



First Lithium Minerals Releases Results of Geophysical Surveys and Identifies Priority Targets

Toronto, December 13, 2022 – First Lithium Minerals Corp. (“**First Lithium Minerals**” or the “**Company**”) (**CSE: FLM**) (**FSE: X28**) is pleased to announce results from Transient Electromagnetic (“**TEM**”) geophysical surveys undertaken at its 100% owned OCA Lithium Project in the Antofagasta Region of northern Chile.

The geophysical surveys program comprised data collection of contiguous 200m coincident loop measuring vertical (Z) component dB/dt TEM along 500 to 1,000m spaced lines over selected exploration concessions at the salars of Ollague, Carcote, and Ascotan, known collectively as the OCA Lithium Project. The program was conducted from October 16th to November 23rd, 2022, by SouthernRock Geophysics S.A. The Company acquired resistivity data over a total of 267 TEM contiguously spaced stations along 28 profiles for a total of 47.8 line-km.

The property-wide TEM geophysical surveys have identified multiple low resistivity zones across several prospective areas. The Company believes the discovered zones are indicative of characteristics typically exhibited by mineralized saline aquifers of hydrogeological conditions of northern Chile. The geophysical surveys indicated highly conductive horizontal zones of less than 1.0 Ohm-meter of up to 400 metres (m) in thickness, from about 100-200m beneath the surface. Specifically, two sectors, the northeastern property areas at the salar de Carcote (approx. 1,275 ha) and salar de Ascotan (approx. 1,775 ha) displayed promising geophysical characteristics with responses as low as 0.2 Ohm-meters identified as priority high conductivity targets for continuing exploration as prospective mineralized saline aquifers (Fig. 1 and Fig. 2).

The Company is evaluating follow-up geophysics with Magneto-Telluric (MT) surveying to define the base of the highly conductive interval, currently beyond the scope of the TEM data. The MT data acquisition is tentatively planned for Q1/23, with SouthernRock Geophysics S.A.

