



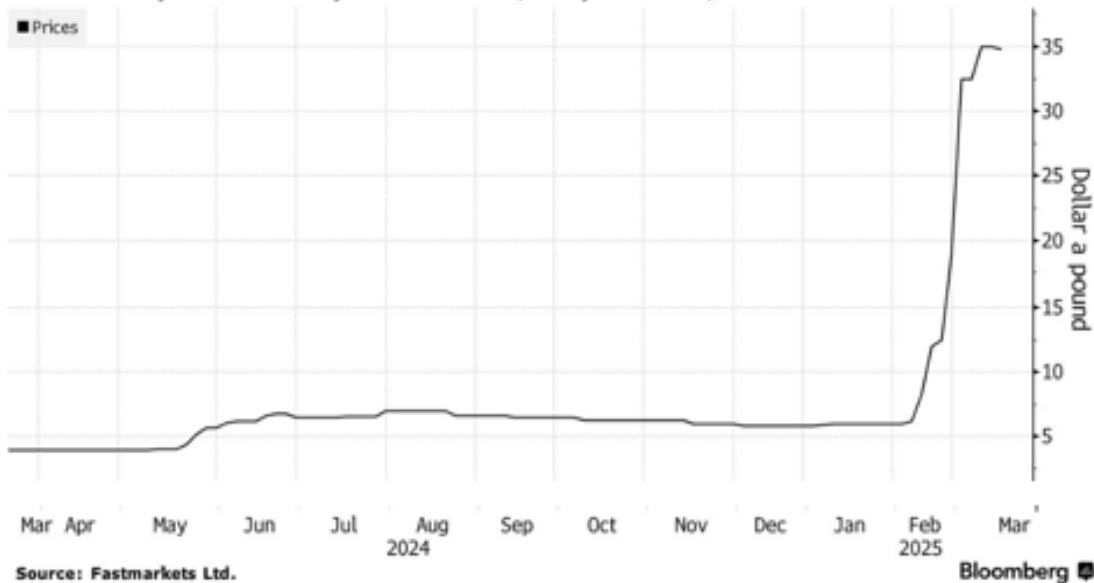
## CRITICAL MINERAL BISMUTH ADDED TO ROVER 1 AS PRICE SURGES

Castile Resources Ltd ("Castile" or "the Company") advises that critical mineral bismuth will be added as a by-product to its flagship Rover 1 Bankable Feasibility Study (BFS).

Due to recent announcements of Chinese restrictions of exports the price of bismuth has surged in European markets over 500% in recent weeks from US\$6/lb to over US\$35/lb or \$A122,500/t<sup>1</sup>. Reuters also reports that in March 2025 in the United States - bismuth traded as high as \$US\$55/lb or \$A192,500/t<sup>2</sup>.

Castile Resources has previously announced a Mineral Resource Estimate of 5,900<sup>3</sup> tonnes of bismuth within the Rover 1 Project (See ASX:CST 27 September 2022) and owns what is one of the very few Mineral Resources of this critical mineral currently in Australia, a stable, Tier 1 mining jurisdiction.

### Bismuth Has Spiked by Nearly 500% Since Early February Benchmark prices in Europe went from \$6 a pound to \$35



Mark Hepburn, MD Castile Resources commented: "The recent surge in prices for critical mineral bismuth, along with the recent gold price rally, has added significant value to our proposed Rover 1 development. Export bans have meant that Castile now controls one of the very few bismuth Mineral Resources in Australia of 5,900t with the metal recently trading at over A\$192,500/t in the USA market. By extension Castile has control over one of the extremely limited sources of supply available to the free market. There is significant pressure on supply chain security for critical minerals, particularly those with applications in defense and emerging technologies."

<sup>1,3</sup> (US\$35.00/lb, US\$55.00/lb, US/AUD rate US \$0.63)

<sup>2</sup> Reuters 19 March 2025 "European bismuth prices rocket to record highs on China export curbs" <https://www.reuters.com/markets/commodities/european-bismuth-prices-rocket-record-highs-china-export-curbs-2025-03-19/>

<sup>3</sup> Comprised of 4,500t Indicated Resource at 0.11% and 1,400t Inferred Resource at 0.08%



The capital expenditure required for a bismuth recovery circuit has been determined to be minimal as the necessary processing infrastructure is already incorporated in the existing Rover 1 development plan.

Castile has undertaken discussions to commercialise this valuable critical mineral which will be included in the Bankable Feasibility Study for the Rover 1 Project development.

## BISMUTH MARKET DYNAMICS

Bismuth is increasingly recognised as a strategic metal with applications across multiple high-value industries. The metal is used:

- As a propellant in rockets,
- As a coolant in defence thermoelectric applications
- in fire extinguishers and in ammunition
- as an alloy with various metals including cadmium (soldering), tin (precision casting), indium (fire suppression systems), and tellurium (portable power generation).
- in certain types of small modular nuclear reactors (SMRs).

Global bismuth supply is highly concentrated, with China accounting for approximately 80% of world production according to the US Geological Survey. The United States has not produced or refined bismuth domestically since 1997, relying almost entirely on imports, with approximately two-thirds of US imports originating from China in recent years.

In February 2025, China announced restrictions on exports of five strategic metals, including bismuth, in response to new US tariffs. These restrictions require Chinese exporters to obtain explicit permission for overseas sales, further constraining global supply. Total global bismuth production was estimated at 16,000 tonnes in 2024.

## BISMUTH PRODUCTION AND PROPERTIES

Bismuth is rarely found as a native element in nature. It's typically extracted as a byproduct from mining operations focused on other metals, particularly lead, copper, tin, molybdenum, tungsten, and silver. As a result, bismuth production often occurs alongside other metal extraction activities.

Tennant Creek is one of the few places in the world where bismuth has been commercially produced. The region historically produced 26,300 tonnes of bismuth from 1951 to 1977 as a by-product predominantly from four copper/gold mining operations.

Australia no longer produces any meaningful amount of bismuth, placing Castile squarely at the forefront of bismuth development opportunities in both Australia and the western world.

**Table 1: Tennant Creek Historical Bismuth Production**

Mine	Ore (Mt)	Grade	Metal Produced
Warrego	4.75	0.3% Bi	12,000 t Bi
Juno	0.45	0.6% Bi	2,293 t Bi
Peko	3.16	0.2% Bi	7 350 t Bi
Orlando	0.32	0.1% Bi	4,700 t Bi

Source: *Geology and Mineral Resources of the NT Ahmad. M and Munson TJ*



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