### ANNUAL TECHNICAL REPORT FOR EXPLORATION LICENCE 26243 MT EBENEZER

2<sup>nd</sup> Annual Report Reporting period 25 March 2009 to 24 March 2010

### HELD BY: QUASAR RESOURCES PTY LTD 100%

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### **Executive Summary**

This annual report describes the exploration activities undertaken by Quasar Resources Pty Ltd (QSR) from the 25 March 2009 within EL 26243.

The programme for this reporting period was the collection of 968 surface samples for multi-element geochemical analysis, to assist with targeting IOCG and palaeochannel anomalies and the understanding of basement geology.

### **Proponent Details**

The operator for the exploration licence is Quasar Resources Pty Ltd.

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#### **Contact Person**

Joy Barnes – Executive Assistant/Tenement Manager

### 1. Location and Access

EL 26243 is situated on the Henbury SG5301 and Kulgera SG5305, 1:250,000 map sheets of Northern Territory. (Figure 1) The tenement covers approximately 500 blocks and totals 1,539 km<sup>2</sup> and is located west of Erldunda crossing the Lasseter Highway.

Access from Alice Springs is via the sealed Lasseter Highway, which bisects the southern portion of the tenement area. Within the tenement access is by formed gravel roads and pastoral station tracks.

### 2. Tenement Details

QSR holds 100% interest in EL 26243, which was granted on the 25<sup>th</sup> of March 2008. The land tenure of the licence is Perpetual Pastoral Lease and (Figure 2, Table 1).

NT Portion	Type No	Owner's Name	Owner's Address
01991	PPL 1140	Fogarty Holdings	Palmer Valley Station, via
			Alice Springs NT 0872
00680	PPL 1056	Fogarty Holdings	Palmer Valley Station, via
			Alice Springs NT 0872
03336	Estate in	Impanpa Development	C/- Phil Ralfe – CLC
	fee simple	Association Incorporated	PO Box 3321 Alice Springs
		(Mt Ebenezer	NT 0872
		Roadhouse)	
01230	Estate in	Impanpa Community	C/- Phil Ralfe – CLC
	fee simple	Incorporated	PO Box 3321 Alice Springs
		(Community Living Area)	NT 0872
03350	PPL 1088	John Garnaut Stanes	C/- Lyndavale Station, PMB,
			Alice Springs NT 0872
03351	PPL 1031	Ailbern Pty Ltd	Erldunda Station via Alice
			Springs NT 0870

Table 1 Landholders over EL 26243 Mt. Ebenezer.

## 3. Geology

Targeting the sandstone-hosted potential of the Palaeozoic clastic succession, including Devonian sandstones of the Amadeus Basin. This licence is located on an intra-basinal structural culmination in the southern part of the basin, and the exploration play is based largely on petroleum-style concepts.

There is potential for brine-basement interactions, and early Cambrian arkoses derived from the Musgrave Block during the Petermann Orogeny (Mt Currie Conglomerate, Multijulu Arkose, Arumbera Sandstone) are possible higher level uranium source rocks.

Seismic data suggests the potential for the focusing of deep basinal, saline and oxidative brines derived from a thick evaporate section of the Neoproterozoic Bitter Springs Formation into high level mixing zones and trapping with hydrocarbons. Such saline fluids are known to be effective in leaching and transporting uranium (Heinrich *et al.*, 1995)

### 4. Sampling

#### 4.1 Method

Surface samples were collected on an 800 x 800 m grid over approximately half of EL 26243 Mt. Ebenezer (Figure 3). Sample locations were moved off the square of the grid where they were outside any traditionally significant areas (such as salt lakes) and sand dunes. Areas of extensive sand dunes outside this programme were not sampled.

Preferentially, calcrete samples were collected, followed by ferricrete. If neither were intersected to a depth of 1 m, a soil sample was taken. The presence of calcrete was tested using 10% HCI. Where nodular or sheet calcrete was intercepted the samples were sieved to collect the nodules, otherwise whole soil samples were taken. Samples were approximately 1.0 kg.

A record of the type of calcrete; cover lithology, type and characteristic; acid reaction; type of outcrop present (if any) and terrain type was taken at each sample location (Appendix A).

#### 4.2 Analysis

A total of 990 samples were collected and submitted for geochemical analysis at ALS, Adelaide. Three different preparation/analytical techniques, each with a specific suite of elements, were used (Table 2). ME-MS62 is a whole rock near-total four acid digest with ICP-AES finish. ME-ICP61 is a four acid digest with ICP-MS finish. ST44 is a gold analysis by aqua regia extraction with ICP-MS finish.

