

Pan American Energy Corp. Announces Results of UAV-Borne Magnetic Survey at the Big Mack Lithium Project

The joint magnetic survey collaboration between Pan American Energy and Avalon Advanced Materials Inc. identified multiple high priority magnetic low drill targets

August 28th, 2023 - Calgary AB – **Pan American Energy Corp.** (the “**Company**” or “**Pan American**”) (CSE: **PNRG**) (OTC **PINK: PAANF**) (FRA: **SS60**) is pleased to announce the results from the 2023 high resolution UAV-borne magnetics survey over the Big Mack Lithium Project (the “**Project**”). The survey was completed by EarthEx Geophysical Solutions Inc. (“**EarthEx**”) and was successful in identifying multiple prospective features exhibiting low magnetic responses which have been interpreted to have the potential to host lithium-bearing pegmatites. These results are expected to aid in defining exploration targets and further delineating the extent of this type of mineralization at surface.

The survey was part of a larger collaboration project between the Company and Avalon Advanced Materials Inc. at the Big Mack and Big Whopper Project near Kenora, Ontario. The University of Manitoba and EarthEx are also granted use of the data generated by the survey for research, publication, and case study purposes. The survey was completed to provide a highly detailed magnetic map to aid in exploration mapping and drill-targeting in the area. The survey was conducted by EarthEx by flying a drone equipped with an exMAG high-resolution magnetic surveying system over the Big Mack and Big Whopper Projects in a grid. The grid was comprised of 732.1 line kilometers with data acquired on 25 meter spaced lines, with 250 meter spaced tie-lines. The survey data was then processed by EarthEx to generate 3D inversion voxels and isosurfaces, as well as advanced 2D imagery products, including magnetic imagery data grids and interpreted maps (see Figure 2).

Pegmatites often occur in semi-discontinuous swarms that can be concentrated along structural trends and geological boundaries. The exMAG high-resolution low-flying UAV magnetic surveying system used by EarthEx is useful in identifying structural trends and areas of low magnetic susceptibility that may correlate with lithium-bearing pegmatites. Final images from EarthEx’s magnetic data identified multiple high priority magnetic low targets. Figure 1 illustrates the magnetic lows identified by the survey with reference to the known lithium-bearing pegmatites at the Project. The coincidence of these magnetic lows with the known lithium-bearing pegmatites and their extensions appears to show the dominant trending structure of the geology within the Project, striking along a NE-SE plane. Of particular note is the anomalies that directly match the magnetic signatures of the Big Mack and Eleven Zone Pegmatites. This result provides strong motivation to investigate for previously undetected potential lithium bearing pegmatites. The Company intends to examine these anomalies further with the hopes of identifying additional lithium-bearing pegmatites at the Project.

