



ASX Announcement | 28 July 2021  
Hexagon Energy Materials Limited (ASX: HXG)

## Hexagon advances pre-feasibility study at recently acquired Pedirka Blue Hydrogen Project during April - June quarter

### Highlights:

#### Pedirka Blue Hydrogen Project

- Hexagon has made significant progress in the advancement of the Pedirka Blue Hydrogen project with key partnerships being cemented
- Entered agreement with Genesis, a wholly owned Technip Company to undertake pre-feasibility studies for the Pedirka Project
- Commenced the project's pre-feasibility study, which is targeted for completion in December 2021
- Post the quarter end, lodged the project mine management plan with the NT government

#### West Australian projects

- Completed a very significant historic geochemical review and regional structural re-interpretation at the McIntosh Project, highlighting a number of priority Ni-Cu targets
- Undertook significant airborne electromagnetic survey at the Halls Creek Project

#### Corporate

- Completed a \$6.2m placement to fund completion of Pedirka Blue Hydrogen Project pre-feasibility study (PFS) and drilling, exploration of the Company's other exploration projects and working capital
- Hexagon's cash position at the end of the quarter was \$5 million

**Hexagon Energy Materials Limited (ASX: HXG)** ('Hexagon' or 'the Company') is pleased to provide its quarterly activities report for the period ended June 30, 2021 (Q4 FY21).

Hexagon is focused on the exploration and development of clean energy and energy materials projects. During the quarter, the Company's main activities were centred around advancing its recently acquired flagship Pedirka Blue Hydrogen Project. Progress was also made at the Company's other two Australia-based projects; the Halls Creek Project and the McIntosh Project.

#### Pedirka Blue Hydrogen Project PFS advanced

In April, Hexagon finalised its acquisition of Ebony Energy Limited ('Ebony'), the sole asset of which is the Pedirka Blue Hydrogen Project.

Immediately following this, the Company commenced the project's pre-feasibility study (PFS) in partnership with Genesis, a subsidiary of Technip Energies.

Technip Energies brings significant consultancy experience to the project, having been responsible for over 270 hydrogen projection plants which now account for more than 35% of the world's hydrogen production. The partnership with Genesis brings world class hydrogen experience to the PFS team and brings significant efficiency to the team.

#### HEXAGON ENERGY MATERIALS LIMITED

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The scope of the PFS covers all aspects of the project business case from coal feedstock extraction through to the transport of product to port and carbon capture and storage. Hexagon and Genesis have assembled a world-class team with expertise covering all aspects of the business case.

Located in the Northern Territory and covering an area of just under 800km<sup>2</sup>, it is proposed that the Pedirka Blue Hydrogen Project will host a surface gasification plant to produce 'blue' hydrogen from coal feedstocks with zero carbon emissions.

The hydrogen produced is to be sold to export and domestic markets. In addition to being clean, hydrogen is a versatile energy source with applications across the transport, electricity, industrial and heating sectors.

As part of the Pedirka Blue Hydrogen Project's development programme, Hexagon is working with government and private sector entities to accelerate the pathway to hydrogen production.

During the first two weeks of May, the Company held numerous meetings with various NT Government departments in order to brief them on the project, confirm drill approval requirements, and progress the licensing/permitting process. (The Hexagon team continues its engagement post quarter-end).

Later in May, the Company also engaged with traditional landowners and other key stakeholders to confirm the site of the drilling campaign, which is expected to commence in late Q3 CY21.

Hexagon is in discussions with major Asian groups which may serve as potential offtake partners. The Company is pleased to note positive developments in the hydrogen space worldwide including US President Biden's calls on Congress to invest \$35bn in a full range of clean energy solutions. Further updates will be provided when appropriate.

For further detail on the PFS and macro drivers in the hydrogen space, see the ASX announcements dated 19 May 2021 and 24 June 2021.

Post the quarter end, Hexagon took another step towards the development of the project, lodging its Mine Management Plan with the NT Government. The drilling programme will see the exploration of the coal targets in the project with the goal of defining a JORC compliant resource.

