

DEEP YELLOW LIMITED

ABN 97 006 391 948

COMBINED ANNUAL REPORT

EL 23923, 23924 & 23991 REYNOLDS RANGE PROJECT

1 June 2008 to 31 May 2009

Holder: Deep Yellow Limited
Holder: Deep Yellow Limited
Author: J Menzies
Date: April 2009
Email: admin@deepyellow.com.au
Target Commodity: Uranium
Datum/Zone: GDA94/Zone 53
250,000 Mapsheet: Mount Peake, Napperby

Distribution:

- ☐ Department of Regional Development, Primary Industry, Fisheries & Resources
- ☐ Central Land Council
- ☐ Deep Yellow Limited - Perth

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1.0 SUMMARY

Deep Yellow Limited's Reynolds Range project is located approximately 200 kilometres northwest of the Alice Springs township (see Figure 1), on the Mount Peake and Napperby 1:250,000 geological and topographic sheets.

Access to the southern end of the tenements from Alice Springs is via the Stuart Highway to 15 km north of Aileron, then west via the unsealed road through Pine Hill Station and along the north side of Reynolds Range to Coniston Station. A network of station tracks and fence lines provides access within the tenements.

Work undertaken across the tenements during the fifth year of term includes:

- Review of open file exploration data
- Reconnaissance field trips
- Airborne Electromagnetic (AEM) Survey
- Night Time Thermal Infrared (NTTI) data interpretation
- Aircore Drill Programme

Table 1: Drill Hole Summary

Tenement No.	Tenement Name	Aircore Holes	Metres
EL 23923	Mt Treachery	26	193
EL 23924	Anmatjira	191	4541
EL 23991	Beantree	0	0
	Total	217	4734

2.0 INTRODUCTION

The Reynolds Range project tenements, including Exploration Licences 23923, 23924 and 23991, are located approximately 200 kilometres north-northwest of Alice Springs (**Figure 1**). Access to the southern end of the tenements from Alice Springs is via the Stuart Highway to 15 km north of Aileron, then west via the unsealed road through Pine Hill Station and along the north side of Reynolds Range to Coniston Station. A network of station tracks and fence lines provides access within the tenements.

Exploration conducted across the project tenements was to target palaeochannel hosted uranium mineralisation, similar to the Napperby deposit located approximately 100 kilometres to the south.

Review of historic exploration completed across the project area, including drilling, water sampling and ground radiometrics, identified minor uranium mineralisation across certain parts of the project area.

3.0 TENURE

Exploration Licences 23923, 23924 and 23991 were granted over areas of 372, 458 and 35 blocks respectively to Tanami Exploration NL (TENL) on 1 June 2004. Pursuant to an agreement between Deep Yellow Limited (DYL) and TENL, dated 28 June 2005, DYL acquired a 100% interest in the tenements. Transfers reflecting the change in ownership were registered effective 5 December 2006 in respect of EL23991 and 2 August 2007 in respect of EL23923 and EL23924.

Waivers from the requirement to relinquish blocks were granted at the end of the second and fourth years of term. At the end of the third year of term, partial relinquishments of 162, 289 and 2 blocks respectively were completed and the areas retained for the fifth year of term are shown in **Table 2** below.

Table 2: Tenement Details

Tenement No.	Name	Blocks	Grant Date	Expiry Date
EL 23923	Mt Treachery	210	1 Jun 2004	31 May 2010
EL 23924	Anmatjira	169	1 Jun 2004	31 May 2010
EL 23991	Beantree	33	1 Jun 2004	31 May 2010

An Exploration Agreement, negotiated by the Central Land Council (CLC) on behalf of the Native Title Holders, was executed on 28 November 2007 covering the Reynolds Range Project tenements. A Sacred Site Clearance survey was conducted by the CLC prior to commencement of the exploration programme.

