ATLANTIC LITHIUM

29 JUNE 2023

AIM: ALL, ASX: A11, OTCQX: ALLIF

DEFINITIVE FEASIBILITY STUDY

DFS CONFIRMS PROJECT'S ECONOMIC VIABILITY AND INDICATES LOW CAPITAL INTENSITY AND EXCEPTIONAL PROFITABILITY POTENTIAL

Atlantic Lithium Limited (AIM: ALL, ASX: A11, OTCQX: ALLIF, "Atlantic Lithium" or the "Company"), the African-focused lithium exploration and development company targeting to deliver Ghana's first lithium mine, is pleased to announce its Definitive Feasibility Study ("DFS") for the Ewoyaa Lithium Project ("Ewoyaa" or the "Project") in Ghana, West Africa.

DFS HIGHLIGHTS:

- 3.6 million tonnes ("Mt") spodumene concentrate production over 12-year Life of Mine ("LOM").
- Exceptional Project economics: Post-tax Net Present Value ("NPV_8") of US$1.5bn with free cash flow of US$2.4bn from LOM revenues of US$6.6bn, Average LOM EBITDA of US$316 million per annum, Internal Rate of Return ("IRR") of 105% and short payback of 19 months.
- C1 cash operating costs of US$377/t of concentrate Free-On-Board ("FOB") Ghana Port, after by-product credits from conventional open cut mining operation; All in Sustaining Cost ("AISC") of US$610/t.
- Modest capital cost estimate of US$185 million.
- Incorporates Modular DMS units to generate early cash flow and increased throughput from 2Mtpa to 2.7Mtpa:
  - Modular DMS cash flow reduces mine build peak funding requirement; capex paid back prior to full completion of plant build; and
  - DFS maintains low capital intensity of US$64/t of annualised throughput.
- Throughput increased by 35% following significant uplift in Ore Reserves to 25.6Mt @ 1.22% Li_2O.
- Simple mineralogy enables simple flowsheet comprising integrated 3-stage crushing facility through conventional Dense Media Separation ("DMS") processing, producing 6% ("SC6") and 5.5% ("SC5.5") concentrate (approx. 50:50 ratio) at 10mm top size crush.
- Additional 4.7Mt of secondary product anticipated as by-product from DMS concentrator, with average grade of 1.16% Li_2O.
- DFS incorporates Mineral Resource Estimate[1] ("MRE") of 35.3Mt @ 1.25 Li_2O and conservative LOM concentrate pricing of US$1,587/t, FOB Ghana Port.
- Project benefits from close proximity to operational infrastructure, low energy and water-intensity process flow sheet, proximity to potential off-takers and skilled Ghanaian workforce within surrounding communities; over 800 direct jobs to be created.

KEITH MULLER

CEO

Commenting, Keith Muller, Chief Executive Officer of Atlantic Lithium, said: *"The Definitive Feasibility study has reaffirmed the Ewoyaa Lithium Project's impressive economic outcomes and profitability potential, providing improved confidence in Ewoyaa's ability to become a significant, near-term producer of spodumene concentrate.*

"Using conservative pricing, the DFS outlines 3.6Mt concentrate production over a 12-year mine life, delivering US$6.6bn Life of Mine revenues, a post-tax NPV_8 of US$1.5bn and an Internal Rate of Return of 105%. The Study indicates payback within only 19 months and maintains a low capital intensity, further reinforcing Ewoyaa's position among the leading pre-production hard rock lithium assets globally.

"The increase in capex from the PFS results from the inclusion of the Modular DMS units and the increased throughput of 2.7Mtpa. Early revenue generated by the Modular DMS units will reduce peak funding requirement for the mine build, strongly justifying these developments. Furthermore, this will provide a valuable opportunity to train national staff and engineer out any mining, materials handling or logistics bottlenecks ahead of large-scale operations commencing for a potentially quicker commissioning phase.

"The deployment of the Modular DMS units has been reallocated from Stage 2 to Stage 1 of the Project's development. Stage 2 includes the evaluation of a Feldspar circuit, a by-product of the DMS process that we intend to supply to the local Ghanaian ceramics market, and a Flotation circuit, further enhancing the Project's economics.

"Ewoyaa's favourable mineralogy enables a simple flowsheet comprising a 3-stage crushing facility and Dense Media Separation processing from conventional, open pit mining to produce a spodumene concentrate proven suitable for carbonate, sulphide or hydroxide conversion. Due to its grade, the Project's coastal location and against the backdrop of the global decarbonisation movement, demand from off-takers for product from Ewoyaa has been strong.

"The Project benefits from a low water and energy-intensive plant, close proximity to exceptional infrastructure, including adjacent grid power, as well as a skilled Ghanaian workforce within Ewoyaa's supportive surrounding communities. These favourable characteristics underlie the viability of the Project.

"Understanding the role we can play, we are fully committed to the development of our host communities. This includes local investment via a community development fund, apportioning an equivalent of 1% of retained earnings to local initiatives, and the creation of employment opportunities. As we set our sights on first production, we firmly believe that Ewoyaa will deliver long-lasting benefits for the Central Region, to Ghana and to West Africa."

[1] **Ore Reserves, Mineral Resources and Production Targets**

The information in this announcement that relates to Ore Reserves, Mineral Resources and Production Targets complies with the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). The information in this announcement relating to the Mineral Resource Estimate ("MRE") of 35.3 Mt @ 1.25% Li_2O *for Ewoyaa is extracted from the Company's announcement dated 1 February 2023, which is available at atlanticlithium.com.au. The MRE includes a total of 3.5 Mt @ 1.37%* Li_2O *in the Measured category, 24.5 Mt @ 1.25%* Li_2O *in the Indicated category and 7.4 Mt @ 1.16%* Li_2O *in the Inferred category. The Company confirms that all material assumptions and technical parameters underpinning the Mineral Resource Estimate in the announcement dated 1 February 2023 continue to apply and have not materially changed, and it is not aware of any new information or data that materially affects the information included in this announcement or the announcement dated 1 February 2023.*

1.0 PROJECT INTRODUCTION

1.1 PROJECT OVERVIEW AND SUMMARY

Atlantic Lithium has undertaken a Definitive Feasibility Study ("DFS") for the development of the Ewoyaa Lithium Project ("Ewoyaa" or the "Project") in Ghana, West Africa. The DFS builds upon previous studies completed in 2021 and 2022.

The Project development involves open cut mining of several lithium-bearing pegmatite deposits, conventional Dense Media Separation ("DMS") processing and supporting infrastructure to target the production of spodumene concentrate and secondary product by Q2 2025 (Figure 1). The development timeline is contingent on the permitting schedule as outlined in Table 16.

FIGURE 1 SITE OVERVIEW LOOKING NORTHEAST, YEAR 1 OPERATION

Initial processing of approximately 450,000t of ore will be carried out over the first nine months, starting Q2 2025, in an early production processing plant fed from Ewoyaa South 2 pit, prior to processing through the main 2.7Mtpa processing facility from Q1 2026 for 11 years.

Over the life of mine ("LOM"), the Project is estimated to produce 3.58Mt of 6% (SC6) and 5.5% (SC5.5) grade spodumene concentrate, as well as 4.7Mt of secondary product, which have been identified to be saleable given current and forecast lithium demand projections.

Key Project metrics from the DFS are listed in Table 1, demonstrating robust Project financial outcomes and metrics.

TABLE 1 EWOYAA DFS KEY METRICS (100% PROJECT BASIS[2])

Item	Units	DFS Result
Mineral Resource[3]	Mt @ %	35.3Mt @ 1.25% Li_2O
Measured Indicated Mineral Resource	Mt @ %	3.5Mt @ 1.37% Li_2O
Indicated Mineral Resource	Mt @ %	24.5Mt @ 1.25% Li_2O
Inferred Mineral Resource	Mt @ %	7.4Mt @ 1.16% Li_2O
Mine Life	Years	12
Ore Reserves (Probable)	Mt @ %	25.6Mt @ 1.22% Li_2O
Total Material Movement LOM	Mt	406
Mined Waste	Mt	375.4
Mined Ore	Mt	30.6
Strip Ratio	W:O	12.3
Processed Ore LOM	Mt	27.3
DMS Plant Feed Rate	Mtpa	2.7
Li_2O Head Grade (average)	%	1.22
Average Whole of Ore Recovery SC6	%	62.1
Average Whole of Ore Recovery SC5.5	%	67.2
Secondary Product Mass Yield (% of ROM Feed)	%	17.0
SC6 Produced	LOM, t	1,792,222
SC5.5 Produced	LOM, t	1,792,195
Secondary Product Produced	LOM, t	4,733,264
Project Total Upfront Capital Cost	US$M	185
SC6 Sell Price, LOM Average, FOB Ghana	US$/t	1,695
SC5.5 Sell Price, LOM Average, FOB Ghana	US$/t	1,478
Secondary Product Sell Price, LOM Average, FOB Ghana	US$/t	186
Revenue (all products)	US$M	6,566
Post-tax IRR	%	105
C1 Cash Cost, after secondary product credits	US$/t	377
All In Sustaining Cost (AISC)	US$/t	610
Surplus Cashflow, Post Tax	US$M	2,438
NPV_8 Post Tax	US$M	1,498
Payback	Months	19
NPAT, LOM	US$M	2,284

[2] *Whilst the asset is currently wholly owned by Atlantic Lithium Ltd, Piedmont Lithium Inc. can earn up to half the asset through the funding agreement, whilst the Government of Ghana has the right to a 10% free carry once in production.*

[3] *Mr S. Searle of Ashmore Advisory Pty Ltd for Mineral Resources and Mr H. Warries of Mining Focus Consultants Pty Ltd for Ore Reserves. For full Competent Persons statements, refer to Table 5 and Table 12.*

NOTE: *Mineral Resources are inclusive of the Ore Reserves.*

1.2 PROJECT LOCATION AND ACCESS

The Project area is immediately north of Saltpond in the Central Region of Ghana and falls within the Mfantseman Municipality where Saltpond is the district capital (Figure 2).

The site is approximately 100km southwest of the capital of Accra. Site access is from the sealed N1 Accra-Cape Coast-Takoradi highway which runs along the southern coastal boundary of the Project and links Accra and the deep-sea port of Takoradi, approximately 110km west of the site. Several unsealed roads extend northwards from the highway and link communities within the Project area. A new site access road will be developed to join to existing roads and to the highway.

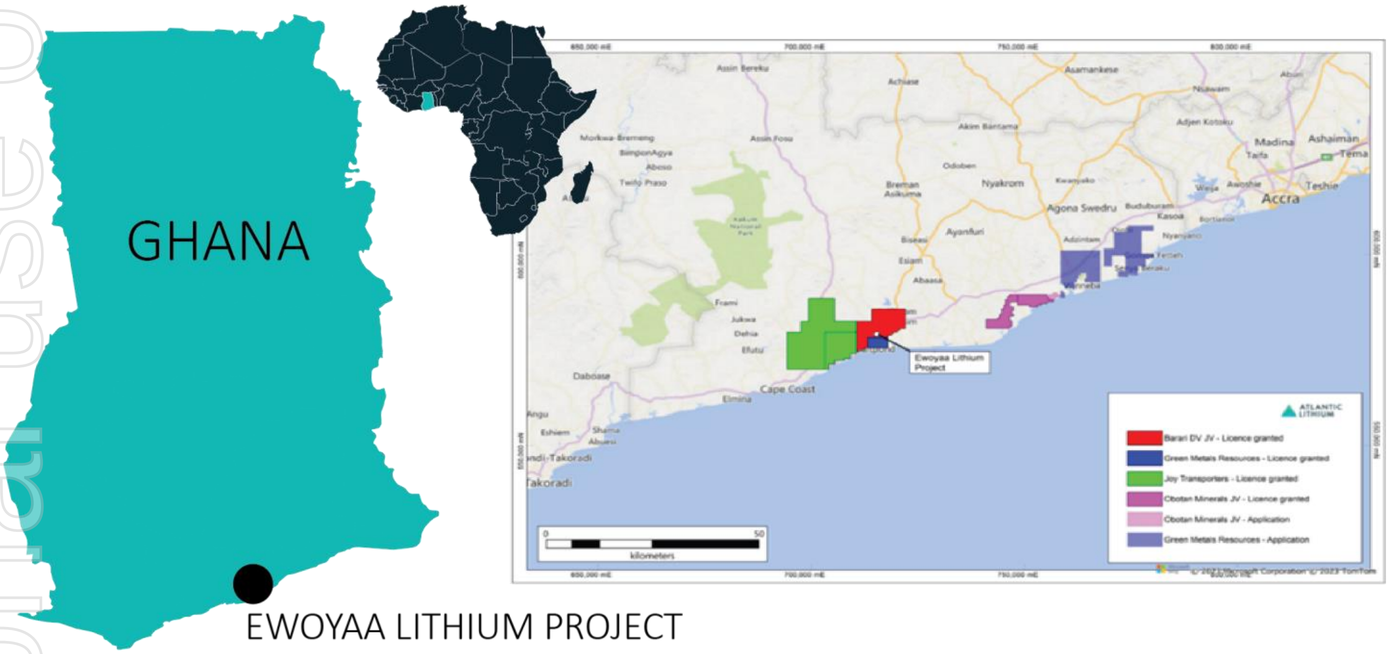

FIGURE 2 PROJECT LOCATION AND EXPLORATION PERMITS

The Project area is in Mfantseman Municipality, which falls under the local governance of the Mfantseman Municipal Assembly, which also falls under the Central Regional Coordinating Council.

The Municipality has a projected population of 176,288 representing 6.6% of the Central Region. Mfantseman is largely an agrarian economy with 27% of the economically active population employed in mainstream agriculture. Industrial activity occurs in the various market centres at Anomabo, Biriwa, and Yamoransa, with Mankessim as the commercial hub. The three major industries of employment in the Municipality include agriculture/forestry/fishing (37%), wholesale/retail trade/auto repairs (23.7%) and manufacturing (8.4%).

1.3 SUPPORTING INFRASTRUCTURE

The existing, sealed N1 Accra-Cape Coast-Takoradi highway provides access to Accra and the Takoradi port. A new access road will be built to the facility from existing road infrastructure.

Several High Voltage (HV) powerlines traverse or run nearby to the Project site, facilitating connection to the existing power grid and access to existing power supply. Relocation of some HV powerlines within planned mining areas will be required and forms part of the Project scope.

No water supply for the operation currently exists but will be sourced from a combination of pit dewatering, site water capture and pumped supply from a nearby reservoir for makeup water.

Connection to existing communications infrastructure for internet and telephony will also be possible.

Existing port facilities are available at Takoradi, approximately 110km west of the site, and at Tema, 140km east, for Project construction and operations logistics requirements.

The nearest international airports are the Kotoka International Airport in Accra and Sekondi-Takoradi Airport Port in Takoradi, thus no site airstrip will be required.

FIGURE 3 EXISTING GRID POWER, N1 HIGHWAY AND TAKORADI PORT CLOSE TO THE PROJECT SITE

1.4 CLIMATE

The climate around Cape Coast is typical of the dry equatorial region of Ghana, characterised by an average temperature of 24°C and relative humidity of 70%. There are double rainfall peaks with a pronounced rainfall increase during May-June and a lesser rainfall peak sometimes occurring around September-October. Mean annual rainfall ranges from 730mm to 1,230mm along the coast and up to 1,600mm inland, and dry seasons extend from December to February and from July to September.

1.5 TOPOGRAPHY

The topography of the Project area varies with steep hills surrounding low-lying valleys throughout the proposed mining area. The terrain of the Project area rises sharply from a narrow coastal plane to an undulating peneplain where elevation ranges from 20m to 120m above mean sea level.

2.0 OWNERSHIP, TENURE AND LEGAL

2.1 COMPANY STRUCTURE AND OWNERSHIP

Atlantic Lithium holds 100% ownership over IronRidge Resources Singapore Pte Ltd, and IronRidge Resources Singapore Pte Ltd holds both 100% ownership of Green Metals Resources Ltd ("GMR") and 90% ownership in Barari Development Ghana Ltd ("BDV"). The inter-corporate relationship is depicted in Table 2.

The subsidiary companies and related tenement/mineral right for which this DFS relates to is summarised in Table 2.

FIGURE 4 ATLANTIC LITHIUM CORPORATION STRUCTURE

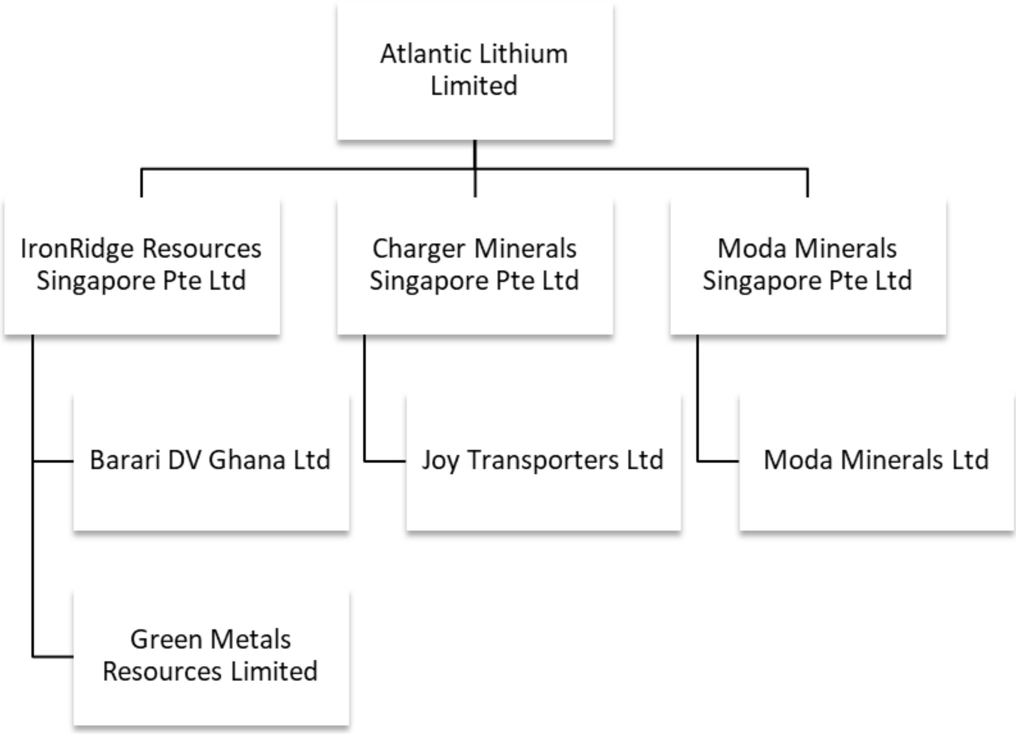

TABLE 2 SUBSIDIARY COMPANIES PROPERTY RIGHTS

Subsidiary	Identifying Number	Incorporated Location and Date	Percentage Holding	Activity
IronRidge Resources Singapore Pte Ltd	UEN 201829622K	Incorporated in Singapore on 29 August 2018	Atlantic Lithium Limited owns 100%	Holder of shares in Barari DV Ghana Ltd & Green Metals Resources Ltd
Green Metals Resources Limited	CS080712016	Incorporated in Ghana on 10 May 2016	IronRidge Resources Singapore Pte Ltd owns 100%	Owns assets being the tenements / mineral rights #PL3/109
Barari DV Ghana Ltd	CS134902018	Incorporated in Ghana on 27 April 2011	IronRidge Resources Singapore Pte Ltd owns 90%	Owns assets being the tenements / mineral rights #RL3/55

Barari DV Ghana LTD is the "Operating Company" and hold the mineral right intended to be converted to a Mining Lease for the Project. The Operating Company will be required to obtain a Mining Lease in order to exploit the minerals in the licence area. A holder of a reconnaissance licence or a prospecting licence may, prior to the expiration of the licence, apply for one (1) 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 licence area.

