

EXCEPTIONAL LITHIUM INTERCEPT EXTENDS RED MOUNTAIN DISCOVERY FURTHER TO THE NORTH

Red Mountain Project in Nevada, USA delivers the highest-grade intersection to date, with lithium now intersected over a 5.6km strike length



Key Highlights

- Outstanding lithium mineralisation returned in assays for diamond drill-hole RMDD003, which intersected:
 - 32.4m @ 3,260ppm Li from 57.2m, including 8.6m of ultra high-grade mineralisation @ 5,060ppm Li from 67.7m;
 - 13.8m @ 1,330ppm Li from 39.6m; and
 - 23.3m @ 1,610ppm Li from 94.4m to end-of-hole
- RMDD003 marks the highest-grade lithium intercept recorded to date at Red Mountain.
- Mineralisation successfully extended 630m north of previous northernmost intersection in hole RMDD002.
- Hole ends in lithium, with mineralisation remaining open down-dip to the east and along strike to the north.
- Assays pending from five other recently completed drill-holes.

To hear CEO Matt Healy discuss this ASX Release [click here](#)

Astute Metals NL (ASX: ASE) ("ASE", "Astute" or "the Company") is pleased to report assay results from the first of six holes completed as part of its highly successful April 2025 diamond drilling campaign at the 100%-owned Red Mountain Lithium Project in Nevada, USA. Drill-hole RMDD003 has returned three high-grade intersections of lithium mineralisation:

- 32.4m @ 3,260ppm Li / 1.74% Lithium Carbonate Equivalent¹ (LCE) from 57.2m, including an internal high-grade zone grading 8.6m @ 5,060ppm Li / 2.69% LCE from 67.7m;**
- 13.8m @ 1,330ppm Li / 0.71% LCE from 39.6m; and**
- 23.3m @ 1,610ppm Li / 0.86% LCE from 94.4m to End-of-hole.**

The thick zones of lithium mineralisation encountered in the northernmost drill-hole at Red Mountain highlight the increasing scale of the project, with strong lithium mineralisation now intersected in all drill-holes spanning a north-south strike extent of **over 5.6km** and surface sample geochemistry indicating further potential to the north, south and west of the current drilled extents^{7,9} (Figure 3).

Of particular significance in hole RMDD003 is the high-grade nature of the mineralisation. The nearest drill-hole is RMDD002, which intersected 32.1m @ 2,050ppm within a broader 86.9m intersection at 1,470ppm Li from 18.3m. The high-grade zone in RMDD002 has persisted north to RMDD003, and increased in grade significantly to over 3,000ppm lithium.

Assays are pending for the other five holes drilled as part of the April diamond drilling campaign.

Astute Chairman, Tony Leibowitz, said:

"Our 2025 exploration campaign is off to a fantastic start, with exceptional assays returned for the first step-out diamond hole, RMDD003. We are impressed by the thickness and grade of the mineralisation, with the high-grade intercept returned from this hole showing that the previously identified high-grade zone extends for a considerable distance to the north."

"This provides further indication that Red Mountain is unfolding as a lithium discovery of significance in North America. With mineralisation now defined by drilling over a strike length of almost 6 kilometres, we are looking forward to seeing what the remaining drill-holes will deliver. The information obtained from this round of drilling should put us on a clear trajectory to advance Red Mountain towards a maiden JORC Mineral Resource Estimate later this year."

Background

Located in central-eastern Nevada (Figure 4) adjacent to the Grand Army of the Republic Highway (Route 6), which links the regional mining towns of Ely and Tonopah, the Red Mountain Project was staked by Astute in August 2023.

The Project area has broad mapped tertiary lacustrine (lake) sedimentary rocks known locally as the Horse Camp Formation². Elsewhere in the state of Nevada, equivalent rocks host large lithium deposits (see Figure 4) such as Lithium Americas' (NYSE: LAC) 62.1Mt LCE Thacker Pass Project³, American Battery Technology Corporation's (OTCMKTS: ABML) 15.8Mt LCE Tonopah Flats deposit⁴ and American Lithium (TSX.V: LI) 9.79Mt LCE TLC Lithium Project⁵.

