Etango Uranium Project
Heap Leach Demonstration Program
Phase 1 - July 2015
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KEY OBSERVATIONS, RESULTS & PRELIMINARY CONCLUSIONS

1. Demonstrating the design and projected performance reflected in the Definitive Feasibility Study (“DFS”)
   - Fast and high average leach extraction of 94% for the cribs and 93% for the columns, within 20 days. The column results were similar to that obtained in previous laboratory testing but the crib results were better than anticipated (refer second bullet point under heading “3. Pursuing Value Engineering” below).
   - Average sulphuric acid consumption approximately 16 kg/tonne (compared with DFS projection of 18kg/tonne).
   - Visual observations during the unloading of the cribs confirmed uniform percolation through the material, integrity of the agglomerate and geotechnical stability of the heap.
   - Testing confirms the simple chemistry and efficient leaching nature of the granite host rock and uranium mineralisation.

2. Further enhancing project knowledge
   - Designed, permitted, constructed and successfully commissioned large scale demonstration plant.
   - Gaining operating experience including safe handling of sulphuric acid, etc.
   - Building an understanding of the process control and metallurgical accounting issues associated with the specific characteristics of the Etango deposit and design flowsheet.
   - Dramatically increased the metallurgical database through testing of 120 tonnes of ore in 4 separate crib tests and 1.6 tonnes of material in 8 column tests.

3. Pursuing value engineering
   - Rapid and uniform percolation without signs of flooding, coupled with rapid and high leach extraction at a larger scale point towards the potential to further optimise the heap leach configuration.
   - Surprisingly no noticeable reduction in leach extraction performance was observed between the larger scale cribs and the smaller columns. This poses the question as to the appropriate scale up factors to be used in the detailed engineering of the heap leach operation. Further work is required to address this matter.

### SUMMARY OF METALLURGICAL PERFORMANCE

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Units</th>
<th>CRIB 1</th>
<th></th>
<th>CRIB 2</th>
<th></th>
<th>CRIB 3</th>
<th></th>
<th>CRIB 4</th>
<th></th>
<th>Columns</th>
</tr>
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<tbody>
<tr>
<td>Sample Mass</td>
<td>(t)</td>
<td>CRIB 1</td>
<td></td>
<td>CRIB 2</td>
<td></td>
<td>CRIB 3</td>
<td></td>
<td>CRIB 4</td>
<td></td>
<td>Columns</td>
</tr>
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<td></td>
<td>1A</td>
<td>1B</td>
<td>1A</td>
<td>1B</td>
<td>1A</td>
<td>1B</td>
<td>1A</td>
<td>1B</td>
<td>1A</td>
</tr>
<tr>
<td>Contained U₃O₈ (kg)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Head Grade (ppm)</td>
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<td>0.2</td>
<td>0.2</td>
<td>30.1</td>
<td>0.2</td>
<td>0.2</td>
<td>30.7</td>
<td>0.2</td>
<td>0.2</td>
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<tr>
<td>U₃O₈ in Tails (kg)</td>
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<td>6.12</td>
<td>0.04</td>
<td>0.04</td>
<td>5.88</td>
<td>0.04</td>
<td>0.04</td>
<td>5.93</td>
<td>0.04</td>
<td>0.04</td>
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<tr>
<td>Uranium Extracted (%)</td>
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<td>94.3</td>
<td>93.5</td>
<td>93.2</td>
<td>94.5</td>
<td>93.5</td>
<td>93.8</td>
<td>93.3</td>
<td>93.0</td>
<td>93.3</td>
</tr>
</tbody>
</table>
INTRODUCTION

The Etango Project is one of the world’s largest undeveloped uranium deposits, located in the Erongo uranium mining region of Namibia which hosts the Rössing and Langer Heinrich mines and the Husab Project which is currently under construction by the Chinese state-owned enterprise, China General Nuclear Power Company (CGNPC). Etango is 73km by road from Walvis Bay, one of southern Africa’s busiest deep water ports through which uranium has been exported for over 35 years. Road, rail, electricity and water networks are all located nearby.

Bannerman completed a Definitive Feasibility Study (“DFS”) and Environmental and Social Impact Assessment (“ESIA”) on the Etango Project in 2012. The respective studies, as announced to the market on 10 April 2012, confirmed the technical, economic and environmental viability of the project at historical term uranium prices. In 2012 Bannerman also received environmental approval for the Etango Project.

