

## Key Points

### Billy Hills (Zinc)

- High-grade surface mineralisation identified over 350 metres strike length at Firetail Zinc Prospect with rock chip assay results up to 30.3% zinc, 127g/t silver and 3.0% lead
- Firetail's prospectivity reinforced by a large surface soil anomaly that overlies northern end of the mineralisation, extends to the west and remains open along strike to the north

### Limestone Well (Vanadium)

- Maiden RC drill programme by Mithril's JV partner – Auteco Minerals (AUT.ASX) intersects multiple broad zones of shallow high-grade vanadium-titanium, including;
  - 20m @ 0.48% V<sub>2</sub>O<sub>5</sub> & 6.5% TiO<sub>2</sub> from 12 metres and 72m @ 0.46% V<sub>2</sub>O<sub>5</sub> & 8.6% TiO<sub>2</sub> from 52 metres in LWRC003,
  - 12m @ 0.72% V<sub>2</sub>O<sub>5</sub> & 8.5% TiO<sub>2</sub> from 12 metres and 24m @ 0.50% V<sub>2</sub>O<sub>5</sub> & 6.2% TiO<sub>2</sub> from 48 metres, and 56m @ 0.46% V<sub>2</sub>O<sub>5</sub> & 6.1% TiO<sub>2</sub> from 164 metres in LWRC005,
  - 20m @ 0.50% V<sub>2</sub>O<sub>5</sub> & 6.5% TiO<sub>2</sub> from 64 metres and 116m @ 0.36% V<sub>2</sub>O<sub>5</sub> & 11.0% TiO<sub>2</sub> from 104 meters in LWRC006.
- Follow the successful drilling, Auteco has elected to continue sole-funding the JV by completing exploration expenditure of \$1.5M by August 2021 to earn an initial 60% interest

### Lignum Dam (Gold Nickel)

- New Earn-In Agreement with Great Boulder Resources (GBR.ASX) whereby they can earn up to an 80% interest in the project by completing expenditure of \$1M over four years.

### Planned Activities

- Planned activities for the December 2019 Quarter comprise a Heritage Clearance Survey (to facilitate drilling) at Billy Hills, ongoing evaluation of the vanadium-titanium mineralisation at Limestone Well, and the commencement of field reconnaissance activities at Lignum Dam.

### Cash

- Cash reserves of \$0.74M at 30 September 2019

## Exploration Overview

Mithril Resources' (MTH.ASX - "Mithril" or the "Company") primary focus is the **Billy Hills Zinc Project** where ongoing fieldwork undertaken during the Quarter reinforced the prospectivity of the high-grade Firetail Zinc Prospect with rock chip sampling returning up to 30.3% zinc, 127g/t silver and 3.0% lead (Figure 1).

At **Limestone Well**, Mithril's exploration partner Auteco Minerals also intersected high-grade vanadium-titanium mineralisation in several drill holes.

To ensure that Mithril remains focussed on Billy Hills, the Company is seeking exploration funding partners for and / or divesting low priority projects and during the Quarter, it entered into a new joint venture agreement for the **Lignum Dam Project** and relinquished the Bangemall Project tenements.

At the time of writing Mithril was also in discussions with a number of companies who have expressed an interest in other projects within the Company's portfolio and the Company will provide an update on these discussions if and when any material developments occur.

Additionally, the Company is regularly presented with new project opportunities for consideration. Mithril welcomes these approaches and will continue to assess them in pursuit of generating shareholder value.

Planned activities for the December 2019 Quarter comprise a Heritage Clearance Survey (to facilitate drilling) at Billy Hills, ongoing evaluation of the vanadium-titanium mineralisation at Limestone Well, and the commencement of field reconnaissance activities at Lignum Dam.

## Corporate

During the Quarter, Mithril spent \$78K on exploration activities outlined in this report and at 30 September 2019 had cash reserves of \$0.74M.

Mithril also raised \$340,000 through a private placement to sophisticated and professional investors during the Quarter.

Under the Placement 68,000,000 new shares were issued (28,766,215 shares under LR7.1 and 39,233,785 shares under LR7.1A) at a price of \$0.005 (0.5 cents) per share, and following which the Company had 490,389,211 shares on issue.

