

31 July 2012

Australian Stock Exchange Limited (ASX) Company Announcements Platform

Via e-lodgement

# 30 JUNE 2012 QUARTERLY ACTIVITIES REPORT HIGHLIGHTS

# WYOMING, USA - LANCE URANIUM PROJECTS

- ➤ Bond lodged with WDEQ Permit to Mine to be issued pending final WDEQ approval
- Feasibility Study Upgrades Economics at Lance
- Pre-Licensing Construction planned in Q4C12
- Major Uranium Resource Upgrade Completed at Lance
- Decision to Mine at Lance Announced
- Kendrick Drilling continues to produce Outstanding Results

### SOUTH AFRICA – URANIUM / MOLYBDENUM EXPLORATION

- High Grade Uranium Confirmed at Site 45
- ➤ Historic Mineralisation now confirmed at all three sites drilled (Sites 22,29 and 45)
- Maiden JORC Compliant Estimate targeted for Q4C12.

## **CORPORATE**

- \$11.1m Underwritten Option Conversion successfully completed
- Appointment of Chief Operating Officer Peninsula and Chief Executive Officer -Tasman Pacific (RSA)
- Appointment of Chief Executive Officer Strata Energy (Wyoming)
- Cash at 30 June 2012 \$20.35m (including PENOA exercise proceeds)

### WYOMING, USA - LANCE PROJECTS

(Peninsula Energy 100%)

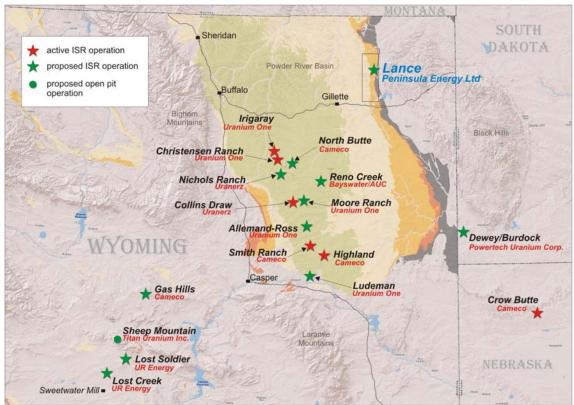


Figure 1: Lance Projects location, Wyoming USA

### Feasibility Study Upgrades Economics at Lance

In May 2012 the Company completed an optimised Feasibility Study (FS) which upgraded the economic viability of the Lance In-Situ Recovery (ISR) Uranium Projects in Wyoming, USA (Lance Projects). The FS was completed by TREC Inc (Wyoming based ISR engineers) (TREC) on the March 2012 JORC compliant resources of 51.5mlbs U<sub>3</sub>O<sub>8</sub> at the Ross, Kendrick and Barber production units only (refer Figure 2).

The FS anticipates the expanded project including the Ross, Kendrick and Barber Production Units feeding a Central Processing Plant (CPP) with an expandable capacity of up to 3.0mlbs per annum, excluding vanadium at this stage. In the FS the first production unit will be at Ross with a capacity of 750klbs per annum and production ramping up over 3 years to 2.2mlbs per annum steady-state production with the inclusion of the Kendrick and Barber Production units.

### Feasibility Study Results

The FS was completed to further demonstrate the potential of the broader Lance Projects, which have 312 line kilometres of identified roll fronts, 13 zones of drill-determined mineralisation and an exploration target of 104-163mlbs  $U_3O_8$ .

Realisation of this potential will be dependent on continued exploration and permitting success. In the FS further production units are assumed to be permitted for development at Kendrick and Barber and to follow Ross into production at 12 month intervals feeding the CPP.

The economic evaluation of these production units, conducted as part of the FS, yield an estimated NPV₀ of US\$252 million (at an 8% discount rate), excluding vanadium credits.

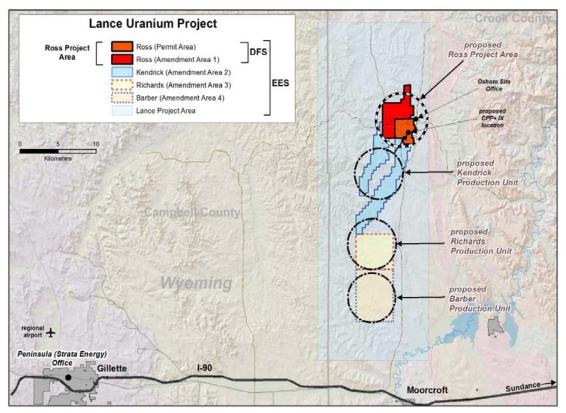


Figure 2: Lance Projects Proposed Production Units, Wyoming USA

The FS has for the Kendrick and Barber Production Units used a recovery of 76%. This was derived from metallurgical test work, which yielded averaged recoveries greater than 80%. It should be noted that prior determination of mineral recoveries for in-situ mining operations is complicated by the need to approximate inground conditions during the laboratory testing process.