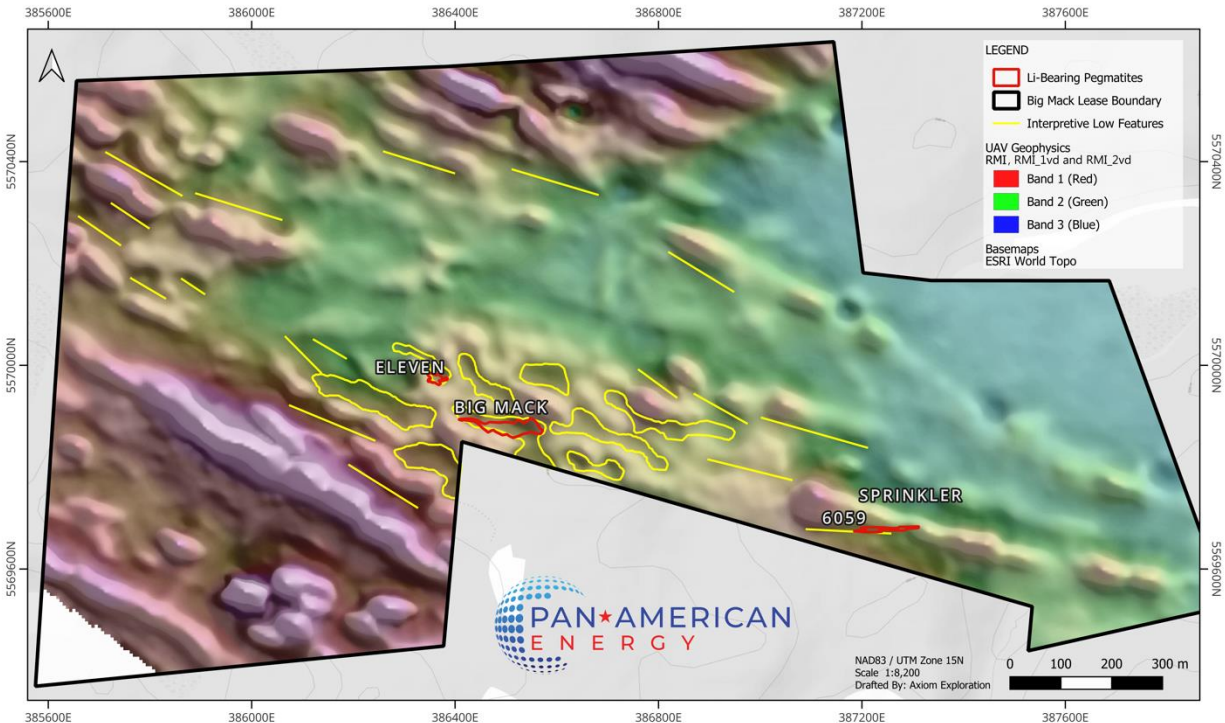


Figure 1: Outline of lithium-Bearing Pegmatites (red lines) and magnetic lows (yellow polygons and lines) overlain on EarthEx iView1 Image

Based on the results of the survey, three high-priority target zones have been identified at the Project in the immediate vicinity of the Big Mack Pegmatite. These exploration targets were generated using 3D inversion and advanced 2D data imagery, by correlating low-magnetic structures with historic data and proximity to areas of known lithium mineralization (Figures 2 and 3).

- **EEX01** – Immediately south of the Big Mack pegmatite, and almost continuous with it. The 3D modelling in this area suggests that a sizeable but discrete deep magnetically low body extends down-plunge to the southeast of the known Big Mack mineralization. Two drill-holes, EX-A-P01 and EX-A-P02 have been recommended by EarthEx to test the core of the low magnetic susceptibility model (Figure 3).
- **EEX02** – This trend extends to the NW from the Big Mack Pegmatite and follows mapped pegmatite trends. It exhibits appreciable volume, but less depth extent than Target EEX01.
- **EEX03** – A low body in the magnetic model correlates with a significant number of mapped pegmatites at surface.

The Company intends to incorporate the results of the survey into future exploration program design and drill targeting.

