



**COMPASS RESOURCES NL**

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**COMPASS RESOURCES NL**  
**GUARDIAN RESOURCES PTY. LTD**

**BROWNS LEASES**  
MLNs 139-147 and 150-152

**ANNUAL REPORT FOR YEAR ENDED**  
**31 DECEMBER 2003**

M.K. Boots  
March 2004

## CONTENTS

Summary	Page 3
Introduction and Tenure	Page 3
Location and Access	Page 3
Previous Exploration	Page 4
Exploration Completed in 2003	Page 5
Plans for the forthcoming year	Page 6
Expenditure Statement	Page 6
Figure 1	Location Plan 1:50,000
Figure 2	Details of Leases 1:10,000
Appendix I	Gravity data in XL format
Appendix II	Gravity survey report
Appendix III	Drill proposal, 9 October 2003 prepared for Phelps Dodge/Red Metal Alliance

## **SUMMARY**

During 2003 a detailed gravity survey was undertaken and a deep diamond drill hole commenced.

Approximately 85% of the bulk sample pit was backfilled.

## **INTRODUCTION**

An agreement to acquire the Browns tenements from CRA Exploration was concluded in July 1994, in which Compass Resources NL (75%) and Guardian Resources NL (25%) became the new owners. Following rationalisation of regional tenements, Compass now holds 90% with Guardian Resources Pty. Ltd. holding 10%. These leases have been renewed until the end of 2022.

In an agreement completed in 2003, Phelps Dodge Australasia Inc became operator of the "Browns Deep" project in which it would be entitled to earn equity in the area below the known resources at Browns and Area 55 and in areas outside these prospects. Operations were carried out by Red Metal Limited on behalf of Phelps Dodge under a strategic alliance agreement.

The Browns sulphide deposit is polymetallic in nature, with lead, copper, cobalt, nickel, zinc and silver all being present in a zoned stratiform deposit.

## **LOCATION, ACCESS AND TENEMENT DETAILS**

The tenements are located approximately 80 kilometres south of Darwin and adjoin the original mine sites of the Whites and Intermediate (Rum Jungle) Deposits (Figure 1). Details of the tenements are shown in Figure 2. Access from Darwin is via sealed roads to Batchelor and thence northward to the tenements via the Litchfield Road. Access is also possibly during the dry season by following the old railway line south from Darwin River, then onto local dirt roads.

The tenement details are as follows:

<b>Lease Number</b>	<b>Renewed to</b>	<b>Area #</b>
MLN 139	31 December 2022	16.162 hectares
MLN 140	"	16.162 "
MLN 141	"	16.036 "
MLN 142	"	16.010 "
MLN 143	"	16.162 "
MLN 144	"	16.112 "
MLN 145	"	15.757 "
MLN 146	"	15.454 "
MLN 147	"	9.611 "
MLN 150	"	15.934 "
MLN 151	"	14.720 "
MLN 152	"	6.804 "
	<b>Total</b>	<b><u>174.824</u> ha</b>

# Calculated from imperial unit lease plan.

## **PREVIOUS EXPLORATION**

Several CRA subsidiaries including Territory Enterprises Pty. Limited (TEP) and Australian Mining and Smelting Company Limited (AM&S) have undertaken extensive drill programmes at this Prospect, culminating with the sinking of a 400' shaft, underground drilling from two levels and underground sampling programmes in 1967-1968.

A resource figure of 20m tonnes grading approximately 5.6% Pb, 0.19% Cu, 0.11% Co, 0.14% Ni and 0.3% Zn was reported within the tenement by CRA.

Metallurgical studies and testing had also been undertaken on the sulphide ores, the aim of which was to produce both copper and lead concentrates by flotation methods. The results indicated that it was not possible to produce saleable copper and/or lead float concentrates due to the fine grained nature of the sulphide minerals, resulting in "dirty" concentrates.

In 1990 Troy Resources Ltd., which had an option on the tenements undertook metallurgical studies on drill core after drilling five diamond drill holes. This testwork also failed to find a route to separate copper and lead concentrates, however they did establish that "oil agglomeration" may be a potential flotation method to produce a bulk sulphide concentrate.

In 1994 Compass/Guardian completed a 20 hole reverse circulation drill programme, and in 1995 completed 19 diamond drill holes. In 1996 a 117 R/C drill hole programme was undertaken. This work was all done to determine the tenor and limits of the mineralisation in the top 100 metres of the deposit. During 1997, twenty four diamond drill holes including 17 deeper holes were completed, and in 1998 an additional 61 RC drill holes were completed at Browns. Eight holes were also completed along strike at Browns East, within EL 4880. In September 1999, a bulk sample pit was started and metallurgical test work commenced later that year on sulphide ores removed from that pit. In 2000 a series of 6 diamond drill holes were completed for geotechnical studies and 3 percussion holes were twinned with diamond holes. A series of percussion holes were drilled for magnesite evaluation.

