

27 March 2014

Companies Announcement Office Via Electronic Lodgement

COMPANY PRESENTATION

Please find attached a copy of the presentation by Peninsula Energy Limited's Executive Chairman, Mr John (Gus) Simpson for the 2014 Mines and Money Conference in Hong Kong.

A copy of the presentation will also be available on our website at http://www.pel.net.au.

Yours sincerely

Jonathan Whyte Company Secretary

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



ASX's NEXT URANIUM PRODUCER



Mines and Money 2014 Presentation

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Please note that in accordance with Clause 17 of the JORC (2012) Code, the potential quantity and grade of the "Exploration Target" in this presentation must be considered conceptual in nature as there has been insufficient exploration to define a Mineral Resource and it is uncertain if further exploration will result in the determination of a Mineral Resource.

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, Exploration Targets, Mineral Resources or Ore Reserves at the Lance Projects is based on information compiled by Mr. Alfred Gillman and Mr. Jim Guilinger. Mr Gillman is a Fellow of the Australian Institute of Mining and Metallurgy. Mr. Gillman is Technical Director and is a Competent Person under the definition of the 2012 JORC Code. 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. Both Mr. Gillman and Mr. Guilinger have 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'. Both Mr. Gillman and Mr. Guilinger consent to the inclusion in the presentation of the matters based on their information in the form and context in which it appears.

The information in this presentation that relates to Exploration Results, Exploration Targets and Exploration Potential at Peninsula's Karoo projects is based on information compiled by Mr Alfred Gillman and Mr. George van der Walt. Mr. Gillman is a Fellow of the Australian Institute of Mining and Metallurgy. Mr. Gillman is Technical Director and is a Competent Person under the definition of the 2012 JORC Code. Mr. van der Walt is a member of a Recognised Overseas Professional Organisation included in a list promulgated by the ASX (The South African Council of Natural Scientific Professions, Geological Society of South Africa). Mr van der Walt is a Director of Geoconsult International. Both Mr Gillman and Mr van der Walt have 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 Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Both Mr. Gillman and Mr. van der Walt consent to the inclusion in the presentation of the matters based on their information in the form and context in which it appears.

The information in the presentation which relates to Mineral Resources at the Karoo Projects is based upon information compiled by Ian Glacken, who is a Fellow of the Australasian Institute of Mining and Metallurgy. Ian Glacken is an employee of Optiro Pty Ltd and 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 to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Ian Glacken consents to the inclusion in the presentation of a summary based upon his information in the form and context in which it appears.

Peninsula Overview & Highlights



- Peninsula will be the ASX's next uranium producer with production from its Lance project in Wyoming
- Peninsula has a low risk, clear path to production in 2014
- Significant operating margins achievable even at the current uranium price
- Strong financial support from first-tier shareholder base
- Project funding well advanced
- Karoo Project in South Africa offers possible second production centre and diversity of supply & jurisdiction
- Increasing demand and tightening supply expected to lift the whole uranium sector
- Commencement of post-SML construction & production should result in a strong re-rating of Peninsula's share price

Corporate Overview



Capital Structure	
Shares on issue	3,420m
Share price	3.5c
Market capitalisation	\$120m
Cash & undrawn debt	\$20m
Drawn Debt	US\$9m
Enterprise value	\$119m

Shareholding	% holding
Pala Investments	13.44%
BlackRock Funds	9.00%
AREVA	6.65%
J P Morgan	4.60%
Gus Simpson	3.43%
Top 20 Shareholders	43.74%

1 year share price & volume history

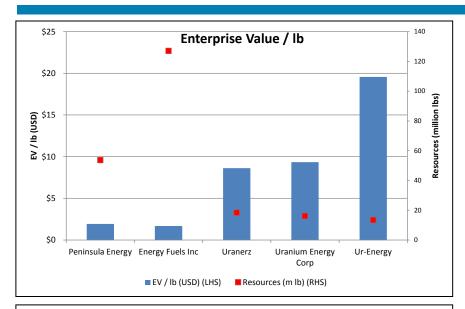


Research	Callanana
11000011011	9010100

RFC Ambrian	Duncan Hughes
Dundee Capital Markets	Dave Talbot
Canaccord Genuity	Gary Watson
Hartleys	Trent Barnett

Wyoming Peer Company Valuations





- Peninsula trading at 60-90% discount (EV / Ib basis) to North American listed peers
 - Karoo resource excluded from Peninsula EV
 / Ib as market is not giving Peninsula any credit for this asset
- Size of Peninsula resource base not reflected in valuation metrics



- Ur-Energy commenced production in August 2013; <u>85% value increase</u> over past 12 months
- Uranerz currently in commissioning phase;
 80% value increase over past 6 months
- Peninsula in early stage construction;
 expect similar re-rating over next 12
 months

Management



Team already in place to support Peninsula as a producer

Management Corporate & USA

Gus Simpson

Executive Chairman

Alfred Gillman

Technical Director
General Manager-Project Development

Glenn Black

COO, CEO South Africa

Ralph Knode

CEO North America

David Coyne

Chief Financial Officer

Mike Griffin

VP Permitting, Regulatory and Environmental Compliance

Mike Brost

VP Geology North America

Ben Schiffer - WWC Engineering Lead Permitting Consultant

Brian Pile - TREC

Project Manager-Design Engineers & EPC contractors for Lance

Strong strategic leader, extensive background in resources, corporate finance and management; 25 years experience in USA, Asia, Africa and Australia

Fellow AusIMM (CP Geol), Geologist with proven record track of mineral discovery, project acquisition and project development; 35 years experience in USA, West & Southern Africa, Central Asia, Russia, South America, PNG and Australia

Senior management engineer; 30 years experience with De Beers in mine construction and operations in Africa

Senior management geologist /engineer; 30 years experience with Cameco and Uranium One in ISR mine development and operation in USA, Central Asia and Australia

CPA accountant and experienced mineral production CFO; 25 years cross border experience in Australia, Asia and USA

Extensive experience in Health Physics, permitting and compliance with Cameco and Uranium One in North America, Central Asia and Australia

Senior uranium geologist; 30+ years experience in uranium roll front exploration and well field planning, design and operation with US subsidiary of Cameco

Over 30 years operating experience in all facets of the Wyoming regulatory and permitting process www.wwcengineering.com

Senior construction engineer with leading US engineering firm in design and construction management of ISR facilities in North America www.treccorp.com

Management



Management – South Africa

Glenn Black

COO, CEO South Africa

John Simpson

Mining Engineer

George van der Walt

Geologist / Competent Person

DRA

Feasibility & EPC Consultants

Senior management engineer; 30 years experience with De Beers in mine construction and

operations in Africa

Senior mining engineer, 40 years experience, 20 years of which were at a senior mine

management level

9 years exploration background with extensive uranium experience in the Karoo district of South

Africa

South African consultants established internationally with extensive uranium experience and

responsible for the design, construction, operation and mining operations on a number of

continents

Uranium marketing & utility experience

Board of Directors of PEN Marketing

Gus Simpson

Chairman

Strong strategic leadership, extensive background in resources, management and commodity

sales; 25 years experience in USA, Asia, Africa and Australia

TBA

Non- executive Director - Marketing

TBA

Nuclear engineer; former utility senior fuel buying executive

Non- executive Director- Utilities

TBA

Senior nuclear fuel industry executive

Senior executive; nuclear fuel industry adviser

CEO

Company Overview



First production Q4 2014 from Lance, Wyoming

Emerging uranium producer with established project pipeline

- Flagship Lance Projects in Wyoming construction commenced
- Karoo Project in South Africa positive scoping study recently completed

Lance: Wyoming USA

- Low risk staged ramp-up 1.2mlbs p.a. U3O8 by 2017; subsequent increase to 2.3mlbs p.a.
- US\$328 million pre-tax NPV at current uranium prices & IRR of 34%
- Low capital intensity
- JORC (2012) Code compliant Resource of 54mlbs U3O8: (51.2mt at 476ppm U3O8)
- Exploration Target of 158-217mlbs U3O8 (169-196mt at 426-530ppm U3O8) inclusive of 54mlbs JORC Resource

Karoo: South Africa

- Scoping study complete triggers PFS start Q4 2013
- JORC (2012) Code compliant Resource of 56.9mlbs eU3O8 (23.3mt at 1,108ppm U3O8)
- High grade 1,108ppm resource (cut-off 600ppm)
- Exploration Target of 250-350mlbs U3O8 (126-133mt at 900-1200ppm U3O8) inclusive of 56.9mlbs JORC Resource
- Targeting Development CY 2016/2017

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. The estimated mineral resources underpinning the production targets have been prepared by Alf Gillman, a Competent Person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.

Lance Exploration Target Additional Disclosure



Exploration Target

The Lance Projects cover a significant proportion of the Powder River Basin Basin Cretaceous sandstones of Wyoming, which are believed to represent an Exploration Target of between 158 and 217mlbs U_3O_8 which includes 54mlbs of existing JORC (2012) Code compliant resource.

Lance Projects Exploration Target (incremental to the existing JORC (2012) Code Compliant Resource)

Exploration Target	_	nnes illion)	Gra (ppm e		eU ₃ O ₈ (mlbs)			
Range	From To		From	То	From	То		
Total	117.10 134.70		400 550		104	163		

Please note that in accordance with Clause 17 of the JORC (2012) Code, the potential quantity and grade of the "Exploration Target" in this presentation must be considered conceptual in nature as there has been insufficient exploration to define a Mineral Resource and it is uncertain if further exploration will result in the determination of a Mineral Resource.

Basis of Exploration Target

Exploration Target is based on a combination of Exploration Results and on proposed exploration programs.

