

ASX ANNOUNCEMENT

6 September 2022

EXPLORATION BEGINS AT CHENENE LITHIUM PROJECT

Cassius Mining Limited (“Cassius” or “the Company”) (ASX Code: CMD), is pleased to advise its initial exploration programme at the wholly owned Chenene Lithium Project in central Tanzania is underway.

- Project area consists of 4 contiguous exploration licenses totalling ~300 km²
- Two priority target areas are under initial exploration
- Target #1 has recorded historic Lithium pegmatite presence within PL 11921
- Target #2:
 - gneiss outcrop in PL 11720 is extension of the host gneiss to Lithium pegmatites in adjacent PL
 - in close proximity to 2017 Lontown (LTR) Lithium discovery¹ - multiple samples >1.5% Li₂O

Cassius Chairman James Arkoudis comments:

“With the Company’s first exploration underway on our Chenene Lithium Project, we are very optimistic our experienced on-ground exploration team will return positive results from mapping and sampling metamorphic outcrops known to locally host Lithium-bearing pegmatites, allowing the Company to progress this exciting new project.”

CHENENE LITHIUM PROJECT

The Project area is in central Tanzania approximately 40 kms north of Dodoma (the capital city), easily accessible by major road and not materially affected by the annual wet season further south.

Lithium-bearing pegmatites (and Tantalum) have previously been identified in the metamorphic belt outcropping in several locations along the base of the granitic NW-SE trending Chenene Hills. The Company is initially targeting two priority areas across amphibolite gneiss outcrops (known to be host rocks of Lithium-bearing pegmatites within the local area, Fig 1).

¹ Lontown Resources – ASX 5 April 2017 – “New High-Grade Lithium Discovery in Tanzania” – Tresor Prospect (Mohanga Project)

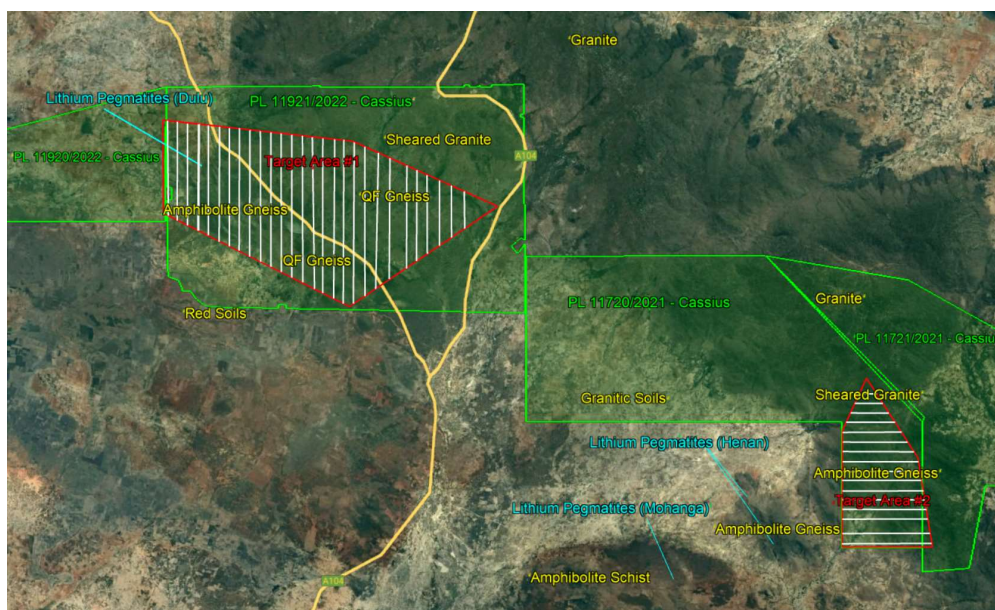


Fig 1 – Priority Targets #1 & 2 in Cassius PL's, with mapping/sampling traverse lines across prospective gneiss outcrops

EXPLORATION PROGRAMME

Target #1 is being mapped and sampled along ~400m spaced N-S traverse lines (Figs 1 & 2) across amphibolite gneiss and other metamorphic outcrops on the margins of the Chenene Hills, targeting pegmatite presence and surface expression together with rock chip sampling. Samples will undergo later lab analysis.

Target #1 covers ~50 km² (Fig 2) in the western part of PL 11921, close to Dulu village. Two separate gneiss outcrops occur in the target, ~8 km² in the east and ~10 km² in the west (with historical recorded Lithium pegmatite presence). Vehicle access is excellent, with two sealed roads traversing through and directly adjacent to the target site. It is estimated that the time required on Target #1 will be ~25 days.

