



28 April 2011

Australian Stock Exchange Limited (ASX)
Company Announcements Platform

Via e-lodgement

**31 MARCH 2011
QUARTERLY ACTIVITIES REPORT
HIGHLIGHTS**

WYOMING, USA - LANCE URANIUM PROJECTS

- Deep Disposal Well Permit Granted
- Uranium Sales Agreement Signed
- WDEQ Confirms Permit to Mine Application Complete
- 31% Resource Upgrade to 33Mlbs U₃O₈
- High Grade Results from Resource Upgrade Drilling Continue

SOUTH AFRICA – URANIUM / MOLYBDENUM EXPLORATION

- Historic Mineralisation confirmed at Site 22 and 29
- Ongoing Drill Program Intersects High Grade Uranium and Molybdenum

CORPORATE

- Placement to Pala Investments and other Institutional Investors completed
- PEN admitted to the S&P/ASX All Ordinaries Index
- Cash at 31 March 2011 \$31.3m

WYOMING, USA – LANCE PROJECTS

(Peninsula Energy 100%)

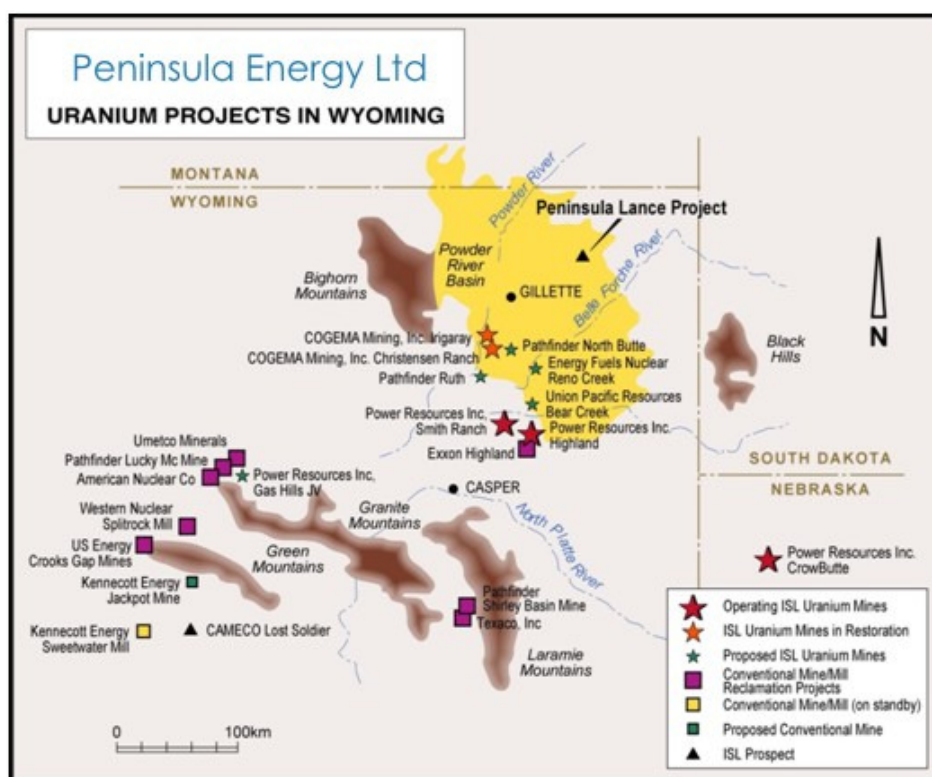


Figure 1: Lance Projects location, Wyoming USA

Deep Disposal Well Permit Granted

On 13 April 2011 Peninsula, through its wholly owned subsidiary Strata Energy Inc (Strata), received approval from the Wyoming DEQ (WDEQ) for the construction and testing of Underground Injection Control (UIC) Class 1 wells at the Lance ISR Project (Lance or Lance Projects).

The UIC permit is the first of three main licenses the Company requires to be granted for it to commence mining operations at Lance, and a license that has caused delays for other developers in the region. This deep disposal well (DDW) license allows Strata to construct and test five such wells in the Ross Permit area. The DDWs will be used to inject low-level wastes into an isolated rock formation at a depth in excess of 8,000 feet below the surface. It is anticipated that these will meet the water management requirement of an ISR operation at Ross.

The issuance of the UIC permit follows a review by both the WDEQ and United States Environmental Protection Agency (USEPA) as well as a public notification and comment period, and is the culmination of 30 months of detailed environmental, geological and hydrological data gathering and analysis by Strata.

Uranium Sales Agreement Signed

On 15 February 2011 Peninsula signed a long term sale agreement to supply 1,150,000 lbs of uranium oxide (U_3O_8) from the Lance Projects. During 2010 Peninsula had engaged key utility and end user groups with the aim of securing long term sale agreements, and after a detailed negotiation process Peninsula agreed to terms that secure the sale of U_3O_8 from Lance at escalated fixed price, quantity and term. The weighted average contract pricing over the term of the contract is consistent with the average term price used in the PFS. The terms of the sale agreement will see Peninsula supply U_3O_8 over a period of 7 years.

Negotiations continue with other groups involved in the nuclear power industry.

WDEQ Confirms Permit to Mine Application Complete

On 13 January 2011 Peninsula completed its second major regulatory milestone with the submission of its application to the Land Quality Division of the Wyoming Department of Environmental Quality (WDEQ/LQD) for a permit to mine.

The application requests authorisation from the State of Wyoming to construct and operate an ISR facility near Oshoto, in north-eastern Wyoming.

The Permit to Mine application, along with the Combined Source and 11e.(2) Byproduct Material License application lodged on 31 December 2010, are the two key regulatory permits required for the development and commencement of production at Peninsula's proposed Ross ISR project.

