

QUARTERLY REPORT

Highlights

Battery Grade Manganese Feasibility Study Delivers Compelling Results



Cashflow

US\$155M

pre-tax average cashflow p.a. at full production (2 trains)



NPV

US\$1,662M

pre-tax (real) at full production Discount Rate 8%



IRR

29%

pre-tax at full production



Capital

US\$289M

for train 1 with an additional US\$187M required for train 2



HPMSM

65,000 t/a

expanding to 130ktpa with a second train

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- Feasibility Study¹ (FS) demonstrates compelling economics for the proposed first ever US based battery grade high purity manganese sulphate monohydrate (HPMSM) facility in the U.S. (Facility).
- US Electric Vehicle (EV) demand is expected to grow 12x by 2030 (Benchmark Minerals).
- Industry commitments of over US\$90 billion to build U.S. battery capacity to provide batteries for 10M electric vehicles (EVs) each year.
- HPMSM is required for the production of pre-cathode active materials (pCAM) used in EV batteries.
- Element 25 Limited (Element 25, E25 or Company) (ASX:E25) Facility is positioned to be the leading US source of HPMSM.
- Offtake and financing agreements in place with Stellantis N.V. (Stellantis) and General Motors LLC (GM) bringing US\$115M in financing to the project via equity, pre-payment and debt.
- Industry leading ESG credentials - E25 HPMSM calculated to produce ~1.7kg of CO2 for every 1kg of HPMSM which is approximately ~67% lower than competitors in China and ~26% lower than closest non-China optimised case.

¹ Reference: Company ASX Release dated 12 April 2023

General Motors and Stellantis Offtake and Project Finance

- Stellantis N.V. (**Stellantis**) completes placement of **A\$21.5M** in E25 at **A\$1 per share** to fund ongoing works on the Louisiana Facility.
- Element 25 and General Motors LLC sign definitive agreement for the supply of battery grade HPMSM for GM's electric vehicle battery requirements in their Ultium™ battery plants.
- **E25 to supply GM with manganese sulfate** required to scale EV capacity in North America **beyond 1 million units** annually.
- E25 plans to build **its first manganese sulfate facility in the U.S.** which will process manganese from its Butcherbird Manganese Mine in Western Australia (**Butcherbird**).
- GM to provide **US\$85 million (~A\$128 million) loan** to E25 to build the proposed Facility.
- Total funding commitments total **US\$115M from Stellantis and GM**.

Butcherbird Manganese Operations, WA

- Appointment of Key Senior Operations Personnel to the Butcherbird Team as part of the Production Improvement Plan (**PIP**).
- Clint Moxham joins the Team as General Manager Operations (**GMO**). Clint's key responsibilities include:
 - Statutory and operational oversight of the Butcherbird Manganese Mine.
 - Implementation and oversight of improved operational processes.
 - Continued improvement in plant preventative maintenance targeting improved run times to increase production.
- Gideon van Wyk has joined the Team as General Manager (Manganese Ore Business). Gideon's key responsibilities include:
 - Process optimisation and improvement with the existing operations targeting tonnes, grade and recoveries.
 - Technology selection for optimised expansion plant utilising improved comminution and dense media separation (**DMS**).
 - Planning and execution of the Butcherbird Expansion Project to increase concentrate production volumes to a targeted 1Mtpa.

Butcherbird Expansion Planning

- General Manager (Manganese Ore Business) Gideon van Wyk is leading and managing the expansion project.
- The principle aim is to expand the production of manganese concentrate to a nominal target of 1Mtpa.
- Gideon has recently returned from South Africa where he made significant progress with equipment suppliers and engineering consultants to advance the project.
- Capital cost estimate to install the expanded facility and project schedule based on lead times as advised by key equipment vendors to be compiled and evaluated.

Corporate

- In June 2023 that Pricewaterhouse Coopers (**PWC**) were appointed as the Company's auditors effective 23 June 2023 and this appointment will continue until the next annual general meeting of the Company².

