



Honeymoon Uranium Project, South Australia

Boss cements status as Australia's next uranium producer with engineering process running ahead of schedule

Front-end engineering design set for completion early next year, paving way for detailed design and ordering of long-lead items

Boss Energy Limited (ASX: BOE; OTCQB: BQSSF) is pleased to announce that it has cemented its position as Australia's most advanced emerging uranium producer, with the front-end engineering and design (FEED) process at its Honeymoon Project running well ahead of schedule.

Boss now expects to complete this work early in the new calendar year, positioning it to start detailed design work and order long-lead items.

The rapid progress on the FEED work comes against the backdrop of a rising uranium spot price, which hit a six-year high of US\$39.00/lb last week.

Boss paid US\$30.15/lb for 1.25Mlbs of U₃O₈ it acquired in March this year at a total cost of US\$37.68M (A\$49.69M)¹. This inventory is now worth US\$48.75M (A\$65.88M)² at a spot price of US\$39.00/lb.

Strategically, this inventory is highly valuable to Boss on several levels as the Company secures offtake agreements, finalises project funding and moves into production.

Boss Managing Director Duncan Craib said: "We continue to extend our advantage as the most advanced emerging uranium producer in Australia.

"We have a plant on care and maintenance, other significant production and storage infrastructure in place, we have formed an Owner's Team to restart Honeymoon and we are moving through the FEED stage rapidly".

Front End Engineering Design

Boss is currently completing the process design, and finalising site layouts and arrangements with certified vendor data for Honeymoon. FEED is expected to complete early in the March quarter, 2022, which will allow detailed design to commence immediately after a Final Investment Decision (FID) for Honeymoon's restart is made.

¹ Refer to ASX announcement dated 29 March 2021.

² Inventory value at a U₃O₈ spot price of US\$39.00/lb and an exchange rate of A\$1:US\$0.74.

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The primary goals of a FEED include:

- Finalise key technical decisions;
- Produce foundation technical documents;
- Confirm product specifications; and
- Refine budget and scope for the project.

Completion of Piping and Instrumentation Diagrams (P&ID's)

Completion and lock of design of P&ID's is now 58% complete (56 of 95 diagrams), with the following layouts finalised:

- Reagents and services;
- Process design; and
- Precipitation circuit.

