



9 September 2019

Companies Announcement Office
Via Electronic Lodgement

PENINSULA ENERGY LIMITED PRESENTATION – SEPTEMBER 2019

Please find attached a presentation to be made by Peninsula Energy Limited's (**Peninsula**) Managing Director/CEO Mr Wayne Heili at the H.C Wainwright & Co. 21st Annual Global Investment Conference to be held in New York on September 8 – 10, 2019.

A copy of the presentation is also available on Peninsula's website at <http://www.pel.net.au> under "Announcements" subsection "Presentations".

Yours sincerely

A handwritten signature in black ink, appearing to read "J Whyte", is positioned below the "Yours sincerely" text.

Jonathan Whyte
Company Secretary

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

EXPANDING U.S. URANIUM PRODUCTION CAPACITY

Corporate Presentation | September 2019 – HC Wainwright Conference



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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 Guilinger. Mr. Guilinger 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. Guilinger is Principal of independent consultants World Industrial Minerals. Mr. Guilinger 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. Guilinger 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.

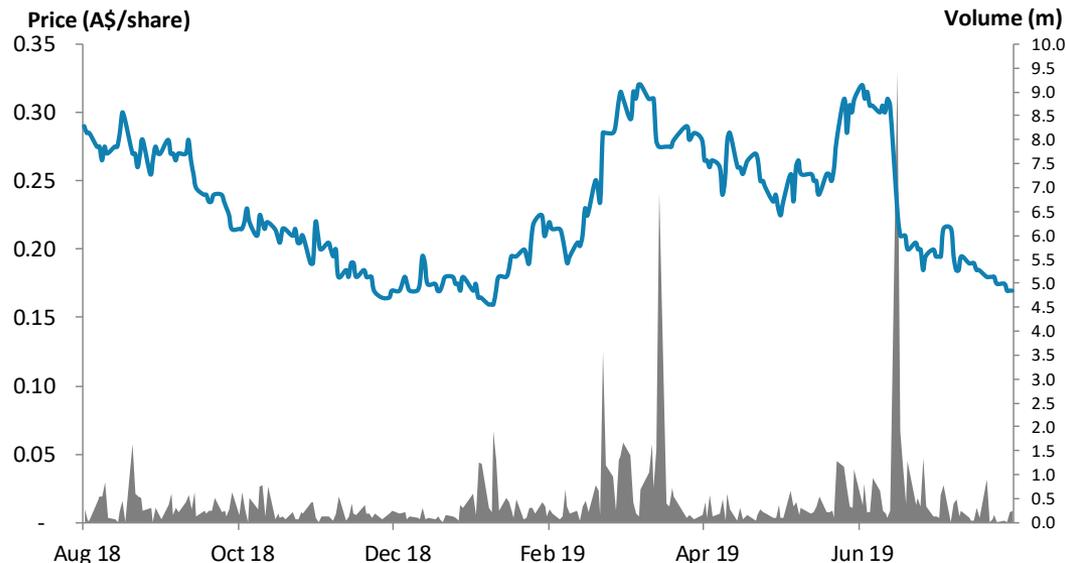
Investment Criteria	Peninsula
Significant US uranium production asset – with a major project transformation in progress	
Experienced technical, commercial & financial team	
Ability to rapidly expand production rates	
Low current CAPEX requirements	
Strong leverage to rising uranium market prices	
The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

Capital Structure

Shares on issue*	250m
Share price (29-Aug-19)	A\$0.170
Market capitalisation (29-Aug-19)	A\$43m
Enterprise Value (29-Aug-19)	A\$60m
Available Cash (30-Jun-19)	US\$5.2m
Debt (30-Jun-19)	US\$17.0m

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

Euroz

Michael Emery

H.C. Wainwright & Co.

