SUMMARY

The Namarrkon Project consists of a single Exploration Licence, EL23700 with a total area of 100.6 km², located in West Arnhem Land approximately 250km east of Darwin.

EL23700 was granted to Cameco Australia Pty Ltd ( Cameco) on 31 May 2005 for an initial period of six years. In early December 2006 a Joint Venture agreement was signed between Cameco and Uranium Equities Limited (UEL) giving UEL the right to earn up to 40% interest in the project. UEL currently holds 40% interest in the tenement.

During the third year of tenure covered by this report, the JV partners conducted exploration for uranium mineralisation. The exploration program consisted of four helicopter-supported diamond drill holes for 1,697.2m drilled, reconnaissance and mapping work with the collection and analysis of 18 outcrop samples. A summary of exploration activities is provided below:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Amount</th>
<th>Location/Prospect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geological Sampling and</td>
<td>18 rock chip samples</td>
<td>Tenement -wide</td>
</tr>
<tr>
<td>Reconnaissance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additional sampling NMD0002</td>
<td>3 samples</td>
<td>Black Bream</td>
</tr>
<tr>
<td>Heli-supported Diamond Drilling</td>
<td>4 drillholes for 1,697.2m</td>
<td>Lightning Fault, Hot Dot and Black</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bream Prospects</td>
</tr>
<tr>
<td>Petrology</td>
<td>6 samples</td>
<td></td>
</tr>
</tbody>
</table>

Drill holes NMD0004 and NMD0005 were drilled in the Lightning Fault and Hot Dot Prospect areas respectively. NMD0004 intersected the unconformity position but did not produce any results above expected background values. NMD0005 intersected anomalous subcropping Oenpelli Dolerite with composite sampling producing 20.4m @ 167ppm U₃O₈ from 0m.

Drill holes NMD0006 and NMD0007 were drilled at the Black Bream Prospect following-up previous anomalous uranium mineralisation in dolerite. NMD0006 produced the best result with 5.1m @ 172ppm U₃O₈ from 325.22m. NMD0007 drilled fractured/broken Mamadawerre Sandstone sequences before drilling into bleached and altered Tin Camp Granite with no results above expected background values.

Total eligible expenditure for the exploration program was AUD$1,109,764.
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**INTRODUCTION**

This report describes exploration activities carried out on EL23700 (Namarrkon Project) during the reporting period from 31st May 2007 to the anniversary date for the 2007 field season, by Joint Venture partners Cameco Australia Pty Ltd (Cameco) and Uranium Equities Limited (UEL).

EL23700 is located on Aboriginal Land and the exploration program was carried out under the terms of consent documentation agreed with the NLC pursuant to the Aboriginal Land Rights (Northern Territory) Act 1976. Exploration work clearance was given by the NLC on behalf of the Traditional Owners following the Work Program Meeting held on 4 April 2007 at Oenpelli.

Field investigations during the year focused predominantly on helicopter-supported diamond drilling and tenement-wide reconnaissance and outcrop sampling. All activities were based out of Cameco’s Myra Camp.

All digital data pertaining to the drilling and outcrop samples can be found in the DATA directory of this report CD.

**Location and Access**

The Namarrkon Project is located in West Arnhem Land, entirely within Aboriginal Land (refer Figure 1). The project is approximately 50km east north east of Jabiru and 15km south east of the rehabilitated Nabarlek mine site. Darwin lies approximately 250 kilometres to the west. The project is within the 1:250000 Alligator Rivers (SD-5301) and the 1:100000 Oenpelli (5573) map sheets.

*Figure 1: Project Location Map*

The rugged nature of the sandstone plateau that almost entirely covers EL23700 necessitates the use of a helicopter, based out of Cameco’s Myra camp for most exploration activities. Vehicle access is limited with access from adjacent tenements to small areas in the west, and northern parts of the project area.

Access to Cameco’s Myra Camp from Darwin is via the sealed Arnhem Highway to the Oenpelli-Maningrida road turnoff just west of Jabiru, and then north-east along the Oenpelli-Maningrida road past Oenpelli to the Nabarlek road, and along the Nabarlek road to the Myra Camp access track turnoff just west of the mine site.

**Tenure**

Application for EL23700 was lodged on 27 March 2003 and grant of title was given to Cameco Australia on May 31 2005, for an initial period of six years. The original area of grant is 100.6 km² (30 blocks). Approximately 3.1 km² of EL23700 is designated as ‘no-go’ and various other archaeological sites are excluded from exploration access.

As the exploration licence is located on Aboriginal land the work program was carried out under the terms of consent documentation agreed with the Northern Land Council, pursuant to the Aboriginal Land Rights (Northern Territory) Act.
The proposed exploration work was presented to the Traditional Owners and NLC at the Work Program Meeting held on 4 April 2007 at Oenpelli. Clearance to conduct the program was given by the NLC on behalf of the Traditional Owners.

An archaeological survey of the proposed work areas was conducted by EarthSea Heritage Surveys (EarthSea) prior to commencement of ground disturbing exploration activities. Indigenous archaeological sites are considered significant within the terms of the NT Heritage Conservation Act 1991 (HCA), and are afforded protected under Section 39 of the HCA. Instructions for the proposed exploration works to avoid these archaeological places were recommended by Earth Sea, and the exploration program was conducted under those guidelines.

In early December 2006 a Joint Venture agreement was signed between Cameco and UEL allowing UEL to earn a 40% interest in EL23700, providing expenditure obligations were met. UEL has met the expenditure requirements, and currently controls 40% interest in the Namarrkon Project. Cameco will remain as manager and operator, with UEL staff seconded to Arnhem Land operations.

