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## POSITIVE CYCLONE & LEACH RESULTS FOR BITTERWASSER LITHIUM CLAYS

### HIGHLIGHTS

#### Cyclone Test Work

- Process Engineering firm Multotec<sup>1</sup> completed cyclone test work aimed at investigating the increase of lithium grade in leach feedstock from Bitterwasser clay ores, and reported that:
  - +85 % of contained lithium reports to <10µ particle sizes
  - 78% of Bitterwasser ore reports at particle sizes of <10µ
- Results indicate a grade increase of 28% in feedstock, and overall lithium recoveries of 89.6%
- Particle separation removes considerable amounts of adverse materials, such as calcite, dolomite and quartz from the leach feedstock

#### Leach Results

- Up to 82% of Lithium recovered after one hour resident time at a temperature of 60°C
- One organic acid outperforming sulphuric acid
- Test work conducted on unprocessed (pre-cyclone) Bitterwasser lithium clay ores
- University of Stellenbosch tested six organic acids compared to industry standard sulphuric acid and confirmed one organic acid outperforming sulphuric acid

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Arcadia Minerals Ltd (ASX:AM7, FRA:8OH) (Arcadia or the Company), the diversified exploration company targeting a suite of projects aimed at Tantalum, Lithium, Nickel, Copper and Gold in Namibia, is pleased to announce positive mineralogical and processing results from Bitterwasser Lithium-in-Clay ores.

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<sup>1</sup> Refer to ASX Announcement dated 7 March 2022 "Positive Lithium Mineralogical Test Results Received".

**Philip le Roux, the CEO of Arcadia stated:** *“We are encouraged by these unprecedented particle size distribution results confirming that undemanding cyclones could offer a viable option to significantly increase Bitterwasser clay grades before leaching take place. An additional boost to our confidence in the project’s potential economic possibilities comes from the University of Stellenbosch’s leach results, which confirmed that industry standard recoveries can be achieved by using potentially low-cost and environmentally friendly organic acids. This forecasts well for our ambitions to establish Bitterwasser as a potential environmentally friendly source of Lithium and the globe’s next economic Lithium-bearing mineral province. We are looking forward to improved results on leaching results with optimisation measures with the second phase of test work on post-cyclone feedstock”.*

### **Cyclone Test Work Results**

Multotec Process Equipment (Pty) Ltd was appointed by Arcadia to conduct cyclone test work on 800kg Bitterwasser representative clay samples from the Eden Pan. The aim of the program was to identify if the fine clay fraction of < 10 $\mu$  fraction, could be separated from the remaining larger material that consist mainly of calcite, dolomite and quartz, and by doing so, the lithium grade in the feedstock material could be increased.

The composite 800 kg auger drilled core sample represents a clay sample combining all the different zones (both the brown and green clay) and from all the boreholes drilled as part of the 2022 drilling campaign (refer to Annexure 1). This sample is regarded a truly representative sample of the Eden Pan clays covering the complete stratigraphy from surface to approximately twelve meters below surface.

After the sample was received by Multotec, the material was blended, and a representative sub-sample was taken to be analysed for particle size distribution (PSD) through a Malvern master-sizer, and specific gravity (SG) through a pycnometer (refer to Annexure 2) for the PSD results. The SG of the material was measured to be 2.4 t/m<sup>3</sup>.

Based on the PSD, SG as well as the pulp relative density (RD) information, the following cyclone configuration was simulated: An FC40 cyclone with 5° cone and 1 barrel was tested. The operating pressure was kept constant at 105kPa. The cyclone sump was filled with water up to 500 litres. The stirrer and cyclone pump were then started with the feed bypassing the cyclone. The sample was gradually added to the sump. The RD of the feed was measured, and water was added to obtain the desired feed RD’s for the test work. Once the desired RD’s of the feed slurry were obtained, it was sampled three times (referred to as the actual feed). The main valve was opened while closing the bypass valve, where the feed slurry was then fed through the cyclone at the operating pressure as per the simulation. The spigot is optimised by changing the size until optimum flaring is achieved. Once the spigot was properly

optimised, the cyclone was allowed to run for 10 minutes to reach steady state before commencing with the RD measurements of the overflow and underflow streams. The necessary RD checks were done and were repeated three times to ensure consistency and repeatability. The cyclone was allowed to reach steady state before sampling the overflow and underflow streams three times (the cyclone products). All the samples collected were prepared to complete the mass balance and the associated PSD analyses and chemical analyses.

The cyclone results indicated that 30.4% of the feed material reported to the underflow (coarse material) and 69.6% of the material to the overflow (fine material). The overflow is showing a cumulative % passing 10µm of 96.9%, which states that majority of the -10µm material is reporting to the underflow stream.

The cyclone test work therefore indicates that if a 14-micron cut size is used, about 70% of the material would report to the overflow and around 97% of this overflow material would be below 10 microns.

Multotec sent the three feed, overflow and underflow samples from the steady stage cyclone products to UIS Analytical Services in Pretoria, South Africa for ICP-OES analytical analyses.

The Li content for the three samples is listed below:

| <b>Sample</b>      | <b>1</b> | <b>2</b> | <b>3</b> | <b>Average</b> |
|--------------------|----------|----------|----------|----------------|
| Feed (Li ppm)      | 640      | 620      | 620      | 633            |
| Overflow (Li ppm)  | 820      | 820      | 790      | 810            |
| Underflow (Li ppm) | 150      | 140      | 150      | 147            |

From the results it is observed that the underflow sample resulted in a 27.9% increase in the grade compared to the ore fed sample.