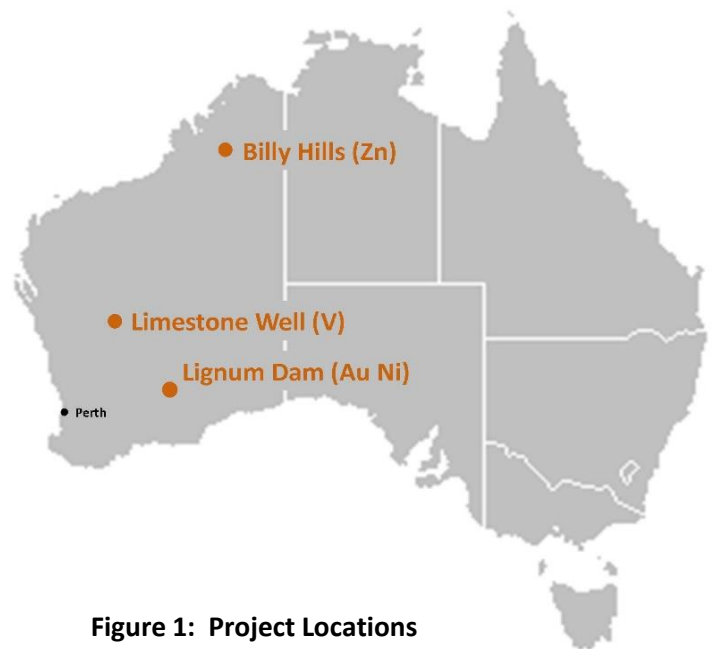


Figure 1: Project Locations

## Billy Hills (Zinc)

### (Mithril 100%)

Exploration undertaken by the Company during the Quarter reinforced the prospectivity of the Firetail Prospect at Billy Hills (located 25kms east of Fitzroy Crossing in Western Australia – *Figures 1 and 2*).

At Firetail, high-grade zinc mineralisation occurs within a subcropping 350-metre-long zone of siliceous gossan, weathered colloform-banded sulphides, ferruginous veining (i.e. calcite + marcasite) and localised brecciation. Rock chip sampling previously undertaken by the Company returned assay values up to 30.3% zinc, 127g/t silver and 3.0% lead from the zone (*see Mithril's ASX Announcement dated 1 July 2019*).

The mineralisation occurs in an area of sand and soil cover and where visible, has a width ranging from 0.5 to 4 metres with the gossan and sulphides forming a central core of 0.5 to 1.5 metres width.

Regionally Firetail lies within a fault zone which is interpreted from geological mapping and geophysical (gravity) data to continue north to the Pillara Zinc Deposit approximately 5 kilometres to the north-east. Pillara had a reported pre-mine resource of 18.05 million tonnes at 7.7% Zn and 2.4% Pb (*See Figure 3 and Mithril's ASX Announcement dated 21 August 2017*).

Firetail's prospectivity is also reinforced by a large surface soil anomaly (+300ppm zinc + lead) that overlies the northern end of the mineralisation, extends to the west and remains open along strike to the north (*Figure 4*).

Apart from one drill hole (PD514 - 2.0m @ 1.05% zinc + lead from 39 metres) which is reported to have been drilled immediately west of the mineralised zone (field inspection has failed to find any evidence of the drill hole), Firetail and the surrounding soil anomaly have not been drilled.

As such Firetail is a priority for drill testing by Mithril and a Heritage Clearance Survey to facilitate drilling has been scheduled with the project's Traditional Owners for the first week in November 2019.

