

ASX ANNOUNCEMENT

30 January 2024

December 2023 Quarterly Activities Report

- **High Purity Alumina (HPA) Micro Plant delivers impressive 4N (99.99% purity) results**
- **ChemX's 100%-owned HPA Pilot Plant construction underway to deliver 4N HPA for customer qualification with Micro LED, Battery Separator, Synthetic Sapphire, and Semiconductor markets areas of key focus**
- **Manganese Internal Scoping Study to guide next steps for Eyre Peninsula Project**
- **Tranche Two Strategic Funding Facility from US Institutional shareholder drawn down**

ChemX Materials (ASX:CMX) (ChemX or the Company), an Australian based high purity critical materials business, is pleased to present its December 2023 quarterly report. The Company is developing a HPA Project in Perth, Western Australia along with its high purity manganese (HPM) Project on the Eyre Peninsula in South Australia.

Chief Executive Officer, Peter Lee commented:

"2023 was a highly successful year for ChemX Materials. Several key milestones were delivered successfully including: the announcement of a maiden mineral resource (MRE) on our Jamieson Tank manganese asset, followed by delivery of our critical 4N (99.99%) pure HPA milestone, with subsequent improvement achieving a further reduction in impurities by over 50% to achieve a record low single result of 39ppm impurities across 66 elements.



Figure 1 – Inspection of recently delivered Pilot Plant components

Our sights are now firmly set on achieving the same high purity targets in our 24tpa Pilot Plant which is on track for early-stage commissioning in Q2 CY2024. The Pilot Plant not only benefits from the unlocked Micro Plant knowledge but also from significant strategic investment within our internal 'state of the art' laboratory which will significantly improve the time to deliver +4N HPA samples to strategic customers."

HPA Micro Plant Delivers Impressive 4N Results

During 2023, ChemX diligently progressed the development of its 100%-owned HiPurA® HPA process. Adopting a strategy of scaling up the process from initial concept and laboratory results to bench scale operation with the development of the HPA Micro Plant in order to reduce the risks commonly associated with the scaling up of metallurgical processes.

The HPA Micro Plant is a continuous version of the innovative chemical based solvent extraction method of producing High Purity Alumina (**HPA**). HPA is a high value advanced material that is used in semiconductors, battery separators and the burgeoning market of LEDs and ultra-low power efficient Micro LEDs.

The process differs significantly from aluminous clay-based methods of producing HPA in that no dedicated mining operation is required, negating associated costs and lead times for mining approvals.

As a Chemical based process, which is modular and scalable, ChemX envisions being able to strategically locate future production versions of the HiPurA® HPA process close to end users in key markets, thereby greatly reducing supply chain risks and allowing for tailoring of the finished products to unique customer requirements. The ability to strategically locate production versions of the HPA Plant will also allow ChemX to seek the most suitable location and optimise for costs of production and CAPEX in favourable jurisdictions to deliver a strong competitive advantage.

Due to ongoing process optimisation and investments in internal capabilities, ChemX was able to cement its capability to produce 4N HPA (99.99% purity), and subsequently recording impressive results which included the highest quality sample of 39ppm impurities (99.996% purity) across an impressive 66 element spectrum. Additional results included 66ppm, 61ppm, and 99pm. Refer ASX release dated 13 November 2023.

For customers of High Purity Alumina (4N) HPA requires ChemX producing samples of less than 100ppm of impurities.

Achieving consistent high purity results above the required 4N HPA specification is testament to the disruptive nature of the ChemX HiPurA® process and the methodical work undertaken by the ChemX team to achieve these results.

ChemX HPA Pilot Plant Being Constructed to Deliver 4N HPA For Customer Qualification with Micro LED, Battery Separators, Synthetic Sapphire and Semiconductor Markets in Focus

Following the success of the HPA Micro Plant delivering the required 4N results, the Company was able to focus on advancing the design and procurement of significant items for the HPA Pilot Plant.

