and facilities, they are almost exclusively produced outside the United States.

READ ON [HERE](#)





Australian Government Awards \$243M in Grants to Critical Mineral Projects



"Over \$243 million in grants funding has been announced for projects in the resources technology and critical minerals processing sector under the Modern Manufacturing Initiative (MMI) Collaboration stream.

Pure Battery Technologies will receive \$119.6 million in grants funding to collaborate to build a new battery material refinery hub. It will grow advanced manufacturing capability in Australia.

Arafura Resources Limited will receive around \$30 million in grants funding to build a new rare earth separation plant. This is the first of its kind in Australia. It will produce separated rare earth oxides and build local capability.

Australian Vanadium Limited will receive \$49 million in grants funding to establish a new battery industry, to be powered by green hydrogen. It will strengthen the value chain from mine to battery.

Alpha HPA Limited will receive \$45 million in grants funding to collaborate in constructing a new novel high purity alumina production facility. It will manufacture aluminium products for the expanding renewable energy market."

[READ ON HERE](#)



South Korea and Australia Bonding on Critical Minerals



"With strong support from its government, the Republic of Korea (South Korea) has set itself a target to be the world's leading lithium-ion battery (LiB) and electric vehicle manufacturer. In an aggressive push to develop a world-class battery industry, President Moon Jae-in recently released a new battery strategy that will see the government invest over US\$35B by 2030.

To achieve its aims, South Korea is looking to not only overcome China's dominance of LiBs, rare earths, and critical minerals production, it is also actively hunting in one of the world's leading homes for the key ingredients it requires – Australia. Australia, currently the world's leading lithium producer, has willingly joined South Korea in pursuing a close partnership."

READ ON [HERE](#)





Ontario Unveils Critical Minerals Strategy



"As innovation and technology drive dramatic changes to the world's economy, Ontario is positioning itself to be a global leader in supplying the critical minerals that will fuel that change with the release of its first-ever Critical Minerals Strategy.

The strategy, unveiled by Premier Doug Ford on Thursday, is a blueprint to connect industries, resources and workers in the province's north to the future of manufacturing in the south, building up home-grown supply chains.

"Doing so has never been more important as we secure game-changing investments in our auto sector to build the electric vehicles and batteries of the future using Ontario minerals," he said."

READ ON HERE

"Through our Driving Prosperity plan and our first-ever Critical Minerals Strategy, our government is staking Ontario's claim to the emerging North American EV battery industry and positioning the province to leverage its critical mineral wealth." - Economic Development, Job Creation and Trade Minister Vic Fedeli.

**STRATEGY
AVAILABLE HERE**





The Geological Society of London: Energy Transition

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Energy Transition Discussion Meeting: What does Geoscience need to do now for a sustainable transition to net-zero? on 26-27 April 2022!

The shift to a net-zero carbon future is a pressing international effort. Geosciences play a pivotal role in enabling this increasingly urgent energy transition, driving innovation, supporting business and facilitating a sustainable and socially just transition.

The online event is free to attend and will be organised and hosted by Responsible Raw Materials! In person tickets still available!

[MORE INFO HERE](#)



The Geological Society

ENERGY TRANSITION

Join us for a hybrid discussion meeting - online and at Burlington House, London.

What does geoscience need to do *now* for a sustainable transition to Net Zero?

26 - 27 APRIL 2022

Save the date: Mining as a Core Enabler for the 'Just Transition' - 9th - 13th May



Welcoming Sovereign Metals to the Association

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We are delighted to welcome Sovereign Metals Limited to the Association. Sovereign's Kasiya Rutile Project is the world's largest undeveloped rutile deposit, the purest natural form of titanium, as well as containing a natural graphite by-product. Titanium and natural graphite have already been identified as Critical Raw Materials by the United States, the European Union and Australia.

Welcome to the group!

Sovereign's Chairman Ben Stoikovich commented: "The world's economies are rightly focusing on developing sustainable and secure supply chains of raw materials deemed critical based on their economic, environmental, and social importance. In this regard, Sovereign's Kasiya project in Malawi is well positioned to potentially supply not one, but two critical raw materials to economies across the globe over several decades."