Heiko Ihle

Roth Capital Partners

Joe Reagor

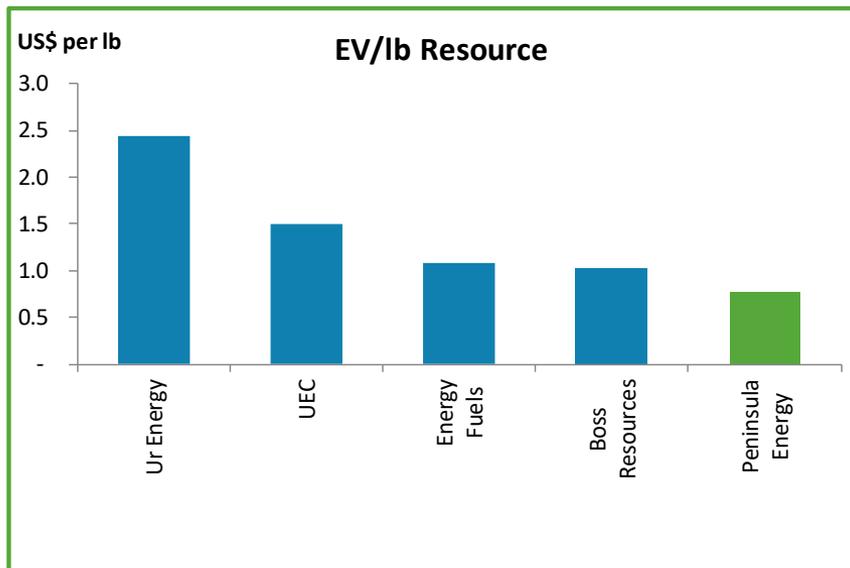
BMO Capital Markets

Alex Pearce

VIII Capital

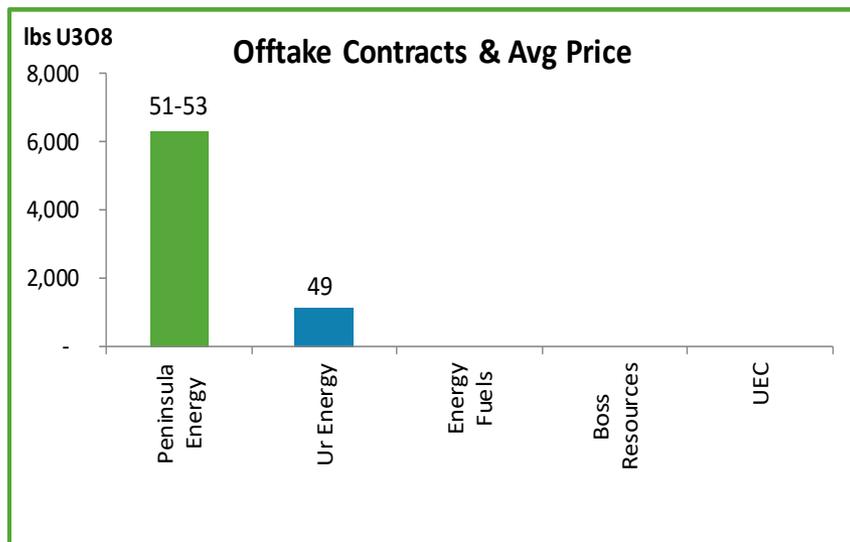
Dave Talbot

*Undiluted as at 29 August 2019



30% to 70% discount to US ISR Peers

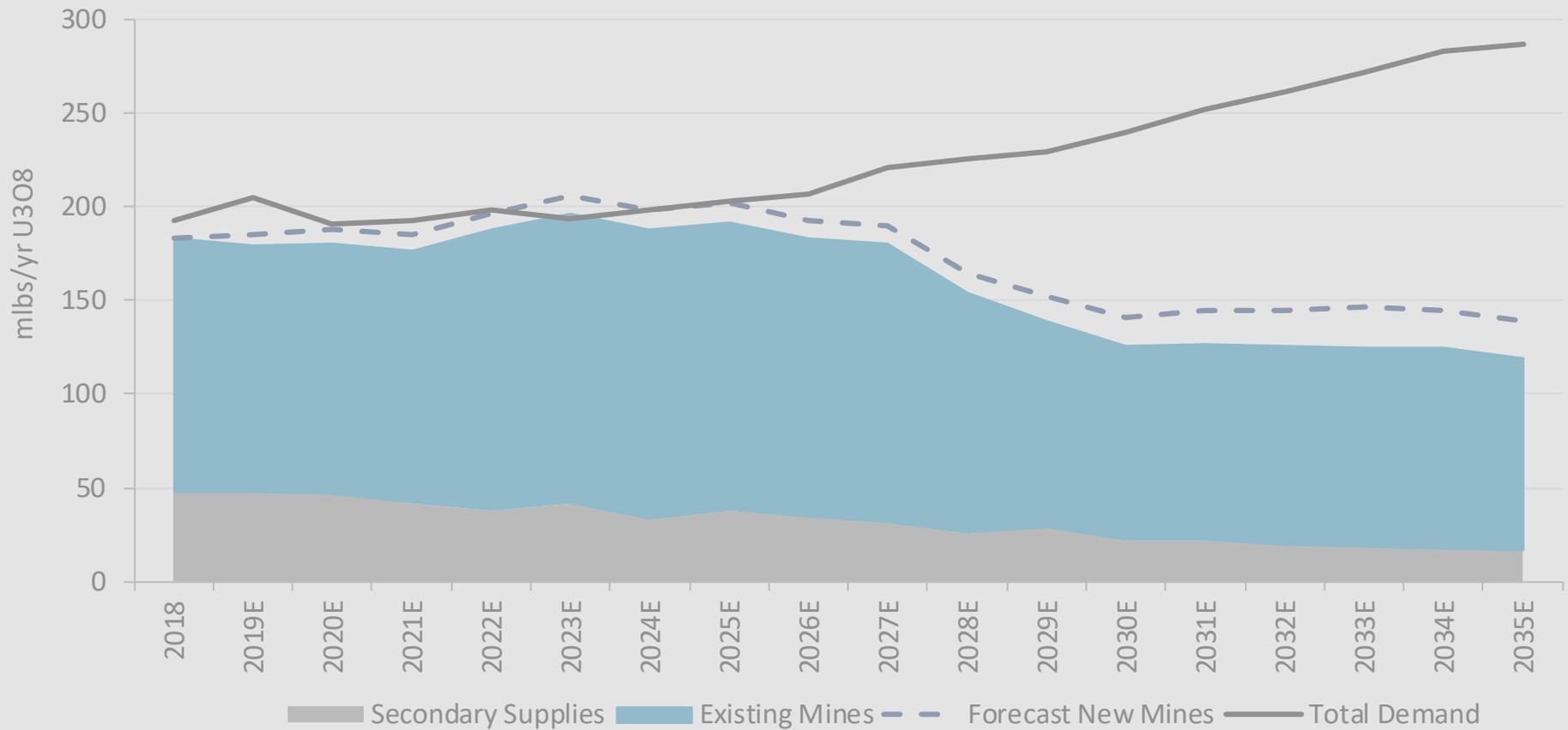
