

MAJOR NEW LITHIUM TARGET AT SPLIT ROCKS

New 9km Long Lithium Geochemical Anomaly to be Drill Tested

Investment Highlights

Auger Soil Geochemical Sampling Outlines Major New Lithium Target – “Cielo”

- >9km long by 2km wide.
- Peak auger soil value of 117ppm Li.
- Target not previously drill tested.
- Located 26km south of Zenith’s Rio Pegmatite (drill results including 26m @ 1.2% Li₂O)¹ and 18km northwest of the Mt Holland Lithium Deposit (under development by SQM-Wesfarmers).

¹ZNC:ASX Release 16-Nov-22

Zenith Minerals (ASX:ZNC) (“Zenith”, or the “Company”) is pleased to report a major new lithium geochemical target at the Split Rocks Lithium Project in Western Australia (Figure 1). The Split Rocks Project is located approximately 40km south of the regional town of Marvel Loch in the Yilgarn Shire of Western Australia and is being explored as part of the Zenith Lithium Joint Venture with EV Metals Group (ASX Release 13-Jan-22).

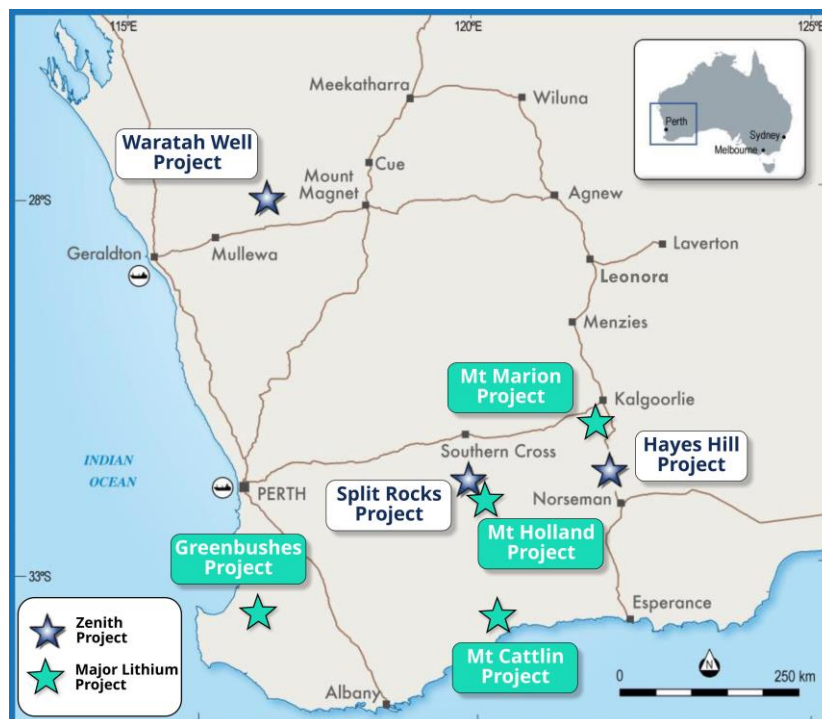


Figure 1: Map of Zenith’s Lithium Projects

Technical Details

During 2022 a total of 8,551 geochemical samples were collected across the Split Rocks project area comprised of both auger and soil samples with the sampling method determined by the regolith (nature of the materials present near surface). Assays have now been received for 6,076 samples, with a further 2,475 samples awaiting assays. To date, first pass sampling, has now covered approximately 25-30% of the project area with additional sampling planned for the 2023 field season.

The geochemical sampling program has been successful in defining a major new geochemical anomaly that exceeds the size of the geochemical anomaly surrounding the Rio lithium pegmatite. The new anomaly ("Cielo") presents a major new lithium target to be drill tested (Figure 2).

