

16 July 2024

## MIDDLE ARM SUSTAINABLE DEVELOPMENT PRECINCT

Castile Resources Limited ('Castile' or the 'Company') is pleased to advise that it has engaged with the Northern Territory Land Development Corporation on a parcel of land at the \$2 billion-dollar Middle Arm Sustainable Development Precinct (MASDP) located in Darwin.

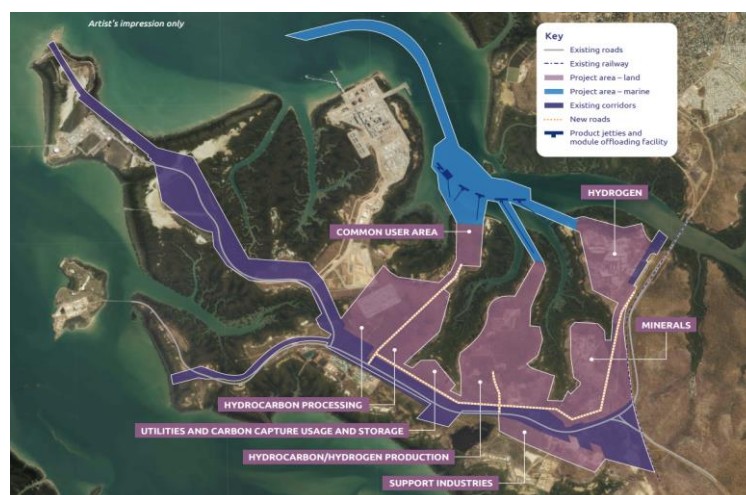
The MASDP is a key driver of the Northern Territory Governments' (NTG) goal for a \$40B economy. The precinct will be purpose built for critical minerals processing and as a clean energy production hub providing enormous benefit to Castile's development strategy. The Land Development Corporation (LDC) and the NTG have acknowledged the suitability of Castile's downstream processing plant to operate within Middle Arm and will work to provide a suitable site to accommodate Castile's timeline and functional requirements.

The "front end" mining and beneficiation to concentrate of the Rover 1 ore would remain as planned in Tennant Creek. The move to the precinct would allow the back end "refining" section of the Castile's processing plant to be located at the MASDP. The bulk concentrate containing gold, copper and cobalt would be transported from Tennant Creek on the existing rail network to the Castile refining facility at the precinct. The outputs would be copper metal and cobalt metal available for direct sale to end users of these critical minerals. The gold from Rover 1 would also be processed to a gold dore' at the MASDP site.

Castile is also investigating the expansion of the downstream facility to enable the processing of third-party concentrates and in doing so providing an option that could enhance the production of critical minerals within Australia, utilising, protecting and retaining sovereignty over Australia's precious resources within the region.

Castile's other co-product from its own production is a finely ground 96.5% magnetite<sup>1</sup> product suitable for other industrial uses including coal washing. It is still planned to separate and prepare that product at the Rover 1 project site.

**Figure 1: The Proposed Middle Arm Sustainable Development Precinct (MASDP)**



(See <https://dipl.nt.gov.au/projects/middle-arm-sustainable-development-precinct>)

Middle Arm is located 40kms by road from Darwin City and 6kms from Palmerston City.

The immediate benefits of this strategy include:

- Reduces the site footprint and resulting impact to the environment, relocating to a precinct where the impacts can be more efficiently managed.
- Reduces the capital infrastructure and construction complexity required in a remote location.
- Reduces the competition for a skilled workforce in the region, which has seen a tighten labour market with multiple minerals projects commencing construction.
- MASDP provides a framework for streamlined environmental approvals that target considerable reductions in the time to construction.
- MASDP provides immediate access to road, rail, port and logistics infrastructure.
- Opportunity to connect with multiple giga-scale renewable energy providers to significantly reduce project emissions.
- Proximity to a stable, highly skilled local workforce from neighbouring Darwin and Palmerston enabling employees to reside with their families in a vibrant city.
- Significantly improves logistics regarding the transport of consumables and waste removals required in the refining process.