On 14 March 2011 the WDEQ/LQD deemed Strata's Permit to Mine application complete and adequate for technical review. The WDEQ/LQD completed its review nearly two weeks ahead of statutory timeframes. Based on these statutory requirements Strata now anticipate technical comments to the application by 24 July 2011. The confirmation also allowed Strata to initiate the public notification process to the proposed mining site.

Resource Upgrade to 33Mlbs U₃O₈

On 2 February 2011 Peninsula announced a further upgrade to the JORC-compliant Resource Estimate for the Lance Projects. This upgrade was achieved through the completion of an additional 223 drill holes for 136,425 feet (41,582m).

The revised JORC compliant resource estimate of 32.95Mlbs U₃O₈ represented a 31% increase to the existing resource estimate including a 14% increase in Measured and Indicated Resource.

In addition, Peninsula announced an initial vanadium resource in the Ross Permit Area of 1.7Mlbs V₂O₅.

Table 1: Lance Project Updated Resource Estimate – January 2011

Resource Classification	Tonnes Ore (M)	U ₃ O ₈ kg (M)	U ₃ O ₈ lbs (M)	Grade (ppm U ₃ O ₈)
Measured	3.7	1.7	3.8	472
Indicated	7.0	3.0	6.7	434
Inferred	22.6	10.2	22.5	450
Total	33.3	14.9	32.9	449

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

Note figures may not sum due to rounding.

The resource was calculated by applying a combined constraint of a grade thickness product (GT) of 0.2 contour and 200ppm U₃O₈. These lower cut offs are considered to be appropriate for both calculating and reporting of In-Situ Recovery (ISR) resources at the Lance Projects.

The measured, indicated and inferred resources are located in confined aquifers, (which are a requirement for successful ISR mining) that have demonstrated positive ISR recovery test-work.

Geological modeling of the extensive downhole geophysical data accurately defined the impermeable shales and mudstones that form the confining seals to the mineralised aquifers.

At Ross (including the Ross Permit Area) there is a now a combined measured, indicated and inferred resource of 22Mlbs U₃O₈, an increase of 36% from the updated August 2010 estimate. Within the Ross Permit Area the combined measured, indicated and inferred resource totals 5.8Mlbs U₃O₈ at an average grade of 478ppm and an average GT of 0.47.

A further 192 exploration holes have been drilled since the cut-off date for the January 2011 resource estimate, producing 49 separate GT intersections that exceed 0.2GT together with 65 additional intersections that contain mineralisation in excess of 200ppm U₃O₈. These results will add further to the resource base and clearly demonstrate the ongoing growth potential of the project.

Exploration drilling along interpreted redox-boundaries has produced very successful results particularly in the area immediately north west of the permit area. In addition to upgrading inferred resources to indicated, these results have confirmed the robustness of the inferred resource model such that additional inferred classifications have been applied to redox fronts that have been defined by previous drilling.

Table 2: Lance Project U₃O₈ Resource Estimate by Area and Category

Ross	Tonnes	Grade (ppm U₃O₈)	U₃O₈ (lbs)	Average Thickness (ft)	Average GT
Measured	3,025,370	475	3,166,302	10.5	0.51
Indicated	4,986,045	447	4,916,076	11.3	0.50
Inferred	13,984,175	450	13,873,406	10.4	0.47
Total	21,995,589	453	21,955,784	11.6	0.55

Barber	Tonnes	Grade (ppm U₃O₈)	U₃O₈ (lbs)	Average Thickness (ft)	Average GT
Measured	636,302	461	647,045	8.6	0.40
Indicated	2,002,184	400	1,765,263	7.7	0.31
Inferred	8,649,427	450	8,580,915	7.5	0.31
Total	11,287,913	442	10,993,223	7.6	0.32

Vanadium Resource

During the quarter Peninsula completed a representative core sampling program over the Ross Permit Area resource in order to obtain sufficient data to define a vanadium resource. The initial calculated vanadium resource for the Ross Permit Area is summarised in Table 3 below.

Table 3: Initial Vanadium Resource

Ross Permit Area	Tonnes	Grade (ppm V₂O₅)	V₂O₅ (lbs)
Measured	2,354,081	145	749,913
Indicated	3,052,008	143	960,516
Inferred	115,962	135	34,513
Total	5,522,051	143	1,744,942

Core sampling outside the Ross Permit Area is currently planned, with the objective of expanding this initial Vanadium resource. Initial metallurgical test work completed by Lyntek and operating results from the R&D plant in the late 1970's has demonstrated that vanadium can be extracted successfully as a by-product concurrent with uranium production. More exhaustive metallurgical tests are underway.

Drilling Programme

Ross Drilling – January to March 2011

During the March quarter Peninsula completed a further 159 development drillholes for a total of 117,080 feet at the Ross Project.

The highlights of the drilling during the quarter were drillhole RMR0903 which intersected **27.5ft @ 518ppm U₃O₈ (GT 1.42)** including a peak intersection of **5ft @ 2,300ppm**, drillhole RMR0889 which intersected **23.5ft @ 418ppm U₃O₈ (GT 0.98)**, drillhole RMR0880 which intersected **21ft @ 392ppm U₃O₈ (GT 0.82)** and drillhole RMR0859 which intersected **21ft @ 378ppm U₃O₈ (GT 0.79)**.

Of the 159 drill holes completed at Ross during the quarter, a total of 82 holes encountered significant mineralisation. A total of 42 holes recorded multiple stacked intersections of uranium mineralisation.

Current drilling at Ross is testing extensions of the known mineralised zones identified by the 3D geological model, enhancing the grade and definition of the current 33,295,000 lb U₃O₈ JORC compliant resource and upgrading existing inferred resources to indicated status.

