Spark Energy Minerals Advances Exploration of the Largest Contiguous Tenement Package in Brazil's Lithium Valley, Minas Gerais

VANCOUVER, BC / October 4, 2024 / *Spark Energy Minerals Inc.* ("Spark" or the "Company") (CSE: SPRK) (OTC: SPARF) (Frankfurt: 8PC) is pleased to provide an exploration update on its extensive, strategically positioned 64,000+ hectare tenement package in Brazil's world-class Lithium Valley, Minas Gerais.

Key Highlights:

- **Extensive Landholding:** Spark holds 64,359 hectares of highly prospective ground for Spodumene-Rich Pegmatites (SRPs).
- **Largest Contiguous Tenement Package:** This is the largest contiguous exploration portfolio held by a single company in the Lithium Valley.
- **Prime Location:** The tenements are strategically located within 15 km of key lithium development projects, including Sigma Lithium's Grota do Cirilo operation, Lithium Ionic's Bandeira project, and Atlas Lithium's Das Neves project.
- **Exceptional Geological Potential:** The area's geology is supported by fertile G4 granite intrusions and structurally favorable basement formations, interpreted to lie beneath shallow cover to the east of major known lithium deposits.
- **Promising Geochemical Results:** Data from Brazil's Geological Survey (CPRM) stream sediment geochemistry and heavy mineral pan concentrates show significant lithium and pathfinder element anomalies (Nb, Sn, Ta, Ce, Be, B), as well as the presence of spodumene particles within Spark's tenement area.
- **Target Generation:** Spark's geological team has developed priority exploration targets using advanced remote sensing and multi-spectral techniques, alongside reprocessed public domain geophysical and geochemical data.

Spark Energy Minerals continues to make significant progress in advancing its exploration efforts within Brazil's highly prospective Lithium Valley, positioning the company to capitalize on the growing global demand for lithium.

