

1 February 2018

## **Heavy Liquid Separation Upgrades Zinc from the JB Zone Mineral Resource to >15%**

### **Highlights**

- **Heavy Liquid Separation (HLS) on zinc-lead mineralisation, from drill hole PB01-17 at the JB Zone on the Paperbark Project, north-west Queensland, has proven to be very successful and an extremely positive development for the JB Zone Mineral Resource**
- **Drill hole PB01-17 intersected a broad zone of zinc-lead mineralisation in the southern section of the JB Zone Mineral Resource, returning 68m @ 1.39% Zn and 0.05% Pb from 271m down hole depth<sup>1</sup>**
- **A composite sample, made from the 68m intersection of zinc and lead mineralisation in drill hole PB01-17, was subjected to HLS testing**
- **Using a fluid of density +2.9 kg/dm<sup>3</sup> and a crush size of P<sub>100</sub> 8mm, 85.4% of the contained zinc reported to the HLS fraction, with a subsequent increase in the zinc grade to 17.5% and a 10-fold decrease in overall sample mass**
- **The HLS results indicate that pre-concentration of the JB Zone Mineral Resource (currently 10.4Mt @ 2.7% Zn, 0.2% Pb, 1g/t Ag at 1.5% Zn cut-off grade and is classified as Inferred in accordance with the JORC Code (2012)<sup>2</sup>), prior to milling and flotation, has the potential to significantly decrease both the operating and capital development costs for processing the JB Zone Mineral Resource**

Pursuit Minerals Limited (ASX: PUR) (**Pursuit** or the **Company**) is pleased to announce Heavy Liquid Separation test work, on zinc-lead mineralisation from the southern end of the JB Zone Mineral Resource, on the Paperbark Project, northwest Queensland (Figure One), has been extremely successful. A composite sample from drill hole PB01-17, which intersected 68m @ 1.39% Zn and 0.05% Pb, was able to be upgraded using HLS to 17.5% Zn, while retaining 85.4% of the originally contained zinc metal.

Pursuit Minerals Managing Director Jeremy Read said that the HLS test work results showed that it is possible to significantly increase the grade of zinc mineralisation which would pass through the milling and flotation section of a processing plant, while retaining over 85% of the contained zinc metal.

<sup>1</sup> See ASX Announcement 29 November 2017. The Company is not aware of any new information or data that materially affects the information contained in that announcement.

<sup>2</sup> Detailed information regarding the JB Zone Mineral Resource is presented in the Company's ASX announcement dated 24 April 2017. The Company is not aware of any new information or data that materially affects the information contained in that announcement.

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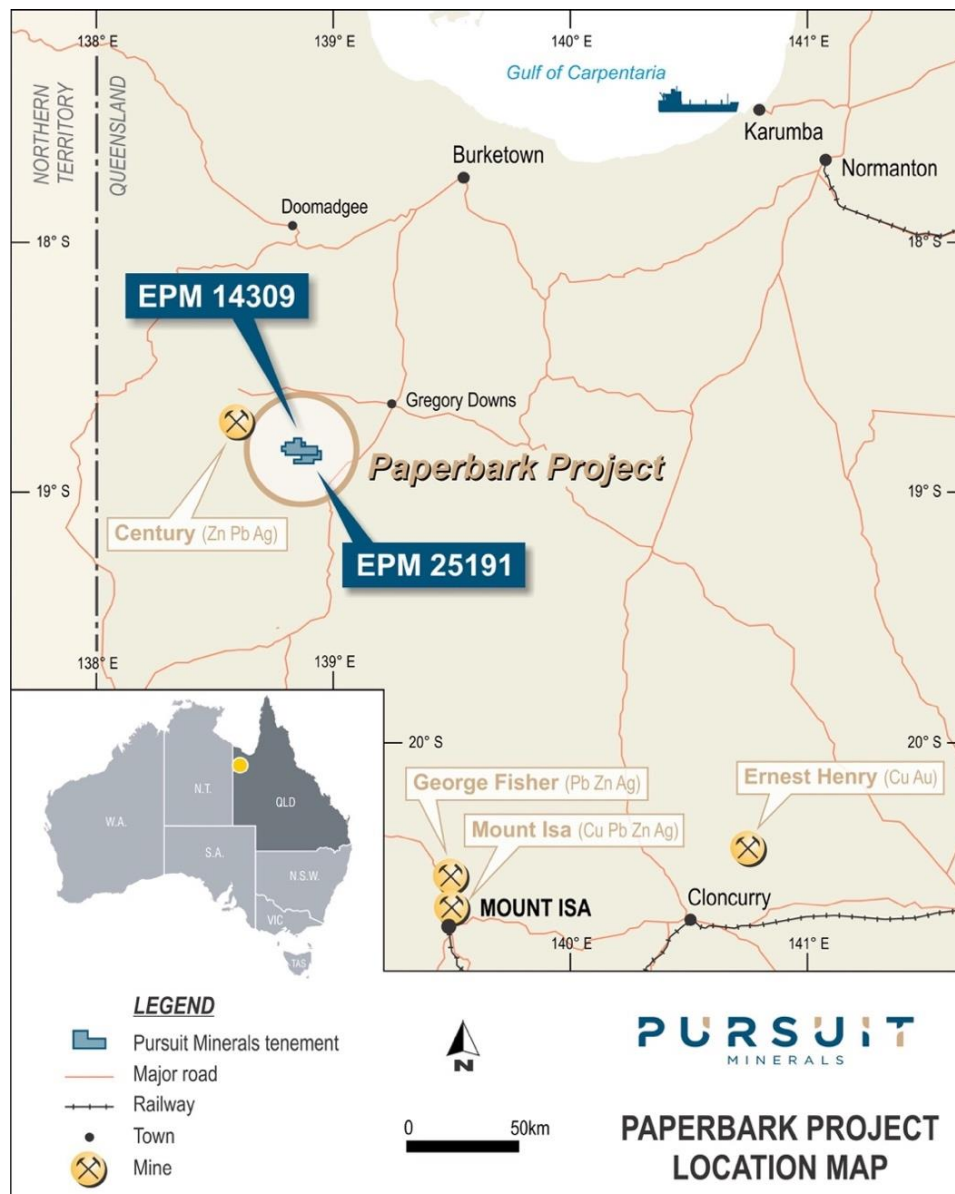
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“The HLS test work was extremely effective and upgraded the zinc from the JB Zone Mineral Resource to over 15%, while reducing the sample mass by a factor of ten,” Mr Read said.

“The impact of this on any mineral processing operation of the JB Zone, should be lower operating and capital costs as the milling and flotation sections of the processing plant would only be processing a tenth of the mass of material which was actually mined and at substantially higher zinc grades.”

**Figure One – Paperbark Project**



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## Paperbark Project – JB Zone HLS Test Work Program

The Paperbark Project is located approximately 215km north-northwest of Mount Isa and 25km south-east of the Century Mine in north-west Queensland. It occurs within the Lawn Hill Platform of the Western Succession of the Mt. Isa Province. The project consists of two exploration permits (EPM's 14309, 25191), covering an area of approximately 110km<sup>2</sup>. Previous exploration focused on the JB Zone, where a Mineral Resource of 10.4Mt @ 2.7% Zn, 0.2% Pb, 1g/t Ag at 1.5% Zn cut-off grade and classified as Inferred in accordance with the JORC Code (2012), has been defined.

