

EXPANDING U.S. URANIUM PRODUCTION CAPACITY

Corporate Presentation | June 2019



PENINSULA
ENERGY LIMITED

 **ASX**
ASX: PEN

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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 and Metallurgical Results at Peninsula's Lance Projects is based on information compiled by Mr. Jim Guiling. Mr. Guiling is a Member of a Recognised Overseas Professional Organisation included in a list promulgated by the ASX (Member of Mining and Metallurgy Society of America and SME Registered Member of the Society of Mining, Metallurgy and Exploration Inc). Mr. Guiling is Principal of independent consultants World Industrial Minerals. Mr. Guiling has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are 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. Guiling 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

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.

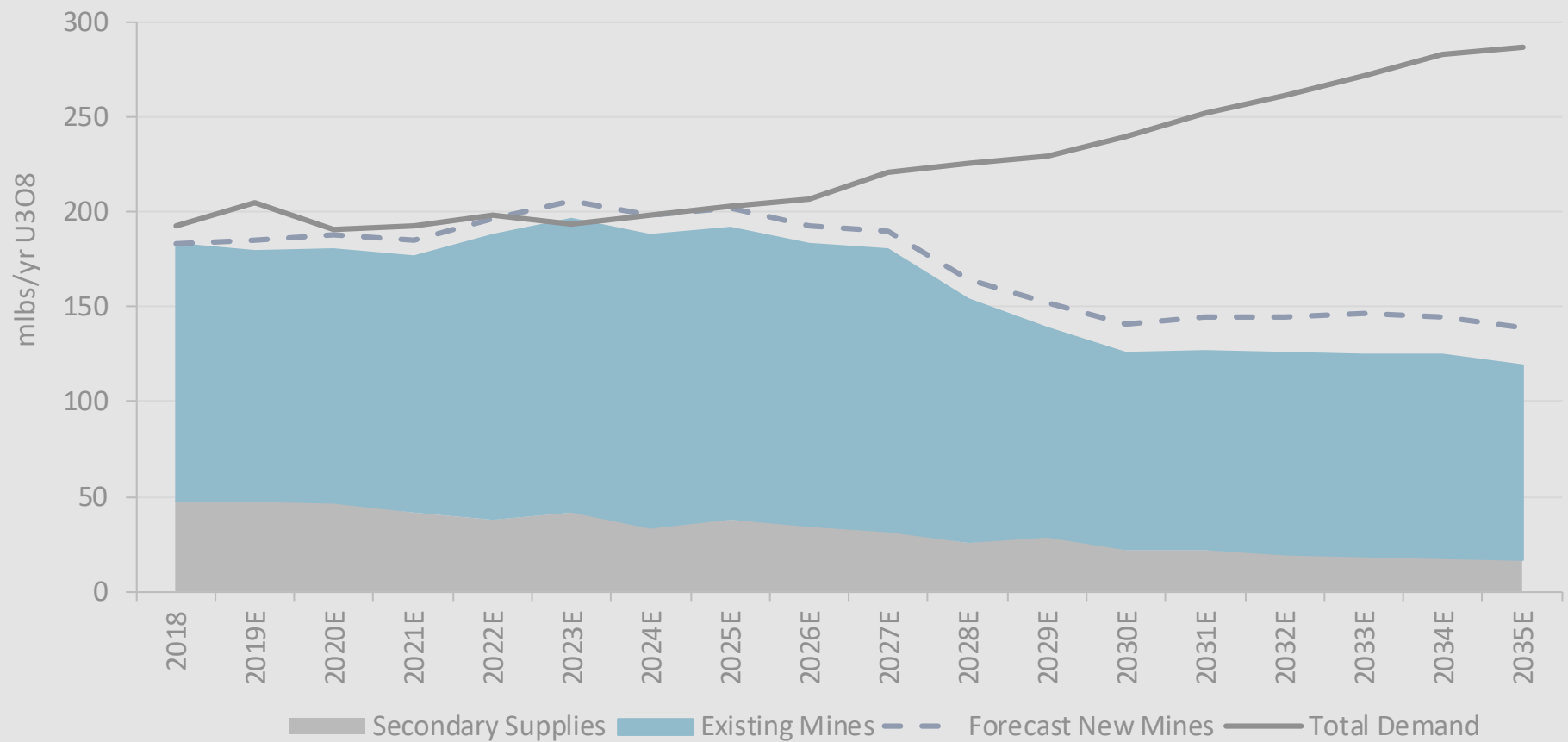
Investors should also note that there is no certainty that the Company will be able to raise the amount of funding for the Lance Projects when it is required or on terms that are not overly dilutive or that are favourable to the value of the Company's existing shares.