### **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.

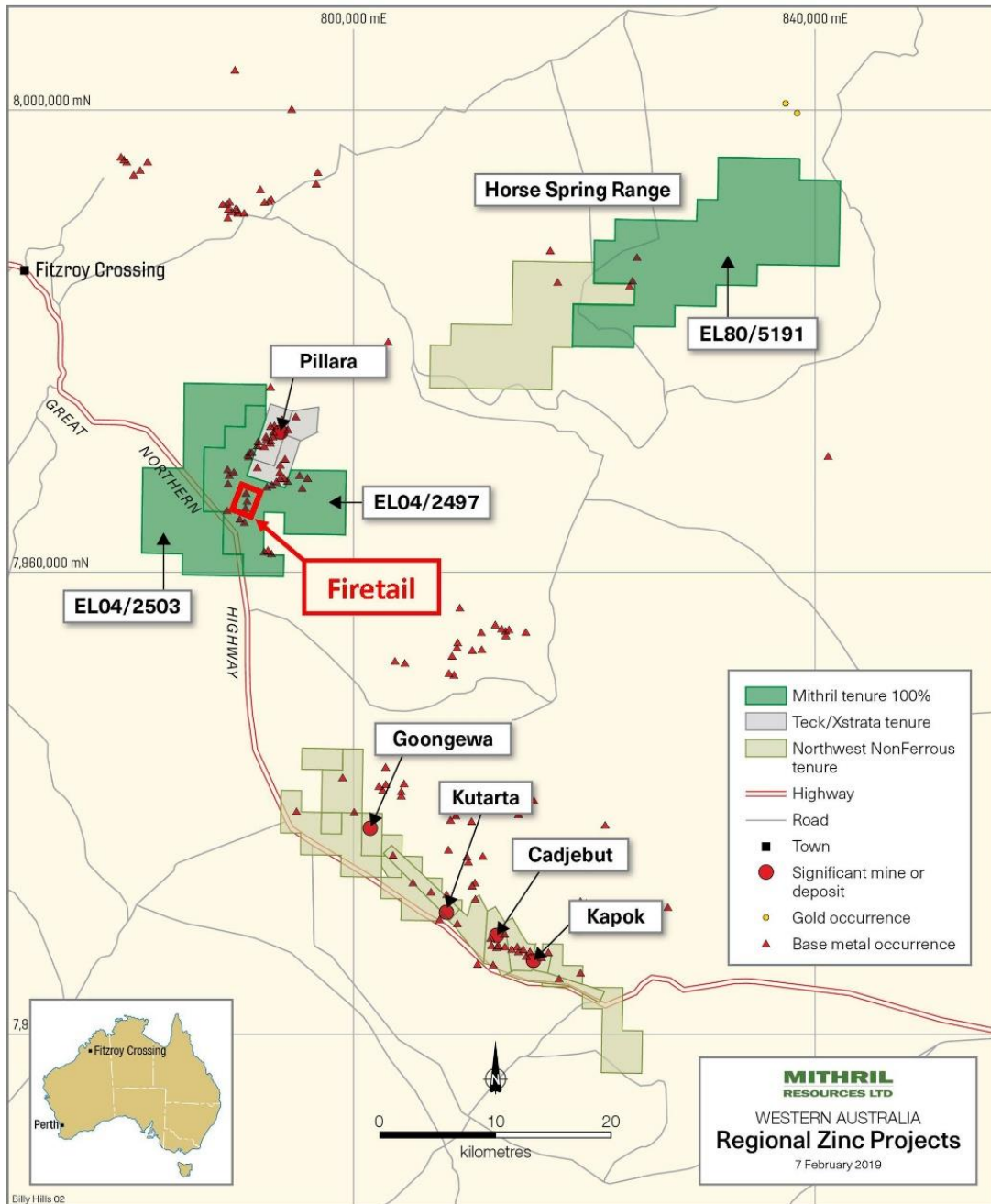