Drill hole PB01-17 (Table One) was drilled through the southern section of the JB Zone Mineral Resource in order to investigate the variation and extent of higher grade zinc and lead mineralisation, within the Mineral Resource (Figure Two) and to provide a thick section of zinc and lead mineralisation for HLS test work. A 68m section of drill hole PB01-17 returned 1.39% Zn and 0.05% Pb, from 271m down hole depth.

**Table One**

Prospect	Drill Hole Name	Easting (GDA94, Zone 54)	Northing (GDA94, Zone 54)	Azimuth (Degrees, Magnetic)	Dip (Degrees)	Actual Depth (m)
Paperbark	PB01_17	271 549	7 918 128	050	-60	536.2

Quarter core samples from the mineralised section (271m-339m down-hole depth) of the JB Zone were submitted to ALS Metallurgy Services for HLS test work.

Previous HLS test work completed on the JB Zone zinc-lead mineralisation by RMG Resources Limited (see ASX Announcement by RMG Resources Limited, 23 January 2013), indicated that zinc mineralisation with a head grade of 1.8% Zn may be able to be upgraded to a >10% Zn head grade, through use of a HLS separation circuit in a processing plant, prior to grinding and flotation. The objective of the test work completed by Pursuit was to optimise sample selection, HLS fluid density and crusher sizing to maximise zinc and lead recovery.

### *Sample Preparation*

Quarter core samples from the mineralised section (271-339m) were weighed and composited into a single bulk sample. The bulk sample, PB01-17 Composite, was crushed to P<sub>100</sub> 16mm. A head sample, 2 x 2kg sighter test samples and 2 x 5 kg HLS test work samples were split off. One sighter test sub-sample was crushed to P<sub>100</sub> 8mm. Following sighter tests, one 5kg sub-sample was sized at 8mm, 4mm, 1mm and 0.045mm. On completion of the HLS test work on the P<sub>100</sub> 16mm material, the second 5kg sample was crushed to P<sub>100</sub> 8mm and sized at 4mm, 1mm and 0.045mm for further HLS testing.

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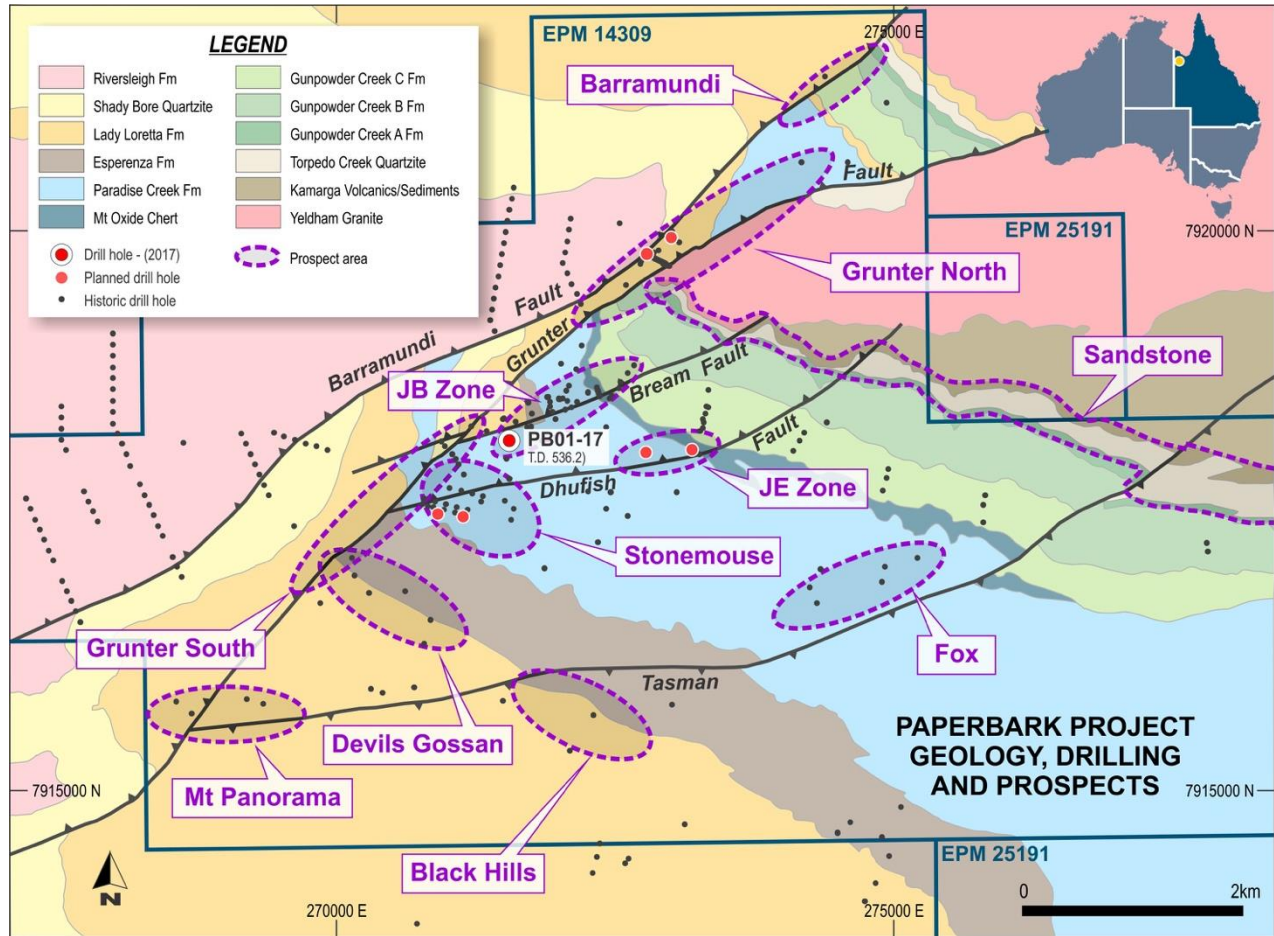
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**Figure Two – Location of Drill Hole PB01-17**



### *Heavy Liquid Separation (HLS) Test Work*

Fractions in the -16/+1mm range were separated by static HLS using diiodomethane as the heavy liquid. The -1mm fraction was separated by centrifugal HLS using diiodomethane. A number of sighter tests were conducted at HLS separation densities of 2.75, 2.85, 2.95 and 3.3kg/dm<sup>3</sup>. These initial tests showed that recovery to the HLS sink at 2.85kg/dm<sup>3</sup> was highly variable, indicating that a large proportion of the composite samples had a density close to 2.85kg/dm<sup>3</sup>, allowing small density variations to result in large changes to the float/sink ratio. The sample fractions were combined, and a test run at 2.8 and 2.9kg/dm<sup>3</sup> resulted in more stable sink/float ratios. The final sighter test results are shown in Tables 2 and 3.

