

ASX ANNOUNCEMENT 22 NOVEMBER 2017



Broken Hill Prospecting Ltd (ASX: BPL)

An Australian Exploration company focussed on the discovery & development of strategic technology mineral resources

Commodity Exposure

Heavy Mineral Sands Cobalt Base & Precious Metals

Directors & Management

Creagh O'Connor Non-Executive Chairman Geoff Hill Non-Executive Director Matt Hill Non-Executive Director

Denis Geldard Non-Executive Director

Trangie Johnston Chief Executive Officer

lan Morgan *Company Secretary*

Capital Structure

Ordinary Shares on Issue (21/10/17) **148M** Options: Listed **47M** Market Cap (undiluted at 4.5 cps) **\$6.7M**

Broken Hill Prospecting Ltd

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Highlights

Multiple large base and precious metal targets found at Thackaringa Project near Broken Hill

- Completion of an extensive, 633-line kilometre VTEM-Max heliborne geophysical survey over all Thackaringa Project tenement holdings, 25km south-west of Broken Hill
- Multiple base and precious metal anomalies identified for further evaluation
- Major field mapping campaign also provides new stratigraphic and structural controls to greatly enhance targeting
- Newly discovered zinc, lead and silver (Zn-Pb-Ag) prospects with outcropping quartz-gahnite veins – a key vector for Broken Hill-style Zn-Pb-Ag mineralisation
- Planning underway for additional geophysical surveys (Induced Polarisation) on key targets together with soil programs on newly defined Zn-Pb-Ag prospects
- Cobalt Blue Holdings Ltd (COB) has fully funded the work program under its Thackaringa Cobalt Project JV commitments
- BPL retains the base and precious metal exploration rights over the Thackaringa Project tenements
- Strong EM response over the Thackaringa Cobalt Project highlights open strike and dip potential on known deposits. Thackaringa Cobalt Project is subject to a major 13,500m drilling program and Prefeasibility Studies under joint venture with COB

Trangie Johnston commented:

"BPL has greatly enhanced the base and precious metal exploration potential at the Thackaringa Project located 25km southwest of Broken Hill. We plan to ramp up exploration activities after the successful discovery of new zinc, lead and silver prospects off the back of a major geophysicalmapping program. BPL is well positioned to take advantage of improved market conditions and unlock shareholder value."



MAJOR GEOPHYSICAL SURVEY

During September, a major heliborne electromagnetic ('EM') survey (VTEM-Max) was completed at Thackaringa, 25km south-west of Broken Hill. The survey covered the entire project area (63km2) at a nominal 100m-line spacing, and identified several EM conductors broadly classified by stratigraphic host - the Broken Hill and Thackaringa Suites of the Willyama Supergroup.

The Broken Hill Suite is widely distributed across the project area and is underlain by the Thackaringa Suite which hosts the Thackaringa Cobalt-Pyrite deposits comprising 54.9Mt at 910ppm cobalt, 9.56% sulphur & 10.19% iron (as released 5 June 2017 at a 500ppm cobalt cut-off)

The survey was fully funded by Cobalt Blue Holdings (COB) as part of the Thackaringa Cobalt Project joint venture.

Broken Hill Suite Anomalies

BPL retains the base and precious metal exploration rights over the Thackaringa tenements. The EM responses occurring within the Broken Hill Suite, are therefore particularly significant. They are considered to be prospective for mineralisation styles including:

- Stratiform Broken Hill Type (BHT) Copper-Lead-Zinc-Silver
- Copper-rich BHT
- Epigenetic Gold and Base metals

Three anomalies hosted within the Broken Hill Suite were identified and occur coincident with historical workings. These areas have been subject to limited modern exploration and represent new targets for BPL. Field reconnaissance has confirmed discernible hydrothermal alteration of isolated outcrop, also characterised by gahnite (ZnAl2O4) bearing 'lode rocks'. These observations are particularly encouraging and routinely applied as mineralisation vectors within the Broken Hill terrain.

Anomalies are currently being prioritised for further investigation by a targeted induced polarisation survey and detailed soil geochemistry.

Thackaringa Suite Anomalies

Multiple anomalies were identified proximal to the Thackaringa cobalt-pyrite deposits, and the survey also successfully fingerprinted known mineralisation. Conductors occurring coincident with the Railway deposit form an immediate focus. These targets appear to reflect the complexly folded nature of the cobalt-pyrite mineralisation, which has resulted in significant structural thickening. Geophysical modelling will be assessed in context with ongoing resource definition drilling to confirm that all conductors have been adequately tested.