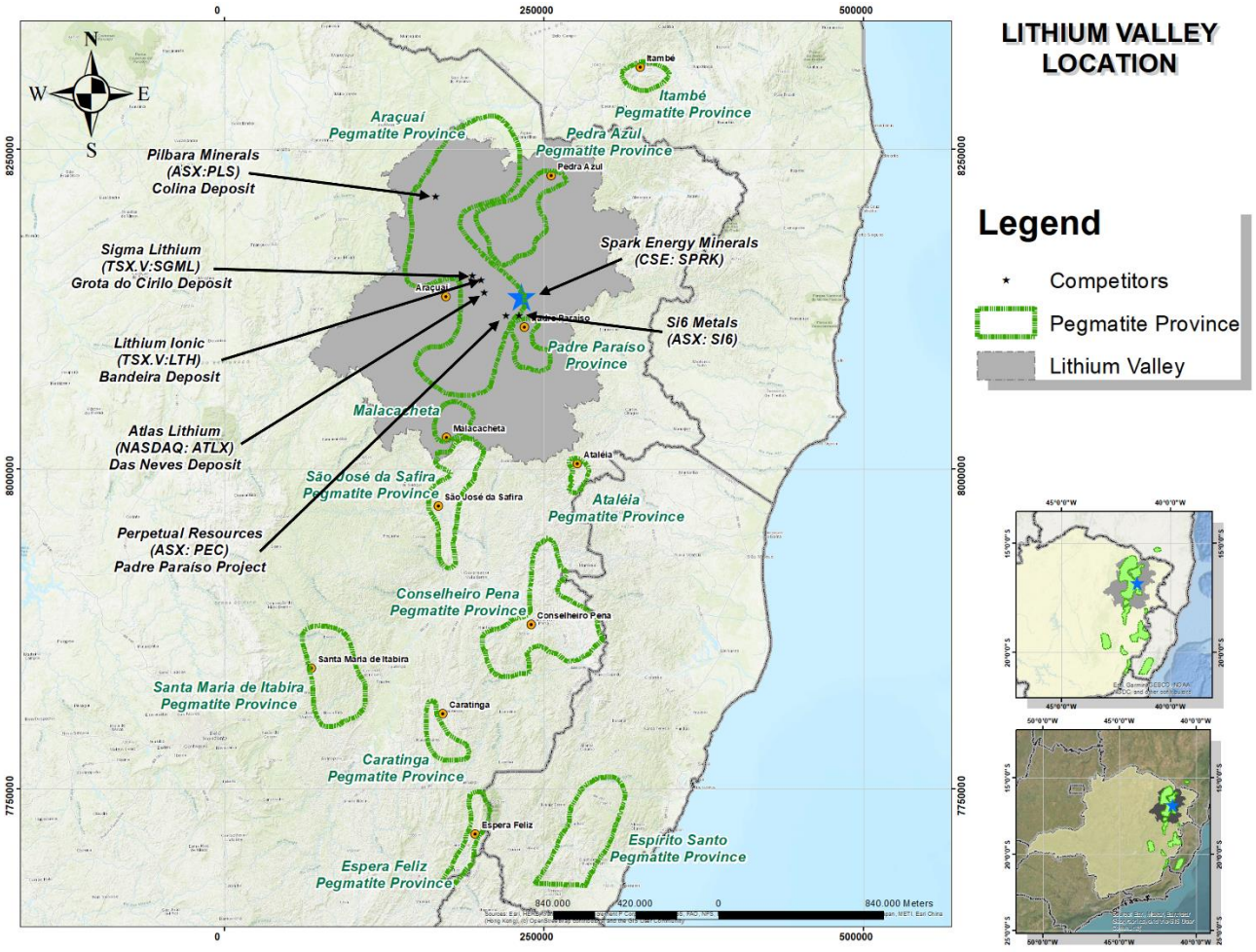

Figure 1 – Regional Location Map of Brazil's Lithium Valley

Figure 1 illustrates the extent of Brazil's "Lithium Valley" in relation to known pegmatite occurrences within the Eastern Brazilian Pegmatite Province. It highlights the central, strategic location of Spark Energy Minerals' 64,359-hectare contiguous tenement package and its proximity to key lithium producers and advanced development projects in this rapidly emerging, globally significant lithium region.

Jon Hill, VP Exploration, commented: *"Spark recognized and capitalized on its early mover advantage by securing the largest contiguous greenfields tenement portfolio in Brazil's Lithium Valley. Our exploration thesis, developed in 2022, anticipated that lithium-prospective geology extended well to the east of the known major deposits. This potential has now been independently validated by both lithium and pathfinder element regional stream sediment anomalies, as well as the presence of spodumene particles in regional heavy mineral concentrate samples, as presented in the CPRM's 2016 and 2023 government publication[1&2]. Our team is actively conducting a multi-disciplinary target generation exercise and plans to initiate fieldwork on priority targets shortly."*