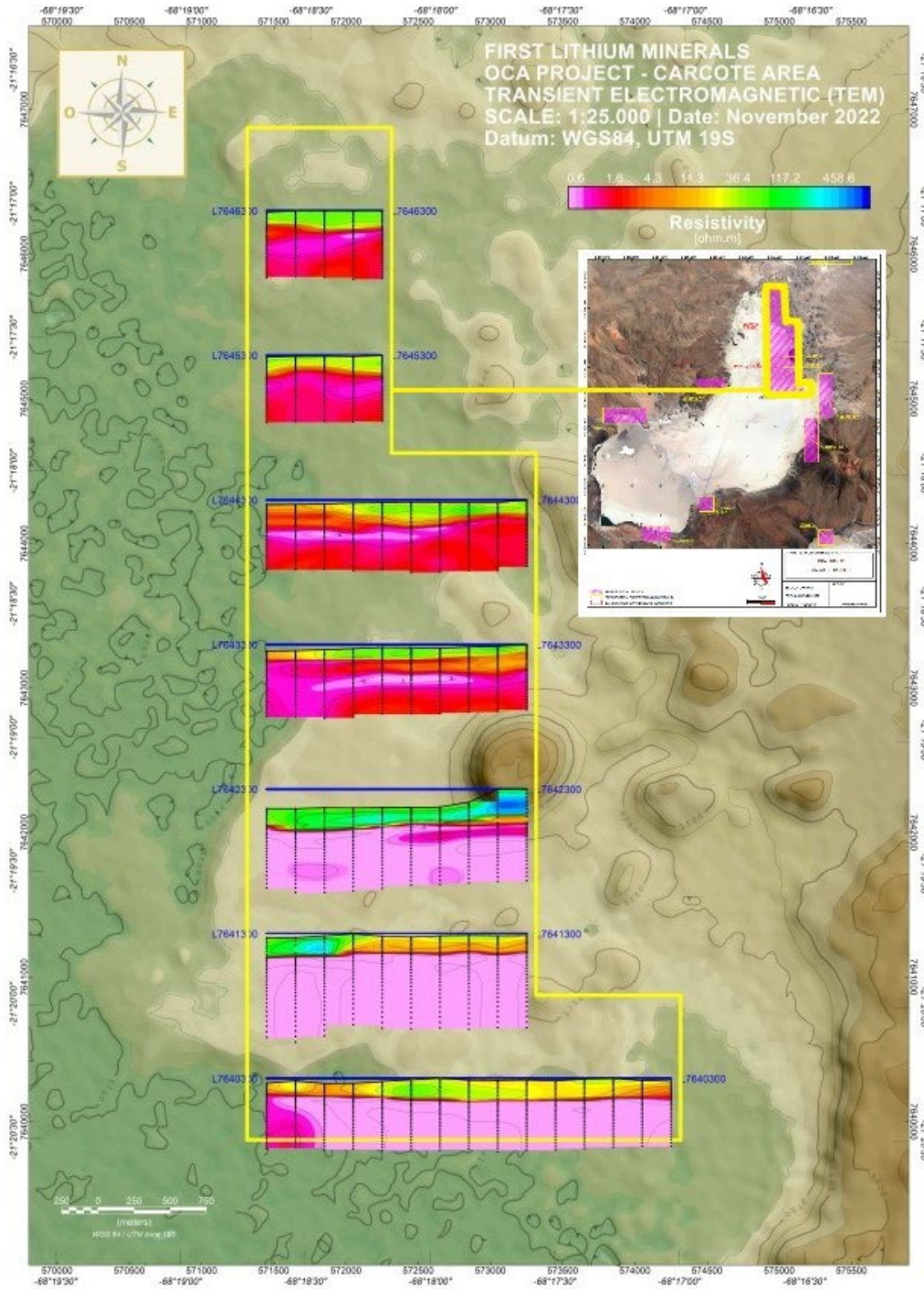


Figure 1. OCA Lithium Project. Salar de Carcote northeastern exploration concessions prospect area. Transient Electromagnetic (TEM) surveys.