The focus of the drilling during the quarter was within and adjacent to the resource zones in the Ross Permit area, (predominantly in Sections 12, 13, 18 and 19 as shown in Figure 2), and stepping out in the more sparsely drilled zones of Section 6, 7 and 24.

As shown in Figure 2, a series of holes were completed in the southern parts of Section 12 (north-west of the Ross Permit area) during the quarter and have confirmed a strong stacked roll front system along a previously inferred mineralised trend as well as extending this trend a further 1,200m along strike. A feature of this area is the almost coincident nature of the lower A Horizon and the upper B Horizon roll fronts. The latest drilling has defined a more northerly trend to the roll front system.

The drilling results for the quarter include 36 separate intersections with GT greater than 0.2ft/% (Refer Table 1). The vast majority of these intersections are located outside the existing measured/indicated resource boundaries and will therefore expand the resource base.

These results signify an increased percentage of ore grade holes. This is due to an ever improving geological model which forms the basis of on-going drill planning. Peninsula are pursuing a strategy of converting inferred resources to indicated resources as well as undertaking regional exploration that will locate the mineralised portions of over 320 lineal kilometres of mapped redox boundaries.

During the current quarter two rotary mud rigs are engaged full-time in the northern Ross area to undertake both resource conversion and exploration drilling. It is expected that a third rig will be engaged to concentrate on identifying additional uranium mineralisation in the Barber area.

The intersections shown in Table 4 also highlight the thick intervals of stacked uranium mineralisation present in the western parts of Ross. Previous metallurgical testing demonstrates very high recoveries in zones of this nature providing further support for the economic potential of this area.

On-going drilling is intended to both enhance the grade and definition of the existing drill-defined resources at the Ross and Barber production areas and continue to convert areas of mineralised potential into JORC-compliant resources. The positive results to date, along with the recent permitting milestones achieved, provide further confidence that mining will commence within the targeted time-frame with production continuing over an extended mine-life.

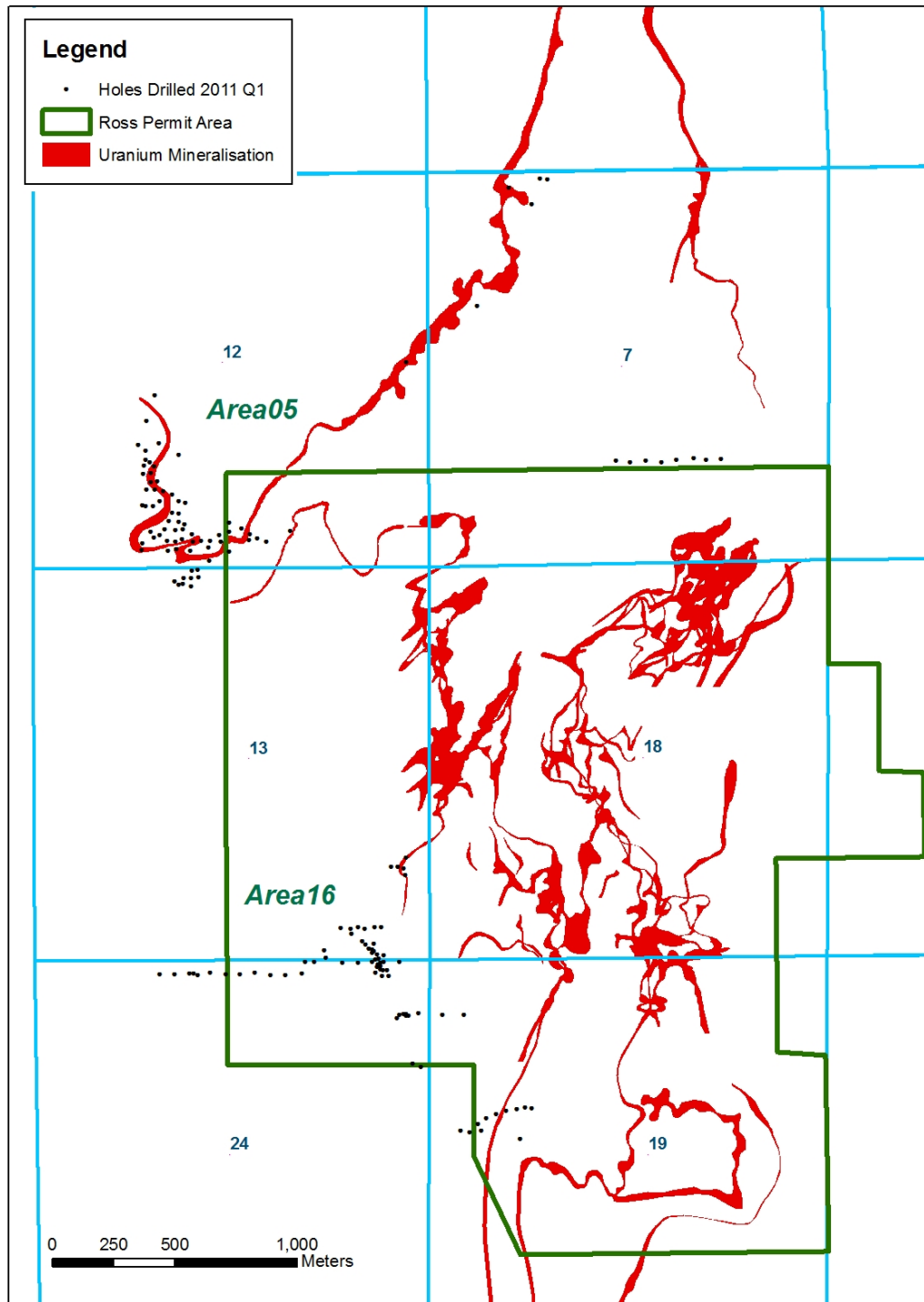


Figure 2: Ross Production Area Location Plan

A summary of the best drilling results at Ross during the quarter (based >0.2 GT) is shown in Table 4 below.

