



30 November 2020

Companies Announcement Office  
*Via Electronic Lodgement*

**PENINSULA ENERGY TO PRESENT AT H.C. WAINWRIGHT & CO.  
VIRTUAL MINING CONFERENCE**

Peninsula Energy Limited (**Peninsula or Company**) is pleased to advise that Managing Director / CEO Mr Wayne Heili will be providing a Company update as part of a Virtual Mining Conference hosted by New York-based H.C.Wainwright & Co.

Peninsula's presentation will take place on Monday November 30 at 5:00 pm US Eastern Time (9:00am Australian Eastern Standard Time Tuesday December 1).

Interested investors can register to attend Peninsula's live webcast and request a 1 on 1 meeting with Managing Director / CEO Wayne Heili during H.C. Wainwright & Co.'s two day (November 30 and December 1) Virtual Mining Conference at [www.hcwevents.com/mining](http://www.hcwevents.com/mining).

A copy of the Company Presentation is attached and it will be made available on Peninsula's website [www.pel.net.au](http://www.pel.net.au).

Yours sincerely

A handwritten signature in blue ink, appearing to read "Wayne Heili", is positioned above the printed name.

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

*This release has been approved by the Managing Director / CEO.*

**For further information, please contact**

Peninsula Energy  
+61 8 6263 4461

or

Citadel-MAGNUS  
Michael Weir - +61 402 347 032  
Cameron Gilenko - +61 466 984 953



# A Clear Pathway to Uranium Production

H.C. Wainwright Mining Conference  
November 30 – December 1, 2020  
Virtual Conference



# Disclaimer & Competent Person



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Please note that Production Targets within this presentation are based on a proportion of inferred resources. There is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resource or that the production target itself will be realised.

## ***Competent Person Statement***

The information in this presentation that relates to Exploration Results, Mineral Resources or Ore Reserves at the Lance Projects is based on information compiled by Mr Benjamin Schiffer. Mr Schiffer is a Registered Professional Member of the Society of Mining, Metallurgy and Exploration (Member ID #04170811). Mr Schiffer is a professional geologist employed by independent consultant WWC Engineering. Mr Schiffer 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 as a Competent Person as defined in the 2012 Edition of the ‘Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves’. Mr. Schiffer consents to the inclusion in the presentation of the matters based on his information in the form and context in which it appears.

**This presentation was approved by the Managing Director/CEO**

# Cautionary & Inferred Resources Notice



The Feasibility Study completed for the Lance Projects includes measured and indicated resources and an assumed resource conversion of 60% (inferred to indicated or greater). The purpose of the Feasibility Study is to demonstrate the Lance Projects economic viability and the robustness of the planned low pH operations over an extended mine life beyond the existing Ross production area.

The Feasibility Study itself is based on various assumptions, including homogeneity of the delineated ore body contained within the Lance Projects. This is considered reasonable by the Company's technical consultants, competent persons and independent external consultants. The Company believes that it has a reasonable basis upon which to prepare and release these Feasibility Study results, particularly given that the Lance Projects have been in operation since December 2015. Whilst the Company considers that all the material assumptions underpinning the Feasibility Study are based on reasonable grounds, there is no certainty that they will prove to be correct or that the outcomes indicated by the Feasibility Study will be achieved.

The Company believes it has a reasonable basis for providing the forward-looking statements and production targets included in this announcement. The material assumptions are included in Appendix 1 of this announcement and in the JORC table disclosures appended. The detailed assumptions regarding the resources are outlined in the ASX announcement released on 14 November 2018.

Investors should also note that there is no certainty that the Company will be able to raise the amount of funding for the Lance Projects when it is required or on terms that are not overly dilutive or that are favourable to the value of the Company's existing shares.

This presentation has been prepared in accordance with the JORC Code (2012) and the ASX Listing Rules. There is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration and delineation work will result in the determination of indicated mineral resources or that the production target itself will be realised. Financial information contained in this announcement is preliminary in nature and is in-part based on low-level technical and economic assessments and is insufficient to support the estimation of reserves or to provide assurance of economic development.

Under the Feasibility Study mine plan, the first 5 years production can be sourced almost entirely from Measured and Indicated Resources. If the Inferred Resources are excluded from the Feasibility Study, the economic analysis still forecasts a positive financial performance. Therefore, the Company is satisfied that the use of Inferred Resources is not a determining factor in overall Project viability and that it is reasonable to include Inferred Resources in the Feasibility Study, particularly given that the Lance Projects were recently operating and produced uranium for over three years.