An additional deep conductor has been identified along strike from the Railway deposit, and is broadly coincident with a subtle chargeability anomaly defined by historical IP. This target is yet to be effectively tested and is expected to form part of future exploration drilling programs.

Several other conductors were identified regionally and are being modelled by the Company's geophysical consultant.

The Thackaringa deposits are the subject of a significant drilling campaign comprising approximately 13,500m. The campaign is targeting confirmation of geological continuity to support improved Mineral Resource classification. The revised Mineral Resource estimate will underpin Ore Reserve estimation to be completed during the Pre-feasibility study.

A dedicated geotechnical drilling program also is nearing completion, with results to inform detailed pit optimisation and mine planning.

Initial results from current drilling are expected in late November.





Figure 1. Thackaringa project regional geology map highlighting key structural and stratigraphic controls which has greatly enhance targeting for precious and base metals.





Figure 2. Thackaringa electromagnetic (EM) survey illustrating major targets identified for follow up exploration activities.





Anthony (Trangie) Johnston Chief Executive Officer For further information, please contact



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PREVIOUSLY RELEASED INFORMATION

This ASX announcement refers to information extracted from the following reports, which are available for viewing on BPL's website http://www.bhpl.biz

- <u>31 October 2017 Quarterly Activities and Cash Flow</u> <u>Reports September 2017</u>
- <u>27 September 2017 Geophysical Survey and 3D Modelling</u> <u>Commences at Thackaringa</u>
- <u>3 July 2017 Positive Scoping Study Delivered on</u> <u>Thackaringa</u>

BPL confirms it is not aware of any new information or data that materially affects the information included in the original market announcement, and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. BPL confirms that the form and context in which the Competent Person's findings presented have not been materially modified from the original market announcement.

COMPETENT PERSON'S STATEMENT

The information in this report that relates to Mineral Resources and Exploration Targets is based on information compiled by Mr Anthony Johnston, BSc (Hons), who is a Member of the Australian Institute of Mining and Metallurgy and is a full time employee of the Company. Mr Johnston has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 & 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.' Mr Johnston consents to the inclusion in the announcement of the matters based on his information in the form and context that the information appears.

ABOUT BROKEN HILL PROSPECTING LIMITED

Broken Hill Prospecting Limited (BPL) is an Australian exploration company focussed on the discovery and development of strategic mineral resources across two primary projects the Murray Basin Heavy Mineral Sands Project and the Thackaringa Cobalt & Base/Precious Metal Project.

MURRAY BASIN HEAVY MINERAL SANDS PROJECT

BPL has built a substantial portfolio of Heavy Mineral Sands (HMS; titanium & zircon) Projects within the world-class Murray Basin. BPL now holds the largest tenement portfolio in the Murray Basin.

Additional tenement applications and potential project acquisitions under review will continue to position the Company to take advantage of improving market conditions.

BPL is targeting the establishment of a sustainable pipeline of high grade, low tonnage deposits amendable to processing through mobile plant equipment that could be deployed across the broader project area.

THACKARINGA COBALT PROJECT

The Thackaringa Cobalt Project is strategically located 25km south-west of Broken Hill, New South Wales, adjacent to the main transcontinental railway line. Mineralised outcrop extends for over 10km, with less than a quarter of this trend having been drill tested. The project is currently undergoing Pre-feasibility Studies.

The Thackaringa Cobalt Project is under a Farm In and Royalty Agreement with Cobalt Blue Holdings Ltd (COB). COB can earn 100% of the project if it completes a 4 stage farm-in by committing \$9.5 million project expenditure by 30 June 2020, and pays BPL \$7.5 million in cash.



In addition, BPL will receive a 2% net smelter royalty on all cobalt produced from the Thackaringa tenements for the life of mine. BPL retains the base and precious metal exploration rights over the Thackaringa tenements, where it is actively exploring for Broken Hill (Pb-Zn-Ag) style mineralisation.

Cobalt is a necessary metal for the production of the latest generation, high density Lithium-ion batteries. Due to its high run-time properties, the use of cobalt has risen dramatically as portable Li-ion battery usage accelerates and electric vehicles become a reality.