Table 4: Best Drilling Results (based on grade thickness > 0.2 ft%), Drill Period Oct to Dec 2010 ROSS DRILLING

Hole ID	Local Northing	Local Easting	Depth (ft)	From (ft)	Intercept ft / PFN U3O8 grade ppm	Peak Concentration Intercept ft / PFN U ₃ O ₈ grade ppm	Grade Thickness ft% U ₃ O ₈
RMR0810	4936763	501753	820	710.25	15.5'@139ppm	2.5'@290ppm	0.22
RMR0813	4936761	501861	820	724.75	8.5'@237ppm	3'@370ppm	0.20
RMR0819	4936847	501847	820	689.25	30'@256ppm	1.5'@570ppm	0.77
RMR0824	4938286	503386	580	425.75	11.5'@360ppm	2.5'@580ppm	0.41
RMR0827	4936801	501858	820	714.25	8'@820ppm	6' @ 1000ppm	0.66
RMR0831	4936825	501826	820	694.75	6'@730ppm	4.5' @ 930ppm	0.44
RMR0834	4936847	501920	840	729.75	23.5'@167ppm	5' @ 240ppm	0.39
RMR0834	4936847	501920	840	783.25	4.5'@480ppm	2' @ 750ppm	0.22
RMR0843	4936847	501920	840	744.25	12.5'@175ppm	4.5'@300ppm	0.22
RMR0843	4936847	501920	840	771.25	19.5'@184ppm	9'@240ppm	0.36
RMR0846	4936877	501906	840	765.25	8.5'@300ppm	1.5'@650ppm	0.26
RMR0850	4936767	501894	840	759.25	20.5'@170ppm	3'@390ppm	0.35
RMR0854	4936815	501802	820	686.25	10.5'@263ppm	1'@560ppm	0.28
RMR0859	4936825	501826	820	715.75	21'@378ppm	3.5'@810ppm	0.79
RMR0859	4936798	501961	840	759.75	22.5'@252ppm	16'@310ppm	0.57
RMR0862	4937009	501807	860	796.25	18'@140ppm	2'@350ppm	0.25
RMR0866	4935047	502731	680	573.75	9.5'@286ppm	0.5'@510ppm	0.27
RMR0872	4935041	502743	660	554.75	10'@340ppm	1.5'@530ppm	0.34
RMR0875	4936799	501997	840	707.75	24'@300ppm	2.5'@ 690 ppm	0.72
RMR0876	4936681	501983	840	747.75	6.5'@560ppm	4'@710ppm	0.36
RMR0878	4936678	501958	780	709.25	20.5'@147ppm	2'@7100ppm	0.30
RMR0880	4936827	501958	840	687.75	21'@392ppm	1'@1260ppm	0.82
RMR0884	4936647	501954	760	730.75	10'@197ppm	1'@560ppm	0.20
RMR0885	4936801	502035	820	713.25	24'@111ppm	3'@260ppm	0.27
RMR0887	4936797	502076	820	691.25	13'@210ppm	0.5'@520ppm	0.27
RMR0889	4937042	501789	860	787.75	23.5'@418ppm	2.5'@1350ppm	0.98
RMR0900	4937078	501789	860	777.75	17.5'@440ppm	6'@650ppm	0.77
RMR0903	4935018	502739	660	551.75	27.5'@518ppm	5'@2300ppm	1.42
RMR0909	4937005	501839	860	798.75	15'@179ppm	2'@290ppm	0.27
RMR0915	4935059	502732	660	563.75	8.5'@250ppm	0.5'@550ppm	0.21
RMR0920	4936875	502111	820	670.75	5.5'@444ppm	1'@1330ppm	0.24
RMR0923	4936963	501905	880	789.25	8.5'@254ppm	4'@360ppm	0.22
RMR0934	4935087	502711	660	570.25	13.5'@567ppm	3'@1380ppm	0.77
RMR0944	4935064	502720	660	575.75	7'@460ppm	3.5'@720ppm	0.32
RMRD0019	4937531	502836	640	609.25	20'@ 250ppm	3'@320ppm	0.50
RMRD0021	4938246	503258	520	497.25	8.5' @ 316ppm	2'@630ppm	0.27

Lance Projects – Exploration Potential

The Lance project covers an area of over 120km² within which there is a combined total of at least 305 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 areas. Based on the historic conversion rate from roll front length to a drill-defined resource the mineralised potential of the Lance Projects, which is in addition to the JORC-compliant resource, is assessed at between 95 and 145 Mlbs eU₃O₈.

Table 5: Lance Project Exploration Potential

Exploration Areas	Tonnes (M)		Grade (ppm e U ₃ O ₈)		e U ₃ O ₈ (Mlbs)	
	From	To	From	To	From	To
Total	117.7	134.7	360	500	95	145

SOUTH AFRICA – URANIUM / MOLYBDENUM EXPLORATION

(Peninsula Energy 74% / BEE Group 26%)