The FS included four deep disposal wells (DDW) at each production unit. It should be noted that the FS contains estimates of Inferred resources being converted to Indicated resources which are based on the existing JORC compliant resources within the Lance Projects and have had the operational, production and financial parameters generated by the FS applied to them. The Company and its advisors consider this to be appropriate due to the homogeneity of the mineralisation and operating environment.

The Company is also continuing the drilling program at Kendrick and Barber with the aim of upgrading a minimum 65% of the inferred resources into a measured or indicated category to provide the feedstock for the expanded project. The Company last reported a resource upgrade at the Lance Projects in March 2012 and with continued drilling success over the next two quarters will complete a recalculation of the resource estimates before the end of 2012.

The FS has included the results of the Lyntek (Inc.) DFS on the Ross Production Unit as part for the FS on the expanded Lance Projects. As such the level of confidence applied to the Ross Production Unit is higher than on the production units at Kendrick and Barber which subsequently have higher contingencies applied to them.

Peninsula Energy Limited
June 2012 – Quarterly Activities Report
Page 4

### Permittina

### Pre-licensing Construction

The bond required by the Wyoming Department of Environmental Quality (WDEQ) has been lodged and the WDEQ has commenced the final process of issuing the Permit to Mine. Once issued Peninsula plans to commence construction and the ordering of long lead-time items prior to the issuance of the NRC Source Material Licence. It is envisaged that construction will commence in the fourth quarter of 2012 which will include installation and testing of a deep disposal well, installation of production monitoring wells, the ordering of certain components of the CPP, civil works in preparation for the CPP and CPP footings.

These pre-licensing construction activities are permissible, subsequent to changes to the NRC guidelines, and will shorten the overall project development timeline.

NRC Deems RAI's as Acceptable for Completion of License Application Review

In May 2012 the United States Nuclear Regulatory Commission (NRC) notified Peninsula's wholly owned subsidiary Strata Energy, Inc. (Strata) that its responses to the NRC's Requests for Additional Information (RAI's) on Strata's Ross Project, a part of the Lance Projects, were deemed acceptable to complete the NRC license application review.

As previously announced NRC issued the RAI's ahead of its internal schedule and Strata responded at the end of March 2012.

By letter dated 10 May 2012, NRC notified Strata that its RAI responses are complete and, based on this letter, that NRC's progress towards issuance of an SML License continues unabated.

### Major Uranium Resource Upgrade at Lance

On 2 April 2012 Peninsula announced a further upgrade to the JORC-compliant Resource Estimate for the Lance Projects. This upgrade was achieved by the completion of an additional 806 drill holes subsequent to the June 2011 resource estimate.

The revised JORC compliant resource estimate of 51.5Mlbs U308 represents a 24.3% increase to the total resource estimate including a 30.7% increase in Measured and Indicated Resource since the previous estimate in June 2011.

The revised JORC compliant vanadium resource estimate of 4.9Mlbs V2O5 represents a 111% increase to the previous resource estimate.

Since the release of the JORC resource estimate on June 17, 2011, Peninsula has continued resource conversion and exploration drilling with the completion of a further 400 drill holes, mostly within the Kendrick area.

Recent drilling focused on converting resources from inferred to indicated in the proposed Kendrick Production Unit, which is located to the west of the Ross Production Unit. The drilling along the Kendrick roll front system is producing consistent thick high-grade intercepts, which has resulted in its prioritisation due to its resource expansion potential and its proximity to the proposed site of the Lance Central Processing Plant. The drill density and demonstrated continuity of mineralisation at Kendrick has resulted in a high proportion of inferred resources being upgraded to indicated category.

The revised resource estimate (Table 1) is reported by Resource Areas that correspond with the Ross, Kendrick and Barber Production Units as defined in the Expanded Economic Study (EES). These production areas differ slightly from the historic reporting areas that were known as Ross Permit Area, Ross and Barber. The EES

anticipates the expanded project including Ross, Kendrick and Barber production units feeding a Central Processing Plant with an expandable capacity of up to 3.0Mlbs per annum.

Table 1: Lance Project Classified Resource Summary ( $U_3O_8$ ) March 2012

Resource Classification	Tonnes Ore (M)	U3O8 kg (M)	U3O8 lbs (M)	Grade (ppm U3O8)
Measured	3.6	1.8	4.0	505
Indicated	9.4	4.9	10.7	517
Inferred	35.1	16.7	36.8	475
Total	48.1	23.4	51.5	485

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

The refinement of the exploration model has resulted in the successful targeting and intersection of new roll front high-grade nose positions, and hence a 15% increase in the overall grade from 422ppm to 485ppm U3O8 has been achieved.

Within the three production units have a combined measured, indicated and inferred resources and respective grades and GT's, as follows (Table 2);

- Ross Production Unit 9.0Mlbs U3O8 with an average grade of 525ppm and an average GT of 0.55.
- Kendrick Production Unit 26.1Mlbs U3O8 at an average grade of 480ppm and an average GT of 0.49.
- Barber Production Unit 13.4Mlbs U3O8 at an average grade of 446ppm and an average GT of 0.43

It is anticipated that with further drilling that the Kendrick and Barber Production Units will exceed the grade and GT's recorded at the Ross Production Unit.

