ATLANTIC LITHIUM

# PROSPECTUS

LISTING BY INTRODUCTION

Of existing 649,669,053 ordinary shares of Atlantic Lithium Limited

## LISTING BY INTRODUCTION

Of existing 649,669,053 ordinary shares of Atlantic Lithium Limited

This document was prepared and submitted by:

**ARRANGERS**

BLACK STAR BROKERAGE

**SPONSORING BROKER**

BLACK STAR BROKERAGE

**LEGAL ADVISOR**

JLD & MB LEGAL CONSULTANCY

**REPORTING ACCOUNTANT**

SCG CHARTERED ACCOUNTANTS

**REGISTRAR**

CENTRAL SECURITIES DEPOSITORY (GH) LTD
*You invest, we protect*

**GEOLOGIST CONSULTANT**

srk

26 April 2024

CONTENTS

## IMPORTANT INFORMATION AND DISCLAIMERS

**THIS PROSPECTUS CONTAINS IMPORTANT INFORMATION ABOUT THE ISSUER AND ITS BUSINESS ACTIVITIES. RESPONSIBILITY FOR THE ACCURACY OF THE INFORMATION IN THIS DOCUMENT LIES WITH THE ISSUER'S DIRECTORS. TO THE BEST OF THE KNOWLEDGE AND BELIEF OF THE DIRECTORS, HAVING TAKEN ALL REASONABLE CARE, THE INFORMATION IN THIS DOCUMENT IS IN ACCORDANCE WITH THE FACTS. INVESTORS CONTEMPLATING PURCHASING SHARES SHOULD CAREFULLY READ THIS DOCUMENT AND CONSULT THEIR PROFESSIONAL INVESTMENT ADVISORS AND DEALERS BEFORE MAKING AN INVESTMENT DECISION. ANNOUNCEMENTS RELATING TO THE ISSUER ARE ALSO MADE ON THE ALTERNATIVE INVESTMENT MARKET (LONDON STOCK EXCHANGE), THE AUSTRALIAN SECURITIES EXCHANGE AND THE COMPANY WEBSITE (WWW.ATLANTICLITHIUM.COM.AU). INVESTORS SHOULD CONSULT THEIR PROFESSIONAL ADVISORS IF THEY HAVE QUESTIONS ABOUT THEIR INVESTMENT DECISION.**

Atlantic Lithium Limited (the "Issuer") is a lithium-focused mineral exploration and development company with an advanced lithium pegmatite asset in Ghana and granted and under-application lithium pegmatite exploration assets in Ghana and Ivory Coast.

An application has been made to the Ghana Stock Exchange ("GSE") and provisional approval has been obtained for the secondary listing by introduction of shares of the Issuer (the "Shares") on the Main Market (hereinafter referred to as the "Listing") subject to the fulfillment of all listing requirements. The GSE and the Securities and Exchange Commission ("SEC") assume no responsibility for the correctness of any of the statements made, opinions expressed, and reports presented in this document. Admission to the GSE is not to be taken as an indication of the merits of the Issuer or of the Shares.

The Issuer has not authorized any person to give any information or to make any representation in relation to the Listing other than those contained in this document, and if given or made, such information or representation must not be relied upon as having been authorized.

The distribution of this document in certain jurisdictions may be restricted by law. Persons into whose possession this document comes are required by the Issuer to inform themselves about and observe any such restrictions. **This document does not constitute an offer and may not be used for the purpose of an offer or solicitation by anyone in any jurisdiction or in any circumstances in which such an offer or solicitation is not authorized or is unlawful.**

The Issuer accepts no responsibility for any violation by any person of any such restrictions. Other than in Ghana, no action has been or will be taken in any jurisdiction that would permit any public offering of the Shares or possession or distribution of this document where action for that purpose would be required. Investors should not rely exclusively on the information contained in this document. The information contained in this document is accurate only as of the date of the document, regardless of the time of delivery of this document or any offering or sale of the Shares.

**This Prospectus has been reviewed and approved by the SEC in accordance with Section 3 of the Securities Industry Act, 2016 (Act 929) ("Securities Industry Act") and the Securities and Exchange Commission Regulations, 2003 (LI 1728) ("SEC Regulations") (as amended). In its review, the SEC examined the contents of this Prospectus to ensure that adequate disclosures have been made. To ascertain the financial soundness of the Issuer, prospective investors are advised to consult a dealer, investment advisor, or other professional duly authorized under the Securities Industry Act.**

Neither the GSE nor the SEC, assumes any responsibility for the correctness of any statements made, opinions expressed, or reports contained in this Prospectus. Neither the GSE nor the SEC has verified the accuracy and truth of the contents of this Prospectus, or any other documents submitted to it, and the SEC and the GSE will not be liable for any claim of any kind whatsoever. Approval of the listing of the Shares by the GSE or the SEC is not to be taken as an indication of the merits of the Issuer.

The contents of this Prospectus do not constitute and are not to be construed as legal, business, or tax advice. Each investor should consult his/her/its own

independent legal advisor, financial advisor, or tax advisor for legal, financial, and/or tax advice in relation to the purchase of the Shares.

Prospective investors should have regard to the factors described under the section with the heading "Risk Factors" in this Prospectus.

**On 20th October 2023 the Issuer announced that the Government of Ghana through its Minister of Lands and Natural Resources had granted a Mining Lease in respect of the Issuer's flagship Ewoyaa Lithium Project comprising the proposed Ewoyaa Lithium Mine and Processing Plant, enabling the advancement of the Project towards commercial production.**

**The Mining Lease is subject to parliamentary ratification as stipulated in Article 268 of the 1992 Constitution of Ghana and Section 5(4) of the Minerals and Mining Act and is yet to be laid before parliament for consideration.**

## GENERAL INFORMATION

The Issuer accepts full responsibility for the information contained in this Prospectus and all documents incorporated by reference (see the section of this Prospectus headed "Documents Incorporated by Reference"). To the best of the knowledge and belief of the Issuer (who has taken all reasonable care to ensure that such is the case), the information contained in this Prospectus is true and accurate, and no information has been omitted that would make any statement false or misleading and all reasonable inquiries to ascertain such facts have been made.

The Issuer, having made all reasonable inquiries, confirms:

i. that this Prospectus contains or incorporates all information which is material in the content of the Listing,

ii. that the information contained or incorporated in this Prospectus is true and accurate in all material respects and is not misleading, and

iii. that the opinions and the intentions expressed in this Prospectus are honestly held and that there are no other facts, the omission of which would make this Prospectus or any of such information or expression of any such opinions or intentions misleading in any material respect.

To the best of the Arranger's knowledge and belief, the Prospectus constitutes full and fair disclosure of all material facts about the Listing and the Issuer. None of the Arranger, Sponsoring Broker, Legal Advisor, Registrar, Reporting Accountant or any of their Directors, Affiliates, Advisors, or Agents, has independently verified the information contained herein. Accordingly, no representation or warranty, expressed or implied, is made by the Arranger, Sponsoring Broker, Legal Advisor, Registrar, Reporting Accounting or any of their Directors, Affiliates, Advisors, or Agents, with respect to the accuracy or completeness of such information at any time, of this Prospectus or any supplement hereto. Nothing contained in this Prospectus is to be construed as or shall be relied upon as, a promise, warranty, or representation, whether in the past or the future, by the Arranger, Sponsoring Broker, Legal Advisor, Registrar, Reporting Accountant or any of their Directors, Affiliates, Advisors, or Agents, in any respect.

This document is to be read and construed with any amendment or supplement thereto and in conjunction with any other documents which are deemed to be incorporated herein by reference.

JLD & MB Consultancy ("JLD & MB") is acting as Legal Advisor to the Issuer in respect of the Listing. Any opinion expressed is limited to matters relating to the laws of the Republic of Ghana in force and applicable as at the date of this document. JLD & MB has relied on information provided by the Issuer. Accordingly, JLD & MB does not provide any assurance of the accuracy of the information contained in this document and does not accept any responsibility or liability for the inaccuracy of the information contained in the document. JLD & MB consents to act in the capacity herein stated and to its name being stated in this Prospectus.

Black Star Brokerage Limited (herein referred to as "Black Star") is acting as Advisor, Arranger and Sponsoring Broker to the Listing. Black Star has relied on information provided by the Issuer and accordingly, does not provide any assurance of the accuracy of the information contained in this document and does not accept any responsibility or liability for the inaccuracy of any information contained in the document.

Black Star does however confirm that to the best of their knowledge, this document constitutes a full and fair disclosure of all material facts about the Issuer as required by the Securities Industry Act and the SEC Regulations and the Ghana Stock Exchange Listing Rules ("Listing Rules"). The Sponsoring Broker will not be held responsible for any inaccuracies or omissions of material facts as all information given herein was obtained from the Issuer.

SCG AUDIT is acting as the independent reviewer of the financial statements of the Issuer in respect of the

Listing. A review of financial statements in accordance with ISRE 2400 (Revised) is a limited assurance engagement and procedures performed in a review are substantially less than those performed in an audit in accordance with International Standards on Auditing. Accordingly, we do not express an audit opinion on these financial statements. SCG AUDIT performed the review in accordance with the International Standards on Review Engagements applicable as at the date of this document. SCG AUDIT has relied on information and representations provided by the Issuer in the performance of the review. Accordingly, SCG AUDIT does not accept any responsibility or liability for the inaccuracy of any information contained in the document resulting from erroneous information and representations by the Issuer. SCG AUDIT consents to act in the capacity herein stated and to its name being stated in this Prospectus.

## CAUTION

Prospective investors should carefully consider the matters set forth under the section headed "**Risk Factors**". Please consult your investment advisor, stockbroker/dealer, legal advisor, or tax advisor before making any investment decision in relation to the Shares.

In the event that this Prospectus is delivered to or comes into the possession of any person (the "Recipient") at any time after the date hereof, it is for and the responsibility of the Recipient to ascertain whether any supplement or amendment of the information herein contained has been made or issued, or whether updated information is available and reliance on this Prospectus at any time subsequent to the date hereof shall be at the Recipient's risk.

## ROUNDING

Some numerical figures included in this Prospectus may have been subject to rounding adjustments. Accordingly, numerical figures shown as totals in certain figures may not be an arithmetic aggregation of the figures that preceded them.

## FORWARD-LOOKING STATEMENTS

This document includes statements that are or may be deemed to be "forward-looking statements". These forward-looking statements can be identified using forward-looking terminology, including the terms "believes", "estimates", "plans", "projects", "anticipates", "expects", "intends", "may", "will", or "should" or, in each case, their negative or other variations or comparable terminology, or by discussions of strategy, plans, objectives, goals, future events or intentions. These forward-looking statements include all matters that are not historical facts. They appear in several places throughout this document and include, but are not limited to, statements regarding the Issuer's intentions, beliefs, or current expectations concerning, amongst other things, its results of operations, financial condition, liquidity, prospects, growth, strategies, and its industry.

By their nature, forward-looking statements involve risk and uncertainty because they relate to future events and circumstances. Forward-looking statements are not guarantees of future performance and the actual results of the Issuer's operations, financial condition and liquidity, and the development of the markets and the industry in which the Issuer operates may differ materially from those described in or suggested by the forward-looking statements contained in this document. In addition, even if the results of operations, financial condition and liquidity, and the development of the markets and the industry in which the Issuer operates are consistent with the forward-looking statements contained in this document, those results or developments may not be indicative of results or developments in subsequent periods. Several factors could cause results and developments to differ materially from those expressed or implied by the forward-looking statements including, without limitation, the factors discussed in the section headed Risk Factors.

Forward-looking statements may and often do differ materially from actual results. Any forward-looking statements in this document reflect the Issuer's current view with respect to future events and are subject to risks relating to future events and other risks, uncertainties, and assumptions relating to the Issuer's operations, results of operations, growth strategy, and liquidity. Investors should specifically consider the factors identified in this document that could cause actual results to differ before making an investment decision. Subject to the requirements of the Listing Rules, the Issuer undertakes no obligation publicly to release the result of any revisions to any forward-looking statements in this document that may occur due to any change in the Issuer's expectations or to reflect events or circumstances after the date of this document.

## DECLARATION OF INTERESTS BY ADVISORS/EXPERTS

- As of the date of this Statement, neither Black Star nor its Affiliates hold any shares in the Issuer. No principal of any of the firms holds or has had an interest in any of the Issuer's shares.
- As of the date of this Statement, neither JLD & MB Legal Consultancy nor its Affiliates hold any shares in the Issuer. No principal of the firm holds or has held an interest in any of the Issuer's shares.
- As of the date of this Statement, neither SCG Chartered Accountants nor its Affiliates hold any shares in the Issuer. No principal of the firm holds or has held an interest in any of the Issuer's shares.

## MANDATORY DECLARATIONS BY DIRECTORS

The directors herein, in respect of the information relating to the Issuer and having made all reasonable inquiries, confirm that:

iv. This Prospectus contains all information with regard to the Issuer which is material in the context of the Listing;

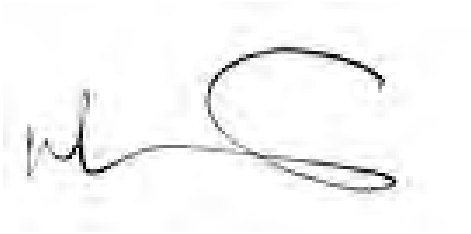
v. the information contained in this Prospectus is true and accurate in all material respects and is not misleading;

vi. the opinions and intentions expressed herein are honestly held; and

vii. there are no other facts, the omission of which makes this Prospectus as a whole or any of such information or the expression of any such opinions or intentions misleading.

This Prospectus has been seen and approved by us, the Directors of the Issuer, and we collectively and individually accept full responsibility for the accuracy of the information given and that after making all reasonable enquiries, and to the best of our knowledge and belief, that there are no facts, the omission of which would make any statement in the Prospectus referred to above misleading.

For and on behalf of the board of directors:



Neil Herbert

Executive Chairman

Amanda Harsas

Executive Director

# 1.0 CORPORATE DETAILS OF THE ISSUER

**ISSUER**

**Atlantic Lithium Limited**
Level 17, Angel Place
123 Pitt Street
Sydney NSW 2000
Australia
Contact: +61 2 8072 0640

24 Senchi Street
Airport Residential Area
Accra, Ghana
Email: info@atlanticlithium.com.au
Website: www.atlanticlithium.com.au

**DIRECTORS**

**Neil Herbert** – (Executive Chairman)
Email: nherbert@atlanticlithium.com.au
**Keith Muller** – (Executive Director and Chief Executive Officer)
Email: kmuller@atlanticlithium.com.au
**Amanda Harsas** – (Executive Director, Finance Director, and Company Secretary)
Email: aharsas@atlanticlithium.com.au
**Kieran Daly** – (Non-Executive Director, Assore Appointee)
Email: kierandaly@assore.com
**Christelle van der Merwe** – (Non-Executive Director, Assore Appointee)
Email: christellevandermerwe@assore.com
**Jonathan Henry** – (Non-Executive Director)
Email: jh@jhenryconsulting.co.uk
**Holly Waldeck** – (Alternative for Kieran Daly)
Email: hollywaldeck@assore.com

**AUDITOR**

**BDO Audit Pty Ltd**
Level 11, 1 Margaret Street
Sydney
NSW 2000
Australia
Contact: +61 2 9251 4100
Website: www.bdo.com.au

**COMPANY SECRETARY**

**Amanda Harsas**
Level 17, Angel Place
123 Pitt Street, Sydney
NSW 2000
Australia
Contact: +61 2 8072 0640
Email: info@atlanticlithium.com.au
Website: www.atlanticlithium.com.au

# 2.0 CONTACT DETAILS OF THE TRANSACTION ADVISORS

| | |
|---|---|
| **TRANSACTION ADVISOR** | **Black Star Brokerage Limited**<br>Plot No. 24 Kanda Estates, Kanda, Accra, Ghana<br>Tel: +233 (0) 302 227 574<br>Fax: +233 (0) 302 252 517<br>Contacts: Eric Appiah<br>Naa Luisa Nelson<br>Rosalyn Ama Ampah<br>Email: eric.appiah@blackstargroup.ai<br>naa.nelson@blackstargroup.ai<br>rosalyn.ampah@blackstargroup.ai |
| **SPONSORING BROKER & ARRANGER** | **Black Star Brokerage Limited**<br>The Rhombus, Plot 24 Tumu Avenue, Kanda Estates, Accra<br>Tel: +233 (0) 302 227 698<br>Fax: +233 (0) 302 252 517<br>Contact: Nana Agyei Opoku-Agyemang<br>George Addae<br>Email: naoa@blackstargroup.ai<br>george.addae@blackstargroup.ai |
| **LEGAL ADVISOR** | **JLD & MB Legal Consultancy**<br>23 Nortel Ababio Street Airport Residential Area, Accra<br>P.O. Box 410<br>Accra, Ghana<br>Tel: +233 (0) 302 782711/784298<br>Contact: Zoë Phillips Takyi-Appiah<br>Daniel Martey<br>Email: zoe@jldmblaw.net<br>daniel@jldmblaw.net |
| **GEOLOGICAL CONSULTANT** | **SRK Exploration Services Ltd**<br>12 St Andrews Crescent Cardiff CF10 3DD<br>United Kingdom<br>Tel: +44 (0) 292 023 23<br>Email: obayley@srkexploration.com |
| **REGISTRAR** | **Central Securities Depository (Gh) LTD**<br>4th Floor, Cedi House - Accra<br>Tel: +233 (0) 302 689313/ 689314<br>Contact: Kwame Addai Boa-Amponsem<br>Email: kwame.boa-amponsem@csd.com.gh |
| **REPORTING ACCOUNTANT** | **The SCG AUDITS (SCG Chartered Accountants)**<br>8th Floor, Advantage Place Mayor Road<br>Ridge West – Accra<br>Tel: +233 20 8260 628<br>Contact: Emile Vorgbe<br>Email: emile.vorgbe@scg.com.gh |

# 3.0 DEFINITIONS

Unless inconsistent with the context or separately defined in this Prospectus, the following expressions used in this document shall have the following meanings ascribed to them in this Prospectus:

| TERM | DEFINITION |
|---|---|
| AIM | A sub-market of the London Stock Exchange. |
| Affiliates | In relation to a corporate body, means its subsidiary, its holding company, or any other subsidiary or holding company of its holding company. |
| Arranger / Transaction Advisor | Black Star Brokerage Limited, which is acting as the arranger in relation to this transaction. |
| Assore | Assore International Holdings Limited. |
| ASX | Australian Securities Exchange Ltd (ASX Limited ABN 98 008 624 691). |
| ASX Listing Rules | The official listing rules of ASX. |
| AUD | Australian Dollars, the lawful currency of Australia. |
| Auditors | BDO Audit Pty Ltd (ABN 33 134 022 870). |
| Board | The Board of Directors of the Issuer. |
| BoG | The Bank of Ghana. |
| Cape Coast Lithium Portfolio | The Issuer's lithium projects in Ghana, described in Section 5. |
| CCLP Subsidiaries | Charger Minerals Singapore Pte Ltd, IronRidge Resources Singapore Pte Ltd and MODA Minerals Singapore Pte Ltd. |
| Companies Act | The Companies Act, 2019, (Act 992) of Ghana or any statutory re-modification or re-enactment thereof. |
| Constitution | The Constitution of the Issuer. |
| CSD | The Central Securities Depository (Gh) LTD, a limited liability company duly incorporated under the laws of Ghana, or its nominee, operating as a central securities depository where the Issuer's register of Shareholders is kept and all communications between the Issuer and shareholders on the GSE are shared. |
| Development | In the context of a Decision to Mine, means the construction, supply, completion and commissioning of a commercial Mining and Treatment operation for extraction and processing of minerals, including the construction or supply of mining plant and a treatment plant, an ore pad and associated crushing systems, conveyors, stockpiles, loading systems, utilities, vehicles, offices, workshops, and all other facilities, systems, plant, equipment and personnel required for the safe and efficient development, operation and rehabilitation of the Mine in accordance with the mine plans, but does not include Mining or Treatment. |
| DFS | Definitive Feasibility Study. |

| | |
|---|---|
| Directors | The directors of the Issuer from time to time and Director means any of them (as applicable in the relevant context). |
| EPA | Environmental Protection Agency. |
| ESG | Environment, Social and Governance. |
| Exploration and Resource Identification | Resource identification is the process of identifying and evaluating regions with economically feasible lithium deposits. |
| Ewoyaa Lithium Project or Project | The project comprising Ewoyaa, Abonko and Kaampakrom deposits, forming part of the Issuer's Cape Coast Lithium Portfolio. |
| Ewoyaa Main Zone | The north-south trending portion of the Ewoyaa Mineral Resource; a lithium project held by Atlantic Lithium located along a national highway close to Saltpond in the Central Region of Ghana, approximately 70 miles from the Port of Takoradi and 60 miles from Accra, with access to exceptional infrastructure. |
| Exploration | In the context of a Decision to Mine, means searching for, discovery and delineation of commercial ore deposits of Minerals in the area of the Tenements and the evaluation of such deposits, including prospecting, surface mapping, sampling, aerial mapping, drilling, trenching and related field work, geophysical and geochemical testing, core sampling, assaying, test mining, analysis and evaluation of activities undertaken, and results obtained, conducting preliminary feasibility studies, preparing feasibility studies reports, and planning, supervising and administrating all activities undertaken, but does not include Development, Mining or Treatment. |
| GAX | Ghana Alternative Market. |
| Ghana | The Republic of Ghana. |
| Ghanaian Facilities | The open pit mine and concentrator which the Issuer intends to operate near Ewoyaa in Ghana, or any other future mines and concentrators operated by the Issuer within Ghana. |
| GHS | The lawful currency of Ghana, being the Ghanaian Cedi, any divisions thereof, or any successor currency. |
| Group | The Issuer and each of its Subsidiaries. |
| GSE | The Ghana Stock Exchange. |
| Hydrometallurgical Processing | A method used to extract metals such as copper, gold, silver, nickel, and others from their ores or concentrates using aqueous solutions (usually water-based solutions). |
| IGR | Independent Geologist's Report. |
| Indicated Mineral Resources | An Indicated Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. |
| Inferred Mineral Resource | An Inferred Mineral Resource is that part of a Mineral Resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. |
| ISRE | International Standard on Review Engagements. |

| | |
|---|---|
| Issuer | Atlantic Lithium Limited (formerly known as IronRidge Resources Limited). |
| Legal Advisor | JLD & MB Legal Consultancy. |
| Li | Lithium. |
| Listing | The admission of the Issuer to the Official List. |
| Measured Mineral Resource | A Measured Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit. |
| MINCOM | The Minerals Commission of Ghana. |
| Mineral Reserve | A Mineral Reserve is the economically mineable part of a Measured and/or Indicated Mineral Resource. |
| Mining | In the context of a Decision to Mine, means all operations associated with the extraction of ore on a commercial basis, including pre stripping, and removal and disposal of overburden and waste, but does not include Exploration, Development or Treatment. |
| Mining Lease | The Mining Lease in respect of the Ewoyaa Lithium Project granted by the Government of Ghana to Barari DV Ghana LTD, a subsidiary of the Issuer dated 20th October 2023. |
| ML | Mining Lease. |
| MRE | Mineral Resource Estimate. |
| Official List | The official list of the GSE. |
| Performance Right | An entitlement, upon vesting and exercise, to the value of a Share granted in accordance with the Rights Plan. |
| Performance Rights Plan or Plan | The plan adopted by the Issuer in 2023 which sets out the terms and conditions pursuant to which the Issuer may, in its discretion, issue Performance Rights to eligible persons. |
| Piedmont | Piedmont Lithium Ghana Holdings Inc. |
| PL | Prospecting Licence. |
| Prospectus | This prospectus issued by the Issuer on the date stated hereon (as amended, restated and/or supplemented from time to time). |
| Reporting Accountant | The SCG Chartered Accountants or SCG Audit. |
| Scoping Study | A Scoping Study comprising a technical assessment of a project carried out early in the exploration phase, it is a precursor to a Prefeasibility Study. |
| SEC | The Securities and Exchange Commission of Ghana. |
| Securities | Has the meaning set out in Section 216 of the Securities Industry Act, 2016 (Act 929). |
| Securities Industry Act | The Securities Industries Act of Ghana, 2016 (Act 929) or any statutory re-modification or re-enactment thereof. |

| | |
|---|---|
| SEC Regulations | The Securities and Exchange Commission Regulations of Ghana, 2003 (L.I. 1728) or any statutory re-modification or re-enactment thereof. |
| Shareholders | Holders of Shares in the Issuer. |
| Shares | Fully paid ordinary shares in the capital of the Issuer. |
| Sponsoring Broker | Black Star Brokerage Limited, which is acting as the sponsoring broker in relation to the Listing. |
| Spodumene Concentrate | The spodumene concentrate produced by the Issuer at the Ghanaian Facilities. |
| Subsidiaries | Has the meaning set out in Schedule 1 of the Companies Act. |
| Tenements | The relevant exploration licences held indirectly by the CCLP Subsidiaries and includes any lease, license, claim, permit or other authority issued or to be subsequently issued to any one of them (or the Ghanaian entities they control) under the relevant Ghanaian law which confers or may confer a right to prospect, explore for or mine any mineral in the area of the Tenements, or which may facilitate the enjoyment of such right, and includes any application for, and any extension, renewal, conversion or substitution of the Tenements. |
| Treatment | In the context of a Decision to Mine, means the processing, smelting, and refining of ore up to and including a product stage, and includes crushing, weighing, sampling, assaying, refining, treatment, transportation, handling, storage, loading and delivery of the mineral and its associated ore, overburden, and waste, but does not include Mining. |
| USD | United States Dollar, the lawful currency of the United States of America. |

References in this Prospectus to sections and paragraphs are to sections and paragraphs of this Prospectus.

References in this Prospectus to dollars ($) are to the currency of Australia unless stated otherwise.

# 4.0 LEGAL BASIS, RATIONALE AND SUMMARY OF THE TRANSACTION

## LEGAL BASIS FOR LISTING BY INTRODUCTION

The listing by introduction on the GSE has been approved by the Directors of the Issuer by a resolution of the Directors dated 19th December 2023.

## RATIONALE FOR LISTING BY INTRODUCTION

The Issuer is currently listed on two exchanges. Its primary listing is on the London Stock Exchange's AIM under the ticker code ALL. It also has a dual listing on the Australian Securities Exchange (ASX) under the ticker code A11. It was listed on the AIM on 12th February 2015, and on the ASX on 21st September 2022.

Listing on the GSE by a mining company is primarily governed by the SEC Regulations, the GSE Listing Rules, the Companies Act, the Minerals and Mining Act, and the Minerals and Mining Local Content and Local Participation Regulations, 2020 (L.I 2431) ("Local Content Regulations").

The Issuer is listing on the GSE towards compliance with Regulation 13 of the Local Content and Local Participation Regulations, 2020 (L.I 2431)

Rule 18 of the Listing Rules provides various methods by which securities may be listed on the GSE, one of which is listing by Introduction. This method allows the Issuer to gain market presence and liquidity without issuing new shares immediately i.e., raising additional capital.

The Issuer undertakes that subject to applicable law, it will not seek a de-listing for a minimum of three (3) years from the date of Listing as required by Rule 20 of the Listing Rules.

## TRANSACTION SUMMARY

**This document does not constitute an offer and may not be used for the purpose of an offer or solicitation by anyone in any jurisdiction or in any circumstances in which such an offer or solicitation is not authorized or is unlawful.**

As of 24th April 2024, the Issuer's shares were trading at A$0.38 per share on the Australian Securities Exchange at a market capitalization of A$246.9 million. On the AIM, the Issuer's shares closed at 20.00p or GB£0.20, with a market capitalisation of GB£132.86 million. The Issuer has 649,669,053 ordinary shares.

**TABLE 1 LISTING STATISTICS**

| | |
|---|---|
| Price on AIM *(as at date on Prospectus)* | GBP 0.20 |
| Price on ASX *(as at date on Prospectus)* | A$ 0.38 |
| Indicative Price to be listed on GSE[1] *(based on Primary Listing Market)* | GHS 3.34 |
| Number of Ordinary Shares listed by Introduction | 649,669,053 |
| Market Capitalisation at Listing Price (GBP) | 132.86 million |
| Market Capitalisation at Listing Price (GHS) | 2,170.44 million |

1. Based on Exchange rate of GBP 16.3363: GHS 1 and AU$ 8.5235: GHS 1 as of 24th April, 2024. (Bank of Ghana Mid-Rate)

# 5.0 DESCRIPTION OF ATLANTIC LITHIUM

## BACKGROUND TO ATLANTIC LITHIUM LIMITED

Atlantic Lithium Limited (formerly known as IronRidge Resources Limited) is a company limited by shares that is incorporated and domiciled in Australia.

The Issuer was converted to a public company on 22nd August 2011. Then, in late 2011, the Issuer sought to expand its strategy into regions of Africa that were prospective for iron ore.

Following the Issuer's admission to AIM on 12th February 2015, the Issuer used the funds raised to undertake exploration programmes in Gabon. After the collapse of the iron ore price and average exploration results in Gabon, the Issuer reinvented itself into a multi-commodity and multi-jurisdictional mineral exploration and development company, securing gold projects in Ivory Coast and Chad, and lithium projects in Ghana and Ivory Coast.

With the success of the Ewoyaa Lithium Project discovery in Ghana (discussed below), the Issuer decided to undertake a demerger. In 2021 the Issuer divested its suite of gold assets in Ivory Coast and Chad into a newly established public, Australian company named Ricca Resources Limited, whilst the Issuer (now renamed Atlantic Lithium Limited) retained the Ghana and Ivory Coast lithium assets. The Issuer's decision to change its name from 'IronRidge Resources' to 'Atlantic Lithium Limited' was reflective of the Issuer's new primary focus, which is the development of its Ewoyaa Lithium Project.

A diagram of the Issuer's current group structure and ownership of its lithium assets is set out in Figure 1 below.

The Independent Geologist's Report dated 29th July 2022 with an Effective Date of April 2022 ("IGR") was included as part of the documents used for the ASX listing in September 2022. This Report has been reproduced unaltered (and has not been updated) in Section 17 of this Prospectus and contains a comprehensive examination and review of the mining interests held by the Issuer at the Effective Date (as defined here). Since the Effective Date of the Independent Geologist's Report (29 July 2022), the geological data (including mineral resource estimates, drilling results and measured and indicated categories) has been updated and communicated to the market by way of announcements made on the Issuer's website (https://www.atlanticlithium.com.au/announcements).

It should be noted that this IGR does not include or take into account any updated geological data or a review of the updated Mineral Resource Estimate or outcomes of the Definitive Feasibility Study published since the Effective Date, which are considered to be material changes, and therefore the findings and opinions as expressed in the IGR are deemed to be only valid and effective as of the Effective Date.

**FIGURE 1 THE ISSUER'S GROUP STRUCTURE**

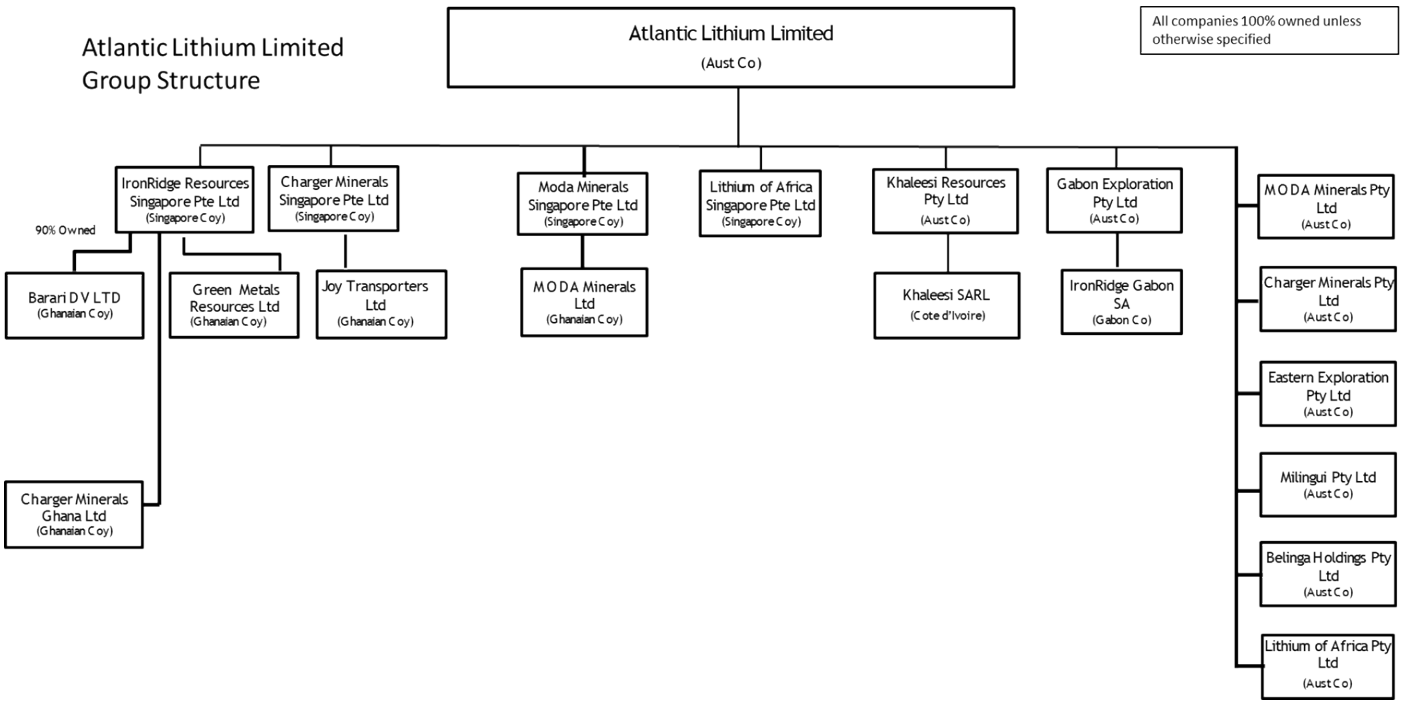



**TABLE 2 BREAKDOWN OF SUBSIDIARIES**

| COMPANY | INCORPORATION | PERCENTAGE HOLDING | NATURE OF BUSINESS |
|---|---|---|---|
| **Atlantic Lithium Ltd** | Australia | See top 20 shareholders below | Public company. Mineral exploration and development |
| **IronRidge Resources Singapore Pte Ltd** | Singapore | 100% | Holding company |
| **Charger Minerals Singapore Pte Ltd** | Singapore | 100% | Holding company |
| **MODA Minerals Singapore Pte Ltd** | Singapore | 100% | Holding company |
| **Lithium of Africa Singapore Pte Ltd** | Singapore | 100% | Dormant |
| **Khaleesi Resources Pty Ltd** | Australia | 100% | Holding company |
| **Gabon Exploration Pty Ltd** | Australia | 100% | Dormant |
| **MODA Minerals Pty Ltd** | Australia | 100% | Dormant |
| **Charger Minerals Pty Ltd** | Australia | 100% | Dormant |
| **Eastern Exploration Pty Ltd** | Australia | 100% | Dormant |
| **Milingui Pty Ltd** | Australia | 100% | Dormant |
| **Belinga Holdings Pty Ltd** | Australia | 100% | Dormant |
| **Lithium of Africa Pty Ltd** | Australia | 100% | Dormant |
| **Green Metals Resources Limited** | Ghana | 100% via IronRidge Resources Singapore Pte Ltd | Owns assets |
| **Charger Minerals Ghana Ltd** | Ghana | 100% via IronRidge Resources Singapore Pte Ltd | Dormant |
| **Barari DV Ghana Ltd** | Ghana | 90% via IronRidge Resources Singapore Pte Ltd | Owns assets |
| **Joy Transporters Ltd** | Ghana | 100% via Charger Minerals Singapore Pte Ltd | Owns assets |
| **MODA Minerals Ltd** | Ghana | 100% via MODA Minerals Singapore Pte Ltd | Holding company |
| **Khaleesi SARL** | Ivory Coast | 100% via Khaleesi Resources Pty Ltd | Owns assets |

## IDENTITY AND PERCENTAGE HOLDINGS OF SIGNIFICANT SHAREHOLDERS

The Issuer is aware of the following significant shareholders outside the Directors' interests shown in Section 6:

**TABLE 3 DETAILS OF SIGNIFICANT SHAREHOLDERS**

| SIGNIFICANT SHAREHOLDER | SHAREHOLDING AS AT 30/01/24 | % TOTAL |
|---|---|---|
| **Assore International Holdings Limited** | 179,025,852 | 27.6% |
| **Piedmont Lithium Ghana Holdings INC** | 32,705,064 | 5.0% |
| **Minerals Income Investment Fund** | 19,245,574 | 3.0% |

## TOP 20 SHAREHOLDERS

**TABLE 4 DETAILS OF TOP 20 SHAREHOLDERS**

| RANK | NAME | AS AT 30/01/24 | % |
|---|---|---|---|
| 1 | ASSORE INTERNATIONAL HOLDINGS LIMITED | 179,025,852 | **27.56** |
| 2 | PIEDMONT LITHIUM GHANA HOLDINGS INC | 32,705,064 | **5.03** |
| 3 | MINERALS INCOME INVESTMENT FUND | 19,245,574 | **2.96** |
| 4 | HARGREAVES LANSDOWN (NOMINEES) LIMITED <15942> | 18,719,741 | **2.88** |
| 5 | CHASE NOMINEES LIMITED <FIDUCIT> | 17,785,832 | **2.74** |
| 6 | THE BANK OF NEW YORK (NOMINEES) LIMITED <672938> | 17,662,641 | **2.72** |
| 7 | INTERACTIVE INVESTOR SERVICES NOMINEES LIMITED <SMKTISAS> | 15,993,364 | **2.46** |
| 8 | INTERACTIVE INVESTOR SERVICES NOMINEES LIMITED <SMKTNOMS> | 14,929,346 | **2.30** |
| 9 | HARGREAVES LANSDOWN (NOMINEES) LIMITED <HLNOM> | 14,850,738 | **2.29** |
| 10 | NORTRUST NOMINEES LIMITED <TDS> | 12,799,492 | **1.97** |
| 11 | VIDACOS NOMINEES LIMITED <FGN> | 11,715,082 | **1.80** |
| 12 | STATE STREET NOMINEES LIMITED <OM06> | 11,507,483 | **1.77** |
| 13 | LAWSHARE NOMINEES LIMITED <SIPP> | 10,550,504 | **1.62** |
| 14 | HARGREAVES LANSDOWN (NOMINEES) LIMITED <VRA> | 10,423,098 | **1.60** |
| 15 | MR CHRISTIAN SERFONTEIN | 10,000,000 | **1.54** |
| 16 | INTERACTIVE INVESTOR SERVICES NOMINEES LIMITED <TDWHSIPP> | 8,949,058 | **1.38** |
| 17 | HUNTRESS (CI) NOMINEES LIMITED <KGCLT> | 8,747,600 | **1.35** |
| 18 | BARCLAYS DIRECT INVESTING NOMINEES LIMITED <CLIENT1> | 8,321,102 | **1.28** |
| 19 | INTERACTIVE BROKERS LLC <IBLLCR> | 7,117,067 | **1.10** |
| 20 | MR W W BROWN & MRS M H BROWN | 6,400,000 | **0.99** |
| **Top 20 holders of Ordinary Fully Paid Shares** | | **437,448,638** | **67.33** |
| **Total Remaining Holders Balance** | | **212,220,415** | **32.67** |
| **Overall Total** | | **649,669,053** | **100.00** |
| **% of Share held on ASX Register – 32.53%** | | | |

## CAPITALISATION OF THE ISSUER AS AT 30 JUNE 2023

a. Fully paid ordinary share capital

**TABLE 5 PAID ORDINARY SHARE CAPITAL**

| | 2023 NO. OF SHARES | 2022 NO. OF SHARES | 2023 $ | 2022 $ |
|---|---|---|---|---|
| **Balance as at 1 July** | **580,041,660** | **516,114,246** | **126,468,060** | **102,939,352** |
| **Subscription shares issued** | - | 54,000,000 | - | 20,304,145 |
| **Private placement** | - | 2,880,000 | - | 1,353,610 |
| **Shares issued on exercise of warrants** | - | 2,797,414 | - | 1,023,875 |
| **Shares issued on exercise of employee options** | 7,000,000 | 500,000 | 1,455,197 | 106,410 |
| **Shares issued on exercise of director options** | 9,250,000 | 3,750,000 | 3,170,317 | 804,762 |
| **Shares on exercise of employee rights** | 9,450,000 | - | - | - |
| **Share issue costs (net of tax)** | - | - | (1,220,553) | (64,094) |
| **Balance as at 30 June** | **605,741,660** | **580,041,660** | **129,873,021** | **126,468,060** |
| **Shares funded by limited recourse loan (refer (c) below)** | 3,500,000 | - | - | - |
| | **609,241,660** | **580,041,660** | **129,873,021** | **126,468,060** |

Fully paid ordinary shares carry one vote per share and carry the right to dividends.

Costs directly attributable to the issue of new shares or options are shown as a deduction from the equity proceeds, net of any income tax benefit.

Where the Issuer provides a loan to an employee or director to fund the acquisition of shares in the Issuer and the loan is limited in recourse to those shares, the arrangement is accounted for as an in-substance option and the shares are not disclosed as ordinary share capital.

b. Employee and directors' options

As at 30th June 2023, the company has 60,000,000 options on issue (2022: 69,000,000). Each option is exercisable for 1 ordinary share of Atlantic Lithium. Options carry no voting rights and no rights to dividends.

c. In-substance options

Where the Issuer provides loans to employees and directors to fund the acquisition of shares in the Issuer and the loan is limited in recourse to those underlying shares, the arrangement is accounted for as an in-substance option. This is because of the option-like characteristics of the arrangement whereby the recipient can benefit from increases in the share price over the loan's face value whilst being protected from decreases below the loan's face value during the term of the loan. The repayment of the loan represents the exercise of the option.

As at 30th June 2023, the Issuer has 3,500,000 in-substance options on issue (2022: nil). Each in-substance option is exercisable for 1 ordinary share of Atlantic Lithium. In-substance options carry one vote per option and carry the rights to dividends.

d. Performance rights

As at 30th June 2023, the Issuer has 2,700,000 performance rights on issue (2022: 12,150,000). Each performance right is exercisable for 1 ordinary share of Atlantic Lithium. Performance rights carry no voting rights and no rights to dividends.

e. Capital Risk Management

When managing capital, management's objective is to ensure the entity continues as a going concern as well as to maintain optimal returns to shareholders and benefits for other stakeholders. Management also aims to maintain a capital structure to ensure the lowest cost of capital available to the Group.

## UNLISTED OPTIONS

The Issuer currently has a total of 31,700,000 unlisted options on issue as below. Management holds 28,000,000 of these options with the balance held by employees:

i. 3,700,000 unlisted options exercisable at 30p each through to 31 August 2025;

ii. 2,000,000 unlisted options exercisable at 50p each through to 16 May 2025;

iii. 2,000,000 unlisted options exercisable at 60p each through to 29 November 2024;

iv. 6,000,000 unlisted options exercisable at 60p each through to 31 March 2025;

v. 6,000,000 unlisted options exercisable at 70p each through to 23 April 2024;

vi. 2,000,000 unlisted options exercisable at 70p each through to 29 November 2024;

vii. 6,000,000 unlisted options exercisable at 75p each through to 23 April 2024;

viii. 4,000,000 unlisted options exercisable at 80p each through to 23 April 2024.

## UNLISTED OPTIONS (MIIF)

Under the agreed terms of the subscription agreement the Issuer has entered into with the Minerals Income Investment Fund ("MIIF"), MIIF has been granted 9,622,787 options at a price of US$0.3637 which expire on 23 July 2025.

## UNLISTED PERFORMANCE RIGHTS

The Issuer currently has a total of 9,298,935 unlisted performance rights on issue vesting at various dates.

## OVERVIEW OF OPERATIONS

The Issuer is a lithium focused mineral exploration and development company with an advanced lithium pegmatite asset in Ghana and lithium pegmatite exploration assets in Ghana and Ivory Coast.

In Ghana, the Issuer holds 509km² of granted and under application tenure through its indirect Ghanaian Subsidiaries and earn-in agreements with other Ghanaian companies. In 2018, the Issuer was responsible for the discovery of the spodumene-rich lithium pegmatite in Ghana's Central Region called the Ewoyaa Lithium Project. Through structured exploration programmes, the Issuer has defined a 35.3Mt at 1.25% $Li_2O$ Mineral Resource at Ewoyaa. The Project benefits from favourable metallurgy, close proximity to operational infrastructure and requires simple, low water and energy intensive processing, making it one of the industry's leading hard rock lithium assets.

In Côte d'Ivoire, the Issuer holds 774km2 of under-application lithium tenure within highly prospective Birimian terrain.

The Issuer's corporate strategy is to create and sustain shareholder value through the evaluation and development of the advanced Ewoyaa Lithium Project, the ongoing exploration and evaluation of the highly prospective lithium tenure package in Ghana and Ivory Coast, as well as the ongoing review of new opportunities.

The Board and management team has significant experience in the discovery, evaluation, development, and financing of mining projects in the region in addition to corporate experience in the lithium sector.

**The Ewoyaa Project is funded to production through an earn-in agreement with Piedmont and Nasdaq and ASX-listed Piedmont Lithium Inc. (NASDAQ: PLL, ASX: PLL), as announced on 1 July 2021, where Piedmont has the right to earn up to 50% of the shares in the CCLP Subsidiaries and an offtake agreement for 50% SC6 spodumene concentrate offtake for the life of the Issuer's lithium production operations within Ghana at market rates by sole funding US$17.0m towards studies and exploration and an initial US$70.0m, and 50% of the development expenditure thereafter, towards the Project's total development expenditure of US$185m indicated by the Definitive Feasibility Study.**

**The agreement also provides for the appointment of the Issuer as manager of the project. As the manager of the project, the Issuer is entitled to the exclusive control and management of the project subject to the oversight of a technical committee to be formed by three representatives of the Issuer and three representatives of Piedmont.**

**Piedmont also subscribed for shares in the Issuer, investing £11.52m (US$16.0m) for a 9.91% shareholding in the Issuer including the right to appoint a nominee to the Board, which was taken up (Piedmont's shareholding has recently been reduced to 5% and it is below the threshold giving it the right to appoint a nominee to the Board). Any additional expenditure or cost savings for the development of the Ewoyaa Lithium Project will be shared equally between the Issuer and Piedmont. The total amount spent up to 31 December 2023 is US$29.5m - this consists of cash received of US$26.2m and cash owing as at 31 December 2023 $3.2m. This is captured in the Atlantic Lithium parent company as a credit against the E&E assets.**

The Issuer believes that, as the country's first lithium mine, Ewoyaa has the potential to deliver significant, long-lasting benefits to Ghana. The Issuer is committed to the highest standards of corporate governance, acting with transparency and accountability, in accordance with the best interests of Ghana and Ghanaians across all activities.

## GHANA

The Cape Coast Lithium Portfolio comprises 509km² of land packages comprising ownership, earn in and applications over ten mineral rights via its indirect Ghanaian Subsidiaries. The Issuer's indirect Ghanaian Subsidiaries have secured, via application and ownership, the Mankessim South, Senya Beraku, Saltpond and Cape Coast prospecting licenses and the Winneba North and Winneba South applications. The Issuer's indirect Ghanaian Subsidiaries have secured, via earn in with various Ghanaian companies, rights in respect of the Mankessim, Apam West and Apam East prospecting licenses and Mankwadzi prospecting licence application. The Cape Coast Lithium Portfolio Project is located along the coastline of the Central Region of Ghana and falls within Mfantseman Municipality with Saltpond as the district capital. The Ewoyaa Lithium Project is located within 110km of the operating deep-sea port of Takoradi port and 100km of the capital Accra, and within 1km of the N1 national bitumen high-way and is adjacent to grid power.

The Issuer, through its indirect Ghanaian Subsidiaries, commenced fieldwork in early in 2016, reporting first high-grade lithium trenching results in May 2017 and subsequent discovery drill hole in August 2018. In 2019, the Issuer announced the discovery of high-grade lithium pegmatite mineralisation, below transported cover, in the northern extension of the Ewoyaa Lithium Project (comprising Ewoyaa, Abonko and Kaampakrom deposits). It is significant in that high-grade mineralisation was discovered in a valley without any surface expression, thus increasing the exploration potential of the portfolio.

On 28th January 2020, the Issuer announced a Maiden Mineral Resources Estimate for the Ewoyaa Lithium Project of 14.5Mt at 1.31% $Li_2O$.

The Issuer announced an upgraded Mineral Resource Estimate to 21.3Mt @ 1.31% $Li_2O$ on 1st December 2021 and an updated scoping study on 7th December 2021. The results of the scoping study were positive and justify the Issuer to commit to progressing to the next stage of exploration and development.

On 24 March 2022, the Issuer announced a further Mineral Resource Estimate upgrade to 30.1Mt @ 1.26% $Li_2O$ at the Ewoyaa Lithium Project with drilling ongoing to further grow and infill the current resource and on 1st February 2023, the Issuer announced a further Mineral Resource Estimate upgrade to 35.3Mt @1.25% $Li_2O$.

The Issuer announced the results of the Definitive Feasibility Study (DFS) for the Ewoyaa Project on 29th June 2023.

## EXPLORATION AND MINING HISTORY

Pegmatites were first described along the Saltpond to Cape Coast coastline (Kitson, 1916 and 1919) with the possibility of spodumene first recorded by Junner (1939) but largely forgotten due to the focus on gold exploration in the country.

Spodumene pegmatites were first reported in the hills around Ewoyaa during various phases of prospecting by the Ghanaian Geological Survey during the late 1950's to early 1960's. However, the most detailed work was carried out during 1963/65 and re-compiled and reported in Geological Survey Archive Report No 31 (Archives Rehabilitation Unit, 2003) from Map Sheet 26 which refers to 'pitting, trenching, geochemical and structural studies' of spodumene-bearing pegmatites near to the 'Awuaya/Abonko area'.

The prospect was also referenced in a master's thesis (Amoako-Mensah, 1971) from the late 1960's, however, available data is limited to some generalised regional maps of the pegmatites, focusing more on detailed mineralogy. No detailed maps or any of the original trenching/pitting data has been located from this early work.

Despite the lack of recorded data, many of the trenches and pits completed during this period were left open and were located during work commissioned by the Issuer in 2016/17, assisting in re-discovery of this deposit.