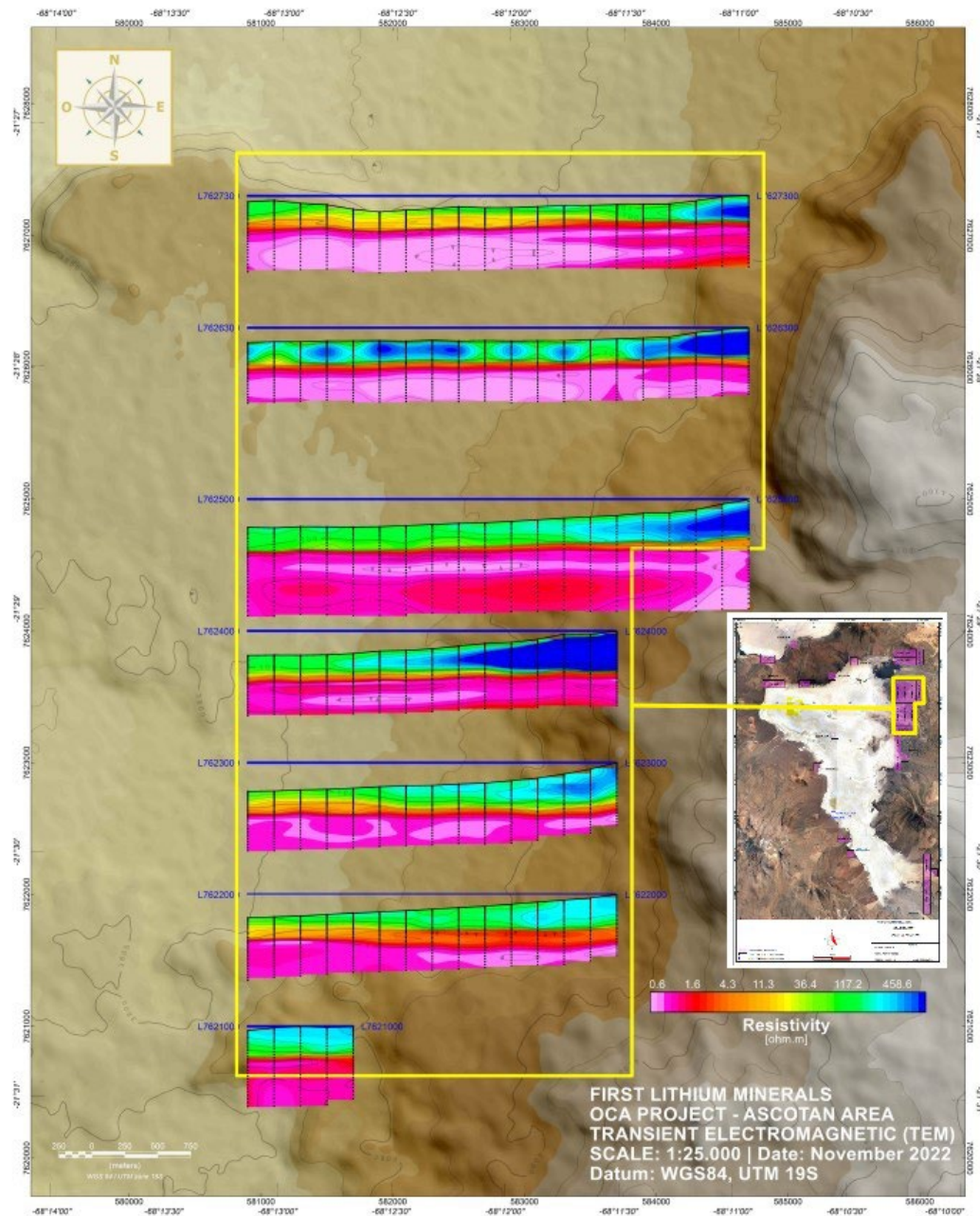


Figure 2. OCA Lithium Project. Salar de Ascotan northeastern exploration concessions prospect area. Transient Electromagnetic (TEM) surveys.

Rob Saltzman, CEO and Director of First Lithium Minerals commented: *"The results of this geophysical survey are quite impressive, adding substantially to the geologic and hydrogeologic understanding of the OCA project and its potential for discovery. It is very encouraging to see two priority target areas with highly conductive zones open at depth outlined during our first systematic exploration in the salars. As we await further analysis and interpretation of TEM surveys, geologic*

mapping, and surface geochemical samples, we are moving forward to evaluate all the available data to best define our prospective drill targets”.

The OCA Lithium Project is comprised of approximately 9,000 ha of mineral exploration concessions located in the salars of Ollague, Carcote, and Ascotan in the Antofagasta Region of northern Chile. The prospect is located within the cordilleran sector bordering Bolivia in the eastern part of the Atacama Desert at an altitude of ~3,700 meters above sea level. The salars correspond to terminal lakes structures with surface crusts composed primarily of gypsum and halite, and sediments intermixed with dendritic material, salt compounds, and undersurface brines. Mineralization in the salars is primarily represented by chloride and sulfate brines, sands, silts, clay, and salt compounds. Significant infrastructure, including roads, highways, railway, power lines, skilled labour, and the major operating copper and industrial minerals mines are in the vicinity of the project.

The results of the geophysical surveys, as well as the results from geochemical sampling and geologic mapping, will be used to delineate drill targets.

About First Lithium Minerals

First Lithium Minerals is a Canadian, Chile-focused mineral exploration and development company. The company holds a 100% interest in approximately 9,000 ha of mineral exploration concessions located in the salars of Ollague, Carcote, and Ascotan in the Antofagasta Region of northern Chile.

Additional information about the Company is available on the Company’s website: www.firstlithium.ca

Qualified Person

Aldo Moreno Salinas is the VP of Exploration for First Lithium Minerals and the Qualified Person (“QP”) as defined by NI 43-101 has reviewed and approved the technical content of this press release. Mr. Moreno is a seasoned geologist with 40 years of experience in exploration and evaluation of metallic and non-metallic mineral deposits and worked with several mining projects in Chile, Argentina, Bolivia, Peru, Ecuador, Brazil, Colombia, Venezuela, Cuba, Honduras, Mexico, and the United States. Mr. Moreno has a degree in geology from *Universidad de Chile*, is a member of the Chilean Professional Association of Geologists No. 437 and registered in the Public Records of Competent Persons No. 328.

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Rob Saltsman, CEO and Director

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