**Figure 2: Illustration of the proposed Castile Critical Minerals Refinery at Middle Arm**

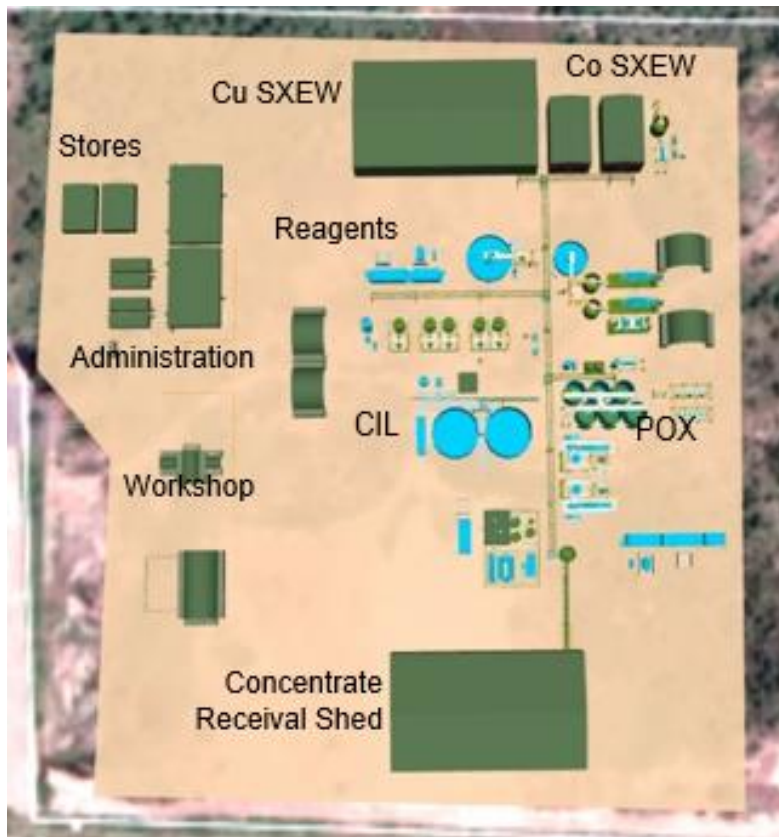


Castile's planned Rover 1 development has an existing inventory of approximately 10 years of Ore Reserves and Mineral Resources<sup>1</sup> that can underwrite the base-load feed for the refining plant at MASDP.

The sizing of the planned concentrator plant at Tennant Creek and the potential downstream processing hub at MASDP will provide an immediate practical and sensible pathway to development for smaller and sub-economic deposits belonging to third parties within the region.

With projected world demand for copper not being matched by supply, the importance of Australian based copper production is critical to Australia's demands for the metal, along with other co-products. The establishment of an in-country alternative could be a catalyst for Australia to develop and commercialise its many small producers who currently have no option but to concentrate and ship to offshore markets for refining. When this occurs, Australia loses its sovereignty over its own metals.

**Figure 3: Plan View of the Proposed Castile Refinery at Middle Arm**



The bulk concentrate from our planned Rover 1 mine will be received at the MASDP Refinery. This concentrate will be prepared for leaching in a pressure oxidation autoclave.

The oxidised concentrate solution will have the copper separated via a solvent extraction, electro winning process (Cu SXEW). The cobalt will be treated in a similar fashion to produce a final cobalt product (Co SXEW). The residual solid mass after oxidation mass will then be treated within the Carbon-in-leach (CIL) tanks to recover the gold.

Support for the plant will be provided onsite with an administration, workshop and stores and warehousing facility.

The critical minerals and other co-products produced at site will be ready for direct sale to customers, such as end users in the battery and EV sectors within Australia as a purely Australian owned and responsibly produced product.

**Mark Hepburn, Managing Director of Castile commented:**

*"We are extremely pleased to be working with the Land Development Corporation and Northern Territory Government towards a Middle Arm site suitable to facilitate the downstream processing needs of our Rover 1 Project. This comes on the back of being awarded Major Project Status by the NT government and demonstrates our alignment with both the Federal and State Governments strategy of producing downstream critical minerals in the Northern Territory.*

*We aim to develop a sustainable mining and processing operation that benefits all our stakeholders and shareholders and having our refining facility located at Middle Arm delivers on that strategy. It also provides further opportunity for Castile to process third party concentrates in Australia that would normally be shipped overseas to produce the end user critical minerals for the benefit of other countries. The development of the Rover 1 Project will provide significant opportunities in employment and economic prosperity for the entire Northern Territory.*

*Having our refining plant located at Middle Arm will allow us to significantly reduce our emissions and costs across the entire operation. Castile envisions it will also enhance the attractiveness to potential employees of working for Castile while living in Darwin and Palmerston with their families.*