This announcement 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 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.

The Uranium Market

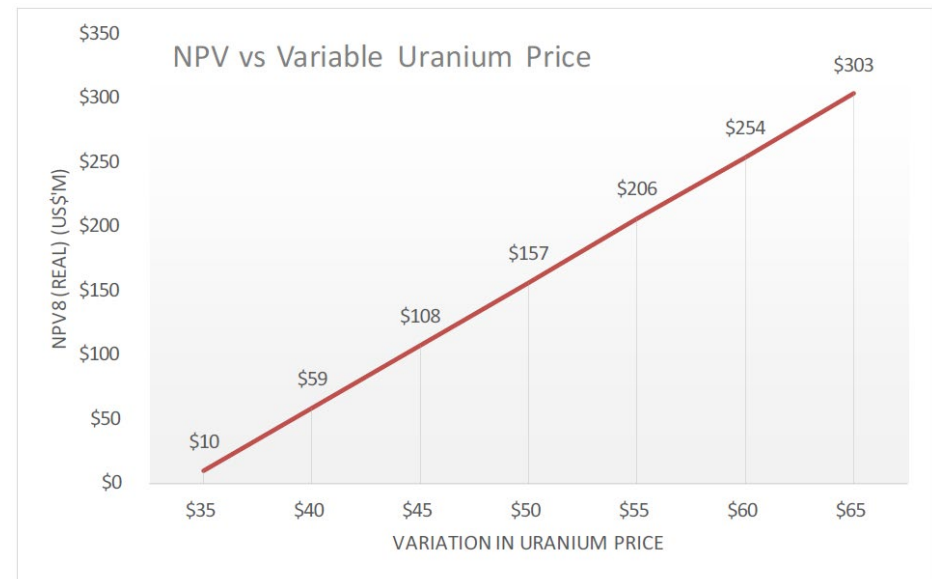


- *The current market prices are well below the average cost of production globally*

Global Production Restraint

- The world's producers cut primary production to 138M lbs in 2018 – off ~30M lbs/year
- Primary producers have become significant spot market buyers in lieu of producing
- Available inventory stockpiles are decreasing

Peninsula's Lance Project is Leveraged to Rising Prices

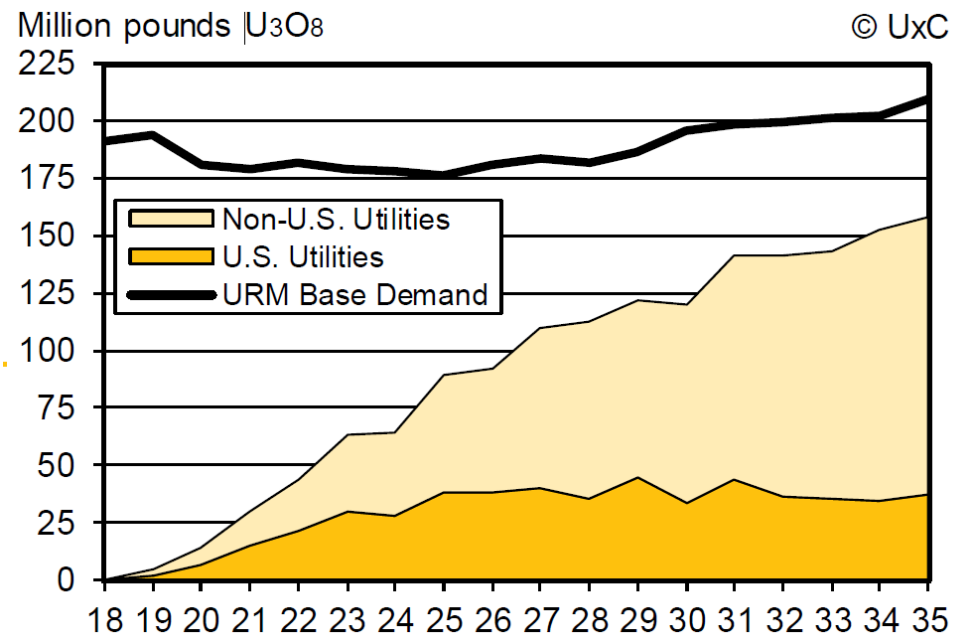


- *The global concern over climate change has led to greater support for expanding carbon-free nuclear power generation*