Early in the quarter, the Company made the decision to enhance its in house testing capabilities to reduce reliance on external laboratories and accelerate process iteration during commissioning of the Pilot Plant. The most significant of which was the investment in its 'state-of-the-art' Thermofisher (Inductively Coupled Plasma – Optical Emission Spectrometer) ICP-OES.

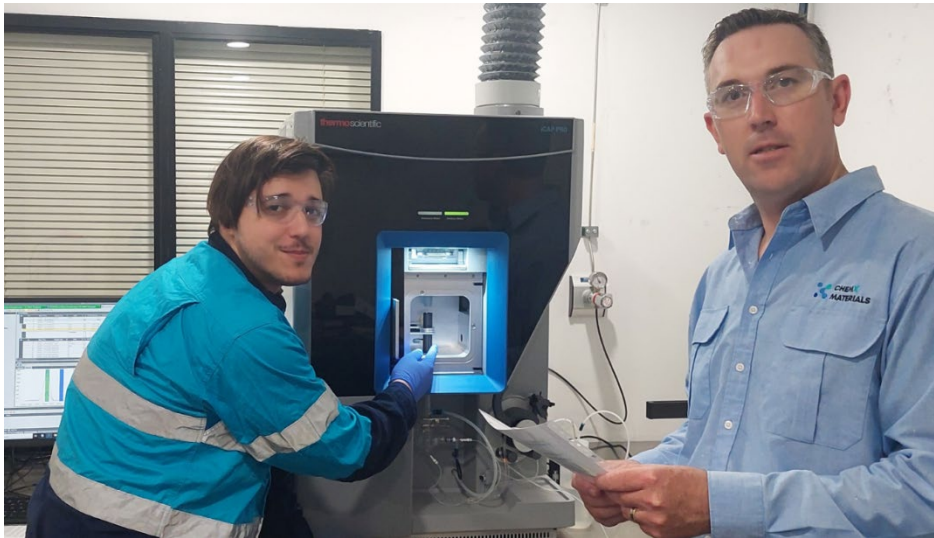


Figure 2 – Commissioning of Thermofisher iCAP-PRO ICP-OES instrument

This instrument will provide rapid trace element level analysis for optimising experimental tests within pilot plant production. This capability will allow ChemX to test its HPA on site for desired purity minimising reliance on external laboratories greatly increasing turnaround times and productivity, which was not available during the previous operation of the HPA Micro Plant. The ICP-OES is now installed and undergoing commissioning during January 2024. With adjustments made through Micro Plant operations throughout the quarter, the company was pleased with enhancements to the flow sheet optimising the Micro Plant as part of a scaled development approach.

The Micro Plant has been crucial to collect data, model mass and energy balances for the development of the larger scale pilot plant. The pilot plant being constructed at ChemX's facility in Perth Western Australia will deliver the required volumes of HPA for product qualification with sophisticated consumers of high purity aluminous products and synthetic sapphire producers with a focus on the burgeoning markets for LEDs, Micro LEDs and semiconductors.

The Company has engaged Fremantle Metallurgy to build the pilot plant at the Company's HPA facility. The HPA pilot plant will be run in campaign mode to provide the necessary data on purity, mass and energy balances and to define technical parameters for future commercial scale production versions.

On present schedules of significant lead items, the Company anticipates initial commissioning early in Q2 CY2024.

Manganese internal scoping study

During the quarter ChemX appointed global engineering firm Wood to commence an internal scoping study program on the high purity manganese (HPM) project.

At the conclusion of the quarter the work with Wood was ongoing. The scoping study will be used to inform management and Board of the project's nominal capital and operating expenditure requirements (to a scoping accuracy level) in consideration of key synergies within the region such as logistics, industrial inputs, port and other infrastructure, within the burgeoning South Australian renewable energy landscape.

Once finalised, the Company will evaluate the outcomes of the Wood led scoping study before undertaking further exploration work on the Eyre Peninsula.

Tranche 2 Strategic Funding Facility from US Institutional Shareholder Drawn Down

During the quarter, the Company successfully concluded the second tranche draw down of the Strategic Funding facility with its US based Institutional Shareholder.

