QUASAR

SOUTH TALLARINGA

EL 3926

ANNUAL TECHNICAL REPORT

10 September 2007 – 9 September 2008

Quasar Resources Pty Ltd (100%)

Author: Joy Barnes
Date: 25 September 2008
Distribution: Quasar Resources (1)
PIRSA (1) electronic

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CONTENTS

CONTENTS 2
BIBLIOGRAPHIC DATA SHEET.....3
1 SUMMARY 4
2 INTRODUCTION 5
3 LOCATION AND ACCESS 5
4 HISTORY AND EXPLORATION RATIONALE 5
5 GEOLOGY.....5
6 NATIVE TITLE.....5
7 WOOMERA PROHIBITED AREA.....5
8 DECLARATIONS OF ENVIRONMENT FACTORS 6
9 EXPENDITURE 7

LIST OF FIGURES

Figure 1 Tenement Location Plan of EL 3926
Figure 2 Locality Plan of EL 3926
Figure 3 Woomera Prohibited Area “No-go” zone

BIBLIOGRAPHIC DATA SHEET

REPORT TITLE	South Tallaringa Project, Exploration Licence 3926 Annual Technical Report for the period 10 September 2007 – 9 September 2008
PROSPECT NAME	South Tallaringa
TENEMENT NUMBER(s)	EL 3926
OWNER/JV PARTNERS	Quasar Resources Pty Ltd (100%)
COMMODITIES	Uranium, Copper, Gold
TECTONIC UNITS	Karari Fault Zone, North Gawler Craton
STRATIGRAPHIC UNITS	Mulgathing Complex
1:250,000 Map Sheet	Tallaringa (SH 53-05) Coober Pedy (SH 53-06)
1:100,000 Map Sheet	Yerada 5639 Tallaringa 5539
KEYWORDS	South Tallaringa (EL 3926), sedimentary Uranium, Karari Fault Zone, North Gawler Craton

1 SUMMARY

Due to the ongoing restraints in accessing the tenement applied by the Woomera Prohibited Area, despite the frequent lengthy discussions held with them, no field work was able to be completed during this reporting period. Planning has commenced for an Airborne EM survey over this licence in the next quarter.

2 INTRODUCTION

The South Tallaringa Exploration Licence (EL 3926) is situated in the Tallaringa Conservation Park on the Gawler Craton (Figure 1) and is wholly held by Quasar Resources Pty Ltd.

3 LOCATION AND ACCESS

Exploration Licence 3926 covers and area of 623km² and is approximately 120 kms west-northwest of Coober Pedy and the sealed Stuart Highway. The Tarcoola to Darwin railway line is located approximately 100kms east of the licence area.

4 HISTORY AND EXPLORATION RATIONALE

Goldsearch NL was granted Exploration Licence 2212 in October 1996 for gold and basemetal exploration, it surrendered the tenement in December 2001. Normandy Exploration was granted Exploration Licence 2123 in November 1995 to explore for Copper, Gold, Zinc, Lead and Silver it surrendered in November 1998. Anglo American Exploration (Aust) Pty Ltd was granted Exploration Licence 2880 in January 2002 they relinquished a portion of the ground in January 2003 and the rest in January 2005, they were looking for iron oxide copper-gold style mineralisation.

5 GEOLOGY

The exploration licence is located over ground that forms part of the Northern Gawler Craton. The Gawler Craton is a stable crystalline basement province comprising Archaean to Meso-Proterozoic rocks obscured by Neo-Proterozoic to Cainozoic age sedimentary strata.

The area is interpreted to comprise of felsic and mafic gneisses, banded iron formations, metasediments, granites and metavolcanics. The rocks have undergone intense deformation and metamorphism during the Kimban Orogeny (180 – 1700Ma) when granitoids were emplaced and major mylonitic zones developed. Further acid volcanic sheets and granite emplacement (1590 Ma) are thought to be associated with Cu-Au-U mineralisation. This event may be associated with orogenic collapse of the Craton.

6 NATIVE TITLE

Quasar has signed an ILUA for exploration purposes with the Antakirinja Native Title Claimants. Heritage Survey Clearances have been requested for a soil geochem program.

7 WOOMERA PROHIBITED AREA

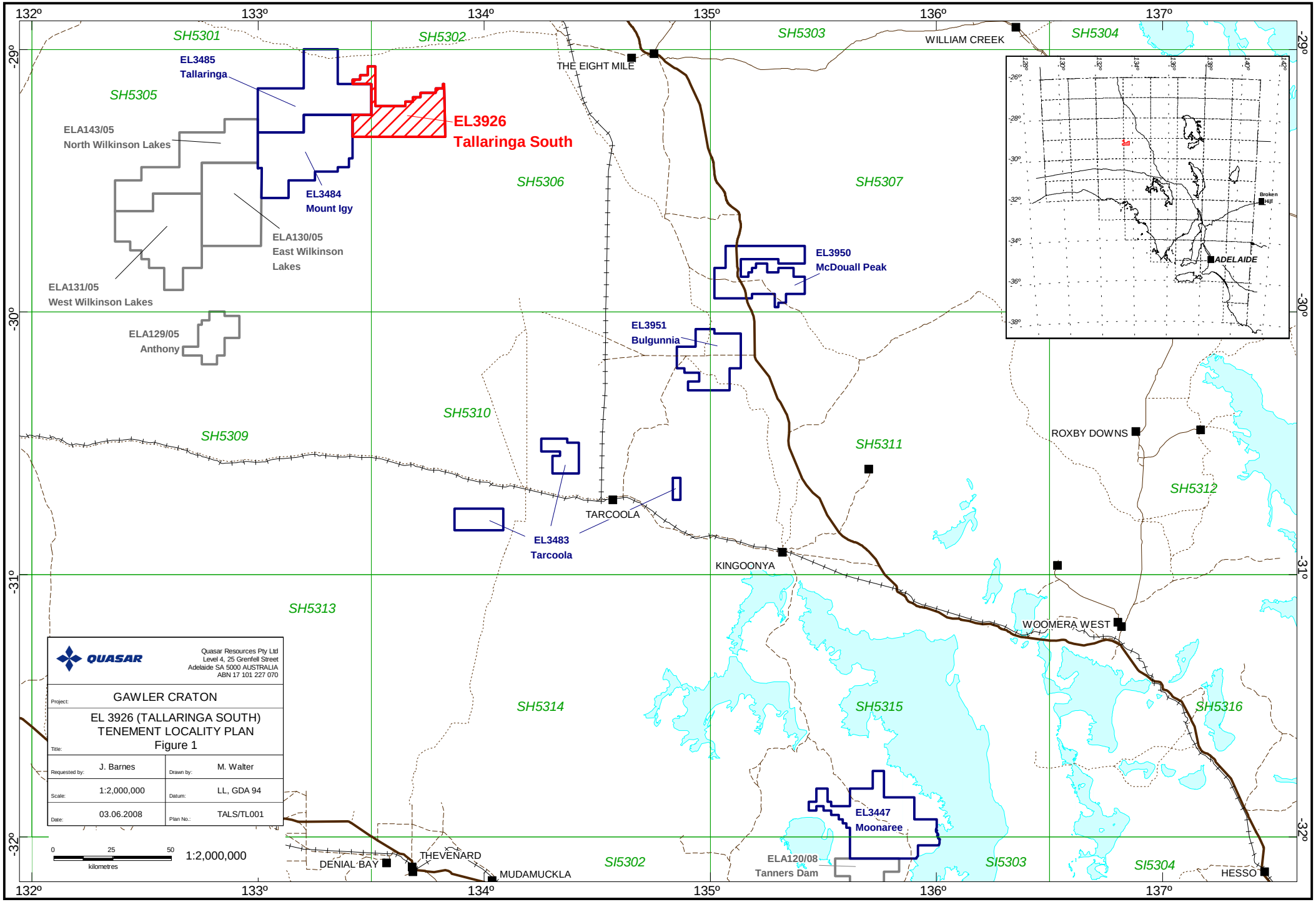
Lengthy discussions have been held with the Department of Defence with regards to the Woomera Prohibited Area. A “no go” zone has been put in place over a large portion of the exploration licence which is restricting our planned work program.

8 DECLARATION OF ENVIRONMENTAL FACTORS

A Declaration of Environmental Factors (DEF) has been lodged with the Department of Primary Industries and Resources (PIRSA) this is currently being assessed by them and other Government Departments.

9 EXPENDITURE

Exploration Licence 3926 expenditure 1 October 2007 - 30 September 2008	
	$
Exploration HO - Cost Alloc	161.41
Consulting - Geology	2,189.00
External Services	1,574.82
Data & Map Purchases	104.54
Legal Fees	5,362.14
Management Fee	3,762.08
Manpower	14,477.91
Rents	4,351.45
Office Support	1,800.00
Travel - Commercial Flights	151.82
Travel - M/Vehicle Car Hire	219.09
Travel - M/ Vehicle Taxi Fares	40.00
Travel - Accommodation & Meals	918.52
Total	$35,112.78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SH5309
SH5310
SH5311
SH5312
SH5313
SH5314
SH5315
SH5316
SI5302
SI5303
SI5304
EL3485
Tallaringa
EL3926
Tallaringa South
EL3484
Mount Igy
ELA143/05
North Wilkinson Lakes
ELA130/05
East Wilkinson
Lakes
ELA131/05
West Wilkinson Lakes
ELA129/05
Anthony
EL3950
McDouall Peak
EL3951
Bulgunnia
EL3483
Tarcoola
EL3447
Moonaree
ELA120/08
Tanners Dam
THE EIGHT MILE
WILLIAM CREEK
TARCOOLA
KINGOONYA
ROXBY DOWNS
WOOMERA WEST
DENIAL BAY
THEVENARD
MUDAMUCKLA
HESSO
ADELAIDE
Broken Hill
QUASAR
Quasar Resources Pty Ltd
Level 4, 25 Grenfell Street
Adelaide SA 5000 AUSTRALIA
ABN 17 101 227 070
Project: GAWLER CRATON
Title: EL 3926 (TALLARINGA SOUTH) TENEMENT LOCALITY PLAN
Figure 1
Requested by: J. Barnes
Drawn by: M. Walter
Scale: 1:2,000,000
Datum: LL, GDA 94
Date: 03.06.2008
Plan No.: TALS/TL001
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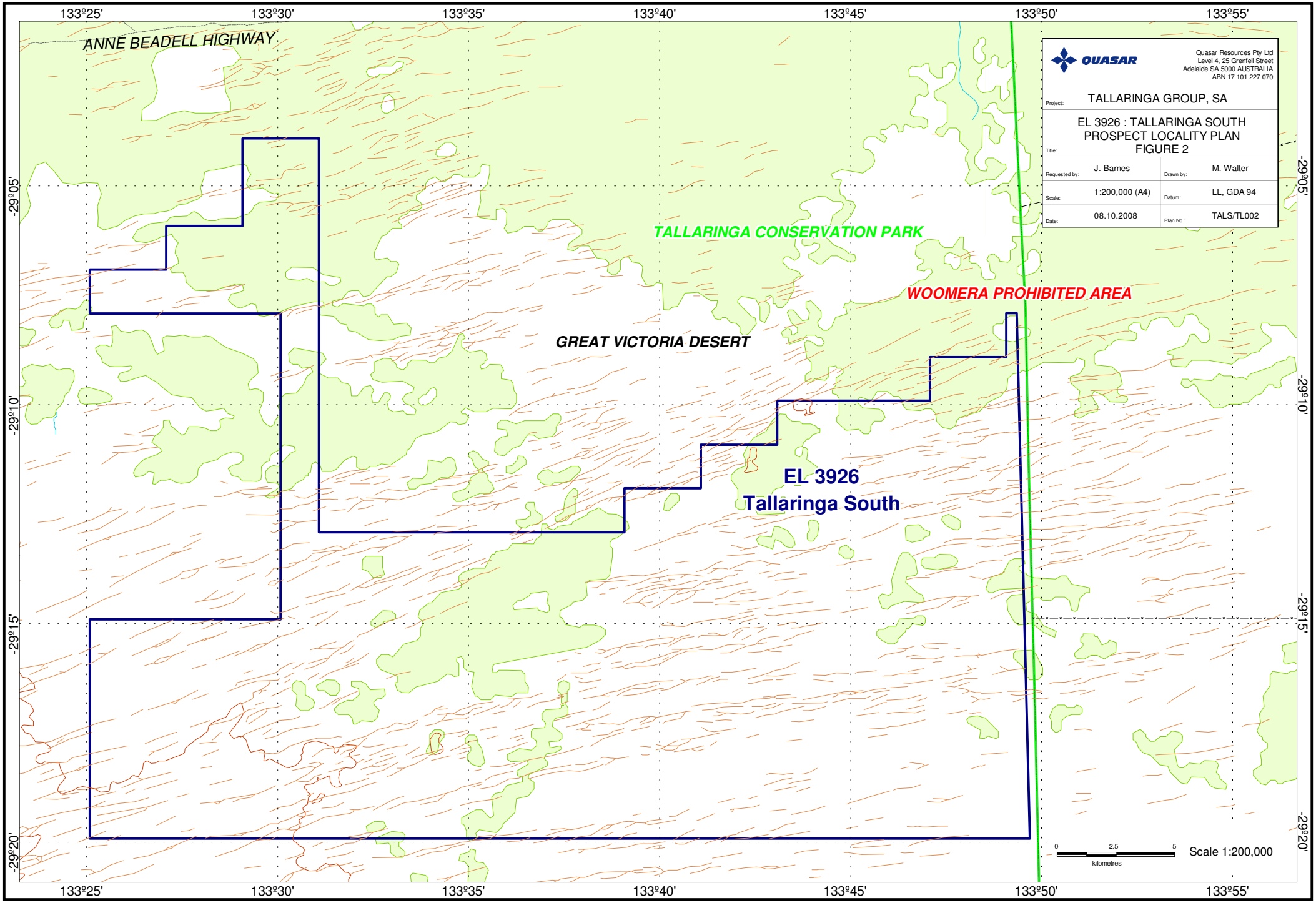
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133º50'
133º55'
-29º05'
-29º10'
-29º15'
-29º20'
ANNE BEADELL HIGHWAY
TALLARINGA CONSERVATION PARK
WOOMERA PROHIBITED AREA
GREAT VICTORIA DESERT
EL 3926
Tallaringa South
QUASAR
Quasar Resources Pty Ltd
Level 4, 25 Grenfell Street
Adelaide SA 5000 AUSTRALIA
ABN 17 101 227 070
Project: TALLARINGA GROUP, SA
Title: EL 3926 : TALLARINGA SOUTH PROSPECT LOCALITY PLAN FIGURE 2
Requested by: J. Barnes
Drawn by: M. Walter
Scale: 1:200,000 (A4)
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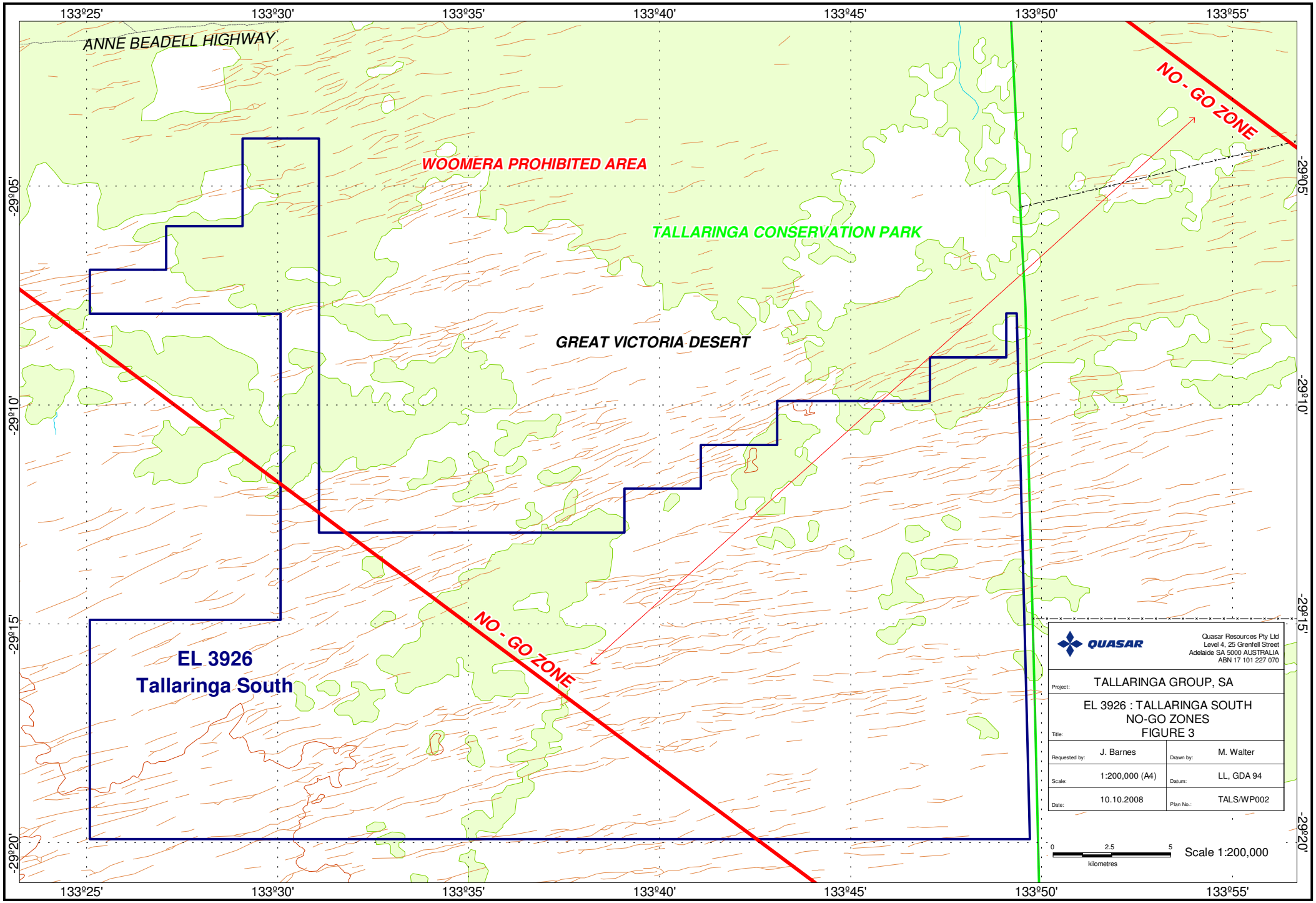
Scale 1:200,000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133º30'
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133º50'
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-29º05'
-29º10'
-29º15'
-29º20'
ANNE BEADELL HIGHWAY
WOOMERA PROHIBITED AREA
TALLARINGA CONSERVATION PARK
GREAT VICTORIA DESERT
NO - GO ZONE
NO - GO ZONE
EL 3926
Tallaringa South
QUASAR
Quasar Resources Pty Ltd
Level 4, 25 Grenfell Street
Adelaide SA 5000 AUSTRALIA
ABN 17 101 227 070
Project: TALLARINGA GROUP, SA
Title: EL 3926 : TALLARINGA SOUTH
NO-GO ZONES
FIGURE 3
Requested by: J. Barnes
Drawn by: M. Walter
Scale: 1:200,000 (A4)
Datum: LL, GDA 94
Date: 10.10.2008
Plan No.: TALS/WP002
0
2.5
5
kilometres
Scale 1:200,000

TALLARINGA SOUTH

EL 3926

ANNUAL TECHNICAL REPORT

10 September 2008 – 9 September 2009

Quasar Resources Pty Ltd (100%)

Author: Anthony Hewett
Date: 11 January 2010
Distribution: Quasar Resources (1)
PIRSA (1) electronic
CR: 361

Submitted By:

Approved By:

Contents

BIBLIOGRAPHIC DATA SHEET **3**
SUMMARY **4**
1 INTRODUCTION **5**
1.1 Location and Access 5
1.2 History and Exploration Rationale 5
2 GEOLOGY **5**
2.1 Regional Geology 5
3 GEOPHYSICS **6**
3.1 Airborne magnetic and radiometric survey 6
4 NATIVE TITLE **7**
5 WOOMERA PROHIBITED AREA **7**
6 TALLARINGA CONSERVATION PARK **7**
7 EXPENDITURE **8**
8 REFERENCES **8**

LIST OF FIGURES

Figure 1 Tenement Location Plan of EL 3926
Figure 2 Total Magnetic Intensity Image
Figure 3 Total Magnetic Intensity, First Vertical Derivative Image
Figure 4 Total Count Radiometric Image
Figure 5 Radiometric Ternary Image
Figure 6 Digital Elevation Model Image

APPENDICES

Appendix 1 – Magnetic and Radiometric Grid Files
Appendix 2 – Located Data Files for Magnetic and Radiometric survey
Appendix 3 – Logistics Report on Airborne Survey

For Appendix 1 and 2 - See Government of South Australia Mineral Resources Website

BIBLIOGRAPHIC DATA SHEET

REPORT TITLE	Tallaringa South Project, Exploration Licence 3926 Annual Technical Report for the period 10 September 2008 – 9 September 2009
PROSPECT NAME	Tallaringa South
TENEMENT NUMBER(s)	EL 3926
OWNER/JV PARTNERS	Quasar Resources Pty Ltd (100%)
COMMODITIES	Uranium, Copper, Gold
TECTONIC UNITS	Karari Fault Zone, North Gawler Craton
STRATIGRAPHIC UNITS	Mulgathing Complex
1:250,000 Map Sheet	Tallaringa (SH 53-05) Coober Pedy (SH 53-06)
1:100,000 Map Sheet	Yerada 5639 Tallaringa 5539
KEYWORDS	Tallaringa South (EL 3926), sedimentary uranium, Karari Fault Zone, North Gawler Craton

SUMMARY

The Tallaringa South Exploration Licence (EL 3926) is situated in the Tallaringa Conservation Park on the Gawler Craton (Figure 1) and is wholly held by Quasar Resources Pty Ltd.

