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"Research and Sustainable Development in Mining Projects. Case of Study: the Retortillo Project"

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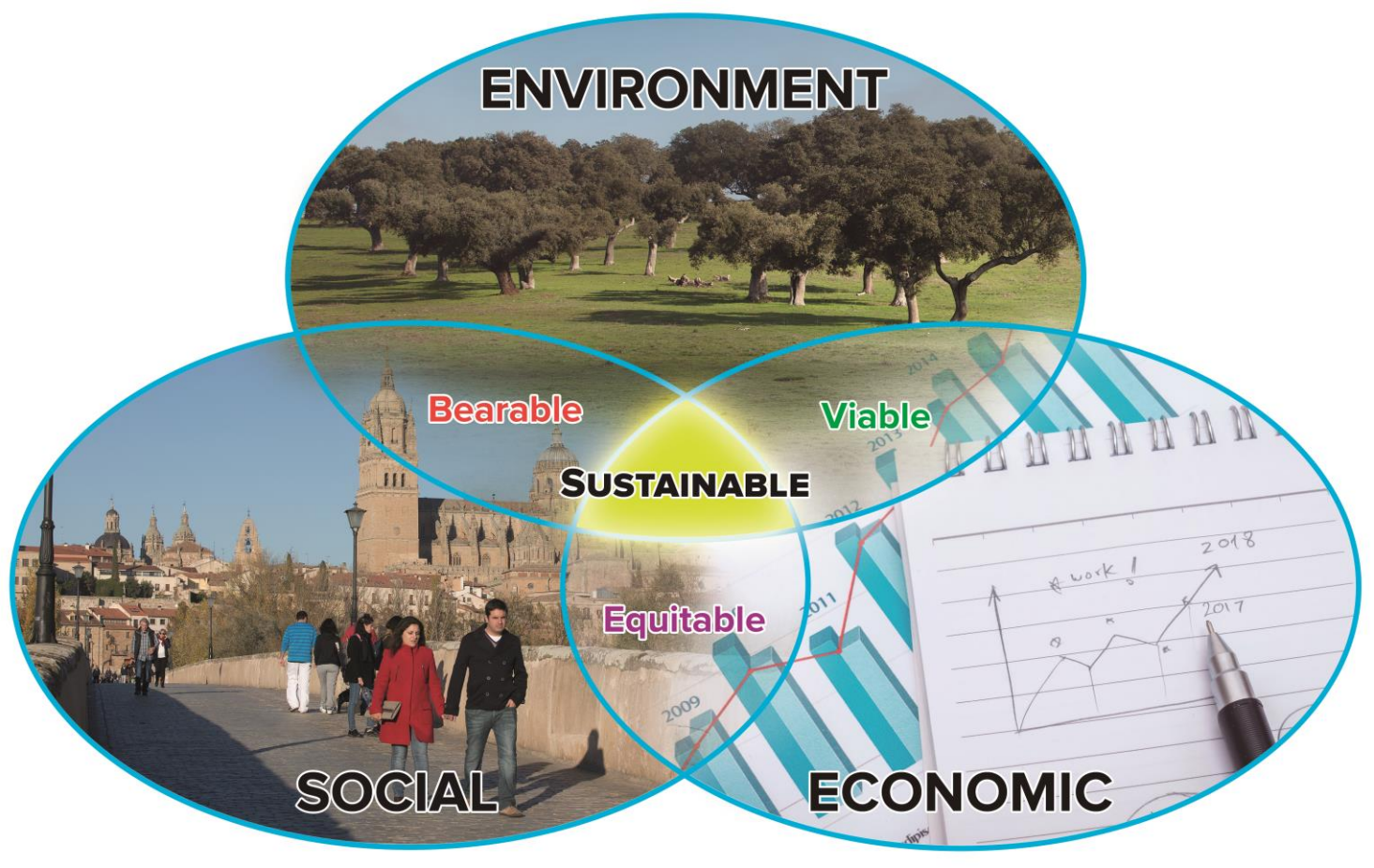
Valladolid, March 2018

What sustainability means?