Astute has completed substantial surface sampling campaigns at Red Mountain, which indicate widespread lithium anomalism in soils and confirmed lithium mineralisation in bedrock with some exceptional grades of up to 4,150ppm Li^{2,8} (Figure 3).

A total of 13 RC and diamond drill holes have been drilled at the project for a combined 1,944m, prior to this current drilling program. These campaigns were highly successful, intersecting strong lithium mineralisation in every hole⁹.

Scoping leachability testwork on mineralised material from Red Mountain indicates high leachability of lithium of up to 98%, varying with temperature, acid strength and leaching duration, and proof of concept beneficiation test-work has indicated the potential to upgrade the Red Mountain mineralisation^{10,11}.

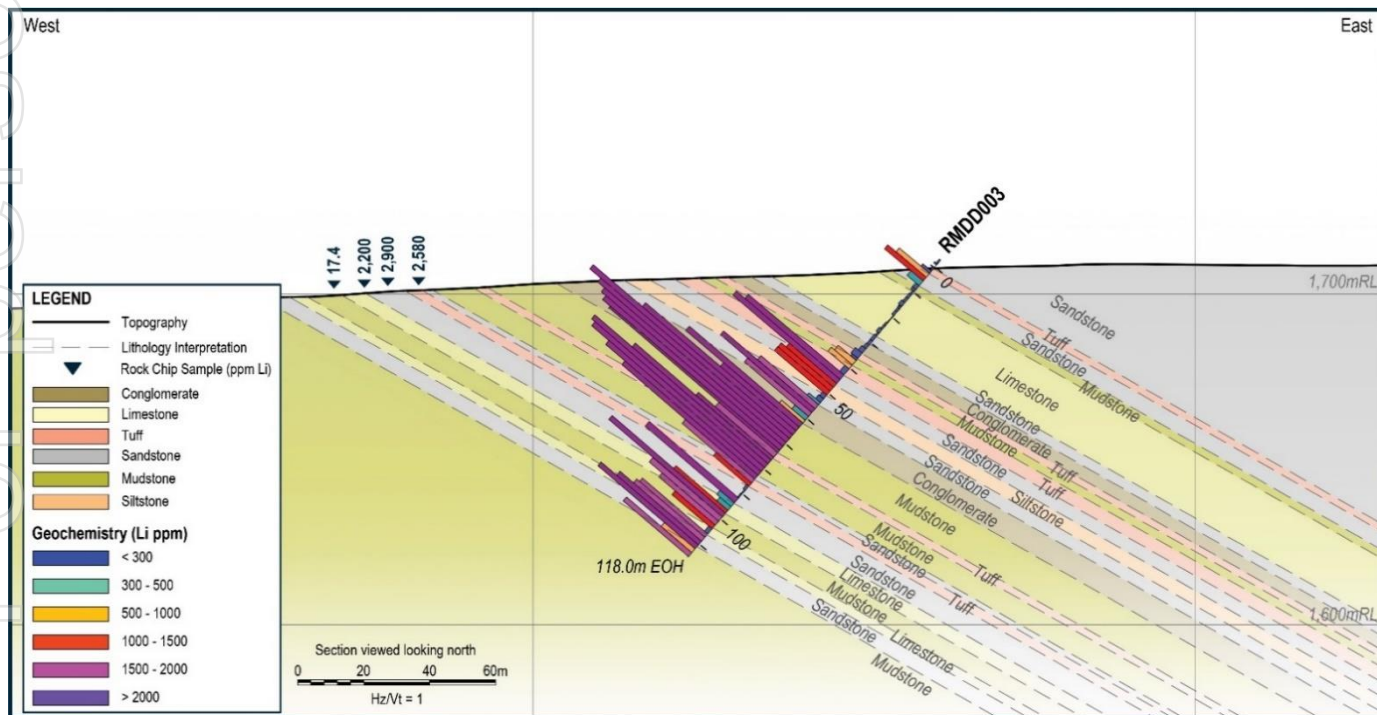


Figure 1. RMDD003 interpretative cross-section, lithium geochemistry and (25-35m off-section) rock chip samples

Results

Hole RMDD003 successfully intersected three zones of lithium mineralised clay-bearing mudstones and sandstone, separated by narrow zones of unmineralised rocks (Figure 1). The intersections are as follows:

- 13.8m @ 1,330ppm Li / 0.71% LCE from 39.6m to 53.4m;
- 32.4m @ 3,260ppm Li / 1.74% LCE from 57.2m to 89.6m; and
- 23.3m @ 1,610ppm Li / 0.86% LCE from 94.4m to End-of-hole (117.7m).

