

Billy Hills Zinc Project – exploration update

Mithril Resources Ltd (**MTH.ASX**) is pleased to advise that ongoing exploration has reinforced the prospectivity of the Firetail Prospect at Billy Hills (located 25kms east of Fitzroy Crossing in Western Australia – *Figures 1 and 2*) and a Heritage Clearance Survey to facilitate drilling at Firetail will take place in the first week of November 2019.

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. Rockchip 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 *Table 1, Figures 3 - 6 and 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 *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.



Figure 1: Project Location

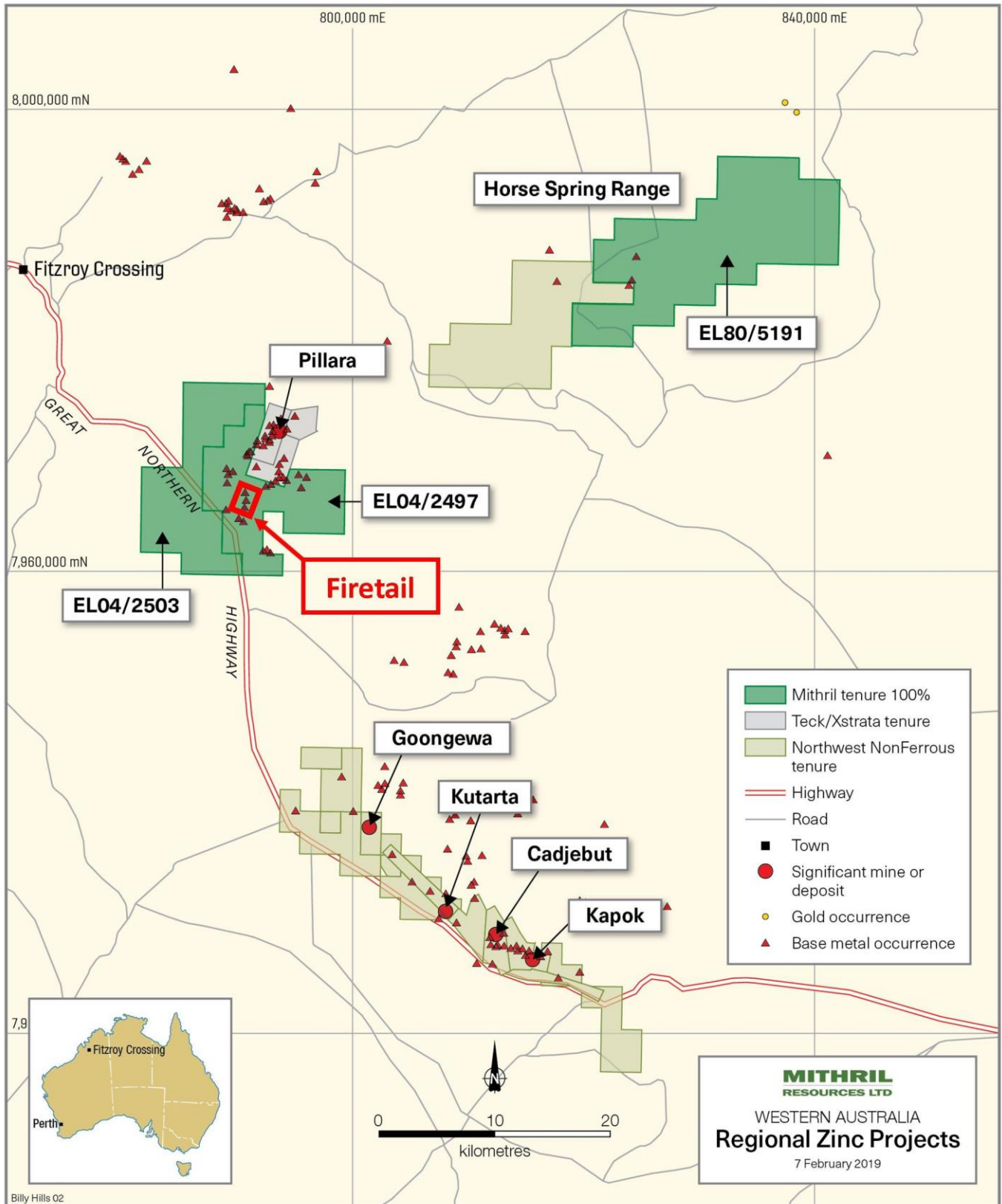


Figure 2: Location of the Firetail Prospect in relation to Fitzroy Crossing, the Great Northern Highway and the Pillara Deposit

Table 1: Firetail Prospect – Mithril rock chip sampling results and details (see *Mithril's ASX Announcement dated 1 July 2019 for JORC information*).

