

## ASX ANNOUNCEMENT

26 July 2022

### ChemX Materials Ltd - June 2022 Quarterly Activities Report

- **Achieved 99.7% manganese sulphate purity in initial testwork program from samples taken at Jamieson Tank deposit, South Australia**
- **Marketing and Advisory Agreement entered with Amvest Capital Inc. in the USA**
- **Appointment of Chief Operating Officer (COO)**
- **Outstanding rare earths elements (REE) assays from Eyre Peninsula projects, South Australia**
- **Loyalty Options Offer to shareholders oversubscribed**
- **High Purity Alumina (HPA) Micro Plant initial commissioning completed with optimisation progressed**

**ChemX Materials (ASX:CMX) (ChemX or the Company)**, a materials technology company focused on providing critical materials required for electrification and decarbonisation, is pleased to present its June 2022 Quarterly Activities report.

The Company is developing its HiPurA™ High Purity Alumina (HPA) Project in Perth, Western Australia and has two projects on the Eyre Peninsula in South Australia – the Kimba Kaolin / Rare Earth Elements (REE) Project and the Jamieson Tank Manganese Project.

During the quarter, ChemX made significant progress in the commissioning of its High Purity Alumina Micro Plant in Perth and continues to optimise the process design, equipment modifications and scale.

At the Company's Jamieson Tank Manganese project in South Australia, outstanding testwork results showed high manganese sulphate purity could be achieved with the chosen flowsheet, giving confidence that manganese from the Jamieson Tank project is well suited for further processing into high purity manganese sulphate monohydrate (HPMSM) to be used in lithium battery cathodes.



Figure 1: High Purity Manganese Sulphate Monohydrate from initial testwork program

ChemX reported<sup>10</sup> outstanding results from an initial batch of reconnaissance REE assays, which were returned from air core drilling across the Eyre Peninsula tenements, highlighting the prospectivity of the tenements for ionically adsorbed REE.

ChemX Managing Director David Leavy commented: "It has been a busy and very productive quarter for ChemX as we have made good progress across all our projects. We appointed a highly credentialled and experienced Chief Operating Officer and rewarded shareholders with the Loyalty Options Offer, which was completed post the end of the June quarter with a very high level of support. We look forward to reporting further progress on the HiPurA™ HPA Micro Plant the HiPurA™ Pilot Plant Prefeasibility Study (PFS), and the two South Australian projects in due course."

### **HiPurA™ High Purity Alumina (HPA) Project, Perth**

On 24 June 2022<sup>1</sup> ChemX reported it had completed commissioning of the individual stages of its HPA Micro Plant and was undergoing final stage integrated process commissioning.

The key objectives from the HPA Micro Plant operation are:

- Optimisation of process and controls under continuous operation
- Achieving a 99.99% (4N) purity HPA on a consistent basis
- Ongoing production of samples of HPA for customer qualification testing
- Research and development on the development of additional products for assessment, including achieving a targeted 99.999% (5N) purity

The HiPurA™ HPA process, 100% owned by the Company, is expected to produce HPA with significantly lower levels of energy and reagent usage, resulting in lower capital and operating costs than most incumbent and potential producers.

ChemX has extended the HiPurA™ Pilot Plant Prefeasibility Study into Q3 2022 to enable it to be further optimised.

### **Jamieson Tank Manganese and Kimba Kaolin / REE Projects, South Australia**

In early April 2022, the Company completed testing on a composite sample of manganese ore taken from historical reverse circulation (RC) drilling at the Jamieson Tank Manganese Project by the previous tenement owners. The testing program, designed to identify the efficacy of the chosen process for the company's High Purity Manganese Sulphate Monohydrate (HPMSM) project<sup>13</sup>, produced manganese sulphate crystals with 99.7% purity. To achieve near specification quality without significant purification steps is very encouraging. Further work on the production of HPMSM is planned to commence in August on ore samples from the recent ChemX drilling campaign at Jamieson Tank.

Late in May 2022, ChemX reported assays from drilling of kaolin and manganese targets at the Eyre Peninsula tenements which highlighted the prospectivity for ionically adsorbed REE.

ChemX's Eyre Peninsula tenements cover the Kimba Kaolin / REE Project and Jamieson Tank Manganese Project, which was historically explored for manganese and kaolin prior to ChemX ownership. ChemX's maiden air core program returned high REE results at both Kimba and Jamieson Tank.

The Company plans to confirm the extent of the mineralisation within the results of the kaolin samples currently in the laboratory undergoing beneficiation in preparation for assaying. This will include developing an understanding of the presence and distribution of high value rare earths – neodymium, praseodymium, dysprosium and terbium. The Company will also conduct further metallurgical test work to determine the optimum process to maximise the recoverability of REE from the host clays.