## GEOLOGY AND MINERALISATION

The regional geology of western Ghana is characterised by a thick sequence of steeply dipping metasediments, alternating with metavolcanic units of Proterozoic age (2.2 to 2.3Ga). These sequences, belonging to the Birimian Supergroup, form a number of parallel north easterly trending volcano-plutonic belts and volcano-sedimentary basins, of which the Kibi-Winneba Belt and the Cape Coast basin extend through the Cape Coast Portfolio area. Between 2,120Ma and 2,115Ma, the whole region was affected by crustal shortening and regional metamorphism associated with the Eburnean tectono-thermal event. The Birimian basins were preferentially intruded by extensive peraluminous granitoids with crystallisation ages between 2,116Ma and 2,088Ma, and probably originated from the partial melting of the Birimian basin sediments, culminating in the pegmatite veining which has been dated to 2,072Ma and lithium mineralisation observed at Ewoyaa. A number of northerly and east- northeast trending dolerite dykes cut through the sequence. These dykes are probably of Mesozoic age and appear related to offshore transform structures related to the opening of the Atlantic Ocean.

Outcrop in the project area is extremely sparse and much of the geological interpretation is based on lithologies encountered where excavations (roadcuts, exploration pitting, trenching, and drilling) have been made through the alluvial and lateritic cover. The Project area is largely underlain by volcano- sedimentary lithologies of the Cape Coast Basin, situated on the southeast margin of the Cape Coast batholith. Three forms of schist are developed in the area: mica schist, staurolite schist and garnet schist. Several granitoids intrude the basin metasediments as small bosses and plugs and range in composition from intermediate granodiorite to felsic leucogranites both sometimes in close association with pegmatite veins and bodies.

At the Ewoyaa Lithium Project two dominant pegmatite vein orientations occur: the approximate north- south Ewoyaa Main trend and approximate northwest-southeast Abonko trend. Pegmatite intrusions of the Ewoyaa Main trend commonly trend north-northeast and dip sub-vertically to moderately eastward with overall strike continuity of the combined pegmatite bodies is in excess of 3km. Pegmatite intrusions of the Abonko trend predominantly trend northwest and are sub-vertical or dip moderately to the northeast.

Surface widths of the pegmatite veins, including lens' of schist and granite interburden, range from 1 to 150m based on the results of the trenching and was observed in drilling, with true widths ranging from sub-metre to approximately 100m. In the more continuous sections of the Ewoyaa Main Zone the pegmatite thickness is typically 30 to 60m.

The Ewoyaa Lithium Project has two clearly defined phases or material types of spodumene bearing lithium mineralisation which are termed Pegmatite Type 1 (P1) and Pegmatite Type 2 (P2). P1 mineralisation is characterised by coarse grained spodumene material, exhibiting very coarse to pegmatoidal, euhedral to subhedral spodumene crystals typically greater than 20mm in length composing 20% to 40% of the rock volume. P2 mineralisation is characterised by medium to fine grained spodumene material, where abundant spodumene crystals typically less than

20mm in length compose up to 50% of the rock volume. Spodumene is by far the most abundant lithium phase present with typically <5% by volume in concentrate of other minor lithium bearing phases present such as amblygonite, tryphilite and lepidolite.

## GHANA OPERATIONS: LITHIUM RESOURCE ESTIMATE

An upgraded Mineral Resource Estimate (MRE) of 35.3Mt at 1.25% $Li_2O$ was completed for the Ewoyaa deposit and surrounding pegmatites; collectively termed the "Ewoyaa Lithium Project". The Mineral Resource is reported in accordance with the JORC Code (2012). The MRE includes a total of 24.5Mt at 1.25% $Li_2O$ in the Indicated category and 7.4Mt at 1.16% $Li_2O$ in the Inferred category (refer table below).

**TABLE 6 DETAILS OF VARIOUS MINERAL RESOURCES**

| MEASURED MINERAL RESOURCE | | | |
|---|---|---|---|
| TYPE | TONNAGE | $LI_2O$ | CONT. LITHIUM OXIDE |
| | MT | % | KT |
| **Primary** | 3.5 | 1.37 | 48 |
| **Total** | **3.5** | **1.37** | **48** |

| INDICATED MINERAL RESOURCE | | | |
|---|---|---|---|
| TYPE | TONNAGE | $LI_2O$ | CONT. LITHIUM OXIDE |
| | MT | % | KT |
| **Weathered** | 0.5 | 1.09 | 5 |
| **Primary** | 24.1 | 1.26 | 302 |
| **Total** | **24.5** | **1.25** | **307** |

| INFERRED MINERAL RESOURCE | | | |
|---|---|---|---|
| TYPE | TONNAGE | $LI_2O$ | CONT. LITHIUM OXIDE |
| | MT | % | KT |
| **Weathered** | 1.8 | 1.13 | 20 |
| **Primary** | 5.6 | 1.17 | 66 |
| **Total** | **7.4** | **1.16** | **86** |

| TOTAL MINERAL RESOURCE | | | |
|---|---|---|---|
| TYPE | TONNAGE | $LI_2O$ | CONT. LITHIUM OXIDE |
| | MT | % | KT |
| **Weathered** | 2.2 | 1.12 | 25 |
| **Primary** | 33.1 | 1.25 | 415 |
| **Total** | **35.3** | **1.25** | **440** |

The independent MRE for Ewoyaa was completed by Ashmore Advisory Pty Ltd (Ashmore) of Perth, Western Australia, with results tabulated in the Statement of Mineral Resources in Table 4. The Statement of Mineral Resources is reported in line with requirements of the JORC Code (2012) and is suitable for public reporting.

Drilling at the deposit extends to a vertical drill depth of approximately 319m and the mineralisation was modelled from surface to a depth of approximately 330m below surface. The estimate is based on good quality reverse circulation

(RC) and diamond core (DD) drilling data. Drill hole spacing is predominantly 20m by 20m and 40m by 40m in the well drilled portions of the Project and up to 80m by 80m to 100m by 100m across the breadth of the known mineralisation. A total of 137,153m of RC and DD was used in the MRE.

## GHANA OPERATIONS: FELDSPAR RESOURCE ESTIMATE

The Issuer has reported a maiden Mineral Resource Estimate of 15.7Mt at 40.2% feldspar ("Feldspar MRE") confined to the Ewoyaa Main, Ewoyaa Northeast, Ewoyaa South-1 and Ewoyaa South-2 deposits, which represent approximately the first five years of planned production from the Ewoyaa Lithium Project, as detailed in the Ewoyaa Definitive Feasibility Study.

The Feldspar MRE is based on the same geological model that resulted in the 35.3Mt @ 1.25% $Li_2O$ Mineral Resource Estimate for the Project ("MRE" or "Resource"), as announced by the Issuer on 1st February 2023.

The Feldspar MRE will be incorporated into the feldspar Definitive Feasibility Study ("Feldspar Study"), undertaken by the Issuer to investigate the economic impact of producing additional feldspar by- products from the mining of lithium ore at the Project.

The Feldspar MRE includes a total of 3.5Mt at 39.7% feldspar in the Measured category, 10.2Mt at 40.5% feldspar in the Indicated category and 2Mt at 40.1% feldspar in the Inferred category. In addition to the feldspar, further by-products of quartz and muscovite were estimated and included.

The independent Feldspar MRE was completed by Ashmore Advisory Pty Ltd ("Ashmore") of Perth, Western Australia. The Statement of Mineral Resources is reported in line with requirements of the JORC Code (2012) and is therefore suitable for public reporting.

## CÔTE D' IVOIRE

The Issuer has two applications pending covering 774km2 area for lithium and associated minerals which covers highly prospective fractioned fractionated granitic intrusive centres with historical lithium and columbite-tantalum occurrences and outcropping pegmatites reported. The licence applications have been submitted through Khaleesi Resources SARL, a wholly owned local subsidiary of the Issuer. The applications are well serviced, with an extensive sealed road network, well established cellular network and high voltage transmission line network within approximately 100km of the capital Abidjan.

# 6.0 BOARD OF DIRECTORS AND MANAGEMENT

As at the date of this Prospectus, the Board is comprised of the following members set out in Table 5 below. The Issuer's Constitution provides that Directors are subject to retirement by rotation. Retiring Directors are eligible for re – election by shareholders at the annual general meeting of the Issuer:

**TABLE 7 BOARD OF DIRECTORS AS OF 15TH APRIL 2024**

| NAME | NATIONALITY | AGE | QUALIFICATION | PROFESSION | ROLE/BOARD POSITION | DATE BOARD APPOINTMENT |
|---|---|---|---|---|---|---|
| **Neil Herbert** | UK | 57 | Economics and Economic History BA (Joint Hons), FCCA | Economist | Executive Chairman | 21 April 2015 |
| **Keith Muller** | Australia | 40 | BEng Mining, MMinEng, FAusIMM (CP) | CEO | Executive Director & Chief Executive Officer | 31 May 2023 |
| **Amanda Harsas** | Australia | 53 | BBus, CA | CFO | Executive Director, Finance Director and Company Secretary | 11 March 2022 |
| **Jonathan Henry** | Ireland | 57 | BA (Hons), Natural Sciences | Operations Management | Independent Non-Executive Director | 20 December 2023 |
| **Kieran Daly** | Ireland | 54 | BSc (Mining Engineering), MBA | Growth & Strategy Executive | Non-Executive Director (Assore appointee) | 9 May 2019 |
| **Christelle van der Merwe** | South Africa | 47 | BSC Hons (Geology & Env Mgmt), GDE (Mining & Eng), MAP, BArch | Geologist | Non-Executive Director (Assore appointee) | 22 December 2020 |
| **Holly Waldeck** | South Africa | 38 | B Comm (with Honours), CTA, CA | Business Development Professional | Alternate for Kieran Daly | 30 November 2020 |

## ROLE OF THE BOARD

The Board is responsible for the overall corporate governance of the Issuer, including establishing and monitoring key performance goals. The Board monitors the operational and financial performance of the Issuer while also overseeing the implementation of its business strategy. This includes approving the Issuer's strategic goals, approving an annual business plan (including a budget), and monitoring areas of operational and financial risk (in conjunction with the Audit & Risk Management Committee) to improve the value of the Shares.

The Board is committed to maximising the performance and sustaining the growth and success of the Issuer to generate value and financial return for Shareholders. In pursuit of these objectives, the Board has created a framework for managing the Issuer which ensures that its business is conducted in an environment of appropriate corporate

governance. This framework includes adopting relevant internal controls, risk management processes and corporate governance policies and practices designed to promote the responsible management and conduct of the Issuer.

## PROFILE OF BOARD OF DIRECTORS

***Neil Herbert, Executive Chairman***

Mr Herbert is a Fellow of the Association of Chartered Certified Accountants with over 30 years of experience in finance. Mr Herbert has over 25 years of experience growing and developing mining, oil and gas companies both as an executive and as an investor.

In May 2013, Mr Herbert was appointed as Co-chairman and Managing Director of an AIM-listed natural resources investment company called Polo Resources Limited. Prior to this, he was a director of resource investment company Galahad Gold plc. During his time at Galahad Gold plc, Mr Herbert acted as Finance Director of the company's most successful investment, a start-up uranium company UraMin Inc. From 2005 to 2007, Mr. Herbert worked to float UraMin Inc on AIM and the Toronto Stock Exchange, and successfully raised US$400 million in equity financing and subsequently negotiated the sale of the group for US$2.5 billion. Mr. Herbert has also held board positions at several other resource companies where he was involved in managing numerous acquisitions, disposals, stock market listings and fundraisings.

Mr. Herbert holds a joint honours degree in Economics and Economic History from the University of Leicester. Mr Herbert is a member of the Audit & Risk Management Committee, the Nomination & Remuneration Committee, and the chair of the Executive Committee. During the past three years, Mr Herbert has also served as a director of the following listed companies:

- Pasofino Gold Limited (appointed on 11th February 2021, resigned 5th October 2023) which is listed on the TSX Exchange (TSX-V).
- Firering Strategic Minerals plc (appointed on 12th November 2021, resigned 6 October 2023) which is listed on the London Stock Exchange (AIM).
- Premier African Minerals (resigned 27th April 2022), which is listed on the London Stock Exchange (AIM).
- Pulsar Helium Inc (appointed 17th November 2022) which is listed on the TSX Venture Exchange (TSX-V).

***Keith Muller, Chief Executive Officer***

Mr. Muller is a mining engineer with over 20 years of operational and leadership experience across domestic and international mining sectors, including in the lithium sector. He has a strong operational background in hard rock lithium mining and processing, particularly in DMS spodumene processing.

Before joining the Issuer, he held roles as both a Business Leader and General Manager at Allkem, where he worked on the Mt Cattlin lithium mine in Western Australia, and, prior to that, as Operations Manager and Senior Mining Engineer at Simec. Mr. Muller has built an impressive track record as a technical and operational leader and throughout his career, has been responsible for improving efficiency, driving commercial opportunities, increasing mine longevity, and enhancing safety across the projects he has worked on. He is also a fellow and chartered professional of the Australian Institute of Mining and Metallurgy.

Mr. Muller joined the Issuer in November 2022 as Chief Operating Officer and, in May 2023, was promoted to Chief Executive Officer. During the past three years, Mr. Muller has also served as a director of Bulletin Resources Limited (appointed on 3rd February 2023), which is listed on the ASX.

***Amanda Harsas, Finance Director & Company Secretary***

Ms. Harsas graduated from the University of Technology, Sydney with a Bachelor of Business. She is a member of Chartered Accountants Australia and New Zealand and the Australian Institute of Company Directors. Ms. Harsas has over 25 years of experience in strategic finance, business transformation, commercial finance, customer and supplier

negotiations, and company secretarial and capital management across various firms including PwC, Healius and the Law Society of Australia. With extensive experience in mining and exploration, healthcare, retail, and professional services sectors throughout Australia, Asia, Europe, and the USA, Ms. Harsas brings a unique perspective to the Board.

Ms. Harsas joined the Issuer in November 2020 as Chief Financial Officer and was subsequently appointed as Company Secretary in January 2021. In March 2022, Ms. Harsas was promoted to Finance Director. During the past three years, Ms. Harsas has not served as a director of any other listed company.

***Jonathan Henry, Independent Non-Executive Director***

Mr. Henry is a senior executive with significant, global listed company experience, primarily in the mining industry, having held various leadership and Board roles for nearly two decades.

He currently serves as Non-Executive Chair of Toronto Venture Exchange-listed (TSX-V) Giyani Metals Corporation, a battery development company advancing its portfolio of manganese oxide projects in Botswana, having previously held the role of Executive Chair until May 2023.

Through his extensive career in the industry, Mr. Henry has been heavily involved in the strategic management and leadership of projects towards production, commercialization and, ultimately, the realization of stakeholder value. In his career to date, he has gained significant experience working across capital markets, business development, project financing, key stakeholder engagement (including public and investor relations), and the reporting and implementation of ESG-focused initiatives.

Mr. Henry's former roles within the mining sector include as Executive Chair and Non-Executive Director at Euronext Growth and AIM-listed Ormonde Mining plc, Non-Executive Director at TSX-V- listed Ashanti Gold Corporation, President, Director, and Chief Executive Officer at TSX-listed Gabriel Resources Limited and various roles, including Chief Executive Officer and Managing Director, at London and Oslo Stock Exchange-listed Avocet Mining PLC.

Mr. Henry holds a BA (Hons) in Natural Sciences from Trinty College, Dublin, Ireland.

***Kieran Daly, Non-Executive Director***

Mr. Daly has extensive experience working in investment banking/equity research and is the Executive for Growth & Strategic Development at Assore. Prior to joining Assore in 2018, Mr Daly worked for firms such as UBS Group AG, Macquarie Group Limited and Investec Limited. During the first 15 years of his mining career, Mr Daly worked in the coal division of Anglo-American plc (Anglo Coal) in a number of international roles including operations, sales & marketing, strategy and business development. His key roles included leading and developing Anglo Coal's marketing efforts across Asia acting as the global Head of Strategy for Anglo Coal. Mr. Daly is chair of the Issuer's Audit & Risk Management Committee and also a member of the Nomination & Remuneration Committee. During the past three years, Mr. Daly has also served as an alternate director of Gemfields Group Limited (appointed 12th November 2021) which is listed on the Johannesburg Stock Exchange (JSE) and AIM.

***Christelle van der Merwe, Non-Executive Director***

Ms. Van der Merwe is currently the Senior Manager: Technical, of the Growth & Strategic Development Department at Assore Ltd and is also involved with Assore's mining operations. She started working as a mining geologist for Assore in 2013 and has been involved with strategic and resource related investment decisions of the company. Ms. Van der Merwe is a member of SACNASP, the GSSA and AUSIMM. During the past three years, Ms. Van der Merwe has not served as a director of any other listed company.

***Holly Waldeck (alternate director for Kieran Daly)***

Ms. Waldeck is currently the Senior Manager of Growth & Strategic Development at Assore Ltd. She is a senior business development professional with 10 years' experience in the mining and metals industry. Skilled in complex corporate

transaction management and financial modelling. For the past three years, Ms. Waldeck has not served as a director of any other listed company.

**TABLE 8 IDENTITY AND PERCENTAGE HOLDINGS OF DIRECTORS AS OF 15TH APRIL, 2024**

| COMPANY DIRECTOR | SHAREHOLDING | % TOTAL |
|---|---|---|
| **Kieran Daly** | - | - |
| **Amanda Harsas** | 4,500,000 | 0.69% |
| **Neil Herbert** | 7,973,305 | 1.23% |
| **Jonathan Henry** | 51,518 | 0.01% |
| **Keith Muller** | 200,000 | 0.03% |
| **Christelle van der Merwe** | - | - |
| **Total Director shareholdings** | 12,724,823 | 1.96% |

During the year to 30th June 2023, Ms Harsas exercised 2,500,000 options and was simultaneously granted a limited recourse loan for the full value of the exercise price (£750,000). There were no loans to Directors or other key management personnel during the year to 30th June 2023.

## EXECUTIVE REMUNERATION

Executive Service Agreements have been entered into with all Executive Key Managerial Personnels as outlined in the below table:

**TABLE 9 FIXED EXECUTIVE REMUNERATION AND DESCRIPTION OF SERVICES**

| | ANNUAL FIXED REMUNERATION | DESCRIPTION OF SERVICES |
|---|---|---|
| **Neil Herbert** | $735,000 | Executive Chairman |
| **Keith Muller** | $475,000 | Chief Executive Officer |
| **Amanda Harsas** | $440,000 | Finance Director and Company Secretary |
| **Len Kolff** | $380,000 | Head of Business Development & Chief Geologist |

## NON-EXECUTIVE DIRECTORS REMUNERATION

The Constitution of the Issuer provides that the Non-Executive Directors are entitled to remuneration as determined by the Issuer in a general meeting to be apportioned among them in such manner as the directors agree and, in default of agreement, equally. The aggregate maximum remuneration currently approved by shareholders is $1,000,000 per annum. A Non-Executive Director may also be invited to participate in Director and Executive share or option incentive schemes.

If a Non-Executive Director performs extra services, which in the opinion of the Directors are outside the scope of the ordinary duties of the Director, the Issuer may remunerate that Director by payment of a fixed sum determined by the Directors in addition to or instead of the remuneration referred to above. However, no payment can be made if the effect would be to exceed the maximum aggregate amount payable to Non-Executive Directors without prior consent of the Issuer.

Non-Executive Directors are entitled to be reimbursed for properly incurred expenses, including travel and other expenses incurred in attending Director's or General Meetings of the Issuer or otherwise in connection with the business of the Issuer.

## DIRECTORS' INTERESTS

The interests of each of the respective Directors in the Shares and other securities of the Issuer at the date of this document are set out below:

**TABLE 10 DIRECTORS' INTERESTS AS OF 15TH APRIL, 2024**

| DIRECTOR | SECURITIES | NUMBER |
|---|---|---|
| **Neil Herbert**[1] | Shares | 7,973,305 |
| | Options | 10,000,000 |
| | Performance Rights | 3,497,843 |
| **Keith Muller** | Shares | 200,000 |
| | Options | 6,000,000 |
| | Performance Rights | 1,469,610 |
| **Amanda Harsas**[2] | Shares | 4,500,000 |
| | Options | 10,000,000 |
| | Performance Rights | 2,131,364 |
| **Kieran Daly** | Shares | Nil |
| | Options | Nil |
| | Performance Rights | Nil |
| **Christelle van der Merwe** | Shares | Nil |
| | Options | Nil |
| | Performance Rights | Nil |
| **Jonathan Henrry** | Shares | 51,518 |
| | Options | Nil |
| | Performance Rights | Nil |

| | | |
|---|---|---|
| **Holly Waldeck (alternate director)** | Shares | Nil |
| | Options | Nil |
| | Performance Rights | Nil |

***Notes:***

*1. Mr Herbert's Shares are held by Huntress CI Nominees Limited.*
*2. Ms Harsas' Shares and Options are held by Birubi Grove Pty Ltd ATF Harsas Family Trust.*

## RELATED PARTY TRANSACTIONS

Piedmont Lithium Inc (a major shareholder) has a funding agreement with the Issuer and cumulatively up to 31st December 2023 it had paid the Issuer US$26.2m and owed a further $3.2m as at 31st December 2023 to the Issuer. Assore Limited (a major shareholder) received $120,000 in each of the years ended 30th June 2022 and 30th June 2023 for director fees.

Sumitomo Corporation (which was a former major shareholder) received $49,450 in director fees in the year ended 30th June 2022.

During the year ended 30th June 2022 the Issuer completed the demerger of Ricca. The Issuer recharges Ricca for certain services provided by the Company including exploration staff, premises, IT and insurance. Ricca recharges the Company for marketing staff.

The following table provides details of transactions with related parties for the 2022 and 2023 fiscal years:

**TABLE 11 DETAILS OF RELATED PARTIES TRANSACTION FOR FY 2022 AND FY 2023**

| RELATED PARTY | | SERVICES PROVIDED AND REIMBURSED | SERVICES RECEIVED AND EXPENSED | DIRECTORS' FEES EXPENSED |
|---|---|---|---|---|
| | | $ | $ | $ |
| **Assore Limited** [(i)] | 2023 | - | - | 120,000 |
| | 2022 | - | - | 120,000 |
| **Sumitomo Corporation** [(i)] | 2023 | - | - | - |
| | 2022 | - | - | 49,450 |
| **Ricca Resources Limited** [(ii)] | 2023 | 260,585 | 60,101 | - |
| | 2022 | 94,330 | - | - |

(i) The Issuer has commercial agreements in place with major shareholders for the services of Non-Executive Directors (NEDs). Assore Limited has provided two NEDs in the current and prior financial year (Kieran Daly and Christelle Van der Merwe) and Sumitomo Corporation provided one NED until 27th April 2022 (Tetsunosuke Miyawaki). The Group pays a monthly fee for these services and the fees have been included in the director's remuneration report under the individual representatives of each shareholder.

(ii) During the prior financial year, the Group completed the demerger of Ricca. Further details on the demerger are contained in Note 6.3 of the 2023 Financial report. The Issuer recharges Ricca for certain services provided by the Issuer including exploration staff, premises, IT and insurance. Ricca recharges the Issuer for marketing staff.

The following amounts were outstanding with related parties at the 2022 and 2023 fiscal reporting dates:

**TABLE 12 AMOUNTS OUTSTANDING WITH RELATED PARTIES**

| | AMOUNTS OWED TO RELATED PARTIES | | AMOUNTS OWED BY RELATED PARTIES | |
|---|---|---|---|---|
| | 2023 | 2022 | 2023 | 2022 |
| | $ | $ | $ | $ |
| **Assore Limited** | 60,000 | 885,714 | - | - |
| **Sumitomo Corporation** | - | 4,451 | - | - |
| **Ricca Resources** | - | - | 167,406 | 152,227 |

All outstanding balances are unsecured, interest free and will be settled in cash.

## BOARD COMMITTEES

The Board has established an Audit & Risk Management Committee and a Remuneration & Nomination Committee.

Other committees may be established by the Board as and when required. Membership of Board committees will be based on the needs of the Issuer, relevant legislative and other requirements, and the skills and experience of individual Directors.

i. Audit & Risk Management Committee

   The Board has established an Audit & Risk Management Committee, and its members are Kieran Daly (Chairman), Neil Herbert.

ii. Nomination & Remuneration Committee

   The Board has established a Remuneration & Nomination Committee, and its members are Neil Herbert and Kieran Daly.

## CORPORATE GOVERNANCE POLICIES

The Board has adopted the following corporate governance policies which are set out on the Issuer's website (https://www.atlanticlithium.com.au/corporate-governance):

a. Anti-Bribery and Corruption Policy;
b. Corporate Ethics and Continuous Disclosure Policy;
c. Trading Policy;
d. Whistleblower Policy;
e. Audit & Risk Committee Charter;
f. Board Charter Corporate Governance Policy;
g. Charter of the Executive Committee;
h. Diversity Policy;
i. Environment, Social and Governance (ESG) Policy;
j. Matters Reserved for the Board of Directors;
k. Nomination & Remuneration Committee Charter;

l. Related Party Policy; and

m. Social Media Policy.

# 7.0 EXPLORATION AND DEVELOPMENT OBJECTIVES

## OBJECTIVES

The Issuer's broad objectives are to create and sustain shareholder value through the exploration, development, and production of its lithium assets in West Africa through its direct and indirect Subsidiaries.

The Issuer believes it can achieve these objectives as follows:

a. The Issuer's flagship project, the Ewoyaa Lithium Project in Ghana, is set to be Ghana's first lithium producing mine and is funded under an agreement with Piedmont and Piedmont Lithium Inc for US$ 103m.

b. The Issuer has a 39,500m drilling programme currently underway to infill the current resource from Inferred to Indicated status, infill indicated to measured status for the first 1.5 years of planned production, and test new exploration targets.

c. The Issuer, through its direct and indirect Subsidiaries will continue to define and test regional exploration targets within the granted portfolio by following up coincident geochemical and geophysical anomalies with field mapping and close-spaced auger drilling.

d. The Issuer is processing and interpreting the recently acquired detailed helicopter geophysical and soil geochemical survey over the Cape Coast license to define additional potential exploration targets.

e. The Issuer will assess new opportunities that offer a strategic and commercial fit to the portfolio.

# 8.0 DOCUMENTS INCORPORATED BY REFERENCE

The following documents shall be deemed to be incorporated in, and to form part of, this Prospectus:

a. All amendments and supplements to this Prospectus prepared by the Issuer from time to time.

b. As of the Prospectus Date, the published audited annual financial statements of the Issuer for the financial years ended 30th June 2022 and 30th June 2023.

c. The financial report as prepared by SCG Chartered Accountants dated 21st December 2023.

d. The legal due diligence report as prepared by JLD & MB Legal Consultancy dated 8th March, 2024.

The Issuer will for as long as its shares are listed on the Ghana Stock Exchange, provide at the registered office of its indirect Ghanaian Subsidiaries, without charge, to any person, upon request of such person, a copy of all of the documents which are incorporated herein by reference, unless such documents have been modified or superseded, in which case the modified or superseding documentation will be provided. Requests for such documents should be directed to the Issuer at the registered office.

The Issuer will, subject to the approval of the SEC and for as long as its shares are listed on the GSE, publish a new Prospectus or a supplement to this Prospectus, as the case may be if:

a. An event has occurred which materially affects any matter contained in this Prospectus, the disclosure of which would reasonably be required by Shareholders and/or potential shareholders; or

b. Any of the information contained in this Prospectus becomes outdated in a material respect.

**Note:** No new Prospectus or supplement to this Prospectus, as the case may be is required in respect of the Issuer's audited annual financial statements if such audited financial statements are incorporated by reference into this Prospectus.

# 9.0 RISK FACTORS

## 9.1 INTRODUCTION

a. An investment in the Shares of the Issuer is not risk free. Exploration and evaluation for minerals is generally considered a high-risk activity, and the worst-case scenario is that most or all of the investment could be lost.

b. The future performance of the Issuer and the future investment performance of the Shares may be influenced by a range of factors. Many are outside the control of the Directors of the Issuer. Prior to making any decision to trade, investors should carefully consider the following risk factors applicable to the Issuer.

c. Careful consideration should be given to the following risk factors, as well as the other information contained in this Prospectus and the Investor's own knowledge and enquiries, before an investment decision is made. Some of the risks may be mitigated by the Issuer using safeguards and appropriate systems and taking certain actions. Some of the risks may be outside the control of the Issuer and not capable of mitigation. There are also general risks associated with any investment and trading in Shares.

d. The risks described below are not to be taken as exhaustive. The specific risks considered and others not specifically referred to may in the future materially affect the financial performance of the Issuer and the value of its Shares.

## 9.2 GENERAL RISKS

A summary of the major general risks are described below.

**a. Share Market Risk**

The market price of Shares can be expected to rise and fall in accordance with general market conditions and factors specifically affecting the Ghanaian resources sector and exploration companies in particular.

There are a number of factors (both national and international) that may affect the share market price and neither the Issuer nor its Directors have control of those factors.

**b. General Economic Conditions**

Changes in the general economic climate in which the Issuer operates may adversely affect the financial performance of the Issuer. Factors that may contribute to that economic climate include the general level of economic activity, interest rates, inflation and other economic factors. The price of commodities and level of activity within the mining industry will also be of particular relevance to the Issuer.

**c. Legislative Change**

Changes in government regulations and policies may adversely affect the financial performance or the current and proposed operations generally of the Issuer. The Issuer is not aware of any current or proposed material changes in the applicable regulations or policy.

**d. Unforeseen Expenses**

While the Issuer is not aware of any expenses that may need to be incurred that have not been taken into account, if such expenses were subsequently incurred, the expenditure proposals of the Issuer may be adversely affected.

**e. Share Liquidity Risk**

Shareholders of the Issuer may be unable to sell significant quantities of the Shares into the public trading markets without a significant reduction in the price of their Shares, if any at all. The Issuer may need to take action in order to continue to meet the listing requirements of all the exchanges the Issuer is listed on (AIM, ASX, GSE).

**f. Dividend Risk**

The Issuer does not currently pay dividends. Payment of dividends on the Shares is within the discretion of the Board and will depend upon the Issuer's future earnings, its capital requirements, financial condition, and other relevant factors. The Issuer does not currently intend to declare any dividends for the foreseeable future.

**g. Availability of Labour Risk**

The Issuer will require skilled labour workers and engineers to carry out its operations. Industrial disruptions, work stoppages and accidents in the course of the Issuer's operations could result in losses and delays, which may adversely affect profitability.

The Issuer may experience a skills shortage. Due to the high demand for skilled and unskilled labour, there is a growing expectation of higher wages. The Issuer strives to employ the best people however, this can come at a high price or may delay operations should it not be able to attain and retain those people.

**h. Terrorist Attack or Other Sustained Armed Conflicts**

Terrorist activities, anti-terrorist efforts or other armed conflicts involving Ghana or in other countries or their interests abroad may adversely affect the Australian and global economies. If events of this nature occur and persist, the associated political instability and societal disruption could reduce overall demand for minerals potentially putting downward pressure on prevailing minerals prices and adversely affecting the Issuer's activities.

## 9.3 RISKS SPECIFIC TO AN INVESTMENT IN THE ISSUER

In addition to the general market and economic risks noted in Section 9.2, investors should be aware of the risks specific to an investment in the Issuer. The major risks are described below.

**a. Changes in Commodity Price**

Once the Ewoyaa Lithium Project is complete, the Issuer will derive its revenues mainly from the sale of spodumene concentrate and/or associated minerals, and from royalties gained from potential joint ventures or from mineral projects sold. Consequently, the Issuer's potential future earnings could be closely related to the price of these commodities.

Although lithium is not a traded commodity in Ghana, its value and long-term price will fluctuate and are affected by numerous industry factors including demand for lithium, forward selling by producers, production cost levels in major producing regions and macroeconomic factors such as inflation, interest rates, currency exchange rates and global and regional demand for, and supply of, lithium. The Issuer's prospects and perceived value will also be influenced from time to time by the prevailing short-term prices of the commodities targeted in its exploration programs.

These factors may cause volatility which in turn, may affect the Issuer's ability to finance its operations and/or bring its products to market.

If the market price of lithium carbonate sold by the Issuer were to fall below the costs of production and remain at such a level for any sustained period, the Issuer would experience losses and could have to curtail or suspend some or all of its proposed mining activities. In such circumstances, the Issuer would also have to assess the economic impact of any sustained lower commodity prices on recoverability.

**b. Exploration and Evaluation Risk**

Mineral exploration and development are high-risk undertakings and involve significant risks. The Issuer's performance depends on the successful exploration and/or acquisition of resources or reserves and commercial production therefrom. There can be no assurances that the Issuer's exploration programs described in this Prospectus or those relating to any projects or tenements that the Issuer may acquire in the future, will result in the discovery of a significant base metal and/or precious metal deposit, and even if an apparently viable deposit is identified, there is no guarantee that it can be economically exploited.

The Issuer's potential future earnings, profitability, and commercialisation of base metal and/or precious metal reserves and resources will be dependent on the successful discovery and subsequent extraction of those resources to the extent that may be required to fulfil commercial obligations.

Successful commodity development and production is dependent on obtaining all necessary consents and approvals and the successful design, construction and operation of efficient gathering, processing, and transportation facilities. No assurance can be given that the Issuer will be able to obtain all necessary consents and approvals in a timely manner, or at all. This is particularly relevant to the Ewoyaa Lithium Project where the long-term success of the proposed operations remains contingent on obtaining of various secondary permits and licences including for water management, road works, power generation and other purposes. Delays or difficulties in obtaining relevant approvals, or obtaining conditional or limited approvals, may interfere with the mining operations of the Issuer which could materially impact the business, financial position and performance of the Issuer.

**c. Operational Risk**

If the Issuer decides to develop and commission a mine, the operations of the Issuer including mining and processing may be affected by a range of factors. These include failure to achieve predicted grade in exploration, mining and processing, technical difficulties encountered in commissioning and operating plant and equipment, mechanical failure, metallurgical problems which affect extraction rates and costs, adverse weather conditions, industrial and environmental accidents, industrial disputes, unexpected shortages or increase in the costs of consumables, spare parts, plant, and equipment.

**d. Sustainability of Growth and Margins**

The sustainability of growth and the level of profit margins from operations are dependent on a number of factors outside of the Issuer's control. Industry margins in all sectors of the Issuer's activities are likely to be subject to continuing but varying pressures, including competition from other current or potential suppliers.

**e. Financing**

The Issuer's ability to effectively implement its business strategy over time may depend in part on its ability to raise additional funds. There can be no assurance that any such equity or debt funding will be available to the Issuer on favourable terms or at all. If adequate funds are not available on acceptable terms, the Issuer may not be able to take advantage of opportunities or otherwise respond to competitive pressures.

The Issuer has also entered contractual arrangements with certain third parties to finance the Ewoyaa Lithium Project. This risk is discussed below.

**f. Contractual and Joint Venture Risks**

The Issuer's ability to efficiently conduct its operations in a number of respects, including with regards to the funding of the Ewoyaa Lithium Project, depends upon third parties.

Accordingly, the Issuer has entered into contractual agreements to document these third-party arrangements. As in any contractual relationship, the ability for the Issuer to ultimately receive benefits from these contracts is dependent upon the relevant third party complying with its contractual obligations. Whilst the Issuer will have various contractual rights in the event of non-compliance by a contracting party, no assurance can be given that all contracts to which the Issuer is a party will be fully performed by all contracting parties.

To the extent that such third parties default in their obligations, it may be necessary for the Issuer to enforce its rights under any of the contracts and pursue legal action. Such legal action may be costly and no guarantee can be given by the Issuer that a legal remedy will ultimately be granted on appropriate terms or that the Issuer will be successful in securing compliance.

Additionally, some existing contractual arrangements that have been entered into by the Issuer may be subject to the consent of third parties being obtained to enable it to carry on all of its planned business and other activities and to obtain full contractual benefits.

No assurance can be given that any such required consent will be forthcoming. Failure by the Issuer to obtain such consent may result in the Issuer not being able to carry on all of its planned business and other activities or proceed with its rights under any of the relevant contracts requiring such consent.

The Ewoyaa Lithium Project is already the subject of a co-development arrangement. Additionally, the Issuer may wish to develop its projects or future projects through further co-development arrangements or through joint venture arrangements. Any such arrangements entered into by, or interests in such arrangements assigned to, the Issuer could be affected by the failure or default of any of the participants in those arrangements.

**g. Liquidity Risk**

Liquidity risk is the risk that the Issuer will not be able to meet its financial obligations as they fall due. The Issuer has in place a planning and budgeting process to help determine the funds required to meet its operating and growth objectives. The Issuer prepares cash forecasts and maintains cash balances to meet short and long-term cash requirements.

The Issuer manages its liquidity risk by planning and budgeting its operational and growth requirements. The Issuer monitors its forecast cash flows and ensures funds are in place to meet its operational needs in the short to medium term.

Whilst the Issuer has sufficient financial resources, there is no assurance that additional funding will be available to allow the Issuer to acquire, explore and develop its exploration assets. Apart from the initiatives discussed above, the Issuer is not aware of any trends, commitments or events that may affect its liquidity in the foreseeable future as it progresses to the development stage.

The Issuer believes that it has sufficient funds to meet its obligations for the foreseeable future.

**h. Reliance on Key Personnel**

Whilst the Issuer has a few executives and senior personnel, its progress in pursuing its exploration and evaluation programmes within the time frames and within the costs structure as currently envisaged could be dramatically influenced by the loss of existing key personnel or a failure to secure and retain additional key personnel as the Issuer's exploration programme develops. The resulting impact from such loss or failure to retain personnel would be dependent upon the quality and timing of the employee's replacement.

Although the key personnel of the Issuer have a considerable amount of experience and have previously been successful in their pursuits of acquiring, exploring and evaluating mineral projects, there is no guarantee or assurance that they will be successful in their objectives pursuant to this Prospectus.

**i. Exchange Rate Risk**

A number of the Issuer's commercial arrangements, including finance arrangements, are denominated in US dollars or British pounds. The Issuer may also acquire equipment from overseas using foreign currency. Accordingly, the revenues, earnings, costs, expenses, assets and liabilities of the Issuer may be exposed adversely to exchange rate fluctuation. Further, the future value of the Shares may fluctuate in accordance with movements in the exchange rates and interest rates.

**j. Industrial Risk**

Industrial disruptions, work stoppages and accidents in the course of the Issuer's operations could result in losses and delays, which may adversely affect profitability.

**k. Contractors**

The Issuer is dependent on contractors and suppliers to supply vital services to its operations. The Issuer is therefore exposed to the possibility of adverse developments in the business environments of its contractors and suppliers. Any disruption to services or supply may have an adverse effect on the financial performance of the Issuer.

**l. Environmental Risk**

The Issuer's operations and projects are subject to the laws and regulations of all jurisdictions in which it has interests and carries on business, regarding environmental compliance and relevant hazards.

These laws and regulations set various standards regulating certain aspects of health and environmental quality and provide for penalties and other liabilities for the violation of such standards and establish, in certain circumstances, obligations to remediate current and former facilities and locations where operations are or were conducted. Significant liability could be imposed on the Issuer for damages, clean-up costs, or penalties in the event of certain discharges into the environment, environmental damage caused by previous owners of property acquired by the Issuer or its subsidiaries, or non- compliance with environmental laws or regulations.

The Issuer proposes to minimise these risks by conducting its activities in an environmentally responsible manner, in accordance with applicable laws and regulations and where possible, by carrying appropriate insurance coverage.

There is also a risk that the environmental laws and regulations may become more onerous, making the Issuer's operations more expensive. Amendments to current laws, regulations and permits governing operations and activities of lithium exploration companies, or more stringent implementation thereof, could have a material adverse impact on the Issuer and cause increases in exploration expenses, capital expenditures or production costs or reduction in levels of production at producing properties or require abandonment or delays in development of new properties.

**m. Mine Development Risk**

Possible future development of a mining operation at any of the Issuer's current or future projects is dependent on a number of factors including, but not limited to, the acquisition and/or delineation of economically recoverable mineralisation, favourable geological conditions, receiving the necessary approvals from all relevant authorities and parties, seasonal weather patterns, unanticipated technical and operational difficulties encountered in extraction and production activities, mechanical failure of operating plant and equipment, shortages or increases in the price of consumables, spare parts and plant and equipment, cost overruns, access to the required level of funding and contracting risk from third parties providing essential services.

If the Issuer discovers an economically viable mineral deposit that it intends to develop, it will, among other things, require various approvals, licences and tenements before it will be able to mine the deposit. There is no guarantee that the Issuer will be able to obtain all required approvals, licences and tenements. To the extent that required authorisations are not obtained or are delayed, the Issuer's operational and financial performance may be materially adversely affected. If the Issuer commences production, its operations may be disrupted by a variety of risks and hazards which are beyond its control, including environmental hazards, industrial accidents, technical failures, labour disputes, unusual or unexpected rock formations, flooding and extended interruptions due to inclement or hazardous weather conditions and fires, explosions, pandemics or accidents.

The risks outlined above mean that there can be no assurances as to the future development of a mining operation in relation to the Ewoyaa Lithium Project (or other future projects) or that the Issuer will achieve commercial viability through the development or mining of any of its projects.

**n. Insurance Arrangements**

The Issuer intends to ensure that insurance is maintained within ranges of coverage that the Issuer believes to be consistent with industry practice and having regard to the nature of activities being conducted. No assurance, however, can be given that the Issuer will be able to obtain such insurance coverage at reasonable rates or that any coverage it arranges will be adequate and available to cover any such claims.

**o. Management Actions**

Directors of the Issuer will, to the best of their knowledge, experience and ability (in conjunction with their management) endeavour to anticipate, identify and manage the risks inherent in the activities of the Issuer, but

without assuming any personal liability for the same, with the aim of eliminating, avoiding and mitigating the impact of risks on the performance of the Issuer and its security.

The success of the Issuer is currently largely dependent on the performance of its Directors and officers.

There is no assurance that the Issuer can maintain the services of its Directors and officers, or other qualified personnel required to operate its business. The loss of the services of these persons could have a material adverse effect on the Issuer and its prospects.

**p. Land Access Risk**

Land access is critical for exploration and evaluation to succeed. In all cases the acquisition of prospective tenements is a competitive business, in which propriety knowledge or information is critical and the ability to negotiate satisfactory commercial arrangements with other parties is often essential.

Access to land in Ghana for mining and exploration purposes can be affected by land ownership, including private (freehold) land, pastoral lease and regulatory requirements within the jurisdiction where the Issuer operates.

Rights to mineral tenements carry with them various obligations in regard to minimum expenditure levels and responsibilities in respect of the environment and safety. Failure to observe these requirements could prejudice the right to maintain title to a given area.

The Issuer will formulate its development plans and activities to accommodate and work within the access restrictions outlined, however the requirements can be complex and sometimes require approvals, consents or negotiations involving government or third parties. As such, there is a risk one or more of these access issues may prevent or delay the Issuer from implementing its intended activities which may thereby adversely affect the Issuer's financial position and prospects.

Additionally, the Issuer's projects are located in areas which can be difficult to access at times. Natural events, such as cyclones, floods and fire, which are beyond the control of the Issuer, may prevent access to the Issuer's tenements or offices or otherwise affect the Issuer's ability to undertake planned exploration or development (and potentially production).

As a result, costs associated with the Issuer carrying on its business may significantly increase and exceed the amount allocated in the Issuer's budget. In certain circumstances the Issuer may be prevented from undertaking its business operations completely, which is likely to have a materially adverse effect on the Issuer.

**q. Climate Change**

The operations and activities of the Issuer are subject to changes to local or international compliance regulations related to climate change mitigation efforts, specific taxation or penalties for carbon emissions or environmental damage and other possible restraints on industry that may further impact the Issuer. While the Issuer will endeavour to manage these risks and limit any consequential impacts, there can be no guarantee that the Issuer will not be impacted by these occurrences.

Climate change may also cause certain physical and environmental risks that cannot be predicted by the Issuer, including events such as increased severity of weather patterns, incidence of extreme weather events and longer-term physical risks such as shifting climate patterns. All these risks associated with climate change may significantly change the industry in which the Issuer operates.

**r. Sovereign Risk**

The Issuer's exploration and development activities are to be carried out in Ghana. As a result, the Issuer will be subject to political, social, economic and other uncertainties including, but not limited to, changes in policies or the personnel administering them, foreign exchange restrictions, changes of law including laws affecting foreign ownership, currency fluctuations, royalties and tax increases in Ghana.

**s. Failure to Satisfy Expenditure Commitments and Licence Conditions**

Interests in tenements in Ghana are governed by the Minerals and Mining Act , 2006 (Act 703) (as amended) and regulations that are current in Ghana and are evidenced by the granting of licences or leases. Each licence or lease is for a specific term and carries with it annual expenditure and reporting commitments, as well as other conditions requiring compliance. Consequently, the Issuer could lose title to or its interest in the Tenements if license conditions are not met or if insufficient funds are available to meet expenditure commitments.

**t. Competition Risk**

The Issuer will compete with other companies, including major mineral resources companies. Some of these companies have greater financial and other resources than the Issuer and, as a result, may be in a better position to compete for business opportunities. There can be no assurance that the Issuer can compete effectively with these companies.

**u. Government Policy**

The availability and rights to explore and mine, as well as industry profitability generally, can be affected by changes in government policy that are beyond the control of the Issuer.

Changing attitudes to environmental, land care, cultural heritage and indigenous land rights' issues, together with the nature of the political process, provide the possibility for future policy changes. There is a risk that such changes may affect the Issuer's exploration plans or, indeed, its rights and/or obligations with respect to the tenements and the licence applications.

**v. COVID-19**

Despite the increasing prevalence of COVID-19 vaccinations, measures taken in response to COVID-19 and easing of COVID-19 related restrictions, there remains continued uncertainty as to the emergence and impact of new COVID strains and the future response of governments and authorities. Given this uncertainty, there also remains a possibility of an economic downturn of unknown duration or severity in certain jurisdictions going forward.

The global economic outlook may face uncertainty on any recurrence of a COVID-19 type pandemic, including a significant direct and indirect impact on global capital markets, commodity prices, foreign exchange rates, supply chains and labour availability and flexibility. The likelihood and severity of any potential impacts are however impossible to accurately predict. Any COVID-19 type infections on site or amongst Issuer employees could result in delays or suspensions of the Issuer's operations.

Supply chain disruptions resulting from any COVID-19 type pandemic and measures implemented by governmental authorities around the world to limit the transmission of the virus (such as travel bans and quarantining) may, in addition to the general level of economic uncertainty caused by a COVID-19 type pandemic, also adversely impact the Issuer's operations, financial position and prospects. There is a risk that adverse impacts of a COVID-19 type pandemic will not be able to be mitigated in practice.

**w. Ukraine Conflict**

The conflict between Ukraine and Russia (Ukraine Conflict) is creating and is likely to continue to create impacts to the global economic markets that are unpredictable. The nature and extent of the effect of the Ukraine Conflict on the performance of the Issuer remains unknown.

The Directors are continuing to monitor the potential secondary and tertiary macroeconomic impacts of the unfolding events, including the changing pricing of commodity and energy markets and the potential of cyber activity impacting governments and businesses. Further, any governmental or industry measures taken in response to the Ukraine Conflict, including limitations on travel and changes to import/export restrictions and arrangements involving Russia or Belarus, may adversely impact the Issuer's operations and are likely to be beyond the control of the Issuer. While the Issuer has not assumed any ongoing direct business with Ukrainian, Belarusian or Russian companies, the indirect impacts of the conflict may have unpredictable indirect consequences on the Issuer's

future business. It is expected that the situation will continually evolve, and the consequences are therefore inevitably uncertain.

**x. Israel-Hamas Conflict**

The Israel-Hamas conflict can potentially affect commodity prices, particularly oil, which can, in turn, affect global prices of goods and services. The region is geopolitically sensitive, and escalation in tensions may lead to concerns about the stability of oil supply from the Middle East. This could result in increased oil prices due to market uncertainties and risk factors associated with geopolitical conflicts in the region.

**y. Estimates of Mineral Resources**

The Issuer has estimated Inferred and Indicated Mineral Resources across its tenements. The Mineral Resources are estimates only and are based on interpretations, knowledge, experience and industry practice which may change when new techniques or information becomes available. Applicants should be aware that inclusion of material in a Mineral Resource Estimate does not require a conclusion that material may be economically extracted at the tonnages indicated, or at all. Estimates that are valid when made may change significantly when new information becomes available. In addition, Spodumene Concentrate price fluctuations, as well as increased production costs or reduced throughput and/or recovery rates, may render reserves and resources uneconomic and so may materially affect the estimates.

**z. Reliance on and Relevance of Project Studies**

The project studies described within this Prospectus are evaluations of potential development of a project at a given time taking many factors into account. No assurance can be given that the process, methodology or plan of development included in a project study will be progressed and included in further studies. Project studies are based on existing resource estimates and market conditions and consequently, market fluctuations, varied logistics or production costs or recovery rates may render the results of existing project studies uneconomic and may ultimately result in a future study being very different.

**aa. Exploration Maps and Diagrams Risk**

The Issuer has commissioned and produced numerous diagrams and maps to help identify and describe its tenements and the targets sought by the Issuer on those tenements. Maps and diagrams should only be considered an indication of the current intention in relation to targets and potential areas for exploration and drilling, which may change.

**bb. Litigation Risk**

All industries, including the mining industry, may be subject to legal claims whether or not they have merit. The Issuer maintains Directors' and Officers' liability insurance. The Issuer has also provided an indemnity for each Non-Executive Director and Executive Director to the maximum extent permitted by law, against any liability for legal costs incurred in respect of liability incurred by them, as or by virtue of their holding office as, and acting in the capacity of, an officer of the Issuer, except where the liability arises out of conduct involving lack of good faith or in breach of the law.

Whilst the Issuer is not aware of any current or proposed litigation against it, the Issuer may be subject to litigation and other claims and disputes in the course of its business, including employment disputes, contractual disputes, indemnity claims and occupational and personal claims. Such litigation, claims and disputes, including the costs of settling claims and operational impacts, could cause the Issuer to incur unforeseen loss, costs or expenses (including loss, cost or expense that is not covered by insurance policies), could occupy a significant amount of management's time and attention and could materially adversely affect the Issuer's business, operating and financial performance. In addition, even if the Issuer was to ultimately prevail in any such litigation, claim or dispute, it could suffer reputational damage, which could have an adverse effect on the Issuer's business, operating or financial performance.

