

Quarterly report and activity statement, 3 months to 31 December 2021

Highlights

Corporate

Group available cash at quarter end was \$6.10 million and is currently about \$5.92 million

Completion of Share Purchase Plan (SPP) raised \$4.08 million and issued 40.79 million new shares and options to shareholders

CEO Appointment

ABx Group Limited has appointed Dr Mark Cooksey as its new CEO to lead the company through major transformations in 2022. Dr Cooksey's appointment commences on 1 February 2022

The three highest priorities for Dr Cooksey are:

1. Bring the Alcore process into production
2. Advance ABx's rare earth elements exploration projects to its maiden resource
3. Commence the Sunrise Bauxite Project at Binjour, inland from Bundaberg, QLD, and develop a major marketing business unit with our Indian JV partner

Alcore: 87% owned subsidiary

Alcore commenced construction of its pilot plant facility to recover fluorine from 'excess bath', an aluminium smelter waste

Alcore engaged international process engineers to thermodynamically model the Alcore process. The results provide further confidence in the Alcore process and support Alcore's approach to process development

Exploration: rare earth elements (REE) in Tasmania

Higher REE grades and thicker intercepts of REE drilled at Deep Leads Tasmania

Assays from new REE prospects located 7 to 10 kilometres east of Deep Leads are pending

ABx Group Limited (ASX: ABX) is an emerging hi-technology and explorer-developer company that commenced a series of transformative developments in late 2021 that have been strongly supported by shareholders in recent capital raisings in late 2021.

Corporate

- Shareholders at the extraordinary general meeting held in December 2021 approved:
 - The change of the Company's name to ABx Group Limited
 - Amending the Company's Constitution to reflect the change in name
 - The issue of 40.486 million 20 cent options expiring 31 May 2023
 - The approval of the participation of Paul Lennon, an ABx director, in the SPP
- ABx securities now total 223,590,814 ordinary shares and 78,820,500 quoted options

CEO Appointment

The ABx Board of Directors advised that it appointed Dr Mark Cooksey as the new CEO of ABX Group Limited, commencing on 1 February 2022.

ABx Group CEO Appointment Strategy

This change in leadership is to identify and progress the optimum strategies for the following major project developments:

1. **Alcore Limited.** Develop the Alcore aluminium fluoride refinery by completing its pilot plant stage as quickly as practicable so that ABx-Alcore Limited can develop the initial commercial operation with the appropriate risk-return strategies
2. **Rare Earth Elements in Tasmania.** Advance ABx's rare earth element (REE) exploration projects in northern Tasmania to:
 - a. Accelerate exploration by securing an optimum drilling technology for the geological conditions at the mineralised horizon;
 - b. Significantly expand the size of the prospective geology so as to maximise the tonnage of any REE resources;
 - c. Identify the best REE zones conduct delineation drilling so that a maiden resource estimation can be completed.

Outgoing CEO, Ian Levy, will continue as Director to work on REE exploration in coming months and train a geologist for the company's REE exploration projects.

3. **Sunrise Project, QLD.** Commence the Sunrise Bauxite Project at Binjour inland from Bundaberg, QLD and develop a major marketing business unit with its joint venture partner, Rawmin Mining of India

Rawmin will bring marketing expertise and its port technology for operating a river port like Bundaberg Port, which is the only port north of Brisbane that does not require bulk cargo vessels to cross the Great Barrier Reef.

Video Interview with Dr Cooksey on 1 February

ABx has arranged a video conference at 3pm EST on Tuesday 1 February for shareholders, brokers, and stakeholders to meet and interview Dr Cooksey personally.

Video Link is <https://us02web.zoom.us/j/89787197788?pwd=MUIFUXZPTC9FV2xGSjRkS2k1ZnB2Zz09>

Curriculum Vitae

Dr. Mark Cooksey has an impressive history in research, engineering, and commercialisation of new developments in the aluminium and other metallurgical industries since 1997.

Mark commenced his professional career as a Research Engineer in aluminium smelting with Comalco (now Rio Tinto Alcan) in 1997 and became senior research engineer in 2000 before achieving six sigma black belt within the group at Gladstone, Queensland in 2002.

He joined the CSIRO in 2004 as Senior Research Engineer. He held roles including Senior Principal Research Leader, leading the technical and commercial development of a number of new process technologies in the minerals and metals industries. This included experience in bauxite processing and REE technologies.