**Regional Geological Setting**

The Namarrkon Project area is located within the eastern margin of the Pine Creek Inlier (PCI) and lies on the eastern boundary of the East Alligator structural domain with the Nimbuwah structural domains to the east ((Needham and Stuart-Smith 1980; Needham 1988)). Figure 2 shows the location of the project area in its regional geological setting.

**Figure 2: Western Arnhem Land and Kakadu Regional Geology**

The Bureau of Mineral Resources (BMR) conducted reconnaissance mapping of the PCI in 1946, with more detailed work in the 1950s and 1960s following the discovery of uranium at Rum Jungle. The Alligator Rivers region was systematically mapped by the BMR between 1972 and 1983, resulting in the publication of two 1:250000 scale geological and metallogenic maps ((Needham, Smart et al. 1983; Needham 1990)) and a detailed report ((Needham 1988)).

The 2500Ma (late Archaean) Nanambu Complex represents the oldest rocks in the Alligators River region. Nanambu Complex rocks outcrop sparsely in Kakadu National Park and include paragneiss, orthogneiss, migmatite, granite and schist ((Needham 1988)). The Archaean complexes form structural domes that are unconformably overlain by metasediments and minor metavolcanics of the Palaeoproterozoic Pine Creek Succession or Supergroup (PCS), which constitutes the Pine Creek Orogen tectonic unit (formerly the Pine Creek Geosyncline).

In the Alligator Rivers region, the PCS initiates with meta-psammitic and quartzose rocks of the Mount Howship Gneiss and Kudjumarndi Quartzite (both Kakadu Group). These are laterally equivalent to the Mount Basedow Gneiss and Munmarlary Quartzite respectively ((Ferenczi, Sweet et al. 2005)). This Group appears to onlap the Archaean basement highs, but gneissic variants are also reported to be transitional into paragneiss of the Nanambu Complex ((Needham 1988)).
The Cahill Formation and Masson Formation of the Namoona Group (Ferenczi, Sweet et al. 2005) conformably overlie the Munmarlary Quartzite, the Cahill Formation being informally mapped as two subunits or members (Needham 1988). The Lower Cahill Formation hosts the main uranium ore bodies in the region (Nabarlek, Ranger and Jabiluka) and consists of a basal calcareous marble and calc-silicate gneiss unit that is overlain by pyritic, garnetiferous and carbonaceous schist (meta-pelite), quartz – feldspar – mica gneiss (meta-arkose) and minor amphibolite.

The Upper Cahill Formation is more psammitic, comprising feldspar – quartz schist (meta-arkose) and quartzite, lesser mica – feldspar – quartz – magnetite schist (meta-pelite), and minor conglomerate and amphibolite. It also contains the mafic to intermediate Stag Creek Volcanics, which have a SHRIMP U – Pb age of 2048±13 (Ferenczi, Sweet et al. 2005). The Cahill Formation is notably magnetic, in particular the base of the upper psammitic unit (also known as ‘hanging wall sequence’), due the presence of mafic sills and/or magnetite, providing a means of spatially distinguishing it from underlying and overlying less magnetic formations (Kendall 1990). The Masson Formation is generally considered to be the lower grade metamorphic equivalent of the Cahill Formation.

The unconformably overlying Nourlangie Schist is a monotonous succession of argillaceous to quartzose phyllite and quartz – mica schist that locally contains garnet and staurolite.

The overlying Gerowie Tuff and Mount Bonnie Formation in the central PCI comprise variously interbedded massive silicic-potassic tuffaceous chert, carbonaceous clayey siltstone, coarse greywacke and lithic sandstone. Metamorphosed equivalents of these lithologies have not yet been recognised in the Nourlangie Schist, suggesting facies variation, onlap/pinchout, erosional removal or a lack of definitive exposure in the east.

Mafic sills and dykes including the Goodparla and Zamu Dolerites intrude the PCS, with the former common in the upper Cahill Formation and the latter prolific in the South Alligator Group (Warren and Kamprad 1990).

The sedimentary and igneous rocks of the PCS are structurally complex, having undergone at least three recognisable phases of deformation (Thomas 2002) related to Top End Orogeny (1880 to 1780Ma). They have also undergone high-temperature low-pressure prograde metamorphism, including local migmatisation and remobilisation during the ~1850 – 1860Ma Nimbuwah Event of the Barramundi Orogeny (Page and Williams 1988).

The intensity of metamorphism and deformation varies across the region, with the western and eastern margins of the Pine Creek Inlier (Litchfield Province and Nimbuwah Domain respectively) showing the most pronounced effects. In the Nimbuwah Domain or Alligator Rivers region, there is a broad trend of increasing grade from southwest to northeast. This gradient clearly reflects synchronous emplacement of the 1865Ma Nimbuwah Complex granitoids in that area. Distinctions based on metamorphic grade and protolith type have been made on regional maps (Needham 1988).
The PCS and Cullen Batholith are locally overlain by felsic volcanic rocks belonging to the Edith River and El Sherana Groups, which are comagmatic with the Cullen Batholith (Jagodzinski 1992). These units are thickest in the south in the South Alligator Fault Zone and are generally absent in the Alligator River region due to Palaeoproterozoic erosion.

The various basement units are unconformably overlain by the Kombolgie Subgroup, the basal unit of the late Palaeoproterozoic Katherine River Group, McArthur Basin (Sweet, Brakel et al. 1999). This subgroup consists of a series of sandstone formations (Mamadawerre, Gumarrinbang and Marlgowa Sandstones), which are divided by two basaltic units (Nungbalgarri and Gilruth Volcanics).

