

November 2014

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#### **Company Information**

ASX Code	тнх		
Share Price	A\$0.115		
Ordinary Shares	318.82m		
Options - in the money	13.28m		
Options – out of the money	16.50m		
Market Cap (Diluted for in	4\$38 19m		
money options)	A330.1311		
Cash (30 September 2014)	A\$7.30m		
Notional cash on in money	160 81m		
option conversion	AŞU.84III		
Total Debt	A\$0m		
Enterprise Value - Diluted	A\$30.05m		

#### **Directors and Management**

Non-Exec Chairman	Philip Crabb
CEO	Tony Lofthouse
Executive Director and Company Sec.	Frank DeMarte
Non-Exec Director	Mal Randall

#### **Company Details**

Address	Suite 8, 186 Hampden Rd Nedlands, WA 6009
Phone	+618 9389 6927
Web	www.thundelarra.com.au

#### **Top Shareholders**

Ragged Range Mining Pty Ltd & Assoc.	14.8%
Chin Nominees Pty Ltd & Assoc.	10.1%
Norilsk Nickel Australia Pty Ltd	2.5%
Troca Enterprises Pty Ltd & Assoc.	1.9%
Grandor Pty Ltd	1.5%
Тор 20	42%
Board and Management	18%

#### **1 Year Price Chart**



Source: IRESS

# **Thundelarra Limited (THX)**

# Diverse, High Quality Exploration Portfolio

# Recommendation: Speculative BUY

# **Key Points**

- Flagship Doolgunna Project adjacent to Sandfire's 13.4Mt high grade DeGrussa copper-gold operation
- Up to 7.04m @ 28.4% Cu intersected at the Red Bore prospect
- Excellent prospectivity for further copper discoveries at Doolgunna
- High prospectivity in the Company's other project areas for a range of metals
- Board and Management with broad technical and financial experience, and significant holdings in the Company
- Cashed up \$7.3m in the bank, with Hayes Creek Tranche 2 payment of \$0.9m due in July 2015 – either in cash or shares

Recent drilling at the Red Bore prospect has intersected exceptionally high grade primary copper, confirming the potential of the prospect. Ongoing work, including a reinterpretation of the mineralisation, ground magnetics and drill results has resulted in a number of other copper-gold targets being identified within the Red Bore and Curara Well leases, which now require further drill testing, which is expected to commence soon.

Ongoing work at the Pine Creek Project has delineated a number of prospects that are now being drilled. Previous work has resulted in a number of very encouraging drill intersections for a range of metals, including copper, gold, uranium and tungsten.

With ongoing drilling activities we expect a constant news flow, and rate Thundelarra as a SPECULATIVE BUY.

# **Company Overview**

Thundelarra Limited (ASX: THX) has a portfolio of advanced exploration properties, with the flagship being the Doolgunna Project, located adjacent to Sandfire's DeGrussa volcanic-hosted massive sulphide ("VHMS") copper-gold operation, which has a current resource of 13.4Mt @ 4.7% Cu and 1.9g/t Au.

Recent work by the Company has been concentrated at Doolgunna, and in particular the Red Bore prospect, with shallow high grade copper being intersected in diamond and reverse circulation drilling, which will potentially expand the current modest resource of 48,000t @ 3.6% Cu and 0.4 g/t Au

The Company is also actively exploring its Pine Creek Project, with this area, located over the Pine Creek Orogen in the NT, being prospective for a range of base and precious metals, as well as uranium, for which a resource of 1.4Mt @  $304ppm U_3O_8$  has been defined, and which is still open.

Lower priority holdings include the uranium prospective Ngalia Basin Project and a number of tenements in the East Kimberley region of WA.

# Investment Thesis

# **Highly Prospective Exploration Portfolio**

Highly prospective portfolio of exploration properties

Thundelarra Limited ("Thundelarra" or "the Company") has a portfolio of tenements we consider very prospective for a range of base and precious metals and uranium.

# **Thundelarra Project Locations**



Projects located in Western Australia and the Northern Territory

Prospectivity confirmed

by work to date

Exceptionally high

intersections at Red

arade copper

Bore

Source: Thundelarra

# **Prospectivity Confirmed by Results to Date**

The prospectivity of the Company's holdings has been confirmed by results to date, with high grade copper-gold mineralisation being identified, and a resource being defined at Doolgunna, copper, gold, tungsten and uranium being intersected within the Allamber Project, with a uranium resource being defined at the Cleo Prospect, and uranium being

# **High Grade Copper at Doolgunna**

Recent drilling, following a geological reinterpretation, at the key Red Bore prospect within the Doolgunna Project has intersected exceptionally high grade primary chalcopyrite, with near-surface intersections of up to 7.04m @ 28.4% Cu and 1.3 g/t Au in steeply plunging narrow shoots. This intersection is supported by a number of other high grade intersections, and indicates the potential for cores of potentially direct shipping ("DSO") mineralisation within the two Red Bore shoots identified thus far, in addition to the enveloping lower grade mineralisation.

