ASX Announcement | 8 May 2023

Consistent Large Intervals of Sedimentary Clays Intersected at the 100% owned Scotty Lithium Project, Nevada, USA

Highlights:

- **Consistent large intervals of sedimentary clays intersected from near surface to 170m vertical depth at the 100% owned Scotty Lithium Project in Nevada, USA.**
- **Drilling program now reached the halfway point (50% complete) with drilling to continue, and completion expected in June 2023.**
- **Drilling to date has confirmed the MT implied sediment basin in the northern region.**
- **Prior to drilling, the MT interpretation suggested a 3.6km^2 sedimentary basin extending from near surface to a depth of ~150m in the north and deepening to ~500m in the south[1].**
- **The MT inferred sedimentary basin is beneath the strong lithium-boron soils assay results[2] and just 1km west of Nevada Lithium's (CSE: NVHL) 2022 drilling, which confirmed 2 layers of lithium mineralisation[3,4,5].**
- **The sonic drill rig used has met or exceeded expectations for drilling penetration rates and has returned high-quality samples for assaying.**
- **Potential for a maiden JORC lithium Resource estimate, subject to assay results.**

Loyal Lithium Limited (**ASX: LLI**) (**Loyal** or the **Company**) is pleased to announce that the drilling program at the Company's 100% owned Scotty Lithium Project in Nevada, USA, has intersected large intervals of sedimentary clays from near surface to a depth of 170m, confirming the MT-implied sediment basin in the northern area.

The drilling program has now reached the halfway point (50% complete), with drilling to continue and completion expected in June 2023. (refer **Appendix 1**)

Prior to drilling, the MT interpretation indicated a 3.6km^2 sedimentary basin extending from near surface to around 150m depth in the north, which deepens to approximately 500m in the south[1]. The MT-inferred sedimentary basin is beneath the strong lithium-boron soils assay results[2] and just 1km west of Nevada Lithium's 2022 drilling, which confirmed two layers of lithium mineralisation[3]. The sonic drill rig has performed well, with drilling penetration rates meeting or exceeding expectations, with high-quality samples returned for assaying.

The Company anticipates that the drilling rig, sampling procedures, and assaying techniques will allow for the estimation of a maiden JORC lithium resource, subject to assay results.

Loyal Lithium's Managing Director, Mr Adam Ritchie, commented:

"The progress achieved in drilling is a testament to the hard work of the DGC and Boart Longyear team on the ground at our Scotty Lithium Project in Nevada. The decision to deploy a sonic drill rig has proven to be the correct choice, with all drill holes confirming the presence of a large sedimentary basin to considerable depth on Loyal Lithium's claims."

"If mineralised, the sedimentary basin clays would indicate a significant quantity of lithium in sediments, and we look forward to receiving and subsequently announcing our drilling results at the Scotty Lithium Project."

Figure 1: Drill contractor Boart Longyear' Sonic Drill Rig operating at the Scotty Lithium Project

The Sonic drill rig drilling rate has been constant. No difficulties have been experienced with sample recovery or reaching the desired depth. Excellent sample recovery has been noted with minimal sample loss.

