THUNDELARRA EXPLORATION

ASX Release: 28 October 2010

EXTENSIVE ZONE OF URANIUM MINERALISATION DEFINED AT NGALIA BASIN

- **Paleochannel-style uranium mineralisation intersected in 15 holes over a 12km strike**
- **Gravity data indicates that the host paleochannel continues for over 40 km**
- **Latest assays include grades of up to 1,798 ppm U_3O_8**

Thundelarra is pleased to report that the 2010 drilling program at the Ngalia Basin project has been completed. A total of 58 holes were drilled for 6968.6 metres using a combination of Mud Rotary, Diamond Coring and Air Core techniques (Table 1).

The drilling program, Thundelarra's first in the Ngalia Basin, successfully demonstrated that potentially economic grades and thicknesses of uranium mineralisation occur in both the Tertiary and Mt Eclipse sandstone sequences. Paleochannel-style uranium mineralisation in the Tertiary sequence has been intersected in 15 holes over a strike length of 12 kilometres. The paleochannel systems that host the uranium mineralisation are expected to continue over a strike length exceeding 40 kilometres along a regionally extensive gravity trough on Thundelarra's 100% owned tenure (Figure 1). The high grade results previously reported (see ASX announcement 23 June 2010) confirm that the gravity anomaly also represents a structure along which Bigrlyi-style uranium mineralisation can be found. Thick sequences of coarse and reduced Mt Eclipse sandstone have been intersected in drilling on both sides of the gravity anomaly, with the advantage of only minor Tertiary cover along the northern margin (TNG002MD). This older mineralisation is considered likely to be the source of uranium now found in the Lower Tertiary.

A significant zone of mineralisation has been discovered at the **Afghan Swan prospect**, where nine holes have outlined a 0.6 sq km zone with maximum grades to 1,798 ppm U_3O_8, and thicknesses up-to 4.35 metres. This zone is open to the northwest (Figure 3).

Within the Afghan Swan anomaly, significant results include;

TNG034AC: 3.0m at 670 ppm U_3O_8 including 1.0m at 1,798 ppm U_3O_8
TNG045MD: 1.05m at 708 ppm eU_3O_8 including 0.55m at 1150 ppm eU_3O_8
TNG021MD: 4.35m at 317 ppm eU_3O_8 including 0.55m at 922 ppm eU_3O_8
TNG035MD: 4.35m at 209 ppm eU_3O_8 including 0.25m at 749 ppm eU_3O_8
TNG006MD: 1.8m at 276 ppm eU_3O_8 including 0.32m at 1547 ppm U_3O_8
TNG032MR: 0.8m at 322 ppm eU_3O_8 including 0.2m at 656 ppm eU_3O_8

To date Thundelarra has drill tested only a small portion (approximately 2%) of the project area. A regional Airborne electro-magnetic (EM) survey is scheduled to commence in early November across 3,300 square kilometres of the Company's tenure within the Basin. This data will be used to interpret the precise location of Tertiary paleovalleys and shallow Mt Eclipse Sandstone for further drill testing. The Northern Territory Government is contributing $100,000, approximately 50%, of the cost of the EM survey through its successful Bringing Forward Discovery program.

Level 3, 1060 Hay St West Perth WA 6005
PO Box 7363 Cloisters Square WA 6850
Ph: +61 8 9321 9680
Fax: +61 8 9321 9670
www.thundelarra.com.au
info@thundelarra.com.au
ABN: 74 950 465 654