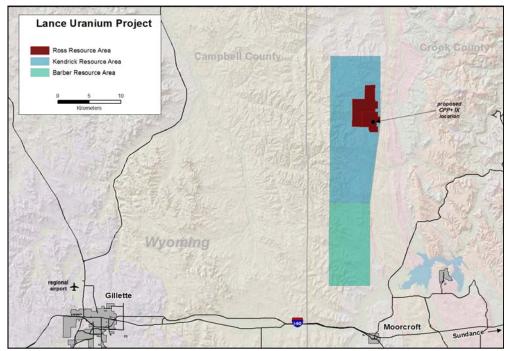


Figure 3: Resource Area Location Map

Table 2: Lance Project Classified Resource by Resource Area (U $_3O_8$ ) March 2012

Ross	Tonnes	Grade (ppm U3O8)	U <sub>3</sub> O <sub>8</sub> lbs	Average Thickness (ft)	Average GT
Measured	2,784,509	510	3,129,569	11.5	0.59
Indicated	4,923,289	534	5,799,077	9.9	0.53
Inferred	109,000	499	120,000	9.8	0.49
Total	7,816,798	525	9,048,646	10.5	0.55

Kendrick	Tonnes	Grade (ppm U3O8)	U <sub>3</sub> O <sub>8</sub> lbs	Average Thickness (ft)	Average GT
Measured	182,236	592	237,861	8.4	0.50
Indicated	2,454,100	579	3,133,199	7.9	0.46
Inferred	24,077,350	484	25,705,724	9.6	0.47
Total	26,713,686	494	29,076,784	9.5	0.47

Barber	Tonnes	Grade (ppm U3O8)	U <sub>3</sub> O <sub>8</sub> lbs	Average Thickness (ft)	Average GT
Measured	636,302	461	647,045	9.0	0.41
Indicated	2,002,184	400	1,765,263	8.4	0.34
Inferred	10,953,788	454	10,957,678	10.	0.45
Total	13,592,274	446	13,369,986	9.7	0.43

Total	Tonnes	Grade (ppm U3O8)	U <sub>3</sub> O <sub>8</sub> lbs	Average Thickness (ft)	Average GT
Measured	3,603,047	505	4,014,475	10.9	0.55
Indicated	9,379,574	517	10,697,540	9.1	0.47
Inferred	35,140,138	475	36,783,402	9.7	0.46
Total	48,122,759	485	51,495,417	9.7	0.47

# Vanadium (V2O5) Resource

As a result of a comprehensive core sampling and assay program in the Ross Resource Area and adjacent Kendrick Resource Area an average U3O8/V2O5 ratio of 2.5:1 was used to define the V2O5 resource of 4.92M lbs V2O5.

The updated vanadium resource for the Ross Permit Area as at March 2012 is summarised in Table 3 below.

Table 3: Classified V2O5 Resource - March 2012

Ross	Tonnes	Grade (ppm V2O5)	V2O5 lbs
Measured	2,784,509	202	1,240,232
Indicated	4,923,289	212	2,298,144
Inferred	109,000	198	47,555
Total	7,816,798	208	3,585,931

Kendrick	Tonnes	Grade (ppm V2O5)	V2O5 lbs		
Inferred	Inferred 2,636,337		1,335,934		
Total	2,636,337	230	1,335,934		

Total	Tonnes	Grade (ppm V2O5)	V2O5 lbs
Measured	2,784,509	202	1,240,232
Indicated	4,923,289	212	2,298,144
Inferred	2,745,337	229	1,383,489
Total	10,453,135	214	4,921,865

#### **Decision to Mine**

On 3 April 2012 the Company advised that it had formally resolved to commence commercial mining operations at the the Lance Projects.

In late 2011, Peninsula announced the results of the Definitive Feasibility Study (DFS) on the Ross Project and Expanded Economic Study (EES) on the greater Lance Projects which confirmed the technical and economic viability of an ISR mining operation at the Lance Projects. These studies were based on planned steady state production of 2.19mlbs U3O8 per annum from three production units (Ross, Kendrick and Barber) within three years of start-up, with the mine plan based on 17.2mlbs recovered U3O8.

Since the completion of these studies and as detailed above, Peninsula commissioned Trec, an independent specialist ISL engineering firm based in Wyoming, who completed an optimised Feasibility Study in May 2012 which upgraded the economic viability of the Lance Projects.

This study was combined with the new resource estimate to produce a revised Feasibility Study, which forms the basis of the debt-funding proposal that has been put to several financial institutions who are currently reviewing the Lance Projects database.

Peninsula is in advanced discussions with these groups and anticipates being in position to finalise the structuring and implementation of such funding in the near term.

### **Drilling Programme**

April to June 2012

During the June quarter Peninsula completed a further 303 development drillholes for a total of 287,960 feet at the Lance Projects. Two rotary mud rigs were engaged during the guarter.

Of the 303 drill holes completed during the quarter, a total of 33 holes encountered mineralisation greater than 0.2GT. A total of 19 holes recorded multiple stacked intersections of uranium mineralisation.

Drilling during the quarter has been focused on converting inferred resources to the indicated category in the planned Kendrick Production Unit located to the west of the Ross Production Unit.

