



Spark Energy Expands Priority Targets Over a Combined 31km Pegmatite Trend at the Arapaima Lithium Project

VANCOUVER, BC / January 31, 2025 / *Spark Energy Minerals Inc.* ("Spark" or the "Company") (CSE: SPRK) (OTC: SPARF) (Frankfurt: 8PC) an exploration Company focused on the discovery of battery metals in Brazil's prestigious Lithium Valley, is pleased to announce an update on recent exploration activities completed through January 2025.

In January 2025, Spark's field teams have continued with first pass reconnaissance mapping and stream sediment sampling coverage over unexplored areas of the tenement package with the aim of identifying and definition of new pegmatite trends. In January, a further 3 new pegmatite trends have been identified, bringing the total pegmatite occurrences identified to date to **90 over a combined 31km of strike within 11 trends**. To date, a total of 19 old underground and open pit mining excavations have been identified.

The team has also identified extensive areas with excellent potential for the discovery of regolith-hosted rare earth elements (REE) and Gallium, as highlighted by recent competitor press releases whose tenements are contiguous to Sparks. Axel Ree Limited's release in December 2024 reported high-grade intercepts of up to **124 g/t Ga₂O₃** and REE values of up to **28,321ppm TREO** in the regolith immediately south of Sparks tenements (see full release [here](#)).

Moving into February, the exploration program and strategy will include a detailed follow-up of anomalous analytical results from the December 2024 program which are due imminently.

Arapaima Lithium Project Highlights:

- Spark Energy's **64,359-hectare** land package runs parallel to **Sigma Lithium**, Brazil's largest lithium company with a market cap of **~C\$2 billion** and sits only **15km away** at the closest point.
- **70%** of the extensive tenement package **remains to be explored**, underscoring the potential as new pegmatite corridors continue to be uncovered.

- January exploration to date has identified a further 3 pegmatite trends covering a combined 3.8 km of strike to the north-east and northwest of Priority Target Area 1. This brings the total combined pegmatite trend inventory to **11 pegmatite trends with 90 individual pegmatites** mapped over a combined strike length of **31km**.
- To date, 19 old mining excavations have been identified and mapped by Spark's geological team. These areas are all focused on pegmatite occurrences with evidence for prior exploitation of gemstones (topaz, aquamarine–beryl), feldspar, quartz and tourmaline.
- Spark's exploration team completed a reconnaissance visit to its tenement north of the tenement owned by Axel Ree Limited which recently reported high Gallium and TREO (Total Rare Earth Oxide Results) from a shallow drilling program. ([See Press Release](#) - Axel Ree Limited's December 2024, where that company reported high-grade intercepts of up to **124 g/t Ga₂O₃** and REE values of up to **28,321ppm TREO** in the regolith immediately south of Sparks tenement.). The Spark team collected 23 soil samples at 50m intervals along the margins of the access roads which cover the north extensions of the mineralization reported by Axel Ree Limited (see Figure 4).
- Q1 2025 exploration program will continue with **focused follow-up of the priority target areas** identified towards the end of last year where results are due imminently whilst continuing with first pass exploration across areas that remain unexplored to date.