MINERAL RIGHTS

Atlantic Lithium holds rights to six prospecting licences and three applications through outright ownership and joint venture (Table 3) host the current Project site and form the basis of the Mining Lease area application.

TABLE 3 EWOYAA LITHIUM PROJECT MINERAL RIGHTS

Number	Tenement name	Size (km^2)	Minerals	Holder	Date of grant	Renewal date	Expiry date	Term
PL3/55	Mankessim	74.67	Gold, Lithium, Base Metals	Barari DV Ghana Ltd	23 March 2018	27 July 2021	26 Jul 2024	3 yrs
PL3/109	Mankessim South	13.02	Gold, Lithium, Base Metals	Green Metals Resources Ltd	19 Feb. 2020	N/A	18 Feb 2023 (renewal in process)	3 yrs
PL3/102	Saltpond	88.62	Feldspar	Joy Transporters Ltd	30 Dec. 2016	21 Aug. 2019	20 Aug. 2022 (renewal in process)	3 yrs
PL3/106	Cape Coast	136.23	Lithium	Joy Transporters Ltd	15 Nov. 2021	N/A	14 Nov. 2024	3 yrs
PL3/67	Apam	20.50	Gold, Columbite, Tantalite	Obotan Minerals Company Ltd	3 Sep. 2002	27 June 2019	26 Jun 2022 (renewal in process)	3 yrs
PL3/92	Apam West	33.35	Gold	Obotan Minerals Company Ltd	6 Jan. 2017	21 Aug. 2019	20 Aug. 2022 (renewal in process)	3 yrs

The Project intends to transfer a portion of tenement PL3/109 from Green Metals Resources Ltd ("GMR") to Barari to enable Atlantic Lithium to apply for a single Mining Lease covering the Project area.

2.2 LEGAL

Key legislation relevant to the Project are the Minerals and Mining Act, 2006, (Act 703) as amended and the Minerals and Mining Regulations passed under the Act. Together, these instruments regulate mine development and operation in Ghana. The Ministry of Lands and Natural Resources, and the Minerals Commission, are primarily responsible for the administration of mining activity in Ghana.

The Operating Company will be required to obtain a Mining Lease to exploit minerals in the licence area. Mining companies are also required under the Environmental Protection Agency Act, 1994 (Act 490) to obtain an environmental permit from the EPA before commencing exploration and mining operations.

2.3 TAXATION AND PROJECT FISCAL REGIME

All taxes, royalties, fees, charges, and costs applicable to the Project in accordance with Ghanaian legislation have been identified. These elements are implemented in the financial model for assessment of post-tax financial performance (Section 13.0).

3.0 GEOLOGY AND RESOURCE

3.1 GEOLOGY

The regional geology of western Ghana is characterised by a thick sequence of steeply dipping metasediments, alternating with metavolcanic units of Proterozoic age. The sequences belong to the Birimian Supergroup and extend for approximately 200km along strike in several parallel north-easterly trending volcano-plutonic belts and volcano-sedimentary basins, of which the Kibi-Winneba Belt and Cape Coast Basin extend through the region in the Company's Mankessim licence area.

The mineralised pegmatite intrusions generally occur as sub-vertical bodies with two dominant trends as briefly outlined earlier: either striking north-northeast (Ewoyaa Main) and dipping sub-vertically to moderately southeast to east-southeast, or striking west-northwest to east-west (Abonko, Kaampakrom, Anokyi, Okwesi, Grasscutter and Ewoyaa Northeast) dipping sub-vertically to moderately northeast or north. Pegmatite thickness varies across the Project, with thinner mineralised units intersected at Abonko and Kaampakrom between 4m and 12m; and thicker units intersected at Ewoyaa Main between 30m and 60m, and up to 100m at surface.

The mineralisation at Ewoyaa has been confirmed to be associated with spodumene-bearing pegmatite as the main lithium bearing mineral. No petalite or lepidolite have been observed in any of the resource RC and diamond core drill logging. 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 Project has two clearly defined geometallurgical domains or material types of spodumene bearing lithium mineralisation. Atlantic Lithium has termed these material types as Pegmatite Type ("P1") and Pegmatite Type ("P2"):

- P1: Coarse grained spodumene material (>20mm), the dominant spodumene-bearing pegmatite encountered to date, exhibiting very coarse to pegmatoidal, euhedral to subhedral spodumene crystals composing 20 to 40% of the rock and
- P2: Medium to fine grained spodumene material (<20mm), where abundant spodumene crystals of a medium crystal size dominates. The spodumene is euhedral to subhedral and can compose up to 50% of the rock. The spodumene can be bimodal with some larger phenocrysts entrained within the medium grained spodumene bearing matrix. There are indications of very minor occurrences of other lithium bearing phases present .

The vast majority of the finer grained spodumene P2 ore is found within the Ewoyaa Main pegmatite bodies and preferentially occurring towards the footwall contact of the Ewoyaa Main pegmatites, but with some exceptions. Any finer grained spodumene P2 pegmatite material occurring in the Abonko trending pegmatite bodies are generally rare and of limited extent.

3.2 MINERAL RESOURCE

Drilling programmes undertaken at the Project site used reverse circulation (“RC”) drill rigs and a portion using diamond core (“DD”) drill rigs. Over several drilling phases to date a total of 137,153m in 1,025 holes were drilled (Table 4). Drilling at the deposit extends to a maximum drill depth of 386m.

Earlier phase RC drilling was completed on a nominal 100m by 50m grid pattern, with subsequent phases of RC and DD reducing the wide spacing to 80m by 40m and down to 40m by 40m during infill drilling phases.

TABLE 4 SUMMARY OF DRILLING USED FOR THE EWOYAA RESOURCE ESTIMATE

Hole Type	In Database		In Mineral Resource		
	Drill holes		Drill holes		Intersection
	Number	Metres	Number	Metres	Metres
RCH	11	1,100			
RC	878	119,745	616	88,967	16,959
RCD	35	4,998	32	4,568	733
DD	101	11,310	93	10,159	4,987
Total	**1,025**	**137,153**	**741**	**103,694**	**22,679**

3.3 MINERAL RESOURCE ESTIMATE

An updated JORC (2012) compliant Mineral Resource Estimate (“MRE”) was prepared by Ashmore Advisory Pty Ltd using analytical data from a total of 741 drillholes totalling 103,694m (Table 4) and ordinary kriging methods for resource estimation (Table 5). The MRE is based on a 0.5% reporting cut-off grade (constrained to above -190mRL), within a 0.4% Li_2O wireframed pegmatite body.

The MRE was classified as Measured, Indicated and Inferred Mineral Resource based on data quality, sample spacing, and lode continuity. The Measured Mineral Resource was confined to fresh rock within areas drilled at 20m by 15m along with robust continuity of geology and Li_2O grade. The Indicated Mineral Resource was defined within areas of close spaced drilling of less than 40m by 40m, and where the continuity and predictability of the lode positions was good. In addition, Indicated Mineral Resource was classified in weathered rock overlying fresh Measured Mineral Resource. The Inferred Mineral Resource was assigned to transitional material, areas 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.

TABLE 5 EWOYAA MRE BY DEPOSIT AND JORC CLASSIFICATION (0.5% LI_2O CUT-OFF, ABOVE -190MRL)

Deposit	Measured Mineral Resource		
	Tonnage	Li_2O	Cont. Lithium Oxide
	Mt	%	kt
Ewoyaa	3.5	1.37	48
Total	3.5	1.37	48

Deposit	Indicated Mineral Resource		
	Tonnage	Li_2O	Cont. Lithium Oxide
	Mt	%	kt
Abonko	1.1	1.31	14
Anokyi	2.9	1.42	41
Ewoyaa	9.7	1.15	111
Ewoyaa Northeast	3.3	1.40	46
Grasscutter	5.8	1.19	69
Kaampakrom	0.9	1.40	13
Okwesi	0.6	1.47	9
Sill	0.4	1.36	5
Total	24.5	1.25	307

Deposit	Inferred Mineral Resource		
	Tonnage	Li_2O	Cont. Lithium Oxide
	Mt	%	kt
Abonko	0.7	1.20	9
Anokyi	0.5	1.16	5
Bypass	0.3	1.00	3
Ewoyaa	2.9	1.09	32
Ewoyaa Northeast	0.4	1.25	5
Grasscutter	1.7	1.25	22
Kaampakrom	0.5	1.11	6
Okwesi	0.3	1.35	4
Sill	0.1	1.51	1
Total	7.4	1.16	86

Deposit	Total Mineral Resource		
	Tonnage	Li_2O	Cont. Lithium Oxide
	Mt	%	kt
Abonko	1.8	1.26	23
Anokyi	3.3	1.38	46
Bypass	0.3	1.00	3
Ewoyaa	16.0	1.19	190
Ewoyaa Northeast	3.6	1.38	50
Grasscutter	7.5	1.20	90
Kaampakrom	1.4	1.30	18
Okwesi	0.9	1.43	13
Sill	0.5	1.38	6
Total	35.3	1.25	440

COMPETENT PERSONS NOTE:

The Mineral Resource has been 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. Mr Searle consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

All Mineral Resources figures reported in the table above represent estimates at January 2023. 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.

Mineral Resources are reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The Joint Ore Reserves Committee Code – JORC 2012 Edition).

There are two main geometallurgical domains at the Project which are shown in Table 6.

TABLE 6 GEOMETALLURGICAL OCCURANCE

Ore Type	Tonnage	Grade	Cont. Lithium	Concentrate Grade	Lab HLS Recovery
	Mt	% Li_2O	kt	% Li_2O	%
P1	31.3	1.27	398	5.5%	74%
				6%	70%
P2	4	1.06	42	5.5%	25%
				6%	18%
Total	**35.3**	**1.25**	**440**		

4.0 MINING

4.1 INTRODUCTION

Mining Focus Consultants Pty Ltd were engaged to undertake a mining study as part of the DFS. The scope of works included Pit Optimisations, Mine pit design and scheduling, Mining Cost development and preparation of an Ore Reserve statement.

The Project comprises eight main deposits including Ewoyaa, Okwesi, Anokyi, Grasscutter, Abonko, Kaampakrom, Sill and Bypass (Figure 5). Deposits are broadly 4km apart, spread out over approximately $8km^2$. Two waste dumps will be constructed west and northeast of Ewoyaa Main pit.

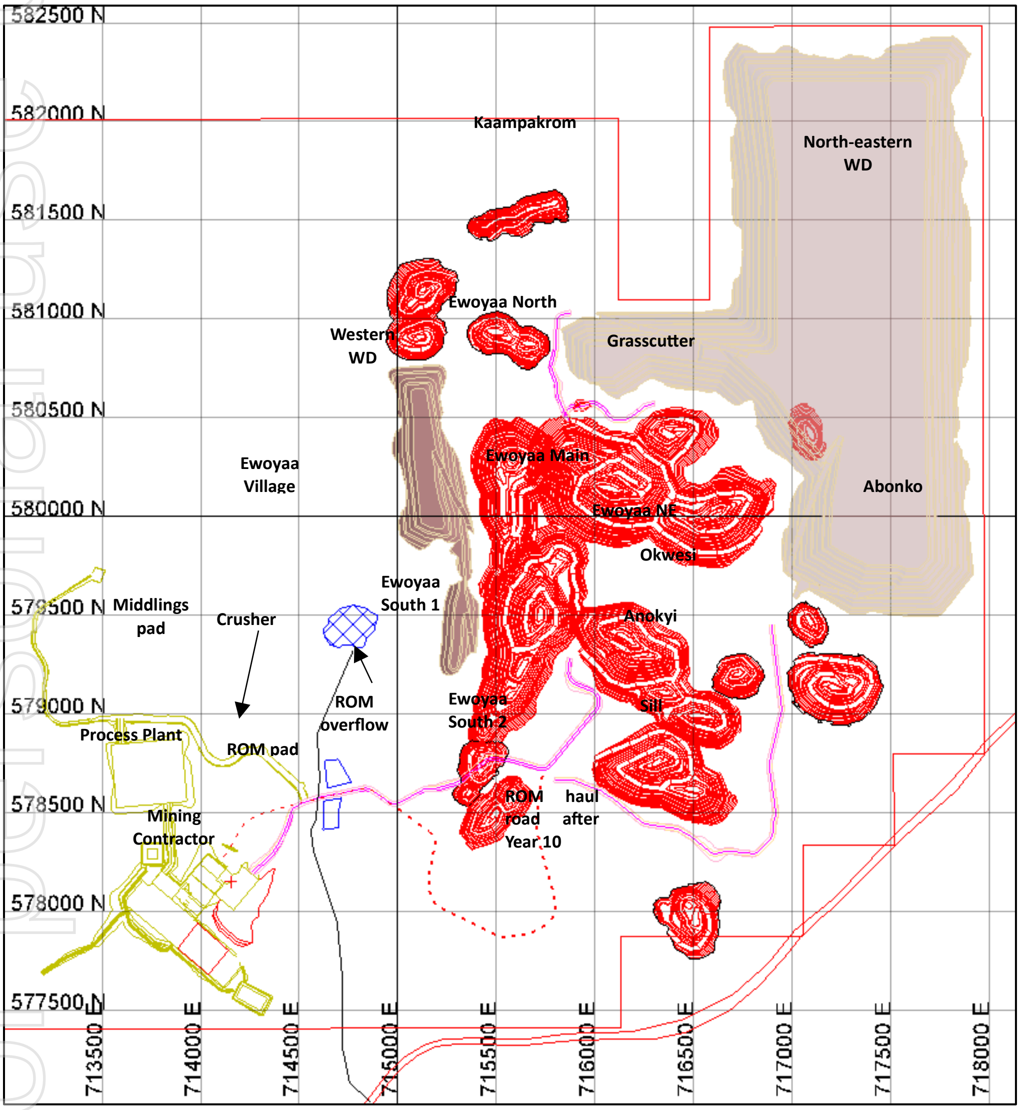

FIGURE 5 EWOYAA LITHIUM PROJECT PIT LAYOUT

Conventional open pit mining methods of drill and blast followed by load and haul will be employed at the Project. Drilling and blasting will be performed on benches between 5m and 10m high. Mining equipment will likely consist of 100t to 200t hydraulic excavators and 90t to 150t off-highway dump trucks, supported by standard open-cut drilling and auxiliary equipment. A contract mining model will be employed under the supervision of an Atlantic Lithium mining management team.

Mining operations are scheduled to work 365 days in a year, less unscheduled delays such as high rainfall events. The mine workforce will operate on a two shift, three panel roster, seven days a week, in two 12 hour working shifts.

4.2 PIT OPTIMISATION

Mine pit optimisation works were undertaken based on the updated MRE (Section 3.3) and using WHITTLE™ Four-X optimisation software using the Lerchs-Grossmann algorithm. Optimisations were carried out on two scenarios:

1. The total MRE; and
2. The Measured and Indicated resource only.

The supplied resource model was re-blocked from a sub-blocked mode to a regular parent block size of 10mE x 10mN x 10mRL, which is considered a reasonable selective mining unit for the size of mining equipment envisaged for the Project.

The key economic input parameters used for the pit optimisation are shown in Table 7.

TABLE 7 SUMMARY OF KEY PIT OPTIMISATION INPUT PARAMETERS

Item		Unit	Value	
			P1 Pegmatite	**P2 Pegmatite**
Plant throughput		Mtpa	2.0	
Spodumene price		$/t	1,500	
Concentrate grade		%	6	
Royalty		%	6.2	
Marketing and insurance (% of gross sales)		%	1	
Processing recovery	Transition	%	68	35
	Fresh	%	70	35
Processing cost		$/t processed	13.50	
General and administration		$/t processed	3.20	
Land freight		$/t conc.	25.00	
Average mining cost (contract mining)		$/t mined	3.61	
Rehandle cost (P2 pegmatite only)		$/t	0.54	
Sustaining capital		$/t processed	0.44	
Closure cost		$/t processed	0.64	
Mining recovery		%	95	
Mining dilution		%	5	
Overall pit wall slope angle (inclusive of a ramp system)		Degree	Ranging from 30.0o (Oxide) to 50.4o (Fresh)	

Pit optimisation results show that for both scenarios the optimum pit shell based on the maximum average discounted operating cash flow is pit shell 29 (Figure 6).

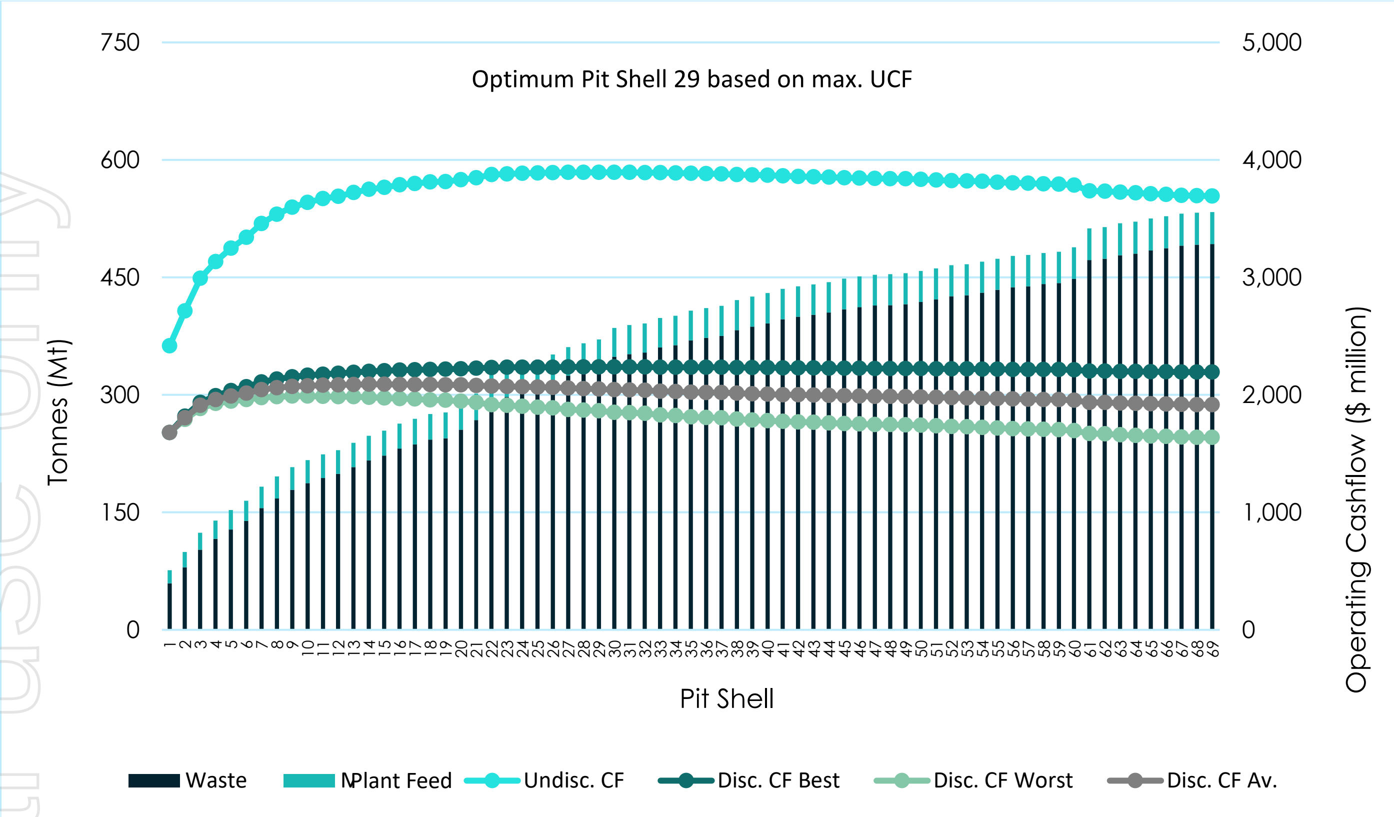

FIGURE 6 PIT OPTIMISATION RESULTS TOTAL RESOURCE

4.3 MINE DESIGN AND SCHEDULING

Pit shell 29 for the total Mineral Resource was selected from pit optimisation works as the basis for the life of mine detailed pit design. Pit design parameters for the DFS are based on established mining practices and parameters detailed in Table 8.