- Offers significant upside opportunities



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 FS LOM production under contract

The Uranium Market

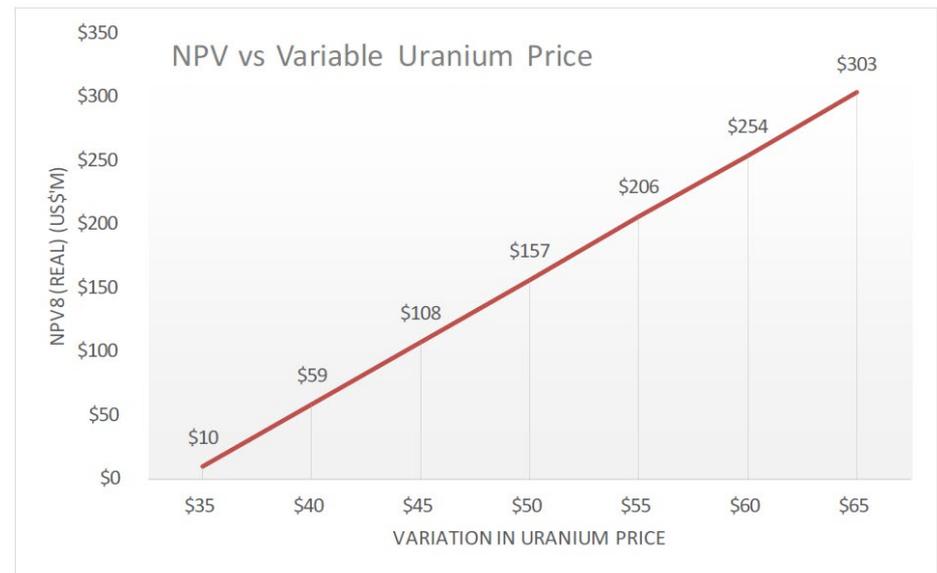


- *The current market prices are well below the average cost of production globally*