Exploration Results

Approximately 7,500 drillholes, of which over 2,500 have been drilled and PFN logged since 2009. The data from these holes has been used to determine a JORC (2012) Code compliant resource and to extrapolate between areas of limited drilling but still within the mineralised trends.

Proposed Exploration Programs

The Company has minerals rights and surface access rights to 122.2 square kilometres and 107.8 square kilometres respectively. This package covers the most prospective mineralised redox /roll front trends that have a cumulative strike length of over 300km. The Company intends to continue exploration over this ground with drilling in order to validate the exploration target and convert to resources.

Lance Exploration Target Additional Disclosure



Basis of Grade and Tonnage Range Determination

With a database of approximately 7,500 drillholes together with several decades of geological research the level of exploration activity on which the Exploration Target is based, is considered to be high.

The known Lance resources are located in the upper Lance Formation and in the lower Fox Hills horizons in which roll fronts have been identified over a cumulative length of over 300kms. These horizons have only been partially explored and towards the south (Barber area) the lower unit of the Fox Hills has not been systematically tested. Along these channels JORC-compliant resources have been estimated in localised areas in which reliable drilling data is available. The zones between the JORC (2012) Code compliant resource areas form the Exploration Target because of the following:

- · Continuity of the prospective sandstone established by geological mapping and regional drilling
- Historic estimates of mineralisation based on drilling which has not yet been validated by Peninsula

The Exploration Target is based on a combination of:

- A tonnage calculation that incorporates the total cumulative prospective strike length of the identified redox fronts multiplied by the average width, thicknesses as determined in the resource estimate,
- The grade range represents the lowest resource area grades and highest resource area grades

Summary of the Relevant Exploration Data Available and the Nature of the Results

For a comprehensive description of drilling information readers are referred to JORC Table 1 at the end of this presentation.

Proposed Exploration Activities Designed To Test Validity of the Exploration Target

Over the life of mine ongoing exploration drilling is proposed to expand the JORC (2012) Code compliant resource within the Exploration Target areas. This initial program will be focussed on the Kendrick area. Exploration activities will mostly comprise geophysical logging of additional drillholes.

Lance Projects Competent Person Statement

The information in this presentation that relates to Exploration Targets, Exploration Results and Exploration Potential at the Lance Projects is based on information compiled by Mr. Alfred Gillman and Mr. Jim Guilinger. Mr Gillman is a Fellow of the Australian Institute of Mining and Metallurgy. Mr. Gillman is Technical Director and is a Competent Person under the definition of the 2012 JORC Code. 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. Both Mr. Gillman and Mr. Guilinger have 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'. Both Mr. Gillman and Mr. Guilinger consent to the inclusion in the presentation of the matters based on their information in the form and context in which it appears.

Karoo Exploration Target Additional Disclosure PENINSULA



Basis of the Exploration Target

The Exploration Target is based on a combination of Exploration Results and proposed exploration programs.

Please note that in accordance with Clause 17 of the JORC (2012) Code, the potential quantity and grade of the "Exploration Target" in this presentation must be considered conceptual in nature as there has been insufficient exploration to define a Mineral Resource and it is uncertain if further exploration will result in the determination of a Mineral Resource.

Exploration Results

The database currently contains 9,343 historic holes, of which 7,230 have been used to determine the JORC (2012) Code compliant Mineral Resource and subsequent update and to extrapolate between areas of limited drilling still within the mineralised trends. Many of the remaining collar positions are for historic holes that are not within the current resource areas or are inaccessible (filled in over time). For a comprehensive description of drilling information readers are referred to the JORC Table 1 declaration included in the announcement released to ASX on 11 March 2014 titled "13% Resource Expansion and Upgrade at Karoo Projects".

Proposed Exploration Programs

Peninsula has prospecting rights to 7,550 square kilometres of ground. This package covers the most prospective mineralised trend that have a cumulative strike length of 23km. Peninsula intends to continue exploration over this ground using airborne radiometric data, geological mapping and prospecting together with follow up drilling with the intention of locating additional material for future mining and processing.

Basis of Grade and Tonnage Range Determination

With a database of 9,343 drill holes together with several thousand historic holes not yet located and entered into the database, and several decades of geological research and surface exploration, the level of exploration knowledge on which the Exploration Target is based is considered to be high.

The current Karoo resources are located on two well-defined sedimentary channels that each extends for at least 100 kms along strike. These channels have, according to historic records, been tested both recently and historically by in excess of 10,000 exploration drill holes representing 1.6 million metres of drilling. Along these channels JORC (2012) Code compliant resources have been estimated in localised areas in which reliable drilling data is available. The zones between the JORC-compliant resources areas form the Exploration Target because of the following:

- Continuity of the prospective sandstone established by geological mapping and regional drilling
- Historic estimates of mineralisation based on drilling which has not yet been validated by Peninsula

The current JORC (2012) Code compliant resource of the Ryst Kuil channel alone, which represents the most completely drilled portion of the resources, comprises 18.5mt at 1,105ppm eU3O8.

Karoo Exploration Target Additional Disclosure PENINSULA



This resource tonnage is distributed over a cumulative strike length of 23km representing approximately 0.80 million tonnes/km. The Exploration Target is based on a combination of:

- the total cumulative prospective strike length of the undrilled sections of the channel multiplied by the demonstrated tonnage/km, combined with,
- the areas of known mineralisation for which historic estimates exists but are not included in the JORC-compliant resource
- the grade range represents the lowest resource area grades and highest resource area grades

Summary of the Relevant Exploration Data Available and the Nature of the Results

For a comprehensive description of drilling information readers are referred to JORC Table 1 included in announcement to the ASX on 11th March 2014: 13% Resource Expansion and Upgrade at Karoo Projects. Peninsula confirms that it is not aware of any new information or data that materially affects the information included in this presentation and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.

Proposed Exploration Activities Designed To Test Validity of the Exploration Target

Over the next 3-5 years ongoing exploration drilling is proposed to expand the JORC (2012) Code compliant resource within the Exploration Target areas. This initial 3-5 years program will be focussed on the Eastern Sector RystKuil channel. Exploration activities will mostly comprise geophysical logging and geochemical sampling of additional drillholes, ground-based prospecting and geological mapping.

Testing of the Western Sector Exploration Target, utilising the same exploration techniques, areas will commence during following 5-10 year time frame.

Karoo Projects Competent Person Statement

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Business Plan



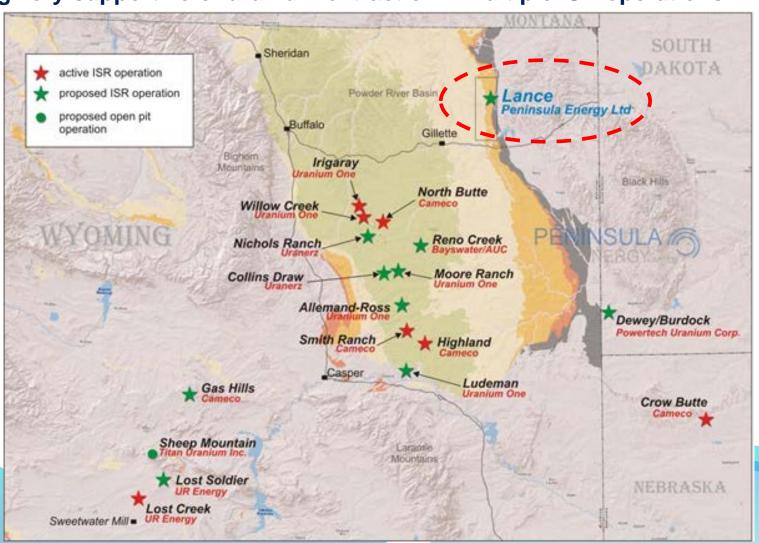
Production target of 8-10mlbs U3O8 – BEFORE 2022

- Mirror and meet the requirements of the power utilities Utilities want diversity and security of supply
 - Diversity & security = multiple suppliers with multiple uranium sources located in multiple stable and secure countries
 - Peninsula will be a highly rated & preferred supplier: long life, low cost mines in USA, South Africa and Australia expected
- Commence ISR production at Lance Project, Wyoming in 2014
 - building to 2.3mlbs U3O8 per annum (plant capacity 3mlbs pa)
- Develop conventional mining and milling operation at Karoo Project, South Africa by 2017-18
- Acquire one of several identified projects in Australia and develop a further 3-4mlbs U₃O₈ per annum 2019- 2021

Uranium Mining in Wyoming



Wyoming very supportive of uranium extraction – multiple ISR operations in region



