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**

Mithril Resources Ltd (**MTH.AX**) is pleased to advise that field work on its priority 100% - owned Billy Hills Zinc Project (located 25kms east of Fitzroy Crossing WA – *Figure 1*) has identified high-grade surface mineralisation at the Firetail Zinc Prospect which lies within the southern project area (*Figure 2*).

Rockchip 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 Table 1 and Figures 3 – 6*). The mineralisation occurs in an area of sand and soil cover and remains open along strike to the north. Where visable 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*).

Figure 1: Project Location

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 (*See Mithril's ASX Announcement dated 15 February 2019 for JORC details and Figure 4*).

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.

Managing Director's comment.

Commenting on the announcement, MIthril's Managing Director Mr David Hutton said that Firetail was one of several new targets the Company had identified at Billy Hills and the recognition of high-grade surface mineralisation at Firetail was an exciting development for the project.

The Company looks forward to providing further exploration updates as new information becomes available.

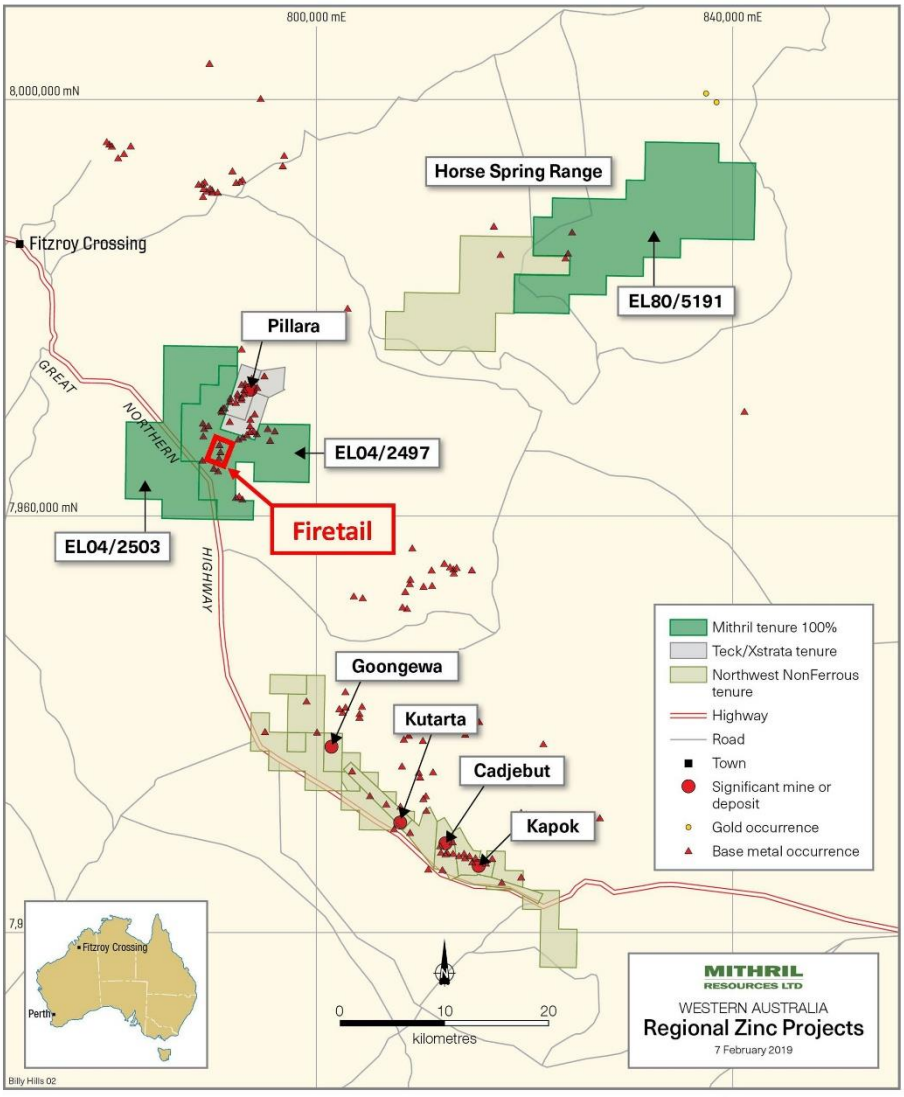

Figure 2: Billy Hills Zinc Project – Firetail Prospect location

Table 1: Firetail June 2019 and historic rock chip sample locations and assay results (high-grade zone highlighted in red)