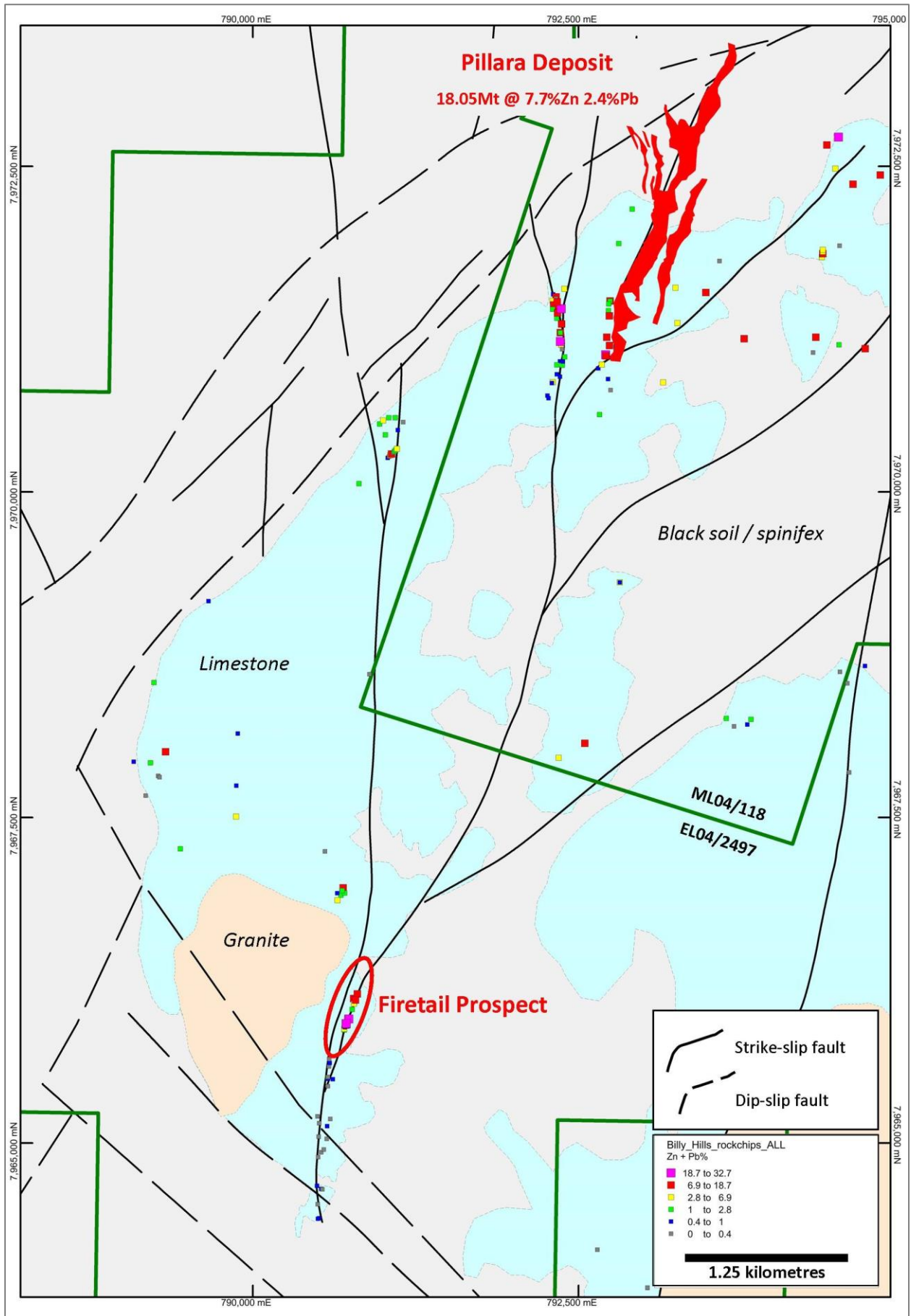
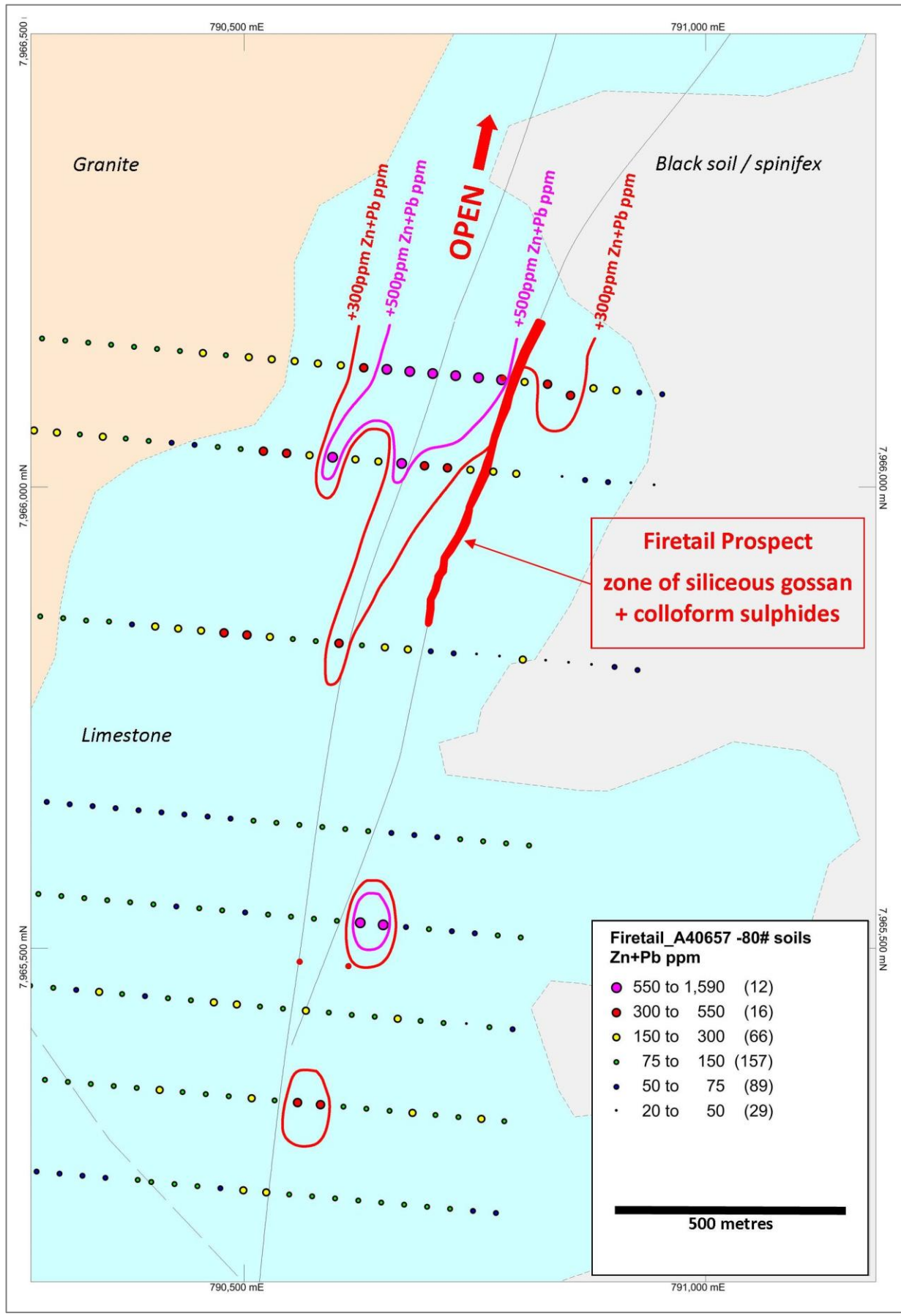


