Butcherbird Project



Highlights

Project Development Activities

Updated Pre-Feasibility Study⁴ highlights growth potential of the Butcherbird
 Project with compelling Base Case and Expansion Case economics.

	Base Case (1.3M tpa)	Expansion Case (2X)	Expansion Case (3X)
NPV₅ (Real) (Pre-tax)	A\$583M	A\$926M	A\$1,138M
NPV₅ (Real) (Post-tax)	A\$412M	A\$651M	A\$798M
IRR (Real)	387%	342%	359%
Mine Life	41	20	15

- Stage 1 Project delivery on schedule for completion in the first quarter, 2021.
- Principal mechanical equipment landed in Fremantle for mobilisation to site.
- Civil works substantially complete, process plant construction commenced.
- Accommodation facilities at Kumarina Roadhouse completed and operational.
- Core management staff for site operations appointed.

The final quarter of 2020 has seen ongoing, rapid progress for Element 25 Limited (**Company** or **E25**), as the Company moves towards delivery of a low capital cost early cashflow Stage 1 operation exporting manganese concentrate form the Butcherbird Manganese Project (**Project**).

Construction of the processing plant has commenced and site infrastructure works including processing plant, offices, roads, civil engineering and borefield are on schedule for commissioning in the first quarter of 2021.

An updated Pre-Feasibility Study published in December 2020 (**PFS**), returned outstanding economics for the Stage 1 base case and highlighted the significant economic potential of expanding the production profile beyond Stage 1. The PFS examined 2X and 3X production volumes over the base case.

Company Snapshot

ASX Code: E25 Board of Directors:

Shares on Issue: 133M Seamus Cornelius Chairman

Share Price: \$1.49 Justin Brown MD

Market Capitalisation: \$198M John Ribbons NED

Element 25 Limited is developing the world class
Butcherbird Manganese Project in Western Australia to
produce high quality manganese concentrate and high
purity manganese products for traditional and new
energy markets.



Element 25 Limited

Level 2, 45 Richardson Street, West Perth, WA, 6005 PO Box 910 West Perth WA 6872 Australia





Butcherbird Project Development Update

Appointment of Key Contractors

Iron Mine Contracting

The Company advised during the quarter that Iron Mining Contracting Pty Ltd (IMC) has been appointed as the preferred mining contractor for the Project. IMC are experienced operators with a track record in both mining and civil works. IMC will be mobilised to site in December 2020 to complete the required civil earthworks including access roads, the Tailings Storage Facility (TSF) and the processing plant site. On completion of the civil work programme, IMC will transition to mining and provide material to feed the processing plant.

Great Energy

Great Energy is a specialist energy infrastructure developer focused on delivering energy to the resources and utilities sectors through Australia and the Asia-pacific. Great Energy designs, constructs, manages, operates and maintains gas, diesel and renewable fuelled power stations and those of selected resources industry clients.

The Company has appointed Great Energy to provide site power at the Project for an initial contract period of four years with buyout and extension provisions.

Civilcon

Civilcon are a construction company located in the southwest of Western Australia with extensive experience in remote projects. Civilcon are undertaking a range of site civil works in preparation for the installation of the processing plant and associated infrastructure.



In addition to these key appointees, the Company is also well advanced in finalising contracts in relation to Haulage and port access. Announcements in relation to these additional contracts will be made in due course.







Camp Construction

The Company has entered into an agreement with Refuel Australia (Refuel) for the provision of camp management services at their Kumarina Roadhouse (Kumarina) facility, located approximately 30km south of the Project. E25 has subsequently installed a 40-man camp at Kumarina, where the construction workforce is being accommodated.



Figure 1: Camp construction complete and rooms operational.

Refuel will provide ongoing room servicing and messing through construction and into operations. A separate agreement is also in place for Refuel to supply diesel for the Project at competitive rates.

Delivery of Mechanical Equipment

All principal mechanical equipment including the crusher, log washer, wet and dry screens and ore sorters have landed in Fremantle Western Australia and cleared customs.

Equipment Mobilisation

The consolidation and mobilisation of equipment to site has commenced with a number of key process plant items already on site, including screens, administration blocks and associated infrastructure and services, which have been installed and are operational.

Construction and operations crews are now working from site. Mobilisation and delivery to site of the remaining key equipment is underway.



Figure 2: Crusher and dry screen undergoing final tests before mobilisation.



