

THIS ANNOUNCEMENT CONTAINS INSIDE INFORMATION FOR THE PURPOSES OF ARTICLE 7 OF REGULATION 2014/596/EU WHICH IS PART OF DOMESTIC UK LAW PURSUANT TO THE MARKET ABUSE (AMENDMENT) (EU EXIT) REGULATIONS (SI 2019/310) ("UK MAR"). UPON THE PUBLICATION OF THIS ANNOUNCEMENT, THIS INSIDE INFORMATION (AS DEFINED IN UK MAR) IS NOW CONSIDERED TO BE IN THE PUBLIC DOMAIN.

NOT FOR RELEASE, PUBLICATION OR DISTRIBUTION, IN WHOLE OR IN PART, DIRECTLY OR INDIRECTLY IN OR INTO THE UNITED STATES, AUSTRALIA, CANADA, JAPAN, THE REPUBLIC OF SOUTH AFRICA OR ANY OTHER JURISDICTION WHERE TO DO SO WOULD CONSTITUTE A VIOLATION OF THE RELEVANT LAWS OF SUCH JURISDICTION.

16 November 2022

**East Star Resources Plc**

("East Star" or the "Company")

**Talairyk Rare Earths Project Drilling Update, Kazakhstan**

East Star Resources Plc (LSE:EST), the Kazakhstan-focused minerals exploration company, is pleased to announce the completion of 1,001 m of Reverse Circulation ("RC") drilling at the Talairyk heavy rare earths ("HREE") project in East Kostanay, Kazakhstan.

**Highlights:**

- Completion of 30 boreholes for a total of 1,001 m covering the southwestern part of the Ionic Adsorption Clay ("IAC") hosted deposit
- Drilling was designed to confirm historical grades, width and extent of the mineralisation, and provide samples for metallurgical test work
- 90% of the boreholes recorded broad kaolinitic clay zones between 9 m and 53 m, averaging 32 m thickness
  - o Kaolinitic clay is the target lithology to potentially host high value heavy rare earth elements that can be easily extracted via relatively benign leach solutions
- Samples currently undergoing further analysis using portable X-ray fluorescence (pXRF) to determine the sampling intersections for laboratory assay and leach test work

**Alex Walker, East Star CEO, commented:**

*"We are pleased to have been able to complete this programme this year so the assay and leach test work can be undertaken over the winter. Broad zones of kaolinitic clays are exactly what we hoped to see as this is the mineralogy where an ion exchange style REE+Y deposit might develop. If the results prove positive, we can launch straight into a dual strategy of resource and exploration drilling at the Talairyk project in 2023."*

A summary of the Talairyk HREE project including a plan view of RC boreholes from October 2022 against historical drillholes appears in the appendix below.

**For further information visit the Company's website at [www.eaststarplc.com](http://www.eaststarplc.com), or contact:**

**East Star Resources Plc**

Alex Walker, Chief Executive Officer  
Tel: +44 (0)20 7390 0234 (via Vigo Consulting)

**Peterhouse Capital Limited (Corporate Broker and Placing Agent)**

Duncan Vasey / Lucy Williams  
Tel: +44 (0) 20 7469 0930

**Vigo Consulting (Investor Relations)**

Ben Simons / Peter Jacob

## About East Star Resources Plc

East Star Resources is focused on the discovery and development of gold, rare earth, and copper deposits in Kazakhstan. With an initial nine licences covering 1,687 square kilometres in three mineral rich districts, East Star is undertaking an intensive exploration programme, applying modern geophysics to discover minerals under cover and at depths not previously explored. The Company also intends to further expand its licence portfolio in Kazakhstan. East Star's management are based permanently on the ground, supported by local expertise, and joint ventures with the state mining company.

### Follow us on social media:

LinkedIn: <https://www.linkedin.com/company/east-star-resources/>

Twitter: [https://twitter.com/EastStar\\_PLC](https://twitter.com/EastStar_PLC)

### Subscribe to our email alert service to be notified whenever East Star releases news:

[www.eaststarplc.com/newsalerts](http://www.eaststarplc.com/newsalerts)

The person who arranged for the release of this announcement was Alex Walker, CEO of the Company.