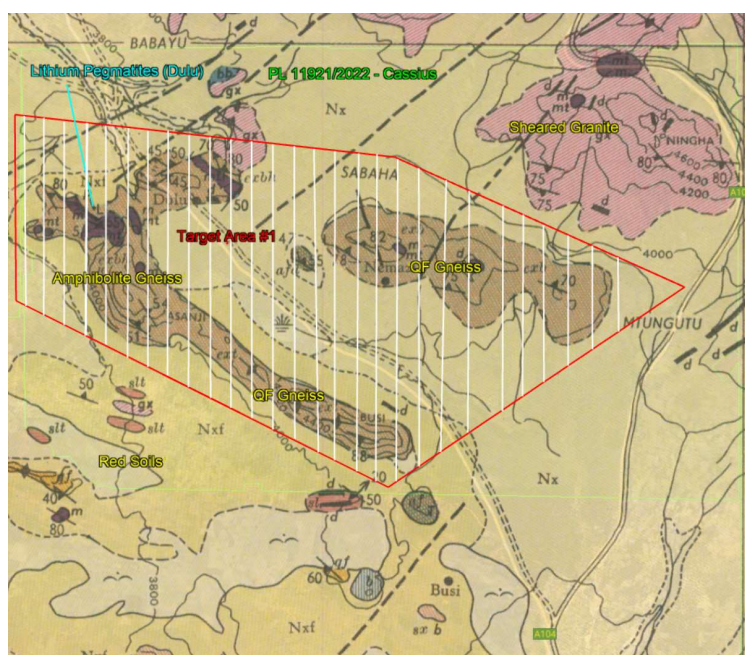


Fig 2 – Target #1 exploration traverse lines (white) - gneiss outcrop (brown) with historical recorded Lithium pegmatite presence

Target #2 has been increased from ~10 km² to ~15 km² (Fig 3) in the SE part of PL 11720, in extensional outcrop of the same gneiss hosting known Lithium pegmatites in the adjacent license. This prospective gneiss outcrop in the Cassius license covers an area of ~7 km². The increased area to be mapped and sampled will also test the adjacent sheared granite to the NE, showing intrusive dykes mineralogically untested to date.

Vehicle access to Target #2 is good, with a ~16 kms transit from the A104 Great North Rd east along tracks across undulating granitic soils. In specific locations in the target area the terrain is harder to traverse than in Target #1, resulting in re-orientation of ~400m spaced traverse lines to E-W, targeting pegmatite presence and surface expression, together with rock chip sampling. Samples will undergo later lab analysis. It is estimated that the time required on the increased area of Target #2 will be ~15 days.

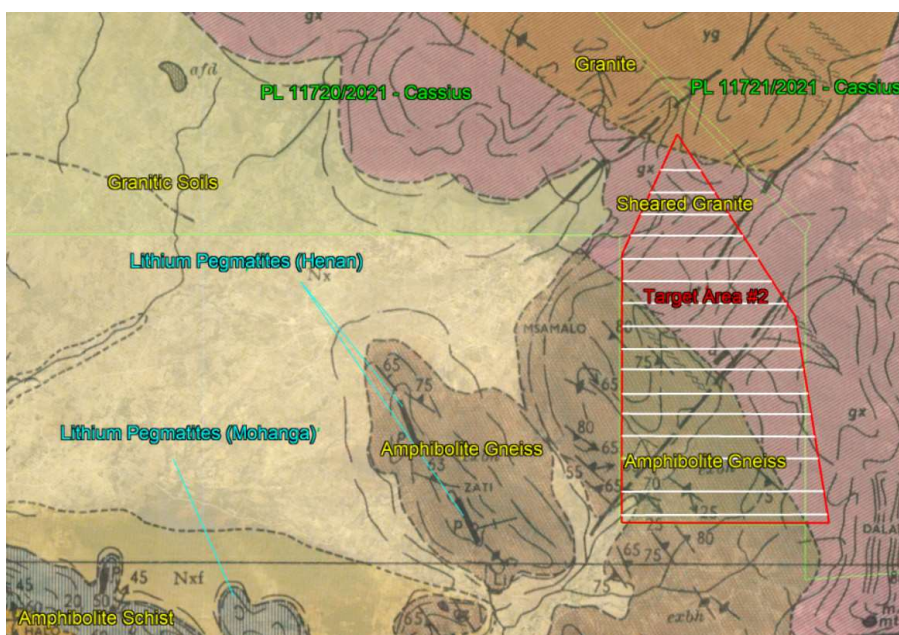


Fig 3 – Target #2 exploration traverse lines (white) - gneiss outcrop (brown) hosting nearby Lithium pegmatites

This has been authorized and approved by the board for release.

FURTHER INFORMATION

James Arkoudis, Director

e: james@cassiusmining.com

Wayne Kernaghan, Director/Co. Secretary

t: +61 407 233153, e: wayne@cassiusmining.com

Ghana Office
 HNO. 4, 9th Street,
 Adjiringanor
 Greater Accra, GHANA
 P.O Box GP 17867
 ACCRA

Madagascar Office
 Lot II 99 ABA
 Soavimasoandro,
 Antananarivo,
 MADAGASCAR

Cassius Mining Limited

ACN 115 027 033

www.cassiusmining.com

Sydney Office
 Suite 18 Level 4
 3 Spring Street
 Sydney NSW 2000
 AUSTRALIA
 PO Box R383
 Royal Exchange
 NSW 1225

Tanzania Office
 Plot 890, House 19
 Yacht Club Road,
 Masaki
 PO Box 11085
 Dar Es Salaam,
 TANZANIA