# **Prime Address**

Doolgunna is a prime VHMS exploration address, with excellent prospectivity for further discoveries

The Doolgunna tenements, including Red Bore and Curara Well, are located close to Sandfire's DeGrussa operations, with Red Bore located over the host Narracoota Volcanics. The Curara Well lease is located over the Jenkins Fault Zone, interpreted as being a growth fault and feeder structure active during the main mineralising event.

intersected in palaeochannels at the Ngalia Basin Project.



# **Excellent Prospectivity at Doolgunna**

Work to date has indicated the potential for repeats of the Red Bore shoot-style mineralisation, as well as new discoveries of VHMS massive sulphide lens and feeder style mineralisation. It has been interpreted that the Red Bore-style shoots may be remobilised copper from a deeper, larger VHMS or magmatic source.

### **Potential for Short Term Cash Flow**

Potential for short term cash flow from high grade Red Bore mineralisation Successful delineation of further shallow, high grade shoots similar to Red Bore raises the possibility of a small scale, high grade operation with, should any agreement be negotiated in the future, material being sold at the DeGrussa mine gate to provide cash flow to fund ongoing exploration work. The presence of a nearby treatment plant would obviate the need for construction of a capital intensive plant, and thus could make a small scale operation financially viable.

# **Pine Creek Under-Explored**

Pine Creek tenements underexplored The Company's Pine Creek tenements are relatively underexplored, with only limited drilling into a number of the very prospective targets, which have returned very encouraging results to date. A number of other target areas are yet to be drilled, as demonstrated by Swamp Donkey, which has returned encouraging surface geochemistry.

# Very Prospective Geology and Targets at Pine Creek

The geology at Allamber within the Pine Creek tenements is dominated by reactive Lower Proterozoic carbonaceous and calcareous sediments and metasediments of the Pine Creek Orogen, which have been intruded by later alkali granites.

Work to date at Pine Creek however has returned very encouraging results in a number of commodities

The targets include Nipper, which has returned potentially ore grade intersections of tungsten from skarn/replacement style mineralisation, with elevated copper, gold and tin also in the mix. Uranium is also a target, with a resource being delineated at the Cleo prospect, with this being open. The adjacent Cliff South prospect has returned significant, broad uranium-copper intersections, although in the current investment climate uranium exploration will take a back seat to copper and other metals.

# **Don't Forget Tertiary Uranium**

Although the Company is looking for a partner for the project, the Ngalia Basin Project has been shown to be very prospective for Tertiary palaeochannel style uranium, with broad zones of uranium being intersected in the limited channels tested to date in Tertiary sediments overlying the Ngalia Basin. Given the successful cash sale of its Hayes Creek uranium assets for \$1.55m, divestment could also be an option.

# **Project Rationalisation**

In a measured response to the downturn in junior resources commencing in early 2011, the Company has exited a number of JV's and projects, rationalising its project portfolio, and hence allowing resources to be concentrated on what are considered key projects.

# **Experienced and Committed Board and Management**

Collectively the Board and Management have extensive technical and financial/corporate experience. The Company takes a scientifically rigorous approach to exploration, with recent results demonstrating this.

In addition directors hold significant shareholdings (over 18% combined); with these all purchased on market or through participation in capital raisings, and thus will be motivated to produce strong returns for shareholders.

Experienced Board and

Recent project

rationalisation

Management, with a scientifically rigorous approach to exploration



# **Cashed Up**

The Company is well cash-up, allowing effective work programmes to be carried out With cash of around \$7.3 million as of September 30, the Company is well funded unlike the majority of ASX listed explorers. This will allow effective work programmes to be carried out over all active projects. Additionally a second tranche of \$0.9m is due by July 2015 from the sale of the Hayes Creek uranium assets – this will be in shares should the purchaser complete an initial public offering by that time.

# **Money in The Ground**

In the twelve months to September 30, 2014, out of total operating cash flows of \$3.1 million, \$2.3 million, or 73% was spent on exploration and evaluation activities, with 27% on administration. We consider this an excellent outcome, and confirms the Company's commitment to exploration.

