31 January 2012

Australian Stock Exchange Limited
Exchange Centre,
Level 6, 20 Bridge Street,
SYDNEY, NSW 2000

BROKEN HILL PROSPECTING LTD
QUARTERLY REPORT FOR THE PERIOD TO 31 December 2011

Broken Hill Prospecting Limited ("BPL") is pleased to provide the following report on corporate news and exploration activities undertaken at the Company's projects (Figure 1) during the three month period ending 31 December 2011. Additional information about the Company is available on BPL's website at **www.bhpl.biz**.

Highlights and Summary

Significant boost to the size of the Pyrite Hill Cobalt Deposit;

- **Inferred resource up by 55% to 16.4Mt of 1.83lb/t (830ppm) cobalt**
- **New potential for 14-24Mt of similar mineralisation**
- **Combined Pyrite Hill and Bill Hill inferred resource now at 20.8Mt of 1.87lb/t (850ppm) cobalt**

Large targets identified along trend from the Big Hill Cobalt Deposit;

- **Large and strong anomalies have been defined by IP geophysics extending over 4km.**
- **Anomalies are considerably more pronounced than IP anomalies at the nearby Pyrite Hill and Big Hill cobalt deposits.**
- **One substantial, complex and highly conductive anomaly has potential for a very large, near-surface cobalt deposit and is a high priority untested target.**
- **One near-surface anomaly has very high chargeability, is 1km in length and is an excellent massive sulphide drill target.**
- **Possible shallow extensions of the Big Hill resource have been indicated.**
- **Drilling follow-up is planned in early 2012.**

Resource Upgrade

A mineral resource study following drill testing at the Pyrite Hill Cobalt Deposit was reported on 14 November 2011 and a full report on this work is available on BPL's website. The study showed that the drill work completed in mid 2011 has increased the deposit's size from 10.6 million tonnes of 2.2 pounds per tonne of cobalt to an Inferred Resource of 16.4 million tonnes of 1.83 pounds per tonne cobalt, a 55% increase in contained cobalt (Table 1).

The study also defined additional potential for between 14 and 24 million tonnes of cobalt mineralisation of similar grade peripheral to this resource at Pyrite Hill[1]*. Both the Pyrite Hill Inferred Resource and potential mineralisation occur from near surface to 300 metres depth and are open at depth and along trend to the northwest of the Pyrite Hill Deposit.

The study undertaken by Hellman & Schofield Pty Ltd ('H&S') is reported in accordance with JORC Code (2004) standards.

Including mineralisation at the Big Hill Cobalt deposit (Inferred Resource of 4.4 million tonnes of 2.00 pounds per tonne cobalt) the combined Inferred Resources for the overall project totals 20.8 million tonnes of 1.87 pound per tonne cobalt (39 million pounds of contained cobalt metal).

Table 1. Estimates of Inferred Resources (using 500 ppm Co cut-off)

STUDY and CLASSIFICATION	Mt	Co (ppm)	Co (lb/t)	Contained Co (Mlbs)
Pyrite Hill, H&S 14 Nov 2011 Inferred Resource	16.4	830	1.83	30
Pyrite Hill, previous Inferred Resource	10.6	1000	2.20	23
Big Hill, previous Inferred Resource	4.4	910	2.00	8.9
PH + BH (combined) previous Inferred Res	15.0	850	1.87	32
Updated Combined Pyrite Hill and Big Hill Inferred Resources				
14 November, 2011	20.8	850	1.87	39

Both the Pyrite Hill and Big Hill mineralisation can be upgraded by low-cost gravity and magnetic processing or by flotation to form pyrite concentrate containing about 0.5% cobalt. Metallurgical test work has already confirmed that cobalt metal can be produced from the pyrite concentrate using one of several processing options.

BPL plans to continue to work towards defining an inventory of near-surface cobalt mineralisation which will support a mining operation of 4-5 million tonnes per year. This new resource and potential mineralisation at Pyrite Hill are important steps towards this goal.

IP Geophysical Survey

An induced polarisation (IP[2]*) survey (Figure 1), was completed and reported on 6th December 2011. The survey was undertaken along 250m spaced lines covering the Pyrite Hill Cobalt Deposit and along a series of small hills and ridges extending for more than four kilometres north-east from the Big Hill Cobalt Deposit.