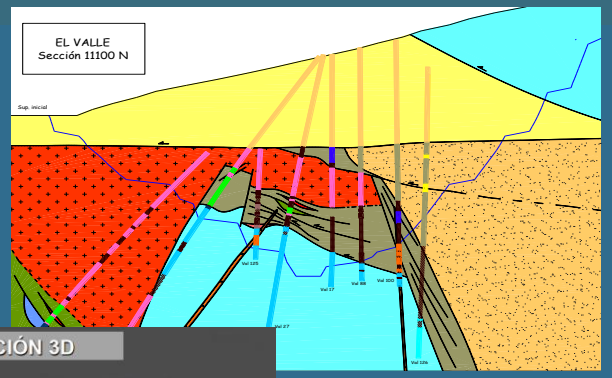


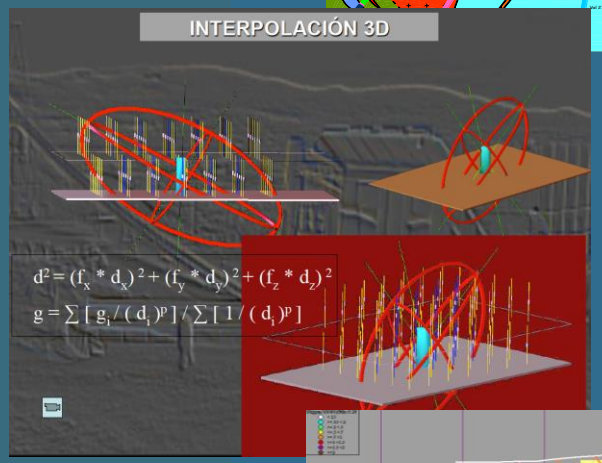
- The design criteria of every mining project must be defined to ensure the sustainability along the LOM, even after closure.
- Sustainable conditions or parameters are directly linked to the environment and community where the project is located
- Every mining project must be tailor-designed to incorporate the technical aspects of the project into the location that will set up the environmental and social caveats

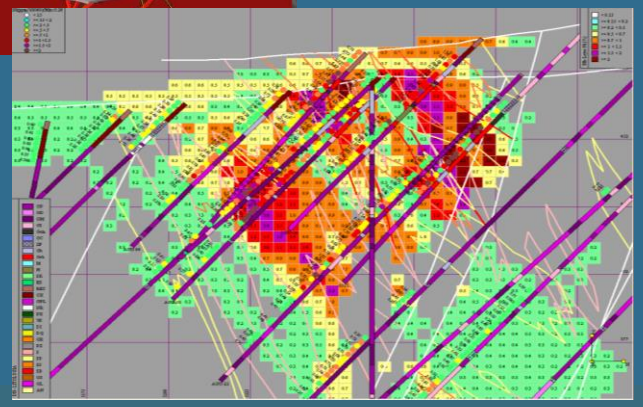
R & D in Mining Projects

- All mining projects are by definition an exercise of research and development, whose target is to make possible the exploitation of certain Mineral Resource.
- The phases of development of every mining project can be summarized as follows:
  - ✓ Exploration and identification of areas suitable to host a Mineral Resource
  - ✓ Evaluation of the Mineral Resource
  - ✓ Selection of the mining method
  - ✓ Metallurgical research and selection of the process technology
  - ✓ Under the preferred mining and process technologies, incorporate the preliminary project into the location, which is given by the deposit and cannot be modified
  - ✓ Generate all baseline studies which will address the caveats to take into account in the design criteria, that must allow the project to be sustainable from environmental and social points of view.
  - ✓ Finalise the design criteria and combine technical+environmental+social aspects
  - ✓ Financial evaluation of the project and proven evidences of financial viability

