



RESOURCES

## **Key Points**

## Kurnalpi (Nickel-Cobalt)

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- New target identified from review of historic drilling data with strong nickel-cobalt intercepts;
  - 42m @ 1.25% nickel, 0.07% cobalt from 24 metres including 6m @ 1.78% nickel, 0.20% cobalt from 28 metres, and
  - 19m @ 1.08% nickel, 0.07% cobalt from 33 metres including 6m @ 1.17% nickel, 0.11% cobalt from 35 metres
- EM geophysics currently underway with drilling to follow

## **Billy Hills (Zinc)**

- New target zone identified which includes significant historic drill intersections and gossan along strike from drill intercepts of more than 10% zinc + lead at the Pillara West Prospect
- Target generation continuing ahead of field work planned for mid-2018

## Southern Target Area (Copper, Zinc)

- Previously unexplored 13km long target zone extending along strike from known copper and zinc mineralisation
- EM geophysics planned for early February 2018

## **Corporate and Cash**

• Cash reserves of \$0.90M at 31 December 2017.

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# **Exploration Overview**

Mithril Resources (**ASX: MTH** "Mithril") and its exploration partners are exploring for a range of high-value commodities throughout the Meekatharra, West Kimberley and Kalgoorlie Districts of Western Australia, and the Coompana Province of South Australia (*Figure 1*).

During the December 2017 Quarter (the "Quarter") Mithril identified three priority targets on its 100% - owned tenements that will be the focus for March 2018 Quarter exploration activities;

- high-grade nickel-cobalt drill intercepts at Kurnalpi,
- multiple untested zinc drill intercepts at Billy Hills, and
- copper-zinc prospective rock sequences at the **Southern Target Area**.



## Corporate

During the Quarter, the Company spent \$0.18M on the exploration activities outlined in this Report and at 31 December 2017, the Company had cash reserves of \$0.90M. At the end of the Quarter, the Company raised \$0.64M (before costs) through a Placement to sophisticated investors to expedite drilling and other exploration activities at the Kurnalpi nickel-cobalt target and for working capital.

The Company also undertook a Share Consolidation (1 new share for every 10 existing shares) during the Quarter.

Upon completion of the Consolidation and Placement the Company had 123,311,266 ordinary Shares and 4,195,000 unlisted Options on issue.

# Kurnalpi (Nickel - Cobalt)

### (Mithril 100%)

A review of historic drilling data has identified a new high-grade nickel-cobalt target at Kurnalpi, approximately 70 kms east of Kalgoorlie, WA (*Figure 1*).

On the tenement, historic drilling (predominantly aircore) carried out on nominal 80 x 80 metre centres over a linear magnetic anomaly intersected strong nickel-cobalt intercepts over an area 250 metres wide by 600 metres strike within weathered ultramafic rocks, including (*Figure 2*);

- 42m @ 1.25% nickel, 0.07% cobalt from 24 metres in KURC22 *including 6m @ 1.78% nickel, 0.20% cobalt from 28 metres,*
- 10m @ 0.70% nickel, 0.11% cobalt from 30 metres in KURA38 *including 3m @ 0.92% nickel, 0.21% cobalt from 34 metres,*
- 8m @ 0.58% nickel, 0.20% cobalt from 24 metres in KURA400,
- 12m @ 0.76% nickel, 0.10% cobalt from 36 metres in KURA406, and
- 19m @ 1.08% nickel, 0.07% cobalt from 33 metres in KURA42 *including 6m @ 1.17% nickel, 0.11% cobalt from 35 metres.*

Maximum values from any one single sample are 2.04% nickel (2 metre composite sample in KURC22), 0.33% cobalt (4 metre composite sample in KURA400) and 0.28% copper (2 metre composite sample in KURC42). The presence of elevated copper may be indicative of nickel sulphide mineralisation within the target area.

Subsequent to the end of the Quarter, an EM geophysical survey had commenced over the target with drilling to follow.



Figure 2: Kurnalpi nickelcobalt target drill hole collars colour coded by maximum downhole cobalt %. Background image is RTPtilt\_NE shade magnetics.