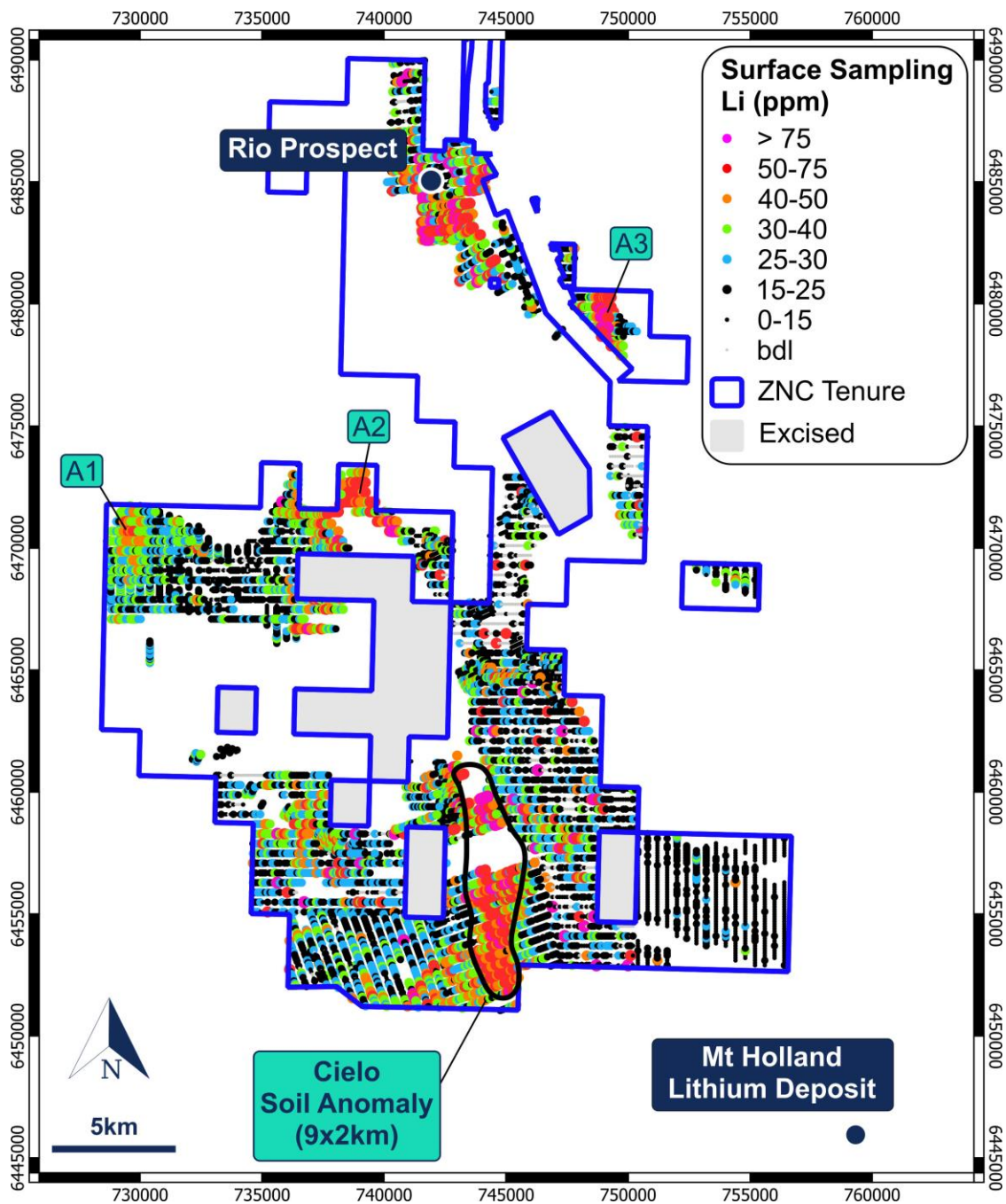


Figure 2: New Split Rocks Lithium "Cielo" Geochemical Target

Technical Details

The Split Rocks Project is located approximately 40km south of the regional town of Marvel Loch in the Goldfields Region of Western Australia and is being explored as part of the Zenith Lithium Joint Venture with EV Metals Group (ASX Release 13-Jan-22).

The project area lies immediately north of the Mt Holland Lithium Project that is being developed by Covalent Lithium (SQM and Wesfarmers) - Figure 1.

Drilling as part of an ongoing exploration campaign to scope the size of the host pegmatite and contained lithium mineralisation at Rio has returned significant lithium mineralisation. Pegmatite has now outlined over >2400m length and >2400m width (remaining open), with lithium mineralised zone (>0.1% Li₂O) identified over >2100m by 1000m with an open-ended higher-grade (>0.3% Li₂O) lithium zone >650m length. Better drill intersections reported to date include ZVCD039 26m @ 1.2% Li₂O incl. 13m @ 1.9% Li₂O (upper zone) and 23m @ 0.8% Li₂O incl. 8m @ 1.3% Li₂O (lower zone) - ASX Release 16-Nov-22.

Substantial infill and extensional drill programs are planned to commence shortly at Rio.

Next Steps

Planning is in progress for a substantial aircore drill program to test the new Cielo lithium geochemical target. An additional two lithium geochemical anomalies A1 & A2 (Figure 2) require further assessment but are likely to represent future drill targets, whilst RC drilling of anomaly A3 (Figure 2) is planned for early 2023.

Executive Chair David Ledger said: *"we are delighted to announce a major new lithium target at Split Rocks which has come about through 12 months of hard work from our soil geochemical teams. I look forward to providing further updates on this exciting new drill target – Cielo and the additional new lithium anomalies (1 & 2) generated in 2022."*

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About Zenith Minerals

Zenith Minerals Limited (ASX:ZNC) is an Australian-based minerals exploration company leveraged to the increasing global demand for metals critical to the production processes of new energy industrial sectors.