Exploration and evaluation of mineral resources





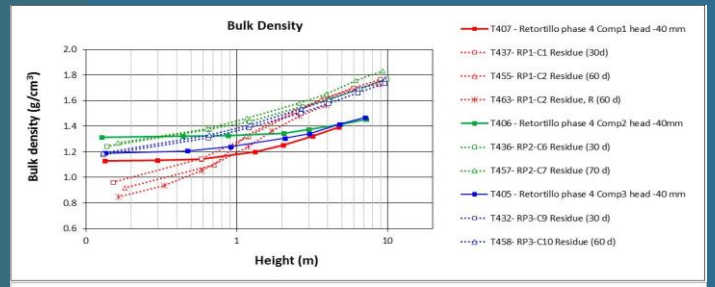


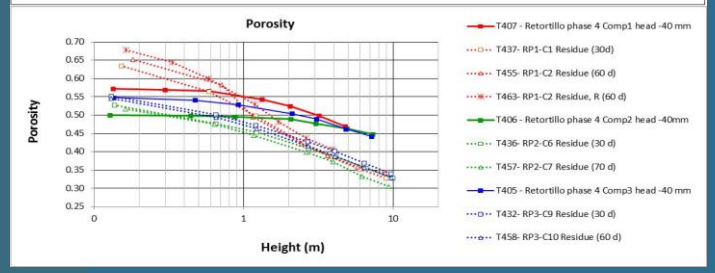
- Once a positive (mineralized) area is detected, the evaluation of the mineral resource requires a significant investment of time and money
- In the case of Retortillo, the evaluation of the mineral resource required 54,200 m of drills (854 holes), which allowed to quantify and qualify the resource under the JORC code
- The evaluation of the resources is made in three dimensions, and these 3D models are built taking the data provided by the drills and using for the interpolation very sophisticated algorithms, generated sometimes specifically for the orebody that is being estimated.
- The evaluation of the mineral resources include three type of resources (Inferred, Indicated and Measured), which are obtained through different phases of drilling and evaluation
- The Mineral Reserves can only include Measured and Indicated resources, and only consider the portion of the resource that is “viable” under the three pillars of the sustainability.

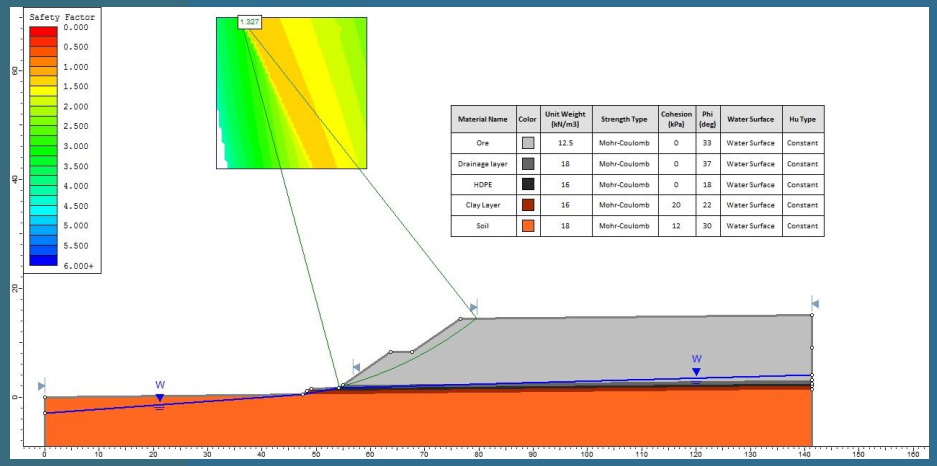
Metallurgical research and selection of process technology

- The metallurgical programs must be designed specifically for each orebody, to deliver enough data to decide what technology is best for the deposit
- In the case of Retortillo, the metallurgical programs involved the treatment of >13 ton of representative samples of ore, and were designed to:
  - ✓ Define the ore characterisation: mineralogical, responsiveness to leach, etc.
  - ✓ Define the work index and abrasivity
  - ✓ Benchmark the different beneficiation processes: sorting, flotation, gravity concentration, dynamic leach, static leach
  - ✓ Benchmark the different extraction methods: Solvent extraction ('SX') and ion exchange ('IX')
  - ✓ Define the mine waste and residues
  - ✓ Obtain enough data to design the processing facilities
  - ✓ Obtain commercial product and ensure the characterization matches with the industry standards

