ASX Announcement
29 April 2024
ASX: ETM

ENERGY TRANSITION METALS EXPANDS EXPLORATION FOOTPRINT IN JAMES BAY, QUEBEC AFTER IDENTIFYING NEW TARGETS

Highlights:

- Energy Transition Metals Limited (**ETM**) has acquired additional mineral claims adjacent to the Company's Solo Lithium Project in the highly prospective James Bay region (Figure 1).[1]
- The additional mineral claims were identified as prospective for lithium-caesium tantalum (LCT) pegmatites following interpretation of Sentinel 2 satellite multi spectral and publicly available data.
- A field reconnaissance program is planned to commence in late May 2024. The program is designed to field-check prospective lithium targets, plus other deposit styles known to exist in the region of ETM's claims (including vein-hosted and intrusion-related gold).
- Solo is located 17 kilometres (km) south-east of the Fliszar LCT pegmatite occurrence, which contains both lepidolite and spodumene and returned grades of up to 1.83% LiO_2.[2]
- The additional claims build upon ETM's foundational exploration mineral claims portfolio in Quebec, cementing the Company's position in the highly prospective James Bay region, a Tier-1 mining jurisdiction.
- Historically, the Solo area has been explored for a variety of commodities, including gold and base metals. In addition to lithium, ETM is also assessing the potential for these metals.
- Solo and the Company's other Canadian lithium project, Good Setting, are located south-west of Winsome Resources Limited's Cancet and Adina lithium projects and north-east of Allkem Limited's James Bay lithium project, and along strike from known spodumene outcrops[3], enhancing their prospectivity for lithium discoveries.

Energy Transition Minerals Ltd (the **Company** or **ETM**) (ASX: **ETM**) is pleased to advise that it has acquired additional mineral claims adjacent to the Company's **Solo Lithium Project** in the James Bay lithium district of Quebec, Canada, after identifying prospective new target areas along strike from its initial claim area.

The Company plans to commence its maiden field reconnaissance exploration program at Solo in late May, with a focus on field-checking potential lithium targets, and also to test for other potential mineralisation styles known to exist in the region including base metals and gold.

[1] Refer to ETM ASX announcement dated 31 October 2023 titled "Energy Transmission Minerals secures strategic lithium projects".
[2] Source – Resources Naturelles et Forets Quebec, 2006 (https://sigeom.mines.gouv.qc.ca/signet/classes/I1108_afchCarteIntr).
[3] Refer to ASX Announcement by Kuniko Limited (ASX: KNI) dated 9 March 2023 titled "Lithium Project Acquisitions in Canada's James Bay Region".

ETM Managing Director, Daniel Mamadou, commented:

"The expansion of ETM's claims at Solo is an important step forward, as we build a robust portfolio of high-quality lithium projects in the James Bay area. The Solo and Good Setting project areas represent a strong foundation for future exploration in the region. The Company will continue to identify opportunities in this and other emerging lithium prospective regions as we grow our portfolio in the critical raw materials domain."

