

HEAD OFFICE

Level 5
384 Eastern Valley Way
Roseville NSW 2069
Telephone: 02 9417 3588
Facsimile: 02 9417 8750
email: admin@compassnl.com.au
website: www.compassnl.com.au

EL 24464 – Mt. Mabel

**Eighth Annual Report
for the period**

11 April 2013 to 10 April 2014

Author: G. Johansen
(garry.johansen@compassresources.com.au)

May 2014

Batchelor & Reynolds River 1:100,000 Sheets
MGA 94 Zone 52

CONTENTS

Executive Summary	3
Introduction	3
Tenement Details	3
Access	3
Geological Setting	4
Previous Exploration	4
Work Completed this Year	6
Plans for Next Year	7
References and Previous Reports	8
Expenditure Report	10

List of Figures

- Figure 1: Tenement location map for EL 24464
- Figure 2: Location of Historical Drilling within EL 24464.
- Figure 3: Falcon Gravity Survey Flight Lines.
- Figure 4: Regional structural interpretation for EL 24464.

EXECUTIVE SUMMARY

Compass Resources is exploring in the Batchelor area for sulphide basemetal deposits and uranium. Following on from the aeromagnetic and airborne EM surveys flown earlier the tenement was flown with a Falcon gravity survey (plus magnetics and Lidar) on a 200m line spacing in December 2012. . Final survey data was provided in March 2013 and this was processed by our consultant geophysicist. Targets have been identified for further exploration.

1. INTRODUCTION

This tenement is considered prospective for uranium, gold, platinoids and base metal sulphide mineralisation and hosts the Kylie and SE Kylie Prospects. During the reporting period the detailed airborne Falcon gravity survey data was processed and targets for further exploration selected.

2. TENEMENT DETAILS

An application for 21 blocks (60 square kilometres) was made on 17 November, 2004. This area was granted as EL 24464, effective 2nd April 2006 (see Figure 1). Ownership was originally Compass Resources NL 90% and Guardian Resources Pty. Ltd. 10%. Compass now owns Guardian Resources Pty Ltd, so has effective 100% ownership of the tenement.

The tenement is located on the Pine Creek 1:250,000 map sheet (5270), Batchelor 1:50,000 and Rum Jungle 1:50,000 topographic maps (5171-4 and 5071-1 respectively).

3. ACCESS

Access to the area is by following the old railway route south from Batchelor, or via the unsealed Camp Creek road from Adelaide River. Both major and minor tracks exist in the tenement.

4. GEOLOGICAL SETTING

This tenement is located approximately sixteen kilometres south-south-west of Batchelor on the southern and eastern side of the Archaean Waterhouse complex, covering the basal sedimentary sequence, including the Namoon Group and the Mt. Partridge Group. Areas of brecciated ferruginous rocks and sandstones, variably referred to as the Geolsec Formation and/or the Depot Creek Sandstone of the Tolmer Group have been re-interpreted to be of structural origin and this represents a major change to the exploration potential of the tenement.

Outcrop is fair in the area, with strong lateritisation and recent alluvium obscuring much of the underlying rocks.

The tenement covers the Spring Creek, Kylie and Kylie South East uranium prospects, originally located by Uranerz in the late 1970's.

The most recent published data of this area is from Lally et al 2002 (Rum Jungle 1:100,000 Mineral Field Map).

5. PREVIOUS EXPLORATION

During the period 1950-1974, most of the regional exploration in this area was conducted by the BMR as part of a regional programme aimed at locating uranium deposits. United Uranium, CRA Exploration and the BMR explored the Waterhouse No. 2 copper-uranium prospect. The BMR explored for phosphate in the 1960s.

The most extensive exploration was undertaken by Uranerz in the late 1970s and early 1980s. This involved extensive drilling programmes and ground geophysical surveys. Marathon, CRA and others also explored the area during this time.

Aztec Mining last held the area in the period 1992-1998 and gives a good summary of previous exploration in its early Annual Reports. Work by Aztec included stream sediment sampling, soil and rock chip sampling, costeaning and various drill programmes. The also completed a large aeromagnetic survey of the region and re-assayed some existing drill core.

