



# ASX Listed - U.S. Uranium Investment Opportunity

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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.

# Cautionary & Inferred Resources Notice

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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 17 September 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 is an operating project that has been producing uranium for over two 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.







*Flagship asset: Lance Projects in-situ recovery uranium mine in Wyoming, USA*

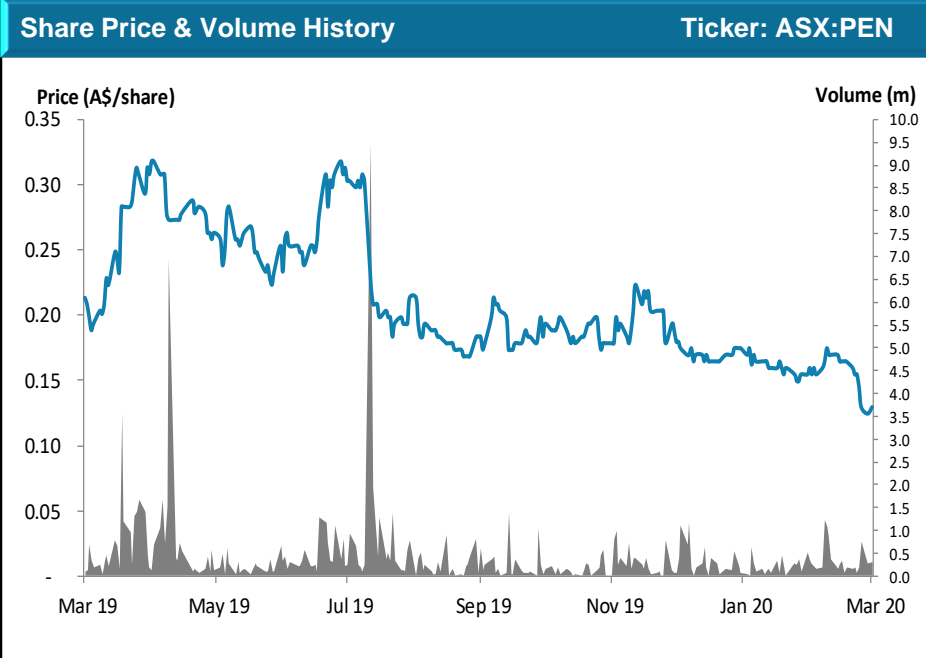
- Peninsula Energy – Corporate Overview
- Lance Project – Our Flagship Asset
- Low pH Upgrade for Lance
- A New Market for U.S. Mined Uranium
- Investment Highlights

Use of nuclear power continues to increase in a world that is demanding more low-carbon electric power generation



Capital Structure	
Shares on issue*	308m
Share price (3-Mar-20)	A\$0.130
Market capitalisation (3-Mar-20)	A\$40m
Enterprise Value (3-Mar-20)	A\$57m
Available Cash (31-Dec-19)	US\$5.5m
Debt (31-Dec-19)	US\$17.0m

Shareholding*	Holding (%)
 PARADICE INVESTMENT MANAGEMENT	9.6%
 RESOURCE CAPITAL FUNDS	7.9%
 COLLINS ST VALUE FUND	3.1%
 orano	1.9%
<b>Top 20 Shareholders</b>	<b>54.4%</b>



Board	
John Harrison - Chairman	Harrison Barker – NED
Wayne Heili – MD/CEO	David Coyne – FD/CFO
Mark Wheatley - NED	