Strong Demand Fundamentals









- Nuclear energy growth has pushed demand beyond pre-Fukushima (2011) levels
- Primary demand estimated at 195M lbs U₃O₈ for CY2019 (Source: UxC Q1 2019 UMO)
- Forecasts continue to show primary/utility base demand growth through 2035
- New investment funds are buying and holding physical uranium inventories

Uncovered Requirements



Source: UxC Market Outlook Q1 2019

- The uranium market as a whole has been in a “wait and see” mode pending a critical US governmental decision
- **The Section 232 Investigation**
 - The United States is currently considering the national security implications of excessive reliance on foreign sources for uranium
 - The DOC completed its report with recommendations in April, 2019
 - Pres. Trump will make a decision on actions to take **by July 13, 2019**
- **A Strong Case for Pro-active Remedies**
 - Uranium was designated a “Critical Mineral” by the US Dept. of Interior
 - US uranium production is down to its lowest level since 1949
 - US mine production in 2019 will be **less than 1 percent of U.S. annual requirements - not enough to power even one nuclear reactor**

Investment Criteria	Peninsula
Active US uranium production asset – with a major project transformation in progress	
The only ASX-listed company with direct exposure to Section 232 outcomes	
Strong leverage to rising uranium market prices	
Long term sales contract protection	
Ability to rapidly expand production capacity	
Low current CAPEX requirements	
Experienced technical, commercial & financial team	
Attractive valuation when compared to ISR peers	

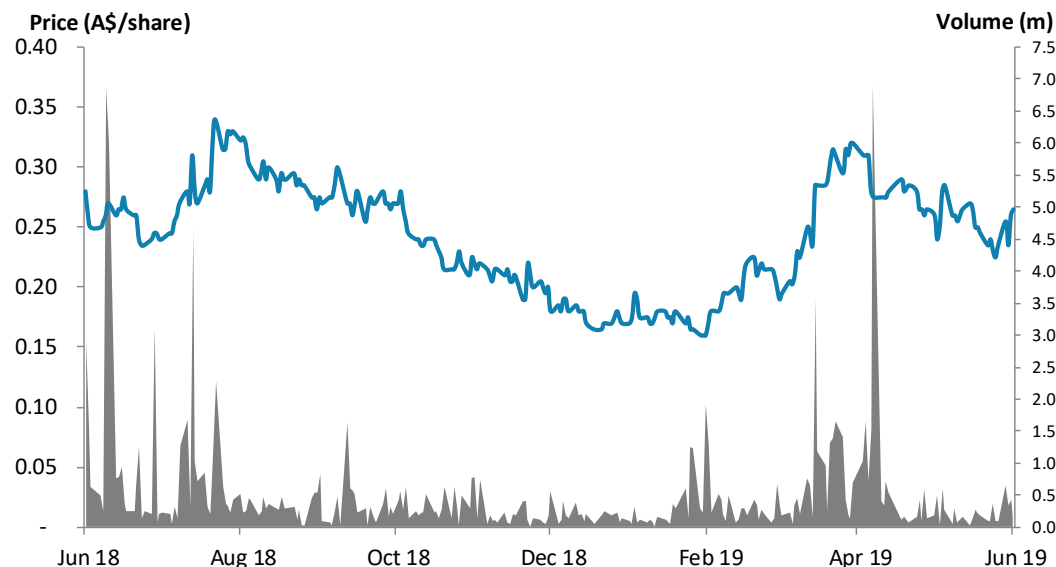
Corporate Overview

Capital Structure

Shares on issue*	247m
Share price (6-Jun-19)	A\$0.265
Market capitalisation (6-Jun-19)	A\$65m
Enterprise Value (6-Jun-19)	A\$81m
Available Cash (31-Mar-19)	US\$6.4m

Share Price & Volume History

Ticker: ASX:PEN



Shareholding*

Holding (%)