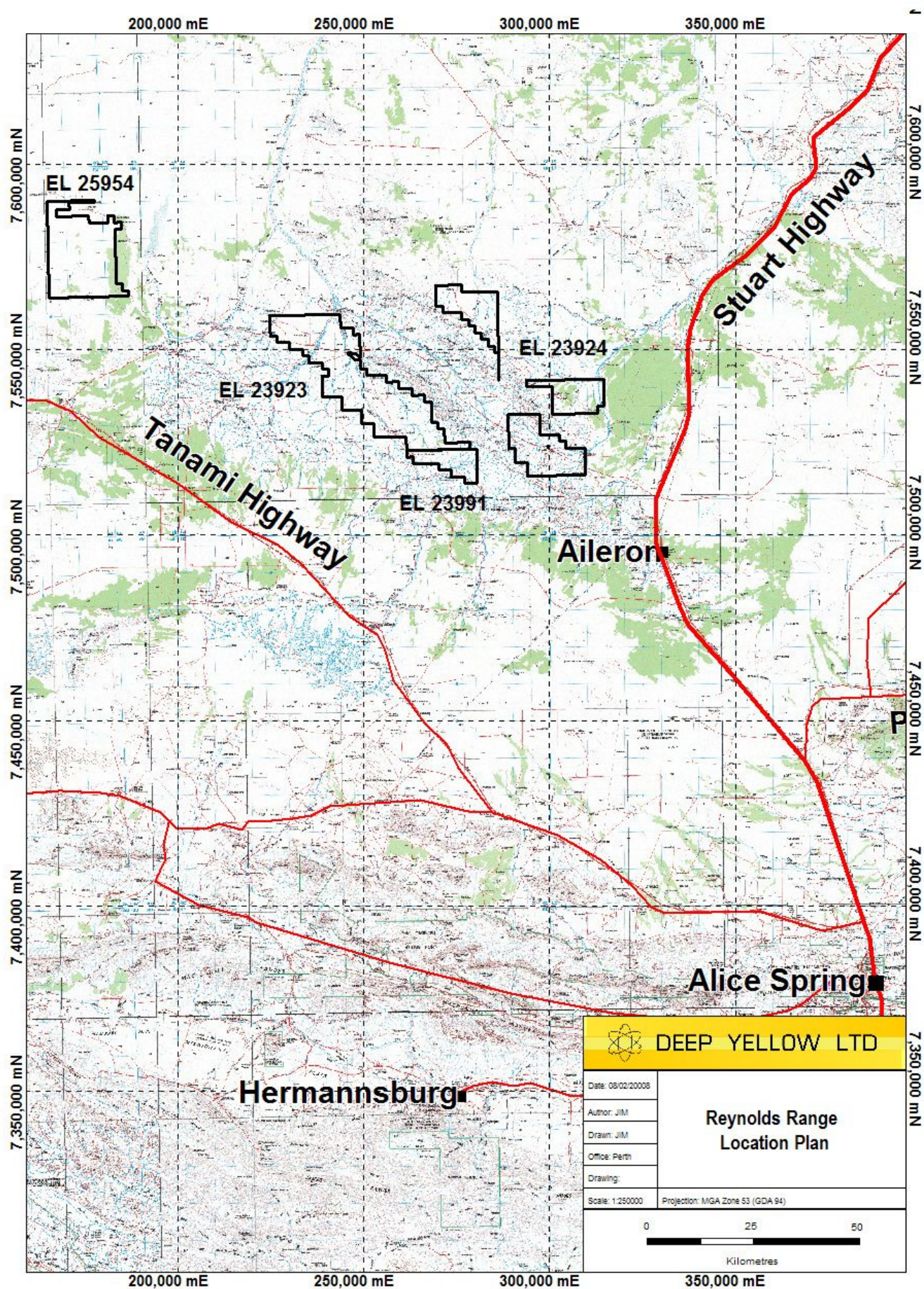


Figure 1: Project Location Plan

4.0 GEOLOGY

The Reynolds Range project lies within the north-western portion of the Early to Mid Proterozoic Arunta Orogenic Domain in the Northern Territory (**Figure 2**).

The Arunta Orogenic Domain comprises metamorphosed sedimentary and igneous rocks that have been extensively intruded by a range of granitic bodies. The Granites-Tanami and Tennent Creek inliers are located to the north-west and north respectively. On all other sides the Arunta Orogenic Domain is surrounded by, and forms basement to, younger Late Proterozoic to mid Paleozoic Sedimentary basins.

The regional project area covers the Central and Northern tectonic zones of the Arunta Orogenic Domain and contains greenschist to granulite facies lithologies and a range of granite intrusive. Several of these granites have similar geochemistry to granites within the Pine Hill inlier, being enriched in tin and uranium.