² Reference: Company ASX Release dated 26 June 2023

Butcherbird Operations

Production

Mining and processing operations continued at the Company's 100%-owned Butcherbird Manganese Project (Project) in Western Australia. Following the installation and commissioning of the auxiliary feeder, the throughput rates of the plant have shown sustained improvement, however the operational bottleneck has now shifted to plant availability which remains below target levels.

Focus on operating procedures, equipment inspections, preventative maintenance will continue in the coming quarter targeting improved uptime and throughput rates.

The Company remains focussed on continued improvements to the plant and the resultant production output including increasing the production of concentrate beyond Stage 1 nameplate volumes as quickly as possible.

Project expansion plans have taken a significant leap forward with the addition of new specialist personnel to the operations team with key skills relating to operational excellence and technology selection and implementation (see below).

Production Summary				
Category	Unit	Dec-22	Mar-23	Jun-23
Opening Product Inventory	t	10560	24654	26489
Mined Ore	t	275338	311385	252486
Concentrate Production	t	51227	62277	59350
Product Sales	t	28610	62418	47271
Closing Product Stockpiles	t	24654	26489	32710
Shipping Cost	US\$/t	\$ 22.00	\$ 14.90	\$ 18.00
CIF China 44% Benchmark Price	US\$	\$ 4.57	\$ 6.00	\$ 4.98

Costs Summary				
Category	Unit	Dec-22	Mar-23	Jun-23
Cost/tonne (Mine Gate)	A\$	\$ 133.00	\$115.00	\$ 127.00
Cost/tonne (FOB)	A\$	\$ 201.00	\$183.00	\$ 201.00

Key Metrics				
Shipping Cost (US\$)				
Manganese Price (US\$)				
Costs (Mine Gate A&)				
(Actual vs Nameplate)				

Senior Management Changes

The has welcomed the appointment of key senior operations personnel to the Butcherbird Operations Team as part of the ongoing Production Improvement Plan (PIP).

Clint Moxham has joined the team as **General Manager Operations (GMO)**. Clints key responsibilities include statutory and operational oversight of the safe operation of the Butcherbird Manganese Mine, implementation and oversight of improved operational processes and continued improvement in plant preventative maintenance targeting improved run times to increase production.



Clint is a vision driven miner with a track record of delivering greenfield and start-up operations. Clint has a reputation of safe operations with a career long record of team management and mining operations successes.

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Experienced mineral processing Gideon van Wyk has also joined the team as **General Manager (Manganese Ore Business)**. Gideon's key responsibilities include process optimisation and improvement with the existing operations targeting tonnes, grade and recoveries. Gideon is also responsible for technology selection for optimised expansion plant utilising improved comminution and dense media separation (**DMS**) as well as the planning and execution of the Butcherbird Expansion Project (**Expansion Project**) to increase concentrate production volumes to a targeted 1Mtpa.



Gideon brings over 30 years of experience in the mining industry and has developed a deep understanding of the technical and commercial aspects of mineral processing including identify and implementing innovative solutions that optimise production processes, reduce costs, and increase efficiency, ultimately leading to greater profitability.

Production Expansion Plans

The E25 business development and production teams have been actively investigating the optimal processing technologies to expand production at Butcherbird to improve the profitability of the business by reducing unit costs of production as identified in the original studies.

The technology selection will be aimed at eliminating any remaining bottlenecks with the front-end dry processing of the clay rich ROM feed material to ensure optimal throughput of ROM feed. The large volume of processing data collected during the operation of the Stage 1 plant will be invaluable in guiding this process.

Newly appointed General Manager (Manganese Ore Business) Gideon van Wyk is leading and managing the Expansion Project. The principle aim is to utilise the past two years of operational data from the existing small-scale Stage 1 processing facility to inform the correct technology and equipment selection to expand the production of manganese concentrate to a nominal target of 1Mtpa.