Company	Date	SampleID	Easting	Northing	Comments	Pb_%	Zn_%	Zn+Pb_%	Ag_g/t
MTH	Jun-19	BH190601	790,525	7,964,648	ironstone	0.18	0.34	0.52	<0.5
MTH	Jun-19	BH190602	790,533	7,964,645	breccia	0.01	0.01	0.02	<0.5
MTH	Jun-19	BH190603	790,498	7,964,531	ironstone	0.00	0.07	0.07	<0.5
MTH	Jun-19	BH190604	790,510	7,964,423	gossan (boxworks)	0.01	0.56	0.57	<0.5
MTH	Jun-19	BH190605	790,500	7,964,418	gossan (boxworks)	0.01	0.51	0.53	<0.5
MTH	Jun-19	BH190606	790,492	7,964,672	ironstone	0.15	0.09	0.23	<0.5
MTH	Jun-19	BH190607	790,492	7,964,672	ironstone	0.25	0.16	0.41	<0.5
MTH	Jun-19	BH190608	790,501	7,964,892	breccia	0.04	0.04	0.07	<0.5
MTH	Jun-19	BH190609	790,525	7,964,929	calcite veining	0.00	0.00	0.01	<0.5
MTH	Jun-19	BH190610	790,545	7,964,951	calcite veining	0.01	0.01	0.02	<0.5
MTH	Jun-19	BH190611	790,567	7,965,032	ironstone	0.10	0.22	0.31	<0.5
MTH	Jun-19	BH190612	790,595	7,965,185	calcite veining	0.02	0.01	0.03	<0.5
MTH	Jun-19	BH190613	790,497	7,965,205	calcite veining / breccia	0.01	0.00	0.01	<0.5
MTH	Jun-19	BH190614	790,509	7,965,152	calcite veining / breccia	0.02	0.01	0.03	<0.5
MTH	Jun-19	BH190615	790,506	7,965,049	ironstone	0.02	0.08	0.09	<0.5
MTH	Jun-19	BH190616	790,570	7,965,130	ironstone	0.13	0.27	0.40	<0.5
MTH	Jun-19	BH190617	790,577	7,965,493	ironstone	0.28	0.20	0.48	<0.5
MTH	Jun-19	BH190618	790,578	7,965,508	ironstone	0.14	0.15	0.29	<0.5
MTH	Jun-19	BH190619	790,590	7,965,615	ironstone	0.45	0.20	0.66	<0.5
MTH	Jun-19	BH190620	790,586	7,965,645	ironstone	0.22	0.13	0.34	<0.5
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