PRESS RELEASE HERE

PROACTIVE ARTICLE HERE



Welcoming Urbix to the Association

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We are delighted to announce that Urbix has become a member of the Critical Minerals Association.

Urbix, a US-based graphite processor, specialises in all aspects of the graphite value chain alongside advanced energy storage cell designs and materials, including high-voltage electrolyte.

Urbix uses a proprietary low-temperature, non-oxidative purification technique, avoids the use of hydrofluoric acid and the huge energy consumption often required to achieve the same low-transition metal purities. Urbix has also created a simple graphene exfoliation method which features 99% reusable surfactants, yields as high as 95-99% of the starting graphite weight, and "on-demand" layer customization.

Welcome to the association!

**MORE ON URBIX UK
EXPANSION HERE**





Podcast with TechMet's Chairman & CEO Brian Menell

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In 2017 Brian founded and continues to serve as Chairman and CEO of TechMet Ltd, an investment vehicle for a portfolio of technology metal projects. TechMet acquires and manages projects that produce, process and recycle the key strategic technology metals that go into batteries, electric vehicles and renewable energy systems – cobalt, lithium, nickel, tin, tungsten, rare earth metals and vanadium.

He explains how the world is undergoing a seismic transformation in how it produces and uses energy. A part of this is a mobility revolution with the mass adoption of electric vehicles. These radical shifts represent 'once-in-a-century' investment opportunities and will re-shape not just whole industries, but also the geopolitical landscape. A key to success will be the ability to secure the supply of its building blocks – the technology metals.

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TECHMET





Cornish Metals Secured Investment by Vision Blue Resources

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Cornish Metals is aiming to raise £40.5m from investors including a former Tory party chief executive to restart tin mining at Cornwall's South Crofty mine.

Canadian-headquartered Cornish Metals, which trades on the Stock Exchange's AIM, said it is to receive £25m from Vision Blue Resources (VBR), a vehicle founded by the ex-Conservative treasurer and chief executive Sir Mick Davis.

Mr Davis, who was formerly head of mining group Xstrata, created VBR to invest in green energy-related metal and mineral resource companies.

[READ ON HERE](#)

CornishMetals



Richard Williams, CEO, Cornish Metals. Source: Buisness Live.

Q&A Session with British Lithium

In our latest Q&A session, we caught up with Roderick Smith, Chair at British Lithium. British Lithium was the first company to discover a sizable lithium deposit in the UK, the first to develop a novel, environmentally friendly process for extracting lithium and the first to prove battery grade lithium can be produced from Cornish granite.

Q&A topics:

- Why British Lithium chose Cornwall, UK
- Mi-Sep and Li-Sep technologies and battery metal production
- British Lithium's future plans and community engagement

READ ON [HERE](#)





Responsible Raw Materials 2022 Conference

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Mining as a Core Enabler for the 'Just Transition'

9th - 13th May, 2022. 2 sessions per day:
08:00 - 11:30 UK, 15:00 - 18:30 UK

If carried out in a responsible manner, mining can act as a core enabler for the 'just transition' - yet at COP26, mining was hardly addressed.

This week long event aims to bring together a range of stakeholders across the raw materials space to showcase what the industry needs to do, change, and share, to ensure that mining fills its full potential. We will hear the challenges and opportunities presented by providing the necessary materials for the green transition, as well as acting as a vehicle for social and environmental progress.

MORE INFO [HERE](#)

RESPONSIBLE RAW MATERIALS





Critical Minerals News

The following March news articles from Argus Media, Mining Weekly, Mining Magazine, and others, provide an overview of critical mineral mining for:

- Cobalt
- Copper
- Graphite
- Lithium
- Manganese
- Nickel
- Rare Earth Elements
- Tin
- Titanium
- Tungsten

The Critical Minerals Association takes no credit for any articles and makes no endorsement of any of the content.