Gideon has recently returned from South Africa where he has made significant progress meeting with equipment suppliers and engineering consultants to advance the Expansion Project. Key design parameters for the base case include:

- ~4Mt per annum of ore feed.
- ~1Mt per annum of manganese concentrate production.
- Processing flowsheet summary:
 1. Dry screening to remove clay waste material.
 2. Dry crushing of material >65mm.
 3. Attrition scrubbing of coarse and fine ore using feed using a log washer to remove further clay waste and further break down barren shales.
 4. Dense media separation (**DMS**) to separate heavies (manganese) from lights (waste shales).

Further optimisation of the mass balance will undertaken during the design process and the key deliverables from this work will include a capital cost estimate to install the expanded facility as well as a project schedule based on lead times as advised by key equipment vendors.

Logistics/Shipping

Ocean freight rates continue at levels which are in line with long term forecasts.

- The MV Pan Poseidon left Port Hedland on 8 April 2023 with 54,000t of Butcherbird manganese concentrate on board.
- A monthly trucking record of 30kt was also set in March 2023.

Manganese Market and Ore Marketing Strategy

Manganese price have fallen to cyclical lows in recent months. The Company's view is that a sharp slowdown in construction activity in China in part due to unusually hot weather has impacted the demand for construction steel and related materials, including manganese. The impact on the demand for steel has had a flow through effect on manganese ore prices which are at or near cyclical lows.

Prices are expected to recover as economic activity in the northern hemisphere normalises however the Company is taking a strategic approach to future shipments and will defer trucking for the current period to provide optionality with respect to limiting shipments while prices are low.



HPMSM Project Execution

Feasibility Study

During the quarter, Element 25 reported the results of a detailed feasibility study (FS or Study)³ for its 100% owned proposed integrated battery grade HPMSM Facility which will produce a monohydrate manganese sulphate with the chemical formula $MnSO_4 \cdot H_2O$.

The Study confirmed the feasibility of producing HPMSM at a Louisiana location for sale to local and international offtake partners with an environmental impact that is significantly lower than incumbent producers to supply the rapidly growing electric vehicle supply chain in the United States. The proposed project is uniquely positioned to benefit from its highly favourable location in Louisiana USA, with exceptional infrastructure, a deep local talent pool, low-cost energy, and proximity to local markets for the repurposing of by-product industrial materials to maximise circular resource use.

³ Reference: Company ASX Release dated 12 April 2023

The Study reflects conservative costing assumptions and includes provisions to take into account recent inflationary pressures having a substantial impact on both capital expenditures and operating costs.

E25 has developed a proprietary flowsheet which is covered by multiple patent applications for the conversion of the Butcherbird manganese concentrates into HPMSM. The E25 process improves on existing HPMSM processing currently in use by reducing energy and reagent consumption and producing solid by-products in a form that can be repurposed, maximizing resource utilisation and minimising local waste and therefore also minimising the environmental impact of the complete operation.

This project scope comprises a production Facility capable of producing a nominal 65,000 t/year of battery grade HPMSM per train. The Study assumes a start-up production train with a second train to be constructed in subsequent years to increase production volumes up to 130,000 tonnes per annum.

The HPMSM plant will also produce re-usable material in the form of a fertiliser feedstock, a ferro-silicon (FeSi) smelter feedstock suitable for use in steel production processes and a gypsum by-product for industrial use.

FINANCIAL SUMMARY	UNIT	VALUE
Capital Cost (Construction)	US\$M	289
Average Operating Cost/tonne of HPMSM at nameplate production	US\$	1,188
Pre-Tax Net Present Value at a 8% discount rate (NPV ₈ (Real))	US\$M	1,662
Post-Tax Net Present Value at a 8% discount rate (NPV ₈ (Real))	US\$M	1,161
IRR Pre-Tax	%	29.4
IRR Post-Tax	%	25.0
Average annual steady state EBITDA at full production	US\$M	178
Average annual steady state pre-tax cashflow at full production	US\$M	155

Table 1: Feasibility Study summary financial results.

