



North
Australian
Diamonds
Limited
ABN 86 009 153 119

Annual Exploration Report – Year 13

Mineral Lease ML1154

“Merlin”

15th June 2010 to 31st December 2010

Holder: Merlin Diamonds Pty Ltd

Operator: North Australian Diamonds Limited

Reporting Period: 15th June 2010 to 31st December 2010

Sheet Reference: Bauhinia Downs 1:250,000 (SE53-03)

Due Date: 31st March 2011

Author: Tom Reddicliffe

Date: 31st March 2011

Report No: 11-013

Copies To: Dept. of Primary Industry, Fisheries and Mines
Merlin Diamond Mine
NADL Office

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 and may not be published in whole or in part, nor used in a company report without the written consent of the company.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	3
4.0 EXPLORATION COMPLETED DURING CURRENT REPORTING PERIOD.....	3
5.0 RESOURCE SUMMARY	4
6.0 EXPLORATION EXPENDITURE.....	5
7.0 PROPOSED PROGRAMME AND BUDGET FOR 2010-2011.....	5
8.0 REFERENCES.....	6

LIST OF TABLES

Table 1	Licence Details
Table 2	Processing Details
Table 3	Diamond Recovery Details
Table 4	Merlin Resource Summary

LIST OF FIGURES

Figure 1	ML1154 Location Map
----------	---------------------

SUMMARY

This report details exploration and evaluation activities carried out by North Australian Diamonds Limited (NADL) over Mineral Lease ML 1154 for the period 15th June 2010 to 31st December 2010. NADL acquired 100% of ML1154 in November 2004 from Rio Tinto. The tenement is held under Merlin Diamonds Pty Ltd, which is a 100% wholly owned subsidiary company of NADL.

Activities completed during the reporting period included trial mining activities.

Between June and December 2010 a total of 21,207tonnes of kimberlite was processed through the Merlin Processing Plant. During this time a total of 2,177.25 carats of diamonds were recovered.

Total expenditure amounted to \$2,315,000

1.0 INTRODUCTION

This report details exploration and evaluation activities carried out by North Australian Diamonds Limited (NADL) over Mineral Lease ML1154 for the period 15th June 2010 to 31st December 2010. NADL acquired 100% of mineral lease 1154 in November 2004 from Rio Tinto. The tenement is held under Merlin Diamonds Pty Ltd (MDPL), which is a 100% wholly owned subsidiary company of NADL.

The target for exploration within this lease is diamond bearing kimberlite intrusives. In addition, NADL is undertaking evaluation to reestablish commercial scale mining operations within the lease.

2.0 LICENCE DETAILS

Mineral Lease 1154 was granted to Ashton Mining Limited on the 15th June 1998 replacing Exploration Retention Licenses (ERL's) 141 and 142. The area covered by the ERL's was previously held under Substitution Exploration License 8630, which replaced the original licenses 6424, 7267, 7581, 7859, 7860 and 7861 in July 1995. ERL 141 comprised 736 hectares, and ERL 142, located to the south of ERL 141, comprised 888 hectares. On the 17th December 1996, application for a mineral lease was made over the ERL's, covering an area of 2,350 hectares. On granting of the mineral lease, the ERLs were automatically surrendered.

The licence is located on the Bauhinia Downs (SE53-03) 1:250,000 map sheet and the Glyde (6164) 1:100,000 sheets. Access to the lease is via a 64 kilometre formed gravel access track from the Carpentaria Highway, the turn-off is approximately 6 kilometres south-west of the McArthur River Mine turn-off. A tenement location map is shown as Figure 1.

Table 1: Licence Details

Project Name	Tenement No	Application Date	Grant Date	Sub-Blocks	Area (ha)
Merlin	MLN 1154	17/12/1996	15/06/1998	Na	2350

3.0 GEOLOGY

The mineral lease is located on a plateau referred to as the Merlin Plateau that is part of the Bukalara Ranges. The Merlin Plateau occurs at an elevation of approximately 200m above mean sea level and is approximately 10km north-south by 5km east-west. The plateau itself is host to twelve kimberlite pipes, a small breccia pipe and a further two kimberlite pipes dissected by Matheson Creek that bounds the plateau to the north (Emu 1 and Emu 2 kimberlite pipes). The kimberlite pipes have been age dated as Devonian and intrude the Neoproterozoic Bukalara Sandstone that attains a maximum thickness over the plateau of approximately 100m. Kimberlite material is described as olivine rich kimberlite and kimberlite breccia and is likely to represent the upper diatreme facies. The kimberlite is highly weathered to approximately 100m below surface. Proterozoic sediments of the McArthur Group form the basement to the area. The youngest rocks in the area are sediments of Cretaceous age that outcrop in isolated areas. Various alluvial deposits occur and a lateritic profile is developed over the plateau.