The best grades were developed in the most clay-rich zones (Figure 2). An internal very high-grade zone of 8.6m returned a grade of 5,060ppm Li, with a maximum single sample grade of 5,660ppm Li from 69.2-70.7m (227-232ft), which is the drill sample with the highest lithium grade achieved to date at the project.

Interpretation

The two northernmost holes drilled at the Red Mountain Project, RMDD003 and RMDD002, have intersected lithium grades significantly higher than those at the rest of the project, indicating that the northern part of the project may host a locally high-grade zone. RMDD003 was designed to extend the high-grade mineralisation intersected in hole RMDD002, and was collared 630 metres further north beneath a zone of previously announced strong rock chip sample results of up to 2,900ppm Li⁸ (Figure 1).

The technical team's success in extending the mineralisation further to the north has delineated another 630m of strike of the main zone of lithium mineralisation. Surface sampling data indicates that further potential extends at least another 410m north along strike from RMDD003⁸, and the dip of the prospective stratigraphy to the east indicates down-dip potential.



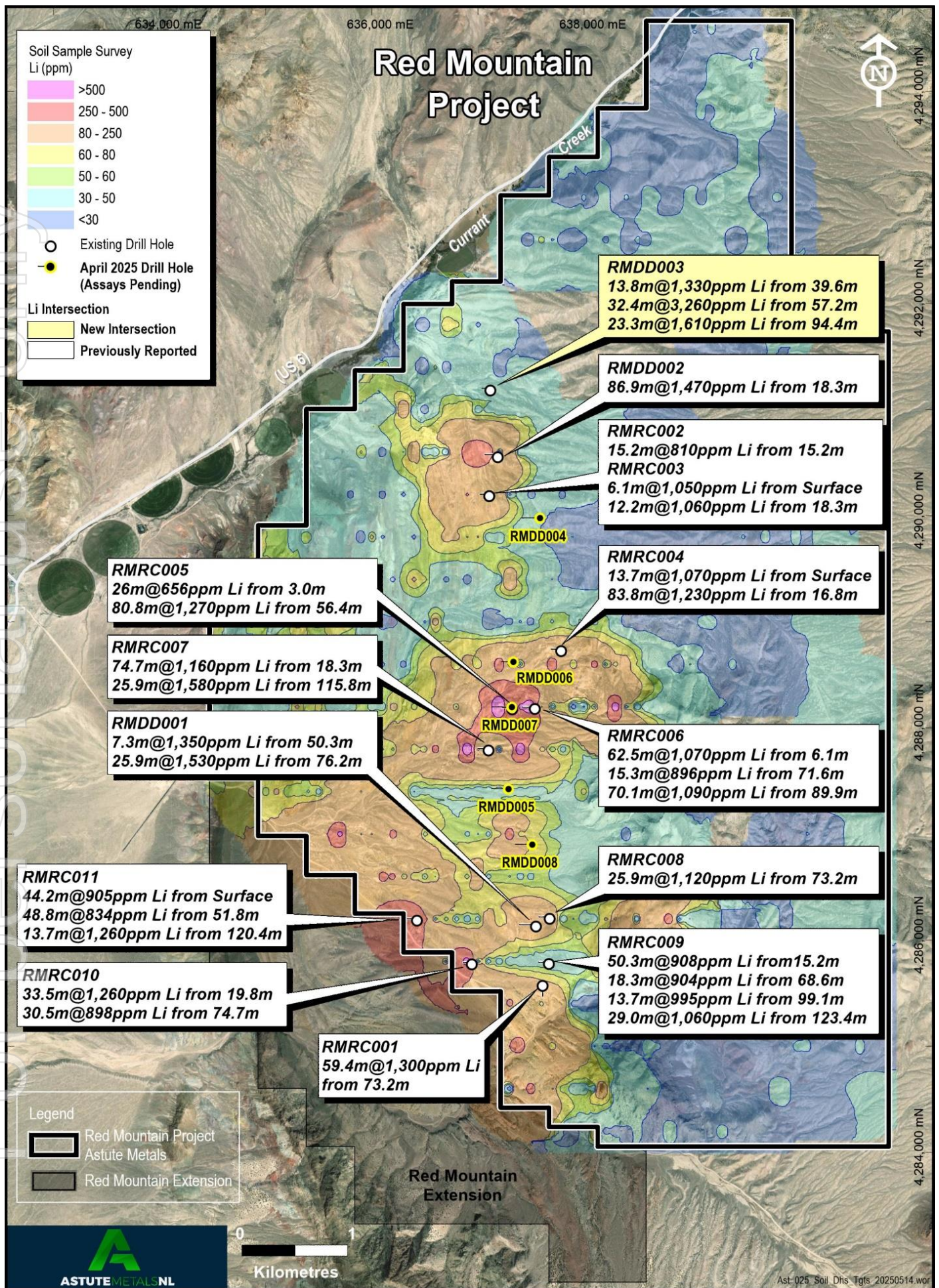
Figure 2. High-grade clay rich RMDD003 drill-core sample 703544 72.2-73.8m (237-242ft) assayed 5,150ppm Li.

