

Uranium Resources plc ('Uranium Resources' or 'the Company')

High Grade Uranium Mineralisation Results in Tanzania

Uranium Resources plc, the AIM listed uranium exploration and development company, is pleased to announce that the reverse circulation ("RC") drilling programme being undertaken by the company's joint venture partner, Western Metals Ltd ('WMT'), in Southern Tanzania has been completed for 2008. The results received are encouraging and continue to return significant high grade uranium intercepts.

*For all maps and schematics (Figures 1-5) mentioned in the news release please click on the following link:

http://www.rns-pdf.londonstockexchange.com/rns/9617F_-2008-10-15.pdf

Overview

As of 15 September a total of 171 RC holes for 10,670m had been completed in Southern Tanzania from the 2008 drilling programme. Of these, 152 holes for 9,288m were drilled into prospects along the Mtonya Corridor, including the recently discovered Grandfather Prospect.

Results from this drilling continue to define and confirm the tenor of mineralisation. New and previously unreported significant intercepts from the assay results received to date from 2008 RC drilling include:

- ∞ MRC200 – 4 metres at 1,938 ppm U₃O₈ from 26 metres
- ∞ MRC200 – 4 metres at 988 ppm U₃O₈ from 34 metres
- ∞ MRC183 – 2 metres at 1,715 ppm U₃O₈ from 56 metres
- ∞ MRC235 – 2 metres at 1,320 ppm U₃O₈ from 36 metres
- ∞ MRC195 – 5 metres at 1,214 ppm U₃O₈ from 30 metres
- ∞ MRC180 – 3 metres at 833 ppm U₃O₈ from 27 metres
- ∞ MRC223 – 4 metres at 648 ppm U₃O₈ from 6 metres
- ∞ MRC223 – 2 metres at 700 ppm U₃O₈ from 19 metres
- ∞ MRC231 – 6 metres at 517 ppm U₃O₈ from 15 metres

In addition, detailed mapping, ground geophysical and geochemical sampling surveys have further delineated the nature and extent of mineralisation at the Eland Prospect. Rock chip sampling of this hard rock prospect has returned significant uranium, tantalum and niobium values. Significant assay results include:

| | |
|----------|--|
| ∞ A7-535 | 1,040 ppm U3O8, 2,740 ppm Nb, 530 ppm Ta |
| ∞ A7-536 | 370ppm U3O8, 6,480 ppm Nb, 950 ppm Ta |
| ∞ A7-539 | 1,060ppm U3O8, 4,640 ppm Nb, 690 ppm Ta |
| ∞ A7-547 | 1,260 ppm U3O8, 5,450 ppm Nb, 870 ppm Ta |
| ∞ A7-568 | 880 ppm U3O8, 2,890 ppm Nb, 620 ppm Ta |
| ∞ B0-200 | 1,140 ppm U3O8, 4,960 Nb, 860 ppm Ta |

Field work including ground based geological mapping as well as geophysical and geochemical surveys continue.

Detailed Discussion

As of 15 September a total of 171 RC holes for 10,670m had been completed during the 2008 drilling programme in Southern Tanzania. This drilling programme is now complete.

The 2008 drill programme was designed to continue to evaluate prospects along the Mtonya Corridor, including the Grandfather Prospect, and to commence evaluation of regional prospects such as Foxy, Eland and Pedro. While most of the objectives of the 2008 drilling programme were achieved, access issues prevented drill evaluation of the Eland and Pedro Prospects. These and other prospects will now be assessed at the start of the 2009 drill programme which is scheduled to commence during the second quarter of 2009.

The Company's tenements and its major prospects with simplified Karoo geology are shown in the link at the top of the news release entitled in Figure 1.

Mtonya Project Area

The focus of the 2008 drilling programme was the continued evaluation of prospects along the Mtonya Corridor in particular Grandfather, Rufus, Henri and Para Extended.

A total of 152 RC holes were drilled for a total of 9,288m into prospects along the Mtonya Corridor.

Infill and extension drilling at known prospects such as Moysten and Henri have confirmed tenor and extended mineralisation. Drilling at the Grandfather Prospect has returned a number of significant intercepts. The majority of the assay results have now been received from this drilling with assays from seven holes remaining outstanding.

Of particular interest was hole MRC235, drilled in an area of relatively low surface radiometric response between the Tahbilk and Moysten Prospects, which returned 2m at 1,320 ppm U3O8 from 36 metres. Follow up of this new anomaly will be undertaken as part of the next programme.