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Table 2 – HLS Sighter Test Results

Test No.	Sample ID	Mass (g)	%	Al (%)	Ca (%)	Cu (%)	Fe (%)	Mg (%)	Mn (%)
HL35344	PB01-17 Composite -16 mm Sighter Test -2.8 kg/dm <sup>3</sup> Float	257.48	25.99	1.79	10.9	<0.01	1.23	6.37	0.06
HL35345	PB01-17 Composite -16 mm Sighter Test +2.8/-2.9 kg/dm <sup>3</sup> Float	670.59	67.69	0.79	17.3	<0.01	1.18	10.2	0.09
HL35346	PB01-17 Composite -16 mm Sighter Test +2.9 kg/dm <sup>3</sup> Float	62.61	6.32	0.45	8.94	0.01	7.43	5.15	0.07
<b>TOTAL/CALCULATED HEAD</b>		<b>990.68</b>	<b>100</b>	<b>1.03</b>	<b>15.11</b>	<b>0.00</b>	<b>1.59</b>	<b>8.89</b>	<b>0.08</b>

Table 3 – HLS Sighter Test Results

Test No.	Sample ID	Mass (g)	%	Pb (%)	S (%)	Si (%)	Zn (%)	Zn Units (%)	Zn Dist'n (%)
HL35344	PB01-17 Composite -16 mm Sighter Test -2.8 kg/dm <sup>3</sup> Float	257.48	25.99	0.03	0.73	19.8	0.25	6.50	5.45
HL35345	PB01-17 Composite -16 mm Sighter Test +2.8/-2.9 kg/dm <sup>3</sup> Float	670.59	67.69	0.01	0.56	7.81	0.35	23.69	19.86
HL35346	PB01-17 Composite -16 mm Sighter Test +2.9 kg/dm <sup>3</sup> Float	62.61	6.32	0.43	14.3	10.3	14.1	89.11	74.69
<b>TOTAL/CALCULATED HEAD</b>		<b>990.68</b>	<b>100</b>	<b>0.04</b>	<b>1.47</b>	<b>11.08</b>	<b>1.19</b>	<b>119.30</b>	<b>100.00</b>

HLS of the P<sub>100</sub> 16mm fractions indicated significant upgrading of the zinc, with approximately 74% of the contained zinc reporting to the +2.9kg/dm<sup>3</sup> fractions. However, a further 18.7% of the contained zinc was retained in the +2.8/-2.9kg/dm<sup>3</sup> fraction of the -16/+8mm material. In addition 1.5% of the contained zinc reported to the -0.045mm fraction (Figure Three).

In order to improve recovery on the 2.9kg/dm<sup>3</sup> fraction a sub-sample was crushed to P<sub>100</sub> 8mm and separated under the same conditions as the P<sub>100</sub> 16mm sample. Zinc recovery to the sink fraction improved with approximately 85% (up from 74%) of the zinc reporting to the +2.9kg/dm<sup>3</sup> fractions. The additional crushing increased losses to fines with 3% of the total zinc contained in the -0.045mm fraction (Figure Four).

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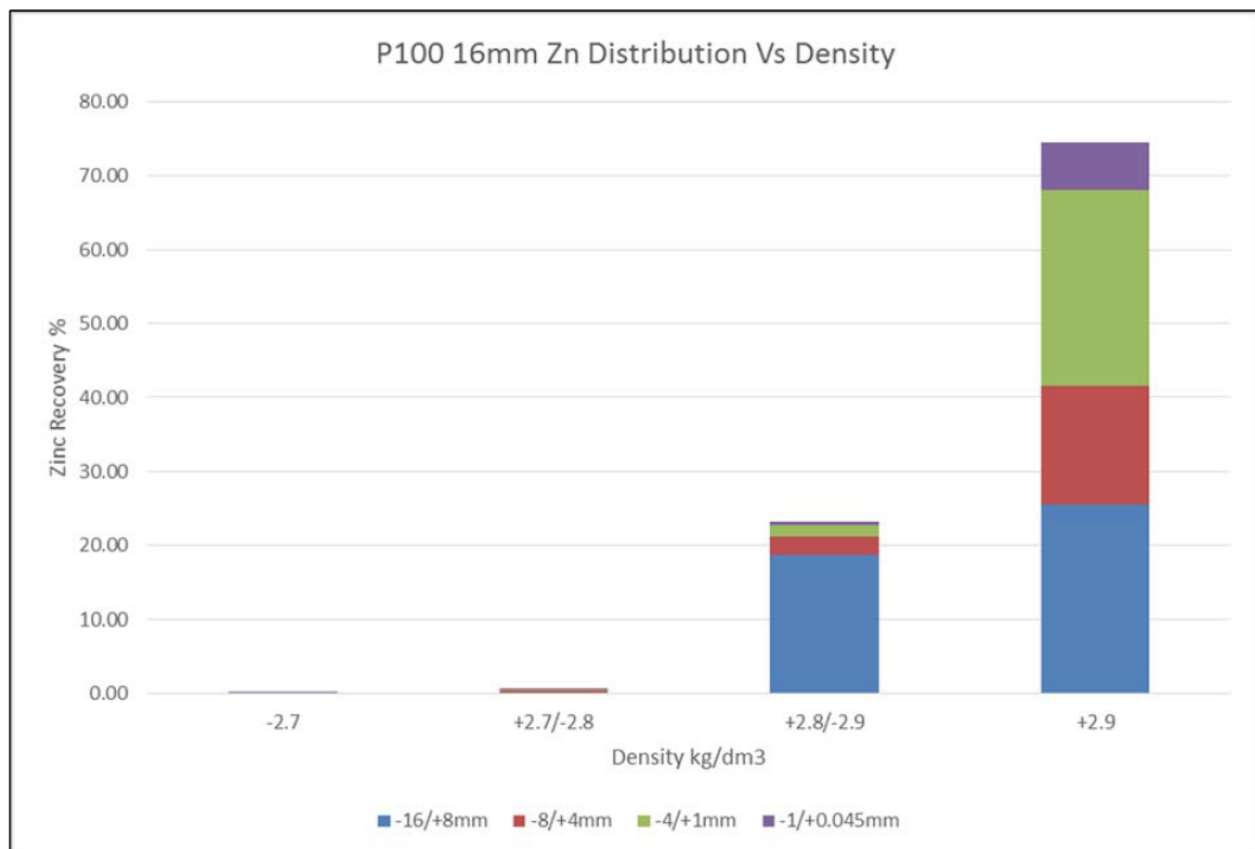
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## Conclusions

Heavy Liquid Separation (HLS) on zinc-lead mineralisation, from drill hole PB01-17 at the JB Zone on the Paperbark Project, north-west Queensland, was proven to be very successful. Using a fluid of density  $+2.9 \text{ kg/dm}^3$  and a crush size of  $P_{100} 8\text{mm}$ , 85.4% of the contained zinc reported to the HLS fraction, with a subsequent upgrade in the zinc grade to 17.5% and a 10-fold decrease in overall sample mass. The HLS results indicate that pre-concentration of the JB Zone Mineral Resource, has the potential to increase the grade of zinc placed into the milling and flotation section of a processing plant to  $>15\%$  Zn and reduce the mass of material to be processed by a factor of 10. The substantial increase in zinc grade and reduction in overall sample mass, has the potential to significantly decrease both the operating and capital development costs for processing the JB Zone Mineral Resource.

