The Manager Companies - ASX Limited
20 Bridge Street
Sydney NSW 2000

ASX Announcement
29 January 2025
(16 pages)

ACTIVITIES FOR THE QUARTER ENDED
31 DECEMBER 2024

HIGHLIGHTS

HPA FIRST PROJECT STAGE 2

- Bulk earthworks completed on time and budget
- Contractual close reached for $400M senior debt funding package
- Design progressing to 30% engineering level
- Final MCU permit amendment approval received
- WHS accreditation received for construction
- Production Tax Credit review underway

PRODUCT MARKETING

- Letter of Intent from market leader in semiconductor packaging
- Significant acceleration in semiconductor sector demand driven by AI/data centres
- Semiconductor sales orders from Stage 1 now > 5,000kg
- New HPA product developed specifically for semiconductor sector demand
- Test and sales orders building with >200 orders received since FID (May 2024)
- Technical Acceptance Letter received from Li-B market leader for anode coating
- Further draft LOIs issued following US marketing
- Strong test results and sample expansion within DLE sector
- Successful development of ATH granules for the DLE sector
- Al-Nitrate based coating capability developed for Li-ion pouch cells

HPA FIRST PROJECT STAGE 1

- Production upscaled for high purity alumina hydrate to meet semiconductor sector orders
- HPA production quality reaches +99.9985% purity
- HPA inventory >15 metric tonnes, including >1 metric tonne of sintered HPA tablets

ALPHA SAPPHIRE

- $30M QIC facility extended to 30 September 2025
- Adoption of GaN-on-sapphire semiconductors accelerating
- Sapphire optics sales commenced
- Wide format (8”) sapphire growth remains a key technology advantage
- Robust cost model based on 8” sapphire wafer demand confirmed

ALPHA POLARIS

- Proposed Canadian Project (Alpha Polaris) advanced with Orica team

The Board of Alpha HPA Limited (**Alpha** or **the Company**) is pleased to provide the December 2024 quarterly activities report.

The Company is strongly focused on the delivery and expansion of the HPA First and Alpha Sapphire Projects, each representing the commercialisation and production of critical high purity aluminium products driving de-carbonisation utilising the Company's proprietary aluminium purification and refining technology.

The HPA First and Alpha Sapphire Projects will deliver a range of ultra-high purity aluminium products that are critical materials to the supply chains of key de-carbonising high-technology sectors including, semiconductors, LED lighting and lithium-ion batteries.

HPA FIRST PROJECT

HPA FIRST PROJECT STAGE 2

Earthworks

During the quarter Stage 2 bulk earthworks were progressed and completed on time and budget with retaining wall emplacement and site fill completed. Raw water connection is complete together with trade waste and stormwater ponds (*refer photos on following pages*).

Contractual Close for Senior Debt Funding

In December 2024, the Company announced it had reached Contractual Close with the NAIF and EFA, in respect of the debt funding package for the development of Stage 2 of the HPA First Project. The Company has executed a Syndicated Facility Agreement (**SFA**) under which NAIF (via the State of Queensland) and EFA - on its Commercial Account and under the Australian Government's Critical Minerals Facility (CMF) - have jointly (50:50) committed to provide $400 million in debt funding.

Contractual Close is the execution of debt finance agreements and represents a major funding milestone for the delivery of Stage 2.

Engineering and Fabrication

The expanding Brisbane based engineering team continues focus on completing the 30% design requirements for finalisation of civil design and commencement of bulk site civil works.

Offsite fabrication of key long lead equipment is well underway (refer images on following pages).

Final MCU Permit approval received

During the quarter, Alpha received the final amendment to the Material Change of Use (MCU) approval from the Queensland Government for Stage 2 of the HPA First Project (**Stage 2**), representing the final Stage 2 governmental approval.