Company	Date	SampleID	Easting	Northing	Comments	Pb_%	Zn_%	Zn+Pb_%	Ag_g/t
MTH	Jun-19	BH190621	790,702	7,965,868	siliceous gossan	1.11	1.57	2.68	3.1
MTH	Jun-19	BH190622	790,702	7,965,878	siliceous gossan	0.97	3.27	4.24	3.8
MTH	Jun-19	BH190623	790,707	7,965,889	siliceous gossan	0.28	0.65	0.92	<0.5
MTH	Jun-19	BH190624	790,710	7,965,900	siliceous gossan	0.21	0.82	1.03	<0.5
MTH	Jun-19	BH190625	790,710	7,965,903	siliceous gossan	0.74	3.92	4.66	2.0
MTH	Jun-19	BH190626	790,713	7,965,906	siliceous gossan / colloform \$	0.38	8.14	8.52	21.9
MTH	Jun-19	BH190627	790,716	7,965,909	siliceous gossan / colloform \$	0.35	8.08	8.43	11.5
MTH	Jun-19	BH190628	790,716	7,965,915	siliceous gossan / colloform \$	1.83	26.00	27.83	44.7
MTH	Jun-19	BH190629	790,717	7,965,918	siliceous gossan / colloform \$	0.81	24.20	25.01	62.2
MTH	Jun-19	BH190630	790,737	7,965,953	siliceous gossan / colloform \$	2.31	30.30	32.61	127.0
MTH	Jun-19	BH190631	790,777	7,966,070	siliceous gossan / colloform \$	3.00	2.31	5.31	34.7
MTH	Jun-19	BH190632	790,788	7,966,099	siliceous gossan / colloform \$	1.19	9.97	11.16	6.7
Billiton	1993	LSR111568	790,724	7,965,960	gossan	0.23	3.60	3.83	3.0
Billiton	1993	LSR111569	790,614	7,965,490	gossan	0.37	0.29	0.66	0.0
Billiton	1993	LSR111599	790,774	7,966,110	gossan	4.58	6.40	10.98	40.0
Billiton	1993	SD1	790,802	7,966,145	breccia	0.50	10.00	10.50	98.0
Billiton	1993	SD2	790,781	7,966,083	banded ferruginous rock	0.50	1.14	1.64	14.0
Billiton	1993	SD3	790,763	7,966,026	silicified / breccia	0.50	0.78	1.28	3.0
Billiton	1993	SD4	790,585	7,965,588	silicified / breccia	0.05	0.03	0.08	<0.5
Billiton	1993	SD5	790,576	7,965,503	gossan	0.02	1.04	1.06	<0.5
Billiton	1993	SD7	790,576	7,965,437	breccia	0.02	0.03	0.05	<0.5

***Colloform banding** - A texture, often found in certain types of mineral deposits, where crystals have grown in a radiating and concentric manner which may reflect underlying geochemical controls. Lead–zinc deposits often show colloform banding of pyrite (iron), sphalerite (zinc) and galena (lead).

