PARTIAL RELINQUISHMENT REPORT
12/09/2011 to 11/09/2013
BATTEN CREEK (EL 28320)

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Titles / Tenements: EL(s): 28320
Project Names: Batten Creek
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Target Commodity / Commodities: Base Metals and Diamonds
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Any information included in the report that has been originated or sourced from historical open file reports or other sources is listed in the “Exploration Studies - Historic” section within the document.

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Summary

Section 94 of the *Mineral Titles Act* requires the submission of a Relinquishment Report prepared by the titleholder for each current Exploration Licence. This Partial Relinquishment Report for EL28320 offers a summary of the activities undertaken on the relinquished area for the life of the permit, including any results produced by those activities.

Natural Resources Exploration (‘NRE’) is the sole titleholder and operator of EL28320. NRE was granted EL28320 on 10 September 2011 for a term of six (6) years. The work and expenditure program for EL28320 consisted initially of a detailed geological review of existing data and information towards determining the location of possible base metal mineralisation within the tenement. Subsequently, exploration efforts were focused on diamond mineral potential.

NRE has carried out a detailed geological assessment of the tenures within its Batten Creek Project. NRE’s exploration activities during the first and second term included considerable research. Research included review and compilation of the data in the Northern Territory Geological Services’ (‘NTGS’) open file reports, air photo imagery, geochemical samples, geophysical survey data, drilling results and examination of the latest geological maps.

On complete review of all desktop and field work conducted over the tenure, an area has now been nominated for relinquishment within EL28320 with the remainder of the tenure requiring follow-up work.
1. Introduction

EL 28320 was granted to NRE on 10 September 2011, consisting then of a total of 206 sub-blocks. EL 28320 is situated in the Carpentaria zinc belt within the McArthur Basin. The region is strongly mineralised with a number of prominent commodities including Copper, Lead-Zinc Silver, Uranium, Gold, Iron, Phosphate and Diamonds.

The tenement in question (EL28320) is more commonly known to NRE as its ‘Batten Creek Prospect’. NRE has considered the evaluation of potential diamond and base metal mineralisation within this tenement.

After complete review of all desktop studies conducted over the tenure, Figure 1 identifies the location of the relinquished area subject of this report.

**Figure 1. Location Map of Relinquished Area**

NRE has conducted an extensive review of all previous exploration across the whole of EL28320. This review included open file reports, aerial photography, geochemical samples, geophysical survey data, drilling results, geological map examination and ASTER data analysis.

Currently, office-based exploration activities continue on the remainder of the tenure with preliminary results confirming the need for further investigation on the remainder of the tenement.
2. History

EL28056 was granted to NRE for six (6) years commencing on 17 December 2010, as the sole titleholder and operator. NRE has recently nominated to relinquish 5 sub-blocks with the remainder of the permit comprising of 1 sub-block. Figure 2 below identifies both the retained permit area and the relinquished permit area.

Figure 2. Relinquished Area & Permit Area Map

The relinquished sub-blocks subject to this report are as listed in Table 1 below.

Table 1. Relinquishment Area Sub-block Identification.

<table>
<thead>
<tr>
<th>Block</th>
<th>Sub Block</th>
</tr>
</thead>
<tbody>
<tr>
<td>3218</td>
<td>Z</td>
</tr>
<tr>
<td>3219</td>
<td>V, W, X, Y, Z</td>
</tr>
<tr>
<td>3220</td>
<td>V, W, X, Y, Z</td>
</tr>
</tbody>
</table>
Both the relinquished areas and retained permit area are located over surface lands that are comprised primarily of Perpetual Pastoral Leases (Figure 3).

Figure 3. Cadastral Map of Relinquished Area

### 3. Geology

#### 3.1 Regional Geology

The Batten Creek Prospect lies within the Carpentaria zinc belt consisting of Proterozoic sediments and volcanics. It is located within the unmetamorphosed,
relatively undeformed Palaeoproterozoic to Mesoproterozoic succession of carbonate, siliciclastic and volcanic rocks of the McArthur Basin.

The Region is strongly mineralised with a number of prominent commodities including lead-zinc-silver, copper, uranium, gold, iron, phosphate and diamonds. The Regional Geology is depicted in Figure 4 below.

The McArthur Basin lies within the north-eastern portion of the Northern Territory which extends into Queensland. Its sedimentary sequence is interpreted to be up to approximately 12,000 metres in thickness.

The McArthur Basin hosts the major stratiform McArthur River lead-zinc-silver deposit. The Basin also contains marine and non-marine sedimentary rocks. Volcanic and associated intrusive rocks are present in some parts of the Basin.

**Figure 4. Regional Geology Map of Relinquished Area**

**Table 2. Simplified stratigraphic column of the Murphy Inlier**

<table>
<thead>
<tr>
<th>Era</th>
<th>Eon / Period</th>
<th>Formation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cenozoic</td>
<td>Quaternary</td>
<td>Soil, sand and ferruginous cemented detritus.</td>
</tr>
<tr>
<td>Precambrian</td>
<td>Paleoproterozoic</td>
<td>Cliffdale Volcanics (1732-1850 Ma)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nicholson Granite Complex (1804-1856 Ma)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Murphy Metamorphics (1900 Ma)</td>
</tr>
</tbody>
</table>
3.2 Permit Geology

NRE’s Batten Creek Prospect area is situated in the Carpentaria zinc belt within the McArthur Basin.