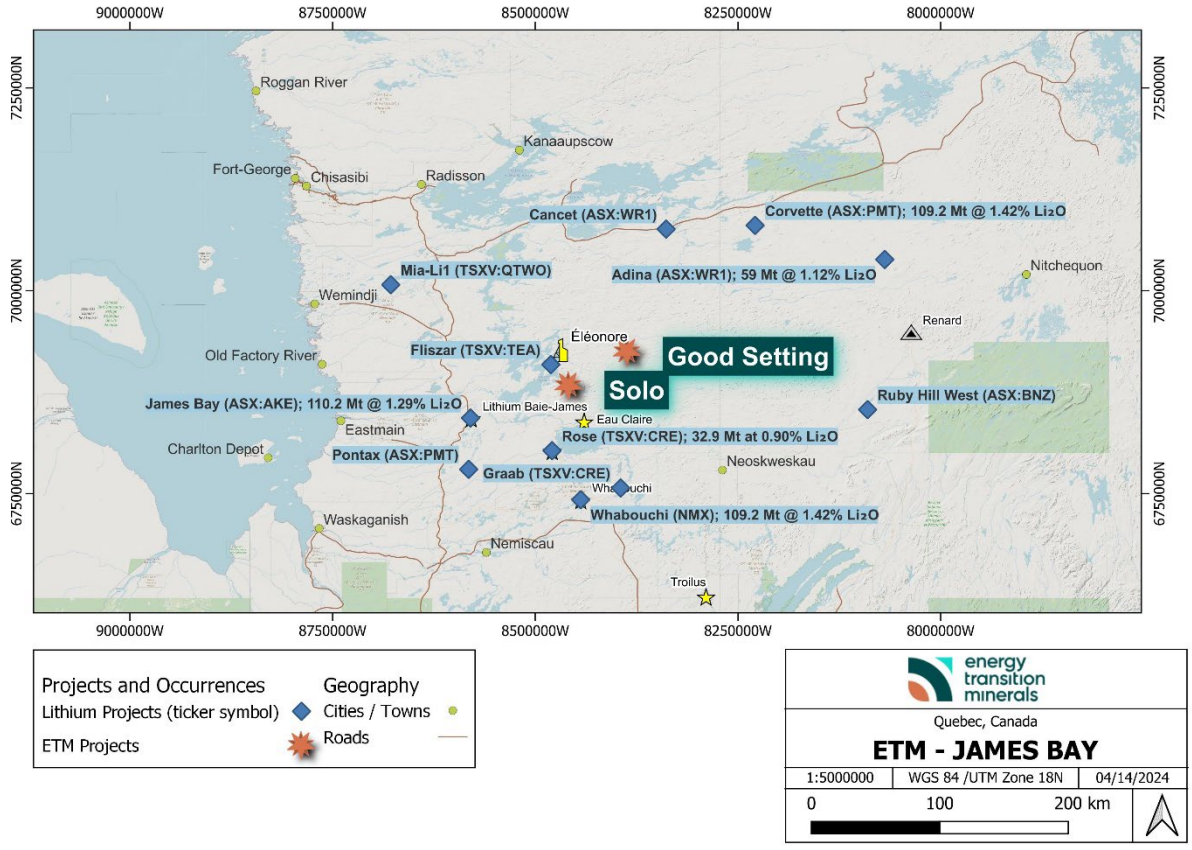

Figure 1. Location of the Solo and Good Setting Projects and other occurrences, deposits or mines in the region TSX-V:CRE Announcement[4]; ASX:WR1 Announcement[5]; ASX: AKE Announcement[6]; S-K 1300 Technical Report – Nemaska Whabouchi Mine Project[7]; ASX:PMT Announcement[8].

[4] Refer to TSX-V Announcement by Critical Elements Lithium (TSX-V:CRE) dated 29 August 2023 titled "Critical Elements Lithium Announces New Positive Feasibility Study for the Rose Lithium Project Generating an After-Tax NPV8% of US$2.2B and an After-Tax IRR of 65.7%".

[5] Refer to ASX Announcement by Winsome Resources Limited (ASX: WR1) dated 11 December 2023 titled "Globally significant maiden Mineral Resource of 59 MT at 100% owned Adina Lithium Project".

[6] Refer to ASX Announcement by Allkem Limited (ASX|TSX: AKE) dated 11 August 2023 titled "James Bay Mineral Resource increased by 173% to 110.2 million tonnes".

[7] Refer to S-K 1300 Technical Report Summary dated 31 December 2022 titled "https://www.sec.gov/Archives/edgar/data/1742924/000114036123045135/ny20009544x3_ex96-1.htm

[8] Refer to ASX Announcement by Patriot Battery Metals Inc dated 31 July 2023 titled "Patriot Announces the Largest Pegmatite Resource in the Americas at CV5, Corvette Property, Quebec, Canada".