9.7%



9.1%



2.5%



2.3%

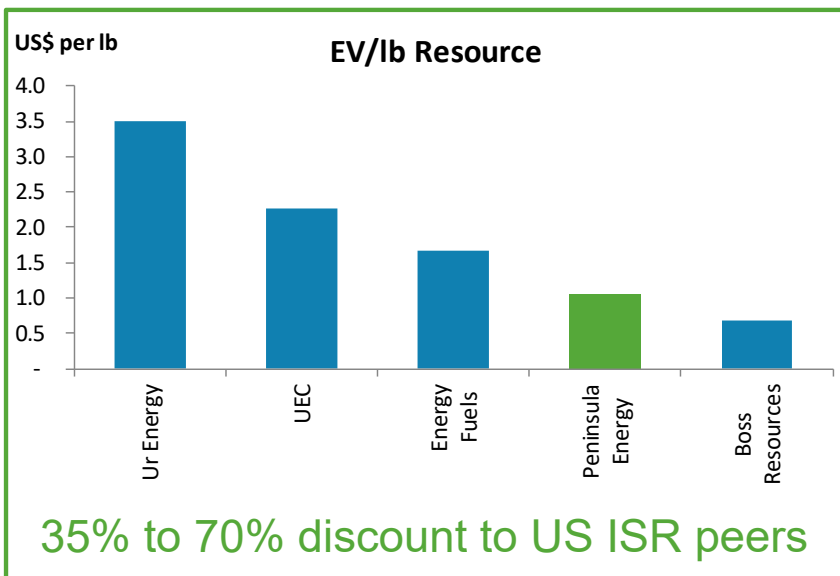
Top 20 Shareholders

57.0%

Research Coverage

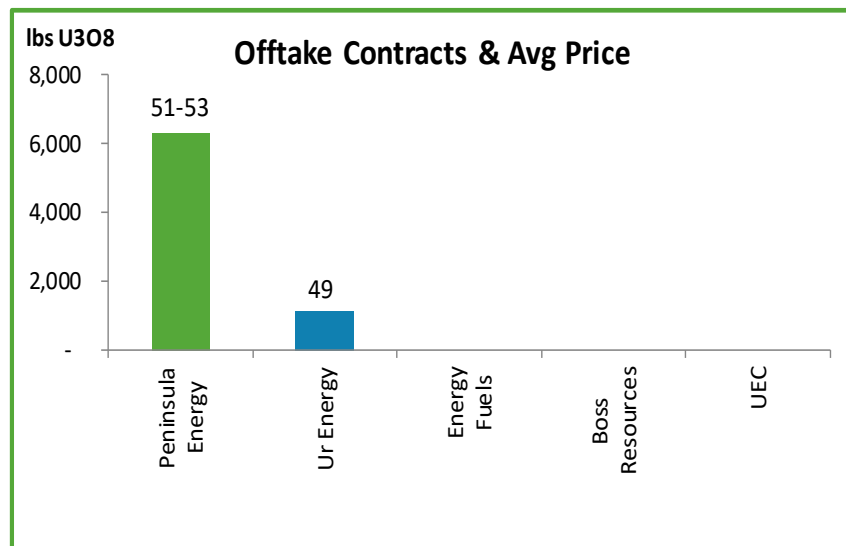
Patersons	Cam Hardie
H.C. Wainwright & Co.	Heiko Ihle
Roth Capital Partners	Joe Reagor
BMO Capital Markets	Alex Pearce
VIII Capital	Dave Talbot

*Undiluted as at 6 June 2019



Imminent share price re-rate events in 2019

- Completion of low pH Permit amendments
 - First re-rate event occurred with approval of Permit to Mine Amendment
 - Second likely catalyst is nearing with Source Materials License Amendment
- News flow from low pH field trials
- US Section 232 decision



Peer group leading contract revenue base

- Investment grade customer base
- In-the-money contracts hold realisable asset value
- Substantial leverage to uranium price recovery with only 20% of LOM production under contract

