

## Key Points

### Billy Hills (Zinc)

- High-grade surface mineralisation identified at the Firetail Zinc Prospect
- Rock chip assay results up to 30.3% zinc, 127g/t silver and 3.0% lead returned from sampling of a 300 metre – long zone of siliceous gossan and weathered sulphide mineralisation that remains open along strike
- The mineralisation lies within a fault zone that hosts the Pillara Zinc Deposit approximately 5 kilometres to the north east
- Mithril seeking to drill Firetail as soon as possible

### Limestone Well (Vanadium)

- Auteco Minerals (earning up to 80% of the project) to fund a drill test of a new vanadium target during the June 2019 Quarter
- Limestone Well lies directly north along strike from the Barrambie Titanium Vanadium Deposit (2012 JORC Inferred + Indicated Resource of 280.1Mt @ 9.18%TiO<sub>2</sub> and 0.44%V<sub>2</sub>O<sub>5</sub>)

### Strategy

- To ensure that Mithril remains focussed on Billy Hills, the Company is seeking exploration funding partners for and / or divesting low priority projects
- At the time of writing was in preliminary discussions with a number of companies who have expressed an interest in other projects within the Company's portfolio

### Planned Activities

- Continuation of field activities at Billy Hills, and the drilling of a new vanadium target at Limestone Well, fully funded by Mithril's exploration partner – Auteco Minerals

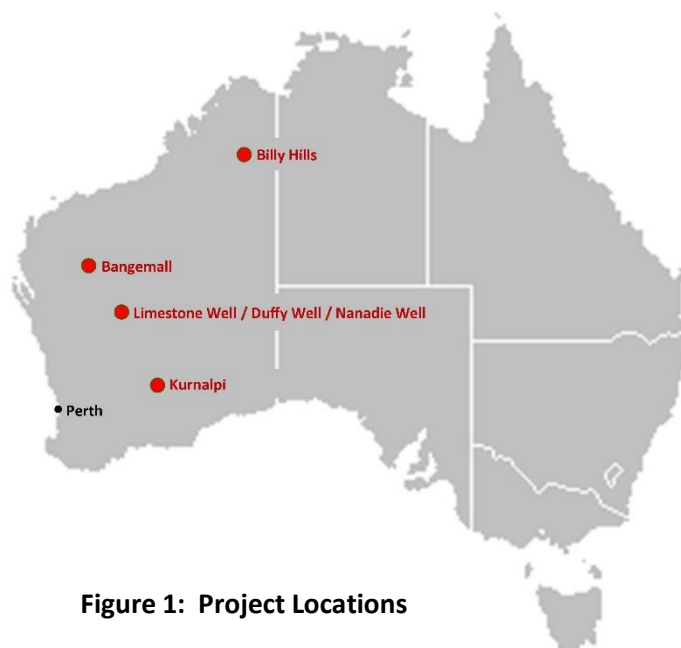
### Cash

- Cash reserves of \$0.63M at 30 June 2019

## Exploration Overview

Mithril Resources' (ASX: MTH - "Mithril") primary focus is the **Billy Hills Zinc Project** where fieldwork undertaken during the June 2019 Quarter identified high-grade surface mineralisation at the Firetail Zinc Prospect with rock chip sampling returning up to 30.3% zinc, 127g/t silver and 3.0% lead (*Figure 1*).

To ensure that Mithril remains focussed on Billy Hills, the Company is seeking exploration funding partners for and / or divesting low priority projects and at the time of writing was in preliminary discussions with a number of companies who have expressed an interest in other projects within the Company's portfolio. Mithril will provide an update on these discussions if and when any material developments occur.



**Figure 1: Project Locations**

Planned activities for the September 2019 Quarter comprise the continuation of field activities at Billy Hills, and the drilling of a new vanadium target at Limestone Well, fully funded by Mithril's exploration partner – Auteco Minerals.

## Corporate

During the Quarter, Mithril spent \$0.13M on exploration activities outlined in this report and at 30 June 2019 had cash reserves of \$0.63M.