Figure 2: Billy Hills Location Plan showing the Firetail Zinc Prospect



**Figure 3: Firetail – Pillara geological plan showing major structures, outcrop lithologies and rock chip sampling. Note that the Pillara deposit has been projected vertically to surface.**



**Figure 4: Firetail surface geochemistry showing the gossan / sulphide zone, major structures, outcrop lithologies and soil sampling. Refer to Table 1 of this Report for details of rock ship sampling at Firetail.**

## Limestone Well (Vanadium)

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

Drilling carried out towards the end of the Quarter by Mithril's joint venture partner at Limestone Well - Auteco Minerals Limited (**AUT.ASX**) at Limestone Well successfully intersected multiple broad zones of shallow high-grade vanadium-titanium mineralisation 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), i.e.;

- 20m @ 0.48% V<sub>2</sub>O<sub>5</sub> & 6.5% TiO<sub>2</sub> from 12 metres and 72m @ 0.46% V<sub>2</sub>O<sub>5</sub> & 8.6% TiO<sub>2</sub> from 52 metres in LWRC003,
- 12m @ 0.72% V<sub>2</sub>O<sub>5</sub> & 8.5% TiO<sub>2</sub> from 12 metres and 24m @ 0.50% V<sub>2</sub>O<sub>5</sub> & 6.2% TiO<sub>2</sub> from 48 metres, and 56m @ 0.46% V<sub>2</sub>O<sub>5</sub> & 6.1% TiO<sub>2</sub> from 164 metres in LWRC005
- 20m @ 0.50% V<sub>2</sub>O<sub>5</sub> & 6.5% TiO<sub>2</sub> from 64 metres and 116m @ 0.36% V<sub>2</sub>O<sub>5</sub> & 11.0% TiO<sub>2</sub> from 104 meters in LWRC006.

See Auteco's ASX Announcement dated 14 October 2019 for details of the drilling and all required JORC information.

The drill program (6 Reverse Circulation holes – 1,163 metres) was fully funded and undertaken by Auteco who can earn an initial 60% interest in Mithril's Limestone Well tenements (EL's 20/846 and 51/1069 - located 90 kilometres southeast of Meekatharra, WA – Figures 1 and 5) by completing exploration expenditure of \$1.5M by August 2021 (Stage One).

At completion of Stage One, Mithril can elect to contribute on a pro-rata basis but if it doesn't, Auteco can earn a further 20% by completing additional expenditure of \$1M by August 2023 (total of \$2.5M over 5 years to earn 80%).