Lance Project Overview

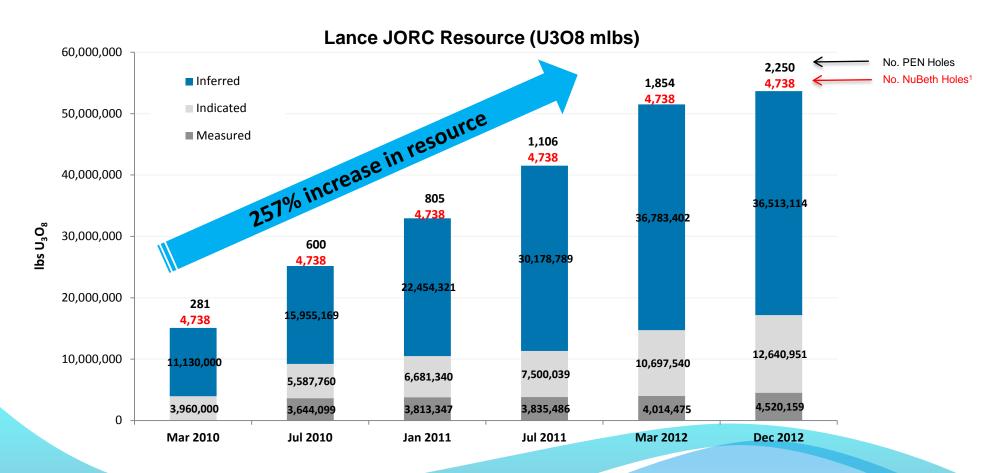


- Located in strong uranium mining jurisdiction
- Proven ISR technology:
 - ISR produced 45% of the world's uranium 2012
 - 4 ISR plants already operating in Wyoming & 2 more under construction
- Constructing a 2.3mlbs per annum ISR operation in 2 stages:
 - Short construction period of ~12 months
 - Ramp up to 2.3mlbs per annum
 - Permitting almost complete –all conditions have been satisfied
 - Awaiting final environmental permit
 - Indicated grant of permit in Q1 2014
- Targeting first production Q4 2014
- Initial mine life 22 years
- Low capital intensity compared to uranium peers
- Low cost production total operating costs of US\$/lb \$30.65
- Exploration Target of 158-217mlbs U3O8 (169-196mt at 426-530ppm U3O8) inclusive of 54mlbs JORC (2012)
 Code compliant resource
- Potential 70+ years mine life

Rapid Resource Growth at Lance



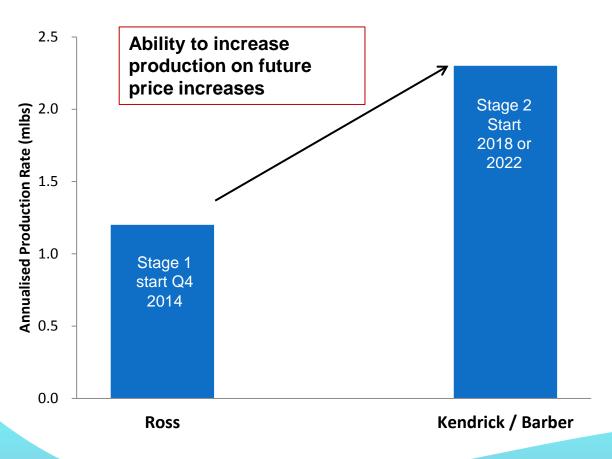
Resource grown from 5mlbs to 54mlbs U3O8 in 4 years: Modern delineation cost ~\$1/lb



1. Holes drilled in historic NuBeth JV

Two Stage Production Ramp-up





- Low-risk path to production
- Lance cashflow positive from Q4 2015
- Option to accelerate expansion
- Expansion timed to maximise value from forecast price increases

Lance – Strong Financial Returns



Strong economics: pre-tax IRR of 34% and average cash cost US\$30.65/lb

Key financial metrics		
Pre-tax NPV 8%	US\$328	Bm
Payback	3.4 yea	rs
Cashflow positive	Year 2	2
Pre-Tax IRR	34%	
Initial CAPEX ¹	US\$68	m
Financial Metrics – 2.3mlbs p.a.	*US\$ per annum	*US\$/lb
Gross revenue	\$129m	**\$56.00
Royalties and indirect taxes	\$15m	\$6.34
Operating costs	\$25m	\$10.89
Restoration and closure costs	\$4m	\$1.81
Ongoing wellfield development costs	\$26m	\$11.61
Total ongoing cash costs	\$70m	(\$30.65)
EBITDA	\$59m	

^{*} All amounts are unescalated

^{**} LTC base price as at September 2013 (unescalated)

^{1.} More details on following page

Basis of Production and Financial Information



Inputs from the Feasibility Study, Optimisation and Wellfield Optimisation Studies have been applied to the financial model for the Lance Projects. Ore Reserves are yet to be determined. Key parameters applied to the Wellfield Optimisation Study:

- Mining Methodology: The mining methodology adopted for the Lance Projects will utilise the in-situ recovery (ISR) process consisting of a central processing plant at Ross (RPU) and wellfields in three production areas at Ross, Kendrick and Barber. Exploratory and mine-planning infill delineation drilling within the Project areas is the primary source of information and data for the mineral resource calculations which were derived using a combination of grade thickness and polygonal estimate methodology. The Study assumed an 80 per cent mineability factor for measured and indicated resources and 60 per cent for inferred resources, to effectively remove isolated pockets of mineralisation and fringes that may not be put under a pattern of mining wells. In addition a recovery factor of 80 per cent has been applied to all of these mineable resources. The weighted average resource to product recoverability factor of 52.3% applied in the financial model has been compared to results from leach testing conducted between 2009 and 2013. Leach test results demonstrated a higher rate of overall recovery compared to the factor of 52.3% used in the financial model. Additionally, the recovery factor of 52.3% was compared to four (4) other uranium ISR projects in Wyoming USA. The recovery factors for these projects range from a low of 68.7% to a high of 75.0%, demonstrating the conservative nature of the recovery factor utilised for the Lance Projects.
- Mine Plan: Total production over the life of mine from the mine plan is 28.0 million pounds of U3O8, with 39% of production sourced from Measured and Indicated Resources (10.8 million pounds) and 61% sourced from Inferred Resources (17.2 million pounds). Wellfields will be located in designated productions units situated above the defined mineralized zone and will utilise a hexagonal, seven-spot pattern with 75-ft well spacing for injection and recovery wells. The wellfield parameters have been based on the detailed wellfield design for the first mining unit within the Ross Production Area. Metallurgical test work to optimise the lixiviant solution that is to be cycled through the injection wells has been used to support the head grade assumptions which are consistent with other mature ISR operations in the Powder River Basin.
- Operating Costs: Operating costs have been developed by evaluating each process unit operation and the associated required services (chemicals, power, water, air, waste disposal), infrastructure (offices, change rooms, shop), salary and associated burden, and environmental control (heat, air conditioning, monitoring). The estimate is based on design wellfield flows and head grade, process flow-sheets, preliminary process design, materials balance and estimated manpower requirements. Operating costs also include ongoing repairs and maintenance of the wellfields, freight of uranium yellowcake product to converter facility, waste disposal and closure costs including well abandonment and aquifer restoration, site grading and re-vegetation, and demolition and removal of infrastructure.
- Capital Costs: Initial capital costs are estimated at US\$68 million, including contingency which includes the construction of the CPP, initial wellfield and associated infrastructure. Further capital will be required to expand the CPP to allow production of up to 3.0 million pounds per annum of U3O8 as well as a satellite plant at Barber. The capital cost estimate has been derived from contractor quotes and drilling and equipment rates based on actual activities as well as similar ISR uranium projects in the region. The design includes process flow diagrams, water balance, materials balance, chemical consumption estimates, tank sizes and specific processing circuit components as designed by TREC, the EPC contractor for the project. All capital cost estimates include a 10% contingency.

Lance Capex Requirements



Low capital intensity and staged capex requirements

Process Plant & Wellfield CAPEX to design production rate by Production Unit	US\$	
Ross Production Unit (2014 / 15) (1,150klbs p.a.)	\$68m	To be funded by equity & project finance debt facility
Kendrick Production Unit (2017 / 18) (1,150klbs p.a.)	\$35m	Funded by self- generated operating
Barber Production Unit (2021 / 22) (1,150klbs p.a.)	\$43m	cashflow

Lance Project Funding



Notes

- US\$22m in senior secured notes from BlackRock for pre-licence construction
- US\$9.4m drawn; further US\$12.6m available for drawdown
- Notes have a coupon of 11%

Debt

- Approx. \$50-60m in senior debt planned
- Discussions on senior secured debt facility underway with shortlisted banks:
 - Behre Dolbear (USA) has completed technical Due Diligence for banks
 - Term sheets presented
 - Extent of interest reserve account and standby credit will determine final funding needs
 - Expected completion in Q1/Q2 2014
- Secondary debt discussion with 3 financial groups Note BlackRock has first right of refusal on further notes

Equity

On debt closure, planned rights issue for \$20-\$30m to existing shareholders

PEN's top two shareholders have already committed >\$60 million to the projects over the last 3 years

Lance Uranium Sales Strategy



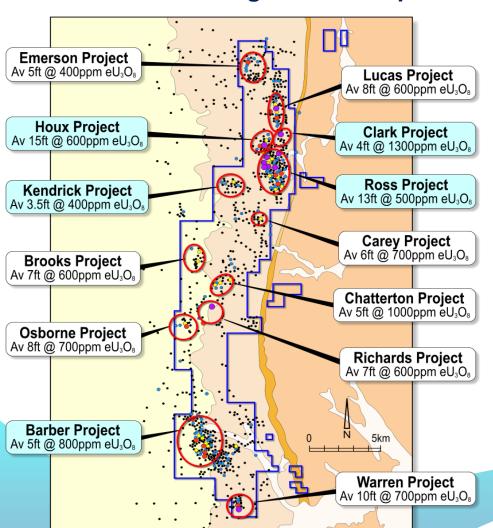
Strategic partnering: Achieve diversity of supply across & within suppliers

- PEN Marketing company formed
 - Spot Price \$35.00
 - Producer Term Price \$50.00-\$55.00
- Planned sales structure
 - 40-50% to a strategic partner + investment
 - 30-40% to 3-4 utilities on long-term contracts
 - 10-20% to the spot market
- First sale contract entered into in February 2011
 - USA utility
 - WAP \$75.60 per lb
 - 6 year contract first delivery H2 2015
- Strategic utility partner
 - Independent Due Diligence completed positive
 - Negotiations advancing well