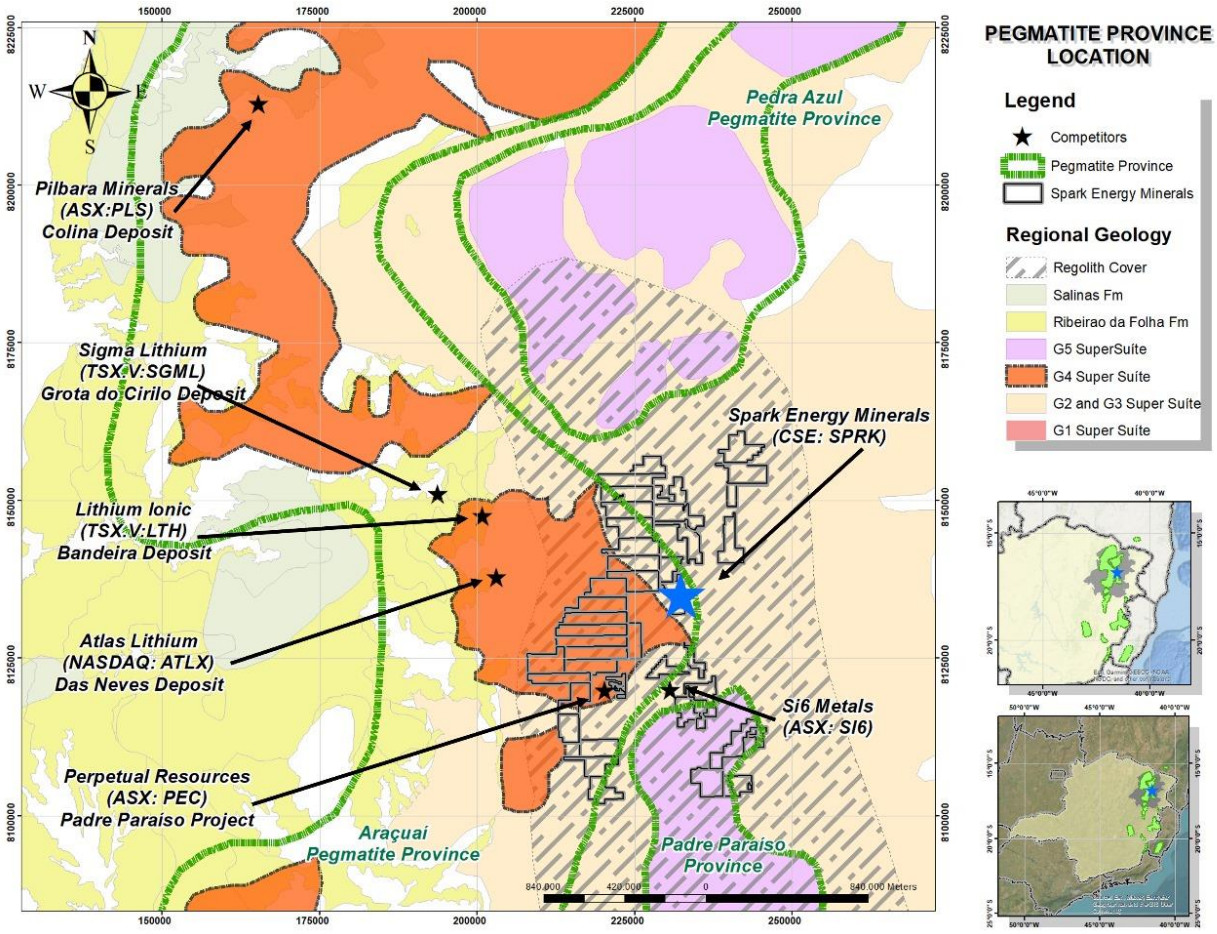

Figure 2 – Map Highlighting Spark Energy Minerals' 64,359-hectare Contiguous Tenement Package

Figure 2 showcases Spark Energy Minerals' 64,359-hectare contiguous tenement package in relation to major lithium-producing mines and key development projects. The background features a simplified geological map, emphasizing the central positioning of the fertile G4 granite intrusions, along with host basement formations of schist and granite-gneiss

***complexes. Notably, the map also identifies the areas of shallow regolith cover, underscoring the exploration potential within these zones*.**

Brazil's Lithium Valley: A New Frontier for Hard Rock Lithium

Brazil's Lithium Valley is part of the world-class Eastern Brazilian Pegmatite Province (EBPP), one of the most richly endowed hard rock lithium regions globally. The lithium mineralization in this area is primarily found in spodumene-rich pegmatites (SRP), which are known for forming large, economically viable deposits suitable for both open-pit and underground mining operations.

Historically, lithium production in this region has been modest, largely supplied by the Companhia Brasileira de Lítio (CBL) since the late 20th century. However, in the last 3-5 years, driven by surging global demand and increased public and private investment, the region has experienced a renaissance. Notably, Sigma Lithium began production in 2023, with three additional projects in the development phase: Lithium Ionic, Latin Resources (now owned by Pilbara Minerals), and Atlas Lithium. Additionally, Australian and Canadian junior explorers, including Si6 Metals and Perpetual Resources, have reported encouraging exploration results.

Spark's Strategic Entry into Brazil's Lithium Valley

In 2022, Spark recognized the untapped potential of this region. Leveraging existing geological mapping and publicly available geophysical data, Spark's team identified substantial opportunities in underexplored areas east of known SRP deposits, which were largely available for staking.

In early 2023, Spark successfully secured 64,359 hectares in this highly prospective zone. Their exploration targeting exercise indicated that shallow cover sequences in this area likely overlay fertile G4 granites—the presumed source of lithium-rich pegmatites. Moreover, the area contains structurally favorable host rocks, including basement gneiss, intrusives, and metasediments, further enhancing its potential for large-scale lithium deposits.

Extensive Target Generation and Early Indications of Success

Following the successful staking of its tenements, Spark's geological team undertook comprehensive target generation. This involved a detailed review of public geophysical and geochemical data, along with the reprocessing of modern remote sensing and geochemical information.

The results have been highly encouraging. Not only has the prospectivity for SRP deposits been confirmed, but government reports highlight anomalous concentrations of lithium and key pathfinder elements—such as niobium (Nb), cerium (Ce), tin (Sn), tantalum (Ta), beryllium (Be), and boron (B)—in regional stream sediment samples from Spark's tenements. Moreover, spodumene particles have been detected in heavy mineral concentrates panned from streams

within Spark's holdings, indicating the strong potential for economically significant lithium mineralization.