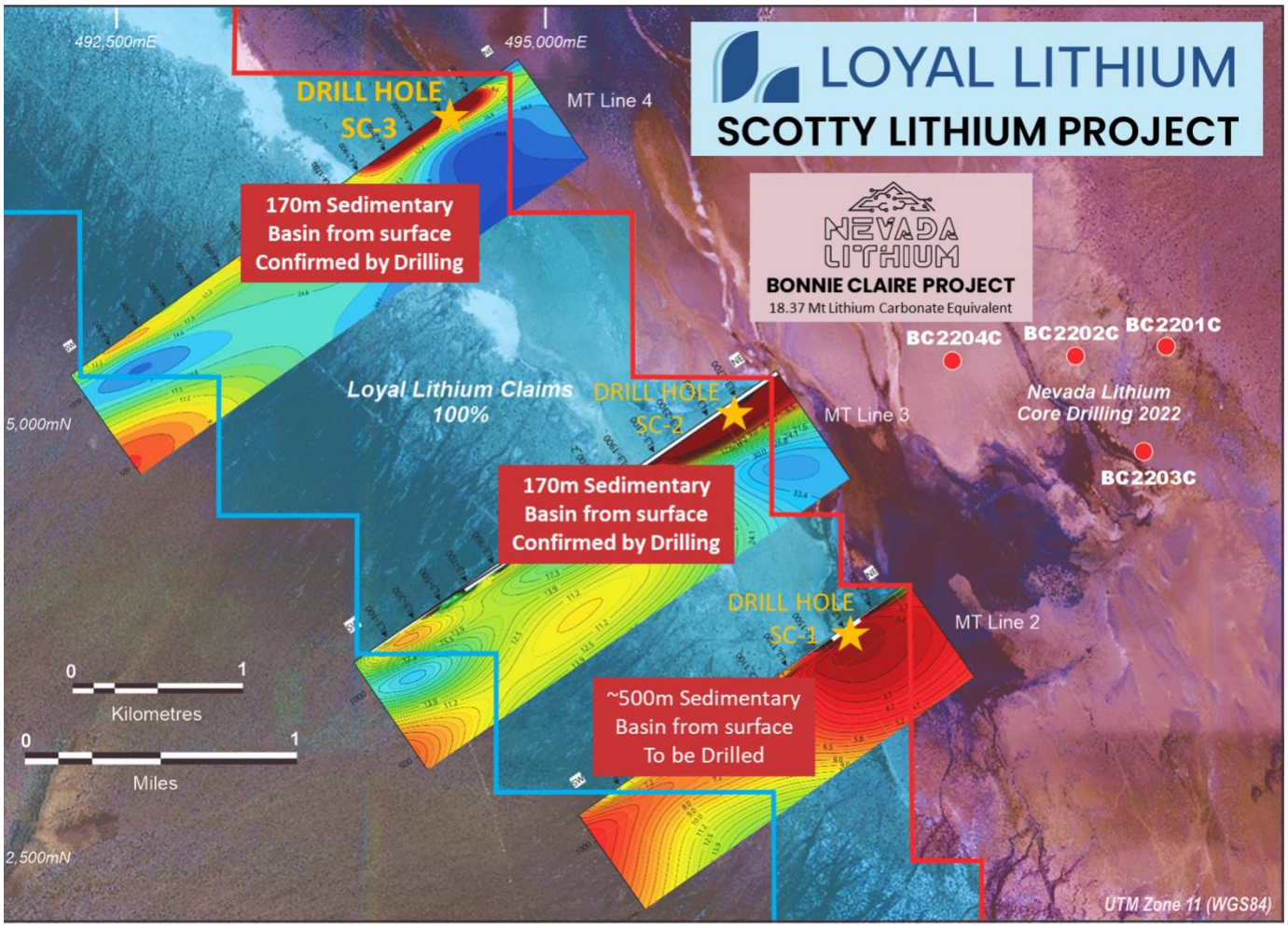

Figure 2: Scotty Lithium Target 2 - MT traverses projected to the horizontal

Three drill holes are planned (SC-1 to SC-3) in Loyal Lithium's current drilling campaign, which is adjacent to the west of Nevada Lithium's 2022 drilling[4] as shown in figure 2. The drill holes targeted MT anomalies suggesting conductive sedimentary basin is present at significant depths, analogous the geology hosting lithium mineralisation adjacent to the east of LLI's claims. The drilling has intersected around 170 metres vertical depth of clay sediments on Loyal Lithium's claims.

Samples are being taken every five feet (1.524m) interval and will be delivered to the laboratory near Reno Nevada for analysis. A comprehensive QA/QC program has been implemented which will be further described on the announcement of our drill results.