\*Undiluted as at 3 March 2020



# Lance Uranium ISR Project

## *Wyoming, USA*

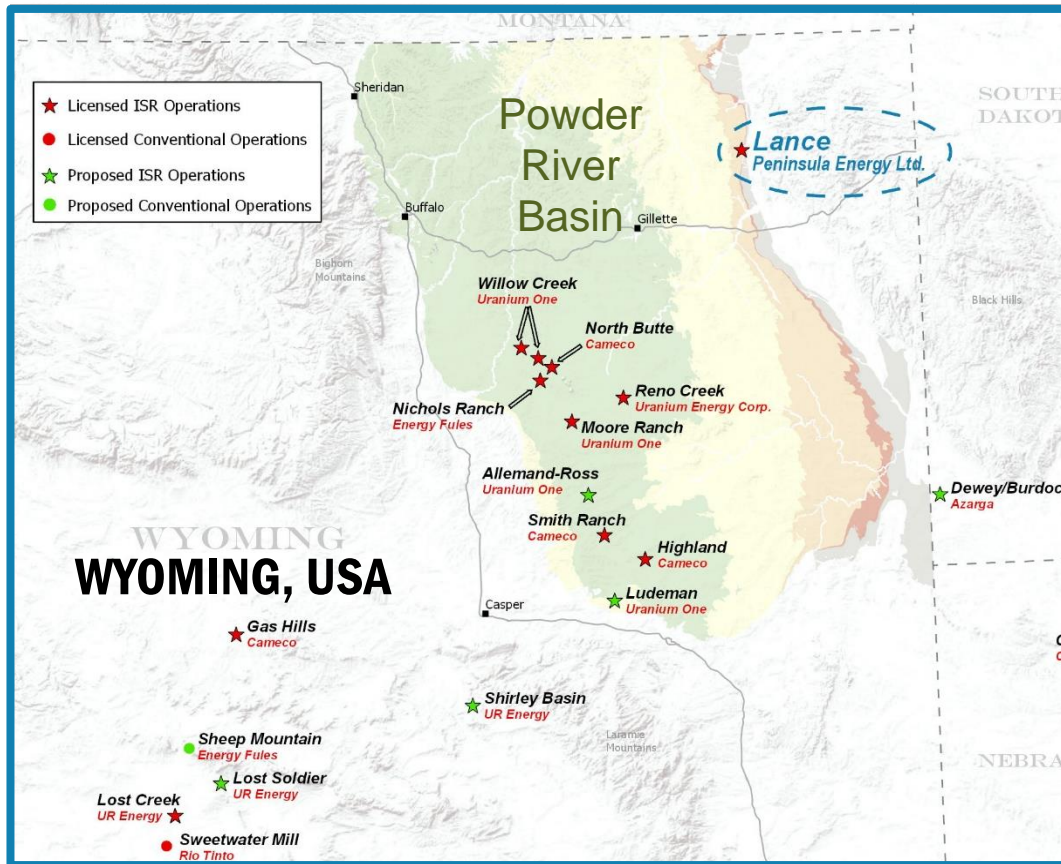




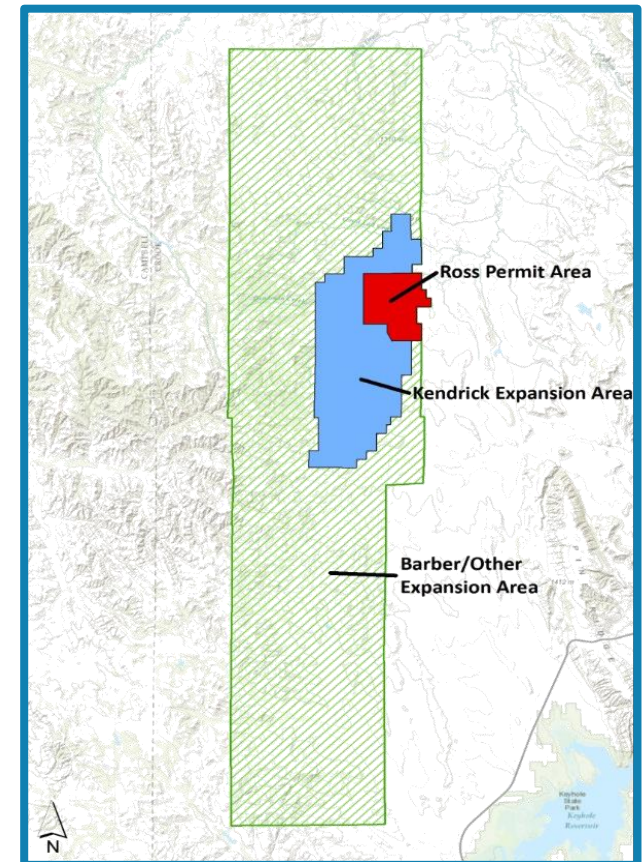
# Lance Project – In a Favourable Jurisdiction