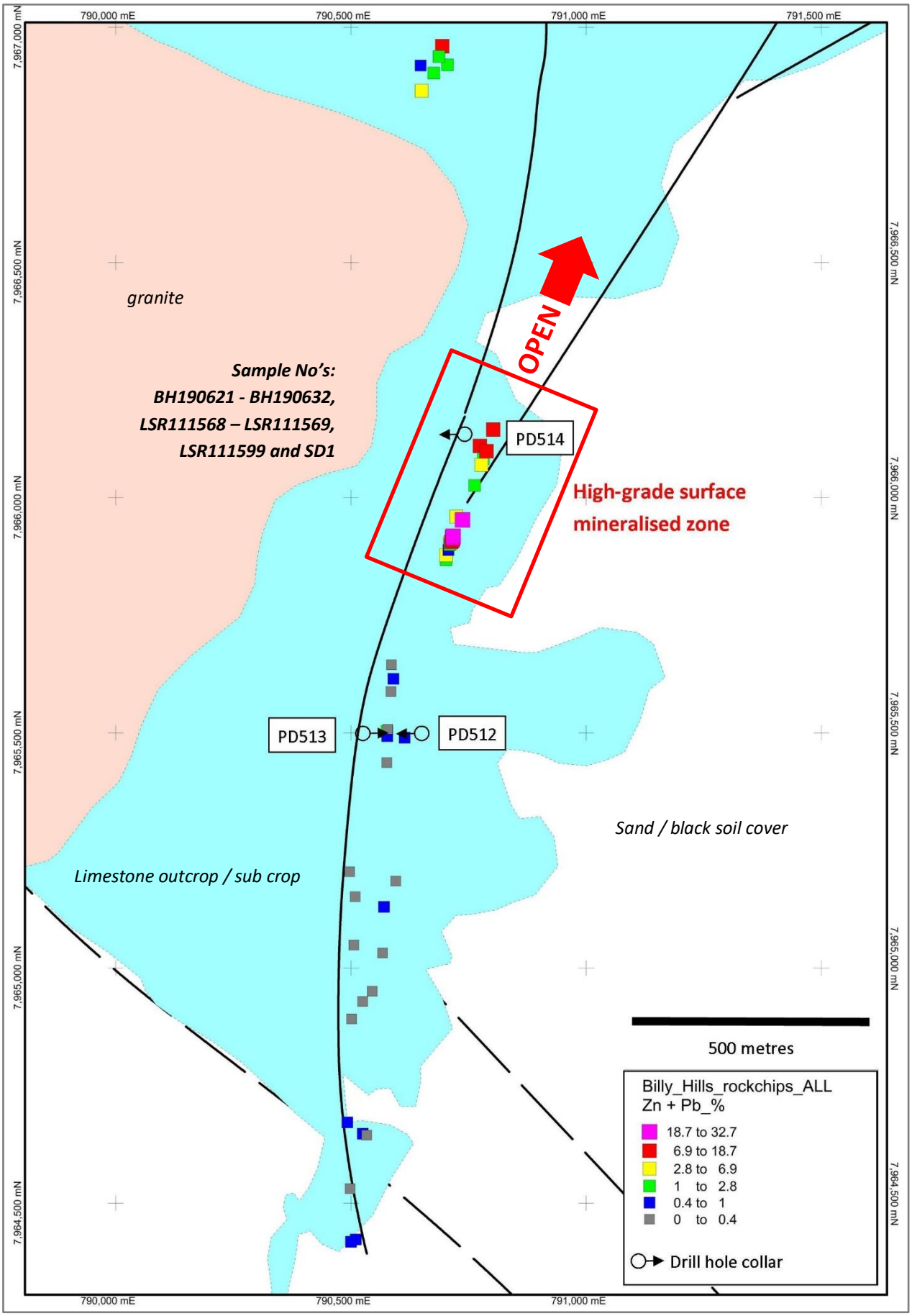

Figure 3: Firetail Prospect geological summary plan showing rock types, faults, rock chip sampling locations and drill hole locations. Rock chips coloured coded by zinc + lead%

Figure 4: Photo taken at southern end of high-grade surface mineralised zone looking north. Pink flagging tape marks sub-cropping mineralisation.

Figure 5: Photo taken at southern end of high-grade surface mineralised zone looking north in vicinity of sample BH190629 showing siliceous gossan and sheared / brecciated ironstone. Width of photo ~ 2 metres.

Figure 6: 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.

