

23 May 2022

ASX RELEASE

## **Lithium Brine and Clay Targets Identified from Gravity Data – Clayton Valley, Nevada**

### **Highlights**

- Recently acquired gravity data identifies a highly prospective channel for brine and clay hosted lithium, east of the Clayton Valley.
- Clayton Valley Lithium Project (“Clayton Valley” or “The Project”) covers approximately ~12sqkm of claims in an area endowed with both lithium-rich brines and clays. The Project is located within the southern portion of the Clayton Valley Basin, proximal to the Silver Peak lithium mine which is the only producing lithium mine in North America - owned by the world’s largest lithium producer, Albemarle.
- The Project is approximately 3.5 hours from Tesla’s Gigafactory Number 1, a large lithium-ion battery factory, and adjacent to Pure Energy Minerals (TSXV:PE) current mineral resource.
- Clayton Valley drilling is planned to test high-priority targets in Q3-2022. Whilst the highly prospective Kibby Basin Lithium Project (located 10km east of ASX-listed Ioneer Ltd (ASX: INR) flagship Rhyolite Ridge Lithium-Boron Project) commenced drilling last week.

Marquee Resources Limited (“Marquee” or “The Company”) (ASX:MQR) is pleased to announce the highly encouraging results from a recently completed ground gravity survey at the Clayton Valley Lithium Project, Nevada, USA.

Results from the gravity survey identify a northeast trending channel on the eastern edge of the Clayton Valley that is interpreted to be prospective for brine and clay hosted lithium (Figure 1).

The Company completed an initial drill program (refer ASX release 26 November 2017) that confirmed the presence of lithium brine and a lithium hosting horizon on the Western side of the property. These results, coupled with the gravity results presented in this release, has proven that the lithium potential extends further east than previously considered.

The project is approximately 3.5 hours from Tesla’s Gigafactory Number 1, a large lithium-ion battery factory that sits on a gravity high interpreted to represent a graben (uplifted basin sediments), associated with normal faulting adjacent to Pure Energy Minerals (TSXV:PE) current mineral resource.

Drilling on these highly prospective Clayton Valley targets is planned to be completed in Q3-2022 and will test the high-priority targets generated from the gravity survey.