The cyclone test work has therefore confirmed that using a 14-micron cut off, the cyclone overflow results in a 30% reduction in volume with a concomitant increase of 28% in the lithium grade compared to the ore material. Total lithium recovery could be 89.6%.

Cyclones could therefore be a viable option to increase the Bitterwasser clay deposit grades before leach take place.

## Leach Test Work Results

Arcadia is currently working in conjunction with the Chemical Engineering Department of the University of Stellenbosch on a bulk-scale test work program that includes testing various acid doses, temperatures and leach times using six different organic acids and sulphuric acid as the baseline<sup>2</sup>. The test work could result in the optimisation and potential increase in the leachability of Bitterwasser ores. At the end of the program the most promising acid would be selected to test 100kg of cyclone concentrate (produced by Multotec) for leachability and the production of Lithium carbonate.

Initial leach test work was conducted using six organic and sulphuric acids. Four test cycles were completed for each acid. Two cycles at room temperature were done using no oxidants and 1% vol H<sub>2</sub>O<sub>2</sub>.

The following parameters were used during the test:

- Acid concentration - 1M
- Pulp density -20 g/L
- Temperature - 25 and 60 °C
- Leach time - up to 7 hours

The results of the test work are shown in Appendix 3

Organic acid 1 followed a very similar trend to that of Sulphuric acid at 25°C but outperformed sulphuric acid at 60°C and 1 hour leach time. The organic acid exhibited leach recoveries of 82% of the lithium within 1 hour at a temperature of 60°C.

The second phase of leach test work is currently underway and will include various acid doses, varying PH's, temperatures and leach resident times. Based on these results an acid will be selected to conduct bulk leach test work.

**This announcement has been authorised for release by the directors of Arcadia Minerals Limited.**

For further information please contact:

Jurie Wessels

**Executive Chairman**

**Arcadia Minerals Limited**

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<sup>2</sup> Refer to ASX Announcement dated 24 March 2022 "Elevated Lithium Recoveries from Organic Acid Leaching Compounds"

## COMPETENT PERSONS STATEMENT & PREVIOUSLY REPORTED INFORMATION

The information in this announcement that relates to Exploration Results listed in Appendices below is based on, and fairly represents, information and supporting documentation prepared by the Competent Person whose name appears, who is either an independent consultant to the Company and a member of a Recognised Professional Organisation or a director of the Company. The person named below has sufficient experience relevant to the style of mineralisation and types of deposits under consideration and to the activity which he has undertaken to qualify as a Competent Person as defined in the JORC Code 2012.

| Competent Person                                 | Membership                                                          | Report/Document                   |
|--------------------------------------------------|---------------------------------------------------------------------|-----------------------------------|
| Mr Philip le Roux<br>(Director Arcadia Minerals) | South African Council for Natural Scientific Professions #400125/09 | This announcement and JORC Tables |

The Company confirms that the form and context in which the Competent Person's previous findings, as referenced in footnotes 1 - 3 as announced in previously and presented in this announcements have not been materially modified from the original market announcements.

| Release Date     | ASX Announcements                                                     |
|------------------|-----------------------------------------------------------------------|
| 07 March 2022    | Positive Lithium Mineralogical Test Results Received                  |
| 24 March 2022    | Elevated Lithium Recoveries from Organic Acid Leaching Compounds      |
| 03 November 2022 | Arcadia acquires adjacent lithium project with JORC Mineral Resources |

## MINERAL RESOURCES AND EXPLORATION RESULTS

The information relating to Exploration Results in this announcement is extracted from a report styled "Cyclone Test Work Report for Bitterwasser Exploration and Mining (Pty) Ltd", Multotec Process Equipment (Pty) Ltd, August 2022 and results communication via Email with Prof Christie Dorfling, University of Stellenbosch Chemical Engineering Department, August 2022.

At Bitterwasser a JORC Mineral Resource of 15.1 million tons @ 828ppm Li and 1.79% K (at a cut-off grade of 680ppm Li) representing 6% of the exposed clay pans in the Bitterwasser Pan District was defined over one of 14 clay pans. The Mineral Resource was announced on the 3rd of November 2021<sup>3</sup> and is contained over three exploration licenses, which licenses were the subject of an acquisition that was approved by shareholders on 5 April 2022. See the table below for more details of the Bitterwasser Mineral Resource.

<sup>3</sup> Refer to ASX Announcement dated 3 November 2021 "Arcadia acquires adjacent lithium project with JORC Mineral Resources"

#### **Bitterwasser Lithium-in-Clay Mineral Resource (JORC 2012).**

| Classification         | Tonnage (kt)  | Li Grade ppm | Contained Li (tonnes) | Lithium Carbonate Equivalent (tonnes) |
|------------------------|---------------|--------------|-----------------------|---------------------------------------|
| Total Indicated        | 0             | 0            | 0                     | 0                                     |
| Total Inferred         | 15,100        | 828          | 12,503                | 66,929                                |
| <b>Total Resources</b> | <b>15,100</b> | <b>828</b>   | <b>12,503</b>         | <b>66,929</b>                         |

