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WELLFIELD OPTIMISATION STUDY FURTHER IMPROVES LANCE ECONOMICS

Highlights

- **NPV(8%) increased by 6% to US$323 million**
- **Capital expenditure to steady state production reduced by 12.5% to US$114 million**
- **Steady state operating cost reduced by 12% to US$30.65 per lb U3O8**
- **Lance all-in production cost ranked in first quartile amongst all global producers**

Summary

Peninsula Energy Limited (Company) is pleased to announce the completion of the Lance Wellfield Optimisation Study (**WOS**) which follows the Lance Central Processing Plant **(CPP)** Optimisation Study **(OS)** completed in March 2013. The WOS and OS were both undertaken as part of Peninsula's detailed engineering in preparation for the Lance Projects construction.

The OS delivered significant capital cost savings in the CPP while the WOS has delivered a significant reduction in wellfield capital and operating costs along with an increased rate of wellfield production. The combined effect of this optimisation process adds substantial economic value to the project.

The WOS was conducted over several months by the senior development and production team at Peninsula's wholly owned subsidiary Strata Energy Inc. **(Strata)** in conjunction with the engineering and construction contractor TREC Inc. **(TREC)**. Detailed design of the first mining unit within the Ross Production Unit, together with the results of lixiviant optimisation testing, are the catalysts that have enabled the WOS results to be achieved.

The operating parameters modelled in the WOS are the same as those applied to the OS and May 2012 Feasibility Study (**FS**), namely the Ross, Kendrick and Barber Production Units feeding a CPP with a permitted capacity of up to 3.0mlbs per annum. The first production unit will be at Ross with a capacity of up to 1.25mlbs per annum followed by the inclusion of the Kendrick Production Unit, ramping up over several years to 2.3mlbs per annum steady-state production. As a result of the increased wellfield production capacity for each production unit, the inclusion of the Barber Production Unit is able to be deferred until the point in time when the Ross Production Unit commences its natural production decline.

The WOS supplements the March 2013 OS and the TREC May 2012 FS, and together will form the basis for securing the required financing for the Lance Projects.

Wellfield Optimisation Study

The WOS was conducted by senior development and production staff at Strata in conjunction with TREC. This production team includes geologists and engineers with extensive in-situ recovery (**ISR**) process-well field design, plant construction and production experience.

The WOS focused on the detailed wellfield design for the first mining unit within the Ross Production Area. The parameters derived from the review were then applied over the total resource base. This resulted in a reduction in the total number of wells to be developed decreasing both the wellfield capital and wellfield closure costs.

Whilst undertaking the value engineering on the CPP the Company completed further metallurgical test work to optimise the lixiviant solution that is to be cycled through the injection wells. These test results have demonstrated that the pregnant lixiviant can be extracted with a higher head grade than previously forecast. The revised head grade is consistent with other mature ISR operations in the Powder River Basin and provides the following benefits to the project:

- Enables a faster rate of mineral extraction from the ore body, decreasing the overall life of mine by 4 years whilst maintaining life of mine production at over 28mlbs (based on the existing JORC compliant resources only);
- Enables the project to achieve a steady-state production rate of 2.3mlbs per annum from two production units concurrently, as opposed to three previously; and
- Allows the inclusion of the Barber Production Unit to be deferred until 2020 when the Ross Production Unit commences its stage of natural decline, deferring significant capital expenditure at the Barber Production Unit.

Using this updated information, Peninsula has re-run its economic analysis for the Lance Projects.

Adding Value to the Lance Projects

Over the past 18 months, as Peninsula has transitioned towards mining, the Company has significantly added to its internal capability through the employment of an experienced ISR production team in Wyoming and a Chief Operating Officer with extensive experience in pre-construction value engineering.

Commodity markets have experienced volatility in recent times so the primary focus of the Company has been on factors that it can control and influence, namely capital costs, operating costs, production profile and mine planning.

Drawing upon the skills and experience of the aforementioned team, the Company has been able to offset the reduced uranium price assumptions and increase the Net Present Value **(NPV)** of the Project through activities such as value engineering on the CPP, detailed wellfield design and the application of hands-on operational knowledge acquired from previous ISR operations.

Table 1: Revised Lance Projects Financial Analysis

Pre-Tax NPV (8%)	US$323 million
Positive Cashflow	Year 3
Payback Period	4.6 Years
Pre-Tax IRR	38%
Base Selling Price[(1)]	US$56 / lb

Notes:

1. Base U_3O_8 selling price of US$56/lb (current long-term contract price), escalated at the minimum industry standard escalation rate, and has been used from Year 1 in all NPV calculations, with a $6/lb step change at the end of Year 7.

Optimisation of the wellfield design during the WOS has resulted in a reduction of 12% in the steady-state cost per pound to US$30.65 (unescalated), primarily through the reduction in the number of wells and reduction in closure costs.