## GENERAL

Any combination of the above factors may materially affect any individual mineral project assets, operations or the financial performance of the Issuer and the value of its securities. To that extent the Shares are subject to significant risk and uncertainty with respect to return or preservation of capital, the price (if any) at which the Shares may trade and the payment of dividends in any future time.

# LEGAL OPINION

*JLD & MB LEGAL CONSULTANCY*

# 10.0 LEGAL OPINION

6th February, 2024

The Director-General
Securities and Exchange Commission
No. 30 3rd Circular Road
Cantonments
Accra

The Managing Director
Ghana Stock Exchange
5th Floor, Cedi House
Accra

Dear Sirs,

**RE: ATLANTIC LITHIUM LIMITED – SECONDARY LISTING BY INTRODUCTION ON THE GHANA STOCK EXCHANGE**

---

**1. INTRODUCTION**

**Background**

We have acted as Ghanaian legal advisors to Atlantic Lithium Limited ("**Atlantic Lithium**" or "**Issuer**") in connection with its proposed secondary listing by introduction on the Ghana Stock Exchange (the "**Listing**"). We understand that the Issuer is currently listed on the Alternative Investment Market ("**AIM**") of the London Stock Exchange and the Australian Securities Exchange ("**ASX**").

**Legislation and Documents Reviewed**

For the purposes of rendering this opinion, we have examined the below-listed laws and documents:

i. Companies Act, 2019 (Act 992);

ii. Listing Rules of the Ghana Stock Exchange, 2006;

iii. Securities and Exchange Commission Regulations, 2003 (L.I 1728)

iv. A copy of Atlantic Lithium's Certificate of Registration of Change of Name issued by the Australian Securities and Investments Commission on 18th November, 2021;

v. The draft prospectus to be issued by Atlantic Lithium in respect of the Listing (the "Prospectus");

vi. A copy of the resolution of Atlantic Lithium's Board of Directors approving the Listing;

vii. A letter from the Company Secretary of Atlantic Lithium dated 17th January, 2024 confirming the status of the company and its compliance with applicable laws and regulations;

viii. Such other documents, licences, authorizations, and records as are necessary under the laws of Ghana to enable us to issue this opinion.

This opinion is subject to the Assumptions and Qualifications set out in Section 3 below.

## 2. OPINION

On the basis of the foregoing and to the best of our knowledge upon due enquiry, we are of the opinion that:

### 2.1 Incorporation

2.1.1. The Issuer is incorporated as a public company under the laws of Australia.

2.1.2. The Issuer has the capacity to sue and be sued in its own name and to carry on business as is currently being conducted.

2.1.3. No steps have been taken to appoint an administrator, trustee, receiver, liquidator or analogous person or body over, or to wind up or dissolve the Issuer.

### 2.2 Approvals and Authorizations

2.2.1. The Issuer has obtained a resolution of its Board of Directors authorising the Listing. We understand that no other corporate or regulatory authorizations are required for the Listing.

2.2.2. The Issuer has the necessary power and authority to issue the Prospectus and has taken all necessary action to authorize the signing of the Prospectus and to issue all notices, certificates, and other documents to be delivered by it under the Listing.

### 2.3 Prospectus

2.3.1 The Prospectus complies with the relevant provisions of Schedule 5 of the Securities and Exchange Commission Regulations, 2003 (L.I 1728).

2.3.2 The Prospectus is required to be approved by the Securities and Exchange Commission in accordance with the Securities and Exchange Act, 2016 (Act 929).

### 2.4 Compliance with AIM and ASX Stock Exchange Rules

We have sighted a letter from the Company Secretary of the Issuer, confirming that the Issuer is in compliance with the requirements of the Alternative Investment Market ("**AIM**") of the London Stock Exchange and the Australian Securities Exchange ("**ASX**") on which the Issuer is listed and is in compliance with applicable laws and regulations.

We have sighted correspondence from the Issuer notifying AIM and ASX of the Listing; however, we understand that no written confirmations or objections have been received from AIM or ASX

### 2.5 Contractual Obligations

To the best of our knowledge and upon due enquiry, there are no contractual agreements, obligations or undertakings preventing the Issuer from undertaking the Listing.

### 2.6 Mineral Rights in Ghana

The Issuer's indirect subsidiaries namely: Barari DV Ghana LTD, Joy Transporters LTD, and Green Metals Resources LTD hold the mineral rights listed in Appendix 1 attached hereto.

The Issuer's indirect subsidiary Moda Minerals LTD has the option to acquire interests in mineral rights held by Obotan Minerals Company LTD, a Ghanaian-incorporated company also listed in Appendix 1 attached hereto.

## 3. ASSUMPTIONS & QUALIFICATIONS

3.1 This opinion is limited to matters of Ghanaian law in force as of the date hereof and no opinion or belief is implied or may be inferred beyond the matters expressly stated herein.

3.2 We have not investigated the laws of any country other than those of Ghana and we express no opinion on the laws of any other jurisdiction.

3.3 In addition, we have assumed without verification that:

(i) all documents and information provided to us are complete, authentic and up to date, and all copies of documents provided to us conform to the originals and are complete;

(ii) all confirmations given by the Company Secretary of the Issuer are true and accurate and reflect the status of the Issuer as of the date of this Opinion;

(iii) the resolution of the Board of Directors of the Issuer is valid and was duly executed by the directors of the Issuer in compliance and in accordance with the laws of the place of incorporation;

(iv) the documents provided are reliable and complete and all materials have neither been provided fraudulently nor information deliberately withheld;

(v) all disclosures made by the Issuer, including as stated in the Prospectus are accurate as of the date of this opinion and that there are no events that have occurred which undermine or are likely to undermine the accuracy of those disclosures; and

(vi) this opinion relates exclusively to the Listing and is for the sole use and benefit of the persons to whom it is addressed. Neither this opinion nor any copy hereof, may be delivered to, or relied upon, by any other person or used in connection with any other transaction without our prior written consent.

**Yours faithfully,**

JLD & MB LEGAL CONSULTANCY
P. O. BOX GP 410
ACCRA

Lily Acquaye
**JLD & MB Legal Consultancy**

## APPENDIX 1 - MINERAL RIGHTS

| COMPANY / HOLDER | TENEMENT NAME | NUMBER | SIZE (SQ.KM) | MINERALS | TERM | DATE OF GRANT | RENEWAL DATE | EXPIRY DATE |
|---|---|---|---|---|---|---|---|---|
| **Barari DV Ghana Ltd** | Mankessim Mining Lease | ML-3/239 | 42.63 | Lithium and other associated minerals | 15 years | 20 October2023 | N/A | 19 October 2038 |
| **Barari DV Ghana Ltd** | Mankessim | RL.3/55 | 37.59 | Gold, Lithium, Base Metals | 3 years | 23 March2018 | 27 July 2021 | 26 July 2024 |
| **Green Metals Resources Ltd** | Mankessim South | PL3/109 | 7.14 | Gold, Lithium, Base Metals | 3 years | 19 February2020 | 6 November 2023 | 5 November 2026 |
| **Green Metals Resources Limited** | Senya Breku | RML-N-3/181 | 82.11 | Lithium and other minerals | 3 years | 9 November 2023 | N/A | 8 November 2026 |
| **Joy Transporters Ltd** | Saltpond | PL3/102 | 31.08 | Feldspar | 3 years | 30 December 2016 | 6 November 2023 | 5 November 2026 |
| **Joy Transporters Ltd** | Cape Coast | PL.3/106 | 139.23 | Lithium | 3 years | 15 November 2021 | N/A | 14 November 2024 |
| **Obotan Minerals Company Ltd** | Apam | PL3/67 | 20.50 | Gold, Columbite and Tantalite | 3 years | 3 September2002 | 6 November2023 | 5 November 2026 |
| **Obotan Minerals Company Ltd** | Apam West | PL3/92 | 33.35 | Gold | 3 years | 6 January2017 | 6 November2023 | 5 November 2026 |

# INDEPENDENT PRACTITIONER'S REVIEW REPORT

*SCG AUDIT*

# 11.0 INDEPENDENT PRACTITIONER'S REVIEW REPORT

P.O Box AN 11555
Accra-North, Ghana
8th Floor, Advantage Place
23 Mayor Road,
Ridge West, Accra
GPS GA-051-1684
Tel(s): (+233) 307031043,
0307011026, 0540130724
E-mail: info@scg.com.gh
Website: www.scg.com.gh

The Directors
Atlantic Lithium Limited
Level 17, Angel Place
123 Pitt Street
Sydney NSW 2000
Australia

## REPORT ON THE FINANCIAL STATEMENTS

We have reviewed the annual audited financial statements of Atlantic Lithium Limited, which comprise the consolidated statement of financial position as at June 30, 2022 and June 30, 2023, and the consolidated statement of profit or loss and other comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the years then ended and a summary of significant accounting policies and other explanatory notes as set out in the financial statements.

BDO Audit Pty Ltd have acted as auditors of Atlantic Lithium Limited for the years ended June 30, 2022 and June 30, 2023. The auditors issued an unqualified audit opinion on the financial statements for both years under review.

## DIRECTOR'S RESPONSIBILITY FOR THE FINANCIAL STATEMENTS

Directors are responsible for the preparation and fair presentation of these financial statements in accordance with the International Financial Reporting Standards and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

## PRACTITIONER'S RESPONSIBILITY

Our responsibility is to express a conclusion on the accompanying financial statements. We conducted our review in accordance with International Standard on Review Engagements (ISRE) 2400 (Revised), Engagements to Review Historical Financial Statements. ISRE 2400 (Revised) requires us to conclude whether anything has come to our attention that causes us to believe 6 Atlantic Lithium Limited - Accountant's Report for 30 June 2022 and 30 June 2023 that the financial statements, taken as a whole, are not prepared in all material respects in accordance with the applicable financial reporting framework. This Standard also requires us to comply with relevant ethical requirements.

A review of financial statements in accordance with ISRE 2400 (Revised) is a limited assurance engagement. The practitioner performs procedures, primarily consisting of making inquiries of management and others within the entity, as appropriate, and applying analytical procedures, and evaluates the evidence obtained.

The procedures performed in a review are substantially less than those performed in an audit conducted in accordance with International Standards on Auditing. Accordingly, we do not express an audit opinion on these financial statements.

## CONCLUSION

Based on our review, nothing has come to our attention that causes us to believe that these financial statements do not present fairly, in all material respects, the consolidated financial position of Atlantic Lithium Limited as at June 30, 2022 and June 30, 2023, and its consolidated financial performance and consolidated cash flows for the year then ended, in accordance with the International Financial Reporting Standard.

## MATERIAL UNCERTAINTY RELATED TO GOING CONCERN

Without modifying our conclusions, we draw attention to the going concern note in the financial report which describes the events and/or conditions which give rise to the existence of a material uncertainty that may cast significant doubt about the group's ability to continue as a going concern and therefore the group may be unable to realise its assets and discharge its liabilities in the normal course of business.

**The engagement partner on the review engagement resulting in this practitioner's report is:**

**Emile Vorgbe (ICAG/P/1645).**

SCG

.....


For and on behalf of SCG Audit (ICAG/F/2023/168)
(Chartered Accountants)
8th Floor, Advantage Place
23 Mayor Road, Ridge West
Accra, Ghana

Date: 21st December 2023

# 12.0 AUDITED FINANCIAL REPORTS

## HISTORICAL STATEMENT OF FINANCIAL POSITION AS AT 30 JUNE 2022 AND 30 JUNE 2023

**TABLE 13 HISTORICAL STATEMENT OF FINANCIAL POSITION**

| | 2023 AUD$ | 2022 AUD$ |
|---|---|---|
| **Current Assets** | | |
| Cash and cash equivalents | 15,345,917 | 23,881,650 |
| Other receivables | 1,600,965 | 2,298,241 |
| Other current assets | 492,402 | 453,250 |
| Total current assets | 17,439,284 | 26,633,141 |
| **Non-Current Assets** | | |
| Other financial assets | 763,508 | 1,232,520 |
| Property, plant and equipment | 534,036 | 209,137 |
| Exploration and evaluation assets | 18,034,331 | 11,050,354 |
| Total non-current assets | 19,331,875 | 12,492,011 |
| Total assets | 36,771,159 | 39,125,152 |
| **Current Liabilities** | | |
| Trade and other payables | 6,180,951 | 4,094,103 |
| Provision for annual leave | 310,985 | 209,375 |
| Total current liabilities | 6,491,936 | 4,303,478 |
| **Non-Current Liabilities** | | |
| Provision for long service leave | 61,855 | 43,342 |
| Total non-current liabilities | 61,855 | 43,342 |
| Total liabilities | 6,553,791 | 4,346,820 |
| Net assets | 30,217,368 | 34,778,332 |
| **Equity** | | |

| | | |
|---|---|---|
| Issued capital | 129,873,021 | 126,468,060 |
| Reserves | (5,385,830) | (9,607,522) |
| Accumulated losses | (94,269,823) | (82,082,206) |
| Total equity attributable to owners of Atlantic Lithium Limited | 30,217,368 | 34,778,332 |

## HISTORICAL CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME FOR THE YEARS ENDED 30 JUNE 2022 AND 30 JUNE 2023

**TABLE 14 HISTORICAL CONSOLIDATED STATEMENT OF PROFIT AND LOSS**

| | 2023 AUD$ | 2022 AUD$ |
|---|---|---|
| **Expenses** | | |
| Administration and consulting expenses | (1,649,869) | (1,081,132) |
| Broker and investor relations | (422,264) | (393,782) |
| Depreciation | (26,201) | (16,827) |
| Employee benefits expenses | (4,258,212) | (2,124,940) |
| Exploration costs written off | (39,533) | (25,934) |
| Interest expense | (2) | (1,644) |
| Legal expenses | (437,208) | (1,039,711) |
| Marketing and conferences | (825,440) | (564,473) |
| Regulatory and compliance | (291,345) | (285,992) |
| Share based payments | (3,544,028) | (12,020,442) |
| Unrealised foreign exchange gains (losses) | (30,172) | (927,941) |
| Write down on demerger | - | (16,228,010) |
| Loss before income tax | (11,524,274) | (34,710,828) |
| Income tax (expense) / benefit | (663,343) | 63,282 |
| Loss for the year | (12,187,617) | (34,647,546) |
| **Other Comprehensive Income** | | |

| | | |
|---|---|---|
| *Items that may be reclassified to profit or loss* | | |
| **Exchange differences on translation of foreign operations** | 1,132,716 | (5,774,884) |
| *Items that will not be reclassified to profit or loss* | | |
| **Change in fair value of Financial Assets** | (467,512) | 298,520 |
| **Income tax relating to change in fair value of financial assets** | | 90,750 |
| Total comprehensive loss for the year attributable to the owners of Atlantic Lithium Limited | (11,382,164) | (40,214,660) |
| | Cents / share | Cents / share |
| **Loss Per Share** | | |
| Basic loss per share | (2.0) | (6.1) |
| Diluted loss per share | (2.0) | (6.1) |

## HISTORICAL CONSOLIDATED STATEMENT OF CHANGES IN EQUITY FOR THE YEARS ENDED 30 JUNE 2022 AND 30 JUNE 2023

**TABLE 15 HISTORICAL CONSOLIDATED STATEMENT OF CHANGES IN EQUITY**

| | ISSUED CAPITAL AUD$ | ACCUMULATED LOSSES AUD$ | SHARE-BASED PAYMENTS RESERVE AUD$ | FOREIGN CURRENCY TRANSLATION RESERVE AUD$ | FINANCIAL ASSETS REVALUATION RESERVE AUD$ | DEMERGER RESERVE AUD$ | TOTAL EQUITY AUD$ |
|---|---|---|---|---|---|---|---|
| Balance at 1 Jul 2022 | 126,468,060 | (82,082,206) | 25,745,706 | (7,068,660) | 509,585 | (28,794,153) | 34,778,332 |
| Loss for the year | - | (12,187,617) | - | - | - | - | (12,187,617) |
| Other comprehensive loss | - | - | | 1,132,716 | (327,263) | - | 805,453 |
| Total comprehensive loss for the year | - | (12,187,617) | - | 1,132,716 | (327,263) | - | (11,382,164) |
| **Transactions With Owners as Owners** | | | | | | | |
| Shares issued during the year | 4,625,514 | - | - | - | - | - | 4,625,514 |
| Share issue costs | (1,220,553) | - | - | - | - | - | (1,220,553) |
| Reduction in demerger reserve | - | - | - | - | - | (127,789) | (127,789) |
| Share based payments | - | - | 3,544,028 | - | - | - | 3,544,028 |
| Balance at 30 June 2023 | 129,873,021 | (94,269,823) | 29,289,734 | (5,935,944) | 182,322 | (28,921,942) | 30,217,368 |
| Balance at 1 July 2021 | 102,939,352 | (47,434,660) | 13,725,264 | (1,293,776) | 301,815 | - | 68,237,995 |
| Loss for the year | - | (34,647,546) | - | - | - | - | (34,647,546) |
| Other comprehensive loss | - | - | - | (5,774,884) | 207,770 | - | (5,567,114) |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Total comprehensive loss for the year | - | (34,647,546) | - | (5,774,884) | 207,770 | - | (40,214,660) |
| **Transactions With Owners as Owners** | | | | | | | |
| Shares issued during the year | 23,592,802 | 23,592,802 | - | - | - | - | 23,592,802 |
| Share issue costs | (64,094) | - | - | - | - | - | (64,094) |
| Capital reduction and in-specie distribution | - | - | | - | - | (28,794,153) | (28,794,153) |
| Share based payments | - | - | 12,020,442 | - | - | - | 12,020,442 |
| Balance at 30 June 2022 | 126,468,060 | (82,082,206) | 25,745,706 | (7,068,660) | 509,585 | (28,794,153) | 34,778,332 |

## HISTORICAL CONSOLIDATED STATEMENT OF CASHFLOWS FOR THE YEARS ENDED 30 JUNE 2022 AND 30 JUNE 2023

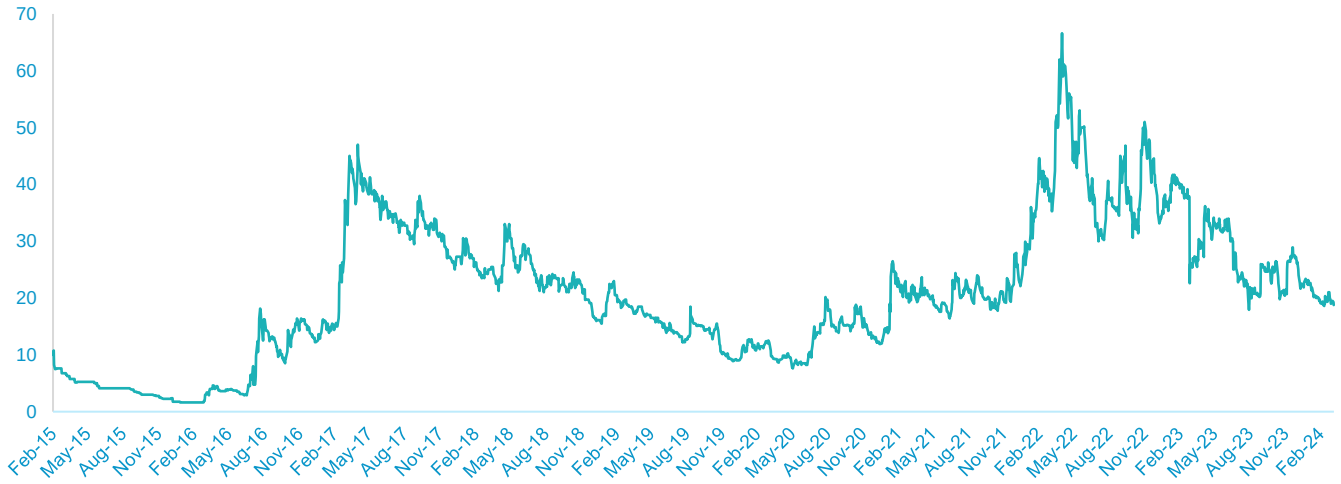
**TABLE 16 HISTORICAL CONSOLIDATED STATEMENT OF CASHFLOWS**

| | 2023 AUD$ | 2022 AUD$ |
|---|---|---|
| **Cash Flows from Operating Activities** | | |
| Payments to suppliers and employees (including GST) | (6,964,927) | (5,380,854) |
| Interest paid | (2) | (2,141) |
| Net cash flows from operating activities | (6,964,929) | (5,382,995) |
| **Cash Flows from Investing Activities** | | |
| Refunds from security deposits | - | 2,500 |
| Cash divested on demerger of subsidiary | - | (7,238,862) |
| Purchase of property, plant and equipment | (380,395) | (97,619) |
| Piedmont contributions from farm-in arrangement | 15,630,319 | 15,451,041 |
| Payments for exploration and evaluation assets | (19,720,013) | (20,772,143) |
| Net cash flows from investing activities | (4,470,089) | (12,655,083) |
| **Cash Flows from Financing Activities** | | |
| Proceeds from the issue of shares | 4,625,514 | 23,592,802 |
| Transactions costs on the issue of shares | (1,743,648) | (100,288) |
| Net cash flows from financing activities | 2,881,866 | 23,492,514 |
| Net (decrease) / increase in cash and cash equivalents | (8,553,152) | 5,454,436 |

| | | |
|---|---|---|
| Cash and cash equivalents at the beginning of the year | 23,881,650 | 19,135,463 |
| Net foreign exchange impact | 17,419 | (708,249) |
| Cash and cash equivalents at the end of the year | 15,345,917 | 23,881,650 |

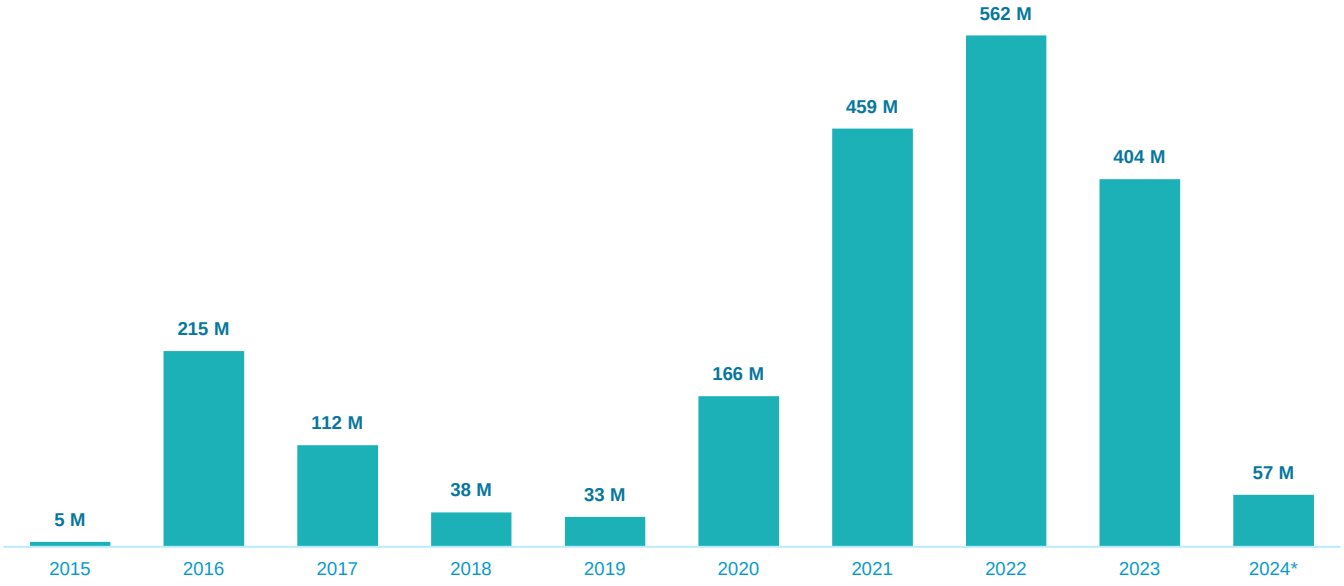
# 13.0 KEY INFORMATION ON THE LISTING

**FIGURE 2 SHARE PRICE MOVEMENT ON AIM (GB PENCE) (FEBRUARY 2015 – MARCH 2024)**




*Source: Bloomberg*

**FIGURE 3 VOLUME TRADED ON A YEARLY BASIS – AIM (MILLION SHARES)**



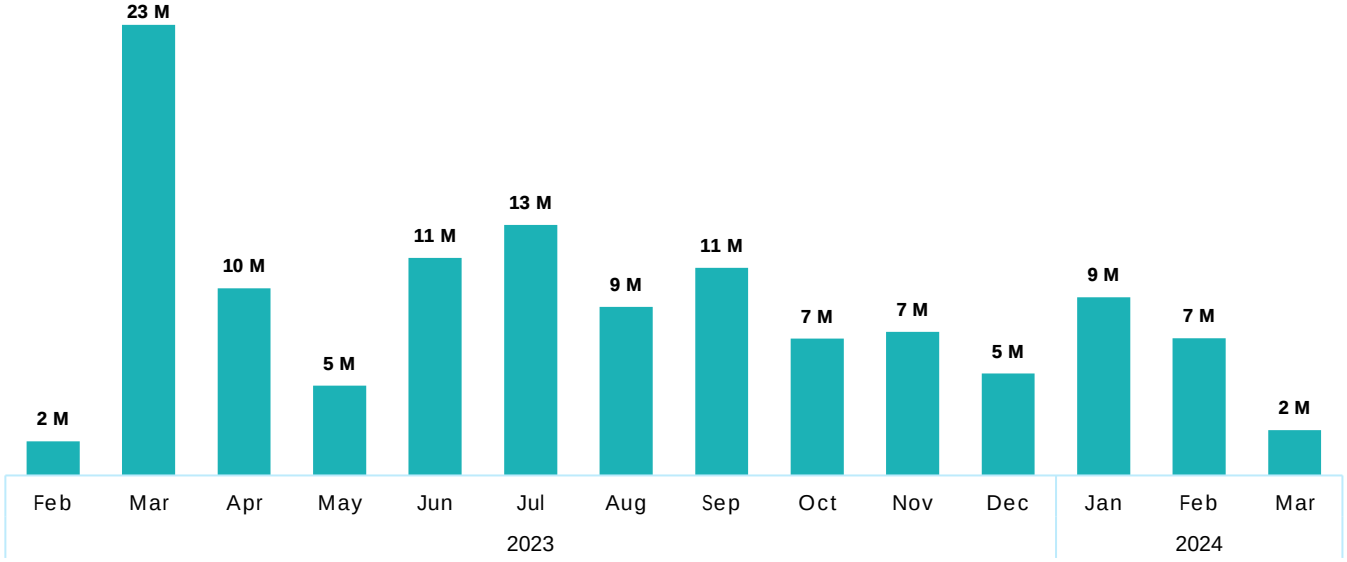

*Source: Bloomberg*

** 2024 – January to March 2024*

**FIGURE 4 SHARE PRICE MOVEMENT ON THE ASX (FEBRUARY 2015 – MARCH 2024) PRICE MOVEMENT ON THE ASX**


*Source: Bloomberg*

**FIGURE 5 VOLUME TRADED ON A MONTHLY BASIS – ASX (MILLION SHARES)**




*Source: Bloomberg*

**TABLE 17 KEY MILESTONES AND EXPECTED TIMETABLES**

| ACTIVITY | DATE |
|---|---|
| Submission of Application to the SEC and GSE for approval | January 2024 |
| Approval for Listing Received - GSE | February 2024 |
| Approval for Listing Received - SEC | April 2024 |
| Listing on the GSE and first day of trading | May 2024 |

***TABLE 18*** **COST AND EXPENSES OF THE LISTING**

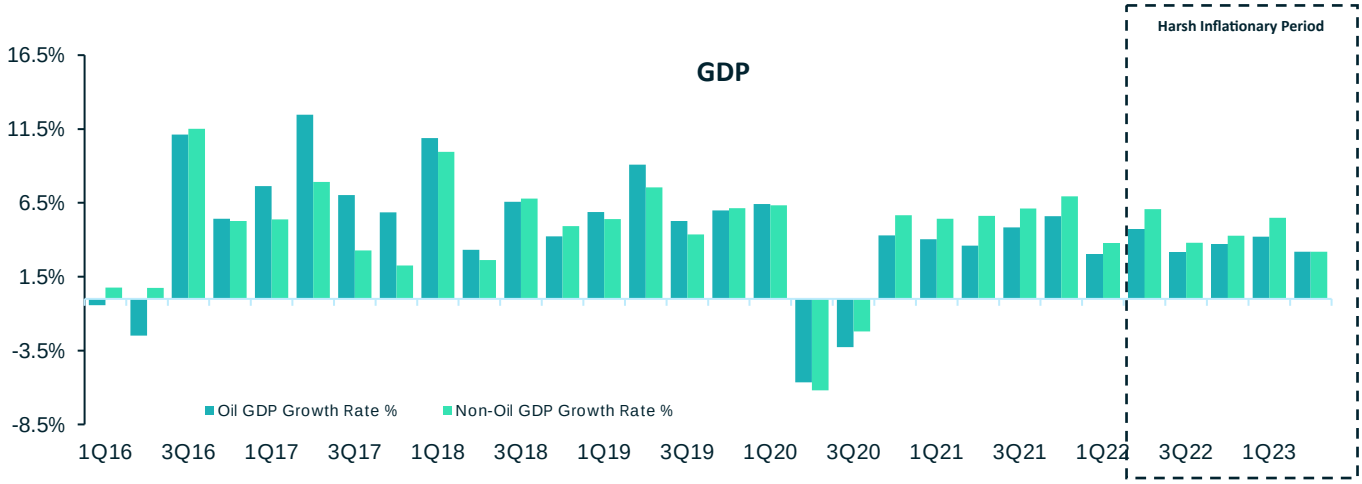
| DESCRIPTION | AMOUNT (GHS)[1] | % OF TRANSACTION SIZE |
|---|---|---|
| **Professional Fees** | 1,310,457 | 0.062% |
| Legal Advisory Fees | 475,984.00 | 0.023% |
| Reporting Accountant Fees | 89,247.00 | 0.004% |
| Transaction Advisory and Brokerage Fees | 713,976.00 | 0.034% |
| Central Securities Depository Fees | 31,250.00 | 0.001% |
| **Regulatory Fees** | 584,464.38 | 0.027% |
| SEC Fees | 368,601.38 | 0.017% |
| GSE Fees | 215,863.00 | 0.010% |
| **Other Fees** | 41,000.00 | 0.002% |
| Printing, Marketing and Miscellaneous | 41,000.00 | 0.002% |
| **Total** | 1,935,921.38 | 0.092% |

*1. Based on exchange rate of GHS 15.1429 = GBP1 and GHS 11.8996 = USD1 as at Jan 11, 2024 (Bank of Ghana Mid- Rate).*

# 14.0 OVERVIEW OF THE GHANAIAN ECONOMY

## BRIEF OVERVIEW OF THE GHANIAN ECONOMY

**FIGURE 6 GHANA'S GROSS DOMESTIC PRODUCT (GDP) GROWTH RATE**




*Source: Ghana Statistical Service*

Historically, the Agricultural sector held the mantle as the primary contributor to Ghana's GDP growth. However, a noteworthy transformation has occurred over time, with the Services sector now assuming the role of the largest contributor. As of the close of the third quarter of 2023, the Services sector has emerged as a powerhouse, contributing GHS 83 billion to Ghana's nominal GDP. In contrast, the Industrial and Agricultural sectors contributed GHS 65 billion and GHS 49 billion, respectively. In the past ten years, the Agricultural sector has contributed averagely GHS 17 billion to Ghana's growth every quarter while the Services and Industrial sectors have contributed GHS 38 billion and GHS 27 billion respectively.

The transition towards a more service-oriented economy underscores a shift in the nation's economic landscape. The Services sector encompasses a broad spectrum of activities, including finance, telecommunications, hospitality, and more. This sector's ascendancy speaks to the diversification and sophistication of Ghana's economy, reflecting global trends where service-based industries play an increasingly dominant role.

Despite this positive trajectory, economic growth in 2023 has faced headwinds. Pivotal in that dialogue has been Ghana's debt accumulation due to consistent revenue shortfalls. Its high debt burden was exacerbated when the market slipped into a high-interest-rate environment. Elevated inflation and monetary policy rates have curtailed growth, posing challenges for businesses and investors alike. The impact of these factors has been notable, emphasizing the need for careful economic management to strike a balance between inflation control and fostering a conducive environment for economic expansion. Policymakers over the past eighteen months have been very clear on their strategy to curb the interest rate surge by maintaining their hawkish stance to re-anchor inflation.

On the currency front, the Ghanaian Cedi has exhibited relative stability throughout 2023, in contrast to the volatility experienced in the preceding year. The heavy depreciation of the Ghana Cedi in the preceding year amplified Ghana's external debt from GHS 170 billion in 2021 to GHS 240 billion by December 2022. As of 2001, Ghana had USD6.0 billion in maturing External Debt, of which USD3.9 billion was from Multilateral lending and USD1.7 billion from Bilateral lenders. By December 2013, Government's maturing External Debt had climbed to USD11.9 billion of which Multilateral lending was USD4.6 billion. As of December 2021, Ghana's maturing External Debt stood at USD28.3 billion of which Multilateral lending was USD8.2 billion and International Capital Market lending at USD13.1 billion. These high maturities and weakening Ghana Cedi placed huge constraints on the Government. This together with the rising inflation and interest rate environment informed its decision to seek an IMF-supported program. This positive news sparked a recovery in the currency in December 2022 which fed into the first quarter of the year despite the Ghana Cedi depreciation in January 2023. This stability can be attributed to the reassurance of a consistent dollar supply, facilitated by successive fund releases from the International Monetary Fund (IMF) program. Similar improvements

have been seen in the past such as between April 2015 and April 2019 when Ghana sealed its last IMF program before the current one. Ghana's Net International Reserves saw a steep climb within that period to USD6.8 billion by March 2019 before the program ended in the following month. This position however weakened with Ghana out of the program with its Net International Reserves dropping by 75% between August 2021 and March 2023 to USD2.1 billion. With Ghana sealing a deal with the IMF, that dollar support has bolstered Ghana's foreign exchange reserves, providing a cushion against external shocks, and contributing to the Ghana Cedi's resilience in the face of global economic uncertainties.

# 15.0 OVERVIEW OF THE LITHIUM MINING INDUSTRY

Ghana has significant mineral resources, including gold, diamonds, manganese, and bauxite. Unexploited deposits include iron ore, limestone, brown clays, kaolin, mica, columbite-tantalite, feldspar, silica sand, quartz, and salt. Some industrial minerals are exploited for ceramic, paint, and glass manufacturing. Lithium was first discovered in Ghana in commercial quantities by the Issuer in 2018. As at February 2023, the Issuer announced an updated Mineral Resource Estimate of 35.3Mt at 1.25% $Li_2O$ for the Ewoyaa Lithium Project.

Lithium, also known as “white gold,” is a delicate alkali metal chemical element with a silvery white hue. It has the lowest density of any metal or solid element under normal circumstances. This highly reactive and flammable alkali metal is used for the production of lithium-ion batteries (LIBs), in ceramics and glass, lubricants, polymer production, and air conditioning. Simply put, lithium is used in every product that requires portable, reliable, and rechargeable electricity. According to Benchmark Mineral Intelligence, the global lithium market size is estimated to reach USD 76.8 billion by 2030. However other sources have different projections for the market size which mainly depends on the methodology, scope and assumptions used (e.g., Roskill Lithium & Fortune Business Insights projects the market size of Lithium to reach USD 89 billion and USD 89.9 billion by 2030 while Allied Market Research predicts the market size to reach USD 142.1 billion by 2030).

The value addition process involves the exploration, extraction, processing, manufacturing, sale, and recycling stages. Lithium production begins with meticulous Exploration and Resource Identification, where geologists pinpoint potential lithium-rich areas through surveys and core sampling. Subsequent Exploration drilling provides crucial insights into deposit size and quality. The Lithium Extraction (the process of obtaining a lithium enriched material from natural sources such as lithium-rich minerals, brines, or lithium-containing solutions. In the case of lithium-rich minerals such as spodumene, first the mineral must be mined and beneficiated typically at the mine site followed by enrichment via conversion to lithium carbonate or lithium hydroxide through a complex and specialized pyro- and hydro-metallurgical process) process involves mining, utilizing conventional methods for lithium-rich minerals and extracting lithium from brine in salt flats through evaporation ponds for the brine extraction mining. For hard rock mining, the extraction process may vary depending on the type of ore deposit, but generally involves the following steps: blasting of ore, loading, and hauling, crushing and grinding, flotation and dewatering and drying of the lithium concentrate. Post-extraction, a Lithium Concentration (the amount of lithium present in a given substance or solution, typically measured in units such as milligrams per liter (mg/L) or parts per million (ppm) or percent (%)) phase enhances content and removes impurities. The final refinement in Hydrometallurgical Processing involves chemical treatments, shaping lithium compounds into carbonate or hydroxide based on battery requirements.

The demand for lithium is propelled by five key factors. Firstly, there is a global commitment to emission-free initiatives, with countries such as Norway and South Korea planning to ban new Internal Combustion Engine (ICE) vehicle sales from 2025. Secondly, major car manufacturers, including Ford, Mercedes, General Motors, Volvo, and Jaguar Land Rover, are phasing out fossil-fuel vehicles by 2040, investing a substantial USD515 billion in Electric Vehicles (EVs) and batteries by 2030. Thirdly, countries are introducing EV incentives to stimulate consumer adoption, contributing to record-breaking EV sales. Fourthly, government stimulus packages, such as US President Biden's USD1 trillion Inflation Reduction Act in the US, support the EV sector, requiring increased raw materials like lithium. Lastly, innovation, exemplified by South Korea's USD15 billion investment in solid-state batteries, is anticipated to drive further demand for lithium, as these batteries promise enhanced efficiency and reduced environmental impact in EVs. Overall, these factors underscore the growing demand for lithium and other critical materials in the expanding EV market.

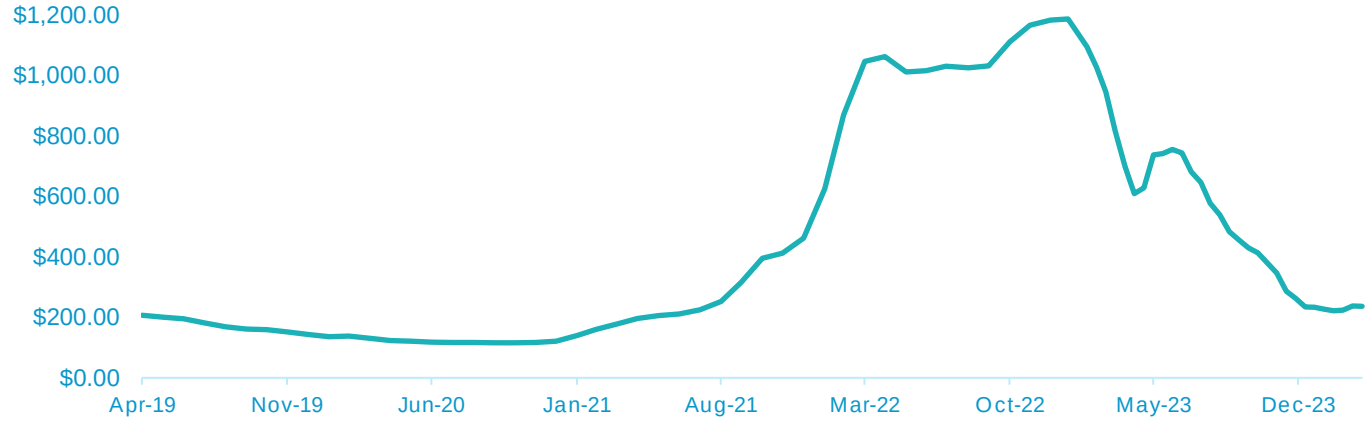
According to the International Energy Agency (IEA), the total demand for lithium in 2020 was approximately 300 kilotonnes (kt), of which 75% was used for batteries in EVs and other applications. The IEA projects that the demand for lithium will increase significantly in the coming years, reaching 1,200 kt in 2030 and 4,000 kt in 2040 in the Sustainable Development Scenario, which assumes a rapid transition to clean energy technologies. The main drivers of lithium demand are EVs, which will account for more than 80% of the total demand by 2040, followed by stationary energy storage and other sectors.

Biometallurgical, hydrometallurgical, and pyrometallurgical are the most common processes used to recycle spent lithium-ion batteries. The Lithium-ion Battery Recycling Market (the industry involved in the collection, processing, and

reuse of lithium-ion batteries (LIBs) after they reach the end of their usable life) size was expected to reach USD 2.65 billion in 2023 and grow at a CAGR of 22.49% to reach USD 7.32 billion by 2028.

The lithium hard rock resources are predominantly found in Australia, China, Zimbabwe, Portugal, Brazil, Canada, Russia, and various other countries. Conversely, the primary lithium brine resources globally are concentrated in the "Lithium Triangle" plateau region, spanning Chile, Argentina, and Bolivia in South America, as well as arid regions in the western United States and western China.

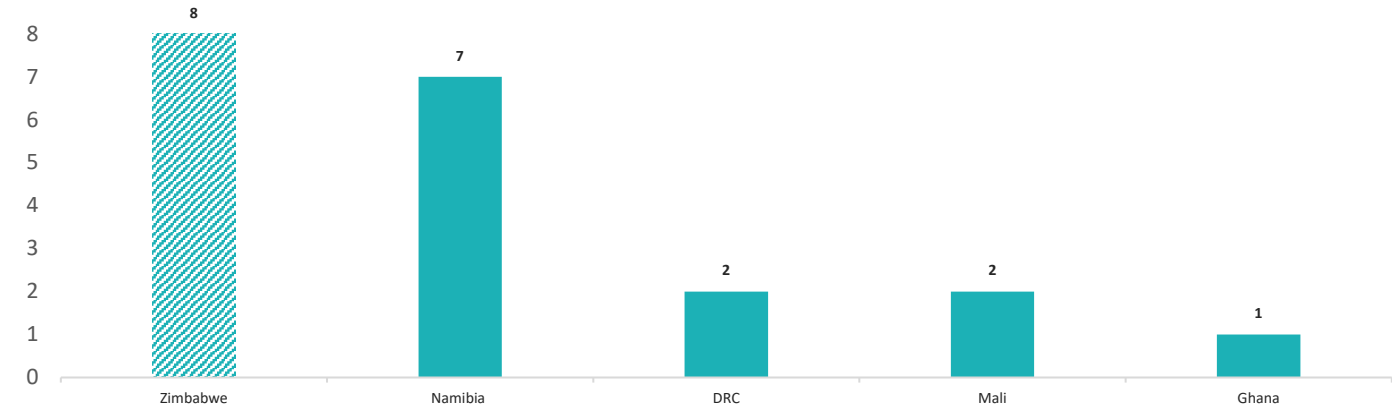
**FIGURE 7 GLOBAL LITHIUM PRICE INDEX (APRIL 2019 – DEC 2023)**




*Source: Bloomberg*

West Africa is home to 55% of the major active projects, with only Zimbabwe accounting for 40%. Some mining projects in Africa include the Manono Lithium Project in Democratic Republic of Congo (DRC) which is expected to produce 400,000 tonnes of lithium per year once it is fully operational in 2024 and the Goulamina Lithium mine with an expected produce of 337,000 tonnes of lithium per year from 2024.

**FIGURE 8 NUMBER OF ACTIVE PROJECTS IN AFRICA**




*Source: S&P Global Market Intelligence, British Geological Survey*

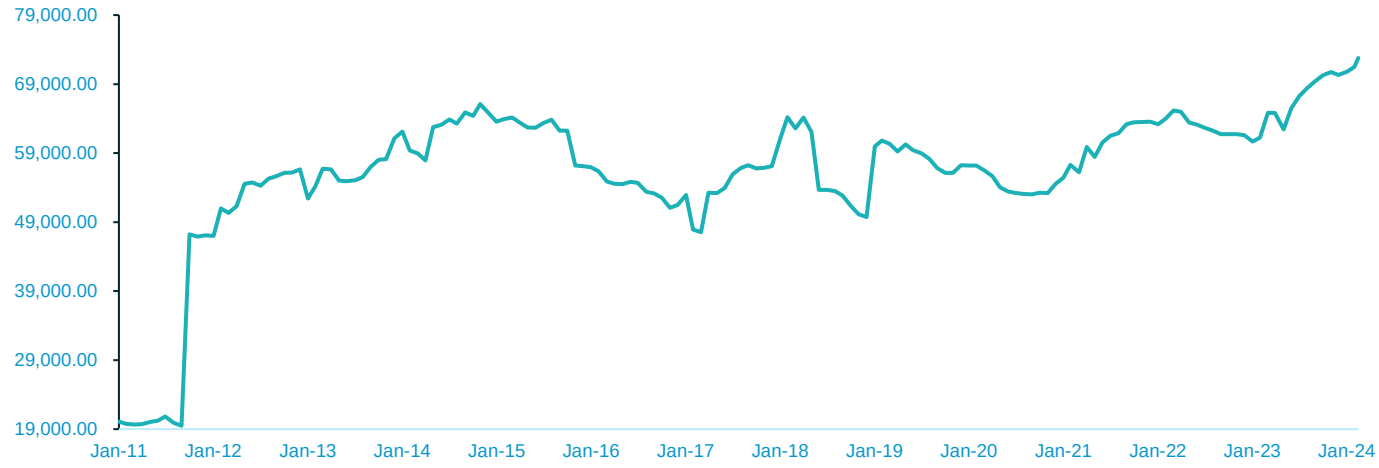
Lithium is found in Ghana in the form of pegmatites, which are igneous rocks that contain high concentrations of lithium minerals. The Ghanaian Government has been supportive of the development of the lithium industry, and several mining companies are currently exploring for and developing lithium deposits in the country. The most advanced lithium project in Ghana is the Ewoyaa Lithium Project, which is being developed by Atlantic Lithium Limited. The Ewoyaa Lithium Project is expected to produce 3.6 million tonnes of lithium concentrate over a 12-year mine life. The project is expected to commence production in 2025.

# 16.0 OVERVIEW OF THE GHANA STOCK EXCHANGE

Established in July 1989 after nearly two decades of planning, the Ghana Stock Exchange (GSE) is among the leading stock markets in the Subregion and the continent as a whole. The GSE began as a private company limited by guarantee under the Companies Code of 1963 (Act 179), which is now referred to as the Companies Act, 2019 (Act 992). Within one year and three months of its establishment, the GSE attained recognition as an authorized Stock Exchange under the Stock Exchange Act of 1971 (Act 384). The Council of GSE was inaugurated, and trading commenced on 12th November, 1990. In a notable transformation in April 1994, GSE changed its status to a public company limited by guarantee. GSE aims to develop structures that ensure a transparent and efficient market for the trading of bonds, shares, and other securities. To achieve this, it regulates the dealings of members with their clients and other members.

In the past thirty-three (33) years of its existence, the market has evolved into an internationally recognized securities market relevant to Ghana's economy. GSE has created good value for participants as a result of its policy around investor community dialogue on pertinent issues on the market and the best ways market participants can position themselves to contribute to its growth or benefit from it. Between January 2011 and December 2015, GSE's Market Capitalization grew from GHS 20 billion to GHS 57 billion. As of February 2024, its Market Capitalization hit GHS 75 billion despite Ghana's economy going through a rough patch. The robust growth of the market has been a testament to how having structures that promote transparency and efficiency can improve investor sentiments and influence business decisions to participate on the market.

**FIGURE 9 MARKET CAPITALIZATION OF GSE-CI (GHS MN, JANUARY 2011 – MARCH 2024)**




*Source: Bloomberg*

In its inaugural year, GSE welcomed eleven (11) companies with a total market capitalization of GHS 3.05 million and just three (3) Licensed Dealing Members (LDMs). Fast forward to March 2024, and it has flourished, hosting thirty five (35) listed companies, twenty one (21) LDMs, and twenty (20) Associate Members. GSE's global appeal is underscored by numerous IPOs and cross-listings over the past three decades since its establishment in 1990.

GSE accommodates a diverse range of securities, including equity or preference shares, corporate bonds (and notes), municipal bonds (and notes), government bonds, close-end unit trusts, and mutual funds. Recognizing the need for efficiency, GSE has implemented two listing categories: the Main Market and the Ghana Alternative Market. Launched in November 2013, GAX and its rules aim to provide small and medium-sized enterprises (SMEs) with flexible access to funding via the Exchange. Samba Foods Limited exemplified the inclusivity of GSE by becoming the pioneer company to list on the Ghana Alternative Market in April 2015.

Furthermore, rules on Exchange Traded Funds (ETFs) were introduced in November 2011, leading to the listing of the first ETF on the market. These strategic frameworks and initiatives showcase the GSE's commitment to adaptability, inclusivity, and innovation, making it a dynamic and appealing platform for companies seeking capital and investors looking for diverse investment opportunities.

As the market experiences growth and garners continental and international recognition, the Ghana Stock Exchange (GSE) initiated the publication of the GSE Composite Index (GSE-CI) and the GSE Financial Stocks Index (GSE-FSI) in January 2011. The GSE-CI, widely acknowledged as the benchmark index, is a market capitalization-weighted index comprising all listed ordinary shares, excluding companies with shares listed on other markets. In contrast, the GSE-FSI encompasses all listed ordinary shares from the financial sector, including those in banking and insurance.

As of March 2024, MTNGH, recognized as the GSE's most successful IPO, holds the largest market capitalization on the GSE, totaling GHS 20.9 billion. Segmented by sectors, the Mining sector leads with a market capitalization of GHS 36.8 billion, trailed by the Information Communication Technology sector at GHS 20.9 billion, and the Finance sector at GHS 13.6 billion, comprising the top three (3).

Throughout its existence, the market has witnessed notable years, with outstanding performances in 2003, 1994, and 1993, returning 154.67%, 124.34%, and 113.74%, respectively, on a price basis. Conversely, challenging years occurred in 2009, 2005, and 2016, with market losses of 46.58%, 29.85%, and -15.33%, respectively. Despite the sell-off on listed financial stocks due to the debt exchange program, the market has demonstrated resilience in 2024, yielding a return 12.33% as of the end of March. This resilience underscores the market's ability to navigate challenges and maintain positive momentum.

