Annual Report Page 1 of 8

SLIPPERY CREEK ANNUAL REPORT EXPLORATION LICENCE EL398

Annual Report
For the Period 6 January 2012 to 5 January 2013
EL 398 Slippery Creek –
SD5303 Arnhem Bay
Northern Territory

RTX Report No. 29454

Author G. Hartshorn

Date February 2013

Distribution Department of Mines and Energy, NT

RTX Perth Information Centre

BHP Billiton Minerals Exploration

This document is CONFIDENTIAL and remains the property of Rio Tinto Plc at all times. The document is copyright and subject to return on demand. Other than for the purposes of and subject to the conditions prescribed under the Copyright Act, no part of it may in any form or by any means be reproduced, stored in a retrieval system or transmitted without the prior written permission of Rio Tinto Plc.

Annual Report Page 2 of 8

BIBLIOGRAPHIC DATA SHEET

PROJECT NAME: Slippery Creek

TENEMENT NUMBER/S: EL398

TENEMENT OPERATOR: Rio Tinto Exploration **TENEMENT HOLDER:** Rio Tinto Exploration

REPORT TYPE: Annual Report

REPORT TITLE: Annual Report For the Period 6 January 2012 to 5

January 2013 EL 398 Slippery Creek

REPORT PERIOD: 6th January 2012 – 5th January 2013

PERSONAL AUTHOR: Greg Hartshorn

YEAR OF PUBLICATION: 2013

1:250,000 MAP SHEET:Arnhem Bay SD53-031:100,000 MAP SHEET:Buckingham Bay 6073TARGET COMMODITY:Bauxite / Managanese

KEYWORDS: Slippery Creek, bauxite, manganese, Annual Report

DOCUMENT DETAILS: 8 pages, 1 figures, 2 tables

CONTENTS

1	SUMMARY	4
	INTRODUCTION	
	TENURE STATUS	
4	LOCATION AND ACCESS	5
5	GEOLOGY	6
6	GEOMORPHOLOGY	6
7	GEOPHYSICS	7
8	PREVIOUS EXPLORATION	7
9	EXPLORATION ACTIVITIES DURING THE REPORTING PERIOD	7
	FUTURE WORK	
	REFERENCES	

FIGURES

Figure 1 Location Map

TABLES

Table 1 Tenement Details

Table 2 Previous Work

Annual Report Page 4 of 8

1 SUMMARY

This is the third annual report for EL 398 (Slippery Creek).

Exploration Licence EL 398 (Slippery Creek) was granted on 06/01/2010 under the name Rio Tinto Exploration Pty. Limited (RTX). This tenement was originally applied for by BHP on the 24th January 1972 covering an area of 1240.8km² and had been in moratorium since that date. The licence was granted to RTX under the conditions of the farm-in agreement with BHPB which was executed in 2000 and revised in 2007.

EL 398 was granted over an area of 127.8km² (or just over 10% of the original application area). The non consent area of the original application was split off into ELA 27873 and returned to moratorium.

Rio Tinto Exploration has a farm-in agreement with BHP Billiton whereby RTX manages the licence and has the rights to 100% interest in any discovered bauxite resource. As a condition of the amended agreement (2007) BHPB retains 100% of the manganese rights and has access to the licence for exploration.

The tenement is located approximately 100 km west of Nhulunbuy in north-east Arnhem Land and is processed under the Aboriginal Land Rights Act 1975 (ALRA).

Exploration completed during the reporting year was restricted to reviewing the previous exploration and discussions with BHPB regarding their possible plans for further work focussed on manganese exploration. No ground work was conducted.

2 INTRODUCTION

Exploration Licence EL 398 (Slippery Creek) was granted on 06/01/2010 under the name Rio Tinto Exploration Pty. Limited. This tenement was originally applied for by BHP on the 24th January 1972 covering an area of 1240.8 km² and has been in moratorium since that date. EL398 was granted over an area of 127.8km² (or just over 10% of the original application area). The non consent area of the original application was split off into ELA 27873 and put into moratorium.

Rio Tinto Exploration has an agreement with BHP Billiton to conduct exploration for bauxite within NE Arnhem Land. As a condition of this agreement Rio Tinto became the tenement holder and operator upon grant however BHPB continues to have rights to explore for manganese.

Annual Report Page 5 of 8

3 TENURE STATUS

Exploration Licence EL 398 (Slippery Creek) was granted on 06/01/2010 under the name Rio Tinto Exploration Pty. Limited. This tenement was originally applied for by BHP on the 24th January 1972 covering an area of 1240.8 km² and has been in moratorium since that date. EL398 was granted over an area of 127.8km² (or just over 10% of the original application area). The non consent area of the original application was split off into ELA 27873 and put into moratorium. Both tenements reside within east Arnhem which is subject to the Aboriginal Land Rights Act 1975 (ALRA). Tenement details are listed in Table 1 below.

