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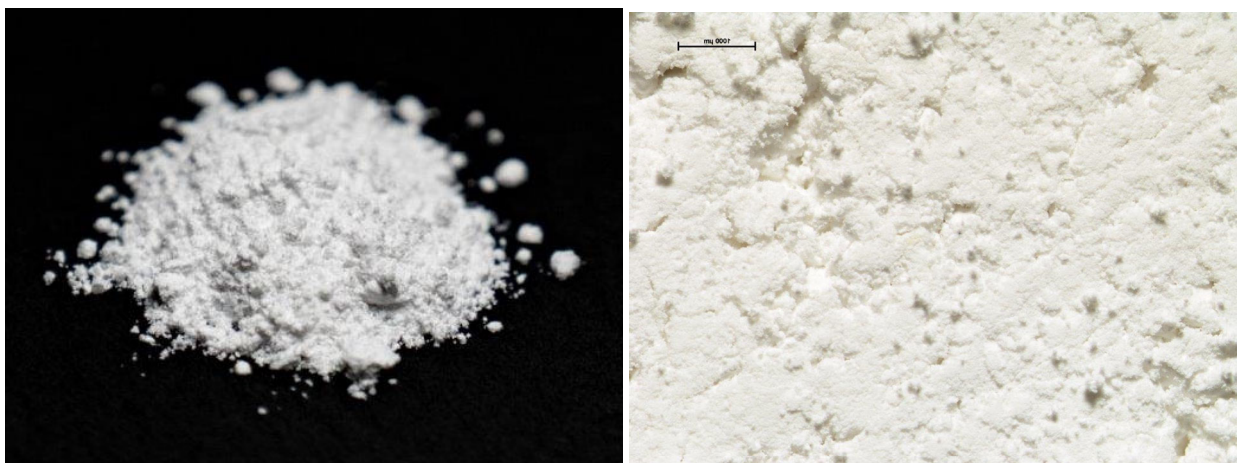
Successful development of Mixed Rare Earth Carbonate flow sheet

Pensana Rare Earths Plc (LSE: PRE, ASX: PM8) is pleased to report the successful production of an NdPr rich mixed rare earth carbonate (MREC) from the testwork currently underway on mineralisation from its Longonjo rare earth project.

Industry experts Wood Group and Nagrom, based on testwork performed at metallurgical laboratories in Perth Western Australia, have successfully developed a flowsheet to produce a particularly high grade MREC with NdPr comprising 33.5% of the total rare earths¹ content.

MREC is a much higher purity and higher value product and has a much broader market and range of applications than the concentrate product contemplated in Pensana's Preliminary Feasibility Study.

Based on information provided by industry specialists the specifications of Longonjo's MREC compares favourably with the main products currently being produced and sold mainly in China.



NdPr rich rare earth carbonate produced in test work

The pilot plant and metallurgical test work are ongoing with a view to finalising the preferred process route and to providing data for engineering and production cost estimations for the Bankable Feasibility Study.

A comprehensive update on the Bankable Feasibility Study will be reported towards the end of the month. Two of the circuits will be required to run for longer to bring the testwork results up to the required reporting standards for the study which will enable the finalisation of the report in due course.

A key feature that the study will report is the potential for the project to be brought online as the first major rare earth mine in over a decade which can also offer a sustainable supply of mixed rare earth carbonate at a time when there is growing concern around the provenance of the rare earth supply chain.

NdPr= the magnet metals neodymium and praseodymium

¹ equivalent rare earth oxide grades and proportions

Chief Executive Officer Tim George commented:

“This is an important milestone for the project as it confirms the potential to produce a marketable higher value NdPr rich mixed rare earth carbonate. The market for this carbonate is substantially larger than that of a concentrate and is potentially not limited to China.

We are now in a position to commence discussions with potential offtake parties in Japan, Korea and Europe in addition to the wide range of potential customers in China.

Importantly the combination of this value-adding step with the excellent infrastructure, not least the available hydro-electric power supply, will enable us to develop Longonjo as one of the world’s most sustainable rare earth suppliers on the critical magnet metal supply chain.

The recent resource upgrade has elevated the project to one of the world’s largest rare earth resources and with the ongoing financial backing of the Angola Sovereign Wealth Fund we are in a very strong position to rapidly develop the project”.

Authorised by the Board of Pensana Rare Earths Plc

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About Pensana Rare Earths Plc

Pensana is a rapidly growing sustainable resources company with shares trading on the London Stock Exchange's Main Market for listed securities (PRE:LSE) and on the Australian Stock Exchange (PM8:ASX).

Pensana is looking to bring online the world's first major rare earth mine for over a decade at a time of burgeoning demand for critical magnet metals from electric vehicles and offshore wind turbines.

It is looking to develop its Longonjo project, one of the world's largest magnet metal rare earth deposits, located in infrastructure rich Angola, as a major new sustainable supply of rare earths critical to a range of industries and technologies that are vital to the green economy and to supporting the global Energy Transition to a lower carbon future.

As the Angolan government continues to diversify its economy away from oil and gas and diamonds and to develop its agriculture, tourism and mining sectors, Longonjo is the flagship mining project and is receiving strong support both within the community and from government at all levels.

The Company has ongoing consultation with the local community and elected authorities and is working closely with them to ensure that the benefits of the project in terms of training, jobs and broad community support meet the aspirations of as many stakeholders as possible.

As the Company continues on its path to building one of the world's lowest carbon footprint mines it also strives to be a trusted partner for its employees, stakeholders and the communities where it operates. The Pensana team is particularly passionate about developing young Angolan professionals, especially women in STEM, engaging

responsibly with the environment and broad social engagement with the local community.

Across the Company, at every level, the Pensana team is committed to sustainable value creation and to the advancement of the UN Sustainable Development Goals. The project is being planned to the highest ESG standards and the Company is conducting a detailed assessment of the appropriate international ESG standards, initiatives and reporting frameworks to adopt to ensure the Company remains best in class as the project moves into the development phase.

With Presidential approval for the mining licence and strong financial backing from FSDEA the Angolan Sovereign Wealth Fund which now holds a 23% stake in the company, Pensana is in a strong position to bring the project online as the world's first sustainable supplier of critical magnet metal rare earths.