- Global [15.3.22]

- Paper: Battery technology and recycling alone will not save the electric mobility transition from future cobalt shortages.
- <https://www.nature.com/articles/s41467-022-29022-z>

- Africa

- DRC [22.3.22]

- The ethics of cobalt mining must be taken seriously by traders. Buyers need to create common standards and metrics to govern the extraction process.
- <https://www.ft.com/content/77011f71-6619-4c49-ac80-d1de033e4b74>

- DRC [3.3.22]

- The Democratic Republic of Congo (DRC) is gradually regaining control of its cobalt and copper mining sector from Chinese investors through court rulings in favour of the government and its people.
- <https://www.news24.com/news24/africa/news/drc-court-stops-chinese-cobalt-mining-giant-from-operating-amid-fraud-allegations-20220303>

- Oceania

- Australia: Cobalt Blue [23.3.22]

- Cobalt Blue has started underground development at the Pyrite Hill operation, in New South Wales, to support demonstration plant activities.
- <https://www.miningweekly.com/article/cobalt-blue-starts-underground-development-2022-03-23>

Copper

- Africa

- Zambia: Barrick [23.3.22]

- Barrick Gold Corp., the world's second-biggest producer of the precious metal, sees an opportunity to grow its copper production in central Africa.
 - <https://www.mining.com/web/barrick-sees-scope-to-grow-zambia-copper-output/>

- Europe

- Serbia: Zijin Mining [24.3.22]

- The Serbian arm of China's Zijin Mining plans to stop production at its copper smelter for three months to carry out a planned work, it said in a statement on Thursday.
 - <https://www.miningweekly.com/article/zijin-to-stop-copper-smelter-in-serbia-for-overhaul-2022-03-24>

- UK: Ariana Resources [25.3.22]

- The world's largest gold company, Newmont, is investing in and forming an exploration alliance with AIM-listed junior Ariana Resources.
 - <https://www.mining-journal.com/gold-and-silver-news/news/1429206/newmont-and-ariana-strike-tethyan-copper-gold-exploration-deal>

- Latin America

- Peru: MMG [24.3.22]

- MMG Ltd on Thursday said it has secured approval from Peru's Ministry of Energy and Mines to expand its Las Bambas copper mine despite ongoing outrage from local indigenous communities.
 - <https://www.mining.com/web/peru-approves-expansion-of-las-bambas-copper-mine-despite-protests/>

Graphite

20

- Africa

- Guinea: La Mancha [22.3.22]

- LA Mancha Fund which holds the assets of Naguib Sawiris, the Egyptian entrepreneur and gold bull, is to invest \$10m in a graphite mining development firm.
 - <https://www.miningmx.com/trending/49152-la-mancha-to-invest-10m-in-graphite-mining-development-firm-srg/>

- Madagascar: NextSource [2.3.22]

- Phase 1 of the Molo graphite project, in Madagascar, has been delayed and the process plant will now only be commissioned in the September quarter.
 - <https://www.miningweekly.com/article/commissioning-of-nextsources-madagascar-graphite-project-delayed-2022-03-02>

- North America

- Canada: Northern Graphite [11.3.22]

- Northern Graphite has been advised to consider the use of electric vehicles to cut down on emissions, following an update from Minviro on the company's Bissett Creek deposit using Minviro's Life Cycle Assessment.
 - <https://www.miningmagazine.com/asset-management/news/1428234/northern-graphite-uses-minviro-to-lower-site-emissions>

- Greenland: GreenRoc [8.3.22]

- Greenroc, which was created to buy the spun-out assets of Alba Mineral Resources, said a maiden combined indicated and inferred JORC resource has been defined at Amitsoq of 8.28 million tonnes (Mt) at an average grade of 19.75%, giving a total graphite content of 1.63 Mt.
 - <https://www.voxmarkets.co.uk/articles/-greenroc-mining-discovers-significant-maiden-resource-at-amitsoq-cb54c9a/>

Lithium

- Asia

- China: Contemporary Amperex Technology [3.3.22]

- The chairman of the world's largest electric-car battery maker has urged the Chinese government to strengthen the lithium supply chain, given the risk of shortages of the key ingredient as demand accelerates with the rising adoption of electric vehicles.
 - <https://www.mining.com/web/worlds-top-battery-maker-urges-china-to-secure-lithium/>

- North America

- USA [22.3.22]