Figure Three - Zinc Recovery and Size Distribution for the  $P_{100} 8\text{mm}$  Fractions



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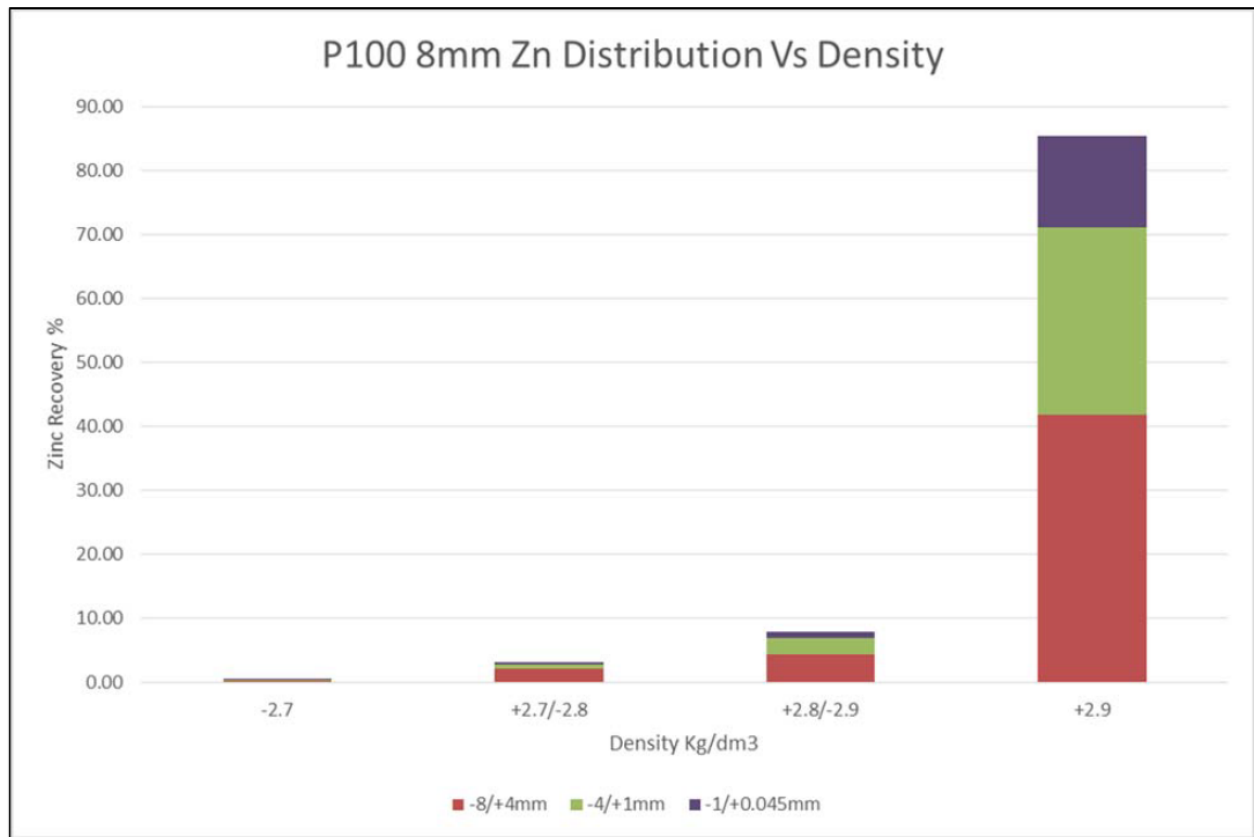
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Figure Four - Zinc Recovery and Size Distribution for the P<sub>100</sub> 16mm Fractions



## About Pursuit Minerals

Following completion of acquisition of the Bluebush, Paperbark and Coober Pedy Projects from Teck Australia Pty Ltd, Pursuit Minerals Limited (ASX: PUR) has become a mineral exploration and project development company advancing copper and zinc projects in world-class Australian metals provinces.

Having acquired zinc and copper projects in the heart of the Mt Isa Province, Pursuit Minerals is uniquely placed to deliver value as it seeks to discover world class deposits adjacent to existing regional infrastructure and extract value from its existing mineral resources.

Led by a team with a wealth of experience from all sides of minerals transactions, Pursuit Minerals understands how to generate and capture the full value of minerals projects. From local issues to global dynamics, Pursuit Minerals knows how to navigate development and deliver returns to shareholders and stakeholders.

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For more information about Pursuit Minerals and its projects, visit:

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– ENDS –

### **Competent person's statement**

Statements contained in this announcement relating to exploration results are based on, and fairly represents, information and supporting documentation prepared by Mr. Jeremy Read, who is a member of the Australian Institute of Mining & Metallurgy (AusIMM), Member No 224610. Mr. Read is a full-time employee of the Company and has sufficient relevant experience in relation to the mineralisation styles being reported on to qualify as a Competent Person as defined in the *Australian Code for Reporting of Identified Mineral Resources and Ore Reserves (JORC) Code 2012*. Mr Read consents to the use of this information in this announcement in the form and context in which it appears.

The data in this announcement that relates to the Mineral Resource for the JB Prospect is based on, and fairly represents, information and supporting documentation prepared by Mr Simon Tear, who is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM), Member No 202841 and who has sufficient experience relevant to the style of mineralisation and the type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC) Code 2012. Mr Tear is a director of H&S Consultants Pty Ltd and he consents to the inclusion of the estimates of the Mineral Resource for the JB Prospect Resource in this announcement in the form and context in which it appears.

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## JORC TABLE

**TABLE 1 – Section 1: Sampling Techniques and Data**

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<p><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 downhole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i></p> <p><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></p> <p><i>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</i></p>	<p>From depth 28m until 34m, one metre samples of half NQ2 core were used to obtain samples for analysis.</p> <p>From depth 53m until 57m, one metre samples of half NQ2 core were used to obtain samples for analysis.</p> <p>From depth 179m until 515m, one metre samples of half NQ2 core were used to obtain samples for analysis.</p> <p>All Samples were pulverised (ALS Preparation PREP31B) and a split of up to 250g was taken and pulverised to better than 85% passing a 75 micron screen. From the 250g split a 0.25g sample was taken, digested with perchloric, nitric, hydrofluoric and hydrochloric acids and analysed using ALS technique MEICP61A.</p> <p>The quarter core samples from the mineralised section (271-339m) from drill hole PB01-17 were weighed and composited into a single bulk sample for Heavy Liquid Separation (HLS) test work. The bulk sample, PB01-17 Composite, was crushed to P<sub>100</sub> 16mm. A head sample, 2 x 2kg sighter test samples and 2 x 5 kg HLS test work samples were split off. One sighter test sub-sample was crushed to P<sub>100</sub> 8mm. Following sighter tests, one 5kg sub-sample was sized at 8mm, 4mm, 1mm and 0.045mm. On completion of the HLS test work on the P<sub>100</sub> 16mm material, the second 5kg sample was crushed to P<sub>100</sub> 8mm and sized at 4mm, 1mm and 0.045mm for further HLS testing.</p>
<b>Drilling techniques</b>	<p><i>Drill type (eg 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></p>	<p>The sample for the HLS test work was taken from drill hole JB01-17 on the Paperbark Project. This drill hole was completed using diamond HQ drilling, which drilled the rock sequences from 0m until 57m. From 57m until the end of the hole at 536.2m the drilling technique was NQ2 diamond drilling. The drill hole was drilled at an inclination of -60 degrees towards 50 degrees (magnetic). The drill core was orientated and direction of geological structures were recorded. The diamond</p>