This report describes work carried out in the licence for the period 10 September 2008 – 09 September 2009. Work carried out comprised:

- An aerial geophysics survey.
- A native title work area clearance

Work on the project involved an airborne magnetic and radiometric survey and native title work area clearance. A total of 8,743km were flown as part of a larger survey which included surrounding tenements.

Tenement	Description	Geophysics	Total
EL 3926	Aerial geophysical survey	Airborne magnetic and radiometric survey	8,743km
Table 1. Details of work performed on EL 3926			

1 INTRODUCTION

1.1 Location and Access

Exploration Licence 3926 covers an area of 623km² and is approximately 120km west-northwest of Coober Pedy and the sealed Stuart Highway. The Tarcoola to Darwin railway line is located approximately 100km east of the licence area.

The tenement is located on the TALLARINGA 1:250,000 Map Sheet and is within the bounds of the Woomera Prohibited Area, 50-100km northwest of the Challenger Gold Mine in one of the most remote areas of the Gawler Craton.

Access is via either the Stuart Highway to Glendambo and then onwards to the Challenger Mine Site or alternatively via the Stuart Highway to Coober Pedy and then westwards along station tracks and the Anne Beadell Highway to South Tallaringa.

1.2 History and Exploration Rationale

Goldsearch NL was granted Exploration Licence 2212 in October 1996 for gold and base metal exploration; it surrendered the tenement in December 2001. Normandy Exploration was granted Exploration Licence 2123 in November 1995 to explore for Copper, Gold, Zinc, Lead and Silver it surrendered in November 1998. Anglo American Exploration (Aust) Pty Ltd was granted Exploration Licence 2880 in January 2002 they relinquished a portion of the ground in January 2003 and the rest in January 2005, they were looking for iron oxide copper-gold style mineralisation.

2 GEOLOGY

2.1 Regional Geology

The exploration licence is located over ground that forms part of the Northern Gawler Craton. The Gawler Craton is a stable crystalline basement province comprising Archaean to Meso-Proterozoic rocks obscured by Neo-Proterozoic to Cainozoic age sedimentary strata.

The area is interpreted to comprise of felsic and mafic gneisses, banded iron formations, metasediments, granites and metavolcanics. The rocks have undergone intense deformation and metamorphism during the Kimban Orogeny (1800 – 1700Ma) when granitoids were emplaced and major mylonitic zones developed. Further acid volcanic sheets and granite emplacement (1590 Ma) are thought to be associated with Cu-Au-U mineralisation. This event may be associated with orogenic collapse of the Craton.

Whilst no known uranium deposits exist within the vicinity, the tenement is considered to have the necessary tectono-stratigraphic history required to make it prospective for both sedimentary and hard rock uranium. The suitability of the underlying basement to act as a source of uranium is the main issue affecting prospectivity of sedimentary uranium mineralisation on the tenement.

The Tallaringa South tenement lies west of the Tallaringa Palaeochannel system. This palaeochannel system drains into the Tallaringa Trough, a prominent structure bound to the south by the arcuate, crustal scale Karari Fault. Within the Tallaringa Trough, Tertiary and older sediments infill what is essentially a downfaulted half-graben and are juxtaposed against the Mulgathing Complex. Unlike Tarcoola (EL3483) outcrop of potential source rocks (Mulgathing Complex) is confined to the southern side of the Karari Fault.

Post-Tertiary basin inversion has acted to exhume the southern portion of the Tallaringa Trough. Together this has resulted in the widespread exposure and erosion of the sedimentary succession with prospective units now occurring at shallow depths throughout the tenement.

3 GEOPHYSICS See Government of South Australia Mineral Resources Website

3.1 Airborne magnetic and radiometric survey

A detailed, low level airborne geophysical survey was carried out by UTS Geophysics between the 25 November 2008 and 1 January 2009. Magnetic and 256 channel radiometric data were collected with the following specifications;

Line Spacing	100m
Line Direction	000 – 180 degrees
Tie Line Spacing	1,000m
Tie Line Direction	090 – 270 degrees
Nominal Sensor Height	50m
Total Line km	8,743km

A Summary of equipment specifications used for the survey is shown below;

Aircraft	Fixed wing FU24-950, registration: VH-UTR
GPS	Novatel, 2Hz sample rate
Navigation & Data Recording	UTS proprietary systems
Altitude – Radar	Bendix/King KRA-405 Radar Altimeter, 10Hz sample rate
Altitude – Barometric	Air DB, 10Hz sample rate, 0.01mb resolution
Magnetometer	Stinger mounted, Caesium Vapour Magnetometer, 10Hz sample rate, 0.001nT resolution
Base Station Magnetometer	Scintrex Envimag/Geometrics GR-856, 0.2 Hz sample rate, 0.1nT resolution
Radiometric	Exploratium GR820 Nal (Tl), 1 Hz sample rate, 32 litre capacity

Magnetic data is presented as images of the Total Magnetic Intensity and TMI First Vertical Derivative are shown in Figures 2 and 3 respectively.

Radiometric data is shown in Figure 4 as Total Count and in Figure 5 as a ternary image combining the potassium (%), thorium (ppm) and uranium (ppm) data respectively as red, green and blue.

A digital elevation model was also derived from the radar altimeter and GPS data was collected. An image of this data is shown in Figure 6.

All data can be found in Appendix 1 as Geosoft grid files (*.grd) and Appendix 2 as GDF format ASACII located data files (*.DAT; *.DFN). The 256 channel radiometric data is also included in GDF format in Appendix 2. A full logistics report which details the equipment used, acquisition method and data processing is included in Appendix 3. Field formats of all located ASCII data files are documented in this report titled “B055 Logistics Report.pdf”.

Data processing of the magnetic, radiometric and DTM data is detailed in Appendix 3.

4 NATIVE TITLE

A Work Area Clearance was requested from the Antakarinja Land Management Council Native Title Claimants (ALMAC) in October 2008 as part of the planning for future on ground exploration activities. This visit was conducted on the 14th – 16th October 2008. Due to large distances of travel, rough roads and poor planning by ALMAC this survey was not completed and only a portion of this licence was cleared. A further clearance will need to be requested to complete survey.

5 WOOMERA PROHIBITED AREA

This exploration licence is situated on the Woomera Prohibited Area (WPA) a Deed of Access was signed by both parties in 2008 to allow exploration, this is renewed each year. During this reporting period the WPA placed a “no-go zone” over the top northern portion of the licence area. However the WPA allowed a limited time window for us to complete all survey work as planned.

6 TALLARINGA CONSERVATION PARK

This exploration licence is situated in the Tallaringa Conservation Park which covers an area of 1,246,000 hectares and is located 100 kilometres due west of Coober Pedy. This conservation park lies on the fringe of the Great Victoria Desert and is dominated by vegetated dunes and gibber rises.

Discussions with DEH to obtain access in the Tallaringa Conservation Park continue, but agreement on access conditions could not be finalised during the reporting period.

7 EXPENDITURE

Expenditure EL 3926 Tallaringa South
1 October 2008 - 30 Sept 2009

	$
External Services	1,792.49
Management Fee	12,574.45
Manpower	9,135.29
Motor Vehicle Repairs & Maint	209.75
Motor Vehicle Running Costs	47.51
Native Title - Clearances	15,894.76
Rents	4,834.80
Office Support	1,800.00
Surveying-Geophysical Airborne	70,109.06
Travel - Commercial Flights	203.06
Travel - M/Vehicle Car Hire	624.06
Travel - M/ Vehicle Taxi Fares	19.73
Travel - Accommodation & Meals	116.66
Total	$117,361.62

8 REFERENCES

Barnes, J., 2008 Annual Technical Report 10 September 2007 – 9 September 2008

UTS GEOPHYSICS

Logistics Report

for a

DETAILED AIRBORNE MAGNETIC, RADIOMETRIC AND DIGITAL TERRAIN SURVEY

for the

TALLARINGA PROJECT

carried out on behalf of

QUASAR RESOURCES PTY LTD

(UTS Job # B055)

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PO BOX 126, BELMONT WA 6984
Telephone +61 8 9479 4232 Facsimile +61 8 9479 7361
A.B.N. 31 058 054 603

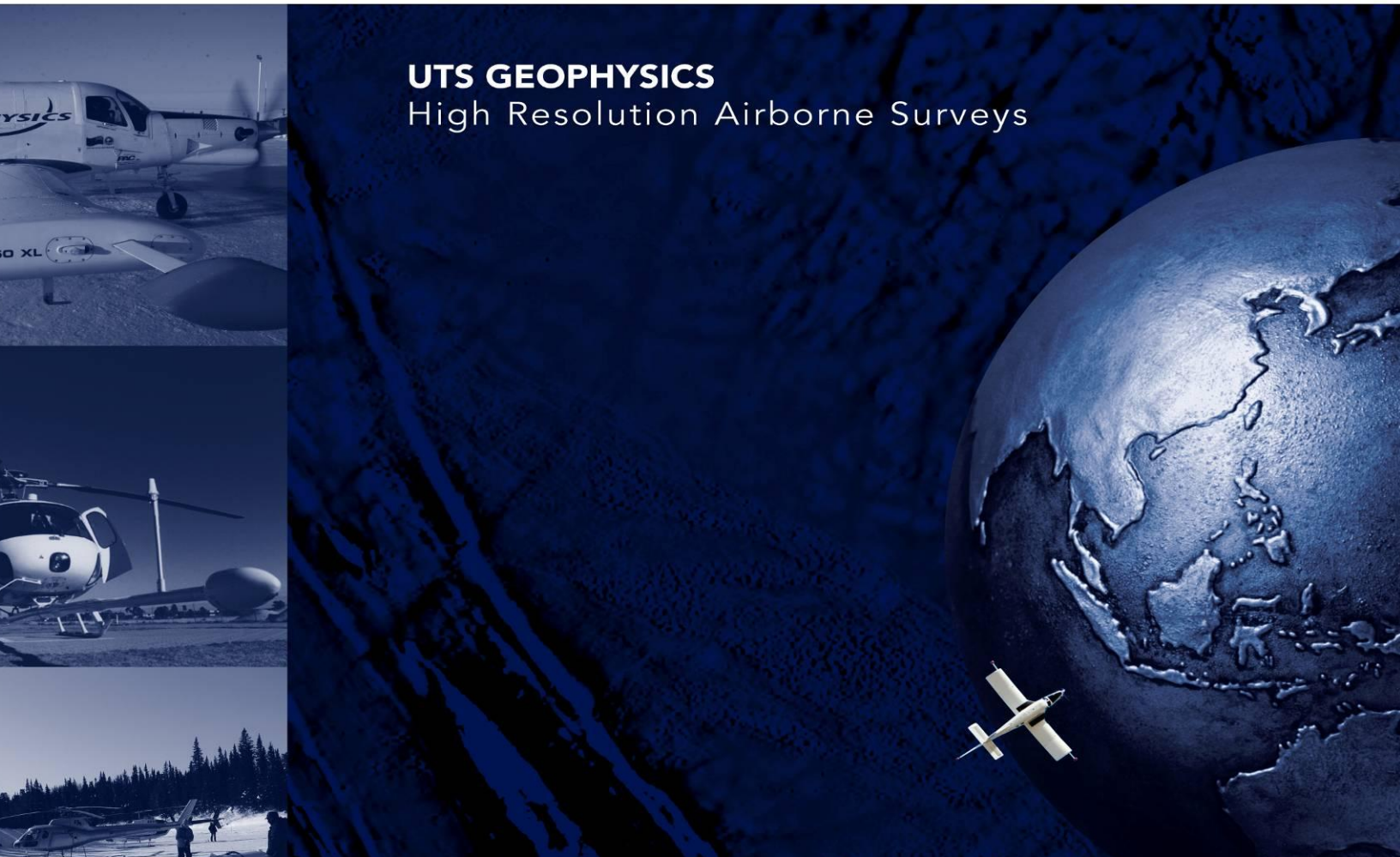


TABLE OF CONTENTS

1 GENERAL SURVEY INFORMATION 3

2 SURVEY SPECIFICATIONS 3

3 AIRCRAFT AND SURVEY EQUIPMENT 4

3.1 SURVEY AIRCRAFT 5
3.2 DATA POSITIONING AND FLIGHT NAVIGATION 5
3.3 UTS DATA ACQUISITION SYSTEM AND DIGITAL RECORDING 6
3.4 ALTITUDE READINGS 6
3.5 UTS STINGER MOUNTED MAGNETOMETER SYSTEM 6
3.6 TOTAL FIELD MAGNETOMETER 7
3.7 THREE COMPONENT VECTOR MAGNETOMETER 7
3.8 AIRCRAFT MAGNETIC COMPENSATION 7
3.9 DIURNAL MONITORING MAGNETOMETER 8
3.10 BAROMETRIC ALTITUDE 8
3.11 TEMPERATURE AND HUMIDITY 9
3.12 RADIOMETRIC DATA ACQUISITION 9

4 PROJECT MANAGEMENT 10

5 DATA PROCESSING PROCEDURES 11

5.1 DATA PRE-PROCESSING 11
5.2 MAGNETIC DATA PROCESSING 12
5.3 RADIOMETRIC DATA PROCESSING 13
5.4 DIGITAL TERRAIN MODEL DATA PROCESSING 14

6 APPENDIX A - LOCATED DATA FORMATS 15

7 APPENDIX B - COORDINATE SYSTEM DETAILS 18

8 APPENDIX C - SURVEY BOUNDARY DETAILS 19

9 APPENDIX D - PROJECT DATA OVERVIEW 20

10 APPENDIX E – PROCESSING PARAMETERS 23

1 GENERAL SURVEY INFORMATION

UTS Geophysics conducted a low level airborne geophysical survey for the following company:

Quasar Resources Pty Ltd
Suite 2, Level 4, 25 Grenfell Street
ADELADE SA 5000

Acquisition for this survey commenced on the 25 th Novemberl 2008 and was completed on the 01st January 2009. The base location used for operating the aircraft and performing in-field quality control was Coober Pedy, South Australia.

2 SURVEY SPECIFICATIONS

The area surveyed was approximately 110km out of Coober Pedy, South Australia The survey was flown using the MGA94 coordinate system (a Universal Transverse Mercator projection) derived from the Geocentric Datum of Australia and was contained within zone 53 with a central meridian of 135 degrees. Details of the datum and projection system are provided in Appendix B of this report. Survey boundary coordinates are listed in Appendix C.

The survey data acquisition specifications for each area flown are specified in the following table:

PROJECT NAME	LINE SPACING	LINE DIRECTION	TIE LINE SPACING	TIE LINE DIRECTION	SENSOR HEIGHT	TOTAL LINE KM
Tallaringa	100m	000-180	1000m	090-270	50m	43,003
TOTAL						**43,003**

The specified sensor height for the magnetic samples is as stated in the above table. This sensor height may be varied where topographic relief or laws pertaining to built up areas do not allow this altitude to be maintained, or where the safety of the aircraft and equipment is endangered.

3 AIRCRAFT AND SURVEY EQUIPMENT

The UTS navigation flight control computer, data acquisition system and geophysical sensors were installed into a specialised geophysical survey aircraft.

The list of geophysical and navigation equipment used for the survey is as follows:

General Survey Equipment

- UTS proprietory flight planning and survey navigation system.
- UTS proprietory high speed digital data acquisition system.
- Novatel, 12 channel precision navigation GPS.
- OMNISTAR real time differential GPS system.
- UTS LCD pilot navigation display and external track guidance display.
- UTS post mission data verification and processing system.
- Bendix/King KRA-405 radar altimeter.

Magnetic Data Acquisition Equipment

- UTS tail stinger magnetometer installation.
- Cesium Vapour total field magnetometer.
- Fluxgate three component vector magnetometer.
- RMS Aeromagnetic Automatic Digital Compensator (AADC II).
- Diurnal monitoring magnetometer (Scintrex Envimag or Geometrics GR-856).

Radiometric Data Acquisition Equipment

- Exploranium GR-820 gamma ray spectrometer.
- Exploranium gamma ray detectors.
- Barometric altimeter (height and pressure measurements).
- Temperature and humidity sensor.

3.1 Survey Aircraft

The aircraft used for this survey was a FU24-950 series fixed wing survey aircraft, owned and operated by UTS Geophysics, registration VH-UTR. The specifications are as follows:

Power Plant

- Engine Type Single engine, Lycoming, IO-720
- Brake Horse Power 400 bhp
- Fuel Type AV-GAS

Performance

- Cruise speed 105 Kn
- Survey speed 100 Kn
- Stall speed 45 Kn
- Range 970 Km
- Endurance (no reserves) 5.6 hours
- Fuel tank capacity 490 litres

3.2 Data Positioning and Flight Navigation

Survey data positioning and flight line navigation was derived using real-time differential GPS (Global Positioning System).

Navigation was performed using a UTS designed and built electronic pilot navigation system providing computer controlled digital navigation instrumentation mounted in the cockpit as well as an externally mounted track guidance system.

GPS derived positions were used to provide both aircraft navigation and survey data location information.

The GPS systems used for the survey were:

- Aircraft GPS Model Novatel
- Sample rate 0.5 Seconds (2 Hz)
- GPS satellite tracking channels 12 parallel
- Typical differentially corrected accuracy 1-2 metres (horizontal)
  3-5 metres (vertical)

3.3 UTS Data Acquisition System and Digital Recording

All geophysical sensor data and positional information measured during the survey was recorded using a UTS developed, high speed, precision data acquisition system. Survey data was downloaded onto magnetic tape on completion of each survey flight.

Instrument synchronisation times were measured and removed in real-time by the UTS data acquisition system.

3.4 Altitude Readings

Accurate survey heights above the terrain were measured using a King radar altimeter installed in the aircraft. The height of each survey data point was measured by the radar altimeter and stored by the UTS data acquisition system.