TABLE 8 SUMMARY PIT DESIGN PARAMETERS

		Pit Design Parameter
Pit Wall Parameters		As per Section 3*
Haul Road Design	Width - Dual Lane - Single Lane	25m 16m
	Gradient	10%
Working width	Minimum pit base width (goodbye cut)	10m
	Minimum cutback width	20m

**Staged development of the pits is driven by the desire to maximise the grade of the initial plant feed, minimise waste pre-stripping and the requirement for consistent total material movement.*

Comparison of the LOM pit design to the Whittle optimised shell is provided in Table 9.

TABLE 9 COMPARISON PIT DESIGN VERSUS PIT OPTIMISATION SHELL

Item	Total Material	Waste*	Strip Ratio	Plant Feed Tonnes	Plant Feed Li_2O Grade	Concentrate	Sub-grade Material Tonnes	Sub-grade Material Li_2O Grade
	[Mt]	[Mt]	[w:o]	[Mt]	[%]	[kt]	[Mt]	[%]
Shell 29	370.7	339.9	11.0	30.8	1.21	4,146	5.9	0.27
LOM Pit	412.7	381.7	12.3	31.1	1.21	4,163	5.9	0.26
Variance [%]	11.3	11.7	11.3	0.8	-0.2	0.6		

**Inclusive of sub-grade material (< 0.5% Li_2O) that is shown as plant feed in the optimisation results*

Variances between pit design and the Whittle shell are a function of applying ramp design parameters and detailed slope design parameters to the pit design, using actual batter and berm values compared to initial estimates of the overall slope angle (inclusive of a ramp system) used for the pit optimisation.

WASTE DUMPS

The mine generates 382Mt of waste or about 195Mm^3 at a swell factor of 25%. Two waste dumps with a total capacity of about 190Mm^3 have been designed, with some waste to be backfilled into the southern end of the Ewoyaa Main pit. The Western waste dump reaches a maximum height of 70mRL, covers about 34Ha and has a capacity of approximately 6.5Mm^3. The North-eastern waste dump reaches a maximum height of 95mRL, covers about 340Ha and has a capacity of approximately 182.4Mm^3.

Three to five years' worth of tailings will be stored in an Integrated Waste Landform Tailings Storage Facility (IWLTSF) within the north-eastern waste dump.

STOCKPILING AND ROM

A stockpiling strategy has been adopted where all inferred plant feed is stockpiled for the first five years, with a 10% limit of Inferred being fed to the crusher in subsequent years. Further, P1 Pegmatite is being preferentially processed, with P2 Pegmatite limited to 10% of the ore blend where possible.

A ROM area adjacent to the crushing plant will accommodate about 500kt of stockpiling, with two additional stockpile areas identified some 600m NE of the ROM pad.

HAUL ROADS

Mine Roads will be designed to allow all-weather trafficability. This will include regular spreading and compaction of suitable crushed rock road base material. A total of six major haul road segments that connect pits with the ROM/crusher and waste dumps. Most roads traverse over moderately sloping terrain and do not require any major cut and fill, other than the main road connecting the pits with the ROM/crusher will traverse through some steeper terrain and will require cut and fill.

By the end of Year 10, an alternative road to the crusher needs to be developed and a preliminary design has been completed in the study.

4.4 MINE PRODUCTION SCHEDULE

Subsequent to the pit design work, pits with 100% of plant feed classified as Inferred Resources were removed from DFS mine schedule. Five pits were removed, namely both Bypass pits, Anokyi South pit, Abonko East pit and Kaampakrom Far East.

The mine production schedule was developed in monthly increments and is based on a total material movement of 406Mt, comprising 375.0Mt of waste and 30.6Mt of ore at 1.21% Li_2O of plant feed, for a 12.2:1 waste to ore strip ratio.

Staged development of the pits is driven by the desire to maximise the grade of the initial plant feed, minimise waste pre-stripping and the requirement for consistent total material movement. In addition, four constraints were imposed on the mine production schedule as listed below:

- First access to mining areas: mining commences in Ewoyaa South 2 pit whilst removal of existing HV powerlines traversing the Ewoyaa main pit location occurs;
- Processing rate: The Early Production Phase targets 50kt per month of crusher feed with the first year of full production targeting 2Mt, increasing to an annual crusher feed rate of 2.7Mt per annum thereafter;
- P2 ore limit: % of P2 in the ore blend is limited to 10% where possible; and
- Inferred limit: Inferred material deferred/stockpiled for the first five years and limited to 10% of the total plant feed thereafter.

During the Early Production Phase, the total material movement is 6.1Mt, including a total of 453kt of ore that is processed by early production DMS plant. Total material movement increases to 18Mt in the first year of the fixed process plant operation and thereafter gradually increases on account of higher mining strip ratios.

Stockpile tonnage reaches about 0.4Mt at the end of Year 1 (Early Production Phase) and increasing over the years up to 3.6Mt in Year 11 on account of stockpiling inferred material and limiting the amount processed to 10% of total plant feed until the final year of operation.

A total of 1.7Mt at 1.19% Li_2O of Inferred Resource is included as plant feed, equivalent to approximately 6% of the total plant feed.

TABLE 10 SUMMARY MINE PRODUCTION SCHEDULE

Year	Total Material	Waste	Strip Ratio	Probable Ore Reserves Processed		Inferred Mineral Resource Processed		Total	
				Tonnes	Li_2O	Tonnes	Li_2O	Tonnes	Li_2O
	[Mt]	[Mt]	[w:o]	[kt]	[%]	[kt]	[%]	[kt]	[%]
1*	6.1	5.3	6.5	453	1.43%	-		453	1.43%
2	18.2	15.0	4.7	2,000	1.29%	-		2,000	1.29%
3	24.8	21.6	6.8	2,700	1.27%	-		2,700	1.27%
4	38.6	36.1	14.3	2,707	1.09%	-		2,707	1.09%
5	41.1	37.7	11.0	2,700	1.24%	-		2,700	1.24%
6	39.5	36.2	10.9	2,430	1.31%	270	1.25%	2,700	1.30%
7	43.6	40.9	15.3	2,430	1.22%	270	1.04%	2,700	1.20%
8	45.3	42.6	15.3	2,437	1.22%	271	1.21%	2,707	1.22%
9	48.9	46.8	21.9	2,430	1.17%	270	1.18%	2,700	1.18%
10	48.7	46.2	18.2	2,331	1.12%	259	1.24%	2,589	1.13%
11	43.9	40.6	12.2	2,147	1.26%	239	1.18%	2,385	1.25%
12	7.2	6.5	9.5	881	1.23%	98	1.29%	979	1.24%
Total	406.0	375.4	12.3	25,645	1.22%	1,676	1.19%	27,321	1.22%

**Early production phase, which covers 14 months.*

CAUTIONARY STATEMENT:

There is a low level of geological confidence associated in inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised.

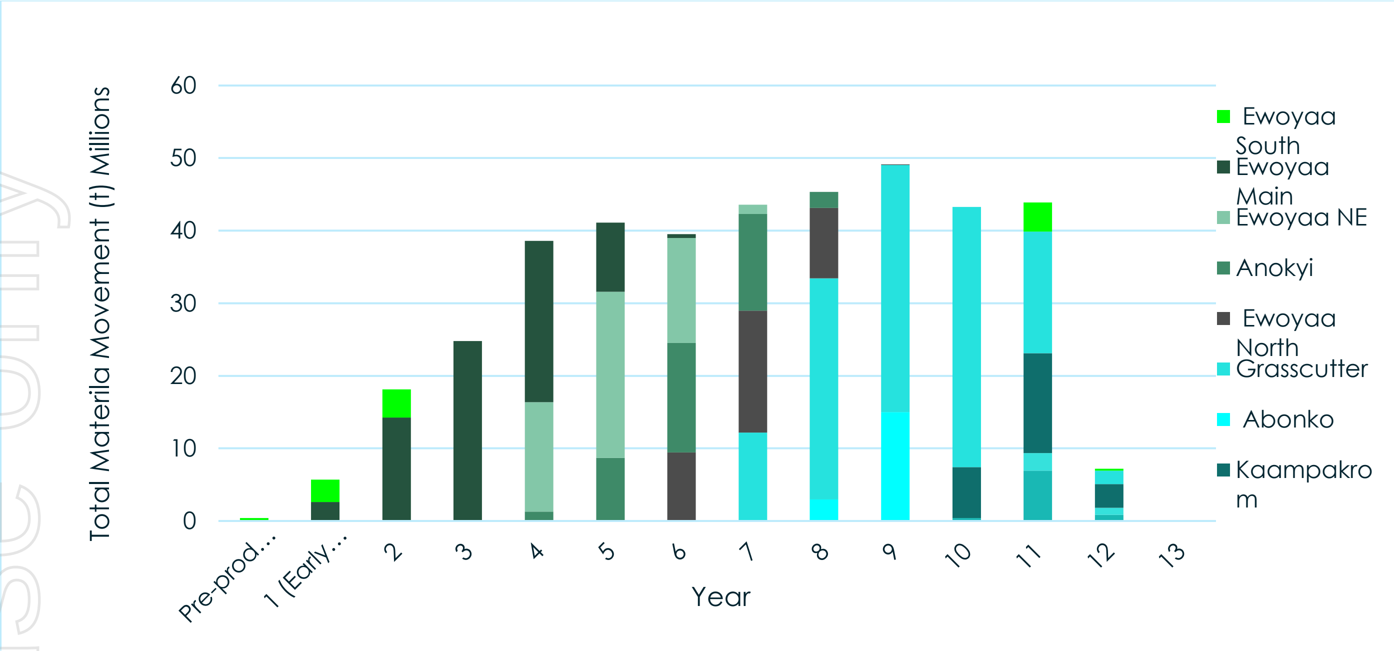

FIGURE 7 **TOTAL MATERIAL MOVEMENT BY CUTBACK**

5.0 ORE RESERVES

5.1 INTRODUCTION

This section describes the methodology used and the economic criteria applied to derive at the Ore Reserves as defined in the 'Australasian Code for Reporting of Mineral Resources and Ore Reserves' of December 2012 ("JORC Code") as prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy.

The Ore Reserves were determined as part of the mine planning work that MFC undertook for Atlantic Lithium as part of the Company's Definitive Feasibility Study.

Mining will be undertaken by conventional open pit methods of drill and blast, followed by load and haul. Processing incorporates well-tested technology and utilises conventional dense media separation techniques to produce a SC6.0 and SC5.5 concentrate products, as well as a secondary product that comprises fines material (-0.85+0.053mm).

5.2 MODIFYING FACTORS

The term 'Modifying Factors' is defined to include mining, metallurgical, economic, marketing, legal, environmental, social and governmental considerations.

The sources for the Modifying Factors are summarised in Table 11.

TABLE 11 SOURCE MODIFYING FACTORS USED FOR ORE RESERVE DETERMINATION

Item	Source
Commodity price	Atlantic Lithium
Royalty, insurance and marketing	Atlantic Lithium
Processing and administration cost	Atlantic Lithium, Primero Ltd
Mining costs	RFQ submissions
Other miscellaneous costs	Atlantic Lithium
Mine planning	MFC
Metallurgy and processing	Primero Ltd, Trinol Pty Ltd, Nagrom
Capital costs	Atlantic Lithium, Primero Ltd
General site infrastructure	Atlantic Lithium, Primero Ltd
Geotechnical investigation	SRK Consulting
Hydrogeology	SRK Consulting South Africa & Ghana
Tailings storage facility	Geocrest & REC
Mining dilution and recovery	MFC
Social and Environmental	NEMAS Consult Limited and Environmental and Social Sustainability (ESS)
Legal tenure	Atlantic Lithium
Government	Atlantic Lithium

The Ore Reserves as determined for the Project were based on the Modifying Factors as summarised in Table 12.

All currencies are denominated in United States of America dollars, unless specifically stated otherwise.

TABLE 12 SUMMARY OF MODIFYING FACTORS FOR ORE RESERVE DETERMINATION

Item	Unit	Value	
		P1 Pegmatite	P2 Pegmatite
Plant throughput	Mtpa		2.7
Spodumene price (SC6.0 and SC5.5 product)	$/t		1,587
Concentrate grade - SC6.0 Product (50% of total production) - SC5.5 Product (50% of total production)	%		6.0 5.5
Secondary product price	$/t		186
Secondary product recovery (of total crusher feed)	%		17
Royalty	%		6.0
Processing recovery SC6.0 SC5.5		62.1 67.2	NA 14.9
Processing Cost	$/t processed		7.77
General and Administration (Incl. Marketing and insurance)	$/t processed		6.18
Lithium Concentrate Transport Costs SC6.0 and SC5.5 Secondary product	$/t conc.		29.81 32.65
Average Mining Cost (Contract mining)	$/t mined		3.82
Mining recovery	%		95
Mining dilution	%		5
Overall Pit Wall Slope Angle (inclusive of a ramp system)	Degree		Ranging from 30.0º (Oxide) to 50.4º (Fresh)
Capital expenditure	$M		185.2
Sustaining capital	$M		112.2
Discount rate	%		8

5.3 ORE RESERVE SUMMARY

The mine plan as described in Section 4 includes 1.7Mt at 1.19% Li_2O or 6% of Inferred Resources. In order to determine whether to Project was still economically viable when plant feed that was classified as Inferred was excluded from the mine plan (and re-categorised from plant feed to waste), Atlantic Lithium developed a cash flow model with all Inferred Resources excluded from plant feed and re-assigned as waste.

CAUTIONARY STATEMENT:

There is a low level of geological confidence associated in inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised. In order to determine whether the Project was still economically viable when plant feed that was classified as Inferred was excluded from the mine plan a cash flow model was developed with all Inferred Resources excluded from plant feed and re-assigned as waste. This alternative cash flow model indicated that the Project is still financially robust when all Inferred Resources plant feed is treated as waste. Therefore, the Company is satisfied that the use of Inferred Resources is not a determining factor in the overall Project viability.

Based on the above, Probable Ore Reserves were declared for the Project and shown in Table 13. All stated Probable Ore Reserves are completely included within the quoted Mineral Resources and are quoted in dry tonnes. Probable Ore Reserves were declared based on the Measured and Indicated Mineral Resources only contained within the pit designs.

This alternative cash flow model indicated that the Project is still financially robust when all Inferred Resources plant feed is treated as waste with the All-In-Sustaining Cost (AISC) margin greater than 50%.

Based on the above, Ore Reserves were declared for the Project.

Table 13 provides a summary of the Ore Reserves as of 16 June 2023 that were determined for the Project.

TABLE 13 ORE RESERVES AS OF 16 JUNE 2023

Classification	Ore Reserve	
	Tonnes (Mt)	Li_2O Grade (%)
Probable	25.6	1.22

COMPETENT PERSONS NOTE:

All stated Ore Reserves are completely included within the quoted Mineral Resources and are quoted in dry tonnes. The reported Ore Reserves have been compiled by Mr Harry Warries. Mr Warries is a Fellow of the Australasian Institute of Mining and Metallurgy and an employee of Mining Focus Consultants Pty Ltd. He has sufficient experience, relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking, to qualify as a Competent Person as defined in the 'Australasian Code for Reporting of Mineral Resources and Ore Reserves' of December 2012 ("JORC Code") as prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, the Australian Institute of Geoscientists and the Minerals Council of Australia. Mr Warries gives Atlantic Lithium Limited consent to use this reserve estimate in reports.

6.0 METALLURGY

Testwork was conducted at the Nagrom Laboratories in Western Australia and included specific gravity, uniaxial compressive strength ("UCS"), abrasion index ("Ai"), crushing work index ("CWi"), Bond ball plant work index ("BBWi"), size by analysis, crush size establishment, variability heavy liquid separation ("HLS") testing, DMS 100 and DMS250 pilot scale testing, and sighter flotation tests.

6.1 METALLURGICAL TESTWORK

Over 30 diamond drill holes generating more than 375 pegmatite samples were used to develop a total of 69 composite pegmatite samples across the Ewoyaa and Abonko trends.

Before core composites were crushed, key physical parameters were tested from five deposits as summarised in Table 14. The CWi and UCS values confirm the 1 ore is more crystalline and easier to crush than P2, with results summarised in Table 14.

TABLE 14 SUMMARY OF ORE PHYSICAL PARAMETERS

Parameter	Unit	Deposit				
		Ewoyaa Starter		Ewoyaa Main		Anokyi
Comp ID		Comp 17	Comp 5	Comp 10	Comp 16	Comp 31
Lithology		P1 fresh	P2 fresh	P1 fresh	P2 fresh	P1 fresh
BCWi	kWh/t	10.9	11	7.8	10.5	8.4
UCS	MPa	84	124	82	127	105
BBMWi	kWh/t	21.39	18.06	20.19	19.72	21.43

The crushing facility has been designed with a target crushed product top-size of 10mm as a key criteria, which, based on crushing simulation modelling conducted, should provide a particle size distribution P80 of approximately 7.0mm.

69 composites were made up from 15 of the identified deposits at Ewoyaa. All the composites were crushed to 10mm and screened at 0.5mm for HLS comparisons in order to benchmark the deposits. The results demonstrate variable recovery response of 50% to 80% for gravity processing of P1 ores (with the exception of Ewoyaa South 1 and Ewoyaa NW Sill). P1 ore makes up over 80% of the MRE.

A feature of the testwork has been the consistently good quality of lithium concentrates produced via DMS only testing. In the main, the results show the iron content of the concentrates, as expressed by % Fe_2O_3, as being consistently below 1% and total alkalis (Na_2O + K_2O) to be less than 3%. Coupled with the coarse size of the concentrates, these are desirable properties for off-takers.

6.2 RECOVERY

The recoveries for P1 and P2 materials were based on HLS and DMS 250 test results and on calculation of assumed additional recovery from middlings. Laboratory tests were performed on -10 +0.5mm material, the bottom size being finer than the proposed plant flowsheet bottom size of 0.85mm.

Recoveries for P1 material into primary concentrate at a 10mm crush were 50-80% from the HLS test work with an average 68% recovery for weathered and 70% for the fresh.

Ore recoveries for the DMS plant for both 5.5% and 6.0% spodumene and % of ore type are summarised in Table 15, include a factor for expected increased fines generated in full scale crushing, increases to the DMS bottom size (for both 1mm and 0.85mm), HLS to DMS effects, and the use split size fractions, as well as the minimum benefit from re-crushing.

TABLE 15 FINAL DMS RECOVERIES BY SC GRADE AND % OF ORE TYPE.