Table 2: Revised Lance Projects Steady-State Production Costs

(Unescalated)	**US$/lb**
Royalties & Indirect Taxes	$6.34
Operating Costs	$10.89
Restoration & Closure Costs	$1.81
OngoingWellfield Development Costs	$11.61
Steady-State Production Costs	**$30.65**

Notes:

1. All costs are un-escalated and include contingency (where applicable);
2. Steady-state production is the period of time during the life of mine where annual production is 2.3 million pounds per annum;
3. Costs include royalties, state / ad valorem / severance taxes, operating costs, ongoing wellfield development costs and delivery of concentrate to a converter, but exclude selling and marketing costs, financing charges and corporate taxes;
4. Resource replacement exploration and drilling costs are excluded; and
5. Non-Strata corporate costs incurred by the ultimate parent company are excluded.

Being able to defer commencement of production from the Barber Production Unit until 2020, yet still achieve a steady-state production rate of 2.3 million pounds per annum, reduces the initial capital outlay by US$16 million to US$114 million (including contingency).

Table 3: Revised Lance Projects Capital Expenditure to Steady-State

(Unescalated)	**US$'m**
Ross Production Unit	$64
Kendrick Production Unit	$50
CAPEX to Achieve Steady-State Production	**$114**

Cost Benchmarking

Independent uranium market analyst, UxC Consulting, LLC (**UxC**), released the latest Uranium Production Cost Study report on 30 August 2013. This report benchmarks production costs for all existing uranium producers, together with planned and possible producers. For the purposes of the report, the Lance Projects have been classified as "planned" taking into account the advanced stage of permitting that the project has achieved.

Results from the global benchmarking exercise have shown the following:

- Against all existing and planned global production, ***the Lance Projects rank in the first tier (or lowest cost) producers***; and
- Against all planned global production, ***the Lance Projects rank as the equal lowest production cost producer with one other project***.

Executive Chairman, Gus Simpson commented: *"This release and the UxC report re-affirms our strong belief that the Lance Projects compare well to other uranium operations across the globe, further supporting the commercial viability of the Lance Projects at the current long term contract price of US$56/lb."*

Cautionary Statements

The WOS has used metallurgical recovery of approximately 62.5% for the Ross, Kendrick and Barber Production Units. This was derived from metallurgical test work that yielded recoveries greater than 80%. It should be noted that prior determination of mineral recoveries for in-situ mining operations is complicated by the ability to approximate in-ground conditions during the laboratory testing process.

The Company will continue drilling at Kendrick and Barber with the aim of upgrading a minimum 60% of the inferred resources into measured or indicated category to provide the feedstock for the expanded project.

It should be noted that the FS,OS and WOS contain estimates of Inferred resources being converted to Indicated resources within the Lance Projects and have had the operational, production and financial parameters generated by the Ross DFS applied to them.

Permitting and Timeline

The US Nuclear Regulatory Commission **(NRC)**, following the conclusion of the public review period, has now notified the Company of the issuance date of the final Supplemental Environmental Impact Statement **(SEIS)** and the Source Material Licence **(SML)** for the Ross permit area. Respectively the dates are now 31 January 2014 and 3 March 2014.

This now provides greater certainty for the Company's goal of producing U_3O_8 concentrate in 2014. Peninsula has already obtained the requisite permits and licenses required to commence site construction activities which now enables the ordering of long lead equipment items for the CPP.

Project Development Funding

The Company will be receiving project finance proposals from multiple groups in October 2013. The financial groups that have expressed interest in providing funding for the Lance Projects include international banks and investment funds.

Yours sincerely

John Andrew Simpson (Gus)
Executive Chairman
Peninsula Energy Limited

For further information, please contact our office on +61 (0)8 9380 9920 during normal business hours.

Competent Person

The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves 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 he is undertaking as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr.Guilingerconsents to the inclusion in the report of the matters based on their information in the form and context in which it appears.

Certain disclosures in this release, including estimates of resources, constitute forward-looking statements that are subject to numerous risks, uncertainties and other factors, which may cause future results to differ materially from those expressed or implied in such forward-looking statements. Such risks include, but are not limited to, fluctuations in uranium prices and currency exchange rates, uncertainties of estimates of capital and operating costs, recovery rates, production estimates and estimated economic return, continuity and grade of mineral deposits, as well as political and operational risks and governmental and judicial outcomes and general market conditions.

Please note that in accordance with Clause 18 of the JORC (2004) Code, the potential quantity and grade of the "Mineralised Potential" in this announcement 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.

Disequilibrium Explanatory Statement: eU_3O_8refers to the equivalent U_3O_8 grade. This is estimated from gross gamma down-hole measurements corrected for water and drilling mud in each hole. Geochemical analysis may show higher or lower amounts of actual U_3O_8, the difference being referred to as disequilibrium.

Disequilibrium factors were calculated using the Peninsula PFN database 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. There is an average positive 11% factor applied. All eU_3O_8 results above are affected by issues pertaining to possible disequilibrium and uranium mobility.

[1] Current JORC Compliant Resource Estimate

Resource Classification	Tonnes Ore (M)	eU3O8 kg (M)	eU3O8lbs (M)	Grade (ppm eU3O8)
Measured	4.1	2.1	4.5	495
Indicated	11.6	5.7	12.7	497
Inferred	35.5	16.6	36.5	467
Total	51.2	24.4	53.7	476

(The JORC resource is reported above a lower grade cut-off of 200ppm and a GT of 0.2)