## **Progress at Hexagon's West Australian projects**

Hexagon continues to actively seek ways to maximise value from its portfolio of assets. To this end, both deeper research into project potential and work on ways to develop in the most resource efficient way have been achieved in the quarter and are ongoing.

### **McIntosh Project**

Hexagon completed a historic geochemical review during the quarter at the McIntosh Project. The multi-faceted review has highlighted several high priority Ni-Cu targets, including the Melon Patch North, Mabel Hill, Jackal and Hyena Prospects (Figure 1).

The geochemical review involved the identification and digitisation of 29,558 geochemical samples and 70 drillholes from ~388 WAMEX historical reports from 1967 to 2018.

Hexagon's extensive tenement land holding enabled a regional scale as well as prospect scale interrogation of the area's potential to host further Ni-Cu-PGM mineralisation.

This regional scale and prospect scale interrogation resulted in the identification of several high priority follow up targets, including the abovementioned Melon Patch North, Mabel Hill, Jackal and Hyena targets.

Hexagon has now commenced detailed structural and geological mapping over the McIntosh project area

As part of this mapping process. The Company has:

- Engaged highly experienced structural geologist Dr Mark Rieuwers (SRK Consulting), who has expertise in nickel sulphide systems.
- Commissioned Dave Johnson (Zion Geophysics Inc) to undertake a review and reinterpretation of historic airborne and ground geophysical data covering the McIntosh project area.

The McIntosh Project area has proven Ni-Cu-PGM potential with known occurrences and deposits including the + 2 Moz Pantom PGM Project (i) and Panoramic Resources' Copernicus Ni-Cu Deposits nearby and regionally includes Panoramic Resources' Savannah & Savannah North Ni-Cu operations.

(i) See: ASX: Red Emperor Resources NL (ASX: RMP) Announcement 25/03/2021)