Drilling in this area has targeted the K3, K4, K5 and K6 roll fronts and has recently identified the K5A roll front. The trends from these roll fronts merge in places to produce wide areas of continuous mineralisation. This continuous mineralisation has been identified over a strike length of 5.5 kilometres with horizontal widths in the northern K5 area of up to 60m.

The demonstrated continuity of the K3 roll front is now over 6.7 kilometres, the K4 roll front over 1 kilometre, the K5 roll front over 4.3 kilometres and the K6 roll front over 9.1 kilometres. The combined lineal strike length of the K3, K4, K5 and K6 roll fronts is over 21 kilometres. Drilling is now testing the newly discovered K5A roll front to the east.

The drilling along the Kendrick roll front system is consistently producing thick high grade intercepts which has resulted in its prioritisation due to its resource expansion potential and its proximity to the proposed site of the Lance Central Processing Plant. The drill density and continuity of mineralisation is expected to result in significant levels of inferred resources being upgraded to indicated category.

Current interpretations suggests that there is a total of 312 line kilometres of mineralised roll fronts in the greater Lance Projects and that the delineated mineralisation to date in the Kendrick roll fronts represent only 7% of the estimated mineralised roll front systems within this. As a result of the successful targeting of the roll front nose, the average GT and grade of the resource is expected to increase. As a result of the successful targeting of the roll front nose, the average GT and grade of the resource is expected to increase. Continued drilling in other key areas of the Lance Projects, will target the roll front nose and is expected to deliver uplift in average GT and grade.

The improved GT's and grades at K4 and K5 suggest that the true average grade of the Lance resource, which now comprises a total of 51.5Mlbs<sup>1</sup>, may be higher than previously estimated.

The latest interpretation of the existing database by Peninsula's geological team has identified and priority ranked over 500 follow-up drill targets within the Lance Projects. It is estimated that these drill targets will form the basis for on-going exploration over the next 5-10 years.

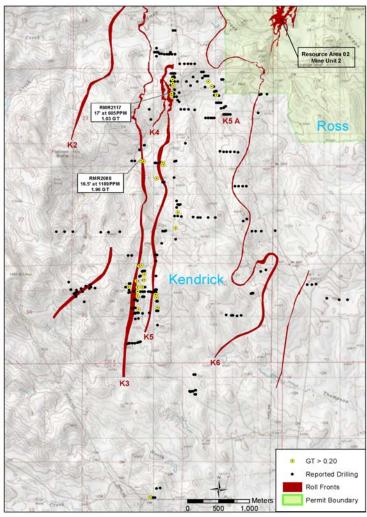


Figure 4: Lance Drilling March 2012 Quarter

The highlights of the drilling during the quarter were (by drillhole):

- RMR2088 which intersected 16.5ft @ 1,189ppm eU₃O<sub>8</sub> (GT 1.96) including a peak intersection of 3.0ft @ 1,970ppm eU₃O<sub>8</sub>,
- RMR2117 which intersected 17.0ft @ 605ppm eU<sub>3</sub>O<sub>8</sub> (GT 1.03) including a peak intersection of 2.5ft @ 3,170ppm eU<sub>3</sub>O<sub>8</sub>; and
- RMR2030 which intersected 35.5ft @ 214ppm eU₃O<sub>8</sub> (GT 0.76) including a peak intersection of 7.0ft @ 550ppm eU₃O<sub>8</sub>.

Two drilling rigs continue to operate at Kendrick with one dedicated to the along strike exploration and one to intersecting the high grade nose of the roll fronts.

Table 4: Best Drilling Results (based on grade thickness > 0.2 ft%), Drill Period April to June 2012 LANCE DRILLING