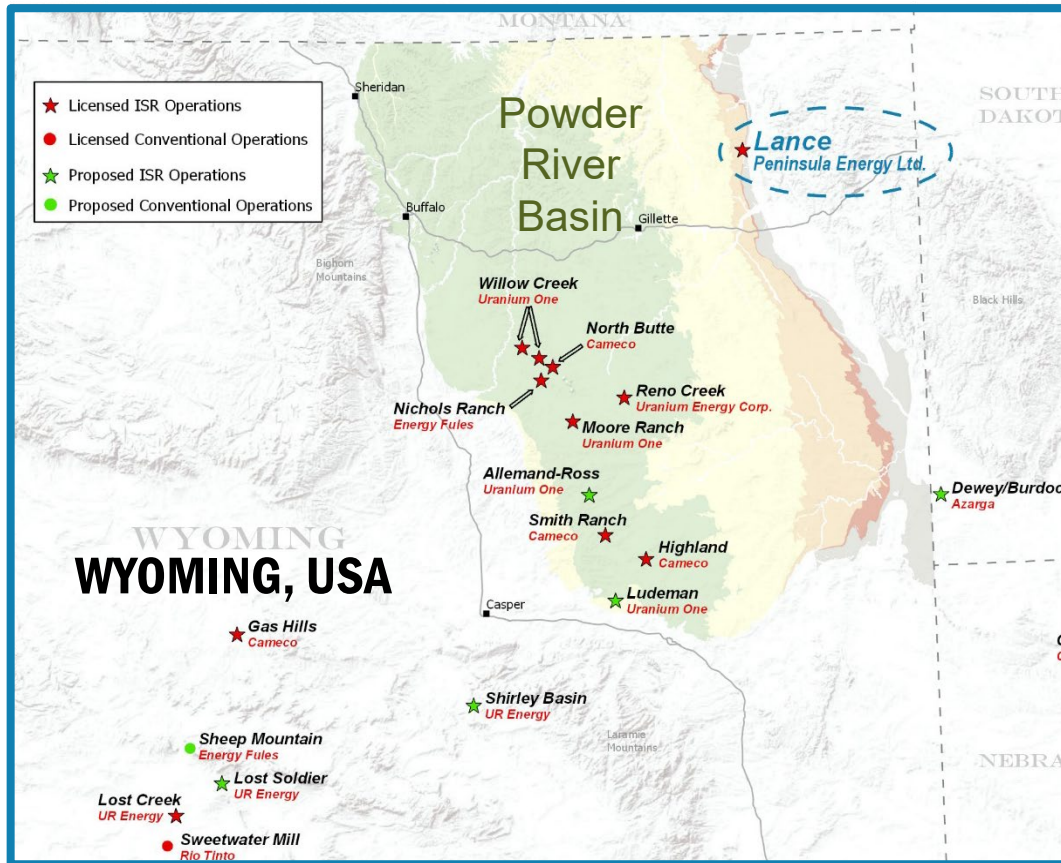
Lance ISR Project | Wyoming, USA

- Wyoming is a “can do” state

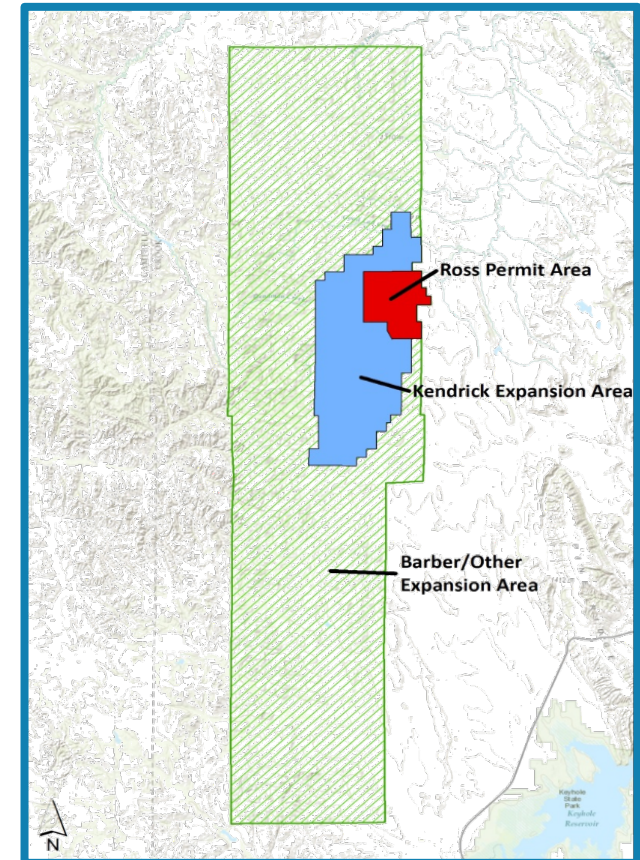


Lance – A Premier US Uranium Project

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



Lance Regional Setting



Lance Permit Areas

Exceptional Asset

- Lance holds the largest defined uranium resource of any currently producing project in the United States
- 53.9M lbs U3O8 JORC (2012) compliant resource base²