The evolution of Ghana's capital market extends beyond the Ghana Stock Exchange (GSE) to include the Ghana Fixed Income Market (GFIM), established in August 2015 following approval of its rules by the Securities and Exchange Commission. Designed to facilitate secondary trading of fixed-income securities and other determined securities, GFIM's establishment involved collaboration among key stakeholders, including the Bank of Ghana (BoG), Ghana Stock Exchange (GSE), Central Securities Depository Ghana Ltd (CSD), Ghana Association of Bankers, the Ministry of Finance, Financial Market Association (ACI Ghana), and Licensed Dealing Members (LDMs) of the GSE.

The market's inauguration saw its first trades executed using the Bloomberg E-Bond Platform in October 2015. In a subsequent move in July 2017, the GSE enhanced the market by integrating Capizar Bond into Capizar ATS. The concerted efforts of leadership and market players were recognized in August 2020 when GFIM ranked fourth (4th) in size for issued sovereign debt in Sub- Saharan Africa, according to a Bloomberg report.

During its initial year, GFIM recorded 5.22 billion in volume trades. By its fifth year, the volume traded surged elevenfold to reach 55.55 billion. However, the market experienced a substantial shift by the end of 2022, trading at 230.68 billion before the implementation of the Domestic Debt Exchange Program (DDEP) in February 2023. The market witnessed a significant acceleration from the post DDEP period, managing 40.69 billion in trades from January to March 2024, reflecting a 1.6x increase compared to the active market for the same period 2023. This shift underscores the dynamic nature of the market, influenced by regulatory initiatives and economic programs.

Despite challenges in the Ghana Fixed Income Market (GFIM), the Ghana Stock Exchange (GSE) has remained a dependable avenue for investors in 2024. Notably, Unilever Ghana (UNIL), Access Bank Ghana PLC (ACCESS), and NewGold ETF (GLD) have delivered impressive returns of 48%, 41%, and 41%, respectively as at March 2024 (Year to Date returns). This signifies GSE's resilience and attractiveness to investors, showcasing the market's capacity to generate favorable returns.

Investors continue to seek new ventures and opportunities on the market, prompting the GSE to take proactive measures in recent months to enhance market depth. The introduction of new securities reflects GSE's commitment to meeting investor demand and expanding the range of investment options available. This strategic move aligns with the market's evolution and dynamic nature, ensuring it remains responsive to investor needs and preferences.

# INDEPENDENT GEOLOGIST'S REPORT

*SRK EXPLORATION SERVICES LTD*

## 17.0 INDEPENDENT GEOLOGIST'S REPORT

**The Independent Geologist's Report dated 29 July 2022 with an Effective Date of April 2022 ("IGR") below was included as part of the document used for the ASX listing in September 2022. This Report has been reproduced unaltered below (and has not been updated) contains a comprehensive examination and review of the mining interests held by the Issuer at the Effective Date that point in time. Since the Effective Date of the Independent Geologist's Report (29 July 2022), the geological data (including mineral resource estimates, drilling results and measured and indicated categories) has been updated and communicated to the market by way of announcements made on the Issuer's website (https://www.atlanticlithium.com.au/announcements). It should be noted that this IGR does not include or take into account any updated geological data or a review of the updated Mineral Resource Estimate or outcomes of the Definitive Feasibility Study published since the Effective Date, which are considered to be material changes, and therefore the findings and opinions as expressed in the IGR are deemed to be only valid and effective as of the Effective Date.**

# Independent Geologist's Report on Atlantic Lithium Limited Mineral Assets Including the Ewoyaa Project

*Ewoyaa Lithium Project, Mfantseman Municipality, Ghana*
*Atlantic Lithium Limited*

# Independent Geologist's Report on Atlantic Lithium Limited Mineral Assets Including the Ewoyaa Lithium Project

Ewoyaa Lithium Project, Mfantseman Municipality, Ghana

**Prepared for:**

Atlantic Lithium Limited Level 33, Australia Square,264 George Street
Sydney, New South Wales, 2000Australia

+61 2 8072 0640
https://www.atlanticlithium.com.au/

**Prepared by:**

SRK Exploration Services Ltd12 St Andrews Crescent
Cardiff, CF10 3DD
United Kingdom

+44 2920 233233
www.srk.com

Reg. No. 04929472

| | | | |
|---|---|---|---|
| **Authors:** | Dr Mike Armitage | **Initials:** | MA |
| | Mr Oliver Bayley | | OB |
| **Reviewer:** | Mr Nicholas O'Reilly | **Initials:** | NO'R |

**File Name**: ES10006_Ewoyaa_Lithium_IGR_v7.0.docx

**Suggested Citation:**
SRK Exploration Services Ltd. 2022. Independent Geologist's Report on Atlantic Lithium Limited Mineral Assets Including the Ewoyaa Project. . Prepared for Atlantic Lithium Limited: . Project number:ES10006. Issued 29 July. 2022.

**Cover Image(s):**
Top left – view looking south-east across the Ewoyaa Project. Right – EDM200 RC drill rig at Ewoyaa.Bottom left – Typical P1 coarse crystalline spodumene bearing pegmatite.

# ACKNOWLEDGMENTS

The following contributing authors are acknowledged (contributions and responsibilities defined in Section 1.5):

Mr John Paul Hunt
Mr Nick Fox
Mr Harri Rees
Mr Tony Rex
Mr Ben Lepley
Mr Colin Chapman
Dr John Willis
Mr John Miles

# LETTER TO THE DIRECTORS

29th July 2022
The Directors
Atlantic Lithium Limited Level 33, Australia Square, 264 George Street
Syndey, NSW 2000
Australia

Dear Directors,

At your request SRK Exploration Services Ltd ("SRK ES") has prepared an Independent Geologist'sReport ("IGR" or the "Report") on the Mineral Assets of Atlantic Lithium Limited ("Atlantic" or the "Company"), specifically the Cape Coast Lithium Portfolio, which contains the Ewoyaa Lithium Project ("Ewoyaa" or the "Ewoyaa Project") located in the Republic of Ghana ("Ghana") and two lithium exploration tenement applications in the Republic of Côte d'Ivoire ("Côte d'Ivoire").

SRK ES understands that Atlantic, formerly IronRidge Resources Ltd, is intending to include the Report in a Prospectus to be lodged with the Australian Securities and Investments Commission ("ASIC") in support of a public offer of up to 24,950,000 shares by Atlantic and Atlantic SaleCo Limited ACN 660 757 344 to facilitate a listing on the Australian Securities Exchange (ASX). The Offer is being undertaken by way of a sell-down of the Company's existing shares, rather than an issue of new shares.

The objective of this IGR is to:

1. Provide an overview of the geological setting of Atlantic's projects and the associated mineralisation.
2. Outline the recent exploration and development work undertaken on each project area.
3. Provide a full review of the most up to date Mineral Resource Estimate ("MRE") prepared for Ewoyaa Lithium Project.
4. Consider the appropriateness of Atlantic's proposed work programmes and budgets.

This IGR has been prepared in accordance with the ASX Listing Rules. Under these rules, reporting in accordance with the JORC Code (2012) and VALMIN Code (2015) (as defined herewith in) is required.

This report was compiled by Dr Mike Armitage and Mr Oliver Bayley and is based on a technical and economic review by a team of consultants sourced from SRK ES and SRK Consulting (UK) Limited (working on behalf of SRK ES). These consultants have extensive experience in the mining and metals sector and are members in good standing of appropriate professional institutions. The primary consultants comprise specialists in the fields of geology and Mineral Resource estimation, supported by specialist consultants from specific technical mining disciplines.

**Dr Mike Armitage** CEng CGeol FGS MIMMM, PhD is a Chartered Geologist and Fellow of the Geological Society which is a Recognised Professional Organisation ("RPO") included in a list promulgated by the Australian Securities Exchange from time to time. He is an Associate Corporate Consultant of SRK ES and has over 35 years' experience in the mining and metals industry and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the JORC Code. Dr Armitage has been responsible for the reporting of Mineral Resources and Ore Reserves on various properties internationally during the past 35 years. Dr Armitage consents to the inclusion in this Report of the matters based on his information in the form and context in which it appears.

**Oliver Bayley** MSc MAIG MAusIMM FGS is a Senior Exploration Geologist of SRK ES and has 17 years' experience

in the mining and mineral exploration industry, including managing and auditing hard rock lithium exploration projects across central and southern Africa. He has sufficient experience that is relevant to the activities undertaken and styles of mineralisation and type of deposit under consideration to qualify as a Competent Person for the reporting of Exploration Results as defined in the JORC Code (2012) and a Specialist Practitioner as defined in the VALMIN Code (2015). Mr Bayley consents to the inclusion in this Report of the matters based on his information in the form and context in which it appears.

Site inspections were carried out by Mr John Paul Hunt (SRK ES Principal Exploration Geologist) conducted on 10-11 February 2020 and 06-09 April 2022. The first visit included the Mankessim, Mankessim South, Saltpond, Apam and Mankwadzi tenements. He was accompanied by Len Kolff, Iwan Williams and Abdul-Razak Shaibu Ballah from Atlantic. The Ewoyaa Main, Kaampakrom and Afrengwa prospects, and the Substation and Abonko quarries were visited within the tenements.

The second site visit in April 2022 was to the Ewoyaa Project when Mr Hunt was accompanied on site by Iwan Williams, Exploration Manager of Atlantic, during which time the site, access, surface geology, drill core and exploration data were inspected.

SRK ES notes that it is not qualified to make legal representations with regards to the ownership and legal standing of the mineral assets that are the subject of this Report. SRK has not attempted to confirm the legal status of the tenements with respect to acquisition or joint venture agreements, Native Title, local heritage or potential environmental or land access restrictions. SRK ES has prepared this report on the understanding that all the tenements are currently in good standing.

SRK ES understands that the current ownership status and legal standing of the tenements are dealt with in a separate title report provided by lawyers to Atlantic as disclosed elsewhere in the Prospectus.

Neither SRK ES nor any of the authors of this IGR have any material present or contingent interest in the outcome of this report, nor do they have any pecuniary or other interest that could be reasonably regarded as being capable of affecting their independence or that of SRK ES.

Atlantic has warranted that full disclosure has been made of all material information and that, to the best of its knowledge and understanding, such information is complete, accurate and true. As recommended by the VALMIN Code, Atlantic has provided SRK with an indemnity under which SRK ES is to be compensated for any liability and/or any additional work or expenditure:

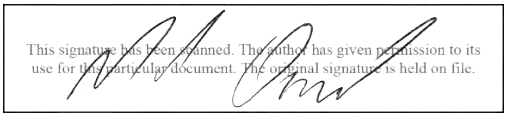
- which results from SRK's reliance on information provided by Atlantic or from Atlantic not providing material information; or
- which relates to any consequential extension workload through queries, questions or public hearings arising from this IGR.

SRK ES has given and has not withdrawn its consent for this Report to be used for the purposes of Atlantic listing on the ASX, including publication on Atlantic website and to the inclusion of statements made by SRK ES and to the references of its name in other documents pertaining to Atlantic listing on the ASX. SRK ES provides this consent on the basis that the technical assessments expressed in the Summary and in the individual sections of this IGR be considered with, and not independently of, the information set out in the complete report.

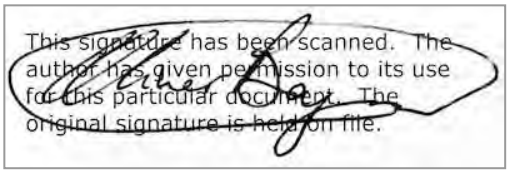
SRK ES confirms that to the best of its knowledge and belief (having taken all reasonable care to ensure that such is the case), the information contained in this report is in accordance with the facts and does not omit anything likely to affect the import of such information.

SRK ES confirms that nothing has come to its attention to indicate any material change to what is reported in this Report.

**Yours faithfully,**




Dr Mike Armitage




Mr Oliver Bayley

For and on behalf of SRK Exploration Services Limited.

# EXECUTIVE SUMMARY

## INTRODUCTION

SRK Exploration Services Ltd ("SRK ES") has been requested by Atlantic Lithium Limited ("Atlantic", hereinafter also referred to as the "Company" or the "Client") to prepare an Independent Geologist's Report ("IGR" or the "Report") on the Mineral Assets of the Company, specifically the Cape Coast Lithium Portfolio, which contains the Ewoyaa Lithium Project ("Ewoyaa" or the "Ewoyaa Project") located in the Republic of Ghana ("Ghana") and two lithium exploration tenement applications in the Republic of Côte d'Ivoire ("Côte d'Ivoire"), all to be included in a prospectus to secure a listing on the Australian Securities Exchange ("ASX").

The Company has already completed two scoping studies on the Ewoyaa Project, its leading project, most recently in January 2022, and we are advised is now in the process of preparing a Pre- Feasibility Study ("PFS"). This IGR incorporates a full review of the most up to date Mineral Resource estimate ("MRE") prepared for Ewoyaa. The remaining projects are at an earlier stage of exploration.

## EWOYAA PROJECT

### LOCATION

The Ewoyaa Project is located approximately 100 km southwest of the capital of Accra, immediately north of Saltpond, in the Central Region of Ghana, and within the Mfantseman Municipality where Saltpond is the district capital.

The tenements are located along the main Accra - Cape Coast and Takoradi highway and are linked to the highway via semi-and/or sealed second class feeder roads with accessible trails connecting towns and villages within. Distances to Accra range from 70 to 120 km via the main Accra - Cape Coast highway and distances to Cape Coast range between 50 and 90 km.

### BACKGROUND

Pegmatites containing appreciable quantities of spodumene, beryl, kaolin (kaolinised pegmatites), feldspar (of large crystal size) and columbite were first found in the tenement areas in the 1950's and 60's by the Ghana Geological Survey Department (GSD) when conducting a search for industrial minerals in the area.

The Ewoyaa deposit itself comprises a cluster of nine pegmatites within the Mankessim and Mankessim South tenements which have been explored by Atlantic from 2016 to date. The most recent Scoping Study on Ewoyaa was produced in January 2022, the most up to date MRE was produced in March 2022 and a PFS is ongoing. Earlier stage exploration also continues in the remainder of the tenement areas.

Exploration has primarily been aimed at identifying spodumene bearing pegmatite occurrences and determining their extent, dimensions and economic potential. Outcrop is rare in this area, which is characterised by deep soils and lateritic weathering profiles, and Atlantic has developed a general exploration workflow of regional gridded geochemical soil sampling combined with aerial geophysics (magnetics and radiometrics) to define target areas. These target areas are followed up by detailed geological mapping initially through pitting and trenching programmes but latterly by man-portable auger drilling. Selected targets are then initially tested through reverse circulation ("RC") drilling which is then supplemented by diamond drilling.

### GEOLOGY

The tenement areas are largely underlain by rocks of the Birimian Supergroup, dominated by volcano-sedimentary lithologies of the Cape Coast Basin, situated on the southeast margin of the Cape Coast Granitoid. Three types of schist

are developed in the area; mica schist, staurolite schist and garnet schist, all of which are a blue-grey colour when fresh, weather to a brown colour, and are quartz-biotite rich and well foliated.

Several, presumably Eburnean aged, granitoids intrude the basin metasediments as small bosses and plugs. These granitoids range in composition from intermediate granodiorite (typically medium grained) to felsic leucogranites (coarse to pegmatoidal grainsize), both sometimes in close association with pegmatite veins and bodies.

The pegmatite intrusions at Ewoyaa commonly trend either north-northeast (Ewoyaa Main, Ewoyaa West, Ewoyaa South) or northwest (Ewoyaa North-East, Ewoyaa North) and dip sub-vertically to moderately southeast to northeast. The overall strike continuity of the combined pegmatite bodies is in excess of 2 km.

The mineralisation at Ewoyaa has been confirmed to be associated with LCT pegmatites, with spodumene as the main lithium bearing mineral. Minor accessory beryl, tantalite-columbite and apatite have also been detected. The grain size of the pegmatites ranges from aplitic, where spodumene crystals are typically 1 to 2 mm in size, to pegmatitic, where localised unidirectional solidification texture ("UST") zones contain megacrysts of spodumene greater than 80 cm in length.

Atlantic has defined two main textural varieties of spodumene mineralisation at Ewoyaa, P1-type pegmatitic coarse grained spodumene; and P2-type medium to fine-grained spodumene. P1 pegmatitic spodumene occurs in outcrop as long laths up to 20-40 cm in length. Atlantic reports that this is the dominant spodumene bearing pegmatite encountered to date, exhibiting very coarse to pegmatoidal euhedral to subhedral spodumene crystals comprising between 20 and 40% of the core. P2 contains spodumene crystals of a medium to fine crystal size (up to 0.5-1 cm laths), the spodumene is euhedral to subhedral and can comprise up to 50% of the core. The spodumene can be bi-modal with some larger phenocrysts entrained within the medium grained spodumene bearing matrix.

**MINERAL RESOURCE ESTIMATE**

The most up to date MRE for the Ewoyaa Project was produced by Ashmore Ltd in March 2022 and reported in accordance with the JORC Code (2012 edition). The statement and the accompanying notes are presented below.

**TABLE ES1: EWOYAA PROJECT MARCH 2022 MINERAL RESOURCE ESTIMATE (0.5% $Li_2O$ CUT-OFF, ABOVE -190 MRL), DATED 23 MARCH 2022**

| | | Indicated | |
|---|---|---|---|
| **Deposit** | **Tonnage** | | **$Li_2O$ Cont. Lithium** |
| | **Mt** | **%** | **kt** |
| Abonko | 1.1 | | 1.3014 |
| Anokyi | 2.2 | | 1.4633 |
| Bypass | 0.0 | | 0.000 |
| Ewoyaa | 10.0 | | 1.23123 |
| Ewoyaa Northeast | 2.5 | | 1.4236 |
| Grasscutter | 3.3 | | 1.1939 |
| Kaampakrom | 0.4 | | 1.435 |
| Okwesi | 0.6 | | 1.489 |
| Sill | 0.4 | | 1.345 |
| **Total** | **20.5** | | **1.29265** |
| | | **Inferred** | |
| **Deposit** | **Tonnage** | | **$Li_2O$ Cont. Lithium** |
| | **Mt** | **%** | **kt** |
| Abonko | 0.7 | | 1.188 |
| Anokyi | 1.1 | | 1.2914 |
| Bypass | 0.2 | | 1.153 |
| Ewoyaa | 4.2 | | 1.0946 |
| Ewoyaa Northeast | 0.9 | | 1.1910 |
| Grasscutter | 1.5 | | 1.2819 |
| Kaampakrom | 0.6 | | 1.318 |

| | | |
|---|---|---|
| Okwesi | 0.3 | 1.344 |
| Sill | 0.1 | 1.571 |
| **Total** | **9.6** | **1.19114** |

| Total Mineral Resource | | | |
|---|---|---|---|
| **Deposit** | **Tonnage** | **$Li_2O$** | **Cont. Lithium** |
| **Mt** | | **%** | **kt** |
| Abonko | 1.8 | | 1.2522 |
| Anokyi | 3.4 | | 1.4047 |
| Bypass | 0.2 | | 1.153 |
| Ewoyaa | 14.2 | | 1.19169 |
| Ewoyaa Northeast | 3.4 | | 1.3646 |
| Grasscutter | 4.8 | | 1.2258 |
| Kaampakrom | 0.9 | | 1.3513 |
| Okwesi | 0.9 | | 1.4313 |
| Sill | 0.5 | | 1.386 |
| **Total** | **30.1** | | **1.26379** |

Sources: Searle 2022. 'Cape Coast Lithium Project Mineral Resource Estimate, 23 March 2022'

Notes: *0.5% $Li_2O$ Cut-off, above 190 mRL*

*The Mineral Resource was compiled under the supervision of Mr. Shaun Searle who is a director of Ashmore Advisory Pty Ltd and a Registered Member of the Australian Institute of Geoscientists. Mr. Searle has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he has undertaken to qualify as a Competent Person as defined in the JORC Code.*

*All Mineral Resources figures reported in the table above represent estimates at 23 March 2022. Mineral Resource Estimates are not precise calculations, being dependent on the interpretation of limited information on the location, shape and continuity of the occurrence and on the available sampling results. The totals contained in the above table have been rounded to reflect the relative uncertainty of the estimate. Rounding may cause some computational discrepancies.*

**TABLE ES2: MATERIAL TYPES, RECOVERIES AND CONCENTRATE GRADES**

| Weathered | | | | | |
|---|---|---|---|---|---|
| **Geomet Type** | **Tonnage** | **$Li_2O$** | **Cont. Lithium** | **Recovery** | **Conc. Grade** |
| | **Mt** | **%** | **kt** | **%** | **$Li_2O$ (%)** |
| P1 | 1.7 | 1.13 | 20 | 75 | 6.0 |
| P2 | 0.3 | 1.05 | 3 | 61 | 6.0 |
| **Total** | **2.0** | **1.12** | **22** | | |
| **Primary** | | | | | |
| **Geomet Type** | **Tonnage** | **$Li_2O$** | **Cont. Lithium** | **Recovery** | **Conc. Grade** |
| | **Mt** | **%** | **kt** | **%** | **$Li_2O$ (%)** |
| P1 | 23.5 | 1.30 | 305 | 76 | 6.0 |
| P2 | 4.7 | 1.11 | 52 | 47 | 5.5 |
| **Total** | **28.1** | **1.27** | **356** | | |

Sources: Searle 2022. 'Cape Coast Lithium Project Mineral Resource Estimate, 23 March 2022'

Notes: *notes as above*

SRK ES has reviewed the geological domain modelling undertaken by Ashmore, the estimation methodology and parameters used and the data this is based upon, and also undertaken a review of the Project as a whole to determine the extent to which this has reasonable prospects for eventual exploitation. Based on this review we have made certain recommendations for work that should in our opinion be undertaken when the Mineral Resource is next updated. Notably:

- Reviewing the block cut-off grade (which based on the most up to date Scoping Study appears too high to SRK ES);
- Restricting the MRE to mineralisation falling within an optimised open pit rather than above an RL; and
- Reviewing the method ultimately used to assign the material type to each block (as SRK ES considers this has potential to overestimate the proportion of P1 mineralisation in areas where there is more logged P1 mineralisation and underestimate this in areas where there is less logged P1 mineralisation).

Notwithstanding the above, we are confident that the current estimate is unbiased, reflects all of the available data, has been derived using accepted and standard techniques and has been reported in accordance with the terminology and definitions as set out in the JORC Code (2012). Notably:

- The available data is sufficient in terms of both quantity and quality to support the Mineral Resource Estimate as reported;
- The domain modelling and in particular the modelling of the high grade internal domains within the pegmatites is appropriate and supported by statistical analyses undertaken by SRK ES;
- The experimental semi-variograms produced for eight major domains are of satisfactory quality and the interpolation parameters used based on these are appropriate;
- While further density determinations will improve confidence in the values used, the method used to assign bulk density to the model is appropriate;
- The indicator methodology used to interpolate the mineralisation type (P1 and P2) appears reasonable given the lack of continuity of these between drill holes;
- SRK ES's qualitative comparison of the drill hole grades with the block model has shown that the estimation has interpolated the block model grades consistent with the drill hole grades with an appropriate degree of smoothing; and
- The Mineral Resource has been restricted to material that has reasonable prospects foreventual economic exploitation.

**PLANNED EXPLORATION AND DEVELOPMENT PLAN**

Atlantic has provided SRK ES with its forward work programme for completing a Pre-Feasibility Study ("PFS") study on the Ewoyaa Project, which we are advised is already underway, the work programme for a subsequent planned Feasibility Study ("FS") and further exploration and drilling programmes.

Atlantic is aiming to complete the PFS with a remaining spend forecast of some USD 1.2 million (for remaining study and owners' costs) and will then move into the FS phase with a further USD 6.1 million forecast to be spent for completion of this. Major expenditure forecast for the FS includes drilling and sampling programmes (USD 2.8 million), studies and engineering (USD 2.1 million) and owners' costs (USD 1.2 million). Planned exploration includes gridded auger drilling followed up by RC drilling with a USD 2.5 million budget.

SRK ES considers further work to progress the project to PFS and FS is justified based on the work completed to date and the areas planned for further study and evaluation are generally appropriate. We have however recommended to Atlantic that some contingency is allowed for in the budget to cater for overruns in terms of time and cost.

**ADDITIONAL PROJECTS**

**EGYASIMANKU HILL**

The Egyasimanku Hill Project (located within the Mankwadzi application) is located in the eastern tenement block of the Cape Coast Portfolio in Ghana and is the most advanced prospect within these tenements by virtue of the historical work completed there.

Diamond drilling and trenching at the Egyasimanku Hill spodumene pegmatite was carried out by the Ghana Geological Survey between 1960-1966.

The tenements are broadly underlain by Birimian metavolcanics and metasediments, with bands of Tarkwaian

sedimentary sequences infilling basins and overlying the Birimian rocks. The rocks within the tenements are mainly greenstones, amphibolite, meta-basalt, quartz-feldspar-mica schist and siliceous slates, with wider dykes of quartz diorite, and narrow dykes of dolerite-gabbro, pegmatite and aplite. These units show evidence of alteration and quartz veining, and tourmaline is common.

To date Atlantic has undertaken a heliborne magnetic/radiometric survey; reconnaissance geological mapping; and, on granted tenements, a regional soil sampling programme, trenching and auger drilling. This work has identified the presence of eleven pegmatites but elements such as niobium, tin and tantalum were below the limit of detection, and the work was unable to substantiate the areas of potential as reported in historical reports.

SRK ES considers the project warrants further work to further evaluate the potential of the project and has recommended a programme which includes; trenching and drilling at Egyasimanku Hill itself, regional geochemical sampling and mapping, and further heliborne radiometric surveying as tenements are granted and continued evaluation of defined pegmatites anomalous in Sn-Ta.

**CÔTE D'IVOIRE PORTFOLIO**

The Côte D'Ivoire Portfolio is made up of two tenement applications, Agboville and Rubino, located in the southeast of Côte D'Ivoire, close to the coastal city of Abidjan. Atlantic has not carried out any work on these tenements to date.

The Côte D'Ivoire Portfolio tenements are located in the Haute Comoé Basin of eastern Côte d'Ivoire which is comprised of metasedimentary units and leucogranitoid intrusions.

The tenement applications are in regionally prospective geological terrain for LCT pegmatite mineralisation. Once the tenements are granted Atlantic will be able to apply the proven systematic exploration workflow gained from their Ghanaian projects. SRK ES has recommended that this work should commence with a thorough literature and historical data review and tenement wide exploration.

**PLANNED WORK**

Atlantic has included the planned exploration on granted tenements in the allocated Ewoyaa Project exploration budget to advance these projects and undertake the early-stage work set out above, however additional budget will be required for advanced exploration of Egyasimanku Hill Prospect itself once granted. SRK ES considers the planned expenditure on granted tenements sufficient to undertake the work planned and justified by the potential in each case.

**SUMMARY AND CONCLUSIONS**

Atlantic has an advanced stage lithium project, Ewoyaa, for which an updated Mineral Resource has recently been reported and has advised that work on the PFS is ongoing and, subject to the results of this, a FS planned. SRK ES considers the updated Mineral Resource Estimate to be robust and unbiassed and that the work planned to complete the PFS and FS justified.

Atlantic also has a collection of earlier stage pegmatite exploration projects both in Ghana and Côte d'Ivoire which also justify further, earlier stage, exploration which has been planned and for which appropriate budgets have been assigned for granted tenements.

# CONTENTS

## Tables



## Figures

# Appendices

Appendix 1 – JORC Code (2012), Table 1, Sections 1 and 2.

Appendix 2 – Competent Person Consent Forms

# USEFUL DEFINITIONS

This list contains definitions of symbols, units, abbreviations, and terminology that may be unfamiliar to the reader.

| | |
|---|---|
| AIM | Alternative Investment Market of the London Stock Exchange Group PLC |
| ASIC | Australian Securities and Investments Commission |
| ASX | Australian Securities Exchange Ltd. |
| BFS | Bankable Feasibility Study. Term often used instead of FS. |
| CFA | Communauté financière d'Afrique (Refers to West African Franc) |
| CP | Competent Person as defined in the JORC Code (2012) |
| CRM | Certified Reference Material |
| CRIRSCO | Committee for Mineral Reserves International Reporting Standards |
| DD | Diamond Drilling |
| DFS | Definitive Feasibility Study. Term often used instead of FS. |
| DGPS | Differential Global Positioning System generally with centimetrescale accuracy |
| DMS | Dense Media Separation |
| DSIMS | Dynamic Secondary Ion Mass Spectrometry |
| DSO | Direct Ship Ore |
| ECOWAS | Economic Community of West African States |
| EPA | Environmental Protection Agency |
| ESE | East-south-east |
| ESG | Environment, Social and Governance |
| ESIA | Environmental and Social Impact Assessment |
| FGSSA | Fellow of the Geological Society of South Africa |
| FOB | Free On Board |
| FS | Feasibility Study |
| GPS | Global Positioning System, generally referring to a handheld location device with up to 3-15 m accuracy |
| ICP-MS | Inductively coupled plasma mass spectrometry |
| ICP-OES | Inductively Coupled Plasma Optical Emission spectroscopy |
| Indicated Mineral Resource | An Indicated Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. |

| | |
|---|---|
| Inferred Mineral Resource | An Inferred Mineral Resource is that part of a Mineral Resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. |
| IGR | Independent Geologist's Report |
| JORC | Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia |
| JORC Code (2012) | Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserve, 2012 edition |
| JV | Joint Venture |
| KNA | Kriging Neighbourhood Analysis |
| LCT Pegmatite | Lithium-Caesium-Tantalum Type pegmatite rock |
| Li | Lithium |
| LoM | Life of Mine |
| MAIG | Member of the Australian Institute of Geoscientists |
| MAusIMM | Member of the Australasian Institute of Mining and Metallurgy |
| Measured Mineral Resource | A Measured Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit. |
| Microanalysis Australia | A commercial materials characterisation consulting laboratory, Perth Australia. |
| MIMMM | Member of the Institute of Materials, Minerals and Mining |
| MINCOM | Ghanian Government Minerals Commission |
| Mineral Reserve | A Mineral Reserve is the economically mineable part of aMeasured and/or Indicated Mineral Resource. |
| ML | Mining Licence |
| MRE | Mineral Resource Estimate |
| NAGROM | A metallurgy laboratory based in Perth, Australia |
| NNE | North-north-east |
| NPV | Net Present Value |
| NSR | Net Smelter Return |
| NYF Pegmatite | Niobium-Yttrium-Fluorine Type |
| OK | Ordinary Kriging |
| PFS | Pre-Feasibility Study or Prefeasibility Study |
| PL | Prospecting Licence |
| Probable Mineral Reserve | The economically mineable part of an Indicated, and in some circumstances, a Measured Mineral Resource. |
| Proven Mineral Reserve | The economically mineable part of a Measured Mineral Resource. |
| pXRF | Portable X-ray fluorescence spectrometer |

| | |
|---|---|
| RAP | Resettlement Action Plan |
| RC | Reverse circulation. A method of drilling. |
| RL | Reconnaissance Licence |
| RPEEE | Reasonable Prospects for Eventual Economic Extraction |
| Scoping Study | A Scoping Study comprising a technical assessment of a project carried out early in the exploration phase, it is a precursor to a Prefeasibility Study. |
| SEM | Scanning Electron Microscopy |
| SRK | SRK Exploration Services Ltd and SRK Consulting (UK) Ltd |
| SRK ES | SRK Exploration Services Ltd |
| SSW | South-south-west |
| TEM | Technical Economic Model |
| TIA | Traffic Impact Assessment |
| TSF | Tailings Storage Facility |
| USD | United States Dollar |
| WAEMU | West African Economic and Monetary Union |
| WRD | Waste Rock Dump |
| XOF | West African CFA franc |
| XRD | X-ray Diffraction |

# 1. INTRODUCTION

## 1.1. Background and Terms of Reference

SRK Exploration Services Ltd ("SRK ES") has been requested by Atlantic Lithium Limited ("Atlantic", hereinafter also referred to as the "Company" or the "Client") to prepare an Independent Geologist's Report ("IGR" or the "Report") on the Mineral Assets of the Company, specifically the Cape Coast Lithium Portfolio, which contains the Ewoyaa Lithium Project ("Ewoyaa" or the "Ewoyaa Project") located in the Republic of Ghana ("Ghana") and lithium exploration tenement applications in the Republic of Côte d'Ivoire ("Côte d'Ivoire"), all to be included in a prospectus to secure a listing on the Australian Securities Exchange ("ASX").

In November 2021, IronRidge Resources Limited ("IronRidge") announced a demerger and a proposed name change from IronRidge Resources Limited to Atlantic Lithium Limited. The demerger resulted in the formation of two separate entities, Atlantic Lithium Limited and Ricca Resources Limited. Atlantic retained control and ownership of the IronRidge lithium assets whereas Ricca Resources Limited retained ownership of the IronRidge gold assets.

The Company has already completed two scoping studies on the Ewoyaa Project, its leading project, most recently in January 2022, and we are advised is now in the process of preparing a Pre-Feasibility Study ("PFS"). This IGR incorporates a full review of the most up to date Mineral Resource Estimate ("MRE") prepared for Ewoyaa. It does not provide a comprehensive review of previous scoping studies completed on Ewoyaa or the ongoing PFS, other than to the level required for SRK ES to assess the Reasonable Prospects for Eventual Economic Extraction ("RPEEE") as part of the Mineral Resource review.

## 1.2. Reporting Compliance and Reliance

### 1.2.1. Reporting Compliance

This IGR is a Technical Assessment Report as defined under the guidelines of the 2015 edition of the Australasian Code for the Public Reporting of Technical Assessments and Valuations of Mineral Assets (the "VALMIN Code"), the 2012 edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves as published by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia (the "JORC Code"), and the rules and guidelines issued by such bodies as the Australian Securities and Investments Commission ("ASIC") and ASX that pertain to Independent Expert Reports.

### 1.2.2. Reliance on SRK ES

SRK ES declares that it has taken all reasonable care to ensure that the information contained in this IGR is, to the best of its knowledge, in accordance with the facts and contains no omission likely to affect its import.

SRK ES cautions that its opinion must be considered as a whole and that selecting portions of the analysis or factors considered by it, without considering all factors and analyses together, could create a misleading view of the process underlying the opinions presented in this IGR. The preparation of an IGR is a complex process and does not lend itself to partial analysis or summary.

SRK ES has no obligation or undertaking to advise any person of any development in relation to the Mineral Assets which comes to its attention after the date of this IGR, or to review, revise or update

this IGR or opinion in respect of any such development occurring after the date of this IGR.

## 1.3. Effective Date and Publication Date

This IGR presents Technical Information on the Mineral Assets as at the effective date of 20th April 2022 ("the Effective Date").

As at the publication date of this IGR, this being on or around 29th July 2022 ("the Publication Date"), SRK ES understands that significant results have not been produced since this reports' effective date.

## 1.4. Verification and Validation

This IGR is dependent upon technical, financial and legal input. In respect of the Technical Information as provided by the Company and taken in good faith by SRK ES, and other than where expressly stated, any figures presented have not been independently verified by means of re- calculation.

SRK ES has, however, conducted a review and assessment of all material technical issues likely to influence the Technical Information included in this IGR, which included the following:

- An assessment of the historical data made available by Atlantic.
- Inspection visits to material mineral assets located in Ghana.
- An assessment of the key technical risks and opportunities as they relate to the Technical Information reported herein.

Accordingly, Atlantic has provided Technical Information (geological information, assay information, exploration programmes) to SRK ES for the purpose of this review and inclusion in this IGR. SRK ES confirms that it has performed all necessary validation and verification procedures deemed necessary and/or appropriate by SRK ES in order to place an appropriate level of reliance on such Technical Information.

## 1.5. Competent Persons and Responsibilities

This IGR has been prepared based on a technical and economic review by a team of consultants sourced from SRK ES and SRK Consulting (UK) Limited (working on behalf of SRK ES). These consultants have extensive experience in the mining and metals sector and are members in good standing of appropriate professional institutions. The primary consultants comprise specialists in the fields of geology and Mineral Resource estimation, supported by specialist consultants from specific technical mining disciplines.

The Competent Person ("CP") who has overall responsibility for this IGR is Dr Mike Armitage. Dr Armitage also conducted the review of the Ewoyaa Mineral Resource Estimate assisted by Mr Harri Rees (sections 6.5, 6.6 and parts of section 8).

The CP site visit components and related reporting was completed by Mr John Paul Hunt (sections 6.4 and 7.1.4).

Mr Oliver Bayley is responsible for report compilation and CP review of exploration results (sections 1 to 5, 7 and input into sections 6.6 and 8).

An interdisciplinary team lead by Mr Nick Fox reviewed the Mineral Resource Estimate to verify the reasonable prospects for eventual economic extraction ("RPEEE") and aspects of the forward looking work plans (sections 6.5.6 and 6.6.3), team members and roles are listed in Table 1-1. The report was internally peer reviewed by Mr Nicholas O'Reilly.

**Dr Mike Armitage** CEng CGeol FGS MIMMM, PhD is a Chartered Geologist and Fellow of the Geological Society which is a Recognised Professional Organisation ("RPO") included in a list promulgated by the Australian Securities Exchange from time to time. He is an Associate Corporate Consultant of SRK ES and has over 35 years' experience in the mining and metals industry and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the JORC Code (2012). Dr Armitage has been responsible for the reporting of Mineral Resourcesand Ore Reserves on various properties internationally during the past 35 years. Dr Armitage consents to the inclusion in this Report of the matters based on his information in the form and context in which it appears.

**Nicholas O'Reilly** MAusIMM MIMMM FGS is Principal Exploration Geologist (Associate) of SRK Exploration Services Limited. Mr O'Reilly has over 20 years' experience in the mining and metals industry and has been involved in the preparation of Competent Persons' Reports comprising technical evaluations of various mineral assets internationally during the past 9 years relevant to the activity which he is undertaking to qualify as a Competent Persons as defined in the JORC Code (2012) and a Specialist Practitioner as defined in the VALMIN Code (2015). Mr O'Reilly conducted the Competent Person peer review of this Report and consents to the inclusion in this Report of the matters based on his information in the form and context in which it appears.

**Oliver Bayley** MSc MAIG MAusIMM FGS is a Senior Exploration Geologist of SRK ES and has 17 years' experience in the mining and mineral exploration industry, including managing and auditing hard rock lithium exploration projects across central and southern Africa. He has sufficient experience that is relevant to the activities undertaken and styles of mineralisation and type of deposit under consideration to qualify as a Competent Person for the reporting of Exploration Results as defined in the JORC Code (2012) and a Specialist Practitioner as defined in the VALMIN Code (2015). Mr Bayley consents to the inclusion in this Report of the matters based on his information inthe form and context in which it appears.

**John Paul Hunt** Pr.Sci.Nat FGSSA is a Principal Exploration Geologist of SRK ES. Mr Hunt has 20 years' experience in the mining and metals industry and has been involved in the preparation of Competent Person's Reports comprising technical evaluations of various mineral assets internationally. He has sufficient experience that is relevant to the styles of mineralisation and types of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the JORC Code (2012) and a Specialist Practitioner as defined in the VALMIN Code (2015). Mr Hunt consents to the inclusion in this Report of the matters based on his information in the form and context in which it appears.

**Harri Rees** MSc FGS is a senior exploration geologist and Fellow of the Geological Society and has 12 years' experience in exploration and resource geology. He has specialist knowledge of geological data acquisition, QAQC and management, 3D geology and mineralisation modelling, geostatistics and producing and reporting Mineral Resource Estimates to CRIRSCO International Reporting Code guidelines. Mr Rees consents to the inclusion in this Report of the matters based on his information in the form and context in which it appears.

**Nick Fox** MSc ACA MIMMM is a Principal Consultant (Geology/Mineral Economics) with over 19 years post-graduate international experience in resource geology, mineral economics, financial modelling and due diligence. His technical expertise includes authoring and reviewing mineral resource estimates and financial models for various commodities globally, in particular Africa and Russia and CIS countries, and including gold, base metals, iron ore, nickel, lithium, REE, heavy mineral sands, potash, tantalum-niobium and china clay. Mr Fox manages multidisciplinary commissions including stock exchange Competent Persons Reports on behalf of mining and exploration companies and also audits and due diligence studies on behalf of investment institutions

or in support of mergers and acquisitions.

**Table 1-1: SRK Consultants**

| Names | Designation | Roles and Responsibilities |
|---|---|---|
| Dr Mike Armitage | Associate Corporate Consultant | Lead CP IGR author and MRE review |
| Nicholas O'Reilly | Associate Principal Exploration Geologist | CP Peer Review |
| Oliver Bayley | Senior Exploration Geologist | CP IGR author and review of Exploration Results |
| John Paul Hunt | Principal Exploration Geologist | CP Site Visit |
| Harri Rees | Senior Exploration Geologist | MRE Review |
| Nick Fox | Principal Consultant | RPEEE and work programme review |
| Tony Rex | Corporate Consultant | RPEEE Review - Hydrogeology |
| Ben Lepley | Environmental Consultant | RPEEE Review - Environmental and Social Governance |
| Colin Chapman | Principal Consultant | RPEEE Review - Mine Infrastructure and Logistics |
| Dr John Willis | Principal Consultant | RPEEE Review - Mineral Processing |
| John Miles | Associate Principal Consultant | RPEEE Review - Mining Engineering |

## 1.6. Previous Work by SRK ES

SRK ES has undertaken previous independent commissions on behalf of IronRidge. Notably, in 2019-2020 SRK ES prepared a draft Independent Technical Report for the assets of IronRidge (SRK ES, 2020); and in 2015 SRK ES produced an Independent Competent Person's Report on the assets of IronRidge that was included in the prospectus for its listing on the Alternative Investment Market ("AIM") of the London Stock Exchange. The 2015 report concerned the IronRidge assets in Gabon and Australia and was issued prior to the investment in Atlantic's current assets in Ghana and Côte d'Ivoire which are the subject of this IGR.

## 1.7. SRK ES Site Inspections

Mr John Paul Hunt conducted due diligence site visits on 10-11 February 2020 and 06-09 April 2022. The first visit included the Mankessim, Mankessim South, Saltpond, Apam and Mankwadzi tenements. He was accompanied by Len Kolff, Iwan Williams and Abdul-Razak Shaibu Ballah from Atlantic. The Ewoyaa Main, Kaampakrom and Afrengwa prospects, and the Substation and Abonko quarries were visited within the tenements.

The second site visit in April 2022 was to the Ewoyaa Project when Mr Hunt was accompanied on site by Iwan Williams, Exploration Manager of Atlantic.

## 1.8. Principal Information Sources

The principal sources of information used to compile this IGR include technical reports and data provided by Atlantic on the 20 April 2022, including a Mineral Resource Estimate report and supporting data authored by Ashmore Advisory Pty Ltd ("Ashmore") and dated 23 March 2022 (Ashmore, 2022); a Scoping Study completed in January 2022 (the January 2022 Scoping Study, Atlantic, 2022a); tenement specific annual exploration reports and drilling datasets and associated reports.

## 1.9. Limitations, Reliance on Information, Declaration, Consent and Cautionary Statements

### 1.9.1. Limitations

The Technical Information in this IGR relies on assumptions regarding certain forward-looking statements. These forward-looking statements are estimates and involve a number of risks and uncertainties that could cause actual results to differ materially. The projections as presented and discussed herein have been proposed by Atlantic's management and cannot be assured; they are necessarily based on economic assumptions, many of which are beyond the control of the Company. Any future cashflows and profits derived from such forecasts are inherently uncertain and actual results may be significantly more or less favourable. Unless otherwise expressly stated, all the opinions and conclusions expressed in this IGR are those of SRK ES.

### 1.9.2. Reliance on Information

SRK ES has relied upon the accuracy and completeness of technical, financial, and legal information and data furnished by or through Atlantic.

Atlantic has confirmed to SRK ES that, to its knowledge, the information provided by it (when provided) was complete and not incorrect or misleading in any material respect. SRK ES has no reason to believe that any material facts have been withheld. While SRK ES has exercised all due care in reviewing the supplied information, SRK ES does not accept responsibility for finding any errors or omissions contained therein and disclaims liability for any consequences of such errors or omissions. SRK ES furnished Atlantic with a final draft of this report requesting that Atlantic identify any material errors or omissions prior to its final submission.

Associated company structures and the comments and opinions contained in this report are restricted to technical and economic aspects associated with the Mineral Assets. Where aspects of legal issues, marketing, commercial and financing matters, insurance, land titles and usage agreements, and any other agreements and/ or contracts Atlantic may have entered into are covered in this IGR, SRK ES has relied on information provided by the Company.

This IGR includes technical information, which requires subsequent calculations to derive subtotals, totals and weighted averages. Such calculations may involve a degree of rounding and consequently introduce an error. Where such errors occur, SRK ES does not consider them to be material.

### 1.9.3. Financial Reliance

In considering the financial aspects relating to Atlantic's mineral assets, SRK ES has placed reliance on the Company that the following information is appropriate as at the Effective Date (defined in Section 1.3):

- Proposed operating expenditures as included in the Company's development strategy andexploration programmes;
- Proposed capital expenditures as included in the Company's development strategy and exploration programmes;
- All statutory and regulatory payments and those due to other third parties as may be necessary to execute the Company's development strategy and exploration programmes.

The financial information referred to above has been prepared under the direction of Mr Len Kolff on behalf of the Board of Directors of the Company.

### 1.9.4. Legal Reliance

In consideration of the legal aspects relating to the Atlantic's mineral assets, SRK ES has placed reliance on the representations of the Company that the following are correct as of the Effective Date (defined in Section 1.3) and remain correct until the Publication Date (defined in Section 1.3):

- The Board of Directors of the Company are not aware of any legal proceedings that may have any influence on the rights to explore, develop and mine the minerals present within and associated with the mineral assets.
- The legal owners of all mineral and surface rights of the mineral assets have been verified.
- No significant legal issue exists which would affect the likely viability of the exploration tenements as reported herein.

### 1.9.5. Declaration of Independence

SRK ES received a fee of GBP £70,000 for completing this IGR including site visits, fees are based on commercial consulting rates. This fee is not dependent on the findings of this IGR and SRK ES will receive no other benefit for the preparation of this IGR. Neither SRK ES nor any of the authors have any pecuniary or other interests that could reasonably be regarded as capable of affecting its ability to provide an unbiased opinion in relation to the mineral assets opined upon by SRK ES and reported herein.

Neither SRK ES nor the Competent Persons (as identified under section 1.5) who are responsible for authoring this IGR, nor any Directors of SRK have, at the date of this IGR, had within the previous two years, any shareholding in the Company or any other economic or beneficial interest (present or contingent) in the Project. SRK ES is not a group, holding or associated company of Atlantic. None of SRK ES's partners or officers are officers or proposed officers of any group, holding or associated company of the Company.

Further, no Competent Person involved in the preparation of this IGR is an officer, employee or proposed officer of the Company or any group, holding or associated company of the Company. Consequently, SRK, the Competent Persons and the Directors of SRK consider themselves to be independent of the Company and its directors.

In this IGR, SRK ES provides assurances to the Board of Directors of the Company in compliance with the Reporting Standard that the Mineral Resources and exploration potential of the mineral assets as provided to SRK by Atlantic and reviewed and, where appropriate, modified by SRK ES, are reasonable, given the information currently available.

### 1.9.6. Consent

SRK ES will give its written consent to the publication of this IGR on Atlantic's company website and all information to be contained in any published documentation associated with a related Prospectus, which has been extracted directly from this IGR.

### 1.9.7 Nomenclature

Mining Law and Codes for the countries hosting Atlantic's assets refer to mineral exploration properties as Permits in Côte d'Ivoire, and Licences in Ghana. For the purposes of ASX reporting, all permits, or licences are referred to as tenements in this report.

# 2. ATLANTIC LITHIUM LIMITED

## 2.1 Company Description

Atlantic is an Australia-based lithium exploration company. The Company is engaged in advancing a portfolio of projects in Ghana and Côte d'Ivoire through to anticipated production. The Company's leading project, Ewoyaa, is a significant lithium pegmatite discovery currently undergoing Mineral Resource upgrade and preparing for Pre-Feasibility level studies.

Atlantic's registered address is Level 33, Australia Square, 264 George Street, Sydney NSW 2000, Australia. The Company was incorporated in Queensland, Australia on 18 August 2007 as Ridge Exploration Pty Ltd. The name of the Company changed to IronRidge Resources Limited after it was registered as a public company on 6 October 2011. The Company gained admission to the Alternative Investment Market (AIM) on 12 February 2015. The name of the Company was changed to Atlantic Lithium Limited on 18 November 2021.

## 2.2 Mineral Asset Summary

Atlantic operates six granted exploration tenements in southern Ghana, with a further four in the application process. An additional two exploration tenement applications are pending in Côte d'Ivoire.

### 2.2.1 Ghana

Atlantic's Ghanaian assets (summarised in Table 2-1, Table 2-2 and Figure 5-1) are within the Cape Coast Lithium Portfolio, itself composed of two tenement groups:

- the western group made up of the Saltpond, Mankessim, Mankessim South and Cape Coast tenements and contains the Ewoyaa Lithium Project (Section 6); and
- the eastern group containing Apam East, Apam West tenements and Mankwadzi, Asebu (Winneba North), Mankwadze (Winneba South) and Senya Beraku tenement applications(Section 7.1).

