
ARCADIA COMMENCES DRILLING PROGRAM AT ITS BITTERWASSER LITHIUM CLAYS PROJECT

Arcadia Minerals Ltd (ASX:AM7, DAX:8OH) (Arcadia), the diversified exploration company targeting a suite of projects aimed at Lithium, Tantalum, Nickel, Copper and Gold in Namibia, is pleased to announce the commencement of a drilling program to potentially expand on the existing JORC Mineral Resource over the Bitterwasser Lithium Clays Project located in Namibia.

HIGHLIGHTS

- Follow-up auger drilling program has commenced on the recently announced Bitterwasser Lithium Clays Project acquisition, which remains subject to shareholder approval
- Initial drilling on a 500m grid spacing consisting of 52 holes, and 12 boreholes for geostatistical analysis, is expected to be completed by January 2022
- Drilling will test extensions of the existing inferred JORC Mineral Resource of 15.1 million tons @ 828ppm Li and 1,79% K, situated at one of the 7 exposed pans in the Bitterwasser Pan District
- 300 kg bulk sample to be taken from drill cores and dispatched to leading European industrial and specialty minerals producer and engineering company Anzaplan (Dorfner Group) who will undertake mineralogy and metallurgical analysis on the clays from the Bitterwasser Clay Project to study extraction of Lithium from the clays using proprietary technology
- The Company will provide further updates as assay results are received
- Lexrox will self-fund the work program and, subject to the acquisition being approved by shareholders, be reimbursed for costs associated with this program

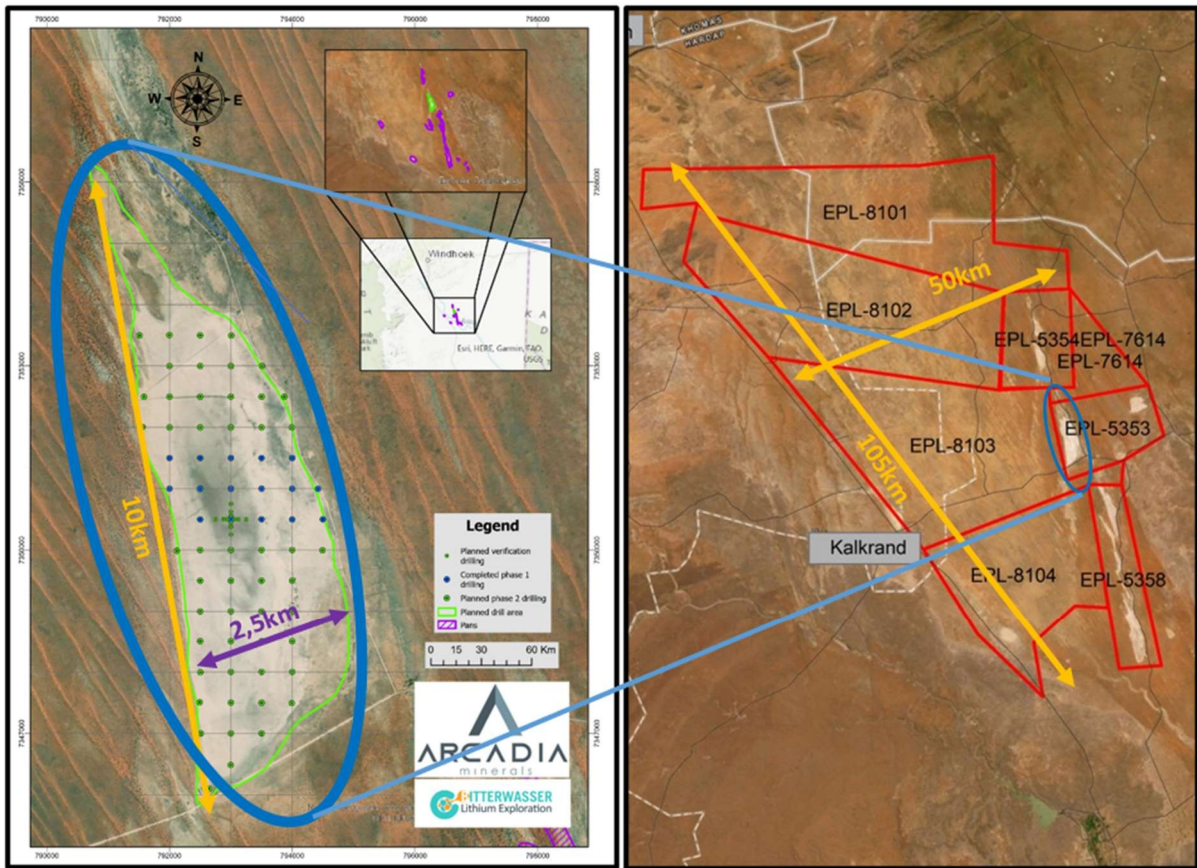
Arcadia Minerals Ltd (ASX:AM7) (Arcadia or the Company) is pleased to announce the commencement of a 64-hole hand auger drilling program at the recently announced Bitterwasser Lithium Clay Project in Namibia, which project is the subject of an acquisition that is conditional upon Arcadia shareholders' approval.