[All material assumptions detailed in this report and underpinning the production target and forecast financial information in the DFS (as previously announced on 10 April 2012 and reported on 30 January 2014 in compliance with Listing Rule 5.16 and 5.17) continue to apply and have not materially changed.]

Definitive Feasibility Study

Key outcomes from the DFS are as follows:

- 2004 JORC Code and NI 43-101 compliant Ore Reserves (at 100ppm cut-off) totalling 279.6 million tonnes at an average grade of 194ppm U₃O₈ for 119.3 Mlbs of contained U₃O₈;
- Production of 7-9 Mlbs U₃O₈ per year for the first five years and 6-8 Mlbs U₃O₈ per year thereafter, based on an average processing throughput of 20 Mt per annum and an average recovery rate of 86.9%, which would rank Etango as a global top 10 uranium only mine;
- Cash operating costs of US$41/lb U₃O₈ in the first 5 years and US$46/lb U₃O₈ over the life of mine;
- At a uranium price of US$75/lb U₃O₈, the Etango Project generates operating cash flow of US$2.7 billion before capital and tax, and free cash flow of US$923 million after capital and tax,
based on 104Mlbs U₃O₈ life of mine production;
- Pre-production capital cost of US$870 million; and
- Minimum mine life of 16 years, with further extensions possible through the inclusion of measured and indicated resources below the designed pit, and the conversion of existing inferred resources.

Bannerman announced on 8 April 2014 the progression to a heap leach demonstration plant program as an integral step in progress towards the project’s detailed engineering and financing phases. The program is specifically aimed at:
- Demonstrating the design and projected performance reflected in the DFS,
- Further enhancing project knowledge, and
- Pursuing value engineering.

On 22 September 2014 Bannerman announced award of the major contracts to construct and operate the Etango Heap Leach Demonstration Plant. Activities at the site commenced in early October, with completion of the construction and official opening on 24 March 2015.

The demonstration program schedule and objectives are summarised in the Table below:

<table>
<thead>
<tr>
<th>Phase</th>
<th>Objective(s)</th>
<th>Activities</th>
<th>Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Commissioning</td>
<td>Commissioning of Plant.</td>
<td>Open cycle operation of all cribs and columns.</td>
<td>June 2015 Quarter</td>
</tr>
<tr>
<td></td>
<td>Validate leaching assumptions in DFS.</td>
<td>Identify issues and correct plant and</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>operating procedures as required.</td>
<td></td>
</tr>
<tr>
<td>2 Heap Leaching</td>
<td>Demonstrate consistent operation of plant.</td>
<td>Operate 2 cribs and 4 columns.</td>
<td>September 2015 Quarter</td>
</tr>
<tr>
<td></td>
<td>Validate leaching assumptions in DFS.</td>
<td>Utilize same blended sample in both cribs.</td>
<td></td>
</tr>
<tr>
<td>3 Solution Recycle</td>
<td>Simulate the heap leach pad cycle to generate Pregnant Leach Solution (PLS).</td>
<td>Operate three cribs in closed cycle.</td>
<td>December 2015 Quarter</td>
</tr>
<tr>
<td></td>
<td>Assess the possible impacts of the build-up of deleterious elements emanating from the recycling of solution.</td>
<td>Analyse the possible build-up of deleterious elements.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Generate and store sufficient PLS to enable the validation of SX assumptions in Phase 4.</td>
<td></td>
</tr>
<tr>
<td>4 Solvent Extraction &amp; Value Engineering</td>
<td>Demonstrate the solvent extraction process and assumptions in the DFS.</td>
<td>Operate SX plant in laboratory in Swakopmund.</td>
<td>March 2016 Quarter</td>
</tr>
<tr>
<td></td>
<td>Conduct optimisation studies.</td>
<td>Primarily utilize 8 columns to evaluate various opportunities to improve the project economics.</td>
<td></td>
</tr>
<tr>
<td>5 Value Engineering</td>
<td>Conduct optimisation studies</td>
<td>Primarily utilize 8 columns to evaluate various opportunities to improve the project economics.</td>
<td>June 2016 Quarter</td>
</tr>
</tbody>
</table>
PLANT LAYOUT

The layout design of the Demonstration Plant took advantage of a historical exploration camp and the topography of the area. The flowsheet resembles the front end of the processing plant up to the heap leaching stage. Provisions have been made to install either a pulsed column or mixer settler unit to demonstrate the solvent extraction component of the flowsheet, in due course.

