ASX RELEASE

Sorby Hills Mineral Resource & Ore Reserve

- Sorby Hills maiden ore reserve estimated for the DE deposit, one of several deposits contained with a 10km long mineralised trend.
- Probable ore reserve of 2.4Mt @ 5% lead and 54g/t silver¹ (applying a cut off of 2% lead).
- New mineral resource estimate for DE Deposit of 5.8 Mt @ 3.5% lead, 0.4% zinc and 41g/t silver (applying a cut off of 1% lead). The Mineral Resource is inclusive of the ore reserve and consists of both indicated and inferred mineral resources.
- Strengthens plans for 10 year open cut operation – processing over 400ktpa at Sorby Hills.
- Global resource estimate of 16.7Mt at 4.5% lead, 0.7% zinc and 52g/t silver².

KBL Mining Limited (ASX: KBL) is pleased to announce it has estimated a maiden probable ore reserve for the DE Deposit at its Sorby Hills lead-zinc-silver project located near Kununurra, Western Australia.

The ore reserve was estimated through the assessment of modifying factors on the indicated resource component of a resource estimate and model completed in mid-2013 and reported in this document.

The estimation of ore reserves was carried out in accordance with the Guidelines of the ‘Australasian Code for Reporting of Mineral Resources and Ore Reserves’, December 2004.

The reserves are the basis for detailed mine planning of the initial 10 year open cut operation processing 400,000tpa as outlined in the pre-feasibility study.

Mineral Resource Estimate

An initial global Resource for all the deposits within the 10km long Sorby Hills mineralised trend was produced in 2011 that totalled 16.7Mt at 4.5% lead, 0.7% zinc and 52g/t silver².

A revised mineral resource estimate and model of the Sorby Hills DE Deposit was produced in mid 2013 by Breakaway Mining Services Pty Ltd, in accordance with the Australasian Code for Reporting of Mineral Resources and Ore Reserves (2004). The resource estimate is summarised by classification in Table 1.

Resource modelling was performed by Ordinary Kriging in two low grade geological domains which reflect the interpreted stratabound nature of the known high-grade mineralisation at DE Deposit. The key modelling parameters are documented in Appendix 1.

The 2013 resource estimate supersedes a previous estimate for DE Deposit released on 22 December 2011. The two mineral resource estimates are compared at a 2.5% lead cut-off in Table 2. The change in the mineral resource is attributed to the additional geological constraints used in modelling.

¹ Zinc grades are not included in the Ore Reserve estimate, as zinc grade was not used in the consideration of Modifying Factors, and is therefore not understood with sufficient confidence to convert from Mineral Resource to Ore Reserve status.
² Resource estimate released 22 December 2011.
Table 1: Sorby Hills Project DE Deposit 2013 Mineral Resource Estimate at a cut off of 1% lead. The Mineral Resource estimate is reported inclusive of the Reserve in this document.

<table>
<thead>
<tr>
<th>Resource Category</th>
<th>Oxidation</th>
<th>Tonnes (Mt)</th>
<th>Lead (%)</th>
<th>Zinc (%)</th>
<th>Silver (g/t)</th>
<th>Density</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicated</td>
<td>Oxide</td>
<td>0.6</td>
<td>3.7</td>
<td>0.2</td>
<td>41</td>
<td>2.55</td>
</tr>
<tr>
<td></td>
<td>Transitional</td>
<td>0.4</td>
<td>4</td>
<td>0.3</td>
<td>41</td>
<td>2.6</td>
</tr>
<tr>
<td></td>
<td>Fresh</td>
<td>3.1</td>
<td>4.1</td>
<td>0.5</td>
<td>45</td>
<td>2.75</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>4.2</td>
<td>4.1</td>
<td>0.5</td>
<td>44</td>
<td>2.71</td>
</tr>
<tr>
<td>Inferred</td>
<td>Oxide</td>
<td>0.3</td>
<td>2</td>
<td>0.3</td>
<td>28</td>
<td>2.52</td>
</tr>
<tr>
<td></td>
<td>Transitional</td>
<td>0.1</td>
<td>1.9</td>
<td>0.3</td>
<td>29</td>
<td>2.55</td>
</tr>
<tr>
<td></td>
<td>Fresh</td>
<td>1.2</td>
<td>2.4</td>
<td>0.2</td>
<td>32</td>
<td>2.77</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1.7</td>
<td>2.2</td>
<td>0.2</td>
<td>31</td>
<td>2.71</td>
</tr>
<tr>
<td>Total</td>
<td>Oxide</td>
<td>0.9</td>
<td>3.2</td>
<td>0.2</td>
<td>37</td>
<td>2.54</td>
</tr>
<tr>
<td></td>
<td>Transitional</td>
<td>0.6</td>
<td>3.4</td>
<td>0.3</td>
<td>38</td>
<td>2.58</td>
</tr>
<tr>
<td></td>
<td>Fresh</td>
<td>4.4</td>
<td>3.6</td>
<td>0.4</td>
<td>42</td>
<td>2.76</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>5.8</td>
<td>3.5</td>
<td>0.4</td>
<td>41</td>
<td>2.71</td>
</tr>
</tbody>
</table>