- Wyoming is a leading US uranium extraction jurisdiction, hosting multiple projects
- Lance is one of the largest projects in-size and scale in the US



Lance Regional Setting



Lance Permit Areas

# The Lance Project – A Production Ready Asset



## Exceptional Asset

- ☞ Lance is the only uranium recovery project located in the US authorised to use the industry leading low pH ISR method
- ☞ Lance holds the largest defined uranium resource of any recently producing project in the US

## Scalable Production

- ☞ Lance is licensed to produce up to 3M lbs U<sub>3</sub>O<sub>8</sub> per annum
  - ☞ Current (Stage-1) plant capacity of 1.15M lbs U<sub>3</sub>O<sub>8</sub> per annum
- ☞ 53.6M lbs U<sub>3</sub>O<sub>8</sub> JORC (2012) compliant resource base<sup>1</sup>

## Operational Readiness

- ☞ Mining operations commenced in December 2015
- ☞ Mining now idled due to no near term production requirements
- ☞ Re-start decision pending market conditions, funding and progression of de-risking & optimisation activities

<sup>1</sup> – See Appendix 1



The image shows a complex industrial setup. In the foreground, a bright yellow pump with a black motor is mounted on a metal frame. It is connected to a network of pipes, including red and grey ones. In the background, there's a large, clear rectangular tank or container. To the right, a vertical metal structure supports more piping and a large grey cylindrical component. The entire system is situated on a concrete floor in what appears to be a laboratory or industrial facility.

# Lance ISR Project

## *Preparing for Low pH Operations*

# Low pH ISR at Lance = Leading the US Industry



## ☞ Low pH ISR is the leading method of global uranium production

- 55% of uranium mined in 2018 was extracted via low pH ISR
- 1<sup>st</sup> quartile cash cost uranium mines are all low pH ISR

## ☞ All commercial uranium ISR projects in the US were alkaline

- Lance was originally licensed for alkaline ISR
- Laboratory testing in 2017 proved Lance would significantly benefit from low pH

## ☞ September 2018 Low pH Feasibility Study<sup>1</sup>

- Low pH transition CAPEX ~US\$6 million
- Stage 1 (production rate of 1.15Mlbs p.a.) AISC of US\$41/lb
- Stage 2 (production rate of 2.3Mlbs p.a.) Required CAPEX of US\$43 million & AISC of US\$31/lb

*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.*

# Low pH Regulatory Benchmarks



- Completed major license amendments for low pH ISR in 2019
- Systematically progressing Low pH Implementation Plan

## Phase 1

- Field Demonstration of Mining and Initial Restoration
- **Complete**

## Phase 2

- Commercial use of low pH in MU's 1 & 2
- **Authorised**

## Phase 3

- Field demonstration of groundwater restoration
- Interim Restoration Report (IRR) submitted in Dec-2019