Metallurgical research and selection of process technology



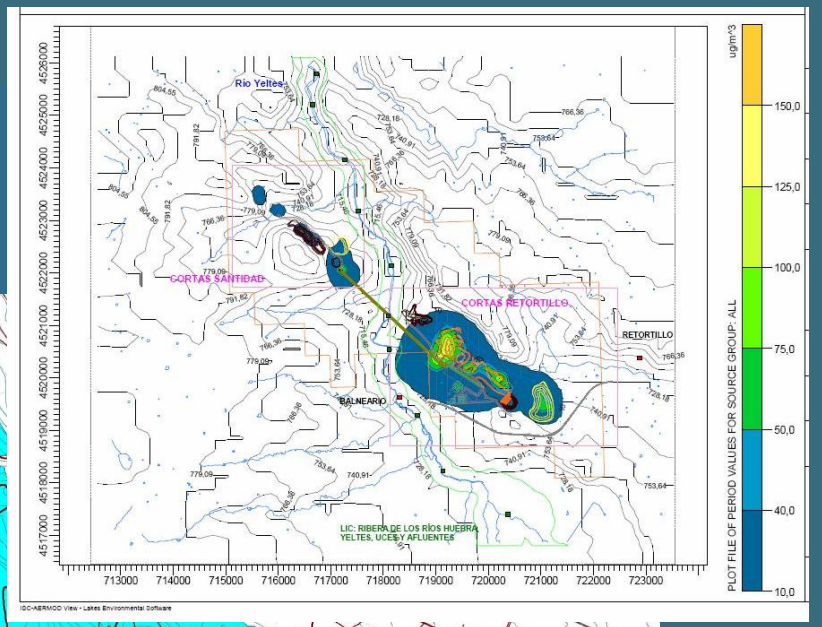


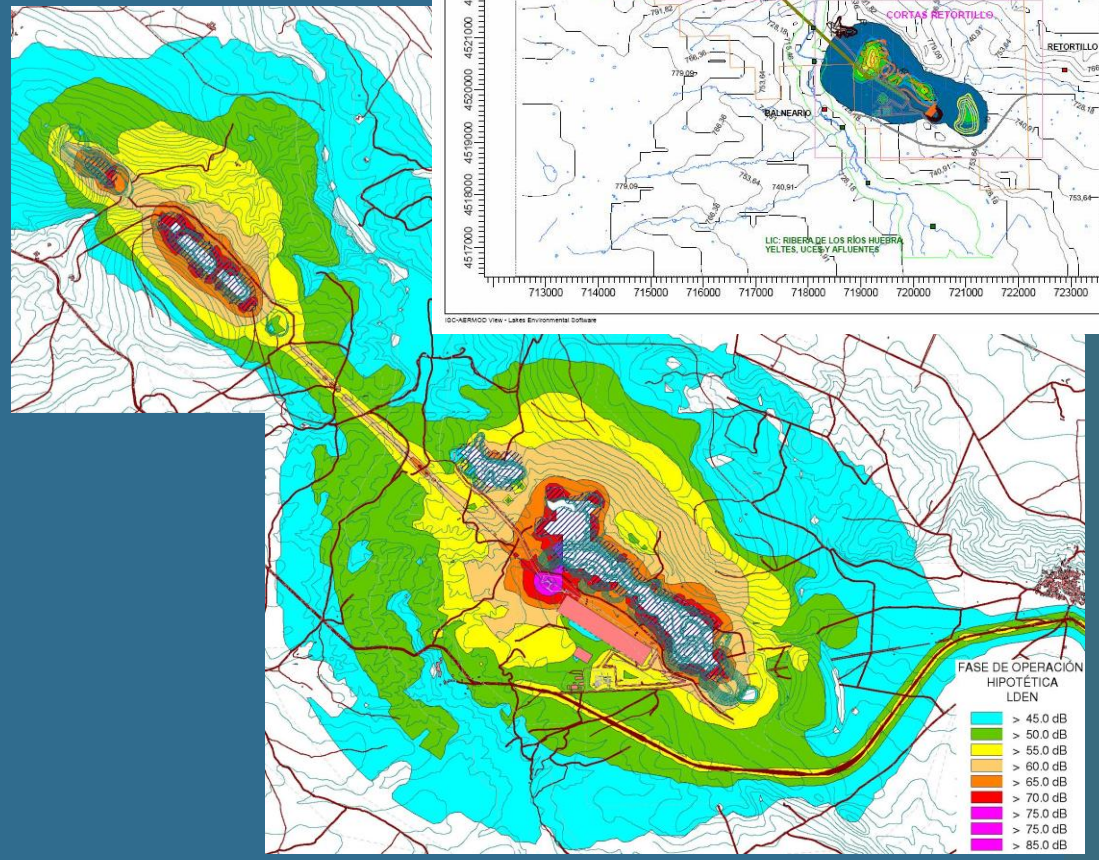


- In addition to the process technology itself, other important parameters and data must be reported, as for instance:
  - ✓ The hydraulic characterization of the heaps and the optimum size distribution to build them
  - ✓ The stability of the proposed heaps.
  - ✓ The characterization of every residue produced by the mine or the process plant in order to make the correct management of everyone.
  - ✓ These aspects are critical to ensure the safety of the operation and the environmental sustainability

Baseline Studies

- Once the project is conceptualized, it must be integrated into the proposed location and its impacts must be studied. In the case of Retortillo, the following studies were carried out to support the EIA:
  - ✓ Noise
  - ✓ Vibrations.
  - ✓ Dust dispersion.
  - ✓ Flora and vegetation
  - ✓ Affection to forest and inventory of affected trees
  - ✓ Fish
  - ✓ Amphibians, reptiles and mamals
  - ✓ Birds
  - ✓ Soil and landscape
  - ✓ Socioeconomic
  - ✓ Impact on cinnegetic fauna
  - ✓ Seismic





Environmental and Sustainable Mining Certificates

- Berkeley has obtained the Environmental and Sustainable Mining Certificates (ISO14,001 and UNE22470-80) since 2012
- Both certificates ensures the Berkeley's commitment to make an operation in accordance to the required quality and respect to the Environment and Social Community, demonstrating that the mining activity is compatible with the sustainable development

AENOR

Certificado del
Sistema de Gestión Ambiental

AENOR Gestión Ambiental ISO 14001

GA-2012/0357