The minimum age of the Mamadawerre Sandstone is 1725Ma based on geochronology of the Oenpelli Dolerite. The sandstones form a flat-lying or shallow southeast dipping, strongly jointed platform, called the Arnhem Land Plateau. The eroded edge of the Mamadawerre Sandstone forms the characteristic Arnhem Land escarpment and the isolated sandstone mesas and ranges on the coastal plain. The middle to upper part of the Katherine River Group is exposed ~50km further to the southeast near Mount Marumba (Sweet, Brakel et al. 1999).

The Oenpelli Dolerite is the most pervasive mafic intrusive suite to affect the Alligator Rivers region and is the youngest Precambrian rock unit exposed. It intrudes various levels of the stratigraphy, including the PCS and Kombolgie Subgroup, forming highly magnetic sills, dykes, lopoliths and laccoliths. Intrusions can be either concordant or discordant with Palaeoproterozoic stratigraphy. This unit is currently constrained by a SHRIMP baddeleyite date of 1723±6 Ma (Ferenczi, Sweet et al. 2005), however, geochemical and geophysical data suggest several phases of intrusion throughout the region.

At least one phase correlates with emplacement of the Nungbalgarri Volcanics at about 1780Ma (Rawlings 2002). These intrusive events had a pronounced thermal effect within the Kombolgie Subgroup, with the promotion of fluid flow and aquifer/aquitard modification. Localised effects in the sandstone include silicification, desilicification and introduction of chlorite, muscovite and pyrophyllite in active aquifer systems. A characteristic mineral assemblage of prehnite – pumpellyite – epidote has formed in the quartzofeldspathic basement rocks adjacent to the intrusions.

Field evidence for the age of the Nabarlek and Tin Camp Creek Granites is inconclusive, with both pre- and post-sandstone interpretations being valid. The Tin Camp Granite has been traditionally interpreted as unconformably overlain by Mamadawerre Sandstone along Tin Camp Creek, however, common silicification and up-doming of the cover sequence above this granite is also consistent with emplacement as a sill at the basement-sandstone unconformity and subsequent thermal metamorphism of the sandstone. The pre-sandstone explanation of these observations involves long-lasting radiogenic-driven fluid flow and silicification above the granites and structural displacement of the granite (i.e. solid state diapirism).

Deformation since deposition of the Katherine River Group includes transpressional movement along steep regional-scale strike-slip faults and possibly some shallow thrusting. These regional faults follow a pattern of predominantly north, northwest,
north – northwest and northeast strikes, giving rise to the characteristic linearly
dissected landform pattern of the Kombolgie Plateau. Another significant set trends
east – west and includes both the Ranger and Beatrice Faults.

The Bulman Fault Zone is a principal regional feature and is considered to represent a
long-lived deep crustal structure, with a large lateral component in rocks of the PCS.
However, it appears that post-Kombolgie displacements along this and other faults have
not been great, because the Arnhem Land Plateau is essentially coherent and offsets
along lineaments are generally minor. Field investigations of many interpreted ‘faults’,
including those with a marked geomorphic expression, show no displacement, and are
best described as joints or lineaments ((Thomas 2002)).

Erosional remnants of flat-lying Palaeozoic Arafura Basin and Cretaceous Carpentaria
Basin are present as a veneer throughout the coastal zone of the Top End. Various
regolith components are ubiquitous as cover throughout much of the region.

Local Geology
EL23700 is almost completely covered by Palaeoproterozoic sedimentary and volcanic
Kombolgie Subgroup. Basement rocks are present in the far northeastern corner of the
tenement at the base of the Stevens fault-bound Mamadawerre Sandstone escarpment,
although these are largely obscured by Quaternary cover. Figure 3 displays the local
project geology of the Namarrkon project.

Figure 3: Namarrkon Project – Local Geology

The Mamadawerre Sandstone, the oldest formation of the Kombolgie Subgroup,
occupies most of the tenement, where it forms a deeply dissected plateau surface. This
area is composed largely of bare rock with sparse areas of shallow sandy soil
supporting spinifex and scrub. Plateau escarpments are developed to the north of the
tenement along the Stevens Fault.

Mamadawerre Sandstone is unconformably overlain by Nungbalgarri Volcanics. The
unconformable contact is expressed locally as 100 – 500m diameter circular
depressions (‘dome and basins’), with the upper sandstone surface interpreted to
represent the palaeotopographic surface of giant lunate current ripples or aeolian sand
dunes with the volcanics draped over the top ((Nott and Ryan 1996)). It may also
represent large dewatering structures formed as a result of hot volcanic rocks draped
over water-saturated sediments, which were deposited in estuarine conditions
((Needham 1978)). The dome and basin structures dominate airborne imagery of the
southern-central part of the tenement.

The Nungbalgarri Volcanics itself consists of multiple vesicular and amygdaloidal
basaltic flows approximately 100 – 200m thick. Following airborne radiometric
surveys by BMR in 1971-72 ((Horsfall and Wilkes 1975)) it was noted that laterite
developed downslope of outcropping Nungbalgarri Volcanics display elevated U/Th
ratios and form prominent radiometric anomalies ((Needham 1988)).

The Gumarrirnbang Sandstone disconformably overlies the Nungbalgarri Volcanics
forming restricted outcrop occurrences in EL23700. The sandstone comprises fine to
course-grained quartz arenite with scattered pebbly units. Sedimentary structures
include planar and trough cross-stratification, ripples and horizontal planar
stratification, suggesting a proximal to distal fluvial braided stream and estuarine
depositional environment.

Oenpelli Dolerite intrudes Mamadawerre Sandstone as sills and outcrops at several
localities, most notably along the arcuate Spencer Thrust extending from the centre to
the west of the tenement and into the adjacent Nabarlek Project. Oenpelli Dolerite is
also present along the Stevens Fault in the north east of the tenement.