**Table 2-1: Atlantic's Ghanaian Tenement Ownership and Status**

| Tenement Name | Group | Tenement Number | Ownership | Status |
|---|---|---|---|---|
| Mankessim | West | RL3/55 | 90% | Granted |
| Mankessim South | West | PL3/109 | 100% | Granted |
| Saltpond | West | PL3/102 | 100% | Granted |
| Cape Coast | West | PL3/106 | 100% | Granted |
| Apam East | East | PL3/67 | 70% | Granted |
| Apam West | East | PL3/92 | 70% | Granted |
| Mankwadzi | East | Under application | 70% | Application |
| Senya Beraku | East | Under application | 100% | Application |
| Asebu (Winneba North) | East | Under application | 100% | Application |
| Mankwadze (Winneba South) | East | Under application | 100% | Application |

**Table 2-2: Atlantic's Ghanaian Tenement Summary**

| Tenement Name | Tenement Number | Grant or Application Date | Expiry Date | Granted To | Area (km²) | Commodities |
|---|---|---|---|---|---|---|
| Mankessim | PL3/55 | 27/07/21 | 27/07/24 | Barari DV Ghana Ltd | 75.76 | Au, Li, BM |
| Mankessim South | PL3/109 | 19/02/20 | 18/02/23 | Green Metals Resources Ltd | 13.02 | Li, Nb, Ta,Sn, REE, FLSP |
| Saltpond | PL3/102 | 21/08/19 | 20/08/22 | Joy Transporters Ltd | 88.62 | FLSP, D, BM |
| Cape Coast | PL3/106 | 15/11/21 | 14/11/24 | Joy Transporters Ltd | 139.23 | Li, Sn, Nb, Cs, Ta, Ni[1] |
| Apam East | PL3/67 | 27/06/19 | 26/06/22 | Obotan Minerals Company Ltd | 20.58 | Au, Nb, Ta,Li, Sn |
| Apam West | PL3/92 | 21/08/19 | 20/08/22 | Obotan Minerals Company Ltd | 33.35 | Au, Nb, Ta,Li, Sn |
| Mankwadzi | Under application | 15/03/18 | N/A | Obotan Minerals Company Ltd | 3.57 | Au, Nb, Ta, Li |
| Senya Beraku | Under application | 10/05/16 | N/A | Green Metals Resources Ltd | 111.40 | Li, Nb, Ta,Sn, REE, FLSP |
| Asebu (Winneba North) | Under application | 28/06/2021 | N/A | Green Metals Resources Ltd | 71.50 | Au, Nb, Ta,Li, Sn |
| Mankwadze (Winneba South) | Under application | 28/06/2021 | N/A | Green Metals Resources Ltd | 2.40 | Au, Nb, Ta,Li, Sn |

Notes: [1] Ministerial permit mentions Li only but the application document attached to the permit shows full list of elements applied for.

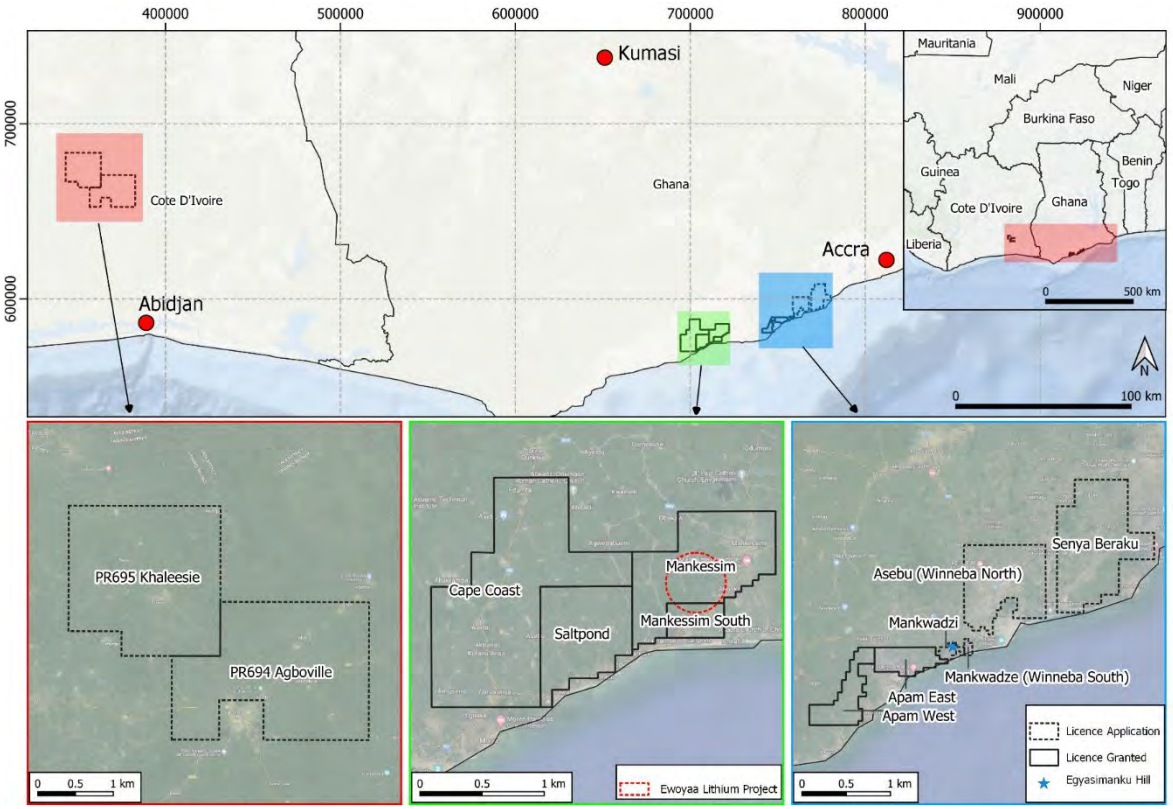
### 2.2.2 Côte d'Ivoire

The Côte d'Ivoire Lithium Portfolio is made up of two Tenement Applications (Agboville and Rubino), 100% held by Atlantic.

**Table 2-3: Côte d'Ivoire Lithium Tenement Summary**

| Tenement Name | Tenement Number | Status | Application Date | Applicant | Area (km²) | Commodities |
|---|---|---|---|---|---|---|
| Agboville | PR694 | Under Application | 20/10/16 | Khaleesi Resources | 398.47 | Li |
| Rubino | PR695 | Under Application | 20/10/16 | Khaleesi Resources | 375.15 | Li |

**Figure 2-1: Map showing Atlantic's West African tenements**




Sources: SRK ES

## 2.3 Company Strategy

Atlantic's strategy is to create and maximise shareholder value through the development of its lithium assets in West Africa through to production. The Company's leading project, the Ewoyaa Project, aims to be West Africa's first lithium producing mine.

The Company also owns an extensive portfolio of exploration and development assets in Ghana and tenement applications in Côte d'Ivoire and aims to leverage this exploration upside to develop a pipeline of projects towards production.

# 3. MINERAL RIGHTS

## 3.1. Ghana

The Minerals and Mining Act, 2006 (Act 703) regulates all aspects of the exploration and exploitation of minerals in Ghana. This Act was amended by the Minerals and Mining (Amendment) Act 900 of 2015 (African Mining Legislation Atlas (AMLA), 2022, Minerals Commission of Ghana (Mincom), 2022). The following section has been summarised from The Minerals and Mining Act, 2006 (Act 703) and further details regarding the mineral rights can be found within this document.

### Reconnaissance Licence

Under Ghana's statute, a Reconnaissance Licence affords the holder the rights to search for specified minerals by geochemical, geophysical and geological means or through remote sensing techniques. The holder of the Reconnaissance Licence may enter the reconnaissance area and erect camps or temporary buildings and should not engage in any drilling or excavation (MINCOM, 2006).

This right is normally granted for 12 months and may be renewed once for another 12-month period. The maximum area is set at 5,000 contiguous blocks or 1,050 km$^2$.

### Prospecting Licence

This licence allows the holder to search for minerals and to determine their extent and economic value. The Prospecting Licence gives the legal backing to the holder to carry out drilling, excavation and other physical activities on the property including the erection of temporary buildings necessary for the prospecting operations. The holder of a Prospecting Licence must commence prospecting work within three months after the date of issue of the licence, notify the Minister through the Commission on the discovery of any minerals within 30 days from the date of discovery, remediate and make safe any excavations including the removal (within 60 days from the date of expiration), any camps or temporary buildings (MINCOM, 2006).

It is normally granted for up to 3 years with 50% reduction in size of the concession at each renewal. The initial maximum area is set at 750 contiguous blocks or 157.5 km$^2$. The holder can apply for an extension of the initial term of the Prospecting Licence (no later than 3 months before expiration) for a further period not more than three years in respect of all or any number of blocks the subject of the Prospecting Licence.

### Mining Lease

A holder of a Reconnaissance Licence or a Prospecting Licence may, prior to the expiration of the licence, apply in the prescribed form for one or more mining leases in respect of all or any of the minerals the subject of the licence and in respect of all or any one or more of the blocks which constitutes the reconnaissance or prospecting area.

The Mining Lease ("ML") gives the holder the right to mine, win or extract specified minerals (or commodities) within the lease area. The ML may be granted to the holder of a reconnaissance or prospecting licence or any person who establishes to the satisfaction of the Minister that a mineral to which the lease relates exists in commercial quantities within the proposed lease area and can be mined at a profit (MINCOM, 2006).

The ML is granted for periods of up to thirty (30) years subject to renewal. The size of the area in

respect of which a ML may be granted is limited to 300 contiguous blocks or 63 km² for each grant.

A holder of a ML may, at any time but not later than three months before the expiration of the initial term of the ML or a shorter period that the Minister allows, apply in a prescribed form to the Minister for an extension of the term of the lease for a further period of up to thirty years in respect of all or any number of contiguous blocks the subject of the lease and in respect of all or any of the minerals the subject of the lease (MINCOM, 2006).

**Royalties, Taxes and Duties**

Reconnaissance and Prospecting licences are subject to annual ground rent and mineral right fees. A holder of a Mining Lease, restricted mining lease or small scale mining licence shall pay a royalty that may be prescribed in respect of minerals obtained from its mining operations to the Republic of Ghana, except that the rate of royalty shall until prescribed by the Minister of Lands and Natural Resources be 3-6% of the total revenue of minerals obtained by the holder. The Ghanaian Government also provides an exemption from payment of customs import duty in respect of plant, machinery, equipment and accessories imported specifically and exclusively for the mineral operations; exemption of staff from the payment of income tax on furnished accommodation at the mine site; immigration quota in respect of the approval number of expatriate personnel; and personal remittance quota for expatriate personnel free from tax imposed by an enactment regulating the transfer of money out of the country (MINCOM, 2006).

## 3.2. Côte d'Ivoire

Mining and exploration in Côte d'Ivoire are governed primarily by the Mining Code, implemented in Law No. 2014-138 dated 24 March 2014. The Environment Code and Labour Code are also applicable. Mining law in Côte d'Ivoire is heavily influenced by French civil law, as well as mining codes of the West African Economic and Monetary Union ("WAEMU") and Economic Community of West African States ("ECOWAS") of which Côte d'Ivoire is a member. WAEMU issued a mining code in 2003 governing any mining operation relating to prospection, exploration, detention, traffic transport, treatment, trade and transformation of minerals within territories of WAEMU member states; and ECOWAS enacted a directive on the harmonisation of mining laws in the region, improving transparency, and protecting the environment and local communities. ECOWAS recently approved (June 2019) a supplementary act which aims to ensure that local communities benefit from mining revenues.

Under the Mining Code, a mining title may be granted to both Ivorian and foreign mining companies. The Mining Code recognises the difference between quarrying and mining, and with regard to mining splits activities into three standard phases: prospecting, exploration and exploitation. Prospecting is deemed to relate to semi-industrial and artisanal exploration and exploitation of minerals, and exploration deemed to relate to regular exploration activities.

The two types of mineral rights related to regular exploration and exploitation of minerals in Côte d'Ivoire are an Exploration Permit and an Exploitation Permit.

**Exploration Permit**

An Exploration Permit grants the holder exclusive rights to explore an area not exceeding 400 km² and not less than 1 km². An Exploration Permit is granted for a period of four years and is renewable twice for periods of three years. Under exceptional circumstances, an additional renewal for a maximum of two years may be granted if the reason for the request is delay in completion of a Feasibility Study. During each renewal of the Exploration Permit, the size of the area must be reduced by 25%, however if proof is provided that work will be completed over the entire area and an option

payment is made, the reduction in size can be avoided.

These tenements may be applied for by any Ivorian national, natural or emigrated. Companies applying for tenements must demonstrate a minimum share capital of 20 million West African CFA Francs, applicants must also meet specific technical and financial criteria. For example, applicants must have undertaken at least two exploration projects in the last 10 years and have recruited a technical manager with at least 7 years' experience in exploration. Applicants must also pay a deposit into an Ivorian Bank to provide for exploration costs, with a minimum exploration budget of 1.6 million CFA per square kilometre for the first four years.

The holder of an Exploration Permit may apply for the Exploration Permit to be converted to an Exploitation Permit at any time, provided that it has carried out all of its obligations and has prepared a 'feasibility study' that demonstrates the existence of one or more deposits within the permitted area.

**Exploitation Permit**

The holder of an Exploitation Permit has exclusive rights to exploit the deposits with the tenement area, as well as the right to transport and trade the minerals on internal or international markets. It is also allowed to establish the necessary facilities to condition, treat, refine and transform minerals.

Exploitation tenements may only be held by companies established under Ivorian law, the sole purpose of which will be to exploit the ore within the tenement. The holder of a tenement must prove that it employs suitable technical staff, and commencement of development work must begin within two years of the tenement being granted.

A Mining Convention must be signed between the company and the state within 60 days of delivery of the Exploitation Permit, stabilising tax and customs regimes for the exploitation. This Convention may also be used to implement other essential rights, obligations and conditions. Mining Conventions have an initial term of 12 years, renewable for successive periods of 10 years. The duration of this convention does not match the duration of the Exploitation Permit and may create difficulties that must be carefully assessed.

An Exploitation Permit is granted for the Life of Mine as indicated in the feasibility study, with a maximum duration of 20 years renewable for successive periods of 10 years.

## Other Permits and Licences

The holder of a mining title remains subject to specific laws and regulations relating to environmental protection, construction, hazardous materials, forestry and heritage. Additional permits and licences may be required to satisfy these regulations and must be sought separately.

## Royalties, Taxes and Duties

Royalties are paid to the state per square kilometre or hectare, depending on the phase of the project, ranging from 1,000 CFA per km² per year for Prospection Tenements to 250,000 CFA per km² per year for Exploitation Tenements.

In addition to corporate income tax and other royalties and taxes required under the General Tax Code, the permit holder is subject to an ad valorem tax. This tax calculation is based on the turnover after the deduction of transportation and refining costs.

The rate of ad valorem tax for gold mining varies depending on the gold price, from 3% when the price is below USD1,000 oz to 6% when the price is above USD2,000 oz. The rate for other

commodities is fixed at between 1 and 5%. Lithium is currently not produced in Ghana and clarification of tax rates are required.

The main duties paid relating to mineral projects are those payable on the award and renewal of Exploitation Permit (1 million and 2 million CFA respectively), and for the issuance of an Exploration Permit (500,000 CFA).

Additional duties are paid in the event of the sale, renewal, transfer or relinquishment of a mining title.

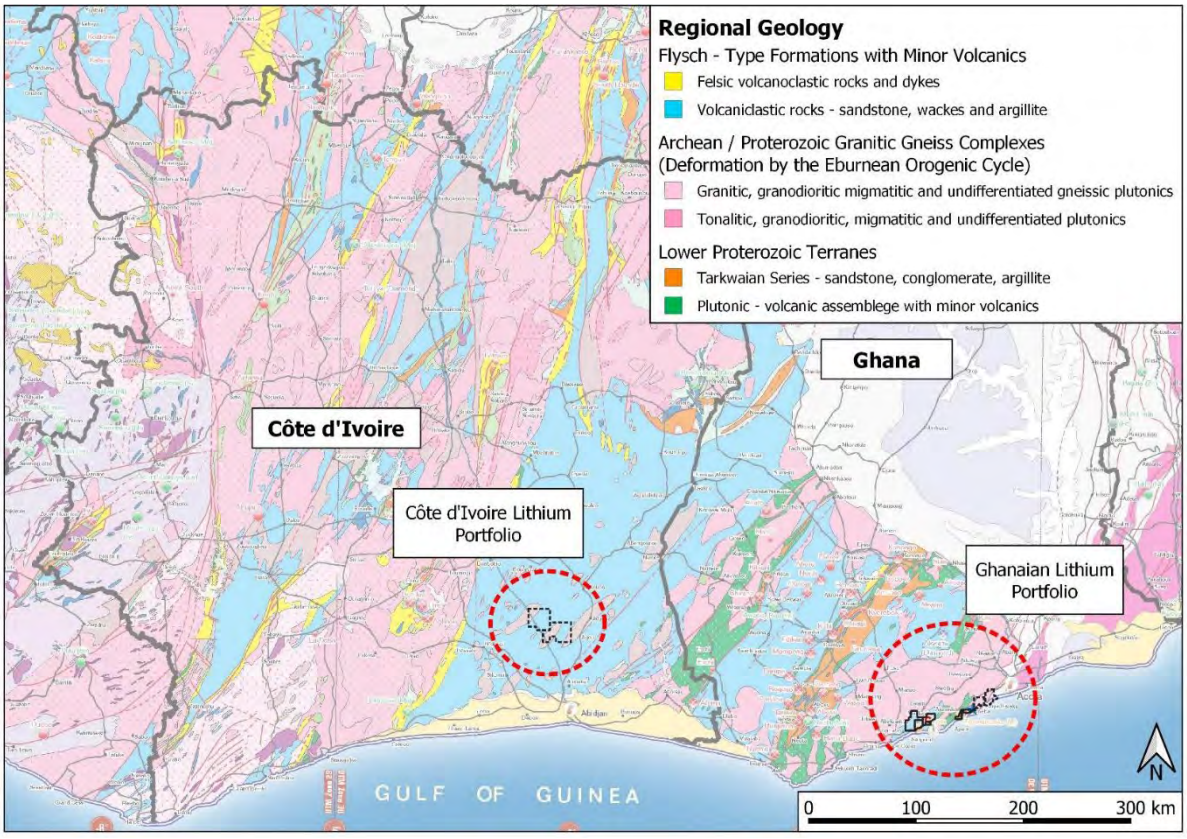
# 4. GEOLOGICAL SETTING

## 4.1. District Geological Setting

Geologically, Atlantic's projects are located within Paleoproterozoic Birimian Supergroup terranes, part of the southern West African Craton ("WAC"), which are composed of a series of large sedimentary basin deposits and linear or curved volcanic belts that were forced together during the Eburnean Orogeny around 2.1-1.0 Ga. It is generally accepted that the Birimian rocks originated in mid-oceanic arcs of volcanoes, which formed a crust that collided with and rode over Archaean units of the southern West African Craton and were compressed to form the series of folds. This orogen was accompanied by the emplacement of extensive granitoid plutons. The metamorphic grade within the Paleoproterozoic rocks is generally low, except along some subsequent transcurrent fault zones.

The earliest systematic geological mapping in this region was carried out between 1920 and 1940 and this work recognised the existence of relatively long, narrow NE trending belts containing variable amounts of Precambrian (Lower Proterozoic), metamorphosed volcanic extrusives, pyroclastics and derived volcaniclastic sediments. Between these belts are intervening areas representing broad sedimentary basins dominated mainly by marine clastic sediments with variable amounts of volcaniclastic units. It has also long been recognised and generally accepted that intrusive activity within the belts was distinct from similar activity in the adjacent basins.

**Figure 4-1: Regional Geological Map with Atlantic Lithium's Tenement Portfolio's**




Sources: Base Map – The West African Consultancy Group

Three main sequences, the Lower and Upper Birimian Series, (referred to in modern terms as metavolcanics-metasediments) and the younger Tarkwaian Series, dominate the Eburnean orogenic

cycle. The Lower Birimian Series consists largely of phyllites, schists, greywackes and, locally, volcaniclastics. These sedimentary series are conformably overlain and, in part, interbedded with volcanic units grouped as the Upper Birimian Series. The volcanics include lavas and pyroclastics, but also contain fine- to medium-grained sediments, not unlike the Lower Birimian units.

The Birimian is overlain by the thick Tarkwaian sedimentary sequence. These units are largely derived from the older Birimian rocks and from the variety of granitoid intrusions that are widespread among the Birimian units. Structurally, the Birimian units are intensely folded and faulted, whereas the Tarkwaian units display more broad scale folding and overall, less tectonic disruption. In general, contacts between the Birimian units, as well as the overall distribution of the Tarkwaian sediments, are closely aligned along major regional structures that trend northeast and extend for hundreds of kilometres.

The mapping programme and subsequent radiometric age-dating also confirmed the different types of intrusions in the region (Figure 4-1). Hirdes et al (1996) proposed to refer to the intrusions within the belts as 'belt-type' and 'basin-type' (formerly 'Cape Coast type'). Age-dating now suggests that most of the smaller, 'belt-type' plutons were developed contemporaneously with volcanic activity whereas the much larger 'basin-type' batholiths were emplaced a little later (Grenholm, 2018). Intruding the Birimian rocks are migmatitic bodies and porphyritic granitoids that have generally been classified into two broad categories (Nude et. al., 2011). These are:

- hornblende-rich varieties that are closely associated with the meta-volcanic rocks and knownas the 'belt' type granitoids, and
- mica-rich varieties which tend to border the volcanic belt and are in the metasedimentary units,referred to as 'basin' (formerly 'Cape Coast') type granitoids.

Associated with the 'basin' type granitoid batholiths are minor intrusions that include pegmatites. The pegmatites from these areas are late orogenic and were emplaced at upper to middle crustal levels in a volcanic arc geotectonic environment (Nude et. al., 2011).

## 4.2. Regional Geological Setting

The regional geological setting as described here is primarily sourced from Atlantic annual exploration reports, (Atlantic 2021a-c) and is focused on Atlantic's Cape Coast Portfolio but is also relevant to the Côte D'Ivoire projects which are located in a similar geological setting.

The regional geology is characterised by a thick sequence of steeply dipping metasediments, alternating with metavolcanic units of the Birimian Supergroup, which extend for approximately 200 km along strike in a number of parallel north-easterly trending volcano-plutonic belts and volcano-sedimentary basins, of which the Kibi-Winneba Belt and the Cape Coast Basin extend through the region.

The rocks of the Birimian "Volcanic Belts" are diverse, however, most are dominantly made up of low-grade metamorphic tholeiitic basalt intercalated with volcaniclastics as well as andesitic and felsic flow rocks with local development of chemical sediments. Volcanic rocks in most of these belts are intruded by coeval, co-magmatic, synvolcanic tonalite-trondhjemite-granodiorite granitoid plutons (mainly tonalite and granodiorite). Rocks of the "Sedimentary Basins" are typically low-grade metamorphosed, tightly to isoclinally folded sediments comprising volcaniclastics, volcaniclastic wackes and argillite. The rocks of the volcano-plutonic belts and the volcano-sedimentary basins appear to represent partly contemporaneous lateral facies equivalents, as most of the sediments appear to be derived from the adjacent volcanic belts.

Starting sometime between 2,120 Ma and 2,115 Ma, the whole region was affected by crustal

shortening and associated regional metamorphism associated with the Eburnean tectono-thermal event. This orogeny is responsible for the folding and metamorphism of the Paleoproterozoic rocks and at the same time the development of high-strain zones along the Birimian belt/basin boundaries. At this time the Birimian basins were preferentially intruded by extensive, late and syn-kinematic, frequently peraluminous granitoids (locally some volcano-plutonic belts were also intruded) of the Eburnean Plutonic Suite. These plutonic rocks exhibit crystallization ages between 2,116 Ma and 2,088 Ma, and probably originated from the partial melting of the Birimian basin sediments. The last manifestation of the Eburnean plutonism is the pegmatite veining which has been dated to 2,072 Ma.

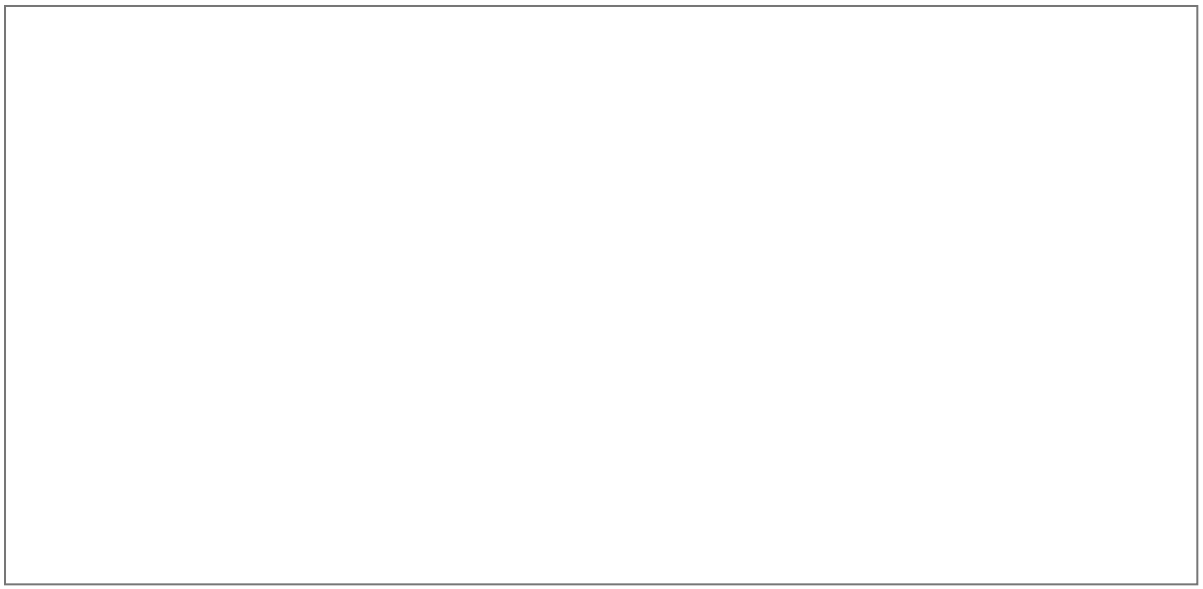
The Cape Coast pegmatites were described in detail by McKinney and Luxner (2003), on which most of the descriptions below are based.

The Cape Coast Batholith is a major 100 by 200 km intrusive complex along the southwestern coastline of Ghana. A segment of Birimian occurs within the batholith, possibly representing a roof pendant underlain by Cape Coast Granite. The Birimian sequence comprises metasediments and volcanics but there are wide zones of quarzitic, micaceous schists and a distinctive coarse clastic unit. The area between the coastal towns of Nakwa and Saltpond, is underlain by the Amisian Formation, comprised of coarse clastic units of Jurassic-Cretaceous age and Recent sediments which are largely confined to lagoonal areas adjacent to the main perennial rivers.

The Cape Coast Batholith is composed of great variety of granitoids with sharp or ill-defined contacts and variable evidence of assimilation of country rock. The area also features a set of granitoids with unusual geochemical characteristics that indicate they may have been partially derived from older crustal material, possibly of Archean age (Winneba-type, Yao and Robb, 1998). These smaller granitoids are spatially associated with pegmatite swarms.

Mafic intrusives appear to include mainly early-stage, metamorphosed dykes and sills as well as a few younger unmetamorphosed dolerite dykes, which can be traced intermittently across the area in a north-south direction.

**Figure 4-2: Regional Geological Map of the Cape Coast Portfolio**



Sources: Atlantic, 2022

The pegmatites are coarse crystalline intrusive rocks forming irregular dykes or sills and they appear to be associated with the Cape Coast Granitoids and with smaller granitoid intrusions within the

Birimian succession and occur within Birimian metasediments in the Mankessim, Mankessim South, Saltpond and Cape Coast tenements and within Birimian metasedimentary/metavolcanic rocks in the Apam, Mankwadze, Winneba and Senya Beraku tenements. The pegmatites can be broadly grouped into either spodumene (a pyroxene mineral consisting of lithium aluminium inosilicate LiAl(SiO3)2 ) bearing pegmatites or K-feldspar-rich pegmatites and weathered kaolinite-rich pegmatites.

The spodumene-bearing pegmatites appear to be linked to smaller microgranite intrusions, while the un-zoned K-feldspar-rich pegmatites and weathered equivalents of kaolinite-rich pegmatites and are more regionally distributed and possibly linked to the regionally underlying Cape Coast Batholith.

## 4.3. Deposit Model

Lithium does not occur as a native metal in nature but is found combined in very small amounts in nearly all igneous rocks and in the waters of many mineral springs. Spodumene, petalite, lepidolite and amblygonite are common pegmatite forming minerals containing lithium.

Lithium bearing minerals are found in three types of deposits: pegmatites, clays and brines. The lithium projects held by Atlantic in Ghana are related to pegmatite-style mineralisation. Pegmatites can be subdivided into four main classes:

- Abyssal: high metamorphic grade, high to low pressure;
- Muscovite: high pressure low temperature;
- Rare-Element: low temperature and pressure; and
- Miarolitic: shallow level

The Rare-Element class are pegmatites that are formed either in compressional or extensional tectonic settings or linked to either S-type orogenic granites, A- and I-type granitoids in an anorogenic setting or have an anatectic origin. Rare-Element pegmatites are subdivided into two sub-classes; the Lithium-Caesium-Tantalum ("LCT") type, associated with orogenic tectonic settings and S-type (2-mica) granitoids; and the Niobium-Yttrium-Fluorine ("NYF") type, often linked to A- and I-type granitoids in an anorogenic setting.

LCT-pegmatites are coarse-grained granitic rocks which can contain lithium, beryllium, tin and gem-quality beryl and tourmaline. Most are differentiated endmembers of peraluminous S-type granitoids. LCT pegmatites are highly enriched in incompatible elements, mainly Li, Cs and Ta and are often enriched in H2O, F, B and P which act as fluxes resulting in the lowering of the melting temperature and formation of large crystals.

In some cases, LCT-pegmatites can exhibit regional mineralogical and geochemical zoning with an increase in incompatible elements with distance from the source intrusion or individual pods of pegmatitic melt. On a scale of a single pegmatite, mineralogical and textural zoning can also occur, with a mica-rich border, one or more intermediate zones where the lithium is concentrated, and a barren core dominated by quartz and K-feldspar.

The mineralisation at Ewoyaa has been confirmed to be associated with LCT pegmatites, with spodumene as the main lithium bearing mineral.

# 5. CAPE COAST LITHIUM PORTFOLIO

## 5.1. Introduction

The Cape Coast Lithium Portfolio in Ghana is composed two tenement groups (Figure 5-1):

- the western group, made up of the Cape Coast, Saltpond, Mankessium, and Mankessium South tenements, and which contains the Ewoyaa Lithium Project (Section 6); and
- the eastern group containing Apam East, Apam West tenements and Egyasimanku Hill, Winneba North, Winneba South and Senya Beraku tenement applications (Section 7).

The Ewoyaa Project itself is made up of a cluster of pegmatites within the Mankessim and Mankessim South tenements (Figure 6-1) and has been explored by Atlantic from 2016 to date.

## 5.2. Location and Infrastructure

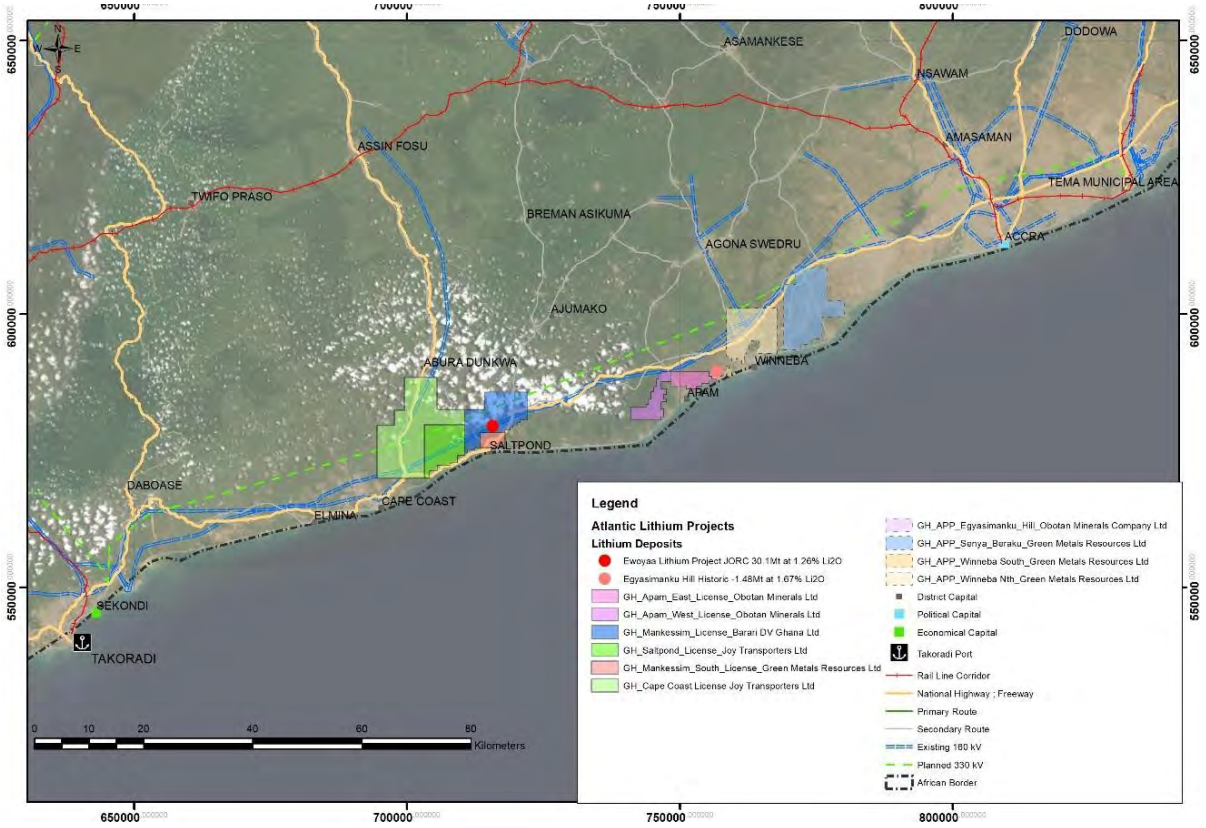
Atlantic's tenements in Ghana are located in the south of the country where the town of Cape Coast is the regional capital. The Cape Coast Lithium Portfolio includes the Ewoyaa and Egyasimanku Hill projects located approximately 100 km southwest of the capital of Accra. The Ewoyaa Lithium Project area is immediately north of Saltpond, in the Central Region, and falls within the Mfantseman Municipality where Saltpond is the district capital.

The tenements are located along the main Accra - Cape Coast and Takoradi highway with the Cape Coast and Winneba tenements being the furthest and the closest to the nation's capital respectively. The tenements are linked to the main Accra - Cape Coast highway via semi-and/or sealed second class feeder roads with accessible trails connecting towns and villages within. Distances to Accra range from 70 to 120 km via the main Accra - Cape Coast highway with the distance to Cape Coast ranging between 50 and 90 km.

The port of Takoradi, Ghana's second largest seaport and an important hub within the Economic Community of West African States ("ECOWAS") subregion is located between 90 and 170 km from the various tenements (Figure 5-1).

The projects have good access to water, electricity and telecommunication facilities, with the Winneba, Mankessim and Saltpond district capitals hosting hotels, restaurants, hospitals, police stations, electricity facilities, telephone, pipe-borne water and stable internet connectivity.

**Figure 5-1: Location map of the Cape Coast Lithium Portfolio tenements and projects with regional infrastructure**




Sources: Atlantic, 2022

## 5.3. Physiography and Vegetation

The area covered by the tenements and applications has a moderate morphology with elevation levels reaching 150 m above mean sea level ("ASL") at Egyasimanku Hill near Mankwadze. The area is dominated by a flat, regional peneplain surface, which has an elevation of about 100 m ASL in the inland area but slopes gently to the coast where it is 40-50 m ASL. The coast is characterised by the development of lagoons, notably Ayensu, Akyemfo, Apabaka and Mankaamfa Lagoons. The river Bruhye and its tributaries drain the area.

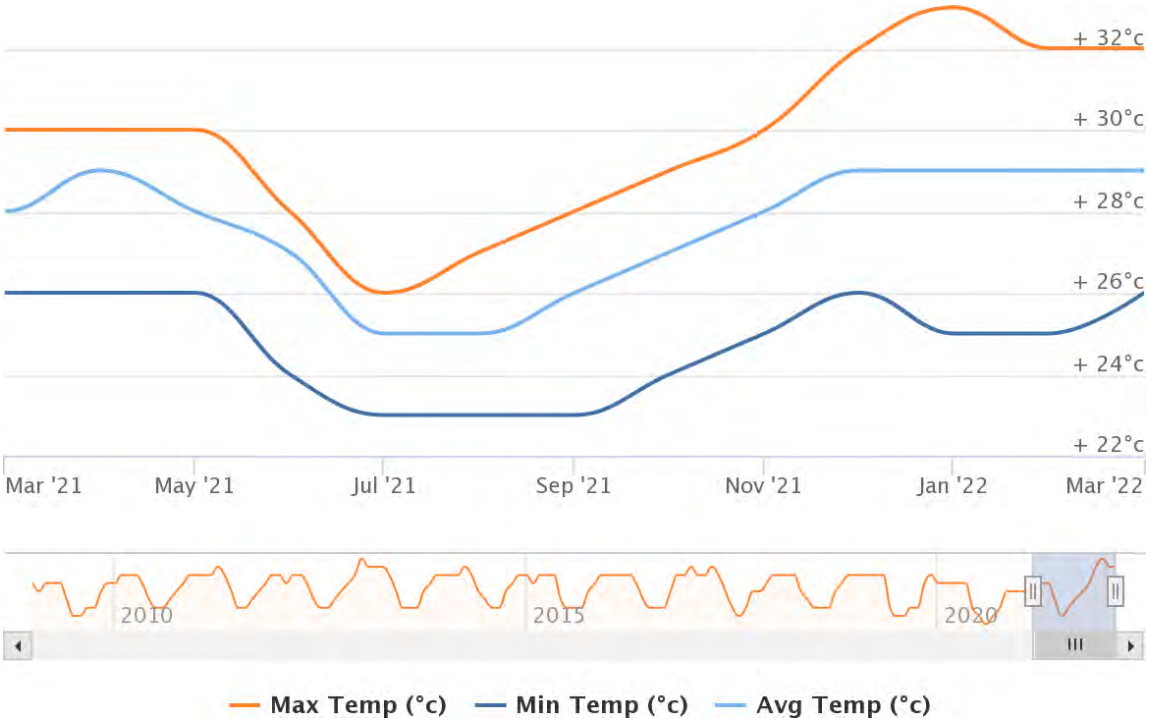
The region hosts a mixture of open secondary forest, dense bush, marshy areas and cleared farmlands carrying both subsistence and cash crops such as cassava, bananas and vegetables with minor cocoa and palm plantations. Areas of moderate relief tend to have retained some rain forest.

Most of the coastal grass plains are only periodically farmed for fast growing seasonal crops such as maize. This is essentially due to lower rainfall and poorly drained soils. In the northern portions of the projects, vegetation is slightly denser and farming activities (cassava, plantain) are more prevalent. Salt winning is an important industry along the coast, and at Mankwadze, one small tenement overlies part of the eastern pegmatite.

## 5.4. Climate

Regionally, the climate is typically wet tropical (equatorial) with daily averages between 24 and 32ºC maxima and 19 and 28ºC minima. Annual mean rainfall for the area averages between 1,250 and 1,600 mm. There is a main wet season from March to July, peaking in May-June, and a minor wet season from September to November, peaking in October. The coolest period is December-February when the dry Harmattan winds blow southwards from the Sahara. These climatic conditions allow for exploration and mining activities year-round (Figure 5-2).

**Figure 5-2: Annual temperature variations for Saltpond, Ghana**




Sources: worldweatheronline.com (April 2022)

## 5.5. Historical Exploration

In the 1950's and 1960's, the Ghana Geological Survey Department (GSD) conducted a search for industrial minerals in the area and reported the presence of kaolinite associated with weathered pegmatite with potential for use in local ceramic factories. During this work, pegmatites containing appreciable quantities of spodumene, beryl, kaolin (kaolinised pegmatites), feldspar (of large crystal size) and columbite were found but only the spodumene- and kaolin-bearing pegmatites were considered extensive enough to have a possible economic value.

Spodumene pegmatites were reported in detail in the hills around Ewoyaa in the GSD Bulletin No 29 (GSD, 1963). However, the most detailed work was carried out between 1963-1965 and reported in Geological Survey Archive Report No 31 (GSD, 2003).

About one hundred pegmatites were located during the two-year investigation period. Thirty of these were found to be partly or completely kaolinised and 10 were found to contain appreciable quantities of spodumene, while several beryl-bearing pegmatites were also identified.

Artisanal mining is reported to have taken place within the Apam and Mankwadzi licences focused on gold and cassiterite (Layton, 1957).

Ashanti Goldfields Corporation undertook exploration activities within the Apam area between 1959 and 1962 and in the Apam and Winneba-Mankwadze areas in the 1980s. Exploration included

geochemical sampling (stream, soil and rock), pitting, trenching and diamond drilling. Initial work included Banka drilling and pitting of alluvial and beach sand deposits principally for gold. Later stream sediment sampling and loaming was undertaken for cassiterite, scheelite and gold. The prospecting team identified several pegmatites of the Winneba pegmatite field and tested them for tantalum, niobium, spodumene and beryl. SRK ES, however, has not seen the results of these investigations.

Diamond drilling (23 holes) and trenching programmes were undertaken by the Geological Survey to investigate the spodumene-rich pegmatites around the Mankwadze area, specifically the Egyasimanku pegmatite.

Leo Shield Exploration Ltd. ("Leo") carried out exploration for tin and tantalum over the Apam East tenement between 2003 and 2007. Activities undertaken included stream sediment, soil and rock chip sampling, and pitting to test the alluvial and eluvial Sn and Ta potential of the area. Ashanti Goldfields Corporation and Leo identified a number of Sn-Ta pegmatites to the southeast of Egyasimanku Hill named the Mankwadzi Prospect (part of this prospect now sits within the easternmost part of the Apam East Tenement). Thirty-four trenches were excavated, results were reported for 16 of these (without locating coordinates) with reported pegmatite intercepts ranging from 0.7 to 35.4 m, and unverified reported grades ranging from 119 to 545 ppm Ta2O5, 24 to 154 ppm Nb2O5 and 32 to 2,260 ppm SnO2 (two of the reported intercepts are over 440 ppm SnO2), (IronRidge, 2020b). No lithium results were reported.

# 6. THE EWOYAA LITHIUM PROJECT

## 6.1. Introduction

The Ewoyaa Lithium Project is located within the western group of tenements within Atlantic's Cape Coast Lithium Portfolio. The Ewoyaa deposit itself is at an advanced stage of exploration. The most recent Scoping Study was produced in January 2022, the most up to date MRE was produced in March 2022 and a PFS is ongoing. Earlier stage exploration also continues in the remainder of the tenement area.

The Ewoyaa deposit comprises a cluster of pegmatites within the Mankessim and Mankessim South tenements (Figure 6-1) which have been explored by Atlantic from 2016 to date. Nine pegmatites have been discovered to date, Abonko, Anokyi, Anokyi South, Ewoyaa, Ewoyaa Northeast, Grasscutter, Kaampakrom, Okwesi and Sill (Figure 6-5).

## 6.2. Atlantic Lithium Exploration

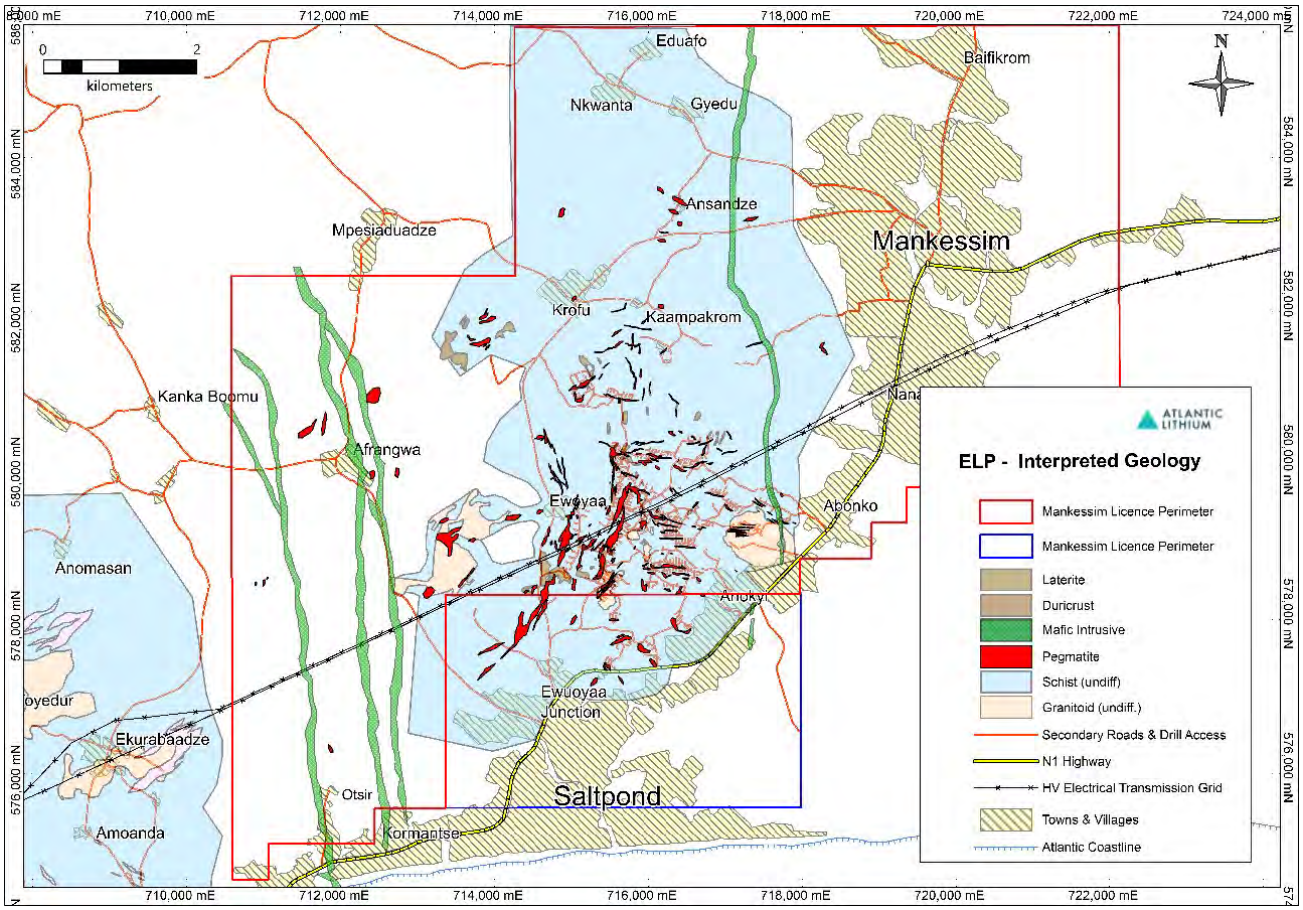
### 6.2.1. Background

This section is primarily summarised from annual report extracts relating to Mankessim, Mankessim South and Saltpond tenements areas authored by Atlantic in 2021 (Atlantic, 2021a, b, c).

Atlantic has completed a significant amount of regional exploration across the Saltpond, Mankessim and Mankessim South tenements with the majority of the work done on the Ewoyaa Project itself. Initial aerial magnetic and radiometric surveys and grid soil geochemical sampling is also underway across the recently granted Cape Coast tenement with results pending.

Exploration has primarily been aimed at identifying spodumene bearing pegmatite occurrences and determining their extent, dimensions and economic potential. Outcrop is rare because of the deep soils and lateritic weathering profiles and Atlantic has developed a general exploration workflow commencing with regional gridded geochemical soil sampling combined with aerial geophysics (magnetics and radiometrics) to define target areas. These target areas are followed up by detailed geological mapping initially through pitting and trenching programmes but latterly by man-portable auger drilling. Selected targets are then initially tested through reverse circulation ("RC") drilling.