The Company confirms that it is not aware of any new information or data that materially affects the information included in the Bitterwasser Mineral Resource estimate and all material assumptions and parameters underpinning the estimate continue to apply and have not materially changed from the resource announcement made on 3 November 2021, Independent Geological Report on the Lithium Resource at the Bitterwasser Pan, Hardap Region, Namibia, Dr. Johan Hattingh, Nov. 2021. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

#### **BACKGROUND ON ARCADIA**

Arcadia is a Namibia-focused diversified metals exploration company, which is domiciled in Guernsey. The Company explores for a suite of Gold and new-era metals (Lithium, Tantalum, Palladium, Nickel and Copper). The Company's strategy is to bring the advanced Swanson Tantalum project into production and then to use the cashflows (which may be generated) to drive exploration and development at the potentially company transforming exploration assets. As such, the first two pillars of Arcadia's development strategy (a potential cash generator and company transforming exploration assets) are established through a third pillar, which consists of utilising the Company's human capital of industry specific experience, tied with a history of project generation and bringing projects to results, and thereby, to create value for the Company and its shareholders.

Most of the Company's projects are located in the neighbourhood of established mining operations and significant discoveries. The mineral exploration projects include-

1. Bitterwasser Project – prospective for lithium-in-brines and that includes a potentially expanding JORC Mineral Resource from lithium-in-clays.
2. Kum-Kum Project – prospective for nickel, copper, and platinum group elements.
3. Karibib Project – prospective for copper and gold.
4. The Swanson Project – advanced tantalum project undergoing a feasibility study, and which contains a potentially expanding JORC Mineral Resource within the Swanson Project area and neighbouring tenements held by the Company.

As an exploration company, all the projects of the company are currently receiving focus. However, currently the Swanson project and the Bitterwasser Lithium project may be considered as Arcadia's primary projects due to their potential to enhance the Company's value.

For more details, please visit [www.arcadiaminerals.global](http://www.arcadiaminerals.global)

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## **DISCLAIMER**

Some of the statements appearing in this announcement may be forward-looking statements. You should be aware that such statements are only predictions and are subject to inherent risks and uncertainties. Those risks and uncertainties include factors and risks specific to the industries in which Arcadia operates and proposes to operate as well as general economic conditions, prevailing exchange rates and interest rates and conditions in the financial markets, among other things. Actual events or results may differ materially from the events or results expressed or implied in any forward-looking statement. No forward-looking statement is a guarantee or representation as to future performance or any other future matters, which will be influenced by a number of factors and subject to various uncertainties and contingencies, many of which will be outside Arcadia's control.

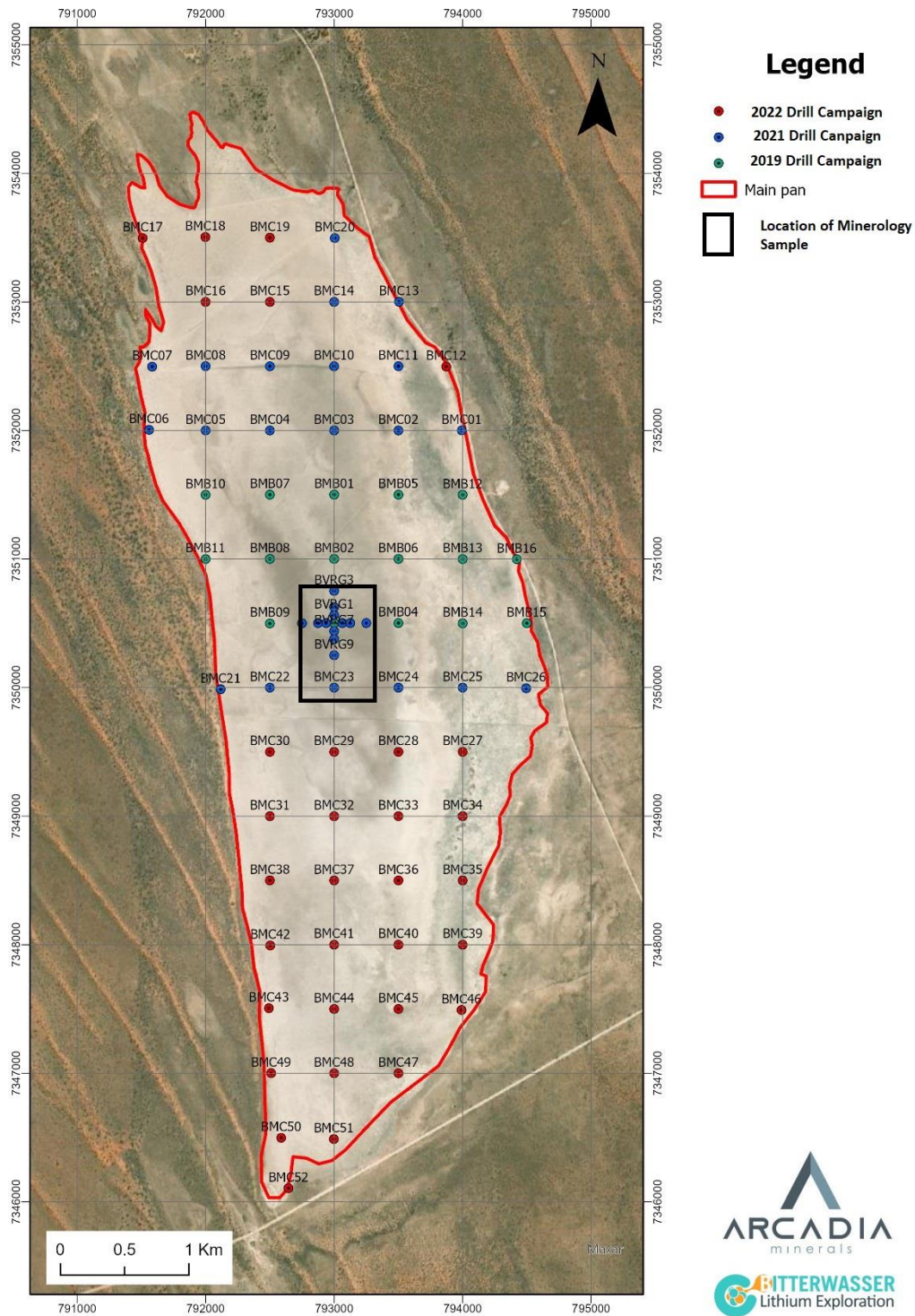
The Company does not undertake any obligation to update publicly or release any revisions to these forward-looking statements to reflect events or circumstances after today's date or to reflect the occurrence of unanticipated events. No representation or warranty, express or implied, is made as to the fairness, accuracy, completeness or correctness of the information, opinions or conclusions contained in this announcement. To the maximum extent permitted by law, none of Arcadia, its directors, employees, advisors or agents, nor any other person, accepts any liability for any loss arising from the use of the information contained in this announcement. You are cautioned not to place undue reliance on any forward-looking statement. The forward-looking statements in this announcement reflect views held only as at the date of this announcement.