Previous explorers (AFMEX), with later modifications by Cameco, have developed a
detailed stratigraphy correlating metasedimentary rocks of the Myra Falls
Metamorphics with the lower-grade Cahill Formation. The detailed stratigraphy is
shown in Figure 4. In Western Arnhem Land the AFMEX stratigraphy correlates the
Upper Cahill formation with the ‘Upper Arkosic Unit,’ which consists of alternating
meta-arkose (quartz – biotite – muscovite gneiss) and biotite – muscovite – quartz
schists.

Figure 4: Detailed Stratigraphy of the Myra Inlier

The Lower Cahill formation correlates with three units, the upper ‘Amphibolitic Unit,’
the middle ‘Lower Arkosic Unit’ and the basal ‘Calc-silicate Unit.’ The ‘Amphibolitic
Unit’ is characterized by para- and ortho-amphibolites (~40%) interbedded with biotite-
muscovite schists. The ‘Lower Arkosic Unit’ consists of biotite-muscovite schists,
some with garnet and/or sillimanite and rare graphite alternating with fine-grained
meta-arkose and occasional amphibolite beds. The ‘Calc-silicate Unit’ contains
amphibolites, garnet-mica schists, calc-silicate gneisses marbles and cherts.

A number of large structures pass through the tenement. The Spencer thrust runs west
– northwest through the central part of the tenement and exhibits a north-side-up
movement ((Kastellorizos, Moreau et al. 1999)). The Quarry fault runs north – south
through the tenement, passing through Kukalak Valley to the south of Namarrkon
before disappearing under cover to the north. To the north of the Spencer thrust, the
Quarry fault has a surface expression of silicified sandstone breccias.

The Stevens fault in the northeast of the tenement strikes east – west through
Namarrkon and the adjacent Cadell Project (EL3347) to the east. Two well-defined
faults, the Lightning and Thunder faults run west north westerly through the northern
half of the tenement and continue into the adjacent Nabarlek and Cadell Projects.

The Namarrkon lineament is a regional lineament originating near the northeast corner
of Namarrkon and striking west-southwest for over 50km. The extent of movement, if
any, on this feature is not known.

**Exploration Target**

The focus of exploration in the Namarrkon Project area is the discovery of
unconformity-style uranium deposits. The prospective nature of the Alligator Rivers
region is demonstrated by the presence of economic uranium occurrences at Ranger,
Jabiluka, Koongarra and Nabarlek. In addition, significant gold, platinum and
palladium resources are present at existing uranium occurrences in the Alligator Rivers
Uranium Field (Ranger, Jabiluka, Koongarra and Coronation Hill/South Alligator
Valley-style deposits) suggesting that economic Au and PGE (Platinum Group Element) mineralisation, associated with economic or sub-economic uranium may also be present in the project area.

Recent research into the Proterozoic Westmoreland District uranium deposits, from the Northern Territory – Queensland border suggests that the same broad physiochemical processes that govern unconformity-style uranium deposits also produce Westmoreland-style deposits, and indeed other basin/unconformity associated precious and base metal deposits (Wall 2006). Thus, ‘Westmoreland-style’ uranium mineralisation is a legitimate exploration target in the dolerite and volcanic units of project area, although only sub-economic uranium occurrences have been discovered associated with these units in West Arnhem Land.

PREVIOUS EXPLORATION

Exploration in the Alligator Rivers region of the Northern Territory can be divided into two phases. The first phase of exploration commenced in 1970 and continued until September 1973 when a Federal Government moratorium on mineral exploration on Aboriginal Land halted exploration activity. Exploration in West Arnhem Land eventually recommenced in 1986 and in the Namarrkon Project area itself in 1996.


Details of exploration conducted by AFMEX on EL3589 can be found in the respective annual reports ((Kastellorizos 1998; Kastellorizos, Moreau et al. 1999; Fabray 2000; Wollenberg 2001; Fabray 2002)). A brief year-by-year summary of this activity follows.

1996

With the agreement of the Northern Land Council and Traditional Owners, AFMEX conducted a helicopter based radiometrics-magnetics and electromagnetics (DIGHEM) survey of the tenement in July 1996, prior to grant, in conjunction with surveys in adjacent projects. The survey totalled 785 line km of 150m spaced north – south lines with 2km spaced east – west tie lines.

1997-1998

Activity during the first year of tenure included ground follow-up of airborne radiometric anomalies defined from the 1996 survey, stream sediment sampling and diamond drilling.

Ground reconnaissance of the 10 most significant radiometric anomalies was conducted in August 1998, and outcrop samples were taken at 8 of the 10 anomalies. A sample of weathered dolerite adjacent to a fault (Anomaly 4) returned 150ppm U3O8 and 9ppb Au. Anomaly 7 corresponded with breccia and quartz breccia in sandstone associated with a fault and returned an assay of 36ppm U3O8.

Sixty eight –80# stream sediment samples were collected between June and August 1998 and assayed for the same suite of elements as outcrop samples. No anomalous U or Au results were encountered.
A program of five helicopter-supported diamond drill holes (NAM-001 to NAM-005) was conducted between May and June 1998, for a total of 1,238.9 metres. The program was planned to determine the geology of the basement rocks and determine alteration and/or mineralisation prospectivity of the areas targeted.

1998-1999
A program of seven helicopter-supported drill holes was completed between May and July 1999, totalling 2,241.3 metres of diamond core. As with the previous years drilling, the main focus was to determine basement geology prospectivity, with four holes (NAM-009 to NAM-012) drilled to follow up alteration and structural disruption intersected in NAM-002. Selected samples were submitted to Mason Geoscience for petrographic description. Amdel conducted XRD analysis on 53 drill core samples which were collected at 50m intervals in the sandstone, and at closer intervals near the unconformity.