Following an Extraordinary General Meeting held during the Quarter the Company's Board of Directors now comprises Mr David Hutton (Managing Director), Mr Adrien Wing (Non-Executive Director) and Mr Stephen Layton (Non-Executive Director).

Mr Wing has also assumed the role of Company Secretary following the resignation of the Company's previous Company Secretary, Mr Donald Stephens.

## Billy Hills (Zinc)

### (Mithril 100%)

During the Quarter field work undertaken on the Billy Hills Zinc Project (located 25kms east of Fitzroy Crossing WA) has identified high-grade surface mineralisation at the Firetail Zinc Prospect which lies within the southern project area (*Figure 2*).

Rock chip samples collected along a 300 metre – long subcropping zone of siliceous gossan and weathered colloform-banded sulphides returned assay values up to 30.3% zinc, 127g/t silver and 3.0% lead (*see Figures 3 and 4*). The mineralisation occurs in an area of sand and soil cover and remains open along strike to the north. Where visible the zone has a width ranging from 0.5 to +1.0 metre.

The mineralisation lies within a broader fault zone which has been mapped over 1.5 kilometres strike length and is characterised by locally developed veining and brecciation of the limestone host rock. Geological mapping and interpretation of geophysical data shows that the fault zone continues north to the Pillara Zinc Deposit which lies approximately 5 kilometres north-east of Firetail.

Pillara had a pre-mine resource of 18.05 million tonnes at 7.7% Zn and 2.4% Pb and produced 10.3 Mt @ 6.9% Zn, 2.3% Pb from June 1997 to October 2003 (*see Mithril's ASX Announcement dated 21 August 2017*).

Despite the proximity to Pillara, the Firetail area has not been explored since 1993 when three wide-spaced drill holes were drilled in the area, two of which returned anomalous mineralisation; 2.0m @ 1.05% zinc + lead from 39 metres in PD514, and 4.0m @ 0.71% zinc + lead from 89 metres in PD512.

Field inspection has failed to find any sign of the drilling so it is not known whether any of the holes specifically tested the high-grade surface mineralisation. Firetail is a priority for drill testing which the Company will seek to do as soon as possible.

At Billy Hills, Mithril is targeting large scale zinc + lead + silver deposits within soil-covered portions of fault zones immediately along strike from existing surface and bedrock mineralisation.

Billy Hills is relatively under-explored with the bulk of historic drilling and geophysical testing carried out on the adjacent Pillara Mine Lease (ML04/118) which hosts the Pillara Zinc Deposit. Pillara had a pre-mine resource of 18.05 million tonnes at 7.7% Zn and 2.4% Pb and produced 10.3 Mt @ 6.9% Zn, 2.3% Pb from June 1997 to October 2003 (*See Mithril's ASX Announcement dated 21 August 2017*).

### **About the Pillara Zinc Deposit (located on ML04/118 which is not owned by Mithril)**

At Pillara, zinc + lead +/- silver mineralisation is hosted by structurally controlled zones of breccia and vein development which are spatially associated with a series of large-scale NNE – NNW orientated fault zones that cut a sequence of Devonian-age limestones.

The deposit had a reported pre-mine resource of 18.05 million tonnes at 7.7% Zn and 2.4% Pb and underground mining produced 10.3 Mt @ 6.9% Zn, 2.3% Pb from June 1997 to October 2003. Mining briefly resumed during 2007 / 2008 and the mine site is now closed (*See Mithril's ASX Announcement dated 21 August 2017*).

The style of mineralisation, which occurs at Pillara and adjacent deposits, produces metal concentrates which are very highly sought by smelting companies due to their very high-grade and low amount of impurities.

Zinc concentrate grade historically ranged between 57-63% and lead concentrate grade between containing 73-81%. It is as a result of their clean, high-grade nature, that concentrates from area have in the past attracted a premium price from smelters.