Figure 3: Containerisation of completed conveyors for transport.





Operational Workforce

The Company has appointed an experienced Resident Manager, Sven Tegeler. Sven is overseeing operational readiness preparations as well as coordinating the recruitment and training of the operations team. Sven will be a critical part of the construction and commissioning team and will then transition to a site management role to oversee operations of the operations. Sven brings a wealth of experience in similar roles to the Project and the board and senior management welcome Sven to the E25 team.

Other key appointments include the geological and administration teams. Recruitment is ongoing for the remaining plant operations workforce.

Permitting

The Works Approval and Mining Proposal have been approved by the relevant state government departments. Permission has been obtained from the State Mining Engineer allowing construction and mining operations to commence. The Water Abstraction Licence remains pending for operations.

Water Bore Pump Testing

Subsequent to the water exploration drilling announced in the previous quarter, a number of additional holes were drilled into the planned borefield area to further refine the aquifer modelling for long term water resource planning. Additionally, a number of observation bores were completed to ensure that the aquifer can be managed for environmental considerations in a proactive manner.

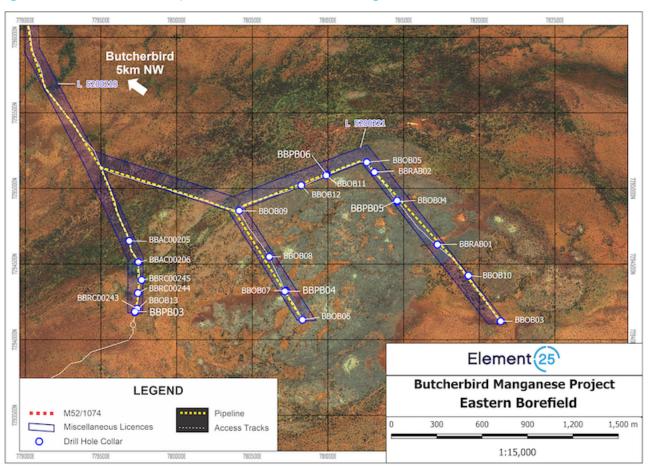
Bore ID	Bore Type	E (GDA 94)	N (GDA94)	Rl (mAHD)	Azi	Hole Depth (m)
BBAC00205	Water Exploration	779687	7294653	603	-90	78
BBAC00206	Water Exploration	779747	7294512	602	-90	65
BBOB03	Observation	782141	7294122	603	-90	13
BBOB04	Observation	781457	7294913	605	-90	20
BBOB05	Observation	781256	7295173	602	-90	19
BBOB06	Observation	780831	7294132	604	-90	13
BBOB07	Observation	780723	7294325	602	-90	13
BBOB08	Observation	780612	7294548	604	-90	13
BBOB09	Observation	780413	7294853	601	-90	13
BBOB10	Observation	781928	7294424	601	-90	13
BBOB11	Observation	780991	7295093	601	-90	13
BBOB12	Observation	780823	7295021	601	-90	13
BBOB13	Observation	779724	7294181.46	601	-90	13
BBPB03	Production	779724	7294185	600	-90	12
BBPB04	Production	780715	7294320	604	-90	12
BBPB05	Production	781457	7294920	603	-90	13
BBPB06	Production	780988	7295086	602	-90	11
BBRAB01	Water Exploration	781723	7294629	603	-90	6





BBRAB02	Water Exploration	781307	7295108	601	-90	13
BBRC00243	Water Exploration	779739	7294205	601	-90	16
BBRC00244	Water Exploration	779744	7294308	601	-90	16
BBRC00245	Water Exploration	779768	7294395	602	-90	16

Figure 4: Collar locations of water exploration drillholes, test bores and monitoring bores.



Product Offtake Update

OM Materials (S) Pte Ltd

Key commercial terms have been agreed under a non-binding term sheet (**Term Sheet**) to sell 100% of the manganese ore produced (up to 365,000 tonnes per annum) from the first stage of the Project development to OM Materials (S) Pte Ltd (**OMS**), a wholly owned subsidiary of ASX listed company OM Holdings Limited (**ASX:OMH**) (**OMH**) under a take-or-pay offtake arrangement¹.



 $^{^{\}rm 1}$ Reference: Company ASX release dated October 12 2020.



The Term Sheet contemplates an exclusivity period to allow the negotiation and finalisation of detailed terms to be documented in a formal offtake agreement. The Company is now in the final stages of drafting the formal documents. An update will be provided to the market once these agreements have been executed.