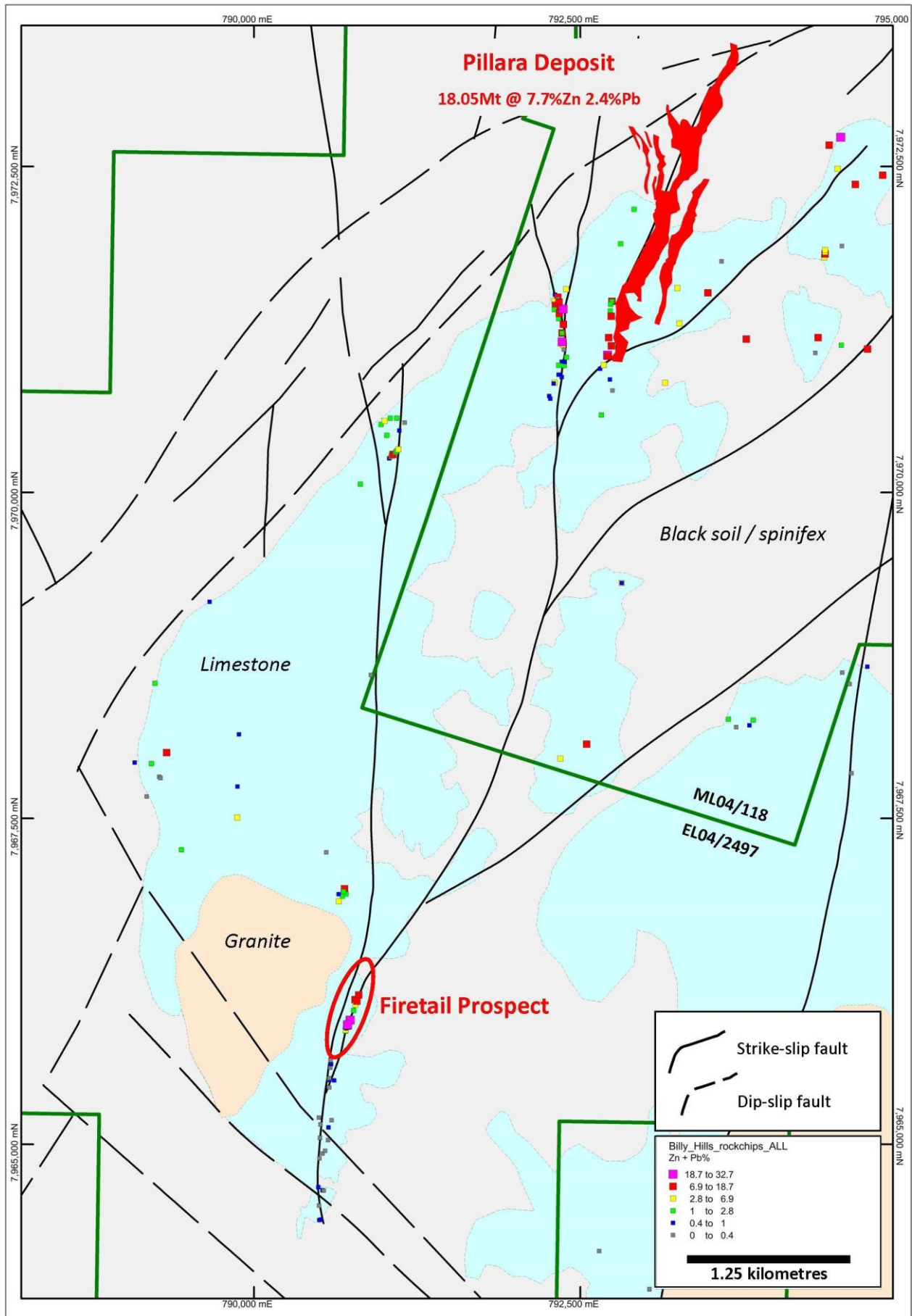


Figure 3: Firetail – Pillara geological plan showing major structures, outcrop lithologies and rock chip sampling. Note that the Pillara deposit has been projected vertically to surface.