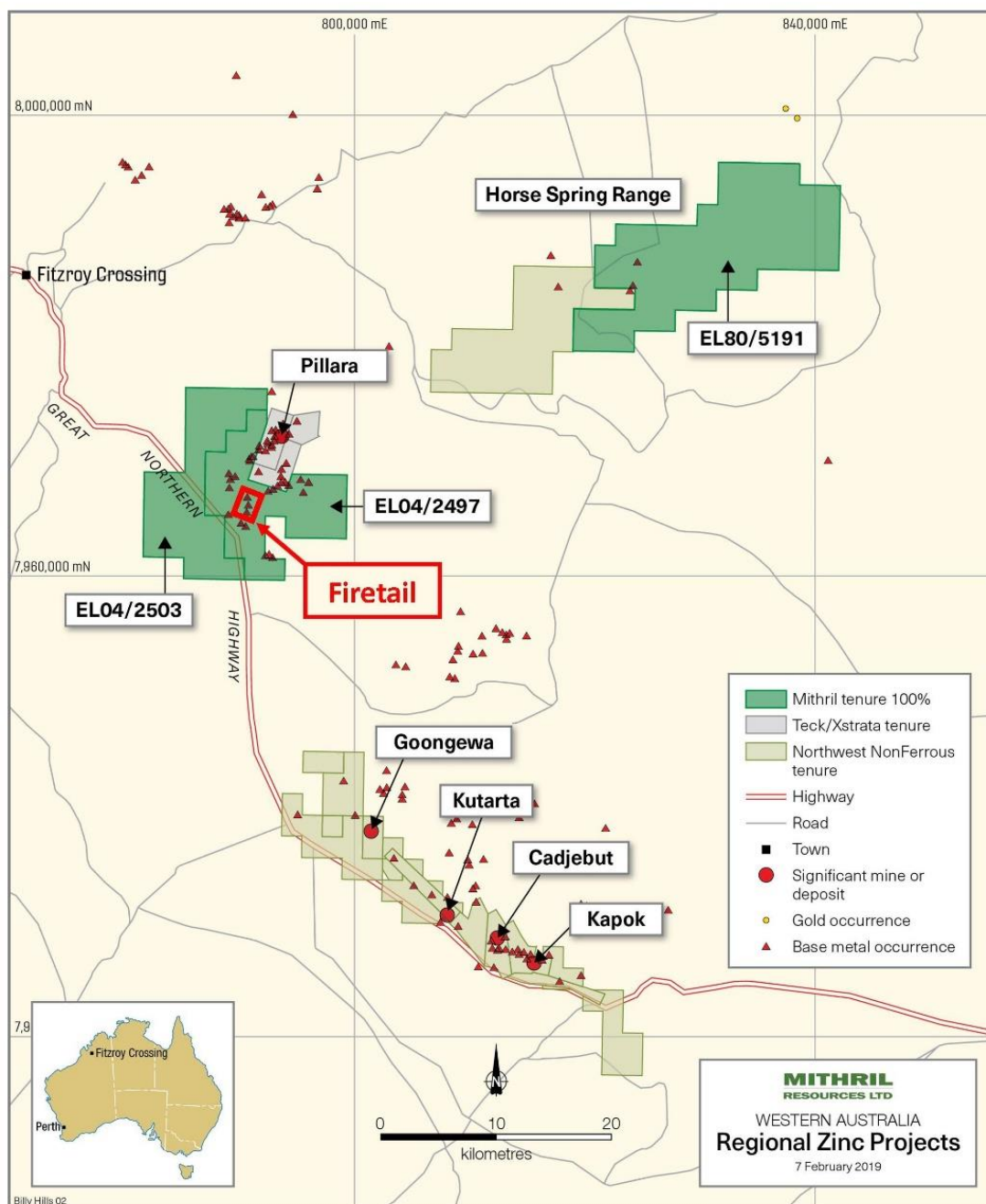