Dr Mark Cooksey
CEO ABx Group Limited

Mark holds a PhD (Chemicals & Materials Engineering), Bachelor of Engineering (Materials – First Class Honours) and Bachelor of Science (Information Technology and Applied Mathematics).

His significant experience in commercialising new technologies and processes will be a solid base for ABx to expand into the next phase of development.

Welcoming Dr Mark Cooksey, ABx's outgoing CEO Ian Levy, commented: "This appointment was delayed 18 months by the Covid pandemic, during which, Mark found ways to overcome setbacks and proved he has the skills and determination to lead our company through its biggest development phase ahead.

"Mark is taking on this corporate leadership role at a time when Australia is wisely increasing the development of new technologies, especially those that increase security and environmental excellence of Australian industry.

"It is especially pleasing for ABx to be on the front foot again and seeking to employ a graduate engineer and a geologist. This is a very good day for all shareholders."

The Chairman of ABx Group, Paul Lennon has paid tribute to the outgoing CEO, Ian Levy: "We thank Ian Levy for a decade of guiding leadership and look forward to his continued involvement with the ABx Group."

ALCORE Project (87% owned by ABx): pilot plant program commenced

- A pilot plant has been constructed, on schedule and within budget, to produce precursor chemicals required for the recovery of fluorine from 'excess bath', an

aluminium smelter waste. This is located at the Alcore Research Centre in Berkeley Vale, NSW (Figure 1)

- Alcore is collaborating on reactor designs with BFluor Chemicals, an originally South African consulting service and fluorochemical equipment manufacturing company with extensive experience in technology implementation across the entire global fluorochemical value chain
- Alcore engaged international process engineers to thermodynamically model the process for recovery of fluorine from excess bath, and Alcore has conducted confirmatory testwork
- Alcore also engaged international process engineers to conduct process flowsheet modelling for a commercial 10,000 t/y AlF_3 plant using dross as the feedstock. The results provide further confidence in the Alcore process and support Alcore's approach to process development
- Alcore increased its team by appointing Dr Xiao Liang as Senior Engineer, whose duties include leading the construction, commissioning, and operation of the pilot plant

Most modern aluminium smelters produce 'excess bath', for which the only meaningful market is new smelters, which require bath to commence operations. Aluminium industry forecasts suggest that the global bath market will increasingly be in surplus, because far fewer new smelters are being constructed. This is recognised as a critical issue by global aluminium producers, and Alcore is believed to be the only party actively developing a process to transform excess bath into high value products, including aluminium fluoride (AlF_3). The Alcore process is new technology, proprietary to Alcore and will deliver significant economic and environmental benefits.

AlF_3 is a strategically important mineral that is an essential ingredient for aluminium smelting and is being investigated for advanced lithium-ion batteries. Australia is the largest producer of primary aluminium metal without its own domestic AlF_3 production, so Australian aluminium smelters rely entirely on imported AlF_3 . This is typically more than 70% from China, but this proportion has reduced by more than 50% in 2021, illustrating the supply risks (see Figure 2).

The commercialisation of Alcore's proprietary technology and development of Australia's first AlF_3 production plant would provide much-needed security of supply for Australasian aluminium smelters.