New previously unreported significant intercepts from 2008 RC drilling results received to date include:

- ∞ MRC200 – 4 metres at 1,938 ppm U3O8 from 26 metres
- ∞ MRC200 – 4 metres at 988ppm U3O8 from 34 metres
- ∞ MRC183 – 2 metres at 1,715 ppm U3O8 from 56 metres
- ∞ MRC235 – 2 metres at 1,320 ppm U3O8 from 36 metres
- ∞ MRC195 – 5 metres at 1,214 ppm U3O8 from 30 metres
- ∞ MRC180 – 3 metres at 833 ppm U U3O8 from 27 metres
- ∞ MRC223 – 4 metres at 648 ppm U3O8 from 6 metres
- ∞ MRC223 – 2 metres at 700 ppm U3O8 from 19 metres
- ∞ MRC231 – 6 metres at 517 ppm U3O8 from 15 metres
- ∞ MRC131 – 6 metres at 420 ppm U3O8 from 9 metres
- ∞ MRC190 – 7 metres at 496 ppm U3O8 from 27 metres
- ∞ MRC190 – 7 metres at 417 ppm U3O8 from 10 metres
- ∞ MRC167 – 4 metres at 475 ppm U3O8 from 2 metres
- ∞ MRC189 – 5 metres at 364 ppm U3O8 from 23 metres

Assay results for seven holes drilled into prospects along the Mtonya Corridor and 19 holes drilled into the Foxy prospect have not yet been received.

Results are presented in Table 1 below. Drill status as of 15 September is shown in Figure 2 at the link at the top of the news release, where holes have been thematically mapped on maximum downhole U3O8 and presented on a uranium channel radiometric image.

Ruvuma Project Area

Detailed geological mapping as well as ground geophysical and geochemical surveys continued.

Detailed ground radiometric and spectrometric readings were completed at the discovery site at Eland Hill. In addition, traverses were made to the SW to locate anomalous areas indicated on the ‘informal’ total count heli-borne survey carried out in 2007. Grab samples were collected from hotspots as well as a range of type samples. Preliminary geological scout maps were also made of both the discovery area at Eland Hill and along traverses away from the hill.

At Eland, the radiometric data shows a clear 300 cps total count (Geogammer) anomaly (150 x 30m in size) along the NE margin of the hill. The anomaly is located along the contact between equigranular syenite and a melange of syenitic rock and frosted felsic gneiss. The anomaly continues to the SE into a zone of syenitic rubble and soil cover.

Similar anomalies were located along the ridge of the hill that runs to the WSW. Individual anomalies have NW to N alignments (possibly indicating some original structural control). Again these anomalies seem to be concentrated along contacts between syenitic melange and frosted gneiss.

Reconnaissance traverses to the SW resulted in the discovery of several patches with uranium hotspots associated with nepheline syenite and frosted altered gneiss. These generally showed limited continuity. Outcrop was generally scattered with boulder sub-crop.

Geological mapping and ground scintillometer surveys are shown in Figures 3 and 4 – see link at the top of the news release.

Figure 5 – please see link at the top of the news release, shows the results of the scintillometer surveys plotted on the results of the recent heli-borne spectrometric (June 2008) survey carried out at 500m line spacing. It shows a large zone approximately 1.5 x 1.0km of anomalous uranium. There is a thorium component along the SE margin of the uranium anomaly. The Eland and Kudu anomalies were not directly covered by the airborne survey. There are five moderate-good uranium anomalies that have yet to be located on the ground.

A number of rock chip samples taken from the Eland environs returned anomalous uranium, tantalum and niobium values. Of particular interest is the fact that this style of mineralisation has similarities to other deposits located in Namibia and Malawi. Significant results include:

| | |
|----------|--|
| ∞ A7-535 | 1,040 ppm U ₃ O ₈ ; 2,740 ppm Nb; 530 ppm Ta |
| ∞ A7-536 | 370ppm U ₃ O ₈ ; 6,480 ppm Nb; 950 ppm Ta |
| ∞ A7-539 | 1,060ppm U ₃ O ₈ ; 4,640 ppm Nb; 690 ppm Ta |
| ∞ A7-547 | 1,260 ppm U ₃ O ₈ ; 5,450 ppm Nb; 870 ppm Ta |
| ∞ A7-568 | 880 ppm U ₃ O ₈ ; 2,890 ppm Nb; 620 ppm Ta |
| ∞ B0-200 | 1,140 ppm U ₃ O ₈ ; 4,960 Nb; 860 ppm Ta |

Full results are presented below in Table 2.