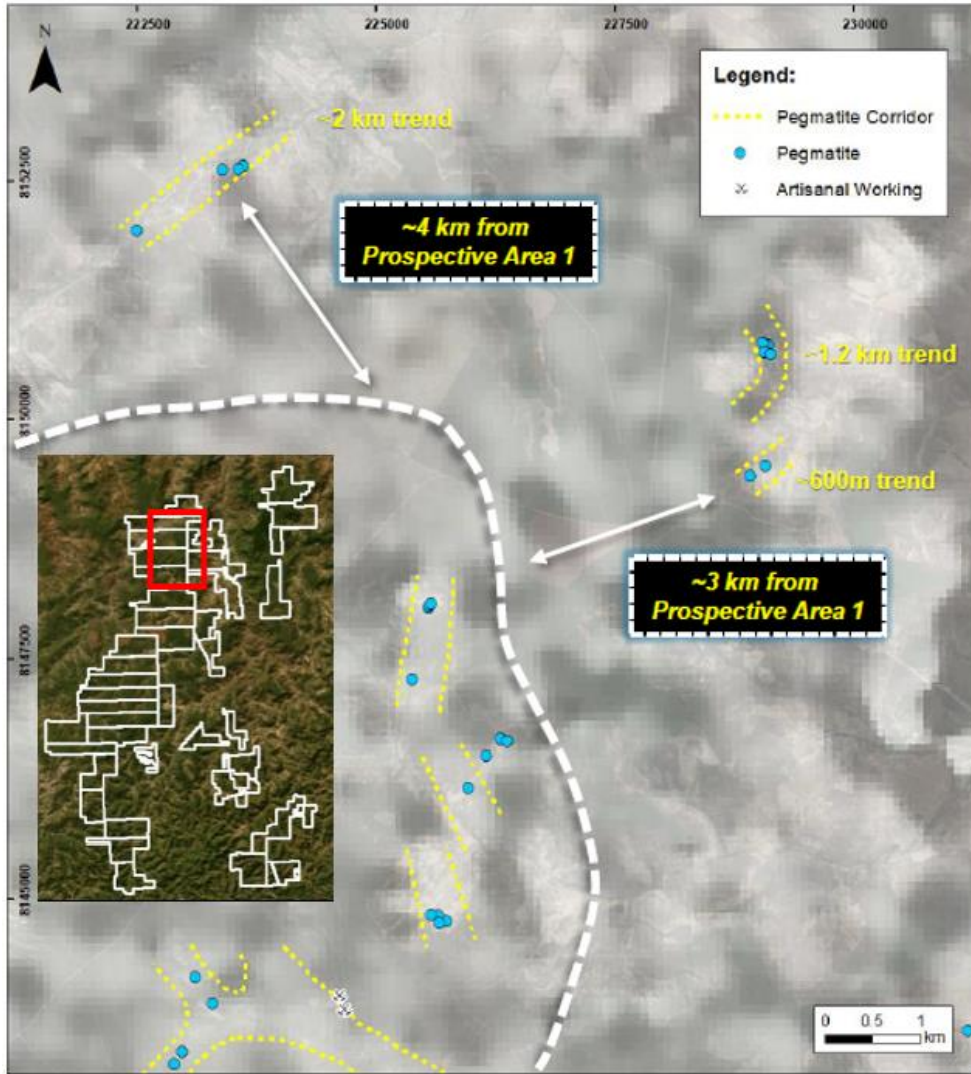


Figure 1: New Pegmatite Trends Northeast and Northwest of Target Area 1. These trends add 3.8km of pegmatite strike increasing the current target inventory to 31km.

