

Highlights

All key work streams for the Butcherbird Pre-Feasibility Study are active:

- **Metallurgy:** High Purity Electrolytic Manganese Metal (“HPEMM”) produced at a purity of 99.95% manganese from Butcherbird ore.
- **Energy:** Stage one complete, vendor packs despatched to selected short list of leading industry power providers.
- **Environmental:** Wet season flora and fauna surveys commenced.
- **Geotechnical:** Drilling programme completed. Assessment confirms pit wall stability parameters and free dig/rip mining method.
- **Native Title:** In principle terms agreed. Ratification pending.
- **Resource upgrade:** Completed, resource increased to 263Mt at 10% for 26.3 Mt contained manganese, a 34% uplift.
- **Measured and Indicated Resources:** 57 Mt @ 10.45% Mn.
- **ARENA:** to contribute \$490,000 towards the demonstration of innovative manganese electrowinning technology (**IDE**).



The Quarter ending 31 March 2019 has seen significant progress for Element 25 Limited (**Company** or **E25**) across multiple work streams. The work continues to progress the Pre-Feasibility Study (**PFS**) in relation to the Butcherbird High Purity Manganese Project (**Project**). E25 intends to produce high purity manganese including manganese sulphate for lithium ion batteries (**HPMS**) and Electrolytic Manganese Metal (**EMM**)¹.

¹ Company announcement dated 17 October 2017

Company Snapshot

ASX Code:	E25	Board of Directors:		Element 25 Limited is developing the world class
Shares on Issue:	84M	Seamus Cornelius	Chairman	Butcherbird manganese project in Western Australia to
Share Price:	\$0.165	Justin Brown	ED	produce high purity manganese sulphate for lithium ion
Market Capitalisation:	\$13.9M	John Ribbons	NED	batteries and electrolytic manganese metal.
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PRE-FEASIBILITY STUDY

Following the publication of the scoping study, and the positive demand forecast from Metal Bulletin for high purity manganese products, which indicated robust growth in demand and pricing over the forecast period, the Company initiated a PFS to assess in more detail the pathway to commercialisation for this world class manganese resource.

A number of key consulting groups are engaged to undertake or manage the various elements of the study. All key work streams are underway and progressing with the PFS on track.

Resource Drilling

A resource infill drilling programme comprised 210 aircore holes for a total of 6,672m was completed in the December 2018 quarter. The assay results and geological logging of the drill holes both compare favourably with the existing drilling data in terms of geology as well as mineralised widths and grades of the ore zone, confirming the robustness of the current understanding of the deposit.



Figure 1: Resource drill-out at the Butcherbird Project.

The results from the programme were imported into the Company's geological database and provided to IHC Robbins who undertook the updated Mineral Resource Assessment released on 17 April 2019. Full details of drillhole collar locations and assay results are available in the Company ASX Release dated 23 January 2019.

Mineral Resource Estimate Upgrade

Using the drilling data from the recent aircore programme combined with the existing database, IHC Robbins prepared a revised Mineral Resource Estimate over four of the eight known manganese deposits at the Project, including the Yanneri Ridge, Mundawindi, Coodamudgi and Richies Find deposits. This resulted in a significant upgrade in JORC Mineral Resources for the Project² to 263 Mt at 10% manganese, representing a 34% increase in the estimated contained manganese to 26.3 Mt. The revised Mineral Resource Estimate for the

² Reference: Company ASX release dated 17 April 2019.

updated areas is presented in Table 1, the existing resource areas which were not updated in this programme are shown in Table 2 and the revised global resource for all deposits is shown in Table 3.

Prospect	Category	Tonnes (Mt)	Mn (%)	Si (%)	Fe (%)	Al (%)
Yanneri Ridge	Measured	16	11.6	20.6	11.7	5.7
	Indicated	41	10.0	20.9	11.0	5.8
	Inferred	47	9.7	20.4	10.7	5.8
Richies Find	Inferred	39	9.3	21.5	11.2	6.1
Coodamudgi	Inferred	32	9.8	20.5	11.7	6.1
Mundawindi	Inferred	33	10.2	19.5	11.3	5.5
Total		208	9.9	20.6	11.2	5.9

Table 1: Butcherbird High Purity Manganese Project Mineral Resource Estimate (2019).