# **Peer Comparison**

There are only a limited number of exploration companies with a broadly similar profile to Thundelarra. We have included here a selection of companies with market capitalisations above \$20 million, and if possible a diverse project portfolio. We have also included Hot Chili, being an advanced copper explorer/developer.

Given the diversity of portfolios in this list, this should be considered an indicative comparison only.

Company	Code	Last	On Issue (UD)	Market Cap (UD)	Cash	EV (UD)	Projects
Hot Chili	нсн	\$0.190	347,732,196	\$66.07m	\$16.38m	\$49.69	Productora copper in Chile - 1Mt contained Cu resource, JV MoU with local group
Thundelarra	тнх	\$0.115	318,823,717	\$36.66m	\$7.30m	\$29.36	Various copper, gold, other base metals and uranium
KGL Resources	KGL	\$0.240	140,040,563	\$33.61m	\$12.74m	\$20.87	Jervois VMS Project - 280Kt contained Cu, 18Moz contained Ag
Rox Resources	RXL	\$0.034	849,673,095	\$28.89m	\$4.95m	\$23.94	Mt Fisher Ni resource, Reward Pb-Zn project JV
Matsa Resources	MAT	\$0.180	144,156,779	\$25.95m	\$1.06m	\$24.89	Gold, copper, nickel, iron ore in Australia and Thailand
Red Metal	RDM	\$0.135	174,771,919	\$23.59m	\$5.91m	\$17.68	Maronan Pb-Zn-Ag, Qld; Tennant Creek Cu-Au, plus others
Havilah Resources	HAV	\$0.130	156,376,055	\$20.33m	\$6.50m	\$13.83	Developing Portia Gold Project, SA; other copper, gold, iron projects in SA
Encounter Resources	ENR	\$0.150	133,075,903	\$19.96m	\$3.30m	\$16.66	Paterson Province WA - mainly copper and zinc

#### **Thundelarra Peer Comparison**

Source: IRESS, Company reports

Cash as of September 30 2014 Quarterly Reports, Prices as of November 14, 2014

# Risks

We consider the key risk for Thundelarra as being exploration risk, as with any exploration company. Also, the small size (2km<sup>2</sup>) of the Red Bore ML does limit "blue sky" potential at this location. However results to date of key projects have partially mitigated this risk (and there is ample room to fit a DeGrussa size body within the tenement), and we consider that there is a good chance for further exploration success.

Given the jurisdictions the Company is operating in, we consider any sovereign and future permitting risk to be only minor.

# Introduction

Thundelarra holds a number of projects in four packages

*Current activities are focussed at Doolgunna and Pine Creek* 

Thundelarra's exploration projects are located over prospective areas of Western Australia and the Northern Territory.

Current activities are concentrated on the Doolgunna Project, located adjacent to Sandfire's DeGrussa operation in Western Australia, where the Company has intersected high grade copper/gold mineralisation and has defined a modest resource to date with significant potential for expansion.

The second key project is Allamber near Pine Creek, located approximately 230km SE of Darwin in the Northern Territory. Work here has intersected base and precious metals, in addition to uranium, with a small resource being defined.

The East Kimberley (copper/nickel) and Ngalia Basin Projects (uranium) are considered lower priority.

# **Doolgunna Project**

# Location and Tenure

Doolgunna, comprising two 90% held tenements, is located adjacent to Sandfire's DeGrussa operation The Doolgunna Project comprises two tenements; the Red Bore Mining Lease M52/597 of approximately 2km<sup>2</sup> (expiry November 2030), and Curara Well (E52/2402, renewal due June 2015), of 83km<sup>2</sup>. The centre of Red Bore is located 1km to the SE of DeGrussa, with the centre of the Curara Well Licence approximately 15km ENE of DeGrussa.

# Doolgunna Project



Source: Thundelarra

Both tenements are held 90% by Thundelarra, with the other 10% being a free carried interest (until a decision to mine) held by prospector Mr. Bill Richmond.

The Red Bore ML was originally subject to an option to earn 60% from Mr. Richmond, with the agreement signed in October 2010. Thundelarra carried out work, including ground surveys (geology, geophysics and geochemistry), which was followed by RC and diamond drilling. The drilling resulted in the definition of a JORC 2004-compliant Indicated Resource of **48,000t** @ **3.6%** Cu and **0.4%** Au, released to the ASX on May 5, 2012, in satisfaction of the terms of the option agreement.

The agreement was then disputed by the other party, with this being decided in favour of Thundelarra by the Supreme Court in October 2013. Thundelarra subsequently renegotiated a 90% stake in the Red Bore tenement, with Mr. Richmond being given the 10% stake in the Curara Well tenement as part of the revised agreement.