- Radar altimeter models — Bendix/King KRA-405
- Accuracy — 0.3 metres
- Resolution — 0.1 metres
- Range — 0 - 762 metres
- Sample rate — 0.1 Seconds (10Hz)

The digital terrain model is calculated by subtracting the terrain clearance (radar altimeter) from the GPS height (interpolated to 0.1 Hz), and as such the accuracy is constrained by the differentially corrected GPS position.

3.5 UTS Stinger Mounted Magnetometer System

The installation platform used for the acquisition of magnetic data was a tail mounted stinger. This proprietory stinger system was constructed of carbon fibre and designed for maximum rigidity and stability.

Both the total field magnetometer and three component vector magnetometer were located within the tail stinger.

3.6 Total Field Magnetometer

Total field magnetic data readings for the survey were made using a Cesium Vapour Magnetometer. This precision sensor has the following specifications:

- Model Cesium Vapour Magnetometer
- Sample Rate 0.1 seconds (10Hz)
- Resolution 0.001nT
- Operating Range 15,000nT to 100,000nT

3.7 Three Component Vector Magnetometer

Three component vector magnetic data readings for the survey were made using a Fluxgate Magnetometer. This precision sensor has the following specifications:

- Model Fluxgate Magnetometer
- Sample Rate 0.1 seconds (10Hz)
- Resolution 0.1nT
- Operating Range -100,000nT to 100,000nT

3.8 Aircraft Magnetic Compensation

At the start of the survey, the system was calibrated for reduction of magnetic heading error. The heading and manoeuvre effects of the aircraft on the magnetic data was removed using an RMS Automatic Airborne Digital Compensator (AADC II).

Calibration of the aircraft heading effects were measured by flying a series of pitch, roll and yaw manoeuvres at high altitude while monitoring changes in the three axis magnetometer and the effect on total field readings. A 26 term model of the aircraft magnetic noise covering permanent, induced and eddy current fields was determined. These coefficients were then applied to the data collected during the survey in real-time.
UTS static compensation techniques were also employed to reduce the initial magnetic effects of the aircraft upon the survey data.

3.9 Diurnal Monitoring Magnetometer

A base station magnetometer was located in a low gradient area beyond the region of influence of any man made interference to monitor diurnal variations during the survey.

The specifications for the magnetometer used are as follows:

- Model: Scintrex Envimag or Geometrics GR-856
- Resolution: 0.1 nT
- Sample interval: 5 seconds (0.2 Hz)
- Operating range: 20,000nT to 90,000nT
- Temperature: -20^{o}C to +50^{o}C

3.10 Barometric Altitude

An Air DB barometric altimeter was installed in the aircraft so as to record and monitor barometric height and pressure. The data was recorded at 0.10 second intervals and is used for the reduction of the radiometric data.

- Model: Air DB barometric altimeter
- Accuracy: 2 metres
- Height resolution: 0.1 metres
- Height range: 0 - 3500 metres
- Maximum operating pressure: 1,300 mb
- Pressure resolution: 0.01 mb
- Sample rate: 10 Hz

3.11 Temperature and Humidity

Temperature and humidity measurements were made during the survey at a sample rate of 10Hz. Ambient temperature was measured with a resolution of 0.1 degree Celsius and ambient humidity to a resolution of 0.1 percent.

3.12 Radiometric Data Acquisition

The gamma ray spectrometer used for the survey was capable of recording 256 channels and was self stabilising in order to minimise spectral drift. The detectors used contain thallium activated sodium iodide crystals.

Thorium source measurements were made each survey day to monitor system resolution and sensitivity. A calibration line was also flown at the start and end of each survey day to monitor ground moisture levels and system performance.

Spectrometer model	Exploranium GR820
• Detector volume	32 litres
• Sample rate	1 Hz

4 PROJECT MANAGEMENT

Quasar Resources PTY LTD	John Caon
UTS Geophysics Perth Office	Nino Tufilli David Abbott Cameron Johnston Rebecca Steadman

5 DATA PROCESSING PROCEDURES

5.1 Data Pre-processing

The raw survey data was loaded from the field tapes and the recorded data trimmed to the correct survey boundary extents. Any survey lines subsequently reflown were removed from the dataset.

At the commencement of each acquisition flight, all the instrumentation clocks were synchronized to local time, and the error and latency of each instrument in providing its data measurement calculated. The results of these latency measurements were recorded into a synchronisation file, and the results used to assign GPS positions to the magnetic, radiometric and elevation data.

The synchronized, parallax corrected data was then exported as located ASCII data.

5.2 Magnetic Data Processing

The diurnal base station data was checked for spikes and steps, and suitably filtered prior to the removal of diurnal variations from the aircraft magnetic data.

The filtered diurnal measurements were subtracted from the diurnal base field and the residual corrections applied to the survey data by synchronising the diurnal data time and the aircraft survey time. The average diurnal base station value was added to the survey data.

The X and Y positioning of the data was then checked for spikes before applying the IGRF correction. Any spikes in the positions were manually edited. The updated IGRF 2005 correction was calculated at each data point (taking into account the height above sea level).

This regional magnetic gradient was subtracted from the survey data points.

Tie line levelling was applied to the data by least squares minimisation, using a polynomial fit of order 0, of the differences in magnetic values at the crossover points of the survey traverse and tie line data.

In order to remove any residual long wavelength variations in the tie line levelled data along the traverse lines, polynomial levelling was then applied.

Final micro-levelling techniques were then selectively applied to the tie line levelled data to remove minor residual variations in profile intensity

Located and gridded data were generated from the final processed magnetic data.

5.3 Radiometric Data Processing

Statistical noise reduction of the 256 channel data was performed using the Noise Adjusted Singular Variable Decomposition (NASVD) method described by Hovgaard and Grasty (1997).

Noise-adjusted singular value decomposition is performed, and the number of components to be used is determined by inspection of plots of the spectral components and by a statistical analysis of the contributions of the components. If the spectral shapes show any unusual characteristics, further analysis of the concentrations of the spectral components in the line data is performed in order to identify and eliminate any corrupt spectra. If such spectra were eliminated, the NASVD process is re-performed, in order to obtain spectral components free of any bias from corrupt spectra.

Only the dominant spectral shapes (identified as described above) were used in the spectral reconstruction process. The first 8 NASVD components were used for this process.

Channels 30-250 only are spectrally smoothed, as these contain the regions of interest and are not dominated by the lower end of the Compton continuum. The energy spectrum between the potassium and thorium peaks was recalibrated from the spectrally smoothed 256 channel measurements.

The aircraft background spectrum and the scaled unit cosmic spectrum were then subtracted from the 256 channel data. This 256 channel data was then windowed to the 5 primary channels of total count, potassium, uranium, thorium and low-energy uranium. Dead time corrections were then applied to the data. Radon background removal was performed using the Minty Spectral Ratio method (1992).

The radar altimeter data was corrected to standard temperature and pressure, and height corrected spectral stripping was then applied to the windowed data. Height attenuation corrections based on the STP radar altimeter were then performed to remove any altitude variation effects from the data.

The Uranium and Total Count channels were tie-levelled to remove the effects of residual radon background. The tie-levelling process employed was a least-squares/median filter procedure, which generated a single correction for each line of data. Mis-matches were calculated at each tie-traverse intersection and the median mismatch for each flight line was calculated as the residual levelling error for that line.

Final micro-levelling techniques were then selectively applied to the tie line levelled data to remove minor residual variations in profile intensities, as per the method outlined for magnetic data micro-levelling in 7.2 above.

5.4 Digital Terrain Model Data Processing

The radar altimeter data was subtracted from the GPS altimeter data leaving digital terrain data.

The digital terrain data thus derived was tie line levelled and gridded. Tie line levelled data was then examined and selectively microlevelled to produce a grid without line dependent artifacts.

For further information concerning the survey flown, please contact the following office:

Head Office Address:

UTS Geophysics
Fauntleroy Avenue, Perth Airport
REDCLIFFE WA 6104

Tel: +61 8 9479 4232
Fax: +61 8 9479 7361

Postal Address:

UTS Geophysics
P.O. Box 126
BELMONT WA 6984

Quoting reference number: B055

6 APPENDIX A - LOCATED DATA FORMATS

MAGNETIC LOCATED DATA

FIELD	FORMAT	DESCRIPTION	UNITS
1	I8	LINE NUMBER	
2	I4	FLIGHT/AREA NUMBER	AAFF (Area/Flight)
3	I9	DATE	YYMMDD
4	F10.1	TIME	sec
5	I8	FIDUCIAL NUMBER	
6	I4	UTM ZONE	
7	F12.6	LATITUDE (WGS84)	degrees
8	F12.6	LONGITUDE (WGS84)	degrees
9	F12.2	EASTING (MGA94)	metres
10	F12.2	NORTHING (MGA94)	metres
11	F8.1	RADAR ALTIMETER HEIGHT	metres
12	F8.1	GPS HEIGHT (WGS84)	metres
13	F8.1	TERRAIN HEIGHT (WGS84)	metres
14	F10.3	RAW MAGNETIC INTENSITY	nT
15	F10.3	DIURNAL CORRECTED TMI	nT
16	F10.3	DIURNAL AND IGRF CORRECTED TMI	nT
17	F10.3	TIE LINE LEVELLED TMI	nT
18	F10.3	FINAL TOTAL MAGNETIC INTENSITY	nT

RADIOMETRIC LOCATED DATA

FIELD	FORMAT	DESCRIPTION	UNITS
1	I8	LINE NUMBER	
2	4	FLIGHT/AREA NUMBER	AAFF (Area/Flight)
3	I9	DATE	YYMMDD
4	F10.1	TIME	sec
5	I8	FIDUCIAL NUMBER	
6	I4	UTM ZONE	
7	F12.6	LATITUDE (WGS84)	degrees
8	F12.6	LONGITUDE (WGS84)	degrees
9	F12.2	EASTING (MGA94)	metres
10	F12.2	NORTHING (MGA94)	metres
11	F8.1	RADAR ALTIMETER HEIGHT	metres
12	F8.1	GPS HEIGHT (WGS84)	metres
13	I5	LIVE TIME	milli sec
14	F8.1	PRESSURE	hPa
15	F6.1	TEMPERATURE	Degrees Celcius
16	F6.1	HUMIDITY	percent
17	I6	TOTAL COUNT (RAW)	Counts/sec
18	I6	POTASSIUM (RAW)	Counts/sec
19	I6	URANIUM (RAW)	Counts/sec
20	I6	THORIUM (RAW)	Counts/sec
21	I6	COSMIC (RAW)	Counts/sec
22	F8.1	TOTAL COUNT (CORRECTED)	Counts/sec
23	F8.1	POTASSIUM (CORRECTED)	Counts/sec
24	F8.1	URANIUM (CORRECTED)	Counts/sec
25	F8.1	THORIUM (CORRECTED)	Counts/sec
26	F9.4	DOSE RATE	nGy/hr
27	F9.4	POTASSIUM GRND CONCENTRATION	%
28	F9.4	URANIUM GRND CONCENTRATION	ppm
29	F9.4	THORIUM GRND CONCENTRATION	ppm

GRIDDED DATASET FORMATS

Gridding was performed using a bicubic spline algorithm.

The following grid formats have been provided:

- ER-Mapper format

LINE NUMBER FORMATS

Line numbers are identified with a six digit composite line number and have the following format - AALLLLB, where:

A or AA	Survey area number
LLLL	Survey line number 0001-8999 reserved for traverse lines 9001-9999 reserved for tie lines
B	Line attempt number, 0 is attempt 1, 1 is attempt 2 etc..

UTS FILE NAMING FORMATS

Located and gridded data provided by UTS Geophysics uses the following 8 character file naming convention to be compatible with PC DOS based systems.

File names have the following general format - JJJJAABB.EEE, where:

JJJJ UTS Job number

AA Area number if the survey is broken into blocks

BB
- M Magnetic data
- R Radiometric data
- TC Total count data
- K Potassium counts
- U Uranium counts
- Th Thorium counts
- DT Digital terrain data

EEE File name extension
- DAT Located digital data file
- DFN Located data definition file
- ERS Ermapper gridded data header file
Ermapper data portion has no extension
- GRD Geosoft gridded data file

7 APPENDIX B - COORDINATE SYSTEM DETAILS

Locations for the survey data are provided in both geographical latitude and longitude and Universal Transverse Mercator metric projection coordinate systems.

WGS84	World Geodetic System 1984
Coordinate Type	Geographical
Semi Major Axis	6378137m
Flattening	1/298.257223563

MGA94	Map Grid of Australia 1994
Coordinate type	Universal Transverse Mercator Projection Grid
Geodetic datum	Geocentric Datum of Australia
Semi major axis	6378137m
Flattening	1/298.257222101

8 APPENDIX C - SURVEY BOUNDARY DETAILS

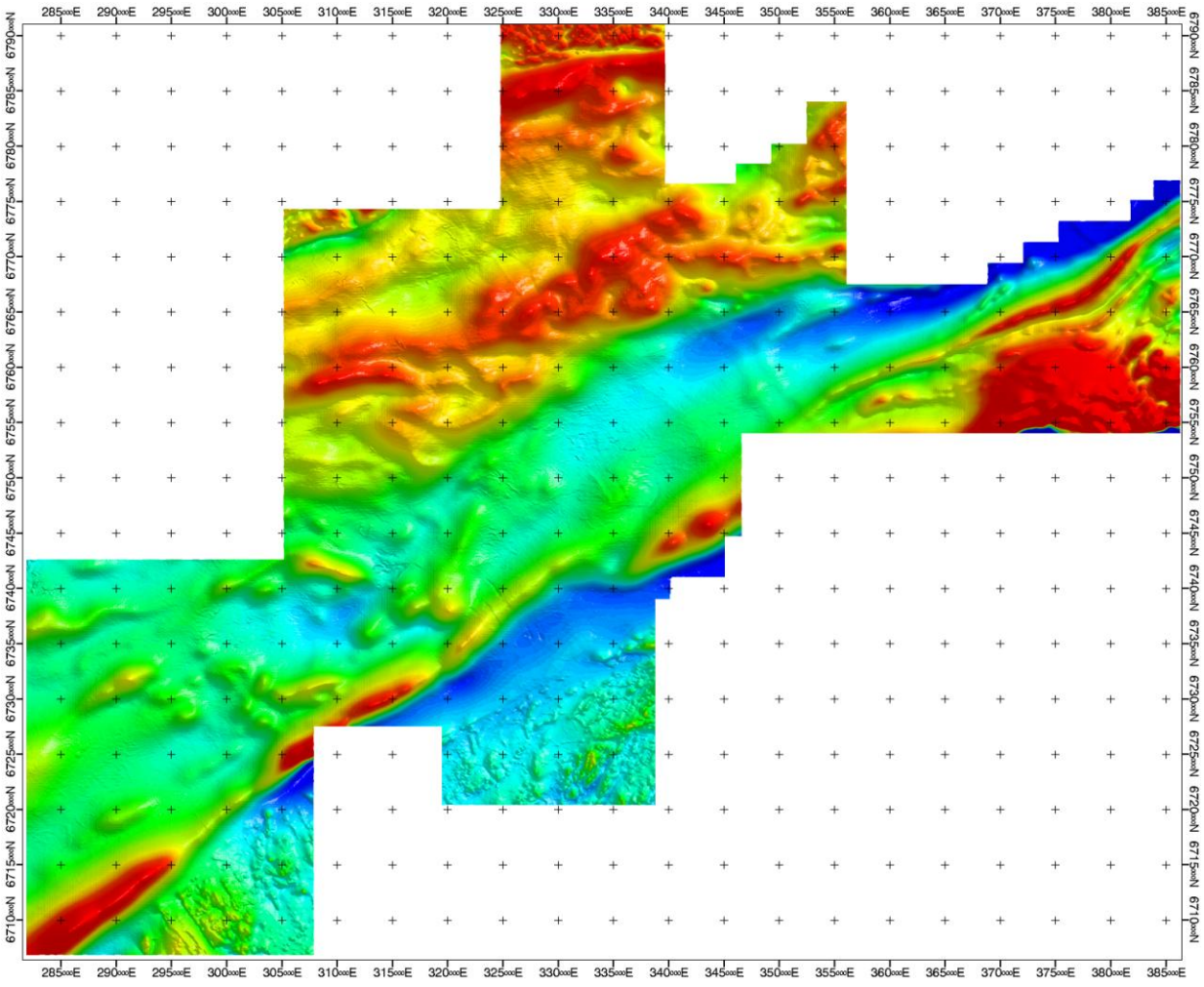
COORDINATES REPORT
Job: B055
Client: Quasar Resources PTY LTD
Grid Zone: 53

Surround	
324700.000	6791000.000
339700.000	6791000.000
339700.000	6776600.000
346000.000	6776600.000
346000.000	6778400.000
349200.000	6778400.000
349200.000	6780200.000
352400.000	6780200.000
352400.000	6784000.000
356100.000	6784000.000
356100.000	6767500.000
368800.000	6767500.000
368800.000	6769400.000
372000.000	6769400.000
372000.000	6771300.000
375200.000	6771300.000
375200.000	6773200.000
381700.000	6773200.000
381700.000	6775100.000
383800.000	6775100.000
383800.000	6776900.000
386300.000	6776900.000
386300.000	6754100.000
346600.000	6754100.000
346600.000	6744800.000
345100.000	6744800.000
345100.000	6741100.000
340200.000	6741100.000
340200.000	6739100.000
338800.000	6739100.000
338800.000	6720500.000
319400.000	6720500.000
319400.000	6727600.000
307900.000	6727600.000
307900.000	6706900.000
281800.000	6706900.000
281800.000	6742600.000
305100.000	6742600.000
305100.000	6774300.000
324700.000	6774300.000
324700.000	6791000.000