The Bitterwasser Lithium Clay Project currently contains an **inferred JORC Mineral Resource of 15.1 million tons @ 828ppm Li and 1,79% K (at a cut-off grade of 680ppm Li)¹**, located in

¹Refer ASX announcement dated 3 November 2021. The Company confirms that it is not aware of any information or data that materially affects the information included in the market announcement, and that all material assumptions and technical parameters underpinning the announcement continue to apply.

one of seven exposed pans and from an area that represents approximately 6% of the exposed clay pan surfaces. The Bitterwasser Lithium Clay Project forms part of the greater Bitterwasser Lithium-in-Brines-and-Clays Prospect where the potential exists to discover a new province of lithium mineralisation containing sub-surface lithium-in-clay deposits and several lithium-in-brines aquifers.

The aim of the upcoming drilling program is to potentially expand on the existing resource located in one of the pans located in the project area (**refer to Map 1 below**), which area contains seven exposed clay pans in a license area covering ~593km². Depending on results attained from scout drilling, the remaining six pans will be drilled in a follow up drilling program next year.



Map 1

Map 2

The combined land package of 4,031Km² of the greater Bitterwasser Lithium-in-Brines-and-Clays Prospect (**see Map 2 above**) covers prospective ground over a geological feature known as the Kalkrand Half-Graben. The Kalkrand Half-Graben displays first order requirements to

possibly qualify as the world's latest district scale Lithium province similar to Clayton Valley in Nevada, USA.

Exploration Strategy

The Company remains well capitalised for its exploration programs and will continue to systematically evaluate targets over its highly prospective project portfolio in Namibia.

With the commencement of the drilling program at the Bitterwasser Lithium Clay Project, the Company is now actively exploring 3 of its four projects by:

- Drilling at the Swanson Tantalum project where three drill rigs are currently operating,
- Drilling at the Bitterwasser Lithium Clay Project, and
- Conducting mineralogical and geophysical investigations at the Kum-Kum Nickel and PGE project.

At the Swanson Tantalum Project an ongoing drilling program with two drill rigs are currently underway to possibly extend the existing Tantalum resource of 1,2Mt (Indicated and Inferred) at an average grade of 412ppm (412g/t) Ta₂O₅, 76ppm (76g/t) Nb₂O₅ and 0.29% (2,900g/t) Li₂O² declared over 4 of 15 outcropping LCT pegmatites at Swanson Project. Together with the upcoming drill program at Bitterwasser, the Company will have two active drilling campaigns aimed at possibly expanding existing resources.

Evaluation of the greater Bitterwasser Lithium-in-Brines-and-Clays Prospect is underway through a team of experts who are assessing and formulating an optimal exploration model to guide investigation of the sub-surface lithium-in-brine and lithium-in-clays potential of the Kalkrand Half-Graben contained in the project area of 4,031Km². The Company plans to drill two stratigraphic drill holes, which are to be sited by the team of experts.

At the Kum-Kum Nickel and PGE Project the mineral systems approach study is reaching its conclusion and a geophysical survey is underway to possibly identify drill targets.

With the ongoing drilling campaigns and strategy to rapidly advance the Swanson Tantalum project to a potential cash generating mining operation, **the Company is executing its three-pillar exploration strategy of becoming a potential cash generator (pillar 1), exploring its potentially company transforming assets (pillar 2) and utilising its human capital of industry specific experience tied with a history of project generation and bringing projects to delivering results (pillar 3).**

² Refer ASX announcement dated 23 September 2021. The Company confirms that it is not aware of any information or data that materially affects the information included in the market announcement, and that all material assumptions and technical parameters underpinning the announcement continue to apply.

Planned Drilling Work at Bitterwasser Lithium Project

LexRox Management Services (Pty) Ltd (LexRox), a South African company owned and operated by the executive directors of Arcadia, and who ceded and assigned the rights to acquire the Bitterwasser Lithium Clay Project, will fund the upcoming work-program and be reimbursed for the costs associated with the program subject to Arcadia shareholders' approval for the acquisition. Shareholder approval for the proposed transaction must be sought pursuant to ASX Listing Rule 11.1.2. A notice of meeting will be dispatched to shareholders as soon as the required supporting information, including an independent technical report, a solicitor's report on the tenements, a detailed work program and the proposed use of funds in relation to the acquisition, is available. If the transaction is approved, the Company will reimburse Lexrox for the costs associated with the work program, estimated to be approximately \$50,000. If the acquisition is not approved, the cession will fail and LexRox will be reinstated as purchaser.