### Strategy

The Company's main strategy at Doolgunna is to discover a large scale gold-copper system, potentially similar to DeGrussa.

However, being located adjacent to Sandfire's DeGrussa operation, we believe there is the potential for mine gate sales from mining small near surface occurrences, which could provide near term cash flow to fund ongoing exploration. This naturally would require an agreement with Sandfire, and to our knowledge there have been no such approaches or discussions to date.

The close spaced drilling of the known copper shoots (see below), in addition to helping understand the geology, will also be used to assess the economics of a small scale operation. This does entail close spaced drilling for accurate assessment.

These shoots also have some areas of what is potentially direct shipping ore, which can be sold directly to smelters without the need for processing – these zones are also being assessed.

# Geology and Mineralisation - Red Bore

Red Bore is located over units of the Narracoota Formation, the mafic volcanosedimentary package that hosts the adjacent DeGrussa mineralisation. The Narracoota Formation is located within sediments and volcanics of the Paleoproterozoic Bryah Basin.

Work to date by Thundelarra has delineated near-surface two pipe-like zones of high grade copper mineralisation at the Red Bore gossan, with ground magnetics (and earlier drilling) indicating the potential for more occurrences along a broadly east-west trending 1,300m long prospective horizon.

These have recently been re-interpreted as being structurally and lithologically controlled steeply south-west plunging bodies, however with only a limited cross sectional area. Work to date indicates a core zone with a diameter in the order of 4m, in a broader zone of around 15m diameter. They are characterised by a high grade copper core, and the presence of magnetite in addition to the copper-bearing chalcopyrite; hence the magnetic signature.

These are open at depth. It needs to be noted however, that they are geologically and structurally complex, and interpretations are ongoing. The complexity also reinforces the need for close spaced drilling.

The Company is both exploring for large scale deposits, and assessing the suitability of the known mineralisation for short term cash flow

Thundelarra has carried

out considerable work at

Red Bore, and has

compliant copper

defined a small JORC-

resource as part of its option agreement

Red Bore is located within the Narracoota Formation, host to DeGrussa

Work to date has identified two shoots of high-grade copper mineralisation

These have been interpreted as being steeply plunging, and open at depth



These may represent remobilisation from a deeper copper-rich source, and also a blacksmoker feeder genesis has been invoked Two potential interpretations for the Red Bore mineralisation are that the shoots represent offshoots from a deeper magmatic magnetite-copper body, or they may represent material remobilised, during tectonism, from deeper VHMS mineralisation within the volcanic package - with, in both cases, shoots potentially coalescing at depth.

**Red Bore Tenement Showing Targets and Magnetics** 



Source: Thundelarra

#### **Geological Interpretation – Red Bore**



There is potential for a number of other similar bodies to be found, as well as a source at depth

Source: Thundelarra

It has to be noted that VHMS deposits commonly occur in clusters, both along strike in the same stratigraphic position and at different stratigraphic positions within fertile volcano-sedimentary packages, and thus we consider the potential for extra discoveries similar to DeGrussa to be high.

#### Work to date – Red Bore

Work to date has included ground surveys, as well as considerable drilling Work to date, which commenced in 2010 (with a hiatus from mid-2012 until April 2014), has included geophysics, geological mapping and drilling. A maiden JORC-compliant resource was completed in 2012 as part of the option agreement requirements. The resource is as presented in the table below.



### JORC 2004 Compliant Resource – Red Bore

An indicated resource of 48,000t @ 3.6% Cu and 0.4g/t Au has been defined	Classification	Material	Tonnes	Bulk	Cu	Au(a/+)	Cu	Au
				Density	(%)	Αυ(g/ ι)	Tonnes	Ounces
	Indicated	Oxide	20,000	3.2	2.9	0.4	600	270
	Indicated	Transitional	12,000	3.2	4.2	0.5	480	180
	Indicated	Fresh	16,000	3.1	4.0	0.4	660	190
	Total/average		48,000	3.2	3.6	0.4	1,740	650

Source: Thundelarra

The mineralisation does not give an EM signature

Ground magnetics surveying has delineated a number of features, which have been targeted in drilling and other ground programmes. However, unlike at DeGrussa, mineralisation has not shown up in EM surveying as expected. The Company has noted that laboratory testwork of the massive chalcopyrite returns conductance 10% of that expected – this could be due to interstitial gangue minerals inhibiting conductance.