AENOR certifica que la organización

BERKELEY MINERA ESPAÑA, S.L.

dispone de un sistema de gestión ambiental conforme con la Norma ISO 14001:2004

para las actividades: La investigación, exploración y sondeos para el aprovechamiento de minerales de uranio.
La gestión de la construcción de la planta de tratamiento e instalaciones mineras para el aprovechamiento de mineral de uranio.

que se realiza/n en: CARRETERA SA-322, KM 30. 37495 - RETORTILLO (SALAMANCA)

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CERTIFICATE

IQNet and
AENOR
hereby certify that the organization

BERKELEY MINERA ESPAÑA, S.L.

CARRETERA SA-322, KM 30.
37495 - RETORTILLO
(SALAMANCA)

for the following field of activities

The research, exploration and drilling for the use of uranium.
The management of the construction of the treatment plant and the mining facilities for the beneficiation of uranium ore

has implemented and maintains a

Environmental Management System

which fulfills the requirements of the following standard

ISO 14001:2004

First issued on: 2012-09-28 Last issued: 2018-01-16 Validity date: 2018-09-14

Registration Number: **ES-2012/0357**

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Environmental & Sustainable Mining Indicators

✧ The evaluation of the Environmental and Sustainable Mining performance in Berkeley's activity is mainly carried out through the identification, monitoring and evaluation of economic, social and environmental indicators.

- ✓ Economic indicators: Measure the impact caused in the economic circumstances of the interested parties, through the economic component of sustainability itself, as well as in its sphere of socioeconomic influence.