Zones of north-east oriented and highly conductive rocks have been identified in the Big Hill survey area (Figure 2), which can be classed into three main targets:

- The Railway Prospect is a large conductive anomaly located in the northern portion of the Big Hill survey block where outcrops are anomalous in cobalt. This area has a

[1]* *H&S quantified a potential target size within the modelled mineralisation envelope. This potential lies outside of the Inferred Resource because of the absence of nearby drilling. By extending the search distance within the 3D mineralisation the model target size is between 14Mt and 24Mt at a grade between 700ppm and 900ppm Co. Detailed explanation is provided as Appendix 1 of this report. This target is conceptual in nature and more drilling is required to further define it. There is no certainty that this will result in a Mineral Resource.*

[2]* *A description of induced polarisation (IP) is given on page 4 of this announcement.*

central high magnetic zone, is several hundred metres wide and extends for more than 1.5km (Figures 3 and 4). Only three holes have been drilled near this target. Two were close to the edge of the anomaly and a third (T98C01) was drilled into the northern, narrow portion of the anomaly. That hole drilled through 55 metres of near-surface cobalt-pyrrhotite-pyrite mineralisation with cobalt grades typical of the deposits at Pyrite Hill and Big Hill.

- The Offset Prospect is a conductive zone 750-1,000 metres long and located a kilometre north-east of the Big Hill Cobalt Deposit. It has very high chargeability and appears to have steep dips. It is flanked to the south-west by rocks with elevated magnetic signature (Figure 4). The high chargeability nature of the rocks, elevated magnetic response and location within a sulphide-gneiss horizon together indicate a massive sulphide target at Offset. The Offset Prospect has not been drill tested.

- The North Big Hill Prospect is a north extension of the Big Hill Cobalt Deposit (Figure 2) where a strong conductor has been identified. Previous drilling has not tested this anomaly which may represent an appreciable addition to the Big Hill resource.

Planned Work Program

A drilling program designed to test each of these targets is planned for early 2012. Future exploration success from drill testing these targets could considerably increase BPL's cobalt mineral resources (Inferred Resources) which contain 39 million pounds of cobalt within 20.8Mt at a combined average grade of 1.87lb/t cobalt (Pyrite Hill and Big Hill deposits). Additional potential mineralisation of between 14-24Mt with similar grade occurs at the Pyrite Hill Deposit (Hellman, 14 November 2011).

Broken Hill Prospecting is planning a 2,500 metre drill program. The work will include reverse circulation drilling with angled holes at each new prospect, with approximate hole locations as shown in Figures 2-4. Surface mapping and approvals for the work was lodged in early January and assuming drill rig availability and amenable access conditions the drilling is likely to commence in early March.

Yours faithfully,

Dr Ian J Pringle
(Managing Director)

Competent Person Statement

*The exploration activities and results contained in this report is based on information compiled by **Dr Ian Pringle**, a Member of the Australasian Institute of Mining and Metallurgy. Dr Pringle is the Managing Director of Broken Hill Prospecting Ltd and also a Director of Ian J Pringle & Associates Pty Ltd, a consultancy company in minerals exploration. He has sufficient experience which is*

relevant to the style of mineralisation and types of deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the December 2004 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code). Dr Pringle has consented to the inclusion in this report of the matters based on his information in the form and context in which it appears.

Reporting of Resources

Reporting of resources was undertaken by Hellman & Schofield Pty Ltd ('H&S') and these are reported in accordance with JORC Code (2004) standards. H&S quantified a potential target size within the modelled mineralisation envelope. This potential lies outside of the Inferred Resource because of the absence of nearby drilling. By extending the search distance within the 3D mineralisation the model target size is between 14Mt and 24Mt at a grade between 700ppm and 900ppm Co. Detailed explanation is provided in a previous report to the ASX dated 14 November 2011. This target is conceptual in nature and more drilling is required to further define it. There is no certainty that this target will result in a Mineral Resource.