WHS accreditation received

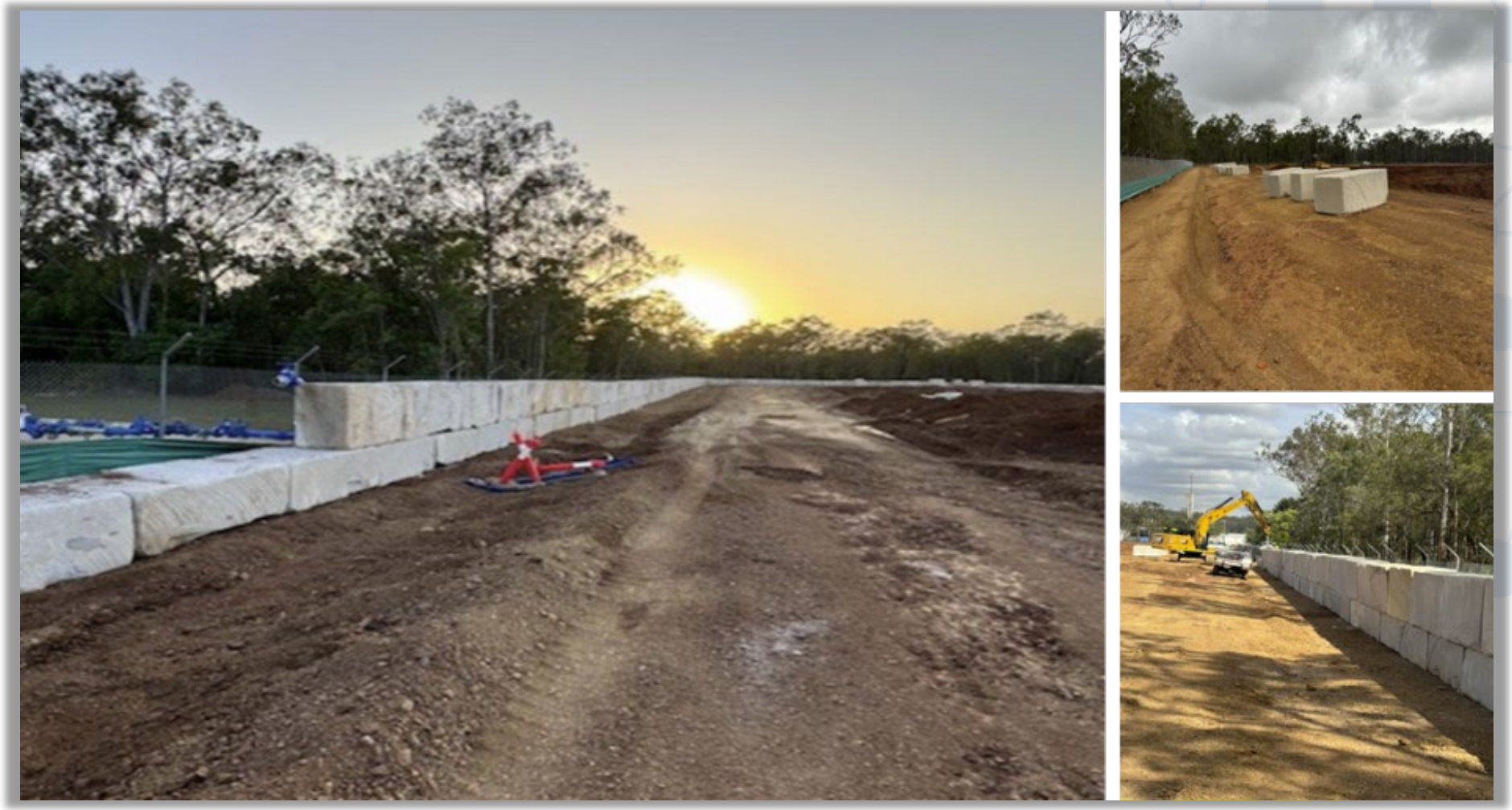
During the quarter, Alpha achieved accreditation under the Australian Government building and construction Work Health and Safety (WHS) Accreditation Scheme. WHS accreditation allows Alpha to directly manage key construction works on site as the principal contractor. The accreditation is also a condition precedent to the project debt funding to be provided by the Northern Australia Infrastructure Facility (NAIF) and Export Finance Australia (EFA).

Production Tax Credit review underway

Alpha notes the introduction to the Australian Parliament of the Future Made in Australia (Production Tax Credits and Other Measures) Bill 2024. The Bill establishes a new refundable tax offset to support the processing of Critical Minerals (including HPA) in Australia.

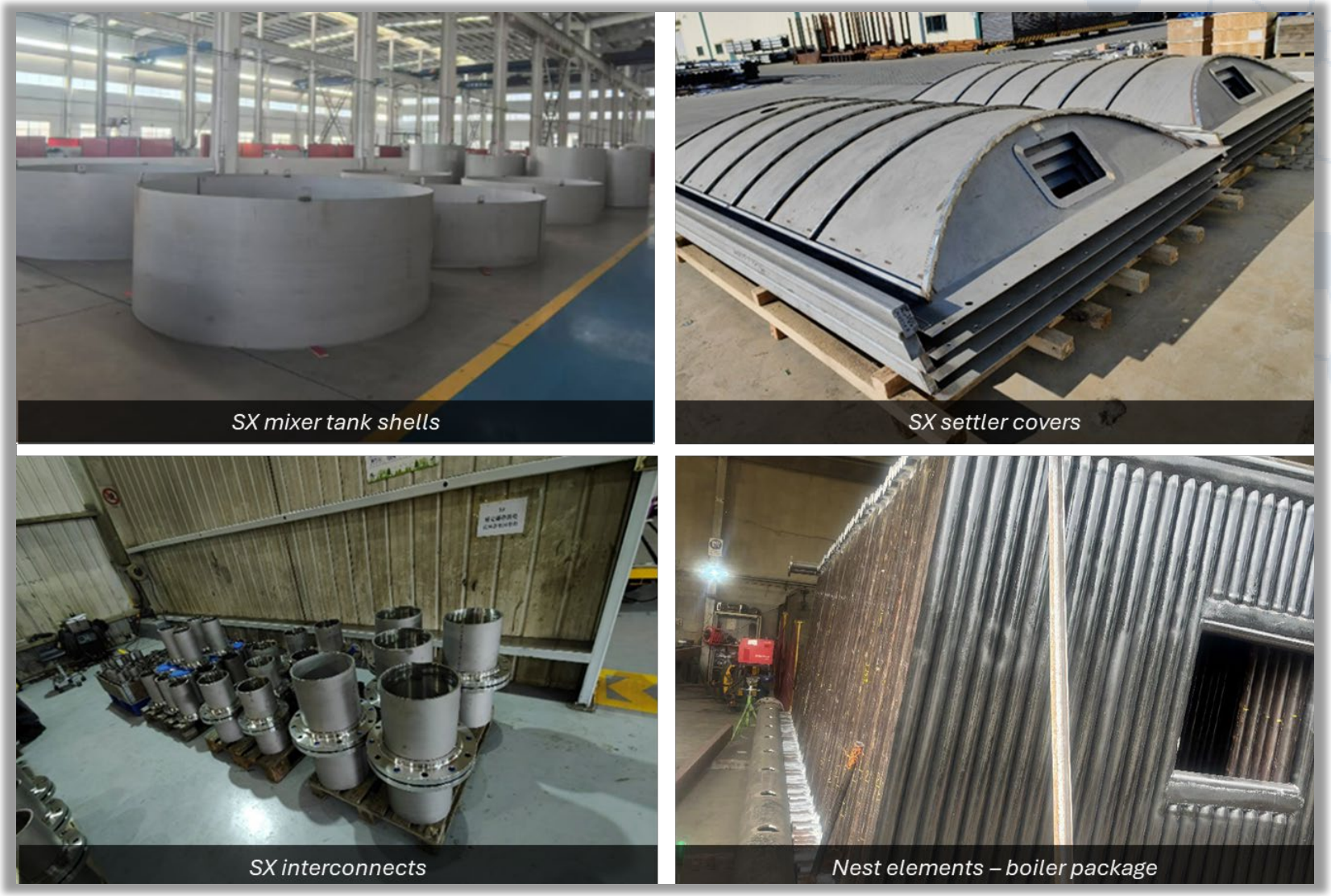
The Bill, if passed, will have a material positive impact on the financial returns of the Stage 2 project.