Hole ID	Local Northing	Local Easting	Depth (ft)	From (ft)	Intercept ft / eU3O8 grade ppm	Peak Concentration Intercept ft eU3O8 grade ppm	Grade Thickness ft%e U3O8
RMR2088	4933547.38	500753.41	960	781.25	16.5'@1189ppm	3'@ 1970ppm	1.96
RMR2117	4934657.23	501240.59	900	802.25	17'@605ppm	2.5'@ 3,170ppm	1.03
RMR2030	4934768.996	501892.343	760	590	35.5'@214ppm	7' @ 550 ppm	0.76
RMR2097	4934885.02	501262.72	920	858.25	27'@252ppm	1'@ 1,120ppm	0.68
RMR2074	4933517.19	501104.61	940	866.25	15'@410ppm	2'@ 2,190ppm	0.62
RMR2093	4934621.57	501241.43	900	788.75	17'@307ppm	2'@ 1,450ppm	0.52
RMR2019	4931690.225	500802.219	1100	1036.75	21'@246ppm	2'@ 1370ppm	0.52
RMR2160	4932440.33	501314.27	1000	842.25	8.5'@598ppm	2'@ 1,640ppm	0.51
RMR2039	4931476.185	500766.663	1140	1087.75	19.5'@260ppm	1'@ 540ppm	0.51
RMR2152	4932697.29	501345.36	1000	888.75	15'@333ppm	2'@ 1,320ppm	0.50
RMR2032	4934855.703	501834.800	760	596.75	16'@280ppm	11'@ 320 ppm	0.45
RMR1957	4931332.516	500694.311	1200	1161.75	7'@590ppm	4'@ 830ppm	0.41
RMR2142	4931301.84	501002.97	1140	1068.75	16.5'@250ppm	2'@ 640ppm	0.41
RMR2116	4931115.61	500710.12	1160	1104.75	17.5'@230ppm	1.5'@ 670ppm	0.40
RMR2080	4933255.76	501005.07	960	856.25	16.5'@243ppm	1.5'@ 820ppm	0.40
RMR2100	4931575.86	500681.91	1140	1102.25	8.5'@470ppm	4'@ 700ppm	0.40
RMR1982	4934630.75	501968.71	760	591	24.5'@163ppm	4'@ 510ppm	0.40
RMR2206	4931141.62	501012.89	1080	1039.25	4'@910ppm	3.5'@1,020ppm	0.36
RMR2130	4931353.02	500988.09	1120	1063.75	20.5'@174ppm	2'@ 550ppm	0.36
RMR2055	4931824.02	500758.04	1140	966.25	13.5'@263ppm	5'@ 560ppm	0.36
RMR2057	4933544.92	500793.31	940	789.75	9.5'@364ppm	6'@ 530ppm	0.35
RMR2120	4931479.09	500553.72	1200	1140.75	12.5'@263ppm	2.5'@ 620ppm	0.33
RMR2220	4928026.62	500892.98	500	322.25	7'@460ppm	1'@ 1,220ppm	0.32
RMR1941	4931404.902	500694.232	1180	1080.75	5'@560ppm	3'@ 700ppm	0.28
RMR1983	4931478.155	500692.825	1160	989.25	32.5'@79ppm	1'@ 540ppm	0.26
RMR1995	4931596.983	500799.863	1100	978.75	12'@200ppm	1.5'@ 640ppm	0.24
RMR2117	4934657.23	501240.59	900	830.75	12.5'@178ppm	0.5'@ 560ppm	0.22
RMR2080	4933255.76	501005.07	960	812.75	12'@184ppm	1'@ 650ppm	0.22
RMR2123	4934776.52	501273.07	940	814.25	13'@169ppm	1'@ 590ppm	0.22
RMR2059	4933485.67	501106.99	980	914.25	12'@181ppm	3'@ 320ppm	0.22
RMR2099	4934818.15	501262.73	940	840.25	9'@241ppm	1.5'@ 810ppm	0.22
RMR2021	4931822.777	500722.052	1140	1035.75	8'@270ppm	5.5'@ 330ppm	0.22
RMR1982	4934630.75	501968.71	760	572.75	4'@530ppm	3'@ 670ppm	0.21

Lance Projects – Mineralised Potential

The Lance Project covers an area of over 120km<sup>2</sup> within which there is a combined total of 312 line kilometres (190 miles) of known stacked roll fronts. Of this total, only a small percentage has been explored, with over 90%

of the drilling concentrated within the more advanced Ross and Barber resource areas. Based on the historic conversion rate from roll front length to a drill-defined resource, the mineralised potential of the Lance Project, which is in addition to the JORC-compliant resource, is assessed at between 104 and 163 Mlbs U3O8. The upgrade in mineralised potential from previous estimates is based on an anticipated grade range of 400ppm to 550ppm U3O8. This grade range approximates the minimum and maximum modelled grades respectively.

Exploration Areas	Tonnes (M)		Grade (ppm U3O8)		U3O8 (Mlbs)	
Range	From	То	From	То	From	То
Total	117.7	134.7	400	550	104	163

### SOUTH AFRICA – URANIUM / MOLYBDENUM EXPLORATION

(Peninsula Energy 74% / BEE Group 26%)



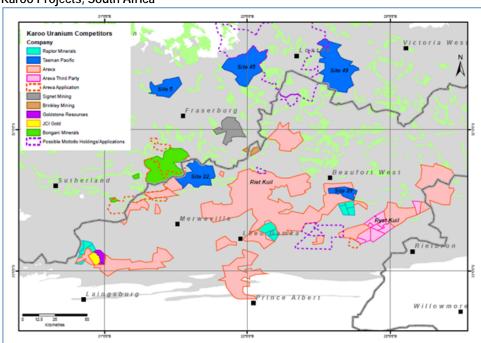


Figure 5: South Africa - Uranium /Molybdenum Project Area Locations

Peninsula's wholly owned subsidiary Tasman Pacific Minerals Limited holds prospecting rights to six project areas in the Karoo region of South Africa. They are designated Site 5 (Fraserburg District), Site 22 (Fraserburg District), Site 29 (Beaufort West District), Site 37 (Cradock District), Site 45 (Loxton District) and Site 49 (Loxton District). Two of the sites (22 and 45) contain resource estimates by the Johannesburg Consolidated Investment Company (JCI) in the early 1980's and one site (29) contains a resource estimate by Union Carbide in the early 1980's.