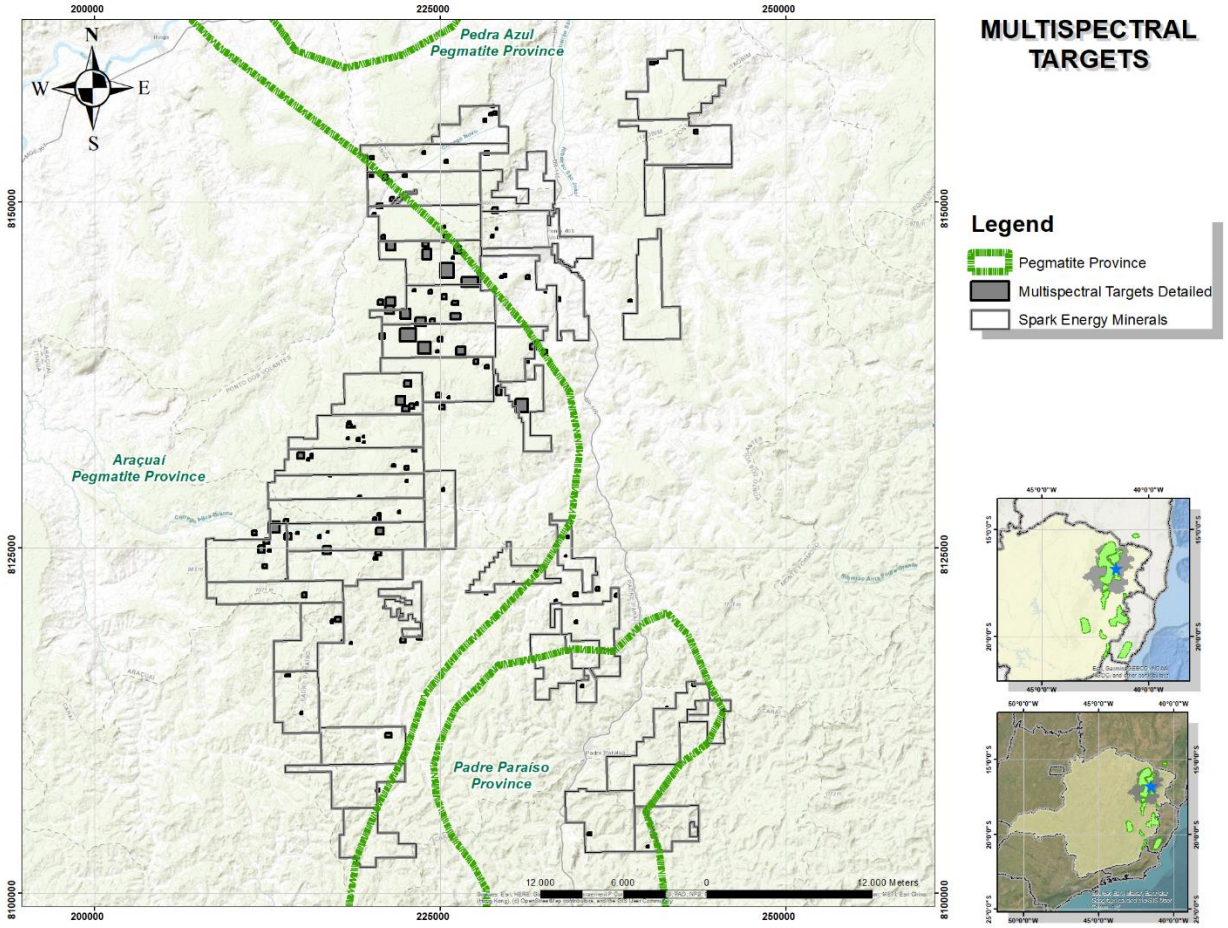

Figure 3 – Plan of Spark Energy Minerals' 64,359-hectare Contiguous Tenement Package and Multi-Spectral Targets

Figure 3 presents an overview of Spark Energy Minerals' 64,359-hectare contiguous tenement package, highlighting the locations of multi-spectral targets identified by the company. These targets have been prioritized for follow-up exploration based on advanced remote sensing techniques, marking key areas of focus for future fieldwork and potential lithium discovery.