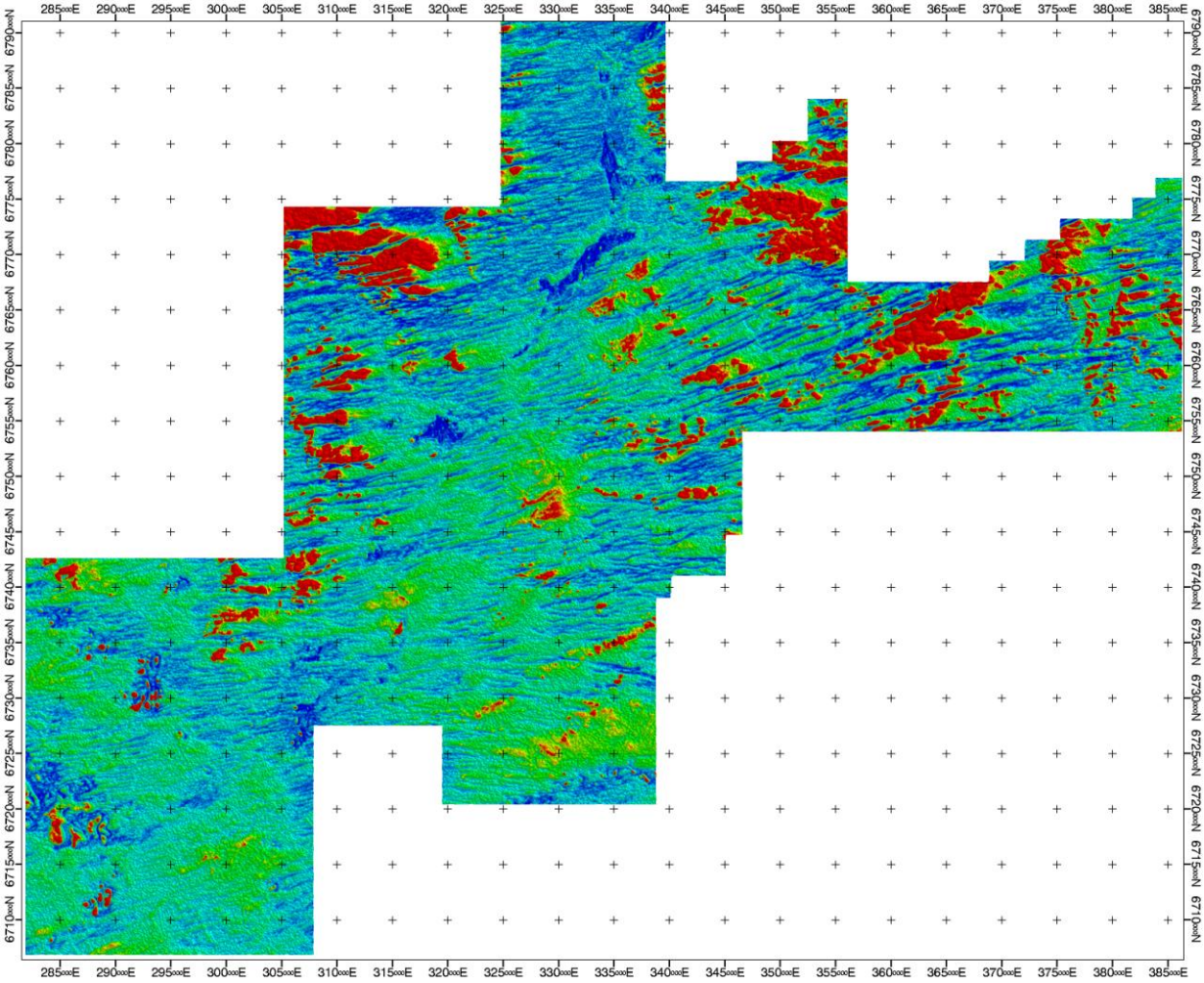
9 APPENDIX D - PROJECT DATA OVERVIEW

Tallaringa Project

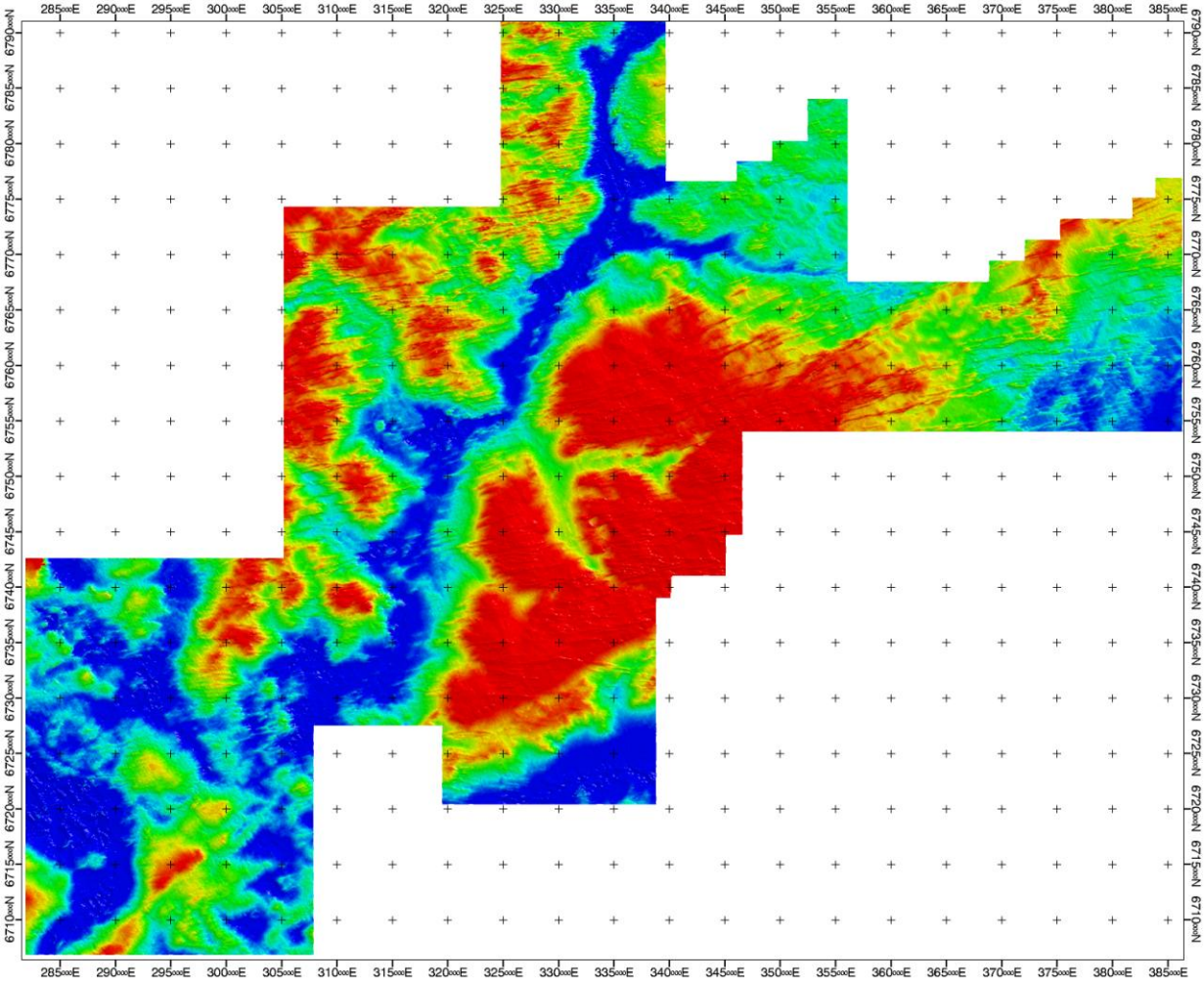
Total Magnetic Intensity



Radiometric Total Count



Digital Terrain Model



10 APPENDIX E – PROCESSING PARAMETERS

Magnetic Processing Parameters

IGRF Date:	IGRF 2008.96
Average Declination:	5.44 degrees
Average Inclination:	-62.49 degrees
Average Field strength:	57000.00 nT
Average diurnal:	55900.00 nT

Radiometric Processing Parameters

Height Attenuation Coefficients

Total Count:	-0.0074
Potassium:	-0.0094
Uranium:	-0.0084
Thorium:	-0.0074

Cosmic Correction Coefficients

Total Count:	0.8662
Potassium:	0.0466
Uranium:	0.0462
Thorium:	0.0486

Aircraft Background Coefficients

Total Count:	33.69
Potassium:	9.27
Uranium:	0.59
Thorium:	0.05

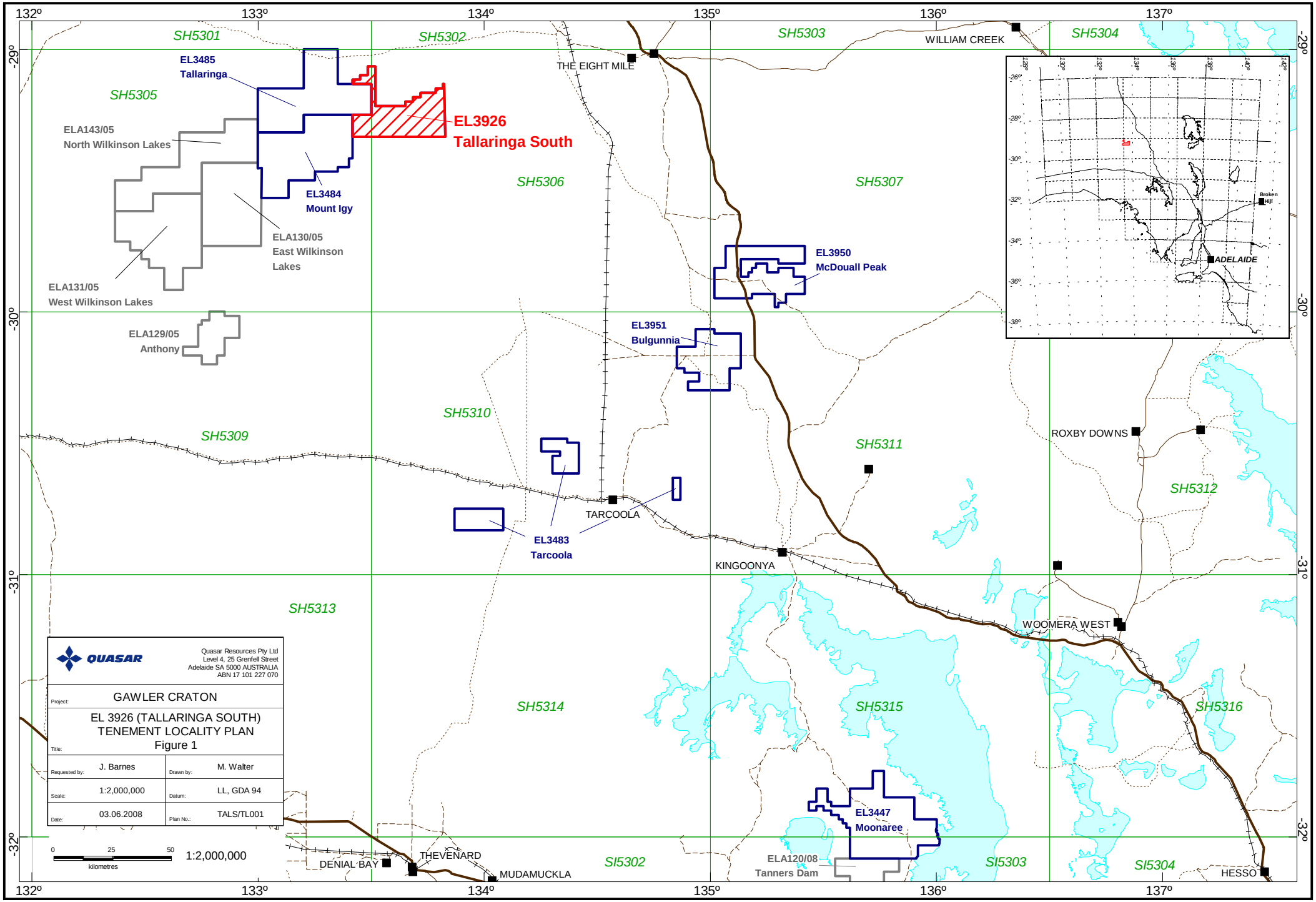
Sensitivity Coefficients

Total Count:	39.70 cps/dose rate
Potassium:	163.65 cps/%k
Uranium:	14.65 cps/ppm
Thorium:	7. 86cps/ppm

Radiometric Stripping Coefficients

Alpha:	0.227
Beta:	0.378
Gamma:	0.708
a:	0.0682

Final Reduction - All data reduced to STP height datum 50m


132º
133º
134º
135º
136º
137º
-29º
-30º
-31º
-32º
SH5301
SH5302
SH5303
SH5304
SH5305
SH5306
SH5307
SH5309
SH5310
SH5311
SH5312
SH5313
SH5314
SH5315
SH5316
SI5302
SI5303
SI5304
EL3485
Tallaringa
EL3926
Tallaringa South
EL3484
Mount Igy
ELA143/05
North Wilkinson Lakes
ELA130/05
East Wilkinson
Lakes
ELA131/05
West Wilkinson Lakes
ELA129/05
Anthony
EL3950
McDouall Peak
EL3951
Bulgunnia
EL3483
Tarcoola
EL3447
Moonaree
ELA120/08
Tanners Dam
THE EIGHT MILE
WILLIAM CREEK
TARCOOLA
KINGOONYA
ROXBY DOWNS
WOOMERA WEST
DENIAL BAY
THEVENARD
MUDAMUCKLA
HESSO
ADELAIDE
Broken Hill
QUASAR
Quasar Resources Pty Ltd
Level 4, 25 Grenfell Street
Adelaide SA 5000 AUSTRALIA
ABN 17 101 227 070
Project: GAWLER CRATON
Title: EL 3926 (TALLARINGA SOUTH) TENEMENT LOCALITY PLAN
Figure 1
Requested by: J. Barnes
Drawn by: M. Walter
Scale: 1:2,000,000
Datum: LL, GDA 94
Date: 03.06.2008
Plan No.: TALS/TL001
0 25 50
kilometres
1:2,000,000

QUASAR

TALLARINGA SOUTH

EL 3926

ANNUAL TECHNICAL REPORT

10 September 2009 – 9 September 2010

Quasar Resources Pty Ltd (100%)

Author: Barnes, J
Date: 5 October 2010
Distribution: Quasar Resources (1)
PIRSA (1) electronic
CR: 413

Submitted By:

TALLARINGA SOUTH

EL 3926

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Contents

BIBLIOGRAPHIC DATA SHEET **3**
SUMMARY **4**
1 INTRODUCTION **5**
1.1 Location and Access 5
1.2 History and Exploration Rationale 5
2 GEOLOGY **5**
2.1 Regional Geology 5
3 WOOMERA PROHIBITED AREA **6**
4 TALLARINGA CONSERVATION PARK **6**
5 EXPENDITURE **6**
6 REFERENCES **6**

LIST OF FIGURES

Figure 1 Tenement Location Plan of EL 3926

BIBLIOGRAPHIC DATA SHEET

REPORT TITLE	Tallaringa South Project, Exploration Licence 3926 Annual Technical Report for the period 10 September 2009 – 9 September 2010
PROSPECT NAME	Tallaringa South
TENEMENT NUMBER(s)	EL 3926
OWNER/JV PARTNERS	Quasar Resources Pty Ltd (100%)
COMMODITIES	Uranium, Copper, Gold
TECTONIC UNITS	Karari Fault Zone, North Gawler Craton
STRATIGRAPHIC UNITS	Mulgathing Complex
1:250,000 Map Sheet	Tallaringa (SH 53-05) Coober Pedy (SH 53-06)
1:100,000 Map Sheet	Yerada 5639 Tallaringa 5539
KEYWORDS	Tallaringa South (EL 3926), sedimentary uranium, Karari Fault Zone, North Gawler Craton

SUMMARY

The Tallaringa South Exploration Licence (EL 3926) is situated in the Tallaringa Conservation Park on the Gawler Craton (Figure 1) and is wholly held by Quasar Resources Pty Ltd.

There was no work carried out in the licence for the period 10 September 2009 – 09 September 2010.

1 INTRODUCTION

1.1 Location and Access

Exploration Licence 3926 covers an area of 623km² and is approximately 120km west-northwest of Coober Pedy and the sealed Stuart Highway. The Tarcoola to Darwin railway line is located approximately 100km east of the licence area.

The tenement is located on the TALLARINGA 1:250,000 Map Sheet and is within the bounds of the Woomera Prohibited Area, 50-100km northwest of the Challenger Gold Mine in one of the most remote areas of the Gawler Craton.

Access is via either the Stuart Highway to Glendambo and then onwards to the Challenger Mine Site or alternatively via the Stuart Highway to Coober Pedy and then westwards along station tracks and the Anne Beadell Highway to South Tallaringa.

1.2 History and Exploration Rationale

Goldsearch NL was granted Exploration Licence 2212 in October 1996 for gold and base metal exploration; it surrendered the tenement in December 2001. Normandy Exploration was granted Exploration Licence 2123 in November 1995 to explore for Copper, Gold, Zinc, Lead and Silver it surrendered in November 1998. Anglo American Exploration (Aust) Pty Ltd was granted Exploration Licence 2880 in January 2002 they relinquished a portion of the ground in January 2003 and the rest in January 2005, they were looking for iron oxide copper-gold style mineralisation.

2 GEOLOGY

2.1 Regional Geology

The exploration licence is located over ground that forms part of the Northern Gawler Craton. The Gawler Craton is a stable crystalline basement province comprising Archaean to Meso-Proterozoic rocks obscured by Neo-Proterozoic to Cainozoic age sedimentary strata.

The area is interpreted to comprise of felsic and mafic gneisses, banded iron formations, metasediments, granites and metavolcanics. The rocks have undergone intense deformation and metamorphism during the Kimban Orogeny (1800 – 1700Ma) when granitoids were emplaced and major mylonitic zones developed. Further acid volcanic sheets and granite emplacement (1590 Ma) are thought to be associated with Cu-Au-U mineralisation. This event may be associated with orogenic collapse of the Craton.

Whilst no known uranium deposits exist within the vicinity, the tenement is considered to have the necessary tectono-stratigraphic history required to make it prospective for both sedimentary and hard rock uranium. The suitability of the underlying basement to act as a source of uranium is the main issue affecting prospectivity of sedimentary uranium mineralisation on the tenement.

The Tallaringa South tenement lies west of the Tallaringa Palaeochannel system. This palaeochannel system drains into the Tallaringa Trough, a prominent structure bound to the south by the arcuate, crustal scale Karari Fault. Within the Tallaringa Trough, Tertiary and older sediments infill what is essentially a downfaulted half-graben and are juxtaposed against the Mulgathing Complex. Unlike Tarcoola (EL3483) outcrop of potential source rocks (Mulgathing Complex) is confined to the southern side of the Karari Fault.

Post-Tertiary basin inversion has acted to exhume the southern portion of the Tallaringa Trough. Together this has resulted in the widespread exposure and erosion of the sedimentary succession with prospective units now occurring at shallow depths throughout the tenement.

3 WOOMERA PROHIBITED AREA

This exploration licence is situated on the Woomera Prohibited Area (WPA) a Deed of Access was signed by both parties in 2008 to allow exploration, this is renewed each year. During 2009 WPA placed a "no-go zone" over the top northern portion of the licence area. In 2010 WPA changed the procedures for obtaining a Deed of Access, a new application was lodged with them and we are now waiting for a new Deed of Access.

4 TALLARINGA CONSERVATION PARK

This exploration licence is situated in the Tallaringa Conservation Park which covers an area of 1,246,000 hectares and is located 100 kilometres due west of Coober Pedy. This conservation park lies on the fringe of the Great Victoria Desert and is dominated by vegetated dunes and gibber rises.