5.0 HISTORICAL EXPLORATION

Historic exploration conducted across the project tenements include:

- In 1977 an airborne radiometric survey was completed across part of the project area.
- Excavation of Anzac Dam in 1980, led to carnotite being observed at the surface. The mineralisation occurs within 2 metres of the surface in a calcrete granite regolith. A weakly mineralised zone with dimensions of 300 x 100 metres was defined by auger drilling.
- Water sampling was completed over the project area with stock bores and drill holes being assayed for uranium. Highly anomalous uranium values were obtained from Nintabrinna bore (802ppb), and drill holes to the west of Anzac Dam.
- A drill programme and detailed ground scintillometers survey was completed from 1981-1982. Minor gamma anomalies were intersected during the drill programme.
- 1981 a ground magnetometer survey was completed, which indicated three possible kimberlite anomalies which were tested
- Prospect mapping
- Rockchip and stream sediment sampling
- Vacuum and RAB drilling

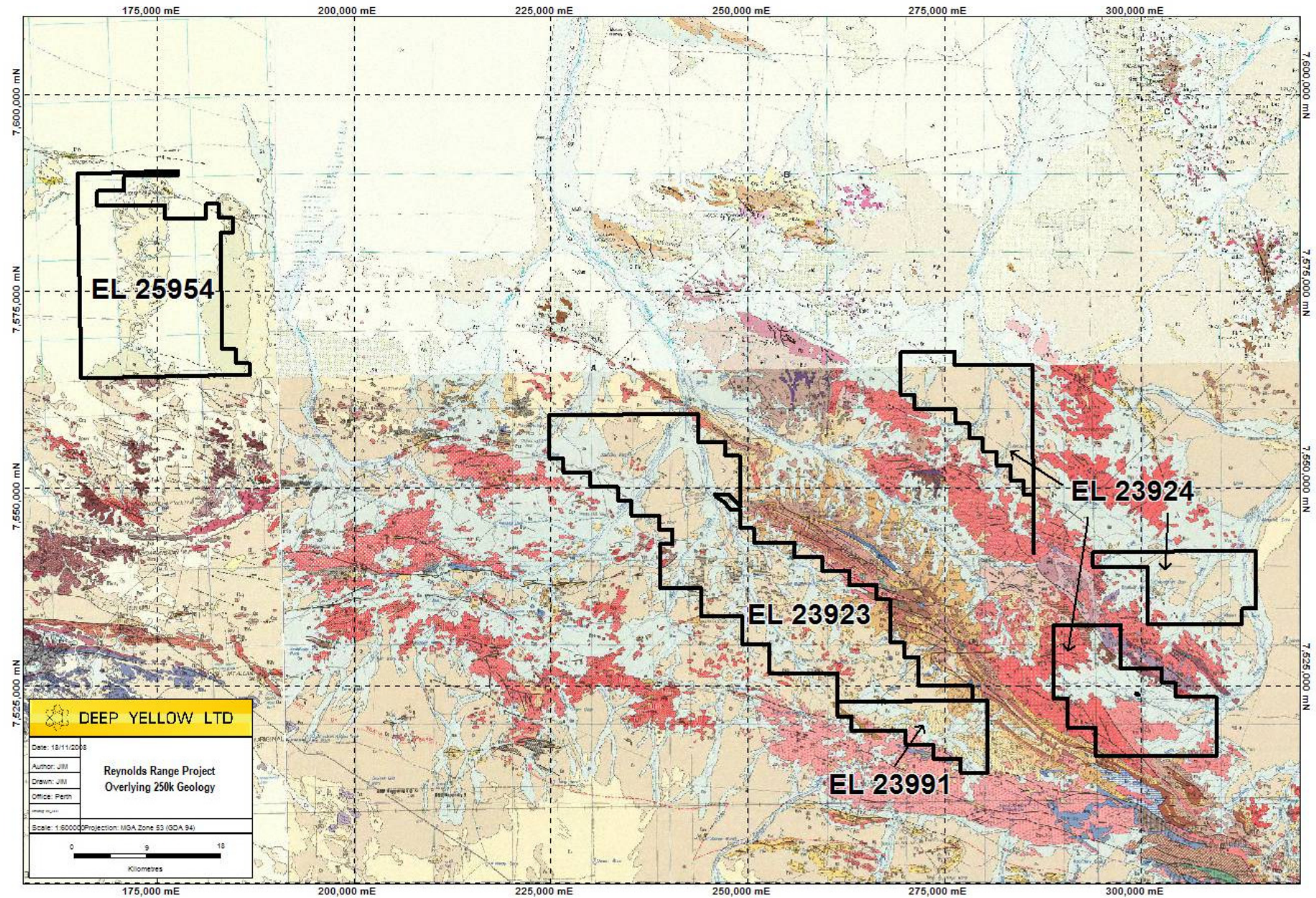


Figure 2: Reynolds Range Project Geology Plan

6.0 EXPLORATION COMPLETED – YEAR FIVE

Exploration carried out over the reporting period by DYL included reconnaissance field trips, an AEM survey and an aircore drill programme.