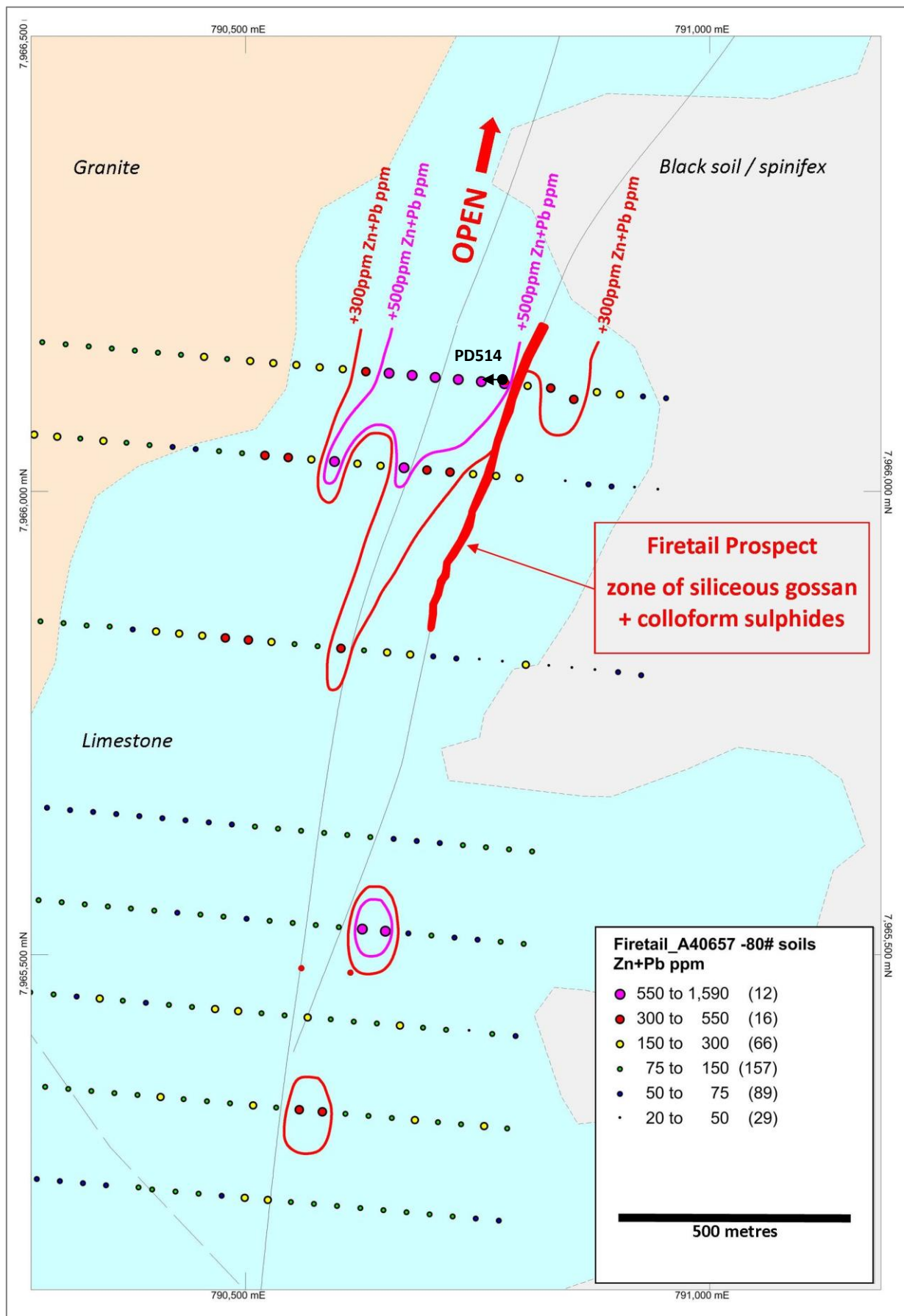


Figure 4: Firetail surface geochemistry showing the gossan / sulphide zone, major structures, outcrop lithologies and soil sampling. Refer to Table 1 of this Report for details of rock ship sampling at Firetail.



Figure 5: Photo taken at the site of Firetail 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.



Figure 6: Photo of ferruginous calcite + sulphide (marcasite) veining and brecciation on western margin of the Firetail gossan / sulphide zone.

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.

JORC Code, 2012 Edition - TABLE 1 (Section 1: Sampling Techniques and Data)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<i>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</i>	Historic -80# soil samples were previously collected by Billiton in 1993 over the Firetail prospect area. Information on the soil sampling has been obtained from Cooper, R.W., and Sewell, D. (1994). Pillara Joint Venture Annual Report 1993. BHP Minerals. WAMEX Report No. A40657.
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	-80# soil samples are historic and as such, these details are unknown.
	<i>Aspects of the determination of mineralisation that are Material to the Public Report.</i>	-80# soil samples are historic and as such, these details are unknown. From WAMEX Report No. A40657, the soil samples were collected every 25 metres on 200 metre spaced lines and analysed for copper, lead and zinc.
Drilling techniques	<i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).</i>	Not Applicable – no drilling undertaken
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	Not Applicable – no drilling undertaken
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	Not Applicable – no drilling undertaken
	<i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i>	Not Applicable – no drilling undertaken
Logging	<i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i>	Not Applicable – no drilling undertaken

