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# Scimitar Resources Ltd. Amadeus Uranium Project EL 24704.

Annual Report for the Year Ending 7<sup>th</sup> March 2007.

Author: Andrew Rust
Date: 5<sup>th</sup> April 2007
Scimitar Resources Ltd

P.O Box 285 West Perth WA 6872

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# Summary.

This report details the exploration activities carried out over Scimitar Resources Ltd. (Scimitar) Amadeus Project in the Northern Territory, during the period 8<sup>th</sup> March 2006 to 7<sup>th</sup> March 2007. This work included research, data base compilation, field reconnaissance and target generation within EL 24704.

An RC drilling program associated with field mapping and ground based radiometric surveying is expected to commence during mid 2007, targeting potential uranium mineralisation within the Undandita sandstone Member.

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#### 1.0 Introduction.

Scimitar's Amadeus Uranium Project covers the central and eastern parts of the Amadeus Basin, to the south of Alice Springs, which is prospective for sandstone uranium mineralisation. EL 24704 covers the north eastern corner of the basin and is located 10 km to the east of the Pamela and Angela uranium deposits, with an inferred and indicated resource of 12,600 tonnes  $U_3O_8$ , average grade of 0.1%  $U_3O_8$ .

This report details the exploration activities carried out over the Amadeus Uranium Project area during the period 8<sup>th</sup> March 2006 to 7<sup>th</sup> March 2007. This work included research, data base compilation, field reconnaissance and target generation.

## 2.0 Location, Access and Tenure.

The Amadeus Uranium Project is located 25 to 50 km southeast of Alice Springs. Access to the area is provided by a number of major unsealed roads, including the Old South Road and the Santa Teresa Road. (fig. 1)

Exploration Licence EL 24704 covers 524 km² and is found on the Alice Springs SF 53-14 and Rodinga SG 53-02 1:250,000 map sheets, centred on 413000 E / 7355500 N (GDA94).

Table 1. Eclipse Project Tenement Details.

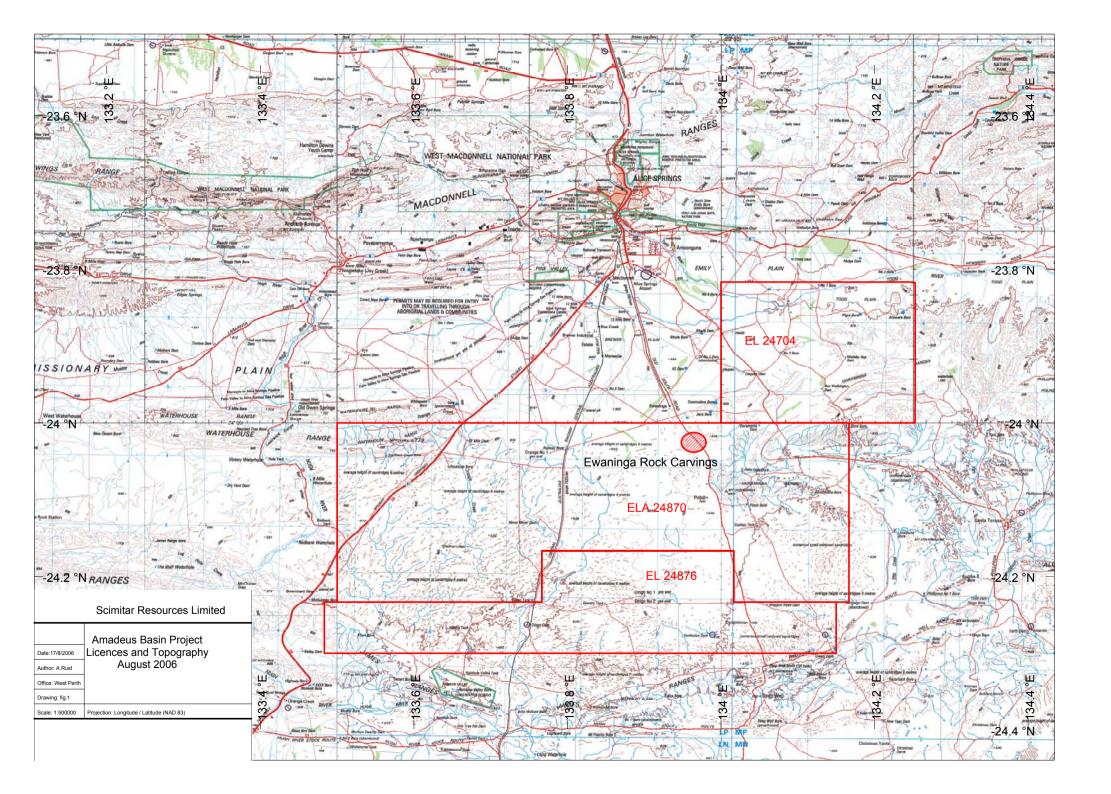
Licence	Holder	Date Granted	Expiry Date	Area km²	Minimum Expenditure
EL 24704	Scimitar Resources Ltd 100%	08/03/2006	07/03/2012	524	\$57,000