This announcement is not an offer, invitation, or recommendation to subscribe for, or purchase securities by the Company. Nor does this announcement constitute investment or financial product advice (nor tax, accounting, or legal advice) and is not intended to be used for the basis of making an investment decision. Investors should obtain their own advice before making any investment decision.



## ANNEXURE 1

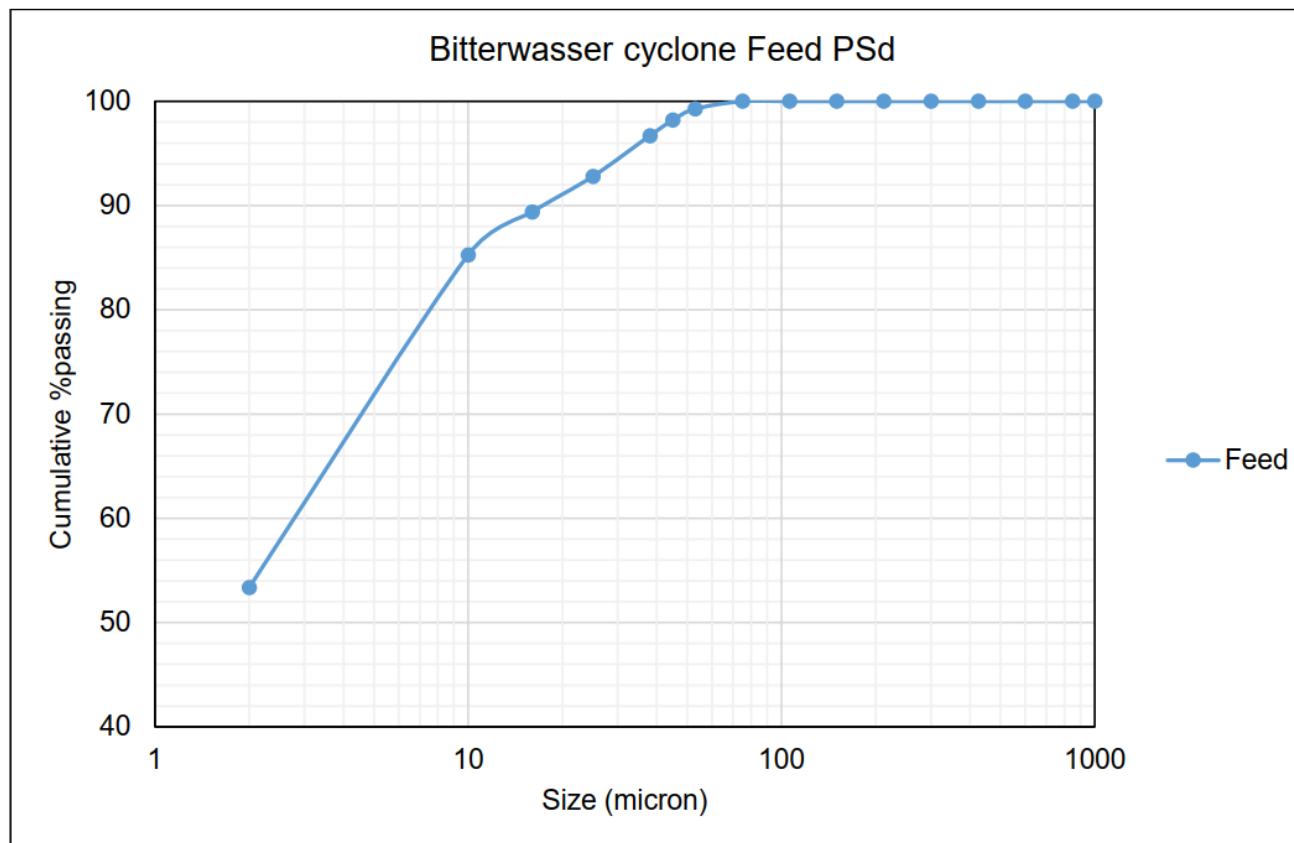
Map indicating the location where the 800kg sample was taken