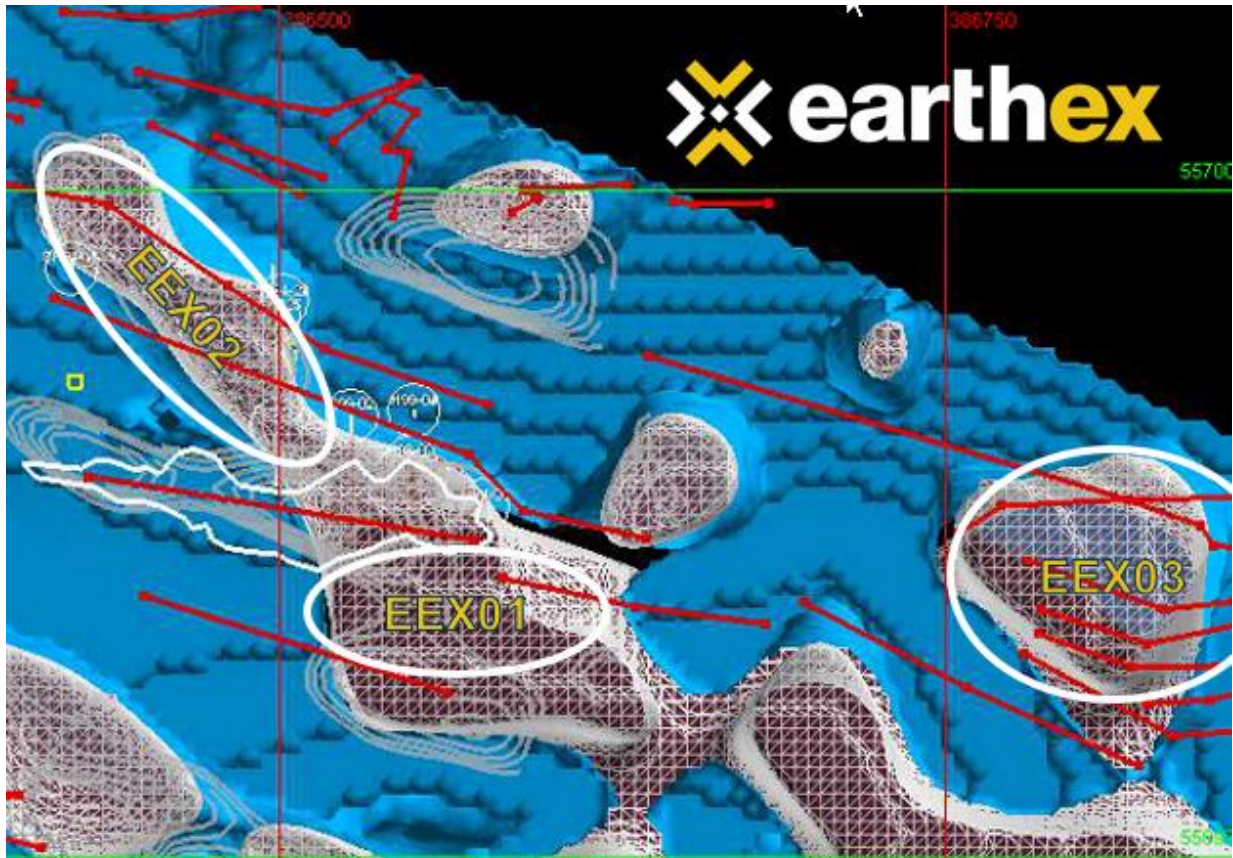


Figure 2: 3D inversion model with contours of magnetic low features (grey), stripped outcrop exposures (white), and mapped pegmatite trends (red).