Drilling has returned exceptional intersections of up to 7.05M @ 28.4% Cu Drilling at the Red Bore occurrence has returned exceptional high grade copper results, including intersections of 15.6m @ 15.2% Cu, 17.7g/t Ag (including 7.05m @ 28.4% Cu, 1.3g/t Au, 32.2 g/t Ag) from drilling in 2014. The 2014 drilling has included a number of RC and diamond holes, testing Red Bore and a number of other magnetic targets. Drilling to date over the tenement has included 75 RC and 9 diamond drill holes. Previous drilling has also intercepted high grade copper and gold.

Due to the small size of the Red Bore shoots, very close spaced drilling has been carried out to help interpret the geometry.





Recent drilling at other magnetic anomalies has also returned encouraging results

Source: Thundelarra

Limited recent drilling at the magnetic target some 900m west of Red Bore has also returned encouraging results, including 11m @ 0.5% Cu and anomalous gold and silver in hole TBRC064, and 9m @ 0.5% Cu, 0.2 g/t Ag and 2.6 g/t Ag in hole TBRC065. These results support the model of the presence of a number of discrete mineralised pipes. Other magnetic targets have also returned encouraging results, supporting the hypothesis.

#### Geology and Mineralisation – Curara Well

The Curara Well tenement covers 15km strike length of the Jenkins Fault Zone, interpreted as being a major crustal structure, that may have operated as a basin growth fault and feeder structure at the time of the emplacement of the DeGrussa



mineralisation. The fault juxtaposes the Narracoota Formation to the south from granites of the older Archean crust to the north.

#### Red Bore - Curara Well Conceptual Model



Source: Thundelarra

The fault zone is exposed in the eastern part of the tenement; to the west granite has been mapped at the surface. A recently postulated model suggests the granite in the west may reflect thin over-thrust sheets, with the prospective Narracoota Formation below. This interpretation is similar to the geology at Plutonic some 25km to the north, where Archean greenstones hosting the gold mineralisation are partially covered by thin over-thrust sheets of granite. A conceptual model for the Red Bore/Curara Well areas is shown above.

The Curara Well tenement covers 15km strike length of the Jenkins Fault Zone, interpreted as a basin edge fault and feeder zone active during the time of DeGrussa mineralisation

The Company has a conceptual model for the *geological development* of the area, which reinforces the prospectivity of their tenements

This invokes a model for thin thrust sheets of granite overlying prospective units, similar to that seen at the Plutonic Gold Mine, about 25km to the north



### Work to date - Curara Well

Work to date has included surface geological, geochemical and geophysical surveys, largely concentrated along the eastern part of the tenement coincident with the interpreted fault zone. This has outlined a number of copper-in-soil anomalies, with anomalous copper associated with sulphides intersected in drilling.

Work to date has identified a number of copper-in-soil anomalies, with drilling identifying a possible feeder structure

Although no potentially economic copper was intersected, this work did identify a target that could represent a VHMS feeder zone, with further work required.



# Curara Well – Work Completed

Source: Thundelarra

# Proposed Work

Thundelarra has a comprehensive work programme planned over the Doolgunna Project. Planned activities during the rest of 2014 include:

- 20 RC holes to further test Red Bore, and the magnetic features 300m to the east and 900m to the west – the Programme of Work is currently being assessed by the Western Australian Department of Mines and Petroleum, with approval expected by the end of November.
- A 2D seismic programme to look at the relationships between units across the Jenkins Fault Zone, and test the granite over-thrusting hypothesis – the Company is looking at sharing this programme with other companies to help defray costs.

### **Pine Creek Projects**

#### Location and Tenure

The Pine Creek holdings include two 100% held project areas, Allamber (nine tenements for 367km<sup>2</sup>) located approximately 180km SE of Darwin, and Copperfield (one tenement for 60km<sup>2</sup>), located immediately to the west of Pine Creek township.

The area is well-served by infrastructure, including road, rail, power and gas.

Allamber is the most advanced of the projects, with Copperfield being grassroots. The bulk of the discussion will concentrate on Allamber.

Proposed work includes a 20 hole RC programme and a possible 2D seismic line, with the seismic testing the structure of the Jenkins Fault Zone

The Pine Creek Projects are located south of Darwin in the Northern Territory





The project includes two 100% held areas – Allamber and Copperfield

Source: Thundelarra

### Geology and Mineralisation

The tenements are located over units of the Paleoproterozoic Pine Creek Orogen

Copper is the key target, however the tenements are considered prospective for other base and precious metals, as well as uranium Both areas are located over units of the Pine Creek Orogen, a Paleoproterozoic belt that is the host to the majority of mineralised occurrences in the Northern Territory.