The recent drilling was a minimum commitment required under the joint venture and following its success, Auteco has elected to continue to sole fund total expenditure of \$1.5M to complete the Stage One earn in. Auteco are now undertaking further technical evaluations to develop programs to define the potential of the Limestone Well mineralisation.

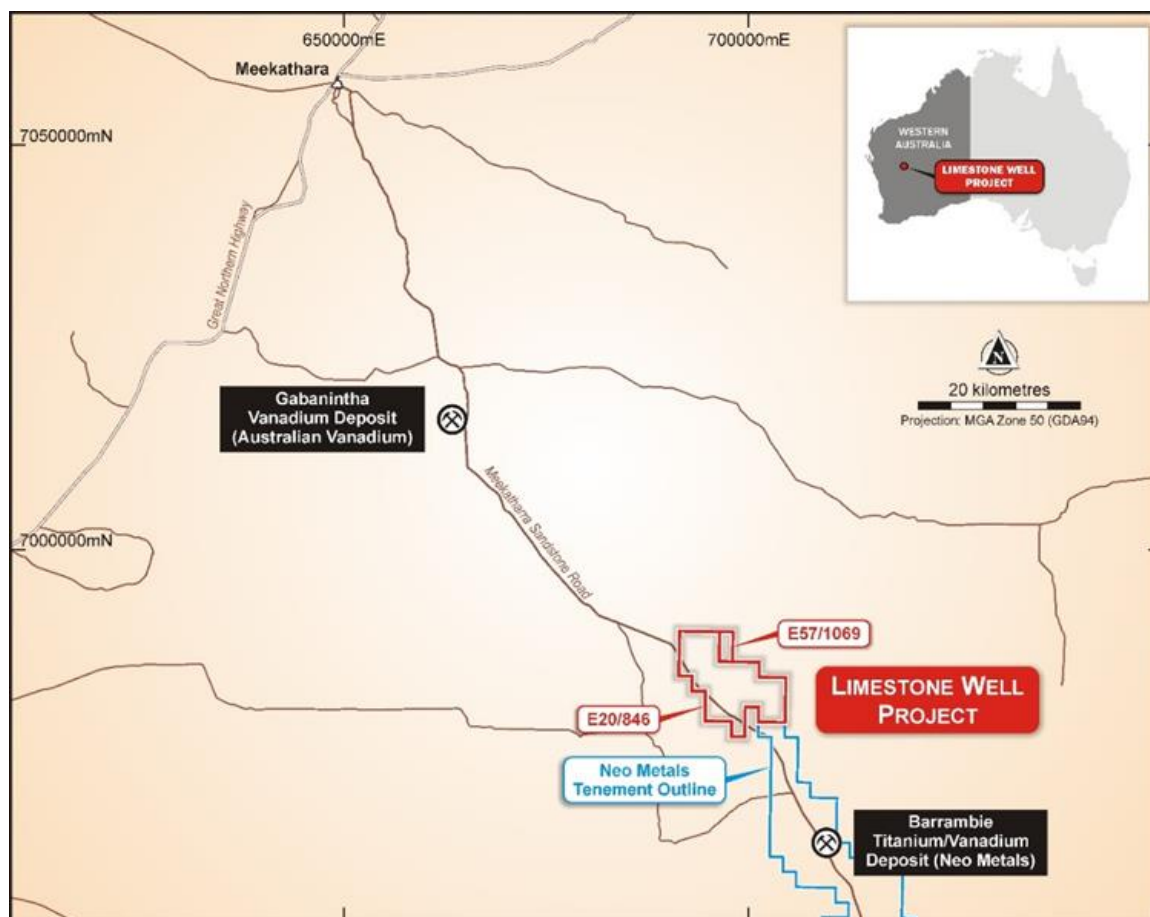


Figure 5: Limestone Well Joint Venture location plan

## Lignum Dam (Gold and Nickel)

### (Mithril 100% and Great Boulder Resources earning up to 80%)

During the Quarter Mithril executed an Earn-In Agreement with Great Boulder Resources Ltd (**GBR.ASX**) for the Lignum Dam Project (*located 60 kilometres northeast of Kalgoorlie, WA – Figures 1 and 6*) whereby they can earn up to an 80% interest in the project by completing expenditure of \$1M over four years.