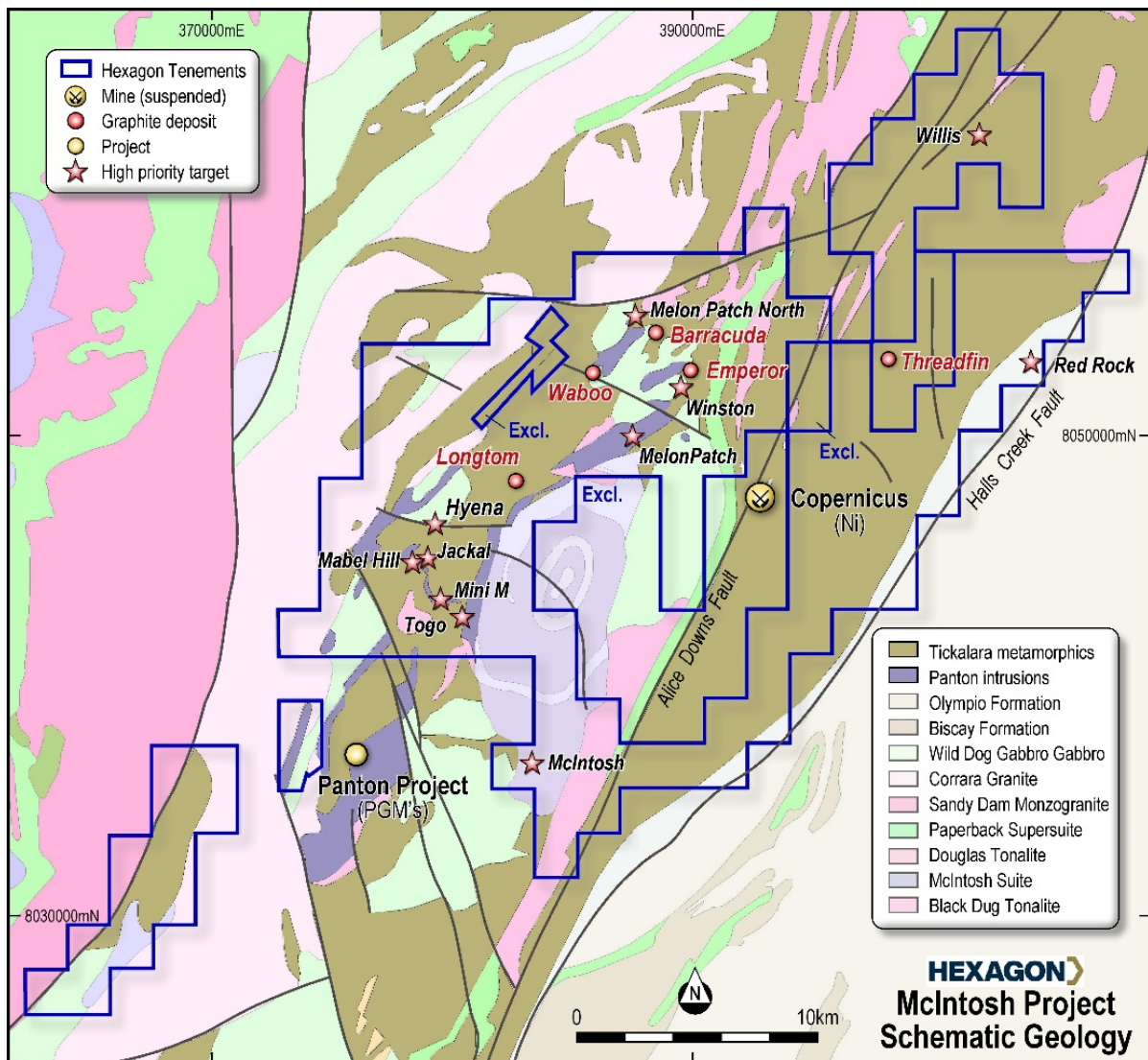


Figure 1: McIntosh Project showing priority target highlighted in current review

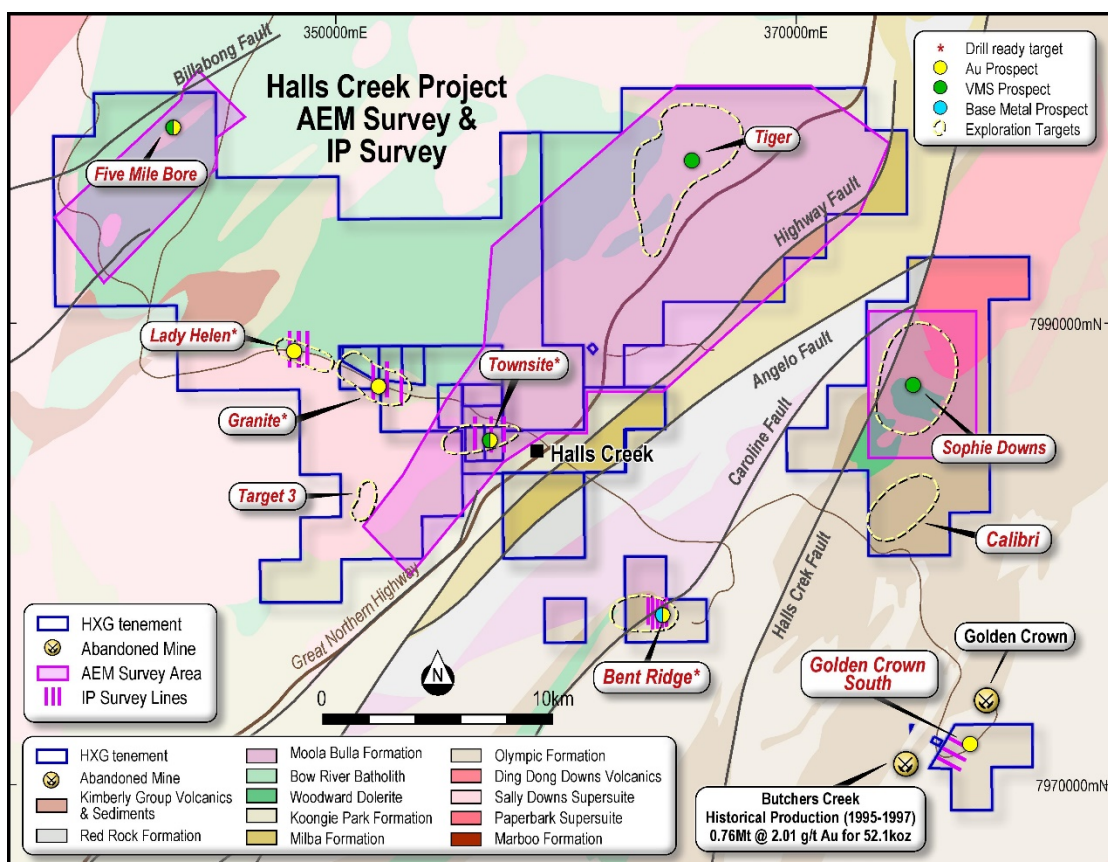
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## Halls Creek Project