Figure 1: Alcore pilot plant for production of precursor chemicals

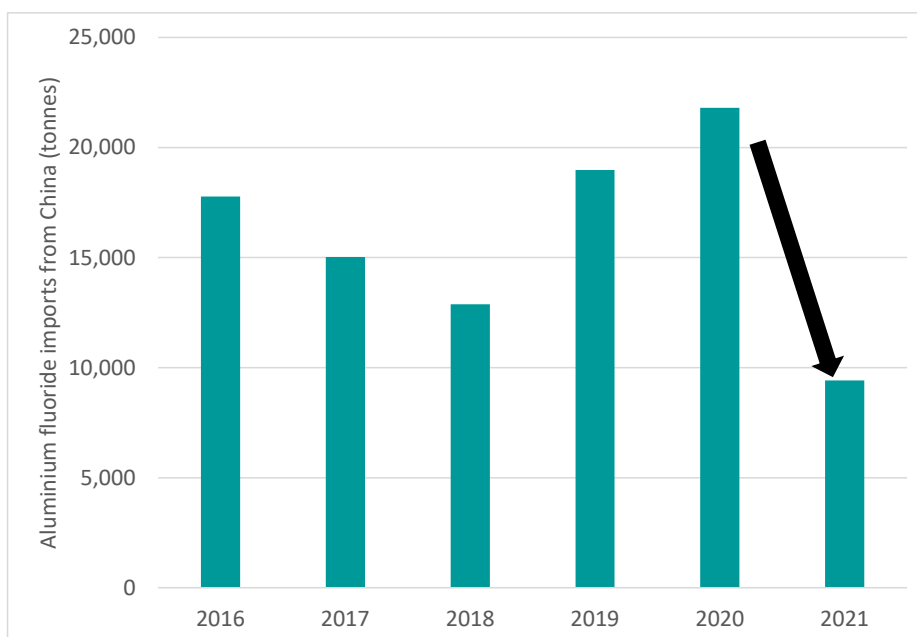


Figure 2: Imports of AlF_3 from China into Australia have contracted substantially in 2021

Rare Earth Element exploration – ABx highest REE grades from Deep Leads Tasmania

- ABx's Rare Earth Elements discovery at its Deep Leads project in northern Tasmania recorded a new record high grade in the first drill results from its recent step-out drilling campaign. Further assay results are pending.
- The intercept in Hole DL392 returned the highest grade of all four super-magnet REE to date, including 493 ppm Nd_2O_3 neodymium and had 1,878 ppm total rare earths oxide (TREO). The thickness of the mineralisation zone in recent holes DL392 and DL393 is at least 3 metres, but most holes could not drill through the full mineralised zone due to broken ground with wet clays. The new drill rig will test full thicknesses.

- Hole DL392 represents a 250-metre easterly extension of the REE mineralisation. The strike length of the Deep Leads REE mineralisation now exceeds 3.25 kilometres and is open in several directions (see Figure 3). New prospects with the same geology exist 3 to 15 kms further to the east of the Deep Leads REE project area.
- Assays from 20 more drillholes recently drilled on the flanks of Deep Leads are pending, some from the heavily mineralised zone and some larger step-outs to the east of the Deep Leads prospect in zones of similar prospective geology
- Prices for key REE elements, neodymium (Nd) and praseodymium (Pr), are rising strongly because of their widespread use in new technologies, including electric vehicles
- ABx has discovered **REE** accumulations within its bauxite tenement in northern Tasmania that are enriched in the strategically important REE metals neodymium and praseodymium which, along with terbium and dysprosium, are the main REE components of the super-magnets that are needed in electric vehicles, wind turbines, smart phones and military electronics