Offtake and Project Finance with General Motors

General Motors

In late June 2023, Element 25 Limited and General Motors Co. (NYSE: GM) announced binding agreements for E25 to supply up to 32,500 metric tons of manganese sulfate annually, which will support GM’s annual production of more than **1 million EVs** in North America⁴.

Under the agreements, GM will provide E25 with a US\$85 million loan to partially fund the construction of a new facility in Louisiana, USA, for production of battery-grade manganese sulfate – a key component in lithium-ion battery cathodes –

⁴ Reference: Company ASX Release dated 26 June 2023

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starting in 2025⁵. **(Facility)**At the facility, E25 will produce manganese sulfate by processing manganese concentrate from its mining operations in Western Australia. It is expected to be the first facility of its kind in the U.S⁶.

Element 25 expects to invest approximately US\$290 million to build the 230,000-square-foot facility. Site preparation is planned to begin in Q3 CY2023, and the plant is scheduled to open in 2025. The facility is projected to create approximately 200 permanent jobs when it is fully operational.

GM continues to strengthen its domestic supply base for EV production. In addition to manganese sulfate, GM has announced direct investments in lithium, nickel and other commodities, as well as cathode active material (CAM). GM and its joint venture partners are installing 160GWh of battery cell manufacturing capacity in the U.S., and its suppliers are onshoring production of permanent magnets and other EV components to North America. To date, these initiatives are creating thousands of jobs in states and provinces including California, Louisiana, Nevada, Texas, Ohio, Michigan, Tennessee, Ontario and Quebec.

Stellantis

On 9 January 2023, E25 announced the signing of a binding agreement with **Stellantis N.V.** to supply battery-grade HPMSM from E25's proposed USA-based processing facility. The agreement combines take or pay offtake commitments for 45Kt of HPMSM from the facility over five years with **US\$30M in two tranches of project funding** towards the facility capital cost. Tranche 1 of the funding comprises a **US\$15M equity investment in E25**. The further key commercial terms are outlined in detail in Appendix A to the announcement in January⁷.

In order to allow time for certain conditions precedent (CPs) to be satisfied, in May the parties agreed to extend key dates to provide sufficient time for the process outlined in the agreements to be followed⁸.

Subsequent to that extension, all required CPs were satisfied and in accordance with the terms of the agreement, in early July 2023 E25 issued **22,569,967 shares to Stellantis at A\$1.00 per share** for total proceeds of **A\$22,569,967⁹**. E25 will use proceeds for planned engineering and construction activities to advance its proposed USA-based HPMSM processing Facility planned for construction in Louisiana, USA.

Corporate

Completion of Stellantis Placement

During the quarter all required CPs were satisfied and in accordance with the terms of the agreement announced in January 2023 allowing the first tranche of funding comprising US\$15M in new equity to be completed.

⁵ Reference: Company ASX Release dated 12 April 2023.

⁶ Reference: Company ASX Release dated 30 September 2022.

⁷ Reference: Company ASX Release dated 9 January 2023

⁸ Reference: Company ASX Release dated 1 May 2023

⁹ Reference: Company ASX Release dated 7 July 2023

Consequently, in early July 2023 E25 issued 22,569,967 shares to Stellantis at A\$1.00 per share for total proceeds of A\$22,569,967¹⁰. E25 will use proceeds for planned engineering and construction activities to advance its proposed USA-based HPMSM processing Facility planned for construction in Louisiana, USA.

Stellantis subsequently lodged an initial Notice of Substantial Holder form with the Australian Stock Exchange confirming their position as a substantial holder of shares in the Company comprising 10.4% of the E25 issued capital.