# 3.0 Regional Geology.

The Amadeus Basin is a large east west trending intra-cratonic basin of Late Proterozoic to Carboniferous aged marine and continental sediments. These derived were derived from the surrounding early to mid Proterozoic granites and metamorphic rocks of the Arunta Block to the north and Musgrave Block to the south.

The basin is rimmed by the Phanerozoic Canning basin to the west, The Musgrave block to the south, the Palaeozoic Pedirka Basin to the east and the Arunta Block to the north. Sedimentation commenced about 900 Mya and resulted in a sequence up to 10,000 metres thick. The basal (Late Proterozoic) sequence comprises shelf, sediments, lagoonal and continental fluvio-glacial deposits which are disconformably overlain by Cambrian continental to shallow marine sediments including carbonates and evaporate. Late Cambrian and Ordovician marine sediments disconformably overlie parts of the basin, with Devonian – Carboniferous continental sediments unconformably overlaying other areas. (Freeman etal 1990)

Extensive broad folding and thrusting along the northern basin margin, during the Alice Springs Orogeny (Devonian-Carboniferous) and along the southern margin during the late Proterozoic Petermann Orogeny, has given rise to the broad regional synclines and anticlines that are visible today. (Freeman etal 1990)



400000 mE p-C p-C-b Pab Alice Springs Pah RO1103 Pamela Uranium Deposit Angela Uranium Deposit RO1292 EL24704 Orange Creek Uranium Prospect ELA24870 Cj EL24876 COp Pzr 7300000 ml Ci 25km Pux Pux Reduced Undandita Sandstone Iwupataka Metamorphic Complex Goyder Formation Strangeways Metamorphics Px Arunta Province Pertaoorrta Group p-C Renolds Range Group, Harts Range Group Hermannsburg Sandstone Pioneer, Olympic, and Pertatataka Formations Pacoota Sandstone Pux Pab **Burt Bluff Gneiss** Trephina granitic gneiss Tertiary Sediments Devonian Amadeus Basin Sediment Arumbera Sandstone Road Ca Scimitar Resources Tenement Heavitree quartzite and Bitter Springs Formations

Figure 2. Amadeus Project Geology and Tenements.

# 4.0 Project Geology.

The project area is typified by undulating sandy plains overlying the Devonian Undandita sandstone Member of the Brewer Conglomerate. Out crops of the Undandita sandstone are common, especially in the northern part of the basin.

The Undandita sandstone Member is the youngest unit in the Amadeus Basin and hosts the Angela and Pamela uranium deposits as well as a number of uranium prospects throughout the basin. The Undandita Sandstone ranges from fine to coarse grained lithic arenite through to medium to coarse grained lithic arkose. Thin mudstone units are common. The sandstone interfingers with the Brewer Conglomerate and reaches a maximum thickness of 3000m in the Missionary Syncline, 15 km south west of Alice Springs. (Borshoff & Farris 1990)

The Undandita Member is generally oxidised but contains a wedge of reduced sediments between an upper and lower regional redox front. This reduced wedge is extensive throughout the basin and is found both in the missionary Syncline, where it is associated with uranium mineralisation at Pamela and Angela, and in the Orange Creek Syncline where it is associated with mineralisation at the Orange Creek Prospect. (Fig. 2)

The Angela and Pamela uranium deposits are located at the eastern end of the missionary syncline, 10 km west of Scimitars licence EL 24704. The deposits are hosted within a sequence of pebbly sandstone, minor siltstone and conglomerates, deposited within a braided stream system. (Borshoff & Farris 1990)

The main Angela ore body has an east-west strike in excess of 5700 metres and has a gentle plunge of 9° to the west. The uranium mineralisation remains open down plunge. The Angela deposit consists of a series of stacked horizons made up of one or more small roll front uranium occurrences. Uranium mineralisation consists of uraninite and pitchblende with minor coffinite on grain coatings and in voids. Secondary carnotite mineralisation occurs within the weathered profile and at depth due to decomposition of the primary uranium minerals.