HPA First Project site looking southwest, showing earthworks near completion.
Orica Yarwun to the top right of picture.



Installation of Stage 2 site retaining wall.

Selected site civils.



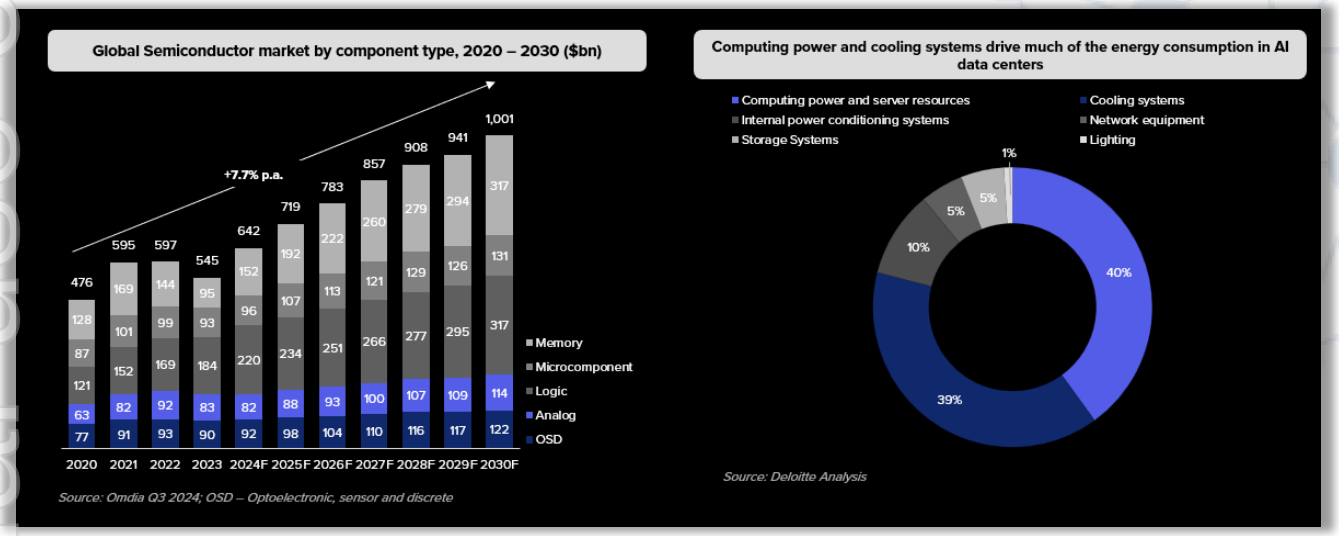
Selected images showing progress of offsite fabrication of long lead items.

PRODUCT MARKETING

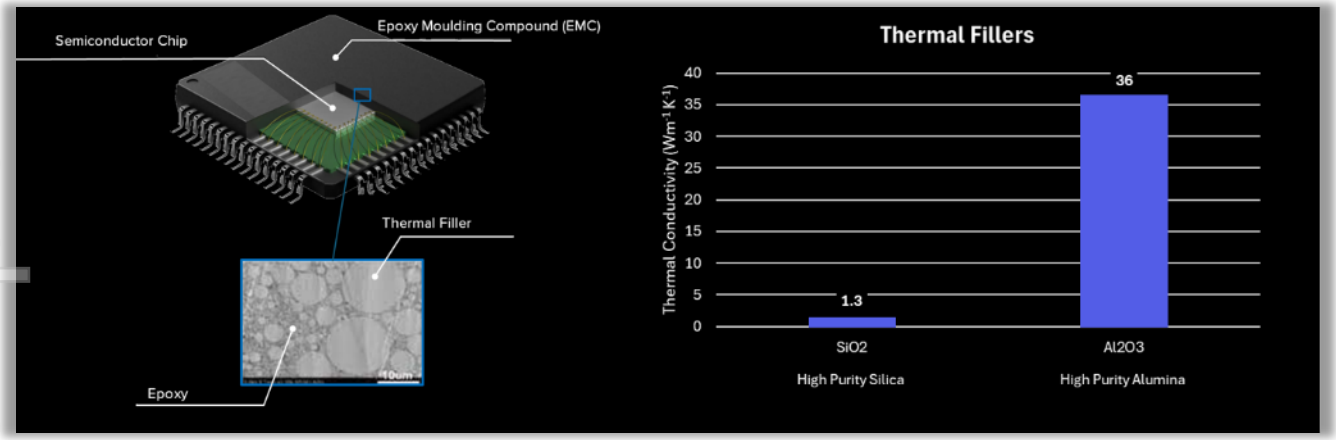
Semiconductor sector marketing

Alpha is very pleased to note that demand from the semiconductor sector has started to escalate rapidly. More detailed interaction with end-users is confirming that Alpha's novel purification process is uniquely matched to the demanding alumina quality requirements of each of the semiconductor sector applications.