Karoo Projects, South Africa

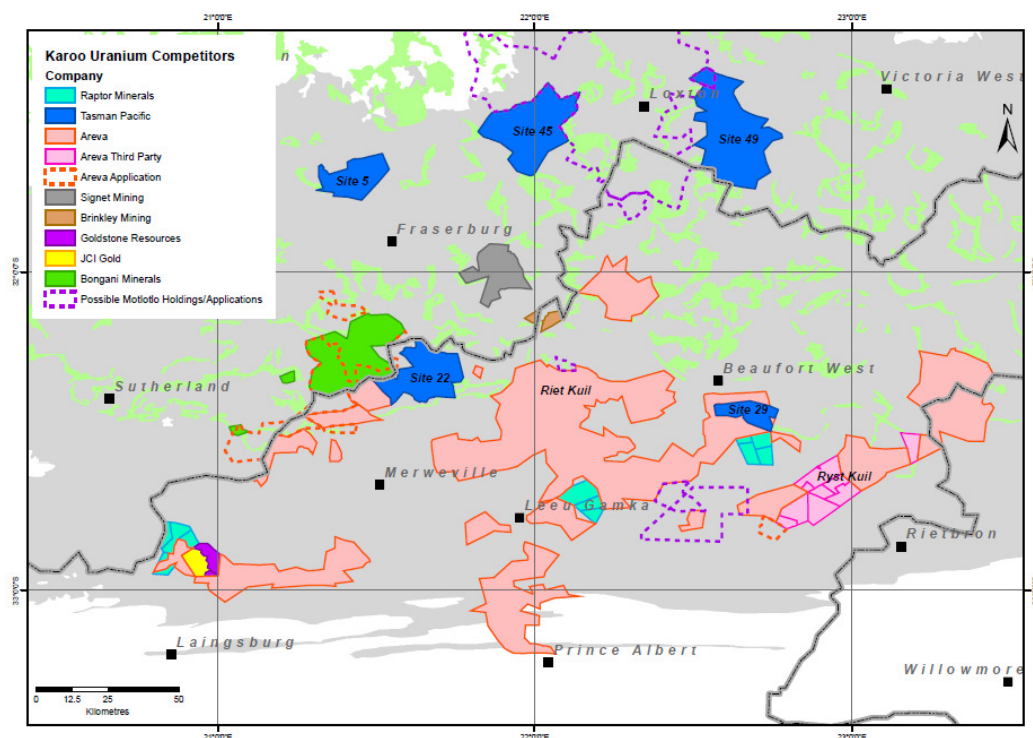


Figure 3: South Africa - Uranium /Molybdenum Project Area Locations

Site 22

The first phase of the drilling programme in the Karoo commenced on 19 February 2011 at Site 22 and is focused on a selection of the JCI (Site 22) and Union Carbide (Site 29) drill holes that are being re-drilled and logged to determine uranium correlations in order to confirm the historical resources. Over 1,000 holes were drilled by Union Carbide and JCI on Sites 22 and 29, and follow up exploration work has identified numerous other untested uranium occurrences. Sites 22, 29 and 45 contain historical mineral estimates based on drilling by JCI and Union Carbide during the 1970's.

To date a total of 152 of the original 521 percussion holes have been re-logged. In many cases, where it was not possible to re-enter the original hole, a new RC hole was drilled alongside in order to duplicate the original result. For QAQC purposes, four RC holes twinned re-entered holes. The results show a very good correlation of grade and thickness between the original holes and twins.

Of the 152 holes that have been logged to date, 126 have returned uranium mineralisation, 72 of these exceed a grade thickness product of 0.15%ft eU₃O₈ and 45 holes returned multiple mineralised intersections.

Table 6 lists the most significant results returned during the quarter at Site 22 (>0.15 grade thickness).

Table 6: Site 22 Re-logging and RC Drilling Results March Quarter (>0.15 grade thickness)

Site	Area	Hole-ID	From (ft)	To (ft)	Interval (ft)	Grade (ppm eU ₃ O ₈)	Grade Thickness (ft % eU ₃ O ₈)
22	MKF	06F0099RC	53.48	55.94	2.46	792	0.19
22	MKF	06F0043RC	14.11	36.25	22.15	186	0.41
22	MKF	06F0050RC	43.64	48.23	4.59	606	0.28
22	MKF	06F0100RC	31.50	34.45	2.95	1141	0.34
22	MKF	06F0100RC	52.82	55.45	2.62	571	0.15
22	MKF	06F0071RC	56.92	59.71	2.79	1193	0.33
22	MKF	06F0145RC	66.27	69.39	3.12	1114	0.35
22	MKF	06F0800RC	54.46	69.72	15.26	721	1.10
22	MKF	06F0101RC	71.19	77.10	5.91	3315	1.96
22	MKF	06F0113RC	90.22	106.30	16.08	719	1.16
22	MKF	06F0054RC	115.65	119.42	3.77	1389	0.52
22	MKF	06F0067RC	110.40	116.80	6.40	247	0.16
22	MKF	06F0047RC	111.22	117.29	6.07	610	0.37
22	MKF	06F0066RC	67.42	73.65	6.23	1190	0.74
22	MKF	06F0802RC	78.08	84.81	6.73	3413	2.30
22	MKF	06F0102RC	98.92	102.53	3.61	2262	0.82
22	MKF	06F0130RC	23.62	30.68	7.05	1705	1.20
22	MKF	06F0144RC	51.35	55.77	4.43	846	0.37
22	MKF	06F0151RC	30.68	33.30	2.62	1604	0.42
22	MKF	06F0474RC	26.57	34.45	7.87	299	0.24
22	MKF	06F0814RC	43.31	45.93	2.62	1128	0.30
22	MKF	06F0814RC	67.09	72.67	5.58	533	0.30
22	MKF	06F0498RC	39.86	49.70	9.84	488	0.48
22	MKF	06F0478RC	43.31	46.92	3.61	447	0.16
22	MKF	06F0073	89.40	92.36	2.95	883	0.26
22	MKF	06F0073	95.64	98.10	2.46	900	0.22
22	MKF	06F0322	396.65	398.62	1.97	1015	0.20
22	MKF	06F0322	403.05	404.86	1.80	1177	0.21
22	MKF	06F0326	384.02	385.66	1.64	1320	0.22
22	MKF	06F0351	400.59	403.54	2.95	645	0.19
22	MKF	06F0079	56.59	63.65	7.05	604	0.43