The photograph below shows the plant site from the north east. The plant is self-sufficient with respect to electricity and operates on a continuous cycle. The cribs are able to be operated in open (i.e. individually) or closed loop (i.e. in series) circuit. The latter allows simulation of the full scale operation of heap leach pads.

Acid leaching of agglomerated ore stacked to 5m occurs in four 2m x 2m x 6m leach cribs. In addition to the cribs, eight 5m high columns with an internal diameter of 0.185m enable parallel leaching. This arrangement enables direct comparison of the leaching performance of the respective 200kg and 30 tonne samples, and hence an assessment of the scale-up factors as well as the opportunity to conduct optimisation studies on smaller volumes. The setup of the cribs and the columns is shown in the photographs below.
The series of gates on the front of the cribs allow for the progressive stacking from the bottom up, instead of dropping the material in at the top. This practice simulates the vertical drop of the stacking procedure envisaged during full scale operation.

**PROCESS OVERVIEW**

**Bulk Sample**

The 3,000 tonne bulk sample was sourced from the northern end of the Etango ore body as shown in the photograph below. This area was selected because the ore grade was representative of the Etango ore body and the cost of excavation was low due to it outcropping. The clean ore allows for controlled blending with waste material to achieve the specified dilution.
Comminution

Blasting

The 12m by 21m area was blasted on a 2m x 2m pattern with 5m deep drill holes. The blasted material shown below highlights the clean nature of the granite (alaskite) hosted ore.

Crushing & Grinding

The blasted material was transported 2 km to the plant site. The bulk sample was crushed using conventional primary and secondary crushing equipment to generate ore with P100 of <22mm. This product was then tertiary crushed using a High Pressure Grinding Roll (HPGR) unit to generate the DFS product with a target P80 of 5.3mm.
Over and above generating material similar to that specified in the DFS, two other samples were generated to enable future value engineering studies. These were coarser HPGR and conventional crushed material. Waste material (Gneiss rock) to be used for ore dilution purposes was crushed in a similar manner. The ore and waste stockpiles generated are shown in the photograph below.

Ore Sample Preparation

In Phase 1 the ore sample was diluted by 10% with Gneiss rock sourced from the planned pit area to generate a blended sample representative of the projected run of mine orefeed. Ore blending was conducted with the aid of a Quarter Splitter and a Front End Loader as shown below. The Quarter Splitter was used to prepare a uniform sample for each of the four cribs and eight columns.
The material in the four cribs had a P80 of between 3 and 4 mm by comparison to the DFS specification of P80 < 5.3 mm.

**Ore Agglomeration**

The ore was fed into the agglomeration drum via conveyor at a controlled feed rate, and agglomerated through adding sulphuric acid, a polymer binder and water to produce agglomerated ore with properties as per DFS specifications. Agglomerate samples were taken from the stacking conveyor on an hourly basis and analysed for moisture content.

The photographs below show the agglomerated ore at approximately 10 - 12% moisture content.
Ore Stacking and Column Loading

Crib stacking and column loading occurred concurrently with the agglomeration process using a conveyor. To minimise compaction and segregation in the cribs, a drop height of one meter from the head of the conveyor was maintained throughout.

The agglomerated ore used in the two parallel columns per crib was collected on an hourly basis from the conveyor stacking the crib concerned and then loaded into the columns using a sample bag. Care was taken to maintain the one meter drop height whilst loading the columns.

The cribs and columns were pre-loaded with a 350 mm layer of drainage material to serve as a filter for the solution collection during irrigation.

After stacking, the cribs and columns were left to cure for 3 days, before initiating the leach irrigation phase.

Solution Irrigation and Drain

Phase 1 entailed the open circuit heap leach operation of all four cribs and eight columns. Each crib was fed from a separate Irrigation Feed Tank located in the reagent mixing area as shown in the photograph below. The leach solution comprising of 16 - 17 g/l of Sulphuric acid and 3 g/l Ferric was prepared in the Reagent Mixing Tank and then transferred to the respective feed tanks.
Leach solution was introduced at the top of each crib via dripper lines at a constant irrigation rate of 15 L/m²/hr. The photographs below show the even solution distribution as observed at the start of and during irrigation of a crib.
Leach irrigation was conducted for 20 days followed by a post leach drain of 2 days and then a rinse and post rinse phase of 3 days and 5 days respectively. A weak sulphuric acid solution (2 g/l) was used as rinse solution.