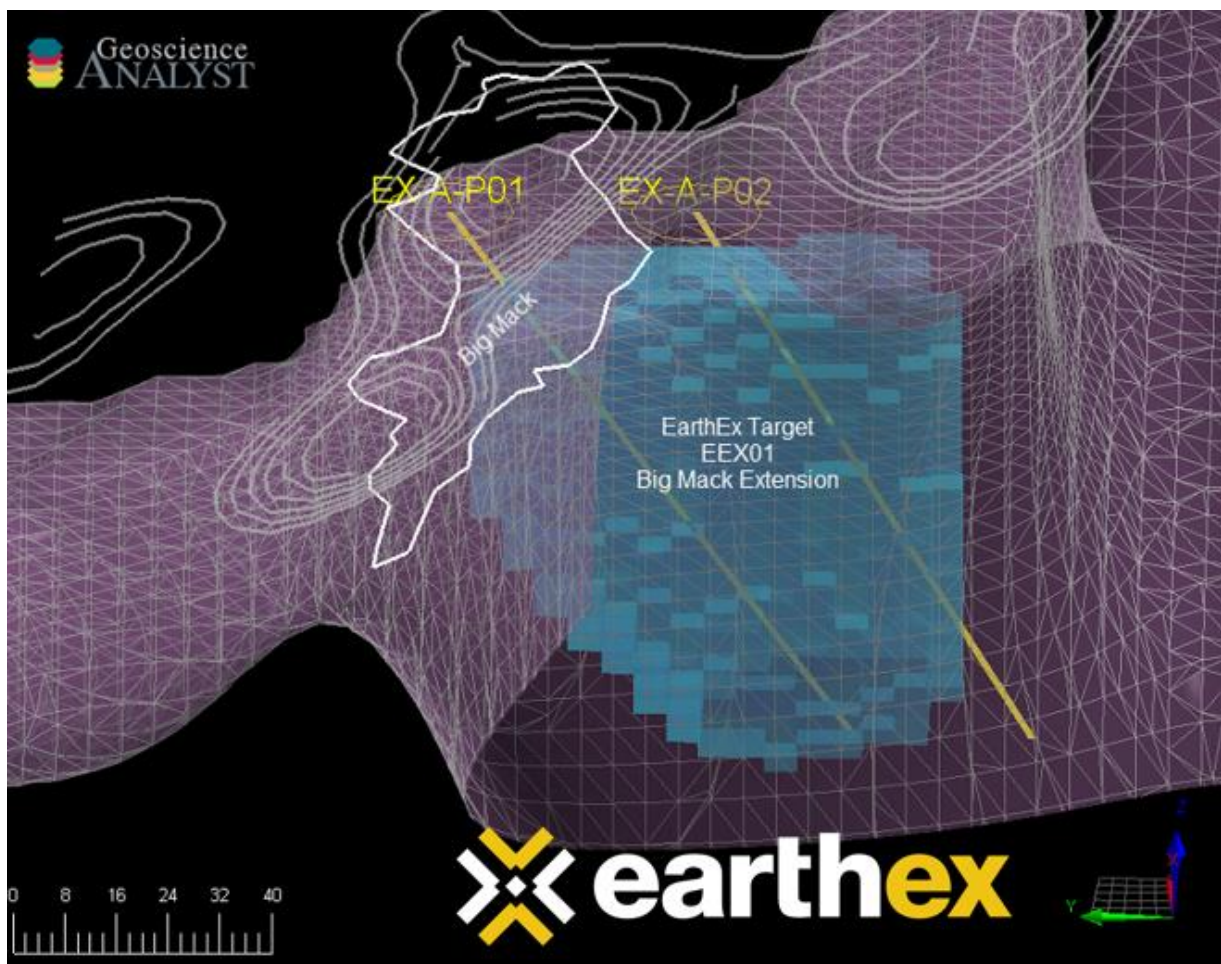


Figure 3: EarthEx Target EEX01 Big Mack Extension

“The NW-SE trending thick low body identified by the detailed 3D modelling of the data generated by the survey suggests that there may be significant additional extent to the Big Mack pegmatite that is not yet drill-tested. While many felsic rock types can exhibit low magnetic signatures, the U of M pegmatite mapping suggests that pegmatite sources for these lows is one likely interpretation” states Daniel Card, President of EarthEx. “The correlation between historic drilling and the 3D modelled magnetic low directly below Big Mack, as well as the 2D representation of the mineralization’s surface expression, are among the best EarthEx has seen to date.”

Pan American’s CEO, Jason Latkowcer, commented “We are thrilled with the results of this magnetic survey and have identified several high-priority drill targets with potential for lithium mineralization. We’d like to congratulate Avalon on their recent measured and indicated mineral resource estimate upgrade at the Big Whopper and thank them for their collaboration on this survey. We’d also like to thank Daniel Card and his team at EarthEx for a job well done!”

Qualified Person and Quality Assurance/Quality Control

The technical content of this news release has been reviewed and approved by Daniel Card, P.Geo., RGeo., who is independent of the Company and is a Qualified Person as defined by NI 43-101.

The magnetic data from the survey has passed standard control measures for verification by Daniel Card, P. Geo and EarthEx.

Before surveying the grid, a “cloverleaf” test was completed to confirm that the geophysical system in the drone was performing correctly. While doing this test, the drone flew in a cloverleaf pattern recording the total magnetic field in the centre of the cloverleaf on each pass, while flying in several different directions. This provided a measure of the consistency of the readings with the sensor in various orientations. The cloverleaf tests for the survey grid flown by EarthEx were successful and within the appropriate standard deviation.

Data from the survey has shown to be consistent across the survey area at locations where survey lines meet and where they intersect with tie lines. Tie line levelling and decorrugation filters have been properly applied to correct any minor data deviations due to variations in sensor altitude or turbulent flight.

Examination of high order differentials of the data (4th and 8th difference) has been used to isolate noise envelopes and show they are consistent and within acceptable ranges throughout the study area.

About EarthEx Geophysical Solutions Inc.

EarthEx Geophysical Solutions Inc. is a Manitoba company, founded in 2014 in Selkirk, Manitoba by president and Chief Geophysicist, Daniel Card, P. Geo., RPGeo. EarthEx is specialized in geophysical prospecting for hard-rock minerals, and work with cutting edge technologies and data analysis methodology.

For more information contact Daniel Card, President and Chief Geophysicist, earthex@eexgeo.com or visit <https://eexgeo.com>

About the Big Mack Project

The Big Mack Lithium Project is located 2 km east of all-weather Snook Lake Road about 80 km north of Kenora, ON. The property is proximal (~1.3 km) to Avalon Advanced Material Inc’s Separation Rapids, Big Whopper deposit which hosts a measured and indicated resource. The property is within an Ontario registered mining lease, with over 30 years of exploration history. The property lies within the traditional land use area of the Wabaseemoong Independent Nations of Whitedog, Ontario: an Aboriginal community located approximately 35 km southwest of the property.

The property hosts four known Li-bearing pegmatites including the Big Mack pegmatite, Eleven Zone, Sprinkler Zone, and 6095 pegmatite which are thought to be related to the Separation Rapids Pluton. They are interpreted as zoned Complex Type, Petalite Subtype LCT Pegmatites. The Big Mack pegmatite represents the largest petalite-bearing mass on the property and is exposed over an 80 by 225 m area. Historic drilling campaigns (1998, 1999, 2001) intersected mineralization extending along a strike length of ~150 meters and to a depth of 75 meters. The deposit remains open at depth and along strike.