Site	Area	Hole-ID	From (ft)	To (ft)	Interval (ft)	Grade (ppm eU ₃ O ₈)	Grade Thickness (ft % eU ₃ O ₈)
22	MKF	06F0099	53.15	55.61	2.46	930	0.23
22	MKF	06F0315	289.21	291.17	1.97	1340	0.26
22	MKF	06F0260	298.88	304.95	6.07	1089	0.66
22	MKF	06F0299	297.41	299.87	2.46	2686	0.66
22	MKF	06F0078	32.15	41.67	9.51	482	0.46
22	MKF	06F0278	319.72	323.65	3.94	840	0.33
22	MKF	06F0065	57.09	65.45	8.37	785	0.66
22	MKF	06F0308	285.60	288.06	2.46	1138	0.28
22	MKF	06F0067	114.50	116.80	2.30	1512	0.35
22	MKF	06F0051	66.27	70.37	4.10	3098	1.27
22	MKF	06F0061	105.64	110.89	5.25	383	0.20
22	MKF	06F0050	44.13	47.24	3.12	886	0.28
22	MKF	06F0227	274.11	276.57	2.46	1578	0.39
22	MKF	06F0138	44.13	45.93	1.80	1478	0.27
22	MKF	06F0137	46.75	51.02	4.27	3216	1.37
22	MKF	06F0144	52.66	56.27	3.61	604	0.22
22	MKF	06F0338	386.81	388.94	2.13	1989	0.42
22	MKF	06F0168	47.90	49.70	1.80	1434	0.26
22	MKF	06F0168	73.49	75.13	1.64	2501	0.41
22	MKF	06F0121	74.31	78.08	3.77	2629	0.99
22	MKF	06F0247	43.64	45.44	1.80	1659	0.30
22	MKF	06F0237	5.41	10.50	5.09	932	0.47
22	MKF	06F0387	387.96	390.26	2.30	3406	0.78
22	MKF	06F0387	427.00	428.81	1.80	1014	0.18
22	MKF	06F0275	398.62	404.20	5.58	1199	0.67
22	MKF	06F0270	391.57	393.86	2.30	1566	0.36
22	MKF	06F0270	396.33	398.62	2.30	904	0.21
22	MKF	06F0339	383.20	385.17	1.97	814	0.16
22	MKF	06F0401	378.61	380.09	1.48	1093	0.16
22	MKF	06F0403	323.98	326.44	2.46	1624	0.40
22	MKF	06F0397	361.55	368.27	6.73	1764	1.19
22	MKF	06F0412	393.04	395.67	2.62	576	0.15
22	MKF	06F0411	431.92	433.56	1.64	928	0.15
22	MKF	06F0086	38.55	45.77	7.22	1424	1.03
22	MKF	06F0101	72.18	76.61	4.43	3210	1.42
22	MKF	06F0287	181.10	183.89	2.79	1447	0.40
22	MKF	06F0292	201.77	203.58	1.80	1142	0.21
22	MKF	06F0365	384.35	388.94	4.59	1023	0.47
22	MKF	06F0450	33.96	42.81	8.86	530	0.47
22	MKF	06F0465	38.88	40.52	1.64	1334	0.22
22	MKF	06F0473	31.82	39.53	7.71	3769	2.91

Site	Area	Hole-ID	From (ft)	To (ft)	Interval (ft)	Grade (ppm eU ₃ O ₈)	Grade Thickness (ft % eU ₃ O ₈)
22	MKF	06F0474	30.68	33.63	2.95	694	0.20
22	MKF	06F0475	32.97	36.42	3.44	596	0.21
22	MKF	06F0479	158.46	160.60	2.13	952	0.20
22	MKF	06F0510	71.03	74.64	3.61	2152	0.78
22	MKF	06F0801	64.47	72.18	7.71	649	0.50
22	MKF	06F0801	75.62	77.26	1.64	1149	0.19
22	MKF	06F0803	79.72	84.65	4.92	2351	1.16

* Exploration RC drillhole

The highlights of the RC drilling include 6.7ft @ 3,413ppm eU₃O₈ from hole 06F0802RC, 5.9 ft @ 3,315ppm eU₃O₈ from hole 06F0101RC and 7.1 ft @ 1,705ppm eU₃O₈ from hole 06F0130RC.

The distribution of the mineralised intersections is shown in Figure 4. With only 30% of the program complete Peninsula believe that the results confirm the presence of widespread high grade uranium mineralisation within the drill area. The average depth of confirmed mineralisation is between 158' (48.2m) and 161' (49.1m) from surface.

Historic reports also suggest a high ratio of molybdenum to uranium within this area of the Karoo. All of the RC intervals have been sampled for both uranium and molybdenum analyses. Assay results from the RC drilling are pending.