Concentrate Grade	Ore Type	HLS Recovery ($\% Li_2O$)	Plant Recovery ($\% Li_2O$)	Plant Recovery ($\% Li_2O$)
($\% Li_2O$)		-10+0.5mm	-10+0.85mm	-10+1.0mm
5.50%	>90% P1	74.4%	67.2%	64.9%
	>80% P2	25.0%	14.9%	12.6%
6.00%	>90% P1	69.6%	62.1%	59.8%
	>80% P2	17.5%	7.0%	4.7%

There is significant indicated recovery improvement for a bottom size of 0.85mm compared to 1mm and on the basis that the plant design can accommodate the finer bottom size, these numbers have been adopted for plant financial modelling and plant design.

7.0 PLANT AND PROCESSING DESIGN

7.1 DESIGN OVERVIEW

The processing facility (Figure 8) has been designed in accordance with accepted industry practice and the flowsheet incorporates unit operations that are well proven in the industry and commensurate with the test work conducted and results achieved to date. The test work supports a flowsheet that utilises conventional DMS processing to recover spodumene to a saleable concentrate.

The plant layout provides ease of access to all equipment for operating and maintenance requirements while maintaining a compact footprint to minimise construction costs.

FIGURE 8 PROCESSING PLANT AND INFRASTRUCTURE VIEWED FROM THE WEST.

The key Project and ore specific design criteria for the processing facility design are as follows:

- 2,700,000tpa of Run-of-Mine ("ROM") ore through the crushing plant operating at 70% utilisation (6,132h/y);
- DMS plant utilisation of 85% (7,446h/y) supported by crushed ore storage and standby equipment in critical areas; and
- Sufficient automated plant control to minimise the need for continuous operator interface and allow manual override and control if and when required.

7.2 PLANT FLOWSHEET

The overall process flowsheet is depicted in Figure 9.

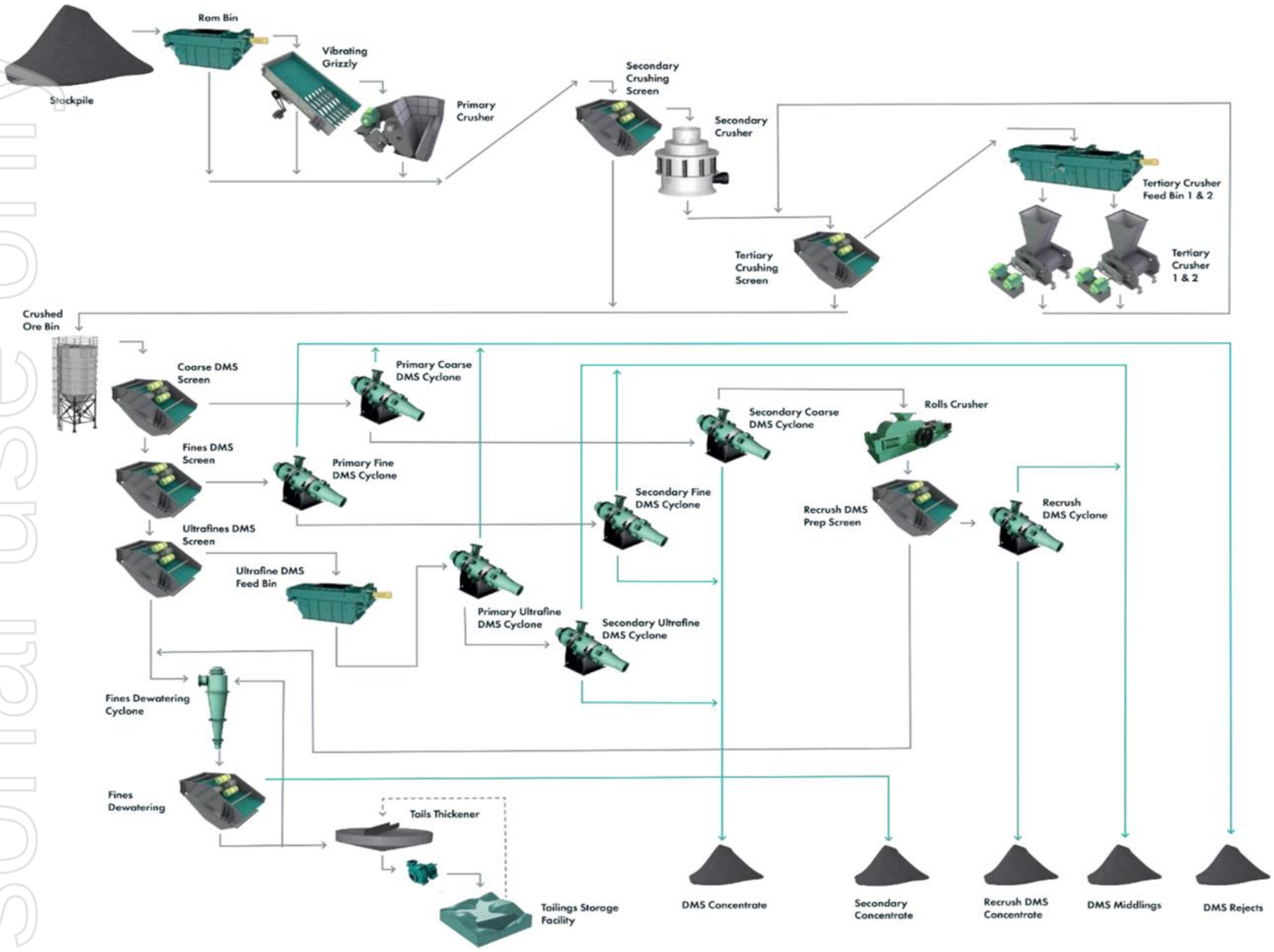

FIGURE 9 OVERALL SIMPLIFIED PROCESS FLOWSHEET

ROM feed is direct tipped or loaded by front-end loader into a ROM feed bin. Material is then subjected to three stages of crushing through separate crushing circuits to produce a +10mm top size material ready for feed to a conventional DMS beneficiation circuit.

The feed material is separated into three size fractions to maximise DMS efficiency, namely Coarse (-10 +5.6mm), Fines (-5.6 +2.8mm) and Ultrafines (-2.8 +0.85mm) fractions. Each fraction is then processed in a two stage DMS circuit. A review of the metallurgy and testwork to date indicates that a bottom size fraction of 0.85mm is preferential to overall recovery than the 1.0mm design, and the plant design and equipment will be able to meet capacity at the 0.85mm bottom size.

In each two stage DMS circuit, the Primary DMS sinks are upgraded in the secondary stage. Secondary sinks from each size fraction are combined to produce a DMS concentrate product.

To improve recovery, coarse DMS floats are fed to a recrush circuit. The recrush circuit crushes the material to -4mm and the recrush DMS circuit recovers liberated spodumene.

The screened -0.85mm fraction is pumped to the fines dewatering circuit. Dewatered fines material is stacked in a fines stockpile. The material will be sold as a secondary product. In the future it is expected this material may be processed through a flotation circuit.

The dewatering cyclone overflow or slimes fraction is sent to the thickener and is pumped to tailings storage facility. There are no toxic chemicals used in the DMS circuit and therefore the tailings itself is chemically and biologically inert.

The design includes all associated utilities, including water services, compressed air and reagents.

7.3 PRE-PRODUCTION PROCESSING

Atlantic Lithium has identified an opportunity to conduct early processing operations using a modular DMS processing plant and contract crushing services. The early production will precede the primary processing plant by nine months. The pre-production flowsheet design criteria are as follows:

- 600,000tpa ore processed, with the DMS plant treating 375,000tpa after fines are removed; and
- The modular DMS plant will be operating at 80% utilisation for a feed rate of 50tph.

The contract crushing provider will crush ore to a top size of 10mm. The DMS feed material will be screened at 3mm to produce DMS feed (-10mm+3mm) and a fines stream (-3mm). The DMS plant will produce a spodumene concentrate, along with the deslimed fines as a secondary product for sale.

The DMS plant will be two-stage single size fraction process all using conventional DMS equipment. Grits and fines generated in the process will be thickened and filtered to produce a dry tailings which will be stockpiled along with the middlings.

The crushing contractor will provide an all-inclusive crushing service. The Modular DMS plant provider will supply experienced labour to commission and operate the processing plant for the first three months. A small team of Atlantic Lithium operations personnel will be recruited for operation of this plant to be trained and become familiar with DMS operation, and will later transition to the primary processing plant when the primary plant begins production.

8.0 INFRASTRUCTURE AND SERVICES

8.1 OVERVIEW INFRASTRUCTURE

Existing infrastructure supporting the site includes:

- Sealed N1 highway running to the south of the site;
- Existing unsealed roads traversing the site;
- HV powerlines in the vicinity of and traversing the site;
- Ports of Takoradi, approximately 110km to the west of site, and Tema, 140km to the east; and
- Airports at Accra and Takoradi.

Infrastructure required to be developed or modified to support the site includes:

- Water supply and sources including a water storage dam (WSD);
- Power supply from the existing grid and existing electrical powerline infrastructure relocation for mine development;
- Integrated Waste Landform Tailings Storage Facility (IWLTSF);
- Plant site access road;
- Buildings and facilities;
- Fuel supply and storage; and
- Communications.

Given the proximity and road quality to Accra and Takoradi, no airstrip is required to support the site.

8.2 SITE ACCESS

Access to the site from Accra is along the existing sealed N1 Accra-Cape Coast-Takoradi highway which runs along the southern boundary of the Project. Several existing unsealed roads extend northwards from the highway and link communities in the Project area.

8.3 TRANSPORT, LOGISTICS AND PORT FACILITIES

The deep-sea port of Takoradi is 110km west of site and accessible via the N1 highway. Travel time from Project site to port will be less than four hours, even during peak times. Products from the operation are stockpiled on site and loaded by front end loader onto 35t tipper trucks for offsite transport.

Based on annual product export volumes and loading only on day shift, a trucking fleet of fifty 35t tipper trucks and two front end loaders will be required to maintain average 15-minute cycle times.

Assistance was sought from established freight forwarding and transport companies established at the port to provide the product transport solution on an FOB Incoterms basis. Transport companies will provide the necessary equipment under contracted services to the operation, eliminating the need for project purchase of equipment. A combination of warehousing and outdoor storage be utilised near to the port to manage product volumes prior to ship loading.

8.4 WATER SUPPLY AND SOURCES

Raw water supply for the Project will be from passive inflows to mine pits, runoff inflows to the water storage dam ("WSD") and tailings storage facility ("TSF") and augmented via a pump and pipeline from Lake Agege, 7km north of the WSD. An overall site water balance was completed for the Project, predicting life of mine average raw water makeup volumes of 8.6m^3/h.

Groundwater inflows to mine pits were modelled for the DFS, with combined inflows from all pits gradually increasing from 184 m^3/d during pre-production to a peak of 10,585m^3/d, meaning the reliance on the external Lake Agege water supply to the operation is expected to be short-term.

Given the relatively low pit inflows, additional active dewatering from ex-pit boreholes is considered unnecessary. Once additional geological structural information is available and exposed in the pit, horizontal drain holes targeting these structures from inside the pit could be used to manage inflows into the Ewoyaa Main and North-East pits.

Although the zone of drawdown does not extend a large distance from the mining area, there are some settlements near the mining area. There is a risk, although deemed low, of some reduction in water levels. Atlantic Lithium has installed monitoring bores for mapping these impacts.

8.5 POWER

Site power supply is from the electricity grid in Ghana at an average operating cost of $US0.14/kWh. Installed power to the operation is estimated at 8,500kW and an average continuous load of 4,270kW. The Ghana Grid Company Ltd (GRIDCo) owns the National Interconnected Transmission System in Ghana and Volta River Authority (VRA) is the primary energy provider in Ghana, augmented by other IPP power generation companies providing alternative sources of energy which can be wheeled through the grid.

Ghana currently has 12 commercial power generation facilities with total installed capacity of 4,210MW. The makeup of generation capacity is based on 56% from three hydro power plants at Akosombo, Kpong and Bui, 44% from an array of thermal plants including combined cycle gas turbines, simple cycle gas turbines and diesel generators and less than 0.1% from solar power.

The preferred option for providing power to the Project is to construct a 34.5kV single circuit transmission line approximately 3km from a 161/34.5kV substation at Saltpond to a new substation constructed at the Project site, that in turn distributes power to site electrical substations.

Two existing transmission lines traverse the planned mining areas and will be diverted prior to mining commencement. The revised line route length will be approximately 15km and require 30km of new transmission line construction and a major shutdown to decommission existing lines and connect the new lines.

8.6 TAILINGS MANAGEMENT

An integrated waste landform TSF ("IWLTSF") will be constructed in two stages to take advantage of the proposed integrated waste dump and the natural landforms. The facility which will be operational for the first three years. The third stage of tailings storage comprises of an IPTSF (In Pit Tailings Facility) within the Ewoyaa South 2 Pit.

The WSD comprises of a low permeability face situated on the western face of the Waste Dump East Stage 1. The embankments of the IWLTSF are proposed to be constructed using excavated and borrowed low permeability material and waste rock, with borrowed material to be used to construct the WSD.

The operation of these facilities is based on an anticipated high water recovery, at least 50% of the slurry water volume entering the TSF. The decant pumping system (return water pumps and pipelines) must be designed to accommodate a water return of up to 65% of the tailings slurry water to the process plant. The results of high-water recovery can be directly attributed to a small decant pond, high in-situ dry density of the deposited tailings and minimal seepage losses.

The designs of the TSFs assume an average dry density of 1.5 t/m^3 for operation which will provide 0.5Mm^3 of storage capacity for 0.75Mt of tailings in the IWLTSF and 0.97Mm^3 of storage capacity for 1.46Mt of tailings in the IPTSF. The WSD can provide a water storage capacity of 187,500m^3.

In accordance with the DMP Code of Practice (CoP) (DMP, 2013), the IWLTSF is assessed as 'Medium' with a classification of 'Category 2', with the IPTSF as a 'Low' and 'Category 3' and the WSD as 'Low' and 'Category 2'. Construction work must be undertaken in accordance with drawings and an earthworks specification. Furthermore, the operation of these facilities must be executed in accordance with the intent of the design and Operating Manual (OM).

The IWLTSF and WSD each have capacity for a 1:200-year annual exceedance probability (AEP) 72-hour storm event in accordance with GISTM requirements, Government of Ghana and DMP required freeboard. The design objectives were developed to ensure both IWLTSF and WSD are decommissioned and rehabilitated in an ecologically sustainable manner and in accordance with both DMIRS principal closure objectives for rehabilitated mines and EPA objectives for rehabilitation and decommissioning.

8.7 SITE ROADS

A range of road types will be required for both site internal and access roads to meet a wide range of duties. The hierarchy of road types includes dedicated mine haul roads, the main access roads, general access roads and minor use roads and tracks. Some of the roads will border service corridors, e.g., raw water supply pipe lines, or tailings pump line access. Hence, road alignments also need to consider service routes in addition to transport requirements.

The road widths and construction details have been selected to match the required duties. The main haul road will intersect the existing dirt road that connects the Ewoyaa village to the main highway.

8.8 BUILDINGS/OTHER

The Project will develop several buildings and facilities to support the operation, including:

- Administration building housing management and administrative personnel;
- Services building to house medical, training and other support facilities;
- Workshop and warehouse;
- Reagent storage sheds;
- Worker changeroom, ablutions building; and
- Site access building and access turnstile gate.

Mining services facilities will be provided by the mining contractor under their contracted works.

FIGURE 10 MINING SERVICES, ADMIN, SERVICES, WORKSHOP AND WAREHOUSE FACILITIES

8.9 ACCOMMODATION

Accommodation for most of the workforce is proposed utilising the available accommodation in the region. Accommodation for senior management, visitors and dignitaries will be provided at a nearby resort facility, which is currently under care and maintenance and will require minor upgrade works and maintenance to be operational.

A contract to operate the resort will be let to a suitable provider, inclusive of resort management, cleaning, maintenance and provision of all meals and accommodation requirements.

8.10 FUEL STORAGE AND DISTRIBUTION

Fuel storage and distribution will be provided and controlled by the mining contractor as the main user of fuels and lubricants at the site. Atlantic Lithium will make use of locally available services for maintenance of light vehicles, and to support the basic administrative supplies requirements for the operation.

8.11 COMMUNICATIONS

Site communications, consisting of phone, internet, and a communications tower, will be established for the site and connected to nearby existing Internet Service providers in the vicinity of the N1 highway.

9.0 ENVIRONMENTAL AND SOCIAL STUDIES AND PERMITTING

Under Ghanaian environmental and social legislation, all undertakings, including mining and allied activities, must be compliant with the Environmental Protection Agency Act 1994, Act 490, and the Environmental Assessment Regulations 1999 (LI 1652). In addition to these two key national legislations, there are over 40 other environmental and social related legislations that any undertaking must be compliant with, depending on the nature, scope, and location of the undertaking.

The Project has adopted critical international environmental and social guiding principles and benchmarks. Among these include:

- Equator Principles (EP); EP3 – EP10;
- International Finance Corporation Performance Standards (IFC PS); PS1 – PS6 and PS8;
- WB EHS Guidelines (General) (2007) and WB EHS Guidelines (Mining) (2007); and
- International Labour Organisation (ILO) Conventions.

9.1 REGULATORY FRAMEWORK AND APPROVALS PROCESS

The Ghana Environmental Protection Agency (EPA) is the legally authorised body for granting of Environmental Permits to undertakings in country. Ghanaian environmental approval requirements for mining require a full Environmental and Social Impact Assessment (ESIA). The ESIA and permitting process commences with project registration with EPA. The EPA then screens the application and decides on the need for further study based on the project scope, potential environmental and social impacts, and the consent and support of various stakeholders in the Project footprint. After this is a scoping stage once EPA has requested the conduct of a detailed ESIA study.

A Scoping Report will be developed and submitted to the EPA for review and approval. The report will also be made publicly available and will include Terms of Reference for the ESIA, a description of any issues raised during the consultation process and how they will be addressed in the ESIA.

The ESIA study will cover potential positive and negative impacts on environmental, social, economic, and cultural aspects in relation to the different phases of the Project, including transboundary impacts. Upon completion of the ESIA Study, a draft Environmental Impact Statement (EIS) will be developed and submitted to the EPA for review and approval.

EIS Approval by the EPA will be premised on satisfaction with the identified impacts and mitigation and management measures outlined in the EIS. The EPA may also recommend amendments to the report or the conduct of further studies to warrant approval of the EIS. Once the EPA is satisfied and approves the EIS, an Environmental Permit will be issued for the Project.

9.2 EXISTING ENVIRONMENTAL SETTING

TOPOGRAPHY AND GEOLOGY

Generally, the Project area landscape is undulating with isolated hills at different locations with an elevation of between 15m to 110m above sea level. The area geologically lies within the Birimian Supergroup, a Proterozoic volcano-sedimentary basin located in western Ghana. The site is also classed as B and C under the Euro Code 8 seismic site classification for soil which consists of outcrop rock masses or very rigid soils and medium-dense sand, gravel, or stiff clay respectively. Analyses of ground vibration data within the Project area indicate that generally the peak particle velocity (PPV) recorded do not pose an elevated seismic vulnerability risk.

CLIMATE

The Ewoyaa area experiences mild temperatures averaging between 24 and 28 degrees Celsius all year round and relative humidity of about 70% due to its proximity to the ocean. The area experiences double maximum rainfall with peaks in May-June and October. Annual total rainfall ranges between 90cm and 110cm in coastal savannah areas and between 110cm and 160cm in the interior close to the margin of the forest zone. Dry seasons usually occur from December to February and from July to September.

HYDROLOGY AND HYDROGEOLOGY

The natural drainage in the Project area indicates the possibility of several streams and rivers existing or flowing through the area. Nonetheless, very few surface water bodies are encountered on the ground, with the majority being dugouts or water holding areas that temporarily dry out during the dry season. Water from dugout sources normally is a mixture of surface runoff and groundwater mostly from the unsaturated zone.