6.1 RECONNAISSANCE FIELD TRIPS

Three reconnaissance field trips were carried out over the reporting period to evaluate drill rig access, potential drill water supplies and drill targets.

Historic copper workings/anomalies across the project were visited to check for any uranium association. All copper workings/anomalies visited had no significant uranium signature.

Drill targets were identified by areas with little to no outcrop and evidence of transported material and drainage.

6.2 AIRBORNE ELECTROMAGNETIC (AEM) SURVEY

An AEM survey (RepTEM system) was flown by GPX Aeroscience Pty Ltd across EL 23923 and EL 23991. 865 line kilometres were flown at 1.5 km spacing (**Figure 3**). The data (attached in **Appendix 1**) obtained from the AEM survey aided in identifying palaeochannels which tested with follow up with aircore drilling.

RepTEM System

Transmitter

Waveform – 25% duty cycle square wave
Pulse on Time – 5 ms (inclusive of 1ms cosine ramp on)
Pulse off Time – 15 ms
Pulse Current – 320 Amps
Switch on Ramp – 1 ms
Switch off Ramp – 55µs
Tx Loop Area m²
Tx NIA – 112,000 112,000
Tx Frequency – 25Hz 25 Hz

Receiver

A-D Circuitry – 24bit
Sample Time – 0-12 ms
Sampling – 121 Linear channels
Windowed Data – 21 channels

Receiver Coil

Effective NA - Bandwidth -10,000 Square Metres 45,000 Hz

EM Data Channel Specifications

NB: Time 0 is at the start of the switch off ramp

21 Channel Sampling Scheme (55Us ramp)				
Channel	Begin Time	End Time	Centre Time	Width in Time
1	55	80	67.500	25.00
2	80	105	92.500	25.00
3	105	130	117.500	25.00
4	130	155	142.500	25.00
5	155	255	205.000	100.00
6	255	355	305.000	100.00
7	355	456.25	405.625	101.25
8	456.25	557.50	506.875	101.25
9	557.50	760.00	658.750	202.50
10	760.00	1063.75	911.875	303.75
11	1063.75	1468.75	1266.250	405.00
12	1468.75	1975.00	1721.875	506.25
13	1975.00	2582.50	2278.750	607.50
14	2582.50	3291.25	2936.875	708.75
15	3291.25	4101.25	3696.250	810.00
16	4010.25	5012.50	4556.875	911.25
17	5012.50	6025.00	5518.750	1012.50
18	6025.00	7138.75	6581.875	1113.75
19	7138.75	8353.75	7746.250	1215.00
20	8353.75	9670.00	9011.875	1316.25
21	9670.00	11391.25	10530.626	1721.25

Magnetic Data Specifications

The helicopter is equipped with a bird-mounted Geometrics G 822A Cesium vapor, optically pumped magnetometer continuously sampling at 1200 Hz.

The instrument has a sensitivity of 0.001 nT, with a sensor noise level of less than 0.1 nT. The magnetic readings are resampled to 50Hz with each sample containing an array of 24 readings. Adjacent readings are summed to minimise bias from the EM transmissions to produce the 25Hz magnetic array data. The mid-time array positions are averaged to create the magnetic response.

The time-synchronized ground magnetic field data was digitally recorded at a 5.0 sec interval with a Geometrics G856 magnetometer to an accuracy of 0.1 n T.