Global Production Restraint

- The world's producers cut primary production to 138M lbs in 2018 – off ~30M lbs/year
- Kazakhstan has extended production cuts by another 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

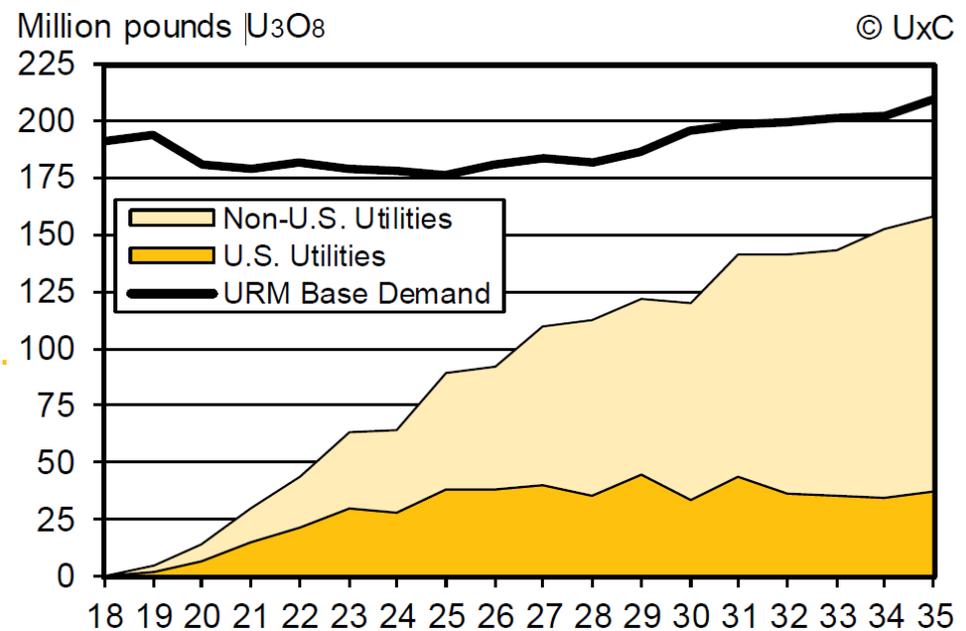


- *The global concern over climate change has led to greater support for expanding carbon-free nuclear power generation*

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

- **Section 232 Concluded with No Decisive Action**
 - President Trump concluded the Section 232 Investigation in mid-July
 - No market actions were taken
 - Nuclear Fuel Working Group was formed with 90-Day review objective
- **Nuclear Fuel Working Group**
 - Charged to complete a fuller analysis of national security considerations
 - Led by influential White House Advisors
 - Formed to develop recommendations for reviving and expanding US nuclear fuel production
 - Peninsula is actively engaged with the efforts of several industry trade associations