**Sampling and Unloading of Ripios from Cribs and Columns**

At the completion of the post rinse phase, all four cribs and their respective columns were carefully unloaded in a manner which enabled taking samples for assaying of uranium, moisture and size distribution. The location of these samples was accurately recorded to enable developing three dimensional profiles of the leach performance. The information was also used to determine the final extraction in each crib.

In Crib 1, a total of nine core samples were obtained for each vertical meter segment using a 1 meter pipe with an internal diameter of 110mm sampling grid designed to ensure consistent sampling throughout the crib.

Ore was carefully removed in one meter intervals using hand shovels and weighed to confirm the stacked tonnes. The samples were also analysed for moisture content to determine the dry stacked tonnage in each crib. The photographs below illustrate the unloading process and sampling methodology.
Heap stability and the integrity of the agglomerates were clearly evident during unloading process. As expected slight segregation of ore due to the stacking was observed at each meter segment, with the finer content located in the centre as shown in the photograph below. However no percolation issues were observed.

DATA COLLECTION AND SAMPLING

Monitoring of the solution inventory was done every 2 hours and solution samples were taken during the leach, drain and rinse phases of the operation to monitor uranium and reagent concentrations in the various streams. Analytical services were provided by the Bureau Veritas laboratory in Swakopmund.

Head grade samples were taken during ore blending and quartering activities, agglomerate samples during the agglomeration phase and ripios (tails) samples during unloading of the cribs.

The assaying of solution and ore samples was also done by the Bureau Veritas laboratory in Swakopmund.

LEACH PERFORMANCE

Uranium Extraction

As referred to earlier in the report, the leach performance was assessed through monitoring the solution in- and outputs during the leaching process and assaying the ripios post completion of the leach cycle.

The methodical sampling of the ripios material enabled gaining an understanding of the three dimensional profile of percolation, extraction and segregation through the 2m x 2m x 5m crib samples.

The schematic diagram below shows the ripios grade, leach extraction and moisture content in each of the 45 samples taken from Crib 1. Each quadrant of 9 blocks represents one vertical meter. The 9 x 5 matrix of information presents an important insight to the leach process through the 2m x 2m x 5m crib and will be further analysed to enable optimising the heap leach design.
The highest sample extraction achieved was 97% and the lowest was 87%. The average overall uranium extraction for Crib 1 was 94.3%.

<table>
<thead>
<tr>
<th>Ripios Grade (ppm U₃O₈)</th>
<th>Uranium Extraction (%)</th>
<th>Moisture (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Door</td>
<td>Row 1</td>
<td>Row 2</td>
</tr>
<tr>
<td>1m</td>
<td>6.5</td>
<td>7.6</td>
</tr>
<tr>
<td>9</td>
<td>8.6</td>
<td>9.2</td>
</tr>
<tr>
<td>8.4</td>
<td>7.9</td>
<td>11.6</td>
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<tr>
<td>2m</td>
<td>14.6</td>
<td>8.6</td>
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<tr>
<td>8.3</td>
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<td>7</td>
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<td>3m</td>
<td>9.6</td>
<td>10.4</td>
</tr>
<tr>
<td>8.6</td>
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<td>9.1</td>
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<td>8.3</td>
<td>11.9</td>
<td>26.5</td>
</tr>
<tr>
<td>4m</td>
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<td>5m</td>
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<td>13.3</td>
</tr>
<tr>
<td>9.9</td>
<td>12.6</td>
<td>17.5</td>
</tr>
</tbody>
</table>

On average, approximately 85% uranium extraction was achieved by day 10 and over 90% by day 15 (refer graph below). Leach irrigation was stopped at day 20 and the overall uranium extraction achieved after the drain, rinse and post rinse phase was approximately 94%. The extraction curves for the larger scale cribs are similar in profile to that for the previous column testing, from which the DFS design of 32 days was interpreted. Hence it may indicate that initial scale-up interpretations were conservative, and that the leach time may be shorter than predicted.
Acid Consumption
The rate of acid consumption was consistent with previous testing (black dotted line) and averaged approximately 16 kg/tonne for the four cribs (compared with DFS projections of 18kg/t).