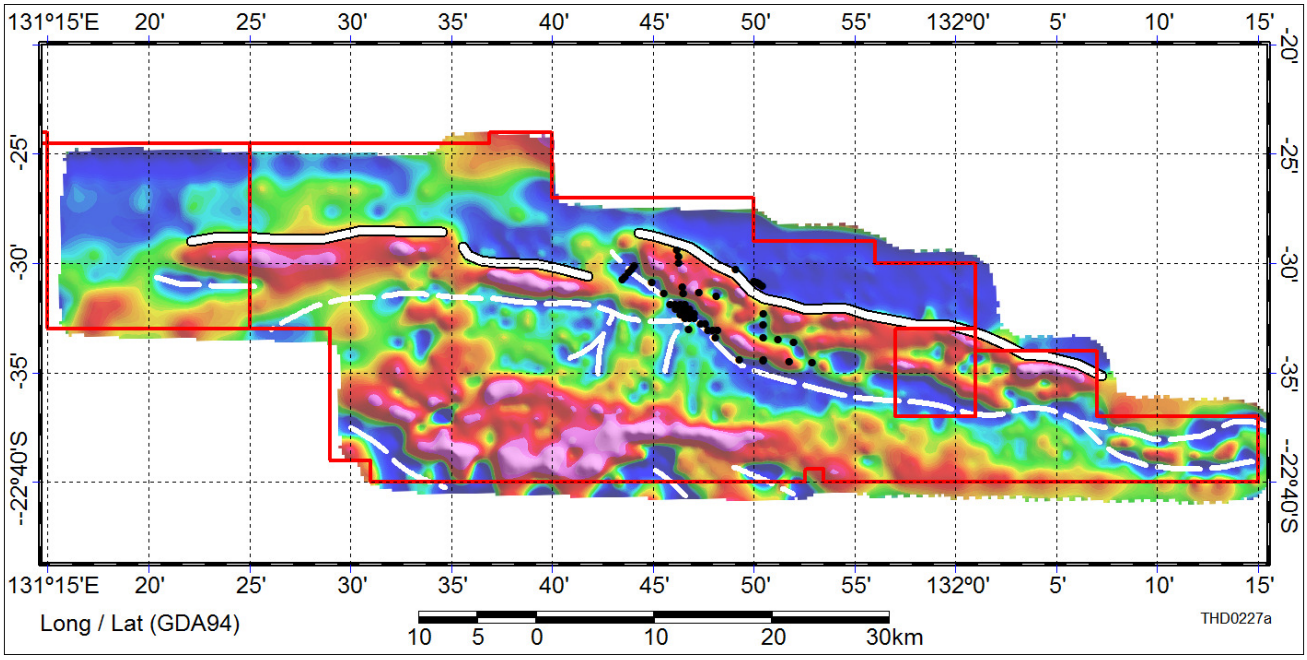

Figure 1. Ngalia Basin project – Thundelarra 100% owned Exploration Licenses in the eastern half of the project. The drilling has tested only a small portion of the license area, in particular, the full strike extent of the gravity anomaly is now considered prospective uranium mineralisation hosted by Tertiary (to the south, along dashed lines) and by the Mt Eclipse Sandstone (to the north, along solid lines).

