



North  
Australian  
Diamonds  
Limited  
ABN 86 009 153 119

## **Annual Exploration Report – Year 2**

### **Exploration Licence SEL 26959**

23<sup>rd</sup> September 2010 to 22<sup>nd</sup> September 2011

***Holder: Ashton Mining Limited.***

***Operator: North Australian Diamonds Limited***

***Reporting Period: 23<sup>rd</sup> September 2010 to 22<sup>nd</sup> September 2011***

***Sheet Reference: Cape Scott (SD 5207) & Port Keats (SD 5211) 1: 250,000***

***Due Date: 22<sup>nd</sup> October 2011***

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## **SUMMARY**

*This report details exploration activity carried out by North Australian Diamonds Limited (NADL) over exploration licence SEL 26959 for the period 23<sup>rd</sup> September 2009 to 22<sup>nd</sup> September 2010. This period represents Year One of the licence.*

*The tenement is located approximately 300km south-west from Darwin, in the Daly River Region of the Northern Territory on the Cape Scott (SD 5207) and Port Keats (SD 5211) 1:250,000 geological mapsheets in the Northern Territory.*

*In January of 2007 North Australian Diamonds Limited entered into a 'Farm-in Agreement' with Ashton Exploration Australia Pty Ltd, Ashton Mining Limited, and A.O. (Australia) Pty Ltd collectively know as the Rio Tinto Parties with respect to earning 100% ownership of the Yambarra Project area in the Northern Territory. An application was made by North Australian Diamonds on the 18<sup>th</sup> of September 2008 and the tenement was subsequently granted on the 23<sup>rd</sup> of September 2009.*

*Work undertaken during the reporting period has involved desktop research of historic exploration, preparation of work programs and reporting. NADL attended several work program meetings for the title during the year and it is understood that approval will be received from the Northern Land Council to allow on-ground exploration to commence during November 2011 pending weather and availability of a helicopter.*

*The total expenditure for the reporting period was \$16,750.*

## 1.0 INTRODUCTION

This report details exploration activity carried out by North Australian Diamonds Limited (NADL) over Exploration Licence SEL 26959 for the period 23<sup>rd</sup> September 2010 to 22<sup>nd</sup> September 2011. This period represents Year Two of the Licence.

## 2.0 LICENCE DETAILS

The tenement is located approximately 300km south-west from Darwin, in the Daly River Region of the Northern Territory on the Cape Scott (SD 5207) and Port Keats (SD 5211) 1:250,000 geological mapsheets in the Northern Territory. A location map is shown as Figure 1.

*Table 1: Licence Details*

<b>Project Name</b>	<b>Tenement No</b>	<b>Grant Date</b>	<b>Expiry Date</b>	<b>Blocks</b>	<b>Area (km<sup>2</sup>)</b>
Yambarra	SEL26959	23/09/2009	22/09/2013	500	1662.21

## 3.0 GEOLOGY

The project area covers parts of three geological regions within the Northern Territory. These are; the Palaeoproterozoic Pine Creek Orogen, the Mesoproterozoic Victoria – Birrinduddu Basin and the Palaeozoic Bonaparte Basin.

The oldest rocks in the project area are the Early Proterozoic Hermit Creek Metamorphics, which comprise mostly schist and gneissic rocks. Early Proterozoic sediments of the Finnis River Group are inferred to overlie the Hermit Creek Metamorphics although the nature of their relationship is unclear. The Henschke Breccia, a massive breccia conglomerate is interpreted to be approximately synchronous with these units.

The Hermit Creek Metamorphics and Finnis River Group were intruded successively by the Early Proterozoic Muarra-Kamangee Granodiorite and Peppimenarti Granite.

Sediments of the Middle Proterozoic Fitzmaurice Group unconformably overly the Early Proterozoic units. Middle Proterozoic intrusives of both basic (Murrenja Dolerite) and acid (Ti-Tree Granophyre) composition intrude the Fitzmaurice Group sediments.

Permian sediments of the Bonaparte Basin occur in the west of the project area. These sediments consist of quartzarenite, subarkose and mudstone with minor conglomerate and coal. Cretaceous rocks form an extensive unit within the project area. Friable, clayey, commonly ferruginous and mottled arenite is the dominant rock type. The youngest geological units in the project area include Cainozoic and Quaternary sediments comprised of colluvium, elluvium and alluvium. These units cover much of the bedrock.

The dominant structural features of the area are the extensive, regional transcurrent faults that are the northerly continuations of the major faults which define the Middle Proterozoic Fitzmaurice Mobile Zone and the Early Proterozoic Halls Creek Mobile Zone.

#### **4.0 PREVIOUS EXPLORATION**

The licence is located on Aboriginal Land and access is dependent on the Northern Land Council arranging work clearance meetings with the Company and the Traditional Owners. There has been difficulty in arranging such work programs and as such NADL has been limited in its abilities to undertake ground based exploration activities. Work undertaken has involved additional processing of samples collected during previous work programs, additional review of geophysical datasets including the recently released NTGS Tempest data, helicopter site visit, desktop research of historic exploration, preparation of work programs and reporting.

#### **5.0 EXPLORATION UNDERTAKEN DURING THE CURRENT REPORTING PERIOD**

NADL attended a several work program meetings for the title during the year and it is understood approval will be received from the Northern Land Council to allow on-ground exploration activities to commence during November 2011 pending weather and availability of a helicopter.

## 6.0 EXPLORATION EXPENDITURE

Exploration expenditure for the reporting period amounted to \$16,750 and is detailed in the accompanying Expenditure Report.

## 7.0 PROPOSED PROGRAMME AND BUDGET FOR 2011-2012

Administration and Support	\$5,000
Collection of 50 helicopter-assisted stream gravel samples	\$40,000
Collection of 3 x 20 ton bulk gravel stream samples	\$50,000
Processing of samples for kimberlite indicator mineral recovery	\$40,000
SEM microprobing of recovered chromites and interpretation of chemistry	\$5,000
Reporting and office administration	\$10,000
<b>Total</b>	<b>\$150,000</b>

## **8.0 REFERENCES**

Kammermann, M. (2007) Yambarra Annual Report NADL Ref: 07-043, North Australian Diamonds Limited.