Quaternary sand, silt and clay as part of alluvium or dunes cover a large portion of EL28320 along with Cainozoic soil, sand, ferruginous cemented detritus and residual black soil. Around 5% of the tenure is outcrop or Subcrop, are Early Cretaceous or Mesoproterozoic mainly sedimentary rocks.

There are Early Cretaceous mesas of sandy claystone, quartz sandstone, clayey sandstone occurring as small exposures only they are largely masked by Cainozoic deposits. Mesoproterozoic outcrops are as follows: Roper Group sandstones and shales occur in the central and southern parts of the tenure, in the south is the Karns Dolomite (dolostone and sandstone), in the west the McArthur Group - dolostone, shale, sandstone and in the east the Tawallah Group – sandstone, conglomerate and some mafic volcanics.

The permit geology is illustrated in Figure 5 and the changes in the interpreted stratigraphic succession over time are shown in Table 2.

Figure 5. Permit Geology Map of the Relinquished Area
4. **Exploration Objectives and Rationale**

The objective of NRE’s exploration program on EL28320 and adjoining tenures was to consider and evaluate the potential for diamond and base metal mineralisation. Investigations were primarily aimed towards locating targets for any alluvial or kimberlitic mineralisation and any indicators of possible subsurface mineralisation across the area.

5. **Exploration Activities carried out on the Relinquished Area**

NRE’s exploration activities during the term of the permit and in particular, of the relinquished area, consisted of office-based activities. An initial regional assessment of the areas within EL28320 for diamond and base metals was conducted during the term of the licence.

Desktop research of regional geological and geophysical data, augmented with compilation and assessment of all previous exploration results was conducted. Material from historic exploration was extensively reviewed over the relinquished area. There has been a number of previous exploration tenements over the subject relinquished area (Figure 6 below). A list of the previous exploration reports in relation to the relinquished area is shown in Table 3 below.

**Figure 6. Historical Tenements over the Relinquished Area**
### Table 2. Historical Reports

<table>
<thead>
<tr>
<th>Tenement</th>
<th>Period</th>
<th>Company Reports</th>
<th>Company</th>
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<td></td>
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<td>CR1996-0400, CR1997-0131</td>
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<td>EL 9094</td>
<td>1996-1997</td>
<td>CR1997-0328</td>
<td>MIM Exploration</td>
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<tr>
<td>EL 9635</td>
<td>1996-1997</td>
<td>CR1997-0328</td>
<td>MIM Exploration</td>
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<td></td>
<td></td>
<td>CR1994-0660</td>
<td></td>
</tr>
<tr>
<td>AP 1973</td>
<td></td>
<td>CR1969-0039</td>
<td>Placer Prospecting</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Zealand Exploration</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CR1984-0118, CR1986-0015</td>
<td></td>
</tr>
</tbody>
</table>

### 5.1 Water Bore Cuttings Analysis

In January 2011, the Department kindly allowed NRE to set-up in the Darwin Core Facility where NRE’s geologists undertook analysis of the water bore cuttings using a hand-held XRF device and re-logged water bores.
NRE lodged an Exploration Report with the Northern Territory Department of Resources’ Geoscience Division on 7 June, 2011. This report was required in respect of the XRF and ALS Assaying of Water Bore Chips at the Darwin Core Facility. The Exploration Report was titled ‘XRF & ALS Assaying of Water Bore Chips – Core Facility: Darwin’.

6. Reports lodged during the Reporting Period

NRE lodged an Exploration Report with the Northern Territory Department of Resources’ Geoscience Division on 7 June, 2011. This report was required in respect of the XRF and ALS Assaying of Water Bore Chips at the Darwin Core Facility. The Exploration Report was titled ‘XRF & ALS Assaying of Water Bore Chips – Core Facility: Darwin’.

NRE lodged its Year 1 Annual Report with the Northern Territory Department of Resources in 2012 and its Year 2 Annual Report with the Department of Mines and Energy in December 2013.

7. Conclusions

Natural Resources Exploration’s exploration activities during the first and second term of EL28320 have been focused on delineating surface targets within the relinquished area with the aim of identifying any diamond or base metal mineralisation.

NRE has conducted office-based studies on EL28320 during the term of this tenure. NRE carried out a detailed geological assessment of the relinquished area which included considerable research and evaluation of the area. Research included review and compilation of the data in the Northern Territory Geological Services’ (NTGS) open file reports, air photo imagery and examination of the latest geological maps.

After its extensive review of all previous exploration data and its newly acquired data in relation to this ground through testing of chips held at the Darwin Core Facility, NRE has concluded that the potential for mineralisation within the nominated relinquished area is much lower than the remaining tenement area with the remainder of the tenure requiring follow-up work.
8. Bibliography