**Figure 6-1: Interpretated geological map of the Mankessim and Mankessim South tenements showing the mapped pegmatites (red) within the Ewoyaa Project area**




Sources: Atlantic, 2022

**Table 6-1: Summary of Atlantic's exploration activities at the Ewoyaa Project**

| Licence | Activities |
|---|---|
| **Mankessim and MankessimSouth** | **Orientation soil sampling**<br>▪ 139 sample soil orientation programme (over Ewoyaa). All samplesassayed at external laboratory.<br>**Grid soil sampling**<br>▪ 6,958 soil samples collected on 100 m x 100 m lease-scale grid, samplesprepared and analysed in-house by portable x-ray fluorescence analyser ("pXRF") and portable laser-induced breakdown spectroscopy analyser ("pLIBS").<br>**Airborne magnetic, radiometric and topographical surveys 2017**<br>▪ Tenement scale 50 m spaced helicopter airborne survey<br>**Trenching**<br>▪ 62 trenches totalling 2,623.9 m. Logging, sampling and assay results - 26 composites assayed by Intertek Group laboratory and 2,478 in-houseassays.<br>▪ 39 historical trenches located totalling 862 m.<br>**Orientation stream sediment sampling**<br>▪ 127 station stream sampling programme. All samples commerciallyassayed.<br>**Pitting**<br>▪ 2,672 pits excavated, logged and sampled. In-house assay with pXRFand pLIBS,<br>▪ 57 historical pits GPS located. Partial logging, no sampling.<br>**Auger drilling 2020**<br>▪ 11,555 holes averaging 5.5 m deep drilled. Holes logged and end of holeassayed in-house.<br>**Ground penetrating radar (GPR) 2019**<br>▪ 17 km of GPR lines over Ewoyaa and Abonko pegmatite prospect areas,with inconclusive results.<br>**RC & Diamond Core Drilling ("DD")**<br>▪ Phase 1 – 2018 RC: 58 inclined holes, total 8,210 m<br>▪ Phase 2 – 2018 RC: 44 inclined holes, total 4,684 m; and 2019 DD: 9holes totalling 1,117 m to twin RC holes<br>▪ Phase 3 – 2019 RC: 96 holes totalling 12,680 m and DD: 2 holes for350 m<br>▪ Phase 4 – 2021 RC: 202 holes totalling 25,089 m<br>▪ Phase 5 – 2021 RC: 205 totalling 25,918 m and DD: 54 holes totalling 10,753 m with an additional 11 vertical RC water bores totalling 1,100 m<br>▪ Phase 6 – 2022 currently ongoing, 290 holes planned, totalling 37,000 mfor exploration, resource expansion and upgrade, and geotechnical studies. |

| Licence | Activities |
|---|---|
| | **Mineralogical studies**<br>▪ 17 samples mineralogically analysed, Petrography, X-ray diffraction ("XRD") (mineral and rock), Scanning Electron Microscopy ("SEM"),Dynamic Secondary Ion Mass Spectrometry ("DSIMS"), assaying.<br>**Metallurgical test-work**<br>▪ 81 diamond drill core composites sent to metallurgical testwork company,NAGROM Laboratories, Perth Australia.<br>▪ HLS, DMS, BCWi, density, flotation, size by assay, and XRD onconcentrates and tailings. |
| **Saltpond** | **Soil Geochemical Sampling**<br>▪ Entire licence sampled at a 100 m x 100 m spacing.<br>▪ 5,222 soil samples collected.<br>▪ Taken from B horizon at a depth of 0.3 to 0.5 m and a nominal 3 kg sample.<br>**Airborne Geophysics 2018**<br>▪ Entire Saltpond Licence was overflown by heliborne radiometric andmagnetics surveys.<br>**Mapping and Trenching 2019**<br>▪ Geological traverses to ground truth soil and geophysical anomalies.<br>▪ 11 trenches totalling 8,737.5 m.<br>▪ 805 trench channel samples were analysed inhouse, and 78 compositesamples were submitted to Intertek for assay.<br>**Auger Drilling 2020**<br>▪ At the Dwendwenbaze prospect, 224 auger holes were completed to anaverage depth of 5.6 m.<br>**RC Drilling 2021**<br>▪ RC inclined drilling was completed at Amoanda and Ndasiman prospects,four holes in each prospect (2 hole drill fences) totalling 1,304 m.<br>**Diamond Drilling**<br>▪ DD at Amoanda and Ndasiman prospects totalling 342.50 m. A single HQcore twin of an RC hole at each prospect. |

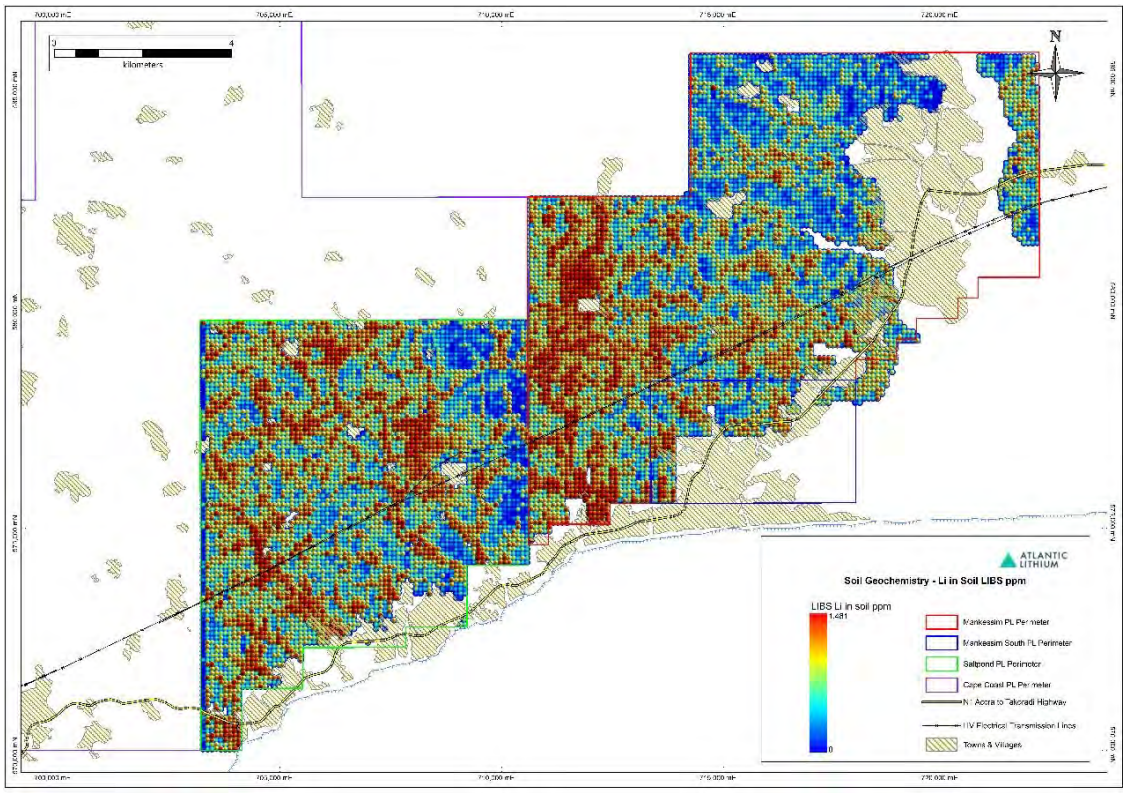
Sources: Atlantic 2021a, b, c.

### 6.2.2. Soil Sampling

Soil samples are collected on a 100 m x 100 m grid targeting the B horizon in soils (generally 0.3 m to 0.5 m depth), with a nominal 3 kg sample size. Samples are pulverised, sieved to <0.4 mm, homogenised and a pressed pellet analysed for Li with a bench mounted Hand-Held Laser Induced Breakdown Spectroscopy ("HHLIBS") unit, and Portable X-Ray Fluorescence ("pXRF").

Atlantic interprets the Birimian metasediments have a circa 200 ppm Li background, with anomalous areas above 600 ppm worthy of detailed ground investigation. Atlantic notes anomalous Li along drainages interpreted to be alluvial concentrations, with data from these areas requiring levelling/normalisation. Highly anomalous results are associated with certain lithium enriched leucocratic granitoid bodies and not generally indicative of pegmatite mineralisation. Other elements as LCT pegmatite indicators are being investigated in the pXRF data.

**Figure 6-2: Distribution of Li in soils over the wider Ewoyaa Project tenement group**




Sources: Atlantic 2022

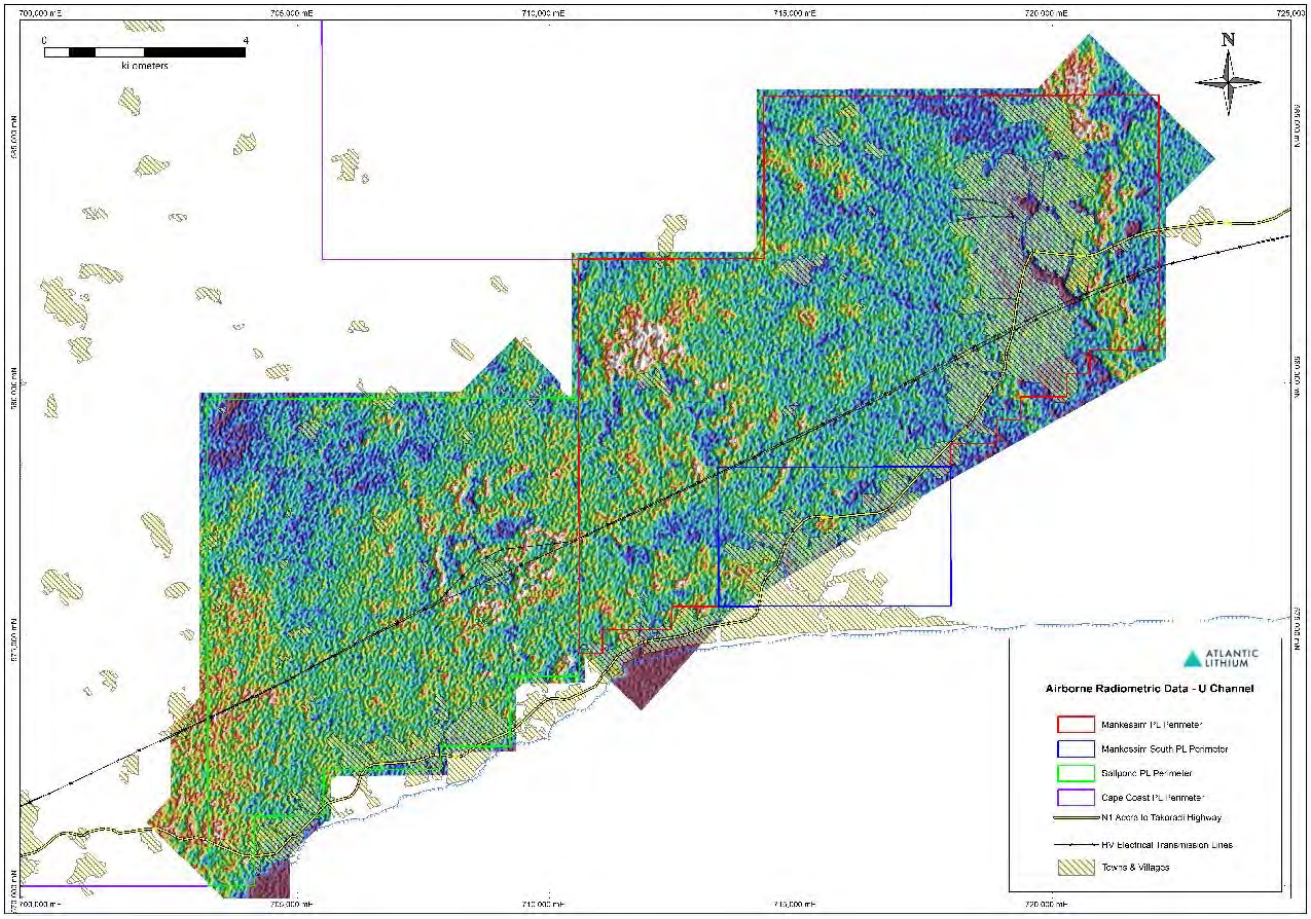
### 6.2.3. Airborne Geophysics

Airborne magnetic and radiometric surveys have been flown across Mankessim, Mankessim South and Saltpond tenements by New Resolution Geophysics ('NRG'), South Africa.

The surveys have been flown on a 50 m line spacing with 500 m tie-lines with a nominal survey height of 20 to 30 m (dependant on vegetation and infrastructure) to maximise radiometric response. Data has been collected with a Scintrex CS3 magnetometer with base station readings from an NRG VER2, and a Radiation Solutions RS-500 gamma-ray spectrometer from an Airbus/Eurocopter AS 350B helicopter platform. A radiometric uranium count plot is presented in Figure 6-3.

Results of the individual U, Th and K radiometric channels and their combination have assisted with distinguishing certain lithologies and define anomalous areas worthy of ground follow-up evaluation.

**Figure 6-3: Airborne uranium radiometric data over the over the wider Ewoyaa Project tenement group**




Sources: Atlantic 2022
Notes: The U data highlights granitoid intrusive bosses in the west of the Mankessim Tenement, particularly the Afrangarboss, and detrital Uranium alluvium in the northeast.

### 6.2.4. Ground Penetrating Radar

Ground Penetrating Radar ("GPR") was trialled at the Ewoyaa and Abonko prospect areas but in many cases could not penetrate the clay rich regolith, and where penetration was good it was found that known pegmatite intrusives could not be distinguished from the host lithologies. Consequently, GPR is not planned for future exploration.

### 6.2.5. Topographic Surveys

Unmanned aerial vehicle ("UAV" or drone) photogrammetric and aircraft-mounted LiDAR surveys were conducted over the Ewoyaa Project in 2020 and 2021. The UAV survey covered 19.4 km² resulting in topography and photo mosaic with sub 10 cm accuracy. This was superseded in November 2021 when a 32 km² LiDAR detailed topographic survey was flown. A Riegl Q780 LiDAR scanner and Hasselblad H5Dc with 50mm Fixfocus lens camera was mounted in a Cessna 206 aircraft collecting data at a nominal height of 850 m resulting in a minimum 10 cm pixel size with a vertical accuracy of <5 cm and horizontal accuracy of <10 cm.

### 6.2.6. Mapping, Pitting, Trenching and Auger Drilling

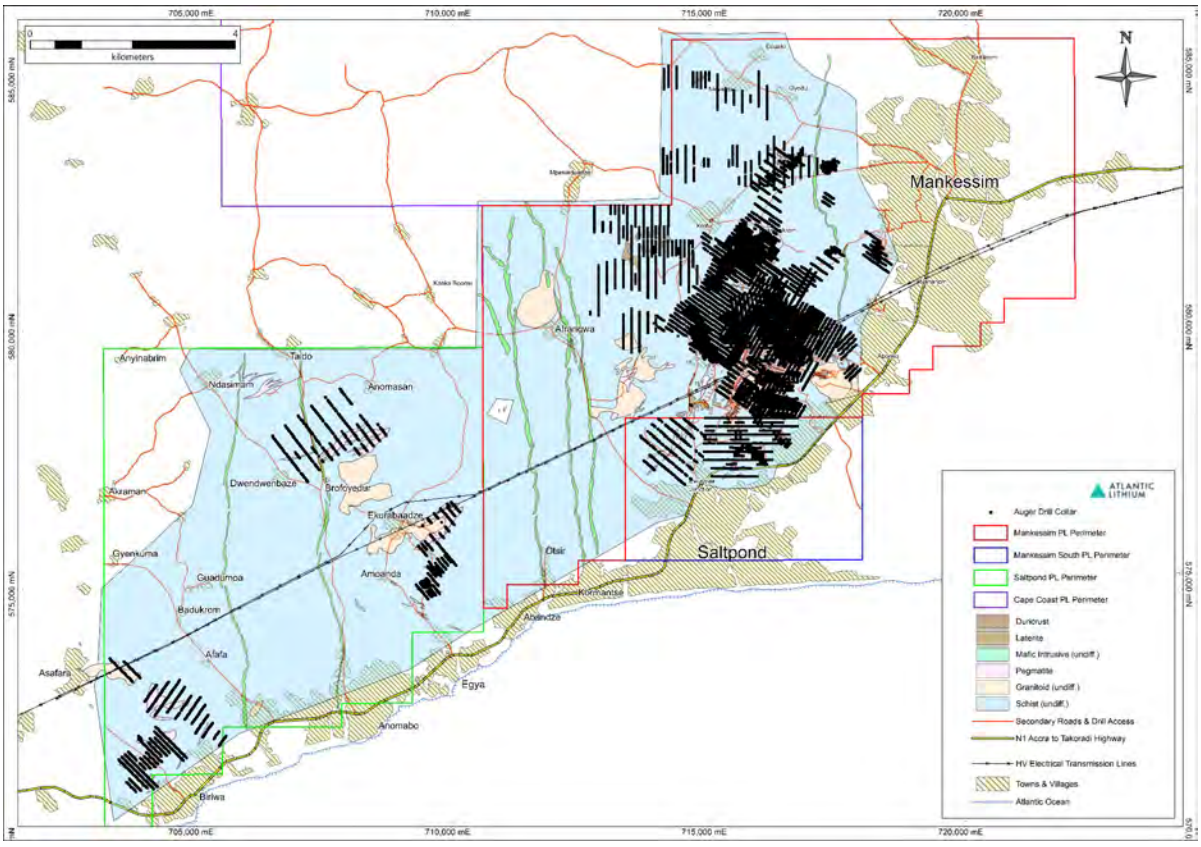
Coincident soil and airborne radiometric anomalies have been and continue to be followed up with geological mapping and ground truthing. Pitting and trenching (to a maximum 2.5 - 3 m depth) was undertaken due to the paucity of outcrop, deep weathering and the widespread alluvial and laterite cover. Hand auger drilling was used at the base of pits if bedrock was not intersected.

Latterly man-portable auger drilling has taken over from pitting, allowing systematic mapping as this is quicker and less environmentally intrusive method of mapping below the surface cover. Collars are located with handheld GPS units and samples from base of pit or auger hole are collected for internal processing and assaying by HHLIBS and pXRF. Auger collar locations within the Mankessim, Mankessim South and Saltpond tenements are shown in Figure 6-4.

The initial auger spacing within target corridors is 10-20 m along lines, with a 160 m line spacing. Valid pegmatite targets are followed up with lines at an 80 m and then 40 m spacing.

The auger programme has been used to step out from the known mineralised pegmatite occurrences at the Ewoyaa Main and Abonko pegmatites and has identified several significant "blind" mineralised pegmatite bodies initially at Anokyi and Okwesi prospects, and during 2021 at Grasscutter, Grasscutter West and at Kaampakrom West (Figure 6-5).

**Figure 6-4: Distribution of auger drill collars across the wider Ewoyaa Project tenement group.**




Sources: Atlantic, 2022

### 6.2.7. Reverse Circulation and Diamond Core Drilling

Drilling has to date been carried out by Geodrill Ghana Ltd. All hole collar locations have been surveyed and down-hole survey equipment has been used from the commencement of drilling.

Atlantic's core sampling procedures state that ½ or ¼ core is cut where possible and that minimum and maximum sample lengths are 0.3 m and 1 m respectively but cut to geological boundaries. RC drill chips are collected, and riffle spilt (Phases 1 and 2) or cone spit on rig cyclone (Phases 3-5) at metre intervals. Quality control ("QC") samples consisting of standards or certified reference materials ("CRM"), coarse blank and field duplicates are inserted nominally every 35th to 50th sample.

Samples from the 1st Phase of drilling were sent to the SGS Group facility in Tarkwa for sample preparation before being dispatched to the SGS Group accredited analytical laboratory ("SGS") in Johannesburg and later SGS Vancouver for analysis utilising Na peroxide fusion with ICP-OES/MS finish (ICM90A).

From Phase 2 onwards RC and diamond core samples have been dispatched to Intertek Group in Tarkwa for sample preparation with representative pulps then being couriered to the Intertek Perth, Australia laboratory for analysis using Na peroxide fusion with ICP/MS finish (FP6-LiOM21).

Check analyses for all RC and diamond drilling phases was carried out by ALS Group in Kumasi for preparation before being dispatched to ALS Brisbane, Australia for analysis using Na peroxide fusion with ICP-OES/MS finish (ME-ICP89 & ME-MS89).

In 2019 a twin hole drilling programme was undertaken to:

- Twin RC holes with diamond drill holes and study orebody/sample heterogeneity;
- Twin selected RC holes where logging and assay results highlighted suitable zones for collecting representative metallurgical samples to conduct preliminary mineral processing studies;
- Provide geotechnical data and collection of suitable samples for bulk density and preliminary geotechnical test work such as triaxial/uniaxial strength tests; and
- Allow detailed geological logging to improve orebody characterisation focusing on grainsize, mineral zoning, texture, contact relationships and mineralogy.

Density measurements have been carried out on whole or half core using a mass in air and immersed in water method with porous samples covered in wax. One of two QC density 'standard' samples are measured every 20th sample. The Company's procedures state there is no minimum sample size and sampling should be attempted each metre. The procedures may introduce bias due to specifically excluding friable core from weathered portions of holes, and preferential selection of "core samples that have integrity and will not disintegrate, crack or crumble during handling" (IronRidge, 2019).

Drilling results from Phases 1-3 were used to produce a maiden MRE in 2019. Since then drilling has tested new targets and provided infill to improve confidence in the continuity of the mineralisation.

Phase 1 targeted the mapped Ewoyaa Main pegmatite at a nominal 100 x 50 m spacing and extended the NNE-SSW trending pegmatite to the north under cover. The main pegmatite varies from sub-vertical to steeply dipping to the ESE, was traced 1.2 km along strike and had true widths ranging from sub metre to circa 100 m and averaging 30 m. Drilling also identified the circa 400 m strike length Ewoyaa NE offshoot.

Phase 2 initially targeted mapped pegmatites at the Abonko Prospect and then moved to step-out and infill drilling of the Ewoyaa Prospect at an 80 x 40 m spacing where possible.

Phase 3 built on and continued drilling earlier prospects but also expanded to include the

Kaampakrom Prospect (approximately 1 km to the north of Ewoyaa Main) and Ewoyaa West (Figure 6-5).

The Phase 4 2021 drilling tested targets identified by the 2020 auger programmes with the aim of increasing the Mineral Resource tonnage. This phase of drilling successfully defined spodumene mineralisation at the Anokyi, Okwesi and Grasscutter prospect clusters (Figure 6-5), and step-out drilling expanded mineralisation to the north of Ewoyaa NW (named Ewoyaa North). The Anokyi Main, Okwesi North and South, and Grasscutter prospects, all display an east-west Abonko trend and are subvertical or dip steeply to the north.

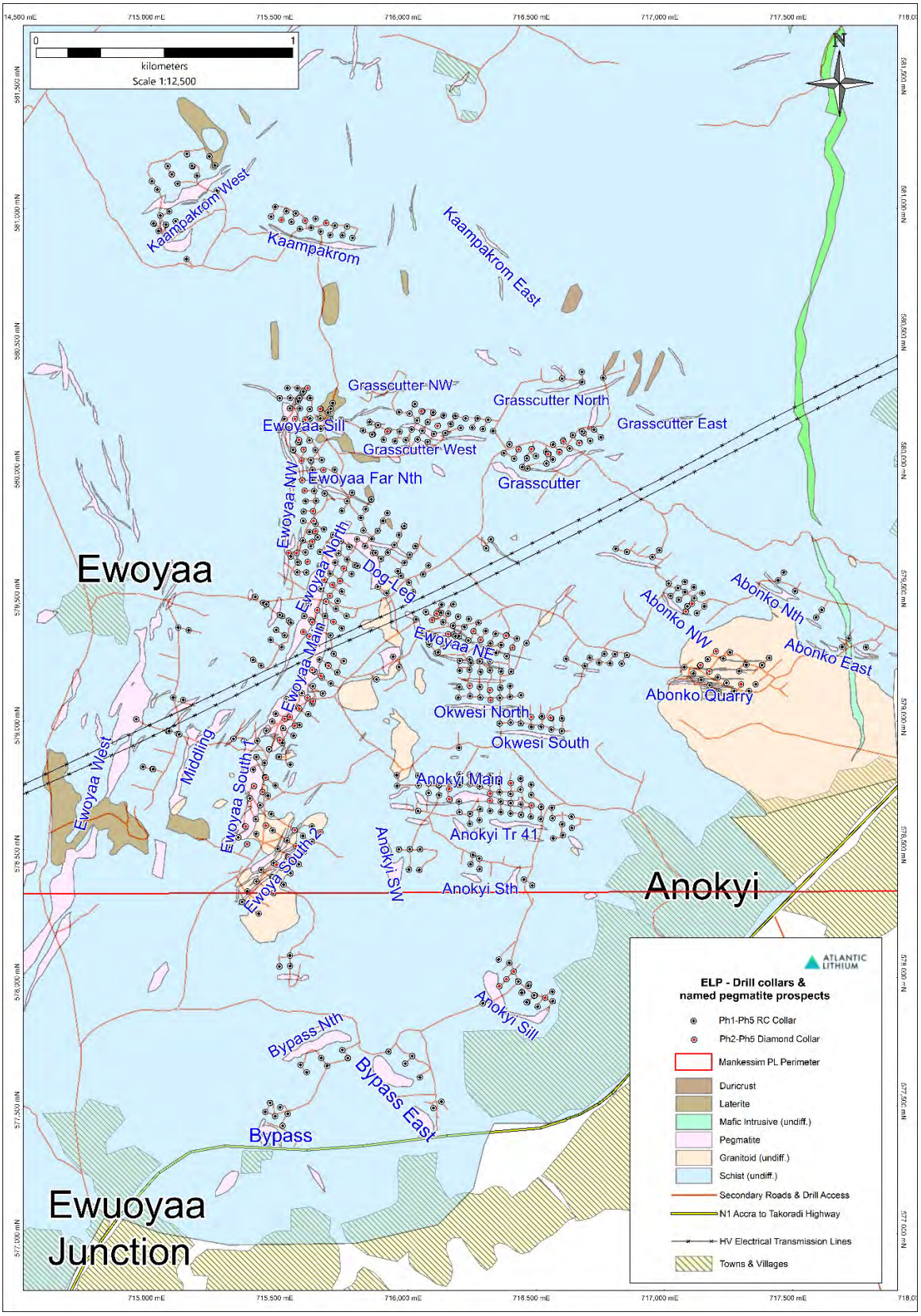
The broad aims of the Phase 5 drilling were to infill intercepts to a 40 x 40 m spacing to maximise conversion of Inferred Mineral Resources to the Indicated category. Diamond drilling (predominantly of HQ with minor PQ core diameter), while contributing to the resource upgrade, was also designed to:

- provide additional metallurgical samples representative of all pegmatite material types and from all the different pegmatite bodies; and
- define the P1 (coarse spodumene)/P2 (fine spodumene) litho-metallurgical distribution within the ore bodies, particularly in the Ewoyaa Main pegmatite itself.

The Phase 5 drilling has informed the updated MRE produced in March 2022, commented upon below, which encompasses the Ewoyaa Main, Ewoyaa NE, Anokyi and Okwesi prospects, and defined new mineralised pegmatite at the Grasscutter West, Ewoyaa Sill and Kaampakrom West prospects.

Phase 6 drilling is currently underway and 37,000 m has been planned The split is proposed to be approximately 13,000 m in 124 holes of exploration drilling; 18,000m in 100 holes for resource expansion and infill (targeting upgrading Inferred Mineral Resources to the Indicated category); 5,000 m in 60 holes targeting upgrading Indicated Mineral Resources to the Measured category; and 1,000 m in 6 holes for geotechnical studies.

**Figure 6-5: Drill collar locations and pegmatite map across the Ewoyaa Project**




Sources: Atlantic, 2022

## 6.3. Deposit Geology

### 6.3.1. Introduction

The licence area is largely underlain by rocks of the Birimian Supergroup, dominated by volcano-sedimentary lithologies of the Cape Coast Basin, situated on the southeast margin of the Cape Coast Granitoid (Figure 4-2). Three forms of schist are developed in the area; mica schist, staurolite schist and garnet schist, all of which are a blue-grey colour when fresh, weather to a brown colour and are quartz-biotite rich and well foliated.

Several, presumably Eburnean aged, granitoids intrude the basin metasediments as small bosses and plugs. These granitoids range in composition from intermediate granodiorite (typically medium grained) to felsic leucogranites (coarse to pegmatoidal grainsize), both sometimes in close association with pegmatite veins and bodies.

North-south trending, 5-30 m wide dolerite dykes cut through the Birimian schist and the later granitic and pegmatite intrusions and are presumably of Miocene age. The dykes show up in the airborne magnetic data, and also outcrop in places as rounded float and boulders. In the west of the Mankessim tenement subparallel dolerite dykes extend from the coast northwards through and past the large Afrangwa granitic boss. This "N-S trending structural corridor" of parallel dolerite dykes appears to host roughly N-S trending elongate granitic intrusive bodies and pegmatites as well as the dolerite dykes.

### 6.3.2. Structure

The pegmatite intrusions commonly trend either north-northeast (Ewoyaa Main, Ewoyaa West, Ewoyaa South) or northwest (Ewoyaa North-East, Ewoyaa North) and dip sub-vertically to moderately southeast to northeast. The overall strike continuity of the combined pegmatite bodies is in excess of 2 km.

At the Abonko, Ewoyaa Northeast and Kaampakrom prospects, the pegmatite intrusions predominantly trend northwest, and are sub-vertical or dip moderately to the northeast, although the Abonko North intrusion dips 40-45° to the northeast.

The larger pegmatites appear to follow the apparent boundary of the mapped granite outcrops in a curved, or stepped manner – raising the question as to whether the pegmatites are intruding in places of competency contrasts or pressure shadows between the granite stock and the surrounding schist, or whether this is a function of proximity due to a genetic relationship.

The surface widths of the pegmatite veins, including lenses of schist and granite interburden, range from 1 to 150 m based on the results of the trenching. This variability is also observed in drilling, with true widths ranging from less than 1 m to approximately 100 m. In the more continuous sections of the Ewoyaa Main Zone (north of 579,000 mN), the pegmatite thickness is typically 30 to 60 m.

Folding is observed in outcrop of the encompassing schist. Folding has not been clearly identified in the pegmatite, however float samples of pegmatite veins in the form of fold hinges have been observed, although this maybe a result of the intrusions mimicking their emplacement void rather than any subsequent deformation.

### 6.3.3. Weathering

Surface tropical weathering is an important process in removing lithium from spodumene mineralisation in the pegmatite at or near surface. The vertical extent of oxidation due to surface weathering ranges from near surface where some almost fresh outcrops are exposed to complete

oxidation approaching depths of 30 m. Generally, however, the depth of complete oxidation ranges from 5 to 15 m and the depth to fresh rock ranges from 30 to 50 m.

### 6.3.4. Mineralisation

As already commented, the mineralisation at Ewoyaa has been confirmed to be associated with LCT pegmatites, with spodumene as the main lithium bearing mineral.

The pegmatites are predominantly quartz-albite-muscovite +/- microcline and spodumene in composition with accessory blue-green apatite, and less common colourless to light blue beryl, barite and secondary Fe-Mn-Li bearing phosphates.

The muscovite is typically silvery with slight yellowish/greenish shades with mica books up to 10 by 10 cm. Spodumene can be white or off-white to pale green or khaki with individual crystals up to 1 m in length and 20 cm diameter observed at Abonko.

Preliminary mineralogical characterisation studies completed on selected surface samples from across the deposit including petrography, X-Ray Diffraction ("XRD"), Scanning Electron Microscopy ("SEM") and Dynamic Secondary Ion Mass Spectrometry ("DSIMS") confirmed spodumene as the dominant lithium phase with minor accessory beryl, tantalite-columbite and apatite detected.

This was further verified by semi-quantitative XRD analysis that was undertaken on 25 metallurgical samples submitted to Microanalysis Australia, (a commercial materials characterisation consulting laboratory); at the direction of NAGROM metallurgy laboratory. This analysis reported approximate mineral assemblages of the sink concentrate comprising; dominant spodumene, quartz, muscovite, apatite, albite, lepidolite, amblygonite, microcline, clinochlore, triphylite, eucryptite, vivianite, lithiophorite, phlogopite, beryl, biotite, fluorapatite, pyrite, and amphibole.

These results confirmed simple mineralogy across both the sink and flotation; feldspar and muscovite for waste and ore material, with no deleterious elements reported.

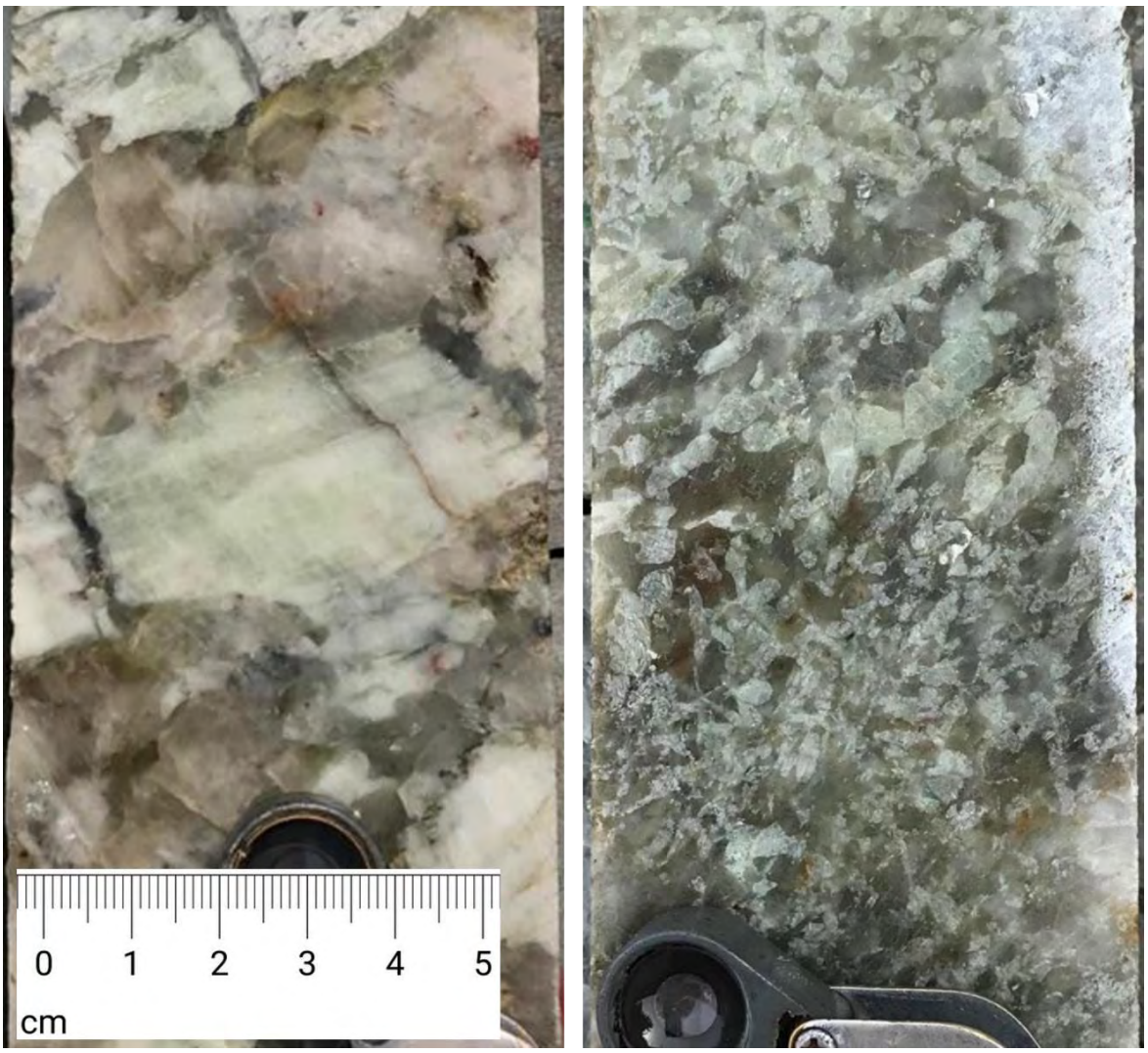
The grain size of the pegmatites range from aplitic, where spodumene crystals are typically 1 to 2 mm in size, to pegmatitic, where localised unidirectional solidification texture ("UST") zones contain megacrysts of spodumene greater than 80 cm in length. Good examples of this coarser-grained UST pegmatite are exposed in the wall of a quarry at Abonko, immediately east of Ewoyaa, or outcropping around hole GRC0004 within Ewoyaa Main. Grainsize change can be abrupt, commonly coarsening from margin inwards in larger zoned pegmatites with well-developed cores. Grain size zonation on a decimetre scale (outcrop and core), and on tens of metres scale are observed. Megacrysts of feldspar, with or without quartz intergrowth, and spodumene occur as individual crystals up to several decimetre in size.

Atlantic has defined two main textural varieties of spodumene mineralisation at Ewoyaa, P1-type comprising coarse grained spodumene; and P2-type medium to fine-grained spodumene (Figure 6-6).

P1 mineralisation contains long laths of euhedral to subhedral spodumene up to 20 to 40 cm in length and the spodumene crystals typically comprise between 20 and 40% of the core (Figure 6-6). Atlantic reports that this is the dominant spodumene bearing pegmatite encountered to date.

P2 mineralisation contains spodumene crystals of a medium to fine crystal size (up to 0.5-1 cm laths) and the spodumene is euhedral to subhedral and can comprise up to 50% of the core (Figure 6-6). The spodumene can be bi-modal with some larger phenocrysts entrained within the medium grained spodumene bearing matrix. Other lithium bearing phases may be present in insignificant very low abundance.

**Figure 6-6 Typical P1 coarse crystalline spodumene, and P2 crowded medium grained spodumene forming ~50% of the core**

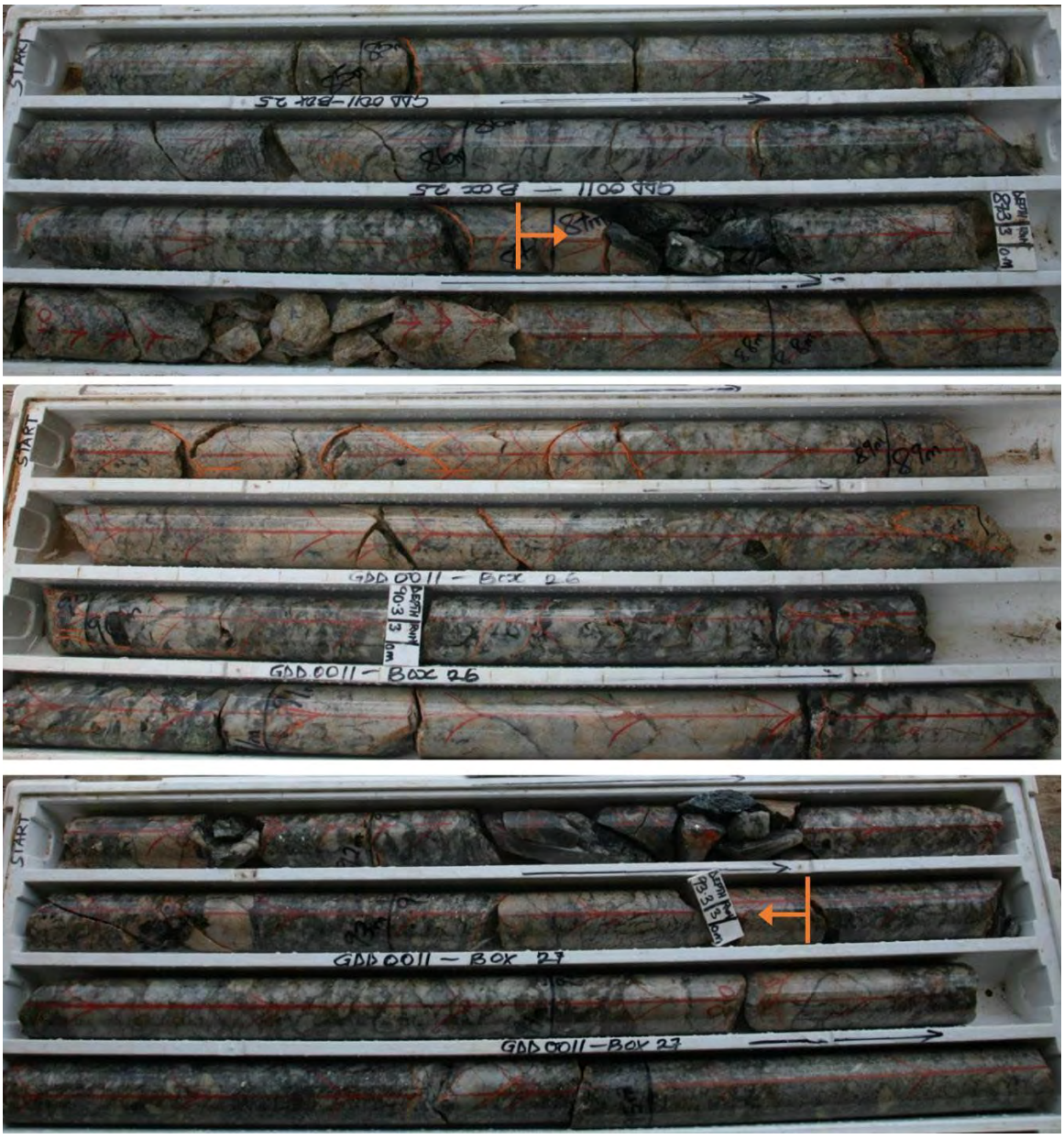



Source: modified from Atlantic, 2021
Notes: P1 left, P2 on right, pale green spodumene, cut HQ diamond core

### 6.3.5. Alteration

Structurally controlled, grade destructive alteration of the pegmatite has been observed in drilling. Narrow structures filled/lined with dark green chlorite are associated with a destructive fine-grained secondary muscovite alteration assemblage that rapidly grades into potassic feldspar +/- chlorite alteration and then to a distal pink coloured potassic feldspar alteration (Figure 6-7). Spodumene can be totally or partially altered to chlorite close to the source structure, with chlorite alteration also observed along spodumene crystal rims and cleavage/fracture planes. The chlorite alteration appears to be a separate minor alteration event that overprints the earlier muscovite-potassic feldspar alteration but is always spodumene destructive and associated with a loss in lithia.

**Figure 6-7: Chlorite-Muscovite-K Feldspar alteration zone in GDD0011 drill core between 86.90 m and 93.4 m**




Source: modified from Atlantic, 2021

Notes: Intense chlorite and secondary muscovite alteration proximal to source fractures (87.1m and 92.2m) and broad zones of pink coloured potassic feldspar replacement. The prominent massive pink potassic feldspar zones probably reflect replacement of albite megacrysts.

## 6.4. SRK ES Site Visit Observations

Mr John Paul Hunt conducted due diligence site visits on 11 February 2020 and 06-09 April 2022 to the Mankessim, Mankessim South and Saltpond tenements.

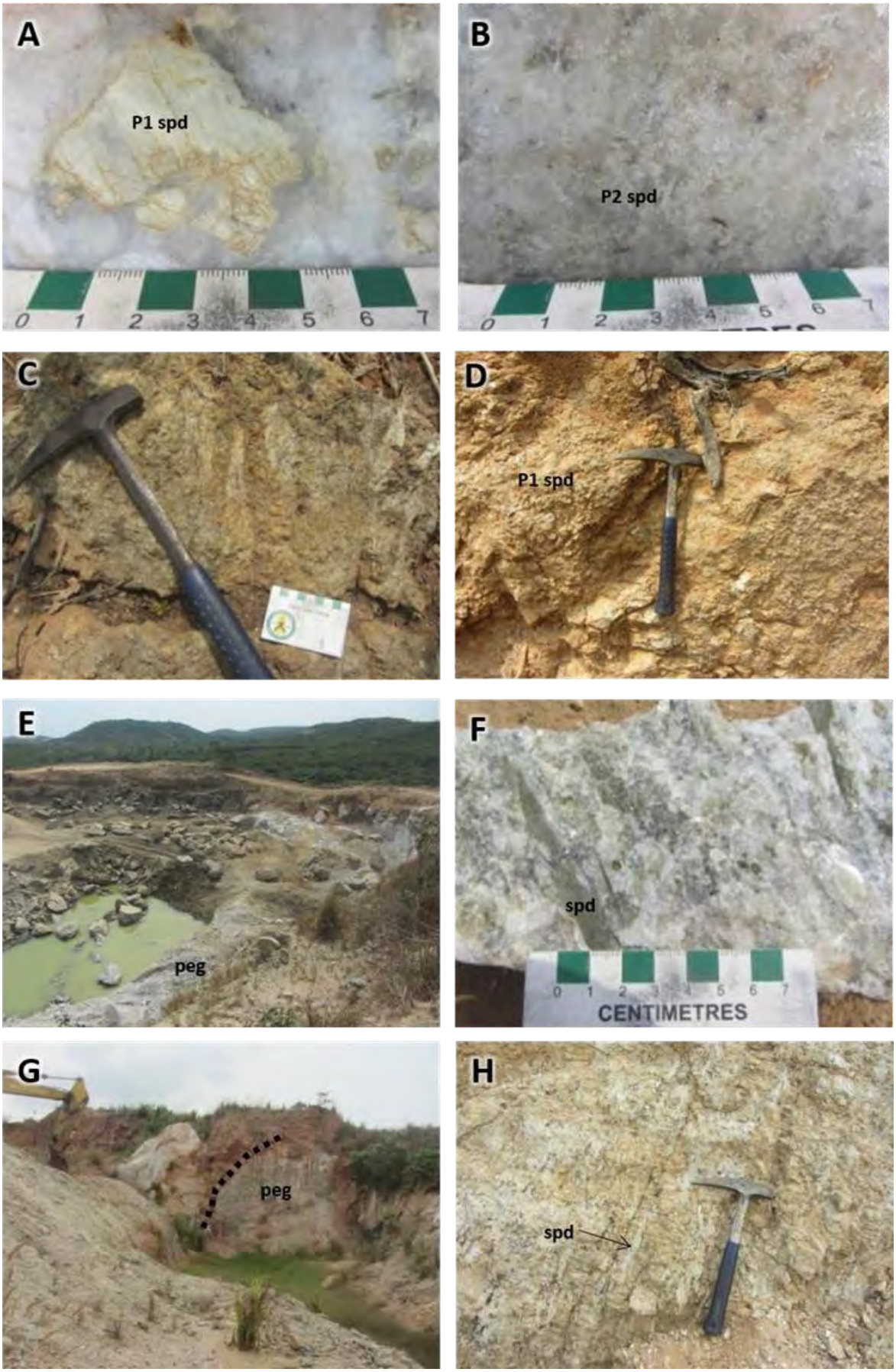
Outcrops were visited and drill collar locations validated at the Ewoyaa Main prospect, and the central and northern portions of the prospect were walked out. The pegmatite, which has been mapped and modelled as a number of en-echelon, pinching and swelling intrusions, was observed to be 100 m wide at surface but as commented below narrows at depth and is variable in thickness at depth and along strike.

The presence and collar positions of approximately 20% of the completed RC drill holes were verified in 2020 at Ewoyaa Main (20 sites of 101) to well within the accuracy of the handheld GPS in all cases.

Outcrops and drill hole positions were previously visited in 2020 on the narrow (2-10 m) but high-grade Kaampakrom pegmatite. The presence and collar positions of approximately 35% of the completed RC drill holes were verified at Kaampakrom (3 sites of 8) to well within accuracy of the handheld GPS in all cases.

The two textural varieties of spodumene mineralisation (P1 and P2) were confirmed in core and outcrop, (Figure 6-8 a and b). P1 pegmatitic spodumene occurs in outcrop as long laths up to 20-40cm long or more (Figure 6-8 c). The transition between P1 and P2 mineralisation can be abrupt (Figure 6-8 d), with variations in texture commonly coarsening from margin inwards in larger zoned pegmatite dykes and sills with well-developed cores, or in sheet-like intrusions with pegmatitic textures developed asymmetrical, for instance in the hanging wall.

**Figure 6-8: SRK geological photographs from the 2020 site visit**




Sources: SRK ES, 2020

Notes: **A**. P1 type spodumene in half-core which has been partially resorbed; **B**. P2 type fine-grained spodumene needles in half-core; **C**. spodumene crystals in outcrop at Ewoyaa Main >10cm in length; **D**. sharp contact between P1 and P2 spodumene at Ewoyaa Main; **E**. Abonko aggregate quarry in Mankessim tenement with spodumene-bearing pegmatite exposed; **F**. spodumene crystals from Abonko quarry >10cm in length; **G.** Substation quarry in Mankessim South tenement with steeply-dipping, spodumene-bearing pegmatite exposed; **H**. spodumene crystals in outcrop at Substation quarry >20cm in length, orthogonal to the pegmatite contact.

The Krofu prospect was not visited as there is reportedly very little outcrop and no exposed pegmatite bodies, but it is reported as distinct in the occurrence of large blocks of amblygonite, a Li-bearing fluorophosphate mineral.

The Abonko aggregate quarry located in the eastern part of the Mankessim tenement has exposed a NW-trending spodumene-bearing pegmatite in the north-eastern pit wall (Figure 6-8 e). The spodumene crystals have a pale green colour and exceed 10-20 cm in length and can be 2-3 cm in diameter (Figure 6-8 f).

The Substation quarry is located in the Mankessim South tenement. The exposed spodumene-bearing pegmatite is steeply-dipping and flattens to become a sill (Figure 6-8 g). The observed spodumene crystals form long parallel to sub-parallel masses exceeding 20 cm in length and are interpreted to be developed orthogonal to the pegmatite contacts (Figure 6-8 h).

A number of long, backfilled trenches were visited at the Ndasiman prospect within the Saltpond tenement. Outcrops of thin pegmatite were observed (Figure 6-9 a). Pegmatite and muscovite have been mapped at surface, although to date, spodumene has not been observed in spite of a Laser Induced Breakdown Spectroscopy ("LIBS") anomaly over the same area. A number of quarries have been excavated on the licence for kaolinite, such at the Amoanda quarry (Figure 6-9 b). The observed pegmatites comprise quartz, feldspar and muscovite with accessory minerals such as beryl, tourmaline, garnet and rhodochrosite, but spodumene has not been observed in these localities.

The Atlantic office in the town of Mankessim is the repository for all drill core, chip samples and soil samples (Figure 6-9 c-d). Sample material is prepared for analysis on site using a pXRF analyser for chemical assay and by LIBS for light element analysis (Figure 6-9 e-f). A number of CRMs (5 African Mineral Standards ("AMIS") standards and 5 pXRF Olympus Corporation supplied reference materials) are used in conjunction with these instruments to provide quality assurance and quality control ("QAQC") for on-site analysis. The reported batch pass/fail procedure requires analysis within 10% of the certified values.

**Figure 6-9: Photographs from SRK ES' site visit, 2020**


Sources: SRK ES, 2020

Notes: **A.** Backfilled prospecting trench at Ndasiman prospect, Saltpond licence; **B**. Amoanda kaolinite quarry, Saltpond licence. Atlantic Mankessim exploration office; **C**. core yard and core storage; **D**. RC sample chip tray store; **E**. portable XRF analyser station; **F.** LIBS analyser station.

## 6.5. Mineral Resources

### 6.5.1. Introduction

The most up to date MRE for the Ewoyaa Project was produced by Ashmore Ltd in March 2022 and reported in accordance with the JORC Code (2012). The statement and the accompanying notes are presented in Table 6-2 and Table 6-3 below.