About OM Holdings Limited

OM Holdings Limited is an integrated manganese and silicon company. It is engaged in the business of mining and trading raw ores, as well as the smelting and marketing of processed ferroalloys. With an established history of over 25 years in the industry, OMH is listed on the ASX and captures value across the entire process chain through operations in Australia, China, Japan, Malaysia, Singapore, and South Africa. Its latest project is a smelter complex in Sarawak, Malaysia, which successfully commenced production in 2014.

Semeru Energy Limited

In addition to the terms agreed with OMS, key commercial terms have also been agreed under a non-binding term sheet (Semeru Term Sheet) to sell 50% of the manganese ore produced from the second stage of the Project development to Semeru Energy Limited (Semeru), a company headquartered in Singapore. The Semeru Term Sheet² provides for a minimum allocation of 175Kt per annum and a maximum allocation of 200Kt per annum. The Semeru Term Sheet contemplates a 5 year term with provisions for renewal subject to the satisfactory performance by Semeru against agreed KPIs the details which will be negotiated and documented in definitive agreements, still to be drafted (Definitive Agreements).

As part of the offtake arrangements, Semeru will provide USD\$5M in project finance to fund the Company's expansion plans as detailed in the expansion PFS announced to the ASX on 3 December 2020.

The offtake terms include obligations on Semeru to achieve the highest price for E25 manganese concentrate and for E25 to direct that concentrate be placed with certain clients in order to achieve the optimal pricing.

The Semeru Term Sheet provides an exclusivity period until 30 June 2021 during which the parties expect to finalise the Definitive Agreements. The Definitive Agreements will include conditions precedent in relation to due diligence, board approvals, shareholder approvals (including any applicable ASX Listing Rules, Chapter 10 or other requirements) and any other regulatory approvals that may be required (including FIRB). Semeru's recent participation in the Company's capital raising³ by way of a USD\$1M investment was also a requirement, which Semeru has satisfied.



² Reference: Company ASX Release dated 9 December 2020.

³ Reference: Company ASX release dated 13 November 2020.



About Semeru

Semeru is a private equity investment firm operating across the Asia-Pacific region with a focus on the natural resources sector. Semeru deploys its capital via equity and debt to both companies and directly into projects with a risk profile reflecting late stage exploration through to development.

Within the Semeru group of companies, Semeru Trading operates as an independent commodity trader with a focus on base metals and bulk commodities. Semeru Trading maintains a capacity to provide offtake facilities in concert with Semeru's investment funds on a case by case basis.

Updated Pre-Feasibility Study

During the quarter the Company completed and released⁴ an update to the PFS filed in May 2020, Project. The PFS builds on the initial base case PFS published in May 2020 which identified an opportunity for a low capex, rapid startup operation exporting manganese concentrate. The May 2020 PFS provided the basis for the commencement of development of the Project, which is scheduled for commissioning in the first quarter of calendar 2021.

The updated PFS includes changes in the macro-economic inputs and other design parameters and includes the results of two options studies which examined the expansion of production at the Project. These parameters include:

- Inclusion of silica and other mineral credits.
- Revised process recovery to 83%, previously 82%.
- Increased plant throughput based around improved plant availability from 1.2Mtpa to 1.3Mtpa.
- Updated exchange rate to 0.70 A\$/USD, previously variable.
- Revised capital expenditure reflecting the inclusion of a mining camp in the base case, with an associated increase of A\$2.5M in required capital.
- Revised accommodation costs based on terms negotiated with a supplier.
- Revised site organization chart and updated costs.
- Revised mining costs based on a completed mining tender process.
- Updated sustaining capex involving the TSF and ongoing resource development.
- Inclusion of 2X and 3X manganese production expansion estimates.

The results confirmed that the robust economics are maintained and improved for the base case and the expansion options offer the company opportunities to substantially improve the economics of the Project.



⁴ Reference: Company ASX release dated 3 December 2020.



The expansion cases assumed that production will be increased to either 2x or 3x the plant throughput rates of the Base Case, commencing at the start of the second year of production. This results in better utilisation of the large resource/reserve base underpinning the Project. Economies of scale result in better equipment utilisation and operating efficiencies which improve project economics.