Criteria	JORC Code explanation	Commentary
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography</i>	Not Applicable – no drilling undertaken
	<i>The total length and percentage of the relevant intersections logged.</i>	Not Applicable – no drilling undertaken
Sub-sampling techniques and sample preparation	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	Not Applicable – no drilling undertaken
	<i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i>	Not Applicable – no drilling undertaken
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	-80# soil samples are historic and as such, these details are unknown.
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	-80# soil samples are historic and as such, these details are unknown.
	<i>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</i>	-80# soil samples are historic and as such, these details are unknown.
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled</i>	-80# soil samples are historic and as such, these details are unknown.
Quality of assay data and laboratory tests	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	-80# soil samples are historic and as such, these details are unknown.
	<i>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i>	Not Applicable – no geophysical tools were utilised
	<i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i>	-80# soil samples are historic and as such, these details are unknown.
Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	The historic results have been reviewed by the Company's Managing Director.
	<i>The use of twinned holes.</i>	Not Applicable – no drilling undertaken
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	-80# soil samples are historic and as such, these details are unknown.
	<i>Discuss any adjustment to assay data</i>	There was no adjustment to assay data
Location of data points	<i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i>	-80# soil samples are historic and as such, these details are unknown.
	<i>Specification of the grid system used.</i>	Data points have been quoted in this Report using the MGA Zone 51 (GDA94) coordinate system.
	<i>Quality and adequacy of topographic control.</i>	-80# soil samples are historic and as such, these details are unknown.
Data spacing and distribution	<i>Data spacing for reporting of Exploration Results.</i>	Refer to Figure x of this Report.
	<i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity</i>	The data spacing and distribution is not sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s).

Criteria	JORC Code explanation	Commentary
	<i>appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i>	
	<i>Whether sample compositing has been applied.</i>	-80# soil samples are historic and as such, these details are unknown.
<i>Orientation of data in relation to geological structure</i>	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	-80# soil samples are historic and as such, these details are unknown.
	<i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i>	Not Applicable – no drilling undertaken
<i>Sample security</i>	<i>The measures taken to ensure sample security.</i>	-80# soil samples are historic and as such, these details are unknown.
<i>Audits or reviews</i>	<i>The results of any audits or reviews of sampling techniques and data.</i>	The historic results have been reviewed by the Company's Managing Director. No negative issues were identified from these reviews.

JORC Code, 2012 Edition - TABLE 1 (Section 2: Reporting of Exploration Results)

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i>	The Billy Hills Project comprises EL's 04/2497, 2503 and 80/5191 which are 100%-owned by Mithril Resources through its wholly owned subsidiary, Minex (West) Pty Ltd.
	<i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i>	All three tenements are granted tenements with no known impediments. The Company has previously executed Access Agreements with local pastoralists and landowners, and a Heritage Protection Agreement with the project's Traditional Owners.
<i>Exploration done by other parties</i>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	Exploration undertaken on the project has been carried out by Amax Exploration, BHP Billiton Western Metals and Lennard Shelf Pty Ltd during the period 1973 to 2008. Activities have primarily involved drilling and surface sampling with the bulk of work having been undertaken around the Pillara Deposit. At Firetail previous work was undertaken by Billiton in 1993 and comprised geological mapping, rock chip sampling, soil sampling and shallow diamond drilling.
<i>Geology</i>	<i>Deposit type, geological setting and style of mineralisation.</i>	The zinc – lead – silver mineralisation referred to in this Report occurs within Devonian age limestones and is structurally controlled.
<i>Drill hole Information</i>	<i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <i>easting and northing of the drill hole collar, elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar, dip and azimuth of the hole, down hole length and interception depth, hole length.</i></i>	A summary of all material information referred to in this Announcement is presented in <i>Table 1</i> and <i>Figures 2 - 6</i> of this Report.

Criteria	JORC Code explanation	Commentary
	<i>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i>	No information has been excluded.
Data aggregation methods	<i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i>	No weighting averages have been used. Results have been reported for a combined element value (i.e. Zn+Pb ppm).
	<i>Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i>	Not applicable as no weighting has been used.
	<i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>	No metal equivalents reported
Relationship between mineralisation widths and intercept lengths	<i>These relationships are particularly important in the reporting of Exploration Results.</i>	Not Applicable – no drilling undertaken
	<i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i>	Not Applicable – no drilling undertaken
	<i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</i>	Not Applicable – no drilling undertaken
Diagrams	<i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i>	See Figures 2 - 6 of this Report.
Balanced reporting	<i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i>	All exploration results have been reported in Table 1 and Figures 2 – 6 of this Report.
Other substantive exploration data	<i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i>	All relevant data has been included within this Report.
Further work	<i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i>	Further work will comprise diamond drilling.
	<i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i>	Figure 1 shows the location of the tenements and prospects.

ENDS

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Competent Persons Statement:

The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves 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.