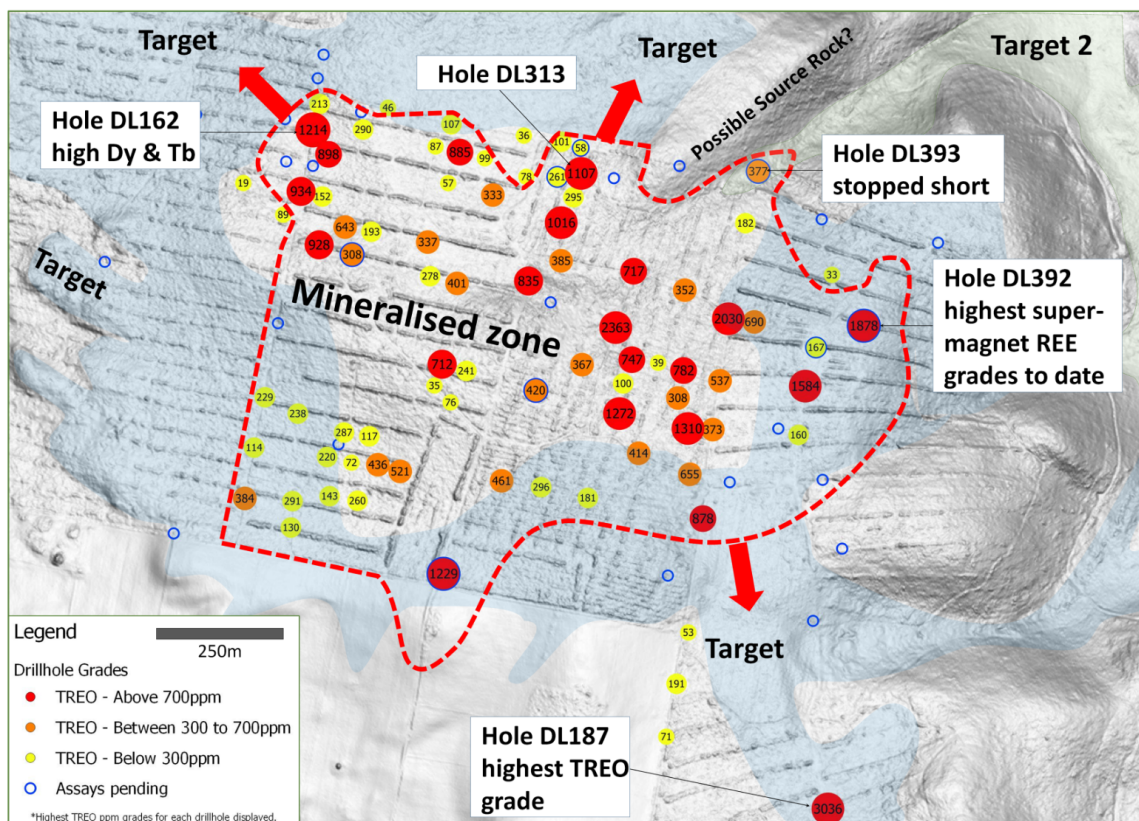


Figure 3: holes at Deep Leads REE prospect showing Total Rare Earth Oxide (TREO) grades.

Note hole DL392 hit the highest super-magnet REE grades to date.

Hole DL393 encountered good REE grades but did not test the full thickness of the REE zone

ABx REE Business Strategy

- Traditional hard-rock mines and processing plants take many years and \$billions of investment in technically difficult processing plants. For this reason, ABx has explored for a water-soluble type of REE occurrence which can be developed rapidly and at low cost to produce an intermediate concentrate of REE elements that can be sold to the existing processing plants so that they can expand production rapidly
- ABx's REE are low in radioactive elements and therefore our REE concentrates will be attractive additions to REE processing plants in any jurisdiction worldwide

- If practicable and environmentally acceptable, in-situ leaching is the fastest, safest and most profitable method to develop of this type of REE (see Figure 4)
- China was until recently the main producer from such “water soluble” types of REE deposits which called “Ionic Adsorption Clay” deposits (IAC), mainly from southern China. China no longer produces REE from IAC deposits
- **This type of deposit is rare:** ABx has been advised that it is one of only three public-listed companies in the world that is focussed on these IAC REE deposits

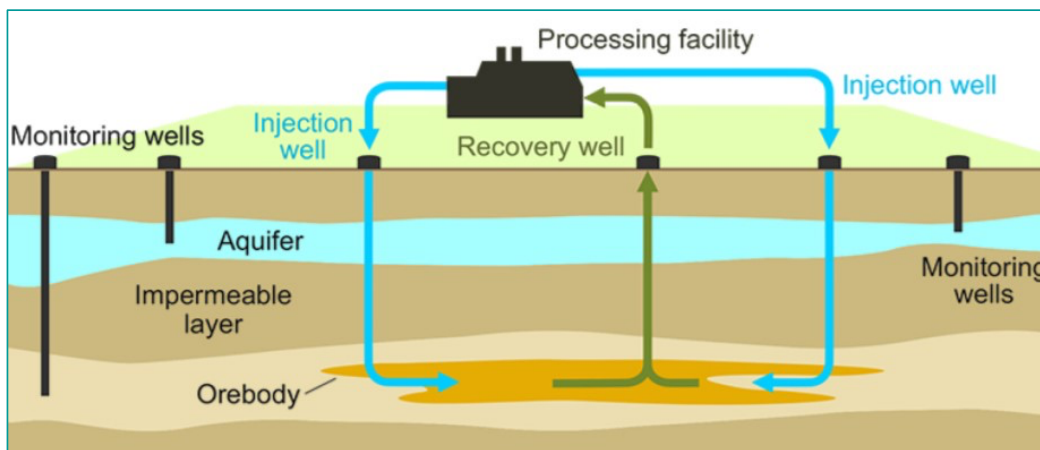


Figure 4: In-situ leaching

This production method can only be conducted in suitable areas and only after proof of the environmental technology. Injection wells around a central “recovery well” pump water into the orebody.