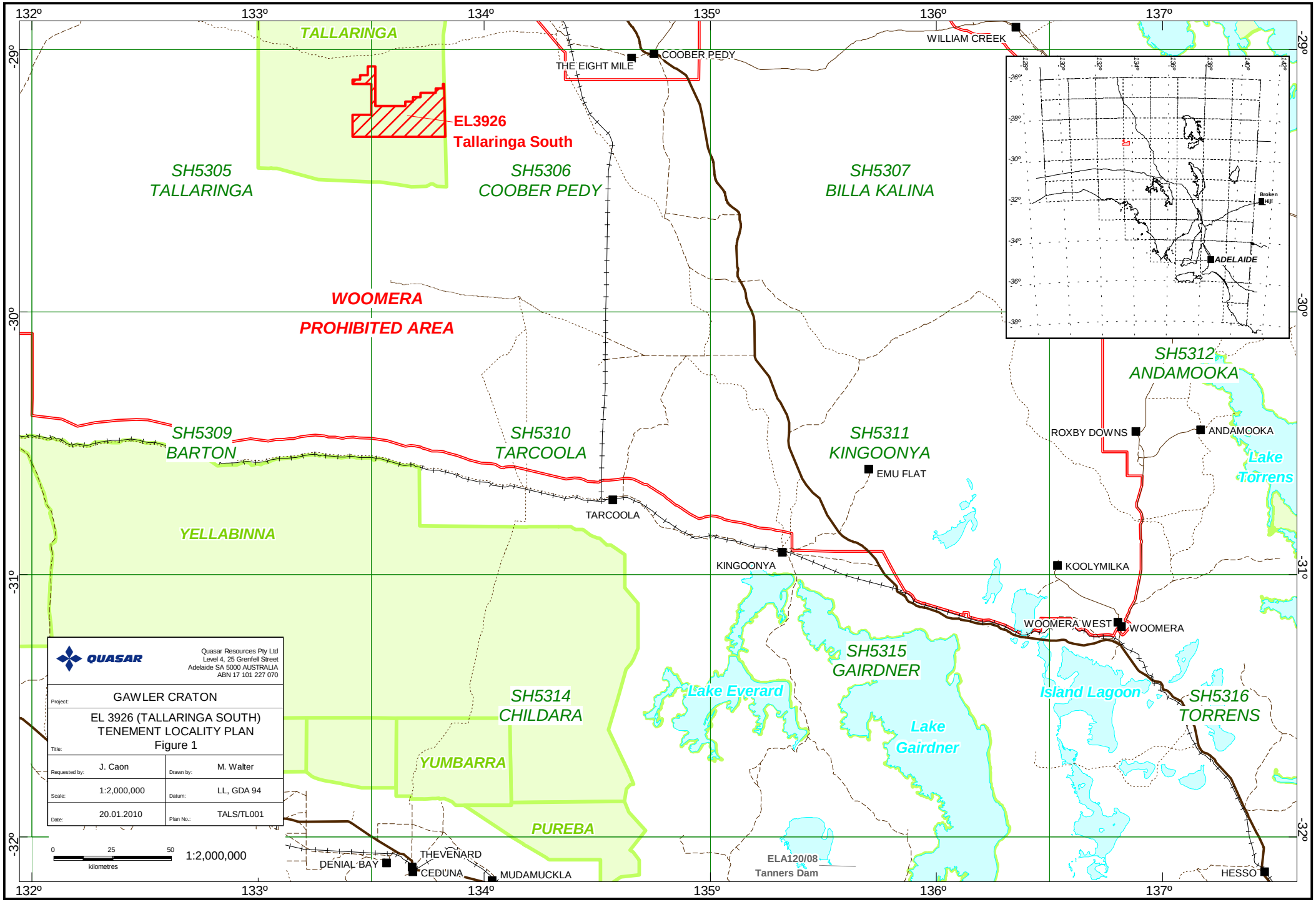
5 EXPENDITURE

EL 3926 Tallaringa South Expenditure
1 October 2009 – 31 July 2010

	$
Exploration HO - Cost Alloc	461.04
Management Fee	1,166.01
Manpower	3,779.97
Rents	5,025.70
Office Support	450.00
Total	$10,882.72

6 REFERENCES

Barnes, J., 2008 Annual Technical Report 10 September 2007 – 9 September 2008
Hewett, A., 2009 Annual Technical Report 10 September 2008 – 9 September 2009


132º
133º
134º
135º
136º
137º
-29º
-30º
-31º
-32º
TALLARINGA
EL3926
Tallaringa South
SH5305
TALLARINGA
SH5306
COOBER PEDY
SH5307
BILLA KALINA
THE EIGHT MILE
COOBER PEDY
WILLIAM CREEK
WOOMERA
PROHIBITED AREA
SH5312
ANDAMOOKA
SH5309
BARTON
SH5310
TARCOOLA
SH5311
KINGOONYA
ROXBY DOWNS
ANDAMOOKA
Lake
Torrens
EMU FLAT
TARCOOLA
YELLABINNA
KINGOONYA
KOOLYMILKA
WOOMERA WEST
WOOMERA
SH5315
GAIRDNER
Lake Everard
Island Lagoon
SH5316
TORRENS
Lake
Gairdner
SH5314
CHILDARA
YUMBARRA
PUREBA
DENIAL BAY
THEVENARD
CEDUNA
MUDAMUCKLA
ELA120/08
Tanners Dam
HESSO
ADELAIDE
Broken Hill
QUASAR
Quasar Resources Pty Ltd
Level 4, 25 Grenfell Street
Adelaide SA 5000 AUSTRALIA
ABN 17 101 227 070
Project: GAWLER CRATON
Title: EL 3926 (TALLARINGA SOUTH) TENEMENT LOCALITY PLAN
Figure 1
Requested by: J. Caon
Drawn by: M. Walter
Scale: 1:2,000,000
Datum: LL, GDA 94
Date: 20.01.2010
Plan No.: TALS/TL001
0 25 50
kilometres
1:2,000,000

HEATHGATE

TALLARINGA SOUTH

EL 3926

ANNUAL TECHNICAL REPORT

10 September 2010 – 9 September 2011

Quasar Resources Pty Ltd (100%)

Author: Barnes, J
Date: 2 November 2011
Distribution: Quasar Resources (1)
PIRSA (1) electronic
CR: 00523

Submitted By:

Approved By:

TALLARINGA SOUTH

EL 3926

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Submitted By:

Approved By:

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2.1 Regional Geology 5
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1:100,000 Map Sheet	Yerada 5639 Tallaringa 5539
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The tenement is located on the TALLARINGA 1:250,000 Map Sheet and is within the bounds of the Woomera Prohibited Area, 50-100km northwest of the Challenger Gold Mine in one of the most remote areas of the Gawler Craton.

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2 GEOLOGY

2.1 Regional Geology

The exploration licence is located over ground that forms part of the Northern Gawler Craton. The Gawler Craton is a stable crystalline basement province comprising Archaean to Meso-Proterozoic rocks obscured by Neo-Proterozoic to Cainozoic age sedimentary strata.

The area is interpreted to comprise of felsic and mafic gneisses, banded iron formations, metasediments, granites and metavolcanics. The rocks have undergone intense deformation and metamorphism during the Kimban Orogeny (1800 – 1700Ma) when granitoids were emplaced and major mylonitic zones developed. Further acid volcanic sheets and granite emplacement (1590 Ma) are thought to be associated with Cu-Au-U mineralisation. This event may be associated with orogenic collapse of the Craton.

Whilst no known uranium deposits exist within the vicinity, the tenement is considered to have the necessary tectono-stratigraphic history required to make it prospective for both sedimentary and hard rock uranium. The suitability of the underlying basement to act as a source of uranium is the main issue affecting prospectivity of sedimentary uranium mineralisation on the tenement.

The Tallaringa South tenement lies west of the Tallaringa Palaeochannel system. This palaeochannel system drains into the Tallaringa Trough, a prominent structure bound to the south by the arcuate, crustal scale Karari Fault. Within the Tallaringa Trough, Tertiary and older sediments infill what is essentially a downfaulted half-graben and are juxtaposed against the Mulgathing Complex. Unlike Tarcoola (EL3483) outcrop of potential source rocks (Mulgathing Complex) is confined to the southern side of the Karari Fault.

Post-Tertiary basin inversion has acted to exhume the southern portion of the Tallaringa Trough. Together this has resulted in the widespread exposure and erosion of the sedimentary succession with prospective units now occurring at shallow depths throughout the tenement.

3 WOOMERA PROHIBITED AREA

This exploration licence is situated on the Woomera Prohibited Area (WPA) a Deed of Access was signed by both parties in 2008 to allow exploration, this is renewed each year. During 2009 WPA placed a "no-go zone" over the top northern portion of the licence area. In 2010 WPA changed the procedures for obtaining a Deed of Access, a new application was lodged with them and we were eventually granted a new Deed of Access in February 2011.

4 TALLARINGA CONSERVATION PARK

This exploration licence is situated in the Tallaringa Conservation Park which covers an area of 1,246,000 hectares and is located 100 kilometres due west of Coober Pedy. This conservation park lies on the fringe of the Great Victoria Desert and is dominated by vegetated dunes and gibber rises.

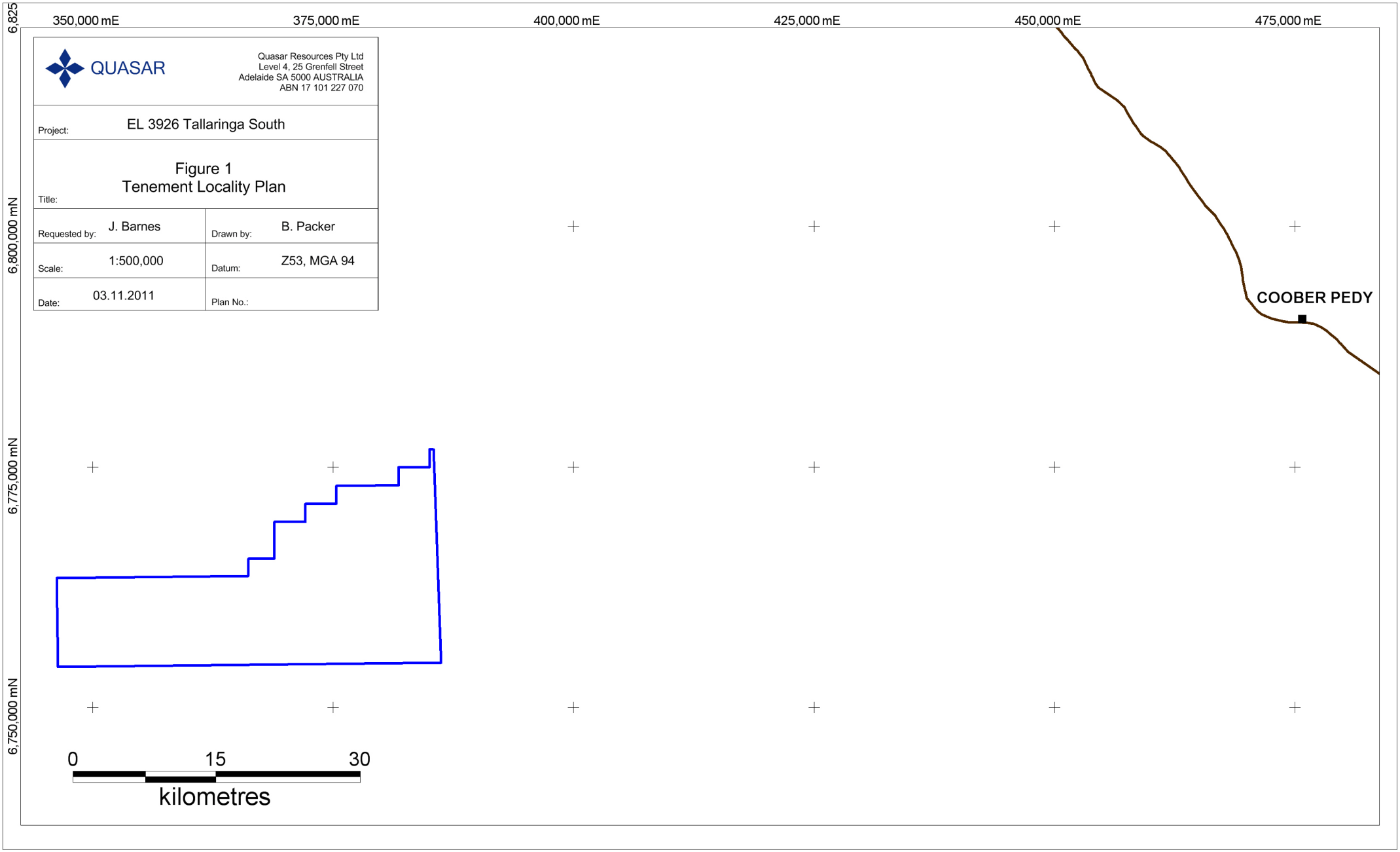
5 EXPENDITURE

EL 3926 Tallaringa South Expenditure
1 October 2010 – 30 September 2011

	$
Exploration HO - Cost Alloc	1,032.58
Management Fee	190.28
Manpower	553.09
	$1,775.95

6 REFERENCES

Barnes, J., 2008 Annual Technical Report 10 September 2007 – 9 September 2008
Hewett, A., 2009 Annual Technical Report 10 September 2008 – 9 September 2009
Barnes, J., 2010 Annual Technical Report 10 September 2009 – 9 September 2010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375,000 mE
400,000 mE
425,000 mE
450,000 mE
475,000 mE
6,825
6,800,000 mN
6,775,000 mN
6,750,000 mN
QUASAR
Quasar Resources Pty Ltd
Level 4, 25 Grenfell Street
Adelaide SA 5000 AUSTRALIA
ABN 17 101 227 070
Project: EL 3926 Tallaringa South
Figure 1
Tenement Locality Plan
Title:
Requested by: J. Barnes
Drawn by: B. Packer
Scale: 1:500,000
Datum: Z53, MGA 94
Date: 03.11.2011
Plan No.:
COOBER PEDY
0
15
30
kilometres

HEATHGATE

TALLARINGA SOUTH

EL 3926

ANNUAL TECHNICAL REPORT

10 September 2011 – 9 September 2012

Quasar Resources Pty Ltd (100%)

Author: Barnes, J
Date: 12 October 2012
Distribution: Quasar Resources (1)
PIRSA (1) electronic
CR: 00576

Submitted By:

Approved By:

TALLARINGA SOUTH

EL 3926

ANNUAL TECHNICAL REPORT

10 September 2011 – 9 September 2012

Quasar Resources Pty Ltd (100%)

Author: Barnes, J
Date: 12 October 2012
Distribution: Quasar Resources (1)
PIRSA (1) electronic
CR: 00576

Submitted By:

Approved By:

Contents

BIBLIOGRAPHIC DATA SHEET **3**
SUMMARY **4**
1 INTRODUCTION **5**
1.1 Location and Access 5
1.2 Historical Exploration Activity 5
2 GEOLOGY **6**
2.1 Regional Geology and Exploration Rationale 6
3 WOOMERA PROHIBITED AREA **6**
4 TALLARINGA CONSERVATION PARK **7**
5 EXPENDITURE **7**
6 REFERENCES **7**

LIST OF FIGURES

Figure 1 Tenement Location Plan of EL 3926

BIBLIOGRAPHIC DATA SHEET

REPORT TITLE	Tallaringa South Project, Exploration Licence 3926 Annual Technical Report for the period 10 September 2011 – 9 September 2012
PROSPECT NAME	Tallaringa South
TENEMENT NUMBER(s)	EL 3926
OWNER/JV PARTNERS	Quasar Resources Pty Ltd (100%)
COMMODITIES	Uranium, Copper, Gold
TECTONIC UNITS	Karari Fault Zone, North Gawler Craton
STRATIGRAPHIC UNITS	Mulgathing Complex
1:250,000 Map Sheet	Tallaringa (SH 53-05) Coober Pedy (SH 53-06)
1:100,000 Map Sheet	Yerada 5639 Tallaringa 5539
KEYWORDS	Tallaringa South (EL 3926), sedimentary uranium, Karari Fault Zone, North Gawler Craton

SUMMARY

The Tallaringa South Exploration Licence (EL 3926) is situated in the Tallaringa Conservation Park on the Gawler Craton (Figure 1) and is wholly held by Quasar Resources Pty Ltd.

There was no work carried out in the licence for the period 10 September 2011 – 09 September 2012.

1 INTRODUCTION

1.1 Location and Access

Exploration Licence 3926 covers an area of 519km² and is located approximately 120km west-northwest of Coober Pedy and the sealed Stuart Highway. The Tarcoola to Darwin railway line is located approximately 100km east of the licence area.

The tenement is located on the TALLARINGA 1:250,000 Map Sheet and is within the bounds of the Woomera Prohibited Area. The Challenger Gold Mine is located approximately 60km to the south.

Access is via either the Stuart Highway to Glendambo and then onwards to the Challenger Mine Site or alternatively via the Stuart Highway to Coober Pedy and then westwards along station tracks and the Anne Beadell Highway to South Tallaringa.

1.2 Historical Exploration Activity

Exploration in the area of the tenement has predominantly focused on discovery of economic gold and base metal mineralisation and to a lesser extent lignite/coal and sedimentary hosted uranium. More recently exploration has concentrated on iron-oxide-copper-gold±uranium (IOCG-U) type deposits.

Exploration Licence (EL) 818 was granted to Gulf Resources/Cocks Eldorado NL in 1981 to explore for coal/lignite within sediments of the Wallira Trough of the Arckaringa Basin. Drilling intersected thin lignite seams only and analysis of drill cuttings for sedimentary gold and uranium returned negative results with the tenement subsequently surrendered.

CRA Exploration (CRAE) was granted EL 1323 in April 1986 to explore for Olympic Dam style mineralisation, iron ore and diamonds. CRAE undertook airborne magnetic and radiometric surveys, ground surveys including gravity, magnetic and Sirotem and completed 20 percussion holes to test defined targets. Results downgraded the potential for significant metallic mineralisation or kimberlitic lithologies and the tenement was surrendered.

BHP Minerals was granted EL 1718 in 1991 as part of a larger tenement package to explore for Pb-Zn-Ag and Cu-Au mineralisation in Lower Proterozoic rocks of the Coober Pedy Ridge area. Exploration undertaken included aeromagnetic interpretation, depth to basement studies, ground magnetic surveys and geochemical analysis of basement samples. Three RC percussion holes were drilled within EL 1718, with two intersecting quartz-magnetite and BIF, however results indicated low prospectivity for target mineralisation and the tenement was relinquished.

In November 1995 EL 2123 was granted to Normandy Exploration to cover interpreted Proterozoic and Archaean rocks considered prospective for iron-skarn associated Cu-Au and Au mineralisation. Limited exploration downgraded the potential of the area and it was relinquished in 1998.

Anglo American Exploration was granted EL 2880 in January 2002 with the tenement area considered prospective for Proterozoic IOCG-U and Broken Hill Type mineralisation and for intrusive related nickel deposits. Exploration undertaken significantly downgraded the potential of the area for hematite rich IOCG mineralisation and although further exploration defined a number of targets the EL was relinquished.

2 GEOLOGY

2.1 Regional Geology and Exploration Rationale

The exploration licence is located over ground that forms part of the Northern Gawler Craton. The Gawler Craton is a stable crystalline basement province comprising Archaean to Meso-Proterozoic rocks obscured by Neo-Proterozoic to Cainozoic age sedimentary strata.

Basement lithologies within the area are interpreted to be felsic and mafic gneisses, banded iron formations, metasediments, granites and metavolcanics. The rocks have undergone intense deformation and metamorphism during the Kimban Orogeny (1800 – 1700Ma) when granitoids were emplaced and major mylonitic zones developed. Further acid volcanic sheets and granite emplacement (1590 Ma) are thought to be associated with Cu-Au-U mineralisation. This event may be associated with orogenic collapse of the Craton.

Whilst no known uranium deposits exist within the vicinity, the tenement is considered to have the necessary tectono-stratigraphic history required to make it prospective for both sedimentary and hard rock uranium mineralisation.

The Tallaringa South tenement lies west of the Tallaringa Palaeochannel system. This palaeochannel system drains into the Tallaringa Trough, a prominent structure bound to the south by the arcuate, crustal scale Karari Fault. Within the Tallaringa Trough, Tertiary and older sediments infill what is essentially a downfaulted half-graben and are juxtaposed against the Mulgathing Complex. Unlike Tarcoola (EL3483) outcrop of potential source rocks (Mulgathing Complex) is confined to the southern side of the Karari Fault.

Post-Tertiary basin inversion has acted to exhume the southern portion of the Tallaringa Trough. Together this has resulted in the widespread exposure and erosion of the sedimentary succession with prospective units now occurring at shallow depths throughout the tenement.

3 WOOMERA PROHIBITED AREA

This exploration licence is situated on the Woomera Prohibited Area (WPA) a Deed of Access was signed by both parties in 2008 to allow exploration, this is renewed each year. During 2009 WPA placed a “no-go zone” over the top northern portion of the licence area. In 2010 WPA changed the procedures for obtaining a Deed of Access, a new application was lodged with the Department of Defence and we were eventually granted a new Deed of Access in February 2011. These Deeds are only granted for a period of 6 months at a time the current Deed covering this licence expires on 15 October

2012. During the past 12 months the Defence Department has placed "exclusions periods" on these areas where no access is permitted.

4 TALLARINGA CONSERVATION PARK

This exploration licence is situated in the Tallaringa Conservation Park which covers an area of 1,246,000 hectares and is located 100 kilometres due west of Coober Pedy. This conservation park lies on the fringe of the Great Victoria Desert and is dominated by vegetated dunes and gibber rises.