No perennial streams or rivers occur within the immediate Project area. Typical borehole yields are from 0.1 to 0.5l/sec. Surveys conducted in the Project area indicate that the water chemistry is predominantly alkaline, with elevated fluoride levels which is normal for basement geology, and high nitrate levels which indicate contamination from human and animal waste.

AIR QUALITY AND NOISE

Results of air quality monitoring conducted in the Project area since 2021 to date revealed that prevailing air quality of the Project area generally falls within the recommended Ghana EPA and WHO levels. On the other hand, noise levels in some areas monitored exceed Ghana EPA and IFC/WHO recommended levels, attributed mainly to the proximity of the communities/ sampling areas to the Accra-Cape Coast Highway (N1) which is a significant source of noise pollution.

LONG-TERM ENVIRONMENTAL MONITORING

The Project has gathered extensive environmental baseline data from 2019 to date, which provides a snapshot of the quality and nature of the environment. Additionally, the Project has instituted and is implementing a long-term environmental monitoring programme (exploration phase through to closure phase) which will afford prompt detection of deteriorating and/or improving environmental conditions within the Project area to enable appropriate action to be taken where required.

9.3 EXISTING SOCIAL SETTING

TRADITIONAL OWNERSHIP OF LAND

The Project communities where land ownership is likely to be affected are Abonko, Anokyi, Ewoyaa, Krofu, Krampakrom and Lower Saltpond. Land title in these communities is predominantly held by families, rather than chiefs and stools, as is common in Ghana. Family lands, implicitly inferred by the 1992 Constitution as private property, are devoid of extensive government regulatory mechanisms compared to stool or skin lands. Traditional authorities however have played a key role in resolving and/or mediating conflicts that have arisen in land ownership.

POPULATION

A 2020 survey conducted on communities within a 2km radius from active areas of mineralisation estimated that over 3,562 people were living within the survey area. The surveyed communities included Abonko, Anokyi, Ewoyaa, Krofu, Krampakrom, Ansaadze, and Afrangua.

CULTURAL HERITAGE AND ARCHAEOLOGY

Cultural heritage and archaeological studies conducted in the Project area revealed 33 archaeological and heritage resources located in the area. These resources are shrines believed to be a link between the living and dead. All shrines in these communities are networked and rituals for one can be performed at another. Almost all shrines share common ritual items, functions and taboos. Some of these resources may need to relocate, which will be done in consultation with the various Deity-Heads to avoid social disruption and prevent potential non-cooperation.

9.4 HEALTH, SAFETY, ENVIRONMENT AND COMMUNITIES MANAGEMENT SYSTEM (HSECMS)

The Project has developed several mechanisms to facilitate sustainable and effective management of HSEC concerns within its footprint. This includes documented plans, agreements, toolkits, and registers that provide the framework to manage the HSEC management system of the Project.

- Stakeholder Engagement Plan (SEP): Describes the applicable regulatory and/or other requirements for disclosure, consultation and ongoing engagement with the Project's stakeholders, and provides the framework to build a twoway communication between the Project, the potentially affected communities and other project stakeholders through a clear, simple and effective communication strategy.

- Community Development Plan (CDP): Aimed at ensuring inclusive decision-making with host communities, supporting environmental and socio-economic development, enhancing community wellbeing, and expanding the capabilities of communities to effectively engage with the Project, government, and Community-Based Organisations (CBOs) on development issues that concern the communities.
- Emergency Response Plan (ERP): Identifies potential emergency scenarios likely to occur in association with the Project, their likely consequences, preventive strategies, response procedures and corresponding responsible parties/persons, resource requirements for efficient emergency response, response timing, reporting channels and procedures.
- HSEC Risk Register: Details all the identified risks of the Project (Exploration Phase), the potential impacts or consequences of those risks occurring, control and management measures for each identified risk and responsible parties for managing the risks.
- Baseline Exceedance Level Tracking: Serves as a proactive monitoring tool to identify deteriorating or improving environmental conditions (air and water quality, and noise levels) within the Project footprint based on data from monthly environmental monitoring.

9.1 IMPLEMENTATION APPROACH

The overall Project objective is to design, fabricate, build and commission a successful lithium mine, concentrate production facility and associated infrastructure to a high safety standard whilst meeting all statutory laws and regulations and minimising impact to local communities.

The execution strategy to meet the Project objective will be to employ an Engineering, Procurement and Construction Management) ("EPCM") methodology, whereby EPCM contractors will provide the engineering, procurement, construction management and commissioning support services necessary for delivery of the process plant, associated infrastructure and services works scopes. The EPCM approach is commonly employed in mining projects in the region and allows Atlantic Lithium to monitor and control the budget, schedule and quality of the end product through all stages of project development and execution.

EPCM contractors will provide management, engineering, design and procurement services for their work packages aligned with a "fit for purpose" approach to design, tender, evaluate, recommend for award, purchase and expedite all required equipment and materials for the Project.

EPCM contractors will manage their teams and report to Atlantic Lithium's management structure, who will be supported by a Project Team staffed to the meet Project objectives and mange any owner-led work packages.

EPCM contractors will establish construction management teams to manage and supervise on-site contractor construction progress, quality of workmanship, safety and environmental compliance. The Project will maximise the use of majority Ghanaian owned contractors and suppliers of key bulk materials and services in accordance with recently legislated requirements. Over 400 personnel are expected on-site during the peak construction phase.

Equipment fabricated outside of Ghana will be imported through the ports of Tema and Takoradi and transported by road to site. A transport and logistics (TandL) contractor (freight forwarder) with local and international presence will oversee all TandL requirements under EPCM contractor supervision.

EPCM contractors will manage and complete the commissioning of plant and infrastructure and perform handover to the Atlantic Lithium team for production ramp up once the agreed acceptance requirements are achieved.

The Project has completed FEED work packages for the process plant design and for the HV powerline relocation and Project power supply works package. These works expedite readiness for long lead equipment item selection and purchase and de-risk the overall Project schedule. The balance of the detailed design will be completed after Final Investment decision ("FID").

9.2 IMPLEMENTATION SCHEDULE

A detailed Project implementation schedule has been developed based on inputs from the Atlantic Lithium team and all DFS and FEED consultants. The schedule outlines a 30-month duration from DFS completion until introduction of first ore into the main process plant in January 2026. The schedule has zero float and is contingent upon the following assumptions and basis:

- Atlantic Lithium will use the DFS and completed FEED works for its preliminary Mining Lease application to the Minerals Commission of Ghana with receipt in Q3 2023;
- In parallel, internal assessment with Project JV partners for a FID;
- Following FID, access to agreed funds based on JV partner Project investment agreements and projected cashflow requirements identified in the DFS to commence:
  - Engineering detailed design and procurement of long lead capital items;
  - Design, supply and execute works scope for the relocation of existing HV powerlines that traverse the Project site; and
  - Carrying out ESIA works, application for environmental permits and developing the RAP requirements and implementation plant.
- The critical path relates to the activities and durations associated with completing ESIA and RAP works to apply for and receive an environmental permit
- After ratification of the Mining Lease application, implementation of Phase 1 RAP activities will commence ahead of construction works (breaking ground) and mining contractor mobilisation for site establishment and mine pre-stripping;
- Concurrent mine development and construction of processing facilities and infrastructure; and
- Development of an early production DMS plant ahead of completion of the main process plant, for early production of spodumene products for early revenue streams, as well as training of operators and developing co-ordination between mining and operations departments.

The key milestones for the Project are outlined in Table 16 below.

TABLE 16 PROJECT MILESTONES

Project Milestone	Start	Finish
Complete DFS		Jun-23
Process Plant Engineering and Procurement of Vendor Data Award	Jul-23	
Commence Commercial Negotiations (LLI)	Aug-23	
Process Plant Procurement Package Award	Sep-23	
Ghana Presidential and Parliamentary Election Canvasing Commences (12m ahead)	Dec-23	
Complete EIA and RAP and Submit to EPA		Mar-24
Permit Application Process (Opp to expedite)		Mar-24
Environmental Permit Granted (EIA and RAP) (Independent of ML Ratification)		Jun-24
Parliamentary Ratification of Mining Lease (Obtain 6 months post ML Application)		Jul-24
2024 Wet Season	May-24	Sep-24
Earthworks Contractor Mobilisation to Site for Process Plant Construction	Sep-24	
Phase 1.1 Commence Process Plant Construction (Break Ground)	Sep-24	
Ghana Presidential and Parliamentary Election	Dec-24	
First Ore Available Early Production Plant		Mar-25
First Product (Early Production plant)		Apr-25
Commence Mining for Process Plant feed	May-25	
2025 Wet Season	May-25	Sep-25
Power Feed Line to Process Plant Complete		Sep-25
Power On Date		Sep-25
First Ore Available Process Plant		Oct-25
Process Plant Construction Complete		Nov-25
First Ore Through Plant (SC6)		Jan-26
First Shipment of Concentrate (SC6)		Feb-26

10.0 OPERATIONS

Ghana has an established mining industry with several currently operating gold, bauxite and manganese mines. It has established supporting industries and supply chains for mining operations as well as a skilled and experienced workforce for mining and plant operations, albeit without experience with lithium mining and processing in the country.

The overall organisational structure of the operation has been developed with a breakdown of each department and function with associated headcount, position level and identification of expatriates, local workforce and contractors. More than 800 direct jobs will be created at the Project across security, medical, mining, processing and laboratory functions. The structure has also been used to develop labour costs in the operating cost estimate.

A structured recruitment procedure will be carried out to identify and employ suitable candidates for all required positions and in the identified timeframes prior to productions and operation to ensure all training and other operational readiness requirements are implemented. Wherever possible, the operation will employ experienced Ghanaian management and supervision personnel, supplemented by a small number of expatriates with specific expertise in lithium production.

Expatriates will be critical for operational readiness, local workforce training, guidance and management for successful operations startup, plant commissioning and ramp-up. Some expatriates will remain with the operation for one to three years, after which time it is anticipated that the operation can employ 100% Ghanaian personnel.

The Project will implement a hire local philosophy. This will provide contribution to economic growth and stability at the local level in the community. Atlantic Lithium will encourage its staff to live and work in the region and, by employing locally, the Company can be a more active part of the community and provide residents with an opportunity to access the jobs Atlantic Lithium creates.

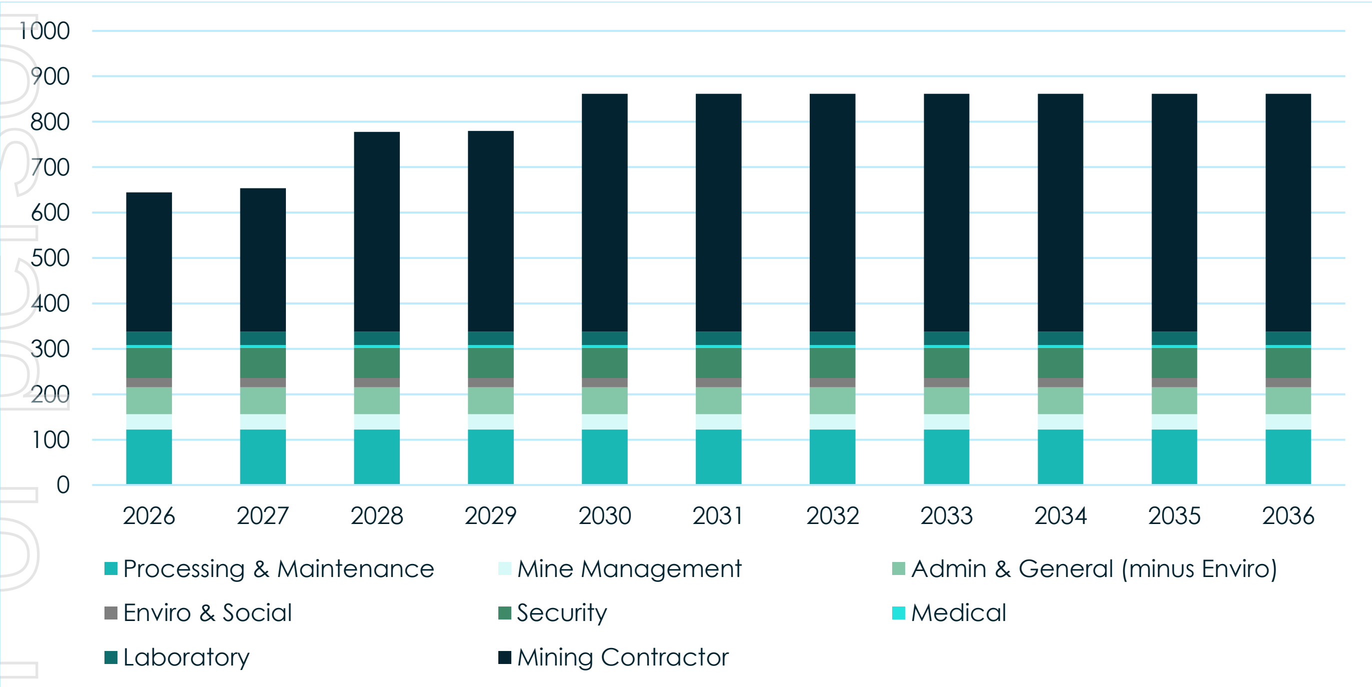

FIGURE 11 ESTIMATED EMPOYMENT FOR LOM

11.0 OPERATING COST ESTIMATE

11.1 ACTIVITY BASED COST

The Project has an estimated C1 cash cost, FOB Ghana detailed in Table 17 below.

TABLE 17 ACTIVITY BASED COST

Operating Cost	$ M (LOM)	*Unit of measure*	Unit cost by activity	$/dmt concentrate
Mining Contractor	1,550,248	*$/t mined*	3.82	432
Atlantic Mine Management	38,785	*$/t mined*	0.10	11
Processing	212,155	*$/t processed*	7.77	59
General and Administration	168,758	*$/dmt concentrate*	47.08	47
Spodumene Selling	106,850	*$/dmt concentrate*	29.81	30
Secondary Product Selling Costs	154,534	*$/dmt secondary product*	32.65	43
Secondary Product Credits	-878,424	*$/dmt concentrate*		-245
Total Operating Cost	**1,351,217**	***$/dmt concentrate***		**377**

C1 operating cost are defined as direct cash operating costs of production FOB, Ghana Port. Direct cash operating costs include mining, processing, transport, and general and administration costs, net the credit from secondary product sales. Secondary product credits do not include Feldspar sales.

The operating cost estimates are detailed below.

11.2 MINING COSTS

Estimation of direct mining costs were developed on the basis of a mining contractor operation, under the management of the Atlantic Lithium site operations team. Mining costs were based on:

- Contract mining costs established via a request for quotation ("RFQ") process involving eight established mining contractors active in the region for the full scope of contract mining services, excluding grade control drilling. Contract grade control costs were provided by the exploration drilling company that conducted the resource drilling at the Project (Geodrill Limited);
- Capital works relating to mobilising and establishing mining operations were requested as part of the RFQ process; and
- Owner's operations mining management team costs were estimated by Atlantic Lithium and are included in the OPEX.

Contract mining quotes were obtained from eight mining contractors experienced in the region. For conforming contractor quotes, unit mining costs excluding site establishment, mobilisation and de-mobilisation ranged from $3.21/t to $4.60/t mined based on material movement for the first seven years of mine life.

Mining costs were estimated at $3.82/t mined, over the life of mine, inclusive of contractor mobilisation, establishment, pre-production mining and demobilisation.

11.3 DMS PROCESSING COST

Process operating costs have been developed on an annualised basis and using the parameters specified in the plant process design criteria for the main plant operation. The operating cost estimate includes all owner management, administration and processing costs to process 2.7Mtpa of ore annually to produce spodumene concentrate and secondary product.

Operating costs are expressed in United States Dollars (US$) unless otherwise stated, with an estimate basis date of Q2 2023, and are summarised in Table 18.

TABLE 18 SUMMARY OF DMS OPERATING COST (USD, Q2 2023, -15% + 15%)

Item	$M/year	$/t Crusher Feed	$/t Product
Labour (Processing and Maintenance)	6.8	2.51	7.82
Reagents and Operating Consumables	2.4	0.89	2.76
Maintenance Materials	4.0	1.48	4.62
Power	3.4	1.25	3.88
Labour (Atlantic Lithium)	3.4	1.24	3.88
Labour (General and Administration)	5.4	2.01	6.24
General and Administration Expenses	9.3	3.44	10.71
General and Administration Power	0.3	0.13	0.39
Material Handling	2.0	0.76	2.36

11.4 EARLY PRODUCTION PLANT OPERATING COST

Operating costs for the smaller pre-production Modular DMS processing plant Table 19 were prepared on an annualised basis for the period of operation prior to the main plant coming online. Costs were developed with the same basis as the main processing plant operating cost, apart from labour requirements being reduced appropriately, higher reagent consumptions applied and diesel costs calculated for associated power consumption given the permanent power supply will not be online.

TABLE 19 PRE-PRODUCTION OPEX SUMMARY

Item	$M/year	$/t Crusher Feed	$/t Product
Crushing	6.2	10.31	22.85
Labour (Processing and Maintenance)	2.2	3.65	8.10
Reagents and Operating Consumables	0.7	1.11	2.46
Maintenance Materials	1.7	2.83	6.28
Diesel	2.0	3.28	7.26
Labour (Atlantic Lithium)	1.8	3.00	6.66
Labour (General and Administration)	1.7	2.80	6.22
General and Administration Expenses	2.7	4.40	9.75
Material Handling	0.4	0.64	1.42

11.5 BASIS OF ESTIMATION

Labour costs were developed based on the operations team (position and headcount) defined in the operations organisation chart and the expected cost of salaries, allowances, statutory charges and costs for each position.

Reagents and operating consumables costs were calculated based on expected consumption rates either from process design criteria information, benchmarking against similar operations or operational experience, and applied to unit rate pricing for each reagent and consumable item.

Power costs are based on unit rate power costs advised by ECG and applied to expected power consumption for the plant and operation.

General and administrative costs include priced costs for contracted services such as the metallurgical laboratory, site security, site medical etc as well as costs such as insurances, legal and accounting fees, training, general stationery and supplies, annual permits and licensing fees, consultant fees, travel and expenses, social and community expenditure.

Product transportation and logistics costs are based on unit costs for the complete transport and logistics chain (between site and product loading onto ships at Takoradi port) applied to the calculated annual product tonnages.

Material handling costs are based on mining contractor waste haulage rates applied to calculated annual material tonnages.

The OPEX excludes exchange rate and inflation variations from date of estimate, Project financing costs and interest charges, corporate overheads, VAT, Royalties, mining contractor costs (included directly in the financial model) and exploration costs.

12.0 CAPITAL COSTS

The Project capital cost estimate was compiled based on input from the following key contributors:

- Primero: process plant, bulk earthworks and various infrastructure costs;
- Geocrest Group / REC for Tailings and water storage dam earthworks;
- ECG Engineering for HV powerline relocation and power supply connection costs; and
- Atlantic Lithium for owners costs, land and resettlement costs and sustaining costs.

The upfront capital cost estimate is based on the scope described in this report and has been peer reviewed for acceptance by the study team. All costs are expressed in United States Dollars (US$) unless otherwise stated, with an estimate basis date of Q2 2023. The estimate has been developed in accordance with Primero's capital cost estimating procedures, with an accuracy of +15% / -15%.

The upfront capital cost estimate summary is presented in Table 20. Mining costs are discussed in Section 4.0 and have been included directly into the financial model (Section 13).