The Company initially drew \$500,000 through the issue of 600,000 convertible notes (Tranche 1) under the agreement with a further \$1.7m through the issue of 2,040,000 convertible notes (Tranche 2) for a total of 2,640,000 convertible notes following shareholder approval of the transaction on 26 September 2023. In addition to the convertible notes the Company issued 8,451,736 unlisted options and 155,668 fully paid ordinary shares.

The Company is pleased to have concluded Tranche 2 of the funding package with the initial tranche of \$500,000 drawn down in the preceding quarter.

The Company's Board of Directors determined that the Strategic funding facility was more favourable to both the Company and shareholders, as the deemed conversion price of the notes is linked to the market price of the shares which therefore may result in less dilution if the share price increases as the business grows, the facility can be drawn down over a 12 month period. The Company has the option to redeem the Convertible Notes prior to their maturity providing greater flexibility, the facility allows for the Company to have access to the funds more quickly than a rights issue or an SPP and the terms of the transaction provide the Company with longer-term funding for the development of its projects. Subject to further agreement between the parties, the Company may issue further convertible notes for a subscription sum up to \$3.8m (**Further Tranches**). Additional information concerning the transaction can be obtained from the Company's ASX release 4, August 2023.

During the Quarter the Company received an R&D tax incentive rebate payment of \$909,600 for the 2022/2023 financial year. The R&D Tax incentive rebate administered by AusIndustry and the Australian Tax Office is a valuable program for companies like ChemX which are investing in Research and Development to sustainably produce the critical materials of the future.

ASX Compliance

In accordance with ASX Listing Rule 5.3.1, the Company did not conduct any exploration during the quarter. \$214,000 in table below relates to costs predominantly associated with development environmental surveys internal studies. Details of the Company's activities for the quarter, including

any material developments or material changes in those activities and a summary of the expenditure incurred on those activities is detailed in the preceding sections and in Table B below.

With respect to Listing Rule 5.3.2, the Company confirms that there was no mine production or mine development activities for the quarter.

In accordance with Listing Rule 5.3.3, the Company provides the following information in relation to its mining tenements in Table A. No mining tenements were acquired or disposed of during the quarter. The Company is a party to a mineral rights agreement with Pirie Resources Pty Ltd to explore for, and if warranted, develop mining operations exclusively for graphite.

Table A – Tenements

Tenement	Registered Holder	Beneficial Interest	Location	Status
EL 6634	ChemX Materials Ltd	100%	South Australia	Live
EL 5920	ChemX Materials Ltd	100%	South Australia	Live

For the purposes of Listing rule 5.3.4, the Company provides that following comparison in Table B of actual expenditure during the quarter against the use of funds following the issue of securities pursuant to the Prospectus, together with an explanation of any material variances.

Table B – Comparison of actual expenditure versus estimated expenditure.

Use of Funds	Estimate for the first 2 years after ASX admission	Actual use December Quarter 2023	Actual use Jan 22 to December 2023	Balance Remaining
Exploration at Eyre Peninsula Project	1,043,000	262,113	2,168,702	(1,125,702)
HPA Test Work	650,000	238,103	2,049,113	(1,399,113)
HPA Pilot Plant	2,500,000	120,217	353,152	2,146,848
Product Development	1,000,000	7,295	362,808	637,192
Expenses of the Offer	875,715	0	703,654	172,061
Administration & Working Capital	2,431,285	815,813	4,252,157	(1,820,872)
Total	8,500,000	1,443,542	9,889,587	(1,389,587)

Differences between estimated expenditure and actual expenditure primarily relate to increased expenditure on manganese exploration designed to estimate a maiden mineral resource based on previous exploration results, investment in the high purity alumina project, higher admin costs to support operational and corporate activity, R&D Grants received and Strategic Funding facility. The Pilot Plant has been resized to 24tpa achieving significant reduction in cost. Pilot Plant construction is progress.

In accordance with Listing Rule 5.3.5, the Company confirms payments totalling \$136,000 were made to directors for employment costs as well as to associates and related parties of the Company, for services rendered up to 31 December 2023.