### Introduction

Approximately 1500 boreholes were drilled by JCI (Site 22 and 45) and Union Carbide (Site 29) during the late 1970's from which historic mineral estimates were derived. The first phase of the Tasman Pacific drilling

programme in the Karoo commenced in 2011 at Site 29 and Site 22 and was focused on a selection of the JCI and Union Carbide drill holes to be re-drilled and logged to determine uranium correlations in order to confirm the historical resources. Further exploration work has identified numerous other untested uranium occurrences at these sites and other sites (Site 5, 49 and 37) and during the current quarter drilling commenced at Site 45. In many cases old boreholes were re-opened and gamma probed for  $eU_3O_8$  values to be determined. Where reverse circulation (RC) or diamond drilling (DD) work was undertaken, the samples were submitted for analysis at an accredited laboratory to verify the gamma probe grades and obtain a value for molybdenum, which is considered to be an important by-product.

The results from the drilling program at Sites 22, 29 and 45 are consistent with the historic drilling results and the Company is of the opinion that they are representative and confirm the presence of high grade uranium mineralisation within the project area. These positive results will now allow the generation of an initial JORC - compliant estimate for the Karoo Projects, scheduled to be completed before December 2012.

#### Site 45

During the quarter the Company received the necessary approvals from the Department of Mineral Resources (DMR) to enable it to commence development drilling of Sites 45 and 49. As at Sites 22 and 29 the drilling program at Site 45 was targeted to confirm the historic mineralisation defined by JCI during the late 1970's.

Site 45 is located 120km northwest of Beaufort West and comprises a contiguous area of 489km². JCI drilled 431 exploration holes at Site 45 which resulted in a mineralisation estimate of 4.8mlbs eU3O8. The historic work returned a grade in excess of 700ppm eU3O8 in two sandstone units contained within the Davidskolk Member of the Abrahamskraal Formation, including maximum values of 4,210ppm eU3O8 and 1,372ppm Mo. This near surface mineralisation occurs in broad, stacked paleochannels with an apparent northwest to southeast trend.

During December 2011 Peninsula field crew were able to undertake non-invasive exploration work in preparation for an extensive drilling campaign. A total of 15 drillholes that were open to the mineralised depth were probed with a gamma tool. This initial program returned results for 13 intersections exceeding 200ppm.

During the quarter the Company completed 65 RC holes and 3 diamond holes for 5,105m (16,745ft). Of these completed holes, a total of 60 holes reported mineralisation greater than 200ppm.

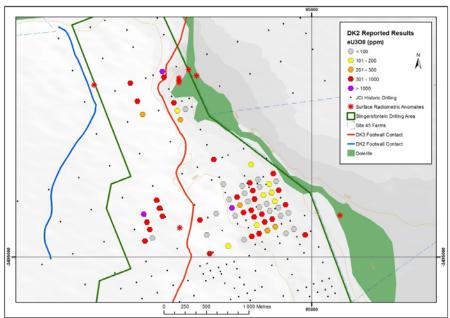


Figure 6: Karoo Project Site 45 - Drillhole Location Plan

The results from the drilling program to date are consistent with the historic drilling results and the Company is of the opinion that they are representative and confirm the presence of high grade uranium mineralisation within the project area.

### Site 22

RC drilling continued at Site 22 during the quarter to further delineate the historic mineralised area of JCI. During the quarter Peninsula completed a further 17 RC drillholes for 1,570m (5,150ft). Of these completed holes, a total of 10 holes reported mineralisation greater than 200ppm.

This drilling is providing further assay data to progress the associated molybdenum evaluation. In addition to validating the historic uranium mineralisation, results to date indicate the potential to delineate significant levels of Molybdenum at Site 22.

The drill results continue to confirm strong high grade mineralisation in paleochannels averaging a thickness of 4.55ft (at 200ppm eU3O8 cut off), which is consistent with the historic results for the project and mineralised zones in the rest of the Karoo.

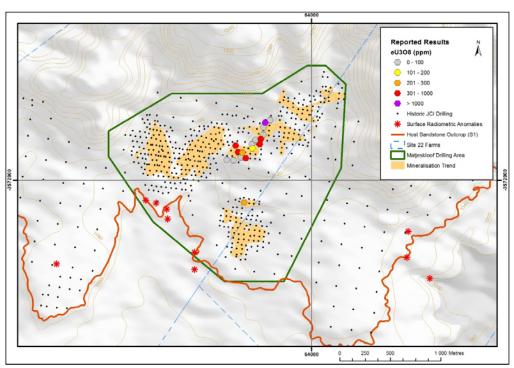


Figure 7: Karoo Project Site 22 - Drillhole Location Plan

During the 1970's JCI estimated the presence of approximately 2.8mlbs eU3O8 in a small part of Site 22 which in total covers 329km². JCI reported an average grade exceeding 1,400ppm eU3O8 with the mineralisation being hosted in the Poortijie Formation.

The full list of significant intersections (>0.2GT) is detailed below in Table 6.