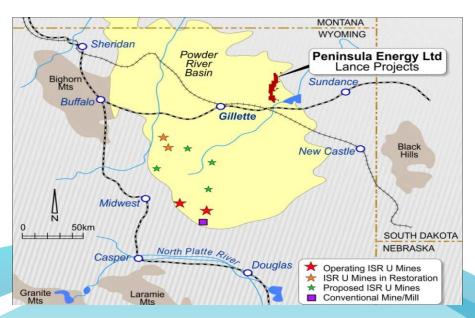
Lance – Strong Exploration Potential



Large Resource potential: 70+ years mine life



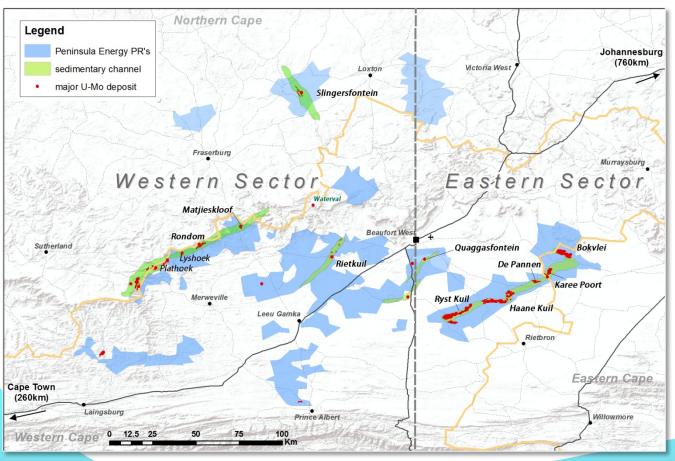
- 13 historic resources
- 22 roll fronts extend for a combined linear strike length of 194 miles (312km)



Karoo Projects Overview



High grade U3O8 & Molybdenum in proven area



- Located in the Karoo region of RSA, approx. 400km to 600km E-NE of Cape Town
- Known uranium and molybdenum mineralised province
- 7,800 km2 over Permian sandstones
- 32,176 hectares of freehold land
- Freehold land covers majority of historic mineralisation
- Ownership:
 - PEN 74%
 - BEE Partners 26%

Karoo JORC Resource



JORC compliant Resource March 2014 Large resource potential – 100+ year mine life

Classification	eU3O8 (ppm) CUT-OFF	Tonnes (million)	eU3O8 (ppm)	eU3O8 (million lbs)
Indicated	600	8	1,242	21.9
Inferred	600	15.3	1,038	35
Total	600	23.3	1,108	56.9

Classification	Sector	eU3O8 (ppm) CUT-OFF	Tonnes (million)	eU3O8 (ppm)	eU3O8 (million lbs)	
Indicated	Eastern	600	7.1	1,206	18.7	
indicated	Western	600	0.9	1,657	3.2	
Informad	Eastern	600	11.8	1,046	27.2	
Inferred Western		600	3.5	1,019	7.8	
Total		600	23.3	1,108	56.9	

Note: Totals may not sum exactly due to rounding.

¹ JORC Table 1 included in announcement to the ASX released on 11th March 2014:"13% Resource Expansion and Upgrade at Karoo Projects". Peninsula confirms that it is not aware of any new information or data that materially affects the information included in this presentation and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.

Karoo Scoping Study



Recent positive Karoo scoping study; Feasibility study commenced in Q4 2013

- Scoping Study completed on Karoo Eastern Sector Projects in South Africa
 - Combined open cast and decline mining
 - Alkaline preferred development path
 - Decision to proceed to Pre-Feasibility Study
 - Significant resource expansion likely
- Pre-Feasibility Study commenced in Q4 2013
- Significant upside potential Karoo Western Sector Projects not included in Scoping Study
- Exploration target size 250-350mlbs U3O8 (126-133mt at 900-1200ppm U3O8)

The Scoping Study referred to in this presentation is based on low-level technical and economic assessments, and is insufficient to support estimation of Ore Reserves or to provide assurance of an economic development case at this stage, or to provide certainty that the conclusions of the Scoping Study will be realised.

Please note that in accordance with Clause 17 of the JORC (2012) Code, the potential quantity and grade of the "Exploration Target" in this presentation must be considered conceptual in nature as there has been insufficient exploration to define a Mineral Resource and it is uncertain if further exploration will result in the determination of a Mineral Resource.

Karoo – Attractive Cost of Production



(Unescalated; 2013\$)	USD / lb	@ 3.0 m lbs per annum (USD'm)
Production Rate (m'lbs per annum)		3.0
Open Cut Mining	\$10.08	\$30
Underground Mining	\$6.39	\$19
Mine Technical & Support	\$1.50	\$4
Processing	\$15.92	\$48
Indirect Costs	\$0.22	\$1
Production Operating Cash Costs	\$34.11	\$102
Sustaining Capital	\$0.68	\$2
Average All-in Production Cash Costs	\$34.79	\$104

- 1) Scoping Study level of accuracy at + / 25%
- 2) All amounts in USD unescalated 2013\$
- 3) South African Rand amounts converted to USD at 1USD = 11.0 ZAR
- 4) Production rate of 3.0 million pounds per annum is steady state average production rate after initial commissioning and ramp-up
- 5) Initial capital expenditure costs, contingency, sales & marketing and ongoing royalties are excluded

Note: Reagent costs based on "spot" prices - high volume long term contracts would be likely to reduce the processing costs significantly

Refer to ASX announcement made on 5 February 2014 titled "Company Presentation – Mining Indaba Conference 2014" that describes the basis of the production target and forecast financial information used in the Scoping Study. The company confirms that all the material assumptions underpinning the production target or the forecast financial information derived from a production target continue to apply and have not materially changed.

Karoo Development Schedule



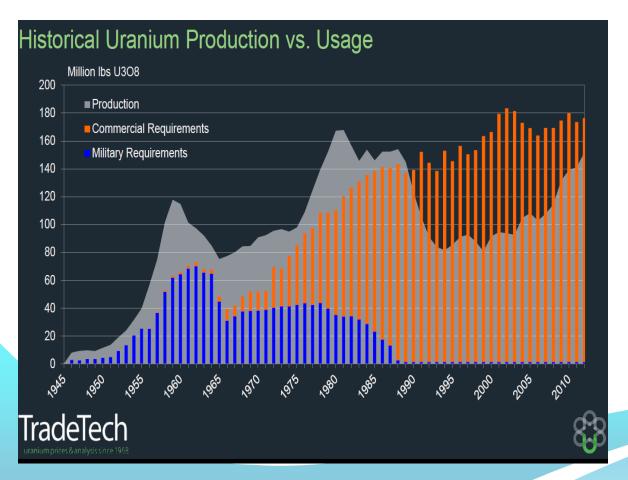
Karoo Development target CY2016/2017

	20	10	20	11	20	12	20	13	20	14	20	15	20	16	20	17
Resource Definition (JORC conversion)			~	•	~	~	•									
Internal Conceptual Study	~															
Ext. Scoping Study PFS/BFS							~	~	~							
Project Financing																
Construction																
Commissioning Production																
Expanded Resource Drilling						•	•	~								

Uranium Production vs Consumption



Uranium consumption has exceeded production for many years but recycled supplies have left the market in oversupply – sources of recycled materials are now almost exhausted



Key sources of recycled materials nearly exhausted:

- Down blended weapons grade material - Russian HEU agreement ends in 2013 - Removes 24mlbs of secondary supply
- Re-enriched or stripped tails both Russia and USA have largely exhausted usable tails stockpiles
- Excess government & utility inventory - Inventories from US Dept. of Energy, which will continue for 3-5 years at most, have been acquired by TRAXYS

Nuclear Power – the best solution



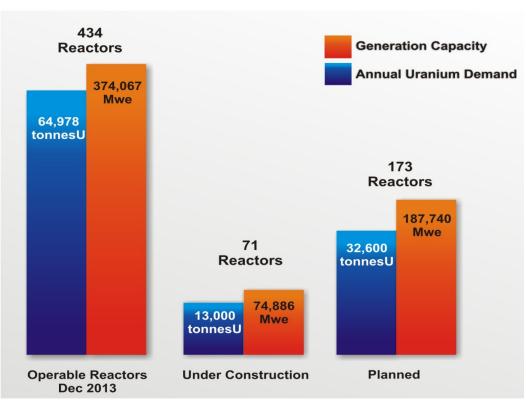
- Nuclear power provides the best solution for a nonpolluting 24:7 base load power source.
- Over 430 existing nuclear plants, focused in Europe,
 North America, Russia, South Korea and Japan.
- 1.7 billion of the world's population is still without electricity.
- Emerging economies will need to implement a combination of nuclear, coal, gas and renewables to meet their growing power requirements.
- Nuclear power needs to be made readily accessible and affordable to the emerging economies to ensure that non-polluting sources are chosen in the hunt for more power.