TENEMENT HOLDING

The interests in tenements held by Broken Hill Prospecting Limited (and fully owned subsidiaries) and the related percentage of ownership:

Thackaringa Cobalt Project

EL 6622	100% legal interest Broken Hill Prospecting Ltd
EL 8143	100% legal interest Broken Hill Prospecting Ltd
ML 86	100% legal interest Broken Hill Prospecting Ltd
ML 87	100% legal interest Broken Hill Prospecting Ltd

Murray Basin Heavy Mineral Sands (HMS) Project

EL 8558	100% Murray Basin Minerals Pty Ltd
EL 8559	100% Murray Basin Minerals Pty Ltd
EL 8649	100% Murray Basin Minerals Pty Ltd
EL 8650	100% Murray Basin Minerals Pty Ltd
EL006583	100% Murray Basin Minerals Pty Ltd
EL006584	100% Murray Basin Minerals Pty Ltd
EL006585	100% Murray Basin Minerals Pty Ltd
ELA 2017/00201	100% Murray Basin Minerals Pty Ltd



Appendix 1 - JORC Code, 2012 Edition - Table 1 Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code Explanantion	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. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. 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. 	 The heliborne electromagnetic ('EM') survey (VTEM-Max™) maps variations in ground conductivity. This technique is well established for mineral exploration applications. No determination of mineralisation has been made from survey results except by correlation to defined mineral deposits (Thackaringa cobalt-pyrite deposits).
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).	No drilling was undertaken
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. 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 drilling was undertaken





Criteria	JORC Code Explanantion	Commentary
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. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	No drilling or logging was undertaken
Sub-sampling techniques and sample preparation	 If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all subsampling stages to maximise representivity of samples. 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. Whether sample sizes are appropriate to the grain size of the material being sampled. 	No sampling was undertaken
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. 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. 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. 	No sampling or assaying was undertaken
Verification of sampling and assaying	 The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	No sampling or assaying was undertaken





Criteria	JORC Code Explanantion	Commentary
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. Specification of the grid system used. Quality and adequacy of topographic control. 	 During survey completion a GPS navigation system utilising a Novatel GPS receiver provided in-flight navigation control. This system determines the absolute position of the helicopter in three dimensions with as many as 11 GPS satellites monitored at any one time. This is deemed to provide an in-flight accuracy up to 3 meters. A radar altimeter system records the ground clearance to an accuracy of approximately 1 metre. All data is presented in GDA94/MGA zone 54 grid system.
Data spacing and distribution	 Data spacing for reporting of Exploration Results. 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. Whether sample compositing has been applied. 	 The heliborne electromagnetic ('EM') survey (VTEM-Max) was completed on 100 metre line spacing deemed suitable for the geological terrain and targeted mineralisation styles. The survey covered the entire project area inclusive of EL6622, EL8143, ML86 and ML87 for a total of 633-line kilometres. No sampling or sample compositing has been applied.
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. 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. 	The heliborne electromagnetic ('EM') survey (VTEM- Max) was completed on northwest-southeast (135 – 315) orientated flight lines perpendicular to the predominant geological strike.
Sample security	• The measures taken to ensure sample security.	No sampling was undertaken
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	No audits have been undertaken



Section 2 Reporting of Exploration Results

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code Explanantion	Commentary
Mineral tenement and land tenureType, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title	• The Thackaringa Cobalt project is located approximately 25 kilometres west-southwest of Broken Hill and comprises four tenements with a total area of 63 km ² :	
	interests, historical sites, wilderness or national nark and environmental settings	Tenement Grant date Expiry date
	 The security of the tenure held at the time of 	EL6622 30/08/2006 30/08/2020
	reporting along with any known impediments to	EL 8143 26/07/2013 26/07/2020
	obtaining a licence to operate in the area.	ML86 5/11/1975 4/11/2017
		ML87 5/11/1975 4/11/2017
		• The project tenure is subject to a Farm-In agreement between Cobalt Blue Holdings Limited (COB) and Broken Hill Prospecting Limited (BPL). The nature of this agreement is detailed in the COB Replacement Prospectus (as released 4 January 2017).
		• The nearest residence (Thackaringa Station) is located approximately three kilometres west of EL6622.
		• EL6622 is transected by the Transcontinental Railway; the Barrier Highway is located the north of the licence boundaries.
		• The majority of the project tenure is covered by Western Lands Lease which is considered to extinguish native title interest. However, Native Title Determination NC97/32 (Barkandji Traditional Owners 8) is current over the area and may be relevant to Crown Land parcels (e.g. public roads) within the project area.
		• The project tenure is more than 90 kilometres from the nearest National Park and or Wilderness Area (Kinchega National Park) and approximately 20 kilometres south of the nearest Water Supply Reserve (Umberumberka Reservoir Water Supply Reserve).
		• The Company is not aware of any impediments to obtaining a licence to operate in the area.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	A detailed and complete record of all exploration activities undertaken prior to the BPL 2016 drilling program is appended to the JORC Table 1 which forms part of the Cobalt Blue Prospectus Document, available on the COB website.