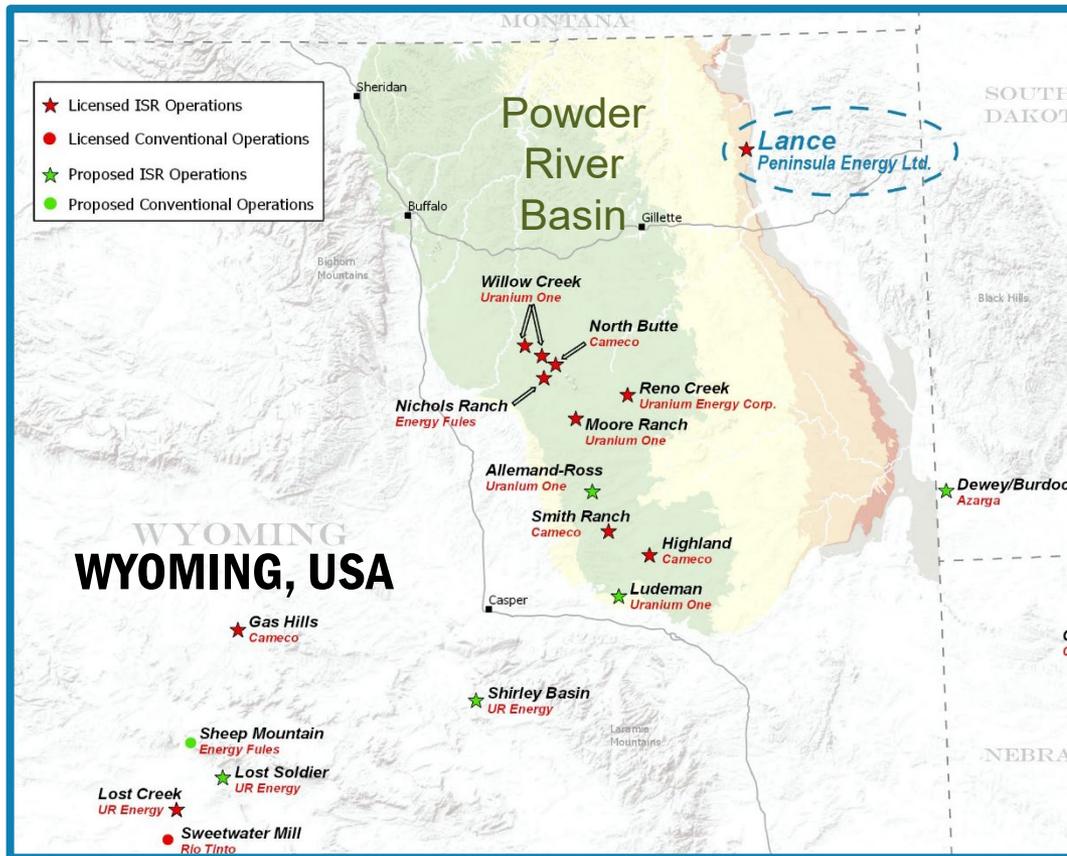
Lance ISR Project | Wyoming, USA

- Wyoming is a “can do” state

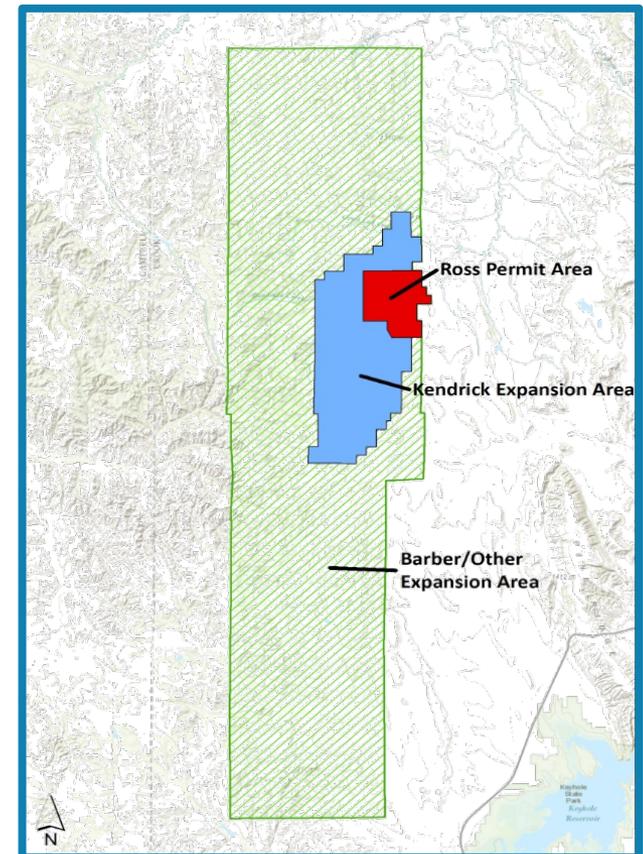


Lance – A Premier US Uranium Project

- 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 Project

- 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

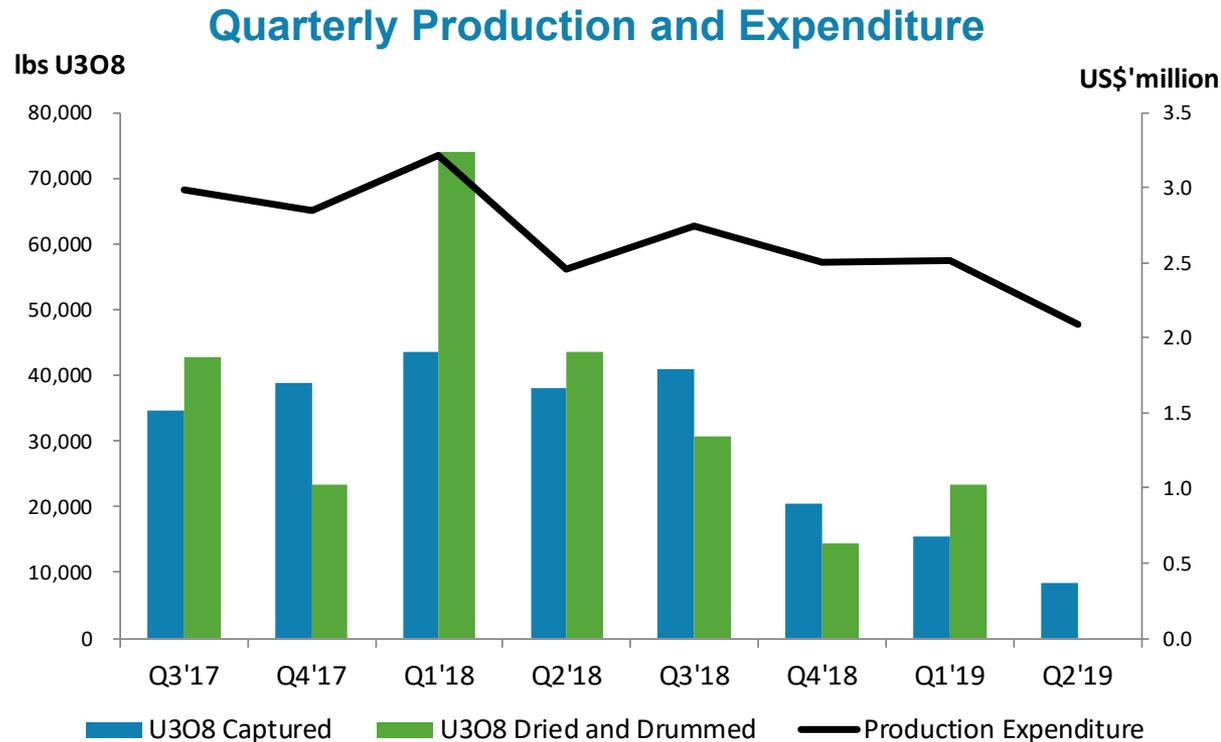
- Lance is licensed to produce up to 3M lbs U3O8 per annum
 - Would be the #1 ISR producer in the US & Top 10 globally
- Current (Stage-1) plant capacity of 1.15M lbs U3O8 per annum

² – See Appendix 2

Lance – Limiting Production During Period of Market Uncertainty

➤ Exercising spending discipline

- Production activities scaled down to preserve developed well fields for low pH operations
- Tightly controlled production expenditures



➤ **Peninsula is leading the US Industry by transitioning to low-pH ISR**

High
Potential

- Set to transform the project performance and cost profile
- Feasibility Study released in September 2018

Short
Timeline

- Two main regulatory approvals now completed
- Plant and wellfield modifications can be implemented in minimal time following investment decision

Low Cost
Optimization

- \$5.3M CAPEX estimated for process modifications
- Initial low pH operations to occur in existing wellfields

LOM Production

- 33.4 million lbs U₃O₈
- 17 year mine life

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.	AISC \$/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

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

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.