Deferred Consideration Shares

In relation to the acquisition of HiPurA® Pty Ltd which was completed on 31 December 2021:

1. The number of Deferred Consideration Shares pending issue (on issue) is 2,500,000.
2. The terms of and conditions for the issue of Deferred Consideration Shares;
 - a. Commissioning of HPA Pilot Plant
3. During the quarter no Deferred Consideration shares were issued or cancelled.
4. There were no further milestones met during the quarter.

This Announcement has been authorised for release by the Board

For enquiries:

Peter Lee

Chief Executive Officer

ChemX Materials Ltd

peter@chemxmaterials.com.au

+61 (0) 448 874 084

Stephen Strubel

Executive Director and Company Secretary

ChemX Materials Ltd

stephen@chemxmaterials.com.au

+61 (0) 404 400 785

The Company confirms that it is not aware of any new information or data that materially affects the information in the relevant market announcements, and that the form and context in which the Competent Persons findings presented have not been materially modified from the original announcements.

About ChemX Materials (ASX: CMX)

ChemX is a materials technology company focused on providing critical materials required for electrification and decarbonisation. The Company's vision is to support the energy transition with materials and technology that provide real solutions to lowering carbon emissions. The Company is developing its high purity alumina Project in Perth, Western Australia along with a high purity manganese (HPM) Project on the Eyre Peninsula in South Australia.

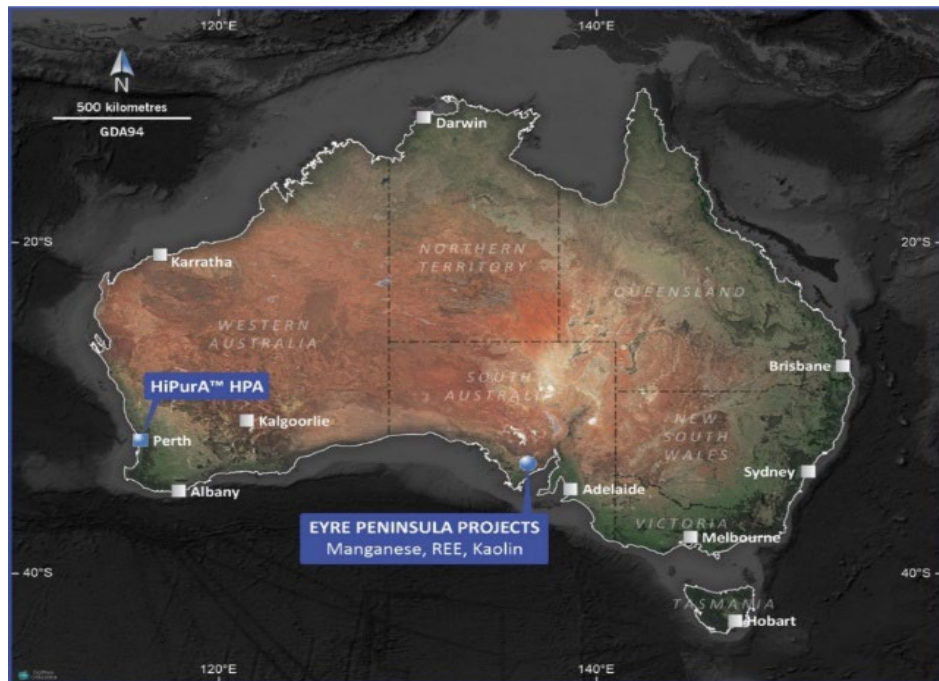


Figure 3 - ChemX Project Locations

www.chemxmaterials.com.au

[LinkedIn](#)

Appendix 5B

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity

ChemX Materials Limited

ABN

88 644 982 123

Quarter ended ("current quarter")