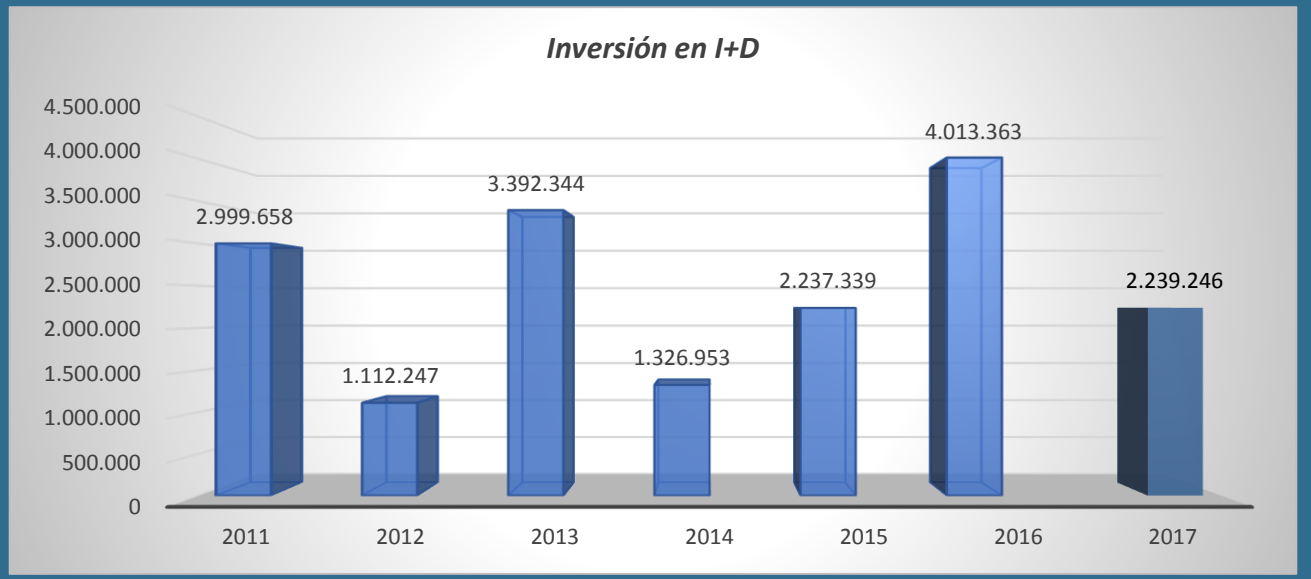
- ✓ Social Indicators: Measure the impacts caused in the community.

- ✓ Environmental Indicators: Measure of the impacts of the activity on the Environment.

Economic Indicators

✧ I+D Indicator: it summarizes the investment on Research and Development (*)

The graph below shows the Berkeley investment in R&D on a yearly basis. Since 2011, more than €17 million were invested in R&D



(*)Due to the definition of the Company's activity, some of the expenditures part of the R&D cannot be accounted as such, for instance the cost related to drilling, etc. The overall expenditure since 2011 is over €70 million.

Social & Environmental Indicators

- To make an evaluation of the Social and Environmental performance, a number of indicators are defined and recorded, as for instance:

  - ✓ Generation of direct and subcontracted employment
  - ✓ Investment in local community
  - ✓ Environmental protection and cultural heritage protection
  - ✓ Energetic efficiency
  - ✓ Environmental incidents
  - ✓ Investment in Environmental protection
  - ✓ Waste production and resources consumption
  - ✓ Dust, noise, CO_2 emissions

- The record of all these indicators is not only to keep the activity monitored, but overall the continuous improvement. Every year a number of objectives must be targeted, and the indicators provide an effective tool to make a measure of the success.