Table 1: Tenement Details

Tenement No.	Tenement Name	Ownership	Grant Date	Area Applied km²	Area Granted km²
EL398	Slippery Creek	Rio Tinto Exploration Pty Limited	06/01/2010	1240.8	128.8
EL27873	Slippery Creek 2	BHP Billiton Pty Ltd	moratorium		

The tenement falls wholly within Arnhem Land and is subject to the provisions of the Aboriginal Land Rights Act which is administered by the Northern Land Council.

4 LOCATION AND ACCESS

EL398 is approximately 15km northeast of the township of Gapawiak and 110km east of Nhulunbuy in northeast Arnhem Land, Northern Territory. Access is via the Central Arnhem Highway. Permits from the NLC are required to access this area.

Annual Report Page 6 of 8



Figure 1 Location Map

5 GEOLOGY

Geology of the Slippery Creek area comprises of a sequence of sandstones and claystones belonging to the Walker River Formation (Middle Cretaceous) and the younger Yirrkala Formation (Upper Cretaceous) (Refer to SD5304 – Gove Special GSNT Geology Map). Proterozoic basement outcrops in the west of the tenement.

During the Tertiary period, the region underwent extensive lateritisation resulting in bauxite development such as that seen at Gove. While several occurrences of bauxite have been recorded in the east Arnhem area, large, economic deposits outside the general vicinity of the Gove mine site, have not been discovered.

6 GEOMORPHOLOGY

The area covered by tenement (EL398) consists of mostly of a low flat surface (~45m RL) that grades into drainage channels leading to swampy areas (~25m RL). The Proterozoic rocks form narrow northerly trending ridges that cut across the area

Annual Report Page 7 of 8

7 GEOPHYSICS

The project area is covered by a regional scale aeromagnetic survey flown for the NTGS in 1990-92 (Rawlings et al., 1997). The radiometric data can be used to help distinguish the laterite-covered areas from those of both basement and Quaternary sand cover. This method does not distinguish between bauxitic and non-bauxitic laterite.

Digital terrain data has been acquired and processed to assess areas for plateaus that may be prospective for bauxite. The Slippery Creek area contains a slightly elevated area that is interpreted as a remnant lateritic surface. This area is defined by an elevated thorium response in the regional geophysics.

8 PREVIOUS EXPLORATION

Previous exploration over this area has been undertaken in the past, however, of less detail than that of the most-easterly region of Arnhem Land. Within the original application area, BHP had previously drilled 10 holes, of which 3 holes are in EL 398. Of these three holes which were drilled to depths ranging from 19 to 62m, no geochemical assays are recorded. No further work has been conducted in the area since the late 1960's until the license was again granted in 2010 when shallow hand auger sampling was conducted to test for bauxite.

Table 2: Previous Exploration Summary

Year	Company	Tenement	Exploration Completed
1960- 1970	BHP Ltd	ATP1138	Manganese and bauxite reconnaissance exploration. Ten holes completed in original application area, of which three reside in the granted EL 398.
2010	RTX	EL398	Auger and rock sampling

9 EXPLORATION ACTIVITIES DURING THE REPORTING PERIOD

No field work was completed during the period.

Discussions were held with BHPB regarding their proposed manganese exploration activities

10 FUTURE WORK

No further exploration for bauxite is planned for EL 398, however under the terms of the farm-in agreement BHPB are planning further reconnaissance for manganese

Annual Report Page 8 of 8

11 REFERENCES

- Blake, J. 2010, Annual Report For Period Ending 5 January, 2011, EL 398 Slippery Creek. Report Number 28914.
- Chestnut, W., Gunn, M. and McGregor, P., BHP Pty Ltd., 1968. Report on Exploration Within AP1138, Eastern Arnhem Land. Northern Territory Department of Mines and Energy, Open File Company Report CR1968-0011.
- Chestnut W., Blayden, I., Edyvean, M. & Gee, C., BHP Pty Ltd., 1966. Report on Exploration Within AP1138, Eastern Arnhem Land. Northern Territory Department of Mines and Energy Open File Report CR1966-0008.
- Ferenczi, P.A., 2001, Iron Ore, Manganese and Bauxite Deposits of the Northern Territory. Northern Territory Geological Survey Report No. 13.
- Hartshorn, G. 2012, Annual Report For Period Ending 5 January, 2012, EL 398 Slippery Creek. Report Number 29254.
- Rawlings, D.J., 1997, 1:250 000 Geological Map. Explanatory Notes. Arnhem Bay Gove SD5303-04, Northern Territory Geological Survey.

LOCALITY

Arnhem Bay SD5303 1:250 000