25th July 2012

Companies Announcement Office
Via Electronic Lodgement

NEW ROLL FRONT SYSTEM DISCOVERED AT LANCE PROJECTS

Highlights

- **New mineralised roll fronts discovered**
- **Significant Intercepts include:**
  - **27.5 ft @ 300ppm** eU_3O_8 **(GT 0.83)** including **3.5 ft @ 700ppm** eU_3O_8
  - **23.0 ft @ 330ppm** eU_3O_8 **(GT 0.76)** including **15.0 ft @ 420ppm** eU_3O_8
  - **45.0 ft @ 167ppm** eU_3O_8 **(GT 0.75)** including **6.0 ft @ 300ppm** eU_3O_8
  - **8.5 ft @ 598ppm** eU_3O_8 **(GT 0.51)** including **2.0 ft @ 1,640ppm** eU_3O_8
- **Drilling at Kendrick upgrading inferred resource to indicated category**
- **Combined lineal strike length of K3, K4,K5 and K6 roll fronts over 22km**
- **Drilling returns high grades, thick intervals and continuity of mineralisation**

Summary

Peninsula Energy Limited **(Peninsula)** is pleased to announce that it has completed a further 150 drill holes during the period from 13th June to 19th July for a total of 135,620 feet at the Lance Projects.

A total of 105 holes encountered mineralisation >100ppm and 5 holes reported multiple zones of stacked uranium. A total of 19 holes reported GT (Grade-Thickness) values exceeding 0.2.

This drilling 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.

The recent drilling has also discovered a new mineralised roll front K5C, over a strike length of 500m and a 400m northern extension to the existing K4 roll front system. In the southern part of the Kendrick area (historically known as Chatterton) 10 GT intersections exceeding 0.20 were reported in 3 new roll fronts. Further drilling will test both the northern and southern extensions of this new roll front system.

Drilling in the area has previously identified the K3, K4, K5, K5A and K6 roll fronts. These roll fronts merge in places to produce wide areas of continuous mineralisation. This continuous mineralisation has been identified over a combined strike length of 22 kilometres with horizontal widths of up to 60m in the northern K5 area.

The demonstrated continuity of the K3 roll front is now over 7 kilometres, the K4 roll front over 1 kilometre, the K5 roll front over 4.3 kilometres and the K6 roll front over 9.2 kilometres. The combined lineal strike length of the K3, K4, K5 and K6 roll fronts is over 22 kilometres.

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.

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.

Drilling Program

In November 2011 the Kendrick area to the west of the Ross Production Unit was targeted for exploration as success in this area could support a second ion exchange (IX) circuit within the central processing plant.

Since drilling commenced in the Kendrick area, the Company has reported 122 intersections exceeding 0.2 GT, of which 11 exceeded 1.0 GT. All mineralised holes have been logged using prompt fission neutron (PFN) methods to negate potential disequilibrium effects.

During the period 13th June 2012 to 19th July 2012 a further 150 holes were completed in this area and 105 holes encountered uranium mineralisation (> 100ppm) and 19 holes reported GT values exceeding 0.2. The location of the drilling is shown in Figure 1 below.

The drilling along the Kendrick roll front system is consistently producing thick high grade intercepts. The continuity of mineralisation is expected to result in significant levels of inferred resources being upgraded to indicated category.

The most recent drilling has discovered a series of new mineralised roll fronts including K5C, over a strike length of 500m and a 400m northern extension to the existing K4 roll front system (K3B), refer Figure 1.

In the southern part of the Kendrick area (historically known as Chatterton) 10 GT intersections exceeding 0.2 were reported in up to 3 separate roll fronts. These roll fronts may represent the southern extensions of the K3 and K5 roll fronts. Further drilling will test both the northern and southern extensions of these new roll fronts.

The demonstrated continuity of the K3 roll front is now over 7 kilometres, the K4 roll front over 1 kilometre, the K5 roll front over 4.3 kilometres and the K6 roll front over 9.2 kilometres. The combined lineal strike length of the K3, K4, K5 and K6 roll fronts is over 22 kilometres.

As indicated in Figure 1, the K4 and K5 trends merge towards the north producing wide areas of continuous mineralisation. They also appear to be strike-parallel to the K3 roll front system with its consistent high grade and thickness; this has significant implications for the resource potential of the Kendrick area.

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.

The successful targeting of the roll front nose is expected to increase the average grade and GT of the resource in other key areas of the Lance Projects.

