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New zinc target at Billy Hills

- 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
- Data compilation and target generation continuing ahead of field work commencing next year

Mithril Resources Ltd (**ASX: MTH**) is pleased to advise that a review of historic drilling data has identified a major new target zone at its 100% - owned Billy Hills Zinc Project which adjoins the Pillara Zinc Mine 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 (*see Figures 2 and 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 ASX Announcement dated 21 August 2017*) and can be seen in geophysical data for over 12 kilometres within Mithril's tenements.

Management Comment

Mithril's Managing Director Mr David Hutton said: "With multiple drill intercepts that require follow-up directly along strike from the recent Pillara West discovery, the new target zone reinforces the prospectivity of Billy Hills Project".

"Mithril looks forward to getting on the ground mid next year when we anticipate that the tenements will be granted".

"In the meantime, our immediate task is to complete the data compilation and target generation work in order to identify further areas for follow-up which is likely to comprise electrical geophysics and drilling".

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.



Figure 1: Billy Hills Location

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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

Data compilation and target generation work for the project is continuing ahead of commencing field work mid next year once the tenements are granted.

Mithril looks forward to updating the market as further results come to hand.

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Figure 2: 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.

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Figure 3: Billy Hills Project showing location of key zinc deposits and prospects on background scanned image of 1VD bouguer gravity stitched data. New target zone shown as yellow linear zone. 5 km grid squares.

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Historic information and drill intercepts referred to in this Report have been sourced primarily from the following open file Annual Technical Reports available from the WA Department of Minerals and Energy:

- Progress Report on the Lennard Shelf Lead Zinc Project, West Kimberley Goldfield, WA. Amax Exploration (Australia) Inc. March 1973. WAMEX Report No. A3915
- Annual Report Group Report C27/2006 Lennard Shelf Project for the period 01 January 2006 to 31 December 2006. February 2007. Lennard Shelf Pty Ltd. WAMEX Report No. A74569
- Annual Report Group Report C27/2006 Lennard Shelf Project for the period 01 January 2007 to 31 December 2007. February 2008. Lennard Shelf Pty Ltd. WAMEX Report No. A77687
- Annual Report Group Report C27/2006 Lennard Shelf Project for the period 01 January 2008 to 31 December 2008. February 2009. Lennard Shelf Pty Ltd. WAMEX Report No. A80938

Hole ID	Prospect	Tenement	Easting	Northing	Dip ^o	Azi ^o	EOH	From	Width	Zn_%	Pb_%	Ag_g/t
PD646	Regional	EL04/2497	790,375	7,970,500	-90	0	483.6	249.0	6.0	0.65	0.04	1
PD785	Pillara West		792,780	7,972,969	-90	0	651.2	399.8	15.8	6.80	3.05	30
Including							3.3	11.10	5.30	66		
PD796	Pillara West		792,805	7,972,902	-90	0	549.4	385.4	19.1	7.60	2.10	17
Including							11.9	10.40	3.20	25		
PD802	Pillara West		792,682	7,972,842	-90	0	552.6	347.0	11.0	8.20	8.80	26
Including								4.0	11.80	17.20	45	
PD817	Pillara West step-out	EL04/2497	792,256	7,972,666	-90	0	564.4	315.2	14.9	0.90	0.14	2
Including							0.6	9.20	1.75	4		
"	Ш		"	"	"	"	"	341.1	16.0	2.12	0.03	3
Including							1.2	8.79	0.07	4		
"	Ш		"	"	"	"	"	524.0	32.2	1.89	0.33	3
Including							7.3	3.33	0.55	3		
PD830	Pillara West step-out	EL04/2497	792,227	7,972,729	-90	0	609.4	500.7	23.8	0.79	0.02	2
Including						500.7	5.8	1.30	0.13	3		
PD831	Pillara West step-out	EL04/2497	792,196	7,972,633	-90	0	576.1	325.7	20.5	1.07	0.03	1
Including						332.0	3.0	3.12	0.09	1		
PLR0509	Regional	EL04/2497	791,020	7,970,602	-60	105	450.2	179.1	14.9	0.93	0.06	5
"	п		"	"	"	"	"	225.2	7.6	0.95	0.07	5
PLR0510	Regional	EL04/2497	790,938	7,970,498	-60	105	396.2	195.0	12.0	0.63	0.19	2
PLR0511	Regional	EL04/2497	789,891	7,969,334	-60	105	207.3	55.0	12.0	0.61	0.03	7
Including						64.0	3.0	1.65	0.08	12		
PLR0512	Regional		790,038	7,969,497	-60	105	276.3	130.0	30.0	0.92	0.03	3
SP3	Snake Bore	EL04/2497	789,160	7,968,324	-60	90	43.0	12.0	24.0	0.33	0.06	N/A
SP4	Snake Bore	EL04/2497	789,197	7,968,603	-60	90	40.0	11.0	29.0	0.45	0.19	N/A
SP4a	Snake Bore	EL04/2497	789,212	7,968,603	-60	90	45.0	6.0	9.0	0.47	0.07	N/A