- (1) Mineral resources reported at a cut-off grade of 7.0% Mn.
- (2) Rounding of totals may result in differences in the last decimal place.

Prospect	Category	Tonnes (Mt)	Mn (%)	Si (%)	Fe (%)	Al (%)
Ilgarrarie Ridge	Inferred	35.6	9.94	21.5	12.5	5.9
Bindi Bindi Hill	Inferred	14.4	10.4	21.3	10.1	6.3
Bugdie Hill	Inferred	4.50	9.34	21.2	13.2	5.9
Cadgies Flat	Inferred	0.291	10.0	21.6	11.1	6.5
Total		54.8	10.0	21.4	11.9	6.0

Table 2: Butcherbird High Purity Manganese Project Mineral Resource Estimate (2017)².

- (1) Mineral resources reported at a cut-off grade of 8.0% Mn.
- (2) Rounding of totals may result in differences in the last decimal place.

Category	Tonnes (Mt)	Mn (%)	Si (%)	Fe (%)	Al (%)
Measured	16	11.6	20.6	11.7	5.7
Indicated	41	10.0	20.9	11.0	5.8
Inferred	206	9.8	20.8	11.4	5.9
Total	263	10.0	20.8	11.4	5.9

Table 3: Butcherbird High Purity Manganese Project global Mineral Resource Estimate (2017 and updated 2019).

Metallurgy

Bulk metallurgical test work conducted on four representative PQ diamond drill hole core samples from the Project successfully produced High Purity Electrolytic Manganese Metal using the proprietary E25 flowsheet³.

The tests were completed as part of a progressive scale up of the processing flowsheet developed in conjunction with the CSIRO for the purposes of extracting manganese into solution from Butcherbird ores to produce high purity manganese (**HPM**) including battery grade manganese sulphate and HPEMM.

The leaching and purification of the first bulk sample from Butcherbird ore is a key milestone in proving the viability of this industry leading processing methodology. In terms of purity, the achieved purity of 99.95% Mn is well above the industry standard for EMM of 99.7% Mn.

Following the completion of this initial scale up test, Lycopodium Ltd is coordinating the metallurgical assessment of the Project. To that end, the Company conducted a 13 hole diamond drill program in February 2019⁴. This program was designed to collect samples for metallurgical assessment from 9 of the holes. The drilling provided approximately 2 tonnes of suitable material for ongoing test work from within the Measured and Indicated resource areas.

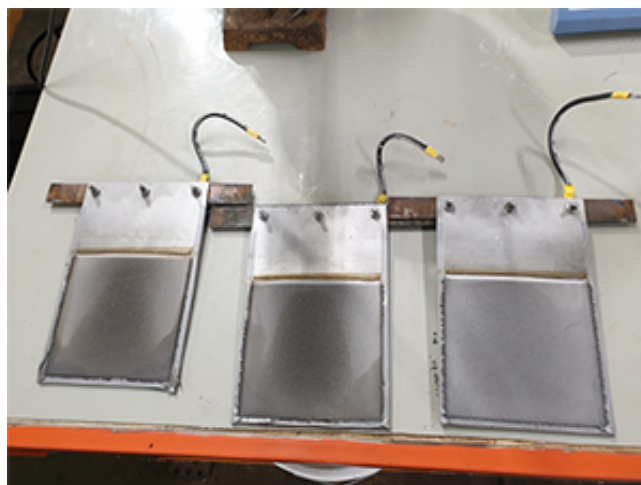


Figure 1: High Purity EMM plated onto the cathodes.



Figure 2: High Purity EMM flakes. 99.95% Mn.