CONCLUSIONS

- The development of a mining project is one of the best examples of R & D
- Every mining project must be tailor-designed to incorporate the requirements of the orebody itself, but also the environmental and social implications
- The Social License is only preserved, if the environmental and community aspects are managed in the proper manner, ensuring the sustainability
- The ISO 14,001 and UNE 22480/22470 are fantastic tools, not only to ensure the good practice, but also to provide with all records that demonstrate to the company itself, and third parties, the performance of the company on the Environmental Management and Sustainable Mining
- In the XXI century, any mining project can operate if these conditions are not achieved

MUCHAS GRACIAS!

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Competent Persons Statement: *The information in this presentation that relates to the Definitive Feasibility Study, Mineral Resources for Zona 7, Ore Reserve Estimates, Mining, Uranium Preparation, Infrastructure, Production Targets and Cost Estimation is extracted from the announcement entitled 'Study confirms the Salamanca project as one of the world's lowest cost uranium producers' dated 14 July 2016, which is available to view on Berkeley's website at www.berkeleyenergia.com.*

Berkeley confirms that: a) it is not aware of any new information or data that materially affects the information included in the original announcements; b) all material assumptions and technical parameters underpinning the Mineral Resources, Ore Reserve Estimate, Production Target, and related forecast financial information derived from the Production Target included in the original announcement continue to apply and have not materially changed; and c) the form and context in which the relevant Competent Persons' findings are presented in this presentation have not been materially modified from the original announcements.

The information in the original announcement that relates to the Definitive Feasibility Study is based on, and fairly represents, information compiled or reviewed by Mr. Mr Jeffrey Peter Stevens, a Competent Person who is a Member of The Southern African Institute of Mining & Metallurgy, a 'Recognised Professional Organisation' (RPO) included in a list posted on the ASX website from time to time. Mr. Stevens is employed by MDM Engineering (part of the Amec Foster Wheeler Group). Mr. Stevens has sufficient experience that is relevant to the style of mineralization and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'.

The information in the original announcement that relates to the Ore Reserve Estimates, Mining, Uranium Preparation, Infrastructure, Production Targets and Cost Estimation is based on, and fairly represents, information compiled or reviewed by Mr. Andrew David Pooley, a Competent Person who is a Member of The Southern African Institute of Mining and Metallurgy', a Recognised Professional Organisation' (RPO) included in a list posted on the ASX website from time to time. Mr. Pooley is employed by Bara Consulting (Pty) Ltd. Mr. Pooley has sufficient experience that is relevant to the style of mineralization and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'.

The information in the original announcement that relates to the Mineral Resources for Zona 7 is based on, and fairly represents, information compiled or reviewed by Mr Malcolm Titley, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Titley is employed by Maja Mining Limited, an independent consulting company. Mr Titley 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 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'.

The information in this presentation that relates to the Mineral Resources for Retortillo is extracted from the announcement entitled 'Increase in Retortillo grade expected to boost economics' dated 7 January 2015 which is available to view on Berkeley's website at www.berkeleyenergia.com. The information in the original announcement is based on, and fairly represents, information compiled by Mr Malcolm Titley, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Titley is employed by Maja Mining Limited, an independent consulting company. Mr Titley 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 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. The Company confirms that 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 announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

The information in this presentation that relates to the Mineral Resources for Alameda (refer ASX announcement dated 21 October 2016) is based on information compiled by Mr Craig Gwatkin, who is a Member of The Australasian Institute of Mining and Metallurgy and was an employee of Berkeley Energy Limited at the time of initial disclosure. Mr Gwatkin 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 Gwatkin consents to the inclusion in the announcement of the matters based on his information in the form and context in which it appears. This information was prepared and first disclosed under the JORC Code 2004. It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported.

The information in this presentation that relates to the Exploration Results for Zona 7 is extracted from the announcement entitled 'High grade intercepts below Zona 7 point to resource upgrade' dated 5 September 2016 which is available to view on Berkeley's website at www.berkeleyenergia.com. The Information in the original announcement is based on, and fairly represents, information compiled by Mr Malcom Titley, a Competent Person who is a member of the Australasian Institute of Mining and Metallurgy. Mr Titley is employed by Maja Mining Limited, an independent consulting company. Mr Titley 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 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'.