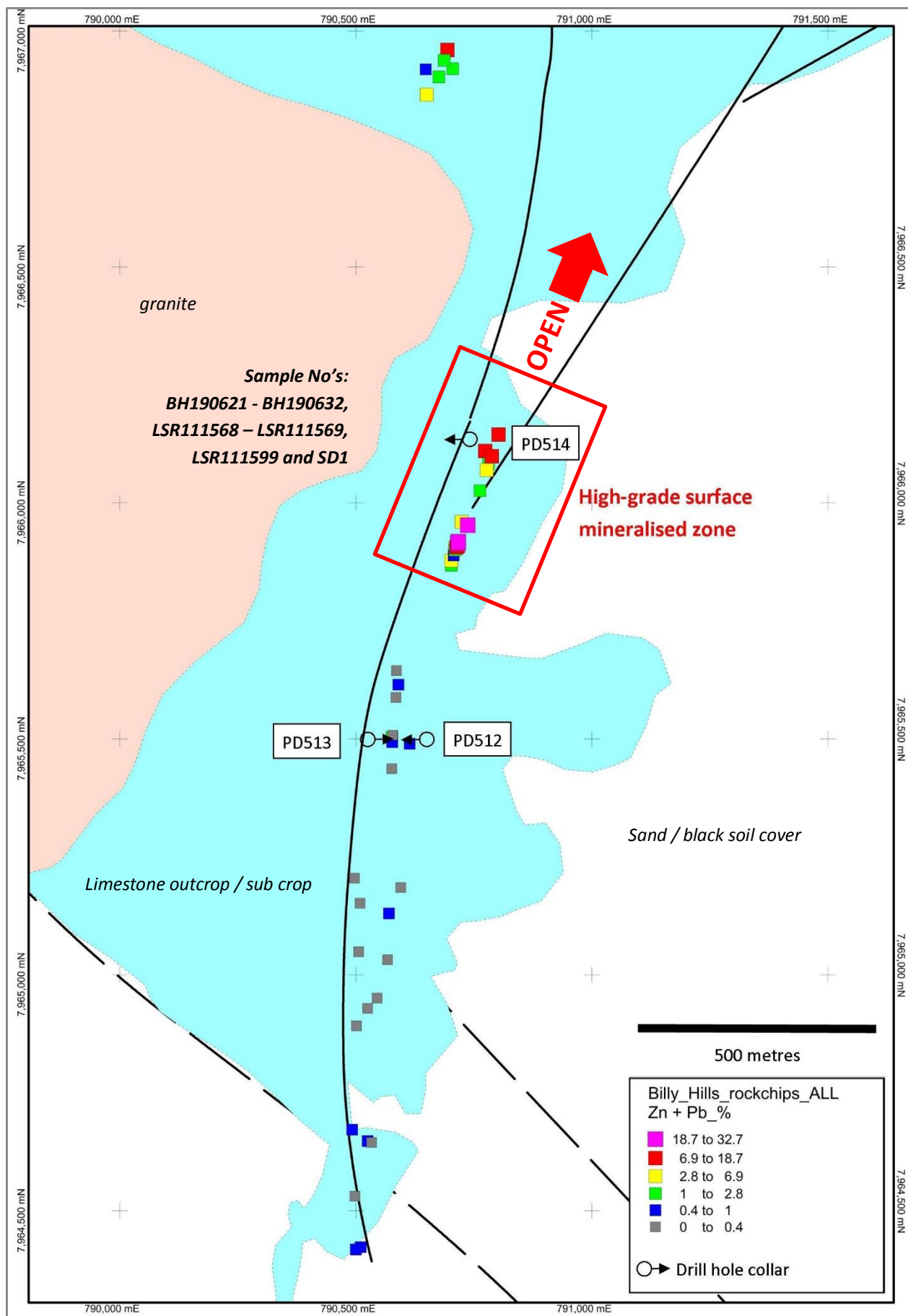