Hole ID	Easting (NAD83)	Northing (NAD83)	RL	Dip (°)	Azimuth (°)	Depth (m)
RMDD003	637127	4291198	1719	-50	258.5	118.0
RMDD002	637186	4290574	1709	-50	270	182.88

Table 1. Drill-hole collar details

Next Steps

Areas of potential lithium mineralisation identified to the north and down-dip to the east of RMDD003 will be tested in future drill campaigns at Red Mountain. The Company is completing core processing and awaiting assay results for the remaining five holes of the April drilling campaign. The outcomes of this work will be integrated with surface sampling data to assist in refining the Company's drilling plans for the second half of 2025.



About Lithium Carbonate Equivalent (LCE)

Unlike spodumene concentrate, which is a feedstock, Lithium Carbonate is a downstream product that may be used directly in battery production or converted to other battery products such as lithium hydroxide.

The Benchmark Mineral Intelligence Lithium Carbonate China Index priced lithium carbonate product at US\$9,186/t⁶ as of 8 May 2025.

Lithium carbonate is the product of many of the most advanced lithium clay projects around the world, including Lithium Americas' (NYSE: LAC) 62.1Mt LCE Thacker Pass Project³, which is currently under construction. Accordingly, exploration results for Red Mountain have been reported as both the standard parts-per-million (ppm) and as % Lithium Carbonate Equivalent (LCE)¹.

A full table of assay results is provided in Appendix 2.