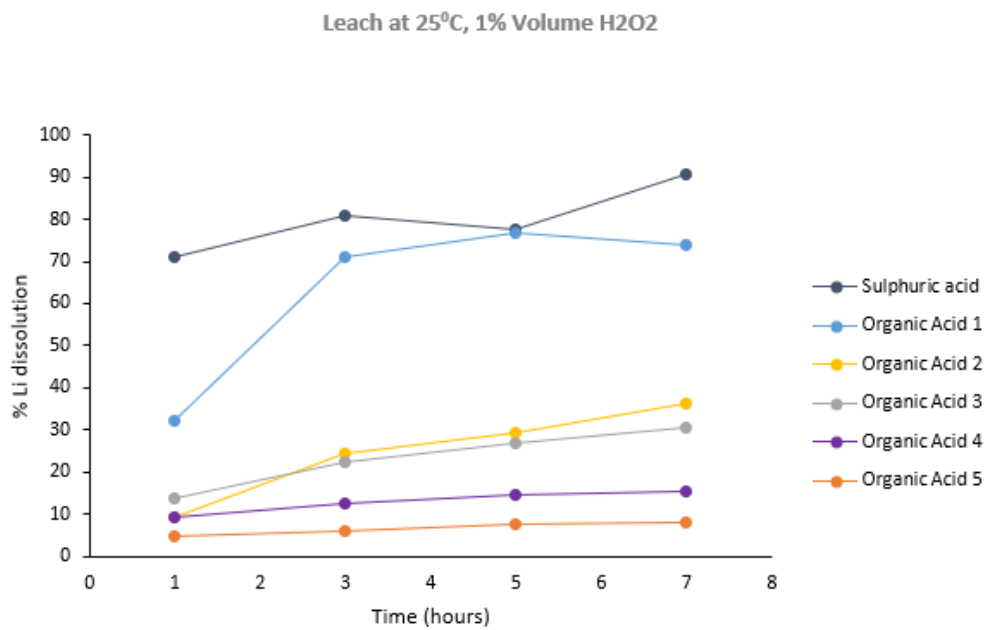
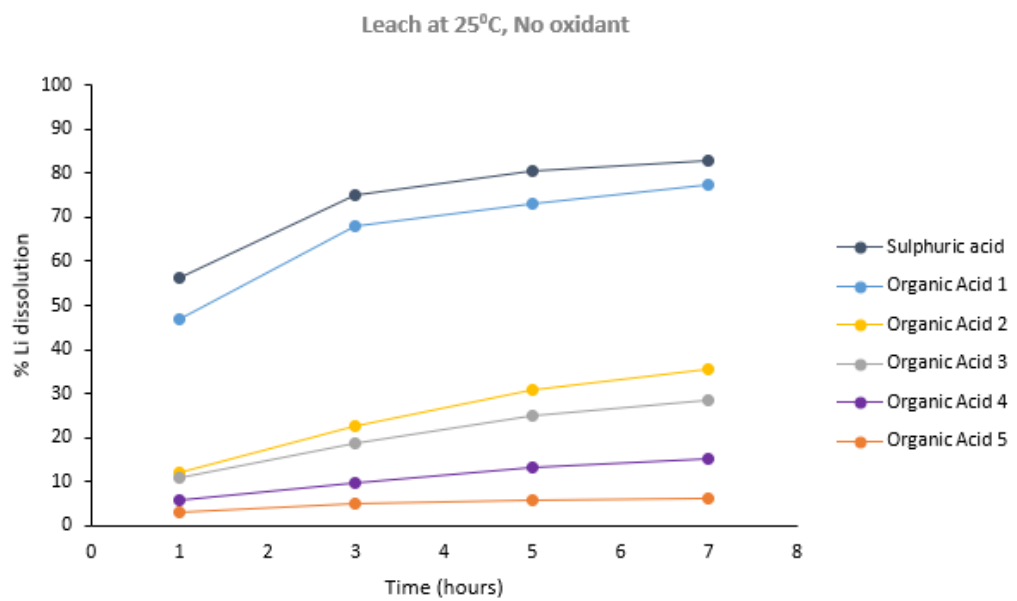
ANNEXURE 2