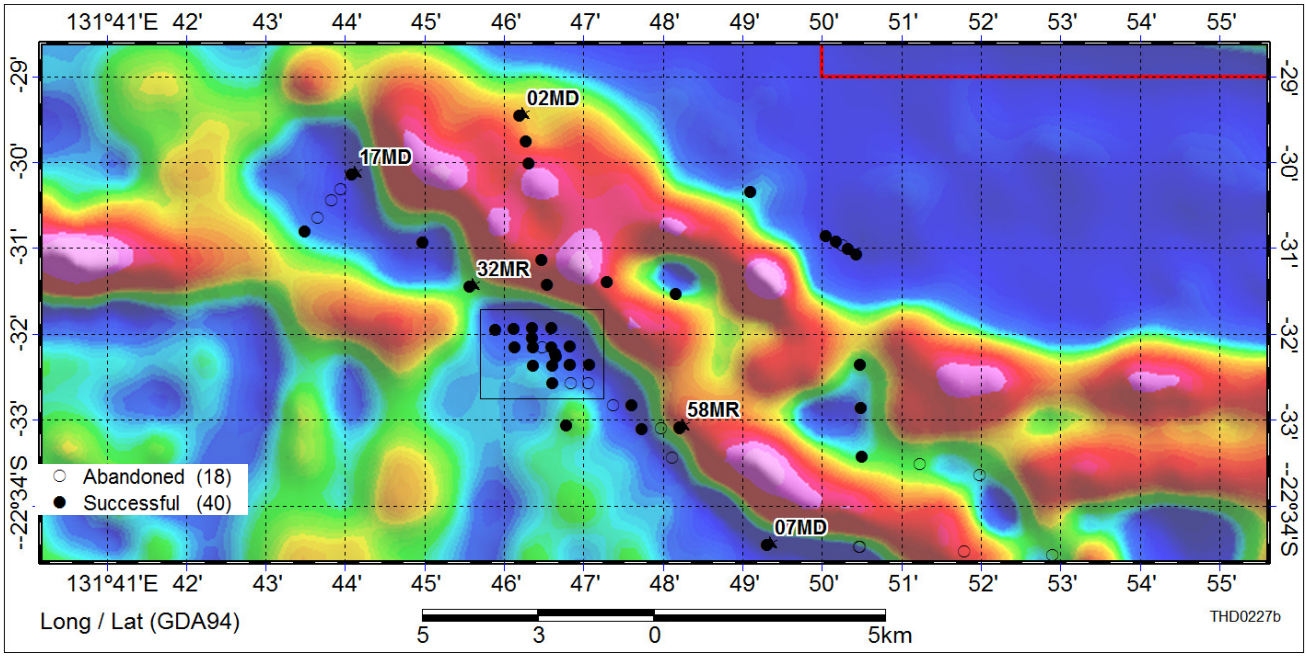

Figure 2. Thundelarra 2010 drilling program on the gravity residual image. The Afghan Swan inset map area is shown. Holes referred to in this announcement that are outside this area are labelled. Lower Tertiary uranium mineralisation has been detected in a 12km zone between TNG007MD and TNG017MD.

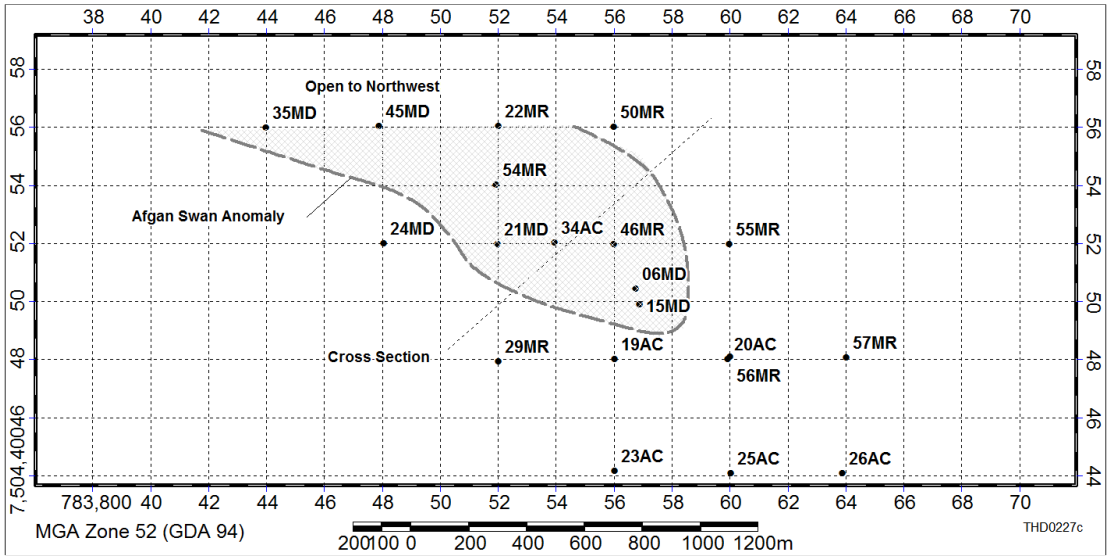

Figure 3. Afghan Swan prospect drilling, showing anomalous zone (hatched) listed in Tables 2-4. The zone is open toward the northwest toward TNG032MR (mineralised).

Interpretation of the drilling data indicates that uranium mineralisation occurs along a package of grey, unconsolidated channel sands (up-to 15m thick) lying at the base of the Tertiary. A sequence of dark, carbonaceous mud and clay overlies this paleochannel. The highest grades of uranium mineralisation appear to occur at the contacts of these two units, which are together grouped as the "Lower Tertiary" (see cross section Figure 4). Significant water flows have occurred from this Lower Tertiary paleochannel indicating that the mineralisation is hosted by a aquifer. Field tests and laboratory analyses of groundwater lifted by the air core rig indicate this is a low salinity aquifer which is therefore particularly amenable to *in situ* recovery (ISR) techniques.

