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Companies Announcement Office
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SCOPING STUDY SUPPORTS KAROO PRE-FEASIBILITY STUDY

Highlights

- **Scoping Study completed on Karoo Eastern Sector Projects in South Africa**
  - **Preferred development path identified;**
  - **Supports decision to proceed to Pre-Feasibility Study;**
  - **Resource expansion potential.**
- **Pre-Feasibility Study planned to commence in Q4 2013.**
- **Significant upside potential - Karoo Western Sector Projects areas not included in Scoping Study.**

Summary

Peninsula Energy Limited (Peninsula) is pleased to announce that a scoping study has been completed on the Eastern Sector of the Karoo Projects in South Africa (Karoo Projects).

The scoping study was completed by South African based engineering, procurement and construction consultants DRA Mineral Projects (Pty) Ltd (DRA).

Based on the positive results of the scoping study the Company plans to commence a Pre-Feasibility Study (PFS) in Q4 2013. Subject to the positive results from the PFS a Bankable Feasibility Study (BFS) will follow.

Peninsula Executive Chairman Gus Simpson stated "*We are very pleased with the positive results of the Scoping Study which support the belief that the Karoo Projects have the potential to become a second production centre for Peninsula.*"

Cautionary Statement

Please note a Scoping Study is based on low-level technical and economic assessment, 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. The Scoping Study is partially supported by Indicated Resources (56.4%) with the remainder supported by Inferred Resources (43.6%). Also note 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 resources or that the recoverable uranium itself will be realised.

Scoping Study

During the period 1970 -1985 extensive exploration and mineral evaluation has been conducted on the prospecting licenses that now make up the Karoo Projects. The companies that have completed this work include ESSO, Union Carbide, JCI, and Uramin. Within the project areas approximately 10,000 bore-holes have been drilled, several comprehensive mining evaluation studies completed and both trial open-cast and decline mining has been undertaken. Ore from the mining trials was then used in an array of mineral processing studies in an attempt to unlock the extensive mineral potential that the Karoo promises.

The DRA scoping study conducted on behalf of Peninsula includes:

- an interrogation of the JORC resource model and databases
- a review of all previous technical reports
- a review of all previous metallurgical test-work
- a series of optimisation analyses (both open pit and underground) on the Eastern Sector resources

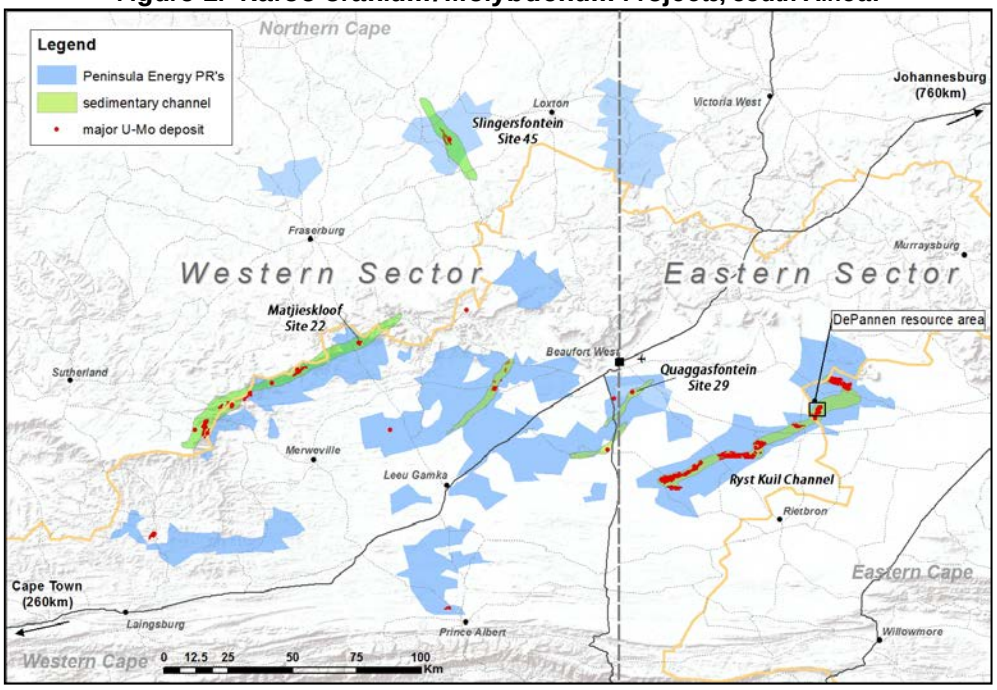
The review of the metallurgical test-work included the development of four process flow options from the acid and alkaline leach results.