Compass Resources drilled two RC holes into the Kylie prospect in 2006 and in 2007 completed a further 740m in 10 RC holes at the SE Kylie prospect. The majority of holes intersected weakly anomalous uranium mineralisation associated with disseminated pyrite close to the shale –dolomite boundary without encountering potentially economic intersections.

In 2008-09 a major push was undertaken to collate all historical exploration data for the Rum Jungle Mineral Field into a true GIS system. Exploration drilling data was collated and entered into the Datashed database and evaluated using ARC GIS and Micromine. In addition 260 historical maps were geo-referenced in ARC. The database contains a total of 224 drill holes within the Mt Mabel tenement. All available assay data associated with the historical drilling was entered into the database. Detailed aeromagnetic and radiometric surveys flown in the 1990s were merged with the regional geophysical data sets and reprocessed.

One of the prime benefits of compiling so much historical exploration data is that it generates a better understanding of both the regional geology as well detailed geology of individual prospects. At Rum Jungle this has resulted in a complete re-think of the timing and controls to mineralisation.

Based on the review of the historical exploration data there are two distinct primary mineralisation events at Rum Jungle:

(a) Lower Proterozoic stratiform base metal event (Browns, Area 55, possibly Mt Fitch sulphides)

(b) Mid Proterozoic structurally controlled uranium-gold-platinoid-base metal event (all other prospects).

The mid Proterozoic event is associated with a series of stacked, essentially bedding parallel thrust surfaces. These surfaces are characterised by extensive zones of brecciation and variable but often intense hydrothermal alteration. Alteration includes silicification, haematite dusting, specular haematite, apatite, chlorite and disseminated pyrite.

Within the Mt Mabel tenement these thrust surfaces start to merge generating zone of semi continuous brecciation and variable alteration up to 2.5km across. Recent published mapping has mis-identified this brecciation/alteration as Geolsec Formation and/or the Depot Creek Sandstone of the Tolmer Group. The structural event has effectively destroyed the Proterozoic stratigraphy within the Mt Mabel tenement (see Figure 3).

Extensive sills and non-concordant bodies of Zamu dolerite intrude along the thrust sheets and these are also variably altered and provide some age constraints on the structural and mineralising events.

The extent of brecciation was confirmed through field checking and reviewing historical drill logs.

The entire tenement (along with all other Compass tenements at Batchelor) was flown with helicopter borne aeromagnetics and EM in late 2010.

Fugro flew the tenement with a Falcon gravity survey in late December 2012 (as part of a survey covering all tenements at Batchelor). The survey consisted of N-S lines at 200m spacing with a nominal terrain clearance of 20m (see Figure 2 for flight lines). An aeromagnetic survey was completed at the same time as was a LIDAR survey to provide the detailed topographic data for processing the gravity data.

6. WORK COMPLETED THIS YEAR

The Falcon gravity survey data was received by the Compass consultant geophysist in March 2013 and a final report in May. All data from the survey was provided to the Mines Department in October.

A consultant geophysicist processed the data and based on the EM, magnetic and FALCON gravity surveys has selected targets for further exploration.

PLANS FOR NEXT YEAR.

The various geophysical surveys will be intergrated to identify anomalies for further follow up. Surface checking and IP traverses of the high priority anomalies will be undertaken with possible drilling of the best anomalies.

The geophysical data, combined with the historical drilling compilation and georeferenced historical maps will be used to generate a 3-D geological model of the tenement to assist in ranking the anomalies.

Given the small size of the Compass tenements at Batchelor it is proposed to simplify the holdings by amalgamating EL 24464 with five adjoining tenements.

Expected expenditure is anticipated to exceed \$28,500.

COPYRIGHT

© Compass Resources Limited 2014

This work is copyright. You may display, print and reproduce this material in unaltered form only (retaining this notice) for your personal, non-commercial use or use within your organisation. Apart from any use as permitted under the Copyright Act 1968 and as stated above, no part may be reproduced by any process without prior written permission from Compass Resources Limited.

