

# **Bootu Creek Resources Pty Ltd**

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## **September 2002 Annual Report for EL 10412.**

### **Introduction and contents**

Bootu Creek Resources Pty Ltd (BCR) entered into an agreement with Neil Scriven the applicant for Exploration Licences 10412 and 22428 whereby Neil Scriven would transfer these Exploration Licences to BCR on granting in return for a royalty and BCR bearing all the costs of exploration and subsequent mine development.

BCR's major shareholder is OM Holdings (OMH). OMH trades manganese and chromite ores into the Peoples Republic of China, converts the ores into ferroalloys and sells the ferro alloys to Steel Mills in East Asia.

BCR's target is to prove a minable resource of manganese ore that can be railed to the new East Arm Port in Darwin and then shipped to Asian markets.

EL 10412 was granted on or about the 20<sup>th</sup> of September 2001 and BCR started the first drilling phase in October 2001.

*The current tenement map is shown as a bit map file in the Oct 01 program folder*

The area of interest is the Bootu Creek Syncline that is shown on the Helen Springs map sheet. Manganese was mined in the area in 1950's and a limited tonnage of approximately 13,000 tonnes was trucked to Rum Jungle for use in the processing of yellow cake.

BHP had conducted an exploration program over the area that included flying an EM survey and drilling two diamond drill holes and four RC holes in the target area. This information is on open file and was used to plan the first drilling program. The EM data was reprocessed.

*The EM anomaly with lines of preferred conductivity is shown as a bit map file in the Oct 01 program folder*

The manganese mineralisation is located at the base of the Bootu Creek Formation that overlies the Attack Creek Formation.

### **Contents**

This report is submitted in digital format. The report is divided into the following folders:

EM Survey  
Oct 01 Program  
Gravity Survey  
June 02 Program  
Photos  
Sections  
Expenses

## **EM Survey**

The processed data from the BHP survey over the area is shown in bitmap and mapinfo files in the folder EM Survey

## **October 2001 Drilling Program**

A total of 2477 metres of open percussion drilling was completed in 87 holes. This program was targeted to test the EM anomaly primarily on the Eastern Limb of the syncline. Two sub parallel seams of manganese were defined on the Eastern Limb and these were tested over a total strike length of 5.2 kilometres.

*October 2001 drill collar positions are shown in a bit map file in the Oct 01 program folder*

Drill Hole Collar Locations are shown in pdf file October 2001 Collar locations.

Drill Hole survey data are shown in pdf file October 2001 hole survey.

Drill Logs including all analysis data are shown in pdf file October 2001 drill logs.

This drill program was considered successful as it proved that there is a large tonnage medium grade manganese deposit on the exploration license area and the manganese mineralisation follows the EM preferred conductivity lines that were interpreted from EM survey flown by BHP in 1995.

An inferred resource of 8.5 million tonnes at a grade of 33% Mn was calculated,

A field program to test the response of lumpy sized feed (50mm to 6 mm) to dense media separation did show that over 40% of mass and 48% of manganese units will report in a plus 3.2 SG fraction with a weighted average grade of over 40% Mn. These tests were conducted on samples from out crop and old workings and are therefore not necessarily representative of material from drilled manganese seams. Further work on diamond drill core samples will be needed to come to a judgement of product grades and yields from a dense media plant.

## **Gravity Program**

A gravity survey was conducted over drilled out areas on the eastern limb of the syncline. The results of this program can be viewed by looking at the mapinfo tab files in the gravity folder. The results showed that the manganese subcrop lineations were along low gravity areas. These lineations were coincident with the EM conductivity lines. The raw data is shown in a csv file in the gravity folder.

During this program we took the opportunity of accurately surveying all the drill collars from the October 2001 drill program. The closely spaced gravity survey points gave us an accurate topographic map of the Eastern Limb area that was the focus of the drilling program.

## **June 2002 Drilling Program**

This program was designed to test down dip extension of mineralisation.

A total of 1660 metres of RC drilling was completed in 40 holes. The Drill rig was the same as was used for the previous program of open hole percussion drilling however a higher capacity compressor was hooked up to the drill rig. We did have some success in gaining sample from 50 metre depths and the program did prove that the manganese mineralisation did persist in depth but in many cases sample recovery was poor and therefore doubtful in terms of representation. The program was partially successful but it was evident that we needed a bigger rig with a booster compressor to gain sample recovery from below water table depths.

The gaps between holes along the Shekuma manganese seam were closed up and evidence of deeper manganese mineralisation was evident. The two manganese seams on the eastern limb were named Shekuma and Go Go. The map in the June 02 folder shows the June 02 drill collars in green and the October 01 drill collars in blue.

Drill Hole Collar Locations are shown in pdf file June 2002 Collar locations.

Drill Hole survey data are shown in pdf file June 2002 hole survey.

Drill Logs including all analysis data are shown in pdf file June 2002 drill logs.

## **Photographs**

Digital photographs were taken over a spread of drill holes and these are shown in the folder Photos.

## **Sections**

Some cross sections are shown in the folder Sections in bitmap format along with hole collar positions.

## **Expenses**

Total direct expenditures on exploration activities on EL 10412 from the time of granting to September 2002 amount to \$302,000. Details of this expenditure is shown in excel and pdf format for the year 2001 and 2002.