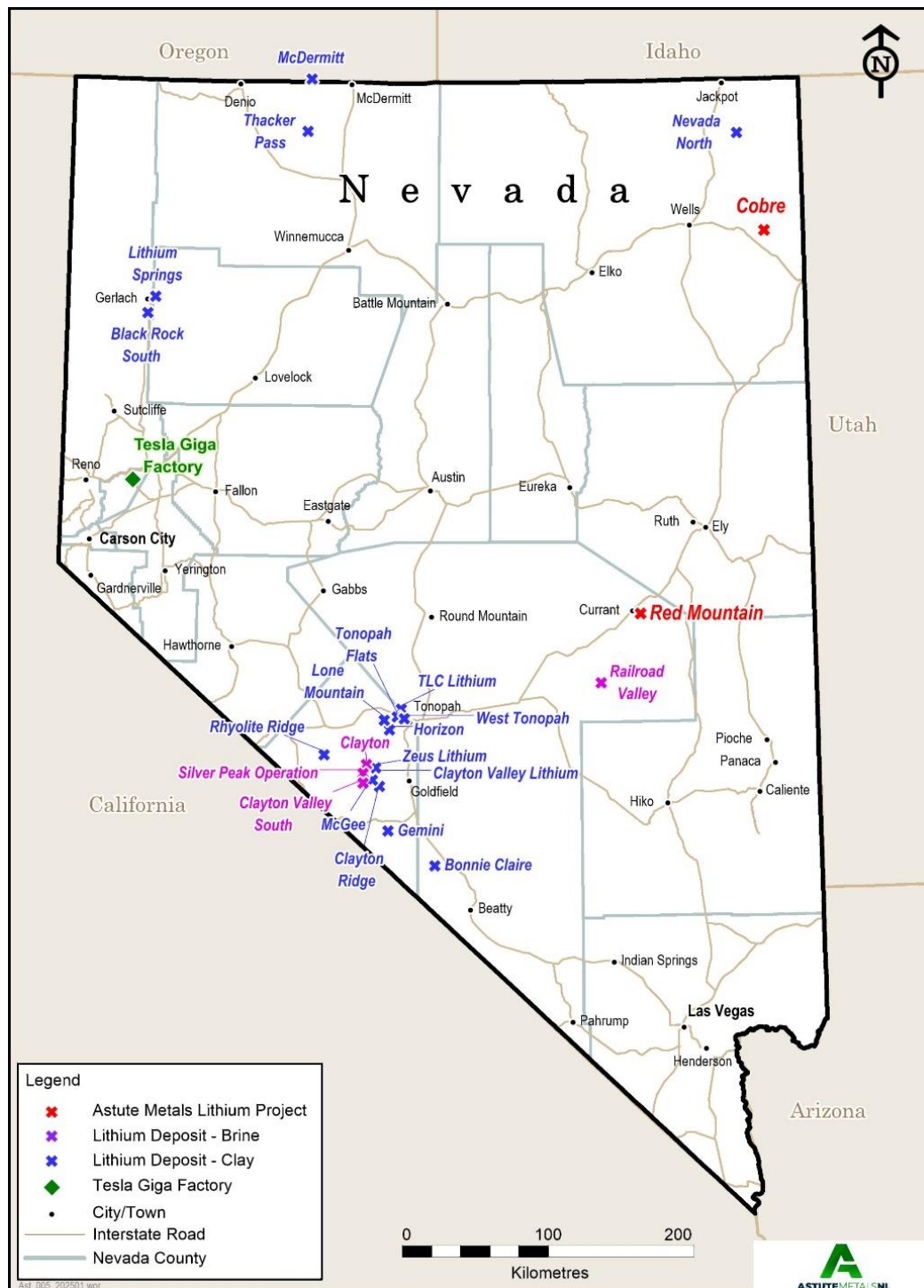


Figure 4. Location of Astute Lithium Projects, and Nevada lithium deposits.

- 1 Lithium Carbonate Equivalent wt%(LCE) has been calculated from Lithium parts-per-million (ppm) by the formula $LCE = Li \text{ (ppm)} \times 5.323 / 10,000$
- 2 ASX: ASE 27 November 2023 'Outstanding Rock-Chip Assays at Red Mountain Project'
- 3 NYSE: LAC 31 December 2024 Updated NI 43-101 Technical Report for the Thacker Pass Project
- 4 OTCMKTS: ABML 26 February 2023 'Technical Report Summary for The Tonopah Flats Lithium Project, Esmeralda.'
- 5 TSX.V: LI 17 March 2023 'Tonopah Lithium Claims project NI 43-101 technical report – Preliminary Economic Assessment'
- 6 Source: Benchmark Mineral Intelligence – Lithium Carbonate China Index 12/06/2024
- 7 ASX: ASE 16 December 2024 'Major new zones of Lithium Mineralisation at Red Mountain Project'
- 8 ASX: ASE 8 July 2024 'High-grade rock chip assays extend prospective lithium horizon at Red Mountain Project, USA'
- 9 ASX: ASE 20 January 2025 'Extension of lithium discovery at Red Mountain Project'
- 10 ASX: ASE 9 December 2024 'Positive initial metallurgical results from Red Mountain'
- 11 ASX: ASE 22 April 2025 'Beneficiation testwork successfully upgrades mineralisation at Red Mountain Lithium Project'

Authorisation

This announcement has been authorised for release by the Board of Astute.