- The global semiconductor sector is undergoing extraordinary growth driven by artificial intelligence (AI) data centres and power semiconductors for the energy transition.
- Increased processing power is driving higher heat outputs, resulting in surging electricity demand for AI data centres with ~40% of electricity required for cooling (*see graphic below*).



- These themes are placing an intensive focus on thermal management, and superior thermal fillers in semiconductor packaging (eg: epoxy moulding compounds (**EMC**))
- The superior thermal conductivity of alumina is driving HPA demand for thermal fillers in preference to the use of incumbent silica (*see graphic below*)



Purity standard for thermal fillers for new-generation semiconductors are extremely stringent and must contain ZERO detectable radionuclides (*or less than 1 part per billion*). Radionuclides emit alpha (α) particle radiation which disrupt secondary signals and create 'soft errors.'

Critically, Alpha's novel purification process removes all radio-nuclide impurities, unlike incumbent manufacturers, making Alpha's products ideally suited to meet the thermal filler application.

Based on these highly constructive parameters, Alpha has received a signed Letter of Intent (LOI) to purchase Alpha's high-purity materials from a market leader in the thermal interface sector. This includes commercial volumes from Stage 2 from CY2027 and the intent to continue and scale up orders from Stage 1 over CY2025 and CY2026. At the date of this report, the Company has also secured sales orders for Stage 1 of >5,000kg of products.

Stage 1 Facility response

Alpha has seen a material lift in product sales orders to be supplied from Stage 1, from counterparties in the semiconductor sector to allow them to complete production scale testwork. In particular, demand for high purity alumina hydrate (**$Al(OH)_3$** or **ATH**) have significantly increased.

The Stage 1 facility has implemented a number of equipment and flow sheet changes to increase production output to meet higher volume orders, primarily for ATH, over a shorter timeframe. Current high purity ATH production has been scaled to ~100kg/day with additional options being reviewed for further upgrades.

Product Development response

In collaboration with a particular end-user in the semi-conductor sector, Alpha has developed a new HPA product. The new product (*Ultra GAP-X*) is a form of gamma phase HPA, with the same ultra-high purity, but with other novel characteristics, in particular bulk density and flowability, which has been matched to the end-user equipment requirements.

This product is now under initial production trials with the relevant end user in South Korea.

CMP Sector Demand

Semiconductor substrates and stacked circuit layers are polished with a process referred to as CMP, which stands for Chemical Mechanical Planarization.

The CMP process uses combined physical and chemical abrasion which to date have typically included silicon and yttrium oxide as the dominant physical abrasives.

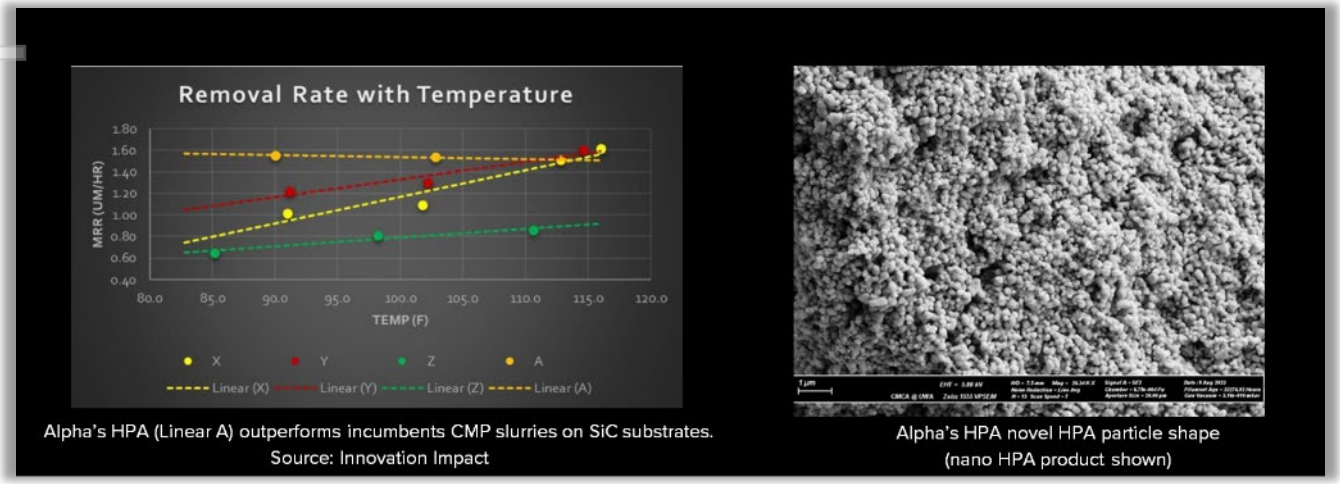
The rapid growth of harder substrates for power-semiconductors, such as Silicon Carbide (SiC), Gallium Nitride (GaN) and Sapphire (Al_2O_3) is rapidly leading to more and more high purity aluminium oxide (HPA) as the preferred CMP abrasive.

Alpha's CMP Advantage

Alpha's novel process can produce aluminas with a unique particle shape and impurity profile that is uniquely suited to high-performance CMP slurry abrasive applications.

Alpha's materials have been independently tested to show higher CMP removal rates than incumbent CMP slurries at lower temperatures, reducing warping of the substrate (see below).

Alpha has already commenced small scale commercial sales to leading CMP end-users in the US and is in advanced qualification with end-users in Japan, China and the US. Recent end-user testwork has been highly encouraging, confirming the benefit of Alpha's materials.