Hexagon undertook a significant airborne electromagnetic (AEM) survey at its Halls Creek project in June, the survey was designed to target potential Volcanic Massive Sulphide (VMS) style mineralisation within The Kongie Park Formation Project (Figure 2).

The helicopter-borne Versatile Time-Domain Electromagnetic (VTEM™ Max) system was flown by UTS Geophysics (Geotech), surveying approximately 1,248 line-kilometres, flown over three areas totalling 242km<sup>2</sup> (Figure 2). The survey is expected was completed in 8-10 day with results and interpretation in Q3-2021.

A 3D Induced Polarisation (IP) survey was also completed to commence by late June, at the Lady Helen, Granite, and Bent Ridge prospects. The results will be used to aid in finalising drill program design at Bent Ridge and refine drill targets at the remaining prospects (Figure 2).



**Figure 2: Halls Creek Project – schematic geology and proposed AEM and IP survey out lines**

A historic geochemical review was commenced by ex-Gold Fields chief geochemist, Dr Heidi Pass from Element Insight Consulting. The review is intended to validate historic geochemistry and will be used in combination with AEM survey results to aid in the delineation new and confirmation of existing targets.

Hexagon continues to actively seek ways to maximise value from its portfolio of assets.

For further details on the Company’s progress at the Halls Creek and McIntosh projects, see the ASX announcements dated 18 May 2021 and 28 June 2021 respectively.

## Alabama / Charge Minerals

In the quarter, the Company continued to progress potential pathways to development partnerships for its Alabama graphite project.

## Corporate

In May, Hexagon completed a Placement from institutional and sophisticated investors to raise \$6.2m (before costs).

Proceeds of the Placement are being used to fund the completion of the PFS as well as covering the Company's other project obligations and working capital.

For further details on the capital raising, see the ASX announcement dated 3 May 2021.

Hexagon's cash position at the end of the quarter was \$5 million.

**Hexagon's Chairman Charles Whitfield said:** *"The Company has made significant progress across our portfolio of Australian assets during the June quarter. Our primary focus continues to be our flagship Pedirka Project, which is now fully funded through to the completion of a PFS. While there may be fewer opportunities to make announcements at this stage in the PFS, there are significant milestones being achieved. Nevertheless, we look forward to updating the market as soon as possible. Meanwhile, we remain committed to unlocking value at our other projects and look forward to being able to make announcements around these. Halls Creek and McIntosh projects have yielded very positive results from the work carried out to date. We are planning a further ground-based IP survey to be undertaken at a number of prospects at the former and are undertaking a soil sampling program at the latter. We look forward to updating the market with more completed milestones at each of these projects in the quarters ahead."*

## Ends

## Authorisation

This announcement has been authorised by the Board of Directors.

## About Hexagon Energy Materials Limited

Hexagon Energy Materials Limited (ASX: HXG) is an Australian company focused on the exploration and development of clean energy and energy materials projects.

Hexagon is primarily focused on developing its Pedirka blue hydrogen project in Australia's Northern Territory. At Pedirka, Hexagon aims to produce the blue hydrogen required to support the conversion to clean energy economies over the coming decades.

In Australia, Hexagon also owns the McIntosh graphite, nickel and PGE's project and the Halls Creek gold and base materials project. In the US, Hexagon has an 80 per cent controlling interest of a graphite exploration project in Alabama.

