



15th October 2012

Companies Announcement Office
Via Electronic Lodgement

HIGH GRADE DRILL RESULTS CONTINUE AT LANCE PROJECTS

Highlights

- **Significant Intercepts include:**
 - **42.5 ft @ 322ppm eU₃O₈ (GT 1.37)** including **2.0 ft @ 1,150ppm eU₃O₈**
 - **6.5 ft @ 1,780ppm eU₃O₈ (GT 1.16)** including **6.0 ft @ 1,910ppm eU₃O₈**
 - **25.5 ft @ 429ppm eU₃O₈ (GT 1.09)** including **1.0 ft @ 1,690ppm eU₃O₈**
 - **18.0 ft @ 2500ppm eU₃O₈ (GT 0.90)** including **2.0 ft @ 1,150ppm eU₃O₈**
- **Drilling at Kendrick upgrading inferred resource to indicated category**
- **Drilling further defines southern extensions of existing mineralised roll fronts**
- **Drilling continues to return high grades, thick intervals and continuity of mineralisation**
- **Monitoring well installation commences at Kendrick Production Unit**

Summary

Peninsula Energy Limited (**Peninsula**) is pleased to announce that it has completed a further 112 drill holes during the period from 25th August to 5th October 2012 for a total of 118,300 feet at the Lance Projects.

A total of 72 intersections >100ppm were obtained and 11 holes reported multiple zones of stacked uranium. A total of 23 holes reported GT (Grade-Thickness) intersections 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 further defined the roll front trends in the Mellot Ranch area. As shown in Figure 1, indications are that the M3 and M4 roll front trends represent the southern extensions of the K3 and K5 trends located in the central Kendrick area.

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 now 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 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.

In addition to this resource expansion drilling, Peninsula has completed a series of diamond core holes within the existing permit area, with the samples to be used for further metallurgical studies. These holes have returned thick intervals of uranium mineralisation further confirming the potential within and adjacent to the Ross Production Unit.

Strata has suspended resource drilling for several weeks as it completes multiple clusters of aquifer monitoring wells as part of the Mine Permit extension process. This process is being undertaken to include the Kendrick Production Unit in the mine planning schedule going forward.

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.

During the period 25th August to 5th October 2012 112 holes were completed in this area and 72 intersections >100ppm were obtained and 23 holes reported GT values exceeding 0.2. The location of the drilling is shown in Figure 1 below.

The most recent drilling has further defined the southern extensions of the K3, K4 and K5 roll fronts (towards the Mellot Ranch area in the southern portion of the amendment area). The roll fronts in the Mellot Ranch area consist of mineral deposits in sands belonging to the Lower Fox Hills Formation, together with the sands of the Lower Lance Formation. In addition shallower roll front trends (M5) have been identified in two distinct sands in the Upper Lance Formation.

Within the Fox Hills Formation the sands contain continuous mineralised roll fronts, with stacked roll fronts occurring in the 'A' and 'B' horizons. Indications are that the M3 and M4 trends, as shown in Figure 1, represent the southern extensions of the K3 and K5 trends located in the central Kendrick area.

Peninsula has also completed a series of diamond core holes within the existing permit area, with the results to be used for further metallurgical studies. These holes have returned thick intervals of stacked uranium mineralisation which is indicative of the area within the Ross production unit.

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 and development over the next 5-10 years.