Four lines of ground EM employing Zonge’s NanoTEM system were conducted in the area surrounding the drill hole NAM-002. A pole-dipole IP survey was also conducted along one of the NanoTEM lines. Two of the NanoTEM lines did not produce usable data, and the unconformity was visible in only one line. The IP survey demonstrated that the sandstone is extremely resistive, with a strong conductor on a single line interpreted to represent a dolerite pod.

A helicopter-supported regional ground gravity survey was conducted on an east – west line to delineate the contact between the Cahill Formation (Myra Falls Metamorphics) and the Nimbuwah Complex. Corrected Bouguer anomaly values showed a broad decrease over the central portion of the traverse.

The sandstone outcrop was sampled over a 500 × 500m grid in part of the tenement for PIMA analysis. A total of 57 samples were collected, with sericite (illite) being the dominant mineral identified. Chlorite alteration in the sandstone was not identified.

Radiometric anomalies 4 and 5 were identified in the southern part of the tenement by the 1996 radiometric survey, and follow-up in 1998 determined that the anomalies were associated with ‘narrow gently dipping quartz veins’ hosted in dolerite. A 50×50m grid based ground radiometric survey was conducted to better define the radiometric anomaly. Rock samples returned a best uranium assay result of 368ppm U3O8 (sample number 610089), and sample 610088 returned 314ppm U3O8 and 214ppb Au.

1999-2000
No active exploration was conducted during this period. AFMEX pegged six drill holes proposed for drilling, and obtained appropriate clearance for drilling from the Northern Land Council in May 2000. A reappraisal of exploration priorities prevented drilling in 2000.

2000-2001
During the 2001 field season AFMEX commissioned two fixed-wing geophysical surveys of EL3589.
In August – September 2001 UTS conducted a high resolution airborne radiometric and magnetic survey over the western portion of the tenement comprising approximately 200 line kilometres at 100m line spacing with a flight height of 60m along north – south lines. This survey was conducted as part of a larger survey conducted on adjacent tenements.

In July 2001 Fugro flew a TEMPEST time domain electromagnetic survey of the project area, covering 99 square kilometres with 200m spaced east – west lines.

2001-2002

Interpretation of the high-resolution radiometric and magnetic survey data did not produce any new radiometric anomalies, and the magnetic data was dominated by a near-surface response from volcanics, and failed to highlight any significant structures.

Interpretation and further processing of the TEMPEST survey data by AFMEX and Fugro did not produce promising results. The survey failed to identify significant conductors, either at or below the unconformity, and the location of the unconformity was not unequivocally mapped.

The disappointing results of the diamond drilling and lack of encouragement from subsequent geophysical surveys lead the Namarrkon Joint Venture to relinquish EL3589 on July 26 2002.

Cameco Exploration: 2005 - 2006

Cameco Australia was granted EL23700 on May 31 2005 covering the same area as the former EL3589.

2005

Prior to the 2005 field season Cameco conducted a review of previous exploration and contracted Fugro to reprocess the 2001 TEMPEST survey data. Based on the reprocessed dataset eleven TEMPEST anomalies were identified and prioritised according to intensity, line-to-line consistency and geological factors such as proximity to known faults.

In 2005, Cameco conducted helicopter supported reconnaissance mapping and outcrop sampling. Sampling focused on radiometric anomalies, previously identified by AFMEX, the north – south trending Quarry fault, and the Stevens fault in the northeast of the tenement. A total of 36 samples were collected and submitted for geochemical assay.

A sample of weathered dolerite collected from the AFMEX ARAD-4 anomaly returned 359ppm U3O8 and 10ppb Au. This anomaly has now been termed the Hot Dot prospect (refer Figure 3).

Reconnaissance along the Quarry fault identified features indicative of deformation (tilted bedding, quartz breccia outcrop, strong jointing and silicification) to the north of the Spencer thrust. South of the Spencer thrust the nature of the fault is unclear. Reinterpretation of TEMPEST data resulted in the identification of a conductive anomaly (nm_atem_05_01) in the area proximal to the intersection of the Spencer
thrust and Quarry fault. This area is now termed the Black Bream Prospect (refer Figure 3).

2006

Exploration conducted during the 2006 field season consisted of two helicopter-supported diamond drill holes (NMD0001 and NMD0002) for 893.3m, a single ground-based reverse-circulation drill hole (NMR0003) for 136m, an airborne hyperspectral (HYMAP) survey, and helicopter supported reconnaissance, outcrop and water sampling (Wykes 2007). Refer to Figure 5 for the drill hole locations.

Figure 5: Drill Hole Locations

HyVista Corporation was contracted by Cameco to acquire HyMap (airborne hyperspectral scanner imagery) over the project area, in conjunction with adjacent tenements. Cameco subsequently commissioned HyVista to process strips from the Namarrkon project area to produce mineral maps.

The HyMap data was first pre-processing to produce cross track and solar illumination corrected reflectance images. GPS and INS information recorded during data acquisition and are used for geometric rectification. These images are then processed to produce various image maps that highlight mineralogical and geological variations.

NMD0001 was drilled in the Hot Dot area to test the radiometric anomaly first identified by AFMEX (refer Figure 5). The hole targeted the intersection of two NNW trending structures and the WNW trending Spencer thrust. The hole intersected a thin interval of Nungbalgarri Volcanics, followed by silicified and chlorite altered Mamadawerre Sandstone down to 364.05m (including intensely chlorite replaced sandstone from 344m), terminating at 407.1m in unfoliated, intensely chloritised Tin Camp Creek Granite. Whilst no anomalous U was intersected in the drill hole, the intensity of the alteration is encouraging and further drilling is warranted in the Hot Dot area.