Alpha's HPA (Linear A) outperforms incumbents CMP slurries on SiC substrates.
Source: Innovation Impact

Alpha's HPA novel HPA particle shape
(nano HPA product shown)

DLE Sector Marketing

Alpha's ability to manufacture novel, amorphous, nanocrystalline, high purity alumina tri-hydrate (**ATH**) has proven to be of particular interest to end-users for Direct Lithium Extraction (**DLE**) sorbents. Within the last 10 years, a significant body of technical research has been able to demonstrate technical outperformance of DLE sorbents that have been synthesised with amorphous ATH.

To date, end-user testwork has been able to confirm that Alpha's material is easier to process into a final sorbent and has generated lithium extraction rates of approximate twice the level of market incumbent sorbents.

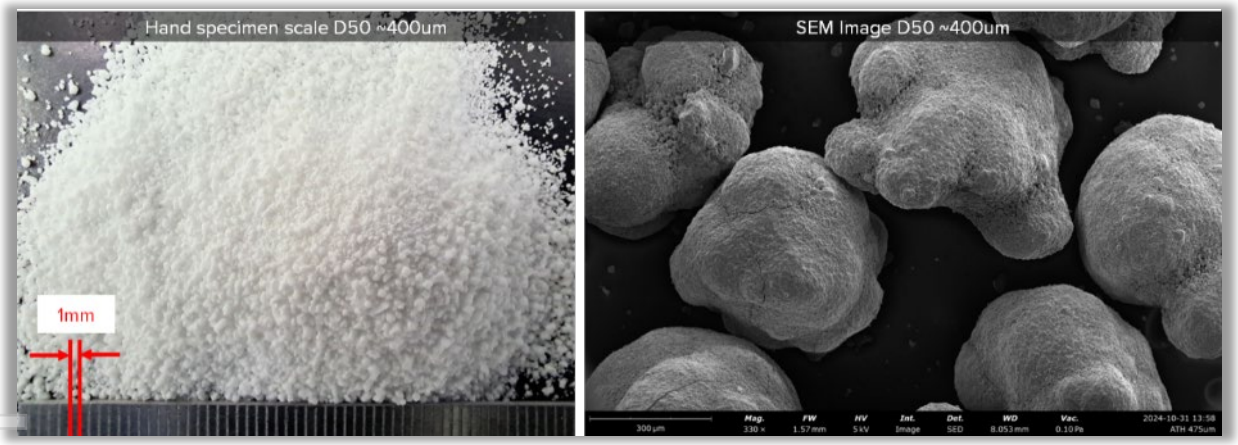
The Company has now received further encouraging testwork results from end-users, where Alpha's materials are showing benefits across a range of additional technical performance metrics, including lithium extraction rates.

In October 2024, Alpha conducted a US based marketing effort with visits to both DLE brine developers, as well as developers of DLE sorbents and process technologies, who are each assessing the use of Alpha's ATH materials.

DLE counterparties range from technical service providers, global materials businesses to petroleum majors looking to extract lithium from oil-field brines. This has provided further encouragement with additional test samples generated and delivered.

This work has also led to the demand for, and subsequent successful development of, Alpha's high purity amorphous ATH as robust granules. The granulation process is a neat fit for the existing Alpha process, with no additional chemicals or reagents to those already used.

A range of end-users have ordered granulated ATH test materials, with these test orders delivered in the first half of December 2024.



Images of Alpha's granulated ATH for use in the synthesis if DLE sorbents

Technical Acceptance Letter received from Li-B anode market leader

Alpha was pleased to receive a technical acceptance letter, representing formal technical qualification, from a global leading lithium-ion battery anode manufacturer.

The qualification is in respect of the use of Alpha's high-purity aluminium-nitrate (**Al-Nitrate**) to apply a shell coat of high purity aluminium-hydroxides (UltraCoat) onto anode particle surfaces to improve battery safety in controlling thermal runaway (fires).

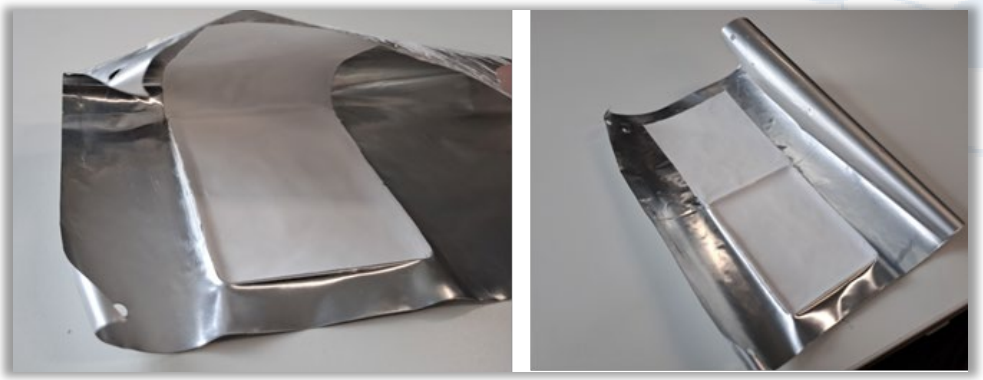
The letter follows extensive chemical and electrochemical testwork conducted with the manufacturer over the past 18 months and is now being tested by the anode manufacturer's key battery customers.

Al-Nitrate based coating capability developed for Li-ion pouch cells

Alpha has expanded its UltraCoat capability to now include the ability to coat strong, flexible coatings onto Li-pouch cells casing material.

This capability expands the potential application of the UltraCoat process to include most stationary storage applications (**ESS**) as well as e-mobility applications (e.g.: EVs), which use pouch-cell form factors.

Alpha will shortly be commencing proof of concept trials with research counterparties on the fire suppression capability of UltraCoated pouch cells on full Li-ion cells.