4.0 EXPLORATION COMPLETED DURING CURRENT REPORTING PERIOD

4.1 Trial Mining Activities

For the period June to December 2010 a total of 21,207 tonnes of kimberlite from Kaye pipe was processed through the Merlin Processing Plant as part of Pre-Feasibility Production Trials. During this period a total of 2,177.25 carats of diamonds was recovered.

Table 2. Processing Details

Month	Feed ton	HPGR ton	HPGR/Feed	DMS ton	DMS/Feed
Sept	3980	1337	33.5%	622	15.6%
August	4203	954	26.70%	484	13.54%
July	4047	1386	32.64%	501	11.80%
June	8977	2479	27.64%	440	4.91%
Total	21,207				

Table 3. Diamond Recovery Details

Month	Carats Recovered
Jun-10	785.92
Jul-10	413.23
Aug-10	484.54
Sep-10	493.56

5.0 RESOURCE SUMMARY

The current mineral resource estimate for the project is detailed in the table below.

Table 4. Merlin Resource Summary

Merlin Total Resource				
	Indicated Mineral Resource	Inferred Mineral Resource	Total	Carats
Southern Cluster				
PalSac ¹	8,090,000	6,590,000	14,680,000	4,370,000
Launfal ³	1,580,000	1,700,000	3,280,000	820,000
Excalibur ³	464,000	309,000	773,000	263,000
Tristram ²		740,000	740,000	44,000
			19,473,000	5,497,000
Central Cluster				
Gawain ²	1,100,000	580,000	1,680,000	663,000
Ywain ²	80,000	95,000	175,000	142,000
			1,855,000	805,000
Northern Cluster				
Gareth ³	125,000	143,000	268,000	59,000
Kaye ²	873,000	2,135,000	3,008,000	360,000
Ector ³	1,510,000	3,470,000	4,980,000	369,000
Bedevere ⁴	366,000	138,000	504,000	106,000

	8,760,000	894,000
TOTAL	30,088,000	7,196,000

¹ Resource grade estimated using a +1DTC bottom screen cutoff (approx 0.85mm).

² Resource grade estimated using a +1mm slotted bottom screen size.

³ Resource grade based on previous mining operation recovery.

⁴ Resource grade based on bulk sample test work.

6.0 EXPLORATION EXPENDITURE

Expenditure for the reporting period amounted to \$2,315,000 as per the breakdown in the attached expenditure report.

7.0 PROPOSED PROGRAMME AND BUDGET FOR 2010-2011

Proposed activities for 2011-2012 include ;