## Appendix

### Summary of Talairyk HREE Project

- Potential for low-cost entry to a geologically de-risked IAC hosted Heavy Rare Earth (HREE) deposit
- Historical database includes 128 core holes and 61 auger holes for 3,755 samples. East Star drilling aims to verify the historical grades
- Historical estimates suggest the presence of elevated grades of Total Rare Earth Oxides (TREO) including yttrium oxide in a zone approximately 20 m thick at average of 7.5 m from surface (1994, estimates are unverified GKZ estimates and not compliant and should not be relied upon until verified - East Star aims to verify and further expand on the historical GKZ resource estimate)
- Using the recent reverse circulation (RC) drilling information, East Star aims to establish whether the Talairyk deposit is an Ion Adsorbed Clay (IAC) style similar in nature to the deposits of South China from where most of the world's HREEs are currently produced
- Exploration upside within the project across similar weathering profiles over prospective basement lithologies and with potential for regional expansion
- IAC peers generally have lower CAPEX and lower OPEX than hard rock rare earth projects
- Farm-in terms up to 90% ownership:
  - o No cash payments
  - o First tranche of US\$250,000 in shares for 51% after expenditure of US\$500,000 including recent drilling and initial metallurgical test work
  - o Second tranche of US\$250,000 in shares for 75% after expenditure of a further US\$500,000 which will include scoping study level assessment
  - o Additional expenditure secures up to 90% of the project on a 'contribute or dilute' basis

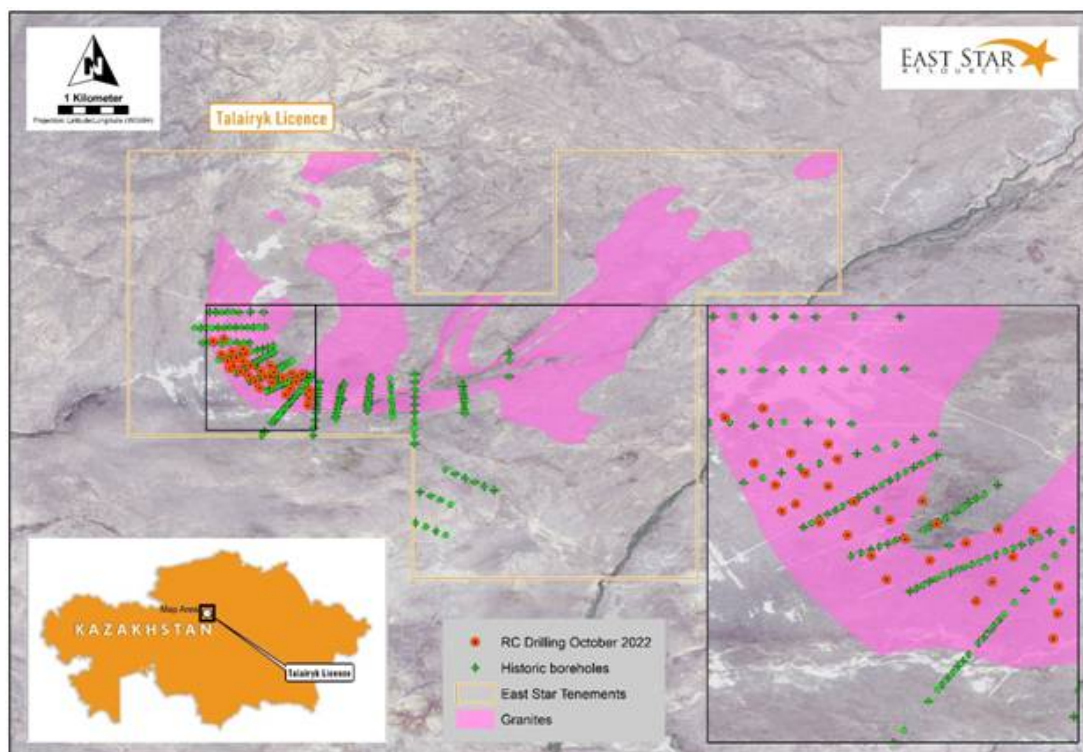


*Figure 1 Plan view of Talairyk project with zones of Middle Proterozoic granite-gneisses (pink areas) and RC boreholes from October 2022 against historical drillholes*