Only 26% of the main pan has been drill tested to date, which drilling delivered a maiden inferred JORC Mineral Resource of 15.1 million tons @ 828ppm Li and 1,79% K (at a cut-off grade of 680ppm Li). The pan that contains the maiden resource is only one of seven exposed clay pans. The resource represents 6% of the total exposed clay pan surface areas and lies within three license areas that are cumulatively 593km² in extent. Following completion of the evaluation and the formulation of an optimal exploration model, the Company will embark on an exploration program to identify sub-surface clay pans that may exist over the remainder of the Company's 3,438km² Bitterwasser Lithium-in-Brines-and-Clays Prospect but which are untested given these potential pans may be unexposed.

The 64-hole auger program will be done on a 500m grid line spacing (52 holes) and an additional 12 holes for geostatistical analyse with most holes expected to reach a maximum depth of 13m. This drilling program will not test mineralisation that may be located deeper into the Bitterwasser basin (Kalkrand Half-Graben).

Lexrox will use drill material to make up a 300kg representative bulk sample and send it to leading European industrial and specialty minerals producer and engineering company Anzaplan (Dorfner Group), who will undertake minerology and metallurgical analysis on the clays from Bitterwasser to study extraction of Lithium from the clays using Anzaplan's proprietary technology.

Samples from the 64-hole drill program will be sent for analyses to Scientific Services Laboratories in Cape Town, South Africa. Assay results will be released to the market upon receipt, which is expected to be delivered the first quarter of 2022. If assay results are positive, the Company expects to provide an expanded resource shortly thereafter.

Comparable Clay Projects

Lithium production from clays on a commercial scale is still in its infancy; however, several companies are currently working towards implementation of recently developed lithium recovery techniques from clays³.

Clay deposits in similar geological settings are presently being developed in Clayton Valley in Nevada USA, by Cypress Development and Noram Ventures in close proximity (within 1.5km²) to the Lithium-in-Brine operations of Albermarle Corp. and Pure Energy Minerals⁴.

	Arcadia	Noram	Cypress
Resource in tonnes	15.1Mt*	363Mt	1,304Mt
Resource Classification	Inferred	Meas. and Ind.	Indicated
Cut-off	680ppm	400ppm	400ppm
Stage of Development	Discovery	Pre-PEA	PFS
Average. Grade	828ppm	923ppm	904ppm
Att. Interest	50%	100%	100%
Land Package	403,100ha (4 031km ²)	2,197ha (23.94Km ²)	2,197ha (21.9Km ²)
Brine Potential	To be determined	1.6km from Albermarle Corp's Silver Peak Brine operations.	Adjacent to Pure Energy Ltd and Albermarle Corp's Lithium-in-Brine operations

Table 2: Peer comparison of clay projects in Clayton Valley, Nevada, USA.

* Over only 6% of exposed clay pans. Potential exists to increase resource over exposed clay pans and potential sub-surface clay pans over the existing 3,438Km² of the Bitterwasser Lithium Project

³ Refer <https://www.cypressdevelopmentcorp.com/news/2021/cypress-development-enters-into-license-agreement-with-chemionex-for-their-dle-technology-equipment-for-clayton-valley-lithium/>.

⁴ Refer <https://noramlithiumcorp.com/resource/clayton-valley/>.

Cypress Development initially (before additional exploration) reported average lithium grades of 867 ppm Li, while Noram Ventures reported lithium grades of 858 ppm Li, which is very similar to the estimated average grade of the Mineral Resources reported to date within the Bitterwasser Main Pan⁵.

Additional Information: Bitterwasser Pan District

Exploration work conducted by LexRox since 2019 was limited to the Bitterwasser main pan. The work included a ground electrical conductivity survey, the hand-auger-drilling of 16 drillholes on a 500m grid over the central parts of the main pan and the analysis of 74 auger drill core samples. The ground electrical conductivity survey conducted identified an anomalous electrical-conductive body that may indicate the presence of a lithium-in-brine aquifer at depth.

The shallow hand auger drilling programme, which forms the basis of the Mineral Resource, covered approximately 26 % of the entire surface area of the Bitterwasser main saltpan. Results from the drilling program indicated the presence of significant lithium-in-clay mineralisation overlying the anomalous electrical-conductive body identified during the ground electrical conductivity survey. The lithium-clay mineralisation intersected within the relatively small area prospected was spatially continuous, trended moderately sub-parallel to the long axis of the saltpan and consistently yielded prospective Li grades. The clays increased in thickness and lithium content towards the central portions of the pan where Li grades approaching 1,200 ppm were encountered, which is in-line with similar projects situated near producing lithium mines in other parts of the world.