REFERENCES

Lally, J. H., 2002 Stratigraphy, structure and mineralisation, Rum Jungle Mineral Field, Northern Territory. NTGS Record 2002-005

OTHER REFERENCES (as compiled by Aztec Mining Limited)

Ahmad, M., 1971

Rum Jungle Area, Annual Report. *Unpublished Report for Queensland Mines Ltd. NTDME Library Open File Record No. CR71/115*

French, D.J., 1974

EL 610 - Area J - Rum Jungle, Results of Exploration - 1973 Part 1 - Waterhouse No. 4 *Unpublished Report for CRA Exploration Pty. Ltd. NTDME Library Open File Record No CR 74/166A & B.*

Johnson, K., Hone, I.G., Ingram T.A & Crick, I.H., 1979

Stratigraphic Drilling in the Rum Jungle Area N.T. 1973-74. Geological and Geophysical Results. *BMR Record No. 1979/89*

Lau, G.C. 1971

Geochemical and Radiometric Investigation, Stapleton, Rum Jungle District, Northern Territory, 1973. *BMR Record No. 1971/98*

Ormsby, W. R. 1993

Annual Report for Year One Exploration Licence 7523. Unpublished Report for the NT Department of Mines and Energy.

Ormsby, W. R. 1993

Annual Report for Year One Exploration Licence 7706. Unpublished report for the NT Department of Mines and Energy.

Ruxton, BP. 1961

The testing of electromagnetic anomalies by diamond drilling at Waterhouse No. 2 Uranium Prospect, Northern Territory. *BMR Record No. 1961/161*

Semple, D. G. 1967

Geochemical and Radiometric Investigations, Gould Area, Northern Territory, 1966. (Mount Minza and Waterhouse No. 2 Areas). *BMR Record No. 1967/41*

Shatwell, D.O. and Duckworth, K., 1966

Gould Area Geochemical and Geophysical Surveys, Rum Jungle Area, Northern Territory, 1965. *BMR Record No. 1966/154*

Taylor, K.S., 1980

Annual Report on Exploration Licence No. 1857, Rum Jungle Area, Northern Territory. *Unpublished Report for Uranerz Australia Pty. Ltd. NTDME Library Open File Record No. CR 80/49*

Varkey, M., 1987

Annual Report 1986, Project 8051 and 8052, Rum Jungle Area Batchelor, NT ELs 4771 and 4772. Unpublished Report for Idemitsu Minerals Australia Pty. Ltd. *NTDME Library Open File Record CR 87/075A.*

Wood, F. W. and McCarthy, E., 1952

Preliminary report on scintillometer airborne surveys over the Run Jungle area and other portions of the Northern Territory. *BMR Record No. 1952/79*

Yokoyama, T., 1988

Annual Report 1987, Project 8051 and 8052, Rum Jungle area, Batchelor, NT. ELs 4771 and 4772. *Unpublished Report for Idemitsu Minerals Aust. Pty. Ltd. NTDME Library Record CR 88/226 A-B*

**EL 24464 - EXPENDITURE REPORT
FOR YEAR ENDING 10 APRIL 2014**

	\$
Salaries and Wages	7,200
Geophysical Consultants	14,100
Travel & accommodation	1,755
TOTAL	\$23,055