- The Lance Project, Ross Permit Area is Licensed for Low pH ISR
- The ONLY US ISR Project authorized to use this industry leading method

Permit to
Mine

✓ Amendment approved on 20 March, 2019

Source
Materials
License

✓ Amendment approved on 31 July, 2019

Phase 1

- ✓ Field Trial Demonstrations
- ✓ Successfully lower pH to 2.0 S.U. - *Complete*
- ✓ Raise pH back to 5.0 S.U. – *Complete*

Phase 2

- ✓ On approval of Interim Operations Report confirming Phase 1 success, **authorized** to use low pH in MU's 1 & 2

Phase 3

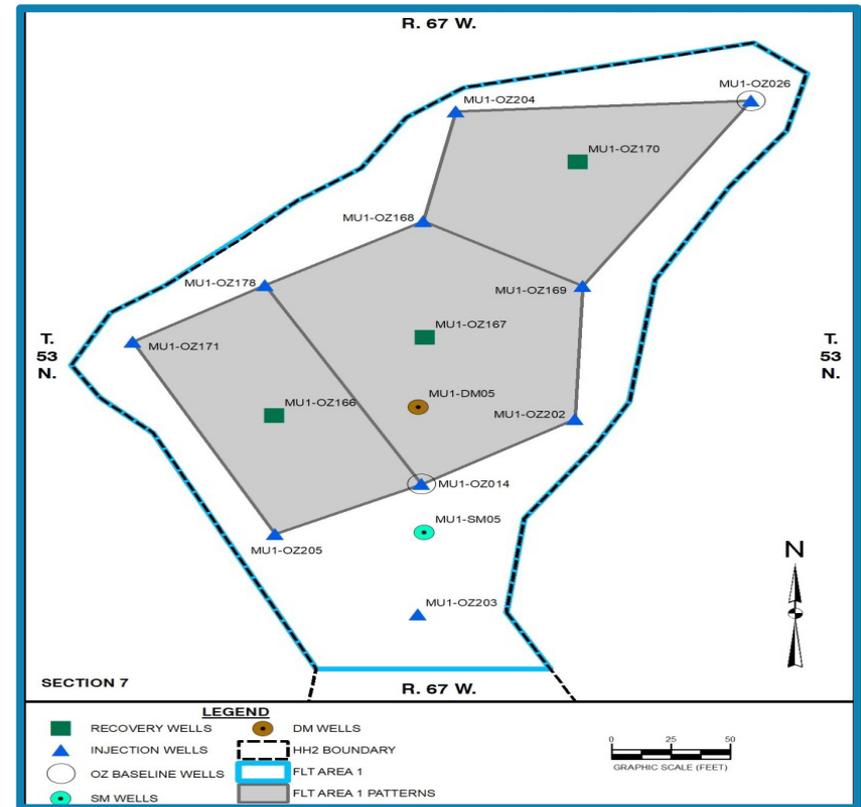
- ✓ Field groundwater restoration demonstration continues
- ✓ Submit Interim Restoration Report demonstrating restoration progression consistent with expectations

Phase 4

- ✓ Interim Restoration Report to be approved by WDEQ
- ✓ Upon approval of report, low pH use authorized in new mine units (MU-3 and beyond)

Phase 1 Status

- ***Mining phase successfully completed***
- ***Initial restoration phase successfully completed***
- Initial restoration target was pH of 5.0 S.U.
- Area pH level is now above 5.0 S.U.
- On track to submit Interim Operations Report in 3Q of CY19
- Helped identify areas for improvement, design enhancement & optimization



Test Pattern Map (in MU-1)

- **Regulatory Benchmarks**
 - Submit Phase 1 Report in 3Q 2019
 - Progress and complete Phase 3 demonstrations during 2nd half CY2019
- **Low pH Technical Optimisation**
 - Conduct low pH resin optimisation test work and studies
 - Evaluate design improvements for fines removal methods
 - Revise the design of acid storage and distribution system
- **Operational Readiness at Lance**
 - Two fully developed wellfields with remaining recoverable resources
 - Project ready for implementation funding and operational green light

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 FS LOM production**

Conclusion



Amendment Progression

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

Technical Progression

- Commence next stage of restoration in low pH field demonstration

Optimisation/ De-Risking

- Evaluating potential process improvements to deliver greater operational performance at lower costs

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 developments

Long Life Project

- Lance has the largest defined US uranium resource with clear visibility and short timeline to 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** U₃O₈

Attractive Valuation

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

Contact Details

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FURTHER INFORMATION

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David Coyne Finance Director / CFO +61 8 9380 9920

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.