



8 November 2018

Companies Announcement Office
Via Electronic Lodgement

LOW PH FIELD DEMONSTRATION TO COMMENCE AT LANCE PROJECTS

Peninsula Energy Limited (**Peninsula or Company**) is pleased to announce that the Wyoming Department of Environmental Quality (**WDEQ**) has approved a non-significant revision (**NSR**) to the existing Permit to Mine (**PTM**) related to testing low pH lixiviant for suitability as a uranium recovery process. The NSR authorises the Company to conduct field trials using low pH lixiviant at the Lance Projects in Wyoming, USA. This approval follows a submission by the Company to the WDEQ requesting authorisation of a small-scale field demonstration. In addition, the WDEQ continues to conduct its review of the Company's requests to amend the existing PTM and Source Material and By-product License (**SML**).

Preparation work for the low pH field leach trial is being conducted on site and it is anticipated that the trial will commence in late 2018. The planned trial demonstration comprises both mining and restoration phases and is expected to run for 6 to 8 months.

Wayne Heili, Peninsula's Managing Director/CEO, commented "This authorisation from the WDEQ enables us to validate in a limited field operating environment the successful low pH results that we have obtained under laboratory conditions. Importantly, we may conduct the field demonstration concurrently with the WDEQ progressing their reviews of our major amendment requests, providing both parties timely, valuable operating insight and data. This approval to commence a low pH field demonstration is a very positive step forward for the Company and potentially allows for a faster ramp-up of low pH operations."

The existing SML provides for the establishment of a Safety and Environmental Review Panel (**SERP**) that is responsible for changes, experiments and evaluating proposed tests, such as this low pH field demonstration. The SERP is comprised of appropriately experienced personnel from the Lance Projects management team. The SERP reviews determine whether a change in the existing SML would be required. Management believes that the low pH field trial can be conducted under the provisions for tests subject to SERP approval.

Low pH Field Trial Information

The NSR grants approval for the Company to conduct low pH trials in two small areas of header house 2 within Mine Unit 1 of the Ross Permit Area of the Lance Projects. Initially, one area will be subject to the field trial and the second area will be kept in reserve for the possibility of a second trial if desired. The location of the two approved trial areas is shown in Figure 1 below.