Uranium mineralisation is primarily hosted within medium to coarse grained feldspathic lithic arenites that are partly cemented by calcite. The lithic fragments were primarily derived from the metasediments, schists, gneiss and granites of the Arunta Complex to the north. Detailed ground mapping in association with shallow vacuum drilling indicated that uranium mineralisation is associated with gently north dipping redox boundaries within the Undandita Sandstone. The redox boundary forms an irregular interdigitation of oxidised and reduced facies along which the uranium occurrences are found. (Borshoff & Farris 1990)

Enrichment of uranium occurs at noticeable steps in the redox boundary between higher and lower stratigraphic levels. These steps are in the order of 5-40 metres and are interpreted to be associated with an east trending fault or structural break.

# 5.0 Previous Exploration.

The basin was the centre of active uranium exploration during the 1970's, with the focus on roll front uranium mineralisation hosted within the late Devonian aged Undandita Sandstone. A number of significant uranium deposits and occurrences were identified including the Pamela and Angela uranium deposits located along the northern basin margin.

BHP explored the eastern part of the current EL 24704 during 1976. The target was phosphate mineralisation within the Todd River Dolomite. A total of eleven holes for 1049 metres of rotary percussion, were completed in the area. Only three (PD 9, 10 & 11) occur in the current licence (Fig 3.). The drilling intersected a package of phosphatic and calcareous sandstone, siltstones and dolomite. The best result was  $2m @ 4.13\% P_2O_5$  form PD2. (Anon 1976)

AGIP Australia Ltd undertook exploration for uranium, over the Emily Plain, to the east of the Pamela and Angela deposits during 1978. Two holes for 164 metres (AER1 & 2) were completed (Fig 3.). The drilling failed to intersect the Brewer Conglomerate and the ground was relinquished. (Anon 1978)

Uranerz Australia P/L (Uranerz) held a large ground position within the Amadeus Basin during the 1970's to the early 1980's and undertook basin wide exploration for uranium mineralisation. The target was roll front mineralisation within the Undandita sandstone Member. Most of this work was concentrated to the immediate west of the current licence EL 24704.

First pass airborne and ground based radiometric surveys, during 1972, identified three surface uranium anomalies. Follow up trenching and drilling led to the recognition of the Pamela and Angela prospects in 1973 and 1974. Detailed ground mapping in association with shallow vacuum drilling indicated that uranium mineralisation is associated with gently north dipping redox boundaries within the Undandita Member. (Fig. 3)

The redox boundary forms an irregular interdigitation of oxidised and reduced facies along which the uranium occurrences are found. Enrichment of uranium occurs at noticeable steps in the redox boundary between higher and lower stratigraphic levels. These steps are in the order of 5-40 metres and are interpreted to be associated with an east trending fault or structural break. (Borshoff & Farris 1990)

Exploration over a 10 year period by Uranerz Australia P/L (Uranerz) and joint venture (JV) partners Carpentaria Exploration Company P/L delineated a measured resource of 4700 tonnes eU3O8 (average grade 0.13%) to a depth of 650m within the Angela deposit and associated satellite ore bodies. A further 1950 tonnes at an average grade of 0.1% U3O8 is stated as an indicated resource. (Borshoff & Farris 1990)