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

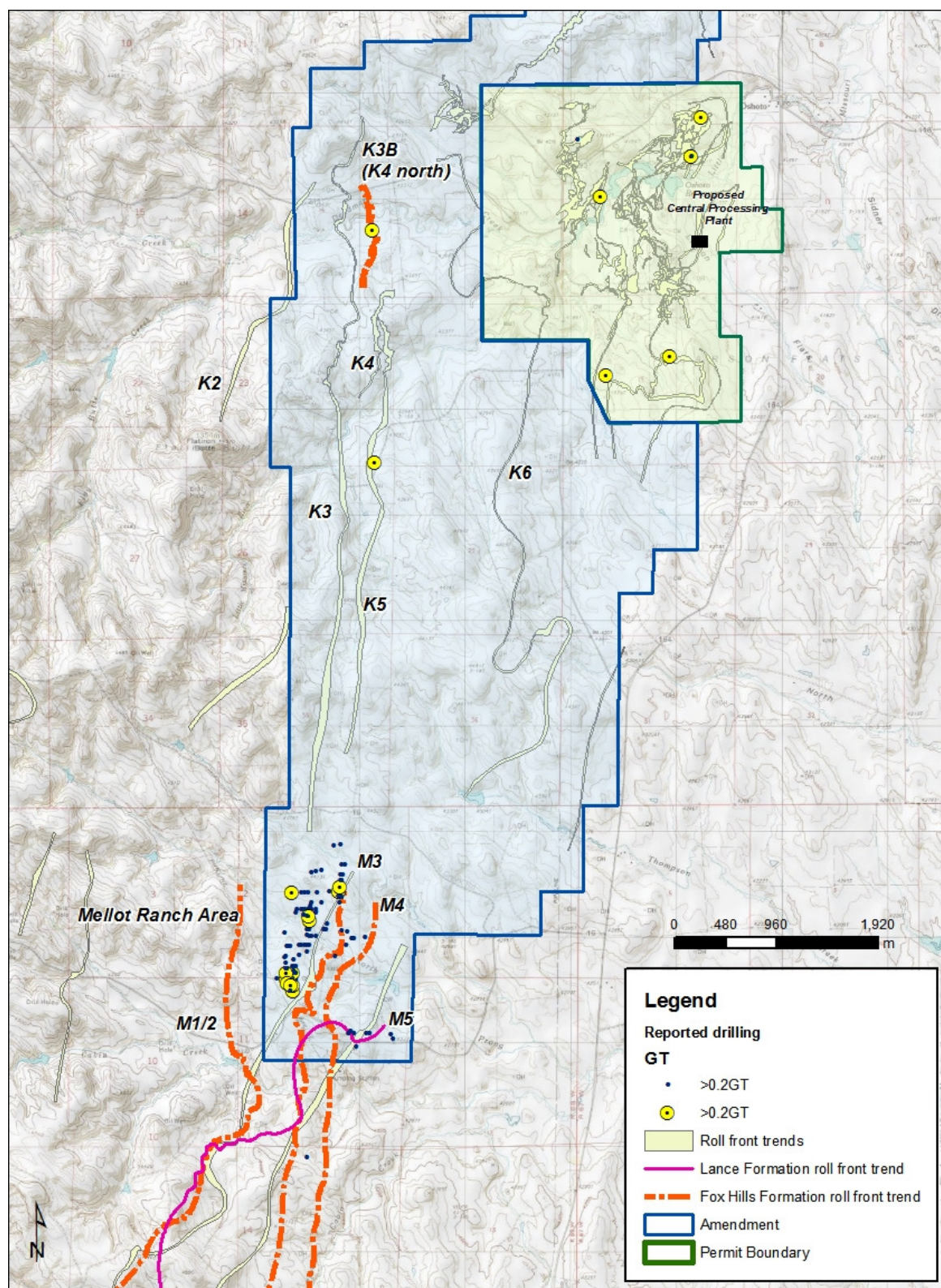


TABLE 1: Drilling Results (>0.2GT) Kendrick 25 August - 5 October 2012 (PFN Measurement)

Hole Type	Hole ID	Northing	Easting	Total Depth (ft)	From (ft)	Intercept ft over PFN U3O8 grade ppm	Peak Concentration Grade	GT
core	RMRD0035	4935703	501074	820	738.8	42.5'@322ppm	2'@1150ppm	1.37
core	RMRD0029	4936399	504096	395	382.8	6.5'@1780ppm	6'@1910ppm	1.16
core	RMRD0034	4934508	503897	560	502.3	25.5'@429ppm	1'@1690ppm	1.09
RM	RMR2524	4928535	500286	1160	1037.8	18'@500ppm	2'@1150ppm	0.90
core	RMRD0036	4933491	501100	1000	881.3	21.5'@285ppm	2.5'@1250ppm	0.61
RM	RMR2507	4928532	500302	1180	1039.8	12.5'@480ppm	3.5'@650 ppm	0.60
RM	RMR2456	4929195	500475	1040	926.3	14'@426ppm	5.5'@385ppm	0.60
RM	RMR2483	4928598	500261	1160	1036.3	14.5'@406ppm	2'@1070ppm	0.59
RM	RMR2425	4928534	500329	1140	1020.8	16.5'@314ppm	11.5'@400ppm	0.52
RM	RMR2497	4928556	500276	1160	1037.5	23'@209ppm	6.5' @ 450 ppm	0.48
core	RMRD0033	4934319	503288	600	484.3	14.5'@320ppm	1' @560 ppm	0.46
RM	RMR2474	4929472	500774	1080	917.8	11.5'@381ppm		0.44
RM	RMR2448	4929146	500480	1080	928.3	9'@470ppm	4'@700ppm	0.42
core	RMRD0031	4936019	503242	560	533.8	8'@480ppm	7.5' @500 ppm	0.38
core	RMRD0030	4936766	504197	500	412.3	11'@270ppm	9.5'@290 ppm	0.30
RM	RMR2452	4929426	500761	1080	916.3	6'@470ppm	1'@960ppm	0.28
RM	RMR2518	4929416	500317	1120	81.3	9'@300ppm	6.5'@360ppm	0.27
RM	RMR2449	4928654	500328	1120	999.8	20.5'@128ppm	3'@340ppm	0.26
RM	RMR2421	4928477	500321	1160	1043.3	11'@229ppm	3.5'@510ppm	0.25
RM	RMR2522	4928482	500276	1200	1064.3	8'@290ppm		0.23
RM	RMR2489	4928648	500263	1140	1025.8	7.5'@280ppm	3.5'@390ppm	0.21
RM	RMR2486	4928746	500247	1160	1020.0	10'@199ppm	2' @ 410 ppm	0.20

Monitor well drilling

Strata has suspended resource drilling for several weeks as it completes multiple clusters of aquifer monitoring wells as part of the mine permit extension process. This program is being undertaken to include the Kendrick Production Unit in the mine planning schedule going forward. This process, whilst rigorous, will be completed relatively quickly as it is technically an extension to the Ross Permit to Mine (post grant) and much of the data aggregation already completed is applicable to it.

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 inventory¹.

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 Guiling. 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 Guiling 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 Guiling is Principal of independent consultants World Industrial Minerals. Both Mr Gillman and Mr Guiling 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 Guiling consent to the inclusion in the report of the matters based on their information in the form and context in which it appears.

U₃O₈ 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 ₃ O ₈ kg (M)	eU ₃ O ₈ lbs (M)	Grade (ppm eU ₃ O 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)