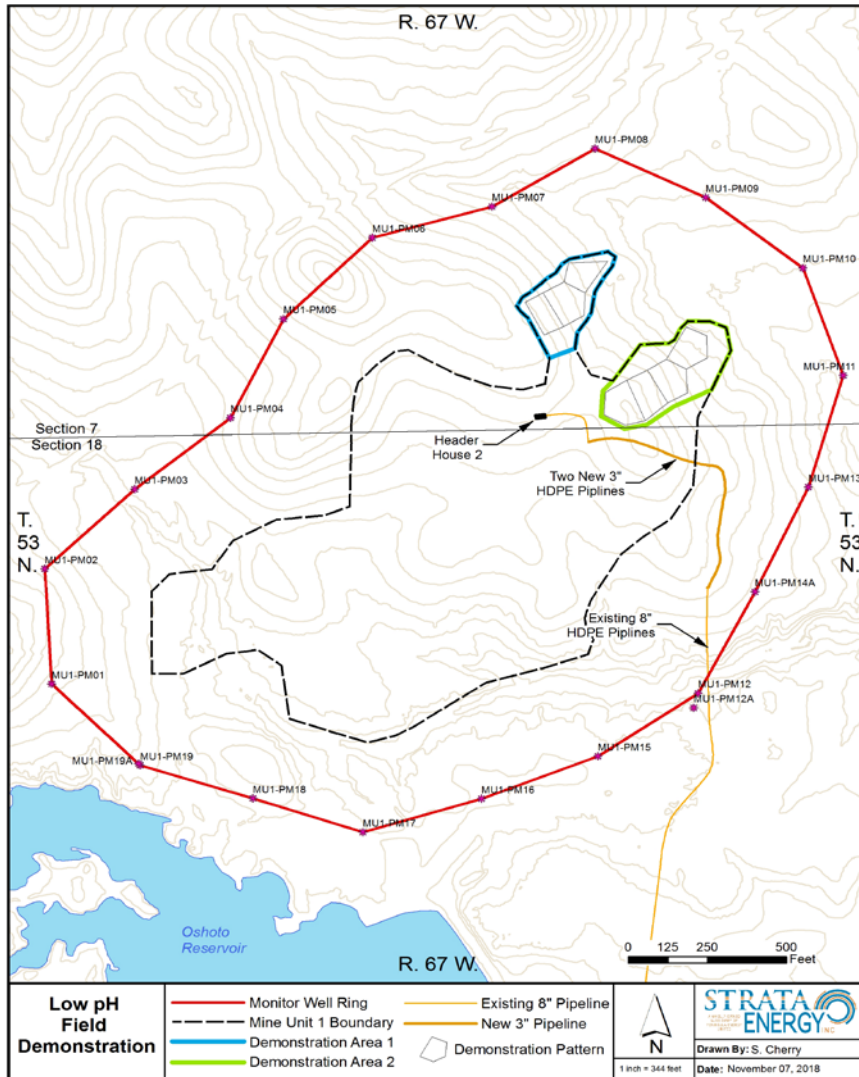


Figure 1: Designated Field Trial Areas within Mine Unit 1

Modifications to existing wellfield and process plant equipment necessary to conduct the trial are minimal. A small number of components in header house 2 and the associated wells in the trial areas have been replaced with components that are amenable to low pH solutions. Within the process plant, two ion exchange columns have recently been taken offline to apply an internal coating of epoxy suitable for prolonged contact with low pH solutions. Minor plant plumbing modifications will be made so that those two ion exchange columns can be isolated for low pH service during the trials.

When the initial construction for the Lance Projects was undertaken in 2015, two 8-inch pipelines were installed for future service alongside the main 16-inch pipelines. These 8-inch lines will be used for injection and recovery purposes during the trial, allowing the existing alkaline operations to continue while keeping the low pH and alkaline streams isolated.

The mining phase of the trial is expected to run for 3 to 4 months. A key objective during this phase will be 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. The initial restoration phase is also expected to last 3 to 4 months. The key objective during this initial restoration demonstration is to elevate the pH level in the mining

zone back up above 5.0 standard units in order to bring the formation pH into a range where industry standard restoration techniques can be utilised.

Upon receipt of approvals of the major permit revision and license amendment, and the successful demonstration of the initial phase of restoration, the Company has proposed to the WDEQ that it be granted the authority to commence low pH operations throughout the entirety of existing Mine Units 1 and 2. Along with the commencement of low pH operations in Mine Units 1 and 2, the field demonstration will continue with additional restoration activities intended to restore the water quality in the mining zone to specified criteria. Upon completion of the restoration demonstration, the Company has proposed that it receive authority to use low pH lixiviants in all future new wellfield units within the Ross Permit Area (subject to WDEQ review and approval of the wellfield data packages).

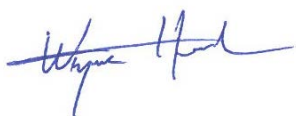
Permit and License Amendment Schedule

Incorporation of the low pH field trial into the permit and license amendment schedule does not materially alter the expectations of the Company that approvals to commence low pH operations can be obtained around the middle of the 2019 calendar year.

Adoption of the field leach trial is expected to allow for a quicker ramp-up of low pH operations than originally contemplated in the low pH Feasibility Study as a number of the initial conditional steps originally proposed during low pH operations ramp-up can be achieved with the trial demonstrations.

As detailed in the Quarterly Activities Report for the 3 months ended 30 September 2018, the Company has been responding to comments and requests for additional information from the WDEQ regarding the PTM amendment requests. Based on our knowledge of the amendment rules and regulations in the State of Wyoming, the Company expects that the WDEQ is likely to be in a position to publish its determination on the PTM amendment request in the next 4 to 6 weeks. Publication of this determination by way of draft PTM amendment wording will initiate the start of the public review and comment period.

Yours Sincerely,



Wayne Heili
Managing Director/CEO

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