Li-ion battery pouch cells casing with interior UltraCoat applied – prior to cell formation

UltraCoat can be applied to chemically coat:

- Li-ion battery anode and cathode active materials
- Li-ion battery cell casings
- Li-ion electrode sheets

The wider regulatory and EV manufacturer focus on Li-ion battery fire prevention is considered strongly favourable for the accelerated testing and adoption of Alpha's UltraCoat technology. Alpha's commercial scale aluminium nitrate production is currently under expansion with Stage 2, which will support increased production of the UltraCoat technology.

Product marketing overview

Across the quarter, Alpha continued to be very encouraged with the volume of counterparties engaging with the Company on product qualification, with steady, month-to-month increases in both number of end-users and both size and number of qualification test orders.

Recent highlight product marketing metrics include:

- **>200 test and/or sales orders received since Stage 2 FID (May 2024)**
- **>5,000kg of sales and test orders under manufacture**
- **Continued expansion of sales orders (refer tables following)**
- **5 Letters of Intent (LOIs) – in draft discussion with customers**
- **One LOI executed with a market leader in the thermal interface sector for commercial volumes.**

Product Sales completed within the December quarter

Customer Sector	Jurisdiction	Description	Currency	Quantity Kg	Unit Price Kg	Invoiced Amount (all currencies)
Semiconductor	Japan	HPA Powder - milled	USD	100	30	$3,000
Semiconductor	Japan	HPA Powder - milled	USD	400	30	$12,000
Semiconductor	Japan	HPA Powder - milled	USD	10	35	$350
Semiconductor	Japan	ATH Powder - milled	USD	10	30	$300
Semiconductor	Japan	ATH Powder - milled	USD	10	30	$300
Semiconductor	US	Nano HPA Powder	USD	40	35	$1,400
Ceramics	Germany	HPA Sintered Pucks	EUR	50	47	€2,350
LED	Germany	Freight Charge	EUR	1	N/A	€900
LED	Germany	HPA Powder - milled	EUR	500	22.5	€11,250
Ceramics	US	HPA Powder - unmilled	USD	20	48.45	$969
Chemicals	US	High Purity Al-Nitrate	USD	30	50	$1,500
Research	Australia	Freight	AUD	1	25	$25
Research	Australia	Gamma HPA powder - milled	AUD	2	50	$100
TOTAL SALES (AUD)						**$53,341**

Open Product sales Orders as at date of this Report

Customer Sector	Jurisdiction	Description	Currency	Quantity Kg	Unit Price Kg	Order Amount (all currencies)
Sapphire Optics	Hong Kong	Sapphire	USD	by boule		$10,585
Medical	US	Gamma HPA powder - milled	USD	15	48	$727
Chemicals	US	High Purity Al-Nitrate	USD	1	400	$400
Chemicals	US	High Purity Al-Nitrate	USD	1	50	$50
Ceramics	China	Freight	USD	1	N/A	$100
Ceramics	China	Nano HPA Powder	USD	5	45	$225
DLE Catalysts	Canada	amorphous ATH	USD	80	15	$1,200
Semiconductor	Japan	ATH Powder - milled	USD	250	25	$6,250
Semiconductor	Japan	ATH Powder - milled	USD	250	25	$6,250
Semiconductor	Japan	ATH Powder - milled	USD	500	25	$6,250
Semiconductor	Japan	ATH Powder - unmilled	USD	100	23	$2,300
Semiconductor	Japan	ATH Powder - milled	USD	400	25	$10,000
Semiconductor	Japan	ATH Powder - milled	USD	600	25	$15,000
Semiconductor	Japan	ATH Powder - milled	USD	1000	25	$25,000
Semiconductor	Japan	ATH Powder - milled	USD	1000	25	$25,000
Semiconductor	Japan	ATH Powder - milled	USD	500	25	$12,500
Semiconductor	Japan	ATH Powder - milled	USD	500	25	$12,500
Semiconductor	Japan	ATH Powder - milled	USD	20	20	$400
Semiconductor	South Korea	ATH Powder - milled	USD	20	20	$400
Semiconductor	South Korea	Gamma HPA - X milled	USD	20	20	$400

HPA FIRST PROJECT - STAGE 1

During the quarter Stage 1 operations continued to focus on servicing customer qualification test orders and sales orders for:

- Alpha and gamma phase HPA
- Sintered HPA tablets
- Nano-HPA
- High purity alumina hydrates (boehmite (Al-O-OH) and 'ATH' (or $Al(OH)_3$); and
- Aluminium nitrate (Al-Nitrate)

The HPA and alumina hydrate circuits continue in stable operations, with HPA production levels continuing to exceed design capacity.

Solvent Extraction (SX) and Al-Nitrate circuits at steady state

The Al-Nitrate production is both providing precursor materials to feed both alumina-hydrate and HPA production as well as to re-build Al-Nitrate inventory ahead of anticipated Al-Nitrate orders across 2025.

Expanded high purity alumina hydrate production

The Stage 1 PPF facility has implemented a number of equipment and flow sheet changes to increase production output to meet higher volume orders, primarily for ATH, over a shorter timeframe. Current high purity ATH production has been scaled to ~100kg/day with additional options being reviewed for further upgrades.

Stage 1 HPA Inventory

Stable operations of Stage 1 PPF has allowed the Company to establish a meaningful HPA inventory ahead of anticipated larger volume orders across 2025.

Current HPA inventory exceeds 15 metric tonnes at >99.997% purity, which includes over 1,000kg of high density sintered HPA tablets for sapphire production.

HPA production consistently reached +99.9985% purity.