Table 2: Comparison of current (2013) and superseded (2011) Mineral Resource estimates for Sorby Hills DE Deposit at a cut off of 2.5% lead.

<table>
<thead>
<tr>
<th>Resource Category</th>
<th>Tonnes (Mt)</th>
<th>Lead (%)</th>
<th>Zinc (%)</th>
<th>Silver (g/t)</th>
<th>Density</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>Indicated</td>
<td>2.2</td>
<td>5.1</td>
<td>0.5</td>
<td>62</td>
</tr>
<tr>
<td></td>
<td>Inferred</td>
<td>0.7</td>
<td>3.8</td>
<td>0.4</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>2.91</td>
<td>4.8</td>
<td>0.5</td>
<td>56</td>
</tr>
<tr>
<td>2013</td>
<td>Indicated</td>
<td>2.39</td>
<td>5.8</td>
<td>0.5</td>
<td>61</td>
</tr>
<tr>
<td></td>
<td>Inferred</td>
<td>0.36</td>
<td>5.3</td>
<td>0.3</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>2.74</td>
<td>5.8</td>
<td>0.5</td>
<td>61</td>
</tr>
</tbody>
</table>

Ore Reserve Estimate

The maiden ore reserve estimate for the DE Deposit was prepared by MEC Mining and is based on the mineral resource estimate described herein with the application of modifying factors derived from a Pre-Feasibility Study completed by KBL Mining Ltd.

Table 3: Sorby Hills Project D and E Deposit Ore Reserve Estimate at a cut off of 2% lead.

<table>
<thead>
<tr>
<th>Classification</th>
<th>Tonnes (Mt)</th>
<th>Lead (%)</th>
<th>Silver (g/t)</th>
<th>Density</th>
</tr>
</thead>
<tbody>
<tr>
<td>Probable</td>
<td>2.4</td>
<td>5</td>
<td>54</td>
<td>2.70</td>
</tr>
</tbody>
</table>

1 Reported Resource estimate in Table 1 is by Ordinary Kriging.
2 Resource estimate released 22 December 2011.
3 Sorby Hills Silver Project Pre-Feasibility Results as released 6 December 2012.
Figure 1: Selected cross sections through the DE deposit, illustrating the Indicated resource distribution at a 2% lead cut off relative to the optimised pit shell.
Sorby Hills Silver-Lead-Zinc Project

The project (KBL 75% and Henan Yuguang Gold & Lead Limited 25%; KBL JV Manager) comprises thirteen discrete high grade deposits within a linear north-south mineralised trend extending over a 10km strike length. Stage 1 of the project development has been designed on the DE and C deposits accounting for 1.5km of the mineralised trend or 27% of the global resource.

KBL has completed a Pre-Feasibility Study for Stage 1 of the Sorby Hills project, based on a conventional open cut mine and sulphide flotation concentrator operation, which generates robust financial returns. Initially higher grade ore is planned to be mined and processed directly through lead concentrator. There is potential in later years to mine lower grade ore at a higher production rate, and processed through a heavy media plant before final concentration.

The project has well established infrastructure with sealed road access to the regional centre of Kununurra (50 km) and established port facilities at Wyndham (160 km).