The Company currently has three lithium projects all located in Western Australia. Split Rocks, located within the Southern Cross region mid-way between Perth and Kalgoorlie, is now being systematically

explored under the terms of the joint venture between Zenith and EV Metals Group (EVM). It covers landholdings of approximately 660km² in the Forrestania greenstone belt immediately north of the established Mt Holland lithium deposit. Waratah Well, located approximately 20km northwest of the regional town of Yalgoo in the Murchison Region holds a lithium-caesium-tantalum pegmatite target with ongoing exploration. More recently, Zenith acquired a third lithium prospect, the Mt Ida North Project, located approximately 95km west of the regional town of Leonora in WA's Goldfields Region.

In January 2022, Zenith entered into a joint venture with EV Metals Group (EVM), a global battery material and technology company with plans to develop an integrated Battery Chemicals Complex at Yanbu Industrial City on the western coast of Saudi Arabia. EV Metals can earn a 60% interest in the lithium rights in these projects, with Zenith retaining a 40% project share, under terms that sees Zenith funded through to bankable feasibility on any of the project developments. Any lithium concentrate produced from these projects will provide critical raw material supply for the Yanbu complex as part of an integrated global supply chain currently being developed by EVM. This will contribute to meeting the growing demand for stable, long-term supplies of critical raw materials, high purity chemicals and cathode active materials. The number of Australian-based lithium/EV metal projects currently in the JV could be further expanded over time if appropriate acquisition opportunities present themselves.

In addition to its battery metal assets, Zenith owns a portfolio of gold and base metal projects that was intended for a demerger into a separate company, Mackerel Metals Limited, to be listed on ASX. Following a review of market conditions, the Company decided to defer the strategy of a spin-out and instead advance these projects under Zenith's stewardship (ASX release 2-Dec-22). To this end, it has engaged the services of experienced geologist and resources professional Kevin Seymour to advance that portion of the Company's portfolio. Mr Seymour is a highly experienced and credentialed exploration geologist with broad experience in different commodities and geological terrains. He was the Managing Director of Woomera Mining Ltd and was formerly the General Manager of Exploration at Ramelius Resources Ltd. He held senior exploration roles with Glengarry Resources, Sons of Gwalia and Delta Gold.

To learn more, please visit www.zenithminerals.com.au

This ASX announcement has been authorised by the Board of Zenith Minerals Limited.

Competent Persons Statement

The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Mr Michael Clifford, who is a Member of the Australian Institute of Geoscientists and an employee of Zenith Minerals Limited. Mr Clifford has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity 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, Mineral Resources and Ore Reserves'. Mr Clifford consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Material ASX Releases Previously Released

The Company has released all material information that relates to Exploration Results, Mineral Resources and Reserves, Economic Studies and Production for the Company's Projects on a continuous basis to the ASX and in compliance with JORC 2012. The Company confirms that it is not aware of any new information that materially affects the content of this ASX release and that the material assumptions and technical parameters remain unchanged.

JORC Tables

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<i>Nature and quality of sampling (e.g. 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.</i>	Systematic auger and soil sampling program on 400m x 100m spacing.
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	Samples are considered to be representative of the material sampled. Soil sampling was conducted over areas deemed to be residual soils or regolith whilst auger was completed over areas interpreted to be transported or having surface colluvium or alluvium.
	<i>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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.</i>	200g of -2mm sieved soil or 200g of auger sample was collected in the field. Samples were analysed at SGS Laboratories in Perth, 0.2 kg was pulverised and a representative subsample was analysed for lithium by sodium peroxide fusion with ICPMS finish.
Drilling techniques	<i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.).</i>	No new drilling reported in this ASX Release
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	No new drilling reported in this ASX Release
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	No new drilling reported in this ASX Release
	<i>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.</i>	No new drilling reported in this ASX Release

Logging	<i>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.</i>	No new drilling reported in this ASX Release
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i>	Qualitative logging of soil samples was completed by field crew.
	<i>The total length and percentage of the relevant intersections logged.</i>	No new drilling reported in this ASX Release
Sub-sampling techniques and sample preparation	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	No new drilling reported in this ASX Release
	<i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i>	No new drilling reported in this ASX Release
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	Samples were analysed at SGS Laboratories in Perth, 0.2 kg was pulverised and a representative subsample was analysed for lithium by sodium peroxide fusion with ICPMS finish.
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	~200g of sample was pulverised and a sub-sample was taken in the laboratory and analysed.
Sub-sampling techniques and sample preparation - continued	<i>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.</i>	Duplicate samples were taken in the field and analysed as part of the QA/QC process
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	Each sample was approximately 0.2kg in weight which is appropriate to test for the grain size of material sampled.
Quality of assay data and laboratory tests	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	Samples were analysed at SGS Laboratories in Perth, 0.2 kg was pulverised and a representative subsample was analysed for lithium by sodium peroxide fusion with ICPMS finish.
	<i>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.</i>	No geophysical results reported and or tools used relevant to this ASX release.
	<i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i>	Blanks, certified reference material for lithium, and duplicate samples were included in the analytical batches and indicate acceptable levels of accuracy and precision.
Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	No new drilling reported in this ASX Release
	<i>The use of twinned holes.</i>	Nil