*The Rover 1 Project Bankable Feasibility Study (BFS) can now assess this strategic development pathway as an option including the Middle Arm refining facility”.*

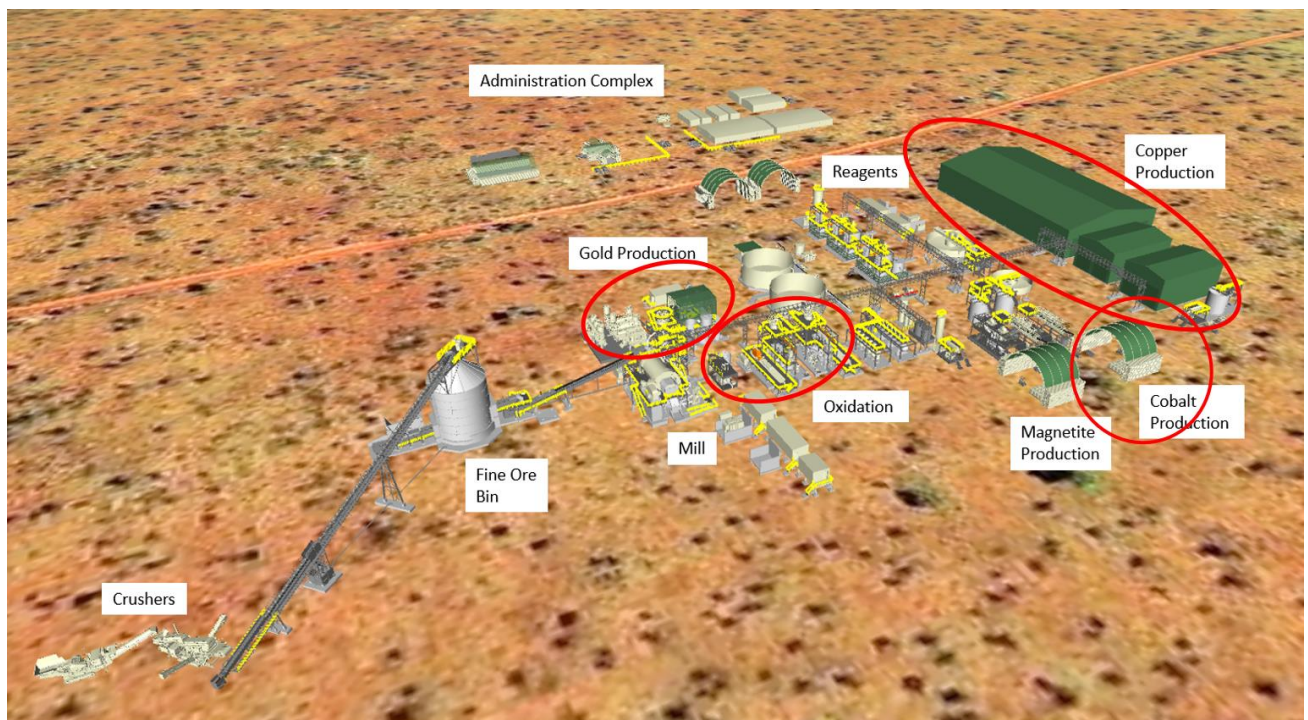
**Tony Stubbin, CEO of the Land Development Corporation commented:**

*“The Land Development Corporation (LDC) welcomes Castile’s interest in land in the Precinct for its ‘Downstream Refining Facility’, a proposed gold, copper and cobalt processing facility in the Precinct.*

*“To enable Castile to progress its project funding planning and give comfort to prospective investors, based on information contemplated to date, LDC considers the Middle Arm Sustainable Development Precinct and surrounding area to be a suitable location for Castile’s proposed ‘Downstream Refining Facility’. With the Northern Territory Government, we intend to collectively work with the Castile team to identify a specific site at MASDP tailored to the project timeline and functional requirements.*

*“Following identification of a specific site, a formal land allocation would be required to follow the Land Allocation Framework for the Precinct in the future”.*

**Figure 4: View of the Original Processing Plant Design with the refining components to be relocated and constructed at Middle Arm circled in red.**



**The components not circled remain in a front-end processing plant at Tennant Creek**



**References:**

<sup>1</sup> Castile Resources Limited (ASX:CST) ASX Announcement, "Rover 1 Preliminary Feasibility Study Outcomes" dated 5 December 2022

Authorised by the board of Castile Resources Limited.

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