Particle Size Distribution (PSD) of cyclone feed as per Malvern master-sizer



## ANNEXURE 3

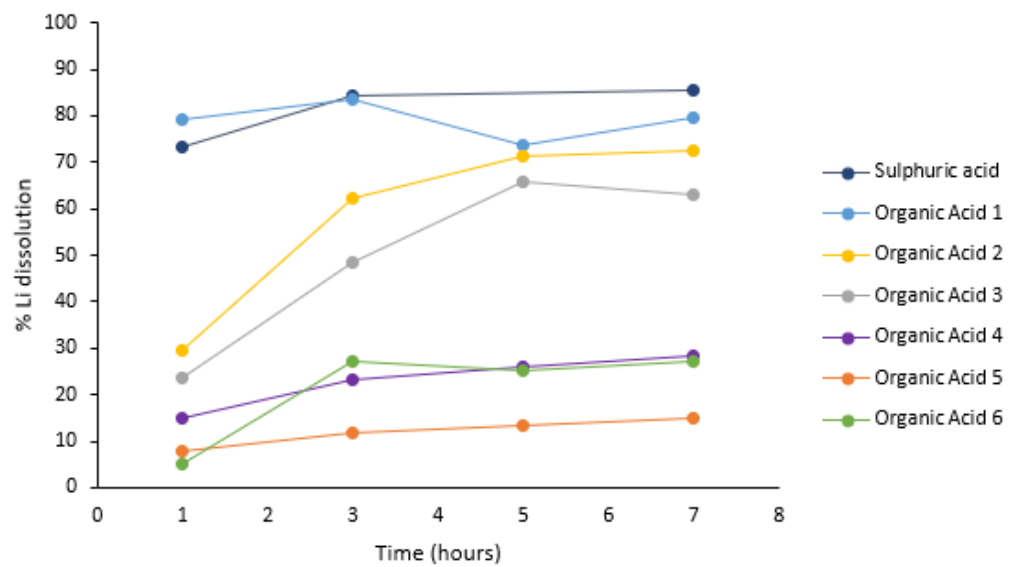
### Leach Test Results



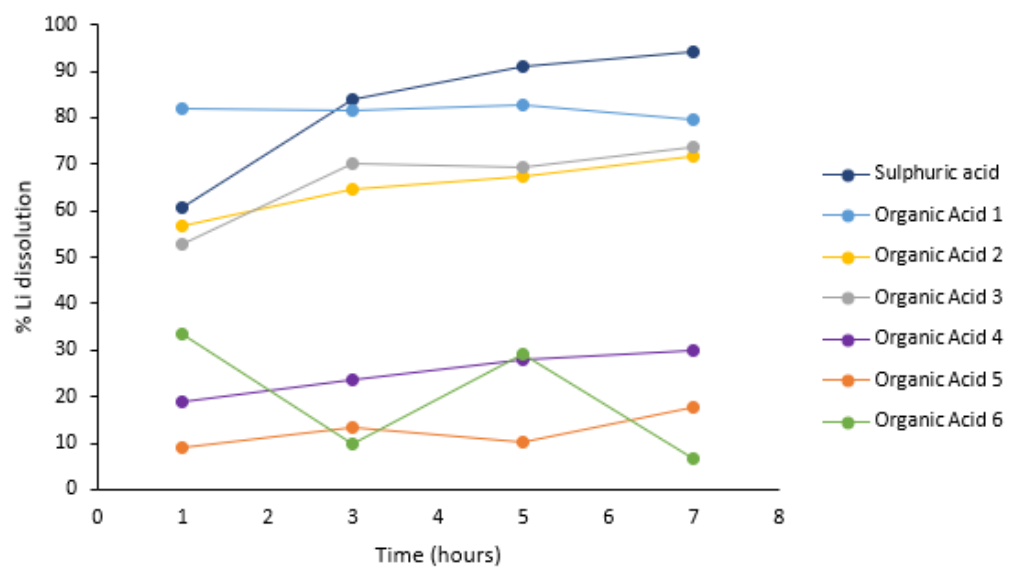
## ANNEXURE 3 (Cont.)

### Leach Test Results

Leach at 60°C, No oxidant



Leach at 60°C, 1% Volume H<sub>2</sub>O<sub>2</sub>



## ANNEXURE 4

### JORC 2012 TABLES

The following Tables are provided to ensure compliance with the JORC Code (2012 Edition) requirements for the reporting of Exploration Results and Mineral Resources at the Bitterwasser Lithium-in-Clays Project.

#### Section 1 Sampling Techniques and Data

| Criteria                   | JORC Code explanation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Sampling techniques</b> | <ul style="list-style-type: none"> <li><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></li> <li><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li><i>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></li> </ul> | <ul style="list-style-type: none"> <li>Sampling was undertaken using industry standard practices and consist of hand-auger drilling by Bitterwasser Lithium Exploration (Pty) Ltd. during December 2021 and January 2022.</li> <li>All drill holes are vertical</li> <li>A total of 370 samples were taken from the core of the drilling campaign, of and 45 for QAQC samples was added.</li> <li>Samples ranged from 317 g to 1090 g.</li> <li>An additional 38 density samples were collected.</li> <li>To minimize sample contamination, the collected sediment samples were placed on a canvas cloth, while the clay-bit was cleaned with a wet cloth and water after every sample.</li> <li>All drill hole and sample locations are mapped in WGS84 UTM zone 33S</li> </ul> |
| <b>Drilling techniques</b> | <ul style="list-style-type: none"> <li><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</i></li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <ul style="list-style-type: none"> <li>64 vertical hand-auger drillholes were drilled perpendicular to the long axis of the main Bitterwasser pan.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