Global reactor Growth & Uranium Demand



Electricity Generation and Uranium Consumption



- Global Nuclear Generation Capacity will increase 70% over the next decade - from 374,067Mwe to 636,693Mwe
- 71 Reactors under construction & 173 new Reactors planned
- Annual Uranium Demand will increase from 177mlbs to 280mlbs by 2020 (58% increase)
- Additional 390mlbs will be needed for new initial cores

Source: World Nuclear Association (December 2013)

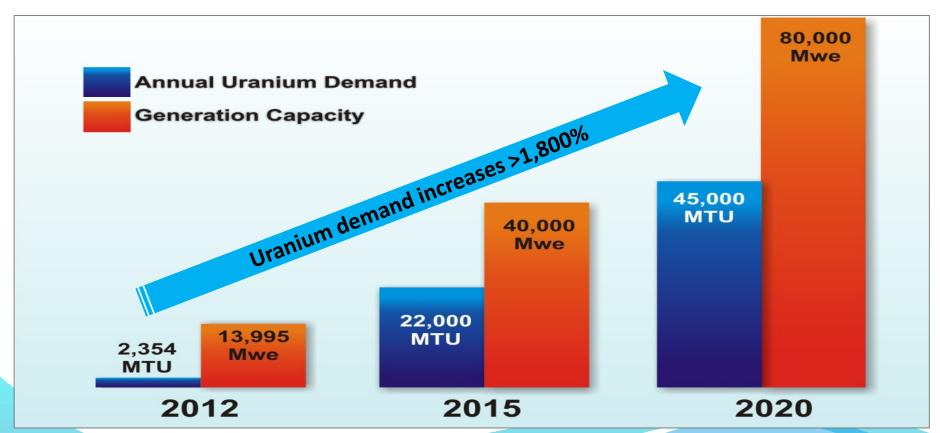
Notes

- Nearly all the reactors shown as "Under Construction" will be completed by the end of 2016.
- "Planned" means reactors will likely be completed within the next 10 years.
- Average Annual Demand is based on average consumption of approximately 440,000lbs U3O8 per year, which is the rule of thumb for each 1,000 Mwe
 of generation from a standard light water reactor

Chinese Nuclear Generation 2012-2020



Between 2010 and 2013, China purchased ~\$15B of U3O8 ~308 million pounds U3O8 (35 times 2012 consumption levels)
China's demand for U3O8 is forecast to increase over 19 times by 2020



Source: World Nuclear Association; China Guongdong Nuclear Power Corporation; China National Nuclear Corporation.

China imported 18,968 tU in 2013

Investment Highlights



Major sector and company re-rating expected from uranium supply deficit combined with Peninsula commencing production

- Peninsula will be the ASX's next uranium producer
- The Company has a low risk, clear path to production
- Significant operating margins achievable even at the current uranium price
- Strong financial support from first-tier shareholder base
- Project funding well advanced
- Karoo offers possible second production centre and diversity of supply & jurisdiction
- Increasing demand and tightening supply expected to lift the whole uranium sector
- Commencement of post SML construction & production should result in a strong rerating of Peninsula's share price



ASX's NEXT URANIUM PRODUCER

Head Office

Unit 17, Level 2 100 Railway Road Subiaco WA 6008

Telephone: +61 8 9380 9920 Facsimile: +61 8 9381 5064

Website

www.pel.net.au

Email contact

info@pel.net.au



Appendix

Lance JORC Resource



Classification	Tonnes	Grade (ppm U3O8)	eU3O8 (lbs)	Mineability factor	eU3O8 (lbs)	Recovery factor	Recovered U3O8 (lbs) 50.4%
Measured	4,142,950	495	4,520,159	0.8	3,616,128	0.8	2,892,902
Indicated	11,532,135	497	12,640,951	0.8	10,112,761	0.8	8,090,209
M+Ind	15,675,085	497	17,161,110	0.8	13,728,888		10,983,111
Inferred	35,478,033	467	36,513,114	0.6	21,907,868	0.8	17,526,295
Total	51,153,119	476	53,674,224		35,636,757		28,509,405

JORC Table 1 included in this presentation at the end of this Appendix section.

ISR Reserves are determined after well field development drilling

Lance Development Model



Proven technology – ISR produces 45% of world uranium

- ISR is a low cost non-disruptive method of recovering uranium as yellow cake
- Building a 2.3mlbs per year ISR operation
- Inclusive of
 - Ion exchange facility
 - Centralised resin stripping, drying and packaging plant at Ross (CPP)
 - Remote ion exchange facility at Barber trucking resin to CPP
- Targeting development & production in 2014
- 2 stage ramp-up to 2.3mlbs per year
- Acquisition of other projects
- Possible expansion to permit capacity
 3mlbpa



Central Processing Plant: Ion Exchange Vessels (left), Elution circuit (right)



Central Processing Plant: Yellowcake Drying and Packaging Unit

Lance ISR Process Flow

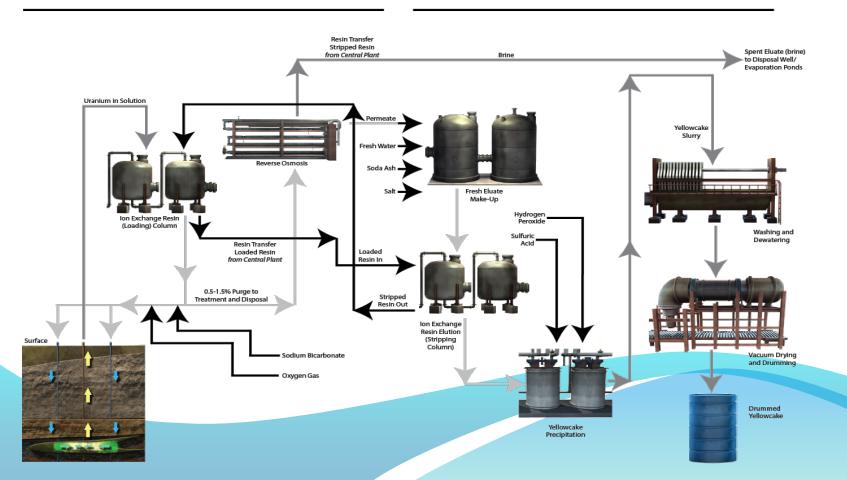


Proven technology:

7 operating mines and 4 operating ISR plants in Wyoming & 2 more under construction

URANIUM EXTRACTION

YELLOWCAKE RECOVERY



Lance – Permitting Schedule



Permitting ahead of regulatory schedules

Key: Black = granted Blue = awaiting final grant

WDEQ Permit to Mine

- Technical reports completed
- Environmental reports completed
- Licence application deemed complete
- Environmental and technical review completed
- Environmental bonds lodged
- Public advertisement complete
- 20 day public comment period
- Aquifer deemed exempt September 2012
- Granted November 2012

Deep Disposal Wells

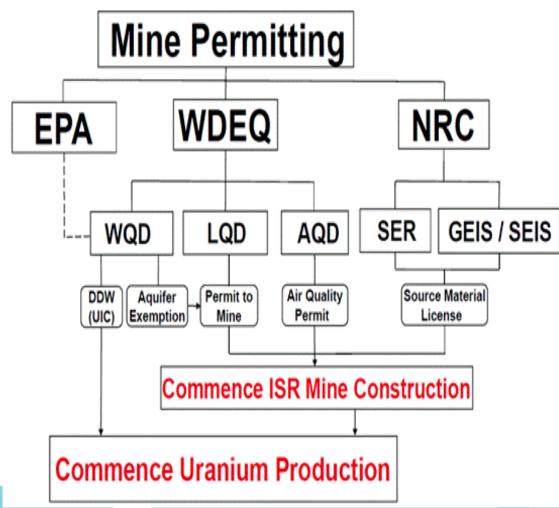
- DDW feasibility study completed
- Licence application deemed complete
- Environmental and technical review completed
- Granted Licence March 2011

NRC Source Material Licence

- Technical reports completed
- Environmental reports completed
- Licence application deemed complete
- Environmental and technical review complete
- BLM acknowledged NRC lead
- Grant of draft SML December 2012
- SER issued March 2013
- Draft SEIS issued March 2013
- Aguifer deemed exempt by EPA May 2013
- Public comment period ended
- Final SEIS grant Feb. 2014
- Final SML grant April 2014 (NRC public notice March 2014)

Air Quality Permit

- Granted February 2012



Directors



Strong Board delivering competence, experience and drive

Gus Simpson

Executive Chairman

Strong strategic leader, extensive background in resources, corporate finance and management; 25 years experience in USA, Asia, Africa and Australia

Alfred Gillman

Technical Director

Fellow AusIMM (CP Geol), Geologist with proven record track of mineral discovery, project acquisition and project development; 35 years experience in USA, West & Southern Africa, Central Asia, Russia, South America, PNG and Australia

Neil Warburton

Non-executive Director

Senior mining engineer, experienced mine developer and operator; 33 years experience in Africa, Australia and ex-CEO of Barminco

Warwick Grigor

Non-executive Director

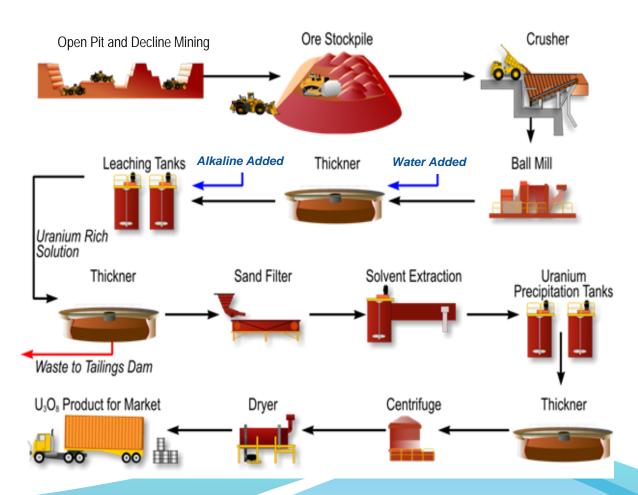
Experienced mining analyst and corporate director; currently Executive Chairman of Canaccord Genuity (Australia) a global resource broking house

Karoo Development Model



Conventional open pit and decline mining

- Multiple production faces with central processing facility at Rystkuil
- All sites within hauling distance
- Planning development in 2016/2017