IN SUMMARY
The results from the larger scale cribs match those from the parallel columns and earlier laboratory testing and strongly support the assumptions and projections incorporated in the Etango Definitive Feasibility Study ("DFS").

Phase 1 highlights included:

- Fast and high leach recovery – within 20 days average overall recovery of 94% for the cribs and 93% for the columns.
- Low sulphuric acid consumption – averaged approximately 16 kg/tonne (compared with DFS projection of 18kg/tonne).
- Geotechnical stability - visual observations during the unloading of the cribs confirmed the uniform percolation through the material, integrity of the agglomerate and geotechnical stability of the heap.
- The similar performance of the larger scale (30t sample) cribs to the (200kg sample) columns may be an indication of potential upside related to the projection of the previous column testing results to the full scale heap leach performance parameters in the DFS. More work is required in this regard.
- Capability building – rapid growth in understanding of the process control and metallurgical accounting associated with the specific characteristics of the Etango deposit and design flowsheet.
ENVIRONMENTAL MANAGEMENT

The area from where the ore sample was sourced has been rehabilitated.

Tarpaulins placed on all the stockpiles to both protect the samples and minimise dust generation.

Double lined solution evaporation ponds with leak detection.
TECHNICAL DISCLOSURES

Certain disclosures in this report, including management's assessment of Bannerman's plans and projects, constitute forward looking statements that are subject to numerous risks, uncertainties and other factors relating to Bannerman's operation as a mineral development company that may cause future results to differ materially from those expressed or implied in such forward-looking statements. Full descriptions of these risks can be found in Bannerman's various statutory reports, including its Annual Information Form available on the SEDAR website, sedar.com. Readers are cautioned not to place undue reliance on forward-looking statements. Bannerman expressly disclaims any intention or obligation to update or revise any forward-looking statements whether as a result of new information, future events or otherwise.

Mineral Resources that are not Ore Reserves do not have demonstrated economic viability.

Bannerman Resources Limited ("Bannerman") manages its drilling and assaying activities in accordance with industry standard quality assurance/quality control (QA/QC) procedures. Samples are collected by Bannerman personnel and prepared in accordance with specified procedures at the relevant assay laboratories. Drill samples were analysed for uranium by the Bureau Veritas Laboratory in Swakopmund, Namibia. Bureau Veritas is an International Laboratory Group with operations in 140 countries, including Ultratrace and Amdel in Australia. Assay QA/QC involves the use of assay standards (sourced from African Mineral Standards (AMIS) in Johannesburg, made from Bannerman pulp rejects and cross-checked through umpire laboratories for which the round robin reports are available), field duplicates, blanks and barren quartz flushes. A third party “umpire” laboratory (Genalysis in Perth) is used to cross-check and validate approximately 5% of the assay results in accordance with standard procedures. Sample coarse rejects are retained and approximately 5% of samples are re-submitted for further assay verification. All sample pulps, half-core and rock-chip samples are retained at Bannerman’s Goanikontes Warehouse Facility (GWS) on site.

The information in this report relating to the Ore Reserves of the Etango Project is based on information compiled or reviewed by Mr Harry Warries in April 2012. Mr Warries is a Fellow of The Australasian Institute of Mining and Metallurgy. Mr Warries was employed by Coffey Mining as an independent consultant to the Company at the time of the studies and public release of the results. As Mr Warries is now no longer employed by Coffey Mining, Coffey Mining has reviewed this report and consent to the inclusion, form and content of the relevant information herein from the original reports for which Mr Warries’ consent has previously been given. Mr Warries has sufficient experience relevant to the style of mineralisation and types of deposits under consideration and to the activity which is 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”, and a Qualified Person as defined by Canadian National Instrument 43-101.

The information in this report that relates to Mineral Resources or Ore Reserves was prepared and first disclosed under the 2004 JORC Code. It has not been updated since to comply with the 2012 JORC Code on the basis that the information has not materially changed since it was last reported. All material assumptions and technical parameters underpinning the estimates of mineral resources continue to apply and have not materially changed.

All material assumptions detailed in this report and underpinning the production target and forecast financial information in the DFS (as previously announced on 10 April 2012 and reported on 30 January 2014 in compliance with Listing Rule 5.16 and 5.17) continue to apply and have not materially changed.