Procedurally, this drill program is planned to a standard suitable for a JORC Competent Person to estimate a Resource, dependant on the tenor of lithium and boron assay results.

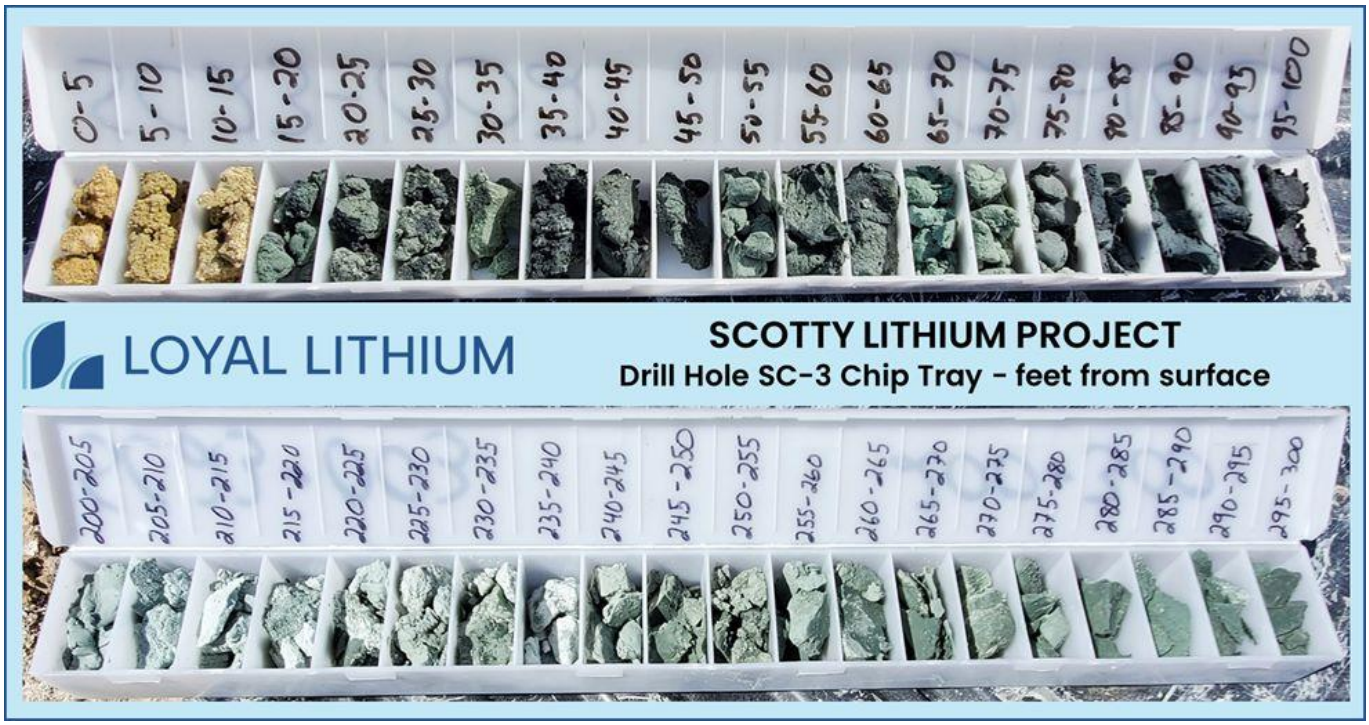

Figure 3: Representative drill sample in chip trays taken every 5 feet (1.524 metres) from SC-3

Both drill holes (SC-3 & SC-2) intersected sedimentary clays from 15 to a depth of ~565ft (170m). I.e., within the majority of drill holes. Significant paleo-redox fronts were noted in the first 100 feet.

Note: Visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analyses where concentrations or grades are the factor of principal economic interest. Visual estimates also potentially provide no information regarding impurities or deleterious physical properties relevant to valuations.