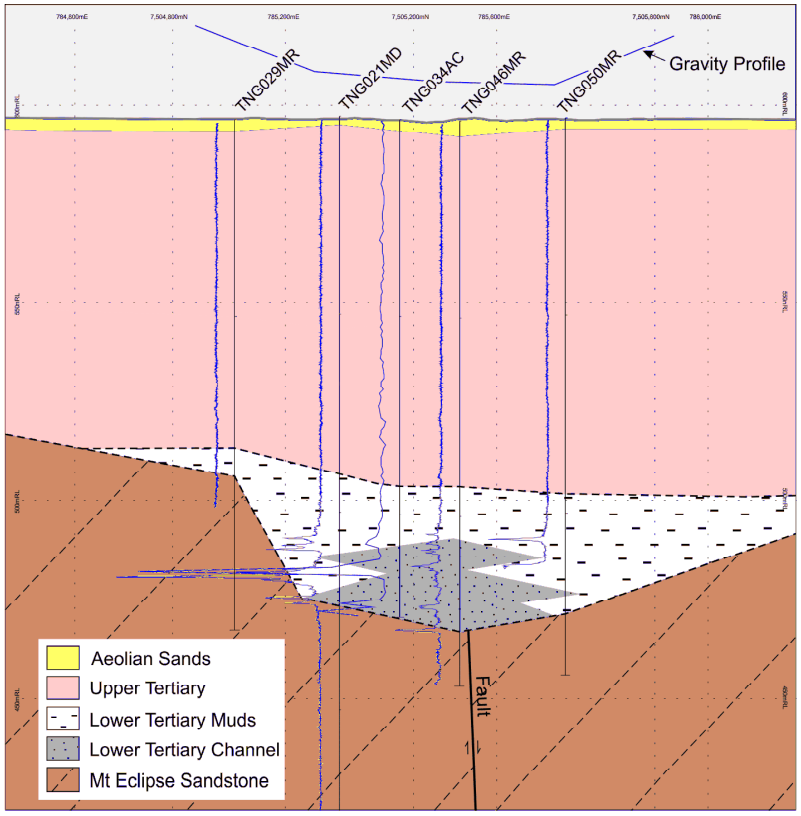

Figure 4. Cross section through the Afghan Swan paleochannel anomaly with gamma probe profiles (MR & MD holes) and handheld scintillometer profile data (TNG034AC). Collapse of the PVC casing precluded geophysical logging of TNG050MR or TNG029MR through to the target depths however handheld scintillometer data indicates anomalous uranium in the Lower Tertiary part of TNG050MR.

The Upper Tertiary sequence consists of highly oxidised alluvial sand, gravel, mud, silcrete, ferricrete, calcrete & gypsum beds. Channel gravels in this sequence are almost ubiquitously highly magnetic, and a network of paleochannels has been identified and traced across the project area using airborne magnetic data. Redox fronts along these Upper Tertiary channels present an additional target for exploration drilling.

Most holes were logged with a slimline gamma sonde, and significant eU_3O_8 results are provided in Table 2. Laboratory assays of diamond core and Air Core samples are provided in Tables 3 & 4 respectively.

None of the Air Core holes were able to be logged with the gamma sonde due to a failure with the geophysical equipment. As a result, the delineation of significant intercepts within these holes has relied on laboratory assays (TNG034AC), and systematic handheld scintillometer and portable XRF readings of the Air Core samples at 1m intervals. The samples from Mud Rotary drilling are not suitable for laboratory analysis due to the contamination that arises as part of the drilling process. Accordingly the delineation of significant intercepts within these holes relies on gamma probe data. In several instances, however, (e.g. TNG050MR), the PVC casing collapsed before the hole could be logged through the target depths.

Table 1. Summary Drilling Statistics for Ngalia Basin 2010 Drilling Program.

