# Rio Tinto Exploration Pty Ltd 

ABN 76000057125 / ACN 000057125

A member of the Rio Tinto Group

## Annual Report

## for the period 1 January 2016 to 31 December 2016

Tenement(s) No(s). MLN 47, MLN 48, MLN 49, MLN 67, MLN 68, MLN 69, MLN 70, MLN 71, MLN 72, MLN 73, MLN 74, MLN 75, MLN 76 \& MLN 77

Ranger Project (Group Report Number GR391)
\(\left.$$
\begin{array}{ll}\text { Tenure: } & \text { MLN 47, MLN 48, MLN 49, MLN 67, MLN 68, MLN 69, MLN 70, MLN 71, } \\
& \text { MLN 72, MLN 73, MLN 74, MLN 75, MLN 76 \& MLN 77 }\end{array}
$$, \begin{array}{l}Ranger MLN's 47 to 49 and 67 to 77 Annual Report for the period 1 <br>
Title: <br>

January 2016 to 31 December 2016\end{array}\right]\)| Period: | 1 January 2016 to 31 December 2016 |
| :--- | :--- |
| Project Name: | Ranger Project |
| Title Holder: | Peko Exploration Pty Limited |
| Title Operator: | Rio Tinto Exploration Pty Limited |
| Personal Author: | Adam Black, Geologist |
| Report Type: | Combined Annual |
| 250K Mapsheet/s: | Alligator River SD5301 |
| 100K Mapsheet/s: | East Alligator 5473 |
|  | Cahill 5472 |
| Geological Province: | Pine Creek Orogen |
| Stratigraphic Name: | Cahill Formation |
| Keywords: | Uranium |
| Commodity: | Uranium |
| Drilling: | N/A |
| Geochem Sampling: | N/A |
| Geophysics: | N/A |
| Work Done: | No work was completed on the Ranger MLN's during the reporting period. |
|  | Access is unlikely in the foreseeable future because of their sensitive |
| Results: | location within Kakadu National Park. |
| Conclusions: | N/A |

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## 1 Abstract

No work was completed on MLN 47, MLN 48, MLN 49, MLN 67, MLN 68, MLN 69, MLN 70, MLN 71, MLN 72, MLN 73, MLN 74, MLN 75, MLN 76 \& MLN 77 (the Ranger MLN's) during the reporting period ending 31 December 2016. Access to the MLN's is unlikely in the foreseeable future because of their sensitive location within Kakadu National Park.

## 2 Copyright

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## 3 Introduction

### 3.1 Location

MLN 47, MLN 48, MLN 49, MLN 67, MLN 68, MLN 69, MLN 70, MLN 71, MLN 72, MLN 73, MLN 74, MLN 75, MLN 76 \& MLN 77 (the Ranger MLN's) cover the Ranger 44 prospect area. The ML's were originally selected in 1973 on the basis of a Peko/EZ regional airborne geophysical survey. The Ranger MLN's fall within the poorly accessible areas of the Magela Plains.

Figure 1: Location Map


### 3.2 Title History

Peko Exploration Pty Limited (Peko) originally made application for the Ranger MLN's on 24 October 1973 and they were granted on 7 October 1974. The titles were due to expire on 31 December 1994. Only limited ground geophysical surveying exploration on the Ranger MLN's is recorded from the period of grant to expiry. North Exploration lodged renewal applications on 30 September 1994. Rio Tinto Exploration Pty Limited acquired the ML's in 2000 after acquisition of North Ltd assets.

Department of Mines and Energy and North Ltd records indicate that no progress has been made to access the leases since the applications for renewal were lodged in 1994. Work on the Ranger MLN's is not possible as they are surrounded by or fall within the Kakadu National Park.