Table 6: Site 22 and 45 - Karoo RC Results for April to June 2012 (based on grade interval > 200 ppm eU<sub>3</sub>O<sub>8</sub>)

Site	Hole-ID	Type	Easting	Northing	Depth (ft)	From (ft)	Interval (ft)	eU3O8 (ppm)
22	06F0927RC	RC	63351	-3571783	311.68	283.46	3.12	856
22	06F0940RC	RC	63543	-3571433	328.08	302.92	1.54	1301
45	SFN0018RC	RC	94030	-3494325	196.85	20.83	4.10	2026
45	SFN0051RC	RC	94508	-3494461	213.25	55.45	4.27	1837
45	SFN0035DD	DD	93242	-3492818	328.08	77.92	4.27	1620
45	SFN0023RC	RC	94503	-3494143	213.25	58.40	4.43	1177
45	SFN0034RC	RC	92952	-3493170	213.25	40.03	8.04	637
45	SFN0016RC	RC	93211	-3494428	196.85	78.74	3.44	1426
45	SFN0015RC	RC	93176	-3494332	180.45	78.08	4.10	1075
45	SFN0045RC	RC	94387	-3494414	213.25	56.27	4.92	879
45	SFN0043RC	RC	94200	-3494477	213.25	155.84	4.43	888
45	SFN0055RC	RC	94449	-3494589	229.66	53.31	3.61	1075
45	SFN0043RC	RC	94200	-3494477	213.25	44.62	5.74	644
45	SFN0014RC	RC	93025	-3494499	164.04	70.37	2.46	1480
45	SFN0044RC	RC	94292	-3494452	393.70	48.56	3.44	1002
45	SFN0007RC	RC	94064	-3494424	196.85	160.10	2.62	1256
45	SFN0027RC	RC	94370	-3494091	213.25	47.90	7.38	385
45	SFN0061RC	RC	94383	-3494726	229.66	177.33	4.59	556
45	SFN0049RC	RC	94324	-3494531	213.25	44.62	1.97	1252
45	SFN0049RC	RC	94324	-3494531	213.25	157.48	1.97	1167
45	SFN0013RC	RC	93063	-3494593	180.45	81.53	2.30	956
45	SFN0200DD	DD	93212	-3494427	328.08	79.40	2.30	923
45	SFN0021RC	RC	94309	-3494220	393.70	177.99	1.80	1165
45	SFN0055RC	RC	94449	-3494589	229.66	159.12	1.80	1155
45	SFN0019RC	RC	94124	-3494297	213.25	36.75	4.27	468
45	SFN0043RC	RC	94200	-3494477	213.25	162.73	2.13	916

### Karoo Projects - Exploration Potential

Results achieved to date are generally very positive and have successfully confirmed the presence of high-grade uranium and molybdenum mineralisation located at depths that can easily be reached by conventional open pit mining.

In addition to the existing resource drilling areas, a total of ten high ranking drill targets distributed across all six of the Company's Project Areas have been prioritised from the 392 uranium occurrences generated by the 2008 helicopter-borne radiometric and magnetic surveys. This process has included site mapping, ground sampling and aerial extent studies of the project areas conducted by Peninsula over the last 3 years.

Preliminary geological studies have estimated a combined exploration potential in the Karoo of 30-60m tonnes @ 700 - 1,400ppm eU<sub>3</sub>O<sub>8</sub> for 90 - 150m lbs eU3O8.

The Company's target over the next 12 months is to delineate 30Mlbs of eU308 (15-25m tonnes @ 700–1,400ppm eU $_3$ O $_8$ ). The source of this material may include the historic mineral occurrences, their extensions and new exploration targets. If this target is achieved a conceptual study has suggested that this quantity of uranium would support the development of a central processing facility near Site 29.

Peninsula expects to complete an initial JORC compliant estimate for the Karoo Projects before December 2012.

### FIJI - RAKIRAKI GOLD PROJECT

(Peninsula Energy 50% / Geopacific Resources NL operator 50%)

All tenement licenses were renewed during the quarter for 12 months effective 1 June 2012. The joint venture operator Geopacific Resources NL is currently preparing budgets and exploration programs for 2012/13.

### **CORPORATE**

### \$11.1m PENOA Option Conversion Completed

On 13 June the Company announced that it had entered agreements with its cornerstone investor, Pala Investment Holdings Limited (Pala), Hartleys Limited and Canaccord BGF Limited (Joint Underwriters) to underwrite the exercise of all Peninsula options expiring on 30 June 2012 with an exercise price of \$0.03 each (PENOA Options).

In combination, the exercise of the PENOA Options by option holders and the underwriting agreements with Pala and the Joint Underwriters resulted in the Company receiving proceeds of \$11.1 million, bringing the total funds raised by the exercise of the PENOA Options to \$12.5 million.

### Appointment of Chief Operating Officer – Peninsula and Chief Executive Officer – Tasman Pacific (RSA)

Peninsula appointed Mr. Glenn Black as Chief Operating Officer of Peninsula and Tasman Pacific with effect from 1 May 2012. Mr Black has 25 years experience in the mining industry in various senior management and operational positions, including extensive experience in engineering, construction, project development and implementation.