TABLE 20 CAPITAL ESTIMATE SUMMARY (USD, Q2 2023, -15% + 15%)

WBS Area	US$M	% of Total
Site General and Infrastructure	23.5	12.7
Process Plant - DMS	73.2	39.5
Project Indirects	27.6	14.9
Owners Costs	33.4	18.0
Modular Plant - DMS	15.3	8.3
Subtotal	173.0	93.4
Contingency	12.2	6.6
Total	**185.2**	**100.0**

12.1 ESTIMATE BASIS

The estimate has been presented in United States dollars as at Q2 2023. Prices obtained in other currencies have been converted to US$ using agreed Project exchange rates. The estimate build-up is based on a DFS level of engineering and design across most scope areas to size equipment and prepare material quantities. Quantity information was derived from a combination of sources and categorised to reflect the maturity of design information:

- Study engineering including quantities derived from Project specific engineering, equipment lists, drawings and 3D modelled facilities;
- Reference projects with quantities drawn from previously constructed projects or detailed designs, adjusted to suit (where required) this Project works scope;
- Estimates that include quantities derived from sketches or redline mark-ups of previous Project drawings and data, compiled by estimating; and
- Factored quantities derived from percentages applied to previous Project estimates.

Estimate pricing was derived from a combination of the following sources:

- Priced: Market pricing solicited specifically for the Project estimate from enquiry to reputable suppliers, fabricators and construction contractors in Ghana and internationally;
- Estimated: Historical database quantities or pricing older than six months, with some use of priced information (above) such as unit rates for cost build ups; and
- Allowance: Cost allowances based on Project team experience, benchmarking.

The breakdown of estimate pricing source (excluding contingency) is shown in Table 21.

TABLE 21 SOURCE OF CAPITAL COST PRICING

Source of Pricing	US$M	% of Total
Priced	136.6	79.0
Estimated	27.4	15.8
Allowance	9.0	5.2
Total	**173.0**	**100.0**

The capital cost estimate excludes sunk costs, corporate costs, company overheads, exploration costs, Project financing costs, taxes, duties, working capital, exchange rate variations and escalation.

12.2 DEFERRED AND SUSTAINING CAPITAL

Additional capital to be expended over the life of operation to sustain mining and processing operations has been prepared and included in the financial model. The costs are presented in Table 22. The costs exclude expenditure for new or expanded process plant and infrastructure.

TABLE 22 SUSTAINING AND CLOSURE CAPITAL COSTS, LOM

Cost Item	US$ M
Land Access and Resettlement Costs	98.9
Sustaining capital TSF Development Stages 2 and 3	0.8
New Tailings Line to Ewoyaa Pit	0.9
New Water Line from Ewoyaa Pit to Plant	0.5
Sediment Control Structures 3-5	0.1
Sustaining capital Plant and Buildings	7.0
Vehicle and Fleet Replacements	1.1
Sustaining Capital Infrastructure and Equipment:	2.9
Rehabilitation and Closure Costs	45.8
Total	**158.0**

ATLANTIC LITHIUM

13.0 FINANCIALS

13.1 FINANCIAL MODEL INPUTS AND BASIS

A financial model has been prepared to collate the study results to estimate and evaluate Project cash flows and economic viability. The model is based on the following key inputs and assumptions.

TABLE 23 KEY FINANCIAL MODEL INPUTS

Model Parameter	Basis	Basis	Value/Input
Capital Funding Base Case:		100% Equity, 0% Debt	Equity
Discount rate		% per annum	8.0
Royalties	Govt.	%	5.0
Royalties	3rd Party	%	1.0
Royalties	3rd Party	%, capped at $2m total	1.0
Royalties - *Growth and Sustainability 1% levy*		%	1.0
DMS Recovery		P1 SC6.0	62.1%
DMS Recovery		P1 SC5.5	67.2%
DMS Recovery		P2 5.5	14.9%
DMS Modular Recovery		SC5.5	34.0%
Li Product Moisture Content		%	5.0
Secondary Product Moisture Content		%	15.0
Corporate Tax Rate		%	35
GET FUND	Paid in year after cost incurred	% of goods and services cost	2.5
NHIL FUND	Paid in year after cost incurred	% of goods and services cost	2.5
CDA FUND	Paid in year after cost incurred	% of earnings/profit (NPAT)	1.0
VAT Rate		% of goods and services cost	15.0
Return Frequency for VAT (post Construction)	Quarters		2.00
COVID 19 HRL - levy on non-exempt goods and services	Paid in year after cost incurred		1%
Goods and Services Costs estimate based on % of Opex			17%
Import duties on op consumables			5%
Marketing Costs		%	3
Environmental Bond first year payment		US$	4,575,905
Annual Premium as % Insurance Bond			0%
With-holding Tax Rate on non resident services			20%
Withholding Tax Rate on Interest and dividends			8%
Import Duties on Op Consumables (inc ECoWAS and Proc)			5%
Carried forward losses in Ghana		Years	4
Refining Costs		%	0.00
Governments Free Carry Requirement		%	10

13.2 SPODUMENE CONCENTRATE PRICING

Spodumene concentrate pricing is based on a consensus SC6 forecast (Table 23). This Pricing has been used for the component of SC6 produced on the Project. SC5.5 pricing is calculated with a 5% discount to the SC6.0 Li_2O unit pricing and factored by a ratio of the product grades. Eg SC5.5 price = (5.5/6)*SC6 Price*0.95.

Secondary product pricing is calculated with a 45% discount to the SC6.0 Li_2O pricing and factored by a ratio of the product grade. The pricing basis for the discount is from preliminary discussions with off-takers for the material.

TABLE 24 PROJECT PRODUCT PRICING FORECAST, USD, FOB GHANA

Year	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
DFS SC6.0 (median consensus), US$	3,000	2,557	2,000	1,841	1,770	1,666	1,560	1,452	1,410	1,410	1,410	1,410
DFS SC5.5 (calculated), US$	2,613	2,227	1,742	1,603	1,541	1,451	1,359	1,264	1,228	1,228	1,228	1,228
Secondary Product (calculated), US$	375	286	222	176	191	189	163	155	144	139	154	152

13.3 SPODUMENE CONCENTRATE PRODUCTION

Figure 12 depicts spodumene concentration production over Life of Mine. The Modular DMS units will deliver early production during the first year. An uptick in production is anticipated in the second year, running at 75% of the nominal capacity on an annualised basis, which factors in both the commissioning and ramp-up stages. Year 4 production considers a higher volume of P2 ore processed.

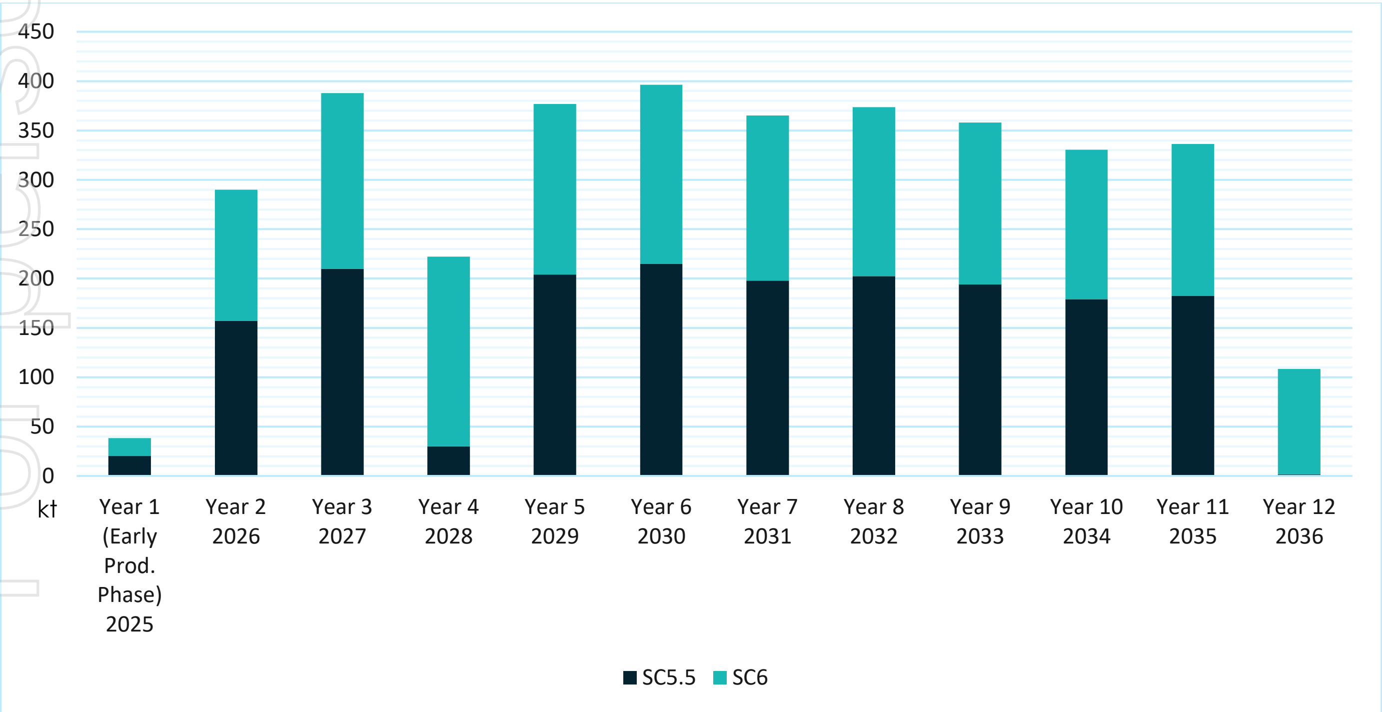

FIGURE 12 LOM CONCENTRATE PRODUCTION

Statement:

The estimated Ore Reserves and Inferred Resources underpinning the production target in Figure 12 have been prepared by a Competent Persons in accordance with the requirement in Appendix 5A (JORC Code).

13.4 PROJECT FUNDING

The Project will be funded under a co-development agreement with Piedmont Lithium Inc ("PLL"), where Piedmont has the right to earn up to 50% at the Project level and 50% of the total spodumene concentrate (SC6) offtake at market rates by funding US$17m towards studies and exploration and US$70m towards the development. Any cost overruns or savings for the Project (i.e. where development costs are more or less than the funding in the agreement) will be shared equally between Atlantic Lithium and PLL.

Project funding has been included on the premise that all Project development requirements will be funded by the PLL agreement, with additional funding required by Atlantic Lithium to be sourced from cash or equity.

13.5 PROJECT FINANCIAL RESULTS

Key financial model outputs are shown in Table 25. The Project demonstrates robust financial metrics and rapid payback.

TABLE 25 CASH FLOW MODEL KEY RESULTS

Item	Units	DFS Result
Revenue (all products)	US$M	6,566
Spodumene Revenue	US$M	5,687
Secondary Product Revenue	US$M	878
NPV_8 Post Tax	US$M	1,498
IRR	%	105
Payback	Months	19
EBITDA	US$M	3,798
EBIT	US$M	3,527
NPAT, LOM	US$M	2,284
Surplus Cashflow, Post Tax	US$M	2,253
C1 Cash Cost (net by-product credit)	US$/t	377
All In Sustaining Cost (AISC)	US$/t	610

All-In Sustaining Costs (AISC) are defined as Operating Costs plus 3rd party royalties, government royalties and sustaining capital. AISC are calculated and reported from commencement of commercial production. AISC exclude Non-Sustaining Capital expenditure.

The DFS illustrates that the Project has strong operating margins. The realised concentrate price (FOB) is derived from the concentrate pricing in Table 24, adjusted for the product mix.

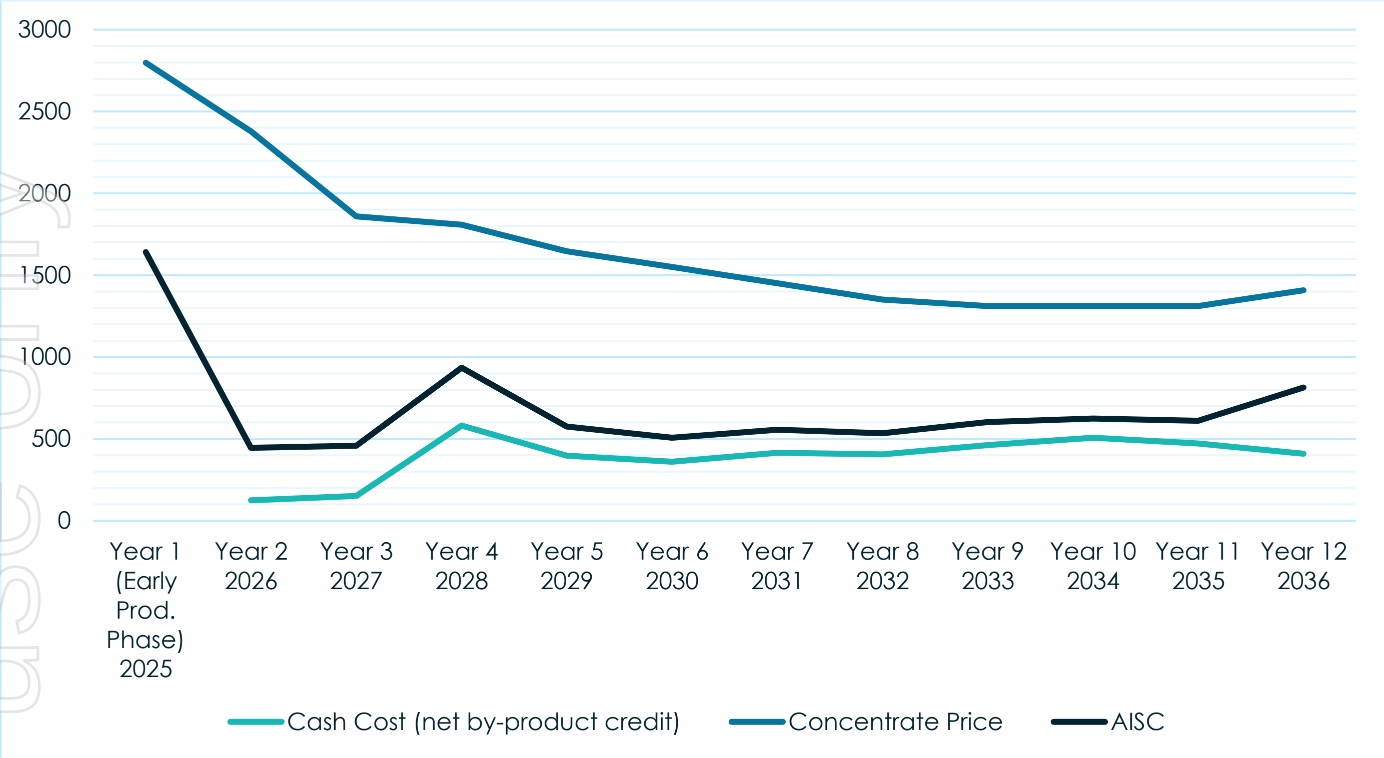

FIGURE 13 EWOYAA LITHIUM PROJECT MARGIN

13.6 CASH FLOW SENSITIVITIES

Sensitivities are applied to key Project estimates and assumptions. Favourable and unfavourable movements relative to Post-Tax NPV_8 are illustrated in the Figure 14 below.

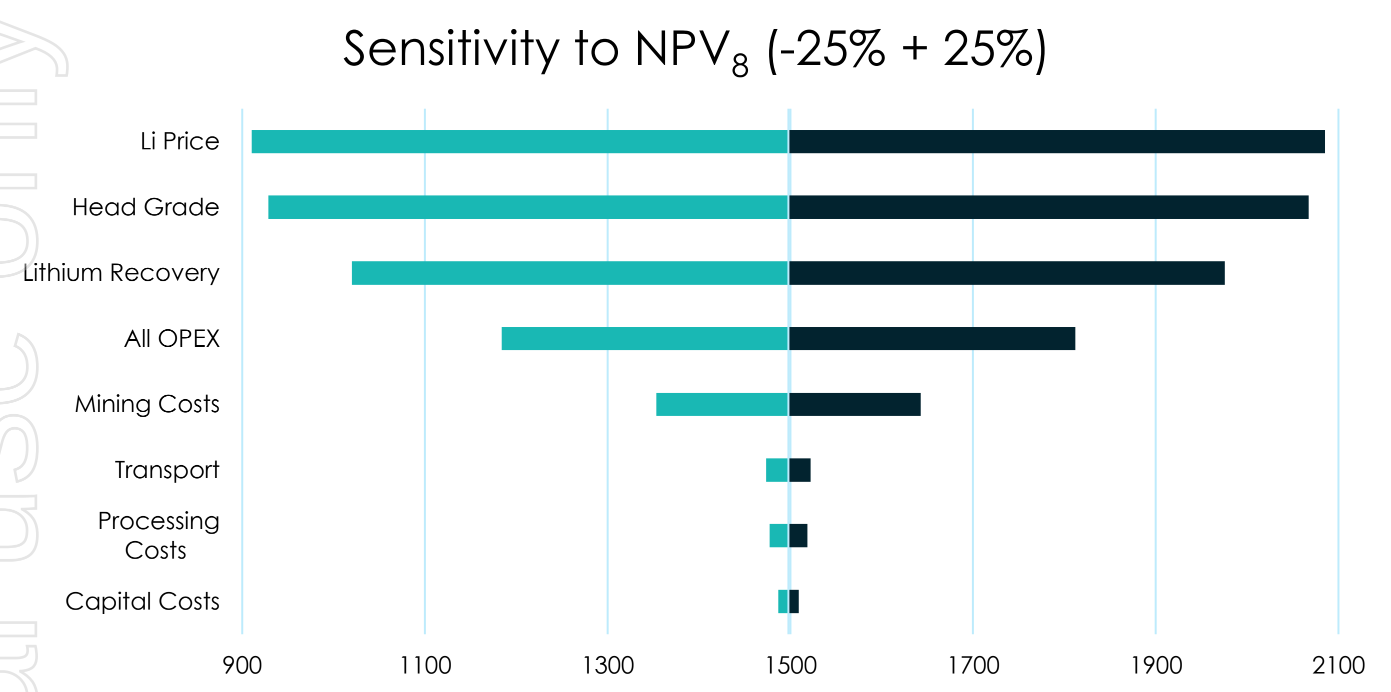

FIGURE 14 CASH FLOW SENSITIVITIES GRAPH, NPV_8 BASIS

Project cash flows are most sensitive to changes in concentrate selling price, where a 10% change in price resulted in a 17.0% change to the Post-Tax NPV_8. This was closely followed by sensitivity to changes in head grade 16.5% and recovery at 13.8%.

Sensitivity adjustments of Project expenses demonstrated that mining costs, which made up the largest portion of operating expenditure, resulted in the most significant movements in Project NPV_8 followed by concentrate transport, processing. The Project is insensitive to changes in capital cost.

14.0 PROJECT RISKS AND OPPORTUNITIES

14.1 INTRODUCTION

The study undertook analysis at two levels:

- Hazards identification associated with the plant operation ("HAZID"); and
- Project development risk and opportunity analysis.

14.2 HAZID

A HAZID was undertaken focussing on design and operational elements that have the potential to cause significant personal injury or environmental damage, to allow these to be addressed early in the detailed design.

The HAZID was carried out for the DFS in a workshop setting with attendees from Atlantic Lithium and Primero and facilitated by an independent representative. The results of the assessment constitute the HAZID risk register, into which subsequent HAZID reviews were then conducted to complete the analysis.