Criteria	JORC Code explanation	Commentary
<b>Drill sample recovery</b>	<p><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></p> <p><i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></p> <p><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></p>	<p>drilling used triple tube.</p> <p>The HQ and NQ2 diamond drill core from the Proterozoic basement rocks was measured and compared against the drilled depths of the hole on a metre by metre basis. This allowed core recovery factors to be determined. Drill core recovery was generally in excess of 80%. Areas of core loss were experienced throughout the drill hole, with sections of core loss ranging in down hole width from 0.2m – 0.5m.</p> <p>In order to ensure the drill core samples are representative of the rock sequences drilled, half drill core was cut and submitted to the laboratory for analysis.</p> <p>Sixty Eight, one metre, quarter drill core samples from drill hole JB01-17 were taken from the down hole depths 271-339. These samples were then crushed and composited into a single composite sample for HLS test work.</p>
<b>Logging</b>	<p><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></p> <p><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></p> <p><i>The total length and percentage of the relevant intersections logged.</i></p>	<p>The diamond drill core was fully geologically and geotechnically logged to a standard which would support a Mineral Resource estimation. The geological and geotechnical logging was quantitative in nature. A Mineral Resource has previously been defined at the JB Zone of 10.4Mt @ 2.7% Zn, 0.2% Pb, 1g/t Ag at 1.5% Zn cut-off grade and is classified as Inferred in accordance with the JORC Code (2012) (see ASX Announcement by Pursuit Minerals on 24 April, 2017). If further drilling is undertaken with the objective of revising the JB Zone Mineral Resource, then the geological and geotechnical logging has been completed to a sufficient standard to allow the re-estimation of JB Zone Mineral Resource.</p> <p>100% of drill hole PB01-17 was geologically and geotechnically logged.</p>

Criteria	JORC Code explanation	Commentary
<b>Sub-sampling techniques and sample preparation</b>	<p><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></p> <p><i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></p> <p><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></p> <p><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></p> <p><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></p> <p><i>Whether sample sizes are appropriate to the grain size of the material being sampled</i></p>	<p>Samples for the HLS test work were of quarter core, 1 metre in length. Quarter NQ2 core samples are entirely appropriate for accurately sampling the MVT/Irish Style, style of mineralisation of the JB Zone Mineral Resource, for HLS test work.</p> <p>Sub-sampling was not undertaken.</p> <p>Geochemical standards and duplicate samples were inserted into the assay run, every 20 samples. This is deemed to be appropriate for the drill core samples being collected.</p> <p>All samples passed Pursuits internal QA/QC checks plus the laboratory's (ALS) QA/QC checks.</p> <p><b>HLS Test Procedure: Coarse Samples (Particle Size greater than ~0.5-1 mm)</b></p> <p>The test procedure was as follows:</p> <ol style="list-style-type: none"> <li>(1) An appropriate mass of sample was split using a riffle splitter. The mass was dependent upon the number of densities required in the sequence, the particle size of the sample, and the end use for the separation products.</li> <li>(2) The appropriate density heavy liquid was prepared by evaporation or dilution of the concentrate. Density was checked using a hydrometer.</li> <li>(3) Heavy liquid was added to the sample, which was stirred to ensure wetting of the surfaces (air bubbles will result in dense particles floating).</li> <li>(4) The sample was allowed to separate for some time.</li> <li>(5) The float was poured off over a screen to separate the liquid from the sample.</li> <li>(6) Steps (3) to (5) were repeated until no further float was obtained (usually 2-3 repetitions).</li> <li>(7) The sink was recovered by pouring over a screen to separate it from the liquid.</li> </ol>

Criteria	JORC Code explanation	Commentary
		<p>(8) Where separation at more than one density was required, steps (3) to (7) were repeated at the next higher density on the sink fraction (most common) or the next lower density on the floats.</p> <p>(9) The sink and float products were then washed repeatedly with the appropriate solvent to remove the residual heavy liquid. For sample separated using Clerici's solution, this washing process was repeated for up to 24 hours to reduce thallium to an acceptable level (typically &lt;1%) in the products.</p> <p>(10) Samples were then dried at 105°C. Residual organics were usually driven off by the drying process.</p> <p><b>Test Procedure: Fine Samples (Particle Size –1 mm/+45 µm)</b></p> <p>The test procedure was as follows:</p> <p>(1) An appropriate mass of sample was split using a riffle splitter. The mass was dependent upon the number of densities required in the sequence, the particle size of the sample, and the end use for the separation products.</p> <p>(2) The appropriate density heavy liquid was prepared by evaporation or dilution of the concentrate. Density was checked using a hydrometer.</p> <p>(3) Heavy liquid was added to the sample, which was stirred to ensure wetting of the surfaces (air bubbles will result in dense particles floating).</p> <p>(4) Samples were centrifuged at 1000 rpm for 1 minute.</p> <p>(5) Floats were vacuumed out of the centrifuge tube using a vacuum filtration system.</p> <p>(6) Steps (3) to (5) were repeated until no further float was obtained (usually 2-3 repetitions).</p> <p>(7) Where separation at more than one density was required, steps (3) to (6) were repeated at the next higher density on the sink fraction.</p> <p>(8) The sink fraction was then recovered as in step (5).</p> <p>(9) The sink and float products were then washed repeatedly with the appropriate solvent to remove the residual heavy liquid. For samples separated using Clerici's solution, this washing process was repeated for up to 24 hours to reduce thallium to an acceptable level (typically &lt;1%) in the products.</p>

Criteria	JORC Code explanation	Commentary
		(10) Samples were then dried at 105°C. Residual organic heavy liquids are usually driven off by the drying process.

Criteria	JORC Code explanation	Commentary
<b>Quality of assay data and laboratory tests</b>	<p><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></p> <p><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></p> <p><i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i></p>	<p>The original assays results from drill hole JB01-17 (see Pursuit's ASX Announcement 29 November 2017) were half core samples and were submitted to the ALS laboratory in Mt Isa for assaying. Samples were prepared using Sample Preparation PREP31B. A sample prepared using ALS PREP31B is placed into the ALS tracking system, weighed, dried and finely crushed to better than 70% passing a 2mm screen. A split of up to 250g is taken and pulverised to better than 85% passing a 75 micron screen. This method is deemed suitable for half core drill samples and rock chips from mud rotary drilling.</p> <p>Each sample was assayed using ALS technique MEICP61A. The ALS MEICP61A analysis technique takes as a 0.25g sample and digests the sample with perchloric, nitric, hydrofluoric and hydrochloric acids. The residue is topped up with dilute hydrochloric acid and the resulting solution is analysed by inductively coupled plasma-emission spectrometry. The four acid digestion used in this method is described by ALS as a "near-total" digest.</p> <p>Standard, duplicate and blank samples were submitted in the sample run every 20 samples. The results from the standard and duplicates did not indicated a bias in the data. All standards for Ag, As, Cu, Co, Fe, Mg, Ni, Pb, Zn were within the 95% percentile.</p>
<b>Verification of sampling and assaying</b>	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	N/A – HLS test work only
	<i>The use of twinned holes.</i>	N/A – HLS test work only
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	Geological and geotechnical data was collected in the field and entered directly into an acQuire database on a MacBook field computer. Data was verified using the acQuire data base and upon verification was uploaded into a "cloud based" acQuire data base hosted by a third-party provider.
	<i>Discuss any adjustment to assay data.</i>	No adjustments to the assay data were made.
<b>Location of data points</b>	<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>	The drill hole collar location was located in the field using a hand-held GPS and reported in GDA94 Zone 54K with an accuracy of +/- 5m.