Drilling Type	**Metres Drilled**
Mud Rotary	3277.2
Diamond Coring (NQ3)	1338.4
Air Core	2303.0
Total	**6968.6**

Table 2. Gamma Probe Results

Hole No.	**East**	**North**	**Dip/Azi**	**From-To (m)**	**Interval (m)**	**U_3O_8 (ppm)**
TNG006MD	785676	7505040	-83.3/20.6	112.2 - 113.15	0.95	218
			AND	119.85 - 120.65	0.80	157
			AND	120.8 - 121.55	0.75	174
			AND	121.6 - 121.8	0.20	110
			AND	123.55 - 125.35	**1.80**	**276**
			AND	126.1 - 126.6	0.50	172
			AND	199.55 - 201.25*	1.70	879
			INCLUDING	199.85 - 200.8*	**0.95**	**1404**
			AND	221 - 222.7*	1.70	160
TNG007MD	790172	7500857	-85.1/18.2	107.35 - 107.65	0.30	153
TNG015MD	785689	7504988	Vertical	106.12 - 106.62	0.50	118
			AND	106.77 - 107.02	0.25	105
			AND	110.57 - 111.07	0.50	178
			AND	122.67 - 123.22	0.55	130
TNG017MD	781366	7508975	Vertical	115.51 - 115.86	0.35	209

Table 2. Gamma Probe Results (Continued)

Hole No.	East	North	Dip/Azi	From-To (m)	Interval (m)	U_3O_8 (ppm)
TNG021MD	785199	7505193	Vertical	106.24 - 106.89	0.65	166
			AND	108.09 - 109.74	1.65	180
			AND	114.14 - 118.49	**4.35**	**317**
			INCLUDING	116.14 - 116.69	**0.55**	**922**
			AND	121.24 - 121.84	0.60	249
			AND	122.64 - 123.39	0.75	149
TNG022MR	785201	7505602	Vertical	112.44 - 113.04	0.60	130
			AND	115.44 - 115.79	0.35	141
			AND	124.34 - 125.49	1.15	183
			AND	126.49 - 126.69	0.20	106
TNG024MD	784807	7505197	Vertical	105.05 - 106.2	1.15	137
TNG032MR	783856	7506532	Vertical	111.37 - 112.02	0.65	183
			AND	115.67 - 116.47	**0.80**	**322**
			INCLUDING	116.02 - 116.22	**0.20**	**656**
			AND	116.87 - 117.27	0.40	118
			AND	118.77 - 119.02	0.25	114
			AND	119.77 - 120.07	0.30	126
			AND	125.62 - 126.87	1.25	129
TNG035MD	784401	7505594	Vertical	122.44 - 126.79	**4.35**	**209**
			INCLUDING	123.04 - 123.29	**0.25**	**749**
			AND	129.19 - 130.09	0.90	164
TNG045MD	784791	7505601	Vertical	130.14 - 131.19	**1.05**	**708**
			INCLUDING	130.39 - 130.94	**0.55**	**1150**
			AND	132.24 - 132.74	0.50	165
			AND	142.19 - 142.59	0.40	116
TNG046MR	785600	7505195	Vertical	112.49 - 113.04	0.55	148
			AND	122.49 - 123.39	0.90	129
			AND	128.29 - 128.99	0.70	209
TNG050MR	785602	7505598	Vertical	106.29 - 107.04	0.75	222
			AND	113.04 - 114.29	1.25	250
TNG054MR	785195	7505399	Vertical	95.94 - 96.19	0.25	129
			AND	105.79 - 106.94	1.15	253
			AND	110.59 - 111.44	0.85	233
TNG055MR	786000	7505195	Vertical	104.67 - 104.87	0.20	110
			AND	104.92 - 105.12	0.20	114
			AND	112.67 - 113.67	1.00	166
TNG058MR	788327	7503410	Vertical	113.96 - 114.26	0.30	127

Table 3. Laboratory analysis of Diamond Drill Core

Hole No.	East	North	Dip/Azi	From-To (m)	Interval (m)	U_3O_8 (ppm)
TNG002MD	785008	7510184	-70/224	190.76 - 190.81*	0.05	121
TNG006MD	785676	7505040	-83.3/20.6	111.7 - 123.7	12.00	106
			INCLUDING	112.2 - 112.52	**0.32**	**1547**
			AND	119.2 - 119.92	0.72	296
			AND	200 - 200.8*	**0.80**	**1771**
			INCLUDING	199.88 - 200.38*	**0.50**	**2316**
			AND	221 - 222.5*	1.50	318
			INCLUDING	221.79 - 222.3*	0.51	484
TNG017MD	781366	7508975	Vertical	116.15 - 116.35	0.20	259
			AND	117.75 - 117.95	0.20	140