Multispectral plus AI targeting: Sentinel-2 satellite multispectral data was processed, imaged and interpreted over a 110 x 110 km scene, which includes the Solo and Good Setting Projects. Following spectral unmixing, endmember spectral bands were correlated with lithium values from 103 government-collected rock samples located within the scene (values >0 Li; https://sigeom.mines.gouv.qc.ca/signet/classes/I1108_afchCarteIntr). Based on these correlations, multi-variate statistics and predictive modelling were used to create a probabilistic map of high lithium concentrations in rocks at surface. Spectral band 10 had the strongest association with known lithium values (Figure 2). The probability map demonstrated several prospective targets (warmer colours indicated higher probability of lithium-bearing rocks).

Following a detailed assessment of the spectral results, ETM staked an additional 120 claim blocks (90.3 sq km) at the Solo Project. These areas are considered highly prospective to host LCT pegmatites and will be prioritized for field checking during the Company's upcoming Spring 2024 field program.

James Bay Fieldwork Planning: A helicopter-supported fieldwork reconnaissance program is planned for late May 2024. This program will be undertaken over a period of five days and will include geoscientists and a geographical information systems (GIS) specialist. Although lithium is the primary focus of this exploration program, ETM will also evaluate the potential for other metals. The Solo and Good Setting districts have been explored for base metal and precious metals and the potential for gold at Solo is highlighted by Newmont's Eleonore gold mine, located just 26 km to the north-west and Fury Gold Mines' high grade Eau Claire gold deposit located 26 km south-east respectively. Additionally, other gold, copper, and lithium prospectivity has been determined proximal to the Solo and Good Setting claims.

The field program will be prioritised as follows:

1) Solo and Good Setting claim areas – Field-check lithium targets and other potential commodity and deposit styles that were identified by previous workers and in historical assessment reports on ETM claims.
2) Regional Exploration – Field-check targets for lithium and other commodities including base and precious metals. Regional targets have been selected based on historical assessment reports, geology, public geochemical data, and regional satellite multi-spectral data interpretation.

James Bay Region: Quebec's James Bay district stands as a premier global hard rock lithium province with numerous active exploration projects, resources and emerging production. The prominence of James Bay within the global lithium sector is underscored by the extent of current exploration investment and significance of discoveries. Key industry participants in the area include Patriot Battery Metals Inc, Allkem Limited, Albermarle Corp – all with large and high-grade lithium resources.

The opportunity in Quebec for lithium mining and processing is amplified by its extensive hydropower capacity that supports an environmentally responsible mining framework. The Province is distinguished for its advanced approach to resource development, offering access to specialised labour and a strategic location adjacent to the expanding electric vehicle markets of Europe and North America.