31 December 2023

Consolidated statement of cash flows (Unaudited)	Current quarter \$A'000	Year to date (6 months) \$A'000
1. Cash flows from operating activities		
1.1 Receipts from customers	-	-
1.2 Payments for		
(a) exploration & evaluation	-	-
(b) development	(377)	(519)
(c) production	-	-
(d) staff costs	(427)	(860)
(e) administration and corporate costs	(376)	(703)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	-	1
1.5 Interest and other costs of finance paid	(10)	(21)
1.6 Income taxes paid	-	-
1.7 Government grants and tax incentives	910	920
1.8 Other (provide details if material)	-	-
1.9 Net cash from / (used in) operating activities	(280)	(1,182)
2. Cash flows from investing activities		
2.1 Payments to acquire or for:		
(a) entities	-	-
(b) tenements	-	-
(c) property, plant and equipment	-	(1)
(d) exploration & evaluation	(214)	(267)
(e) investments	-	-
(f) other non-current assets	-	(30)

Consolidated statement of cash flows (Unaudited)	Current quarter \$A'000	Year to date (6 months) \$A'000
2.2 Proceeds from the disposal of:		
(a) entities	-	-
(b) tenements	-	-
(c) property, plant and equipment	-	-
(d) investments	-	-
(e) 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)	-	-
2.6 Net cash from / (used in) investing activities	(214)	(298)

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	1,700	2,200
3.3 Proceeds from exercise of options	-	-
3.4 Transaction costs related to issues of equity securities or convertible debt securities	-	-
3.5 Proceeds from borrowings	-	-
3.6 Repayment of borrowings	-	-
3.7 Transaction costs related to loans and borrowings	(169)	(230)
3.8 Dividends paid	-	-
3.9 Other (repayment of lease liabilities)	(30)	(58)
3.10 Net cash from / (used in) financing activities	1,501	1,912

4. Net increase / (decrease) in cash and cash equivalents for the period		
4.1 Cash and cash equivalents at beginning of period	223	798
4.2 Net cash from / (used in) operating activities (item 1.9 above)	(280)	(1,182)
4.3 Net cash from / (used in) investing activities (item 2.6 above)	(214)	(298)
4.4 Net cash from / (used in) financing activities (item 3.10 above)	1,501	1,912

Appendix 5B

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Consolidated statement of cash flows (Unaudited)		Current quarter \$A'000	Year to date (6 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	Cash and cash equivalents at end of period	1,230	1,230

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	223
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)	223

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
6.2	Aggregate amount of payments to related parties and their associates included in item 2
<i>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.</i>	

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

7. Financing facilities	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
<i>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.</i>		
7.1 Loan facilities	-	-
7.2 Credit standby arrangements	-	-
7.3 Other (please specify)	2,200	2,200
7.4 Total financing facilities	2,200	2,200
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.	<p>Convertible note funding facility of up to A\$6m received from existing institutional shareholder Mercer Street Global Opportunity Fund LLC. (refer ASX release dated 4 August 2023). \$500,000 Drawn down 14/8/23. Subsequent to the end of the September quarter, following shareholder approval on 26 September 2023 a further \$A1.7m was drawn down in the December Quarter. A further \$3.8m is available subject to further agreement between the parties.</p> <p>The unsecured convertible notes issued have a maturity date 15 months from the date of issue. Material terms of the facility are contained in Schedule 1 of the ASX release dated 4 August 2023. The notes have a face value of \$600,000 (Expire 14/11/24) & \$2,040,000 (Expire 9 Jan 25)</p>	

8. Estimated cash available for future operating activities	\$A'000
8.1 Net cash from / (used in) operating activities (item 1.9)	(280)
8.2 (Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	(214)
8.3 Total relevant outgoings (item 8.1 + item 8.2)	(494)
8.4 Cash and cash equivalents at quarter end (item 4.6)	1,230
8.5 Unused finance facilities available at quarter end (item 7.5)	-
8.6 Total available funding (item 8.4 + item 8.5)	1,230
8.7 Estimated quarters of funding available (item 8.6 divided by item 8.3)	2.49
<i>Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.</i>	
8.8 If item 8.7 is less than 2 quarters, please provide answers to the following questions:	
8.8.1 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: Not applicable.	

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

8.8.2 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: Not applicable.

8.8.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

Answer: Not applicable.

Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 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: 30 January 2024.....

Authorised 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 6: Exploration for and Evaluation of Mineral Resources* and *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 standards apply 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.