The exploration programme was aimed at characterizing the general stratigraphic sequence and to investigate the pan's lithium potential in terms of economic viability. Auger sampling confirmed the presence of a lithium-in-clay resource comparable in grade and extent to that owned by major exploration companies in Nevada, USA. In addition, it was found that the geological and environmental requirements for the formation of significant lithium-in-clay and lithium-in-brine deposits are present. However, the lithium grade in the indicated brines are yet to be confirmed through appropriate exploration techniques. Sufficient evidence exists to suggest the presence of a lithium-in-brine aquifer in the Bitterwasser Saltpan district.

Supporting evidence comes from geological and environmental indicators identified through Bitterwasser Lithium Exploration (Pty) Ltd's reconnaissance exploration efforts to date. Such evidence includes water-quality data (total dissolved solids and electrical conductivity) from

⁵ Refer to <https://www.cypressdevelopmentcorp.com/projects/nevada/technical-reports/> for Cypress and the Noram NI 43-101 resource estimate report downloadable from the link referred to in footnote 3 above).

domestic water supply boreholes in the area, lithium-in-clay grades from hand auger drilling and associated electrical-conductive anomalies, the presence of conductive regional tectonic structures, favourable source rocks and climatic conditions in proximity to an enclosed basin. Such geological and environmental indicators are comparable in nature to known lithium-in-brine districts in other parts of the world.

Other economically significant saltpan districts around the world are associated with anomalous K and B values. The lithium mineralisation associated with the lithologies documented at Bitterwasser's main saltpan yielded B values of > 400 ppm and K values consistently > 1.8 wt. %. This emphasises the geochemical similarities with other globally significant saltpan districts.

The Bitterwasser Saltpan District is associated with the depositional development of the western portions of the greater Kalahari basin. It lies remarkably close to the inferred source of mineralisation, being the alkaline Brukkaros volcanic field. Elevated groundwater temperatures, as high as 39 °C, have been reported from domestic water-supply boreholes in close vicinity to the saltpans suggesting a deep-seated geothermal heat source and mineralisation mechanism. The thickness of the sedimentary packages which make up the Bitterwasser saltpans range between 30 m to 100 m thick and are of sufficient size and porosity to accommodate substantial brine aquifers.

The discovery of the Bitterwasser Saltpan District was preceded by the sampling of saltpan clay sediments from several saltpan districts throughout southern Namibia and north-western South Africa over a total area of some 450 km x 200 km. Out of the 130 samples taken over all the pans in the area, the Bitterwasser Saltpan District showed anomalous lithium values. At this initial stage, 26 surface samples were taken from the Bitterwasser saltpans of which 16 samples returned values between 300 to 550 ppm Li and Boron values as high as 400 ppm.

The Bitterwasser Main Saltpan (1,550 ha in surface area) forms part of the Cenozoic aged Kalahari Group and comprises a lithium, potassium and boron enriched sulphate, chlorite and carbonate saltpan district consisting of 7 pans, totalling 6,939 ha in surface area. The pan sediments can be divided into two stratigraphic units. A lower, relatively lithium poor, partially consolidated and/or indurated, poorly sorted and graded unit; dominated by sand, grit and pebbly-grit, with minor to moderate clay constituents and an Upper, lithium enriched, unconsolidated, well sorted and reasonably homogenous unit; dominated by clay and silty-clay. A well-developed redox (reduction-oxidation) boundary occurs throughout the pan

which crosscuts the Upper Unit. The redox boundary is recognized through a change in colour of the clays with increasing depth. Near surface oxidized clay exhibit white, brown, grey-brown or orange (sometimes mottled) colours (Upper Clay), while the colour of the deeper reduced clays gradually changes from light olive green to dark olive green with increasing depth (Lower Clay).

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

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COMPETENT PERSONS STATEMENT & PREVIOUSLY REPORTED INFORMATION

The persons 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 quality as a Competent Person as defined in the JORC Code 2012.

Competent Person	Membership	Report/Document
Mr Philip le Roux B.Sc. (Hons.)	South African Council for Natural Scientific Professions #400125/09	This announcement

The information relating to Exploration Results and Mineral Resources in this announcement is extracted from the announcements referenced above where applicable. The Company confirms that it is not aware of any new information or data that materially affects the Exploration Results and Mineral Resource information included in the Prospectus and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the Prospectus continue to apply and have not materially changed. The Company confirms that the form and context in which the applicable Competent Persons’ findings are presented have not been materially modified from the Prospectus.

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