



21 March 2019

Companies Announcement Office  
*Via Electronic Lodgement*

## **PERMIT TO MINE AMENDMENT FOR LOW pH MINING APPROVED**

Peninsula Energy Limited (**Peninsula or Company**) is pleased to announce that its wholly owned subsidiary, Strata Energy Inc (**Strata**), has achieved a major milestone in the regulatory approval process for the use of low pH solutions at the Lance Projects in Wyoming (**Lance Projects**).

On 20 March 2019 (U.S time) Strata received the formal approval from the Land Quality Division within the Wyoming Department of Environmental Quality (**WDEQ**) of the Permit to Mine (**PTM**) amendment for low pH in-situ recovery (**ISR**) mining at the Lance Projects. This approval follows the completion of an extensive technical review of the amendment application by the WDEQ, completion of the public comment period and completion of a review by the WDEQ of the comments received.

Separately, the Uranium Recovery Program within the WDEQ is continuing its review of Strata's October 2018 request to amend the existing Source Materials and By-product License (**SML**). Amendments to the existing PTM and SML are the two overarching regulatory approvals required to enable commercial-scale low pH operations at the Lance Projects. The Company expects to make further announcements regarding the status and progression of the SML amendment request as that review progresses.

Wayne Heili, Peninsula's Managing Director/CEO, commented, "This approval from the WDEQ of the Permit to Mine amendment is the most significant regulatory milestone to date in our transition to a low pH ISR operation at the Lance Projects. The timely completion of the amendment is a reflection of the quality of the application prepared by our team, supported by our research efforts and existing environmental and safety performance. While the SML amendment deals with some different matters to the PTM amendment, receiving this approval gives the Company added confidence of a positive outcome for the Source Material License amendment. Together with the results to date from our low pH field demonstration, which is progressing according to expectations, the Company is confident that it will have all approvals required to allow commencement of commercial-scale low pH operations during the 2019 calendar year."

The approved PTM amendment allows the implementation of low pH operations within the Ross Permit Area at the Lance Projects in four progressive phases, Phase 1 of which is the low pH field demonstration that commenced in December 2018.

Each of the four phases of implementation are outlined below.

### Phase 1 – Mining and Initial Restoration Phase of Low pH Field Demonstration

Phase 1, being the low pH field demonstration, was able to commence in December 2018 following the approval of a non-significant revision to the PTM and the determination by a Safety and Environmental Review Panel that a low pH field demonstration could be conducted under the existing SML. The low pH field demonstration will consist of a mining stage and an initial restoration stage.

A key objective of the mining stage of Phase 1 is the successful lowering of the local mining zone pH level to the targeted level (approximately 2.0 standard units) without compromising the ability to move lixiviant through the mining zone.

During the restoration stage within Phase 1 the objective is to return the pH level in the mining zone to equal or above 5.0 standard units in order to bring the formation pH into a range where industry standard restoration techniques can be utilised. The restoration stage of Phase 1 is expected to commence in the next two to three months. Upon elevating the pH to a level equal to or above 5.0 standard units, Strata will submit an Interim Operation Report to the WDEQ that summarises the results of the field demonstration for this phase. Test results will be compared by the WDEQ with predetermined criteria and performance metrics.

Those elements of the low pH field demonstration necessary to obtain approval for the commencement of commercial scale operations are expected to be completed in mid-2019. Approval of the SML amendment request will also be required to proceed with Phase 2.

### Phase 2 – Commencement of Commercial Scale Operations (MU1 and MU2)

Phase 2 is the commencement of commercial-scale low pH operations throughout the entirety of existing previously operated areas of Mine Units 1 and 2. Approximately 800,000 lbs U<sub>3</sub>O<sub>8</sub> are estimated to remain available for extraction in those Mine Units. Phase 2 can commence upon acceptance by the WDEQ that the Phase 1 Interim Operation Report has demonstrated that pre-defined acceptance criteria have been achieved, or through approval by the WDEQ following evaluation of variations to acceptance criteria (if any).

The restoration stage of the low pH field demonstration runs in parallel with Phase 2 and continues into Phase 3.

### Phase 3 – Field Scale Groundwater Restoration in Low pH Field Demonstration Area

Phase 3 of the implementation plan consists of a field scale groundwater restoration demonstration within the low pH field trial area, building upon the initial Phase 1 restoration activities. Field scale restoration is intended to restore the water quality in the mining zone to specified criteria. Following this field scale groundwater restoration, Strata will submit an Interim Restoration Report to the WDEQ for review and approval. It is estimated that the Interim Restoration Report will be submitted toward the end of 2019.

### Phase 4 – Commencement of Commercial Scale Operations (New Mine Units in Ross Permit Area)

Upon WDEQ approval of the Interim Restoration Report, the Company can advance to Phase 4 of the implementation plan and commence the use of low pH lixiviants in all future new wellfield units within the Ross Permit Area. Commencement of operations in any new mine unit is subject to the normal WDEQ review and approval of the wellfield data packages, which is the same process for new mine units that is required under the existing alkaline permits and licences.

Commencement of the development of new mining units within the Ross Permit Area (ie, Mine Units 3 and 4) can be done under the existing permits and licenses held by the Company and may commence in advance of the low pH regulatory amendments and finalisation of the low pH field demonstration. Timing of an investment decision for the start of development of Mine Unit 3 will continue to be assessed by the Company over the coming months as market conditions for domestic United States uranium production evolve.

Yours Sincerely,



**Wayne Heili**  
**Managing Director/CEO**

For further information, please contact our office on +61 8 9380 9920  
during normal business hours.

### **About Peninsula Energy Limited**

Peninsula Energy Limited (PEN) is an ASX listed uranium mining company which commenced in-situ recovery operations in 2015 at its 100% owned Lance Projects in Wyoming, USA. Following a positive feasibility study, Peninsula is embarking on a project transformation initiative at the Lance Projects to change from an alkaline ISR operation to a low pH ISR operation with the aim of aligning the operating performance and cost profile of the project with industry leading global uranium production projects. Peninsula is aiming to have all required approvals in place to enable the commencement of commercial-scale low pH operations during the 2019 calendar year. With an existing operation and infrastructure, and a significant long term contract portfolio underpinning its future uranium sales profile, Peninsula is positioned to grow into a mid-tier US uranium mining company over the next 2-3 years.