Table 1. Butcherbird Financial Summary – Life of Project

Key Economic Metrics	Unit	Base Case Yr 1 + Expansion in Yea			
		Base Case 1.3Mtpa	2X Throughput 2.6Mtpa	3X Throughput 3.9Mtpa	
Ore Mined	ktpa	1,300	2,600	3,900	
Manganese Concentrate Produced	ktpa	335	637	931	
Manganese Concentrate Grade	Mn%	33	33	33	
Manganese Price (Roskill Sept 2020)	US\$/dmtu 33%Mn FOB Port Hedland	4.37	4.37	4.37	
Exchange Rate	A\$/USD	0.70	0.70	0.70	
Undiscounted Cashflow	A\$M pa	34.6	76.7	117.2	
Mine Life	Years	41	21	15	
NPV _{5 (Real)} (Pre-Tax)	A\$M	583	926	1,138	
NPV _{5 (Real)} (Post-Tax)	A\$M	412	651	798	
IRR (pre-tax)	%	387	342	359	
Operating Cost	A\$/dmtu 33% FOB Port Hedland	4.85	3.94	3.80	
	U\$/dmtu 33% FOB Port Hedland	3.39	2.76	2.76	
Capital Cost (Base Case)	Project Capital A\$M	15.1	15.1	15.1	
	Expansion Capital	-	+13.4	+18.0	
	Contingency A\$M	1.9	+1.7	+2.3	
	Working Capital A\$M	3.3	0	0	
	Total Capital A\$M	20.3	35.4	40.6	





Table 2. Butcherbird Financial Summary – Years 1 to 5

Key Economic Metrics	Unit	Base Case Yr 1 + + Expansion in Year 2		
		Base Case 1.3Mtpa	2X Throughput 2.6Mtpa	3X Throughput 3.9Mtpa
Ore Mined	ktpa	1,300	2,600	3,900
Manganese Concentrate Produced	ktpa	335	637	931
Manganese Concentrate Grade	Mn%	33	33	33
Manganese Price (base)	US\$/dmtu 33%Mn FOB Port Hedland	4.37	4.37	4.37
Undiscounted Cashflow	A\$M pa	39.6	72.3	101.7
Mine Life	Years	41	21	15
NPV ₅ Real (Pre Tax)	A\$M	583	926	1,138
NPV _{5 Real (Post tax)}	A\$M	412	651	798
IRR (Pre-tax)	%	387	342	359
Operating Cost	A\$/dmtu 33% FOB Port Hedland	4.15	3.97	3.97
	U\$/dmtu 33% FOB Port Hedland	2.91	2.78	2.78

The initial 5-year of production in the base case utilises 92% Measured resources⁵ and 8% Indicated resources.

The 40-year Life of Mine scenario for the base case utilises 27% Measured resources, 68% Indicated resources and 5% Inferred resources.

Development Timeline

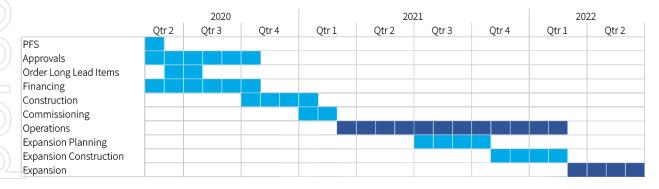


Figure 1. Project Development Timeline



⁵ Reference: Company ASX Announcement dated 17 April 2019.



About the Butcherbird Manganese Project

The Butcherbird Manganese Project is a world class manganese resource with current JORC resources in excess of 263 Mt of manganese ore⁶. The Company has recently completed a Pre-Feasibility Study with respect to developing the deposit to produce manganese concentrate for export to generate early cashflow with a modest capital requirement⁷. The outstanding economics and low capital hurdle of less than A\$15 million will allow the Company to develop the project in a relatively short timeframe.

This is envisaged as the first stage of a staged ramp up for the project and has the advantage of potentially providing early cashflow to strengthen the Company's balance sheet and assist in funding of the larger high purity manganese production hub which is the subject of a parallel, complementary work stream.

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 reducing energy costs. A cleaner, lower carbon flowsheet and high penetration renewable energy will place Butcherbird at the forefront of sustainable metal production.

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)

Mining Reserve

Based on the results of the Pre-Feasibility Study completed in May 2020, E25 has published a Maiden Ore Reserve for the Project of 50.55Mt in the Proved and Probable categories⁸.