On 23 June 2022<sup>2</sup>, ChemX reported promising assays from the drilling of manganese targets which confirmed the significant battery manganese potential of the Jamieson Tank project. The assays also showed elevated levels of REE.

Analysis of samples from the drilling program at Jamieson Tank highlighted the potential of the tenement to produce feedstock for beneficiation and subsequent processing into HPMSM. At a cut-off of 4% manganese, 22.2% (63 of the 283 samples assayed) averaged 9.4% manganese (Mn). This was associated with 17.1% iron (Fe), 379ppm Rare Earth Elements (REE), 101ppm Cobalt (Co) and 7,605ppm Barium (Ba). The highest Mn assay was 32.7% Mn with 1171ppm REE, 750ppm Co and 2,630ppm Ba.

The Company continued its analysis of the work history and geological record provided by previous tenement owners and government databases to gain further understanding of the mineralisation at the Eyre Peninsula projects in light of the focus for battery minerals and REE's.

The Company is awaiting further assay results on the kaolin and REE drilling samples, which are subject to laboratory schedules and availability of resources.

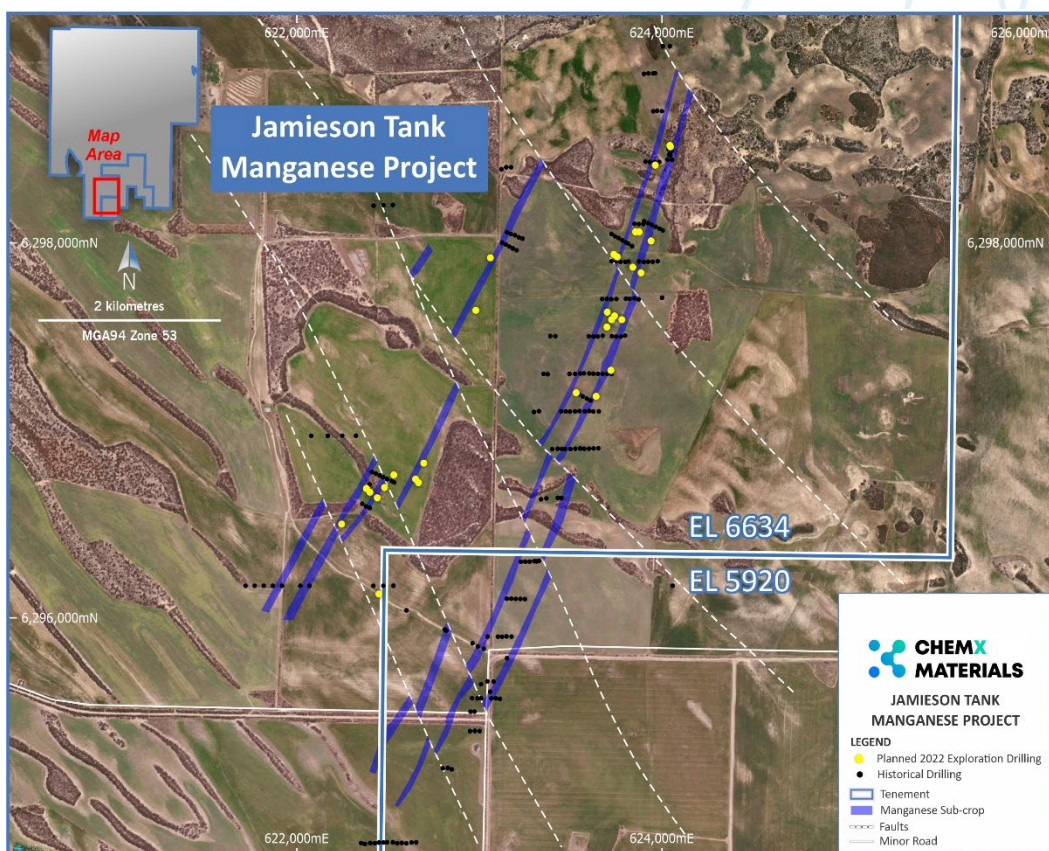


Figure 2: Manganese drill holes

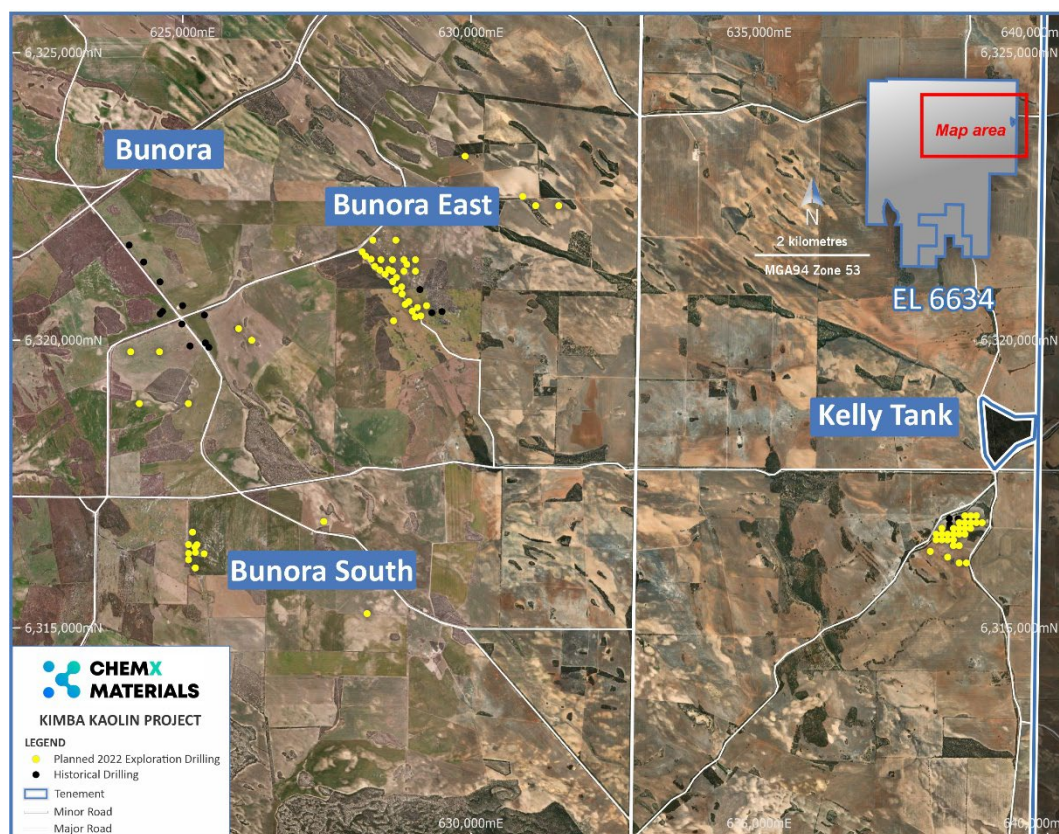


Figure 3: Kaolin / REE drill holes

### ChemX Materials Corporate

ChemX appointed Peter Lee as Chief Operating Officer in May 2022<sup>12</sup>. Mr Lee is a Chemical Engineer, who has more than 20 years' experience working for a number of large mining companies across Australia and Canada. Performance rights were issued in accordance with Mr Lee's employment agreement.

Also in May 2022<sup>9</sup>, ChemX entered into a marketing and advisory agreement with Amvest Capital Inc., a specialist investment management and corporate finance firm based in New York, which is focused on the global natural resources sector. Under the Amvest Capital Advisor Mandate, ChemX issued 1,500,000 unquoted Options at an exercise price of \$0.40 to Amvest Capital.

During the quarter ChemX lodged a Prospectus<sup>8</sup> for the issue of Loyalty Options, with options offered to shareholders at a nominal issue price (\$0.005) at a ratio of 1 option for every 4 shares held on the record date as at Friday 3 June 2022, with an exercise price of \$0.30 and a 3-year expiry term. The Offer closed oversubscribed post the end of the June quarter.

### 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) remains at 4,500,000.
2. The terms and conditions for the issue of Deferred Consideration Shares are summarised below:
  - i. Completion of HPA Flow Sheet Design - 2,000,000 shares

- ii. Commissioning of HPA Pilot Plant - 2,500,000 shares
3. During the reporting period and up to the date of this report:
- i. There were no Deferred Consideration Shares issued or cancelled.
  - ii. No milestones were met.

### ASX Compliance

In accordance with ASX Listing Rule 5.3.1, details of the Company's exploration 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 were no mine production and development activities for the quarter.

In accordance with Listing Rule 5.3.3 the Company Provides the following information in Table A in relation to its mining tenements. 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 3 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 March 2022 Quarter | Funds Spent during June Quarter 2022 | Balance Remaining |
|---------------------------------------|--|-------------------------------|--------------------------------------|-------------------|
| Exploration at Eyre Peninsula Project | 1,043,000  | 117,820                       | 273,149                              | 652,031           |
| HPA Test Work                         | 650,000  | 19,399                        | 28,745                               | 601,856           |
| HPA Pilot Plant                       | 2,500,000  | 43,217                        | 119,718                              | 2,337,065         |
| Product Development                   | 1,000,000  | 56,500                        | 56,500                               | 887,000           |
| Expenses of the Offer                 | 875,715  | 703,654                       | 0                                    | N/A               |
| Administration &                      | 2,431,285  | 549,898                       | 391,626                              | 1,489,761         |

| Use of Funds    | Estimate for the first 2 years after ASX admission | Actual use March 2022 Quarter | Funds Spent during June Quarter 2022 | Balance Remaining |
|-----------------|--|-------------------------------|--------------------------------------|-------------------|
| Working Capital |  |                               |                                      |                   |
| Total           | \$8,500,000  | 1,490,488                     | 869,738                              | 5,967,683         |

\*Difference to Cash Balance remaining relates to timing of payments made prior to the March Quarter and after the release of the Prospectus.

