

QUARTERLY ACTIVITIES REPORT TO 31 MARCH 2023

KEY POINTS

In line with ASM's strategic business priorities, this Quarter, ASM:

- Commenced Stage 1 of the Dubbo Project EPC Definition contract with Hyundai Engineering Co. Ltd (HEC)
- Delivered neodymium praseodymium (NdPr) metal production consistently in specification at the targeted daily rate, resulting in a total output of 15.1 tonnes
- Successfully completed commissioning of the strip alloy caster at the Korean Metals Plant and progressed development of customer-specific neodymium iron boron (NdFeB) strip alloys as part of ongoing negotiations of potential sales agreements
- Broadened Dubbo Project and Korean Metals Plant offtake marketing and strategic partner discussions in Europe, Japan and the USA, while continuing discussions in Korea

ESG and RISK

Sustainalytics formal assessment rating

ASM is committed to ensuring it operates to high ESG standards and recognises the importance of ESG reporting to identify, assess and manage ESG risks across its business. As reported last Quarter, in December 2022, Morningstar Sustainalytics undertook a public assessment of ASM's ESG risk rating. This measures ASM's exposure to, and management of, material ESG issues across its global entities. The formal assessment was completed in January 2023 and is now available to the public on the <u>Sustainalytics website</u>.

ASM achieved the overall risk score of 32.6 HIGH, placing ASM in the top quartile of best-performing diversified metals businesses assessed.

ASM is pleased with this initial score and the work undertaken to achieve this. Improvement work is ongoing to address the risks identified in this initial report and further strengthen ESG management across ASM's business.

Promoting biodiversity and helping local business – a win-win arrangement

During the Quarter, ASM was delighted to see local Dubbo business, Native Secrets nominated as a finalist in the Telstra Best of Business Awards. Oils used in a selection of the Native Secrets skincare range are distilled from White Cypress Pine trees growing on the Dubbo Project's "Ugothery" property. Harvesting the trees to extract the oils delivers a positive environmental outcome by allowing more native grasses to grow on the property. This benefits both grazing and native animals, such as the Pink-tailed Worm-lizard. This is a win-win for both Native Secrets and the Dubbo Project, as ASM works to promote biodiversity and protect native species at the project site.



DUBBO PROJECT

The Dubbo Project is integral to ASM's mine-to-metals business, for the supply of rare earths and critical minerals.

Dubbo Project (SSD-5251) Modification 1 Approval

After a thorough submissions and review process, the Dubbo Project SSD Modification Report 1 (MOD1) received Development Consent approval from the NSW Department of Planning and Environment (DPE) on 2 March 2023. This MOD1 determination followed ASM's December 2021 Optimisation Study¹ which delivered several design improvements in plans already approved for the Dubbo Project.

The Optimisation Study design improvements included:

- Increasing the project's brine concentrator capacity.
 This increases the recycling of water and reagents, halving water consumption at the project.
- Refurbishment of the local railway line.
 This simplifies project logistics and significantly reduces the number of truck movements through the Dubbo community. This will also provide new categories of local entry-level jobs.
- Inclusion of a chlor-alkali plant.

This reduces the transport of acid and soda ash from the roads of Dubbo and NSW and allows for the production of reagents at the project site, reducing the cost of reagents and their handling and transportation.

- Adjustment to the site layout.
 - This accommodated additional plant, as well as the relocation of infrastructure areas, decreasing the overall disturbance footprint by 5.4 Ha.
- Increase of personnel for processing plant operations to approximately 270.

Throughout the approvals process, ASM's Dubbo Project team completed numerous environmental studies, including noise, air quality and emissions, to submit the MOD1 in early 2022 and then provided written responses to submissions made during the public exhibition process. Approval was granted at the end of this process after the DPE considered that the Dubbo Project development, as modified, would remain substantially the same development as initially approved in 2015.

HEC and EPC Definition work

Following the issue of a notice to proceed in January, Stage 1 of the Dubbo Project's EPC Definition work commenced with Hyundai Engineering Co. Ltd (HEC), who are contracted to undertake the work².

During the Quarter, HEC has progressed the development of key project design criteria, specifications and project standards.

Stage 1 of the EPC Definition work is expected to be completed by mid-2023.

¹ Refer ASX Release: 7 Dec 2021, Dubbo Project Optimisation Delivers Strong Financials

² Refer ASX Release: 9 Jan 2023, Hyundai Engineering Co., Ltd. to commence the contract for Dubbo Project design work.





EPC Definition kick-off meeting between ASM Dubbo Project team and representatives from HEC.