# **Billy Hills (Zinc)**

### <u>(Mithril 100%)</u>

A review of historic drilling data has identified a major new target zone at Billy Hills which adjoins the Pillara Zinc Mine (located 25 kms southeast of Fitzroy Crossing in the West Kimberley region of Western Australia - *Figure 1*).

The target zone includes significant historic drill intersections and a 1.2-kilometre-long gossan (Snake Bore Prospect), directly along strike from previous drill intercepts of more than 10% zinc + lead over multiple metres at the Pillara West Prospect, adjacent to Mithril's tenement holding (*Figure 3*).

The zone also coincides with a poorly drill tested linear gravity feature that defines the western edge of the rock sequence that hosts the Pillara deposit (pre-mine resource of 18.05Mt @ 7.7% zinc and 2.4% lead – *see Mithril ASX Announcement dated 21 August 2017*) and can be seen in geophysical data for over 12 kilometres within Mithril's tenements.

#### Pillara West

The Pillara West prospect is located on the Pillara Mine Lease (M04/118) 300 - 500 metres west of existing underground workings at Pillara and 300 metres from Mithril's tenement boundary. The prospect was discovered in 2006 by Lennard Shelf Pty Ltd, the owners of the mine who conducted multiple drilling programs at Pillara West right up to the mine's closure in 2008.

Mineralisation at Pillara West occurs within a 500-metre long shallow-dipping zone of mineralised (zinc-leadmarcasite-calcite) rubble limestone breccias and veining, drilling of which has returned multiple intercepts including;

- 15.8m @ 6.80% zinc, 3.05% lead, 30g/t silver from 399.8 metres in PD785 *including 3.3m @ 11.10% zinc, 5.30% lead, 66g/t silver,*
- 19.1m @ 7.60% zinc, 2.10% lead, 17g/t silver from 385.4 metres in PDD796 *including 11.9m @ 10.40% zinc, 3.20% lead, 25g/t silver, and*
- 11.0m @ 8.20% zinc, 8.80% lead, 26g/t silver from 347.0 metres in PD802 including 4.0m @ 11.80% zinc, 17.20% lead, 45g/t silver.

Step-out diamond drilling west of the initial discovery intersected further broad zones of mineralisation **on ground now covered by Mithril's tenement holdings** including;

- 14.90m @ 0.90% zinc, 0.14% lead, 2g/t silver from 315.20 metres in PD817 *including 0.6m @ 9.20% zinc, 1.75% lead, 4g/t silver,*
- 16.00m @ 2.12% zinc, 0.03% lead, 3g/t silver from 341.10 metres in PD817 including 1.2m @ 8.79% zinc, 0.07% lead, 4g/t silver,
- 32.20m @ 1.89% zinc, 0.33% lead, 3g/t silver from 524.00 metres in PD817 *including 7.30m @ 3.33% zinc, 0.55% lead, 3g/t silver,*
- 23.80m @ 0.79% zinc, 0.02% lead, 2g/t silver from 500.70 metres in PD830 including 5.8m @ 1.30% zinc, 0.13% lead, 3g/t silver, and
- 20.50m @ 1.07% zinc, 0.03% lead, 1g/t silver from 325.70 metres in PD831 *including 3.0m @ 3.12% zinc, 0.09% lead, 1g/t silver.*

Pillara West remains open in all directions and lies within the gravity feature which extends to the Snake Bore prospect 5 kilometres to the southwest.

#### **Snake Bore**

Discovered by Amax Exploration (Australia) in 1972, the Snake Bore prospect comprises a 1.2-kilometre-long gossanous zone, drilling of which has returned broad zones of anomalous zinc mineralisation; 24m @ 0.33% zinc, 0.06% lead from 12 metres in SP3, 29m @ 0.45% zinc, 0.19% lead from 11 metres in SP4, and 9m @ 0.47% zinc, 0.07% lead from 6 metres in SP4a.