In accordance with Listing Rule 5.3.5, the Company confirms payments totalling \$161,000 were made to directors for employment costs as well as to associates and related parties of the Company, for services rendered up to 30 June 2022.

**During the 2022 June quarter, the following ASX Announcements were made:**

- |     |               |   |
|-----|---------------|---|
| 1.  | 24 June 2022  | HPA Micro Plant Commissioning and Pre-feasibility Study       |
| 2.  | 23 June 2022  | Significant Manganese and REE Results at Jamieson Tank        |
| 3.  | 15 June 2022  | Revised Loyalty Options Offer Extension of Closing Date       |
| 4.  | 15 June 2022  | Amended Appendix 3B   |
| 5.  | 15 June 2022  | Extension of Non-renounceable Entitlement of Offer Close Date |
| 6.  | 8 June 2022   | Loyalty Options Offer Open – Dispatch of Prospectus           |
| 7.  | 30 May 2022   | Proposed Issue of Securities                                  |
| 8.  | 30 May 2022   | Loyalty Options Offer – Prospectus                            |
| 9.  | 30 May 2022   | Loyalty Options Offer   |
| 10. | 27 May 2022   | Outstanding REE Assay Results at Eyre Peninsula               |
| 11. | 20 May 2022   | Notification regarding unquoted securities                    |
| 12. | 20 May 2022   | Appointment of Chief Operating Officer                        |
| 13. | 11 May 2022   | ChemX – Battery Materials Strategy Moves Forward              |
| 14. | 4 May 2022    | ChemX – Investor Presentation                                 |
| 15. | 28 April 2022 | Quarterly Activities Report                                   |
| 16. | 28 April 2022 | Appendix 5B Cash Flow Report                                  |
| 17. | 6 April 2022  | ChemX – Investor Presentation                                 |
| 18. | 4 April 2022  | ChemX – Live Investor Briefing                                |

*This Announcement has been authorised for release by the Board.*

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## 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.

Developed in-house, ChemX's HiPurA™ Process is a unique technology that is capable of producing high purity alumina (HPA) and high purity aluminium cathode precursor salts for lithium-ion batteries. Initial testwork has indicated that the process is low cost and low in energy consumption, compared to alternative technologies. A key competitive advantage is that the HiPurA™ process is not tied to mine production, with the feedstock being a widely available chemical.

The Company has projects in South Australia and Western Australia. The South Australian Eyre Peninsula projects include the Kimba Kaolin-REE Project and the Jamieson Tank Manganese Project. The ChemX HiPurA™ Project is located in Western Australia.

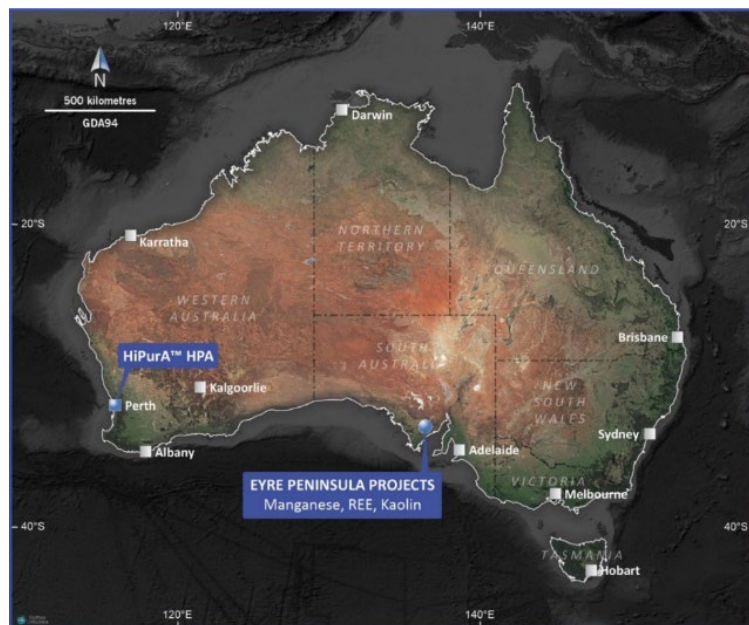


Figure 1 - ChemX Project Locations

### Directors

Kristie Young  
David Leavy  
Stephen Strubel  
Warrick Hazeldine

### Non-Executive Chair

### Managing Director

### Executive Director

### Non-Executive Director

[www.chemxmaterials.com.au](http://www.chemxmaterials.com.au)

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