Dubbo Project customer samples

As reported last Quarter, Dubbo Project samples of hafnia from work conducted at ANSTO were prepared as part of the technical qualification process for potential customers. Since then, the prepared samples have been distributed to potential customers for inspection.

In addition to hafnia samples, 20kg of zirconium basic sulphate (ZBS) filtercake has now also been prepared to specifications. This will be calcined to zirconia (ZrO2) next Quarter and sent to priority offtake customers for their analysis.

De-hafniated zirconia (DHZ) sample preparation will also commence next Quarter and is expected to be completed mid-year.

Terbium/Dysprosium solvent extraction pilot program

Preliminary work commenced for the terbium/dysprosium (Tb/Dy) process flowsheet pilot program. Work included procurement of feed materials and initial bench scale testing. This work is in preparation for the pilot plant operation to begin in August and is supported by funds awarded under Stream 1 of the NSW government's Critical Minerals and High-Tech Metals Activation Fund³.

ASM was awarded the grant for studies to finalise the process flowsheet for the Dubbo Project's Heavy Rare Earths solvent extraction circuit. This is being developed in collaboration with the Australian Nuclear Science and Technology Organisation (ANSTO).

³ Refer ASX Release: 22 Nov 2022, ASM Dubbo Project study awarded grant from the NSW Critical Minerals and High-Tech Metals Activation Fund



Project offtake and funding

During the Quarter, ASM broadened its potential offtake and strategic partner discussions to include new parties and jurisdictions. Face-to-face meetings were held with potential offtake customers and equity partners across the USA, European Union (EU), Japan and Korea.

Government policy pronouncements in the USA, EU and Japan during the Quarter, saw increased awareness and interest from Tier 1 manufacturers and businesses from across the electric vehicle supply chain in these jurisdictions.

Discussions covered the complete product suite from oxides to metals and alloys and, in some cases, the potential for equity investment. Follow-up discussions included a number of site visits to the Dubbo Project and Korean Metals Plant.

These discussions build on ASM's long presence in Korea, and the MoU signed last Quarter with Japanese trading house Marubeni Corporation⁴. They provide increased opportunities to progress the funding and development of the Dubbo Project.

POSCO and Hon. Simon Crean visit

In January, ASM hosted a visit to the Dubbo Project site and ANSTO with representatives from Korean steel-making company POSCO and the Chair of the Australia-Korea Business Council, the Hon. Simon Crean. This was an excellent opportunity to showcase the strength of the work completed and the potential for the Dubbo Project to be a critical part of the Korean-Australian strategic supply chain.



ASM dinner with the Hon Simon Crean and representatives from POSCO and government.

Revised Framework Agreement

As per last Quarter, the Revised Framework Agreement between ASM and KCF Energy Co. Ltd (KCF) remained valid, and the parties continued to meet during the period to discuss opportunities for KCF to assist ASM in growing its businesses in Australia and Korea.

⁴ Refer ASX Release: 27 Jan 2023, *Quarterly Activities/Appendix 5B Cash Flow Report*



KOREAN METALS PLANT

The Korean Metals Plant is an integral part of ASM's mine-to-metals business: producing high-tech metals.

Neodymium praseodymium

During the Quarter, the Korean Metals Plant (KMP) safely delivered neodymium praseodymium (NdPr) metal production consistently in specification at the targeted daily rate, resulting in a total output of 15.1 tonnes with a year to date Lost Time Injury Frequency Rate (LTIFR) of 0.

NS World, our inaugural metal customer, has taken delivery of 2 tonnes of NdPr metal during this Quarter, with remaining contracted deliveries scheduled throughout the upcoming June Quarter.

Commissioning of the strip alloy caster was successfully completed during the Quarter, and the development of customer-specific neodymium iron boron (NdFeB) strip alloys was progressed. Samples of the NdFeB strip alloy were supplied to potential customers for evaluation as part of negotiations for sales agreements.

Now that commissioning of both the NdPr metal furnaces and the NdFeB strip alloy caster is successfully completed, ramp-up will progress in alignment with customer demand and the completion of sales agreements.

Negotiations are advancing with potential customers for both NdPr metal and NdFeB strip alloy in the US, Japan, Europe and Korea. The market will be updated when binding agreements are concluded.

Copper titanium

The KMP commenced production of copper titanium (CuTi) alloy samples using its innovative metallisation technology (LK Process) in custom-sized moulds to cater to a Korean customer's needs. Production will continue through the next Quarter, accompanied by technical collaborations with the customer through confidential discussions.