NMD0002 was drilled to test the Black Bream target (refer Figure 5 and Figure 3), a TEMPEST conductor adjacent to the NNW-trending Quarry fault. Drilling intersected 173.5m of broken Mamadawerre Sandstone, representing the damage zone of the Quarry fault, then into Oenpelli Dolerite to 335.7m, and terminating in Tin Camp Granite at 492.2m. Uranium mineralisation was intersected in the dolerite between 240 and 280m, hosted in discrete hematite-uraninite fractures and quartz-hematite+chlorite veins. Processing of the downhole total gamma response returned a product of 119ppm U$_3$O$_8$ from 240-280m. Geochemical sampling over the veins returned a best result of 2.8 % U$_3$O$_8$ over 16 cm from 248.34m. Composite sampling of dolerite bracketing the U mineralised veins confirmed the restricted nature of the mineralisation, with an average result of 23ppm U$_3$O$_8$. The intensely fractured nature of dolerite interval has provided limited structural orientation data, though the uraninite-bearing fractures are tentatively interpreted to be associated with the Quarry Fault. No U mineralisation is intersected in the Tin Camp Granite, despite extensive sericite and hematite alteration of the granite.

NMR0003 (refer Figure 5) was drilled to target uranium mineralization occurring at the unconformity along Stevens Fault. The hole constrained the geometry of Stevens Fault...
and adjacent unconformity by intersecting dolerite, followed by the Stevens Fault, a narrow wedge of sandstone and finally through the unconformity into basement granitoid, most likely Nimbuwah complex and terminated at 136m. Geochemical assay results for U were disappointing, with a maximum of 11.9ppm U₃O₈ coincident with a narrow dolerite interval between 111 and 114m intruding along the unconformity.

EXPLORATION PROGRAM: REPORTING PERIOD 2007 - 2008

The exploration program for 2007 involved aboriginal heritage work clearance and accessibility; track construction for ground based reverse-circulation drilling access, helicopter-supported ground reconnaissance, mapping and sampling; and four helicopter-supported diamond-core drill holes.

A two-hole, truck-mounted reverse-circulation drilling program was planned for the vehicle accessible northern Quarry Fault area, however this was unable to be conducted due to timing and drill rig access issues.

Prior to any substantial disturbance involving drilling, track refurbishment or construction, EarthSea Heritage Surveys, together with respective Traditional Owners for the country, conducted an aboriginal heritage work clearance and archaeological survey throughout the proposed drilling areas. The survey involved traversing areas within each area and surrounding the proposed drill holes. New proposed tracks and old pre-existing tracks were surveyed and areas of access for drilling, and track clearance were established by ground reconnaissance before roadwork commenced.

The exploration work was based and conducted from the established Cameco Myra Camp, with transport by helicopter of personnel and equipment to the project.

A summary of the work completed during the third year of tenure is given in Table 1 and Figure 6 shows the location of the various field activities.

Table 1: Summary of Exploration - 2007

Table 2: Location of Outcrop Samples

Regional Outcrop Sampling and Reconnaissance

During 2007, helicopter-supported and ground-based outcrop sampling, mapping and reconnaissance, follow-up investigations were conducted based out of Myra Camp. A total of 19 sites were recorded, with samples collected from 18 of those locations. Refer to Figure 6 for the location of the sample sites and a summary of the lithologies is given in Table 2.

The outcrop sampling and processing was performed using Cameco standard methodology, as outlined in Appendix 1. This appendix details methodology used for reflectance spectroscopy, laboratory techniques and methods, and analysed elements. All samples were submitted to Northern Territory Environmental Laboratories (NTEL) in Darwin for geochemical analysis. The laboratory sample preparation, analytical methods and techniques and analysed elements can also be found within Appendix 1.
Appendix 1: Cameco Standard Outcrop Sampling and Processing Procedures

The following tables details the data and results from samples collected during the program.

Table 3: Outcrop Sample Descriptions and Properties

Table 4: Outcrop Sample Structure Measurements

Table 5: Outcrop Sample Alteration

Table 6: Outcrop Sample TSA Clay Minerals

Table 7: Outcrop Sample Geochemistry Results

The best result was gained from sampling ferricrete in the Black Bream area; NM070200 returned 97.3ppm U₃O₈. The clay mineralogy determined by TSG and given in Table 6 for NM070200 has returned a spurious siderite result, and NM0703001 has returned opal. Spurious results in clay mineral determinations can often be related to the low proportion of clays in highly silicified sandstones, or dark colourations and low spectral reflectance of some samples.

Historical Drill Core Re-Sampling

The geochemical results from NMD0002, drilled in 2006, indicated an interval of anomalous levels of zinc. D06NMD0002-081 a composite sample from 312.2 to 319.2m returned zinc levels of 10,200ppm Zn and a spot sample, D06NMD0002-082 from 314.3 to 314.35m returned a zinc level of 21,500ppm Zn from a green chloritic breccia within the chilled margin of the dolerite intrusion.

To determine the validity of these results, three half-core samples were submitted to NTEL Darwin to be assayed using Cameco’s standard multi-element suite (refer Table 8). One sample was sent to Pontifex and Associates in Adelaide for petrographic analysis (refer Appendix 2).