A production batch of densified, sintered HPA disc tablets (each tablet ~850g with density of >3.5g/cm3)

ALPHA SAPPHIRE

Marketing Update

Alpha Sapphire has been engaging with the synthetic sapphire end-use market since establishing maiden sapphire growth in May 2024.

Marketing has been focused on the following end-use markets:

- **Optics** – being sapphire glass utilisation in medical devices, watches and consumer electronics
- **LED's** – Which uses wafered sapphire material, in either 6" or 8" sizes, as substrate to layer light emitting circuits. In particular, Alpha placed a focus on the emerging microLED sector, which requires wide format (8" or 200mm) sapphire wafer substrates for commercial scale adoption.

During the quarter, Alpha Sapphire continued to be inbounded with new sector demand from a number of large semiconductor counterparties developing next generation Gallium-Nitride (**GaN) -on-sapphire semiconductor** platforms. GaN-on-sapphire, is an emerging semiconductor technology for high power and high-frequency devices. Strong demand signals from this end-use was a positive market development creating additional opportunity for the Alpha Sapphire project.

Sapphire marketing findings to date:

Semiconductor

- Positive demand trends from major semiconductor OEM's for building GaN-on-Sapphire as a platform for power-semiconductors, driven by high cost of silicon-carbide (SiC)
- Alpha Sapphire engaging directly with 4 semiconductor end-users
- Wafering and qualification commenced with 2 semiconductor end-users
- Suppliers from "ex-jurisdictions of concern" a pre-requisite for supply

LED

- Large volume 8" (200mm) wafer demand from microLED is delayed with major end-user adoption deferred
- Alternative micro-LED consumer displays are small volumes only at this stage
- Promising technology trends from auto sector, including head-up-displays (HUD) and high end smart watch devices
- Base-load LED supply chain is based on 4" and 6" sapphire substrates, which is well supplied with high level of cost competition

Optics

- Confirmed demand for 'ESG' sourced sapphire, no ESG premium yet identified
- Qualification complete and maiden sales in place with first optics end-user

Summary Sapphire marketing findings to date	
Unexpected 8" wafer demand from semiconductor sector	
Strong ESG sapphire optics demand but no ESG pricing premium	
Large scale 8" wafer demand for microLEDs deferred	

PHASE B FEASIBILITY

Phase B of the Alpha Sapphire Project represents the expansion of the existing 2 sapphire growth units (Phase A) to up to 48 additional sapphire growth units. Phase B feasibility assumes a new project site with access to renewable electricity

Alpha Sapphire has made substantial progress on the Phase B feasibility study, noting:

- Detailed engineering of the Phase B development of the McSAP growing units is complete, and a value engineering process in underway to finalise CapEx estimate
- A detailed, but preliminary Phase B Project cost model has been built showing robust financial returns built on dominant sales of 8" sapphire wafer to the GaN-on-sapphire sector and conditional on improved sapphire growth pass rates.
- A suitable Phase B/C site has been identified, but yet to be secured – driven by FID delay.
- Sapphire growth from the existing Phase A growth machines are under optimisation.

Accordingly, Alpha Sapphire now expects to reach a Phase B FID by 30 June 2025.

Summary Phase B Feasibility	
Detailed engineering complete CapEx estimates underway	🟡
Sapphire growth pass rates improving, but still below expectations	🟡
Robust cost model based on 8" sapphire wafer demand confirmed	🟢

Successful sapphire boule growth from Phase A sapphire growth units

QIC FINANCING

In December Alpha Sapphire announced it had agreed key terms with the trustee of the QIC Critical Minerals and Battery Technology Fund (**QCMBTF**) to extend the availability period of the QCMBTF Alpha Saphire Funding Facility to reflect the revised project timeline.

Summary of Key Changes to the QCMBTF Alpha Saphire Funding Facility:

The QCMBTF Alpha Saphire Funding Facility shall remain available until **30 September 2025**, subject to certain conditions precedent including the following:

- by **30 June 2025**, Alpha Saphire's Board reaching FID on Phase B of the Alpha Sapphire project, and the parties agreeing changes to the Alpha Saphire Funding Facility in relation to repayments, each in a form and substance satisfactory to QCMBTF;
- by **30 September 2025,** Alpha Saphire receiving a utilisation under Tranche B of the Alpha Saphire Funding Facility on the terms and conditions of the facility (i.e. 2nd financial close); and
- the Company providing an undertaking in respect of Alpha Sapphire's obligations to QCMBTF in connection with the extension.

If the conditions are not met, Alpha Sapphire will be obliged to repay the $3 million already drawn under the QCMBTF Alpha Saphire Funding Facility, plus interest of 10% p.a. from the date of drawdown, and the facility would be cancelled.

ALPHA POLARIS (CANADA)

In November 2022, Alpha signed an MOU (see ASX announcement 14 November 2022) with Orica to investigate the potential deployment of the HPA First process technology adjacent to the Orica facility in Alberta Canada.

Advanced market signals from ongoing customer engagement indicates that timing to commence further study on the potential expansion of the companies operating footprint into North America is now appropriate. To date, management has been focused on the HPA First Stage 2 Project in Gladstone but has created some bandwidth to enable some activity on this initiative.

Based on these market signals, the Company has formed a view on potential project capacity and has more formally commenced concept studies in co-operation with Orica management for the Canadian facility, to be named Alpha Polaris.

CORPORATE

Related Party Expenditures

During the December quarter, aggregate payments to related parties and their associates totalled $683,439. $437,362 of payments were to Directors or Director related entities for Directors' payroll and consulting fees. $100,000 in fees were paid to MIS Corporate Pty Limited ('MIS'), an entity in which Directors Norman Seckold and Peter Nightingale have a controlling interest. MIS provides full administrative services, including administrative, project commercial services, accounting, business development, staff, rental accommodation, services and supplies to the Group. $146,077 in fees were paid to Alto Group Inc., a company in which Director Annie Liu has a controlling interest for advisory services.