Figure 2: Billy Hills Location Plan showing the Firetail Zinc Prospect



**Figure 3: Firetail Prospect geological summary plan showing rock types, faults, rock chip sampling locations and drill hole locations. Rock chips coloured coded by zinc + lead%**





**Figure 4: Photo taken at the site of sample BH190629 showing colloform banded sulphide textures. This sample returned an assay value of 24.2% zinc and 62.2 g/t silver. Width of photo ~ 1 metre.**

## Limestone Well (Vanadium)

### (Mithril 100% and Auteco Minerals earning up to 80%)

Mithril has entered a Farm-in and Joint Venture Agreement with Auteco Minerals Limited (ASX: AUT) whereby Auteco can to earn up to an 80% interest in Mithril's Limestone Well tenements (EL's 20/846 and 51/1069) by completing exploration expenditure of \$2.5M over 5 years.

The Limestone Well tenements (*located 90 kilometres southeast of Meekatharra, WA – Figure 1*) lie immediately along strike from the Barrambie Titanium Vanadium Deposit (2012 JORC Inferred + Indicated Resource of 280.1Mt @ 9.18%TiO<sub>2</sub> and 0.44%V<sub>2</sub>O<sub>5</sub> - Neometals Limited ASX Announcement dated 17 April 2018).

At Barrambie, the mineralisation occurs within a series of magnetite – bearing mafic rocks (anorthosite and gabbro) which can be traced in regional magnetics for 10's of kilometres strike both north and south of the deposit, including onto Limestone Well.

Auteco has previously identified a new titanium – vanadium drill target (along strike from Barrambie) based on positive results received from a soil sampling program. A drilling program (fully funded by Auteco) to test the target is planned for the September 2019 Quarter.

## Other Projects

No work was undertaken during the Quarter on the following projects; Kurnalpi (Mithril 100%), Leaky Bore (Mithril 100%), Lignum Dam (Mithril 100%), Nanadie Well (Mithril earning up to 75%) and Coompana (Mithril right to earn 20% / OZ Minerals 100% and operating).

At the Bangemall Project (Mithril 100%) one of the two project tenements - EL09/2315 was granted on 9 July 2019.

The Duffy Well tenement (EL51/1649) was surrendered on 19 June 2019.

During the Quarter, the Company also sold its 15% interest in the Spargos Reward Gold Project to Corona Minerals for \$50,000 cash. Prior to the sale agreement Corona Minerals was Mithril's exploration partner at Spargos Reward and held an 85% interest in the project.

The sale is in line with Mithril's strategy of seeking exploration funding partners for and / or divesting low priority projects to ensure that the Company remains focused on its 100% - owned Billy Hills Zinc Project.

## Exploration Plan for the next Quarter

Planned activities for the June 2019 Quarter comprise the continuation of field activities at Billy Hills, and the drilling of a new vanadium target at Limestone Well fully funded by Mithril's exploration partner – Auteco Minerals.

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## June 2019 Quarter ASX Announcements

The following announcements were lodged with the ASX during and subsequent to the Quarter. Further details (**including JORC 2012 Code Reporting Tables, where applicable**) for each of the sections outlined above can be found in the announcements listed below.

- Completion of Spargos Reward sale transaction - 02 July 2019
- High-grade surface mineralisation at Firetail Zinc Prospect - 01 July 2019
- Expiry of unlisted options - 19 June 2019
- Fieldwork to commence at Billy Hills Zinc Project - 03 June 2019
- Board Changes and Appendix 3X Notices - 16 May 2019
- Ceasing to be a substantial holder - Northern Star Nominees - 16 May 2019
- Ceasing to be a substantial holder - Bodie Investments - 16 May 2019
- EGM Results - 15 May 2019
- Final Director's Interest Notice x 2 - 15 May 2019
- March 2019 Quarterly Activity and Cash Flow Report - 18 April 2019
- Change in substantial holder x2 - 11 April 2019
- Change in substantial holder 11 April 2019
- Becoming a substantial holder x 2 - 09 April 2019
- Notice of Extraordinary General Meeting - 04 April 2019

**For Further Information Contact:**

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**David Hutton, Managing Director**  
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**Competent Persons Statement:**

The information in this report that relates to Exploration Targets and Exploration Results is based on information compiled by Mr David Hutton, who is a Competent Person, and a Fellow of The Australasian Institute of Mining and Metallurgy. Mr Hutton is Managing Director and a full-time employee of Mithril Resources Ltd.