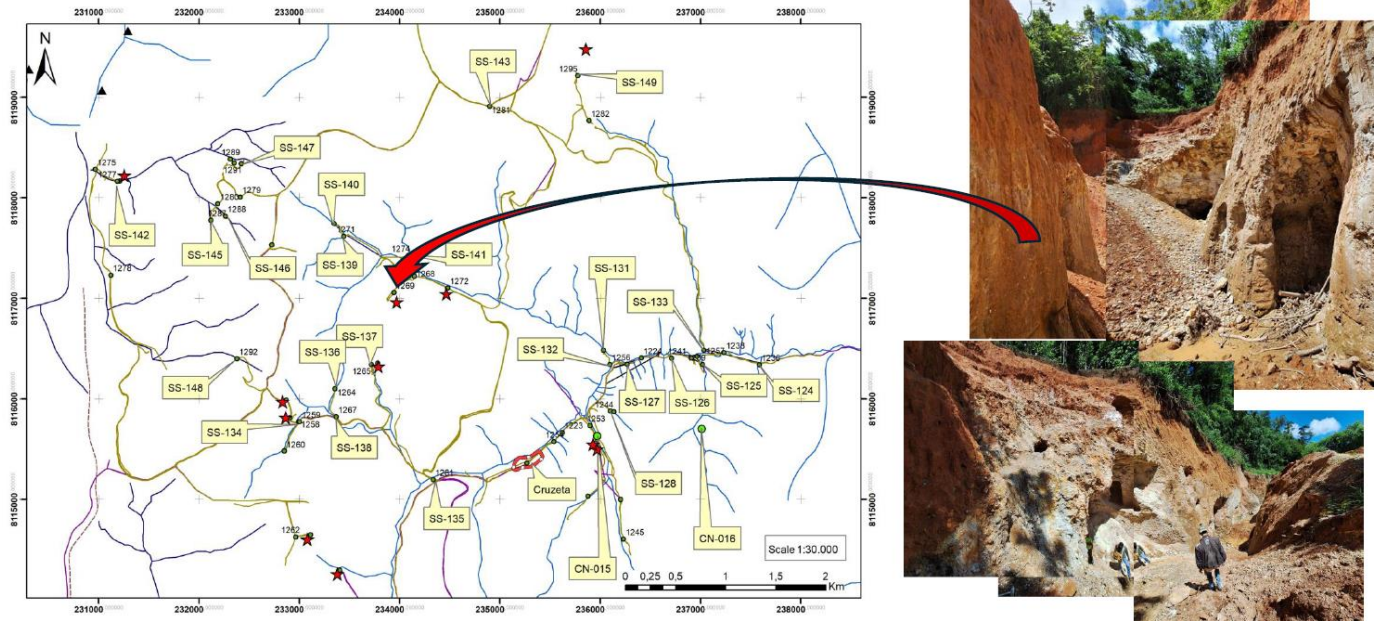


Figure 2: Integrated Map with stream sediment sampling stations and old mining excavations

To date, **19 individual old artisanal mining excavations** (underground adits and open pit excavations) have been identified by Sparks geologists. These areas have identified small tubular pegmatites hosted within the Caladão Granite, which presents the mineral association of feldspar, quartz, muscovite, biotite, beryl and topaz, of which aquamarine, topaz and rock crystal (hyaline and smoky quartz) have economic use.

Spark Energy's priority area reconnaissance teams continue to build on the geological understanding of the 3 main identified targets (**Area 1, 5 and 6 as shown in Figure 3 below**) from Q4 2024's field program with 70% of the 64,359 hectares still be to explored. To date, these are host to **11 pegmatite trends** supported by **90 individual pegmatite occurrences** over a combined strike length of 31km, mapped in the central and north sections of the Arapaima Lithium project tenements.



Figure 3: Figure showing location Target Areas with geological data and sampling points, Arapaima Lithium project tenements.