Table 8: NMD0002 Re-assay Analytical Results

Appendix 2: Pontifex Petrography Report 9313

Zinc assays were found to be anomalous producing an intercept in NMD0002 of 2.0m @ 0.64% Zn from 313.75m. The thin section petrography of a sample of the breccia at 314.3m noted intermediate chloride replaced chilled dolerite with opaques replaced by leucoxene within a breccia matrix of magnesium chloride and granular leucoxene. No identification of zinc bearing minerals was made.

2007 Diamond Drilling

Diamond drilling was completed by Titeline Drilling Pty Ltd, of Ballarat Victoria, utilising a CS1000 helicopter-portable diamond rig. Drilling planned to test deep conceptual, structural and geochemical targets at Black Bream, Hot Dot and Lightning Fault Prospects.

The drilling program commenced on 23 July 2007 and was completed on 6 September 2007. Four drill holes (NMD0004 – NMD0007) were completed for a total of 1,697.2m. The drill
core was processed, logged and sampled at the Myra exploration camp. All diamond drill core is stored permanently on site at the Myra exploration camp.

An Analytical Spectral Device (ASD) reflectance spectra is recorded from one piece of core from every row of diamond drill core. Geochemical sampling was conducted on a composite basis; approximately a five cm section of half core is selected from each row within the core trays, and these are combined over a nominal five-metre interval, dependant on lithology. Samples were analysed at NTEL in Darwin for a suite of over 50 elements, and 4 lead isotopes by weak acid leach. Sampling, geochemical analysis, and infra-red spectroscopy methodology is summarised in Appendix 3.

Appendix 3: Cameco Australia Standard Sampling Methodology and Procedures

A detailed report of drill core information, including lithology, colour, alteration, structure and magnetic susceptibility can be found in Appendixes 4 to 7. Major and trace element geochemical data for drill-core samples are tabulated in Table 9.

Appendix 4: NMD0004 Detailed Drill Log
Appendix 5: NMD0005 Detailed Drill Log
Appendix 6: NMD0006 Detailed Drill Log
Appendix 7: NMD0007 Detailed Drill Log

Table 9: Geochemical Assay Results from Diamond Drilling

Table 10: Drill Core Samples – TSG Minerals

Tabulated clay mineralogy as determined by The Spectral Geologist from ASD spectra are presented in Table 10. Graphical strip plots presenting downhole lithology against geochemistry is displayed in Figures 7 to 10. Petrographic descriptions of thin sections sent to Pontifex and Associates of Adelaide is presented in Appendix 8.

Figure 7: NMD0004 Drill Log Strip Plot
Figure 8: NMD0005 Drill Log Strip Plot
Figure 9: NMD0006 Drill Log Strip Plot
Figure 10: NMD0007 Drill Log Strip Plot

Appendix 8: Pontifex Petrography Report 9269

All drill holes were downhole logged with an Auslog gamma probe. Charts of the corrected depths and calculated equivalent U₃O₈ ppm values is presented in Figures 11 to 12. Raw gamma data (Binary, and ASCII text format with eU3O8% values) and ASD spectral data (ASCII text format) can be found in the data directory of this report.

Figure 11: NMD0004 Downhole Gamma Chart
Figure 12: NMD0005 Downhole Gamma Chart
Figure 13: NMD0006 Downhole Gamma Chart
Figure 14: NMD0007 Downhole Gamma Chart

A summary collar location table for the drill holes is shown in Table 11.

Table 11: Collar Location Summary for Drilling
### Table 11: Summary Table of Drill Hole Collars

<table>
<thead>
<tr>
<th>Hole No</th>
<th>Northing AGD66 Z53</th>
<th>Easting AGD66 Z53</th>
<th>RL</th>
<th>Azi</th>
<th>Dec</th>
<th>Total Depth</th>
<th>Significant Assay Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>NMD0004</td>
<td>8634173</td>
<td>332348</td>
<td>216</td>
<td>200</td>
<td>-55</td>
<td>380.4</td>
<td>No Significant Results</td>
</tr>
<tr>
<td>NMD0005</td>
<td>8629320</td>
<td>332185</td>
<td>201</td>
<td>020</td>
<td>-65</td>
<td>441.6</td>
<td>20.4m @ 167ppm U₃O₈ from 0m*</td>
</tr>
<tr>
<td>NMD0006</td>
<td>8630504</td>
<td>329376</td>
<td>205</td>
<td>270</td>
<td>-80</td>
<td>425.7</td>
<td>5.1m @ 172ppm U₃O₈ from 325.22m*</td>
</tr>
<tr>
<td>NMD0007</td>
<td>8630012</td>
<td>329147</td>
<td>174</td>
<td>035</td>
<td>-70</td>
<td>449.5</td>
<td>No Significant Results</td>
</tr>
</tbody>
</table>

Total: 1697.2

* Denotes Composite Sampling

**NMD0004**

NMD0004 was completed along the WNW – ESE trending Lightning Fault targeting the unconformity position at depth beneath the fault in the vicinity of an anomalous radon spring.

The drillhole collared in Mamadawerre Sandstone and intersected dolerite within the fault structure between 164.9 – 190.0m. Additional Mamadawerre Sandstone was encountered on the southern side of the Lightning Fault Zone, with the unconformity position intersected at 309.9m.

Basement schists and amphibolites (and minor altered dolerite) continued until 361.55 where gneissic units of the Myra Falls Metamorphics were encountered. NMD0004 reached a total depth of 380.4m.

The gamma log did not show any significant anomalism with a peak value of 490cps. The core has been logged with 92 samples (D07NMD0004_001 – 92) collected and submitted for assay.

**NMD0005**

NMD0005 was drilled at the Hot Dot Prospect targeting the Spencer Thrust and following-up drillhole NMD0001 which was completed in 2006.