Future Programmes

Field work continues with crews focused on evaluation of regional targets in the Ruhuhu and Ruvuma Project areas. Work includes ground based geological mapping, trenching and sampling, ground geophysical and geochemical surveys.

In addition, a preliminary assessment of the coal potential of the Company's tenements in Tanzania has been undertaken and recommendations and potential targets are the subject of ongoing investigations.

Table 1: Drill Results Significant Intersections >100ppm U₃O₈

| HOLE ID | Prospect | Northing (metres) | Easting (metres) | FROM (metres) | WIDTH (metres) | Intersection U ₃ O ₈ ppm |
|---------|-------------|-------------------|------------------|---------------|----------------|--|
| MRC131 | Henri | 228969 | 8832645 | 9 | 6 | 420 |
| MRC145 | Grandfather | 231774 | 8837498 | 52 | 1 | 110 |
| MRC149 | Grandfather | 231991 | 8837678 | 25 | 2 | 160 |
| MRC149 | Grandfather | 231991 | 8837678 | 34 | 1 | 110 |
| MRC150 | Grandfather | 232042 | 8837733 | 25 | 1 | 200 |
| MRC150 | Grandfather | 232042 | 8837733 | 31 | 1 | 550 |
| MRC164 | Grandfather | 231481 | 8837338 | 37 | 1 | 440 |
| MRC165 | Grandfather | 231369 | 8837314 | 47 | 3 | 537 |
| MRC167 | Grandfather | 231425 | 8837218 | 2 | 4 | 475 |
| MRC167 | Grandfather | 231425 | 8837218 | 15 | 1 | 120 |
| MRC167 | Grandfather | 231425 | 8837218 | 24 | 1 | 270 |
| MRC175 | Grandfather | 231073 | 8837042 | 14 | 3 | 243 |
| MRC180 | Grandfather | 232804 | 8837871 | 27 | 3 | 833 |
| MRC183 | Grandfather | 232666 | 8837882 | 11 | 1 | 110 |
| MRC183 | Grandfather | 232666 | 8837882 | 56 | 2 | 1715 |
| MRC184 | Grandfather | 232525 | 8837926 | 16 | 2 | 150 |
| MRC186 | Grandfather | 232678 | 8838021 | 31 | 2 | 155 |
| MRC189 | Grandfather | 231804 | 8837427 | 9 | 4 | 180 |
| MRC189 | Grandfather | 231804 | 8837427 | 23 | 5 | 364 |
| MRC190 | Grandfather | 231808 | 8837394 | 10 | 7 | 417 |
| MRC190 | Grandfather | 231808 | 8837394 | 27 | 7 | 496 |
| MRC191 | Grandfather | 231837 | 8837387 | 30 | 3 | 290 |
| MRC192 | Grandfather | 231869 | 8837431 | 17 | 2 | 370 |
| MRC194 | Grandfather | 231887 | 8837472 | 10 | 2 | 255 |
| MRC194 | Grandfather | 231887 | 8837472 | 17 | 7 | 231 |
| MRC195 | Grandfather | 231928 | 8837449 | 25 | 1 | 120 |
| MRC195 | Grandfather | 231928 | 8837449 | 30 | 5 | 1214 |
| MRC196 | Grandfather | 231946 | 8837492 | 17 | 1 | 240 |
| MRC196 | Grandfather | 231946 | 8837492 | 26 | 2 | 250 |
| MRC200 | Grandfather | 232013 | 8837643 | 26 | 4 | 1938 |
| MRC200 | Grandfather | 232013 | 8837643 | 34 | 4 | 988 |
| MRC201 | Grandfather | 231965 | 8837721 | 10 | 1 | 190 |
| MRC208 | Grandfather | 231436 | 8837319 | 51 | 1 | 110 |
| MRC211 | Grandfather | 231549 | 8837376 | 33 | 4 | 160 |
| MRC211 | Grandfather | 231549 | 8837376 | 40 | 1 | 170 |
| MRC215 | Grandfather | 231376 | 8837198 | 11 | 1 | 190 |
| MRC215 | Grandfather | 231376 | 8837198 | 94 | 8 | 103 |
| MRC220 | Tahbilk | 228976 | 8833510 | 2 | 3 | 163 |
| MRC221 | Tahbilk | 228891 | 8833512 | 0 | 1 | 160 |
| MRC221 | Tahbilk | 228891 | 8833512 | 4 | 2 | 155 |
| MRC221 | Tahbilk | 228891 | 8833512 | 21 | 1 | 240 |
| MRC222 | Henri | 229159 | 8833062 | 39 | 1 | 120 |
| MRC223 | Tahbilk | 228868 | 8833414 | 6 | 4 | 648 |
| MRC223 | Tahbilk | 228868 | 8833414 | 19 | 2 | 700 |
| MRC230 | Para | 229059 | 8831946 | 18 | 1 | 170 |
| MRC230 | Para | 229059 | 8831946 | 43 | 1 | 110 |
| MRC231 | Para | 228996 | 8832062 | 6 | 1 | 120 |
| MRC231 | Para | 228996 | 8832062 | 15 | 6 | 517 |
| MRC231 | Para | 228996 | 8832062 | 51 | 3 | 137 |
| MRC235 | Corridor | 230305 | 8834496 | 36 | 2 | 1320 |
| MRC239 | Moysten | 230886 | 8834828 | 18 | 1 | 170 |
| MRC239 | Moysten | 230886 | 8834828 | 23 | 1 | 170 |
| MRC246 | Moysten | 230490 | 8836010 | 37 | 1 | 180 |
| MRC247 | Moysten | 230762 | 8835660 | 52 | 1 | 140 |