In accordance with the relevant regulations governing the disclosure of mineral projects, readers are cautioned that mineable resources based on inferred resource material are considered too speculative geologically to enable them to be classified as reserves.

# A Restart Ready Uranium Producer



- ◉ Led by a highly experienced and technically sound Board and Management Team
- ◉ Peninsula is funded for future activities with an established uranium contract book generating significant long-term revenue
- ◉ Flagship Lance Project, located in Wyoming, is the **only** US-based uranium project authorised to use the industry leading, low-cost, low pH ISR process
- ◉ Extremely low capital requirement for restart of the Lance Project
- ◉ A six month pathway to production following a Final Investment Decision
- ◉ Field demonstration currently underway with ongoing optimisation testing
- ◉ US producer-specific market opportunities





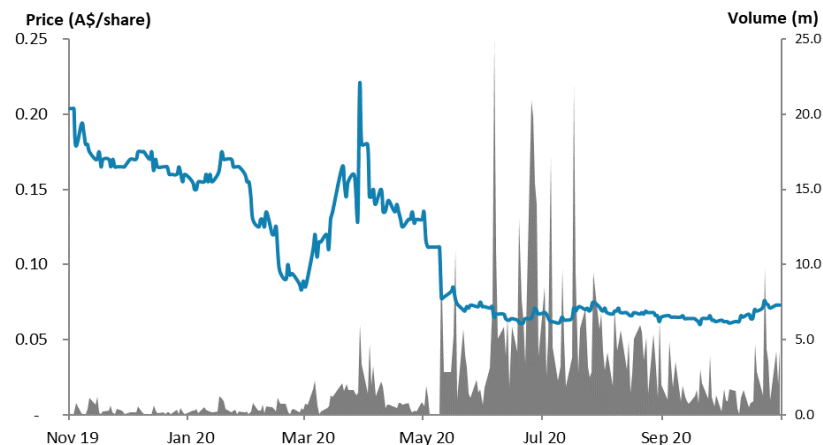
## Key Details

<b>Shares on Issue</b>	891.7m
<b>Share Price (25 Nov 20)</b>	A\$0.073
<b>Market Capitalisation</b>	A\$65.1m
<b>Term Debt</b>	Nil
<b>Cash (as of 30 Sept 2020)</b>	US\$9.4m

## Board of Directors

<b>Mr John Harrison</b>	Non-Executive Chairman
<b>Mr Wayne Heili</b>	Managing Director Chief Executive Officer
<b>Mr Harrison Barker</b>	Non-Executive Director
<b>Mr Mark Wheatley</b>	Non-Executive Director
<b>Mr David Coyne</b>	Non-Executive Director

## Share Price Chart



## Management Team

***Combined 150-plus years of uranium mining experience***

- Wayne Heili
- Ron Chamberlain
- Ralph Knode
- Mike Griffin
- Mike Brost
- Jay Douthit
- David Hofeling

# Lance Uranium In-Situ Recovery (ISR) Project *Wyoming, USA*



# A Modern, Large Scale and Long-Life Asset



- ☞ **Lance is one of the largest US uranium projects in size and scale**
  - ☞ 53.6M lbs U3O8 JORC (2012) compliant resource base<sup>1</sup>
  - ☞ Current market capitalisation undervalues the resource base when compared to peer group
- ☞ **Lance is licensed to produce up to 3M lbs U3O8 per annum**
  - ☞ Current (Stage-1) plant capacity of 1.15M lbs U3O8 per annum
- ☞ **Modern processing and wellfield production facilities, constructed in 2015 or later**
  - ☞ Lance production is currently paused awaiting a transition to low pH ISR
- ☞ **Estimated 6-month lead time to return to production (post re-start decision)**
  - ☞ Re-start decision depends on sustained improvement in market conditions and a satisfactory progression of current low pH optimisation activities

1) See Appendix 1



# Applying Industry-Leading Low pH ISR Process



## Low pH ISR is the leading method of uranium production globally

- 57% of global uranium produced in 2019 was via low pH ISR
  - Lowest quartile cash cost uranium mines are all low pH ISR
- Lance is **the only** US-based uranium project authorised to use the industry leading low pH ISR method

## The Lance Low pH ISR Feasibility Study<sup>1</sup>

- Low pH ISR transition and re-start
  - CAPEX US\$6 million
- Stage 1 ramp up to capacity of 1.15 million lbs p.a.
  - AISC of \$41/lb
  - Working capital ~US\$15 million (includes mine unit 3)
- Stage 2 expansion to capacity of 2.3 million lbs p.a.
  - AISC of \$31/lb
  - CAPEX US\$43 million