About Broken Hill Prospecting Limited ("BPL")

BPL is seeking to explore, evaluate and develop cobalt deposits in the Broken Hill area. Within two mining leases (ML86 and ML87) BPL has cobalt mineral resources (Inferred Resources) which total 20.8 million tonnes at a combined average grade of 1.87lb/tonne cobalt (Pyrite Hill and Big Hill deposits) as well as potential mineralisation between 14-24Mt of similar grade at the Pyrite Hill Deposit (Hellman & Schofield resources study, November 2011). Exploration for additional cobalt mineralisation along-trend and at depth beneath these deposits is in progress. These are a unique type of cobalt deposit and BPL is in an excellent position to take advantage of an increasing demand for cobalt to meet growth in environmental and industrial uses such as rechargeable batteries in automobiles.

BPL is among the next generation of companies that is exploring for major new mineral deposits near the historic NSW mining centre of Broken Hill, where more than 200 million tonnes of high-grade base metal ore worth an estimated $80 billion has been produced during the past 127 years. BPL has identified 13 Broken Hill-type base metal prospects in its exploration tenements.

BPL raised $4.47 million in an initial public offering in February 2011and BPL securities are quoted on both the Australian and New Zealand stock exchanges.

Induced Polarisation

Induced Polarisation (IP) techniques are used in exploration for disseminated sulphide mineralisation. The method uses a decaying voltage, lasting a few seconds, after a current transmitted into the ground is switched off. The decay is mainly due to diffusion of ions in at the water-surface contacts of conducting mineral grains, so the total mineral surface area is important. Sizeable volumes of rock with a few percent of disseminated sulphide (e.g. stratabound pyritic mineralisation) are likely to show significant IP effects. Smaller bodies of semi-massive sulphides often give weak IP anomalies, but may be sufficiently conductive to be detected using electromagnetic methods.

An IP/resistivity survey involves transmitting a current into the ground using two electrodes and measuring the voltage between another pair of electrodes. The results give an indication of the electrical resistivity structure of the ground as well as revealing polarisable zones. The resistivity patterns are largely controlled by porosity so that weathered rocks and sheared and fractured rocks with higher porosity have low resistivity. Disseminated, very conductive minerals include pyrite, pyrrhotite, chalcopyrite and graphite. Less conductive minerals include galena, magnetite, hematite and some clay minerals.

This dipole-dipole IP survey was undertaken by Fender Geophysics with a Scintrex IPR12, 8 channel receiver or a 16 channel GDD receiver connected via 8 core data cable. The transmitter was a GDD TxII 5000 watt transmitter designed to perform well in both resistive and conductive environments typical of the survey area and capable of outputting up to 10 Amps. Data was downloaded from the

receiver on a daily basis. The GSF and raw data files underwent quality control measures prior to reformatting and forwarding to David McInnes (Consultant Geophysicist) who undertook assessment of the survey results, review of the data and interpretation of results.

Cobalt Statistics

- *Cobalt price (LME): US$33,700 per tonne (US$33.70 per kilogram).*
- *1 pound = 0.4536 kilograms*
- *Mines in Central Africa accounted for 60% of cobalt production in 2010 and most came from the Democratic Republic of Congo.*
- *The USA accounted for 58% of cobalt consumption in 2010.*
- *The USA, Japan, European Union and China have no producing cobalt mines.*
- *China imported ore from Africa and produced 43% of refined cobalt production in 2010.*
- *More than 95% of cobalt production is a by-product of copper or nickel mining.*
- *World production of refined cobalt during the first six months of 2011 was 40,749 tonnes (The Cobalt Institute, October 2011 Newsletter)*
- *Lithium-ion batteries contain 60% cobalt and will be widely used in the new generation of electric vehicles.*
- *Cobalt is used in a wide range of industries including production of; super alloys and hardened metals where high heat and wear tolerance is required (aircraft, turbines, windmills, military hardware), high-strength magnets, carbides and diamond tools, catalysts (petroleum production), colouring (cobalt blue), adhesive, soaps, driers and food supplements (vitamin B12).*

For further information contact;

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The Company has recently reformatted and updated its website which covers or links to recent news, metal prices, share price as well as project and Company information. Please visit our site at www.bhpl.biz