Power Generation and Industrialisation

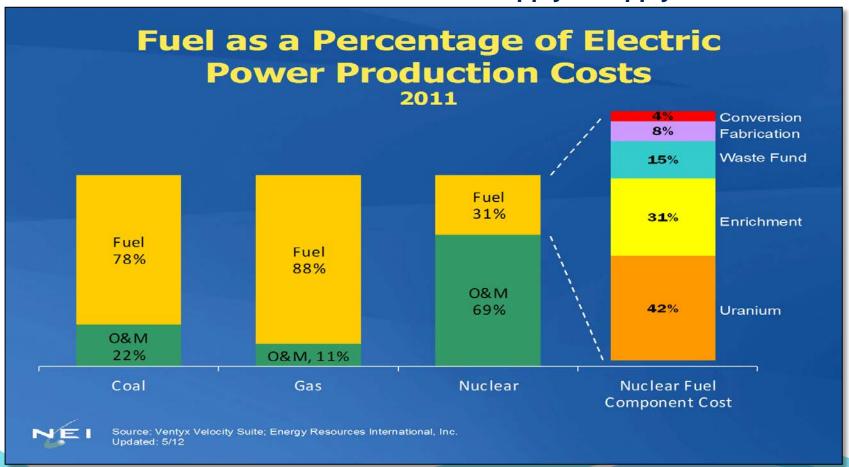


- The 19th century industrial revolution in Western Europe and North America saw 200 million people move from an agrarian based economy to a urban/industrial world. It was followed by the eradication of famine, epidemics; it precipitated mass education and broad based wealth distribution.
- This world changing event was powered by a then revolutionary power source, cheap coal fired energy and later electrical power.
- The 21st century industrial revolution in Asia, India and Eastern Europe will see 2 billion people move from an agrarian based economy to a urban/industrial world. The people of these regions believe that the same follow-on effects seen in the first industrial revolution will also occur for them.
- This unprecedented world changing phenomena cannot be fueled by polluting, CO2 generating coal and gas or by intermittent and expensive solar or wind generated electrical power.
- Nuclear power provides the best solution for a non-polluting 24:7 base load power source.
- Over 430 existing nuclear plants, focused in Europe, North America, Russia, South Korea and Japan providing the first 25% baseload power generation.
- 1.7 billion of the world's population is still without electricity.
- Emerging economies will need to implement a combination of nuclear, coal, gas and renewables to meet their growing power requirements.
- Nuclear power needs to be made readily accessible and affordable to the emerging economies to ensure that non-polluting sources are chosen in the hunt for more power.

Power Utilities Construction Cost



Power utilities concerns are around future supply & supply concentration

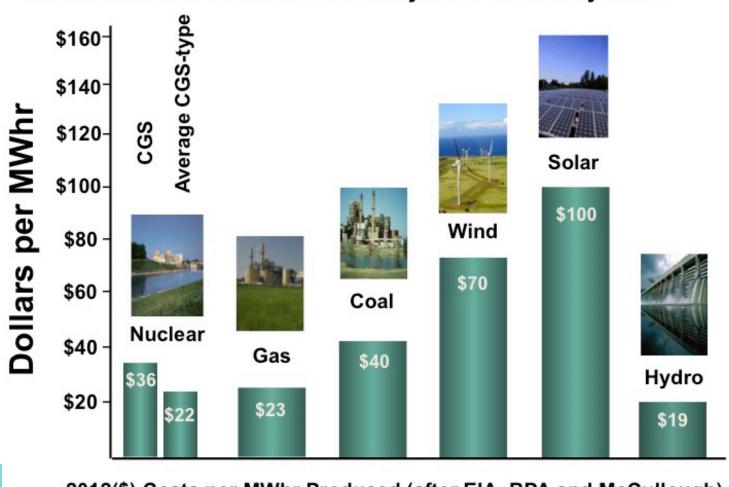


When capex is included uranium is less than 2% of costs

USA Electricity Production Costs 2012



Total Production Costs for Electricity from Various Systems



2012(\$) Costs per MWhr Produced (after EIA, BPA and McCullough)

Pre-License Construction - update



- WDEQ Permit to Mine cleared the way for commencement of allowable pre-license construction
 - Central Processing Plant site and civil works
 - Completion of administration building
 - Installation of hydrogeologic monitoring wells
 - Development of deep disposal well
- Site preparation commenced October 2013

Construction status - CPP pad preparation





New Ross CPP all weather access road





Construction Status





Construction Status





Construction Status





Fabrication status of 2nd bank ion exchange columns as at 19 March 2014.

Completed IX column





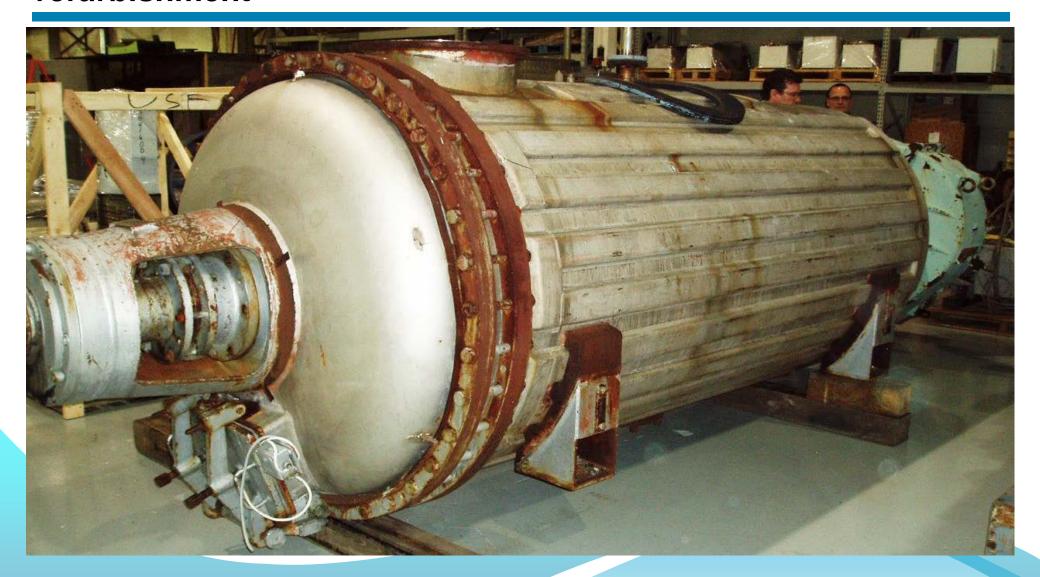
Completed first bank of IX columns





Yellow cake drying unit undergoing refurbishment





JORC Table 1- Lance Projects



JORC Code, 2012 Edition - Table 1

The table below is a description of the assessment and reporting criteria used in the Lance Project Mineral estimation that reflects those presented in Table 1 of *The Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves* (The JORC Code, 2012).

Information that is material to the understanding of the estimate as required under ASX Listing Rule 5.8.1

Geology

Uranium mineralisation occurs preferentially in the sand units of the Cretaceous Fox Hills or lower Lance Formations of Eastern Wyoming, which were deposited under more reducing conditions. Within the sandstone, uranium distribution is controlled by basin-ward migration of chemical fronts that represent the interface between reduced and oxidized sandstone. The primary uranium-bearing minerals are uraninite representing tetravalent forms in the reduced zone with H2S and organic carbon acting as the reducing agent to precipitate uranium.

Sampling and Sub-sampling Techniques

Samples used in the resource estimation were obtained using Prompt Fission Neutron (PFN) radiometric or gamma logging equipment. The primary method of grade determination was through a truck-mounted Prompt Fission Neutron (PFN) probe with continuous measurements for uranium (U3O8)taken at 0.05 or 0.10 m intervals and composited to 45cm (1.5ft). Downhole radiometric data from 4,554 historic holes was also recovered an digitised and subjected to rigorous QAQC using a database of relogged historic holes and over 2,500 additional holes drilled since 2009. Disequilibrium factors were calculated from comparative PFN/chemical assays with gamma and applied only to the gamma derived data.

Drilling Techniques

The main technique used comprises rotary mud drilling. Core Drilling using HQ triple tube was carried for metallurgical sampling and chemical assay comparison.

Criteria used for classification

Mineral Resources have been classified on the basis of confidence in geological and grade continuity using the drilling density, geological model, and modelled grade continuity.

The mineral resource is classified as either measured, indicated or inferred. The method of classification of the polygonal resource is based on the area of influence (AOI) of the resource polygons around each drillhole intersection located within the 0.2GT contour, generally 15m for measured, up to 100m for indicated (excluding measured) and greater than 100m for inferred (excluding measured and indicated) to the limits of a nominal 0.2GT contour boundary.

JORC Table 1- Lance Projects



Sample Analysis method

All PFN grades were determined by PFN and reported as U3O8. PFN grade determinations assume no disequilibrium effects as PFN directly measures fission U235 isotope. No grade cutting was applied as the grades are derived from continuous downhole measurements of a large volume of rock around the access drillhole. Reported grade intervals were calculated using a 200ppm lower cutoff, 2ft minimum true thickness and maximum internal dilution of 1.5ft. GT calculated thus: grade (ppm)*thickness(ft)/10,000.

Estimation methodology

Grade composites using a 200 ppm and 0.2 GT lower cutoff were derived and imported into 3-dimensional modeling software. The resource is reported a U3O8 based on the following criteria: 36% of the resource input data comprises PFN logging data; the remaining gamma-based data has been corrected for disequilibrium using the disequilibrium database and are therefore considered to be an accurate measure of in situ grade.

Centroid positions were determined for each grade composite, and subsequently analyzed in 3D and classified according to area & horizon. No grade cutting was applied as the grades are derived from continuous downhole measurements of a large volume of rock around the access drillhole.