The four options were:

1. acid leaching with molybdenum recovery
2. acid leaching without molybdenum recovery
3. alkaline leaching with molybdenum recovery and
4. alkaline leaching without molybdenum recovery

It was established that option 4, (alkaline leaching without molybdenum), was the optimum process design and resulted in the lowest production cost per U_3O_8 pound.

Figure 1: Karoo Uranium/Molybdenum Projects, South Africa.



The key conclusions from the Scoping Study were:-

- it supports the commencement of a full PFS;
- it showed significant potential for extending both the open pit and underground mineral resource that exists within the seven mineralised zones considered; and
- further potential exists in other mineralised zones within the RystKuil channel not included in the study.

A preliminary financial model for the Scoping Study was generated using the following material assumptions:-

- JORC Resource 50.1Mlbs U_3O_8 (classified kriged block model)
- Indicated Resources (56.4%)
- Inferred Resources (43.6%)
- Mine design criteria as determined by DRA
- The UxC long-term mid-point contract price, escalated to 2017

The preliminary financial model indicated that sufficient positive cashflow could be generated over the proposed project life.

Program Going Forward

DRA will now commence with a Mine Works Plan (MWP), using the final outcomes from the scoping study and linking them to the geology and an interactive production schedule to optimise the production ramp up from open pit and underground areas.

The completion of the MWP will allow the submission of the mining license application to the Department of Mineral Resources by the end of the calendar year.

Historical radiometric sorting test work was conducted by Esso through Hazen Research Incorporated and the Atomic Energy Board. This indicated that approximately 60% rejection of "ore material" could be achieved whilst retaining 98% uranium recovery. Subsequent test work conducted by ANSTO indicated that approximately 40-55% rejection of "ore material" could be achieved while still retaining 99% uranium recovery efficiency.

Investigations and test work using the latest radiometric "ore material" sorting technology will be carried out with the aim of minimising low grade ore feed to the process plant.

The successful introduction of the radiometric sorting technology into the metallurgical process flow design could lead to a significant capital and operating cost saving, the quantum of which will be determined during the PFS.

Further acid and alkaline test work to optimise leaching efficiency will be conducted at the Australian Nuclear Science and Technical Organisation (ANSTO). This test work will be vital in determining overall process recoveries and process operating costs.

DRA will also provide detailed input into Peninsula's future drilling efforts aimed at converting inferred resource to indicated status. This will then allow the inclusion of this resource into the PFS. Peninsula anticipates commencing the PFS work in October 2013.

Resource Estimate

In February 2013 Peninsula announced an initial JORC Code 2012 compliant resource estimate of 50.1Mlbs eU_3O_8 at the Karoo Projects* This resource includes an indicated resource of 15.7Mlbs grading 1,020ppm eU_3O_8 at a lower reporting cut off of 600ppm eU_3O_8.

Table 1: Previously Announced Classified JORC Code Compliant Mineral Resource Estimate, Karoo Projects

Classification	eU_3O_8 (ppm) cut-off	Tonnes (millions)	eU_3O_8 (ppm)	eU_3O_8 (million lbs)
Indicated	600	6.9	1,020	15.7
Inferred	600	14.8	1,050	34.4
Total	**600**	**21.7**	**1,040**	**50.1**

The resource estimate was based on a database comprising 7,163 drill holes, together with 1,245 additional holes probed or drilled by Peninsula since 2011, including 16 diamond holes and 730 reverse circulation holes.