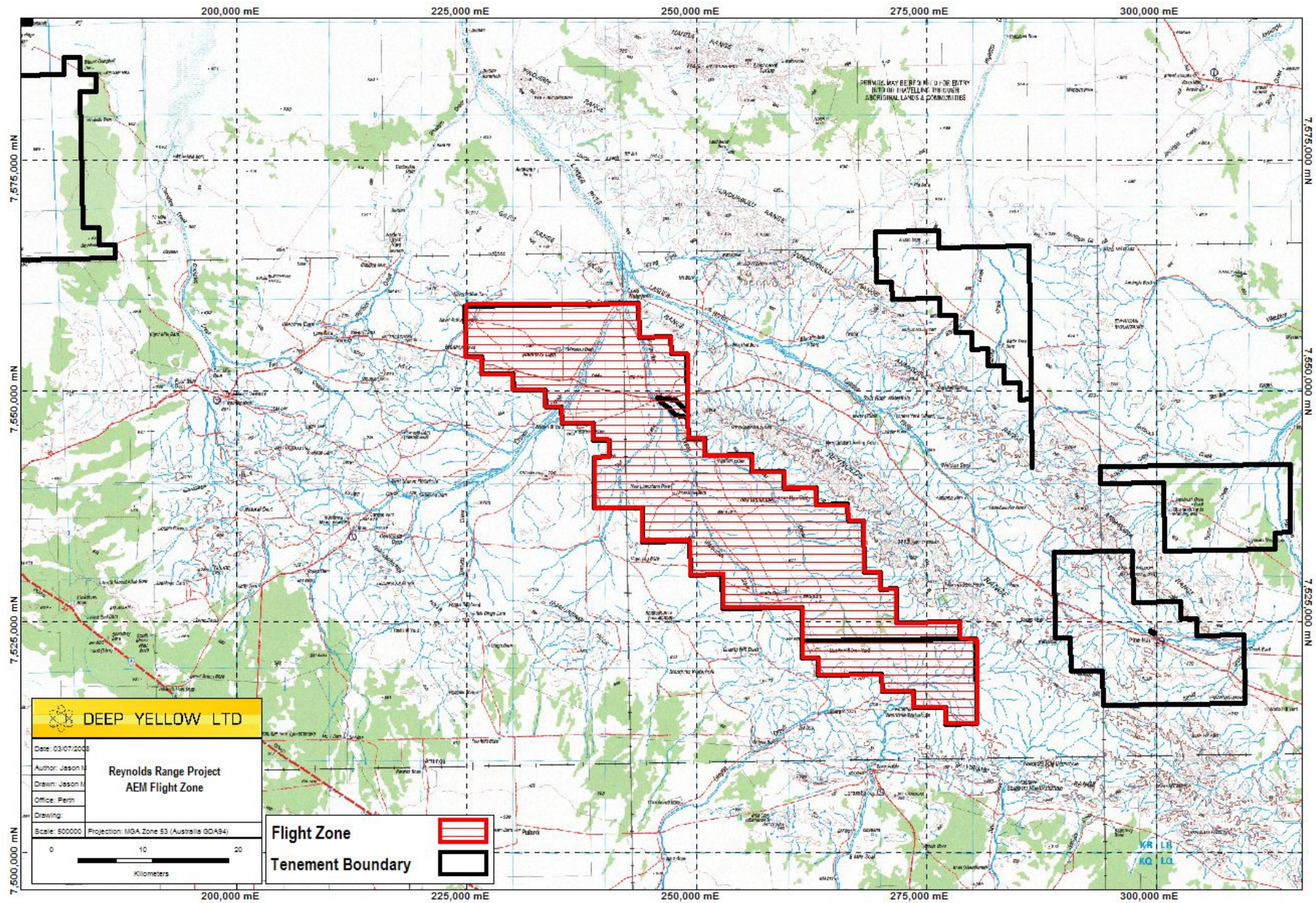


Figure 3: AEM Survey Flight Area

6.3 AIRCORE DRILLING

Bostech Drilling Pty Ltd completed 217 aircore drillholes (**Figure 4**) for a total of 4,734 metres. Drill holes varied in total depth from 3 to 115 metres in depth, and a composite 3-5 metre samples were taken for uranium assay. All composite samples were submitted to ALS Chemex in Alice Springs and analysed for uranium by XRF (method ME_XRF_05) with a detection limit of 4 ppm.

Results received showed that all 217 drill holes failed to intercept any significant mineralisation with 47ppm U over 5 metres being the highest detection. Assay results are provided in **Appendix 2**.

Following up on historic results, the drilling around the Anzac Dam and Nintabrinna Bore area failed to intercept any significant uranium mineralisation.

The drill collar sites are shown on **Figure 4** and the collar data for this programme, DO_AC1 to DO_AC219, are contained in **Appendix 3**.

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6.4 NIGHT TIME THERMAL INFARED (NTTI) DATA INTERPRETATION

A report was commissioned to interpret NTTI data to help identify palaeo-channels. This data, alongside the Airborne Electromagnetic (AEM) survey, aided in identifying possible palaeo-channels and palaeo-ponds which could then be followed up with aircore drilling.

The report, which identified a number of possible palaeo-ponds inside the Reynolds Range project tenements, is attached as **Appendix 6**.