Prior to joining Peninsula, Mr. Black worked in various senior positions including the last 14 years at the De Beers Mining Group, most recently at Debswana Diamond Company, the worlds leading producer of diamonds by value, where he held senior construction, engineering and project management positions. Mr Black is a resident of South Africa.

### Appointment of Chief Executive Officer – Strata Energy

During the quarter the Company announced the appointment of Mr. Ralph Knode as Chief Executive Officer of Strata Energy. Mr Knode's appointment commenced on 1 April 2012 and is overseeing all aspects of the Lance Projects.

Mr. Knode has over 20 years of experience in uranium mine construction, mine operations and property evaluation, throughout North America, Kazakhstan and Australia.

Mr. Knode joins Strata from Uranium One Inc, one of the largest publicly traded uranium producers in the world, where he was Senior Vice President of Projects for the past four years. During that time Mr. Knode worked across all Uranium One operations and joint ventures, including overseeing four operating uranium mines in Kazakhstan, as well as the start up of the Honeymoon Uranium mine, Australia's fourth uranium mine.

Prior to joining Uranium One Mr. Knode was with Cameco Corporation and served as Director of Operations and Construction at the Inkai Joint Venture, an In-Situ Recovery project in Kazakhstan between Cameco and Kazatomprom, Kazakhstan's State owned Uranium entity.

Mr. Knode also served as General Manager of Uranium Operations at Power Resources Inc (Cameco subsidiary) from 1999-2005, where he directed mining, well field construction and ground water restoration activities at the Smith Ranch-Highland uranium mine in Wyoming. He also directed the construction of the Inkai test mine in 2001 for parent company Cameco.

Peninsula Energy Limited June 2012 – Quarterly Activities Report Page 15

He was also Vice President, Development at Crowe Butte Resources Inc. (Cameco subsidiary), he was responsible for all development activities including design, procurement and installation of well fields. This included directing test mine and commercial mine construction and subsequent operational activities.

### **Cash Position**

The Company's cash position at the end of the quarter, including commercial bills, bonds and security deposits (and including the full proceeds of the PENOA option exercise) was \$20.35million.

### For further information please contact:

John Simpson Executive Chairman Telephone: +61 9380 9920

#### **Competent Persons Statement**

The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves at the Lance Projects is based on information compiled by Mr Alf Gillman and Mr Jim Guilinger. Mr Gillman is a Fellow of the Australian Institute of Mining and Metallurgy. Mr Gillman is General Manager Project Development and is a Competent Person under the definition of the 2004 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 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'.

The information in this report that relates to Exploration Results and Exploration Potential at Peninsula's Karoo projects is based on information compiled by Mr Alf Gillman and Mr George van der Walt. Mr Gillman is a Fellow of the Australian Institute of Mining and Metallurgy. Mr Gillman is General Manager Project Development and is a Competent Person under the definition of the 2004 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 2004 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 report of the matters based on their information in the form and context in which it appears.

The information in this report that relates to Exploration Results and Exploration Potential at the Raki Raki Project in Fiji is based on information compiled by Dr Ian Pringle, Member of the Australasian Institute of Mining and Metallurgy. Dr Pringle is Managing Director of Geopacific Resources NL. Dr Pringle 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 Gillman, Mr Guilinger, Mr van der Walt and Dr Pringle consent to the inclusion in the report of the matters based on their information in the form and context in which it appears

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

#### Cautionary and Inferred Resources Notices

The FS completed on the Ross Production Unit includes measured and indicated resources within the Ross Project Area, excluding vanadium. The FS includes measured and indicated resources within the remainder of the Lance Projects including an assumed resource conversion of 65% (inferred to indicated or greater) and vanadium in accordance with the ratio of 1:0.4U3O8 to V2O5 mineralisation identified within the permit area.

The FS is based on various assumptions, including homogeneity of the delineated ore body contained within the Lance projects. This is considered reasonable by Company's technical consultants, competent persons and independent external consultants.

The purpose of the FS was to demonstrate the Lance Projects continued economic viability and robustness over an extended life beyond the Ross Production Unit - which is limited to 6.5mlbs recovered U3O8.

In accordance with the relevant regulations governing the disclosure of mineral projects, readers are cautioned that mineable resources based on inferred resource material are considered too speculative geologically to enable them to be classified as reserves.

The FS has included the results of the Lyntek (Inc.) DFS on the Ross Production Unit as part for the FS on the expanded Lance Projects. As such the level of confidence applied to the Ross Production Unit is higher than on the production units at Kendrick and Barber, which subsequently have higher contingencies, applied to them.

In accordance with the relevant regulations governing the disclosure of mineral projects, readers are cautioned that mineable resources based on inferred resource material are considered too speculative geologically to enable them to be classified as reserves.

Disequilibrium Explanatory Statement:  $eU_3O_8$  refers 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.

### <sup>1</sup> Current JORC Compliant Resource Estimate

Resource Classification	Tonnes Ore (M)	U3O8 kg (M)	U3O8 lbs (M)	Grade (ppm U3O8)
Measured	3.6	1.8	4.0	505
Indicated	9.4	4.9	10.7	517
Inferred	35.1	16.7	36.8	475
Total	48.1	23.4	51.5	485

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