Resource estimation used two techniques:

Computer -based constrained polygonal

Area/foot/pounds (GT calculation)

Voronoi polygons with thickness, volume, & tonnage and grade were generated in Surpac with variable search radii reflecting measured, indicated, or inferred classifications.

Extent of the polygons was limited by adjacent polygons or 0.2 GT contours.

Cut off Grade

Lower cut offs of 200ppm U3O8 and 0.2GT were applied

Mining and Metallurgical methods and Parameters

No mining factors (i.e. dilution, ore loss, recoverable resources) have been applied. The resource will be exploited by in situ recovery (ISR) mining methods using alkaline lixiviants.

ISR involves the drilling of clusters of injection, recovery and monitoring wells to facilitate the recycling of oxygen enriched ground water through the mineralised sandstone to re solubilise and mobilize the uranium for pumping it to the surface processing plant for processing into yellow cake.

JORC Table 1- Lance Projects



JORC Code, 2012 Edition - Table 1

The table below is a description of the assessment and reporting criteria used in the Lance Project Mineral estimation that reflects those presented in Table 1 of *The Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves* (The JORC Code, 2012).

Section 1: Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	 Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information. 	 No physical samples were used for the resource estimation. Samples used in the resource estimation were obtained using Prompt Fission Neutron (PFN) radiometric or gamma logging equipment. The primary method of grade determination was through a truck-mounted Prompt Fission Neutron (PFN) probe with continuous measurements for uranium (U3O8) taken at 0.05 or 0.10 m intervals and composited to 45cm (1.5ft). Gamma data is also collected during the normal course of logging in order to identify the intervals that require PFN logging. Spontaneous potential (SP) and resistivity data is also collected. PFN measurements on post-2009 drilling (+2,800 holes) - continuous downhole nu sampling/measurements. Industry-standard logging techniques utilized by independent contractors with proper QAQC/calibration protocols Chemical assays were only used to check for correlation with PFN and gamma probe grades. Disequilibrium effects are not relevant to PFN results. Industry standard QAQC measures such as certified reference material, blanks and repeat assays were used. The samples were split to around 0.25 to 0.5 kg per sample and sent to an ISO-accredited laboratory in Casper, Wyoming (Scientific Services co) for U3O8 and trace element analysis by XRF and ICP techniques. 2012-2013 Samples assayed by Mineral Lab and Hazen Labs, Golden, Co. Full core was split using a rock saw and half-core samples were taken at 45 cm intervals. Core recovery was recorded into the database Core sampling and assay: accurate measurement of drill pipe for accurate depth correlation; geologists remove core from core barrel, photograph core, split core into sections where it is lobeled and vacuum packed in ensure core integrity during transportation to laboratories. Where appropriate, core is split or sawn vertically and 1/2 of the core is saved for future validation and/or analysis Digitized gamma data from 4,700 historic holes with rigorous QAQC checks/comparisons of database compo
Drilling techniques	 Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc). 	Rotary Mud Core Drilling- HQ triple tube recovery
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. 	 Core recoveries were monitored and were generally good (>95%). Mud rotary recoveries were not routinely monitored, but are considered immaterial to the resource estimation process as no physical samples were used for the resource estimation. Rotary Mud: geologists (1) manage the drill site to minimize disturbance and ensure safety protocols are enforced, (2) visually interpret outtings for lithology,



Criteria	JORC Code explanation	Commentary
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	alteration, mineralization, (3) calculate lag between stratigraphic & electric log signatures, (4) mark & label drill holes, & (5) confirm that drill holes are surveyed Rotary Mud: comparison of collected downhole rotary cuttings collected as 5 ft composite samples with electric log signature to verify completeness of collected samples; adjustment of mud viscosity and type and quantitive of drilling polymers to ensure adequate cutting recovery Core Drilling: same protocol as for rotary mud holes; proper mud mixture to maximize core recovery
Logging	 Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	 Selected open historic holes were logged using a PFN probe. All Peninsula, mud rotary and core holes were logged lithologically using a coded logging system for rock type, grain size, colour, alteration and any other relevant observations. Chip samples from rotary drilling: correlation of collected downhole rotary cuttings with electric log signature to verify stratigraphic and lithographic accuracy & adequate downhole representation of collected samples; drill cuttings are collected as 5 ft composite samples Mostly downhole electric information comprising Spontaneous Potential (SP) and Resistivity were used to develop geological cross sections and 3D geological models.
Sub-sampling techniques and sample preparation	 If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	 Core sampling & assaying: recovered core is vacuum sealed in the field in order to maintain core integrity & moistures, and to prevent oxidation prior to laboratory processing; core is split or sawn (half core), with 1/2 of the core submitted to a qualified laboratory for quantitative grade analysis and rock property determinations; sample intervals are dried & pulverized prior to obtaining quantitative measurements; independent laboratories run internal QA/QC tests on core samples by inserting blanks and standards; Strata Energy incorporates stringent QA/QC protocols, including utilizing secondary & referee laboratories for grade and rock property confirmation Full core was split using a rock saw and half-core samples were taken at 45 cm intervals. 45cm (1.5ft) corresponds with the typical compositing intervals used in the downhole logging techniques.
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (eg standards, blanks,	 PFN measurements on post-2009 drilling (1,854 holes) - continuous downhole sampling/measurement Industry-standard logging techniques utilised by independent contractors with proper QA/QC & calibration protocols; PFN logging tool is calibrated on a monthly basis at a calibration pit site in Casper, WY; Duplicate PFN runs, including the use of a secondary PFN tool, for confirmation The overall quality of QAQC is considered adequate to ensure the validity of the data used for resource estimation purposes. Chemical assays were only used to check for correlation with PFN and gamma



Criteria	JORC Code explanation	Commentary
	duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	probe grades. Industry standard QAQC measures such as certified reference material, blanks and repeat assays were used. The samples were split to around 0.25 to 0.5 kg per sample and sent to an ISO-accredited laboratory in Casper, Wyoming (Scientific Services co) for U3O8 and trace element analysis by XRF and ICP techniques. 2012-2013 Samples assayed by Mineral Lab and Hazen Labs, Golden, Co.
Verification of sampling and assaying	 The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	 No physical samples were used for the resource estimation. Physical samples and assays were used only for QAQC checks on the PFN and gamma data and to assess possible disequilibrium effects. Twinning of rotary drill holes: 21 rotary drill holes were offset and drilled in order to confirm ore intersections and associated grade Systematic reologging of historic holes with PFN probe show good correlation between historic GT calculations and new PFN intervals. Disequilibrium factors were applied to historic gamma data and were calculated using the PFN database comprising over 830 determinations and categorized by area and lithological horizon. Specific disequilibrium factors have been applied to the relevant parts of the resource based on comparative studies between PFN and gamma data. Disequilibrium factors were applied only to the intervals for gamma-only data was available. All electronic data stored in a SQL database
Location of data points	 Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	Drillhole surveying drill holes (rotary and core) surveyed by an independent party utilizing a Trimble RTK (Real-Time Kinematic) Resource Grade receiver and associated software, resulting in sub-centimeter horizontal accuracy and 2 cm vertical accuracy UTM NAD27 grid system Modern LIDAR data and US topographic data used
Data spacing and distribution	 Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied. 	spatial distribution of exploration drill holes varies from 6m to 200m Classification dependant on hole spacing Number of drillholes used in resource estimate is >7,000 Data spacing and distribution adequately reflects geological and grade continuity relative to classification. GT grade summary derived using 200ppm cut off over minimum width of 2ft
Orientation of data in relation to geological structure	 Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	Number of drillholes used in resource estimate is >7,000 Drillhole patterns are designed in a manner which allows for the best determination of ore body width, areal geometry, and average & peak ore grade along the strike of the ore body. No sampling bias is believed to have been introduced via spatial distribution of exploration drill holes. The dip of the mineralisation for the entire deposit varies from -1° to -2°. Local



Criteria	JORC Code explanation	Commentary
		grade continuity follows various chemical fronts. All drilling intersects local grade continuity with 85° to 90° angles. No biases are expected from the drilling direction.
Sample security	The measures taken to ensure sample security.	All data used to prepare the Mineral Resource were either PFN or radiometric gamma log data.
		 Appropriate measures were taken to ensure sample security of the chemical samples used for QAQC purposes.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	 Audits and reviews on sampling and assaying are not relevant as no physical samples or assays were used in the resource grade estimation. QA/QC audits of the PFN and historic gamma data have been carried at regular intervals by independent consultants to Peninsula. PFN data and data reduction to U3O8 was carried out automatically by GAA Wireline Inc. GAA Wireline Inc / Geoinstruments Logging established procedures for collection and processing of raw PFN data. Internal sampling protocols were developed & compiled by independent consultants to Peninsula prior to initiating of the exploration drilling program; reviews and updates to the Sampling Protocols document were conducted by an independent outside party in 2010 & again in 2012. Third party reviews of the sampling techniques/protocols did not reveal any inaccuracies or deficiencies with regard to methodology.