The drillhole collared in Oenpelli Dolerite before drilling through to Mamadawerre Sandstone at 42.55m. It is possible that this dolerite is a gently dipping sill similar to dolerite encountered at the U65 Prospect approximately 6km to the NW. This dolerite body could be reflecting the Spencer Thrust.

The Mamadawerre Sandstone sequence continued until a fine grained dolerite body was encountered at 302.1m. This dolerite is variably hematite altered throughout and exhibits massive specular hematite alteration over a 2.5 metre interval just beneath the sandstone/dolerite contact.

A second intensely chloritised dolerite unit was encountered from 344.6m before strong – intensely chloritised Tin Camp Granite was intersected at 405.95m. The granitoid becomes progressively less altered with depth.
The gamma log from NMD0005 indicates minor peaks and elevated readings associated with the upper dolerite body (Figure 4). The gamma peak at depth is within the granitoid is associated with a slightly hematite altered fracture zone.

The drillhole was probed with preliminary eU₃O₈ intercepts calculated for NMD0005, at a 0.025% cut-off including 0.2m @ 0.034% U₃O₈ from 37.75m and 0.2m @ 0.028% U₃O₈ from 411.45m.

Analytical results from NTEL reveal the anomalous nature of the shallow dolerite with composite sampling producing 20.4m @ 167ppm U₃O₈ from 0m.

**NMD0006**

NMD0006 was drilled at the Black Bream Prospect (Figure 5) attempting to follow-up the scattered mineralisation encountered in NMD0002 (completed in 2006).

Collared in Mamadawerre Sandstone approximately 210m to the east of NMD0002, the drillhole encountered a thick sequence of Oenpelli Dolerite from 254.8 – 380.5m before intersecting a sequence of strongly chlorite altered basement granitoid lithologies to the EOH at 425.6m.

The current interpretation of the geology is that the dolerite is likely to represent a gently NNE dipping sill possibly within the Spencer Thrust. Both NMD0002 and NMD0006 are drilling perpendicular to the contact and have intersected the dolerite at the same RL.

While there was low-level mineralisation encountered in NMD0006 it does not appear to be as mineralised as the initial Black Bream drillhole with the dolerite also appearing to be less fractured/broken. It is likely that the mineralisation encountered in NMD0002 is in part related to the nearby north – south trending Quarry Fault.

The gamma – eU₃O₈ log reveals a number of peaks in the central – lower part of the dolerite sill (Figure 6).

The drillhole was probed with preliminary eU₃O₈ intercepts calculated for NMD0006, at a 0.025% cut-off including 0.6m @ 0.063% U₃O₈ from 297.15m, 2.05m @ 0.064% U₃O₈ from 309.1m and 1.75m @ 0.071% U₃O₈ from 324.4m.

Analytical results from NTEL produced the best composite assay result of 5.1m @ 172ppm U₃O₈ from 325.22m.

**NMD0007**

NMD0007 was completed at the Black Bream Prospect and was collared 500m to the south of NMD0006, targeting the Spencer Thrust.

The drillhole drilled fractured/broken Mamadawerre Sandstone sequences before drilling into bleached and altered Tin Camp Granite at 367.0m. Total depth of NMD0007 was 449.5m.
The downhole gamma probe did not reveal any peaks above expected background. The drillhole was logged and 103 composite samples (D07NMD0007_001 – 103) submitted for assay.

EXPENDITURE

Eligible expenditure for the Namarrkon Project in 2007-2008 was AUD$1,109,764 as shown in Table 12. This figure is dominated by drilling and associated helicopter costs. Compensation payments made to the NLC and tenement rental paid to DPIFM do not constitute eligible exploration costs.

Table 12: Eligible Expenditure Statement

CONCLUSIONS AND RECOMMENDATIONS

Encouraging signs of uranium mineralisation in the form of narrow, high-grade veins are hosted within altered Oenpelli Dolerite at the Black Bream Prospect. At present, the density of veining is insufficient to be of economic significance. The presence of uranium mineralisation and the broken/faulted nature of the intruding dolerite sequence in the area suggests that the uranium encountered to date may be remobilised uranium coming from a nearby source related to the Quarry Fault Zone.

It is recommended that follow-up investigations should test the Quarry Fault Zone along strike to the north. Drilling should attempt to locate the unconformity position at the base of the sandstone cover sequences, in vicinity of the dolerite sill (Figure 15).

Figure 15: Quarry fault - Long Section Looking West

Historical drilling to the northwest at the U65 Prospect on EL 10176 reveals a similar geological setting where the gentle south-easterly dipping dolerite sill intrudes through the unconformity. The unconformity position is more likely to host significant uranium accumulation than brittle fractures and structures within the dolerite. Mineralisation in the dolerite indicates the potential for remobilised uranium in the system.

2008 WORK PROGRAM AND PROPOSED BUDGET

Exploration for the 2008 field season will be focused on reverse circulation drilling in areas readily accessible from the ground. Follow-up drillholes are planned to the north of the Black Bream Prospect along the Quarry Fault testing for mineralisation at the unconformity position. A single drillhole is planned testing a TEMPEST target in the Namarrkon Panhandle area.

Additional sampling, reconnaissance and prospecting is planned for the remaining unexplored areas of the tenement. A focus for reconnaissance will be on structures that are visible in remotely sensed imagery, and follow-up work on remaining unchecked geophysical (TEMPEST and HyMap) anomalies.

A thorough review of available geological and geophysical data is required to assist with targeting any further deep diamond drilling under the extensive sandstone cover sequences.
Expenditure for the 2008 – 2009 reporting period exploration program is anticipated to be in excess of $250,000 to complete the program as planned.
REFERENCES