## **The Deposit**

According to historical reports, the thickness of the deposit varies along the historically tested sections from 5.88 m to 58.6 m, averaging 19.46 m. The average overburden thickness is 7.38 m. Historical reports suggest that elevated grades of yttrium oxide and other rare earth oxide elements occur (unverified historical GKZ exploration information and estimates) in broad kaolinitic clay zones similar to the IACs of South China.

## **Historical Exploration**

Geological surveys of the site have been done since 1916, however, it wasn't until 1972 when the first prospecting work was carried out. In 1988-89, a magnetic survey on a scale of 1:5000 and a gravity survey at a scale of 1:10000 were conducted over a 50 m by 10 m and 200 m by 50 m network. From 1987-1991 prospecting work was carried out resulting in discoveries of yttrium and REEs. From 1991-1994 prospecting was carried out to establish the size of the mineralised zone in plan and in depth, the morphology and conditions of occurrence of mineralised zones, the qualitative characteristics of mineralisation, and the hydrogeological conditions. This latest work was conducted by the State Holding Company "Marzhan" and Joint Stock Company "Turgai Geological Exploration Expedition".

Vertical diamond drillholes across the strike of the mineralised zone were drilled on a 200 m by 50 m grid to an average depth up to 75 m including three hydrogeological wells. 128 holes were drilled by core drilling for 6,022 m and 61 holes by auger drilling for 903 m. 3,755 samples were taken. On average, the core recovery ranged from 68% to 76%.

Samples were subjected to the following types of analyses:

- Semi-quantitative spectral analysis for 19 elements
- XRF analysis for yttrium, zirconium, tin and niobium
- Approximate quantitative analysis for the sum of rare earth oxides
- Grain-size analysis of weathering crust
- Lithological analysis of weathering rocks

## **Geology**

The project area is situated in the northern part of the Ulutau meganticlinorium which consists of Middle Proterozoic gneisses, minor Late Proterozoic mafic rocks and Paleozoic granitoids.

The REE mineralisation is located within the weathering crust of the lower part of the Middle Proterozoic Talairyk suite, composed of mica gneisses, two-mica-plagioclase gneissic schists, thick (100-300m) units of amphibolite, garnet amphibolite, and plagioclase-amphibolite schists. The thickness of this unit is 600-800 m.

The average thickness of the weathering crusts is 25 m. In some areas, the depth to fresh rock is up to 100 m. The minerals in the weathering crust are quartz (approximately 40%), kaolinite (approximately 42%) and sericite (approximately 18%). In the weathering crust the main minerals accompanying the yttrium and rare earths elements are kaolinite, hydromuscovite and to a lesser degree, plagioclase.

## **Competent Persons Statement**

Information and data presented within this announcement has been compiled by Dr Jock Harmer. Dr Harmer is a Fellow of the SEG and Life Fellow of the GSSA; Professor Emeritus in the Geology Department, Rhodes University; and a registered professional scientist with SACNASP. Dr Harmer is a Associate Principal Consultant with MSA-Minerals Consulting and has sufficient experience, which is relevant to the style of mineralisation, deposit type and to the activity which he is undertaking to qualify as a Competent Person defined by the 2012 Edition of the Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves (the "JORC" Code). This includes 10 years of Mining, Resource Estimation and Exploration relevant to the style of mineralisation.

this information may apply. For further information, please contact [rns@lseg.com](mailto:rns@lseg.com) or visit [www.rns.com](http://www.rns.com).

RNS may use your IP address to confirm compliance with the terms and conditions, to analyse how you engage with the information contained in this communication, and to share such analysis on an anonymised basis with others as part of our commercial services. For further information about how RNS and the London Stock Exchange use the personal data you provide us, please see our [Privacy Policy](#).

END

UPDFFLLILELIF