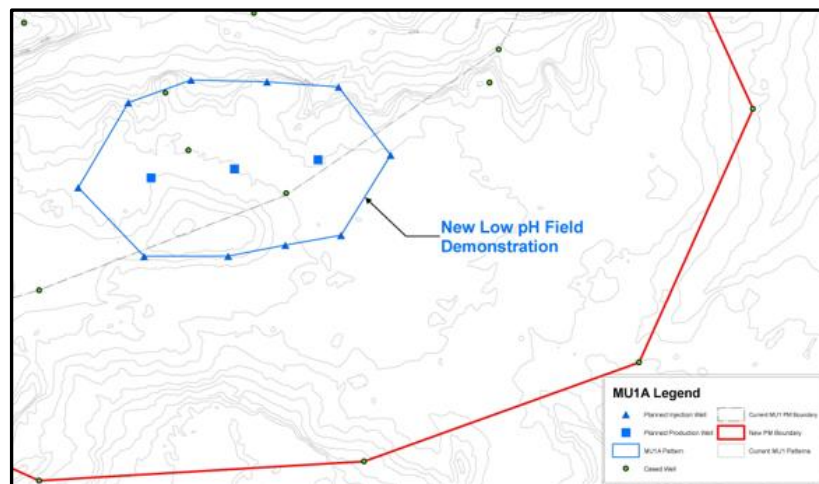
## Phase 4

- IRR approval expected to grant regulatory authorisation for commercial use of low pH in all future new mine units

# Low pH Technical De-risking & Optimisation



- Preparing a new field demonstration, in a fresh mining area



- Further de-risk low pH transition by trialling in a small area not previously operated or subjected to alkaline solutions
- Low pH ion exchange resin selection and optimisation test work
- Process design improvements for fines removal
- On track to commence acid injection in early Q2 CY2020

Peninsula is using the current uranium market lull to spend more time, effort and energy on operationally proving low pH





# The US Uranium Market





## 🌀 What has transpired to date

- President Trump established the NFWG in July 2019
- Low level of US uranium mining deemed to be a US national security risk
- NFWG delivered their report to the White House in November 2019
- No official pronouncements have been made by the White House, but...

## 🌀 NFWG recommendations are working their way forward

- President Trump submitted his “Budget for America’s Future” to Congress in early February
- The FY2021 Budget seeks to establish a new U.S. Uranium Reserve, managed by the Department of Energy
- Budget includes a proposed Appropriation of **US\$150 million per year, for 10 years** to purchase **domestically produced uranium**



## 🌀 What does the NFWG and the budget mean for Peninsula?

- President Trump values the critical role of the domestic US uranium production industry. He is prepared to invest in and preserve the domestic US nuclear fuel cycle capabilities
- DOE may start long-term buying program from US uranium mines soon
- Intention to provide prices at a level that promotes US mining investment
  - US uranium mining industry has consistently said that a price of \$50-\$70/lb is required to incentivise production
- **Peninsula** intends to complement its existing long term sales contracts with new long term sales to the US Department of Energy
- **Peninsula** is the only ASX-listed uranium company that has the ability to immediately take advantage of this US government buying program

Additional long term contracts at attractive prices = positive investment decision and funding for low pH transition and ramp-up

# Conclusion







### U.S. Domestic Producer

- Peninsula is well positioned to benefit from the U.S. Government uranium buying initiatives
- The **only** low pH uranium ISR project in the U.S.

### Long Life Project

- Lance has the largest defined ISR uranium resource in the US with clear visibility and short timeline to re-start production

### Valuable Contract Book

- The **only** junior uranium producer with long-term sales contracts extending to 2030
- Up to 6.2M lbs at US\$51-\$53 / lb  $U_3O_8$

### Attractive Valuation

- Low EV/lb resource compared to peer group
- Substantial share price re-rating events in coming months
- Peninsula is poised for a strong upward move

# Contact Details

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## FURTHER INFORMATION

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# Appendix 1 – Resources & Competent Person Statement



Lance Projects Resource Estimate as at 31 December 2018				
Classification	Tonnes (million)	U3O8(kg)	Grade (ppm U3O8)	U3O8(lbs)
Measured	3.4	1.7	487	3.7
Indicated	11.1	5.5	495	12.1
Inferred	36.2	17.2	474	37.8
<b>Total</b>	<b>50.7</b>	<b>24.4</b>	<b>479</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.