For further information, please contact:

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Ph: +61 2 9927 2000

About KBL Mining

KBL Mining is an Australian resource company listed on the ASX (KBL and KBLGA) with a focus on precious and base metals. KBL’s main assets include the Mineral Hill copper-gold-silver-lead-zinc project near Condobolin in New South Wales and Sorby Hills lead-silver-zinc deposit in Western Australia. The Company has been operating the refurbished processing plant at Mineral Hill since October 2011 to produce copper concentrates. Sorby Hills (KBL holds 75% with Henan Yuguang Gold & Lead Co. Ltd (HYG&L) holding 25%) is one of the world’s largest near surface undeveloped silver-lead deposits, close to port infrastructure and a short distance from Asian markets. Environmental approvals are currently being sought for development of the Sorby Hills deposit and the PFS results were released on 6 December 2012.

More information can be found on KBL’s website at www.kblmining.com.au.

Competent Persons Statement

The information in this report that relates to Exploration Results and Mineral Resources other than as attributed to other persons below is based on information compiled by Anthony Johnston, MSc (Hons), who is a Member of the Australasian Institute of Mining and Metallurgy and is a full-time employee of the Company. Anthony Johnston has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 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.
The information referred to in Table 1, is based on information reviewed by Mr Geoff Reed, who is a Member of the Australasian Institute of Mining and Metallurgy and is a Consulting Geologist employed by Breakaway Mining Services (BMS).

Mr Reed has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2004 Edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves” Mr Geoff Reed consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.’

The Sorby Hills Project D E deposit resource and reserve estimates have been classified and reported in accordance with the 2004 Edition of the ‘Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves’.

The information in this report which relates to reserves, is based upon information provided by KBL Mining Ltd as reviewed by Mr. Philip Uebergang who is a Member and Certified Professional of the Australasian Institute of Mining and Metallurgy and an employee of MEC Mining.

Mr. Uebergang has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2004 Edition of the ‘Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.’

Appendix 1: Notes to accompany the Mineral Resource Estimate.

Sampling Techniques and Data

Drill sample recovery
- Core recovery for the recent diamond drilling (post-2007) averaged 91.3% with most core loss occurring in the regolith at <30m depth. Core recovery in the mineralised zone was variable due to local fracturing and weathering along discrete fault zones, however, most recoveries exceeded 95%. Diamond core through the mineralised zone is typically NQ diameter.
- In 2007-2010, to maintain sample integrity each RC bag collected from the cyclone was weighed with the weight in kilograms and moisture content recorded. Bag weights were generally consistent, with the average bag weighing 25kg however poor sample recoveries (<20kg) are noted in the initial 10m of alluvial cover.

Logging
- Logging of lithology and confirmation of mineralisation in RC chips was carried out at the rig by a qualified geologist. Logging of diamond core typically occurred after transport of the core to the to the Sorby Hills core-yard where it is stored. Trays containing representative RC chip samples from each sampled interval have been stored in Kununurra from 2007 onwards.

Sub-sampling techniques and sample preparation
- Core was cut in half at site using a diamond saw. Half core samples were collected and placed in pre-numbered calico bags. Samples were collected by the project geologist and geo-technician and placed into poly-weave bags for transport to the laboratory.
- In 2007-2010, RC samples were collected at 1m intervals using a trailer-mounted cone splitter attached to the drilling rig. 2-3kg of split material for each metre was collected in a calico bag to be submitted for assay.
- In 2011 drilling samples were not split off the drill rig because of the possibility of water ingress clogging up the cyclone and cone splitter when hitting a cavity. Drilling was suspended when water/wet sample encountered and the hole dewatered prior to recommencement of drilling. Instead, a PVC pipe spear was used to obtain approximately 2-3kg of sample from a representative cross section of the entire 1m sample. KBL considered this to be the best means of sample collection avoiding potential for contamination within a sample splitter.
- In 2011, using an Olympus Innov-X portable XRF analyser at the rig, readings over 1% lead, 1% zinc and/or 20ppm silver were regarded as anomalous and were sampled at 1 metre intervals with at least 2 metres either side
(regardless of XRF reading) also collected as individual metre samples. Samples with lower, background, metal levels were amalgamated into 4 metre composite intervals.

Quality of assay data
- Drill core and rock chip samples were assayed to accepted industry standards at nationally certified laboratories such as ALS, SGS, and Genalysis. Multi-acid digestion of pulverised sample was followed by ICP-AES or equivalent assay technique.
- Assays from additional Rotary Percussion and VPRH drill holes were not used in the BMS Resource Estimate, owing to uncertainty in the sample integrity from these methods, in particular the potential for contamination associated with wet sample return.