**Table 6-2: Cape Coast March 2022 Mineral Resource Estimate (0.5% $Li_2O$ Cut-off, Above - 190 mRL), dated 23 March 2022**

| Indicated | | | |
|---|---|---|---|
| **Deposit** | **Tonnage Mt** | **$Li_2O$ %** | **Cont. Lithium kt** |
| Abonko | 1.1 | 1.30 | 14 |
| Anokyi | 2.2 | 1.46 | 33 |
| Bypass | 0.0 | 0.00 | 0 |
| Ewoyaa | 10.0 | 1.23 | 123 |
| Ewoyaa Northeast | 2.5 | 1.42 | 36 |
| Grasscutter | 3.3 | 1.19 | 39 |
| Kaampakrom | 0.4 | 1.43 | 5 |
| Okwesi | 0.6 | 1.48 | 9 |
| Sill | 0.4 | 1.34 | 5 |
| **Total** | **20.5** | **1.29** | **265** |
| **Inferred** | | | |
| **Deposit** | **Tonnage Mt** | **$Li_2O$ %** | **Cont. Lithium kt** |
| Abonko | 0.7 | 1.18 | 8 |
| Anokyi | 1.1 | 1.29 | 14 |
| Bypass | 0.2 | 1.15 | 3 |
| Ewoyaa | 4.2 | 1.09 | 46 |
| Ewoyaa Northeast | 0.9 | 1.19 | 10 |
| Grasscutter | 1.5 | 1.28 | 19 |
| Kaampakrom | 0.6 | 1.31 | 8 |
| Okwesi | 0.3 | 1.34 | 4 |
| Sill | 0.1 | 1.57 | 1 |
| **Total** | **9.6** | **1.19** | **114** |
| **Total Mineral Resource** | | | |
| **Deposit Mt** | **Tonnage** | **$Li_2O$ %** | **Cont. Lithium kt** |
| Abonko | 1.8 | 1.25 | 22 |
| Anokyi | 3.4 | 1.40 | 47 |
| Bypass | 0.2 | 1.15 | 3 |
| Ewoyaa | 14.2 | 1.19 | 169 |
| Ewoyaa Northeast | 3.4 | 1.36 | 46 |
| Grasscutter | 4.8 | 1.22 | 58 |
| Kaampakrom | 0.9 | 1.35 | 13 |
| Okwesi | 0.9 | 1.43 | 13 |
| Sill | 0.5 | 1.38 | 6 |
| **Total** | **30.1** | **1.26** | **379** |

*Note: 0.5% $Li_2O$ Cut-off, above 190 mRL*

*The Mineral Resource was compiled under the supervision of Mr. Shaun Searle who is a director of Ashmore Advisory Pty Ltd and a Registered Member of the Australian Institute of Geoscientists. Mr. Searle has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he has undertaken to qualify as a Competent Person as defined in the JORC Code.*

*All Mineral Resources figures reported in the table above represent estimates at 23 March 2022. Mineral Resource Estimates are not precise calculations, being dependent on the interpretation of limited information on the location, shape and continuity of the occurrence and on the available sampling results. The totals contained in the above table have been rounded to reflect the relative uncertainty of the estimate. Rounding may cause some computational*

*discrepancies.*

*Source: Searle 2022. 'Cape Coast Lithium Project Mineral Resource Estimate, 23 March 2022'*

**Table 6-3: Material Types, Recoveries and Concentrate Grades**

| Weathered | | | | | |
|---|---|---|---|---|---|
| **Geomet Type** | **Tonnage Mt** | **$Li_2O$ %** | **Cont. Lithium kt** | **Recovery %** | **Conc. Grade $Li_2O$ (%)** |
| P1 | 1.7 | 1.13 | 20 | 75 | 6.0 |
| P2 | 0.3 | 1.05 | 3 | 61 | 6.0 |
| **Total** | **2.0** | **1.12** | **22** | | |
| **Primary** | | | | | |
| **Geomet Type** | **Tonnage Mt** | **$Li_2O$ %** | **Cont. Lithium kt** | **Recovery %** | **Conc. Grade $Li_2O$ (%)** |
| P1 | 23.5 | 1.30 | 305 | 76 | 6.0 |
| P2 | 4.7 | 1.11 | 52 | 47 | 5.5 |
| **Total** | **28.1** | **1.27** | **356** | | |

*Table notes as above*
*Source: Searle 2022. 'Cape Coast Lithium Project Mineral Resource Estimate, 23 March 2022'*

In producing this report, SRK ES has reviewed the Ashmore estimate and this section of the IGR presents the results of the SRK ES review and its conclusions and recommendations.

### 6.5.2. Mineral Resource Definitions

The following definitions are taken from the JORC Code (2012) and are repeated here to provide context to the reader in relation to the terminology used in this Report. It should be noted that the definitions should not be misinterpreted as being valid in relation to historical definitions used or resources stated historically for the project.

A 'Mineral Resource' is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade (or quality), and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade (or quality), continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories.

1.1.1.1. An 'Inferred Mineral Resource' is that part of a Mineral Resource for which quantity and grade (or quality) are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade (or quality) continuity. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes.

1.1.1.2. An 'Indicated Mineral Resource' is that part of a Mineral Resource for which quantity, grade (or quality), densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit.

1.1.1.3. A 'Measured Mineral Resource' is that part of a Mineral Resource for which quantity, grade (or quality), densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit.

### 6.5.3. Data Quantity and Quality

#### Description

The MRE is based on analytical data from 534 drillholes (totalling 69,679 m) of which 440 were drilled by reverse circulation ("RC"), 62 drilled using diamond core drilling ("DD") and 32 using a combination of both methods ("RCD"), in which holes were drilled using RC to a target depth, then cored through the target.

Hole spacings typically range from 40 m to 100 m and collar positions have been surveyed to centimetre accuracy using differential GPS ("D-GPS") survey equipment. Once validated, the survey data is uploaded into the Data Shed electronic database. RC drill holes are down hole surveyed every 6 metres.

From December 2018, samples were sent to Intertek Laboratory in Perth for analysis using ICP-MS. Prior to December 2018, samples were submitted to SGS Johannesburg and later SGS Vancouver for analysis using ICP-OES and ICP-MS for some submissions for additional trace element characterisation purposes. All SGS pulps were subsequently sent to Intertek Laboratory Perth for re-analysis using ICP-OES and included in the Mineral Resource Estimate.

Quality control procedures included the inclusion of field duplicates, standard samples and blank samples into the sampling stream for laboratory analysis, as well as an umpire check assaying programme. Standards and blanks were placed every 35 and 50 samples respectively. Duplicate sampling was undertaken for the RC drilling every 50 samples.

#### SRK ES Comments

SRK ES has reviewed the data used to produce the MRE and is satisfied that the quantity and quality of the data is sufficient to support the Mineral Resource as reported by Ashmore.

SRK ES understands that significant assay accuracy issues were detected in Phase 1 drilling results from the SGS Laboratory analysis and supports the decision to change laboratory and re-assaying all affected samples.

As part of this review SRK ES has carried out its own comparison between the assay results obtained from the RC and diamond drillholes respectively by comparing individual sets of twin holes and reproducing the QQ plots produced by Ashmore. SRK ES notes that there is a grade bias (the RC holes reporting slightly lower values relative to the diamond drill holes) which it recommends is investigated further to determine if a factor should be applied to the RC grades to increase these in line with the diamond drill results but does not regard this to be significant in terms of the current MRE.

### 6.5.4. Mineral Resource Estimation

#### Geological Modelling

The Mineral Resource was modelled and estimated using Surpac 3D mining software. While the lithium mineralisation is clearly confined to the pegmatites, a statistical study undertaken by Ashmore shows that these contain two distinct grade populations which in turn led Ashmore to model high and low grade domains within the pegmatites based on a 0.4 % $Li_2O$ cut-off.

During the site visit the integrity of the domaining process used for the geological modelling was assessed. It is the experience of the Atlantic geologists that material below the 0.4% $Li_2O$ cut-off is reliably mappable and evidenced by alteration of the spodumene. It is the opinion of SRK ES that this causal link should be better represented in the logging to generate domains that are geologically based, without being solely reliant on grade cut-offs.

This domaining was not strictly grade based and some internal dilution of lower grade material was included in the high grade domains to maintain their continuity. In total Ashmore modelled a total of 48 pegmatite domains and 24 higher grade domains. Weathering surfaces were also created for the base of transported cover, the base of complete oxidation and the top of fresh rock.

### Interpolation Methodology

Ashmore composited assay sample intervals within the wireframes to 1 m. No top-cut grade was applied to the samples prior to estimation.

Using the composited data, Ashmore produced experimental semi-variograms for $Li_2O$ (%), Ta (ppm), Fe (%), Nb (ppm), Sn (ppm), Cs (ppm), K (%), Al (%), Si (%), P (%) and S (ppm) within the major domains (where it considered there was enough data to support such) to analyse mineralisation continuity within these.

A Surpac block model was created to encompass the extents of the known mineralisation. The block model was rotated around the z-axis by 30°, with block dimensions of 10m NS by 10m EW by 5m vertical with sub-cells of 2.5m by 2.5m by 1.25m. The block size was selected based on the results of Kriging Neighbourhood Analysis ("KNA") and also in consideration of two predominant mineralisation orientations of 30° and 100 to 120°. Ashmore adopted a block discretisation of 2 (X) by 4 (Y) by 2 (Z) for the estimate.

Ordinary Kriging ("OK") was used for the grade interpolation and the domain wireframes were used as hard boundaries. Any blocks outside the pegmatite wireframes were set to zero grade. One domain (Domain 105) was intersected by a single drill hole and so average lithium grades were applied to this domain.

Search neighbourhood parameters were based on the KNA. Three search passes were used for sample selection with the search ellipse orientated based on kriging parameters and in line with the strike and dip of the overall geometry of each interpreted mineralisation domain. Up to three interpolation passes were used for the interpolation. The parameters used are shown in Table 6-4.

**Table 6-4: OK estimation parameters for $Li_2O$ interpolation**

| Parameter | Pass 1 | Pass 2 | Pass 3 |
|---|---|---|---|
| Search Type | Ellipsoid | Ellipsoid | Ellipsoid |
| Major-Semi Major Ratio | | 1.4 to 1.5 | |
| Major-Minor Ratio | | 2.0 to 3.0 | |
| Search Radius | 50 | 100 | 200 |
| Minimum Samples | 8 | 4 | 2 |
| Maximum Samples | 16 | 16 | 16 |
| Max. Sam. per Hole | 4 | 4 | 4 |
| Block Discretisation | 2 X by 4 Y by 2 Z | | |
| Percentage Blocks Filled | 69% | 30% | 1% |

### Bulk Density

A total of 9,725 bulk density measurements were collected on selected intervals of diamond core using the water immersion/Archimedes method, collected from all materials. The average density for each weathering types and lithology was applied to the corresponding coded domains in the block model.

### Material Type

In addition to modelling grade and density Ashmore also modelled the mineralisation type (specifically P1 and P2). This was required because these two mineralisation types respond differently to the processing route (as commented upon in Section 6.5 below). It was however not possible to create P1 and P2 domains, as these do not form continuous zones, and instead the proportion of each was modelled using a simple indicator kriging approach based on the logged mineralisation type allocated to each sample such that for each block the proportion of each mineralisation type was determined.

During the site visit , 7 diamond drill core – RC drill pairs were selected to assess the appropriateness of the use of RC drilling in the Resource Model in particular to reliably log boundaries between P1 and P2 mineralisation types. In each case, there was good repeatability between the pairs and the Atlantic geologists were able to consistently make the distinction between P1 and P2 pegmatite. Given the regular sampling interval of 1m of the RC chips, the determination of the P1/P2 boundary for zones less than 2m in width is not practical given the 2 m minimum mining block dimensions.

### Resource Estimate Validation

The block model estimates were validated using three methods:

- Visual comparison of drilling data against the block model;
- Comparison of average declustered sample grades against the block model by domain; and
- Swath plot comparison along strike and by elevation.

### SRK ES Comments

SRK ES has reviewed the geological domain modelling undertaken by Ashmore and also its estimation methodology and parameters used and is confident that this will have resulted in an unbiased estimate of tonnes and grade. Notably:

- SRK ES investigated the suitability of the modelling of the high grade internal domains and is satisfied that the reasoning and approach used is correct. There is a quite clear continuity of both the high and low grade areas and a domain boundary analysis between the high and low grade domains showed that the use of a hard boundary to interpolate the domains is justified;
- The experimental semi-variograms produced for eight major domains are of satisfactory quality;
- While further density determinations will improve confidence in the values used, SRK ES considers the method used to assign bulk density to the model to be appropriate;
- The indicator methodology used to interpolate the mineralisation type (P1 and P2) appears to be a reasonable approach given the lack of continuity of these between drill holes; and
- SRK ES's qualitative comparison of the drill hole grades with the block model has shown that the estimation has interpolated the block model grades consistent with the drill hole grades with an appropriate degree of smoothing.

### 6.5.5. Mineral Resource Reporting

#### Ashmore Approach

Ashmore classified the Cape Coast Mineral Resource into Indicated and Inferred categories based on data quality, sample spacing, and pegmatite continuity. Notably, an Indicated Mineral Resource was defined within areas of close spaced RC and DD drilling of less than 40m by 40m, and where the continuity and predictability of the pegmatites is clear. In addition, Indicated Mineral Resources were confined to the fresh rock. The Inferred Mineral Resource was assigned to transitional material, areas and where drill hole spacing was greater than 40m by 40m, where small, isolated pods of mineralisation occur outside the main mineralised zones, and to geologically complex zones.

For reporting purposes, and so as to constrain the reported Mineral Resource to mineralisation that satisfied the potential for reasonable prospects for eventual economic extraction ("(RPEEE")) Ashmore then applied a block grade cut-off of 0.5% $Li_2O$ and reported only those blocks above the -190 m Relative Level ("mRL"), the latter being based on a mining pit optimisation exercise which showed that this was the maximum depth that the pits extend to, based on current technical and economic assumptions.

Finally, rather than reporting the proportion of each material type (P1 and P2 respectively) in the Mineral Resource based on the indicator value interpolated for each block, Ashmore applied a "first past the post" approach in which blocks with indicator values of more than P1 were assumed to be entirely P1 and blocks with indicator values of less than 0.5 were assumed to be entirely P2.

#### SRK ES Comments

SRK ES is confident that the Mineral Resource as reported and the reporting categories applied are reasonable and justified by the available data and within the level of accuracy implied.

Notwithstanding this, SRK ES has recommended that when the next MRE is produced Ashmore considers:

- Reviewing the block cut-off grade (which based on the most up to date Scoping Study appears too high to SRK ES);
- Restricting the MRE to mineralisation falling within an optimised open pit rather than above an RL; and
- Reviewing the method ultimately used to assign the material type to each block (as SRK ES considers this has potential to overestimate the proportion of P1 mineralisation in areas where there is more logged P1 mineralisation and underestimate this in areas where there is less logged P1 mineralisation).

Notwithstanding the above comments, and as commented further below, SRK ES has reviewed the impact of the above assumptions and does not consider them to be material for the purpose of the MRE reported here.

### 6.5.6. RPEEE Requirement

#### Introduction

In order to assess in more detail whether or not the reported Mineral Resource satisfies the RPEEE requirement set out in the JORC Code (2012), SRK ES has undertaken a high-level review of various aspects of the Ewoyaa Project and the work that has been undertaken to date. This has included a

review of the work undertaken as input to the January 2022 Scoping Study report and work currently underway as part of the ongoing PFS as well as publicly available information, SRK ES's experience on similar projects and correspondence with Atlantic. The SRK ES review has included the areas of mining pit optimisation, mineral processing testwork, infrastructure requirements, water management, environment, social and governance ("ESG") aspects and overall economics. Commentary on each is included below.

## Mining/Pit Optimisation

The Scoping Study for the Project considers a conventional open pit method of mining utilising hydraulic excavators in conjunction with off-highway haul trucks to haul the ore and waste to stockpiles and waste rock dumps ("(WRD")) respectively. Mining technical investigation, at this early stage of the Project, has been limited to pit optimisation and scheduling with mine design limited to identifying suitable WRD locations adjacent to the pits.

The principal pits generated by the optimisation are at Ewoyaa, Grasscutter and Anokyi which comprise a main pit and a number of surrounding sub-pits. For the Scoping Study a total of 16 separate pits and sub-pits were delineated. During the Scoping Study a number of production rates were assessed.

A pit optimisation was conducted in March 2022 by Mining Focus Consultants Pty Ltd ("Mining Focus") and reported by Ashmore in support of the latest MRE. Mining operating costs are based on similar sized operations located in Ghana. The assumed processing recovery factors are significantly different between the two types of pegmatite mineralisation which also vary according to rock type. For the March 2022 pit optimisation, a process recovery of 70% and 51% was assumed for fresh P1 and P2 pegmatite respectively (with a slightly lower recovery of 68% assumed for P1 transition material).

The deposit has been investigated geotechnically based on logging of resource drillholes but no dedicated geotechnical drilling has been completed as yet. For the pit optimisation overall slope angles have been assumed to vary from 35° to 47° for the weathered and fresh rock respectively. High level modifying factors for mining dilution and recovery of 5% and 97% have been assumed which are considered appropriate for the bulk of the mineralisation which exhibits good thickness and is steeply dipping.

The preferred optimised pit shell selected by Mining Focus (shell number 29 at the maximum undiscounted cashflow), contains 26.6 Mt at a grade of 1.22% $Li_2O$ fully diluted of Indicated and Inferred Mineral Resource above a cut-off grade of 0.5% $Li_2O$. The proportion of P1 and P2 mineralisation for this shell is 22.1 Mt and 4.5 Mt respectively. Fresh rock is predominant at 24.6 Mt. This is a lower tonnage than reported by Ashmore as a Mineral Resource as this was restricted to an RL rather than to mineralisation falling within an optimised pit.

SRK ES has undertaken a check optimisation for the Project using the same assumptions as those used by Mining Focus which are considered reasonable by SRK ES. The results of this pit optimisation are comparable to those reported by Ashmore, with a total of 27.1 Mt (+1.6%) at a grade of 1.21% $Li_2O$ (-0.2%) on a fully diluted basis contained within the revenue factor 1 pit.

The split between P1 and P2 calculated using Ashmore's approach to report this is 22.6 Mt and 4.4 Mt respectively. SRK ES has also assessed the proportion of P1 in the selected pit using the percentage (Indicator) field given in the block model (as a check on the potential bias commented on by SRK ES in the previous section of this report) which results in P1 and P2 of 21.6 Mt and 5.5 Mt respectively and is not therefore materially different.

While there is a moderate difference between the MRE of 30.1 Mt (reported above 190 mRL) and that contained in SRK ES's RF1 pit, SRK ES understands Ashmore's view is that further infill and extension drilling may result in extensions/expansions to the potential mineralisation and optimised pits and so SRK ES has accepted this for the purpose of this review. SRK ES has however recommended to Atlantic that this is assessed further at the PFS and FS stages of evaluation to determine if there are any isolated areas of mineralisation that do not demonstrate sufficient prospects for eventual economic extraction and should therefore be excluded from future MRE updates.

## Mineral Processing

Metallurgical testwork has been managed by Trinol Pty Ltd and conducted on a number of samples of both P1 and P2 mineralisation, and both of fresh and of transitional weathered mineralisation by NAGROM. Initial gravity separation testwork using Heavy Liquid Separation ("HLS") indicated that the optimum top size was 6.3 mm, with fines removed at 0.5 mm. Testwork on the P1 material was subsequently extended to larger scale testwork using a Dense Media Separation ("DMS") cyclone.

The DMS testwork on the P1 Fresh material produced an initial gravity concentrate with a grade slightly in excess of the 6.0% $Li_2O$ target grade. Further crushing and reprocessing of the middlings from the first stage produced a concentrate with a grade slightly lower than the target figure. Combining the two products achieved the target grade at 72% Li recovery. Using the same process for the P1 transitional material also achieved the target grade, at a slightly lower (69%) recovery.

HLS testwork on P2 material using the same procedure, i.e. with crushing and reprocessing to the middlings, and with a target concentrate grade of 5.5% $Li_2O$, produced Li recoveries of 46% for the Fresh material and 61% for the Transitional material and Atlantic is currently assuming, by extrapolation, a recovery of 51% Li will be achievable for this material at 6.0% $Li_2O$ concentrate grade.

Variability HLS testwork has been conducted on six samples of P1 material and nine of P2. The 6.0% $Li_2O$ target concentrate grade was achieved for all of the P1 samples. The results for the P2 samples were more variable, with most not achieving a 6.0% $Li_2O$ concentrate grade.

Flotation testwork has been conducted on the -0.5 mm fraction of the main P2 sample. This testwork also achieved a 6.0% $Li_2O$ concentrate grade, however a mica pre-flotation stage was required in order to achieve this.

A sample of the DMS concentrate was further processed to assess its potential to produce battery grade lithium carbonate and/or hydroxide. Within the limitations of laboratory scale testwork, this potential was confirmed.

The testwork has also shown the potential to produce a feldspar by-product from the lower density fraction of the ore. Such material has potential application in the ceramic market.

The currently proposed flowsheet is based on DMS of the 0.5-6.3 mm fraction, producing both dense (spodumene) and light (feldspar) products, with the intermediate material constituting tailings. The -

0.5 mm fraction would be deslimed with the slimes fraction reporting to a tailings storage facility ("TSF" or tailings dam). The deslimed material may be potentially saleable as "DSO Fines", alternatively it would also be stored in the TSF. Flotation has not been included in the flowsheet.

In summary, the testwork undertaken to date has indicated very good potential to produce a saleable spodumene concentrate from the P1 mineralisation material, however, evidence for the potential of producing a concentrate of saleable grade from the P2 material by gravity separation is less definitive. In addition, no testwork has been conducted to investigate the impact of feeding a blend of P1 and P2 material. Notwithstanding this, and while further testwork is required specifically to assess the

potential for recovery of P2 material without the detriment to achieving a 6% concentrate grade and also the impact of blending this with P1 material in the ore feed, the work undertaken to date has confirmed the potential to produce the products currently being assumed by the Company.

## Infrastructure

The Project is well positioned in respect of national infrastructure and services being located adjacent to the national road N1, which connects Accra and Takoradi, and given that two parallel 161kV national grid high voltage transmission lines bisect the property. There are also well established towns nearby from which to source labour and support services.

The two transmission lines bisect the property and also run over areas of mineralisation which is currently included in the Mining Resource within the main Ewoyaa deposit. The Company is currently assuming that a short, 6km section of powerline can be realigned. While this will obviously cause short term disruption to the powerline operation and will require the approval and input of the operators Ghana Grid Company Ltd ("GRIDCo"), SRK ES notes that the works could be sequenced to ensure one available powerline at all times, much of the realignment work could be done prior to transfer to the new alignment, and a new 330kV powerline is planned to be constructed, which if built would reduce the impact of any required downtime. A study is in progress to define the required length of realignment, impact and duration of impact on transmission line usage and to allow discussions with the various stakeholders to take place and while this has already determined that the realignment length will be longer than assumed in the January 2022 Scoping Study the increase in cost should be manageable for the Project.

The Project power demand is relatively low with installed demand in the region of 3MW to 4MW depending on the scale of operations and SRK ES understands the Company is considering connecting the Project to the national grid with a new substation installed as part of the high voltage transmission line relocation. A power supply study is underway to confirm potential connection options. Typically, a connection would be made at an existing substation. There will be a number of options including connection to lower voltage lines in the region depending on capacity, and a standalone hybrid diesel-solar-battery powerplant.

The product is currently planned to be trucked to a port approximately 100km away, which could include either Tema or Takoradi. Regular on-highway trucks with bulk trailers are assumed. SRK ES has recommended that the benefits of on-site containerisation should be explored as this would negate the requirement for a stockpile shed and rehandling once the cargo has left the mining and processing site.

The currently assumed infrastructure capital and operating costs appear reasonable at this point in project development. We would expect the scope of work to evolve as further detail is developed through design process. In addition, future survey work will be completed to further inform the scope of work. This in turn means capital costs will be updated as the definition of the underlying assumptions and accuracy of cost increases.

In summary, SRK ES's review of the Project infrastructure requirements has not highlighted any key aspect that would impact on the reporting of Mineral Resources. The assumption that the powerlines can be realigned is reasonable at this stage with the associated risk related to timeframe for obtaining permissions and undertaking the work and this requires continued monitoring and if unforeseen delays in obtaining permissions are experienced, the project development schedule may need to be reviewed.

## Water Management

SRK ES notes that the Company currently intends to use a public reservoir some 7 km from the Project site as a main water supply source for the Project (approvals pending and assumed for process water purposes) which will feed a dedicated storage reservoir at the mine site while groundwater will be abstracted for potable supply (with prior treatment).

A mine-site water balance has not yet been developed but SRK ES understands this is currently being done as part of the PFS. This is work-in-progress and processing plant water requirements are not yet confirmed and the current assumption is that water sources will be available for plant and other mine requirements at the rate and quality required over the life of mine.

SRK ES notes that no hydrogeological studies have been undertaken in relation to mining and indeed this was identified as a risk area in the Scoping Study. There are therefore current uncertainties in terms of pit dewatering requirements, the role of groundwater in pit slope stability and the general risk of reduced operational efficiency due to wet operating conditions. Notwithstanding this, the SRK ES review has not highlighted any key aspect of water management that would impact on the reporting of Mineral Resources.

## Environment and Social Governance

SRK ES has undertaken a high-level review of the current status of Environment and Social Governance ("ESG") aspects of the Project specifically to determine any key issues that could impact on the reporting of Mineral Resources. The review included encompassed the following sources:

- Publicly available documentation and data for the surrounding region;
- Prospecting licence ("PL") documentation (including PL approval, mining exploration operating permits and Environmental Protection Agency ("EPA") environmental permits for mineral exploration);
- Ghanian Government Minerals Commission ("MINCOM") online cadastre portal[1];
- The January 2022 Scoping study;
- Preliminary reports feeding into the ongoing environmental and social impact assessment ("ESIA") by local consultants Environmental and Social Sustainability ("ESS") and NEMAS Consult Ltd – April 2022; and
- Discussions with Atlantic and responses to queries raised by SRK ES.

Based its review of available documentation, SRK ES considers that there are currently no ESG issues that would prevent the reporting of Mineral Resources. Notwithstanding this, the following ESG issues were identified that may require management and clarification as the Project is progressed and prior to reporting of Mineral Resources for other tenement areas and future reporting of Ore Reserves:

- **Tenements**: according to MINCOM's online cadastre map, the Saltpond (PL3/102) and Mankessim (RL3/55) tenements overlap. SRK ES requested clarity on this issue and was informed the issue was flagged to MINCOM by Atlantic as an error on their behalf and the

[1]MINCOM cadastre: Ghana - Repository (mincom.gov.gh));

onlinecadastre will be updated in due course. The Saltpond licence is due for renewal in August 2022and the overlap will be corrected.

- **Sacred sites**: the ecology surveys conducted by ESS as part of the ESIA identified a number of 'sacred graves' (culturally important sites used as cemeteries) within the Ewoyaa Project tenements, due to the community protection, some of these sites include vegetation species of conservation concern as recognised by the International Union for the Conservation of Nature ("IUCN"[2]). According to Atlantic, a number of these sacred graves have been relocated previously and therefore it is considered reasonable that this is a possibility and no exclusions from the Mineral Resource are justified. Prior to reporting Ore Reserves, a detailed assessment will however be required to understand if any of these sites are considered by the local communities to be unmovable for ecological or cultural reasons, and the procedural and time implications of moving them.
- **Resettlement**: the village of Ewoyaa is adjacent to the western limit of the Ewoyaa Mineral Resource and in addition there are a 10 to 20 isolated dwellings associated with subsistence farmland within the deposit area. Resettlement of these people may be necessary in future for operational reasons and for locating supporting infrastructure. However, the village is outside the Mineral Resource boundary (the development of the deposit is not contingent on physically relocating the village) and relocating a minor number of isolated dwellings was therefore not considered as a material risk to the reporting of the Mineral Resource. Again, for future Ore Reserves, the need for physical and economic resettlement will require detailed investigation and costs assigned.
- **Environmental protection areas**: there are no environmental protection zones (from publicly-available databases such as the World Database for Protected Areas, "WDPA"[3]) close to the Mankessim Tenement. For future reporting of Mineral Resources and Ore Reserves within the tenements to the east around Apam, the proximity to the Muni Pomadze RAMSAR wetland protected area (including the Muni Lagoon[4] and the Yenku Forest Reserve[5]) along with the Winneba State forest reserve[6] will need to be considered.
- **Carbon tax**: SRK ES understands Ghana is considering implementing an emissions trading scheme ("ETS") in the near-future. At present, there are no formalised and ratified schemes that could be assigned as a cost in an economic assessment of the project, however, this may be required for future work including the PFS and for declaring Ore Reserves.

In terms of permitting, Atlantic has a detailed understanding of the required permitting process and has initiated the ESIA in the Ewoyaa Project area to ensure its timeline is reasonable. The following process was provided to SRK ES by Atlantic:

- Submission of mining licence ("ML") application to MINCOM on completion of PFS; theoretical timeline to grant: 3 months.
- Submission of environmental permit application to EPA, which is based on the ESIA, resettlement action plan ("RAP") and traffic impact assessment ("TIA"); theoretical timeline to grant: 5 months on provisional grant of ML assuming no amendments nor objections during public consultation.
- Once EPA permit granted, then provisional ML is ratified by government and formally granted.

[2]IUCN: IUCN Red List of Threatened Species

[3]WDPA: Explore the World's Protected Areas (protectedplanet.net)

[4]Muni Lagoon Summary: Muni Lagoon (WDPA) [5]Yenku Summary: Yenku Forest Reserve (WDPA) [6]Winneba State Summary: Winneba State (WDPA)

In addition to the above, SRK ES understands additional permits required prior to operation include:

- MINCOM and Mines Inspectorate Division: localisation plan, emergency response plan, closure plan.
- Water Resources Commission ("WRC"): approvals for water usage.
- Forestry Commission and Forestry Services Division: approvals for forestry removals.

SRK ES has not undertaken a detailed review of the permitting timelines and whether there is adequate time to ensure these permits can be obtained along with the EPA permit and ML but understands this will be undertaken as part of the ESIA and PFS.

**Economic Assessment**

In addition to assessing the technical work done to date and implications of this in terms of the practicality of developing the Project, SRK ES constructed a high level Technical Economic Model to establish if a potential operation has potential to generate positive economic returns.

This was largely based on the scoping studies completed to date but incorporated adjustments made by SRK ES based on its review and has enabled SRK ES to become satisfied that the reported Mineral Resource has the potential for eventual economic extraction.

### 6.5.7. SRK ES Comment

In summary, while SRK ES has made various suggestions and recommendations in relation to the methods used by Ashmore to derive and report its MRE, we are confident that this is not biased in any material manner, reflects all of the available data, has been derived using accepted and standard techniques and has been reported in accordance with the terminology and definitions as set out in the JORC Code (2012).

## 6.6. Future Exploration and Development Plan

### 6.6.1. Introduction

Atlantic has provided SRK ES with its forward work programme for completing a PFS study on the Ewoyaa Project, which is already underway, the work programme for a subsequent planned Feasibility Study ("FS") and further exploration and drilling programmes.

Atlantic is aiming to complete the PFS with a remaining spend forecast of some USD 1.2 million (for remaining study and owners' costs) and will then move into the FS phase with a further USD 6.1 million forecast to be spent for the completion of this. Major expenditure forecast for the FS includes drilling and sampling programmes (USD 2.8 million), studies and engineering (USD 2.1 million) and owners' costs (USD 1.2 million).

Additional planned exploration includes gridded auger drilling followed up by RC drilling with a USD 2.5 million budget.

### 6.6.2. Exploration

Atlantic has commenced activities for the planned 2022 exploration programme. Six auger rigs are underway testing regional exploration and brownfield expansion targets over the Mankessim, Mankessim South and Saltpond licences. Planning is also underway for airborne geophysical and

grid soil geochemistry over the recently granted Cape Coast licence (Atlantic, 2022).

Targets defined during the auger drilling, base-of-auger mapping and sampling will then be ranked and tested by RC drilling. Atlantic have budgeted for 14,000 m of RC drilling for follow up of new targets during May-August 2022. Budgets for the Cape Coast Tenement geophysical and soil geochemical surveys, and all tenement auger drilling to April 2023 and planned follow up RC drilling total USD 2.5 million.

### 6.6.3. Pre-Feasibility Study and Feasibility Study Development Plan

#### Mining

Atlantic intends to complete specific geotechnical drilling at the principal pits to support a suitable geotechnical study for the feasibility studies, current geotechnical assumptions are based on available diamond drill core for the PFS design criteria. Both the PFS and FS require mining studies to include suitable pit, WRD and TSF design, mine scheduling and the estimation of equipment, manpower and operating and capital costs for supporting an Ore Reserve estimate.

#### Mineral Processing

Atlantic has included provision for additional drilling for obtaining metallurgical samples for further testwork, a comminution study and process plant design and engineering.

#### Infrastructure

The estimated cost for the work plan for general infrastructure and a power study appear reasonable although execution plans for each package are not yet available. SRK ES would recommend however that a contingency be added, especially for the power study and that the latter be incepted as early as possible in order to begin discussions with GRIDCo; this could increase the overall duration of this study package and thus costs could increase. The site investigations package, which SRK ES assume to refer to geotechnical investigations, may also need to be earlier in the schedule to allow the results to be available to inform civil and earthworks design.

#### Water Management

There are several elements planned and costed for on water management including covering mine site and tailings storage, but it is not clear on the scope of work from the work programme presented whether any specific water related site investigation work is planned.

SRK ES would recommend that future work programmes include geochemical characterisation studies to assess the geochemistry and potential risks of (metal) contamination in water discharge and general environmental release. A meteorological and hydrological study is also recommended to ensure infrastructure is designed to manage appropriate storm events.

#### ESG

Atlantic has made provision for completion of an ESIA including monitoring programmes with oversight by Atlantic.

### 6.6.4. SRK ES Comment

SRK ES considers the further work to progress the project to PFS and FS is justified based on the work completed to date and the areas planned for further study and evaluation are generally appropriate. We have however recommended to Atlantic that some contingency is allowed for in the budget to cater for overruns in terms of time and cost.

# 7. ATLANTIC LITHIUM'S ADDITIONAL PROJECTS

## 7.1. Egyasimanku Hill Project

The Egyasimanku Hill Project (located within the Mankwadzi application) in the eastern tenement block of the Cape Coast Portfolio in Ghana is the most advanced prospect within these tenements by virtue of the historical work completed there. This eastern block is composed of Apam East and Apam West tenements and the Mankwadzi, Asebu (Winneba North), Mankwadze (Winneba South) and Senya Beraku applications. See Table 2-1 and Table 2-2 for licence details.

Diamond drilling and trenching at the Egyasimanku Hill spodumene pegmatite was carried out by the Ghana Geological Survey between 1960 and 1966 based on historical maps available. Results give an indication that mineralisation is present at this prospect. The presence of spodumene pegmatites were also confirmed during the SRK ES site visit. The drilled pegmatites sit within the Yanku Forest Reserve Block B and engagement with the Forestry Commission and the Environmental Protection Agency may be required for advanced exploration activities.

### 7.1.1. Property Geology

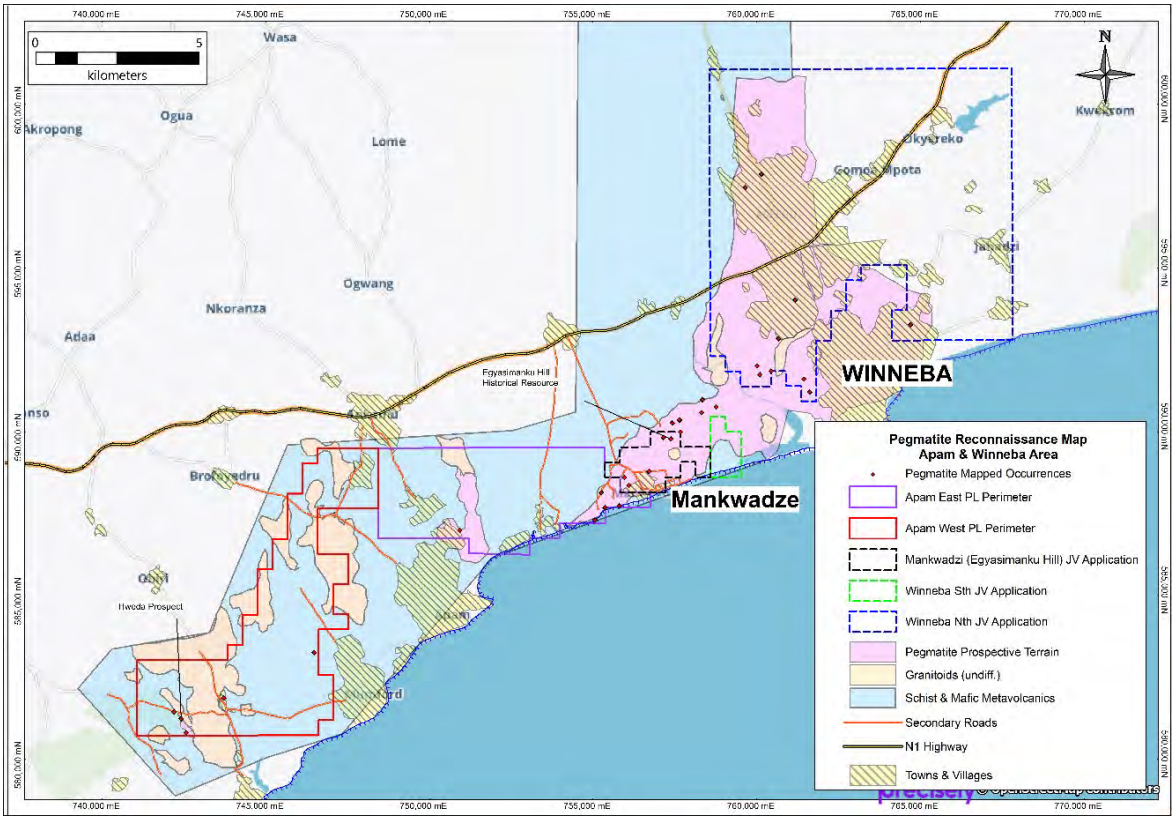
The tenements are broadly underlain by Birimian metavolcanics and metasediments, with bands of Tarkwaian sedimentary sequences infilling basins and overlying the Birimian rocks (Figure 7-1).

The rocks within the tenements are mainly greenstones, amphibolite, meta-basalt, quartz-feldspar-mica schist and siliceous slates, with wider dykes of quartz diorite, and narrow dykes of dolerite-gabbro, pegmatite and aplite. These units show evidence of alteration and quartz veining, and tourmaline is common.

In general, rocks within the area have a NE-SW trend, striking between 30° to 40° and dipping between 60° to 80° towards the SE (Obotan, 2016).

Figure 7-1 shows initial reconnaissance mapping carried out by Atlantic and locations of observed pegmatite.

**Figure 7-1: Reconnaissance geological map of the eastern tenements in the Cape Coast Lithium Portfolio.**




Sources: Atlantic 2022

### 7.1.2. Atlantic Lithium Exploration

Atlantic conducted a heliborne magnetic/radiometric survey with line spacing of 50 m over the Apam East & West and Mankwadzi projects, with a small portion covering the southwest corner of the Winneba North tenement application (Figure 7-2). The Company also completed reconnaissance geological mapping and a regional soil sampling programme across the tenements (Figure 7-1 and Figure 7-2).

Soils were collected on a 100 m x 100 m grid from a depth of between 0.3 m and 0.5 m, with a nominal 3 kg sample size. Samples were processed by Atlantic, pulverised with pestle and mortar, sieved <0.4 mm, homogenised and a pressed pellet analysed for Li with a bench mounted HHLIBS unit, and selected using a pXRF analyser. During pXRF analysis quality control samples were analysed - certified reference material at every 10th, duplicates at every 25th and blank at every 50th sample.

A total of 1,485 soil samples including 25 field duplicates have now been collected and analysed from Apam East, with 2,794 soil samples including 50 field duplicate samples from Apam West.

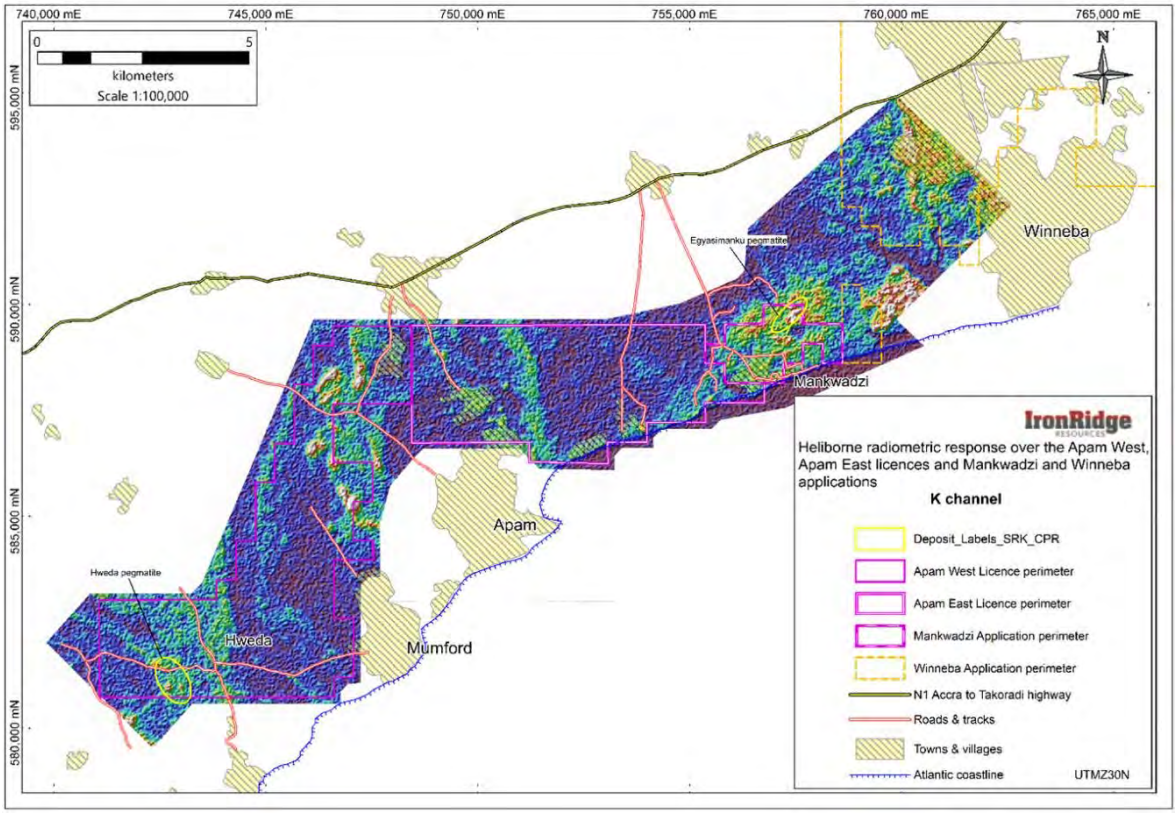
Lithium and tin results were plotted, and results of 200 to 2,500 ppm Li defined continuous zones conformable with mapped geology (IronRidge, 2020a).

Mapping identified pegmatites in the western parts of Apam West and Apam East, in the southern part of the Winneba tenement, and highlighted the significant spodumene-bearing pegmatites in the Egyasimanku Hill area (Figure 7-1). Egyasimanku Hill is also coincident with high K and Total Count radiometric signatures from the heliborne geophysical data (Figure 7-4).

A coincident soil geochemistry and radiometric high target, the Hweda Prospect, has also been identified in the western part of the Apam West Tenement. Pitting and trenching at Hweda Prospect across pegmatite returned maximum values of 1,494 ppm Li, no spodumene or other Li minerals were observed (IronRidge, 2020a).

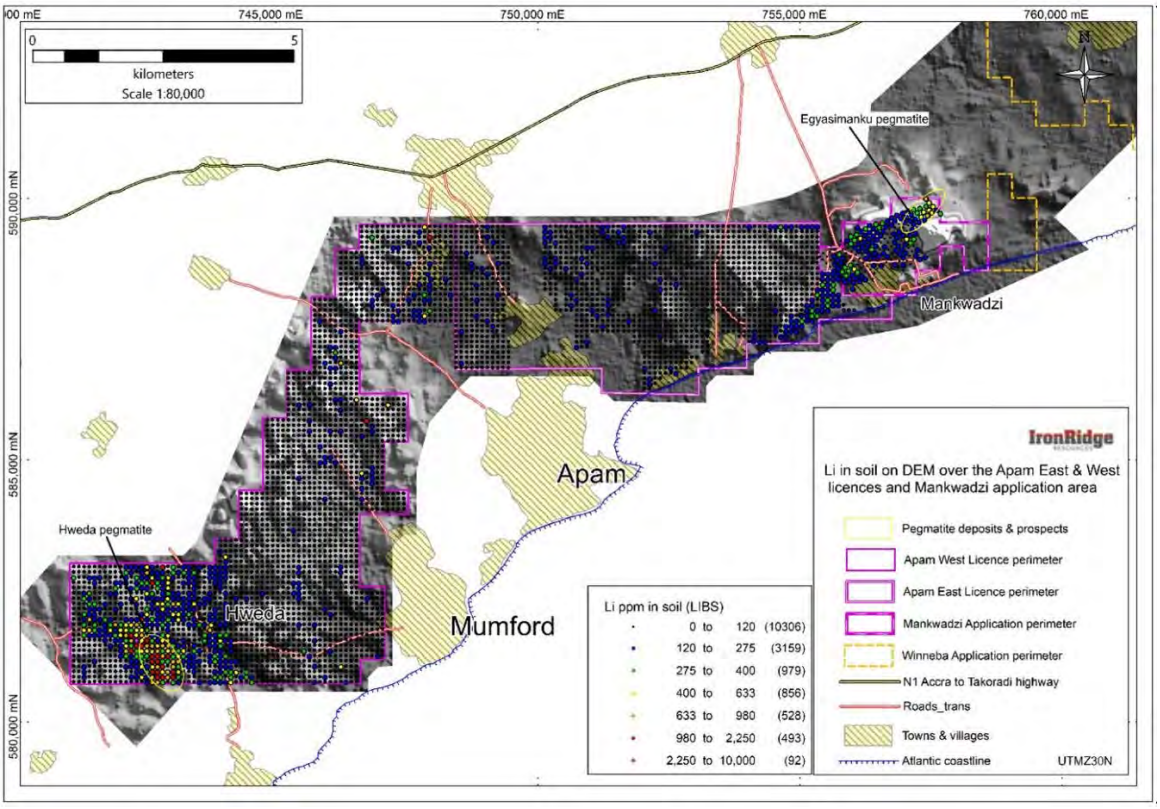
Trenching has also been carried out to the east of Apam East Tenement in the Mankwadzi Prospect area, southwest of Egyasimanku Hill. Eleven trenches, totalling 230 m were hand dug to circa 3 m into a saprolite zone intersecting narrow pegmatites, no spodumene was observed. A total of 477 auger holes were drilled in the area to averaging 3-4 m deep with a sample collected at the base of each hole (within colour changes in the lateritic profile) for litho-geochemical analysis. Eleven pegmatites were intersected but elements such as niobium, tin and tantalum were below the limit of detection, and the work was unable to substantiate the areas of potential as reported in historical reports (IronRidge, 2020b).

**Figure 7-2: Heliborne radiometrics coverage (potassium count) across the Apam East and West tenements and Mankwadzi and Winneba tenement applications**



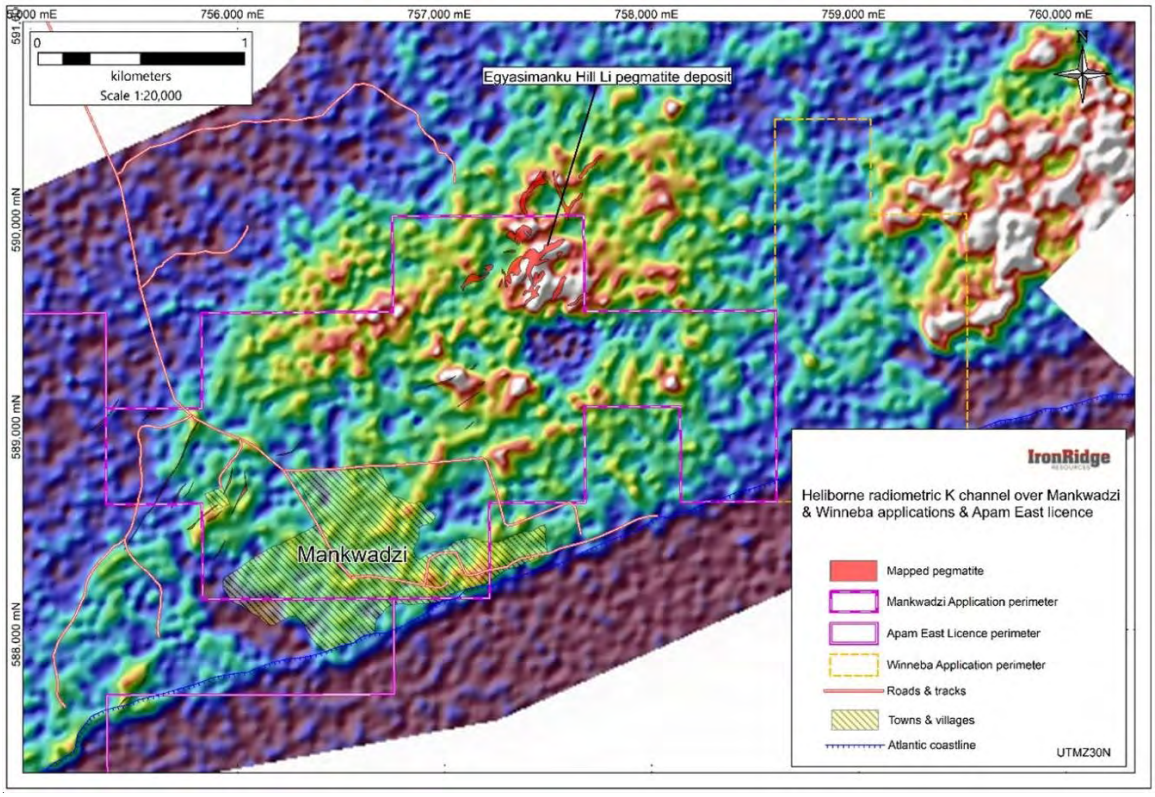

Sources: IronRidge, 2020

**Figure 7-3: Soil geochemistry across the Apam and Mankwadze tenements**




Sources: from IronRidge, 2020

**Figure 7-4: Radiometric map across the Egyasimanku Hill prospects**




Sources: from IronRidge, 2020

Notes: Note the coincident high-K signature over identified Li-bearing pegmatite.

### 7.1.3. Planned Work Programme

Upon grant of the Mankwadzi tenement application Atlantic will commence exploration of the historical Egyasimanku Hill Project. Activities are expected to include mapping trenching and initial RC drilling. The Mankwadzi tenement was applied for in March 2018, no indications of a potential grant date have been provided. Exploration budgets have not been provided at this stage but will be in addition to the Ewoyaa Project budgets.

Atlantic plan to continue exploration in Apam East, through follow-up assessment of the Mankwadzi Prospect area in the east of the tenement and the Sn anomalous pegmatites explored by Leo.

### 7.1.4. SRK ES Site Visit

Mr John Paul Hunt conducted a due diligence site visit on 10 February 2020 to the Mankwadzi tenement application, specifically the Egyasimanku Hill Project. He was accompanied by Len Kolff, Iwan Williams and Abdul-Razak Shaibu Ballah from Atlantic.

Outcrops were examined but no drilling or systematic pegmatite sampling had been undertaken at the time of the site visit.

Numerous pegmatite exposures at the Egyasimanku Hill prospect within the Mankwadzi Tenement were visited with both P1-type (coarse) and P-2 type (fine grained) spodumene mineralisation evident. Variations between P1-type and P2-type mineralisation can be abrupt representing changes in cooling or in volatility contents (Figure 7-5 b). Weathered spodumene in outcrop tends to be honey-coloured to pale green when fresh. Spodumene crystals at Egyasimanku Hill occur as oriented laths orthogonal to interpreted magmatic layering (Figure 7-5 a) and were observed to be up to 50 cm in length. The observed P1 pegmatite assemblage consists of feldspar, spodumene, tourmaline, columbite and reportedly cassiterite and the caesium-bearing zeolite mineral, pollucite.