Criteria	JORC Code Explanantion	Commentary
Geology	 Deposit type, geological setting and style of mineralisation. 	 Regional Geological Setting The Thackaringa project is located in a deformed and metamorphosed Proterozoic supracrustal succession named the Willyama Supergroup, which crops out as several inliers in western New South Wales, including the Broken Hill Block (Willis, et al., 1982). Exploration by BPL Limited has been focused on the discovery of cobaltiferous pyrite deposits and Broken Hill type base-metal mineralisation both of which are known from historical exploration in the district. The project area covers portions of the Broken Hill and Thackaringa group successions which host the majority of mineralisation in the region, including the Broken Hill base-metal deposit. The Sundown Group suite is also present. The extensive sequence of quartz-albite-plagioclase rock that hosts the cobaltiferous pyrite mineralisation is interpreted as belonging to the Himalaya Formation which is stratigraphically.
		at the top of the Thackaringa Group.
		 Local Geological Setting The oldest rocks in the region belong to the Curnamona Craton which outcrops on the Broken Hill and Euriowie blocks. The overlying Proterozoic rocks have been broadly subdivided into three major groupings, of which the oldest groups are the highly deformed metasediments and igneous derived rocks of the Thackaringa and Broken Hill groups. They comprise a major part of the Willyama Supergroup and host the giant Broken Hill massive Pb-Zn-Ag sulphide ore body. EL6622 is within the Broken Hill block of the Curnamona
		Craton.



Criteria	JORC Code Explanantion	Commentary
		Mineralisation Style
		 The Thackaringa Mineral deposits (Pyrite Hill, Big Hill and Railway) are characterised by large tonnage cobaltiferous-pyrite mineralisation hosted within siliceous albitic gneisses and schists of the Himalaya Formation
		 Cobalt mineralisation exists within stratabound pyritic horizons where cobalt is present within the pyrite lattice. Mineralogical studies have indicated the majority of cobalt (~85%) is found in solid solution with primary pyrite (Henley 1998)).
		• A strong correlation between pyrite content and cobalt grade is observed
		 The regional geological setting indicates additional mineralisation targets including:
		Stratiform Broken Hill Type (BHT) Copper- Lead-Zinc-Silver deposits
		Copper-rich BHT deposits
		Stratiform to stratabound Copper-Cobalt- Gold deposits
		Epigenetic Gold and Base metal deposits
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:	• Drilling information is not regarded as material to the understanding of geophysical results presented.
	• 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	



Criteria	JORC Code Explanantion	Commentary
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. 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. 	• No drilling was undertaken
	• The assumptions used for any reporting of metal equivalent values should be clearly stated.	
Relationship between	• These relationships are particularly important in the reporting of Exploration Results.	No drilling was undertaken
mineralisation widths and intercept lengths	• If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.	
	 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'). 	
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	• Appropriate maps are presented in the accompanying ASX release.
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.	 No drilling or sampling was undertaken





Criteria	JORC Code Explanantion	Commentary
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. 	 The results presented herein are based on field corrected preliminary EM data interpreted in context of the regional geological setting. The survey forms part of a regional geological mapping campaign which will support the development of a tenement scale 3D geological model. The survey details are summarised below: System - VTEM-Max Transmitter Loop Diameter: 35 m Loop Turns: 4 Effective TX loop area: 3,847 m² Base Frequency: 25 Hz Typical Current: 180 A Pulse Width: 7 ms EM sensor mean terrain clearance: 35 - 45m
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). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	• The nature and scale of planned further work will be determined following the completion of final data modelling.