Figure 1: Kendrick Area Location Map Showing Location of Significant Results

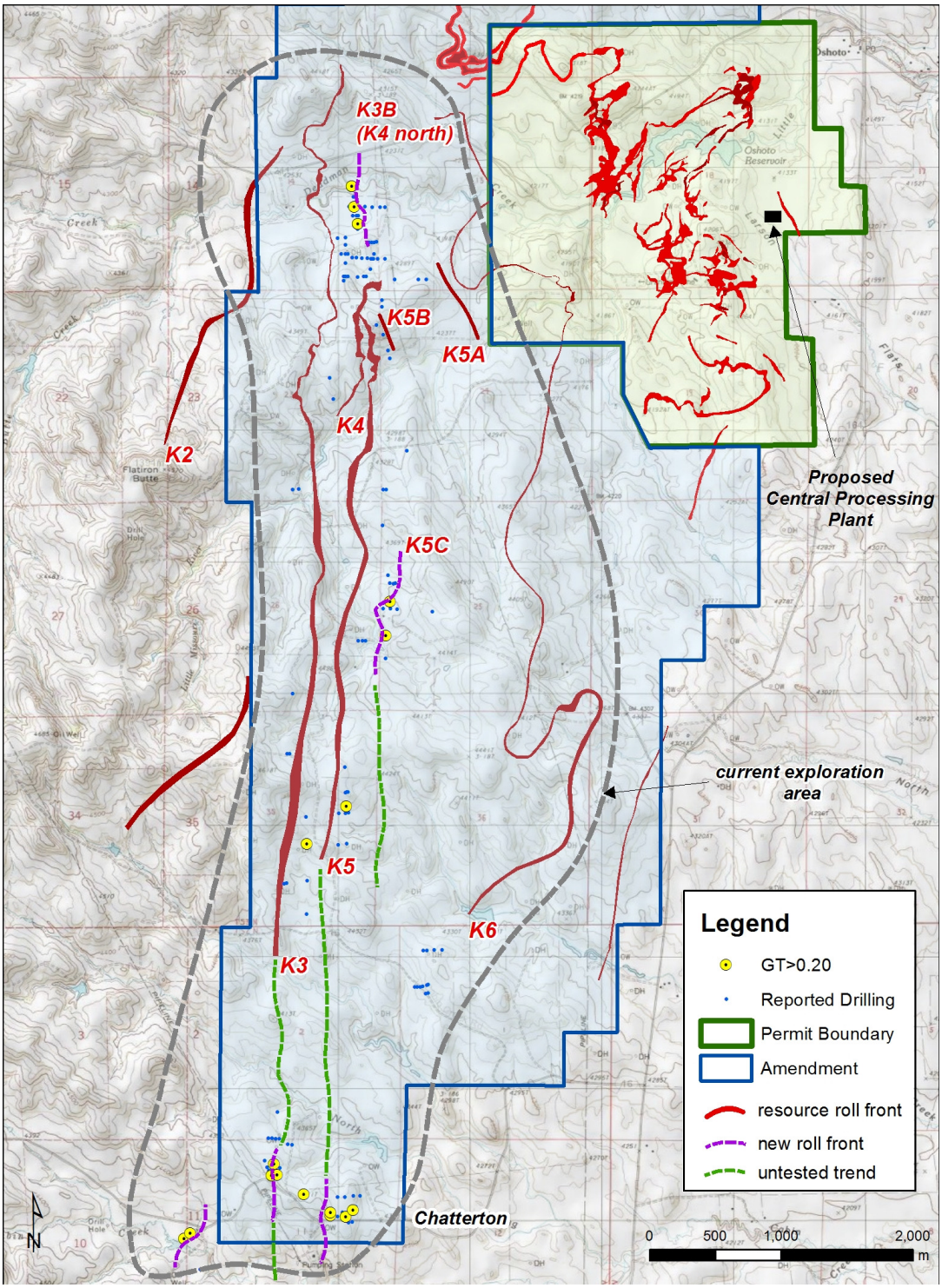

TABLE 1: Drilling Results (>0.2GT) Kendrick 13 June 2012-19 July 2012 (PFN Measurement)

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% eU3O8
RMR2284	501100	4935570	820	733.8	27.5'@300ppm	3.5'@700ppm	0.83
RMR2270	501075	4935697	800	742.3	23'@330ppm	15'@420ppm	0.76
RMR2211	501011	4928019	500	263.8	45'@167ppm	6' @ 300ppm	0.75
RMR2239	501066	4928068	500	294.3	22'@243ppm	1'@550ppm	0.53
RMR2160	501314	4932440	1000	842.3	8.5'@598ppm	2'@1640ppm	0.51
RMR2152	501345	4932697	1000	888.8	15'@333ppm	2'@1320ppm	0.50
RMR2284	501100	4935570	820	686.3	23'@198ppm	5'@350ppm	0.46
RMR2292	501056	4935855	800	750.8	19.5'@223ppm	6'@420ppm	0.43
RMR2292	501056	4935855	800	720.3	20'@205ppm	6.5'@300ppm	0.41
RMR2221	500464	4928422	1100	1050.8	11'@369ppm	3'@750 ppm	0.41
RMR2206	501013	4931142	1080	1039.3	4'@910ppm	3.5' @ 1020 ppm	0.36
RMR2220	500893	4928027	500	322.3	7'@460ppm	1'@1220ppm	0.32
RMR2249	499782	4927852	1180	1046.3	13'@230ppm	4.5' @ 350 ppm	0.30
RMR2247	499828	4927894	1180	1047.8	13'@210ppm	1.5' @ 360 ppm	0.27
RMR2265	500690	4928188	1100	989.3	13'@205ppm	3'@410ppm	0.27
RMR2233	500447	4928332	1160	1061.8	15'@174ppm	2.5'@360ppm	0.26
RMR2235	500488	4928335	1140	1008.8	8.5'@270ppm	1.5'@660ppm	0.23
RMR2236	500713	4930852	1160	84.3	4'@540ppm	2.5' @ 750ppm	0.22
RMR2259	500895	4928052	500	328.3	12'@169ppm		0.20

Conclusion

Peninsula is pursuing a strategy of converting inferred resource to indicated resource as well as undertaking regional exploration that aims to delineate the mineralised portions of over 312 lineal kilometres (194 linear miles) of mapped redox boundaries. To date regional exploration is proving very successful in identifying mineralisation in these roll front systems and drilling will continue to target areas that can add to the existing resource inventory[1].

Yours sincerely

John (Gus) Simpson
Executive Chairman

For further information, please contact our office on (08) 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 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'. Both Mr Gillman and Mr Guilinger consent to the inclusion in the report of the matters based on their information in the form and context in which it appears.

U_3O_8 grades quoted in this document are obtained from the prompt fission neutron (PFN) down-hole probe and are not subject to disequilibrium effects.

[1] Current JORC Compliant Resource Estimate

Resource Classification	Tonnes Ore (M)	eU_3O_8 kg (M)	eU_3O_8 lbs (M)	Grade (ppm eU_3O_8)
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)