Vietnam Rare Earth Company visit and discussions

During the Quarter, ASM continued to build on its relationship with the Vietnam Rare Earth Company (VTRE) after signing a non-binding business agreement with VTRE in Dec 2022 to cooperate to build a global rare earths supply chain⁵. Representatives from ASM visited VTRE in Vietnam to undertake further on-site and product due diligence. VTRE's Chief Executive Officer and other VTRE representatives then visited ASM's Korean Metals Plants for a site visit and ongoing discussion for the long-term supply of feedstock to the KMP both before the Dubbo Project commences operation, and beyond.







Meeting with VTRE in Vietnam to conduct on-site and product due diligence.

⁵ Refer ASX Release: 15 Dec 2022, ASM signs Agreement with Korea's Chungcheongbuk Province and Vietnamese Rare Earth Company.



MARKET OUTLOOK

The positive outlook for Dubbo products was reaffirmed in the first Quarter with the signing of the EU's Critical Raw Materials Act on 16 March, highlighting the paramount importance of securing critical minerals' supply chains by governments worldwide.

Q1 2023 was also very positive for rare earth and permanent magnetic materials, as falling costs for battery raw materials allowed electric vehicle manufacturers to reduce retail prices. Together with other incentives, this led to EV sales in the US setting a quarterly record at 258,882 units, on track to exceed one million vehicles for a calendar year for the first time. Additionally, in Europe, fully electric vehicle sales totalled 430,700 units, a record for the first Quarter.

Markets for zirconium and hafnium products are also supportive, with the world's leading nuclear associations issuing a joint declaration to accelerate the deployment of new power plants alongside the recent meeting of G7 ministers in Sapporo.

NdFeB

Prices for all high-performance NdFeB alloy grades rose in the first Quarter, with averages for grades between 40SH and 38EH beating those for the final Quarter of 2022 by between 1.5 - 2.5%. While alloy prices show a high correlation with both NdPr oxide and metal prices, it is noticeable that this relationship broke down in March, with prices for all sintered magnet alloy grades holding up despite falling raw material input costs.

Zirconia

Zirconia markets rose for the second consecutive Quarter, as prices for zirconium oxychloride (ZOC) gained 8%⁷ from the start of the year to finish the Quarter at \$2,710/t. In China, zircon demand benefited from Chinese government support for the property sector, translating to better-than-expected conditions for ceramic end-use markets. Conditions in India have also been positive, while in Europe, processors and consumers alike have benefited from lower energy costs.

Hafnium

Further to ASM's commentary last Quarter noting the significant supply constraint in the market, this has continued, propelling hafnium metal prices to new record highs of \$5,750/kg, up from \$3,750/kg at the start of the year and \$1,200/kg a year ago. Due to increasing competition for units between the aerospace, semiconductor, IGT and nuclear sectors and the internalisation of supply in China for strategic reasons, markets for all hafnium products - including oxides and tetrachlorides - are expected to remain in a structural deficit for the foreseeable future.

⁶ % increases are derived from Adamas Intelligence figures from the EV Monthly Reports

⁷ All figures for zirconia and hafnia are from/derived from Argus



FINANCE

Cash

ASM's cash position as at 31 March 2023 was \$63.1M. The following waterfall chart highlights cash movements during the Quarter, including:

- \$2.3M of investment in the Dubbo Project, including the EPDC work by HEC and the purchase of engineering and metallurgical services.
- \$1.7M of business costs relating to administration and business development.
- \$0.8M net expenditure relating to agricultural activities.
- \$4.0M of Korean expenditure principally relating to inventory, administrative and personnel costs.



Banking facilities

During the Quarter ended 30 June 2022, the Group executed two loan facilities totalling ₩22 billion Korean Won with Korea Development Bank and drew down ₩15 billion on the industrial operating expense facility, which is repayable on or before 10 June 2024 in one bullet repayment.

On 31 March, the Group had bank debt totalling ₩15 billion (A\$17.3m), with ₩7 billion (A\$8.1m) remaining in undrawn facilities; please refer to item 7 in Appendix 5B for further details.

MINING TENEMENTS

Australian Strategic Materials Limited confirms the following information as of 31 March 2023 (as required by ASX Listing Rule 5.3.3).

Tenements	Mining tenements acquired during the quarter	Mining tenements disposed of during the quarter	Mining tenements held at the end of the quarter	Tenement location
EL 5548	N/A	N/A	100%	Dubbo NSW
EL 7631	N/A	N/A	100%	Dubbo NSW
ML 1724	N/A	N/A	100%	Dubbo NSW

No exploration or other mining activities have occurred for the quarter (as required by ASX Listing Rule 5.3.1).