*1) There is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration and delineation work will result in the determination of indicated mineral resources or that the production target itself will be realised.*

# Building Blocks to Low pH ISR Production



**SEP 2018**

Publication of low pH ISR Feasibility Study (FS) with positive results

**JAN 2019**

Commencement of field leach trial in a previously mined area using low pH lixiviant

**APR 2019**

Successful completion of the field leach trial

**SEP 2019**

Commencement of low pH de-risking and optimisation activities

**JAN 2020**

Preparation of MU1A field demonstration in unmined area

**JUL 2020**

MU1A field demonstration commences

**DEC 2018**

Column leach tests confirm validity of FS head grade and recovery parameters

**MAR 2019**

Wyoming Department of Environmental Quality (WDEQ) approves modification of Permit to Mine to allow use of low pH mining solutions

**JUL 2019**

Source Materials License approved by WDEQ allowing use of low pH

**NOV 2019**

WDEQ approves Interim Operations Report allowing low pH ISR in existing mining units

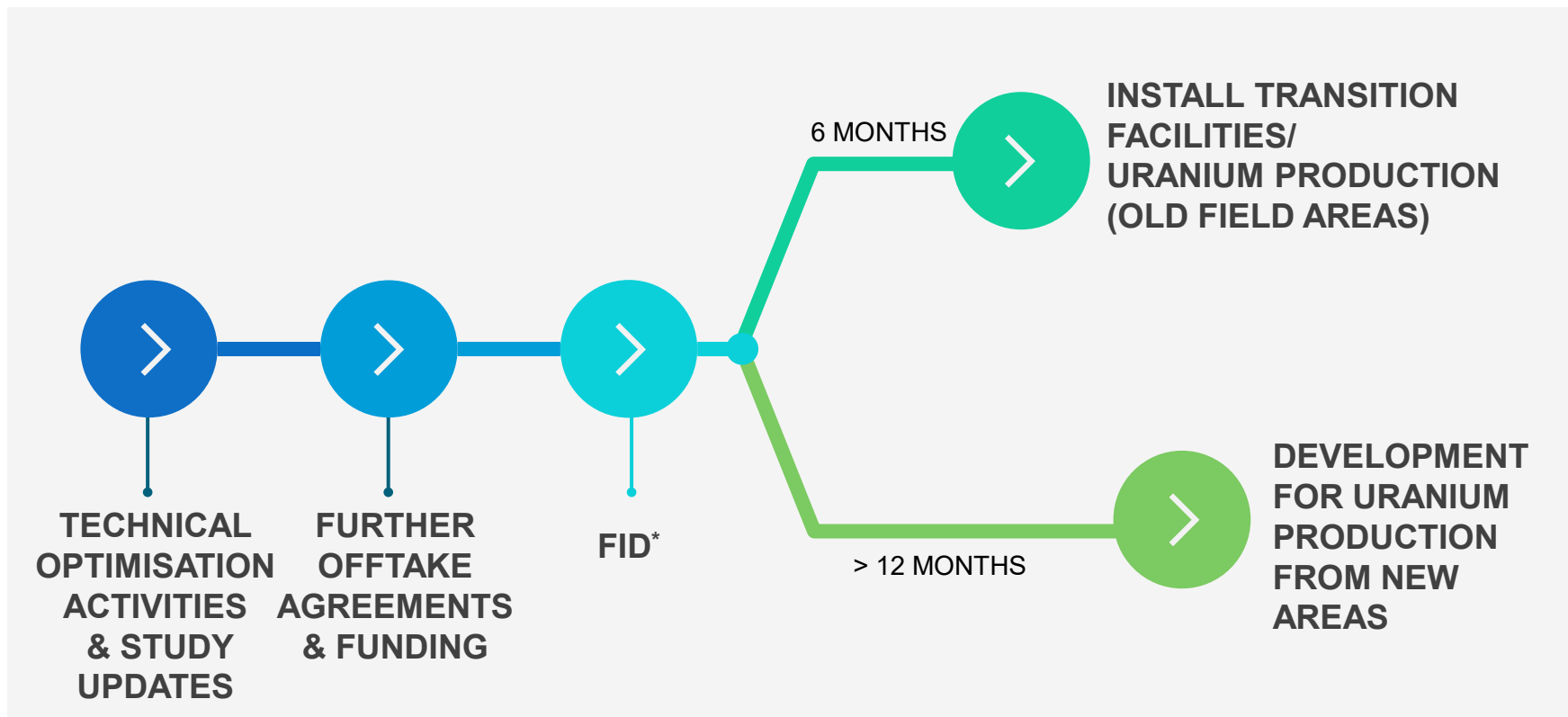
**APR 2020**

WDEQ approves Interim Restoration Report allowing development of new low pH mining units