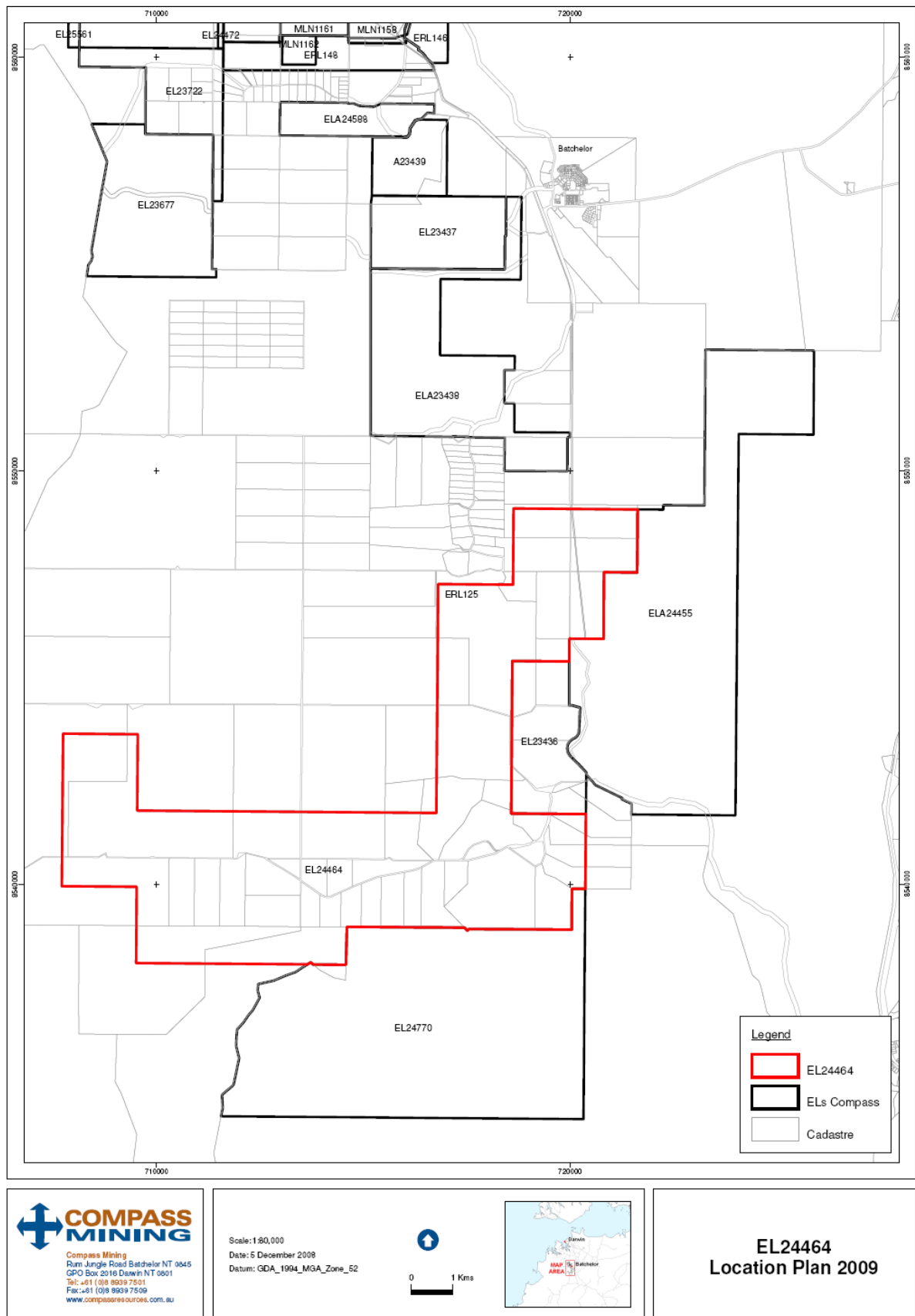


Figure 1. Tenement location map for EL 24464

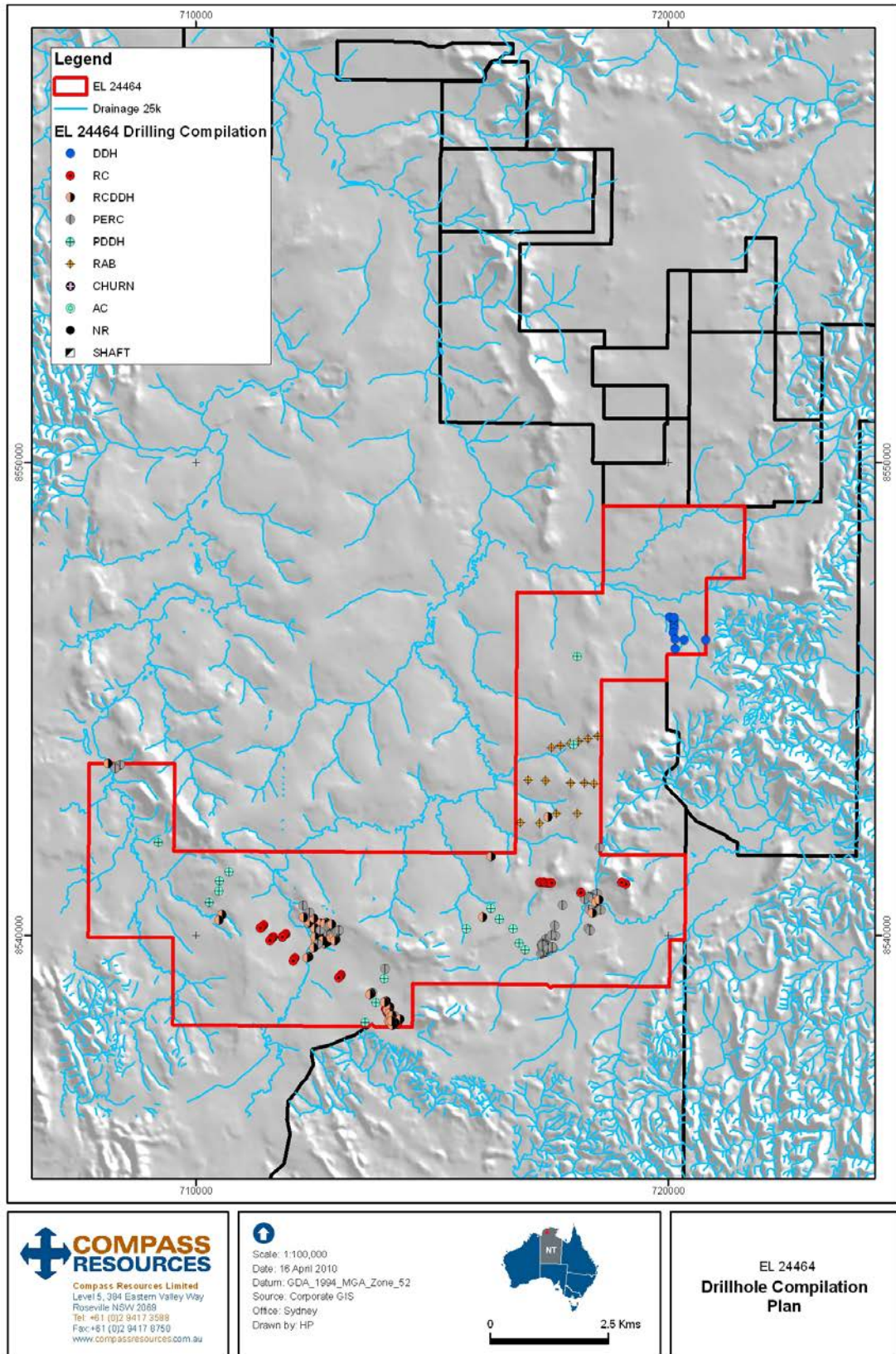
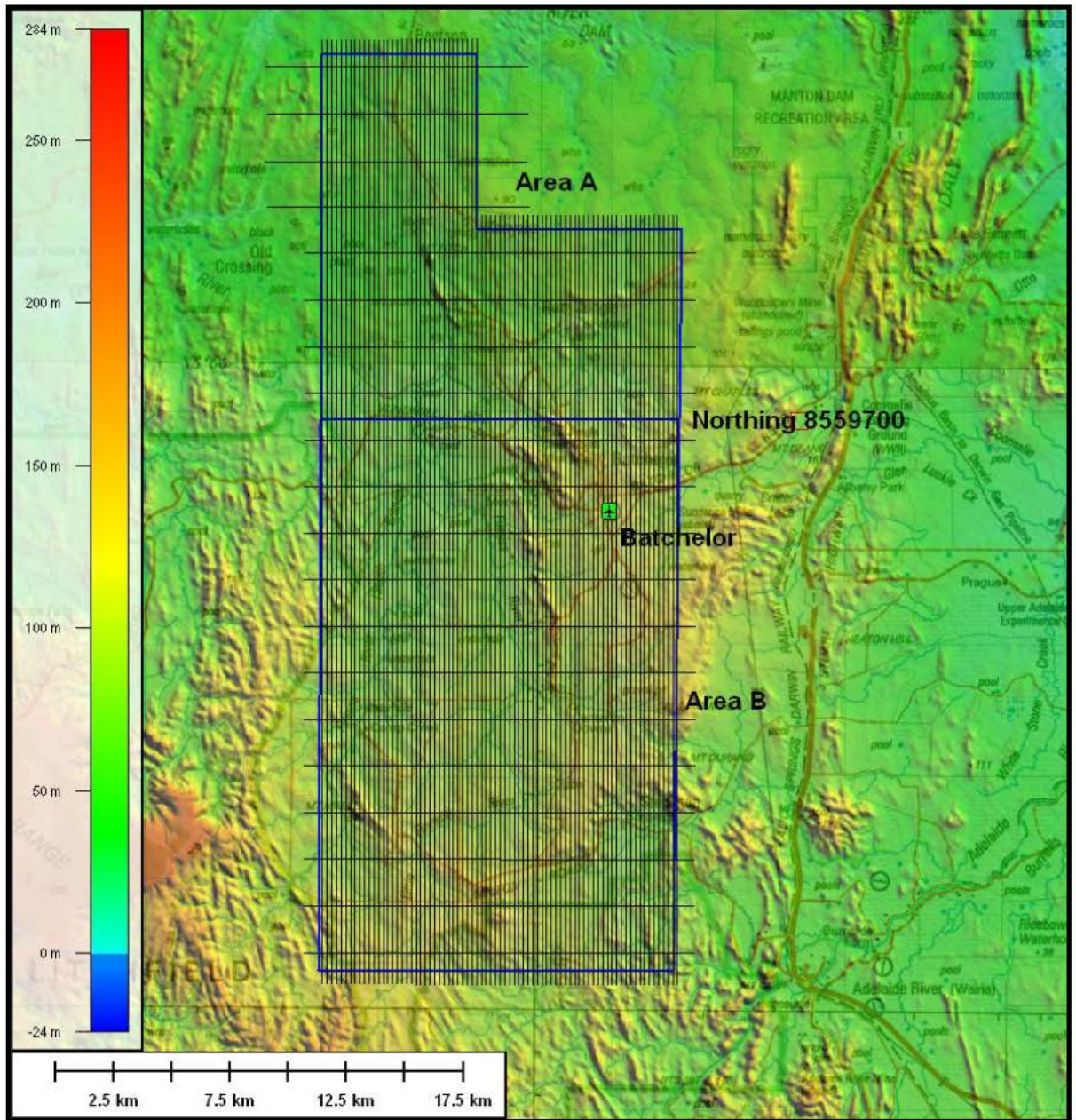
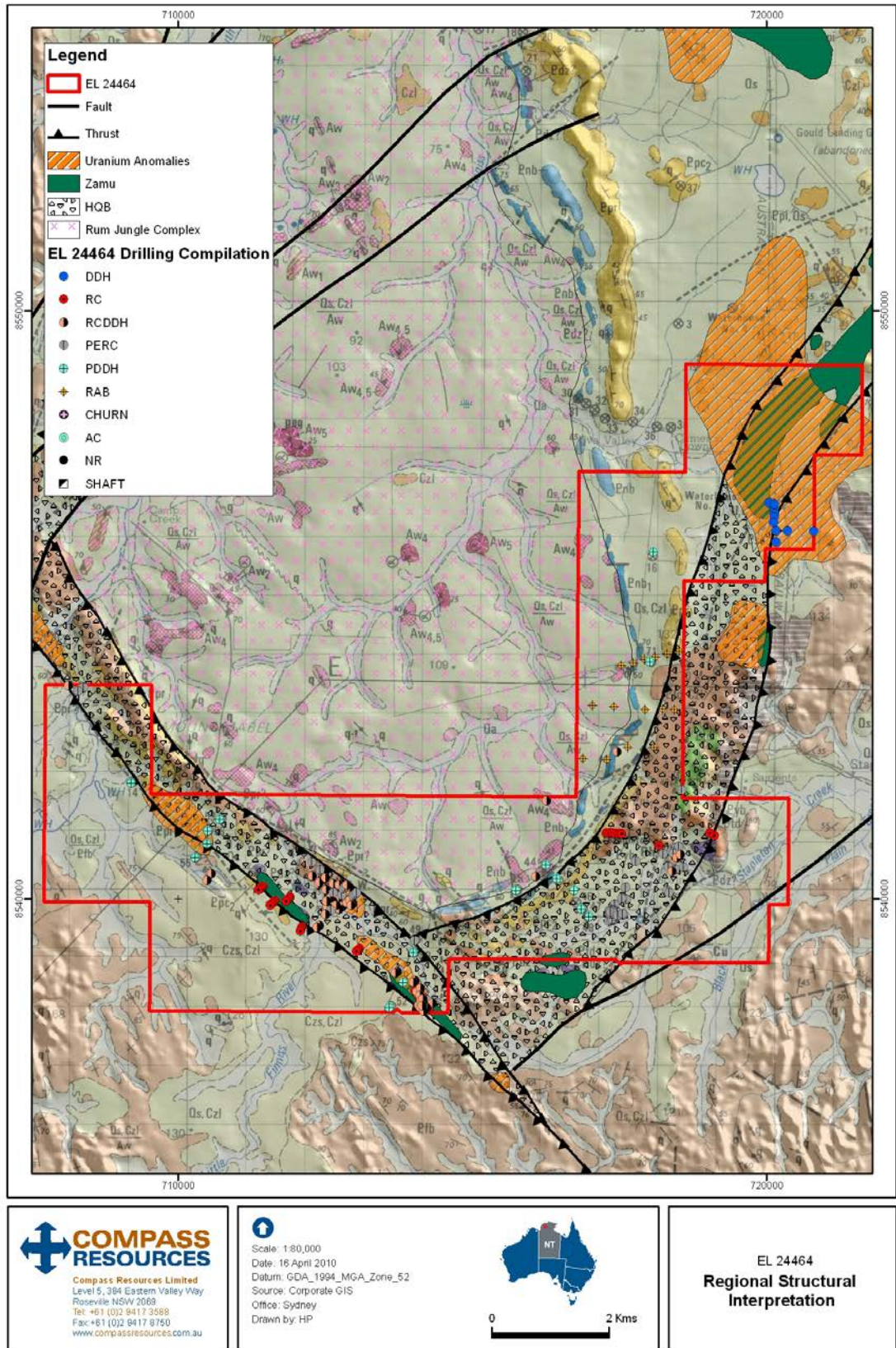


Figure 2. Location of Historical Drilling within EL 24464.



Area	A	B
Line spacing	200m	
Tie line spacing	2,000m	
Line direction	0°	
Tie line direction	Perpendicular to line direction	
Area line km	1,050 line km	2,092 line km
Total Project km	3,142 line km	

Figure 3. Falcon Gravity Survey Flight Lines.



Compass Resources Limited
 Level 6, 394 Eastern Valley Way
 Roseville NSW 2068
 Tel: +61 (0)2 9417 3588
 Fax: +61 (0)2 9417 8750
 www.compassresources.com.au



Scale: 1:80,000
 Date: 16 April 2010
 Datum: GDA_1994_MGA_Zone_52
 Source: Corporate GIS
 Office: Sydney
 Drawn by: HP



0 2 Kms

EL 24464
 Regional Structural
 Interpretation

Figure 4. Regional structural interpretation for EL24464.