



North  
Australian  
Diamonds  
Limited  
ABN 86 009 153 119

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

### **Exploration Licence SEL 26954**

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***

Author: M Kammermann

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

Report No: 11-060

Copies To: Department of Resources, NT  
NADL

The contents of this Report remain the property of North Australian Diamonds Ltd. and may not be published in whole or in part, nor used in a company report without the written consent of the company.

**TABLE OF CONTENTS**

**LIST OF FIGURES.....ii**

**SUMMARY..... 1**

**1.0 INTRODUCTION..... 2**

**2.0 LICENCE DETAILS..... 2**

**3.0 GEOLOGY ..... 2**

**4.0 EXPLORATION COMPLETED DURING THE CURRENT REPORTING PERIOD ..... 3**

**5.0 EXPLORATION EXPENDITURE..... 3**

**6.0 PROPOSED PROGRAMME AND BUDGET FOR 2011-2012 ..... 3**

**7.0 REFERENCES..... 5**

**LIST OF TABLES**

Table 1 License Details

**LIST OF FIGURES**

Figure 1 SEL26954 Location Map

## **SUMMARY**

*This report details exploration activity carried out by North Australian Diamonds Limited (NADL) over Exploration Licence SEL 26954 for the period 23<sup>rd</sup> September 2010 to 22<sup>nd</sup> September 2011. This period represents Year Two 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.*

*The total expenditure for the reporting period was \$10,200.*

## 1.0 INTRODUCTION

This report details exploration activity carried out by North Australian Diamonds Limited (NADL) over Exploration Licence SEL 26954 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*

Project Name	Tenement	Grant Date	Expiry	Blocks	Area (km <sup>2</sup> )
Yambarra	SEL26954	23/9/2009	22/9/2013	148	450.43

## 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 EXPLORATION COMPLETED DURING THE CURRENT REPORTING PERIOD**

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 desktop research of historic exploration, preparation of work programs and reporting.

This title has been managed by NADL under Joint Venture with the title holder. NADL no longer intends to have this title included the Joint Venture and is handing back the management of the title to the title holder.

#### **5.0 EXPLORATION EXPENDITURE**

Exploration expenditure for the reporting period amounted to \$10,200 as per the Expenditure Report accompanying this report.

#### **6.0 PROPOSED PROGRAMME AND BUDGET FOR 2011-2012**

Administration and Support	\$5,000
Collection of 50 helicopter-assisted stream gravel samples	\$40,000
Processing of samples for kimberlite indicator mineral recovery	\$30,000

SEM microprobing of recovered chromites and interpretation of chemistry	\$5,000
Reporting and office administration	\$10,000
<b>Total</b>	<b>\$90,000</b>

## **7.0 REFERENCES**

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