Mr Hutton has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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 Hutton consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

**About Mithril Resources Ltd:**

Mithril Resources Ltd (MTH:AX) is an Australian resources company whose objective is the creation of shareholder wealth through the discovery of mineral deposits.

The Company's priority Billy Hills Project lies adjacent to the previously mined Pillara Zinc Deposit, 25kms east of Fitzroy Crossing in Western Australia.

The Company and its exploration partners are actively exploring throughout the West Kimberley, Kalgoorlie, and Murchison Districts of Western Australia for economic zinc, copper, nickel, and vanadium deposits.

In the Murchison, Mithril's exploration partner – Auteco Minerals is also exploring for vanadium on the Limestone Well tenements which lie directly along strike from the Barrambie Titanium – Vanadium Deposit.



## Appendix 5B

# Mining exploration entity and oil and gas exploration entity quarterly report

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 30/09/01, 01/06/10, 17/12/10, 01/05/13, 01/09/16

### Name of entity

MITHRIL RESOURCES LIMITED

### ABN

30 099 883 922

### Quarter ended ("current quarter")

30 June 2019

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (12 months) \$A'000
<b>1. Cash flows from operating activities</b>		
1.1 Receipts from customers		
1.2 Payments for		
(a) exploration & evaluation	(137)	(538)
(b) development		
(c) production		
(d) staff costs		
(e) administration and corporate costs	(215)	(709)
1.3 Dividends received (see note 3)		
1.4 Interest received	2	5
1.5 Interest and other costs of finance paid		
1.6 Income taxes paid		
1.7 Research and development refunds		
1.8 Other (provide details if material)*		
<b>1.9 Net cash from / (used in) operating activities</b>	<b>(350)</b>	<b>(1,242)</b>

\*Contributions received from JV partners

<b>2. Cash flows from investing activities</b>		
2.1 Payments to acquire:		
(a) property, plant and equipment	-	-
(b) tenements (see item 10)	-	-
(c) investments	-	-

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (12 months) \$A'000</b>
	(d) other non-current assets	-	-
2.2	Proceeds from the disposal of:		
	(a) property, plant and equipment	-	-
	(b) tenements (see item 10)	50	50
	(c) investments	-	-
	(d) 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)	-	-
<b>2.6</b>	<b>Net cash from / (used in) investing activities</b>	<b>50</b>	<b>50</b>

<b>3.</b>	<b>Cash flows from financing activities</b>		
3.1	Proceeds from issues of shares	-	1,110
3.2	Proceeds from issue of convertible notes	-	-
3.3	Proceeds from exercise of share options	-	-
3.4	Transaction costs related to issues of shares, convertible notes or options*	-	(151)
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 (provide details if material)	-	-
<b>3.10</b>	<b>Net cash from / (used in) financing activities</b>	<b>-</b>	<b>959</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	931	864
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(350)	(1,242)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	50	50
4.4	Net cash from / (used in) financing activities (item 3.10 above)	-	959

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	-	-
<b>4.6</b>	<b>Cash and cash equivalents at end of period</b>	<b>631</b>	<b>631</b>

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	626	526
5.2	Call deposits	5	405
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>631</b>	<b>931</b>

**6. Payments to directors of the entity and their associates**

- 6.1 Aggregate amount of payments to these parties included in item 1.2
- 6.2 Aggregate amount of cash flow from loans to these parties included in item 2.3
- 6.3 Include below any explanation necessary to understand the transactions included in items 6.1 and 6.2