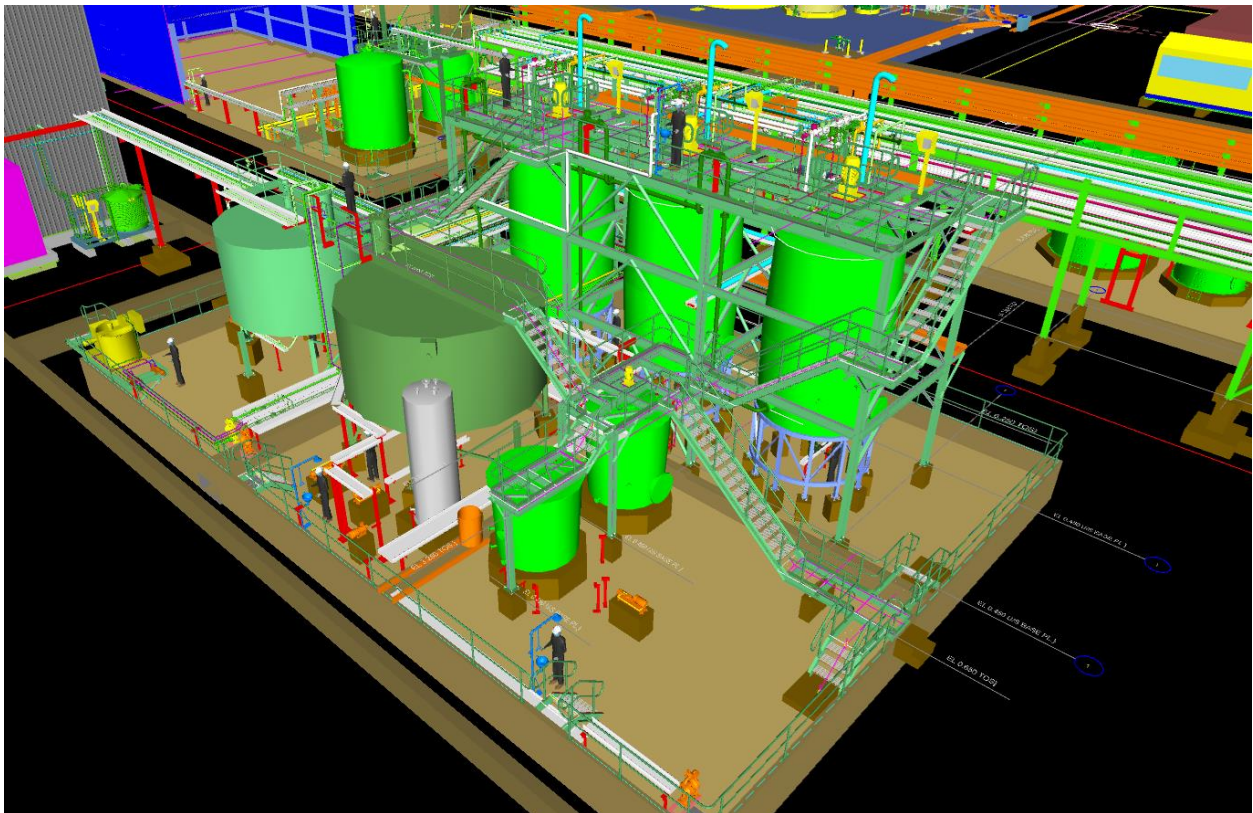


Figure 1: Finalised design of the Precipitation Circuit.

The 3D model snapshot in Figure 1 is an example of how Honeymoon's process equipment interacts with piping and instruments, which is critical in design development and control system integration. Every pipe, every control valve and every instrument is spatially modelled.

The following P&ID layouts are ongoing, expected to complete in the following months:

- NIMCIX columns;
- Wellfield infrastructure; and
- Ground Water Treatment plant.

Design Reports

With a focus on long lead equipment, Boss has commenced engaging with preferred vendors on the following critical path items:

- Dry and calciner kiln;
- NIMCIX columns;
- Reverse Osmosis Plant; and
- Upgrading Pregnant / Barren Leach solution pumping systems.

FEED studies are a critical planning tool and the Company looks forward to sharing the results as these activities progress in the near term. Boss is well on track to bring Honeymoon into production, as the outstanding results of the recent Enhanced Feasibility Study³ showed.

Owner's Team Growth

The Company is pleased to advise the appointment of Jonathan Owen as Project Manager of Honeymoon's restart. Joining the established process plant Owner's Team⁴, Mr Owen has extensive global experience in project management and development, including 10 years with First Quantum Minerals as a Project Manager on the African Sentinel Copper/Nickel development and more recently in handing over the Cobre Panama Copper/Gold processing plant.

Working in all aspects of the project lifecycle from feasibility to handover for 25+ years, Mr Owen brings a strong focus on self-perform project execution and efficient EPCM utilisation, with >12 years at Outotec managing in the project and engineering offices in Australia and Africa.

Boss integrated Owner's Team will work with EPC Engineers during Honeymoon's development and continue to have technical responsibilities into production.

This ASX announcement was approved and authorised by the Board of Boss Energy Limited.

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³ Refer to ASX announcement dated 21 June 2021.

⁴ Refer to ASX announcement dated 2 August 2021.

Reference to previous ASX announcements

In relation to the results of the Enhanced Feasibility Study announced on 21 June 2021, the Company confirms that all material assumptions underpinning the production target and forecast financial information included in that announcement continue to apply and have not materially changed.

Forward-Looking Statements

This announcement includes forward-looking statements. These forward-looking statements are based on the Company's expectations and beliefs concerning future events. Forward-looking statements are necessarily subject to risks, uncertainties, and other factors, many of which are outside the control of Boss Energy, which could cause actual results to differ materially from such statements. Boss Energy makes no undertaking to subsequently update or revise the forward-looking statements made in this announcement, to reflect the circumstances or events after the date of this announcement.