Section 2 Reporting of Exploration Results

JORC Code explanation	Commentary
 Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wildemess or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	 Surface ownership comprises primarily private lands with intermingled state and federal lands, the latter being managed by the United States Department of Interior Bureau of Land Management (BLM). As at December 2012 Peninsula has mineral rights and surface access rights over land holdings of 30,204.5acres (122.2 km2) and 26,630.5 acres (107.8km2) respectively. Mine development requires a number of permits depending on the type and extent of development, the most significant permits being the Permit to Mine issued by the WDEQ/LQD and the Source Materials Licence (SML) from the U.S. Nuclear Regulatory Commission (NRC) required for mineral processing of natural uranium. On 13 April 2011 approval was received from the Wyoming Department of Environmental Quality (WDEQ) for the construction and testing of Underground Injection Control (UIC) Class 1 wells at the site. WDEQ Permit to Mine granted – November 2012 Deep disposal well permit granted March 2011 Draft SML granted in December 2012 Granting of final SML expected in March 2014 All permits are issued to Peninsula's wholly owned subsidiary, Strata Energy Inc.
Acknowledgment and appraisal of exploration by other parties.	 1971 Nuclear Dynamics begins exploration drilling in the Lance ProjectArea 1978 Nuclear Dynamics forms a Joint Venture with Bethlehem Steel (Nubeth Joint Venture) to develop the Project. Total of>5,000 drillholes completed for 912,000m. 1978 The Nubeth Joint Venture develops and briefly operates a pilot plant scale ISR in the south central portion of what will become the Ross Permit Area.
Deposit type, geological setting and style of mineralisation.	 The Project is located on the eastern periphery of the Powder River Basin that comprises mostly Cretaceous – Tertiary sediments. Host sandstones dip at -1° to -2° towards the west and south west. Uranium deposits are epigenetic roll-front type.
A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: a easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length.	Large number of holes (>7,500) and associated data preclude inclusion
	 Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. Acknowledgment and appraisal of exploration by other parties. Deposit type, geological setting and style of mineralisation. A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth



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Data aggregation methods	information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated.	 All grades were determined by PFN and reported as U³O⁸. Grade determinations assume no disequilibrium effects as PFN directly measures fission U²²⁵ isotope. No grade cutting was applied as the grades are derived from continuous downhole measurements of a large volume of rock around the access drillhole. Reported grade intervals were calculated using a 200ppm lower cutoff, 2ft minimum true thickness and maximum internal dilution of 1.5ft GT calculated thus: grade (ppm)*thickness(ft)/10,000
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	 Mineralisation true widths vary from 0.2m to >2m. PFN sampling measurements are continuous over these intervals and recorded in 0.1m downhole increments. Mineralisation is horizontal within a tolerance of +/-2 degrees. All drillholes are vertical thus the intercepts as shown are effectively a measurement of true width.
Diagrams	 Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views. 	Large size and number of plans preclude inclusion
Balanced reporting	 Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results. 	 All reporting of exploration results is considered to be accurate and comprehensive
Other substantive exploration data	 Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. 	Large size and number of plans preclude inclusion
Further work	 The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	 Further infill and extensional drilling programs are planned More specific information is considered to be commercially sensitive and thus is not revealed.



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Database integrity	 Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used. 	The independent competent person performed a visual validation by reviewing drillholes on section and by subjecting drillhole data to data auditing processes. The independent database management consultant, Maxwells, subjected the drillhole data to regular data auditing processes in Datashed (e.g. checks for sample overlaps etc.).
Site visits	 Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	The independent competent person has been involved with the project since its inception and has carried out regular site visits (up to 6 per year). The independent competent person established and monitored various sampling procedures and is satisfied that they have been complied with.
Geological interpretation	 Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology. 	 The sandstones that make up the various formations of the Lance uranium deposits were all deposited in a fluvial-marine environment as channel sand or overbank deposits. They are characterised by fining-upward sequences comprising thick, laterally persistent, tabular, sheet-like sandstones. Uranium mineralisation occurs preferentially in the sand units of the Fox Hills or lower Lance Formations, which were deposited under more reducing conditions. Within the sandstone, uranium distribution is controlled by basin-ward migration of chemical fronts that represent the interface between reduced and oxidized sandstone. The primary uranium-bearing minerals are uraninite representing tetravalent forms in the reduced zone with H²S and organic carbon acting as the reducing agent to precipitate uranium. Vanadium and, to a much lesser degree, selenium and arsenic are the main associated elements. Geological interpretations of the individual roll fronts were carried out in planview using the red-ox information as the principle guide to the positioning of the roll front positions and lateral and longitudinal dimensions.
Dimensions	 The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource. 	 In plan-view, the deposits range from several hundred metres long to over 9,000 metres long with widths of between 20 metres and 80 metres wide. The high grade cores of the roll fronts within the deposit range from about 2 metres to 10 metres wide and average 1.5m thick in section. Mineralisation occurs in several horizons with a total mineralized package of up to 60m in thickness. Towards the east (Ross area) the main mineralization is developed between



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		 1080RL and 1140RL Mineralisation dips gradually to the west (Kendrick) where the main mineralsiation is developed at between 1000RL and 1060RL.
Estimation and modelling techniques	 The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used. The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. The assumptions made regarding recovery of by-products. Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation). In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions behind modelling of selective mining units. Any assumptions about correlation between variables. Description of how the geological interpretation was used to control the resource estimates. Discussion of basis for using or not using grade cutting or capping. The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available. 	 Grade composites using a 200 ppm and 0.2 GT lower outoff were derived and imported into 3-dimensional modeling software. The resource is reported a U308 based on the following criteria: 36% of the resource input data comprises PFN logging data The remaining gamma-based data has been corrected for disequilibrium using the disequilibrium database and are therefore considered to be an accurate measure of in situ grade. Centroid positions were determined for each grade composite, and subsequently analyzed in 3D and classified according to area & horizon. No grade cutting was applied as the grades are derived from continuous downhole measurements of a large volume of rock around the access drillhole. Resource estimation used two techniques: Computer -based constrained polygonal Area/foot/pounds (GT calculation) Voronoi polygons with thickness, volume, & tonnage and grade were generated in Surpac with variable search radii reflecting measured, indicated, or inferred classifications. Extent of the polygons was limited by adjacent polygons or 0.2 GT contours. The constraining GT contours were manually interpreted and digitized and referenced using Surpac and Gemoom software. A comparison of the resulting constrained polygonal resource calculations with conventional GT contour methodology revealed a difference in resources of less than 3% with respect to contained uranium. Independent verification has been carried out various US and UK based consultants using various techniques. Their findings showed that there was no material difference between the resource numbers generated either Peninsula or themselves.
Moisture	 Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content. 	 The bulk density of each sample was determined by Core Labs Inc, Denver using the Archimedes' mercury immersion method. Bulk densities were measured on samples after oven drying. Tonnes have been estimated on a dry basis.
Cut-off parameters	 The basis of the adopted cut-off grade(s) or quality parameters applied. 	 Resources have been calculated and reported above a 200ppm U3O8 out-off grade and 0.2GT.



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Mining factors or assumptions	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	 No mining factors (i.e. dilution, ore loss, recoverable resources) have been applied. The resource will be exploited by in situ recovery (ISR) mining methods using alkaline lixiviants. ISR involves the drilling of clusters of injection, recovery and monitoring wells to facilitate the recycling of oxygen enriched ground water through the mineralised sandstone to re solubilise and mobilize the uranium for pumping it to the surface processing plant for processing into yellow cake. When mineral content is presented as an amount per tonne it assumes that there is a cost per tonne to mine and process the ore to recover the mineral which has an absolute value. In ISR mining this is not the case; this recovery method has a cost structure associated with the drilling, casing and perforating of extraction, injection and monitoring well clusters. These, combined with the cost of reagents and processing into yellow cake are deducted from mineral revenues to determine gross margin. Subsequently it is the grade/thickness (0.20GT) quotient, not grade alone, that determine if a bounded mineral zone is to be mined. Once these costs are incurred, it is recovered pounds of mineral that determines the gross margin. Thus when an ISR feasibility study estimates mineral recovery costs it is as a cost per pound recovered.
Metallurgical factors or assumptions	The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	 The resource is developed in a confined aquifer. Porisity and permeability characteristics are suitable for ISR mining. Substantial metallurgical test work comprising column-leach and agitation-leach testing confirms that uranium is recoverable using alkaline lixiviants.
Environmen- tal factors or assumptions	 Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made. 	Wyoming Department of Environmental Quality (WDEQ) permit for construction and testing of Underground Injection Control (UIC) Class 1 wells at the site approved April 2011 WDEQ Permit to Mine granted – November 2012 Deep disposal well permit granted March 2011



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Bulk density	 Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit. Discuss assumptions for bulk density estimates used in the evaluation process of the different materials. 	 The bulk density of each sample was determined by Core Labs Inc, Denver using the Archimedes' mercury immersion method. Bulk densities were measured on samples after oven drying. Tonnes have been estimated on a dry basis. An average bulk density was assigned for all the resource areas due to the consistency and continuity of the host sandstone.
Classification	The basis for the classification of the Mineral Resources into varying confidence categories. Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). Whether the result appropriately reflects the Competent Person's view of the deposit.	 Tonnes have been estimated on a dry basis. Mineral Resources have been classified on the basis of confidence in geological and grade continuity using the drilling density, geological model, and modelled grade continuity. The mineral resource is classified as either measured, indicated or inferred. The method of classification of the polygonal resource is based on the area of influence (AOI) of the resource polygons around each drillhole intersection located within the 0.2GT contour. Appropriate account has been taken of all relevant factors including reliability of the input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data The result appropriately reflect the Competent Person's view of the deposit.
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	 Appropriate account has been taken of all relevant factors including reliability of the input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data Two independent audits using two different estimation techniques have been carried out by US-based consultants. The specific findings are considered confidential. However, the differences between the two independent estimates and Peninsula's estimate are not considered to be material with differences in the order 3%.
Discussion of relative accuracy/ confidence	Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.	 The Competent Person places a relative accuracy of +/-10% (and 90% confidence level) in the Mineral Resource estimate at the global level for the measured and indicated resources based on the estimation technique and data quality and distribution. Inferred Resources would have a lower level of confidence outside of this range. The view on relative accuracy is based on the outcomes of the independent audits carried out on the estimation methodology.



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	 The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available. 	



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