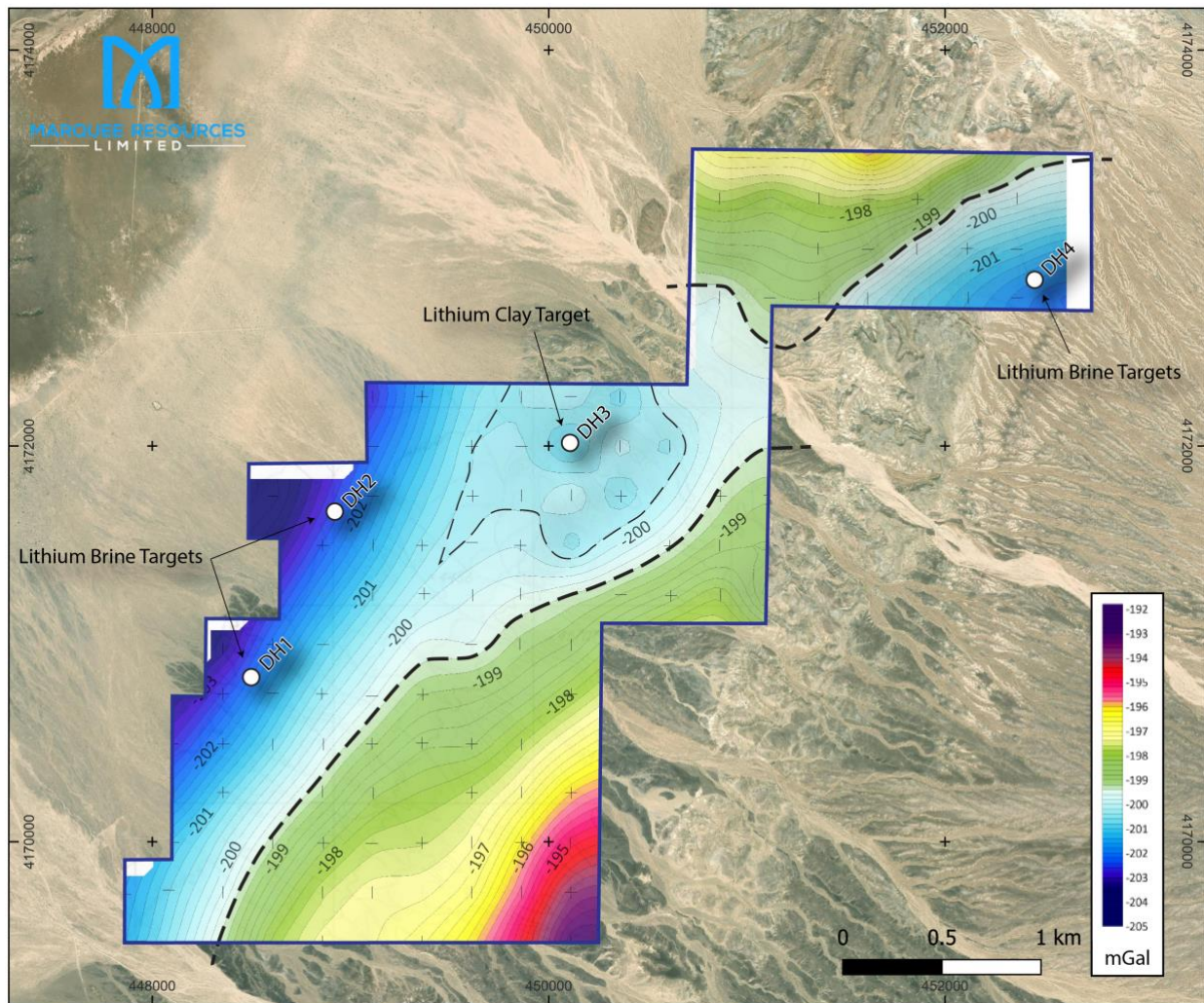


Figure 1: Bouguer Gravity image of the Clayton Valley Project with planned drillhole locations.

### Executive Chairman Comment

Marquee Executive Chairman, Mr. Charles Thomas, commented: "The results from the gravity data are very encouraging in that they show there is depth potential to identify both brine and clay hosted lithium within the project area. From the results of the survey, we have planned drilling to target the best parts of the channel and we look forward to commencement of drilling later this year. We have two fantastic lithium brine Projects in Nevada and are well placed to take advantage of the surge in demand for lithium that is anticipated over the coming years."

### Clayton Valley Project

The Project covers an area of approx. 12km<sup>2</sup> of claims in a region that is endowed in both lithium-rich clays and brines. The Project is situated in the southern portion of the Clayton Valley Basin, proximal to the Silver Peak lithium mine which is currently the only producing lithium mine in North America - owned by the world's largest lithium producer, Albermarle. Clayton Valley is located 60km south of Marquee's Kibby Basin Lithium Project and 10km east of ASX-listed Ioneer Ltd (ASX: INR) flagship Rhyolite Ridge Lithium-Boron Project which has recently been joint ventured with Sibayne Stillwater Ltd.

## COMPETENT PERSON STATEMENT

The information in this report which relates to Exploration Results is based on information compiled by Dr. James Warren, a Competent Person who is a member of the Australian Institute of Geoscientists. Dr. Warren is the Chief Technical Officer of Marquee Resources Limited. Dr. Warren has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australian Code of Reporting of Exploration Results, Mineral Resources and Ore Reserves". Dr. Warren consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

## Forward Looking Statements

Statements contained in this release, particularly those regarding possible or assumed future performance, costs, dividends, production levels or rates, prices, resources, reserves or potential growth of Marquee Resources Limited, are, or may be, forward looking statements. Such statements relate to future events and expectations and, as such, involve known and unknown risks and uncertainties. Actual results and developments may differ materially from those expressed or implied by these forward-looking statements depending on a variety of factors.

This ASX Release has been approved by the Board of Directors.



Charles Thomas – Executive Chairman  
Marquee Resources  
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## JORC Code, 2012 Edition – Table 1 report template

### Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"><li>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.</li><li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li><li>Aspects of the determination of mineralisation that are Material to the Public Report.</li><li>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.</li></ul>	<ul style="list-style-type: none"><li>MWH Geo-Surveys International Inc. carried out a gravity survey in the Clayton Valley claims beginning May 3<sup>rd</sup> 2022 and concluding May 6<sup>th</sup> 2022.</li><li>A Spectra SP 90 dual frequency, multi-constellation GNSS receiver was used as the RTK/PPK GNSS base on this project. The GNSS rovers were Spectra Precision SP80 model receivers. The GNSS receivers track positional satellites in the GPS (US), Glonass (Russian), GALILEO (European) and BeiDou (Chinese) satellite networks. The high number of traced satellites yields high accuracy results in difficult multipath environments.</li><li>A total of 154 unique gravity stations and 12 repeats were collected over the duration of the project. Access to gravity sites was by 4x4 and on foot.</li></ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"><li>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).</li></ul>	<ul style="list-style-type: none"><li>N/A</li></ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"><li>Method of recording and assessing core and chip sample recoveries and results assessed.</li><li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li><li>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.</li></ul>	<ul style="list-style-type: none"><li>N/A</li></ul>



Criteria	JORC Code explanation	Commentary
<b>Logging</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> </ul>	<ul style="list-style-type: none"> <li>All results were reviewed and interpreted the Company's Chief Technical Officer.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>Discuss any adjustment to assay data.</li> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>All data is presented in UTM NAD83 Zone 11 coordinates with an accuracy of +/- 0.5m</li> <li>All gravity stations were located using Stop &amp; Go kinematic methodology using Ranger3 controllers running Spectra 'SurveyPro' software. Repeat positions were collected during gravity repeat measurements to check solutions with other computed positions.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>Gravity survey stations were spaced on a 400m x 400m grid pattern.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The gravity survey was conducted on a grid pattern.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>No specific audits or reviews have been undertaken at this stage in the programme.</li> </ul>