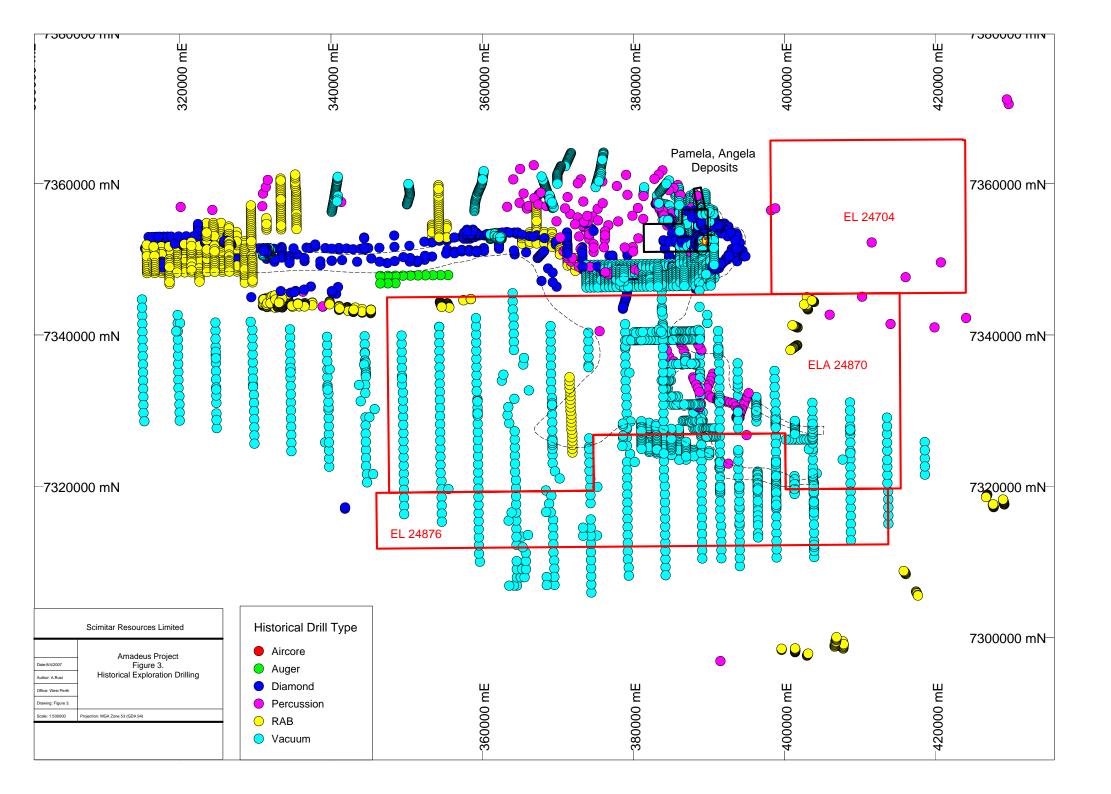
During 1981 Magellan Petroleum Ltd. completed a wild cat oil and gas hole (Wallaby1) within the current licence area. The hole of 2425m total depth encountered insignificant gas and florescence within the target early Cambrian dolomite and only small gas shows within late Proterozoic to early Cambrian sandstones. (Gorter etal 1982)

### 6.0 Work Completed.

During the reporting period Scimitar has undertaken a review of the available open file reports and data, acquired airborne radiometric imagery, undertaken data entry and the creation of a project data base, undertaken a number of reconnaissance field trips and generated targets for follow up drilling programs.

As part of a basin wide review of data and the creation of an up to date electronic data base for the Amadeus Project, all the available historical reports were acquired from the NT government. The data from these reports has been entered into an access data base, which will reference drill collar data with down hole information including geology, assays and radiometric data. The compilation and geo-referencing of this data is continuing and will be used to target further exploration programs within the Amadeus Basin.

Two reconnaissance field trips were undertaken during mid to late 2006. The aim of these trips was to get an understanding of the general lie of the land, access, geology and potential target areas, including locating outcrops of calcrete, which could potentially host secondary uranium mineralisation. This work also indicated that parts of the licence area are composed of lithology's that are unlikely to host uranium mineralisation. These areas will be relinquished in the near future.



#### 7.0 Conclusions and Recommendations.

Investigation of open file reports has indicated that very little exploration for uranium has been undertaken within the licence area. The work completed during the early 1970's consisted of limited car-borne radiometric surveys and limited drilling along the western boundary of the licence.

Based on the lack of conclusive historical work, particularly the lack of drilling, Scimitar feels that there is still potential for uranium mineralisation to be hosted within EL 24704 and intends to undertake a reconnaissance Reverse Circulation (RC) drilling program to indicate if there is any presence of;

- a. the Undandita sandstone Member,
- b. oxidized and reduced facies in the sandstone'
- c. anomalous down hole radiometric readings,

within exploration licence EL 24704.

The RC drilling program (4000 m) will be conducted along roads and station tracks and will aim to give a cross section across the licence. Initial drill collar spacings will be at 1000 metres with the potential for infill. The holes will be in the order of 50 to 100m deep and aim to intersect the Undandita sandstone Member and determine whether it is oxidised or contains reduced material, which could potentially provide a locus for uranium mineralisation.

Field mapping and ground based radiometric surveys will be carried out in conjunction with the drilling program. This will provide further information on the structure of the project area and help target drilling further programs.

The company is in the process of completing a Mining Management Plan for the project and will be seeking clearance for exploration drilling from the Central Land Council in the near future. It is envisaged that on ground field exploration will commence during May 2007, after the end of the current wet spell.

#### References.

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