About Pan American Energy Corp.

Pan American Energy Corp. (CSE: PNRG) (OTC PINK: PAANF) (FSE: SS60) is an exploration stage company engaged principally in the acquisition, exploration and development of mineral properties containing battery metals in North America.

The Company executed an option agreement in Canada with Magabra Resources providing for the right to acquire up to a 90% interest in the drill-ready Big Mack Lithium Project, 80 km north of Kenora, Ontario. The Company has also entered a property option agreement with Horizon Lithium LLC providing for the right to acquire a 100% interest in the Horizon Lithium Project, located within the Clayton Valley – Tonopah Lithium Belt, Nevada, USA.

To register for investor updates please visit <https://panam-energy.com>.

On Behalf of the Board of Directors

Jason Latkowcer
CEO & Director

Contact

Phone : (587) 885-5970
Email: info@panam-energy.com

Forward-Looking Statements

Certain statements contained in this press release constitute forward-looking information. These statements relate to future events or future performance. The use of any of the words “could”, “intend”, “expect”, “believe”, “will”, “projected”, “estimated” and similar expressions and statements relating to matters that are not historical facts are intended to identify forward-looking information and are based on the Company’s current beliefs or assumptions as to the outcome and timing of such future events. In particular, this press release contains forward-looking information relating to, among other things, the nature and characteristics of the magnetic lows identified by the survey and the potential for these low magnetic responses to host lithium-bearing pegmatites; that the results from the survey will aid in defining exploration targets and further delineating the extent of lithium mineralization at surface and provide strong motivation to investigate for previously undiscovered lithium-bearing pegmatites; the Company’s intention to continue its exploration efforts on the Big Mack Lithium Project and to incorporate the results of the survey into future exploration program designs and drill targeting with the aim of identifying additional lithium-bearing pegmatites at the Project; and the potential that a sizeable but discrete deep magnetically low body extends down-plunge to the southeast of the known Big Mack mineralization at the Project that is not drill tested.

Various assumptions or factors are typically applied in drawing conclusions or making the forecasts or projections set out in forward-looking information, including, in respect of the forward-looking information included in this press release, the assumption that: the Company will continue to explore the Big Mack Lithium Project and will incorporate the results of the survey into future exploration program designs and drill targeting to identify additional lithium-bearing pegmatites at the Project; that the data and interpretations generated from the survey reflect the actual geology of the Project, including that there is a sizeable but discrete deep magnetically low body extending down-plunge to the southeast of the known Big Mack mineralization at the Project; and that the low magnetic responses from the survey are indicative of lithium bearing pegmatites and not other felsic rock types with low magnetic signatures.

Although forward-looking information is based on the reasonable assumptions of the Company’s management, there can be no assurance that any forward-looking information will prove to be accurate. Forward looking information involves known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking information. Such factors include the risk that the Company does not continue with its exploration of the Big Mack Lithium Project or does not include the results of the survey in future exploration program designs and drill targeting, whether as a result of a lack of financial resources, a failure to receive the requisite permits or approvals, the discretion of management or otherwise, including that the Company may never drill the two drill holes recommended by EarthEx or any of the drill targets identified by the survey; risks inherent in the exploration and development of mineral deposits, including risks relating to receiving requisite permits and approvals, changes in project parameters or delays as plans continue to be redefined, that mineral exploration is inherently uncertain and that the results of mineral exploration may not be indicative of the actual geology or mineralization of a project (including, with respect to the survey results, that the low magnetic responses from the survey are generated from felsic rock types with low magnetic signatures and not from lithium-bearing pegmatites); that mineral exploration may be unsuccessful or fail to achieve the results anticipated by the Company; and the other risks and factors identified by the Company in its continuous disclosure filings filed on the Company’s SEDAR profile at

www.sedar.com, including the risk factors included in the Company's annual information form. The forward-looking information contained in this release is made as of the date hereof, and the Company not obligated to update or revise any forward-looking information, whether as a result of new information, future events or otherwise, except as required by applicable securities laws. Because of the risks, uncertainties and assumptions contained herein, investors should not place undue reliance on forward-looking information. The foregoing statements expressly qualify any forward-looking information contained herein.

The CSE has neither approved nor disapproved the information contained herein.