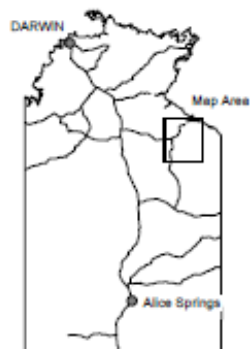
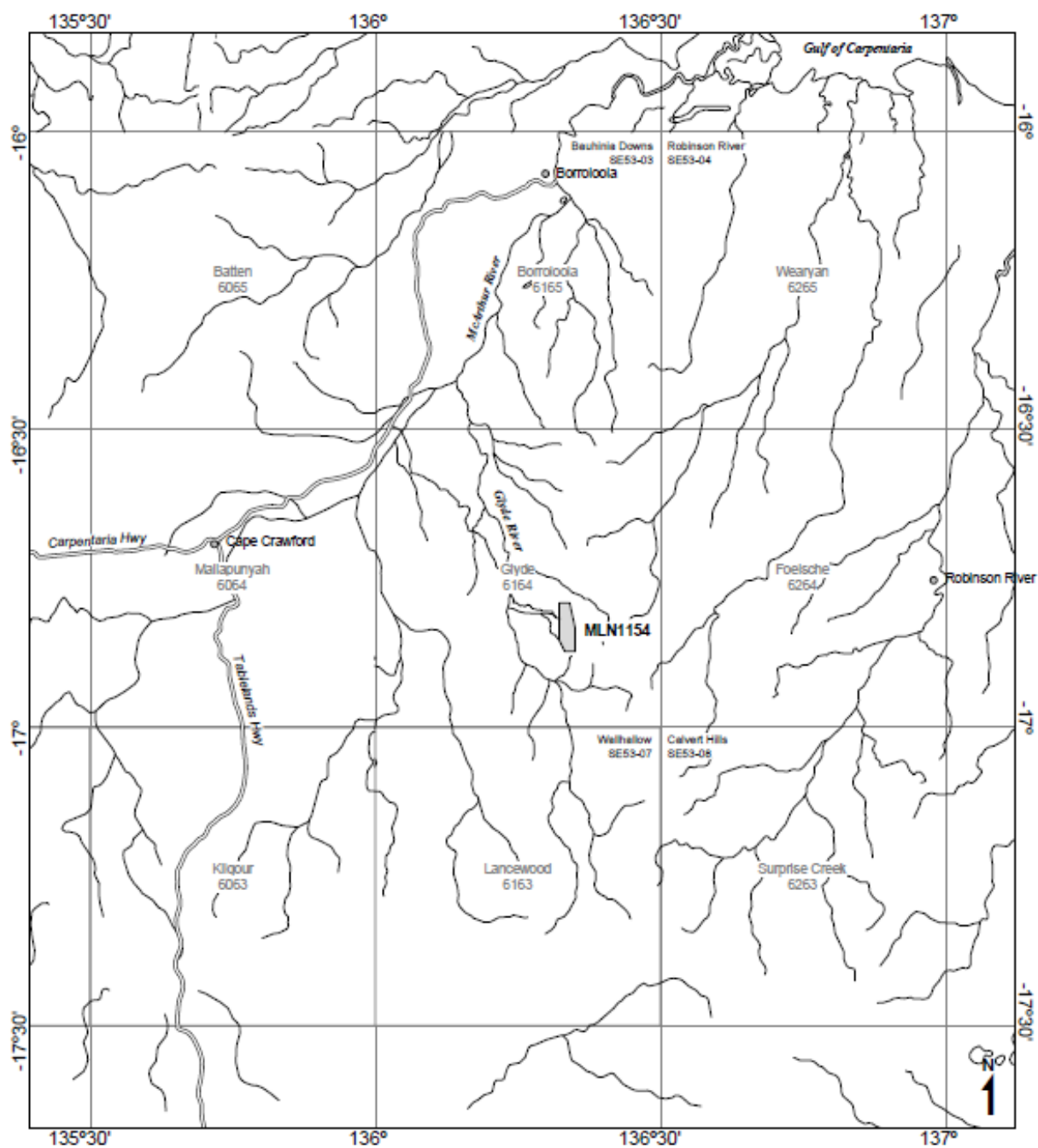
- Feasibility Study by external consultant
- Resource drilling Gawain and Kaye/Ector
 - Approximately 3,000m diamond core drilling

Administration and Reporting	\$150,000
Resource Drilling	\$800,000
Drill Core Processing	\$100,000
Feasibility Studies	\$1,000,000
Field Logistics (camp costs, diesel, etc)	\$250,000
Total	\$2,500,000

8.0 REFERENCES

Reddicliffe, T., 2009. Annual Report. Year 11. ML1154 'Merlin'. North Australian Diamonds Limited Report 09-031.

Kammermann, M., 2007. Annual Report. Year 10. ML1154 'Merlin'. North Australian Diamonds Limited Report 08-033.



- Legend**
- Merlin Mining Lease - MLN1154
 - 100k MapSheet
 - 250k Mapsheet
 - Locality
 - Highway
 - Gravel Access Road
 - Drainage

NORTH AUSTRALIAN DIAMONDS	
MLN1154 Annual Report	
Author:	Figure 1 Location Map
Editor:	
Version:	
Scale:	Projection: Longitude / Latitude (GDA94)
<div style="text-align: center;"> <p>0 10 20 40 Kilometres</p> </div>	