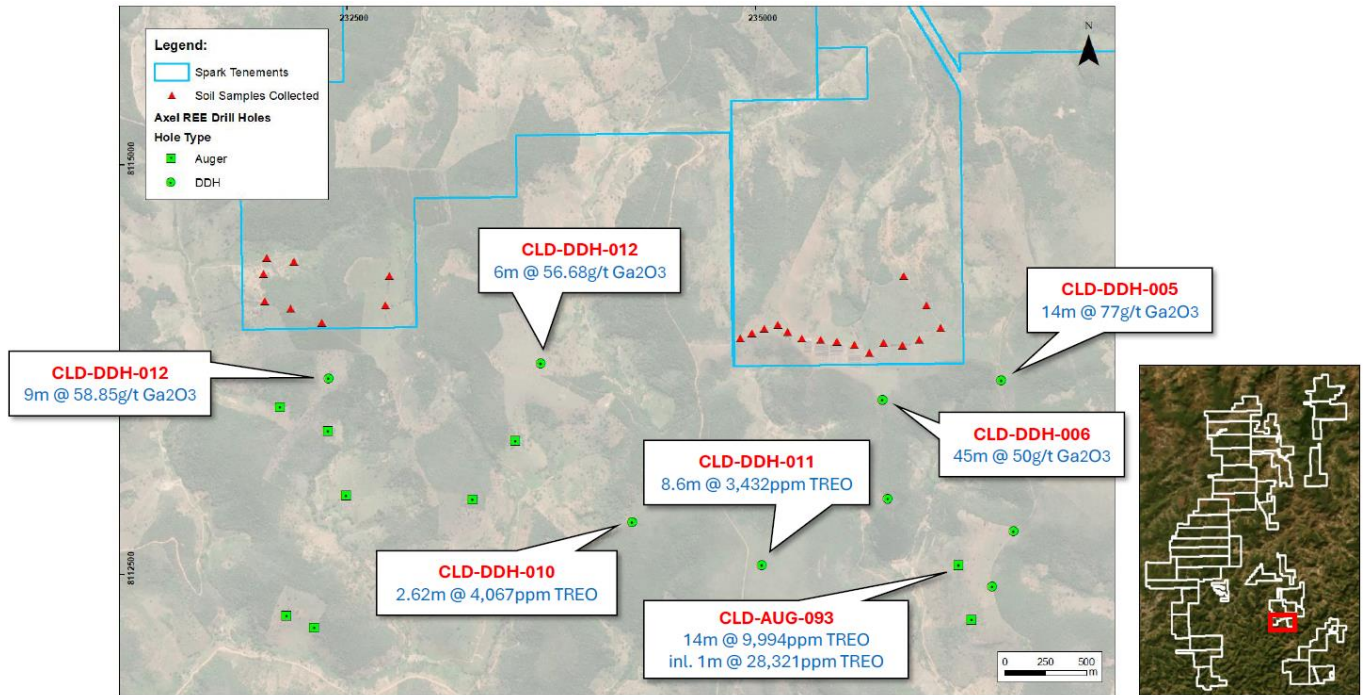


Figure 4: Figure showing recent TREO and Gallium – Ga203 results reported by Axel exploration, (green dots show drill holes with red dots depicting soil samples collected by Spark immediately to the north of the Spark – Axel tenement boundary.

Additionally, Axel Ree Limited recorded high TREO assays up to 28,321ppm TREO (2.8% TREO) and up to 7,606ppm MREO (0.76% MREO) at their flagship Caladão Project in the Lithium Valley, Brazil contiguous to Spark’s tenements. The spark team collected some 23 soil samples at 50m intervals along the margins of the access road which cover the north extensions to the mineralization reported by Axel (noted above).

The Caladão Project is located in the northeast portion of the State of Minas Gerais, and the overall geological setting includes a sequence of Neoproterozoic sedimentary sequences that were intruded by late-tectonic alkaline granites consistent with the geology observed on the Spark tenements in this area. These granites have undergone intense tropical weathering, resulting in the development of a thick regolith profile that can reach up to 60m and contain abundant clay minerals.

Jon Hill, Director of Spark Energy Minerals commented: *“With initial analytical results to be reported imminently the team is fully engaged to progress our priority targets to the drilling stage through the implementation of focused follow-up sampling and mapping over anomalous areas whether they are associated with rock chip samples from weathered exposures of mapped pegmatites or stream sediment samples highlighting more prospective catchment areas. The recognition of the high potential for regolith-hosted Rare Earth Element Mineralization adds a further dimension to this rapidly emerging greenfields exploration project.”*

Eugene Hodgson, CEO of Spark Energy Minerals, stated: *"The expansion of our priority targets to cover a combined 31km pegmatite trend at the Arapaima Lithium Project marks a significant milestone in our exploration efforts. This development, along with the identification of 90 individual pegmatites and 19 old mining excavations, underscores the immense potential of our 64,359-hectare land package in Brazil's Lithium Valley. The discovery of new pegmatite trends and the potential for rare earth elements and gallium further enhances the value proposition of our project. With 70% of our tenement package still unexplored, we are excited about the prospects for continued discoveries as we advance our exploration program in 2025."*

Qualified Person:

The scientific and technical information disclosed in this document has been reviewed and approved by Jonathan Victor Hill BSc Hons, FAUSIMM, a Qualified Person consistent with NI 43-101.

About Spark Energy Minerals Inc.

Spark Energy Minerals, Inc. is a Canadian company focused on the acquisition, exploration, and development of battery metals and mineral assets, with a particular emphasis on its substantial interests in Brazil. The Company's flagship project is the Arapaima Lithium project spanning 64,359 hectares in Brazil's renowned Lithium Valley, one of the most prolific mining regions in the world. This region is rapidly gaining global recognition for its vast deposits of lithium and rare earth minerals, positioning Brazil as a critical player in the global energy transition.

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FOR ADDITIONAL INFORMATION, SEE THE COMPANY'S WEBSITE AT

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