Home-grown Success

- Peninsula developed the Lance Project from its conception into a producing asset
- Spent US\$140M over 12 years on development of the project

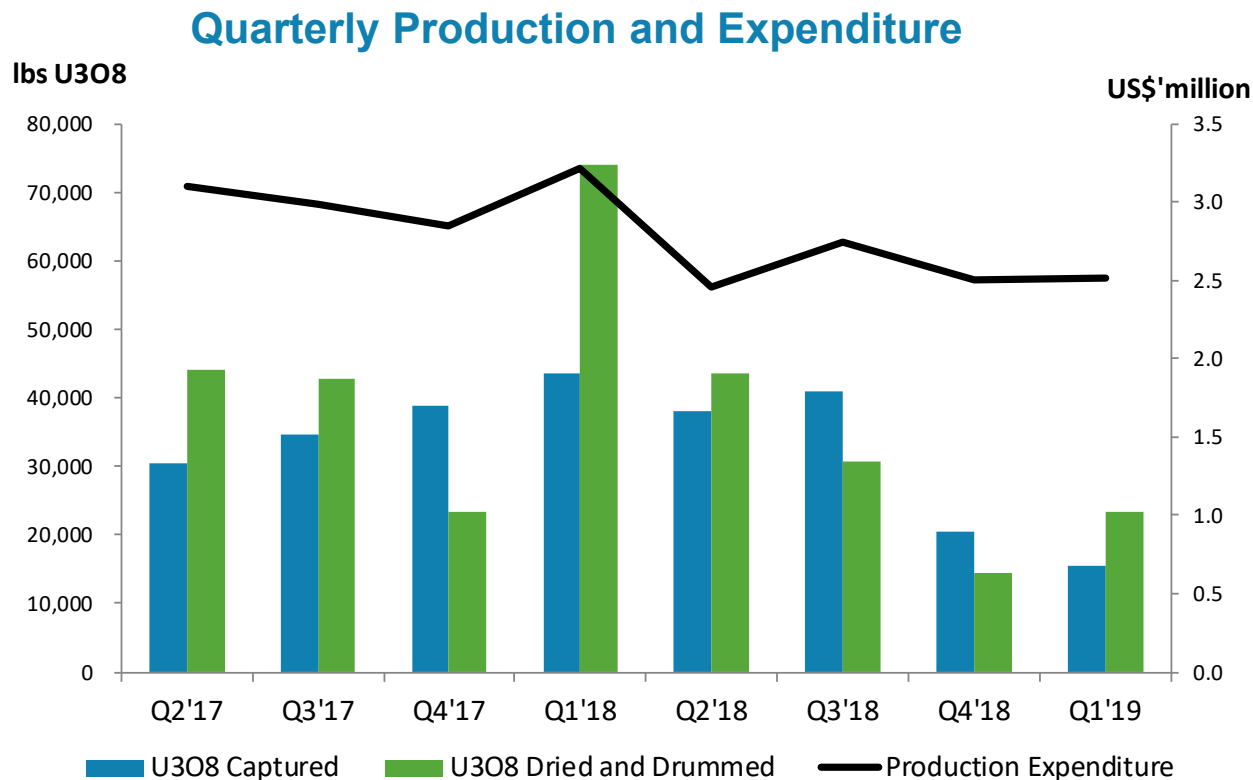
Scalable Production

- Lance is licensed to produce up to 3M lbs U3O8 per annum
 - Would be the #1 ISR producer in the US & Top 10 globally
- Current (Stage-1) plant capacity of 1.15M lbs U3O8 per annum

² – See Appendix 2

➤ Demonstrating cost control while continuing production during low pH transition

- FY19 production guidance of 85,000 – 90,000 lbs
- Production significantly cut back to preserve developed well fields for low pH operations
- Tightly controlled production expenditures



➤ Low pH ISR transformation initiative is being actively advanced

High Potential

- Set to transform the performance and cost profile
- Feasibility Study released in September 2018
- Low pH field demonstration operating since December 2018

Short Timeline

- Two regulatory approvals required. Final regulator decision expected in mid-CY2019
- Plant and wellfield modifications can be implemented while production from alkaline ISR operations continues