³ Reference: Company ASX release dated 12 February 2019

⁴ Reference: Company ASX release dated 26 February 2019

The samples were returned to ALS Laboratories and 6 composite samples were constructed from the 9 metallurgical holes. A multi-staged metallurgical assessment program is underway on these composite samples at ALS Laboratories. To date the comminution and material property assessment components have been completed with assays pending.

A number of programs including milling assessment, leaching, purification, electrowinning and crystallisation tests are planned and will be completed over the coming months.

Geotechnical planning

The diamond core samples from the February 2019 programme were, in addition to the metallurgical test work, used as the basis for a geotechnical assessment of the proposed twenty five year open cut starter-pit.

Three geotechnical reviews were completed using these samples:

Peter O'Bryan and Associates completed a preliminary assessment of the wall stability for open pit design purposes. Open pit wall design parameters have been proposed for short term and long term stability of the proposed mining at Yanneri Ridge.



Figure 3: Diamond Drilling at Butcherbird February 2019.

4DG Pty Ltd completed a diggability assessment of the proposed open pit area. This will allow mining contractors to better assess excavation rates required for mine planning and mining cost estimations. The report confirmed previous assessment that the majority of the orebody at Yanneri Ridge can be excavated using only minimal ripping and free digging with a hydraulic excavator.

Advisian also conducted preliminary foundation assessments on 3 holes drilled to assess a potential area for a future wind farm. Good ground conditions were encountered in all holes.

Mine Planning

Mine planning activities have commenced. These activities include open pit optimisation, mine design and scheduling. The outputs of this work will be used for contractor costing for the mining component of the Project.

Hydrogeology

The Company has engaged the services of Richard Toll to assist with the hydrogeological assessment and delineation of an aquifer suitable for water supply for the proposed processing facility at the Project.

The Company has planned a preliminary aquifer assessment program to the west of the proposed mining lease. E25 has received approval from the Department of Water and Rivers and the Department of Mines, Industry Regulation and Safety for the construction of water test bores which are expected to be completed in the coming quarter.

Environmental

MBS Environmental is coordinating environmental aspects of the PFS. Current work includes wet season baseline flora and fauna surveys which are currently being completed by teams on site. The surveys will be completed and results reported in the coming quarter.

Stygofauna and troglafauna surveys will be conducted in the next two quarters and will be integrated into the plant process water source assessment program.



Figure 4: View from Butcherbird looking South East over the potential processing area. February 2019.

Power

Advisian have been commissioned to complete a power study for the PFS. During the quarter, the first stage of a two stage review of power requirements for the Project was completed, which included detailed modelling

of the most appropriate power solution to supply the processing plant. The modelling work concluded that that a hybrid gas/wind solution potentially supplemented with solar is likely the best design for the Project, and should provide the lowest cost electricity over the life of the Project. Energy will be the largest variable costs for the Butcherbird process and the hybrid solution also offers protection from future gas price movements and added operational flexibility which adds resilience to the Project economics and the ability of the Project to withstand gas prices at historical highs.

Advisian has prepared and despatched preliminary vendor packs for Independent Power Providers (**IPP**) to propose gas and gas/wind solutions for the provision of power at the Project. The short list of vendors is commercial in confidence, however all tender candidates were selected based on their track record and balance sheet strength to ensure capacity to fund the construction of the power solution at Butcherbird under an Energy Services Agreement model.

ARENA IDE Grant Funding

During the quarter, on behalf of the Australian Government, the Australian Renewable Energy Agency (**ARENA**) awarded funding to the Company to assist with the demonstration of technology to maximise Project economics by increasing renewable energy penetration for the production of high purity metals, specifically EMM, at the Project.

The funding will contribute 50% of the total budget of \$980K to demonstrate the viability of Intermittent Dynamic Electrowinning (IDE). This technology will allow manganese metal to be produced under dynamic conditions to more closely match the generation of electricity using intermittent supply from wind and solar, thereby allowing a higher percentage of renewable generation as part of the overall power solution. The long mine life of the Project and relatively short electrowinning cycle of manganese makes it particularly suited to take the lead on this technology.