Change of Auditor

Pricewaterhouse Coopers (PwC) have been appointed as the Company's auditors effective 23 June 2023 and this appointment will continue until the next annual general meeting of the Company¹¹.

The appointment followed the resignation of Rothsay Audit & Assurance Pty Ltd (Rothsay) and the Australian Securities and Investments Commission's (ASIC) consent to the resignation in accordance with s329(5) of the Corporations Act 2001.

About Element 25

Element 25 is an ASX listed company (ASX: E25) operating the world class 100%-owned Butcherbird Manganese Project in Western Australia and developing battery grade high purity manganese sulphate monohydrate (HPMSM) products for traditional and new energy markets. It aims to become an industry leading, world class, low-carbon battery materials manufacturer.

Company information, ASX announcements, investor presentations, corporate videos, and other investor material in the Company's projects can be viewed at: www.element25.com.au.

Justin Brown

Managing Director

Email: admin@e25.com.au

Phone: +61 (8) 6375 2525

Media Inquiries:

Nathan Ryan

Email: nathan.ryan@nwrcommunications.com.au

Phone: +61 (0) 420 582 887

ASX Additional Information

The ASX Appendix 5B quarterly report covering the three month period ending 30 June 2023 is attached and lodged with this report.

In accordance with ASX Listing Rule 5.3.5, payments to related parties of the Company and their associates during the quarter totalled \$141,000 comprising salary, directors' fees, consulting fees and superannuation.

In accordance with ASX Listing Rule 5.3.1, payments relating to Mining Exploration totalled \$4,000.

¹⁰ Reference: Company ASX Release dated 7 July 2023

¹¹ Reference: Company ASX Release dated 26 June 2023

Competent Persons Statement

The company confirms that in the case of estimates of Mineral Resource or Ore Reserves, all material assumptions and technical parameters underpinning the estimates in the market announcements dated 17 April 2019 and 19 May 2020 continue to apply and have not materially changed. The company confirms that the form and context in which the competent person's findings are presented has not been materially modified from the original market announcements.

The information in this report that relates to Exploration Results and Exploration Targets is based on information compiled by Mr Justin Brown who is a member of the Australasian Institute of Mining and Metallurgy. At the time that the Exploration Results and Exploration Targets were compiled, Mr Brown was an employee of Element 25 Limited. Mr Brown is a geologist and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Brown consents to the inclusion of this information in the form and context in which it appears in this report.

This announcement is authorised for market release by Element 25 Limited's Board of Directors.

Forward Looking Statements

This announcement may include forward-looking statements. These forward-looking statements are based on Element 25's expectations and beliefs concerning future events. Such forward-looking statements concern Element 25's anticipated results and progress of its operations in future periods, planned exploration and, if warranted, development of its properties and plans related to its business and other matters that may occur in the future. These statements relate to analyses and other information that are based on forecasts of future results, estimates of amounts not yet determinable and assumptions of management. All statements contained herein that are not clearly historical in nature are forward-looking, and the words "anticipate," "believe," "expect," "estimate," "may," "might," "will," "could," "can," "shall," "should," "would," "leading," "objective," "intend," "contemplate," "design," "predict," "potential," "plan," "target" and similar expressions are generally intended to identify forward-looking statements.

Forward-looking statements are subject to a variety of known and unknown risks, uncertainties and other factors which could cause actual events or results to differ from those expressed or implied by the forward-looking statements. Forward-looking statements in this release include, but are not limited to, statements with respect to risks related to:

- Element 25's operations being further disrupted and Element 25's financial results being adversely affected by public health threats, including any renewed coronavirus pandemic;
- Element 25's limited operating history in the HPMSM industry;
- Completing required permitting, zoning and re-zoning activities required to commence processing operations for Project;
- Element 25's ability to achieve and maintain profitability and to develop positive cash flows from Element 25's mining and processing activities;
- Investment risk and operational costs associated with Element 25's exploration activities;
- Element 25's ability to enter into and deliver products under supply agreements;
- The pace of adoption and cost of developing electric transportation and storage technologies dependent upon lithium batteries;
- Element 25's ability to access capital and the financial markets;
- Recruiting, training and developing employees;
- Compliance with government regulations;
- Environmental liabilities and reclamation costs;
- Estimates of and volatility in HPMSM prices or demand for HPMSM;
- Element 25's share price and trading volume volatility; and
- Element 25's failure to successfully execute Element 25's growth strategy, including any delays in Element 25's planned future growth.