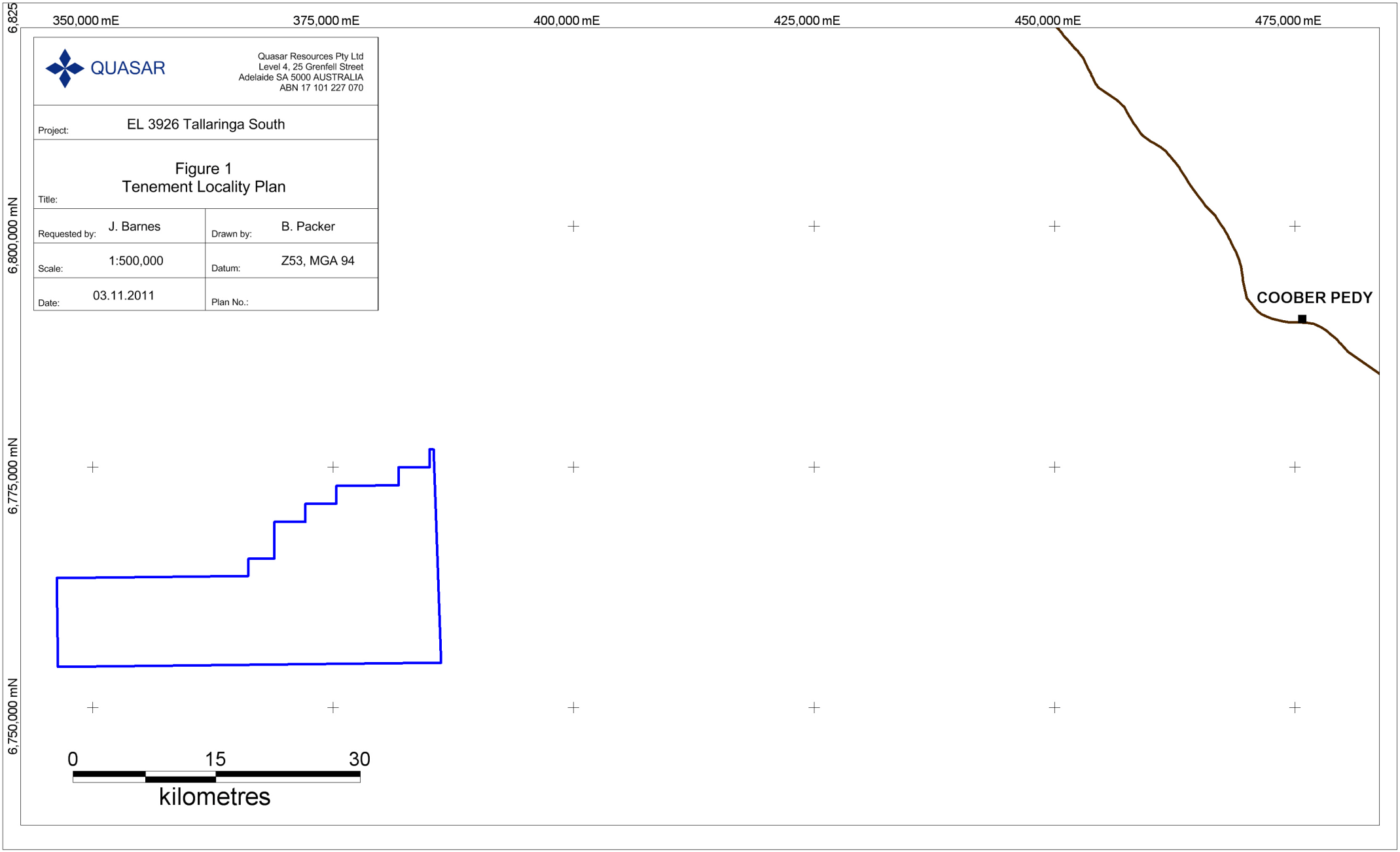
5 EXPENDITURE

Expenditure on Exploration Licence 3926 Tallaringa South for
the period 1 October 2011 - 30 September 2012

	$
Geology - Cost Alloc	102.02
Management Fee	669.20
Manpower	425.05
Rents	5,049.55
	$6,245.82

6 REFERENCES

Barnes, J., 2008 Annual Technical Report 10 September 2007 – 9 September 2008
Hewett, A., 2009 Annual Technical Report 10 September 2008 – 9 September 2009
Barnes, J., 2010 Annual Technical Report 10 September 2009 – 9 September 2010
Barnes, J., 2011 Annual Technical Report 10 September 2010 – 9 September 2011


350,000 mE
375,000 mE
400,000 mE
425,000 mE
450,000 mE
475,000 mE
6,825
6,800,000 mN
6,775,000 mN
6,750,000 mN
QUASAR
Quasar Resources Pty Ltd
Level 4, 25 Grenfell Street
Adelaide SA 5000 AUSTRALIA
ABN 17 101 227 070
Project: EL 3926 Tallaringa South
Figure 1
Tenement Locality Plan
Title:
Requested by: J. Barnes
Drawn by: B. Packer
Scale: 1:500,000
Datum: Z53, MGA 94
Date: 03.11.2011
Plan No.:
COOBER PEDY
0
15
30
kilometres

HEATHGATE

TALLARINGA SOUTH

EL 5207

ANNUAL TECHNICAL REPORT

10 September 2012 – 9 September 2013

Quasar Resources Pty Ltd (100%)

Author: Barnes, J
Date: 7 November 2013
Distribution: Quasar Resources (1)
PIRSA (1) electronic
CR:00613

Submitted By:

Contents

BIBLIOGRAPHIC DATA SHEET **3**
SUMMARY **4**
1 INTRODUCTION **5**
1.1 Location and Access 5
1.2 Historical Exploration Activity 5
2 GEOLOGY **6**
2.1 Regional Geology and Exploration Rationale 6
3 WOOMERA PROHIBITED AREA **6**
4 TALLARINGA CONSERVATION PARK **7**
5 EXPENDITURE **7**
6 REFERENCES **7**

LIST OF FIGURES

Figure 1 Tenement Location Plan of EL 5207

BIBLIOGRAPHIC DATA SHEET

REPORT TITLE	Tallaringa South Project, Exploration Licence 5207 Annual Technical Report for the period 10 September 2012 – 9 September 2013
PROSPECT NAME	Tallaringa South
TENEMENT NUMBER(s)	EL 5207
OWNER/JV PARTNERS	Quasar Resources Pty Ltd (100%)
COMMODITIES	Uranium, Copper, Gold
TECTONIC UNITS	Karari Fault Zone, North Gawler Craton
STRATIGRAPHIC UNITS	Mulgathing Complex
1:250,000 Map Sheet	Tallaringa (SH 53-05) Coober Pedy (SH 53-06)
1:100,000 Map Sheet	Yerada 5639 Tallaringa 5539
KEYWORDS	Tallaringa South (EL 5207), sedimentary uranium, Karari Fault Zone, North Gawler Craton

SUMMARY

The Tallaringa South Exploration Licence (EL 5207 is situated in the Tallaringa Conservation Park on the Gawler Craton (Figure 1) and is wholly held by Quasar Resources Pty Ltd.

There was no fieldwork carried out in the licence for the period 10 September 2012 – 09 September 2013.

1 INTRODUCTION

1.1 Location and Access

Exploration Licence 5207 covers an area of 519km² and is located approximately 120km west-northwest of Coober Pedy and the sealed Stuart Highway. The Tarcoola to Darwin railway line is located approximately 100km east of the licence area.

The tenement is located on the TALLARINGA 1:250,000 Map Sheet and is within the bounds of the Woomera Prohibited Area. The Challenger Gold Mine is located approximately 60km to the south.

Access is via either the Stuart Highway to Glendambo and then onwards to the Challenger Mine Site or alternatively via the Stuart Highway to Coober Pedy and then westwards along station tracks and the Anne Beadell Highway to South Tallaringa.

1.2 Historical Exploration Activity

Exploration in the area of the tenement has predominantly focused on discovery of economic gold and base metal mineralisation and to a lesser extent lignite/coal and sedimentary hosted uranium. More recently exploration has concentrated on iron-oxide-copper-gold±uranium (IOCG-U) type deposits.

Exploration Licence (EL) 818 was granted to Gulf Resources/Cocks Eldorado NL in 1981 to explore for coal/lignite within sediments of the Wallira Trough of the Arckaringa Basin. Drilling intersected thin lignite seams only and analysis of drill cuttings for sedimentary gold and uranium returned negative results with the tenement subsequently surrendered.

CRA Exploration (CRAE) was granted EL 1323 in April 1986 to explore for Olympic Dam style mineralisation, iron ore and diamonds. CRAE undertook airborne magnetic and radiometric surveys, ground surveys including gravity, magnetic and Sirotem and completed 20 percussion holes to test defined targets. Results downgraded the potential for significant metallic mineralisation or kimberlitic lithologies and the tenement was surrendered.

BHP Minerals was granted EL 1718 in 1991 as part of a larger tenement package to explore for Pb-Zn-Ag and Cu-Au mineralisation in Lower Proterozoic rocks of the Coober Pedy Ridge area. Exploration undertaken included aeromagnetic interpretation, depth to basement studies, ground magnetic surveys and geochemical analysis of basement samples. Three RC percussion holes were drilled within EL 1718, with two intersecting quartz-magnetite and BIF, however results indicated low prospectivity for target mineralisation and the tenement was relinquished.

In November 1995 EL 2123 was granted to Normandy Exploration to cover interpreted Proterozoic and Archaean rocks considered prospective for iron-skarn associated Cu-Au and Au mineralisation. Limited exploration downgraded the potential of the area and it was relinquished in 1998.

Anglo American Exploration was granted EL 2880 in January 2002 with the tenement area considered prospective for Proterozoic IOCG-U and Broken Hill Type mineralisation and for intrusive related nickel deposits. Exploration undertaken significantly downgraded the potential of the area for hematite rich IOCG mineralisation and although further exploration defined a number of targets the EL was relinquished.

2 GEOLOGY

2.1 Regional Geology and Exploration Rationale

The exploration licence is located over ground that forms part of the Northern Gawler Craton. The Gawler Craton is a stable crystalline basement province comprising Archaean to Meso-Proterozoic rocks obscured by Neo-Proterozoic to Cainozoic age sedimentary strata.

Basement lithologies within the area are interpreted to be felsic and mafic gneisses, banded iron formations, metasediments, granites and metavolcanics. The rocks have undergone intense deformation and metamorphism during the Kimban Orogeny (1800 – 1700Ma) when granitoids were emplaced and major mylonitic zones developed. Further acid volcanic sheets and granite emplacement (1590 Ma) are thought to be associated with Cu-Au-U mineralisation. This event may be associated with orogenic collapse of the Craton.

Whilst no known uranium deposits exist within the vicinity, the tenement is considered to have the necessary tectono-stratigraphic history required to make it prospective for both sedimentary and hard rock uranium mineralisation.

The Tallaringa South tenement lies west of the Tallaringa Palaeochannel system. This palaeochannel system drains into the Tallaringa Trough, a prominent structure bound to the south by the arcuate, crustal scale Karari Fault. Within the Tallaringa Trough, Tertiary and older sediments infill what is essentially a downfaulted half-graben and are juxtaposed against the Mulgathing Complex. Unlike Tarcoola (EL3483) outcrop of potential source rocks (Mulgathing Complex) is confined to the southern side of the Karari Fault.

Post-Tertiary basin inversion has acted to exhume the southern portion of the Tallaringa Trough. Together this has resulted in the widespread exposure and erosion of the sedimentary succession with prospective units now occurring at shallow depths throughout the tenement.

3 WOOMERA PROHIBITED AREA

This exploration licence is situated on the Woomera Prohibited Area (WPA) a Deed of Access was signed by both parties in 2008 to allow exploration, this is renewed each year. During 2009 WPA placed a “no-go zone” over the top northern portion of the licence area. In 2010 WPA changed the procedures for obtaining a Deed of Access, a new application was lodged with the Department of Defence and we were eventually granted a new Deed of Access in February 2011. New Deeds were granted in January 2013 and these last for 5 years from the date of the Deed or if the licence is relinquished

then the Deed will cease to operate. During the past 2 years the Defence Department has placed “exclusions periods” on these areas where no access is permitted.

4 TALLARINGA CONSERVATION PARK

This exploration licence is situated in the Tallaringa Conservation Park which covers an area of 1,246,000 hectares and is located 100 kilometres due west of Coober Pedy. This conservation park lies on the fringe of the Great Victoria Desert and is dominated by vegetated dunes and gibber rises.

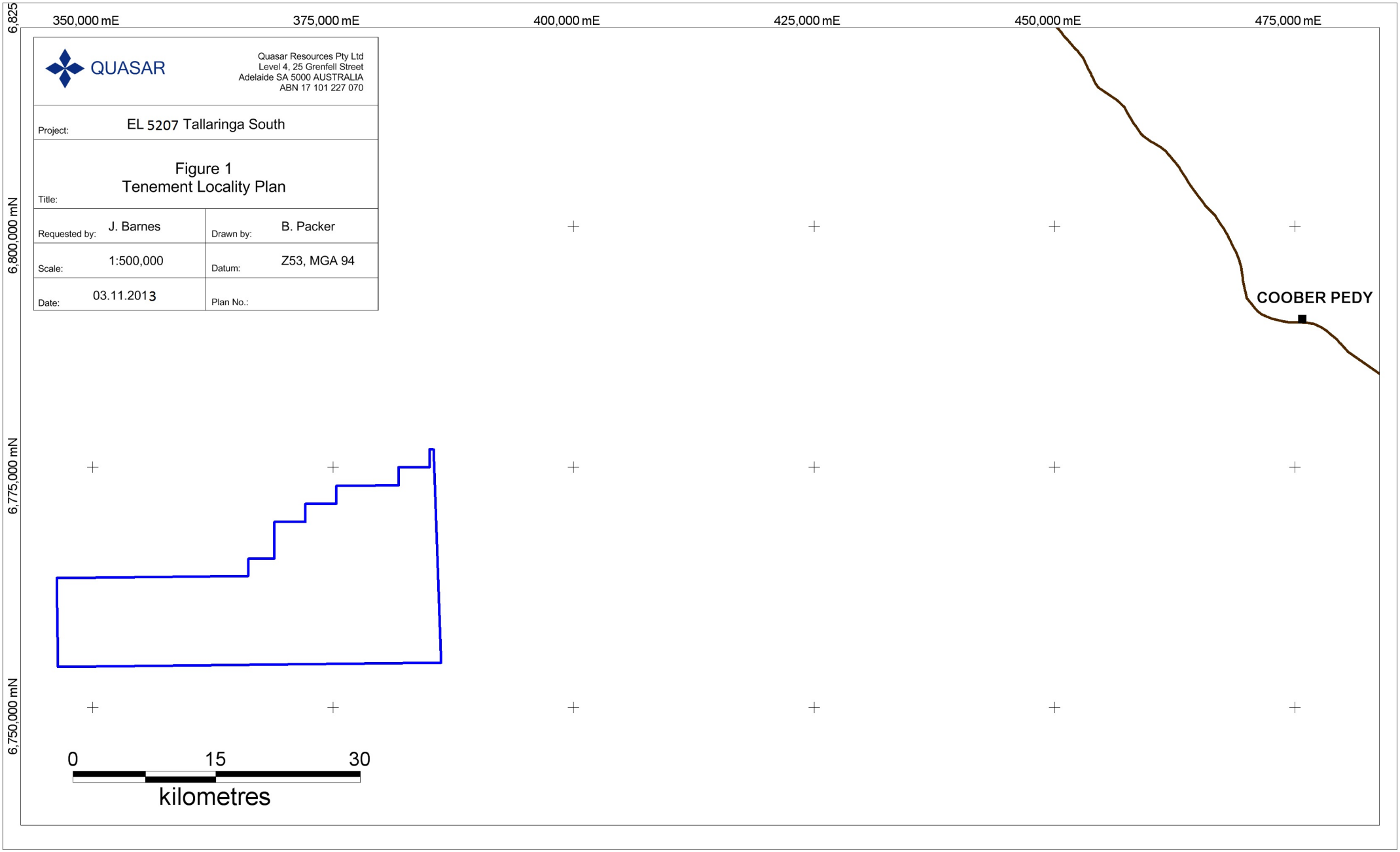
5 EXPENDITURE

Expenditure for exploration licence 5207 Tallaringa South
for the period 1 October 2012 - 30 September 2013

	$
Geology - Cost Alloc	75.79
Management Fee	1,477.23
Manpower	520.35
Rents	11,714.10
	$13,787.47

6 REFERENCES

Barnes, J., 2008 Annual Technical Report 10 September 2007 – 9 September 2008
Hewett, A., 2009 Annual Technical Report 10 September 2008 – 9 September 2009
Barnes, J., 2010 Annual Technical Report 10 September 2009 – 9 September 2010
Barnes, J., 2011 Annual Technical Report 10 September 2010 – 9 September 2011
Barnes, J., 2012 Annual Technical Report 10 September 2011 – 9 September 2012


350,000 mE
375,000 mE
400,000 mE
425,000 mE
450,000 mE
475,000 mE
6,825
6,800,000 mN
6,775,000 mN
6,750,000 mN
QUASAR
Quasar Resources Pty Ltd
Level 4, 25 Grenfell Street
Adelaide SA 5000 AUSTRALIA
ABN 17 101 227 070
Project: EL 5207 Tallaringa South
Figure 1
Tenement Locality Plan
Title:
Requested by: J. Barnes
Drawn by: B. Packer
Scale: 1:500,000
Datum: Z53, MGA 94
Date: 03.11.2013
Plan No.:
COOBER PEDY
0
15
30
kilometres

TALLARINGA SOUTH

EL 5207

RELINQUISHMENT REPORT

10 September 2007 – 20 June 2014

Quasar Resources Pty Ltd (100%)

Submitted By:

Approved By:

Author: Joy Barnes
Date: 21 July 2014
Report No: CR00632
Distribution: DSD (1) electronic

TALLARINGA SOUTH

EL 5207

FINAL RELINQUISHMENT REPORT

10 September 2007 – 20 June 2014

Quasar Resources Pty Ltd (100%)

Submitted By:

Approved By:

Author: Joy Barnes
Date: 21 July 2014
Report No: CR00632
Distribution: DSD (1) electronic

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CONTENTS

BIBLIOGRAPHIC DATA SHEET 3
SUMMARY 4
1. INTRODUCTION 5
2. LOCATION AND ACCESS 5
3. HISTORY AND EXPLORATION RATIONALE 5
4. GEOLOGY 6
5. WORK HISTORY 7
2007 – 2008 7
2008 – 2009 7
2009 – 2010 8
2010 – 2011 9
2011 – 2012 9
2012 – 2013 9
2013 – 2014 10
6. WORK HISTORY 10

LIST OF FIGURES

Figure 1 Tenement Location Plan of EL 3926
Figure 2 Locality Plan of EL 3926
Figure 3 Total Magnetic Intensity Image
Figure 4 Total Magnetic Intensity First Vertical Derivative Image
Figure 5 Total Count Radiometric Image
Figure 6 Radiometric Ternary Image
Figure 7 Digital Elevation Model Image
Figure 8 Woomera Prohibited Area “No-go” zone
Figure 9 Locality Plan of EL 5207 reduced area

APPENDICIES

Appendix 1 Grid Files
Appendix 2 Located Data Files
Appendix 3 Logistic Report

Appendix 1 and 2 - See Government of South Australia Mineral Resources Website

BIBLIOGRAPHIC DATA SHEET

REPORT TITLE	Tallaringa South Project, Exploration Licence 3926 and 5207 Final Relinquishment Report for the period 10 September 2007 – 5 May 2014
PROSPECT NAME	Tallaringa South
TENEMENT NUMBER(s)	EL 3926 and EL 5207
OWNER/JV PARTNERS	Quasar Resources Pty Ltd (100%)
COMMODITIES	Uranium, Copper, Gold
TECTONIC UNITS	Karari Fault Zone, North Gawler Craton
STRATIGRAPHIC UNITS	Mulgathing Complex
1:250,000 Map Sheet	Tallaringa (SH 53-05) Coober Pedy (SH 53-06)
1:100,000 Map Sheet	Yerada 5639 Tallaringa 5539
KEYWORDS	Tallaringa South, sedimentary Uranium, Karari Fault Zone, North Gawler Craton

SUMMARY

The Tallaringa South Exploration Licence (EL 3926 and EL 5207) is situated in the Tallaringa Conservation Park on the Gawler Craton (Figure 1) and is wholly held by Quasar Resources Pty Ltd.