Hexagon actively seeks ways to progress value-added enterprises consistent with its strategy, skill set, and focus on clean energy.

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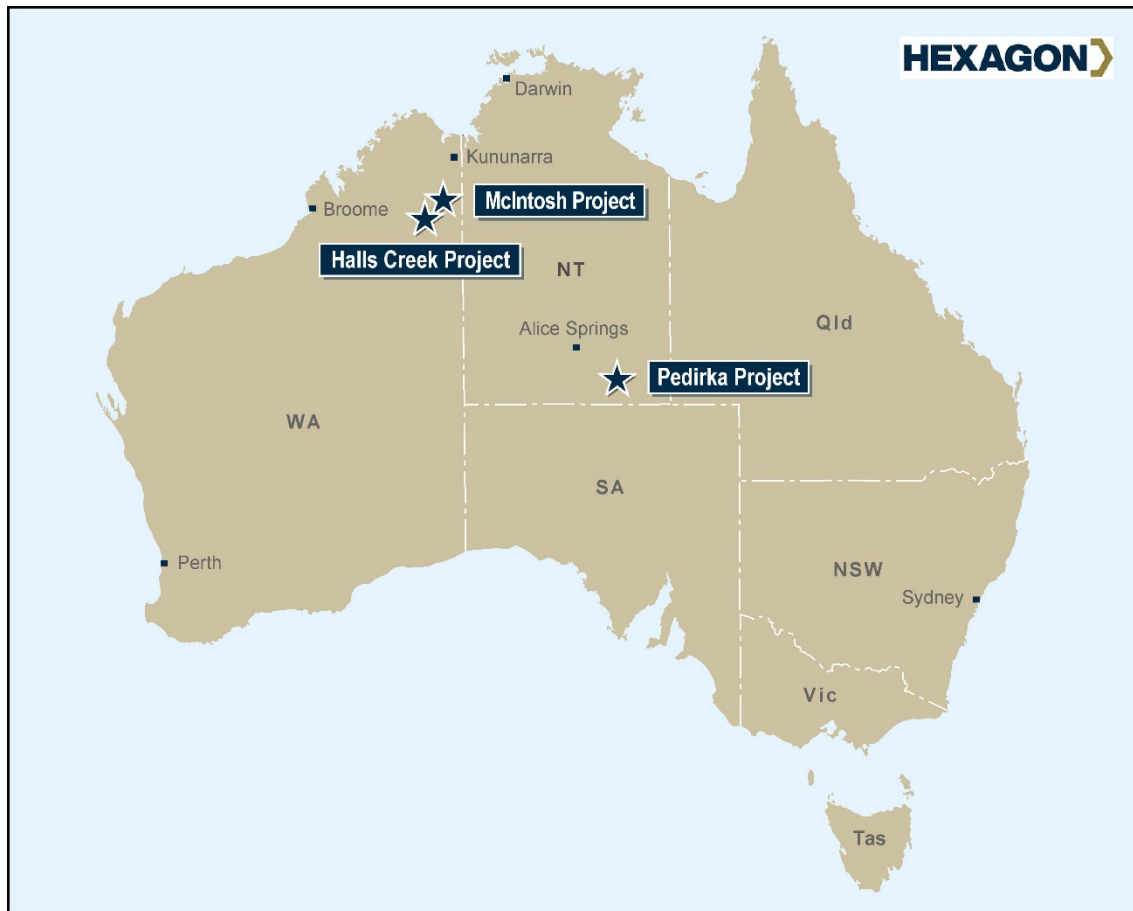


Figure 3: Hexagon Australian project location

To learn more please visit: [www.hxgenergymaterials.com.au](http://www.hxgenergymaterials.com.au)

**FOR FURTHER INFORMATION, please contact:**

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### **Competent persons' attributions**