Notes on Table: All drilling vertical. Samples have been collected by riffle splitting dry intervals and representative tube sampling of wet intervals. Samples have been analysed by ICP using laboratory method ME-ICP61s by ALS Chemex laboratory Perth, Australia. Samples greater than 10,000 ppm U₃O₈ have been analysed by XRF using method ME-XRF10s. Certified reference standards and blanks have been included by WMT in addition to laboratory control standards. All results are in U₃O₈ ppm with analysis method accuracy quoted at \pm 10 ppm U₃O₈. Co-ordinates are UTM Zone 37S, WGS84 and have been measured by hand held GPS. All intersection lengths are estimated to be true width of mineralisation based on local geological observation.

Table 2: Rock Chip Samples Eland Prospect – Most Anomalous Results

| SAMPLE ID | Longitude decimal degree | Latitude decimal degree | U ₃ O ₈ ppm | Nb ppm | Ta ppm | Description |
|-----------|--------------------------|-------------------------|-----------------------------------|--------|--------|---|
| A7-535 | 36.13309 | -11.4595 | 1040 | 2740 | 530 | N-syenite composed of _zircon_ Feld_ Na and pyrochlore |
| A7-536 | 36.13309 | -11.4595 | 370 | 6480 | 950 | N-syenite composed of _zircon_ Feld_ Na and pyrochlore |
| A7-539 | 36.13253 | -11.45971 | 1060 | 4640 | 690 | Feldspathic gneiss (rock boulder) composed of feld_qtz_zircon_mica_uranium_pyrochlore and biotite |
| A7-547 | 36.13478 | -11.45945 | 1260 | 5450 | 870 | Feldspathic gneiss composed of feld_qtz_zircon_mica and biotite |
| A7-568 | 36.13388 | -11.45875 | 880 | 2890 | 620 | Feldspathic gneiss composed of feld_qtz_mica_pyrochlore and biotite |
| B0-200 | 36.1338 | -11.4632 | 1140 | 4960 | 860 | red zeolite?_musc_olive mineral alt along foliation_both pet & assay_ >1000 cps GF_eU 200-440 ppm |

Notes on Table: A total of 74 samples have been taken in the Eland area of which 58 have been analysed for U, Ta and Nb.. Not all results have been reported. Of the 74 samples collected and analysed for U₃O₈, 38 returned values greater than 100 ppm U₃O₈; of the 58 sample assayed for Nb and Ta, 55 returned values of over 100 ppm Nb and 38 returned values of over 50 ppm Ta. All samples represent grab samples. Samples were analysed by ALS CHEMEX Perth and Brisbane Australia. U₃O₈ was determined by 4 acid digest and ICP finish using method ME-ICP61 (detection limit 10ppm). Nb and Ta were initially determined by 4 acid digest with MS finish using method MEMS61s, all over range samples were submitted for fusion and XRF determination by MXRF05 (detection limits for Nb = 2 ppm and for Ta = 10 ppm). Samples were located using a Garmin GPS. Co-ordinates are WGS 84.

The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information assessed by James Pratt who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Pratt 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 2004 Edition of the ‘Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves’. Mr Pratt consents to the inclusion in the report of the matters based on his information in the form and context in which it appears

****ENDS****

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Notes to editors

Uranium Resources plc is an AIM listed uranium exploration and development company. It is the Company's strategy to advance its existing assets and strengthen its portfolio via opportunist acquisition. Uranium Resources has uranium licences in the highly prospective Karoo Basin in Southern Tanzania where it currently has a land package in excess of 13,500 sq km.