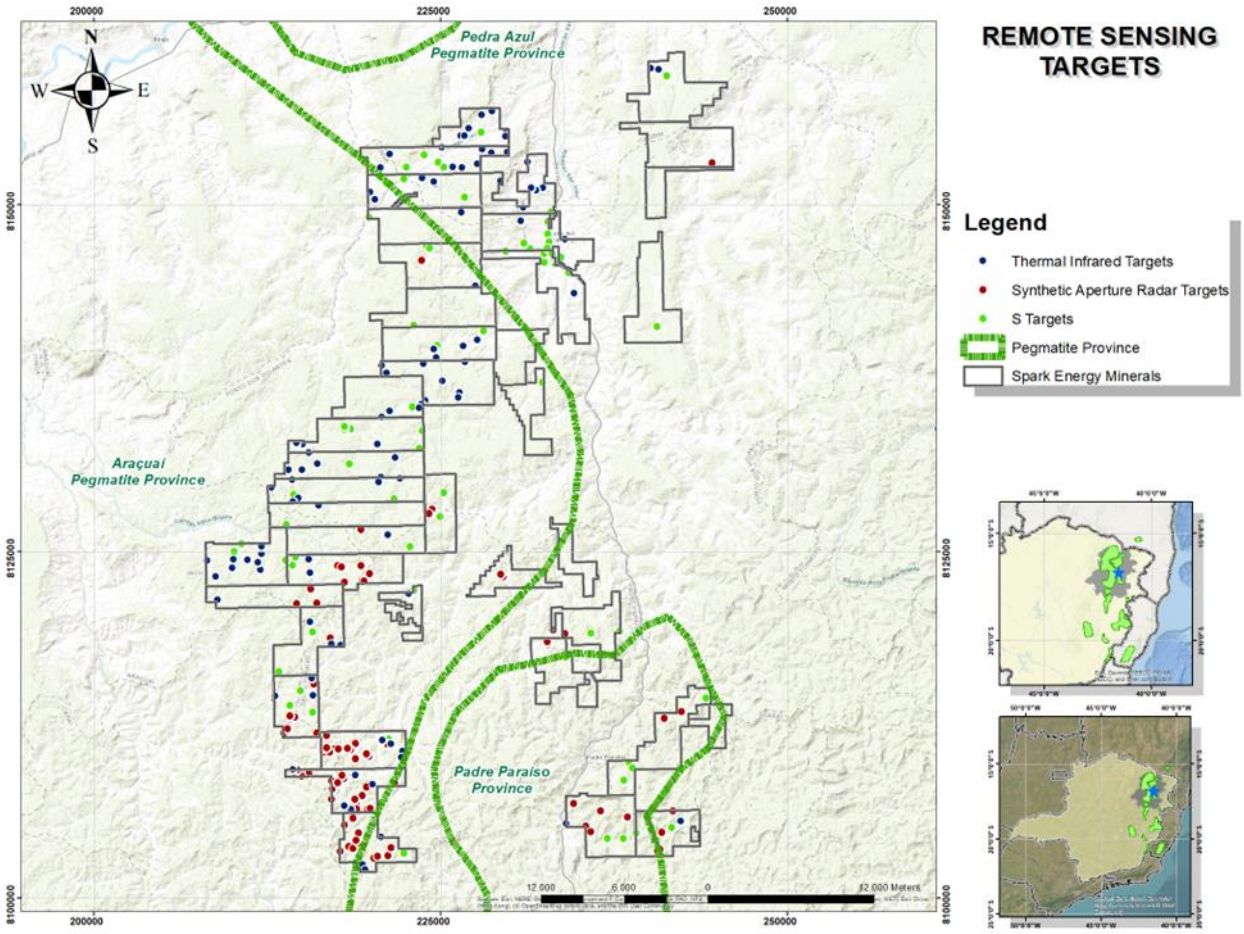

Figure 4 – Plan of Spark Energy Minerals' 64,359-hectare Contiguous Tenement Package and Remote Sensing Targets

Figure 4 displays Spark Energy Minerals' 64,359-hectare contiguous tenement package, highlighting Remote Sensing Targets identified through advanced techniques such as Thermal Infrared and Synthetic Aperture radar. These targets have been prioritized for follow-up exploration. The Spark tenements are situated within the well-established boundaries of the Araçuaí Pegmatite Province, further emphasizing the area's potential for lithium mineralization.

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.

1. *Source: ''Lithium Potential Assessment Project in Brasil`` in the Eastern Pegmatite Province of Brasil: the Geological Survey of Brazil promoting mineral research. Technical Report 19 – August 2023 DOI: 10.29396/ITCPRM.2023.19*
2. *Source: ''Evaluation of the Lithium Potential in Brasil`` – Mid – Jequitinhonha River, North -East Minas Gerais`` ministry of Mines and Energy, Secretary of Geology, Mines and Development, the Geological Survey of Brazil promoting mineral research. Technical Report – 2016*

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 holds significant land and mineral rights 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.

Neither the Canadian Securities Exchange nor its Regulation Services Provider (as that term is defined in the policies of the Canadian Securities Exchange) accepts responsibility for the adequacy or accuracy of this release.

FOR ADDITIONAL INFORMATION, SEE THE COMPANY'S WEBSITE AT

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