The test work will be undertaken at the Murdoch University (College of Science, Health, Engineering and Education) Extractive Metallurgy Division. The team will be headed up by Associate Professor Aleksandar Nikoloski.

Advisian is currently providing consulting services in relation to commercialisation of IDE as well as commissioning and managing the installation of a SODAR (SONic Detection And Ranging) device on site to gather long term wind and solar data to improve the power modelling for the Project .

Logistics

The Scoping Study assumed that the products produced at Butcherbird would be transported to Fremantle Port which is approximately 1,050km to the south along the Great Northern Highway. Since then, however,

Pilbara Ports has announced plans to build a container facility at Lumsden Point in Port Hedland. Shipping products through Port Hedland would save approximately 500km in haulage, potentially reducing overall Project haulage costs.

The company has maintained communication with Pilbara Ports during the previous quarter and is monitoring the progress of the proposed Lumsden point facility. Logistics for the Project will be reviewed in the coming quarter.

Sales and Marketing

Mr Sias Jordaan has joined the Company in the role of Marketing Manager. Mr Jordaan has been involved in the stainless steel production and raw material supply markets as well as rare metals markets for over 25 years. Mr Jordaan held various roles within BHP Billiton in South Africa, The Netherlands and Western Australia in the Stainless Steel, Ferro Chrome and Nickel divisions. As a result he has gained extensive experience in the procurement, marketing and logistics of various steel making metals.

Mr Jordaan will be reviewing the EMM and HPMS markets with a view to establishing interest in future product offtake as well as gaining a more detailed understanding of high purity manganese market dynamics.

Land Access

As part of the grant process for mining lease application 52/1074, the Company is in discussions with a number of key stakeholders. Two parties hold Native Title over parts of the application area and two pastoralists have leaseholds over parts of the application area.

The Company has a Mining Agreement in place with the Ngarlawangga People covering the western part of the Project and during the quarter an agreement in principle was reached with the Karlka Nyiyaparli People, whom hold native title to the eastern parts of the Project. Discussions are continuing with the Karlka Nyiyaparli People with the aim of finalising the Mining Agreement.

The Company has reached agreement with the owners of Kumarina Station for works impacting on the Kumarina Station in the eastern portion of the Project and the Company is also in negotiations with the owners of the Bulloo Downs Pastoral Station.

Following the finalisation of the Karlka Nyiyaparli mining agreement and the Bulloo Downs access agreement the Company will seek to have mining lease M52/1074 granted.

Flowsheet Development

Discussions with CSIRO in relation to a structure to collaboratively develop and commercialise the process technology that has been developed for the Project are progressing and the Company looks forward to announcing details when available.

About the Butcherbird High Purity Project

The Butcherbird High Purity Manganese Deposit is a world class manganese resource with current JORC resources in excess of 263 Mt of manganese ore⁵. The Company has completed a positive scoping study with respect to developing the deposit to produce high purity manganese sulphate for lithium ion battery cathodes as well as Electrolytic Manganese Metal for use in certain specialty steels. A PFS is currently being completed and is expected to further confirm the commercial potential of the Project.

The Project straddles the Great Northern Highway and the Goldfields Gas Pipeline providing turnkey logistics and energy solutions. The Company is also intending to integrate renewable energy into the power solution to minimise the carbon intensity of the Project as well as further reducing energy costs.

Mineral Resources

Category	Tonnes (Mt)	Mn (%)	Si (%)	Fe (%)	Al (%)
Measured	16	11.6	20.6	11.7	5.7
Indicated	41	10.0	20.9	11.0	5.8
Inferred	206	9.8	20.8	11.4	5.9
Total	263	10.0	20.8	11.4	5.9

Notes:

- Reported at a 7% Mn cut-off for the Measured and Indicated categories and an 8% Mn cut-off for the Inferred categories.
- All figures rounded to reflect the appropriate level of confidence (apparent differences may occur due to rounding)

⁵ Reference: Company ASX release dated 17 April 2019.