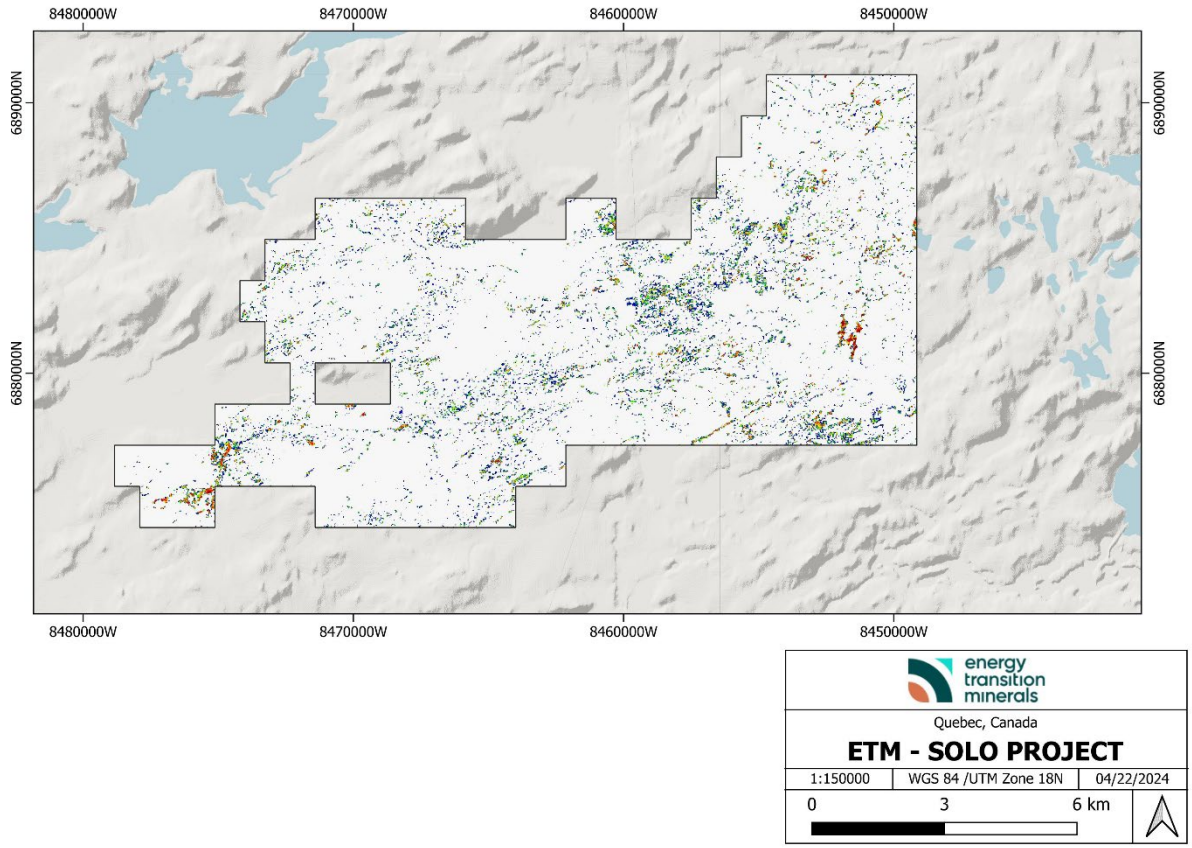

Figure 2. Satellite multi-spectral interpretation. Coloured pixels show areas of interest for lithium-bearing rocks. Generally, the warmer the colour, the higher the probability. The additional claims were acquired based interpretation of spectral data, plus other geological and geographical data layers.

Project Details

The Good Setting and Solo Projects are strategically located in James Bay, less than 2 km from north-striking transmission lines, and to the south and east of the Eleonore mine camp. The project claims' proximity to known spodumene-bearing pegmatite outcrops underscores the significant lithium potential of the region in which they are located.

Good Setting: Located 47 km east of Newmont's Eleonore mine base camp within the Eastmain River greenstone belt, the Good Setting Project covers an area of 11.5 sq km. The region is dominated by paragneiss, migmatite, and granitic intrusive rocks, particularly quartz diorite. Pegmatitic rocks have been noted both within the claims and outside.

Solo: Spanning an area of 102.9 sq km, Solo is situated 26km south-east of Newmont's Eleonore gold mine base camp. The site is predominantly underlain by tonalite (granodiorite) pegmatite rocks of the LaGrande Sub-Province ("LGSP") (Figure 3). The LGSP is a volcano-plutonic sub-province which wraps around the Opinaca Sub-Province to the west in a crescent shape. It is made up of nearly 85% plutonic rocks whose nature varies according to their relative position with respect to the volcanic bands. All the volcanic and sedimentary rocks which compose these volcanic bands are strongly deformed and metamorphosed to amphibolite grade.

Historically, the area has been assessed by groups exploring for both base metals and gold. ETM is currently investigating historical geophysical (airborne magnetics and radiometrics), plus available surface geological and geochemical data to assess further mineral prospectivity.