Criteria	JORC Code explanation	Commentary
	<i>Specification of the grid system used.</i>	Datum: Geocentric Datum of Australia (GDA) Grid Co-ordinates: Map grid of Australia 1994 (MGA94), Universal Transverse Mercator, using the GRS80 Ellipsoid, Zone 54K
	<i>Quality and adequacy of topographic control.</i>	The altitude of each sample location were recorded using a hand-held GPS to an accuracy of +/- 5m.
<b>Data spacing and distribution</b>	<i>Data spacing for reporting of Exploration Results.</i>	The drill core from drill hole PB01-17 was sampled on a 1 metre basis using half core samples.
	<i>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.</i>	Drill hole PB01-17 is the first drill hole completed by Pursuit Minerals into the JB Zone Mineral Resource. However, as samples and geological data are being collected on a metre by metre basis, the data will be of sufficient quality to establish the geological and grade continuity if Pursuit undertake a re-estimation of the JB Zone Mineral Resource.
	<i>Whether sample compositing has been applied.</i>	Samples were not composited
<b>Orientation of data in relation to geological structure</b>	<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>	The entire length of mineralisation in hole PB01-17 was sampled on a 1m length basis of half drill core. The drill hole appears to have intersected the mineralisation at a high angle and thus the sampling is considered to be unbiased.
	<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>	The mineralisation is structurally controlled, as is common for MVT and Irish type deposits. The drill hole was planned to intersect the structure controlling the mineralisation at a high angle and appears to have achieved this objective. Therefore, there will be no to little bias in the sampling of the mineralised zone.
<b>Sample security</b>	<i>The measures taken to ensure sample security.</i>	Samples were collected in the field by Pursuit Minerals staff and were under their control at all times. Samples were then taken to the laboratory by Pursuit Minerals staff and submitted directly to the laboratory. Therefore, there was no opportunity for samples to be tampered with.
<b>Audits or reviews</b>	<i>The results of any audits or reviews of sampling techniques and data.</i>	No audits or reviews of sampling techniques and data were completed.

**TABLE 1 – Section 2: Exploration Results**

<b>Criteria</b>	<b>JORC Code explanation</b>	<b>Commentary</b>
<b>Mineral tenement and land tenure status</b>	<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>	<p>The tenements comprising the Paperbark Project are 100% owned by Pursuit Minerals Limited.</p> <p>A 2% Net Smelter Return to Teck Australia Pty Ltd will be due from any production from Paperbark</p>
	<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>	EPM14309 is valid until 12 September, 2022.
<b>Exploration done by other parties</b>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	<p>No assay or geochemical results from other parties are used in this announcement. The JB Zone Mineral Resource was initially defined by RMG Resources Limited and announced to the ASX on 23 January, 2013. Pursuit Minerals engaged Mr. Simon Tear, who originally defined the JB Mineral Resource for RMG Resources, to review and reclassify the JB Zone Mineral Resource. The reviewed JB Zone Mineral Resource was announced to the ASX by Pursuit Minerals on 24 April, 2017.</p>
<b>Geology</b>	<i>Deposit type, geological setting and style of mineralisation.</i>	<p>The Paperbark Project is located within the Lawn Hill Platform, a relatively undeformed portion of the Mount Isa Inlier, which has seen low, greenschist grade metamorphism. Four folding events are recognized over the Lawn Hill Platform and of those, the regional D2 macroscopic folding with axes trending northeast-southwest or north-south are most common. The D2 event is considered coeval with deformation and metamorphism in the Mount Isa Group.</p> <p>Proterozoic basement rocks, members of the McNamara Group sediments at Paperbark are well exposed. Geological mapping by previous tenement holders has contributed to a good understanding of the distribution of various units recognised, including:</p> <ul style="list-style-type: none"> <li>• Torpedo Creek quartzite (orthoquartzite and conglomerate);</li> <li>• Gunpowder Creek Formation (dolomitic, feldspathic fine grained sandstone-siltstone);</li> <li>• Paradise Creek Formation (stromatolitic, dolomitic siltstone);</li> </ul>

Criteria	JORC Code explanation	Commentary														
		<ul style="list-style-type: none"><li>Esperanza formation (stromatolitic chert, sandstone and dolomitic siltstone);</li><li>Lady Loretta formation (laminated, stromatolitic siltstone and shale);</li><li>Shady Bore Quartzite (orthoquartzite, fine dolomitic sandstone); and</li><li>Riversleigh Siltstone (carbonaceous siltstone, shale and sandstone).</li></ul> <p>The sediments dip moderately (30 degrees) to the southwest and all units are potential hosts for base metal mineralisation.</p> <p>The package of rocks are cross cut by two significant, northeast trending faults (named the Grunter and Barramundi), with a series of second order faults splaying off the main structures. The faults form an anastomosing array that produce up to 7 km of strike slip apparent displacement with a mostly dextral sense of shear, in places, however, the offsets are sinistral.</p> <p>The faults are a clear control on mineralisation as elevated metal values are localised along them and in favourable horizons within the sediments where they are intersected by fault planes. The type of mineralisation is replacement, epigenetic/hydrothermal of similar character to Mississippi Valley Type (<b>MVT</b>) and Irish style mineralisation. Dissolution textures, cavity fill and solution collapse breccia, typical for this style are well developed, within the lime rich and dolomitic host rocks, including evaporites.</p>														
<b>Drill hole Information</b>	<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: 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>	<table><tr><td>Prospect</td><td>Drill Hole Name</td><td>Easting (GDA94, Zone 54)</td><td>Northing (GDA94, Zone 54)</td><td>Azimuth (Degrees)</td><td>Dip (Degrees)</td><td>Total Depth (m)</td></tr><tr><td>Paperbark</td><td>PB01-17</td><td>271549</td><td>7918128</td><td>050</td><td>-60</td><td>536.2</td></tr></table>	Prospect	Drill Hole Name	Easting (GDA94, Zone 54)	Northing (GDA94, Zone 54)	Azimuth (Degrees)	Dip (Degrees)	Total Depth (m)	Paperbark	PB01-17	271549	7918128	050	-60	536.2
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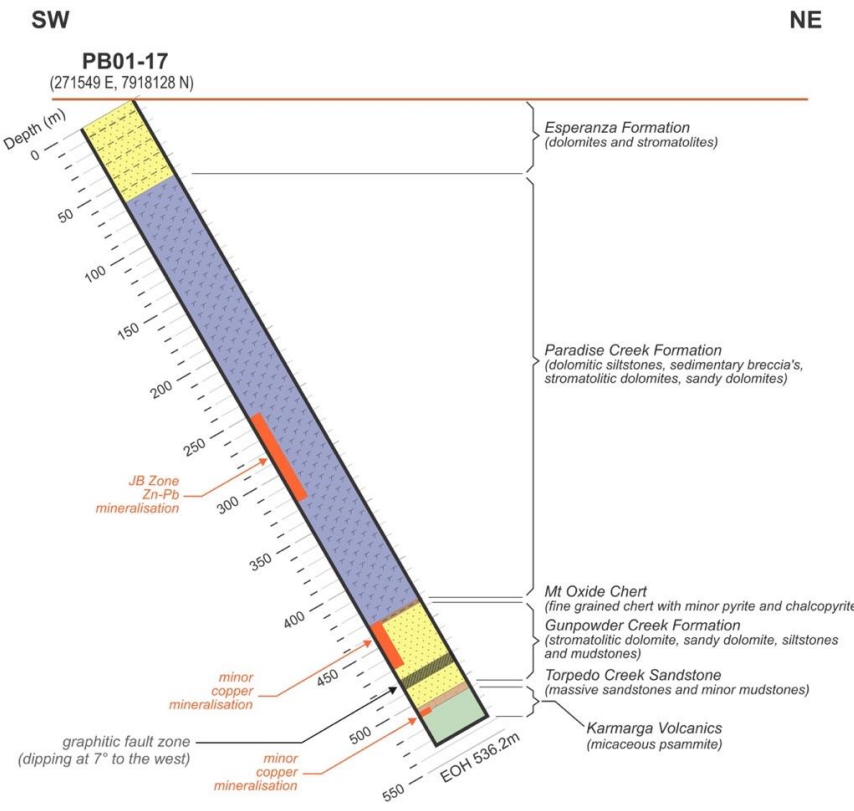
Criteria	JORC Code explanation	Commentary
		<p>Hole PB01_17 started on 13<sup>th</sup> October to target the potential copper zone below the JB Zone and the southern section of the JB Zone Mineral Resource. The hole was collared at 271549E 7918128 N it was completed at 536.2 m on 29/10/2017.</p> <p>Hole PB01-17 was drilled at -60 towards 50 degrees. The JB Zone mineralisation was seen from 251 to 324.3 m, with minor Pb/Zn mineralisation to 339m. There was minor copper mineralisation from 432 to 470m and 508 to 511m.</p> <p>The geology intersected by hole JB01-17 was :</p> <p>0 – 17.1 Very weathered rocks (probable silicified and part cavernous weathered dolomite or stromatolite)</p> <p>17.1 – 45.9 brown weathered dolomites and stromatolites</p> <p>45.9 – 65.1 stromatolitic dolomites</p> <p>65.1 – 208 interbedded dolomitic siltstones and mudstones (LMDc)</p> <p>208 – 319 stromatolitic dolomites with increasing interbeds of sedimentary breccias (LMDa) the breccias may be mostly rip-up clasts of shallow water dolomitic beds.</p> <p>319 – 350.6 predominantly sedimentary breccias (LMDb) of shallow water origin</p> <p>350.6 – 394 evaporate dominated chaotically recrystallised sediments</p> <p>394 – 411.2 massive stromatolitic dolomite beds</p> <p>411.2 – 432.3 interbeds of silty sandy dolomite and domal stromatolites</p> <p>432.3 – 436.3 fine grained dark cherty rock with minor fine disseminations of pyrite and chalcopyrite (Mt Oxide Chert)</p> <p>436.3 – 439.8 domal stromatolitic dolomite</p> <p>439.8 – 455.7 evaporitic to sandy dolomite</p> <p>455.7 – 468.2 graded siltstone to mudstone thin beds with minor sandy interbeds very minor chalcopyrite and pyrite in basal parts of sand interbeds</p> <p>468.2 – 504 thin bedded graded siltstones to mudstones – included graphitic faulted zone 479 to 487m</p> <p>504 – 511.2 massive sandstone very minor mudstone and small conglomeratic interval (0.2m) with minor chalcopyrite (Torpedo Creek Sandstone?)</p>