**AUG 2020**

Column leach tests confirm uranium extraction from new areas at rates consistent with FS (with addition of an oxidant)

# A Well-Defined Pathway to Production



\* Low pH implementation FID decision could be made concurrent to optimisation activities

- FID based on uranium market conditions
- FID also based on progression of optimisation activities and study updates



## Continuation of the MU1A field demonstration (12-18 months)



- Uranium grade curves
- Hard acidification uranium recovery curve
- Performance of test oxidant
- Acid consumption and wellfield flow rates
- Results from use of ponds for fines management



## Testing of low pH ion exchange resin



## Optimisation of uranium recovery processes



## Permitting of wellfield oxidant addition

# Uranium Sales and Marketing



# Established Uranium Sales Contract Book

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- ☉ **The only junior uranium producer with long-term sales contracts extending to 2030**
  - ☉ Representing ~15% of projected Lance FS LOM production
  
- ☉ **Uranium sales Net Cash Margin of US\$6-8 million secured in CY2021**
  - ☉ Matching binding contract sales with market purchase agreements
  
- ☉ **Current contracts in place for up to 5.5M lbs at US\$51-\$53 / lb U3O8 with major utilities in both the US and Europe**
  - ☉ 75,000 lbs U3O8 of December 2020 quarter deliveries have been met generating a net cash margin of \$US1.4 million
  - ☉ 450,000lbs to be delivered in each of CY2021 and CY2022
  
- ☉ **Strong existing relationships with preferred customers will serve as a base for future business opportunities**

# Nuclear Fuel Market Drivers





## 🌀 US Uranium Reserve – A Key NFWG Policy Recommendation

- 🌀 Bipartisan support for a long-term buying program from US uranium mines
- 🌀 US Budget proposal for appropriation of **US\$150 million** to purchase US produced  $U_3O_8$
- 🌀 Legislation introduced in US Senate to support Advanced Nuclear Energy Initiatives including the Strategic Uranium Reserve purchases

## 🌀 Extended RSA – Another Key NFWG Policy Recommendation

- 🌀 Extended and Amended Russian Suspension Agreement (RSA) – signed 5 October 2020
- 🌀 Limits Russian origin uranium and opens market opportunities for US Uranium Producers

## 🌀 What does this mean for Peninsula?

- 🌀 Peninsula is the only ASX-listed uranium company that has the immediate ability to take advantage of these US government programs that support US uranium mines



# A Compelling Proposition



**Low capex  
requirement of \$6m  
and 6-month re-start  
potential for the Lance  
Project**

**Transitioning to low  
pH ISR method to  
provide significant  
operational and  
financial upside**

**Lance is the only US-  
based uranium project  
authorised to use  
industry leading low pH  
ISR method**

**MU1A field  
demonstration  
underway – Near-term  
catalysts**

**Ongoing cashflow  
underpinned by  
established uranium  
contract book**

**Positive outlook for US  
domestic sector  
through Government  
backed US\$150 million  
per annum uranium  
purchase program**

**Experienced Board and management team in place with a broad and  
proven technical and uranium skill set**

# Contact Details

## REGISTERED OFFICE

Suite 22, 44 Kings Park Road  
West Perth, Western Australia 6005

Australia

Phone: +61 8 6263 4461

[www.pel.net.au](http://www.pel.net.au)

[info@pel.net.au](mailto:info@pel.net.au)

## FURTHER INFORMATION

Wayne Heili Managing Director/CEO

+1 (307) 467-5995



## Lance Projects Resource Estimate as at 31 December 2019

Classification	Tonnes (million)	U3O8(kg)	Grade (ppm U3O8)	U3O8(lbs)
Measured	3.4	1.7	489	3.7
Indicated	11.1	5.5	496	12.1
Inferred	36.2	17.2	474	37.8
<b>Total</b>	<b>50.7</b>	<b>24.4</b>	<b>480</b>	<b>53.6</b>

1) JORC Table 1 included in an announcement to the ASX released on 14 November 2018: “Revised Lance Projects Resource Tables”. Peninsula confirms that it is not aware of any new information or data that materially affects the information included in this announcement and that all material assumptions and technical parameters underpinning the estimates 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.