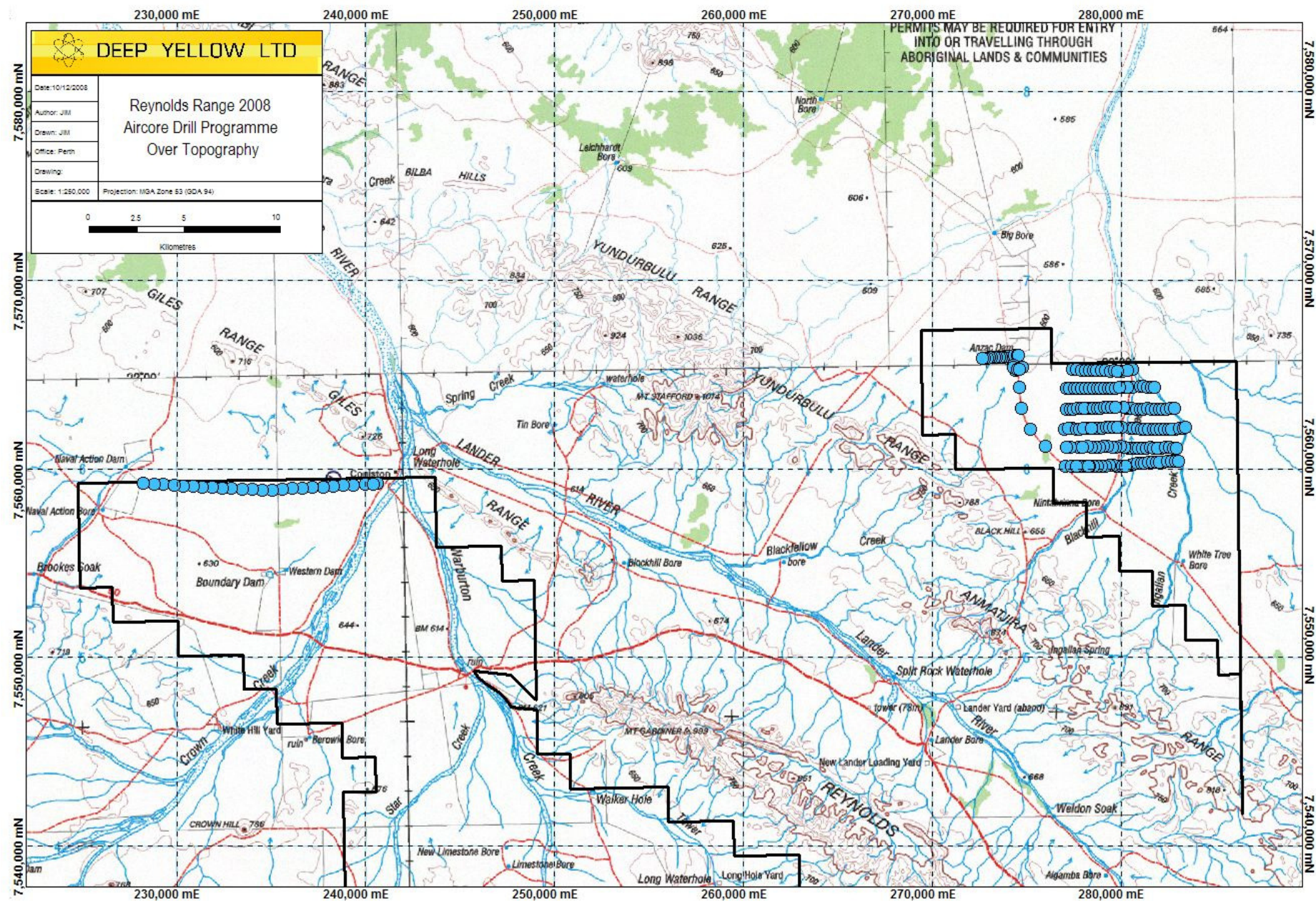


Figure 4: Aircore Drilling Location Plan

6.5 RADIATION MONITORING

All personnel were issued with personal radiation dosimeters (TLD badges); these being sourced and analysed by ARPANSA (Australian Radiation Protection and Nuclear Safety Agency). The highest does was only 10 MicroSieverts with the maximum annual dose allowance being 20,000 MicroSieverts. All vehicles and equipment were subject to washdown and radiological inspection prior to demobilisation.

7.0 REHABILITATION

All 217 aircore holes have been capped and covered. The affected areas are the subject of ongoing monitoring to ensure regeneration of the native spinifex ground cover.

8.00 BIBLIOGRAPHY

Rohde, C., 2005. First Combined Annual Report Reynolds Range Project for Year Ending 31 May 2005.