Table 1: Tenement Details

| Code | Name | Parties | Commodities | Status | Application Date | Grant Date | Expiry Date | Area |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MLN47 | Ranger $1$ | Peko <br> Exploration <br> Pty Ltd <br> (100\%) | Uranium | Pending Renewal | 2/10/1970 | 7/10/1974 | 31/12/1994 | $\begin{aligned} & 16.0000 \\ & \mathrm{Ha} \end{aligned}$ |
| MLN48 | Ranger $2$ | Peko <br> Exploration <br> Pty Ltd <br> (100\%) | Uranium | Pending Renewal | 2/10/1970 | 7/10/1974 | 31/12/1994 | $\begin{aligned} & 16.0000 \\ & \mathrm{Ha} \end{aligned}$ |
| MLN49 | Ranger $3$ | Peko <br> Exploration <br> Pty Ltd <br> (100\%) | Uranium | Pending Renewal | 2/10/1970 | 7/10/1974 | 31/12/1994 | $\begin{aligned} & 16.0000 \\ & \mathrm{Ha} \end{aligned}$ |
| MLN67 | Ranger $4$ | Peko <br> Exploration <br> Pty Ltd <br> (100\%) | Uranium | Pending Renewal | 24/10/1973 | 7/10/1974 | 31/12/1994 | $\begin{aligned} & 16.1800 \\ & \mathrm{Ha} \end{aligned}$ |
| MLN68 | Ranger $5$ | Peko <br> Exploration <br> Pty Ltd <br> (100\%) | Uranium | Pending Renewal | 24/10/1973 | 7/10/1974 | 31/12/1994 | $\begin{aligned} & 16.1800 \\ & \mathrm{Ha} \end{aligned}$ |
| MLN69 | Ranger $6$ | Peko <br> Exploration <br> Pty Ltd <br> (100\%) | Uranium | Pending Renewal | 24/10/1973 | 7/10/1974 | 31/12/1994 | $\begin{aligned} & 16.1800 \\ & \mathrm{Ha} \end{aligned}$ |
| MLN70 | Ranger <br> 7 | Peko <br> Exploration <br> Pty Ltd <br> (100\%) | Uranium | Pending Renewal | 24/10/1973 | 7/10/1974 | 31/12/1994 | $\begin{aligned} & 16.1800 \\ & \mathrm{Ha} \end{aligned}$ |
| MLN71 | Ranger $8$ | Peko <br> Exploration <br> Pty Ltd <br> (100\%) | Uranium | Pending Renewal | 3/12/1973 | 4/11/1974 | 31/12/1994 | $\begin{aligned} & 16.0000 \\ & \mathrm{Ha} \end{aligned}$ |
| MLN72 | Ranger $9$ | Peko <br> Exploration <br> Pty Ltd <br> (100\%) | Uranium | Pending Renewal | 3/12/1973 | 4/11/1974 | 31/12/1994 | $\begin{aligned} & 16.0000 \\ & \mathrm{Ha} \end{aligned}$ |
| MLN73 | Ranger $10$ | Peko <br> Exploration <br> Pty Ltd <br> (100\%) | Uranium | Pending Renewal | 3/12/1973 | 4/11/1974 | 31/12/1994 | $\begin{aligned} & 16.0000 \\ & \mathrm{Ha} \end{aligned}$ |

MLN 47, MLN 48, MLN 49, MLN 67, MLN 68, MLN 69, MLN 70, MLN 71, MLN 72, MLN 73, MLN 74, MLN 75, MLN 76 \& MLN 77

| MLN74 | Ranger <br> 11 | Peko <br> Exploration <br> Pty Ltd <br> $(100 \%)$ | Uranium | Pending <br> Renewal | $3 / 12 / 1973$ | $4 / 11 / 1974$ | $31 / 12 / 1994$ | 16.0000 <br> Ha |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| MLN75 | Ranger <br> 12 | Peko <br> Exploration <br> Pty Ltd <br> (100\%) | Uranium | Pending <br> Renewal | $7 / 12 / 1973$ | $4 / 11 / 1974$ | $31 / 12 / 1994$ | 16.0000 <br> Ha |
| MLN76 | Ranger <br> 13 | Peko <br> Exploration <br> Pty Ltd <br> (100\%) | Uranium | Pending <br> Renewal | $7 / 12 / 1973$ | $4 / 11 / 1974$ | $31 / 12 / 1994$ | 8.0000 <br> Ha |
| MLN77 | Ranger <br> 14 | Peko <br> Exploration <br> Pty Ltd <br> $(100 \%)$ | Uranium | Pending <br> Renewal | $7 / 12 / 1973$ | $4 / 11 / 1974$ | $31 / 12 / 1994$ | 8.0000 <br> Ha |

### 3.3 Access

The Ranger MLN's are within Kakadu National Park and as such are not able to be accessed.

## 4 Geology

### 4.1 Geological setting

Little is known about the geology in the vicinity of the Ranger MLN's because of the presence of think cover and the politically sensitive nature of the location. Airborne geophysical data indicate the presence of upper Cahill Formation schists within the Ranger MLN's. Elsewhere the Cahill Formation hosts the world-class Jabiluka and Ranger uranium deposits.

### 4.2 Exploration History

Rio Tinto Exploration Pty Limited has not undertaken a recent review of the exploration history within the area of the Ranger MLN's due to the fact that no work is possible within Kakadu National Park.

### 4.3 Exploration Rationale

No work has been conducted or planned for the Ranger MLN's due to their location within Kakadu National Park.

### 4.4 Exploration Index Map <br> N/A

## 5 Geological Activities and Office Studies <br> N/A

## 6 Remote sensing <br> N/A

## 7 Geophysical Activities <br> N/A

## 8 Surface geochemistry <br> N/A

## 9 Drilling <br> N/A

## 10 Geotechnical studies <br> N/A

## 11 Resources and reserve estimation/modelling

 N/A
## 12 Conclusions and Recommendations

No work was undertaken on MLN 47, MLN 48, MLN 49, MLN 67, MLN 68, MLN 69, MLN 70, MLN 71, MLN 72, MLN 73, MLN 74, MLN 75, MLN 76 \& MLN 77 (the Ranger MLN's) during the reporting period ending 31 December 2016. Access to the MLN's is unlikely in the foreseeable future because of their sensitive location within Kakadu National Park and therefore no future work has been planned.

## 13 References

N/A

## 14 Photographs other than those in the body of the text N/A

## 15 Appendices <br> N/A


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