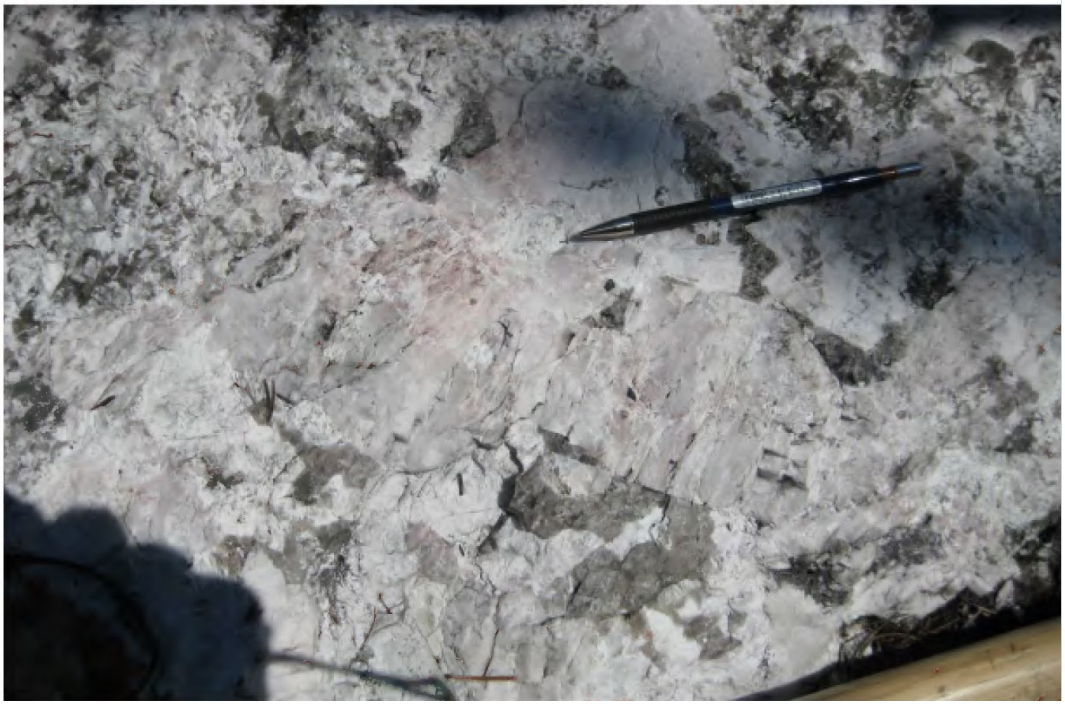

Figure 3. Tonalitic pegmatite at the Solo Project. Image from Quebec Assessment Report GM64351, January 12, 2009.

This announcement has been approved for release by the Board of Energy Transition Minerals Ltd.

About Energy Transition Minerals Ltd

Energy Transition Minerals Ltd (ASX: ETM) is an exploration and development company focused on developing and financing supply chains for the metals and materials that are critical to the decarbonization of the world, with a special focus on high-quality mineral projects globally. The Company is managing exploration projects in Western Europe, North America, and Greenland. The Company is involved in the Villasrubias Lithium-Tantalum exploration project which is in the province of Salamanca, in the region of Castille and Leon in Spain; it is expecting the grant of several additional exploration licenses in Castilla y Leon, Extremadura and Madrid. The Company has also recently completed the acquisition of the Solo and Good Setting lithium projects in James Bay, Quebec. The Kvanefjeld rare earths project remains subject to arbitration procedures in the Arbitration Tribunal in Copenhagen.

For further Information

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Competent Person Statement

The information in this announcement is based on information compiled by Mr Mark Saxon who is a Fellow of the Australasian Institute of Mining and Metallurgy and Member of Australian Institute of Geoscientists (AIG). Mr Saxon is a Director and security holder of the Company, and has sufficient experience which is relevant to this style of mineralisation and type of deposit under consideration and to the overseeing activities which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "*Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves*". Mr Saxon consents to the inclusion in this announcement of the matters based on this information in the form and context in which it appears.