Verification of sampling and assaying
- During post-2007 drilling, standards were inserted at least every 30 samples in the stream, consisting of Certified Ore Grade Base Metal Reference Material provided by Geostats Pty Ltd. The standards selected covered a range of lead and silver concentrations and there is good agreement between the Pb and Ag assays, and the mean values provided with the reference standards. For the standards as a whole, the assayed values were typically within one standard deviation and more commonly below the mean suggesting that grade overestimation is not a significant problem in the dataset.
- Duplicates and Blanks were included in the 2010 drilling but not the 2011 drilling.
- Check-samples sent to umpire laboratories in 2010 showed good agreement between ALS and Genalysis laboratories.

Location of data points
- Pre-2007 drill hole collars have been accurately surveyed in local grid. Drill hole collar co-ordinates have also been converted to MGA52 grid as recorded in the KBL Mining Drilling database.
- Post 2007 drill hole collars have been accurately surveyed by DGPS. Drill hole collar co-ordinates have been recorded in GDA 94 grid in the KBL Mining Drilling database.
- Over 95% of drill holes are vertical with 90% having no down-hole surveys.
- An analysis of the trajectory of vertical holes accompanied drilling in 2010. Down-hole surveying of dip and azimuth for diamond holes was conducted using a single shot, Eastman down-hole camera. Holes drilled from surface were surveyed at 15m to minimise interference from the rig and every 30m after that to the end of hole. RC hole orientations were surveyed using a single shot Pathfinder down-hole electronic camera. Holes were surveyed at 6m below surface and every 30m after that to the end of hole. As a result of this work, it was determined that most of the diamond drill holes remained relatively vertical with very little down-hole deviation with dip consistently between 88˚ and 90˚. As expected there was a slight deviation with holes lifting towards the west, perpendicular to the plane of bedding which dips gently towards the east. Most RC holes remained close to vertical with little down-hole deviation, dipping consistently between 87˚ and 90˚. There was a slight deviation with RC holes lifting towards the southwest.
- As the drilling intersecting the DE Deposit is concentrated within 140m of surface (mostly <70m from surface), a small deviation in hole azimuth and dip of vertical holes would not introduce significant uncertainty as to the sample location.

Data spacing and distribution
- The DE Deposit mineralisation has been intersected on 35 drilling sections and is so far known to extend to at least a depth of 140m below the surface.
- Hole spacing varies but drilling is mostly completed on a 20-30 (E-W) metre by 30-40 (N-S) metre drill pattern. Infill drilling has achieved a closer spacing in many parts of the main DE deposit area. The likelihood that mineralisation is developed in an orientation other than that interpreted is considered to be low since the drilling is on an average 25 metre by 35 metre drill pattern.

Audits or reviews
- Reviews of historical drilling were undertaken in 2007 and 2010 by CSA Global consultants to determine what work was required to upgrade the Sorby Hills resources from Inferred to JORC (2004) compliant Indicated Resource category. It was determined that the historical non-diamond drilling results could only be used in general terms. There are serious unresolved questions about the quality and methods of sampling from the historical open hole rotary and percussion methods (e.g. VPRH). Essentially, this has meant that the main deposit areas have been
subsequently drilled out with modern techniques to less than 50m spacing (with dry sampling) with approximately 25m spacing over the higher grade areas (e.g. DE Deposit, I Deposit) to eliminate reliance on old drilling for resource estimation.

**Estimation and Reporting of Mineral Resources**

**Database integrity**
- Sorby Hills drill hole data is stored by KBL in a MS Access database and hand drawn drill hole logs are stored in scanned digital form on the Company’s server in North Sydney. Data validation checks are routinely run when data is interpreted in 3D visualisation and modelling software.
- A cross-check of historical DE Deposit area collar coordinates in the database against original drill hole plans in WA department of Mines and Petroleum reports was performed in 2011.