APPENDIX 5B

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

Australian Strategic Materials Ltd		
ABN Quarter ended ("current quarter")		
90 168 368 401	31 March 2023	

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (9 months) \$A'000
1.	Cash flows from operating activities		
1.1	Receipts from customers	887	3,478
1.2	Payments for		
	(a) exploration & evaluation	-	-
	(b) development	-	-
	(c) production	(1,175)	(19,240)
	(d) staff costs	(1,971)	(8,107)
	(e) administration and corporate costs	(4,721)	(6,749)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	478	751
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	-	-
1.8	Other (provide details if material)	200	278
1.9	Net cash from / (used in) operating activities	(6,302)	(29,589)

Section 1 includes year to date category reclassifications.

2.	Ca	sh flows from investing activities		
2.1	Pa	yments to acquire or for:		
	(a)	entities	-	-
	(b)	tenements	-	-
	(c)	property, plant and equipment	(19)	(2,522)
	(d)	exploration & evaluation	(2,288)	(4,266)
	(e)	investments	-	-
	(f)	other non-current assets	-	-



Cons	solidated statement of cash flows	Current quarter \$A'000	Year to date (9 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)	-	-
	Cash received from government grants	435	1,370
	Payments for biological assets	(46)	(1,312)
2.6	Net cash from / (used in) investing activities	(1,918)	(6,730)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)*	-	41,085
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	-
3.4	Transaction costs related to issues of equity securities or convertible debt securities	(23)	(1,395)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	(176)	(529)
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
3.10	Net cash from / (used in) financing activities	(199)	39,161

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	71,901	60,220
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(6,302)	(29,589)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(1,918)	(6,730)



Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (9 months) \$A'000
4.4	Net cash from / (used in) financing activities (item 3.10 above)	(199)	39,161
4.5	Effect of movement in exchange rates on cash held	(387)	33
4.6	Cash and cash equivalents at end of period	63,095	63,095

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	36,595	41,901
5.2	Call deposits	26,500	30,000
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)	63,095	71,901

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	304
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-

During the quarter ended 31 March 2023, item 6.1 cash payments totalled \$304,000. These payments included Director's fees, travel, consulting, and superannuation. Other related parties' payments included \$111,000 paid to Alkane Resources Limited for personnel and office services.



7.	Financing facilities 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.	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
7.1	Loan facilities	17,255	17,255
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	-	-
7.4	Total financing facilities	-	-
7.5	Unused financing facilities available at qu	arter end	8,052

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.

The Group holds two Korean Won (\pmu) loan facilities with Korea Development Bank in South Korea. Firstly, an Industrial Facility for operating and capital expenditure and secondly an Overdraft Facility for the Korean Metals Plant. Details of each facility is outlined below:

	Industrial Facility - Opex	Industrial Facility - Capex	Overdraft Facility
Facility amount	₩ 15,000,000,000	₩ 4,000,000,000	₩ 3,000,000,000
Amount drawn	₩ 15,000,000,000	Undrawn	Undrawn
Repayment date	10 June 2024	Quarterly repayments for 5 years commencing from date of loan draw down.	2 years from date of loan draw down.
Lender	KDB Bank	KDB Bank	KDB Bank
Interest	4.23% KDB 2-year industrial financial debenture rate (on date of transfer) + 1.05% pa.	KDB 5-year industrial financial debenture rate (on date of transfer) + 0.68% pa.	KDB overdraft base rate + 1.06% per annum
Security	Unsecured	Secured	Unsecured

8.	Estimated cash available for future operating activities	\$A'000
8.1	Net cash from / (used in) operating activities (item 1.9)	(6,302)
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d)	(2,288)
8.3	Total relevant outgoings (item 8.1 + item 8.2)	(8,590)
8.4	Cash and cash equivalents at quarter end (item 4.6)	63,095
8.5	Unused finance facilities available at quarter end (item 7.5)	8,052
8.6	Total available funding (item 8.4 + item 8.5)	71,147
8.7	Estimated quarters of funding available (item 8.6 divided by item 8.3)	8.3

Note: if the entity has reported positive relevant outgoings (i.e. 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.

- 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: N/A



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: N/A

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: N/A

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

- 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: 27 APRIL 2023

Authorised by: The Board of Directors

(Name of body or officer authorising release – see note 4)

Notes

- 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 e.g. 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.