- The Department of Energy (DOE) is launching a battery manufacturing program in West Virginia with a \$5 million investment that could turn the rust belt into a lithium belt.
 - <https://www.vice.com/en/article/pkp8eb/government-invests-5m-to-turn-the-rust-belt-into-the-lithium-belt>

- USA: Sienna Resources [25.3.22]

- Sienna Resources has made a lithium discovery during its first drill programme at its Blue Clay project in Clayton Valley, Nevada.
 - <https://www.mining-journal.com/energy-minerals-news/news/1429216/sienna-finds-lithium-at-blue-clay>

- Latin America

- Chile [7.3.22]

- Chile's constituent assembly, in charge of writing the country's new constitution, approved on Saturday an early-stage proposal that opens the door to nationalizing some of the world's biggest copper and lithium mines.
 - <https://www.mining.com/chile-a-step-closer-to-nationalizing-copper-and-lithium/>

Manganese

- Europe

- Czech Republic: Euro Manganese [25.3.22]

- Euro Manganese, the Canadian company developing a manganese reprocessing project in the Czech Republic, said that it has received approval to reassign the land underlying its Chvaletice Manganese project for mining use.
 - <https://www.thearmchairtrader.com/euro-manganese-czech-project-stock-price/>

- North America

- Canada: Manganese X [23.3.22]

- Manganese X is gearing up to be a provider to the electric vehicle battery manufacturers with its high-purity manganese.
 - <https://www.proactiveinvestors.com/companies/news/977524/manganese-x-is-gearing-up-to-be-a-provider-to-the-electric-vehicle-battery-manufacturers-with-its-high-purity-manganese-977524.html>

- USA: Tesla [24.3.22]

- Tesla May Consider Manganese Battery, According To Elon Musk.
 - <https://insideevs.com/news/575609/tesla-elon-musk-potential-manganese-based-battery/>

Nickel

- Europe

- UK: LME [8.3.22]

- Car manufacturers are facing soaring costs and supply issues after the price of nickel doubled to record levels in the wake of Russia's invasion of Ukraine.
 - <https://www.theguardian.com/business/2022/mar/08/carmakers-face-higher-costs-and-supply-issues-as-price-of-nickel-soars>

- UK [19.3.22]

- A nickel-trading fiasco raises three big questions.
 - <https://www.economist.com/finance-and-economics/2022/03/19/a-nickel-trading-fiasco-raises-three-big-questions>

- North America

- Greenland: KoBold [25.3.22]

- KoBold and Bluejay Mining to begin critical materials drilling in Greenland. The exploration work at the Disko project aims to target massive nickel, copper, cobalt and PGM bearing sulphides.
 - <https://www.mining-technology.com/news/kobold-critical-materials-greenland/>

- Latin America

- Guatemala: Solway [6.3.22]

- A decision to restart operations at one of Central America's largest nickel mines is being questioned by campaigners after an investigation appeared to show the company co-opted indigenous leaders and smeared potential opponents.
 - <https://www.theguardian.com/global-development/2022/mar/06/indigenous-groups-oppose-restarting-guatemala-nickel-mine>

Rare Earth Elements

- Europe [11.3.22]

- Europe must invest in the critical raw materials sector to develop its own strategic autonomy and to re-industrialise key industrial ecosystems.
- <https://www.europeanfiles.eu/climate/europe-must-invest-in-the-critical-raw-materials-sector-to-develop-its-own-strategic-autonomy-and-to-re-industrialise-key-industrial-ecosystems>

- Oceania

- Australia [16.3.22]

- Australia is making a \$240 million push to break Beijing's supply chain dominance in the production of rare earth elements used in guided missile systems, fighter jets, electric cars, renewable energy components, and mobile phones.
- <https://www.dailymail.co.uk/news/article-10617029/Australia-critically-vulnerable-China-rare-earth-metal-production.html>

- North America

- USA [23.3.22]

- Securing the rare earth supply chain is crucial for defence.
- <https://www.army-technology.com/features/securing-the-rare-earth-supply-chain-is-crucial-for-defence/>

- USA: American Rare Earths [24.3.22]