**Geological interpretation**
- The Sorby Hills mineralisation is regarded as having many features typical of Mississippi Valley Type (MVT) deposits.
- The carbonate-hosted DE Deposit occurs in the Carboniferous Burt Range Formation of the Langfield Group. It is apparently stratiform, hosted mainly in a dolomite breccia which is typically developed at the contact of a crystalline dolomite unit and overlying dolomitic siltstone which generally dips shallowly to the east.
- Steeply dipping cross faults are interpreted to offset stratigraphic surfaces and also apparently cause changes in the thickness and continuity of mineralisation. The small amount of inclined drilling at Sorby Hills is insufficient to directly identify any steeply dipping mineralised structures or feeder zones.
- The Sorby Hills project area includes 1128 surface drill holes for a total of 110,941.7m of drilling. All holes were drilled by Aquitaine Australia Ltd (AQT), Triako Resources Ltd (TKR), CBH Resources Ltd and KBL Mining Ltd focussed around deposits/pods A, B, C, D, E, F, G, H, J, Alpha and Beta.
- The modelling domain within which the DE Deposit Mineral Resource was estimated is centred on the DE Deposit area, but also contains the C Deposit to the south and F Deposit to the north. 475 drill holes occur within the bounds of the modelling domain. Of these 169 diamond and RC drill holes intersect the mineralisation wireframes associated with C, D/E and F Deposits. Only Mineral Resources from the DE deposit are reported in this release.
- Mineralisation wireframes were created in Micromine™ for the C, D/E and F deposit by KBL geologists using drill intercept interpretations based on geological features such as strata and lithology. The stratiform geometry and interpreted cross faults were important geological constraints enforced in the resource modelling.

**Dimensions**
- The modelling domain containing the Sorby Hills D/E deposit resource area extends over a strike length of 2400m from 498500mN to 500900mN, and the maximum vertical extent of the interpretation was over 220m ranging from -180mRL to 40mRL. Within this zone, the DE deposit itself has a N–S strike length of about 1 km.

**Estimation and modelling techniques**
- Mineralisation is present as two low grade mineralised domains defined by lithological boundaries where possible and Pb grades. Inverse Distance (IVD) interpolation and Ordinary Kriging (OK) with an oriented ellipsoid search was used to estimate Pb, Ag and Zn grades in the two domains.
- BMS has calculated the Mineral Resources on the bearing of 360 degrees. The Mineral Resources have been estimated within an area with approximately 25m x 35m drill density.
- The mineralisation body strikes approximately 340 degrees, and with average dips varying between 40 and 60 degrees to the East.
- A rotation of 0 degrees Bearing, 0 degrees Plunge and 0 degrees Dip was applied to the blocks.
- The grade variables populated in the block model were Ag, Pb, Zn, Fe and S.
- Discretisation steps of 4 x 4 x 1 were used.
- The ordinary kriging method was applied to Ag, Pb and Zn mineralized blocks. The Inverse Distance weighting method was applied to Fe and S.

**Moisture**
- Tonnages in the model are estimated on a dry in-situ basis.
Cut-off parameters
- High grade cuts were determined by using the domain statistics. Percentile analysis as well as histogram and log probability plots were used to determine the high grade cut required to remove high grade outliers that may have too much of a global influence on the global resource.
- High grade top cuts of 375g/t for silver, 38% for lead and 6% for zinc were applied to the 1m composite assay data used in the modelling.

Mining factors or assumptions
- No Mining factors were assumed in the Mineral Resource Estimate.

Metallurgical factors or assumptions
- No Metallurgical factors were assumed in the Mineral Resource Estimate.

Bulk density
- The density equation used in the resource estimate was derived from 119 density measurements taken from drill core samples of the various mineralised rock types at Sorby Hills deposits and takes into account an assumption of increasing porosity with increasing lead grade. This equation has been applied in 1980, 2007 and 2011 resource estimates:
  \[ bd = 2.64 + (\text{lead grade} \times 0.018) \]
- The default density value was then adjusted using the average density for each lithology, see table. The default density value for each lithology was determined using the same density measurements from Sorby Hills drill core as was used to determine the linear relationship.
- Table 4: Summary of Domain, Oxidation and Density Defaults

<table>
<thead>
<tr>
<th>Domain</th>
<th>Oxidation</th>
<th>Density Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dolomitic siltstone</td>
<td>Oxide</td>
<td>( bd = 2.48 + (\text{lead grade} \times 0.018) )</td>
</tr>
<tr>
<td></td>
<td>Transitional</td>
<td>( bd = 2.55 + (\text{lead grade} \times 0.018) )</td>
</tr>
<tr>
<td></td>
<td>Fresh</td>
<td>( bd = 2.59 + (\text{lead grade} \times 0.018) )</td>
</tr>
<tr>
<td>Crystalline dolomite</td>
<td>Oxide</td>
<td>( bd = 2.48 + (\text{lead grade} \times 0.018) )</td>
</tr>
<tr>
<td></td>
<td>Transitional</td>
<td>( bd = 2.58 + (\text{lead grade} \times 0.018) )</td>
</tr>
<tr>
<td></td>
<td>Fresh</td>
<td>( bd = 2.68 + (\text{lead grade} \times 0.018) )</td>
</tr>
<tr>
<td>Dolomite breccia</td>
<td>Oxide</td>
<td>( bd = 2.48 + (\text{lead grade} \times 0.018) )</td>
</tr>
<tr>
<td></td>
<td>Transitional</td>
<td>( bd = 2.51 + (\text{lead grade} \times 0.018) )</td>
</tr>
<tr>
<td></td>
<td>Fresh</td>
<td>( bd = 2.74 + (\text{lead grade} \times 0.018) )</td>
</tr>
</tbody>
</table>