Note: Results from TNG006MD were previously reported on 23 June 2010. Samples from NQ3 diamond coring through all reported mineralised zones. Intercepts were composited using a 100 ppm U_3O_8 lower cut off, except for the Tertiary anomalous zones in TNG006MD where a 10 ppm cut off was used.

Table 4. Laboratory analysis of Air Core samples (wet)

Hole No.	East	North	Dip/Azi	From-To (m)	Interval (m)	U_3O_8 (ppm)
TNG034AC	785395	7505199	Vertical	104 - 105	1.00	145
			AND	112 - 115	3.00	670
			INCLUDING	114 - 115	**1.00**	**1798**
			AND	122 - 123	1.00	172
			AND	124 - 125	1.00	147

Notes:

* denotes samples from the Mt Eclipse Sandstone, all other intervals are within the Lower Tertiary sequence.

Laboratory results are designated in units of U_3O_8, while gamma probe results are designated as eU_3O_8 units.

All laboratory analyses were conducted by Australia Laboratory Services (ALS) by ICP-MS methods for uranium 500ppm (ME-MS62s & ME-MS62RT where U > 500 ppm) –

Thundelarra Exploration Ltd own and operate Mt Sopris down hole geophysical logging equipment. The primary tool is a natural gamma sonde calibrated against the Adelaide Calibration Models maintained by Geophysical Technical Services, Department of Water, Land and Biodiversity, Government of South Australia. The algorithm for the conversion of natural gamma to percent equivalent uranium oxide (% eU_3O_8) was determined by independent experts Borehole Wireline Ltd and is considered reliable at the levels being reported. At the Ngalia Project, a reference station is used to ensure that reproducible natural gamma count rates are obtained from the sonde in use. This reference station (TNG006MD) has also been logged by an independent contractor.

The extent of radiometric disequilibrium has not been determined. Determination of the equilibrium status will require extensive collection of core samples for chemical assay.

For Further Information Contact: Mr Brett Lambert - Managing Director +61 8 9321 9680

ABOUT THUNDELARRA

Thundelarra is a successful mineral explorer primarily focused on uranium in the Northern Territory and base metals in Western Australia.

The Company controls major landholdings in the Pine Creek and Ngalia Basin uranium provinces totalling almost 8,000 square kilometres and has made a number of significant uranium discoveries in both areas. Of particular note is the Thunderball Prospect where diamond drilling has intersected mineralisation assaying up to 20% U_3O_8. Thundelarra is aiming to calculate a maiden JORC compliant resource for Thunderball by the end of 2010.

In Western Australia Thundelarra controls 10 tenements in the Doolgunna region totalling 1,500 square kilometres, including ground immediately along strike from Sandfire Resources' DeGrussa deposit. Recent drilling by Thundelarra has intersected significant high grade copper-gold mineralisation. The Company also retains substantial base metals exploration tenure in the East Kimberly and a 40% interest in the Copernicus nickel sulphide mine.

Thundelarra is extremely well funded and is aggressively exploring its key projects with the aim of progressing its discoveries through to commercial production.

REGISTERED OFFICE

Level 3, 1060 Hay St West Perth WA 6005 Ph: +61 8 9321 9680 www.thundelarra.com.au
PO Box 7363 Cloisters Square WA 6850 Fax: +61 8 9321 9670 info@thundelarra.com.au
ABN: 74 950 465 654 ACN: 085 782 994

Component Person's Statement

The details contained in this report that pertain to ore and mineralisation are based upon information compiled by Mr Brian Richardson, a full-time employee of the Company. Mr Richardson is a Member of the Australasian Institute of Mining and Metallurgy (AUSIMM) 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 December 2004 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (JORC Code). Mr Richardson consents to the inclusion in this report of the matters based upon his information in the form and context in which it appears.