Method ME-MS62		Method ME-ICP61		Method ST44				
Element	Unit	LLD	Element	Unit	LLD	Element	Unit	LLD
U	ppm	0.1	Zn	ppm	2	Au	ppm	0.001
Th	ppm	0.2	Mn	ppm	5			
Cu	ppm	0.2	Co	ppm	1			
Pb	ppm	0.5	Ce	ppm	50			
Ag	ppm	0.02	AI	%	0.01			
As	ppm	0.2	K	%	0.01			
Bi	ppm	0.01	Ca	%	0.01			
Ga	ppm	0.05	Fe	%	0.01	]		
La	ppm	0.5	Mg	%	0.01			

Table 2 Analytical method and element suite. LLD is the lower level of detection.

### 4.3 Results

Due to the three different sample media collected, analysis of each medium was undertaken separately (Figures 4-9).

### 4.3.1 Uranium

The highest uranium result for EL 26243 Mt. Ebenezer was 15.9 ppm in a soil sample (ME1665). The highest results for calcrete and ferricrete samples were 8.7 ppm (ME1759) and 9.3 ppm (ME1748) respectively.

A zone of anomalous uranium is seen in the south east of the programme area (Figure 4). This roughly coincides with exposures of Siluro-Devonian Mereenie

Sandstone and Devonian Horseshoe Bend Shale (Figure 10). Smaller anomalies occur north of Basedow Range and are near out- or sub-cropping Mereenie Sandstone and Horseshoe Bend Shale (Figure 10).

#### 4.3.2 Gold

The highest gold result for EL 26243 Mt. Ebenezer was 6.4 ppb in a calcrete sample (ME673). The highest result for ferricrete and soil samples was 3.8 ppb (ME1100 and ME977, respectively).

All the >5 ppb results for calcrete occur near out- and sub-cropping Mereenie Sandstone (Figures 5, 10). A broad anomalous area for ferricrete and soil results exists to the north of the Basedow Range (Figure 5).

#### 4.3.3 Silver

The highest silver result for EL 26243 Mt. Ebenezer was 1.84 ppm in a soil sample (ME1342). The highest results for calcrete and ferricrete samples were 1.33 ppm (ME978) and 1.49 ppm (ME1016) respectively.

Three small anomalous zones occur for silver, one to the north of Basedow Range, one to the east and one to the south east (Figure 6).

#### 4.3.4 Base Metals

The highest lead result for EL 26243 Mt. Ebenezer was 153.4 ppm in a soil sample (ME1270). The highest results for calcrete and ferricrete samples were 73.4 ppm (ME1923) and 98.4 ppm (ME1799) respectively.

The highest zinc result for EL 26243 Mt. Ebenezer was 593 ppm in a soil sample (ME1665). The highest results for calcrete and ferricrete samples were 95 ppm (ME1833) and 342 ppm (ME1021) respectively.

The highest copper result for EL 26243 Mt. Ebenezer was 123.0 ppm in a ferricrete sample (ME1422). The highest results for calcrete and soil samples were 36.7 ppm (ME1830) and 103.5 ppb (ME1665) respectively.

A zone of elevated lead, zinc and copper is seen in the south-eastern part of the programme area (Figures 7-9). These zones approximately correspond with areas of outcropping Siluro-Devonian Mereenie Sandstone and Devonian Horseshoe Bend Shale (Figure 10). Several smaller anomalies, including the highest lead result, occur north of Basedow Range.

#### 5. Expenditure

EL 26243 Mt Ebenezer Expenditure 1 April 2009 - 31 March 2010

\$
232.47
35,993.44
13,905.00
1,032.39
40.00

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Hire Equipment Charges	5,470.00
Legal Fees	1,427.25
Management Fee	11,990.84
Manpower	17,133.09
Motor Vehicle Charges	108.66
Native Title - Agreement Exps	2,842.95
Rents	9,990.00
Stationery & Printing	35.00
Office Support	1,350.00
Telephone - Mobile Phone	517.33
Telephone - Satellite Phone	58.77
Travel - Commercial Flights	1,462.60
Travel - M/Vehicle Hire	731.67
Travel - Taxi Fares	13.36
Travel - Accommodation & Meals	7,510.63
Travel - Car Parking	69.09
	\$ 111,914.54

#### 6. Conclusions and recommendations

Results show a zone of elevated results southeast of the Basedow Range for several elements (Figures 4-9). This area is in the direction of the main drainage from this range (Edgoose *et al.* 1991) and it roughly corresponds with exposures and subcropping occurrences of Mereenie Sandstone and Horseshoe Bend Shale as they onlap the uplifted Basedow Range (Figure 10, Edgoose *et al.* 1991).

Follow up work includes:

- Infill sampling over areas of elevated zones of uranium, zinc, copper and lead, especially around ME1665.
- Further sampling south of this programme to investigate outcropping Horseshoe Bend Shale.
- Plant sampling in the dune fields to the north of the tenement to test for anomalies over
- Detailed mapping of the tenement to locate smaller occurrences of outcropping Siluro-Devonian sand and siltstones.
- Reconnaissance aircore drilling to investigate the nature of sub-surface geology and prospectivity.

#### 7. References

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