- American Rare Earths has demonstrated further rare earth potential at its flagship La Paz Rare Earths Project in Arizona, USA, after conducting a wide-area geologic mapping and surface geological sampling program.
- <https://www.proactiveinvestors.com.au/companies/news/977691/american-rare-earths-demonstrates-further-rare-earth-potential-at-flagship-la-paz-project-in-arizona-977691.html>

Tin

- Africa

- Namibia: AfriTin [9.3.22]

- AfriTin Mining Limited has dual-listed its shares on the NSX market of the Namibian Stock Exchange.
 - <https://www.proactiveinvestors.co.uk/companies/news/976209/afritin-mining-dual-lists-on-namibian-exchange-976209.html>

Tungsten

- Europe

- Spain: W Resources [22.3.22]

- W Resources, UK-listed tungsten, tin and gold mining company, has announced that its La Parilla tungsten mine in Spain has recommenced operations following a maintenance shutdown on 15 February 2022.
 - <https://www.miningmagazine.com/processing/news/1428964/w-resources-restarts-la-parrilla-mine>

Titanium

- Africa

- Malawi: Sovereign Metals [15.3.22]

- Sovereign Metals has entered a non-binding Memorandum of Understanding (MoU) with Hascor International Group for the potential supply of 25,000 tonnes of natural rutile per annum from its Kasiya Rutile Project in Malawi.
 - <https://www.proactiveinvestors.co.uk/companies/news/975645/sovereign-metals-inks-offtake-mou-with-hascor-for-supply-of-rutile-from-malawi-project-975645.html>



Mkango & HyProMag to Recycle Rare Earth Magnets from Electric Vehicles, Wind Turbines and Electronic Waste

Mkango Rare Earths announced it will collaborate with HyProMag, Bowers & Wilkins, European Metal Recycling, GKN Automotive Innovation Centre, Jaguar Land Rover and University of Birmingham in the Driving the Electric Revolution challenge at UK Research and Innovation grant funded project, "Secure Critical Rare Earth Magnets for UK" (SCREAM).

SCREAM will establish a recycled source of rare earth magnets in the UK to provide greater security of supply to UK industry, whilst aiming to achieve a 10% reduction in cost and a significant reduction in environmental impact, with an estimated 88% less energy for short loop (i.e. magnet to magnet) recycled magnets versus primary mining to separation to metal alloy to magnet production.

[READ ON HERE](#)
[UPDATE ON SONGWE HILL HERE](#)



Sovereign Metals Received Promising LCA Results

Sovereign Metals has received promising results from an independent Life Cycle Assessment (LCA) Study analysing the global warming potential (GWP) of natural rutile to be produced at the company's flagship Kasiya Rutile Project in Malawi, one of the world's largest natural rutile deposits.

The study – undertaken by Minviro Ltd – concluded that Sovereign's rutile product is expected to have substantially lower GWP (Scope 1,2, and 3 emissions) compared to other titanium feedstocks like synthetic rutile or titania slag.

Titanium feedstock is a key component of many industrial and consumer products, often used as a whitening pigment in paints, plastics and paper.