Classification
- The classification of blocks was a three stage process. The first stage was to categorise blocks based on some appropriate criteria, e.g. the number of samples plus the number of drill holes. The second stage was to use the categorised blocks to construct smoothed, realistic 3D solids that define regions of high, medium and low confidence in grade, geology, structure and continuity. The third stage was to use these 3D solids to classify blocks into Indicated and Inferred categories.

Audits or reviews
- BMS contracted Dr Chris Gee of Mining Plus to review the Sorby Hills Resource Model, results and draft resource. The findings of this review were addressed in the final resource model and report.
Appendix 2: Notes to accompany the Ore Reserve Estimate.

Mineral Resource estimate for conversion to Ore Reserve
- The Mineral Resource estimate used as the basis for this Reserve estimate is the estimate prepared by Breakaway Mining Services Pty Ltd referred to in this document.
- The Mineral Resource estimate is summarised in Table 1 of this document.
- The same geological block model data set that was used to estimate the Mineral Resource was also used to estimate this Ore Reserve.
- Any Proved and Probable Ore Reserve estimates are converted from the Measured and Indicated Mineral Resource criteria from the geological block model data.
- The Mineral Resources are reported inclusive of the Reserve.

Study status
- The basis for applying Modifying Factors to the Mineral Resource estimate came from the following sources:
  - Internal design and review, including review of the Modifying Factors used in the Pre-Feasibility, a pit optimisation and design process, mining method review and production planning and scheduling, a summary of economic assumptions and outcomes, and an NPV analysis over the life of the mine.

Cut off Parameters
- According to the Pre-Feasibility Study, proposed mining of higher grade areas during the early years of mining required a cut-off grade of 2% Pb, based on metallurgical studies. This cut-off grade was used for the base case optimisation study, with other cut-off grades tested also.
- The Pre-Feasibility Study presents the option of increasing mine production after year 5, and reducing the cut-off grade to provide more ore tonnes for processing through a commissioned heavy media separation plant, in addition to the concentrator. Based on revised metallurgical recoveries, various cut-off grades were tested using an NPV analysis to determine the optimum value for the operation over the life of mine.
- The NPV valuation determined that the highest value resulted from mining at a 2% Pb cut-off grade at a mining rate of approximately 400 kt of ore per annum, for 10 years.
- Given the current availability of metallurgical recovery data for various cut-off grades using heavy media separation, and the results of the NPV analysis, the highest level of confidence to convert the Resource to a Reserve is currently achieved using an economic cut-off grade of 2% Pb.
- No grade equivalent estimation was used to estimate quantities. Silver grades were estimated based directly on variables contained within the geological block model. Those silver grades associated with lead grades below 2% were excluded from the ore estimation process. Zinc grades were not used during any part of the determination of Modifying Factors due to a lack of metallurgical and economic data, and therefore are not reported as part of the Ore Reserve.

Mining factors or assumptions
- Modifying Factors were applied during the optimisation, pit design and quantity estimation process based on accepted industry standards for the mining method and equipment proposed. Because mining has not commenced there is no local reconciled historical data to use as the basis for Modifying Factors.
- The proposed mining method is an open cut mine using mechanised truck and excavator extraction, with drilling and blasting to release the host rock for extraction.
- The complexity, size, and dipping nature of the seam and its location close to the surface, and the current mining practices in Australia means that small scale excavator and truck mining methods are the logical mining method.
- Initially higher grade ore is planned to be mined and processed directly through lead concentrator. There is potential in later years to mine lower grade ore at a higher production rate, and processed through a heavy media plant before final concentration. However, the cut-off grade used as a Modifying Factor assumes that ore will be sent directly to the concentrator at a constant production rate over the life of the mine.
- Concentrate products will be trucked 160 km over public roads to the port at Wyndham to be shipped to export markets.
- A minimum mining width of 50m was used.
- Mining factors of 5% ore losses, 10% dilution and 98% global recovery were used.
Haul roads and pit access were considered and included as part of the pit design and scheduling process.