In 2001 two deep diamond drill holes were completed, together with ore resource studies.

In 2002, seven diamond drill holes and two reverse circulation percussion drill holes were completed.

### **WORK COMPLETED DURING 2003**

A detailed gravity survey was completed within the Mining Leases and in the surrounding Exploration Retention Licences. All of the raw data and an accompanying report are in Appendices I and II respectively.

As a result of the gravity data and all other supporting data, a deep diamond drill hole, aimed to intersect the Browns mineralised horizon at a depth of approximately 900 metres below surface was commenced.

This drilling was not finished until early March 2004 and as such will be reported in the next Annual Report.

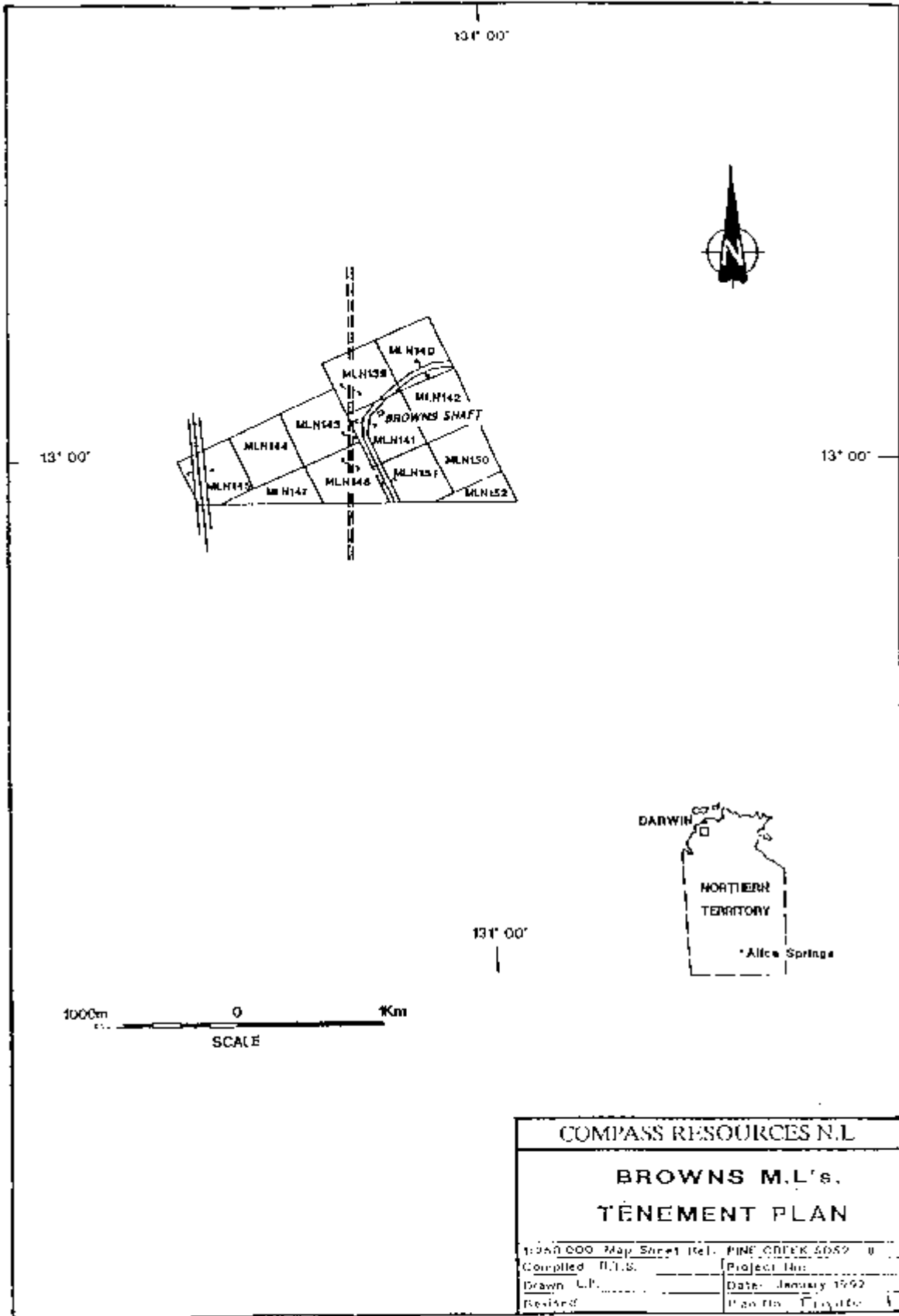
Also during 2003, all stockpiled sulphide material and a large proportion of the oxide ore stockpiles from the bulk sample pit at Browns were backfilled into the pit. Following the 2004 wet season, this work will be completed.