The terms of the Earn-In Agreement are as follows;

- GBR can earn an initial 51% in the project tenements (EL's 27/538, 582 and 584) by spending \$400,000 over 2 years (Stage One),
- GBR can earn a further 29% by spending an additional \$600,000 over a further 2 years (Stage Two) (total of 80% by spending \$1M over 4 years),
- GBR must spend a minimum of \$120,000 before any withdrawal,
- Upon GBR reaching 80%, Mithril will be free carried until completion of a Bankable Feasibility Study (BFS).
- Following completion of a BFS, Mithril can elect to contribute on a pro-rata basis or convert its interest into a 1.5% Net Smelter Royalty (NSR).

Lignum Dam is prospective for both nickel sulphide and lode gold mineralisation and lies along strike from the previously mined high-grade Silver Swan nickel deposit. Mithril understands that Great Boulder Resources will



explore the Lignum Dam Project in conjunction with their adjoining Whiteheads Project and will commence field reconnaissance activities during the December 2019 Quarter.

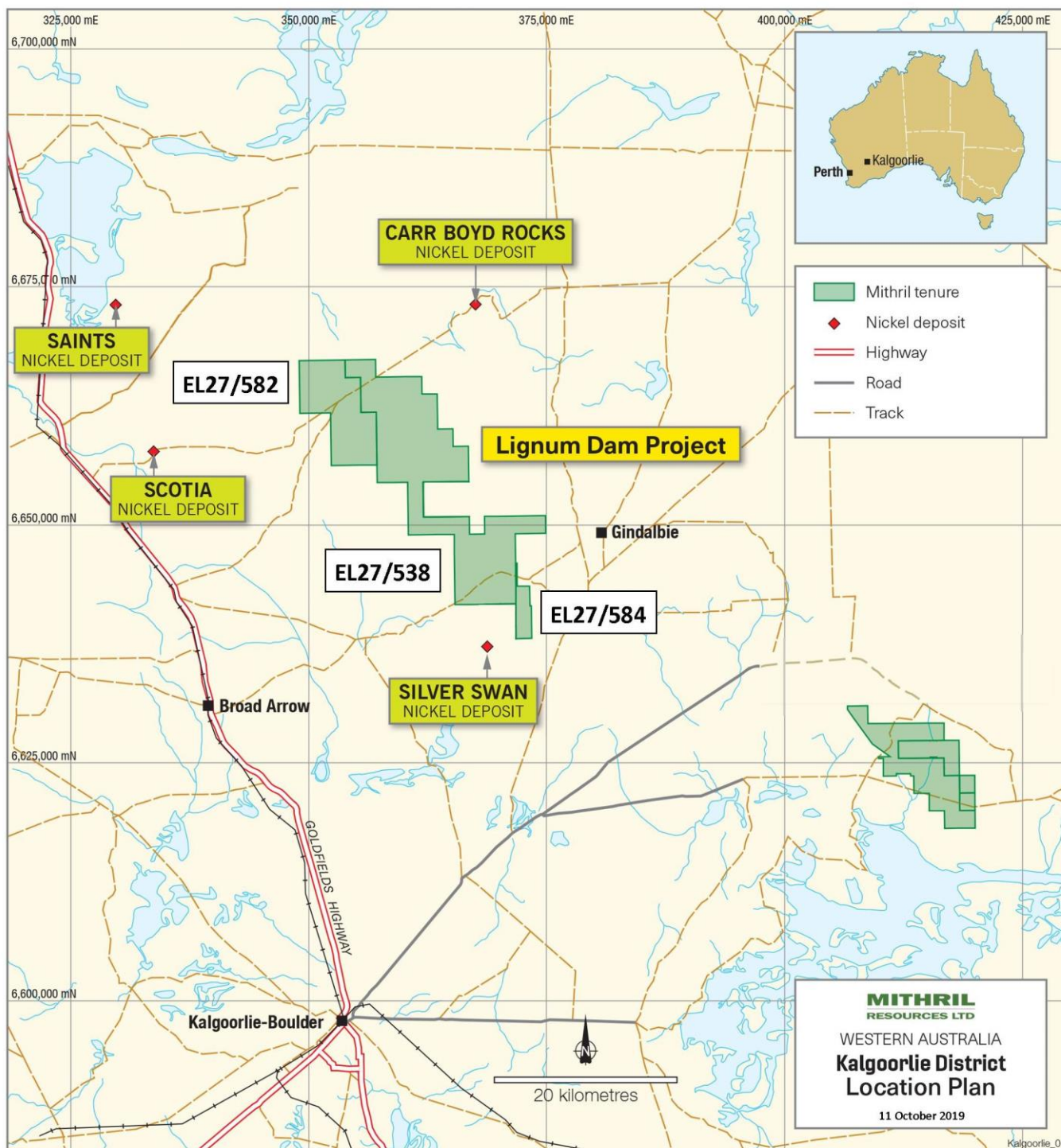


Figure 6: Lignum Dam Location Plan

## Other Projects

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

During the Quarter, the Company relinquished the **Bangemall Project** tenements (EL09/2315 and 52/3644) due to land access issues. The majority of EL09/2315 lies within the boundaries of a new proposed expansion of the Mt Augustus National Park while separately, the Company was unable to negotiate a satisfactory access and exploration agreement with Traditional Owners for the grant of EL52/3644.

The relinquishment 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 December 2019 Quarter comprise a Heritage Clearance Survey (to facilitate drilling) at Billy Hills, ongoing evaluation of the vanadium-titanium mineralisation at Limestone Well, and the commencement of field reconnaissance activities at Lignum Dam.

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## September 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.

- Significant vanadium-titanium confirmed at Limestone Well - 14 October 2019
- Billy Hills Zinc Project - Exploration Update - 02 October 2019
- Notice of 2019 Annual General Meeting - 30 September 2019
- Becoming a Substantial Holder - 23 September 2019
- Appendix 3B and Cleansing Statement - 19 September 2019
- Placement Update - 16 September 2019
- New exploration partner to drive nickel and gold search at Lignum Dam - 09 September 2019
- Mithril Resources Appendix 4G (2019) - 06 September 2019
- Mithril Resources Annual Report (2019) - 06 September 2019
- Mithril Resources Corporate Governance Statement (2019) - 06 September 2019
- Drilling underway at Limestone Well vanadium target - 14 August 2019
- June 2019 Quarterly Activity and Cash Flow Report - 25 July 2019

## ENDS

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### 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.ASX) 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 Zinc Project lies adjacent to the previously mined Pillara Zinc Deposit, 25kms east of Fitzroy Crossing in Western Australia.