Since the completion of the initial resource estimate Peninsula has embarked on a program of converting resources from inferred to indicated status and to deleniate mineralisation that falls inthe Exploration Target. The initial drilling program in this campaign commenced at the De Pannen resource area, located within the Eastern Sector of the Karoo Projects (refer Figure 1 above).

In addition to the above, Peninsula is continuing the down-hole gamma logging program to validate the historic results at the project. As part of the resource delineation process, Peninsula completed a detailed QA/QC study comprising the confirmation of drillhole locations and verification of historic down-hole radiometric logging procedures and results.

Exploration Target

The Karoo Projects cover a significant proportion of the Karoo Basin Permian sandstones, which are believed to represent an Exploration Target of between 250 and 350Mlbs U_3O_8.

Table 2: Karoo Projects Total Exploration Target

Exploration Areas	Tonnes (M)		Grade (ppmU_3O_8)		eU_3O_8 (Mlbs)	
Range	From	To	From	To	From	To
Total	126	133	900	1200	250	350

Please note that in accordance with Clause 17 of the JORC (2012) Code, the potential quantity and grade of the "Exploration Target" 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.

The current Karoo resources are located on two well-defined sedimentary channels that each extends for up 100kms along strike. These channels have been tested both recently and historically with approximately 10,000 exploration drillholes. Along these channels JORC-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 JORC-compliant resource of the RystKuil channel alone, which represents the most completely drilled portion of the resources, comprises 17.2Mt at 1,048ppm eU3O8. This resource tonnage is distributed over a cumulative strike length of 23km representing approximately 0.75Mtonnes/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

Over the next 3-5 years ongoing exploration drilling is proposed to seek to expand the JORC-compliant resource within the Exploration Target areas. This initial 3-5 years program will be focussed on the Eastern Sector RystKuil channel. Testing of the Western Sector Exploration Target areas will commence beyond this time-frame.

Karoo Landholding

Peninsula has a 74% interest in a total of 42 PRs covering 7,800 km² of the main uranium-molybdenum bearing sandstone channels in the Karoo Basin (Figure 1). Peninsula is nearing completion of the acquisition of these prospecting rights, which are subject to conditions precedent as detailed in a previous Karoo ASX announcement. The residual 26% interest remains with the BEE partners as required by South African law.

In the Eastern Sector, Peninsula has freehold ownership over an area of 322 km² which covers a significant proportion of the reported resource and allows unlimited surface access. Additional surface access rights have also been contracted on a further 153km² until 2021. This area is largely contiguous with the freehold land.

Yours sincerely

John (Gus) Simpson
Executive Chairman

For further information, please contact our office on +61(0)89380 9920 during normal business hours.

Competent Person

The information in the report which relates to Mineral Resources 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 report of a summary based upon his information in the form and context in which it appears.

*JORC Table 1 included in announcement to the ASX on 5th February 2013: 50.1MILLION POUND MAIDEN JORC CODE-COMPLIANT RESOURCE AT KAROO PROJECTS

The information in this report which relates to Geology and Exploration Target is based on information compiled by Mr George van der Walt. 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 Geo-Consult International (Pty) Ltd. 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'. Mr van der Walt consents to the inclusion in the report of a summary based upon his information in the form and context in which it appears.

Where eU3O8 results are reported, it relates to values obtained from radiometric logging of drillholes. GeoVista and Geotron equipment was used and all the probes were calibrated at the IAEA accepted Pelindaba Calibration facility in South Africa with calibration certificates supplied by Geotron Systems (Pty) Ltd, a geophysical consultancy based in South Africa.

All eU3O8 values reported may be affected by issues such as possible disequilibrium and uranium mobility which should be taken into account when interpreting the results, pending confirmatory chemical analyses. Disequilibrium Explanatory Statement: eU3O8 refers to the equivalent U3O8 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 U3O8, the difference being referred to as disequilibrium.