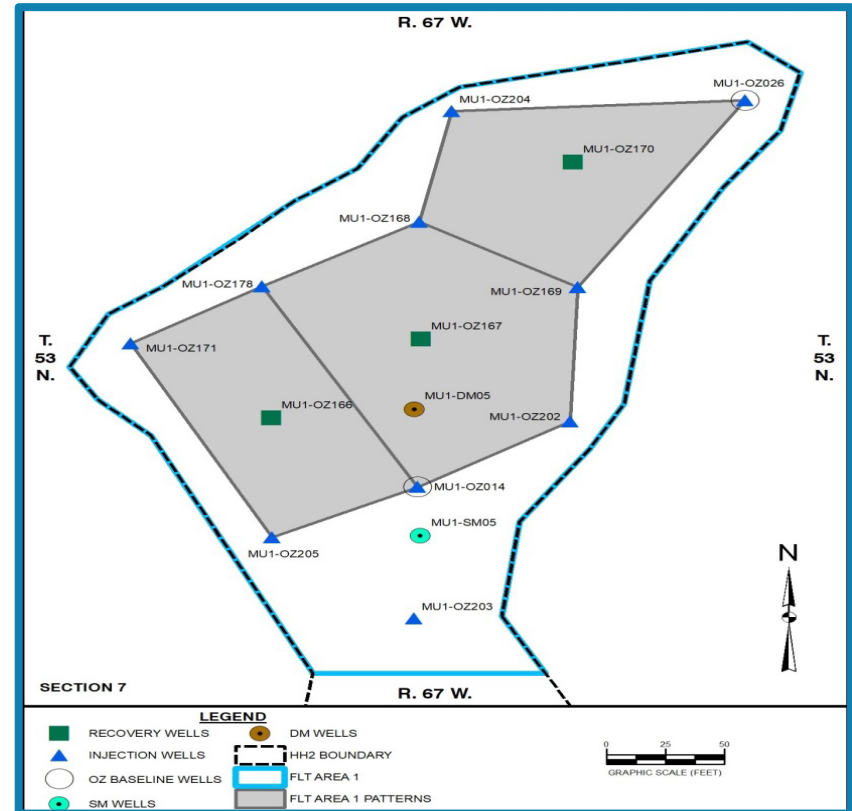
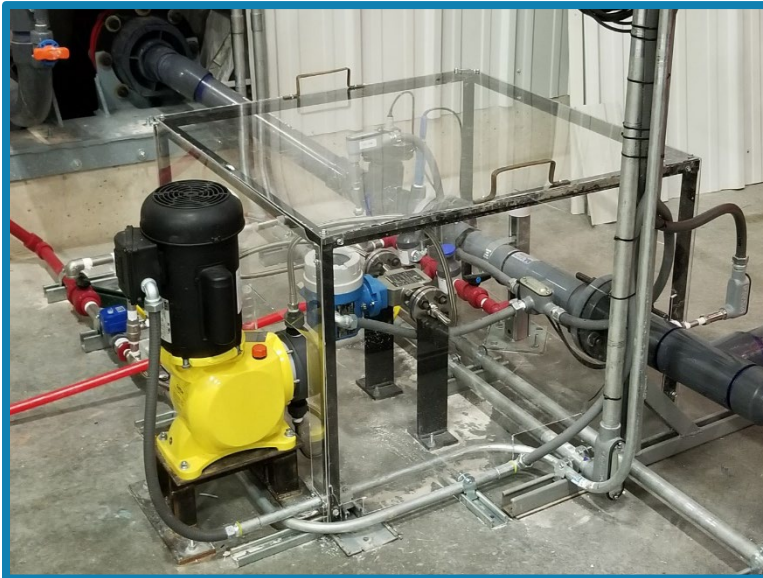
Low Capital Cost

- \$5.3M CAPEX required for process equipment modifications
- Initial low pH operations will occur in existing wellfields

Lance Low pH Demonstration

- FLT Operations started Dec-2018
- Three production patterns in test area
- Includes resin optimisation testing

Sulfuric Acid Addition Pump



Test Pattern Map (in MU-1)

- **The Company has successfully achieved all key technical performance objectives for the Phase 1 mining step of the low pH Implementation Plan**
 - pH reduced to commercial operating levels throughout the area
 - Acid injection and consumption metrics consistent with projections
 - Injection and production well flow rates, and pressures, have been maintained in line with the Low pH Feasibility Study (FS) parameters
 - Observed substantially elevated uranium recovery rates and solutions grades consistent with the FS parameters
 - No environmental or safety concerns have been observed to date
- **In mid-April 2019, the Company transitioned the field demonstration operations to the Phase 1 Initial Restoration activities**