Copper is the primary target within the tenements, however the package is also considered prospective for gold, silver, tin, tungsten, zinc and uranium. A number of graphite occurrences are also present.

Geology at Allamber includes metamorphosed silicic to calcareous sediments, forming a southeast trending double plunging anticline, with the more calcareous (and reactive) units exposed in the core. The sediments are intruded by the younger Cullen Suite granites, and it is interpreted that there is also a smaller buried alkali intrusion within the eastern side of the sediment package.

#### Allamber Geology and Prospects



Source: Thundelarra

Key mineralisation target styles include skarn and replacement type mineralisation within the more reactive units.

siliciclastic and highly reactive calcareous/ carbonaceous sediments and meta-sediments

The geology includes



# Work to Date

Work to date, including drilling has been carried out over a number of prospects Work undertaken to date by Thundelarra has included surface surveys (geology, geochemistry and geophysics) and drilling. This has outlined a number of prospects, as well as intersecting encouraging copper mineralisation in a number of prospects. Work has also delineated a small (1.4Mt @ 304ppm  $U_3O_8$  for 1 Mlb contained  $U_3O_8$ ) JORC 2004-compliant uranium resource at the Cleo prospect.

Results of work to date are as follows.

# Hatrick and Catfish

Up to 19m @ 1.94% Cu has been intersected at Hatrick These prospects, located in the north-eastern part of the tenement have returned copper intersections of up to 19m @ 1.94% Cu from 43m downhole, with both supergene and primary copper intersected. Mineralisation is associated with a demagnetised sulphidic and carbonaceous horizon, with alteration and mineralising fluids probably related to a late stage alkaline granite intrusion.

Drilling has not demonstrated continuity of mineralisation within the shale horizon, which possibly indicates a dominant cross-cutting shear related control. Drilling has not closed off the mineralisation.

### Cliff South and Cleo

Cliff South and Cleo are prospective for uranium and copper, with a small uranium resource being defined at Cleo Cliff South and Cleo are prospective for uranium and associated copper mineralisation, and are located in similar stratigraphy to Hatrick and Catfish. As mentioned previously a small JORC-compliant uranium resource has been defined at Cleo, and exploration drilling has returned individual one metre assay values of up to 6,571ppm  $U_3O_8$ . This has also intersected broad lower grade zones, including 49m @ 787ppm  $U_3O_8$ .

The association with copper make these prime exploration targets, with a conceptual model shown below. Mineralisation is still open to the north and south, with grade increasing at depth.



# **Cliff South/Cleo Schematic**

Source: Thundelarra



### Nipper

Nipper is prospective for skarn-style mineralisation, with Cu, W, Sn and Au being intersected in drilling to date Nipper is considered prospective for multi-element skarn mineralisation. Shallow drilling to date has intersected significant gold, copper and tungsten mineralisation. This includes 21m @ 0.5% Cu and 0.25% W (including 5m @ 0.93% Cu and 0.37% W) in hole TAL118RC. Skarns are commonly zoned, with metal contents increasing towards the mineralising intrusive. A schematic model is included below – this invokes a buried late stage mineralising granite, with extensive faulting and folding in the meta-sediments.

### **Nipper Skarn Schematic**



Source: Thundelarra

This is early stage drilling only, and hence there remains the prospect for a significant discovery. It needs to be noted that tungsten grades intersected are potentially ore grade, equal to or exceeding those of a number of published resources.

### Ox-Eyed Herring/Tarpon

These copper prospects occur as laminated quart-sulphide sheets and quart-sulphide breccias within the Cullen Granite. Drilling to date has intersected encouraging results of up to 8m @ 0.90% Cu, with interpretation suggesting the possibility of stacked lenses over a strike length of up to 700m and a depth extent of up to 300m.

Further work is required to test the hypothesis, and to elucidate whether there is a sufficient density of veining for potentially economic mineralisation.

#### Swamp Donkey

Due to access challenges, no follow up work has yet been carried out to test the soil and rock chip soil anomalies identified over a broad area by previous explorers – drilling is part of the current programme.

#### Graphite Occurrences

Although not a primary target, drilling along the thermally metamorphosed contact of the Carbonaceous Masson Formation metasediments with the Cullen Granite has intersected wide intersections of graphite within the schists.

Copper mineralisation at Ox-Eyed Herring and Tarpon is hosted in quartz-sulphide sheets and breccias

There are a number of graphite occurrences within metamorphosed calcareous sediments along the contact with the Cullen Granite Preliminary petrographic analysis of chips from two holes has indicated flake sizes of up to  $200\mu$ m, with visual estimates of graphite within the thin sections of between 8% and 15%. Selected drill hole intervals have returned between 7.1% and 10.1% total graphitic carbon.