Other Projects

Green Dam

Subsequent to the end of the quarter, the Company reached agreement with St Barbara Limited (**SBM**) for the sale of Exploration Licences 28/2327 and 28/2313 (**Green Dam Project**). Pursuant to the agreement, SBM acquired 100% of the Green Dam Project for \$700,000 cash. SBM also granted the Company a 2% Net Smelter Royalty on all future production from the Green Dam Project.

This transaction represents another important incremental step in the Company's stated strategy to rationalise its project portfolio to allow the technical team to focus on the development of the high purity manganese business at Butcherbird.

Corporate

Investment Portfolio (as at 31 March 2019)

In addition to cash reserves, the Company also currently holds securities in the following listed entities:

Listed securities at market value:	No. Held	Closing Price	Market Value
Alt Resources Ltd (ASX:ARS)	1,250,000	\$0.027	\$33,750
Magmatic Resources Ltd (ASX:MAG)	3,770,485	\$0.025	\$94,262
Buxton Resources Ltd (ASX:BUX)	356,001	\$0.105	\$37,380
Duketon Mining (ASX:DKM)	1,450,000	\$0.10	\$145,000
Anova Metals Ltd (ASX:AWV)	7,000,000	\$0.016	\$112,000
Danakali Limited (ASX:DNK)	8,600,097	\$0.78	\$6,708,076
Total Market Value as at 31 March 2019			\$7,130,468

Justin Brown

Executive Director

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

Competent Persons Statement

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 and Exploration Targets'. Mr Brown consents to the inclusion of this information in the form and context in which it appears in this report

Please note with regard to Exploration Targets, the potential quantity and grade is conceptual in nature, that there has been insufficient exploration to define a Mineral Resource and that it is uncertain if further exploration will result in the determination of a Mineral Resource.

The information in this report that relates to Mineral Resources is based on information announced to the ASX on 17 April 2019. Element 25 confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcements, and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed.

Disclaimer

The views expressed herein are not necessarily the views of the Australian Government, and the Australian Government does not accept responsibility for any information or advice contained herein.

Element 25 Limited

ASX Additional Information for Quarterly Report to 31 March 2019

	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%
	E20/941	Sunday Well WA	100%	N/A	100%
	E20/948	Yallon Well WA	100%	N/A	100%
	E28/2313	Green Dam WA	100%	N/A	100%
	E28/2327	Green Dam WA	100%	N/A	100%
	E28/2577	Pinnacles WA	100%	N/A	100%
	E28/2701	Pinnacles East WA	100%	N/A	100%
	E28/2757	Pinnacles WA	100%	Disposed	0%
	E28/2761	Flanker South WA	100%	N/A	100%
	E28/2908	Pinnacles WA	100%	Acquired	100%
	E37/1176	Leonora WA	100%	Disposed	0%
	E37/1295	Leonora WA	100%	N/A	100%
	E46/1300	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%
	E52/3607	Neds Gap WA	100%	N/A	100%
	E52/3613	Millidie Creek WA	100%	N/A	100%
	E52/3626	Corner Bore WA	100%	N/A	100%
	E52/3627	Corner Bore WA	100%	N/A	100%
	E52/3663	Dead Camel WA	100%	N/A	100%
	E52/3704	Corner Bore WA	0%	Acquired	100%
	L52/202	Yanneri Ridge WA	0%	Acquired	100%
	M52/1074	Yaneri Ridge WA	100%	N/A	100%
	E57/1060	Victory Well WA	100%	N/A	100%
	E59/2267	Twin Peaks WA	100%	N/A	100%
	E63/1750	Lake Johnston WA	85%	N/A	85%
	E63/1789	Lake Johnston WA	85%	N/A	85%
	E63/1838	Lake Johnston WA	85%	N/A	85%
	E69/3541	Cunyu Woolshed WA	100%	N/A	100%
	E80/5056	Eileen Bore WA	100%	N/A	100%
	E80/5092	Cummins Range WA	100%	N/A	100%

Notes:

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