JORC Code, 2012 Edition – Table 1: Lithium Prospectivity, Solo and Good Setting Projects

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	• Not applicable, no sample results or drilling reported
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• Not applicable, no drilling reported
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• Not applicable, no drilling reported
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• Not applicable, no drilling reported

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• Not applicable, no drilling reported
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• Not applicable no drilling or sampling reported
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Not applicable no drilling or sampling results reported
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Not applicable no drilling or sampling results reported
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• The data is not appropriate for use in estimating Mineral Resources and is not intended for such use. There has been insufficient exploration to define a Mineral Resource and it is uncertain if further exploration will results in the determination of a Mineral Resource at this stage.

Criteria	JORC Code explanation	Commentary
		• Not applicable – no sampling compositing was undertaken
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• Not applicable no drilling or sampling reported
Sample security	• *The measures taken to ensure sample security.*	• Not applicable no samples collected
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No specific external audits or reviews have been undertaken on the data by the Company.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• The mineral claims are located in Quebec, Canada and 100% owned by ETM Resources Ltd, a wholly owned subsidiary of Energy Transition Minerals Ltd. • The minerals claims have no underlying royalties. • The mineral claims are in good standing. • The additional 120 mineral claims are tabled below. 2822809 2822839 2822869 2822899 2822810 2822840 2822870 2822900 2822811 2822841 2822871 2822901 2822812 2822842 2822872 2822902 2822813 2822843 2822873 2822903 2822814 2822844 2822874 2822904 2822815 2822845 2822875 2822905 2822816 2822846 2822876 2822906 2822817 2822847 2822877 2822907 2822818 2822848 2822878 2822908 2822819 2822849 2822879 2822909 2822820 2822850 2822880 2822910 2822821 2822851 2822881 2822911 2822822 2822852 2822882 2822912 2822823 2822853 2822883 2822913 2822824 2822854 2822884 2822914 2822825 2822855 2822885 2822915 2822826 2822856 2822886 2822916 2822827 2822857 2822887 2822917 2822828 2822858 2822888 2822918 2822829 2822859 2822889 2822919 2822830 2822860 2822890 2822920 2822831 2822861 2822891 2825815 2822832 2822862 2822892 2825816 2822833 2822863 2822893 2825817 2822834 2822864 2822894 2825818 2822835 2822865 2822895 2825819 2822836 2822866 2822896 2825820 2822837 2822867 2822897 2825821 2822838 2822868 2822898 2825822
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Limited previous exploration for lithium, gold and uranium within the region.
Geology	• *Deposit type, geological setting and style of*	• The Solo and Good Hope lithium projects are located in the northeast part of the Superior

Criteria	JORC Code explanation	Commentary
	mineralisation.	Province of the Canadian Shield craton. The Superior Province is mainly comprised of Archean-age rocks with greenschist facies metamorphism. • The projects lie in the vicinity of significant resource stage lithium projects. Lithium mineralisation is in the form of spodumene -bearing pegmatites, and the exploration strategy being applied by Energy Transition Minerals Ltd is designed to identify similar mineralization, should it exist.
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* ○ *easting and northing of the drill hole collar* ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ○ *dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	• Not Applicable, no drilling being reported.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated*	• Not Applicable, no drilling being reported.

Criteria	JORC Code explanation	Commentary
	and some typical examples of such aggregations should be shown in detail. • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• Not Applicable, no drilling being reported.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• Diagrams are included in the body of the document.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• Not applicable no drilling or sampling reported. No representative significance is applied.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results;*	• Assessment of other substantive exploration data is currently underway however not considered material at this stage.

Criteria	JORC Code explanation	Commentary
	bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Continued In-depth review of historical datasets and mapped outcrops across the Projects. • Remote sensing and geophysics as required, with interpretation. • Preparations and planning for the upcoming field season are underway with commencement planned during Q2 2024.