Table 1: Billy Hills Significant Intercepts and drilling specifications

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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.	Percussion and diamond drilling was undertaken on EL04/2497 by Amax Exploration, Western Metals and Lennard Shelf Pty Ltd during the period 1973 to 2008. The work is historic in nature and information about the drilling has been sourced from ope file reports referred to in this Report.			
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Mithril understands that details of lithologies and sampling were completed for every metre, or as necessary, for each drill hole. Each drill hole location (easting and northing) has been determined from compilation of digital and paper (hard copy) reports and drill logs.			
	Aspects of the determination of mineralisation that are Material to the Public Report.	Details of the analytical methods employed for the Amax percussion drilling are unknown. Diamond drill core obtained by Western Metals / Lennard Shelf was typically halved on site and half core samples were processed and analysed by Genalysis Laboratory Services Pty Ltd, Perth. Samples were digested using a high temperature perchloric acid oxidative attack with a hydrochloric acid final leach finish and analysed by ICP-OES with the following detection limits: Zn (1 ppm), Pb (2 ppm), Fe (0.01%), Ag (1 ppm). Samples with greater than 1% Zn or Pb were re-assayed using a multi-acid digest (hydrofluoric, nitric, perchloric and hydrochloric acids) and ICP-OES analysis with the following detection limits: Zn (10 ppm) and Pb (50 ppm).			
		core samples, with the standard chosen to reflect levels of Pb and Zn in surrounding core samples.			
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.).	Details of the percussion drill rig are unknown - the drilling meth produces chip samples (i.e. non-core). Diamond drilling was typically undertaken using a truck mount diamond drilling rig – this drilling method produces core samples.			
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	The results reported in this Report are historical and as such these details are unknown.			
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	The results reported in this Report are historical and as such these details are unknown.			
	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.	No relationship has been identified.			
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.	While drill chip samples have been geologically logged, they have not been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.			
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography	Logging of drill samples is of a qualitative nature.			
	The total length and percentage of the relevant intersections logged.	The results reported in this Report are historical and as such these details are unknown.			
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Diamond core samples were typically cut so that half core samples were submitted for analysis.			
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	The results reported in this Report are historical and as such these details are unknown.			
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	The sample preparation of the drill samples follows industry best practice, involving oven drying ($110^{\circ}C$) where necessary, crushing and pulverising (~90% less than 75 μ m).			
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	The results reported in this Report are historical and as such these details are unknown.			

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Criteria	JORC Code explanation	Commentary			
	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.	The results reported in this Report are historical and as such these details are unknown.			
	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.	high temperature perchloric acid oxidative attack with a hydrochloric acid final leach finish is considered as a total digest and is appropriate for the type of exploration undertaken.			
	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.	The results reported in this Report are historical and as such these details are unknown.			
	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 results reported in this Report are historical and as such these details are unknown.			
	The verification of significant intersections by either independent or alternative company personnel.	The significant intersections were verified by the Geology Manager and Managing Director.			
Verification of	The use of twinned holes.	No twin holes were drilled.			
sampling and assaying	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	All information used in the preparation of this Report has been sourced from publicly available Annual Technical Reports available from the WA Mines Department.			
	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.	All information used in the preparation of this Report has been sourced from publicly available Annual Technical Reports available from the WA Mines Department.			
	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.	The results reported in this Report are historical and as such these details are unknown.			
	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.	Sample compositing was employed (typically up to 4 metre intervals) depending on the geology and depth of hole for the Amax percussion holes only.			
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.	Aircore and RC samples are unable to be orientated and do not provide structural information. The diamond holes were typically drilled vertically – it is unknown whether the orientation of sampling achieves unbiased sampling of possible structures			
	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.	No orientation based sampling bias has been identified.			
Sample security	The measures taken to ensure sample security.	The results reported in this Report are historical and as such these details are unknown.			
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	All results were reviewed by Company personnel including the Geology Manager and Managing Director. No negative issues were identified from these reviews.			

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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.	EL04/2497 is 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.	The tenement is an Application and is yet to be granted.			
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Exploration undertaken on EL04/2497 has been carried out by Amax Exploration, Western Metals and Lennard Shelf Pty Ltd during the period 1973 to 2008.			
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 - 3 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.	Length weighting averaging techniques have been used and a lower cut-off grade of 0.5% zinc has been used.			
	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.	Length weighting is calculated as such: Sum of (all individual assays x corresponding sample interval within intercept) divided by total intercept length.			
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalents reported			
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.	The relationship between mineralisation widths and intercept lengths is unknown. Widths of mineralisation have not been postulated. All mineralised intervals quoted in this announcement are quoted as downhole widths only.			
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	The geometry of the mineralisation with respect to the drill hole angle is not known.			
	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').	The Exploration Results in this Announcement are reported as down hole widths only as true widths are not known.			
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 - 3 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 significant (+0.5% zinc) exploration results have been reported in Table 1 and Figures 2 – 3 of this Report.			
Other substantive	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk	All relevant data has been included within this Report.			

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Criteria	JORC Code explanation	Commentary		
exploration data	samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.			
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 geophysical surveying and 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 1 shows the location of the tenements and prospects.		

ENDS

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 gold, copper, nickel and zinc.

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

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