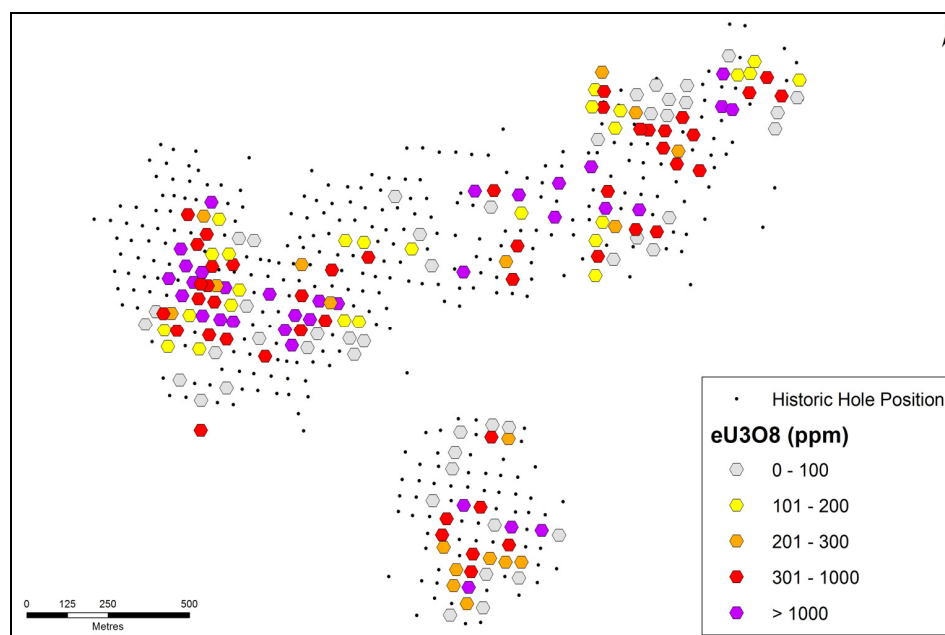


Figure 4: Site 22 Drillhole Location Map

Site 29

Since the commencement of exploration on Site 29 in January 2011, Peninsula has completed the logging of 191 holes together with the drilling of 50 RC holes. Table 7 lists the most significant results returned during the quarter. (>0.15 grade thickness).

The highlights of the RC drilling included 6.9 ft @ 1,363ppm eU₃O₈ from hole QFN0034RC, 13.3 ft @ 529ppm eU₃O₈ from hole QFN0109RC and 10.8 ft @ 520ppm eU₃O₈ from hole QFN0311RC. The average depth of confirmed mineralisation is between 40' (12m) and 43.6' (13.3m) from surface.

Table 7: Site 29 Re-logging and RC Drilling Results March Quarter (>0.15 grade thickness)

Site	Area	Hole-ID	From (ft)	To (ft)	Interval (ft)	Grade (ppm eU ₃ O ₈)	Grade Thickness (ft % eU ₃ O ₈)
29	QFN	QFN0030RC	39.04	47.24	8.2	302	0.25
29	QFN	QFN0034RC	35.93	42.81	6.9	1363	0.94
29	QFN	QFN0052RC	30.68	32.64	2.0	1145	0.23
29	QFN	QFN0005RC	70.21	72.51	2.3	1114	0.26
29	QFN	QFN0005RC	74.48	77.92	3.4	465	0.16
29	QFN	QFN0310RC	4.10	7.87	3.8	425	0.16
29	QFN	QFN0311RC	6.40	17.22	10.8	520	0.56
29	QFN	QFN0038RC	24.77	29.04	4.3	417	0.18
29	QFN	QFN0057RC	64.63	68.73	4.1	445	0.18
29	QFN	QFN0074RC	28.87	31.17	2.3	643	0.15
29	QFN	QFN0109RC	11.48	24.77	13.3	529	0.70
29	QFN	QFN0002	67.59	70.87	3.4	777	0.27
29	QFN	QFN0005	70.87	78.41	7.5	633	0.48
29	QFN	QFN0007	75.79	80.38	4.6	412	0.19
29	QFN	QFN0008	79.72	86.61	6.9	563	0.39
29	QFN	QFN0013	75.46	77.76	2.3	1517	0.35
29	QFN	QFN0027	31.50	36.75	5.4	865	0.47
29	QFN	QFN0027	40.68	46.92	6.2	1506	0.94
29	QFN	QFN0030	42.65	47.57	4.9	734	0.36
29	QFN	QFN0034	36.42	43.31	6.9	1522	1.05
29	QFN	QFN0037	27.56	31.17	3.6	493	0.18
29	QFN	QFN0037	34.45	39.37	4.8	479	0.23
29	QFN	QFN0049	44.62	49.21	4.4	643	0.28
29	QFN	QFN0052	30.84	32.48	1.6	1193	0.20
29	QFN	QFN0056	21.00	25.92	4.8	530	0.25
29	QFN	QFN0058	59.38	63.98	4.4	837	0.37
29	QFN	QFN0060	61.68	65.29	3.6	792	0.29
29	QFN	QFN0060	66.60	68.90	2.5	1766	0.43
29	QFN	QFN0065	36.75	39.04	2.5	683	0.17
29	QFN	QFN0073	32.81	35.76	2.8	536	0.15
29	QFN	QFN0105	17.39	20.01	2.6	617	0.16
29	QFN	QFN0109	20.01	23.62	3.8	791	0.30
29	QFN	QFN0110	19.69	25.26	5.7	541	0.31
29	QFN	QFN0120	25.26	27.56	2.1	1164	0.25
29	QFN	QFN0127	11.15	12.80	1.6	1007	0.17
29	QFN	QFN0280	47.41	49.38	2.0	1239	0.24

* Exploration RC drillhole

Molybdenum

Assay results have been received from the initial batch of 180 samples, taken from 24 intersections. Best intersections include 4ft @ 330ppm Mo (including 1ft @1,044ppm Mo) and 3ft @ 460ppm Mo. Appendix 1 lists the averaged molybdenum assays that have been received.