These results are encouraging – the TGC grades are comparable with those of a number of ASX-listed graphite explorers and developers, and the presence of some flake of >150  $\mu$ m in size indicate the potential for large flake material.

# Future/Ongoing Work

Thundelarra has recently commenced a 25 hole, approximately 4,400m RC drilling programme over six prospects, including Swamp Donkey, Hatrick, Nipper, Ox-Eyed Herring, Sulphur Hill and Cliff South. It is expected that the programme will be completed in late November, with results due in December.

# **Ngalia Basin**



### Ngalia Basin Location and Geology



Source: Thundelarra

Thundelarra holds 100% of three tenements for 1,340km<sup>2</sup>, located 320km north-west of Alice Springs in the Northern Territory. These tenements, on which Thundelarra commenced work in 2010, are considered prospective for palaeochannel uranium mineralisation.

### Geology and Mineralisation

The tenements are located over Tertiary sediments overlying units of the Proterozoic to Palaeozoic Ngalia Basin, with work to date identifying 400km of palaeochannels, with work at the Afghan Swan prospect intersecting up to 7.08m @ 1,405 eU<sub>3</sub>O<sub>8</sub> in basal channel sands, just one of a number of uranium intersections in the project area. This work has covered 15km strike length of one palaeochannel system – no work has been carried out on the others.

The source of the uranium is interpreted as being "hot" granites located to the north – this is a similar geologic setting to the operating Beverley Uranium Mine in South Australia, with uranium being hosted in sediments within palaeochannels, and source rocks being the nearby Mount Painter Inlier.

This is currently a low priority project for Thundelarra, with the Company looking for partners to progress the project, or else a divestment.

Thundelarra has commenced an RC drilling programme testing a number of Pine Creek prospects

Work at Ngalia has identified a palaeochannel system, with drilling intersecting uranium in basal sediments of the channels

The Company is looking for partners to help progress the Ngalia Project



# **East Kimberley**

# Location and Tenure

East Kimberley comprises two 100% held and one 20% FCI project areas The East Kimberley Project includes two 100% held areas (Sophie Downs and Frank Hill) and a 20% free carried interest with Panoramic Resources (ASX: PAN) being the dominant holder at Keller Creek. The projects are located between 25km and 120km NNE of Halls Creek.

The Company has progressively rationalised its East Kimberley holdings, and current holdings are of a lower priority for Thundelarra.





Source: Thundelarra

### Geology, Mineralisation and Work to Date

The tenements are located over Lower Proterozoic meta-sediments, volcanics and intrusives of the Hall's Creek Orogen, which forms part of the North Australian Craton.

Given its location close to the Savannah Nickel Mine, Keller Creek is considered prospective for nickel mineralisation with Panoramic being operator and manager of the JV.

Drilling of an IP anomaly at Frank Hill has intersected native copper grains in fresh mafic and ultra-mafic rocks – this is an unusual occurrence which requires further investigation to assess a suitable sampling and assay methods. Three other holes at Frank Hill returned narrow anomalous copper intersections associated with mafic and ultramafic units.

Work at Sophie Downs has identified two prospects:

- Ilmars, with previous explorers intersecting good metal grades, but nothing commercially viable, and,
- Little Mount Isa, where limited drilling (four holes for 395m) by Thundelarra has intersected up to 13m @ 4.6% Zn, which requires follow up.

# **Proposed Work**

As mentioned, East Kimberley is of a lower priority than Red Bore or Allamber, with no field work planned for the immediate future. However there are a number of targets requiring follow up.

The East Kimberley Project is located over units of the Paleoproterozoic Halls Creek Orogen

The project areas are considered prospective for base metals



# Breakaway's View

In addition to its key Doolgunna Project, our view is that Thundelarra has a portfolio of very attractive exploration projects with excellent prospectivity for a number of metals.

Portfolio of high quality, prospective projects Work to date has shown the potential at Doolgunna, and in particular Red Bore. Although the mineralisation identified to date appears to be rather enigmatic, we believe there is good potential for a major copper-gold discovery in Thundelarra's tenements, supported by the proximity to Sandfire's DeGrussa Mine.

There is also good potential for a small scale operation on the identified Red Bore mineralisation, which could provide short term cash flow.

One concern we have here is the small size of the Red Bore tenement, which limits the "blue sky" potential. However, as mentioned above results to date within the tenement have been very positive, confirming the prospectivity, and there is more than ample room to fit a DeGrussa or larger size body into the Licence.