The recovery well draws the water and solubilised REE into the processing facility. Surrounding wells monitor water qualities. This production method has operated successfully in South Australia since 2001

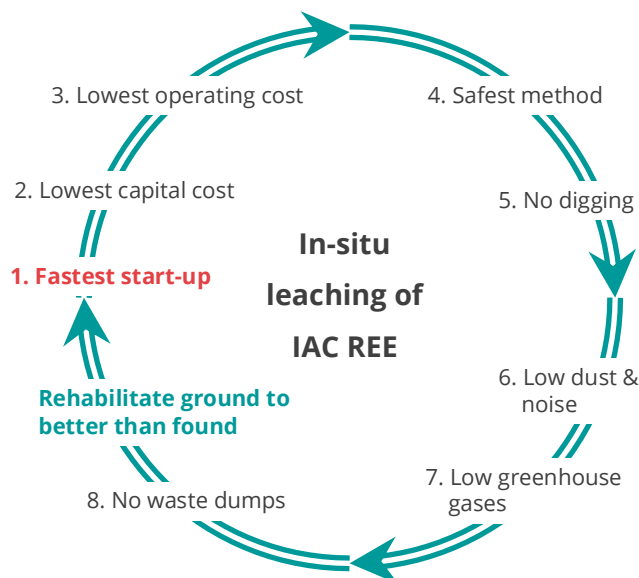


Figure 5: The benefits of in-situ leaching of the ionic adsorption clay (IAC) type of REE deposits:

Fastest, lowest cost, safest, less disruptive, lowest emissions and no waste dumps means that the rehabilitated ground can be better than we found it.

Operations: Fingal Rail mine, Tasmania

- **Mining lease application** is being progressed for the large Fingal Rail deposit in northern Tasmania which can supply cement grade and fertiliser grade bauxite for 15 years
- A 700-tonne bulk sample of fertiliser-grade bauxite was delivered for confirmation testing by the customer. ABx bauxite is an essential ingredient in their superphosphate

Sunrise Project Binjour Queensland

- After 18 months delay by Covid-19 travel restrictions, the trans-national legal and corporate arrangements for the Sunrise Bauxite Project located at Binjour, 115 km west of Bundaberg Port in Queensland commenced with the arrival into Australia of senior executives from India in late December
- During January, the majority of the legal, corporate, banking and commercial arrangements for the joint ventures for the Sunrise Bauxite Project and the Bundaberg Port facility have been finalised and should soon be ready for execution, probably during February 2022
- The Mining Lease application for the fully-funded Sunrise Bauxite Project at Binjour will be progressed during Q1 2022
- ABx has appointed a state manager located in Queensland to expedite the two joint venture projects (mine and port-marketing), even if border closures reoccur
 - Sunrise project's development costs, estimated to total \$18 million, are fully funded by ABx's Indian partner and its marketing partner Rawmin Mining of India, subject to final due diligence planned for February, now that travel restrictions are lifted
- The Sunrise Bauxite Project at Binjour in Queensland is designed to sell 500,000 tonnes per year of gibbsite-rich trihydrate bauxite. The marketing joint venture may market a range of related products locally and internationally as opportunities arise.

This announcement is approved for release by the board of directors.

For further information please contact:

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Qualifying statements

General: The information in this report that relate to Exploration Information and Mineral Resources are based on information compiled by Jacob Rebek and Ian Levy who are members of The Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Mr Rebek and Mr Levy are qualified geologists and Mr Levy is a director of Australian Bauxite Limited.

Mainland: The information relating to Mineral Resources on the Mainland was prepared and first disclosed under the JORC Code 2004. It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported. Mr Rebek and Mr Levy have sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity, which they are undertaking to qualify as a Competent Person as defined in the 2004 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Rebek and Mr Levy have consented in writing to the inclusion in this report of the Exploration Information in the form and context in which it appears.

Tasmania: The information relating to Exploration Information and Mineral Resources in Tasmania has been prepared or updated under the JORC Code 2012. Mr Rebek and Mr Levy have sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity, which they are 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 Rebek and Mr Levy have consented in writing to the inclusion in this report of the Exploration Information in the form and context in which it appears.

Disclaimer Regarding Forward Looking Statements

This ASX announcement (Announcement) contains various forward-looking statements. All statements other than statements of historical fact are forward-looking statements. Forward-looking statements are inherently subject to uncertainties in that they may be affected by a variety of known and unknown risks, variables and factors which could cause actual values or results, performance, or achievements to differ materially from the expectations described in such forward-looking statements.

ABx does not give any assurance that the anticipated results, performance, or achievements expressed or implied in those forward-looking statements will be achieved.

Patent

Refined Ore Industries Ltd (ROIL) was the owner of the CORE process technology via ROIL's intellectual property company, Berkeley Process Technologies Pty. Ltd which issued a global exclusive licence for the aluminium-related portion of the CORE process technology to ABx in November 2017 and ABx has issued a global exclusive sub-licence to ALCORE when ALCORE was incorporated on 1 July 2018.