	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	Field data were recorded in a field laptop and then entered into a database.
	<i>Discuss any adjustment to assay data.</i>	No adjustments were made.
Location of data points	<i>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.</i>	Sample location is based on GPS coordinates +/- 5m accuracy
	<i>Specification of the grid system used.</i>	The grid system used to compile data was MGA94 Zone 50
Location of data points – continued	<i>Quality and adequacy of topographic control.</i>	Topography control is +/- 10m.
Data spacing and distribution	<i>Data spacing for reporting of Exploration Results.</i>	Auger & soil samples on 400m spaced lines with samples at 100m spacing
	<i>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.</i>	There is insufficient information to calculate a mineral resource
	<i>Whether sample compositing has been applied.</i>	Simple weight average mathematical compositing applied
Orientation of data in relation to geological structure	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	Drilling is angled -90 degrees (ZVCD079 drilled at -60 degrees dip) and based on current interpretation is thought to be representing true width thickness of the flat lying pegmatite zones however further drilling is required to confirm this interpretation.
	<i>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.</i>	No bias based on current interpretation of shallow to flat dipping lithium mineralisation
Sample security	<i>The measures taken to ensure sample security.</i>	All samples were taken by Zenith personnel on site and retained in a secure location until delivered directly to the laboratory by Zenith personnel.
Audits or reviews	<i>The results of any audits or reviews of sampling techniques and data.</i>	The sampling techniques and data have been reviewed by two company personnel who are qualified as Competent Persons

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	<i>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.</i>	Split Rocks exploration and prospecting licences are held by a wholly owned subsidiary of Zenith Minerals Limited. EV Metals Group (EVM) may earn a 60% interest in the lithium rights in two initial 100% owned Zenith projects Waratah Well and Split Rocks by sole funding the completion of a feasibility study within 24 months, with Zenith retaining a 40% project share.

		<p>On and from completion of a feasibility study, Zenith and EVM will form a joint venture in respect of the project lithium rights. EVM will sole fund expenditure to a decision to mine, following which the parties will be required to fund future joint venture expenditure in accordance with their respective percentage shares. EVM must arrange all financing for the development, construction and commissioning of any future mine including Zenith's share. Zenith must repay its proportionate share of the project finance including interest from the sale of its proportionate share of minerals produced.</p> <p>EVM to spend a minimum of A\$7M on exploration on the projects, in 24 months, before being able to voluntarily withdraw provided that if EVM does not complete a feasibility study within 24 months it will be deemed to have withdrawn and will not earn an interest in the project lithium rights. Refer ASX Release 14-Jan-22 for further details.</p> <p>P774490 forms part of the Australian Lithium Alliance whereby EVM(60%) and Zenith (40%) contribute their respective costs to this tenement only.</p>
	<i>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.</i>	Tenements are exploration licences. There are no known impediments to obtaining a licence to operate in the area
<i>Exploration done by other parties</i>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	Refer to ASX release 21st March 2019 for details on the background of historic exploration activity.
<i>Geology</i>	<i>Deposit type, geological setting and style of mineralisation.</i>	Archaean pegmatite hosted lithium.
<i>Drill hole Information</i>	<i>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:</i>	Refer to Figures and Tables in body of text of this ASX release.
	<i>o easting and northing of the drill hole collar</i>	
	<i>o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i>	
	<i>o dip and azimuth of the hole</i>	
	<i>o down hole length and interception depth</i>	
	<i>o hole length.</i>	
	<i>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.</i>	

Data aggregation methods	<i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i>	No new drilling reported in this ASX Release
	<i>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 and some typical examples of such aggregations should be shown in detail.</i>	No new drilling reported in this ASX Release
Data aggregation methods - continued	<i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>	No metal equivalents used.
Relationship between mineralisation widths and intercept lengths	<i>These relationships are particularly important in the reporting of Exploration Results.</i>	No new drilling reported in this ASX Release
	<i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i>	No new drilling reported in this ASX Release
	<i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</i>	No new drilling reported in this ASX Release
Diagrams	<i>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.</i>	Refer to Figures and Tables in body of text of this ASX release.
Balanced reporting	<i>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.</i>	Refer to Figures and Tables in body of text of this ASX release.
Other substantive exploration data	<i>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; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i>	No other meaningful or material exploration data to be reported at this stage.
Further work	<i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i>	Initial aircore drill testing of the Cielo lithium geochemical target planned

Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.

Refer to figures in body of this report.