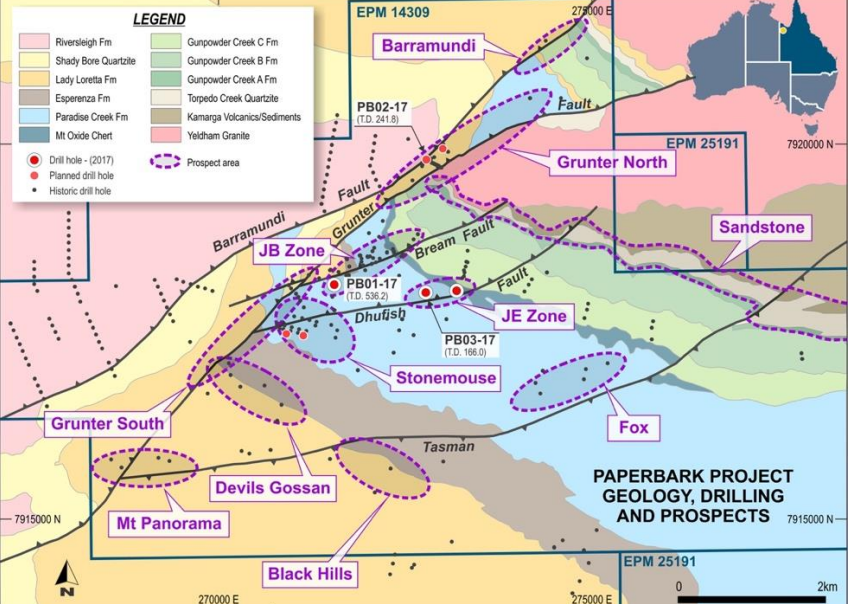
Criteria	JORC Code explanation	Commentary
		<p>511.2 – 536.2 very micaceous psammite with old quartz veins foliated and with several pegmatitic patches.</p> <div data-bbox="1245 344 2119 1233"> <p style="text-align: center;"><b>STRATIGRAPHIC STRIP LOG - DRILL HOLE PB01-17</b></p> </div>

Criteria	JORC Code explanation	Commentary																																																
		<div><p><b>PAPERBARK PROJECT GEOLOGY, DRILLING AND PROSPECTS</b></p></div> <table><tr><th>Hole ID</th><th>Down Hole Depth From (m)</th><th>Down Hole Depth To (m)</th><th>Down Hole Interval (m)</th><th>Zn (%)</th><th>Pb (%)</th><th>Zn+Pb (%)</th><th>Cu (%)</th></tr><tr><td>PB01-17</td><td>252</td><td>253</td><td>1</td><td>7.34</td><td>9.30</td><td>16.64</td><td></td></tr><tr><td></td><td>271</td><td>339</td><td>68</td><td>1.39</td><td>0.05</td><td>1.44</td><td></td></tr><tr><td>including</td><td>286</td><td>299</td><td>13</td><td>3.57</td><td>0.10</td><td>3.57</td><td></td></tr><tr><td>and</td><td>296</td><td>299</td><td>3</td><td>5.35</td><td>0.05</td><td>5.40</td><td></td></tr><tr><td>and</td><td>308</td><td>318</td><td>10</td><td>1.93</td><td>0.05</td><td>1.99</td><td></td></tr></table>	Hole ID	Down Hole Depth From (m)	Down Hole Depth To (m)	Down Hole Interval (m)	Zn (%)	Pb (%)	Zn+Pb (%)	Cu (%)	PB01-17	252	253	1	7.34	9.30	16.64			271	339	68	1.39	0.05	1.44		including	286	299	13	3.57	0.10	3.57		and	296	299	3	5.35	0.05	5.40		and	308	318	10	1.93	0.05	1.99	
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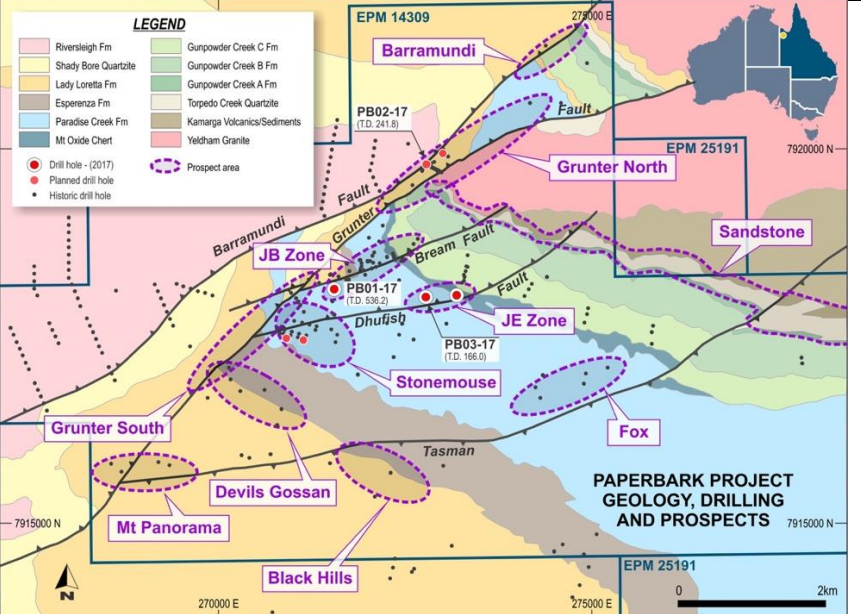