| Criteria                                              | JORC Code explanation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                       | <i>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>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <ul style="list-style-type: none"> <li>The holes were drilled on a 500 m x 500 m grid and have a total core length of 412.60 m.</li> <li>A 250 mm long auger clay-bit with a 90 mm outer diameter was used.</li> <li>The depth of the holes ranged from 1.00 m to 13.00 m.</li> </ul>                                                                                                                                                                                                                                              |
| <b>Drill sample recovery</b>                          | <ul style="list-style-type: none"> <li><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li><i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li><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></li> </ul>                                                                                                                                                                                                                                                                                                                                            | <ul style="list-style-type: none"> <li>Core recovery in the mineralised clay zone was almost 100% due to the cohesive nature of the clay.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples is not recorded in available documents.</li> <li>No apparent bias was noted between sample recovery and grade.</li> </ul>                                                                                                                                                            |
| <b>Logging</b>                                        | <ul style="list-style-type: none"> <li><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></li> <li><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li><i>The total length and percentage of the relevant intersections logged.</i></li> </ul>                                                                                                                                                                                                                                                                                                                  | <ul style="list-style-type: none"> <li>All drill holes were fully logged and are qualitative.</li> <li>The core has been logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>The total length of the mineralized clay logged is 412.60 m</li> </ul>                                                                                                                                                                                                 |
| <b>Sub-sampling techniques and sample preparation</b> | <ul style="list-style-type: none"> <li><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li><i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li><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></li> <li><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul> | <ul style="list-style-type: none"> <li>Each of the 370 samples was split into two. One split was for chemical analysis and the other split for is kept for mineralogical and metallurgical test work.</li> <li>The Middle clay was composite sampled at an interval of 0.20 m to 2.80 m average of 1.43m and the Upper Clay Unit was sampled at an average interval of 0.20 m to 5.00 m average 0.92m.</li> <li>For the cyclone test work a composite sample from all the cores of the 2022 drilling campaign was taken</li> </ul> |

| Criteria                                          | JORC Code explanation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Quality of assay data and laboratory tests</b> | <ul style="list-style-type: none"> <li><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li><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></li> <li><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></li> </ul> | <ul style="list-style-type: none"> <li>The samples were analysed at ALS in Namibia, where sample preparation took place, and the samples was then sent to ALS in Ireland.</li> <li>Sodium peroxide fusion ICP-MS finish for analysis of Li (ppm), K (%), Al (%), Cr (%), Si (%), Ti (%), As (ppm), Cd (ppm), Fe (%), Mg (%), Mn (%), P (%), Co (%) and Y (%) was done.</li> <li>The QAQC samples consisted of African Minerals Standards (Pty) Ltd's (AMIS) certified reference materials AMIS0683 (standard), and AMIS0577 (blank) and were inserted on average every 6 – 7 m within the sampling stream.</li> <li>It is assumed that industry best practices were used by the laboratories to ensure sample representivity and acceptable assay data accuracy, however the specific QAQC procedures used are not recorded in available documents</li> <li><b><i>The bulk sample was sent to Multotec in South Africa for cyclone test work</i></b></li> </ul> |
| <b>Verification of sampling and assaying</b>      | <ul style="list-style-type: none"> <li><i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li><i>The use of twinned holes.</i></li> <li><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li><i>Discuss any adjustment to assay data.</i></li> </ul>                                                                                                                                                                                                                                                                                     | <ul style="list-style-type: none"> <li>All samples and data were verified by the project geologist.</li> <li>All sample material was bagged and tagged on site as per the specific clay unit it was located on. The sample intersections were logged in the field and were weighed at the sampling site.</li> <li>All hard copy data-capturing was completed at the sampling locality.</li> <li>All sample material was stored at a secure storage site.</li> <li>The original assay data has not been adjusted.</li> <li>Recording of field observations and that of samples collected was done in field notes and transferred to and electronic data base following the Standard Operational Procedures.</li> <li>No twin holes were drilled.</li> </ul>                                                                                                                                                                                                      |
| <b>Location of data points</b>                    | <ul style="list-style-type: none"> <li><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></li> <li><i>Specification of the grid system used.</i></li> <li><i>Quality and adequacy of topographic control.</i></li> </ul>                                                                                                                                                                                                                                                                                                                                      | <ul style="list-style-type: none"> <li>The locations of all the samples were recorded.</li> <li>The sample locations were GPS captured using WGS84 UTM zone 33S.</li> <li>The quality and accuracy of the GPS and its measurements is not known, because it is not stated in available documents.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |



| Criteria                                                       | JORC Code explanation                                                                                                                                                                                                                                                                                                                                                                                                                              | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Data spacing and distribution</b>                           | <ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <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></li> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>                        | <ul style="list-style-type: none"> <li>• The drill holes are spaced on a 500 m x 500 m grid.</li> <li>• The data spacing and distribution of the drill holes and samples 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>• The Middle clay was composite sampled at an interval of 0.20 m to 2.80 m average of 1.43m and the Upper Clay Unit was sampled at an average interval of 0.20 m to 5.00 m average 0.92m.</li> </ul>       |
| <b>Orientation of data in relation to geological structure</b> | <ul style="list-style-type: none"> <li>• <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></li> <li>• <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></li> </ul> | <ul style="list-style-type: none"> <li>• The holes were all drilled vertical and perpendicular to the sediment horizons and all the sediment horizons were sampled equally and representative.</li> <li>• The lithium is not visible; therefore, no bias could take place when selecting the sample position.</li> <li>• The orientation of the sampling is unbiased.</li> <li>• The relationship between the sampling orientation and the orientation of key mineralized structures is not considered to have introduced a sampling bias.</li> </ul>                          |
| <b>Sample security</b>                                         | <ul style="list-style-type: none"> <li>• <i>The measures taken to ensure sample security.</i></li> </ul>                                                                                                                                                                                                                                                                                                                                           | <ul style="list-style-type: none"> <li>• Bitterwasser Lithium Exploration (Pty) Ltd. maintained strict chain-of-custody procedures during all segments of sample handling, transport and samples prepared for transport to the laboratory are bagged and labelled in a manner which prevents tampering. Samples also remain in Bitterwasser Lithium Exploration (Pty) Ltd control until they are delivered and released to the laboratory.</li> <li>• An export permit was obtained from the Namibian Mining Department to transport the samples across the border.</li> </ul> |
| <b>Audits or reviews</b>                                       | <ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>                                                                                                                                                                                                                                                                                                                   | <ul style="list-style-type: none"> <li>• Audits and reviews were limited to the Standard Operational Procedures in as far as data capturing was concerned during the sampling.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                      |