Current quarter \$A'000
111
-

6.1 Director's remuneration

**7. Payments to related entities of the entity and their associates**

- 7.1 Aggregate amount of payments to these parties included in item 1.2
- 7.2 Aggregate amount of cash flow from loans to these parties included in item 2.3
- 7.3 Include below any explanation necessary to understand the transactions included in items 7.1 and 7.2

Current quarter \$A'000
-
-

8. <b>Financing facilities available</b> <i>Add notes as necessary for an understanding of the position</i>	<b>Total facility amount at quarter end \$A'000</b>	<b>Amount drawn at quarter end \$A'000</b>
8.1 Loan facilities	-	-
8.2 Credit standby arrangements	-	-
8.3 Other (please specify)	-	-
8.4 Include below a description of each facility above, including the lender, interest rate and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after quarter end, include details of those facilities as well.		

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9. <b>Estimated cash outflows for next quarter</b>	<b>\$A'000</b>
9.1 Exploration and evaluation	124
9.2 Development	-
9.3 Production	-
9.4 Staff costs	-
9.5 Administration and corporate costs	200
9.6 Other (provide details if material)	-
<b>9.7 Total estimated cash outflows</b>	<b>324</b>

10. <b>Changes in tenements (items 2.1(b) and 2.2(b) above)</b>	<b>Tenement reference and location</b>	<b>Nature of interest</b>	<b>Interest at beginning of quarter</b>	<b>Interest at end of quarter</b>
10.1 Interests in mining tenements and petroleum tenements lapsed, relinquished or reduced		Refer Appendix 1		
	The \$50,000 proceeds in item 2.2 pertain to the sale of the Spargo's Reward tenement. The funds were transferred to Mithril Resources on 28.06.2019 and cleared in the Company's bank account on 01.07.2019.			
10.2 Interests in mining tenements and petroleum tenements acquired or increased		Refer Appendix 1		



### **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.



Sign here: .....  
(Director)

Date: 25 July 2019

Print name: David Hutton

### **Notes**

1. The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.
2. If this quarterly 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 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.

**Changes in Interests in Mining Tenements  
For Quarter Ended 30 June 2019**

		<b>Tenement Reference</b>	<b>Nature of Interest</b>	<b>Interest at the beginning of Quarter</b>	<b>Interest at the end of Quarter</b>
6.1	Interests in mining tenements relinquished, reduced or lapsed	E27/576	Exploration licence surrendered effective 8 May 2019 (Lignum Dam, Billy, WA).	100%	0%
		E51/1649	Exploration licence surrendered effective 19 June 2019 (Murchison, Duffy Well, WA).	100%	0%
		E15/1423, M15/1828 & P15/5791	Exploration, Mining and Prospect Licences, as listed; final 15% equity to Corona Minerals effective 21 June 2019 (West Kambalda, Spargos Reward JV, WA).	15%	0%
6.2	Interests in mining tenements acquired or increased	E09/2315	Exploration licence granted effective 9 July 2019 (Bangemall, Genoa Bore, WA).	0%	100%

## ASX Additional Information

### List of mining tenements

Tenement No	Project Area	Area (km2)	Company Interest
<b>Northern Territory</b>			
EL26942	East Arunta Area	214.29	100%
EL24253	East Arunta Area	130.59	33.3%
<b>Western Australia</b>			
E09/2315	Bangemall Area	327.26	100%
E52/3644 *	Bangemall Area	370.95	0%
E28/2506	Kurnalpi Area	54.47	100%
E28/2567	Kurnalpi Area	13.6	100%
E28/2682	Kurnalpi Area	2.95	100%
E28/2760	Kurnalpi Area	2.95	100%
E27/538	Lignum Dam Area	171.66	100%
E27/582	Lignum Dam Area	59.31	100%
E27/584	Lignum Dam Area	8.69	100%
E20/846	Murchison Area	94.51	100%
E57/1069	Murchison Area	6.09	100%
E04/2497	West Kimberley Area	94.35	100%
E04/2503	West Kimberley Area	87.84	100%
E80/5191	West Kimberley Area	195.46	100%

\* In application stage