The Pine Creek tenements are underexplored; however work to date has shown the potential for a significant discovery in any one of a number of metals, including copper, tungsten and uranium, with potentially ore grade intersections being seen in a number of prospects. The juxtaposition of reactive host rocks, granites (source rocks) and structure (fluid pathways) brings key ingredients for mineralisation together.

Although a lower priority project, the Ngalia Basin uranium ground is also underexplored, with work to date over one channel demonstrating the prospectivity.

Experienced and committed board and management, scientifically rigorous exploration work

The board and management have shown that they are committed explorers, with a large proportion of expenditure going directly into the ground. Our view also is that technical work is done to a high standard and is scientifically rigorous – a key for maximising "bang for the buck".

Another positive on the personnel side is that they have a significant stake in the Company – in our view this is an important factor in any company.

# Cashed up

We rate Thundelarra as a SPECULATIVE BUY, and expect ongoing positive news flow Finally, unlike a large number of juniors in the current market, Thundelarra is well funded, with \$7.3 million in the bank as of September 30. At current spending rates this should last through into 2016.

As such, we rate Thundelarra as a SPECULATIVE BUY, and with ongoing work expect ongoing positive news flow.



# **Directors and Management**

Non-Executive Chairman Philip Crabb	<b>Mr Crabb</b> is a Fellow of the Australasian Institute of Mining and Metallurgy and a member of the Australian Institute of Company Directors and has been actively engaged in mining and exploration for the past forty one (41) years in both publicly listed and private exploration companies. He has considerable experience in field activities, having been a drilling contractor, quarry manager and mining contractor. Mr Crabb also has extensive experience as a director of Australian publicly listed companies. In resource company management, he achieved notable success amongst others as a director of Gasgoyne Gold Mines NL which was involved in the discovery and development in 1989 of the Yilgarn Star Gold Mine, a major gold producer in WA. Mr Crabb is currently a director of Canadian publicly listed Aldershot Resources Ltd (since 2009) and Royal Resources Limited (since 2006).
Chief Executive Officer Tony Lofthouse	<b>Mr Lofthouse</b> has 34 years' experience in the resources sector. His expertise spans field geology and financial services, working for companies ranging in size from small cap explorers to global corporates. For the past 29 years he has worked both in the equities markets as a mining research analyst specialising in the exploration and early producer segment; and also in the debt markets as a project financier and as a corporate banker servicing the financing, hedging and day-to-day transactional banking needs of Australian resource companies of all sizes. He has also served as a non-executive director of an ASX-listed explorer. This wide-ranging experience, gained over a successful three decade long career spanning several share market cycles, gives Mr Lofthouse insight into all aspects of exploration and project development. His understanding of the project evaluation and credit assessment process undertaken by the global resource banks will add significant value to the strategies for progressing the company's project pipeline.
Executive Director and Company Secretary Frank DeMarte	<b>Mr DeMarte</b> has over twenty seven (27) years of experience in the mining and exploration industry in Western Australia. Mr DeMarte has held executive positions with a number of listed mining and exploration companies and is currently an Executive Director and Company Secretary of Royal Resources Limited and CFO of TSX Listed Aldershot Resources Ltd. Mr DeMarte is experienced in areas of secretarial practice, management accounting and corporate and financial management. Mr DeMarte holds a Bachelor of Business majoring in Accounting and is a Fellow of the Chartered Secretaries of Australia and the Australian Institute of Company Directors.
Non-executive Director Mal Randall	Mr Randall holds a Bachelor of Applied Chemistry Degree and is a member of the Australian Institute of Company Directors. He has extensive experience in corporate, management and marketing in the resource sector, including more than 20 years with the Rio Tinto group of companies. His experience has covered a diverse range of mineral activities including Iron Ore, Base Metals, Uranium, Minerals sands and Coal. Mal has held the position of Chairman and director of several ASX listed companies. Mal has been an independent non-executive director of Thundelarra since 2003 and is currently also on the board of Matilda Zircon Ltd (Chairman), Summit Resources Ltd and Royal Resources Ltd.

Biographies extracted from THX website, October 26, 2014



#### Analyst Verification

We, Grant Craighead and Mark Gordon, as the Research Analysts, hereby certify that the views expressed in this research accurately reflect our personal views about the subject securities or issuers and no part of analyst compensation is directly or indirectly related to the inclusion of specific recommendations or views in this research.

#### Disclosure

Breakaway Investment Group (AFSL 290093) may receive corporate advisory fees, consultancy fees and commissions on sale and purchase of the shares of Thundelarra and may hold direct and indirect shares in the company. It has also received a commission on the preparation of this research note.

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