Geotechnical assumptions were made based on previous studies as summarised in the Pre-Feasibility study. These were modified in the final pit design in consultation with KBL with an overall pit slope of 23-40 degrees and maximum pit depth of 100 metres used. More detailed geotechnical studies will be carried out based on further test work.

**Metallurgical factors or assumptions**

- Metallurgical test work to date indicates that standard flotation circuitry will achieve acceptable recoveries of metal in concentrate from the orebody.
- Test work shows that the ore responds well to cyanide free reagents.
- The ore has been tested and found to be free milling with a Bond Work index of 9.7. Optimum grinding for best flotation is 80% passing 74 microns.
- Heavy media separation testing has also been carried out and showed good separation of mineralised material.
- The economic cut off grade used as a Modifying Factor assumes metallurgical recoveries based on a concentrator only, and no heavy media separation.
- No bulk sampling or pilot scale test work has been completed to date.
- More detailed metallurgical testing will be completed as exploration progresses.

**Costs and revenue factors**

- Cost assumptions were as per the Pre-Feasibility study. These were checked against industry standards for similar operations.
- Revenue assumptions and exchange rate were as per the Pre-Feasibility study. These were checked against historical and current trends. MEC did not analyse pricing or currency projections as part of this study.
- Transportation, treatment charges and penalty rate assumptions were discussed with KBL, and are as per the Pre-Feasibility study.
- State Royalties were included in the study, as per the Pre-Feasibility.

**Market assessment**

- Global commodity markets were not analysed as part of this study.
- A mature global market exists for these commodities, and the levels of production which are proposed for the Sorby Hills project are not likely to have a material effect on supply and demand within the market.

**Other**

- MEC is not aware of any natural risk, infrastructure, environmental, legal, marketing, social or governmental factors which would be fatal to the development of this project.

**Classification**

- The figures stated in this document have been calculated in accordance with the Guidelines of the “Australasian Code for Reporting of Mineral Resources and Ore Reserves”, December 2004, prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australasian Institute of Geoscientists and the Minerals Council of Australia.
- The statement of a lead/silver Ore Reserve estimate has been undertaken according to MEC’s interpretation of the JORC Code 2004. Under the JORC Code only an Indicated and Measured Resource may be considered for conversion to a Reserve after consideration of any ‘Modifying Factors’ including mining, metallurgical, environmental, infrastructure, costs, revenue, marketing, economic, legal, social and governmental considerations.
- To convert a Resource to a Reserve it must be demonstrated that extraction could be justified after applying reasonable investment assumptions. A level of uncertainty in any one or more of the Modifying Factors may result in a Measured Resource converting to a Probable Reserve. A high level of uncertainty in any one or more of the Modifying Factors may preclude the conversion of the affected Resource to a Reserve.
- In the opinion of MEC the Modifying Factors are known with sufficient certainty to allow for Indicated Mineral Resources to convert to Probable Ore Reserves.
- No Probable Ore Reserves have been derived from Measured Resources.

**Audits or reviews**

- MEC is not aware of any external audits or reviews carried out on this Ore Reserve estimate.
- MEC has completed its own internal audits into the Reserve estimation process.
Discussion of relative accuracy/ confidence

- The Reserve estimations were developed using the Vulcan mine planning software system, a worldwide industry proven system widely used for this style of mineralisation;
- After observation and review of KBL Mining Ltd.’s provided documentation, MEC Mining is, after reasonable enquiry, satisfied that there are no other relevant issues outstanding. However it is impossible to dismiss absolutely the possibility that parts of the project area may give rise to additional issues.
- The conclusions presented in this report are professional opinions based solely upon MEC Mining’s interpretation of the information provided by KBL Mining Ltd. referenced in this document. For these reasons, prospective estimators must make their own assumptions and their own assessments of the subject matter in this document.
- Information in this document is based on Pre-Feasibility level of study. As the project progresses and more detailed studies are completed, new information may be revealed. The current level of study reflects the confidence level of the estimated Ore Reserve.