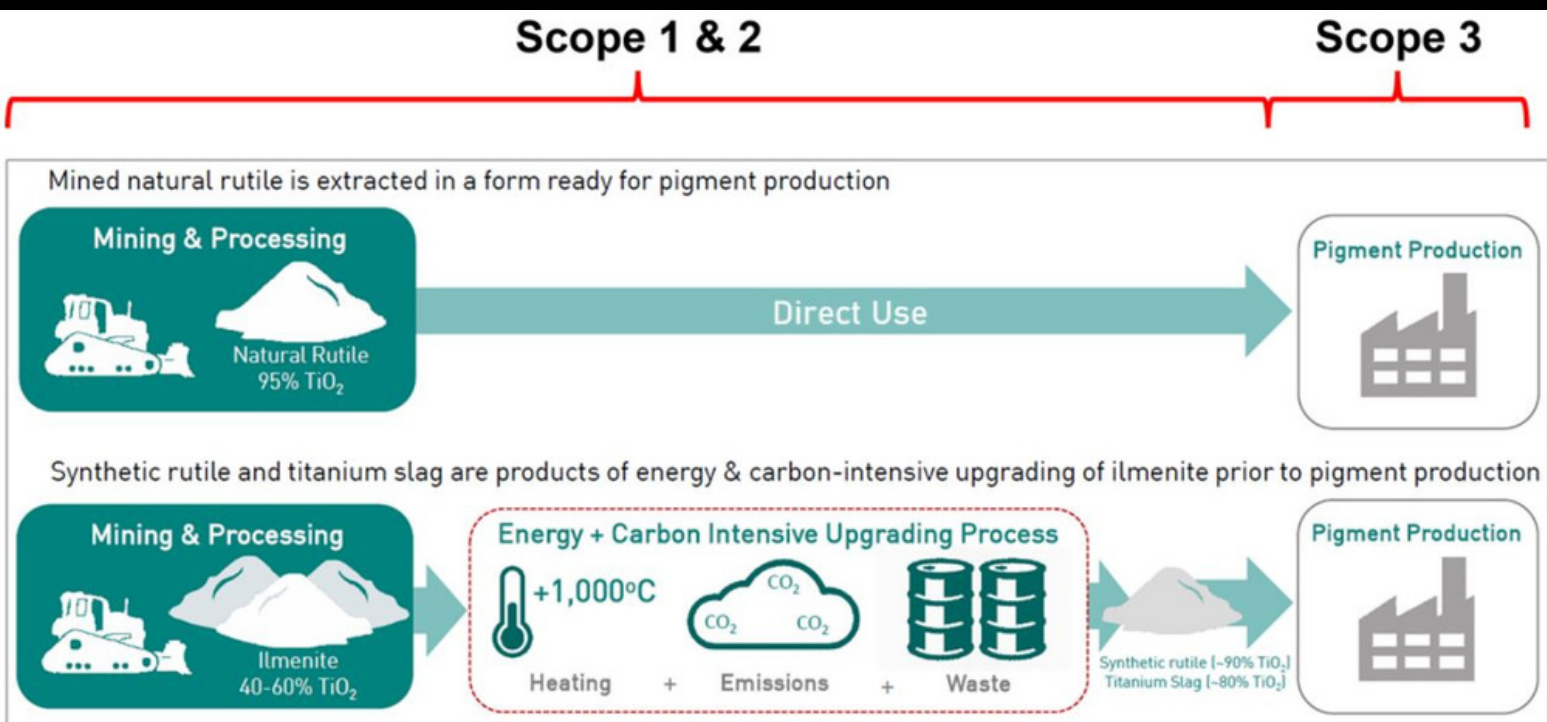


Figure 2: Natural rutile is a direct use titanium feedstock

READ ON HERE

Cornish Lithium to Drill Research Borehole at Twelveheads

Cornish Lithium is commencing operations to drill a research borehole near Twelveheads, St Day, to test for lithium in geothermal waters. The geothermal water samples will be pumped up from naturally permeable structures in the rock beneath.

It is anticipated that this research borehole will take approximately four and a half months to drill, with drilling operations taking place between the hours of 7:00am and 7:00pm each day, and will utilise a drill rig that will be approximately the same size as a large transit van.

Samples of geothermal water will be collected at intervals down the borehole, which is planned to be drilled to a depth of approximately 1,600 metres. Some water sampling may take place between 7:00pm and 11:00pm, but there will be no drilling after 7:00pm and noise levels will be controlled.

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Hemerdon Closer to Production

Tungsten West broke ground at Hemerdon for the installation of the X-Ray Transmission Ore Sorters on 17 March 2022. This event marks another major step in the company's upgrade and refurbishment plans for the Projects processing plant.

Max Denning, Tungsten West CEO, comments:

"We are extremely excited to have broken ground at Hemerdon this week, marking an important milestone in the Projects restart. Ensuring the UK and the western hemisphere have got access to two key critical minerals has never been more profound. We are also delighted to announce James McFarlane as our new Managing Director; his extensive experience will prove invaluable in the Company's development as we move closer to first production at Hemerdon."

[READ ON HERE](#)



Pictured: Hemerdon Mine Site. Courtesy of Tungsten West



Giyani Announces Progress on Demonstration Plant and Feasibility Study

30

Giyani Metals announced the progress on its demonstration plant and feasibility study for the K.Hill Project, and on exploration and corporate activities.