## **Section 2 Reporting of Exploration Results**

| Criteria                                       | JORC Code explanation                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Commentary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Mineral tenement and land tenure status</b> | <ul style="list-style-type: none"> <li>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.</li> <li>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.</li> </ul> | <ul style="list-style-type: none"> <li>The Bitterwasser Project area is east of Kalkrand in south central Namibia, some 190 km south of Windhoek in the Hardap Region.</li> <li>The Bitterwasser Lithium Project comprise of three exclusive exploration licences, EPLs 5353, 5354 and 5358, all held by Bitterwasser Lithium Exploration (Pty) Ltd.</li> <li>The project covers a total area of 59 323.09 hectares.</li> <li>A land-use agreement, including access to the property for exploration has been obtained through the Ministry of Agriculture, Water and Forestry of Namibia and the two landowners of which the drilling took place.</li> </ul>                                                                         |
| <b>Exploration done by other parties</b>       | <ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                  | <ul style="list-style-type: none"> <li>A regional reconnaissance investigation in the form of a systematic field survey covering the entire southern Namibia and some parts of the Northern Cape Province of South Africa was done during 2009 and 2010. The reconnaissance investigation was aimed at establishing the prospectiveness of the area that could potentially sustain economic exploitation of soda ash and lithium.</li> </ul>                                                                                                                                                                                                                                                                                          |
| <b>Geology</b>                                 | <ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                  | <ul style="list-style-type: none"> <li>The Main Bitterwasser Pan forms part of the Cenozoic aged Kalahari Group and comprises a lithium, potassium and boron enriched sulphate-, chlorite- and carbonate- saltpan.</li> <li>Post-Cretaceous Brukkaros alkaline volcanics and sub-volcanics in the area and are potential source rocks for the lithium.</li> <li>The presence of an active deep-seated connate/hydrothermal water circulation network is suggested, which acts as a transport mechanism for lithium bearing brines into the overlying Gordonia Formation pan sediments.</li> <li>High evaporation rates (&gt;3200 mm/year) occurring in the area are favourable for brine formation and salt-concentration.</li> </ul> |

| Criteria                                                                | JORC Code explanation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Commentary                                                                                                                                                                                                        |
|-------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Drill hole Information</b>                                           | <ul style="list-style-type: none"> <li>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: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul> | <ul style="list-style-type: none"> <li>Drill results have been described in annexure 3 of this report and all relevant data is included in the report.</li> </ul>                                                 |
| <b>Data aggregation methods</b>                                         | <ul style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>                                                                                                                                                                          | <ul style="list-style-type: none"> <li>Two clay units was identified the Upper and Middle unit and each was in samples independently.</li> </ul>                                                                  |
| <b>Relationship between mineralisation widths and intercept lengths</b> | <ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>                                                                                                                                                                                                                                                                                                                                                      | <ul style="list-style-type: none"> <li>The drill holes were all drilled vertical, with the clay units being horizontal.</li> <li>The mineralized clay thickness intercepted range from 1 m to 12.80 m.</li> </ul> |

| Criteria                                  | JORC Code explanation                                                                                                                                                                                                                                                                                                                                                                                                                   | Commentary                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Diagrams</b>                           | <ul style="list-style-type: none"> <li>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.</li> </ul>                                                                                                                    | <ul style="list-style-type: none"> <li>The appropriate diagrams and tabulations are supplied in Annexure 3.</li> </ul>                                                                                                                                                                                                                                                                     |
| <b>Balanced reporting</b>                 | <ul style="list-style-type: none"> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced avoiding misleading reporting of Exploration Results.</li> </ul>                                                                                                                                                             | <ul style="list-style-type: none"> <li>This report has been prepared to present the prospectivity of the project and results of historical and recent exploration activities.</li> <li>All the available reconnaissance work results have been reported.</li> </ul>                                                                                                                        |
| <b>Other substantive exploration data</b> | <ul style="list-style-type: none"> <li>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.</li> </ul> | <ul style="list-style-type: none"> <li>The Namibian Government conducted a regional magnetic survey in the area.</li> <li>The Namibian Government conducted a radiometric survey of potassium in the area.</li> <li>An electromagnetic (EM) survey was done by the groundwater consultancy Geoss during October 2019.</li> </ul>                                                           |
| <b>Further work</b>                       | <ul style="list-style-type: none"> <li>The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>                                    | <ul style="list-style-type: none"> <li>The next exploration phase should focus on the further in-fill drilling to increase the resource classification on the Eden pan, while also conducting exploration on some of the other pans in the region.</li> <li>Mineralogical and metallurgical test work would also be done to prove that the Li could be extracted from the clay.</li> </ul> |