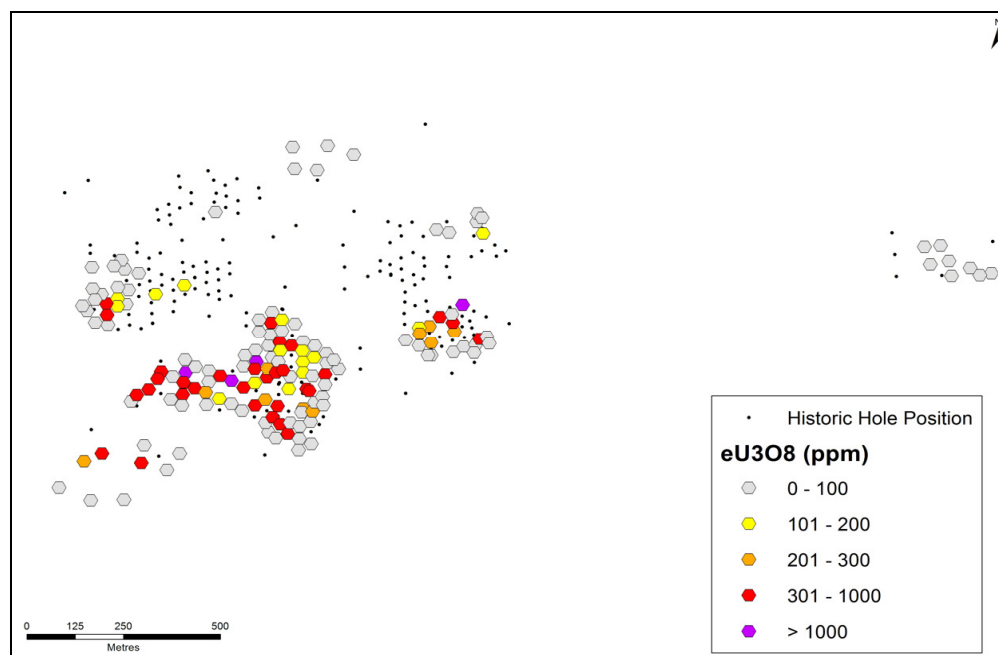


Figure 5: Site 29 Drillhole Location Map

Karoo Projects – Exploration Potential

In addition to the existing resource drilling, 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.

Further targets have been identified following recent acquisition and review of exploration reports compiled by Union Carbide during the 1970s and early 1980s. Peninsula obtained these reports from the South African Nuclear Energy Corporation during the September 2010 quarter.

Preliminary geological studies have estimated a combined exploration potential in the Karoo of 30-60m tonnes @ 700 – 1,400ppm eU₃O₈ for 90 – 150m lbs eU₃O₈.

The Company's target over the next 18 months is to delineate 30Mlbs of eU₃O₈ (15-25m tonnes @ 700–1,400ppm eU₃O₈). 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.

FIJI – RAKIRAKI GOLD PROJECT

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

During mid to late 2010 Geopacific Resources NL (GPR), through Geotech Ltd (Geotech), carried out a helicopter-borne geophysical survey over several areas of Fiji including the RakiRaki project area. The ZTEM method employed utilized an AFMAG Z-axis Tipper electromagnetic sensor.

Preliminary and final data processing, including generation of final digital data and map products were undertaken at the offices of Geotech in Aurora, Ontario. Further processing and interpretation of the data was undertaken by Southern Geoscience Consultants Pty Ltd of Perth (SGC).

The RakiRaki survey area is located in north east Viti Levu and consists of 42 survey lines oriented in a northwest direction and covering an area of 173 km² with 400m line spacing. Six conductive trends have been interpreted by Geotech, with potential correlation of these conductive trends with known structural features.

SGC have undertaken a full evaluation of the ZTEM database to reprocess the data into MapInfo software and to incorporate geology, structure, previous geophysical survey results, geochemical surveys and location of known mineralisation. Results are currently being finalised.

No field work was conducted during the quarter, due to the wet season.

WEST AUSTRALIAN URANIUM TENEMENTS

No on ground exploration was undertaken during the quarter.

CORPORATE

Completion of Placement to Pala Investments

On 16 December 2010 Peninsula announced that it had entered into agreements to raise up to A\$31.6 million through a placement of A\$21.6 million to specialist resources fund Pala Investments Holdings Limited (Pala) and up to a further A\$10 million to European, Asian and Australian institutions and sophisticated investors.

Upon receipt of the required shareholder approval on 4 February 2011, Peninsula issued the residual 121,651,309 ordinary shares and 60,825,654 PENOA options (to raise A\$9.1 million) to Pala to complete the placement.

Admission to the S&P/ASX All Ordinaries Index

On 18 March 2011 Peninsula was included in the S&P/ASX All Ordinaries Index. The admission is a reflection of the recent growth of the Company and will serve to raise the profile of Peninsula within a broader range of investors.

Appointment of Malcolm James as Director of Finance and Operations

During the quarter the Company appointed Mr Malcolm James as Director for Finance and Operations. Mr James was an existing Non-Executive Director of the Company.

Cash Position

The Company's cash position at the end of the quarter, including commercial bills, bonds and security deposits, was \$31.3 million.

For further information please contact:

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Executive Chairman
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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'.

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. Henri Lombard. 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 Gillman 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'.

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 Guiling, 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 of the Lance Projects" and "the target for the Karoo" documented 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.

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.

APPENDIX 1: Karoo Site 29: Molybdenum Assay Results February -April 2011

Site	Hole-ID	From (ft)	To (ft)	Interval (ft)	Grade (ppm Mo)
29	QFN0015RC	20	23	3	5
29	QFN0025RC	11	12	1	12
29	QFN0030RC	10	14	4	74
29	QFN0034RC	10.65	13.3	2.65	35
29	QFN0038RC	8	10	2	201
29	QFN0052RC	8	10	2	54
29	QFN0057RC	19	21	2	11
29	QFN005RC	21	24	3	192
29	QFN0063RC	11	12	1	141
29	QFN0067RC	13	15	2	9
29	QFN0074RC	7	10	3	378
29	QFN0086RC	11	13	2	5
29	QFN0090RC	9	11	2	5
29	QFN0109RC	4	7	3	460
29	QFN0117RC	5	8	3	318
29	QFN0127RC	2	3	1	22
29	QFN0303RC	0	1	1	5
29	QFN0308RC	1	5	4	330
29	includes	4	5	1	1,044
29	QFN0310RC	2	5	3	9
29	QFN0311RC	1	7	6	156
29	QFN0325RC	6	7	1	268
29	QFN0326RC	6	8	2	134