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Competent Persons

The information in this report that relates to Sampling Techniques and Data (Section 1) is based on information compiled by Mr. Matthew Healy, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy (AusIMM Member number 303597). Mr. Healy is a full-time employee of Astute Metals NL and is eligible to participate in a Loan Funded Share incentive plan of the Company. Mr. Healy has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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. Healy consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Reporting of Exploration Results (Section 2) is based on information compiled by Mr. Richard Newport, principal partner of Richard Newport & Associates – Consultant Geoscientists. Mr. Newport is a member of the Australian Institute of Geoscientists and 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 under the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Newport consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

Section 1 – Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	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. 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 (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.	HQ diamond drilling was undertaken for drill sample collection. Samples were collected on a nominal 5-foot basis or sampled to geological boundaries based on lithological logging. Samples were photographed, half-cored, and despatched to an external lab by an external contractor. Claystone hosted lithium deposits are thought to form as a result of the weathering of lithium-bearing volcanic glass within tertiary-aged tuffaceous lacustrine sediments of the mapped Ts3 unit. Inputs of lithium from geothermal sources have also been proposed.
Drilling techniques	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.).	HQ drilling methods employed. Core was not oriented for this drill hole.
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.	Sample recovery established by recovery logging and dry sample weights undertaken by independent laboratory prior to sample preparation and analysis Poor drill core recovery at surface and one section of core loss at end of hole. Instances of poor recovery are not expected to materially impact interpretation of results
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.	Drill core for the entire hole was logged for lithology by company geologists Logging is qualitative Photography of drill core undertaken by contractors in Elko, NV, prior to delivery to external laboratory

APPENDIX 1 - JORC Code, 2012 Edition – Table 1

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, rotarysplit, 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.	Core half cored at a third part contractor facility in Elko, NV, and submitted to ALS Laboratories in Elko for preparation and analysis.
Quality of assay data and laboratory tests	Whether sample sizes are appropriate to the grain size of the material being sampled. 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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Samples analysed by method ME-MS61 which is an ICP-MS method employing a 4-acid digest. A comparison of aqua-regia and 4-acid digests was undertaken for Red Mountain mineralisation, with no material difference in lithium results identified. Assay quality was monitored using pulp blanks, as well as certified reference materials (CRMs) at a range of lithium grades. Pulp blank results indicated no material contamination of samples from sample preparation or during the analytical process. CRM results were within 3 standard deviations of certified values. No material systematic bias nor other accuracy related issues were identified.
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.	Sample intervals to be assigned a unique sample identification number prior to sample despatch Lithium-mineralised claystone Certified Reference Materials (standards), pulp blanks and coarse blanks to be inserted into the sample stream at regular intervals to monitor lab accuracy and potential contamination during sample prep and analysis
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.	Drill collar locations determined using handheld GPS with location reported in NAD83 UTM Zone 11. Expected hole location accuracy of +/- 10m Downhole survey data yet to be validated. For the purposes of drill sections, drill holes have been plotted at the setup azimuth of 270° (Grid). This is not expected to make a material difference to interpretation of results.

APPENDIX 1 - JORC Code, 2012 Edition – Table 1

Criteria	JORC Code explanation	Commentary
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.	Drill spacing is appropriate for early exploration purposes 5-foot sample interval, or to geological boundaries where appropriate, widely adopted as standard practice in drilling in the USA.
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.	Claystone beds are regionally shallow-dipping at ~20°-45° to the east and varying locally across the Project with some evidence of faulting and potential folding
Sample security	The measures taken to ensure sample security.	Samples stored at secure yard and shed located in township of Currant until delivered by staff or contractors to the core processing contractors at Elko, and then to ALS lab at Elko, NV
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Not applicable