#### **EXPENDITURE STATEMENT**

During 2003 expenditure by Compass	\$632,163.33
Expenditure to 31 October, 2003 by Phelps Dodge Australasia Inc	<u>\$169,163.33</u>
Total Reported Expenditure	<u>\$801,581.09</u>

#### **PLANS FOR THE FORTHCOMING YEAR**

Additional drilling and metallurgical studies are planned for 2004, details still remain to be finalised.



<b>COMPASS RESOURCES N.L</b>	
<b>BROWNS M.L.'s.</b>	
<b>TENEMENT PLAN</b>	
1:250 000 Map Sheet Ref. PINE CREEK 5052 U	Project No.
Compiled P.T.S.	Date: January 1992
Drawn U.P.	Page No. 1 of 1
Revised	

# BROWNS MINING LEASES

SCALE 1:10,000 1cm=100m

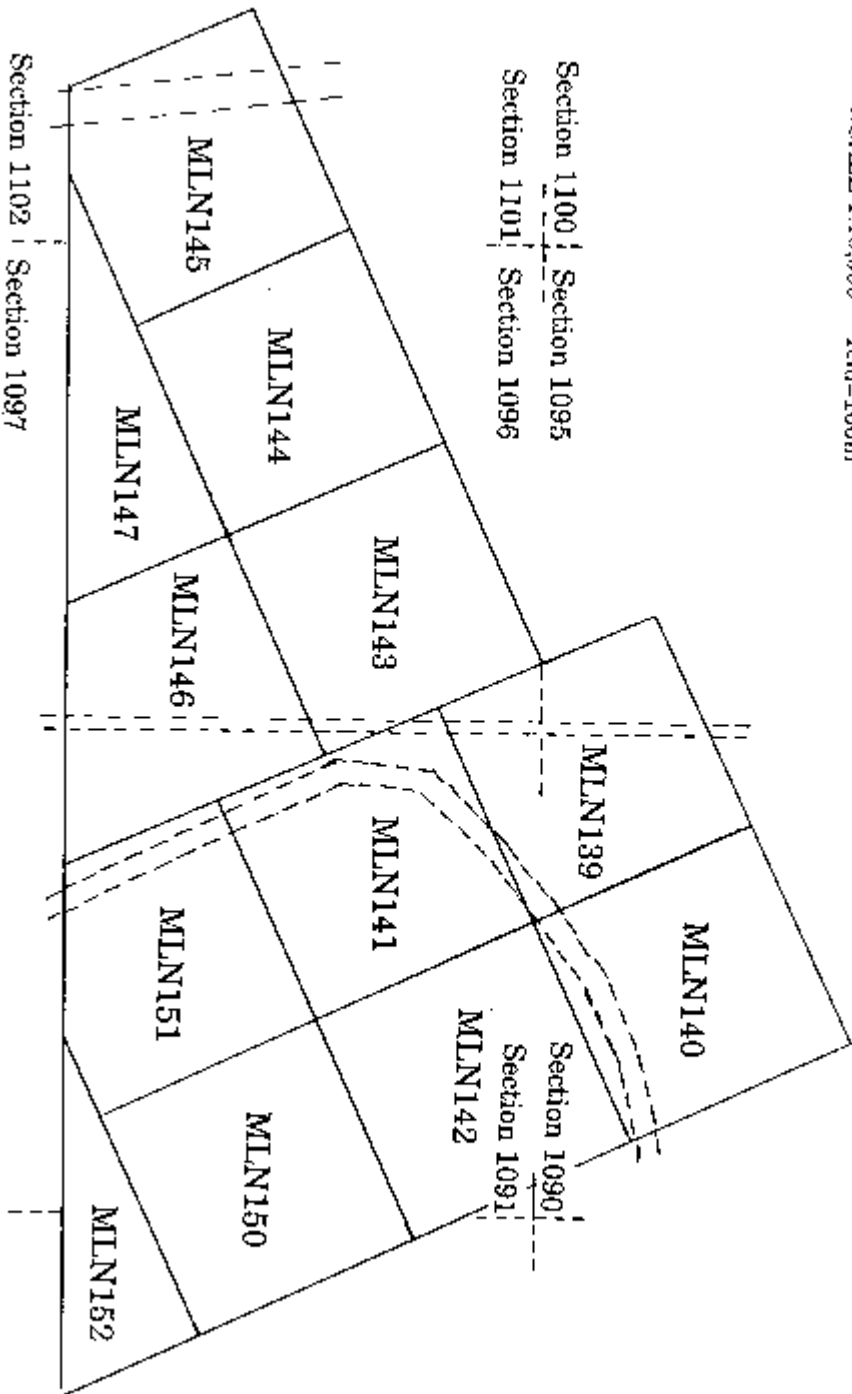


Figure 2