All forward-looking statements reflect Element 25's beliefs and assumptions based on information available at the time the assumption was made. These forward-looking statements are not based on historical facts but rather on management's expectations regarding future activities, results of operations, performance, future capital and other expenditures, including the amount, nature and sources of funding thereof, competitive advantages, business prospects and opportunities. By its nature, forward-looking information involves numerous assumptions, inherent risks and uncertainties, both general and specific, known and unknown, that contribute to the possibility that the predictions, forecasts, projections or other forward-looking statements will not occur. Although Element 25 have attempted to identify important factors that could cause actual results to differ materially from those described in forward-looking statements, there may be other factors that cause results not to be as anticipated, estimated or intended. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those anticipated, believed, estimated, or expected. Element 25 cautions readers not to place undue reliance on any such forward looking statements, which speak only as of the date made. Except as otherwise required by the securities laws of Australia, Element 25 disclaims any obligation to subsequently revise any forward-looking statements to reflect events or circumstances after the date of such statements or to reflect the occurrence of anticipated or unanticipated events. Element 25 qualifies all the forward looking statements contained in this release by the foregoing cautionary statements.

Element 25 Limited

ASX Additional Tenement Information for Quarterly Report to 30 June 2023

	Tenement reference	Location	Interest at beginning of quarter	Acquired / Disposed	Interest at end of quarter
The mining tenements held at the end of the quarter and their location	E20/659	Eelya Hill WA	10%	N/A	10%
	E46/1366	Black Hill WA	100%	N/A	100%
	E52/1529	Mt Padbury WA	100% (Note 1)	N/A	100% (Note 1)
	E52/2350	Butcher Bird WA	100%	N/A	100%
	E52/3606	Yanneri Bore WA	100%	N/A	100%
	E52/3706	Yanneri Pool WA	100%	N/A	100%
	E52/3735	Limestone Bore WA	100%	N/A	100%
	E52/3769	Kumarina WA	100%	N/A	100%
	E52/3779	Beyondie Bluff WA	100%	N/A	100%
	E52/3858	Yanneri Well WA	100%	N/A	100%
	E52/4022	Corner Bore WA	100%	N/A	100%
	E52/4055	Weelarrana WA	100%	N/A	100%
	E52/4064	Neds Gap WA	100%	N/A	100%
	E52/4149	Neds Gap WA	100%	N/A	100%
	E52/4153	Yanneri Well WA	100%	N/A	100%
	E52/4155	Weelarrana WA	100%	N/A	100%
	L52/211	Limestone Bore WA	100%	N/A	100%
	L52/215	Butcherbird East 1 WA	100%	N/A	100%
	L52/216	Butcherbird East 2 WA	100%	N/A	100%
	L52/217	Butcherbird East 3 WA	100%	N/A	100%
	L52/218	Butcherbird East 4 WA	100%	N/A	100%
	L52/220	Butcherbird East 5 WA	100%	N/A	100%
	L52/221	Butcherbird East 6 WA	100%	N/A	100%
	L52/225	Butcherbird East 7 WA	100%	N/A	100%
	M52/1074	Yaneri Ridge WA	100%	N/A	100%
	E57/1060	Victory Well WA	20%	N/A	20%
	E63/2027	Lake Johnston WA	100%	N/A	100%

Notes:

- 1) 100% interest held in all minerals other than iron ore and manganese.

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