After a company restructure and expansion of the patent definition to cover isolation and extraction of mineral compounds, metals, metalloids, alloys and elements from waste streams, mineral ores, recyclable commodities, industrial by-products and mixed substances, the holding company is now named Core Refining Limited (CRL) and the intellectual property company is Core Intelligence Australia Pty Ltd (CIAL) which holds the Patent Application No. 2019904311 and the global exclusive licences to ABx and ALCORE continue in force.

CRL's CORE process technology involves the refining of a wide range of ore types using a combination of fluorine acids and related thermal energy process steps. The technology that is licensed to ABx and ALCORE by CRL is part of CRL's broader Core technology.

Table 2: Tenement information required under LR 5.3.3

Tenement No.	Location	Tasmania	
New South Wales		EL 7/2010	Conara
EL 6997	Inverell	EL 9/2010	Deloraine
EL 7357	Taralga	EL 18/2014	Prosser's Road
EL 8600	Penrose Quarry		
Queensland			
MLA 100277	Sunrise ML application		
EPM 27787	Binjour		
ML 80126	Toondoon ML		

Notes:

No tenements were relinquished or granted during the quarter. All tenements are in good standing, 100% owned and not subject to any third-party royalties nor are they encumbered in any way.

Information required under Listing Rule 5.3.1: Exploration expenditure reported during the quarter related to the REE program development (\$265,000), research conducted by Alcore with respect to its reported advancements (\$420,000).

Information required under Listing Rule 5.3.1: No mining production was conducted during the quarter.

Information required under Listing Rule 5.3.5: Fees in the amount of \$64,750 were paid to Paul Lennon for his services as Chairman.

Appendix 5B

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

Name of entity

ABx Group Limited

ABN

14 139 494 885

Quarter ended ("current quarter")

31 December 2021

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (12 months) \$A'000
1.	Cash flows from operating activities		
1.1	Receipts from customers	41	41
1.2	Payments for		
	(a) exploration & evaluation	(278)	(834)
	(b) development	(530)	(1,206)
	(c) production	-	(13)
	(d) staff costs	(82)	(198)
	(e) administration and corporate costs	(190)	(608)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	1	2
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	-	-
1.8	Other (Government RD/Innovation Grant)	353	506
1.9	Net cash from / (used in) operating activities	(685)	(2,310)

2.	Cash flows from investing activities		
2.1	Payments to acquire or for:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	(89)	(91)
	(d) exploration & evaluation	-	-
	(e) investments	-	-
	(f) other non-current assets	-	-

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (12 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)	-	-
2.6	Net cash from / (used in) investing activities	(89)	(91)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	4,079	7,329
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	(114)	(340)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (Net proceed from issuing of equity securities – controlled entity)	(17)	607
3.10	Net cash from / (used in) financing activities	3,948	7,596

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	2,921	900
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(685)	(2,310)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(89)	(91)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	3,948	7,596

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

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (12 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	Cash and cash equivalents at end of period	6,095	6,095

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	1,081	36
5.2	Call deposits	4,984	2,855
5.3	Bank overdrafts	-	-
5.4	Other (Held in trust)	30	30
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	6,095	2,921

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	65
6.2	Aggregate amount of payments to related parties and their associates included in item 2	Nil
6.3	Include below any explanation necessary to under the transactions included in items 6.1 and 6.2 \$64,750 director fee was paid to Paul Lennon for his services rendered.	
<i>Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.</i>		

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

7.	Financing facilities <i>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.</i>	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
7.1	Loan facilities	-	-
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	-	-
7.4	Total financing facilities	-	-
7.5	Unused financing facilities available at quarter end		-
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.		

8.	Estimated cash available for future operating activities	\$A'000
8.1	Net cash from / (used in) operating activities (item 1.9)	(685)
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	-
8.3	Total relevant outgoings (item 8.1 + item 8.2)	(685)
8.4	Cash and cash equivalents at quarter end (item 4.6)	6,095
8.5	Unused finance facilities available at quarter end (item 7.5)	-
8.6	Total available funding (item 8.4 + item 8.5)	6,095
8.7	Estimated quarters of funding available (item 8.6 divided by item 8.3)	8.8
<i>Note: if the entity has reported positive relevant outgoings (ie 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.</i>		
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		

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

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

- 1 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 January 2022

Authorised by: Ian Levy, Managing Director and CEO
(Name of body or officer authorising release – see note 4)

Notes

1. 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 – eg 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.