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	<i>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i>	This information has not been excluded.																							
<b>Data aggregation methods</b>	<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>	The diamond drill core samples were taken on standard one metre lengths and therefore, weighted average means were not used to calculate intersections widths and grades for these samples. Top cutting of assay results was not employed.																							
	<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>	The reported intersections did not include short lengths of high grade results, but lengths of medium grade lead and zinc. Therefore, the results were not aggregated.																							
	<i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>	No metal equivalent values are reported.																							
<b>Relationship between mineralisation widths and intercept lengths</b>	<i>If the geometry of the mineralisation with respect to the drill-hole angle is known, its nature should be reported.</i>	The mineralisation comprising the JB Zone Mineral Resource is interpreted to dip to the south-west at a moderate dip of 20-40 degrees, with the drop increasing to the south. Drill hole PB01-17 was designed to intersect the JB Zone Mineralisation at a high angle and this objective appears to have been achieved. Therefore, the down-hole depths will be close of the true width of the mineralisation.																							
	<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>	Down-hole widths were report. The exact true width is not known, but down hole widths are anticipated to be close to true thicknesses.																							

Criteria	JORC Code explanation	Commentary
<p><b>Diagrams</b></p>	<p>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.</p>	<p style="text-align: center;"><b>STRATIGRAPHIC STRIP LOG - DRILL HOLE PB01-17</b></p>  <p>The diagram is a stratigraphic strip log for drill hole PB01-17, oriented SW to NE. The vertical axis represents depth in meters (m), ranging from 0 to 550m. The log shows the following geological formations and features from top to bottom:</p> <ul style="list-style-type: none"> <li><b>Esperanza Formation</b> (dolomites and stromatolites): 0 to approximately 100m depth.</li> <li><b>Paradise Creek Formation</b> (dolomitic siltstones, sedimentary breccia's, stromatolitic dolomites, sandy dolomites): 100 to approximately 400m depth.</li> <li><b>JB Zone Zn-Pb mineralisation</b>: Indicated by a red arrow pointing to a zone between approximately 250m and 300m depth.</li> <li><b>Mt Oxide Chert</b> (fine grained chert with minor pyrite and chalcopyrite): A thin layer at approximately 400m depth.</li> <li><b>Gunpowder Creek Formation</b> (stromatolitic dolomite, sandy dolomite, siltstones and mudstones): A thin layer at approximately 410m depth.</li> <li><b>Torpedo Creek Sandstone</b> (massive sandstones and minor mudstones): A thin layer at approximately 420m depth.</li> <li><b>minor copper mineralisation</b>: Indicated by red arrows pointing to zones at approximately 450m and 500m depth.</li> <li><b>graphitic fault zone</b> (dipping at 7° to the west): Indicated by a red arrow pointing to a zone at approximately 500m depth.</li> <li><b>Karmarga Volcanics</b> (micaceous psammite): The bottom-most unit, starting at approximately 510m depth.</li> </ul> <p>The drill hole is identified as <b>PB01-17</b> with coordinates (271549 E, 7918128 N). The total depth reached is marked as <b>EOH 536.2m</b> at the bottom of the log.</p>

Criteria	JORC Code explanation	Commentary
		 <p><b>PAPERBARK PROJECT GEOLOGY, DRILLING AND PROSPECTS</b></p>
<b>Balanced reporting</b>	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 assay results have been included in Appendix One.
<b>Other substantive exploration data</b>	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.	HLS Test Work Flow Sheet

Criteria	JORC Code explanation	Commentary
		<p>Receive Sample Assume 70m Drill Core 1M HQ Core</p> <p>Crush to P100 10mm Split for testwork</p> <p>1kg Reserve 75kg</p> <p>1kg for Head Assay XRF for Cu, Pb, Zn, Fe, S, Si Mn, Mg, Ca, Al</p> <p>2kg -10mm HLS sighter test on -1kg 2.95kg/tonne Split subsamples for Assay - XRF Cu, Pb, Zn, Fe, S, Si Mn, Mg, Ca, Al Retain reserve</p> <p>2kg for HLS sighter Crush to P100 8mm HLS sighter test @ 2.95kg/tonne Split subsamples for Assay - XRF Cu, Pb, Zn, Fe, S, Si Mn, Mg, Ca, Al Retain reserve</p> <p>2kg -10mm HLS Sample Dry screen at 8mm, 4mm, 1mm Split -16+8 an -8+4 -4+1mm Wet Screen -1mm @ 0.045mm HLS @ 2.7, 2.8, 2.9kg/tonne Retain Reserve Split subsamples for Assay - XRF Cu, Pb, Zn, Fe, S, Si Mn, Mg, Ca, Al Retain reserve HLS products for further testwork</p> <p>2kg -10mm Crush P100 8mm Dry screen at 4mm, 1mm, retain -1mm Wet Screen -1mm @ 0.045mm Split -8+4 -4+1 &amp; -1+0.045mm for HLS at 2.75, 2.85, 2.95kg/tonne Retain Reserve Split subsamples for Assay - XRF Cu, Pb, Zn, Fe, S, Si Mn, Mg, Ca, Al Retain reserve HLS products for further testwork</p> <p>CLIENT: Pursuit Minerals Jeremy Read PROJECT: Paperbark Zn Project RESOURCE: Zinc</p> <p>HAZARDS</p> <p>AGIS STATUS</p> <p>Prepared By Russell Phillip</p>
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).	Pursuit Minerals has not yet determined if follow up drilling will definitely be conducted at the JB Zone in 2018. It is a possibility that further drilling will be conducted at the northern end of the JB Zone, in order to determine the extent of the Mineral Resource at shallow depth, given that the JB Zone Mineral Resource is open both to the north, east and south. The next work to be conducted at the JB Zone is to economically modelled the results of the HLS test work and to determine if the JB Zone Mineral Resource could sustain a stand-alone project which is economic. If this is indicated by the economic modelling and open pit Whittle optimisation, then further drilling of the JB Zone will be undertaken in 2018.

Criteria	JORC Code explanation	Commentary
	<p>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</p>	 <p><b>LEGEND</b></p> <ul style="list-style-type: none"> <li>Riversleigh Fm</li> <li>Shady Bore Quartzite</li> <li>Lady Lorella Fm</li> <li>Esperanza Fm</li> <li>Paradise Creek Fm</li> <li>Mt Oxide Chert</li> <li>Gurupowder Creek C Fm</li> <li>Gurupowder Creek B Fm</li> <li>Gurupowder Creek A Fm</li> <li>Torpedo Creek Quartzite</li> <li>Kamarga Volcanics/Sediments</li> <li>Yeldham Granite</li> <li>Drill hole - (2017)</li> <li>Planned drill hole</li> <li>Historic drill hole</li> <li>Prospect area</li> </ul> <p><b>PAPERBARK PROJECT GEOLOGY, DRILLING AND PROSPECTS</b></p>