***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).

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	*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.*	Composite rock chip samples of prospective lithologies were collected in the field; their weight ranging from 1 – 2 kg.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Rock chip information including lithological descriptions were also collected at the time of sampling.
	Aspects of the determination of mineralisation that are Material to the Public Report.	Rock chip samples were submitted to ALS Laboratory Services in Perth, WA for analysis. Samples were crushed and pulverised to a size of <75µm (Sample Preparation) and subject to a HF-HNO3-HClO4 (3) acid digestion. Following digestion 33 base metal elements were read using ICP-AES. ALS methods – MEICP61 Any samples returning +1% zinc or lead were subject to ore grade repeat analysis by ALS method MEOG62
Drilling techniques	*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.).*	Not Applicable – no drilling undertaken
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	Not Applicable – no drilling undertaken
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Not Applicable – no drilling undertaken
	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.	Not Applicable – no drilling undertaken
Logging	*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.*	Not Applicable – no drilling undertaken
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography	Not Applicable – no drilling undertaken
	The total length and percentage of the relevant intersections logged.	Not Applicable – no drilling undertaken
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	Not Applicable – no drilling undertaken
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	Not Applicable – no drilling undertaken
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	The sample preparation technique is appropriate for rock chip samples and of industry standard
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Composite samples of similar lithologies were collected were practical
	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.	Where practical, individual samples were restricted to individual lithologies to samples were representative The results obtained from the June 2019 sampling are consistent with several rock chip samples taken of similar lithologies in 1993

Criteria	*JORC Code explanation*	Commentary
	Whether sample sizes are appropriate to the grain size of the material being sampled	Sample sizes are considered appropriate for the exploration method and produce results to indicate degree and extent of mineralisation.
Quality of assay data and laboratory tests	*The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	The method of digestion is considered to be a near total digest
	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.	Not Applicable – no geophysical tools were utilised
	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.	The laboratory conducted a regime of repeat analysis and QA/QC
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	The results were verified by the Managing Director.
	The use of twinned holes.	Not Applicable – no drilling undertaken
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	All sample locations and geological descriptions were recorded in the field at the time of sampling. Data was transferred to a spreadsheet at the completion of the field work
	Discuss any adjustment to assay data	There was no adjustment to assay data
Location of data points	*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.*	Data points have been obtained from a handheld GPS displaying accuracy limits of +/- 5 metres.
	Specification of the grid system used.	Data points have been quoted in this Report using the MGA Zone 51 (GDA94) coordinate system.
	Quality and adequacy of topographic control.	Level of topographic control offered by the handheld GPS was considered sufficient for the work undertaken.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	Refer to Table 1 of this Report.
	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	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).
	Whether sample compositing has been applied.	Rock chip samples were typical composite samples of prospective lithologies
Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	Rock chip samples were collected on a reconnaissance basis with no preferred orientation
	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.	Not Applicable – no drilling undertaken
Sample security	*The measures taken to ensure sample security.*	Upon collection in the field, all samples were placed inside a larger sealed bag for storage and transport to the laboratory via a commercial trucking company.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	All results were 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
Mineral tenement and land tenure status	*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.*	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.
	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.	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.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	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 and shallow diamond drilling.
Geology	*Deposit type, geological setting and style of mineralisation.*	The zinc – lead – silver mineralisation referred to in this Report occurs within Devonian age limestones and is structurally controlled.
Drill hole Information	*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:* *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.*	A summary of all material information referred to in this Announcement is presented in Table 1 and Figures 2 - 6 of this Report.
	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.	No information has been excluded.
Data aggregation methods	*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.*	No weighting averages have been used. Results have been reported for individual elements (i.e. Zn% and Pb%) as well a combined element value (i.e. Zn+Pb%).
	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.	Not applicable as no weighting has been used.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalents reported
Relationship between mineralisation widths and	*These relationships are particularly important in the reporting of Exploration Results.*	Not Applicable – no drilling undertaken
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	Not Applicable – no drilling undertaken

Criteria	*JORC Code explanation*	Commentary
intercept lengths	*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').*	Not Applicable – no drilling undertaken
Diagrams	*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.*	See Figures 2 - 6 of this Report.
Balanced reporting	*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.*	All exploration results have been reported in Table 1 and Figures 2 – 6 of this Report.
Other substantive exploration data	*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.*	All relevant data has been included within this Report.
Further work	*The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).*	Further work will comprise diamond drilling.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Figure 2 shows the location of the tenements and prospects.

ENDS

For Further Information Contact:

Mithril Resources Ltd
David Hutton, Managing Director
admin@mithrilresources.com.au

22B Beulah Road
Norwood, South Australia 5067
ABN: 30 099 883 922
T: +61 438 269 089

www.mithrilresources.com.au

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

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.

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

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.