The Company' exploration partners are also exploring in the Kalgoorlie and Murchison Districts of Western Australia for economic nickel, gold and vanadium deposits.

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

Northeast of Kalgoorlie, Great Boulder Resources (GBR.ASX) is exploring for gold and nickel on Mithril's Lignum Dam tenements which lie adjacent the Silver Swan nickel deposit and the Lindsay's gold mining centre.

## 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 September 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	(78)	(78)
(b) development		
(c) production		
(d) staff costs		
(e) administration and corporate costs	(126)	(126)
1.3 Dividends received (see note 3)		
1.4 Interest received		
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>(204)</b>	<b>(204)</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	-	-

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

<b>3. Cash flows from financing activities</b>		
3.1 Proceeds from issues of shares	340	340
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*	(24)	(24)
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 Net cash from / (used in) financing activities</b>	<b>316</b>	<b>316</b>

<b>4. Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1 Cash and cash equivalents at beginning of period	631	631
4.2 Net cash from / (used in) operating activities (item 1.9 above)	(204)	(1,242)
4.3 Net cash from / (used in) investing activities (item 2.6 above)	-	-
4.4 Net cash from / (used in) financing activities (item 3.10 above)	316	316

<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	-	-
<b>4.6</b>	<b>Cash and cash equivalents at end of period</b>	<b>743</b>	<b>743</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	738	626
5.2	Call deposits	5	5
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>743</b>	<b>631</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

<b>Current quarter \$A'000</b>
106
-

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

<b>Current quarter \$A'000</b>
-
-

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

<b>8. 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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<b>9. Estimated cash outflows for next quarter</b>	<b>\$A'000</b>
9.1 Exploration and evaluation	95
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>295</b>

<b>10. 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		
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: 18 October 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 September 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	E09/2315	Exploration licence surrendered effective 2 October 2019 (Bangemall, Genoa Bore, WA).	100%	0%
	E52/3644	Exploration licence application withdrawn effective 2 October 2019 (Bangemall, Coffee Bore, WA).	0%	0%
<hr/>				
6.2 Interests in mining tenements acquired or increased				
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## 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>			
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	35.58	100%
E27/584	Lignum Dam Area	8.69	100%
E20/846	Murchison Area	94.51	100%
E51/1040	Murchison Area	54.91	0%
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%