Overall, no hazards (uncontrolled) were classified as extreme, and only two hazards were classified as high, related to interactions of personnel with vehicles and mobile plant. With future implementation of industry standard design practices and operational controls, the residual risk ratings for these items are all low. All other hazards have both uncontrolled and residual risk lower ratings to either medium or low.

14.3 PROJECT RISK ASSESSMENT

A risk assessment was undertaken to assess the impact of uncertainties on the objective of delivering and operating the Project within budget and on schedule. The risks identified related to Compliance, Electrical supply, Environmental and approvals, Health and Safety, Human Resources, Infrastructure, logistics, water modelling and owners risks, Metallurgy, Geology, Mining, Processing, Security and Tailings and water dams

A standard Risk Assessment procedure was used for the Project Risk Review, which categorises risks by project development area. This allows specific risks and their impacts to be identified, along with current control measures. A severity of consequence and a likelihood of occurrence was assigned to rate risks and allow the effects of further control actions to be considered to arrive at a residual risk rating.

The Project risk assessment was carried out for the DFS in a workshop setting with attendees from Atlantic Lithium and all consultants and facilitated by an independent representative. The results of the assessment constitute the Project risk register, into which further reviews were then conducted by individual teams to complete risk works for their areas of study scope, including assignment of actions and risk owners for ongoing risk management.

The results of the workshops are presented in the Project Risk Register. In the categories studied, one risk (uncontrolled) was classified as EXTREME, related to risk of obtaining and keeping an environmental permit (EP) required to conduct construction and operations. Long Project delays and delays to revenues would result. Mitigation actions relate to developing a strong understanding of the requirements to obtain and maintain the EP and carrying out the planned ESIA and RAP readiness works for the EP application in parallel to engineering and design works during 2023-24, leading to a residual risk rating of MEDIUM.

Several risks were classified as HIGH, however with ongoing or future mitigation actions, all residual risk ratings lower to either MEDIUM or LOW.

14.4 PROJECT OPPORTUNITIES

The Project has opportunities to capture further value from plant streams and to upgrade secondary products to generate additional revenue. These opportunities will need to be investigated in future further studies and testwork programs to assess their feasibility.

FELDSPAR

Feldspar recovery consists of an additional DMS circuit and WHIMS iron removal stage treating the DMS rejects stream. A high-quality feldspar concentrate could be produced with greater than 10% alkalis, and less than 0.1% Fe_2O_3.

Potential production qualities are shown in the table below:

TABLE 26 FELDSPAR ESTIMATES

Product	% of plant feed tonnage	Quantity est. tpa	Size range (mm)	Grade % Li_2O
Feldspar (future product)	~20% - 40%	500 - 1,000ktpa	-10+1	n/a

FLOTATION

Another opportunity for the Project includes processing fines (<0.85mm) and middlings streams through a flotation plant. Preliminary flotation sighter testwork performed indicates encouraging flotation stage recovery and achievement of >5% Li_2O concentrate grades.

The fines and middlings streams making up the proposed flotation feed represent approximately 1.1Mtpa feed stream with an estimated grade of 0.7% Li_2O. Preliminary calculations for concentrate production are in the range of 80,000tpa for a >5% Li_2O concentrate which represents an opportunity to increase Project value.

The flotation concentrate product would replace the current (lower grade) secondary product and would be a higher value, lower volume product. The opportunity has potential to de-risk the Project in the event that low-grade lithium bearing products market is adversely affected in the future.

TABLE 27 POTENTIAL FLOTATION PLANT FEEDSTOCK PER ANNUM

Stream	Quantity float feed est. tpa	% Li_2O
Fines	450,000	1.2
DMS Middlings	650,000	0.4
Total	1,100,000	0.7

15.0 Important Information

15.1 MINERAL RESOURCE ESTIMATE

GEOLOGY AND GEOLOGICAL INTERPRETATION

The Ewoyaa 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 with two dominant trends: either east-southeast (Abonko, Anokyi, Ewoyaa Northeast, Grasscutter, Kaampakrom and Okwesi) dipping sub-vertically northeast; or north-northeast (Ewoyaa Main) dipping sub-vertically to moderately to the east. Pegmatite thickness varies across the Project, with thinner mineralised units intersected at Abonko and Kaampakrom between 4 and 12m; and thicker units intersected at Ewoyaa Main between 30 and 60m, and up to 100m at surface.

SAMPLING AND SUB-SAMPLING TECHNIQUES

Sampling Techniques

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. DD holes were quarter core sampled at 1m intervals or to geological contacts for geochemical analysis. 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. Holes without pegmatite were not assayed. 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. 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. 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). 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). 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 Na2O2 fusion, and combination MS/ICP analysis.

Sub-sampling Techniques

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. DD core was cut with a core saw and selected half core samples dispatched to Nagrom Laboratory in Perth for preliminary metallurgical test work. The other half of the core, including the bottom-of-hole orientation line, was retained for geological reference. The remaining DD core was quarter cored for geochemical analysis. 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 for assaying. The vast majority of samples were drilled dry. Moisture content was logged qualitatively. All intersections of the water table were recorded in the database. Field sample duplicates were taken to evaluate whether samples were representative and understand repeatability, with good repeatability. Sample sizes and laboratory preparation techniques were appropriate and industry standard.

DRILLING TECHNIQUES

The database contains data for the auger, RC and DD drilling conducted by the Company since 2018. The drilling was completed by the Company in six phases commencing in April 2018. All the drilling was undertaken by GeoDrill (Ghana), using both RC and DD rigs.

Drilling at the deposit extends to a vertical 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 RC and 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.

The RC drilling used a combination of 5.25' and 5.75' face sampling hammers. The DD used PQ and HQ (85mm and 63.5mm) diameter core barrels. The DD holes were completed from surface or as tails with PQ to maximise recovery in weathered zones, with reversion to HQ once ground conditions improved within fresh material.

In 2018, Phase 1 RC holes were completed on a nominal 100m by 50m grid pattern, targeting the Ewoyaa Main mineralised system. Phases 2 to 5 reduced the wide spacing to 80m by 40m and down to 40m by 40m in the well-drilled portions of the Project. Eleven DD twins of RC holes were completed.

During Phase 1 and 2, RC drilling bulk samples and splits were collected at the rig for every metre interval drilled, the splits being undertaken using a riffle splitter. During Phase 3, Phase 4, Phase 5 and Phase 6, RC samples were split with a rig mounted cone spitter, which took duplicate samples for quality control purposes.

DD was cut with a core saw and selected half core samples was dispatched to Nagrom Laboratory in Australia for metallurgical test work.

Selected core intervals were cut to quarter core with a saw at one-metre intervals or to geological contacts; and since December 2018, were sent to Intertek Laboratory in Tarkwa, Ghana for sample preparation. Prior to that, samples were sent to SGS Laboratory in Tarkwa for sample preparation.

All Phase 1 samples were submitted to SGS Tarkwa for preparation (PRP100) and subsequently forwarded to SGS Johannesburg and later SGS Vancouver for analysis (ICP90A).

PRP100 - Samples <3kg are dried in trays, crush to 100% passing 2mm, split using a rotary splitter to 5kg and pulverised in a LM2 to a nominal 85% passing 75µm. Approximately 100g sub-sample is taken for assay. All the preparation equipment is flushed with barren material prior to the commencement of the job. Coarse reject material was kept in the original bag.

Since December 2018, samples have been 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, Australia for assaying.

MINERAL RESOURCE CLASSIFICATION CRITERIA

The Ewoyaa lithium deposits show good continuity of the main mineralised units which allowed the drill hole intersections to be modelled into coherent, geologically robust domains. Consistency is evident in the thickness of the structure, and the distribution of grade appears to be reasonable along and across strike.

The Ewoyaa Mineral Resource was classified as Measured, Indicated and Inferred Mineral Resource based on data quality, sample spacing, and lode continuity. The Measured Mineral Resource was defined within areas of close spaced RC and DD drilling of less than 20m by 20m, and where the continuity and predictability of the lode positions was good. 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 lode positions was good. In addition, Indicated Mineral Resource was confined to 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 pods of mineralisation occur outside the main mineralised zones, and to geologically complex zones.

SAMPLING ANALYSIS METHOD

Since December 2018, samples were sent to Intertek Laboratory in Perth for analysis (FP6/MS/OES). FP6/MS/OES is an analysis for lithium and a suite of 21 other elements. Detection limits for lithium range between 5ppm and 20,000ppm. The sodium peroxide fusion (in nickel crucibles) is completed with hydrochloric acid to dissolve the sub-sample and is considered a total dissolution. Analysis is conducted by Inductively Coupled Plasma Mass Spectrometry ("ICP-MS").

Prior to December 2018, Phase 1 samples were submitted to SGS Johannesburg and later SGS Vancouver for analysis (ICP90A). ICP90 is a 28-element combination Na_2O_2 fusion with ICP-OES. ICP-MS was added to some submissions for additional trace element characterisation purposes.

ESTIMATION METHODOLOGY

A Surpac block model was created to encompass the extents of the known mineralisation. The block model was rotated on a bearing of 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 results of Kriging Neighbourhood Analysis ("KNA") and also in consideration of two predominant mineralisation orientations of 30° and 100 to 120°.

The parent block size was selected based on KNA, while dimensions in other directions were selected to provide sufficient resolution to the block model in the across-strike and down-dip direction.

Bulk densities ranging between 1.7t/m^3 and 2.78t/m^3 were assigned in the block model dependent on lithology, mineralisation and weathering. These densities were applied based on 13,901 bulk density measurements conducted by the Company on 101 DD holes and 35 RC holes with diamond tails conducted across the breadth of the Project. The measurements were separated using weathering surfaces, geology and mineralisation solids, with averages assigned in the block model.

CUT-OFF GRADE

The Statement of Mineral Resources has been constrained by the mineralisation solids and reported above a cut-off grade of 0.5% Li_2O. The reporting cut-off grade is supported by a high-level Whittle optimisation.

MINING AND METALLURGICAL METHODS AND PARAMETERS

The Statement of Mineral Resources has been constrained by the mineralisation solids, reported at a cut-off grade of 0.5% Li_2O. Whittle optimisations demonstrate reasonable prospects for eventual economic extraction. Preliminary metallurgical test work indicates four main geometallurgical domains; weathered and fresh coarse-grained spodumene-bearing pegmatite (P1) and weathered and fresh medium-grained spodumene-bearing pegmatite (P2). From test work completed for the Scoping Study at a 6.3mm crush, the P1 material produces 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 metallurgical test work completed for the PFS was done at a 10mm crush. Recoveries for P1 material into primary concentrate at a 10mm crush were 50-80% from the HLS test work with an average 68% recovery for weathered and 70% for the fresh used for the PFS before discounting.

A P2 recovery of 50% was used for weathered and fresh for the purpose of the PFS study. In the Scoping study, HLS tests on P2 weathered and fresh material at a 6.3mm crush size gave recoveries of 46-61%. Recoveries of P2 to primary concentrates at 10mm crush size ranged from 7-30% and averaged 20%. The middlings contained ~60% of the lithium and it is expected that after finer crushing at least 50% of this will be recovered giving an overall recovery of 50% before discounting.

Recoveries selected for the DMS Plant process design criteria were interpreted from laboratory results discounted by 4% to simulate the typical loss of recoveries from laboratory conditions to on-site, large-scale operations resulting in 66% recovery for P1 fresh, 64% recovery for P1 weathered and 46% for P2 weathered and fresh materials (*refer announcement of 22 September 2022*).

Further geological, geotechnical, engineering and metallurgical studies are recommended to further define the lithium mineralisation and marketable products.

16.0 DFS CONTRIBUTORS

Atlantic Lithium engaged several experienced and specialist technical consultants for contribution to and coordination of the DFS preparation. DFS Contributors and their areas of contribution are listed in Table 28.

TABLE 28 DEFINITIVE-FEASIBILITY STUDY CONTRIBUTOR

Area	Contribution by	Area	Contribution By
Geology and Resources	Atlantic Lithium	**Infrastructure**	Geocrest, REC, Engineering, PPS/SRK, Atlantic Lithium
Mineral Resources	Ashmore Advisory	**Project Implementation**	Primero, Atlantic Lithium
Mine Geotechnical, Hydrology and Hydrogeology	SRK Consulting Ghana and RSA	**Operating Cost**	Primero, Atlantic Lithium, ACC Logistics, Bolloré Africa, Glen Falloch Consulting
Mine Engineering	Mining Focus Consultants	**Capital Costs**	Primero, Atlantic Lithium, ECG, REC Engineering
Metallurgical Testwork	Trinol (supervision) and NAGROM (laboratory)	**Risks and Opportunities**	Atlantic Lithium, Increva
Site Geotechnical, TSF, WSD	Geocrest and Associates, REC Engineering	**Financial Analysis**	Aspire Solutions Pty Ltd
ESIA Study	NEMAS Ghana	**Power Supply**	ECG Engineering
Process Plant Engineering Project Implementation	Primero		

JORC Code 2012 Table 1

The following extract from the JORC Code 2012 Table 1 is provided for compliance with the Code requirements for the reporting of Ore Reserves:

'JORC Code 2012 Table 1' Section 1 Sampling Techniques and Data

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

Criteria	JORC Code Explanation	Commentary
Sampling techniques	• Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling. • Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. • Aspects of the determination of mineralisation that are Material to the Public Report. • In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1m samples from which 3kg was pulverised to produce a 30g 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. • DD holes were quarter core sampled at 1m intervals or to geological contacts for geochemical analysis. • 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. • Holes without pegmatite were not assayed. • 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. • 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. • 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). • 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). • 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.

Criteria	JORC Code Explanation	Commentary
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.).	• Six phases of drilling were undertaken at the Project using RC and DD techniques. All the RC drilling used face sampling hammers. • Phase 1 and 2 programs used a 5.25 inch hammers while Phase 3 used a 5.75-inch hammer. • All DD holes were completed using PQ and HQ core from surface (85mm and 63.5mm). • All DD holes were drilled in conjunction with a Reflex ACT II tool; to provide an accurate determination of the bottom-of-hole orientation. • 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. • Measures taken to maximise sample recovery and ensure representative nature of the samples. • 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. • 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. • 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. • Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. • The total length and percentage of the relevant intersections logged.	• All drill sample intervals were geologically logged by Company geologists. • Where appropriate, geological logging recorded the abundance of specific minerals, rock types and weathering using a standardised logging system that captured preliminary metallurgical domains. • All logging is qualitative, except for the systematic collection of magnetic susceptibility data which could be considered semi quantitative. • Strip logs have been generated for each drill hole to cross-check geochemical data with geological logging. • 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. • All drill holes have been logged and reviewed by Company technical staff. • The logging is of sufficient detail to support the current reporting of a Mineral Resource.

Criteria	JORC Code Explanation	Commentary
Sub-sampling techniques and sample preparation	• If core, whether cut or sawn and whether quarter, half or all core taken. • If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. • For all sample types, the nature, quality and appropriateness of the sample preparation technique. • Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. • Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. • Whether sample sizes are appropriate to the grain size of the material being sampled.	• 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. • DD core was cut with a core saw and selected half core samples dispatched to Nagrom Laboratory in Perth for preliminary metallurgical test work. • The other half of the core, including the bottom-of-hole orientation line, was retained for geological reference. • The remaining DD core was quarter cored for geochemical analysis. • 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 for assaying. • The vast majority of samples were drilled dry. Moisture content was logged qualitatively. All intersections of the water table were recorded in the database. • Field sample duplicates were taken to evaluate whether samples were representative and understand repeatability, with good repeatability. • 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. • 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. • 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. • 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. • 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 QA/QC. These were reviewed and retained in the company drill hole database. • 155 samples were sent to an umpire laboratory (ALS) and/assayed using equivalent techniques, with results demonstrating good repeatability. • Atlantic Lithium's review of QAQC suggests the SGS Vancouver and Intertek Perth laboratories performed within acceptable limits. • No geophysical methods or hand-held XRF units have been used for determination of grades in the Mineral Resource.

Criteria	JORC Code Explanation	Commentary
Verification of sampling and assaying	• The verification of significant intersections by either independent or alternative company personnel. • The use of twinned holes. • Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. • Discuss any adjustment to assay data.	• Significant intersections were visually field verified by company geologists and Shaun Searle of Ashmore during the 2019 site visit. • 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. • 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 6 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. • The data was audited, and any discrepancies checked by the Company personnel before being updated in the database. • 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. • Reported drill hole intercepts were compiled by the Chief Geologist. • 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. • Specification of the grid system used. • Quality and adequacy of topographic control.	• The collar locations were surveyed in 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. • RC drill holes were routinely down hole surveyed every 6m using a combination of EZ TRAC 1.5 (single shot) and Reflex Gyroscopic tools. • 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. • 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. • LiDAR survey Southern Mapping to produce rectified colour images and a digital terrain model (DTM) 32km^2, Aircraft C206 aircraft-mounted LiDAR Riegl Q780 Camera Hasselblad H5Dc with 50mm Fixfocus lens. • Coordinate system: WGS84 UTM30N with accuracy to ±0.04. • The topographic survey and photo mosaic output from the survey is accurate to 20mm. • 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. • Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. • Whether sample compositing has been applied.	• 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. • Hole spacing was reduced to predominantly 40m spaced sections and 40m hole spacings, with infill to 20m by 15m in the upper portions of the Ewoyaa Main deposit. Holes

Criteria	JORC Code Explanation	Commentary
		are generally angled perpendicular to interpreted mineralisation orientations at the Project. • 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. • 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. • 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. • 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. • 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. • In addition, Shaun Searle of Ashmore reviewed drilling and sampling procedures during the 2019 site visit and found that all procedures and practices conform to industry standards.

'JORC Code 2012 Table 1' Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section).

Criteria	JORC Code Explanation	Commentary
Mineral tenement and land tenure status	• Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. • The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	• The Project covers two contiguous licences the Mankessim (RL 3/55) and Mankessim South (PL3/109) licence. • The Mankessim is a joint-venture, with the license in the name of the joint-venture party (Barari Development Ghana Limited). Document number: 0853652-18. • The Project occurs within a Mineral Prospecting license and was renewed on the 27th July 2021 for a further three-year period, valid until 27th July 2024. • The Mankessim South licence is a wholly-owned subsidiary of Green Metals Resources. The Mineral Prospecting license renewal was submitted in Nov 2022 for a further three-year period. • 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, none of 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. • 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.
Drillhole Information	• A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: • easting and northing of the drill hole collar • elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar • dip and azimuth of the hole • downhole length and interception depth • hole length • 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.	• No exploration results are being reported. • All information was included in the appendices (of the Mineral Resource report). No drill hole information were excluded (from the Mineral Resource report).

Criteria	JORC Code Explanation	Commentary
Data aggregation methods	• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. • Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. • The assumptions used for any reporting of metal equivalent values should be clearly stated.	• Exploration results are not being reported. • Not applicable as a Mineral Resource is being reported. • No metal equivalent values are being reported.
Relationship between mineralisation widths and intercept lengths	• These relationships are particularly important in the reporting of Exploration Results. • If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. • If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. 'downhole length, true width not known').	• The drill line and drill hole orientation are oriented as close to 90° degrees to the orientation of the anticipated mineralised orientation as practicable. • 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 view of drill hole collar locations and appropriate sectional views.	• Relevant diagrams have been included within the Mineral Resource report 'Ewoyaa Lithium Project Mineral Resource Estimate' dated 25 March 2023.
Balanced reporting	• 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 Zone 30 North grid using a differential GPS. All RC and DD holes were down-hole surveyed with a north-seeking gyroscopic tool. • Exploration results are not being reported.
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. • 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). • 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 may be undertaken. • Further metallurgical test work may be required as the Project progresses through the study stages. • Drill spacing is currently considered adequate for the current level of interrogation of the Project.