The information within this report that relates to Exploration Results, geological data for the Halls Creek Projects & McIntosh Project and is based on information generated and compiled by Mr Michael Atkinson. Mr Atkinson is a consultant to Company and a member of The Australian Institute of Geoscientists. He has sufficient experience relevant to the styles of mineralisation and types of deposits under consideration and to the activities currently being undertaken to qualify as a Competent Person(s) as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results Mineral Resources and Ore Reserves and he consents to the inclusion of the above information in the form and context in which it appears in this report

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## Appendix 5B

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

Name of entity

<b>HEXAGON ENERGY MATERIALS LIMITED</b>
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ABN

<b>27 099 098 192</b>
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Quarter ended ("current quarter")

<b>30 June 2021</b>
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<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (12 months) \$A'000</b>
<b>1.</b>	<b>Cash flows from operating activities</b>		
1.1	Receipts from customers	-	-
1.2	Payments for		
	(a) exploration & evaluation (if expensed)	(168)	(507)
	(b) development	-	(85)
	(c) production	-	-
	(d) staff costs	(71)	(362)
	(e) administration and corporate costs	(455)	(1,065)
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	-	162
1.8	Other (Covid-19 Grant)	-	68
	Reimbursement McIntosh rehabilitation	-	150
<b>1.9</b>	<b>Net cash from / (used in) operating activities</b>	<b>(693)</b>	<b>(1,637)</b>
<b>2.</b>	<b>Cash flows from investing activities</b>		
2.1	Payments to acquire:		
	(a) entities	-	-
	(b) tenements	-	(17)
	(c) property, plant and equipment	(12)	(12)
	(d) exploration & evaluation (if capitalised)	(379)	(789)
	(e) investments	-	-
	(f) other non-current assets	-	-



## 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
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 (see Note 2.5 below)	30	30
<b>2.6</b>	<b>Net cash from / (used in) investing activities</b>	<b>(361)</b>	<b>(788)</b>
<b>2.5</b> Net cash acquired upon completion of Ebony Energy Limited acquisition.			
<b>3.</b>	<b>Cash flows from financing activities</b>		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	6,200	6,700
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	(309)	(343)
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 (Office Rental Lease Liability)	(13)	(55)
<b>3.10</b>	<b>Net cash from / (used in) financing activities</b>	<b>5,878</b>	<b>6,302</b>
<b>4.</b>	<b>Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1	Cash and cash equivalents at beginning of period	230	1,206
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(693)	(1,637)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(361)	(788)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	5,878	6,302

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

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (12 months) \$A'000</b>
4.5	Effect of movement in exchange rates on cash held	(2)	(31)
<b>4.6</b>	<b>Cash and cash equivalents at end of period</b>	<b>5,052</b>	<b>5,052</b>

<b>5.</b>	<b>Reconciliation of cash and cash equivalents</b> at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	<b>Current quarter \$A'000</b>	<b>Previous quarter \$A'000</b>
5.1	Bank balances	2,505	183
5.2	Call deposits	2,547	47
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
<b>5.5</b>	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>5,052</b>	<b>230</b>

**6. Payments to related parties of the entity and their associates**

- 6.1 Aggregate amount of payments to related parties and their associates included in item 1,
- 6.2 Aggregate amount of payments to related parties and their associates included in item 2

**Current quarter  
\$A'000**

64

-

6.1 – Payments to Directors.

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

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

<b>8. Estimated cash available for future operating activities</b>	<b>\$A'000</b>
8.1 Net cash from / (used in) operating activities (Item 1.9)	(693)
8.2 Capitalised exploration & evaluation (Item 2.1(d))	(379)
8.3 Total relevant outgoings (Item 8.1 + Item 8.2)	(1,072)
8.4 Cash and cash equivalents at quarter end (Item 4.6)	5,052
8.5 Unused finance facilities available at quarter end (Item 7.5)	-
8.6 Total available funding (Item 8.4 + Item 8.5)	5,052
8.7 <b>Estimated quarters of funding available (Item 8.6 divided by Item 8.3)</b>	<b>4.7</b>
8.8 If Item 8.7 is less than 2 quarters, please provide answers to the following questions:	
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	
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	
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	

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**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: .....28 July 2021.....

Authorised by: .....By the Board.....  
(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.