During the period 2007 to 2014 two Native Title Clearances were conducted, signing of an ILUA with the Antakirinja Native Title Group and an 8,743km airborne magnetic and radiometric survey was conducted over this licence and the surrounding licences. Discussions with the Department of Defence with regards to obtaining a Deed of Exploration (Access) for the Woomera Prohibited Area.

1. INTRODUCTION

The Tallaringa South Exploration Licence EL 3926 and then EL 5207 is situated in the Tallaringa Conservation Park on the Gawler Craton (Figure 2) and is wholly held by Quasar Resources Pty Ltd.

2. LOCATION AND ACCESS

Exploration Licence 3926 covers an area of 623km² and is approximately 120 kms west-northwest of Coober Pedy and the sealed Stuart Highway. The Tarcoola to Darwin railway line is located approximately 100kms east of the licence area. This licence was granted on 10 September 2007 for a period of 5 years.

The tenement is located on the TALLARINGA 1:250,000 Map Sheet and is within the bounds of the Woomera Prohibited Area. The Challenger Gold Mine is located approximately 60km to the south.

Access is via either the Stuart Highway to Glendambo and then onwards to the Challenger Mine Site or alternatively via the Stuart Highway to Coober Pedy and then westwards along station tracks and the Anne Beadell Highway to South Tallaringa.

In 2010 an area of 104km^2 was relinquished which reduced the licence to 519km^2.

In 2012 a subsequent exploration licence application was lodged with DMITRE and on the 10 September 2012 it was granted as Exploration Licence 5207 and covers an area of 519km^2.

In May 2014 it was decided to relinquish this licence in full.

3. HISTORY AND EXPLORATION RATIONALE

Exploration in the area of the tenement has predominantly focused on discovery of economic gold and base metal mineralisation and to a lesser extent lignite/coal and sedimentary hosted uranium. More recently exploration has concentrated on iron-oxide-copper-gold±uranium (IOCG-U) type deposits.

Exploration Licence (EL) 818 was granted to Gulf Resources/Cocks Eldorado NL in 1981 to explore for coal/lignite within sediments of the Wallira Trough of the Arckaringa Basin. Drilling intersected thin lignite seams only and analysis of drill cuttings for sedimentary gold and uranium returned negative results with the tenement subsequently surrendered.

CRA Exploration (CRAE) was granted EL 1323 in April 1986 to explore for Olympic Dam style mineralisation, iron ore and diamonds. CRAE undertook airborne magnetic and radiometric surveys, ground surveys including gravity, magnetic and Sirotem and completed 20 percussion holes to test defined targets. Results downgraded the potential for significant metallic mineralisation or kimberlitic lithologies and the tenement was surrendered.

BHP Minerals was granted EL 1718 in 1991 as part of a larger tenement package to explore for Pb-Zn-Ag and Cu-Au mineralisation in Lower Proterozoic rocks of the Coober Pedy Ridge area. Exploration undertaken included aeromagnetic interpretation, depth to basement studies, ground magnetic surveys and geochemical analysis of basement

samples. Three RC percussion holes were drilled within EL 1718, with two intersecting quartz-magnetite and BIF, however results indicated low prospectivity for target mineralisation and the tenement was relinquished.

Goldsearch NL was granted Exploration Licence 2212 in October 1996 for gold and basemetal exploration, it surrendered the tenement in December 2001.

In November 1995 EL 2123 was granted to Normandy Exploration to cover interpreted Proterozoic and Archaean rocks considered prospective for iron-skarn associated Cu-Au and Au mineralisation. Limited exploration downgraded the potential of the area and it was relinquished in 1998.

Anglo American Exploration was granted EL 2880 in January 2002 with the tenement area considered prospective for Proterozoic IOCG-U and Broken Hill Type mineralisation and for intrusive related nickel deposits. Exploration undertaken significantly downgraded the potential of the area for hematite rich IOCG mineralisation and although further exploration defined a number of targets the EL was relinquished.

4. GEOLOGY

The exploration licence is located over ground that forms part of the Northern Gawler Craton. The Gawler Craton is a stable crystalline basement province comprising Archaean to Meso-Proterozoic rocks obscured by Neo-Proterozoic to Cainozoic age sedimentary strata.

Basement lithologies within the area are interpreted to be felsic and mafic gneisses, banded iron formations, metasediments, granites and metavolcanics. The rocks have undergone intense deformation and metamorphism during the Kimban Orogeny (1800 – 1700Ma) when granitoids were emplaced and major mylonitic zones developed. Further acid volcanic sheets and granite emplacement (1590 Ma) are thought to be associated with Cu-Au-U mineralisation. This event may be associated with orogenic collapse of the Craton.

Whilst no known uranium deposits exist within the vicinity, the tenement is considered to have the necessary tectono-stratigraphic history required to make it prospective for both sedimentary and hard rock uranium mineralisation.

The Tallaringa South tenement lies west of the Tallaringa Palaeochannel system. This palaeochannel system drains into the Tallaringa Trough, a prominent structure bound to the south by the arcuate, crustal scale Karari Fault. Within the Tallaringa Trough, Tertiary and older sediments infill what is essentially a downfaulted half-graben and are juxtaposed against the Mulgathing Complex. Unlike Tarcoola (EL3483) outcrop of potential source rocks (Mulgathing Complex) is confined to the southern side of the Karari Fault.

Post-Tertiary basin inversion has acted to exhume the southern portion of the Tallaringa Trough. Together this has resulted in the widespread exposure and erosion of the sedimentary succession with prospective units now occurring at shallow depths throughout the tenement.

5. WORK HISTORY

2007 – 2008

NATIVE TITLE

Quasar signed an ILUA for exploration purposes with the Antakirinja Native Title Claimants. Heritage Survey Clearances were requested for a soil geochem program.

WOOMERA PROHIBITED AREA

Lengthy discussions were held with the Department of Defence with regards to the Woomera Prohibited Area. A "no go" zone has been put in place over a large portion of the exploration licence which is restricting our planned work program. Deeds for Exploration were granted for 12 months with a right to renew.

DECLARATION OF ENVIRONMENTAL FACTORS

As the licence is located in a Conservation Park a Declaration of Environmental Factors (DEF) was required to be lodged with the Department of Primary Industries and Resources (PIRSA) this was lodged with PIRSA in July 2008.

2008 – 2009

GEOPHYSICS **(Data - See Government of South Australia Mineral Resources Website)**

A detailed, low level airborne geophysical survey was carried out by UTS Geophysics between the 25 November 2008 and 1 January 2009. Magnetic and 256 channel radiometric data were collected with the following specifications;

Line Spacing	100m
Line Direction	000 – 180 degrees
Tie Line Spacing	1,000m
Tie Line Direction	090 – 270 degrees
Nominal Sensor Height	50m
Total Line km	8,743km

A Summary of equipment specifications used for the survey is shown below;

Aircraft	Fixed wing FU24-950, registration: VH-UTR
GPS	Novatel, 2Hz sample rate
Navigation & Data Recording	UTS proprietary systems
Altitude – Radar	Bendix/King KRA-405 Radar Altimeter, 10Hz sample rate
Altitude – Barometric resolution	Air DB, 10Hz sample rate, 0.01mb
Magnetometer	Stinger mounted, Caesium Vapour Magnetometer, 10Hz sample rate, 0.001nT resolution
Base Station	Scintrex Envimag/Geometrics

Magnetometer	GR-856, 0.2 Hz sample rate, 0.1nT resolution
Radiometric	Exploratium GR820 Nal (Tl), 1 Hz sample rate, 32 litre capacity

Magnetic data is presented as images of the Total Magnetic Intensity and TMI First Vertical Derivative are shown in Figures 3 and 4 respectively.

Radiometric data is shown in Figure 5 as Total Count and in Figure 6 as a ternary image combining the potassium (%), thorium (ppm) and uranium (ppm) data respectively as red, green and blue.

A digital elevation model was also derived from the radar altimeter and GPS data was collected. An image of this data is shown in Figure 7.

All data can be found in Appendix 1 as Geosoft grid files (*.grd) and Appendix 2 as GDF format ASACII located data files (*.DAT; *.DFN). The 256 channel radiometric data is also included in GDF format in Appendix 2. A full logistics report which details the equipment used, acquisition method and data processing is included in Appendix 3. Field formats of all located ASCII data files are documented in this report titled "B055 Logistics Report.pdf".

Data processing of the magnetic, radiometric and DTM data is detailed in Appendix 3.

NATIVE TITLE

A Work Area Clearance was requested from the Antakirinja Land Management Council Native Title Claimants (ALMAC) in October 2008 as part of the planning for future on ground exploration activities. This visit was conducted on the 14th – 16th October 2008. Due to large distances of travel, rough roads and poor planning by ALMAC this survey was not completed and only a portion of this licence was cleared. A further clearance will need to be requested to complete survey.

WOOMERA PROHIBITED AREA

This exploration licence is situated on the Woomera Prohibited Area (WPA) a Deed of Access was signed by both parties in 2008 to allow exploration, this is renewed each year. During this reporting period the WPA placed a "no-go zone" over the top northern portion of the licence area. However the WPA allowed a limited time window for us to complete all survey work as planned. Figure 8

DECLARATION OF ENVIRONMENTAL FACTORS

Discussions continued during this reporting period with DEH and PIRSA to obtain access into the Tallaringa Conservation Park. Approval was granted in August 2009 for a soil programme.

2009 – 2010

No field work was conducted during this reporting period.

WOOMERA PROHIBITED AREA

This exploration licence is situated on the Woomera Prohibited Area (WPA) a Deed of Access was signed by both parties in 2008 to allow exploration, this is renewed each year. During 2009 WPA placed a “no-go zone” over the top northern portion of the licence area. In 2010 WPA changed the procedures for obtaining a Deed of Access, a new application was lodged with them and we are now waiting for a new Deed of Access.

2010 – 2011

An area of 104km^2 was relinquished in 2010 and a partial relinquishment report was lodged with the Department of Primary Industry and Resources (PIRSA).(Figure 9)

No field work was conducted during this reporting period.

WOOMERA PROHIBITED AREA

This exploration licence is situated on the Woomera Prohibited Area (WPA) a Deed of Access was signed by both parties in 2008 to allow exploration, this is renewed each year. During 2009 WPA placed a “no-go zone” over the top northern portion of the licence area. In 2010 WPA changed the procedures for obtaining a Deed of Access, a new application was lodged with them and we were eventually granted a new Deed of Access in February 2011.

2011 – 2012

No field work was conducted during this reporting period.

WOOMERA PROHIBITED AREA

This exploration licence is situated on the Woomera Prohibited Area (WPA) a Deed of Access was signed by both parties in 2008 to allow exploration, this is renewed each year. During 2009 WPA placed a “no-go zone” over the top northern portion of the licence area.

In 2010 WPA changed the procedures for obtaining a Deed of Access, a new application was lodged with the Department of Defence and we were eventually granted a new Deed of Access in February 2011. These Deeds are only granted for a period of 6 months at a time the current Deed covering this licence expires on 15 October 2012. During the past 12 months the Defence Department has placed “exclusions periods” on these areas where no access is permitted.

2012 – 2013

No field work was conducted during this reporting period.

WOOMERA PROHIBITED AREA

This exploration licence is situated on the Woomera Prohibited Area (WPA) a Deed of Access was signed by both parties in 2008 to allow exploration, this is renewed each year. During 2009 WPA placed a “no-go zone” over the top northern portion of the licence area.

In 2010 WPA changed the procedures for obtaining a Deed of Access, a new application was lodged with the Department of Defence and we were eventually granted a new Deed of Access in February 2011.

New Deeds were granted in January 2013 and these last for 5 years from the date of the Deed or if the licence is relinquished then the Deed will cease to operate. During the past 2 years the Defence Department has placed “exclusions periods” on these areas where no access is permitted.

2013 – 2014

No field work was conducted during this reporting period. Full relinquishment was lodged with DMITE on 15 May 2014.

6. WORK HISTORY

Barnes, J., 2008 EL 3926 Annual Technical Report 10 September 2007 – 9 September 2008

Barnes, J., 2010 EL 3926 Annual Technical Report 10 September 2009 – 9 September 2010

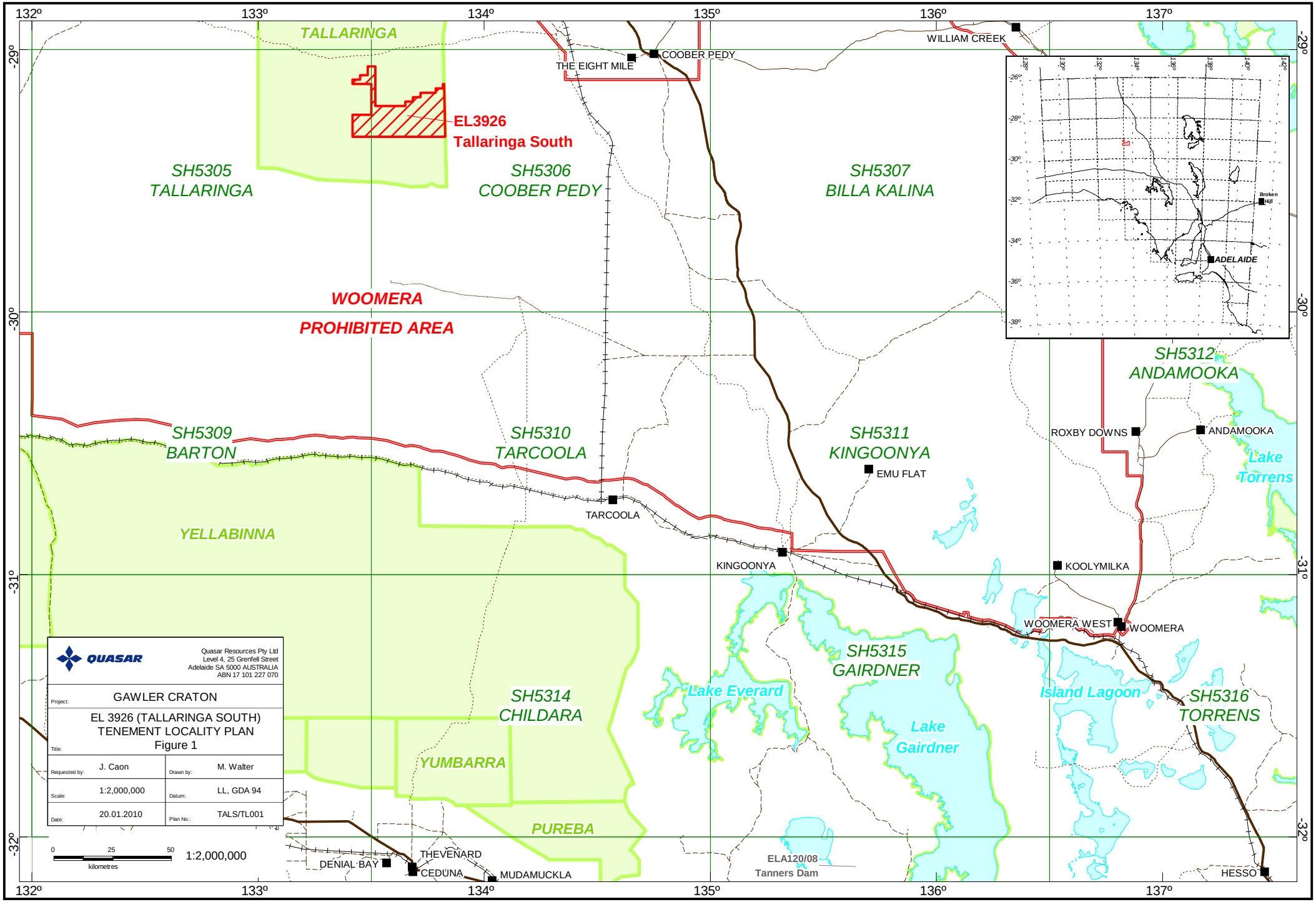
Barnes, J., 2011 EL 3926 Annual Technical Report 10 September 2010 – 9 September 2011

Barnes, J., 2011 EL 3926 Partial Relinquishment Report 10 September 2007 – 9 September 2011

Barnes, J., 2012 EL 3926 Annual Technical Report 10 September 2011 – 9 September 2012

Barnes, J., 2013 EL 5207 Annual Technical Report 10 September 2012 – 9 September 2013

Hewett, A., 2009 EL 3926 Annual Technical Report 10 September 2008 – 9 September 2009