'JORC Code 2012 Table 1' Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section).

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. • Data validation procedures used.	• The database has been systematically audited by Atlantic Lithium geologists. • All drilling data has been verified as part of a continuous validation procedure. Once a drill 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 Lithium 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. • 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, drill core/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.
Geological interpretation	• Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. • Nature of the data used and of any assumptions made. • The effect, if any, of alternative interpretations on Mineral Resource estimation. • The use of geology in guiding and controlling Mineral Resource estimation. • 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. • Geochemistry and geological logging have been used to assist identification of lithology and mineralisation. • 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 with two dominant trends: either east-northeast or north-northeast and dip sub-vertically to moderately 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. • Infill drilling has supported and refined the model and the current interpretation is considered robust. • Observations from the outcrop of mineralisation and host rocks; as well as infill drilling, confirm the geometry of the mineralisation. • Infill drilling has confirmed geological and grade continuity.
Dimensions	• The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	• The Project Mineral Resource area extends over a north-south strike length of 4,390m (from 577,380mN – 581,770mN), and includes the 360m vertical interval from 80mRL to -280mRL.

Criteria	JORC Code Explanation	Commentary
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. • The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. • The assumptions made regarding recovery of by-products. • Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation). • In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. • Any assumptions behind modelling of selective mining units. • Any assumptions about correlation between variables. • Description of how the geological interpretation was used to control the resource estimates. • Discussion of basis for using or not using grade cutting or capping. • 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 on mineralisation. The extrapolation of the lodes along strike and down-dip has been limited to a distance of 40m. Zones of extrapolation are classified as Inferred Mineral Resource. • It is assumed that there are no by-products or deleterious elements as shown by metallurgical test work. • Li_2O (%), Ta (ppm), Fe (%), Nb (ppm), Sn (ppm), Cs (ppm), K (%), Al (%), Si (%), P (%) and S (ppm) were interpolated into the block model. • A Surpac block model was created to encompass the extents of the known mineralisation. The block model was rotated on a bearing of 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 parent block size dimension was selected on the results obtained from Kriging Neighbourhood Analysis and also in consideration of two predominant mineralisation orientations of 30° and 100 to 120°. • 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. • No assumptions were made on selective mining units. • 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 with caesium and potassium. • 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 the interpolation. • Statistical analysis was carried out on data from 87 mineralised domains. Following a review of the population histograms and log probability plots and noting the low coefficient of variation statistics, it was determined that the application of high grade cuts was not warranted. • 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. Validation plots showed good correlation between the composite grades and the block model grades.

ATLANTIC LITHIUM

Criteria	JORC Code Explanation	Commentary
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 on a 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 mineralisation solids, and the reported above a cut-off grade at 0.5% Li_2O. Whittle optimisations demonstrate reasonable prospects for eventual economic extraction. • Metallurgical test work indicates that there are two main geometallurgical domains; coarse grained spodumene bearing pegmatite (P1); and medium grained spodumene bearing pegmatite (P2). From test work completed to date at a 6.3mm crush, the P1 material produces 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). From test work completed at a 10mm crush, the P1 material produces a 6% Li_2O concentrate at approximately 50 to 80% recovery (average 70%), whilst P2 material produces 5.5 to 6% Li_2O concentrate at approximately 7 to 30% recovery (average 20% recovery).
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 made.	• Ashmore has assumed that the deposit could be mined using open pit mining techniques. • A high level Whittle optimisation of the Mineral Resource supports this view.
Metallurgical factors or assumptions	• 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 may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	• Scoping and PFS level metallurgical test work has been conducted on the Ewoyaa 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, including a 4% discount factor for bench scale to mine scale efficiencies.

Geomet	Tonnage Mt	Li_2O %	Rec %	Weathered Conc. Li_2O (%)
P1	2.0	1.13	68	6.0
P2	0.2	1.00	50	6.0
Total	**2.2**	**1.12**		

Geomet	Tonnage Mt	Li_2O %	Rec %	Primary Conc. Li_2O (%)
P1	29.3	1.28	70	6.0
P2	3.8	1.06	50	5.5
Total	33.1	1.25		

Criteria	JORC Code Explanation	Commentary
Environmental factors or assumptions	• 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.	• No assumptions have been made regarding environmental factors. Atlantic Lithium will work to mitigate environmental impacts as a result of any future mining or mineral processing.
Bulk density	• 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. • 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. • Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	• 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 using the water immersion/Archimedes method. The weathered samples were coated in paraffin wax to account for porosity of the weathered samples. • A total of 13,901 measurements were conducted on the Cape Coast mineralisation, with samples obtained from oxide, transitional and fresh material. • Bulk densities ranging between 1.7t/m^3 and 2.78t/m^3 were assigned in the block model dependent on lithology, mineralisation and weathering.
Classification	• The basis for the classification of the Mineral Resources into varying confidence categories. • Whether appropriate account has been taken of all relevant factors (i.e. 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). • Whether the result appropriately reflects the Competent Person's view of the deposit.	• The Mineral Resource estimate is reported here in compliance with the 2012 Edition 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 Measured, Indicated and Inferred Mineral Resource based on data quality, sample spacing, and lode continuity. The Measured Mineral Resource was confined to fresh rock within areas drilled at 20m by 15m along with robust continuity of geology and Li_2O grade. The Indicated Mineral Resource was defined within areas of close spaced drilling of less than 40m by 40m, and where the continuity and predictability of the lode positions was good. In addition, Indicated Mineral Resource was classified in weathered rock overlying fresh Measured Mineral Resource. The Inferred Mineral Resource was assigned to transitional material, areas 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. • The input data is comprehensive in its coverage of the mineralisation and does not favour or misrepresent in-situ mineralisation. The definition of mineralised zones is based on high level geological understanding producing a robust model of mineralised domains. This model has been confirmed by infill drilling which supported the interpretation. Validation of the block model shows good correlation of the input data to the estimated grades. • The Mineral Resource estimate appropriately reflects the view of the Competent Person.

Criteria	JORC Code Explanation	Commentary
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	• Internal audits have been completed by Ashmore which verified the technical inputs, methodology, parameters and results of the estimate.
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 qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. • 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. • These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	• The geometry and continuity have been adequately interpreted to reflect the applied level of Measured, 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. • The Mineral Resource statement relates to global estimates of tonnes and grade. • No historical mining has occurred; therefore, reconciliation could not be conducted.

ATLANTIC LITHIUM

'JORC Code 2012 Table 1' Section 4 Estimation and Reporting of Ore Reserves

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section).

Criteria	JORC Code Explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	• Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve. • Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	• Refer to Section 3 of Table 1. The Ore Reserve estimate is based on the Mineral Resource determined as of 1 February 2023. • The Mineral Resources are inclusive of the Ore Reserves.
Site visits	• Comment on any site visits undertaken by the Competent Person and the outcome of those visits. • If no site visits have been undertaken indicate why this is the case.	• The Competent Person for the Ore Reserves, Mr Harry Warries, visited the site from 21 to 25 November 2022. •
Study status	• The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. • The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	• A Definitive Feasibility study (DFS) was completed by Atlantic Lithium Limited and this Ore Reserve Statement is a result of the DFS. The DFS was undertaken by a team of industry professionals as listed below. • Resource Estimate — Ashmore Advisory Pty Ltd • Mine Engineering — Mining Focus Consultants Pty ltd • Geotechnical investigation — SRK Consulting Ghana • Metallurgy and Processing — Primero Ltd, Trinol Pty Ltd, Nagrom • Hydrogeology — SRK Consulting South Africa and Ghana • General site infrastructure — Primero Ltd, Atlantic Lithium Limited • Tailings storage facility — Geocrest and Resource Engineering Consultants • Legal tenure — Atlantic Lithium Limited • Social and Environmental — NEMAS Consult Limited and Environmental and Social Sustainability (ESS) • Market Research — Atlantic Lithium Limited • Financial Modelling — Atlantic Lithium Limited
Cut-off parameters	• The basis of the cut-off grade(s) or quality parameters applied.	• A cutoff of 0.5% Li_2O was adopted based on processing and economic parameters determined for the Project.

Criteria	JORC Code Explanation	Commentary

Mining factors or assumptions	• The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).
	• The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.
	• The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc.), grade control and pre-production drilling.
	• The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).
	• The mining dilution factors used.
	• The mining recovery factors used.
	• Any minimum mining widths used.
	• The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.
	• The infrastructure requirements of the selected mining methods.
		• It is proposed to mine the resource utilising conventional open pit mining methods.
		• Conversion of Mineral Resources to Ore Reserves has been by the application of appropriate mining factors and assumptions based on the prefeasibility study, including geotechnical investigations.
		• A 5% mining dilution and a 95% mining recovery was estimated.
		• Pit optimisations were completed the results of which were used to identify the final pit limits.
		• The geotechnical parameters were developed by a specialist geotechnical consultant.
		• The mine plan was based on Measured, Indicated Resources and Inferred Resources with 6% of Inferred Resources included. This Inferred Resource is not considered material to the value of the Project and is not included as part of the Ore Reserve. The mine plan incorporates a three to five month mining ramp-up, with an ultimate steady state production of 2.7Mtpa of plant feed.
		• An alternative cash flow model with a mine plan that only considers 25.6Mt at 1.22% Li_2O of Probable Ore Reserves, where all Inferred Resources were excluded from plant feed and re-assigned as waste, was developed and delivered the following post tax outcomes.
		  ◦ NPV_8: US$1,404,840
		  ◦ IRR: 104.5%
		  ◦ EBITDA: US$3,502,938
		  ◦ NPAT: US$2,091,874
		• A minimum cutback mining width of 20m was adopted.
		• The primary infrastructure required for the development of the Project is listed below:
		  ◦ General administration and services infrastructure.
		  ◦ General mining facilities.
		  ◦ Process plant
		  ◦ Tailings storage facility

Metallurgical factors or assumptions	• The metallurgical process proposed and the appropriateness of that process to the style of mineralisation. • Whether the metallurgical process is well-tested technology or novel in nature. • The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied. • Any assumptions or allowances made for deleterious elements. • The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole. • For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?	• The proposed metallurgical process incorporates well-tested technology and utilises conventional dense media separation techniques. Processing will be conducted in a newly constructed plant adjacent to the mining operations. • The metallurgical testwork to date includes 17 composites (Scoping Study) and 69 composites (PFS and DFS studies) samples representing each of the identified deposits, prepared for HLS testing and selected composites were used for the measurement of physical properties. Bulk composites from each of the main pits (Ewoyaa Starter, Ewoyaa Main and Anokyi) were tested at an advanced level in a DMS 100 for Scoping Study and DMS250 for PFS study pilot plant. • The metallurgical testwork indicated that, based on the processing flow chart adopted, the recoveries for >90% P1 material will be 62% and 67% (for 6% and 5.5% concentrates respectively) and for >80% P2 material the recoveries will be 7% and 15% (for 6% and 5.5% concentrates respectively) at a 10mm crush.

Criteria	JORC Code Explanation	Commentary
Environmental	• The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.	• Preparations for the Environmental and Social Impact Assessment (ESIA), Resettlement Action Plan (RAP) and Traffic Impact Assessment (TIA) required under Ghanaian regulations, are progressing and are being undertaken by the appointed consultant. • Sulphur assays have been determined for more than 25,600 resource samples with results ranging from 250ppm to a maximum of 13,700 ppm with a mean of 845ppm. Results are low and therefore unlikely to generate any significant acid mine drainage. • Process plant tails and products are considered inert with no trace associated by-product metals or acid rock generating sulphide. • Waste rock dumps contain no trace acid rock generating sulphide and have been designed to minimise discharge into the environment in addition to downstream surface and ground water monitoring sites to monitor for this. • The Tailings storage facility (TSF) is designed as an integrate waste landform TSF to minimise Project footprint and to design a more stable TSF structure within an area of limited available flat ground for tailings storage, within an overall low-volume tailings generating Project given the DMS only process flow-sheet. • Baseline environmental and heritage studies have been conducted and environmental licensing is not identified to pose any restriction to the planned activities.
Infrastructure	• The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.	• The Project is located approximately 100km southwest of Accra, the capital of Ghana, West Africa. • The process plant and the Project’s supporting infrastructure has been developed through studies by engineering service providers as listed under the Study Status criterion. Works have included ‘modelling’ of plant availability, plant throughput, tailings storage facility and water consumption with subsequent production of sufficient drawings to enable development of detail estimates including forecasts of consumable consumptions such as grinding media, reagents and power. First principle estimates have derived labour levels for Project construction and on-going operation. • Water supply for the process will be sourced from a combination of pit dewatering and the nearby Agege Dam for makeup water. • A camp site will be not be established in proximity to the mine site and all staff will be accommodated in hotels and housing local to the mine area. Workshops, offices, and warehouse is planned adjacent to the mining and processing operations as required. Power supply to the operation will be from the local electricity grid. • Potable water will be sourced from a potable water borehole with Reverse Osmosis (RO) processing for drinking water. • Labour is expected to be sourced locally within Ghana and proximal to the Project site in particular. Skilled labour is more likely to be sourced from Accra or Takoradi with minimal expatriate roles defined during construction, plant commissioning and early years of production, after which an all Ghanaian workforce is envisioned.

Criteria	JORC Code Explanation	Commentary

Costs	• The derivation of, or assumptions made, regarding projected capital costs in the study.
	• The methodology used to estimate operating costs.
	• Allowances made for the content of deleterious elements.
	• The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co- products.
	• The source of exchange rates used in the study.
	• Derivation of transportation charges.
	• The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.
	• The allowances made for royalties payable, both Government and private.
		• The capital and operating cost estimates are commensurate with a Definitive Feasibility level study and were estimated by the study contributors as listed under the Study Status criteria discussed above. The capital cost estimate has been developed through the collation of a number of first principle estimates completed by the various Study contributors on completion of sufficient design works to provide bills of materials to the estimators, quotations from equipment providers and contracting companies and estimates carried out directly by the owner's team. The operational cost estimate was developed on a 'first principle basis', derived from base data provided by Atlantic Lithium and the Study contributors.
		• Contract mining was adopted as the basis of the Project.
		• The estimated capital costs for the Project are $185.2M as summarised below.
		  ◦ Processing $88.5M
		  ◦ Utilities and Infrastructure $23.5M
		  ◦ Owners Costs $33.4M
		  ◦ Indirects- EPCM and working capex $27.6M
		  - Contingency $12.1M
		• The estimated LOM Sustaining costs are $112.2M, with closure costs of $45.7M
		• The mining costs were estimated at $3.82/t mined, inclusive of contractor mobilisation, establishment, pre-production mining and demobilisation.
		• The estimated process operating costs, including general and administration costs, for the Project are $15.36/t of plant feed.
		• Spodumene products selling and transport cost were $29.81/t produced.
		• Secondary product selling and transport cost were $32.65/t produced
		• A 5% government royalty was applied, as well as a 1% third party royalty.
		• No deleterious elements have been identified for the Project.
		• All costs have been estimated in United States of America dollars.

Criteria	JORC Code Explanation	Commentary

Revenue factors	• The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc. • The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.	• The Project economics have been modelled on a long-term annualised spodumene concentrate price of $1,587/t and $187/t for the secondary product.
Market assessment	• The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future. • A customer and competitor analysis along with the identification of likely market windows for the product. • Price and volume forecasts and the basis for these forecasts. • For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.	• The market for lithium is robust and a long term metals price was developed from published forecasts from multiple sources. • Supply and demand are not considered a material factor for the spodumene market and, as such not relevant to the Ore Reserve calculations.
Economic	• The inputs to the economic analysis to produce the net present value (NPV_8) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc. • NPV_8 ranges and sensitivity to variations in the significant assumptions and inputs.	• The financial evaluation undertaken as part of the Study indicated a positive net present value (NPV_8) at an 8% discount rate. • Sensitivity analysis indicated that a negative 25% change in product price, foreign exchange rate, 25% increase in overall operating cost or 25% increase in capital cost still resulted in a positive NPV_8. • The All-In-Sustaining Cost (AISC) margin is estimated to be greater than 60% which indicates robust economic performance of the Project.
Social	• The status of agreements with key stakeholders and matters leading to social licence to operate.	• The Project managers are in liaison with the state government and engagement with key stakeholders is in place. • Baseline heritage surveys have been conducted for the property and sites of cultural and spiritual significance recorded including sacred sites which have previously been re-located with the community's assistance for exploration activities. Future heritage sites requiring re-location will be managed accordingly. • The community has been actively engaged throughout the exploration and resource evaluation stages with ongoing community engagement meetings, local employment from within the affected communities and a community development programme initiated. • The Project is identifying the potential impacts on residential structures, crops and land and endeavours to keep impacts to a minimum by adjusting the Project design where possible.

Criteria	JORC Code Explanation	Commentary
Other	• To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: • Any identified material naturally occurring risks. • The status of material legal agreements and marketing arrangements. • The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.	• No significant (high) naturally occurring risks were identified during a whole of Project risk assessment. The environment is stable with a long history of productive mining operations that have not been affected by naturally occurring events. • Atlantic Lithium's tenure is in good standing with all legal obligations met. Regular meetings with state and federal Government agencies occur for the purposes of discussing required approvals and facilitating meetings with other stakeholders. • There are reasonable grounds to expect that future agreements and Government approvals will be granted and maintained within the necessary timeframes for successful implementation of the Project.
Classification	• The basis for the classification of the Ore Reserves into varying confidence categories. • Whether the result appropriately reflects the Competent Person's view of the deposit. • The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	• Probable Ore Reserves were declared based on the Measured and Indicated Mineral Resources contained within the pit designs that were developed for the Project. The financial analysis showed that the Project is economically viable and the risk analysis did not identify any insurmountable risks.
Audits or reviews	• The results of any audits or reviews of Ore Reserve estimates.	• No external audits or reviews of the Ore Reserve estimates have been undertaken.

Discussion of relative accuracy/ confidence	• Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve 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 reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.
	• 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.
	• Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.
	• It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.
		• The relative accuracy and confidence of the Ore Reserve estimate is inherent in the Ore Reserve Classification.
		• The statement relates to global estimates.
		• No mine production data is available at this stage for reconciliation and/or comparative purposes.
		• Factors that may affect the global tonnages and the associated grades, as well as the quantity of concentrate produced include:-
		  ◦ Accuracy of the Mineral Resource estimate
		  ◦ Mining dilution
		  ◦ Mining recovery
		  ◦ P1 / P2 categorisation
		  ◦ Process plant performance

NOTES TO EDITORS:

This announcement contains inside information for the purposes of Article 7 of the Market Abuse Regulation (EU) 596/2014 as it forms part of UK domestic law by virtue of the European Union (Withdrawal) Act 2018 ("MAR"), and is disclosed in accordance with the Company's obligations under Article 17 of MAR.

FOR ANY FURTHER INFORMATION, PLEASE CONTACT:

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About Atlantic Lithium

www.atlanticlithium.com.au

Atlantic Lithium is an AIM and ASX-listed lithium company advancing a portfolio of lithium projects in Ghana and Côte d'Ivoire through to production.

The Company's flagship project, the Ewoyaa Project in Ghana, is a significant lithium spodumene pegmatite discovery on track to become Ghana's first lithium-producing mine. The Company signed a funding agreement with Piedmont Lithium Inc. towards the development of the Ewoyaa Project. Atlantic Lithium is currently advancing the Ewoyaa Project through feasibility studies and intends to be producing a spodumene concentrate via simple gravity only process flowsheet.

Atlantic Lithium holds 560km^2 and 774km^2 of tenure across Ghana and Côte d'Ivoire respectively, comprising significantly under-explored, highly prospective licences.