When the historic drill results are interpreted in the context of the more recent Pillara West discovery (where mineralisation extends for hundreds of metres down dip from near surface intercepts), Snake Bore is a high priority for follow-up as the prospect does not appear to have been drilled at depth.

#### **Next Steps**

Target generation activities are continuing ahead of field work commencement which is planned for mid-2018 when the project tenements are expected to be granted.



Figure 3: Location of Pillara Deposit, Pillara West and Snake Bore Prospects, target zone and drill intercepts. Drill hole collars shown as black dots. 2.5 km grid squares.

# Southern Target Area (Copper, Zinc)

## (Mithril 100%)

Located 85 kms southeast of Meekatharra, WA (*Figure 1*), the previously unexplored Southern Target Area covers a series of discrete linear magnetic features that extend for 13 kilometres along strike to the south from existing mineralisation at the Nanadie Well Copper Deposit, Sandman Zinc Prospect and Stark Copper Prospect under a thin soil veneer (*Figure 4*).

An EM geophysical survey testing the Southern Target Area is due to commence early in the March 2018 Quarter.



Figure 4: Location of the Southern Target Area in relation to Nanadie Well, Stark and Sandman prospects.

# **Murchison Project (Gold)**

### (Mithril 100% and earning up to 75%)

Drilling undertaken during the Quarter as a further test of the Kombi Gold Prospect and as an initial test of the Fenceline Gold Prospect (located approximately 55 kms south east of Meekatharra, WA) returned anomalous gold (e.g. 4m @ 0.95g/t gold from 28 metres, 4m @ 0.29g/t gold from 52 metres, and 4m @ 0.17g/t gold from 20 metres) within favourable structural zones at both locations.

The drilling highlights the gold-prospectivity of the area and Mithril is currently evaluating all drilling data to determine next steps for the project.

Kombi lies on a tenement subject to a Farmin and Joint Venture Agreement with Intermin Resources Limited (**ASX: IRC**) whereby Mithril can earn a 60% interest by completing expenditure of \$2M by 14 April 2019 (approximately \$1.31M spent to date). Mithril can earn an additional 15% by completing further expenditure of \$2M over a further 2 years. The Fenceline Gold Prospect lies on a tenement that is 100% - owned by Mithril Resources.

# **Other Projects**

Rehabilitation of historic drill sites was undertaken during the Quarter on the Lignum Dam Project (Mithril 100%) which is located 55 kms north of Kalgoorlie, WA.

No work was undertaken during the Quarter on the following projects:

- Leaky Bore (Mithril 100%),
- Coompana (Mithril right to earn 20% / OZ Minerals 100%),
- Spargos Reward (Mithril 35%, Corona Minerals 65%)
- Duffy Well (Mithril 100% Doray Minerals earning an initial 51% and operating), and
- Kurnalpi Chesser JV (Mithril 100% Chesser Resources earning an initial 50% and operating).

## **Exploration Plan for next Quarter**

- EM geophysical surveying and drilling at Kurnalpi
- EM geophysical surveying of the Southern Target Area
- Continuation of target generation activities for the Billy Hills Zinc Project

## Notes Specific – December 2017 Quarter ASX Announcements

The following announcements were lodged with the ASX during, and immediately 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.

- Kurnalpi nickel-cobalt exploration update 11.01.2018
- Successful Placement to underpin nickel-cobalt exploration 20.12.2017
- New zinc target at Billy Hills 18.12.2017
- High-grade nickel cobalt at Kurnalpi 12.12.2017
- Exploration Update 08.12.2017
- Gold drilling underway at Kombi and Fenceline 14.11.2017
- High-grade gold drilling at Kombi and Fenceline 06.11.2017

#### For Further Information Contact:

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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 is an Australian resources company whose objective is the creation of shareholder wealth through the discovery and development of mineral deposits.

The Company is actively exploring throughout the Western Australian Goldfields and Kimberley Districts for economic nickel, cobalt, copper, zinc and gold.

The Company is also exploring South Australia's far western Coompana Province for magmatic nickel – copper deposits with OZ Minerals Limited.