This announcement has been authorised for release by Loyal Lithium's Board of Directors

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About Loyal Lithium

Loyal Lithium Limited (ASX: LLI) is a well-structured listed resource exploration company with projects in Tier 1 North American mining jurisdictions in Nevada, USA and the James Bay Lithium District in Quebec, Canada. Through the efficient exploration of its projects, the Company aims to delineate JORC compliant resources.

Future Performance

This announcement may contain certain forward-looking statements and opinion forward-looking statements, including projections, forecasts and estimates, are provided as a general guide only and should not be relied on as an indication or guarantee of future performance and involve known and unknown risks, uncertainties, assumptions, contingencies and other important factors, many of which are outside the control of the Company and which are subject to change without notice and could cause the actual results, performance or achievements of the Company to be materially different from the future results, performance or achievements expressed or implied by such statements. Past performance is not necessarily a guide to future performance and no representation or warranty is made as to the likelihood of achievement or reasonableness of any forward-looking statements or other forecast. Nothing contained in this announcement, nor any information made available to you is, or shall be relied upon as, a promise, representation, warranty or guarantee as to the past, present or the future performance of Loyal Lithium Ltd.

Competent Person Statement

The information in this announcement that relates to Exploration Results and Targets, is based, and fairly reflects, information compiled by Mr Darren Allingham, who is the Company's geologist. Mr Allingham is a Fellow of the Australian Institute of Geoscientists. Mr Allingham has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and the activity he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results and Mineral Resources (JORC Code). Mr Allingham consents to the inclusion in the announcement of the matters based on the information in the form and context in which it appears.

References

[1]ASX Announcement LLI): MT Traverses Implies Sedimentary Target as Drill Mobilisation Commences at 100% owned Scotty Lithium Project, Nevada, USA 20 March 2023

[2] ASX Announcement MMG (LLI): Strong Soil Assay Results Define Targets at the Scotty Lithium Project, Nevada USA 21st September 2022

[3] Iconic Intercepts Lithium Grades up to 5570ppm at Bonnie Claire Project Vancouver, British Columbia–(Newsfile Corp. – September 29, 2022) – Iconic Minerals Ltd. (TSXV: ICM) (OTCQB: BVTEF)

[4] Iconic Minerals Receives Additional Drilling Assays for Bonnie Claire Lithium Project Vancouver, British Columbia–(Newsfile Corp. – December 20, 2022) – Iconic Minerals Ltd. (TSXV: ICM) (OTCQB: BVTEF)

[5] Iconic Finds Strong Correlation Between Drill Holes at Bonnie Claire Lithium Project Vancouver, British Columbia–(Newsfile Corp. – December 07, 2022) – Iconic Minerals Ltd. (TSXV: ICM) (OTCQB: BVTEF)

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Appendix 1: Drill Hole Details

Drill Hole	X	Y	RL	depth m	Dip	Comments
SC001	496,790	4,113,870	1200	400	-90	Planned
SC002	496,150	4,115,100	1200	169.16	-90	Actual depth
SC003	494,498	4,116,845	1200	172.21	-90	Actual depth

Note: Co-ords in UTM_WGS84_zone11north. Drill hole diameter variable 4.75 inch

JORC Code, 2012 Edition – Table 1 report template

Section 1 Sampling Techniques and Data

(Criteria in this table apply to all preceding sections.)