Section 2 – Reporting of Exploration Results

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.	Red Mountain Claims held in 100% Astute subsidiary Needles Holdings Inc. Claims located on Federal (BLM) Land Drilling conducted on claims certified by the Bureau of Land Management (BLM)
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	No known previous lithium exploration conducted at Red Mountain Exploration conducted elsewhere in Nevada by other explorers referenced in announcement body text
Geology	Deposit type, geological setting and style of mineralisation.	The principal target deposit style is claystone hosted lithium mineralisation. Claystone hosted lithium deposits are thought to form as a result of the weathering of lithium-bearing volcanic glass within tertiary-aged tuffaceous lacustrine sediments of the mapped Ts3 unit. Lacustrine environments formed as a result of extensional tectonic regime that produced 'basin and range' topography observed across the state of Nevada. Inputs of lithium from geothermal sources have also been proposed.
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.	Drillhole locations, orientations and drilled depths are tabulated in body report
Data aggregation methods	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. 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. The assumptions used for any reporting of metal equivalent values should be clearly stated.	Intersections, where quoted are weighted by length. Lengths originally recorded in feet are quoted to the nearest 10cm. Rounding is conducted to 3 significant figures A 500ppm Li cut-off was used to quote headline intersections, with allowance for 10ft of internal dilution by lower grade material. Low grade mineralisation (300-500ppm Li) is present outside of the quoted intersections Intersections are quoted in both lithium ppm and as wt% Lithium Carbonate Equivalent (LCE). LCE is calculated as $LCE = Li \text{ (ppm)} \times 5.323 / 10,000$, as per industry conventions.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
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 (e.g. 'down hole length, true width notknown').	Insufficient information available due to early exploration status, although interpretation to date is that intersections in this hole approximate true width.
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.	Included in ASX announcement
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.	This release describes all relevant information
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; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	This release describes all relevant information
Further work	The nature and scale of planned further work (e.g. 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.	Drill results demonstrate further work at the Red Mountain project is warranted.

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Hole ID	From (ft)	To (ft)	Li (ppm)	LCE (%)
RMDD003	0	5	36.4	0.02
RMDD003	5	6.5	76.6	0.04
RMDD003	9.7	10.3	95.3	0.05
RMDD003	10.3	14	36.8	0.02
RMDD003	14	17	242	0.13
RMDD003	17	22	853	0.45
RMDD003	22	27	1085	0.58
RMDD003	27	33	343	0.18
RMDD003	33	38	101	0.05
RMDD003	38	40.6	95.4	0.05
RMDD003	40.6	45	43.3	0.02
RMDD003	45	50	61.1	0.03
RMDD003	50	55	62.4	0.03
RMDD003	55	60	94.4	0.05
RMDD003	60	61.3	65.6	0.03
RMDD003	61.3	63.5	62.2	0.03
RMDD003	63.5	67	53.9	0.03
RMDD003	67	72	57.6	0.03
RMDD003	72	77	16.3	0.01
RMDD003	77	81.9	18.3	0.01
RMDD003	81.9	85	41.1	0.02
RMDD003	85	90	43.5	0.02
RMDD003	90	95	81.7	0.04
RMDD003	95	98.4	39.1	0.02
RMDD003	98.4	105	64.4	0.03
RMDD003	105	110	63.1	0.03
RMDD003	110	115	76.9	0.04
RMDD003	115	120.7	112	0.06
RMDD003	120.7	127.5	194.5	0.10
RMDD003	127.5	130	158.5	0.08
RMDD003	130	135.9	505	0.27
RMDD003	135.9	141	594	0.32
RMDD003	141	148.9	123.5	0.07
RMDD003	148.9	155	2700	1.44
RMDD003	155	160	2940	1.56
RMDD003	160	165	1340	0.71
RMDD003	165	170	1475	0.79
RMDD003	170	175.2	1485	0.79
RMDD003	175.2	180.2	115.5	0.06
RMDD003	180.2	185	138	0.07
RMDD003	185	187.7	326	0.17
RMDD003	187.7	193	1635	0.87
RMDD003	193	198	2590	1.38
RMDD003	198	203	1820	0.97
RMDD003	203	208	383	0.20

[illegible]