About the HPA First Project

The Company's HPA First Project represents the commercialisation of the production of high purity aluminium materials using the Company's proprietary, exclusively licensed solvent extraction and HPA refining technology. The disruptive, low-carbon process technology provides for the extraction and purification of aluminium from an industrial feedstock to produce 4N (>99.99% purity) and 5N (>99.999% purity) aluminium materials for sale into high technology markets including the semiconductor, lithium-ion battery and LED lighting sectors.

Alpha is in production at its HPA First Project Stage 1, Precursor Production Facility (PPF) across the Company's full range of high purity aluminium materials and has commenced construction of Stage 2 of the HPA First Project. Stage 2 of the HPA First Project will be the world's largest, single site facility for the manufacture of high purity aluminium materials.

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Appendix 4C

Quarterly cash flow report for entities subject to Listing Rule 4.7B

Name of entity	
Alpha HPA Limited	
ABN	**Quarter ended ("current quarter")**
79 106 879 690	31 December 2024

Consolidated statement of cash flows		Current quarter $A'000	Year to date (6 months) $A'000
1.	**Cash flows from operating activities**		
1.1	Receipts from customers	53	58
1.2	Payments for		
	(a) research and development	(505)	(1,023)
	(b) product manufacturing and operating costs	(3,474)	(7,978)
	(c) advertising and marketing	(552)	(686)
	(d) leased assets	-	-
	(e) staff costs	(3,537)	(6,284)
	(f) administration and corporate costs	(1,989)	(4,263)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	1,591	3,052
1.5	Interest and other costs of finance paid	(112)	(112)
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	-	19,862
1.8	Other (GST on Gov grants)	(2,102)	(744)
1.9	**Net cash from / (used in) operating activities**	**(10,627)**	**1,882**
2.	**Cash flows from investing activities**		
2.1	Payments to acquire or for:		
	(a) entities	-	-
	(b) businesses	-	-
	(c) property, plant and equipment	(21,427)	(38,906)
	(d) investments	-	-
	(e) intellectual property	-	-
	(f) other non-current assets	-	-

Consolidated statement of cash flows		Current quarter $A'000	Year to date (6 months) $A'000
2.2	Proceeds from disposal of:		
	(a) entities	-	-
	(b) businesses	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) intellectual property	-	-
	(f) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	(4,214)	(4,214)
2.6	**Net cash from / (used in) investing activities**	**(25,641)**	**(43,120)**

3.	**Cash flows from financing activities**		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	-
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	-
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	(5)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
3.10	**Net cash from / (used in) financing activities**	**-**	**(5)**

4.	**Net increase / (decrease) in cash and cash equivalents for the period**		
4.1	Cash and cash equivalents at beginning of period	184,702	189,619
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(10,627)	1,882
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(25,641)	(43,120)

Consolidated statement of cash flows		Current quarter $A'000	Year to date (6 months) $A'000
4.4	Net cash from / (used in) financing activities (item 3.10 above)	-	(5)
4.5	Effect of movement in exchange rates on cash held	647	705
4.6	**Cash and cash equivalents at end of period**	**149,081**	**149,081**

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter $A'000	Previous quarter $A'000
5.1	Bank balances	149,081	184,702
5.2	Call deposits	-	-
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	**Cash and cash equivalents at end of quarter (should equal item 4.6 above)**	**149,081**	**184,702**

6.	Payments to related parties of the entity and their associates	Current quarter $A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	683
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-

Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.

7.	**Financing facilities** *Note: the term "facility' includes all forms of financing arrangements available to the entity.* *Add notes as necessary for an understanding of the sources of finance available to the entity.*	**Total facility amount at quarter end $A'000**	**Amount drawn at quarter end $A'000**
7.1	Loan facilities	-	-
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	30,000	3,000
7.4	**Total financing facilities**	**30,000**	**3,000**

7.5	**Unused financing facilities available at quarter end**	-

7.6 Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.

Facility provided by QIC Critical Minerals and Battery Technology Fund (QCMBTF) for acceleration of 50 sapphire growth units. Security is first ranking security over shares in Alpha Sapphire and its assets. Repayment amount is 4.35% of gross revenue (less power costs) generated from Alpha Sapphire from sapphire product sales, on the first 2,500 tonnes of sapphire product sales. Greater of full repayment amount and the full commitment becomes repayable in prescribed circumstances (including events of default).

8.	**Estimated cash available for future operating activities**	**$A'000**
8.1	Net cash from / (used in) operating activities (item 1.9)	(10,627)
8.2	Cash and cash equivalents at quarter end (item 4.6)	149,081
8.3	Unused finance facilities available at quarter end (item 7.5)	-
8.4	Total available funding (item 8.2 + item 8.3)	149,081
8.5	**Estimated quarters of funding available (item 8.4 divided by item 8.1)**	14.03

Note: if the entity has reported positive net operating cash flows in item 1.9, answer item 8.5 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.5.

8.6 If item 8.5 is less than 2 quarters, please provide answers to the following questions:

8.6.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?

Answer: N/A

8.6.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?

Answer: N/A

8.6.3	Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?
Answer: N/A	

Note: where item 8.5 is less than 2 quarters, all of questions 8.6.1, 8.6.2 and 8.6.3 above must be answered.

Compliance statement

1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.

2 This statement gives a true and fair view of the matters disclosed.

Date: 29 January 2025

Authorised by: By the Board.
(Name of body or officer authorising release – see note 4)

Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.

2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standard applies to this report.

3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.

4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [*name of board committee – eg Audit and Risk Committee*]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".

5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.