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*	No sample assays are reported. Drilling is being undertaken by a vertical hole sonic drill rig operated by Boart Longyear USA Sample is extracted consecutively into plastic bag tubes over down hole lengths every 5 feet (1.524m). Logging and sampling for assay are undertaken over each of these down hole intervals

Criteria	JORC Code explanation	Commentary
	problems. Unusual commodities or mineralisation types (e.g., submarine nodules) may warrant disclosure of detailed information.	
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.*	Qualitative geological logging of all drill sample is being undertaken on site, with small representative samples collected in sample trays from every 5 feet (1.524m) down hole. Samples lengths are photographed Geological and sampling data is recorded on electronic tablets and downloaded to laptops with backups completed daily. Drill sample recoveries are recorded
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all cores 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.*	Samples being extracted parallel to the sample core stream sliced by plastic knife, taken as a quarter of the sonic drill core. A second quarter core sample is taken at intervals selected by the geologist for umpire sample assaying Sample sizes are appropriate for the style of mineralisation in the form of potentially large volumes of playa lake sediment hosting lithium mineralisation
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*	No assay results are reported Samples are being analysed by American Assay Laboratory: Basic Rock/Drill Prep Package (BRPP2KG). Samples ICP-AES Analysis of 27 Elements, Na2O2 Fusion, 0.5g Sample (IO-NF27) Blind lithium specific standards and

Criteria	JORC Code explanation	Commentary
	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.*	blank sample are being introduced into the sample stream The laboratory has appropriate lithium grade internal standards inserted into each batch of samples
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.*	No assay results are reported. Samples will be assayed at American Assay Laboratories, Sparks, Nevada with umpire samples, selected from intervals by the geologist, being sent to ALS Laboratory Reno, Nevada
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.*	Three drill hole collars were positioned by GPS on the playa lake. This is appropriate for the style of lithium mineralisation which is in the form of large sub-horizontal layers in playa lake clays
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 holes are positioned approximately 2 km apart
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*	Drill holes are drilled vertical, being appropriate for this style of sub-horizontal playa sedimentary basin stratigraphy with lithium mineralisation interpreted to be potentially present as evaporites and precipitates in clay sized sediment (illite) beds

Criteria	JORC Code explanation	Commentary
	orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	
Sample security	• *The measures taken to ensure sample security.*	Individual samples for assay are stored in large plastic bags on a truck tray and are delivered to the laboratory, managed by onsite geologists Remaining drill sample not submitted for assay is stored at a site on pallets with 24-hour security
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	No audit or reviews completed with the drill program currently in progress

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.*	Loyal Lithium Ltd 100% owned through subsidiary Nevlith LLC: unpatented mining claims located in Sections 19 & 32, Township 8 south, Range 44 East; Section 04, 10 & 24, Township 9 South, Range 44 East; and Sections 06, 20, 29, 30, 31 & 32, Township 9 South, Range 45 East, Mount Diablo Meridian, Nye County, Nevada
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	Drilling completed by Nevada Minerals adjacent east of LLI's claims in the playa sedimentary basin No previous drilling has been undertaken on the targeted site on LLI's claims Historical MT data partially crossed LLI's claims by Iconic Minerals/ Nevada Lithium was used to confirm new MT data inversion interpretations

Criteria	JORC Code explanation	Commentary
Geology	• *Deposit type, geological setting and style of mineralisation.*	Miocene aged sub-horizontal playa lake clay and sandstones deposited into basin and range troughs with lithium compounds concentrated within horizontal stratigraphy, strata bound and formed
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.*	No exploration assay results reported, only interim qualitative geological logging results
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 not known').*	No mineralisation 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.*	Appropriate plan location map of drill holes planned in this campaign are included in this ASX announcement
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable,*	All interim exploration drilling results are reported, with qualitative descriptions of

Criteria	JORC Code explanation	Commentary
	representative reporting of both low and high grades and/or widths should be practiced avoiding misleading reporting of Exploration Results.	geological logs that require finalization in order to place the assay results when received into context
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.*	Announced surface auger soils sample assays completed by LLI across claims Historical MT geophysics traverses partially crossed LLI's claims, with inversion images examined Core drilling completed a minimum of approximately 1km to the east of LLI's claims by Nevada Lithium
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.*	Given the encouraging results from LLI's auger soils program geophysics program and drilling within 1km east of LLI's claims by Nevada Minerals, three drill holes are planned in this campaign to test a large sedimentary basin lithium target