LOM Production

- 33.4 million lbs U₃O₈
- 17 year minelife

Financial Metrics

- LOM AISC of US\$31.77/lb
- NPV8 US\$157M at US\$49/lb

Three Stage Expansion Plan

Stage	Year	Capacity Mlbs/yr	Expansion CAPEX	Production Cost \$/lb.	ASC \$/lb.
Stage 1	2019	1.15	\$5.3M	\$14.67	\$40.58
Stage 2	2024	2.3	\$43.1M	\$8.93	\$31.52
Stage 3	2026	3.0	\$70.3M	\$9.16	\$30.36

Very low conversion CAPEX of only US\$5.3M

Note: 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.

Technical Basis

- Over 12 months of comprehensive laboratory testing
- Almost 50% of global uranium mined using this method

LOM Production

- 17 year mine life
- 33.4 million lbs U₃O₈ production potential

Leveraged to U₃O₈ price

- Each US\$10/lb increase in U₃O₈ price assumption for uncontracted production increases NPV8 by almost US\$100m

Cost Competitive

- \$31.77 / lb U₃O₈ LOM all-in sustaining cash cost
- \$34.00 / lb U₃O₈ break-even price for uncontracted production

Existing Contracts

- 20% of LOM production already under contract
- Contracted revenue stream to assist financing activities

Uranium Sales Portfolio



- **Five sales agreements with major utilities**
 - Weighted sales price between US\$51-53/lb U_3O_8
 - Contract portfolio carries through year 2030
- **Up to 6.3 million pounds U_3O_8 remaining under contract**
 - 4.4 million lbs U_3O_8 committed deliveries
 - Up to 1.9 million lbs U_3O_8 optional at customer election between 2021 & 2026
- **Material origin clauses allow blending production with purchased U_3O_8**
 - Contracted to purchase 225,000 lbs U_3O_8 in 2019/20 at fixed purchase prices averaging US\$23.69/lb U_3O_8
- **Sales portfolio represents ~20% of projected Lance LOM production**

Conclusion

“Peninsula (ASX:PEN) will be one of the most exciting uranium production companies to follow in 2019.”

Wayne Heili – CEO



Amendment Progression

- Permit to Mine amendment granted
- Source Material License amendment advancing

Testing & Planning

- Continue restoration in low pH field demonstration
- Maintain alkaline based mining to meet near term sales contract requirements

Mine Unit 3 Funding

- Investment in Mine Unit 3 wellfields planned for H2 CY2019
- MU3 sustaining development CAPEX cost ~US\$9M
- Various funding options currently being progressed

Customer Base

- Continue to engage with our existing & potential new customers
- Seek opportunities for new long term contracts at acceptable prices

U.S. Domestic Producer

- Peninsula is positioned to benefit from ongoing corporate initiatives and current market trends, including Sec.232 outcomes

Long Life Project

- Lance has the largest defined US uranium resource currently in production
- Low pH transition expected to transform production & cost base

Valuable Contract Book

- Total sales of up to 6.3M lbs sales at weighted price between **US\$51-53/lb** U_3O_8

Financial Strength

- Robust cash position with peer group leading revenue base

Attractive Valuation

- Low EV/lb resource compared to peer group with substantial share price re-rating events forecast throughout 2019

Contact Details

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FURTHER INFORMATION

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Board

John Harrison, Non-Executive Chairman

Wayne Heili, Managing Director & CEO

David Coyne, Finance Director & CFO

Harrison Barker, Non-Executive Director

Mark Wheatley, Non-Executive Director

Capital Markets

Exec. Leadership & Technical

Finance & Risk Management

Nuclear Fuel Markets

Mining CEO & ISR Technical

Management Team

Ralph Knode

CEO USA

David Hofeling

CFO USA

Mike Brost

VP Geology USA

Jay Douthit

VP Operations USA

Mike Griffin

VP Permitting, Regulatory & Environment USA

Appendix 2 – Resources & Competent Person Statement

Lance Projects Resource Estimate as at 31 December 2017

Classification	Tonnes (million)	U3O8(kg)	Grade (ppm U3O8)	U3O8(lbs)
Measured	3.8	1.8	488	3.9
Indicated	10.9	5.4	495	11.9
Inferred	36.3	17.3	476	38.1
Total	51.0	24.5	479	53.9

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.