Classification	Tonnes (Mt)	Grade (Mn%)	Contained Mn (Mt)	Recovered Mn (Mt)
Proved	14.4	11.5	1.65	1.35
Probable	36.2	9.8	3.56	2.92
Total	50.6	10.3	5.21	4.27

 $^{^{\}rm 6}$ Reference: Company ASX release dated 17 April 2019.



⁷ Reference: Company ASX release dated 19 May 2020

⁸ Reference: Element 25 Limited Reserve Statement lodged with ASX 19 May 2020.



Corporate

Acuity Controlled Placement Facility Update

The Company is pleased to announce it has agreed with Acuity Capital to increase the existing Controlled Placement Agreement (CPA) limit of \$2m to a new limit of \$20m.

As previously announced, the CPA provided E25 with up to \$2m of standby equity capital (see announcements 18 March 2020 and 26 May 2020). The Company and Acuity Capital have agreed to increase the CPA facility to \$20 million to better reflect the increased market capitalisation following the recent E25 share price appreciation.

There is no requirement for E25 to utilise the CPA and there were no fees or costs associated with the increase in the CPA limit.

Change of Chief Financial Officer, Company Secretary and Registered Office

During the quarter, Mr John Ribbons ceased his role as Chief Financial Officer (CFO) and Company Secretary effective from 1 January 2021. Mr Ribbons continues in his role as Non-Executive Director with the Company.

The Company also announced the appointment of Ms Melissa Chapman and Ms Catherine Grant-Edwards as Joint CFO's and Joint Company Secretaries, effective from 1 January 2021.

Ms Melissa Chapman (Certified Practicing Accountant (CPA), AGIA/ACIS, GAICD) and Ms Catherine Grant-Edwards (Chartered Accountant (CA)) are directors of Bellatrix Corporate Pty Ltd, a company that provides company secretarial and accounting services to a number of Australian Securities Exchange (ASX) listed companies.

Effective 1 January 2021, the registered office changed to the following address:

Level 1, 2A / 300 Fitzgerald Street

NORTH PERTH WA 6006





Investment Portfolio (as at 31 December 2020)

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
Anova Metals Ltd (ASX:AWV)	7,000,000	\$0.026	\$182,000
Buxton Resources Ltd (ASX:BUX)	356,001	\$0.062	\$22,072
Duketon Mining (ASX:DKM)	1,450,000	\$0.28	\$406,000
Danakali Limited (ASX:DNK)	6,794,097	\$0.315	\$2,140,141
Rare X Limited (TSX:REE)	7,462,687	\$0.115	\$858,209
Total			3,608,422

During the quarter aggregate amounts paid to directors including salary, directors' fees, consulting fees and superannuation totalled \$86,000.

Justin Brown

Managing 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 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.

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.





ASX Additional Information for Quarterly Report to 31 December 2020

	Tenement reference	Location	Interest at beginning of quarter	Acquired/ Disposed	Interest at end of quarter
The mining	E09/2415	Isle Bore WA	100%	N/A	100%
tenements held at the end of the	E20/659	Eelya Hill WA	10%	N/A	10%
quarter and their	E20/948	Yallon Well WA	100%	N/A	100%
location	E20/953	Sunday Well WA	100%	N/A	100%
	E28/2577	Pinnacles WA	100%	N/A	100%
	E28/2761	Flanker South WA	100%	N/A	100%
	E28/2908	Pinnacles WA	100%	Disposed	0%
	E39/2135	Mulga Tank	100%	Disposed	0%
	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%
	E52/3738	Mt Padbury WA	100%	N/A	100%
	E52/3769	Kumarina WA	100%	N/A	100%
	E52/3779	Beyondie Bluff WA	100%	N/A	100%
	E52/3788	Neds Gap WA	100%	N/A	100%
	E52/3789	Coner Bore WA	100%	N/A	100%
	E52/3840	Woolgatharra Pool WA	100%	N/A	100%
	E52/3849	Dead Camel WA	100%	N/A	100%
	E52/3858	Yanneri Well 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%
	M52/1074	Yaneri Ridge WA	100%	N/A	100%
	E57/1060	Victory Well WA	20%	N/A	20%
	E59/2408	Twin Peaks WA	100%	N/A	100%
					4000/



100%

Lake Johnston WA

E63/2027

100%

N/A



Tenement reference	Location	Interest at beginning of quarter	Acquired/ Disposed	Interest at end of quarter
E80/5056	Eileen Bore WA	100%	N/A	100%

Notes:

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

