NT Minerals Pty Ltd

EL 29080, 29081, 29082, 29083 & 29084

Annual and Final Report
For the period
06 Jun 2012 to 02 Jan 2014

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1.0 ABSTRACT

Exploration Licenses (EL) 29080, 29081, 29082, 29083 and 29084 made up five of the eight Titles in the amalgamated Amadeus East Project. These five Titles have been surrendered effective 2nd January 2014. They were located between 100 km to 160 km south of Alice Springs and covered an area of 3,322 km² of the Amadeus Basin.

From the grant date to surrender no field activities were conducted over EL 29080-29084.

Whilst all commodities were considered, the focus of exploration was placed on potash as related to the salt dominated stratigraphy of the Amadeus Basin and industrial salt products/minerals associated with the playa salt lakes and shallow groundwater brines.

Only limited previous exploration had occurred across the current project area. The main target has been uranium with no prospective areas identified and no anomalous results returned. Conceptual modelling by Reward Minerals over the north east of the current project suggested potential for potash associated with stratigraphic salt layers within the Amadeus Basin although no follow-up was ever completed.

Potential industrial salt products, potash, and industrial minerals such as gypsum associated with playa salt lake has been evaluated along the Karinga Ck, immediately to the north of the south western areas of the current project area.

A review of the historical data available over the area and discouraging findings led to the decision to drop the ground. The assessment conducted found that the level of uncertainty and risk in conducting the exploration program required was too high. NT Minerals Pty Ltd has instead chosen to focus on its other more prospective projects.
2.0 LOCATION

Amadeus East Project is located in the south east of the Northern Territory, approximately 100 km south of Alice Springs.

![Amadeus East Project Location Map](image)

Figure 1 - Amadeus East Project Location Map

2.1 TENEMENT DETAILS

Amadeus East Project was comprised of a total of 8 Titles and covered an area of 5,448 km². The details of the surrendered five Titles are shown in Table 1 below.

Table 1 – Tenement details summary

<table>
<thead>
<tr>
<th>EL NUMBER</th>
<th>EL29080</th>
<th>EL29081</th>
<th>EL29082</th>
<th>EL29083</th>
<th>EL29084</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date Granted</td>
<td>6/8/12</td>
<td>6/8/12</td>
<td>6/6/12</td>
<td>6/8/12</td>
<td>6/6/12</td>
</tr>
<tr>
<td>Term</td>
<td>6 years</td>
<td>6 years</td>
<td>6 years</td>
<td>6 years</td>
<td>6 years</td>
</tr>
<tr>
<td>Sub-Blocks</td>
<td>242</td>
<td>250</td>
<td>260</td>
<td>250</td>
<td>60</td>
</tr>
<tr>
<td>Size Km²</td>
<td>755</td>
<td>795</td>
<td>810</td>
<td>776</td>
<td>187</td>
</tr>
</tbody>
</table>

2.2 ACCESS
ES 29080-29084 were located within 55 km to the east of the Stuart Highway and 10 km south of Deepwell Road. Various dirt tracks that can be seen from satellite connecting local airstrips and small communities in the region could be utilized to navigate the tenement area itself.

2.3 PHYSIOGRAPHY

The Amadeus East Project area is relatively flat with the majority of the region covered by sand dunes which obscure outcrop of formations.

3.0 GEOLOGICAL SETTING

3.1 REGIONAL GEOLOGY

Amadeus East Project is located in the intracratonic Amadeus Basin located in the south of the Northern Territory.

The Amadeus Basin is a Neoproterozoic to early Phanerozoic intracratonic sedimentary basin approximately 170,000 square kilometres in area and includes several sub-basins and troughs which are major depositional centres. Sediment thickness reaches a maximum of 14,000 metres.

The Amadeus Basin overlies the Warumpi and Aileron provinces to the north and the Musgrave Province to the south. The Amadeus Basin is overlain by the Eromanga and Pedirka Basins to the south-east.

The basin has at least nine recognisable megasequences separated by regional unconformities. These megasequences were instigated by major tectonic events including the Peterman and Alice Springs Orogenies.

Periods of subsidence and uplifts coupled with sea level changes caused a series of fluvial, glacial, marine and evaporite deposits. Though the formation of the Amadeus Basin was instigated by an extensional event, the majority of deformation that took place was compressional and transtensional (Shaw, R.D. 1991). More recently, halotectonics has been considered to be very important to the development of the basin’s structure with evaporite deposits allowing an alternate dispersion of tectonic forces and acting as reservoirs (Marshall and Dyson, 2007).
Figure 2 - Map of the Structures of the Amadeus Basin Red box depicts location of Amadeus East Project (Shaw, R.D. The tectonic development of the Amadeus Basin, Central Australia, BMR Bulletin 236, 1991)
Figure 3 - Simplified Stratigraphic Column of the Amadeus Basin. Adapted after Wells and others, 1970 and Kennard and others, 1986 (Shaw, R.D. The tectonic development of the Amadeus Basin, Central Australia, BMR Bulletin 236, 1991)
3.2 LOCAL GEOLOGY
A summary of the local Geology is shown in Figure 4.

3.3 HISTORIC EXPLORATION
There are a number of historic titles that have overlapped the area covered by EL 29080-29084. The exploration conducted over these tenements has been reviewed and reported on in the Year 1 Annual Report for the Amadeus East Project.

4.0 OPERATIONS REPORT
No field work has been completed on the Amadeus East Project. Work associated with this tenement has been focused on a review of previous exploration in order to plan the forward exploration programme.

5.0 CONCLUSION AND RECOMMENDATIONS
Only limited previous exploration had occurred across the current project area. The main target has been uranium with no prospective areas identified and no anomalous results returned. Conceptual modelling by Reward Minerals over the north east of the current project suggested potential for potash associated with stratigraphic salt layers within the Amadeus Basin although no follow-up was
ever completed. The potential for Potash associated with salt layers of the Amadeus Basin should be re-evaluated.

Potential industrial salt products, potash, and industrial minerals such as gypsum associated with playa salt lake has been evaluated along the Karinga Ck, immediately to the north of the south western areas of the current project area. Playa salt lakes occurring in the area should be evaluated in future programmes for their industrial mineral potential via the potential processing of the brines.

The conclusion reached for area held under the five surrendered Titles of the Amadeus East Project was that there was insubstantial evidence for field exploration for the target sedimentary mineral deposits. The Titles were surrendered because it was believed that the remaining project area held under EL 29077, 29078 and 29079 would be more prospective.

6.0 REFERENCES


Barrie, J. 1964, Phosphate Drilling, Amadeus Basin, BMR 1964/0195


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Lindsay, J.F., 1999, Heavitree Quartzite, a Neoproterozoic (ca 800-760Ma), high-energy, tidally influenced, ramp association, Amadeus Basin, central Australia, Australian Journal of Earth Sciences 46 127-139


Pisarevsky, S. A., Wingate, M.T.D., Powell, C., Johnson, S., Evans, D., 2003, Models of Rodinia assembly and fragmentation,