Highlights

- Order placed for first long-lead item for the construction of the Demo Plant, designed to produce high purity manganese sulphate monohydrate ("HPMSM") crystals for delivery to potential battery materials customers for product qualification.
- Plant design and process flowsheet under final review, allowing project parameters to be finalized for completion of the FS.
- Infill drilling at southerly extension of the K.Hill Project ongoing with 18 reverse circulation drill holes completed.

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E-Tech Resources Reports Diamond Drilling Assay Results

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E-Tech Resources announced the final batch of assay results from the first diamond drilling campaign) completed at the Eureka REE Project, located in central Namibia.

Significant intersections include 11.2m @ 1.2% Total Rare Earth Oxide ("TREO") (ED013), 2.2m @ 2.4% TREO (ED014), 8.8m @ 1.0% TREO (ED015), and 6.3m @ 1.9% TREO (ED020). The results from these five holes, all of which intersected mineralisation, have continued to confirm the presence of mineralisation in Zones 1 and 3 at depth and with lateral continuity. Previous diamond drilling results were reported in the press releases dated 10 November 2021 and 10 February 2022.

Elbert Loois, CEO of E-Tech Resources Inc., commented:
"The assay results received to date confirm mineralization to the depth extent of present drilling and along strike between Zones 1 and 3. After receiving these latest assay results, we can now report that work on the update of the current Mineral Resource Estimate has commenced – starting with the resource block model – which is expected to be released in Q2 2022. Additional assay results from the second drilling campaign completed in February 2022 are pending."

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E TECH
RESOURCES



Minviro and Maptek Collaborate on Life Cycle Analysis for Mines

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Maptek in its most recent Forge newsletter outlined how optimised scheduling can be combined with full life cycle analysis to quantify and reduce the environmental impacts of planned mines and monitor those in production.

Maptek and Minviro have combined their technologies to enable mining companies to develop multiple optimised material movement scenarios, each of which can be run through an environmental impact life cycle analysis.

Minviro's technology, MineLCA can be employed to predict a project's environmental footprint as it develops, or it can be used in real time in a producing mine to monitor daily environmental performance. Developers can demonstrate the sustainability of their project to key stakeholders. Operators can incorporate life cycle analysis into environmental, sustainability and corporate governance reporting around daily or weekly material and energy consumption and project impacts.

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MINE**LCA**



MINE**METRIC**



MINE**BIT**

Pensana Project Update on Saltend and Longonjo

Pensana has announced an update on the development of the Saltend rare earth separation facility in the Humber Freeport UK and the Longonjo concentrator in Angola.

Highlights

- FEED for both Saltend and Longonjo completed with a material improvement in project economics, including:
 - Estimated Capex reduced from US\$525 million to US\$494 million with further reductions anticipated
 - Post-tax NPV increased by 14% to US\$2.4 billion with an IRR of 61%
- Reduction in the project execution schedule with commissioning now targeted for late 2023
- Approaches received from major European and US electric vehicle and wind turbine OEMs to
- secure magnet metal supply chain
- Memorandum of Understanding executed with key Asian trading house for 50% of Saltend's production

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Circular Partners with Rock Tech Lithium

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Circular has announced a comprehensive partnership with Rock Tech Lithium and Fraunhofer UMSICHT to ensure the production of German-made lithium hydroxide with the lowest possible environmental impact.

"A sustainable and resilient raw material supply chain is increasingly important to our automotive customers, and we are proud to work with Rock Tech to deliver their product with clear proof of origin and embedded CO2 emissions," explains Circular CEO and founder Douglas Johnson-Poensgen. "As the automotive industry prepares for the EU Battery Directive and battery passport provisions, we're very pleased to support Rock Tech in pioneering low-carbon, European-produced lithium hydroxide."

"With the holistic documentation of our value chain, we create a decisive added value for our customers," says Rock Tech Lithium CEO Markus Brügmann. "Customers have information about the origin and life cycle assessment of our lithium hydroxide at all times. Based on the work of Circular and Fraunhofer UMSICHT, Rock Tech will create a material passport for its product."

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