The auger drill programme in Apam East was active at the time of the visit, currently operating on a 10 m by 160 m grid. Drilling typically proceeded to a depth of 3-4 m, with a sample taken at the transition from sandy overburden to soil, marked by a colour change (Figure 7-5, c-d).

The Hweda target in Apam West was not visited as spodumene has not yet been observed in the identified pegmatites.

**Figure 7-5: Photographs from SRK ES' 2020 site visit**


Sources: SRK ES, 2020

Notes: **A.** Egyasimanku P1-type spodumene-bearing pegmatite in outcrop; **B**. Egyasimanku P1 type-P2 type spodumene mineralisation interface in outcrop; **C**. auger drill at Apam East; **D**. sample taken at 3-4m depth indicated by colour change and used for lithogeochemical mapping.

### 7.1.5. SRK ES Comment

SRK ES recommends that the geochemical sampling and mapping programmes, and the heliborne radiometric survey be extended across the Winneba and Senya Beraku tenements, once granted, to assist in the development of targets for Li-pegmatite mineralisation.

Extra value may be derived from the close-spaced regional soil geochemical sampling across the eastern tenement block. SRK ES recommends that this data is reviewed, validated and normalised to produce anomalism data. Indices from this data may be useful for further LCT pegmatite exploration by evaluation of pathfinder elements.

SRK ES recommends a review of the historical data on the Egyasimanku Hill pegmatite to provide the basis of a drilling plan to help develop a Mineral Resource in accordance with the JORC Code (2012). A number of challenges to the future development of the prospect will likely need to be addressed such as the proximity of forestry and cultural heritage sites to the hill.

For the Hweda Prospect, SRK ES recommends detailed mapping and auger drilling to further

investigate the prospect and provide additional confidence and an initial structural model prior to development of a drilling plan to test for Li-pegmatite mineralisation.

## 7.2. Côte D'Ivoire Lithium Portfolio

### 7.2.1. Introduction

The Côte D'Ivoire Portfolio is made up of two tenement applications, Agboville and Rubino, (see Table 2-1 and Table 2-2 for tenement details) located in the southeast of Côte D'Ivoire, close to the coastal city of Abidjan. Atlantic have not carried out any work on these tenements to date as they await grant.

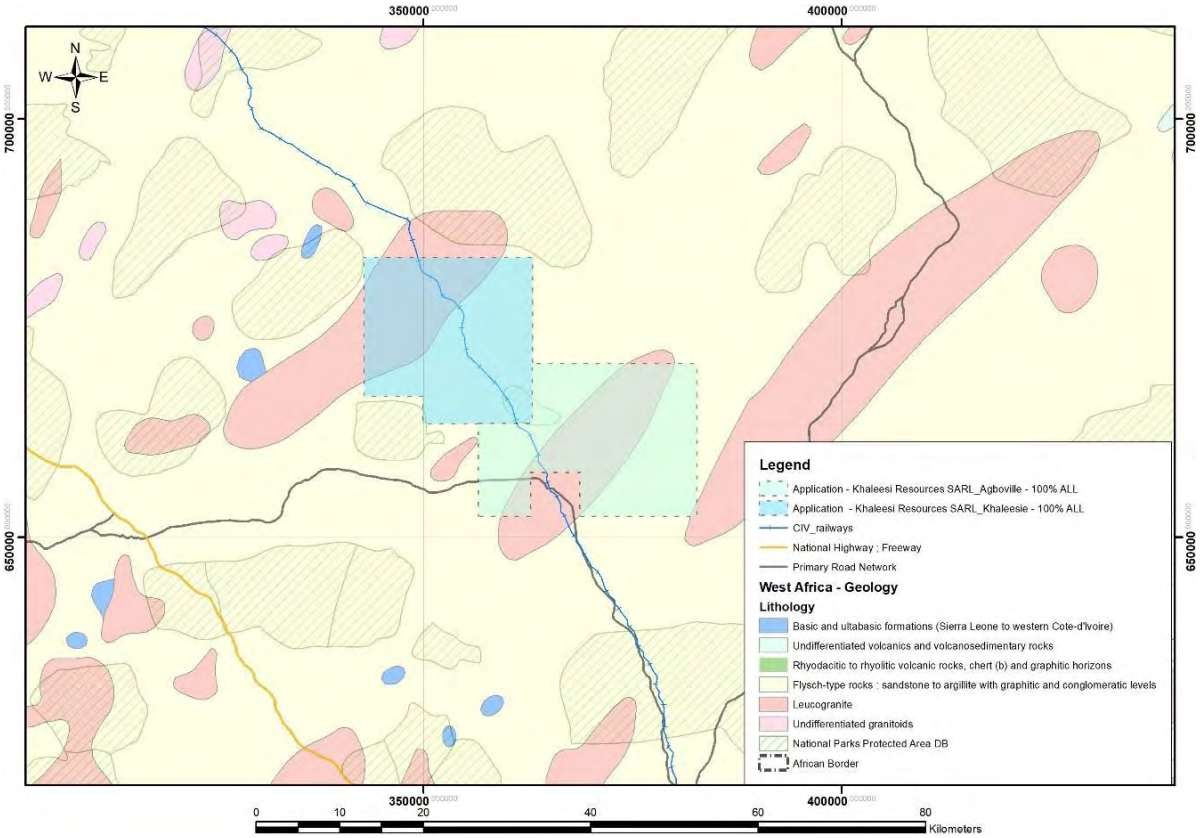
The tenements are well posited for infrastructure being accessed by main sealed roads to Agboville, and approximately 70 km north of Abidjan. The Abidjan-Ouagadougou (Burkina Faso) trainline also passes through Agboville and the tenements.

### 7.2.2. Property Geology

The Côte D'Ivoire Portfolio tenements are located in the Haute Comoé Basin of eastern Côte d'Ivoire. The basin is comprised of metasedimentary units, within which leucogranitoids have intruded.

Regionally, lithium mineralisation was identified by Berthomieux et al. (1972) in rare-earth element pegmatites associated with leucogranite bodies intruding the Birimian metasediments.

**Figure 7-6: Côte D'Ivoire tenement areas over a simplified geological map.**




Sources: Atlantic 2022

### 7.2.3. Historical Exploration

No coordinated exploration has been conducted across the tenement applications.

### 7.2.4. Atlantic Exploration

Atlantic intends to commence exploration on the ground on grant of applications.

### 7.2.5. SRK ES Comment

The tenement applications are in regionally prospective geological terrain for LCT pegmatite mineralisation. Once the tenements are granted Atlantic can apply the proven systematic exploration workflow gained from their Ghanaian projects. Work should commence with a thorough literature and historical data review and tenement wide exploration.

# 8. CONCLUSIONS AND RECOMMENDATIONS

## 8.1. Regional Exploration

Atlantic's general exploration workflow has successfully identified new lithium bearing pegmatites within and extending the Ewoyaa Project pegmatite cluster; using regional geochemical soil sampling and aerial radiometric geophysics surveys to define initial target areas; following up these with geological mapping and base of cover sampling (by pitting and latterly auger drilling); and initial testing of selected targets with RC drilling.

Experience to date has shown that high lithium in soil values outside Ewoyaa often do not correlate with LCT pegmatites, with commonly the highest anomalies over evolved granites. Spodumene-bearing pegmatites appear to be related to intermediate Li in soil anomalies but have remained difficult to identify with Li alone. SRK ES suggest that geochemical targeting can be improved by:

- Levelling of geochemical data by rock or regolith type (if known);
- Identification of elements in soil assays that spatially correlate with known pegmatites and creation of an index to assist in identifying anomalies related to spodumene-bearing pegmatites;
- Specific review of element ratios such as K/Rb, Nb/Ta and Zr/Hf and other geochemical markers for highly evolved granites and pegmatites; and
- Testing ionic geochemical (partial leach) soil sample collection and analysis as an additional tool for defining specific LCT pegmatite targets under lateritic and other cover.

Atlantic's future exploration plans include regional exploration auger drilling and RC testing of targets. The planned total 12 month budget (to April 2023) for this work is USD 2.5 million.

SRK ES considers the proposed exploration work plan appropriate for the target mineralisation and local environment. Costs are based on Atlantic's extensive experience in the exploration methodologies employed and considered appropriate to complete the currently planned exploration work.

## 8.2. Ewoyaa Project Mineral Resource Estimate

Whilst SRK ES has made various suggestions and recommendations in relation to the methods used by Ashmore to derive and report the MRE, SRK ES is confident that the MRE is not biased in any material manner, reflects all of the available data, has been derived using accepted and standard techniques and has been reported in accordance with the terminology and definitions as set out in the JORC Code (2012).

Suggestions related to the MRE and RPEEE include:

- Investigation of slight grade bias between RC and diamond drilling to determine if a correction factor should be applied;
- Reviewing the block cut-off grade (which based on the most up to date scoping study appears too high to SRK ES);
- Restricting the MRE to mineralisation falling within an optimised open pit rather than above a RL;
- Reviewing the method ultimately used to assign the material type to each block (as SRK ES considers this has potential to overestimate the proportion of P1 mineralisation in areas where there is more logged P1 mineralisation and underestimate this in areas where

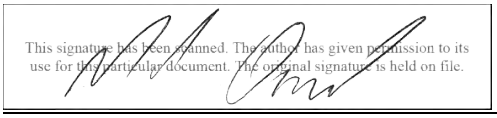
there is less loggedP1 mineralisation); and

- Considering mineral processing testwork to assess the potential recovery of P2 material withoutimpacting the targeted 6% $Li_2O$ concentrate grade and the impact of blending P2 material with P1 material in the processing plant feed.

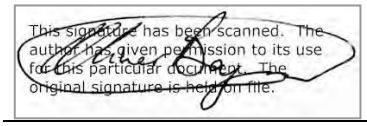
SRK ES considers the further work to progress the project to PFS and FS level is justified based on the work completed to date, and that the areas planned for further study and evaluation are generally appropriate. We have however recommended to Atlantic that some contingency is allowed for in the budget to cater for overruns in terms of time and cost.

# SIGNATURES

This report, Independent Geologist's Report on Atlantic Lithium Limited Mineral Assets Including the Ewoyaa Project, was prepared by:

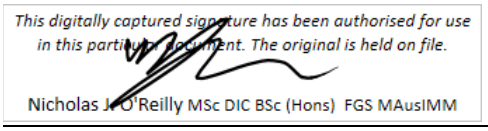



Dr Mike Armitage
Associate Corporate Consultant




Mr Oliver Bayley
Senior Exploration Geologist

and reviewed by




Mr Nicholas O'Reilly
Associate Principal Exploration Geologist

All data used as source material plus the text, tables, figures, and attachments of this document have been reviewed and prepared in accordance with generally accepted professional engineering and environmental practices.

# REFERENCES

Ashmore, 2022. Cape Coast Lithium Project Mineral Resource Estimate. Ashmore Advisory Pty Ltd. Job No: P-10157, 23 March 2022.

Atlantic, 2021a. Annual Report for the Mankessim Licence, Atlantic Lithium Limited 2021 Atlantic,

2021b. Annual Report for the Mankessim South Licence, Atlantic Lithium Limited 2021Atlantic, 2021c.

Annual Report for the Saltpond Licence, Atlantic Lithium Limited 2021

Atlantic, 2022. Atlantic Lithium Limited RNS 10th February 2022. Final high-grade infill drilling results receivedEwoyaa Lithium Project, Ghana, West Africa.

Atlantic, 2022a. EWOYAA LITHIUM PROJECT, SCOPING STUDY UPDATE, Atlantic Lithium Limited, November 2022.

Berthomieux, W.G. et al. 1972. Carte Geologique du Cote d'Ivoire

Côte d'Ivoire Mining Cadastre Portal, 2020. URL: http://portals.flexicadastre.com/ cotedivoire/en/ [Accessed 26 May2022].

Grenholm, M., 2018. The geodynamic evolution of a Paleoproterozoic orogenic system – a local to global perspectiveon the ca. 2.27-1.96 Ga Birimian Orogen in the Baoulé Mossi domain of West Africa, School of Earth Sciences. The University of Western Australia, Perth, p. 261.

GSD, 2003. Ghana Geological Survey Department, Archive Report No. 31 Second Edition. Pegmatite Investigations In Field Sheet 26 With Particular Reference To Spodumene And Kaolin Bearing Pegmatites. E.A. McKinneyand W.A. Luxner.

GSD, 1963. Ghana Geological Survey Department, Cape Coast and Saltpond Districts. Bulletin No 29, 1963.

Hirdes, W., Davis, D.W., Lüdtke, G., Konanc, G., 1996. Two generations of Birimian (Paleoproterozoic) volcanic beltsin north-eastern Côte d'Ivoire (West Africa): consequences for the 'Birimian controversy'. Precambrian Research 80, 173-191.

IronRidge, 2019. In-situ bulk density or SG determination. PROC006 23 May, 2019, p. 9.

IronRidge, 2020a. Apam West Prospecting License Internal Exploration Technical Report – June 2020

46p. IronRidge, 2020b. APAM PROSPECTING LICENSE, INTERNAL EXPLORATION TECHNICAL

REPORT – MAY 2020, p.51.

Layton, W., 1957. The Geology of Quarter Degree Field Sheet No 32, Geological Survey Bulletin, p. 77.

MACIG, 2022. MACIG West Africa 2022 digital report. [online] Available at: <https://projects.gbreports.com/macig-west-africa-2021-2022/west-african-geological-map> [Accessed 27 May 2022].

McKinney, E.A., Luxner, W.A., 2003. Pegmatite Investigations In Field Sheet 26 With Particular Reference To Spodumene And Kaolin Bearing Pegmatites. Archives Rehabilitation Unit, Accra, p. 69.

Minerals Commission, 2022. Minerals Commission Official Website - Minerals Commission. [online] Available at: <https://www.mincom.gov.gh/> [Accessed 26 May 2022].

Nude, P. M., Hanson, J. E. K., Dampare, S. B., Akm, T. T., Osae, S., Nyarko, E. S., Zkaria, N., and Enti-Brown, S., 2011. Geochemistry of Pegmatites Associated with the Cape Coast Granite Complex in the Egyaa and Akim Oda Areas of Southern Ghana. Ghana J. Sci. 51 (2011), p. 89-100.

Obotan, 2016. Obotan Minerals Company Limited Terminal Report and Application For Renewal Of Term For Apam Prospecting License (Pl 3/67), P.29.

SRK Exploration Services, 2020. An Independent Technical Assessment of the Assets of IronRidge Resources Limited.

Van den Berg, R., Dove, K.J., 1991. The geology of the area covered by the 1/4° field sheets nos 29 and 31, Winneba

S.W. and Winneba N.W. Minerals Commission/GTZ Publication Project, Accra, Ghana, p. 123.

WorldWeatherOnline.com. 2022. Saltpond Climate Weather Averages. [online] Available at:

<https://www.worldweatheronline.com/saltpond-weather-averages/central/gh.aspx> [Accessed 19 April 2022].

Yao, Y., Robb, L.J., 1998. The Birimian Granitoids of Ghana. The University of Witwatersrand, Witwatersrand.

# APPENDIX 1

Ewoyaa Project JORC Code (2012) Table 1, Sections 1 and 2

## Section 1 – Sampling Techniques and Data

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| ***Sampling techniques*** | • *Nature and quality of sampling (e.g., cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.*<br>• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*<br>• *Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g., 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g., submarine nodules) may warrant disclosure of detailed information.* | • RC drill holes were routinely sampled at 1m intervals with a nominal 3-6kg sub-sample split off for assay using a rig-mounted cone splitter at 1m intervals.<br>• DD holes were quarter core sampled at 1m intervals or to geological contacts for geochemical analysis.<br>• For assaying, splits from all prospective ore zones (i.e., logged pegmatites +/- interburden) were sent for assay. Outside of these zones, the splits were composited to 4m using a portable riffle splitter.<br>• Holes without pegmatite were not assayed.<br>• Approximately 5% of all samples submitted were standards and coarse blanks. Blanks were typically inserted with the interpreted ore zones after the drilling was completed.<br>• Approximately 2.5% of samples submitted were duplicate samples collected after logging using a riffle splitter and sent to an umpire laboratory. This ensured zones of interest were duplicated and not missed during alternative routine splitting of the primary sample.<br>• Prior to the December 2018 - SGS Tarkwa was used for sample preparation (PRP100) and subsequently forwarded to SGS Johannesburg for analysis; and later SGS Vancouver for analysis (ICP90A).<br>• Post December 2018 to present – Intertek Tarkwa was used for sample preparation (SP02/SP12) and subsequently forwarded to Intertek Perth for analysis (FP6/MS/OES - 21 element combination $Na_2O_2$ fusion with combination OES/MS).<br>• ALS Laboratory in Brisbane was used for the Company's initial due diligence work programs and was selected as the umpire laboratory since Phase 1. ALS conducts ME-ICP89, with a Sodium Peroxide Fusion. Detection limits for lithium are 0.01-10%. Sodium Peroxide fusion is considered a "total" assay technique for lithium. In addition, 22 additional elements assayed with $Na_2O_2$ fusion, and combination MS/ICP analysis. |
| ***Drilling techniques*** | • *Drill type (e.g., core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g., core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).* | • Five phases of drilling were undertaken at the Project using RC and DD techniques. All the RC drilling used face sampling hammers.<br>• Phase 1 and 2 programs used a 5.25-inch hammers while Phase 3 used a 5.75-inch hammer.<br>• All DD holes were completed using PQ and HQ core from surface (85mm and 63.5mm).<br>• All DD holes were drilled in conjunction with a Reflex ACT II tool; to provide an accurate determination of the bottom-of-hole orientation.<br>• All fresh core was orientated to allow for geological, structural, and geotechnical logging by a Company geologist. |

| | | |
|---|---|---|
| ***Drill sample recovery*** | • *Method of recording and assessing core and chip sample recoveries and results assessed.*<br>• *Measures taken to maximise sample recovery and ensure representative nature of the samples.*<br>• *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.* | • A semi-quantitative estimate of sample recovery was completed for the vast majority of drilling. This involved weighing both the bulk samples and splits and calculating theoretical recoveries using assumed densities. Where samples were not weighed, qualitative descriptions of the sample size were recorded. Some sample loss was recorded in the collaring of the RC drill holes.<br>• DD recoveries were measured and recorded. Recoveries in excess of 95.8% have been achieved for the DD drilling program. Drill sample recovery and quality is adequate for the drilling technique employed.<br>• The DD twin program has identified a positive grade bias for iron in the RC compared to the DD results. |
| ***Logging*** | • *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.*<br>• *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.*<br>• *The total length and percentage of the relevant intersections logged.* | • All drill sample intervals were geologically logged by Company geologists.<br>• Where appropriate, geological logging recorded the abundance of specific minerals, rock types and weathering using a standardised logging system that captured preliminary metallurgical domains.<br>• All logging is qualitative, except for the systematic collection of magnetic susceptibility data which could be considered semi quantitative.<br>• Strip logs have been generated for each drill hole to cross-check geochemical data with geological logging.<br>• A small sample of washed RC drill material was retained in chip trays for future reference and validation of geological logging, and sample reject materials from the laboratory are stored at the Company's field office.<br>• All drill holes have been logged and reviewed by Company technical staff.<br>• The logging is of sufficient detail to support the current reporting of a Mineral Resource. |
| ***Sub-sampling techniques and sample preparation*** | • *If core, whether cut or sawn and whether quarter, half or all core taken.*<br>• *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*<br>• *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*<br>• *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*<br>• *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.*<br>• *Whether sample sizes are appropriate to the grain size of the material being sampled.* | • RC samples were cone split at the drill rig. For interpreted waste zones the 1 or 2m rig splits were later composited using a riffle splitter into 4m composite samples.<br>• DD core was cut with a core saw and selected half core samples dispatched to Nagrom Laboratory in Perth for preliminary metallurgical test work.<br>• The other half of the core, including the bottom-of-hole orientation line, was retained for geological reference.<br>• The remaining DD core was quarter cored for geochemical analysis.<br>• Since December 2018, samples were submitted to Intertek Tarkwa (SP02/SP12) for sample preparation. Samples were weighed, dried, and crushed to -2mm in a Boyd crusher with an 800-1,200g rotary split, producing a nominal 1,500g split crushed sample, which was subsequently pulverised in a LM2 ring mill. Samples were pulverised to a nominal 85% passing 75µm. All the preparation equipment was flushed with barren material prior to the commencement of the job. Coarse reject |

| | | |
|---|---|---|
| | | material was kept in the original bag. Lab sizing analysis was undertaken on a nominal 1:25 basis. Final pulverised samples (20g) were airfreighted to Intertek in Perth forassaying.<br>• The pulps were submitted for analysis by Sodium peroxide fusion (nickel crucibles) and Hydrochloric acid to dissolve the melt. Analysed by Inductively Coupled Plasma Mass Spectrometry (FP6MS) / Inductively Coupled Plasma Optical (Atomic) Emission Spectrometry (FP6/OE). The analytical suite consisted of Al, B, Ba, Be, Ca, Cs, Fe, K, Li, Mg, Mn, Nb, P, Rb, S, Si, Sn, Sr, Ta, and Ti.<br>• The vast majority of samples were drilled dry. Moisture content was logged qualitatively. All intersections of the water table were recorded in the database.<br>• Field sample duplicates were taken to evaluate whether samples were representative and understand repeatability, with good repeatability.<br>• Sample sizes and laboratory preparation techniques were appropriate and industry standard. |
| ***Quality of assay data and laboratory tests*** | • *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*<br>• *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.*<br>• *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.* | • Analysis for lithium and a suite of other elements for Phase 1 drilling was undertaken at SGS Johannesburg / Vancouver by ICP- OES after Sodium Peroxide Fusion. Detection limits for lithium (10ppm – 100,000ppm). Sodium Peroxide fusion is considered a "total"assay technique for lithium.<br>• Review of standards and blanks from the initial submission to Johannesburg identified failures (multiple standards reporting outside control limits). A decision was made to resubmit this batch and all subsequent batches to SGS Vancouver – a laboratory considered to have more experience with this method of analysis and sample type.<br>• Results of analyses for field sample duplicates are consistent with the style of mineralisation and considered to be representative. Internal laboratory QAQC checks are reported by the laboratory, including sizing analysis to monitor preparation and internal laboratory QAQC. These were reviewed and retained in the company drill hole database.<br>• 155 samples were sent to an umpire laboratory (ALS) and/assayed using equivalent techniques, with results demonstrating good repeatability.<br>• Atlantic's review of QAQC suggests the SGS Vancouver and Intertek Perth laboratories performed within acceptable limits.<br>• No geophysical methods or hand-held XRF units have been used for determination of grades in the Mineral Resource. |

| | | |
|---|---|---|
| ***Verification of sampling and assaying*** | • *The verification of significant intersections by either independent or alternative company personnel.*<br>• *The use of twinned holes.*<br>• *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*<br>• *Discuss any adjustment to assay data.* | • Significant intersections were visually field verified by company geologists, John Paul Hunt of SRK ES in 2022 and Shaun Searle of Ashmore during the 2019 site visit.<br>• Drill hole data was compiled and digitally captured by Company geologists in the field. Where hand-written information was recorded, all hardcopy records were kept and archived after digitising.<br>• Phase 1 and 2 drilling programs were captured on paper or locked excel templates and migrated to an MS Access database and then into Datashed (industry standard drill hole database management software). The Phase 3 to 5 programs were captured using LogChief which has inbuilt data validation protocols. All analytical results were transferred digitally and loaded into the database by a Datashed consultant.<br>• The data was audited, and any discrepancies checked by the Company personnel before being updated in the database.<br>• Twin DD holes were drilled to verify results of the RC drilling programs. Results indicate that there is iron contamination in the RC drilling process.<br>• Reported drill hole intercepts were compiled by the Chief Geologist.<br>• Adjustments to the original assay data included converting Li ppm to $Li_2O$%. |
| ***Location of data points*** | • *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*<br>• *Specification of the grid system used.*<br>• *Quality and adequacy of topographic control.* | • The collar locations were surveyed in UTM WGS84 Zone 30 North using DGPS survey equipment, which is accurate to 0.11mm in both horizontal and vertical directions. All holes were surveyed by qualified surveyors. Once validated, the survey data was uploaded into Datashed.<br>• Selected collars were validated by handheld GPS by John Paul Hunt of SRK ES in 2020.<br>• RC drill holes were routinely down hole surveyed every 6m using a combination of EZ TRAC 1.5 (single shot) and Reflex Gyroscopic tools.<br>• After the tenth drill hole, the survey method was changed to Reflex Gyro survey with 6m down hole data points measured during an end-of-hole survey.<br>• All Phase 2 and 3 drill holes were surveyed initially using the Reflex Gyro tool, but later using the more efficient Reflex SPRINT tool. Phase 4 and 5 drill holes were surveyed using a Reflex SPRINT tool.<br>• LiDAR survey - Southern Mapping produced rectified colour images and a digital terrain model (DTM) 32km², Aircraft C206 aircraft-mounted LiDAR Riegl Q780 Camera Hasselblad H5Dc with 50mm Fixfocus lens.<br>• Coordinate system: WGS84 UTM30N with accuracy to ±0.04.<br>• The topographic survey and photo mosaic output from the survey is accurate to 20mm.<br>• Locational accuracy at collar and down the drill hole is considered appropriate for resource estimation purposes. |

| | | |
|---|---|---|
| ***Data spacing and distribution*** | • *Data spacing for reporting of Exploration Results.*<br>• *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.*<br>• *Whether sample compositing has been applied.* | • The RC holes were initially drilled on 100m spaced sections and 50m hole spacings orientated at 300° or 330° with dips ranging from -50° to -60°. Planned hole orientations/dips were occasionally adjusted due to pad and/or access constraints.<br>• Hole spacing was reduced to predominantly 40m spaced sections and 40m hole spacings. Holes are generally angled perpendicular to interpreted mineralisation orientations at the Project.<br>• Samples were composited to 1m intervals prior to estimation. |
| ***Orientation of data in relation to geological structure*** | • *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*<br>• *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.* | • The drill line and drill hole orientation are oriented as close as practicable to perpendicular to the orientation of the general mineralised orientation.<br>• Most of the drilling intersects the mineralisation at close to 90 degrees ensuring intersections are representative of true widths. It is possible that new geological interpretations and/or infill drilling requirements may result in changes to drill orientations on future programs.<br>• No orientation-based sampling bias has been identified in the data. |
| ***Sample security*** | • *The measures taken to ensure sample security.* | • Samples were stored on site prior to road transportation by Company personnel to the SGS preparation laboratory.<br>• With the change of laboratory to Intertek, samples were picked up by the contractor and transported to the sample preparation facility in Tarkwa. |
| ***Audits or reviews*** | • *The results of any audits or reviews of sampling techniques and data.* | • Prior to the drilling program, a third-party Project review was completed by an independent consultant experienced with the style of mineralisation.<br>• In addition, John Paul Hunt of SRK ES and Shaun Searle of Ashmore reviewed drilling and sampling procedures during 2019 and 2020 visits respectively, procedures and practices conformed to industry standards. |

## Section 2 – Reporting of Exploration Results

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| ***Mineral tenement and land tenure status*** | • *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.*<br>*The security of the tenure held at the time of reporting along withany known impediments to obtaining a licence to operate in the area.* | • The Ewoyaa Project covers two contiguous exploration tenements, Mankessim (RL 3/55) and Mankessim South (PL3/109).<br>• Mankessim is held by an Atlantic subsidiary, Barari DV Ghana) it was renewed on the 27th July 2021 for a further three-year period, valid until 27th July 2024.<br>• The Mankessim South is held by Atlantic subsidiary Green Metals Resources, it was renewed on the 19th Feb 2020 for a further three-year period, valid until 18th Feb 2023.The tenement is in good standing with no known impediments. |
| ***Exploration done by other parties*** | *Acknowledgment and appraisal of exploration by other parties.* | Historical trenching and mapping were completed by the Ghana Geological survey during the 1960's. But for some poorly referenced historical maps, noneof the technical data from this work was located. Many of the historical trenches were located, cleaned and re-logged. No historical drilling was completed. |
| ***Geology*** | *Deposit type, geological setting, and style of mineralisation.* | • Pegmatite-hosted lithium deposits are the target for exploration. This style of mineralisation typically forms as dykes and sills intruding or in proximity to granite source rocks.<br>• Surface geology within the Project area typically consists of sequences of staurolite and garnet-bearing pelitic schist and granite with lesser pegmatite and mafic intrusives. Outcrops are typically sparse and confined to ridge tops with colluvium and mottled laterite blanketing much of the undulating terrain making geological mapping challenging. The hills are often separated by broad, sandy drainages. |
| ***Drill hole information*** | • *A summary of all information material to the under-standing of the exploration results including a tabulation of the following information for all Material drill holes:*<br>  • *easting and northing of the drill hole collar*<br>  • *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*<br>  • *dip and azimuth of the hole*<br>  • *down hole length and interception depth*<br>  • *hole length*<br>*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.* | • Exploration drill hole results are not being reported. |
| ***Data aggregation methods*** | • *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g., cutting of high grades) and cut-off grades are usually Material and should be stated.* | • No trench or drill intercept exploration results are reported.<br>• No metal equivalent values are being reported. |

| | | |
|---|---|---|
| | • *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.*<br>*The assumptions used for any reporting of metal equivalent values should be clearly stated.* | |
| ***Relationship between mineralisation widths and intercept lengths*** | • *These relationships are particularly important in the reporting of Exploration Results.*<br>• *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.*<br>*If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g., 'down hole length, true width not known').* | • No drilling Exploration Results are being reported.<br>• Ewoyaa Project Resource drill lines and drill hole orientations are oriented as close to 90° degrees to the anticipated mineralised orientation as practicable.<br>• The majority of the drilling intersects the mineralisation between 60° and 80° degrees. |
| ***Diagrams*** | *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan viewof drill hole collar locations and appropriate sectional views.* | • No drilling Exploration Results are being reported.<br>• Relevant diagrams are included in the Mineral Resource report (Searle, 2022). |
| ***Balanced Reporting*** | • *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.*<br>*Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.* | • All hole collars were surveyed WGS84 UTM Zone 30 North grid using a differential GPS. All RCand DD holes were down-hole surveyed with a north-seeking gyroscopic tool. |
| ***Other substantive exploration data*** | *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples - size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.* | • Results were estimated from drill hole assay data, with geological logging used to aid interpretation of mineralised contact positions.<br>• Geological observations are included in the report. |
| ***Further work*** | • *The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large- scale step-out drilling).*<br>*Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.* | • Follow up RC and DD drilling will be undertaken.<br>• Further metallurgical test work may be required as the Project progresses through the study stages.<br>• Drill spacing is currently considered adequate for the current level of interrogation of the Project. |

## Section 3 – Estimation and Reporting of Mineral Resources

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| ***Database integrity*** | • *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.*<br>• *Data validation procedures used.* | • The database has been systematically audited by Atlantic geologists.<br>• All drilling data has been verified as part ofa continuous validation procedure. Once adrill hole is imported into the database a report of the collar, down-hole survey, geology, and assay data are produced. This is then checked by an Atlantic geologist and any corrections are completed by the database manager. |
| ***Site visits*** | • *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*<br>• *If no site visits have been undertaken indicate why this is the case.* | • A site visit was conducted by Shaun Searle of Ashmore during February 2019.Shaun inspected the deposit area, drillcore/chips and outcrop. During this time, notes and photos were taken. Discussions were held with site personnel regarding drilling and sampling procedures. No major issues were encountered.<br>• A site visit was also undertaken as part of SRK ES's review by Mr John Paul Hunt. |
| ***Geological interpretation*** | • *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.*<br>• *Nature of the data used and of any assumptions made.*<br>• *The effect, if any, of alternative interpretations on Mineral Resource estimation.*<br>• *The use of geology in guiding and controlling Mineral Resource estimation.*<br>• *The factors affecting continuity both of grade and geology.* | • The confidence in the geological interpretation is considered to be good and is based on visual confirmation in outcrop and within drill hole intersections.<br>• Geochemistry and geological logging have been used to assist identification of lithology and mineralisation.<br>• The Project area lies within the Birimian Supergroup, a Proterozoic volcano- sedimentary basin located in Western Ghana. The Project area is underlain by three forms of metamorphosed schist; mica schist, staurolite schist and garnet schist. Several granitoids intrude the basin metasediments as small plugs. These granitoids range in composition from intermediate granodiorite (often medium grained) to felsic leucogranites (coarse to pegmatoidal grain size), sometimes in close association with pegmatite veins and bodies. Pegmatite intrusions generally occur as sub-vertical dykes withtwo dominant trends: either east-northeast or north-northeast and dip sub-vertically tomoderately southeast to east-southeast. Thickness varies across the Project, with thinner mineralised units intersected at Abonko and Kaampakrom between 4 to 12m; and thicker units intersected at Ewoyaa Main between 30 to 60m.<br>• Infill drilling has supported and refined themodel and the current interpretation isconsidered robust.<br>• Observations from the outcrop of mineralisation and host rocks; as well as infill drilling, confirm the geometry of the mineralisation.<br>• Infill drilling has confirmed geological and grade continuity. |
| ***Dimensions*** | • *The extent and variability of the Mineral Resource expressed as length* | • The Project Mineral Resource areaextends over a north-south strike length of |

| | | |
|---|---|---|
| | *(along strike or otherwise), plan width,and depth below surface to the upper and lower limits of the Mineral Resource.* | 3,850m (from 577,380mN – 581,230mN), and includes the 210m vertical interval from 80mRL to -170mRL. |
| ***Estimation and modelling techniques*** | • *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.*<br>• *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource Estimate takes appropriate account of such data.*<br>• *The assumptions made regarding recovery of by-products.*<br>• *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).*<br>• *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.*<br>• *Any assumptions behind modelling of selective mining units.*<br>• *Any assumptions about correlation between variables.*<br>• *Description of how the geological interpretation was used to control the resource estimates.*<br>• *Discussion of basis for using or not using grade cutting or capping.*<br>• *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.* | • Using parameters derived from modelled variograms, Ordinary Kriging ("OK") was used to estimate average block grades in three passes using Surpac software. Linear grade estimation was deemed suitable for the Cape Coast Mineral Resource due to the geological control onmineralisation. The extrapolation of the lodes along strike and down-dip has beenlimited to a distance of 40m. Zones of extrapolation are classified as Inferred Mineral Resource.<br>• It is assumed that there are no by- products or deleterious elements as shown by metallurgical test work.<br>• $Li_2O$ (%), Ta (ppm), Fe (%), Nb (ppm), Sn (ppm), Cs (ppm), K (%), Al (%), Si (%), P (%) and S (ppm) were interpolated into theblock model.<br>• A Surpac block model was created to encompass the extents of the known mineralisation. The block model wasrotated on a bearing of 30°, with block dimensions of 10m NS by 10m EW by 5mvertical with sub-cells of 2.5m by 2.5m by1.25m. The parent block size dimensionwas selected on the results obtained fromKriging Neighbourhood Analysis and alsoin consideration of two predominant mineralisation orientations of 30° and 100to 120°.<br>• An orientated 'ellipsoid' search was used to select data and adjusted to account for the variations in lode orientations, however all other parameters were taken from the variography derived from Domains 1, 2, 3, 4, 7 and 8. Up to three passes were used for each domain. First pass had a range of 50m, with a minimum of 8 samples. For the second pass, the range was extended to 100m, with a minimum of 4 samples. For the third pass, the range was extended to 200m, with a minimum of 1 or 2 samples. A maximum of 16 samples was used for each pass with a maximum of 4 samples per hole.<br>• No assumptions were made on selective mining units.<br>• Correlation analysis was conducted on the domains at Ewoyaa Main. It is evident that$Li_2O$ has little correlation with any of the other elements presented in the table, apart from weak negative correlations withcaesium and potassium.<br>• The mineralisation was constrained by pegmatite geology wireframes and internal lithium bearing mineralisation wireframes prepared using a nominal 0.4% $Li_2O$ cut-off grade and a minimum down-hole length of 3m. The wireframes |

| | | |
|---|---|---|
| | | were used as hard boundaries for theinterpolation.<br>Statistical analysis was carried out on data from 72 mineralised domains. Following areview of the population histograms and log probability plots and noting the low coefficient of variation statistics, it was determined that the application of highgrade cuts was not warranted.<br>• Validation of the model included detailed visual validation, comparison of composite grades and block grades by northing and elevation and a nearest neighbour check estimate. Validationplots showed good correlation between the composite grades and the block model<br>• grades. |
| ***Moisture*** | • *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.* | • Tonnages and grades were estimated ona dry in situ basis. |
| ***Cut-off parameters*** | • *The basis of the adopted cut-off grade(s) or quality parameters applied.* | • The Statement of Mineral Resources has been constrained by the mineralisationsolids, reported above the -190mRL and acut-off grade of 0.5% $Li_2O$. Whittle optimisations demonstrate reasonable prospects for eventual economic extraction above the -190mRL. Preliminary metallurgical test work indicates that there are four main geometallurgical domains; weathered and fresh coarse grained spodumene bearingpegmatite (P1); and weathered and fresh medium grained spodumene bearing pegmatite (P2). From test work completedto date at a 6.3mm crush, the P1 materialproduces a 6% $Li_2O$ concentrate at approximately 70 to 85% recovery (average 75% recovery), whilst P2 material produces 5.5 to 6% $Li_2O$ concentrate at approximately 35 to 65% recovery (average 47% recovery). Further geological, geotechnical, engineering andmetallurgical studies are recommended to further define the lithium mineralisation and marketable products. |
| ***Mining factors or assumptions*** | • *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions* | • Ashmore has assumed that the depositcould be mined using open pit mining techniques.<br>• A high level Whittle optimisation of theMineral Resource supports this view. |

<table>
<tr><td></td><td>made.</td><td></td></tr>
<tr><td>Metallurgical factors or assumptions</td><td>• The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources maynot always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</td><td>• Preliminary metallurgical test work has been conducted on the Cape Coast material types. Test work indicates that there are four main geometallurgical material types in occurrence at the Project, with their relative abundances, concentrate grades and recoveries shown below.<br><br>Weathered<br><table><tr><th>Geomet</th><th>Tonnage Mt</th><th>$Li_2O$ %</th><th>Rec %</th><th>Conc. $Li_2O$ (%)</th></tr><tr><td>P1</td><td>1.7</td><td>1.13</td><td>75</td><td>6.0</td></tr><tr><td>P2</td><td>0.3</td><td>1.05</td><td>61</td><td>6.0</td></tr><tr><td>Total</td><td>2.0</td><td>1.12</td><td></td><td></td></tr></table><br>Primary<br><table><tr><th>Geomet</th><th>Tonnage Mt</th><th>$Li_2O$ %</th><th>Rec %</th><th>Conc. $Li_2O$ (%)</th></tr><tr><td>P1</td><td>23.5</td><td>1.30</td><td>76</td><td>6.0</td></tr><tr><td>P2</td><td>4.7</td><td>1.11</td><td>47</td><td>5.5</td></tr><tr><td>Total</td><td>28.1</td><td>1.27</td><td></td><td></td></tr></table></td></tr>
<tr><td>Environmental factors or assumptions</td><td>• Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</td><td>• As part of its review SRK ES hasundertaken a review of potential environmental and social factors and determined that there are no such factors that would prevent the reporting of mineralresources.</td></tr>
<tr><td>Bulk density</td><td>• Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.<br>• The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.<br>• Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</td><td>• Bulk density measurements were completed on selected intervals of diamond core drilled at the deposit. The measurements were conducted at the Cape Coast core processing facility usingthe water immersion/Archimedes method.The weathered samples were coated in paraffin wax to account for porosity of theweathered samples.<br>• A total of 9,725 measurements were conducted on the Cape Coast mineralisation, with samples obtained from oxide, transitional and fresh material.<br>• Bulk densities ranging between 1.7t/$m^3$ and 2.78t/$m^3$ were assigned in the block model dependent on lithology,</td></tr>
</table>

| | | |
|---|---|---|
| | | mineralisation and weathering. |
| ***Classification*** | • *The basis for the classification of the Mineral Resources into varying confidence categories.*<br>• *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).*<br>• *Whether the result appropriately reflects the Competent Person's view of the deposit.* | The Mineral Resource Estimate isreported here in compliance with the 2012Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' by the Joint Ore Reserves Committee (JORC). The Cape Coast Mineral Resource was classified as Indicated and Inferred Mineral Resource based on data quality, sample spacing, and lode continuity. The Indicated Mineral Resource was defined within areas of close spaced RC and DD drilling of less than 40m by 40m, andwhere the continuity and predictability of the lode positions was good. In addition, Indicated Mineral Resource was confinedto the fresh rock. The Inferred Mineral Resource was assigned to transitional material, areas where drill hole spacing was greater than 40m by 40m, where small isolated.<br>• The input data is comprehensive in itscoverage of the mineralisation and does not favour or misrepresent in-situ mineralisation. The definition ofmineralised zones is based on high level geological understanding producing arobust model of mineralised domains. Thismodel has been confirmed by infill drilling which supported the interpretation. Validation of the block model shows good correlation of the input data to theestimated grades.<br>• The Mineral Resource estimate appropriately reflects the view of the Competent Person. |
| ***Audits or reviews*** | • *The results of any audits or reviews of Mineral Resource Estimates.* | • Internal audits have been completed byAshmore which verified the technicalinputs, methodology, parameters andresults of the estimate.<br>• SRK ES has made various suggestions and recommendations in relation to the methods used by Ashmore to derive andreport the MRE as part of this IGR, however SRK ES is confident that the MRE is not biased in any material manner, reflects all of the available data,has been derived using accepted and standard techniques and has been reported in accordance with the terminology and definitions as set out in the JORC Code (2012). |
| ***Discussion of relative accuracy/ confidence*** | • *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource Estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a* | • The geometry and continuity have been adequately interpreted to reflect the applied level of Indicated and Inferred Mineral Resource. The data quality is good, and the drill holes have detailed logs produced by qualified geologists. A recognised laboratory has been used for all analyses.<br>• The Mineral Resource statement relates to global estimates of tonnes and grade.<br>• No historical mining has occurred; |

| | | |
|---|---|---|
| | *qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.*<br>• *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.*<br>• *These statements of relative accuracy and confidence of the estimate should be*<br>*compared with production data, where available.* | therefore, reconciliation could not be conducted. |

# APPENDIX 2

Competent Person Consent Forms

srk exploration

SRK Exploration Services Ltd
12 St Andrews Crescent
Cardiff, CF10 3DD
United Kingdom

+44 2920 233233

enquiries@srkexploration.com
www.srk.com

Reg No. 04929472

## Competent Person's Consent Form

Pursuant to the requirements of ASX Listing Rules 5.6, 5.22 and 5.24 and Clause 9 of the JORC Code 2012 Edition (Written Consent Statement)

**Report name**

Independent Geologist's Report on Atlantic Lithium Limited Mineral Assets Including the Ewoyaa Project

*(Insert name or heading of Report to be publicly released)* ('Report')

Atlantic Lithium Limited

*(Insert name of company releasing the Report)*

Ewoyaa Lithium Project, within the Cape Coast Tenement Portfolio, Ghana.

*(Insert name of the deposit to which the Report refers)*

If there is insufficient space, complete the following sheet and sign it in the same manner as this original sheet.

29/07/2022

*(Date of Report)*

# Statement

I,

**Dr Mike Armitage**

*(Insert full name(s))*

confirm that I am the Competent Person for the Report and:

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).
- I am a Competent Person as defined by the JORC Code, 2012 Edition, having five years experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.
- I am a Member or Fellow of *The Australasian Institute of Mining and Metallurgy* or the *Australian Institute of Geoscientists* or a 'Recognised Professional Organisation' (RPO) included in a list promulgated by ASX from time to time.
- I have reviewed the Report to which this Consent Statement applies.

I am an Associate Corporate Consultant of

**SRK Exploration Services Limited**

*(Insert company name)*

Or

I/We am a consultant working for

*(Insert company name)*

and have been engaged by

**Atlantic Lithium Limited**

*(Insert company name)*

to prepare the documentation for

The Ewoyaa Project and associated exploration tenements (the Cape Coast Portfolio)

*(Insert deposit name)*

on which the Report is based, for the period ended

20th April 2022

*(Insert date of Resource/Reserve statement)*

I have disclosed to the reporting company the full nature of the relationship between myself and the company, including any issue that could be perceived by investors as a conflict of interest.

I verify that the Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in my supporting documentation relating to Exploration Results and Mineral Resources.

# Consent

I consent to the release of the Report and this Consent Statement by the directors of:

**Atlantic Lithium Limited**

*(Insert reporting company name)*

29/07/2022

Signature of Competent Person:

Date:

Fellow of the Geological Society

17291

Professional Membership:
*(insert organisation name)*

Membership Number:

HARRI REES

CARDIFF, UK

Signature of Witness:

Print Witness Name and Residence:
(eg town/suburb)

srk exploration

SRK Exploration Services Ltd
12 St Andrews Crescent
Cardiff, CF10 3DD
United Kingdom

+44 2920 233233

enquiries@srkexploration.com
www.srk.com

Reg No. 04929472

# Competent Person's Consent Form

Pursuant to the requirements of ASX Listing Rules 5.6, 5.22 and 5.24 and Clause 9 of the JORC Code 2012 Edition (Written Consent Statement)

## Report name

Independent Geologist's Report on Atlantic Lithium Limited Mineral Assets Including the Ewoyaa Project

*(Insert name or heading of Report to be publicly released)* ('Report')

Atlantic Lithium Limited

*(Insert name of company releasing the Report)*

Ewoyaa Lithium Project, within the Cape Coast Tenement Portfolio, Ghana.

*(Insert name of the deposit to which the Report refers)*

If there is insufficient space, complete the following sheet and sign it in the same manner as this original sheet.

29/07/2022

*(Date of Report)*

# Statement

I,

**Nicholas O'Reilly**

*(Insert full name(s))*

confirm that I am the Competent Person for the Report and:

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).
- I am a Competent Person as defined by the JORC Code, 2012 Edition, having five years experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.
- I am a Member or Fellow of *The Australasian Institute of Mining and Metallurgy* or the *Australian Institute of Geoscientists* or a 'Recognised Professional Organisation' (RPO) included in a list promulgated by ASX from time to time.
- I have reviewed the Report to which this Consent Statement applies.

I am a Associate Principal Geologist of

**SRK Exploration Services Limited**

*(Insert company name)*

Or

I/We am a consultant working for

*(Insert company name)*

and have been engaged by

**Atlantic Lithium Limited**

*(Insert company name)*

to prepare the documentation for

The Ewoyaa Project and associated exploration tenements (the Cape Coast Portfolio)

*(Insert deposit name)*

on which the Report is based, for the period ended

20th April 2022

*(Insert date of Resource/Reserve statement)*

I have disclosed to the reporting company the full nature of the relationship between myself and the company, including any issue that could be perceived by investors as a conflict of interest.

I verify that the Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in my supporting documentation relating to Exploration Targets, Exploration Results, Mineral Resources and/or Ore Reserves *(select as appropriate)*.

# Consent

I consent to the release of the Report and this Consent Statement by the directors of:

**Atlantic Lithium Limited**

*(Insert reporting company name)*

*This digitally captured signature has been authorised for use in this particular document. The original is held on file.*

Nicholas J O'Reilly MSc DIC BSc (Hons) FGS MAusIMM

Signature of Competent Person:

29/07/2022

Date:

*Member of the Australasian Institute of Mining and Metallurgy (MAusIMM)*

Professional Membership:

316371

Membership Number:

Signature of Witness:

C S RAMBOUT, CARDIFF UK.

Print Witness Name and Residence:
(eg town/suburb)

srk exploration

SRK Exploration Services Ltd
12 St Andrews Crescent
Cardiff, CF10 3DD
United Kingdom

+44 2920 233233

enquiries@srkexploration.com
www.srk.com

Reg No. 04929472

# Competent Person's Consent Form

Pursuant to the requirements of ASX Listing Rules 5.6, 5.22 and 5.24 and Clause 9 of the JORC Code 2012 Edition (Written Consent Statement)

## Report name

Independent Geologist's Report on Atlantic Lithium Limited Mineral Assets Including the Ewoyaa Project

*(Insert name or heading of Report to be publicly released)* ('Report')

Atlantic Lithium Limited

*(Insert name of company releasing the Report)*

Ewoyaa Lithium Project, within the Cape Coast Tenement Portfolio, Ghana.

*(Insert name of the deposit to which the Report refers)*

If there is insufficient space, complete the following sheet and sign it in the same manner as this original sheet.

29/07/2022

*(Date of Report)*

# Statement

I,

**Oliver Bayley**

*(insert full name(s))*

confirm that I am the Competent Person for the Report and:

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).
- I am a Competent Person as defined by the JORC Code, 2012 Edition, having five years experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.
- I am a Member or Fellow of *The Australasian Institute of Mining and Metallurgy* or the *Australian Institute of Geoscientists* or a 'Recognised Professional Organisation' (RPO) included in a list promulgated by ASX from time to time.
- I have reviewed the Report to which this Consent Statement applies.

I am a full time employee of

**SRK Exploration Services Limited**

*(insert company name)*

Or

I/We am a consultant working for

*(insert company name)*

and have been engaged by

**Atlantic Lithium Limited**

*(insert company name)*

to prepare the documentation for

The Ewoyaa Project and associated exploration tenements (the Cape Coast Portfolio)

*(insert deposit name)*

on which the Report is based, for the period ended

20th April 2022

*(insert date of Resource/Reserve statement)*

I have disclosed to the reporting company the full nature of the relationship between myself and the company, including any issue that could be perceived by investors as a conflict of interest.

I verify that the Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in my supporting documentation relating to Exploration Targets, Exploration Results, Mineral Resources and/or Ore Reserves *(select as appropriate)*.

# Consent

I consent to the release of the Report and this Consent Statement by the directors of:

**Atlantic Lithium Limited**

*(insert reporting company name)*

29/07/2022

Signature of Competent Person:

Date:

MAIG

6301

Professional Membership:
*(insert organisation name)*

Membership Number:

C S RAWBONE, CARDIFF UK

Signature of Witness:

Print Witness Name and Residence:
(eg town/suburb)