132º
133º
134º
135º
136º
137º
-29º
-30º
-31º
-32º
TALLARINGA
EL3926
Tallaringa South
SH5305
TALLARINGA
SH5306
COOBER PEDY
SH5307
BILLA KALINA
THE EIGHT MILE
COOBER PEDY
WILLIAM CREEK
WOOMERA
PROHIBITED AREA
SH5312
ANDAMOOKA
SH5309
BARTON
SH5310
TARCOOLA
SH5311
KINGOONYA
ROXBY DOWNS
ANDAMOOKA
Lake
Torrens
EMU FLAT
TARCOOLA
YELLABINNA
KINGOONYA
KOOLYMILKA
WOOMERA WEST
WOOMERA
SH5315
GAIRDNER
Lake Everard
Island Lagoon
SH5316
TORRENS
Lake
Gairdner
SH5314
CHILDARA
YUMBARRA
PUREBA
DENIAL BAY
THEVENARD
CEDUNA
MUDAMUCKLA
ELA120/08
Tanners Dam
HESSO
ADELAIDE
Broken Hill
QUASAR
Quasar Resources Pty Ltd
Level 4, 25 Grenfell Street
Adelaide SA 5000 AUSTRALIA
ABN 17 101 227 070
Project: GAWLER CRATON
Title: EL 3926 (TALLARINGA SOUTH) TENEMENT LOCALITY PLAN
Figure 1
Requested by: J. Caon
Drawn by: M. Walter
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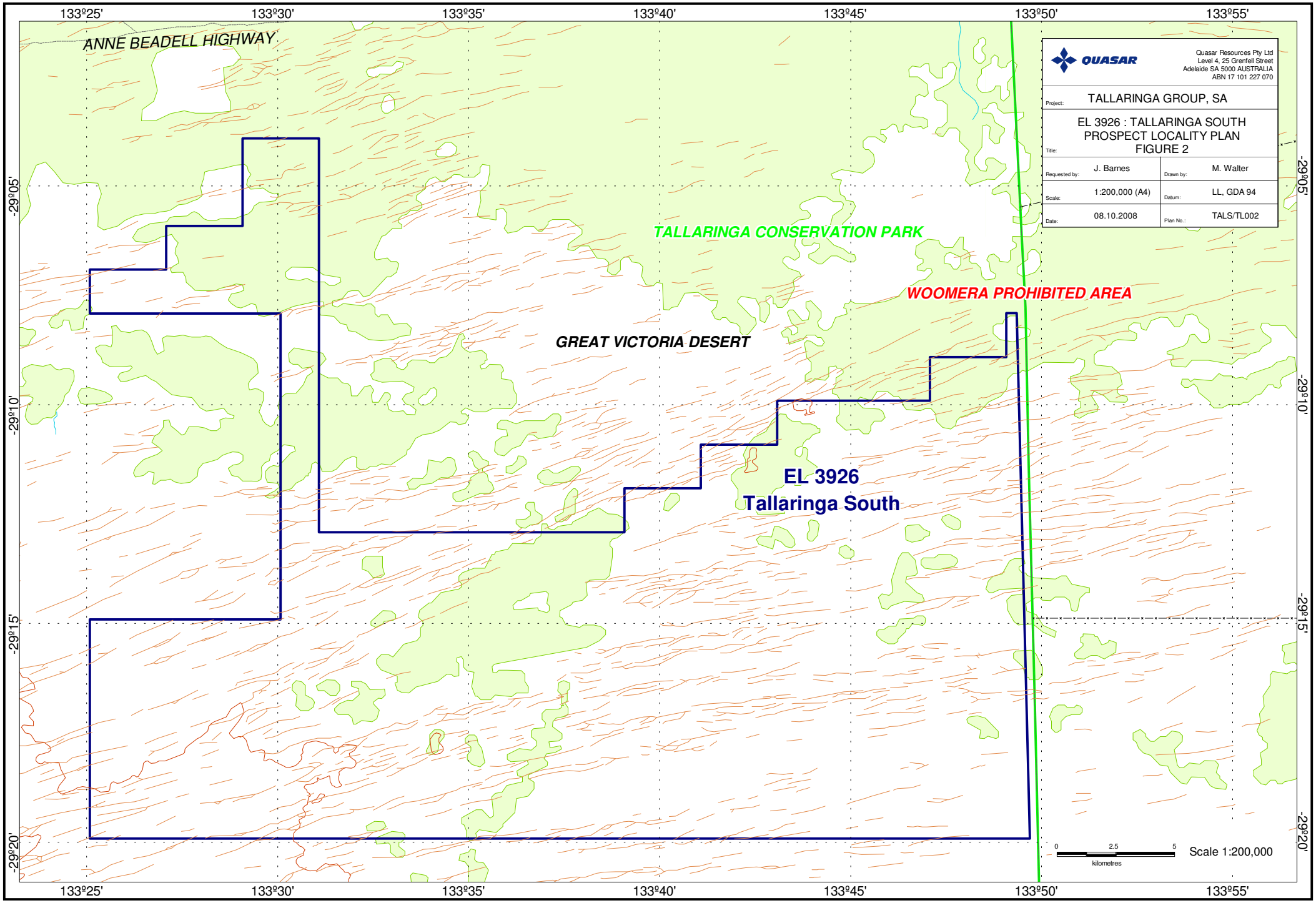
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-29º20'
ANNE BEADELL HIGHWAY
TALLARINGA CONSERVATION PARK
WOOMERA PROHIBITED AREA
GREAT VICTORIA DESERT
EL 3926
Tallaringa South
QUASAR
Quasar Resources Pty Ltd
Level 4, 25 Grenfell Street
Adelaide SA 5000 AUSTRALIA
ABN 17 101 227 070
Project: TALLARINGA GROUP, SA
Title: EL 3926 : TALLARINGA SOUTH PROSPECT LOCALITY PLAN FIGURE 2
Requested by: J. Barnes
Drawn by: M. Walter
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5
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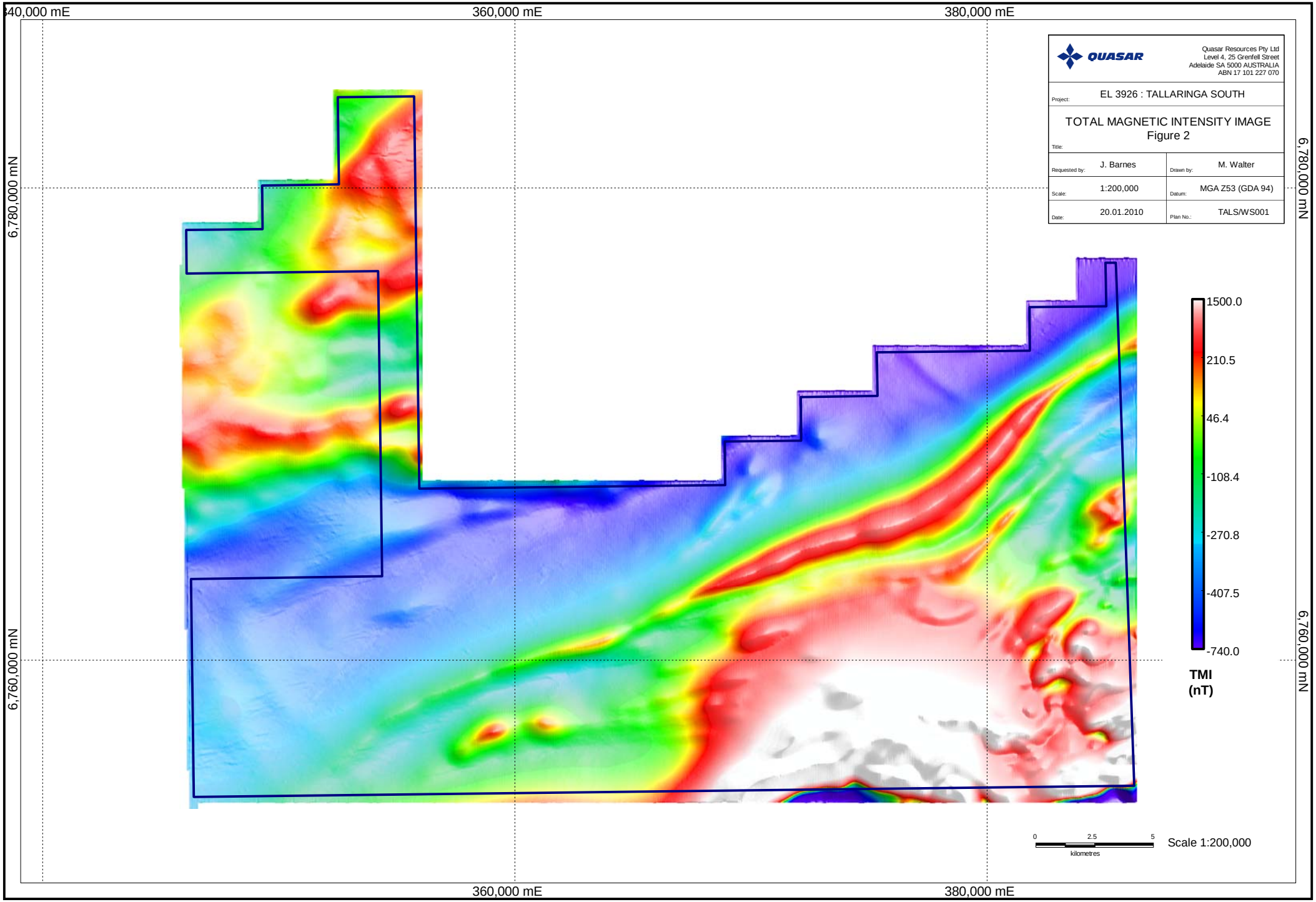
Scale 1:200,000


340,000 mE
360,000 mE
380,000 mE
6,780,000 mN
6,760,000 mN
QUASAR
Quasar Resources Pty Ltd
Level 4, 25 Grenfell Street
Adelaide SA 5000 AUSTRALIA
ABN 17 101 227 070
Project: EL 3926 : TALLARINGA SOUTH
TOTAL MAGNETIC INTENSITY IMAGE
Figure 2
Title:
Requested by: J. Barnes
Drawn by: M. Walter
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210.5
46.4
-108.4
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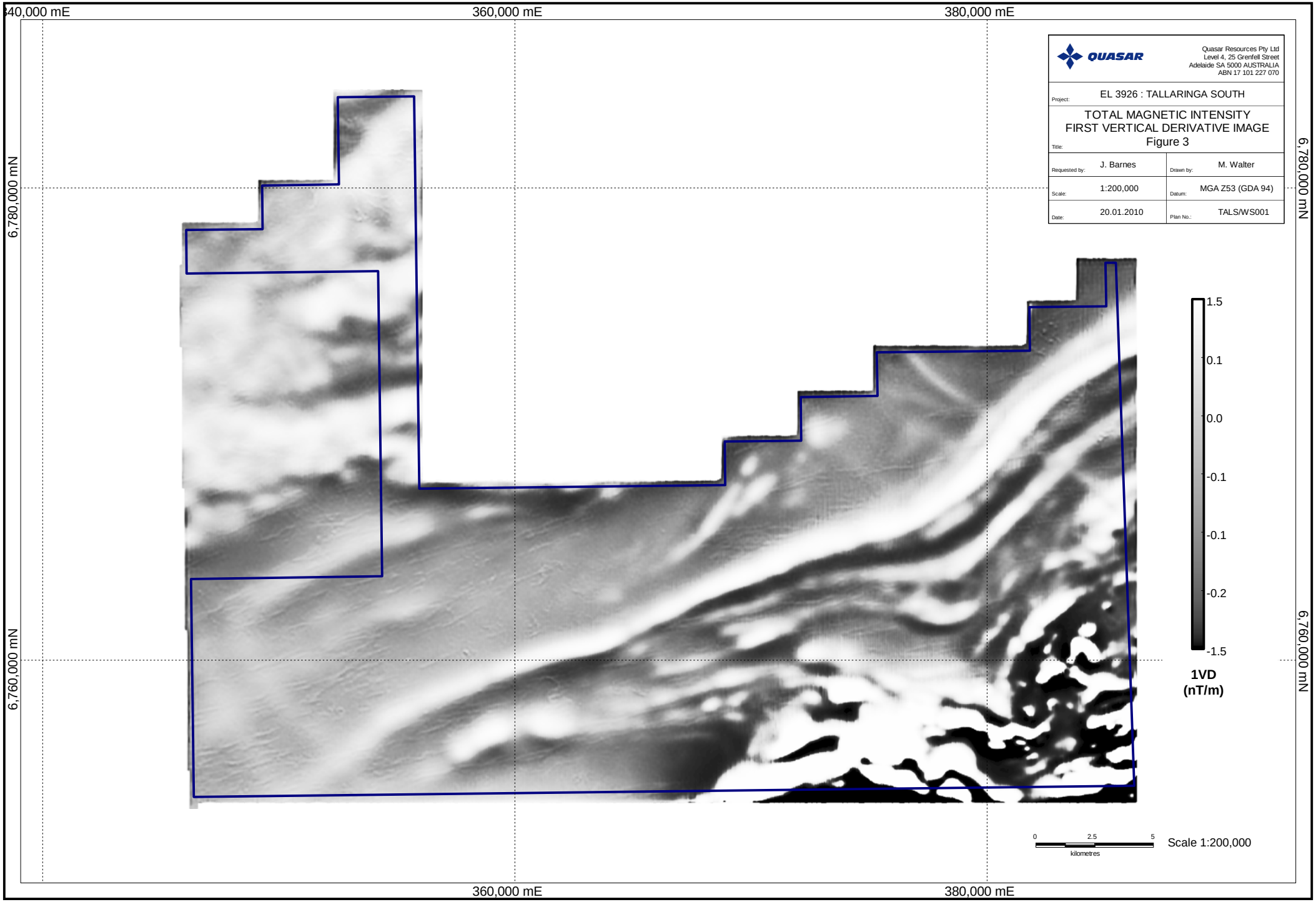
-407.5
-740.0
TMI
(nT)
0
2.5
5
kilometres
Scale 1:200,000


340,000 mE
360,000 mE
380,000 mE
6,780,000 mN
6,760,000 mN
QUASAR
Quasar Resources Pty Ltd
Level 4, 25 Grenfell Street
Adelaide SA 5000 AUSTRALIA
ABN 17 101 227 070
Project: EL 3926 : TALLARINGA SOUTH
Title: TOTAL MAGNETIC INTENSITY
FIRST VERTICAL DERIVATIVE IMAGE
Figure 3
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0.1
0.0
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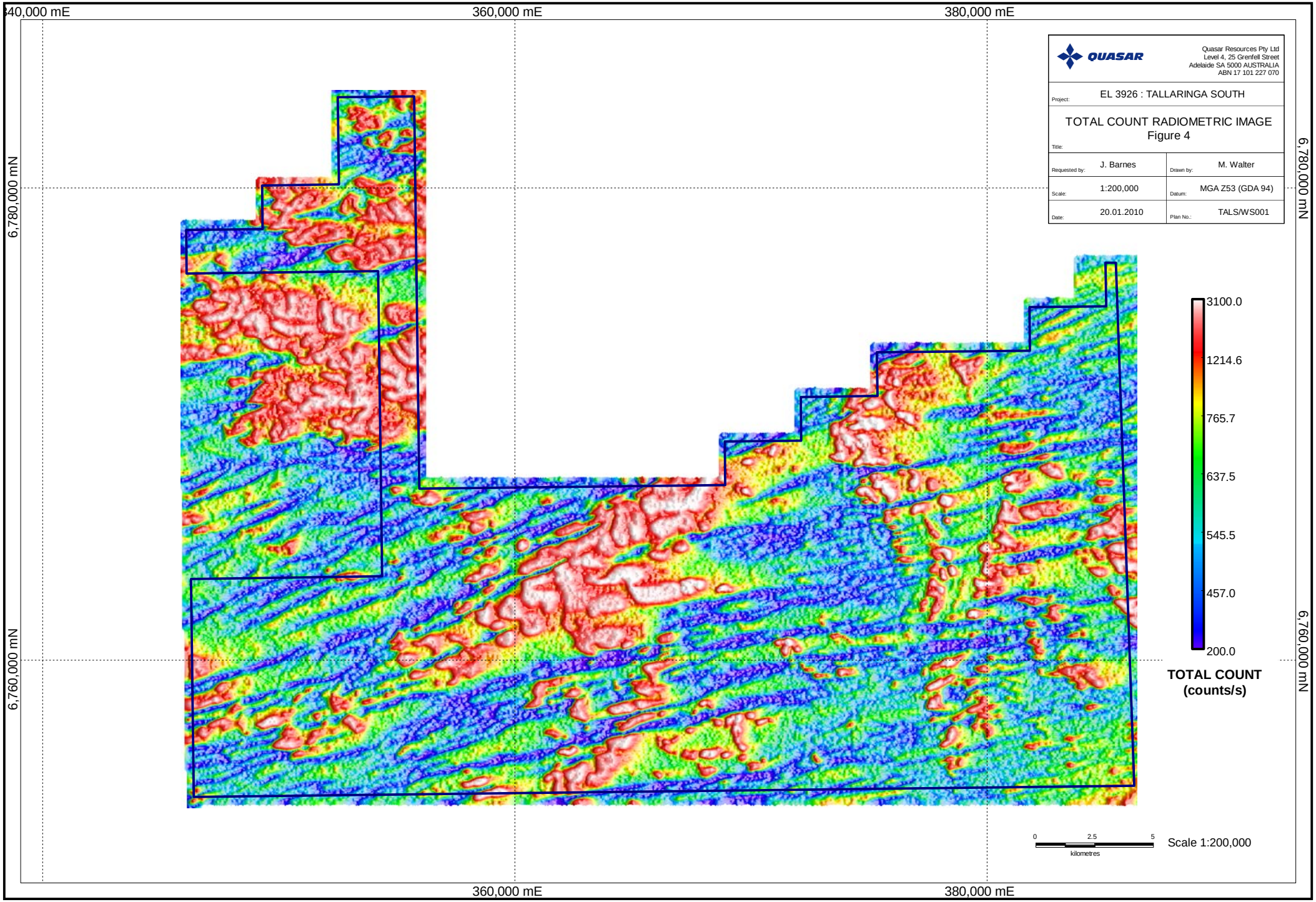
1VD
(nT/m)
0
2.5
5
kilometres
Scale 1:200,000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380,000 mE
6,780,000 mN
6,760,000 mN
QUASAR
Quasar Resources Pty Ltd
Level 4, 25 Grenfell Street
Adelaide SA 5000 AUSTRALIA
ABN 17 101 227 070
Project: EL 3926 : TALLARINGA SOUTH
TOTAL COUNT RADIOMETRIC IMAGE
Figure 4
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Drawn by: M. Walter
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1214.6
765.7
637.5
545.5
457.0
200.0
TOTAL COUNT
(counts/s)
0
2.5
5
kilometres
Scale 1:200,000

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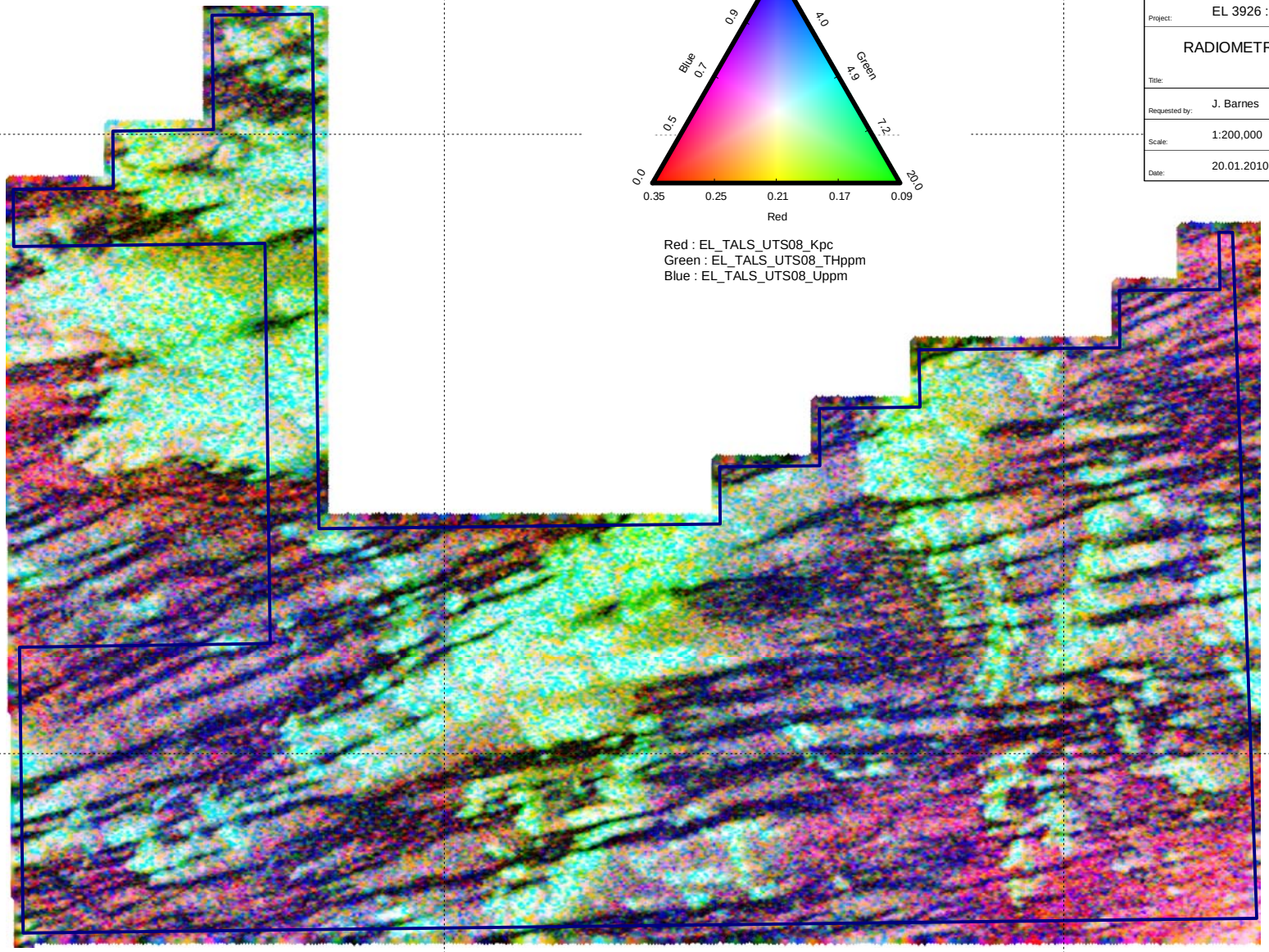
360,000 mE
380,000 mE

6,780,000 mN
6,760,000 mN



Red : EL_TALS_UTS08_Kpc
Green : EL_TALS_UTS08_THppm
Blue : EL_TALS_UTS08_Uppm

QUASAR
Quasar Resources Pty Ltd
Level 4, 25 Grenfell Street
Adelaide SA 5000 AUSTRALIA
ABN 17 101 227 070

Project:	EL 3926 : TALLARINGA SOUTH
Title:	RADIOMETRIC TERNARY IMAGE Figure 5
Requested by: J. Barnes	Drawn by: M. Walter
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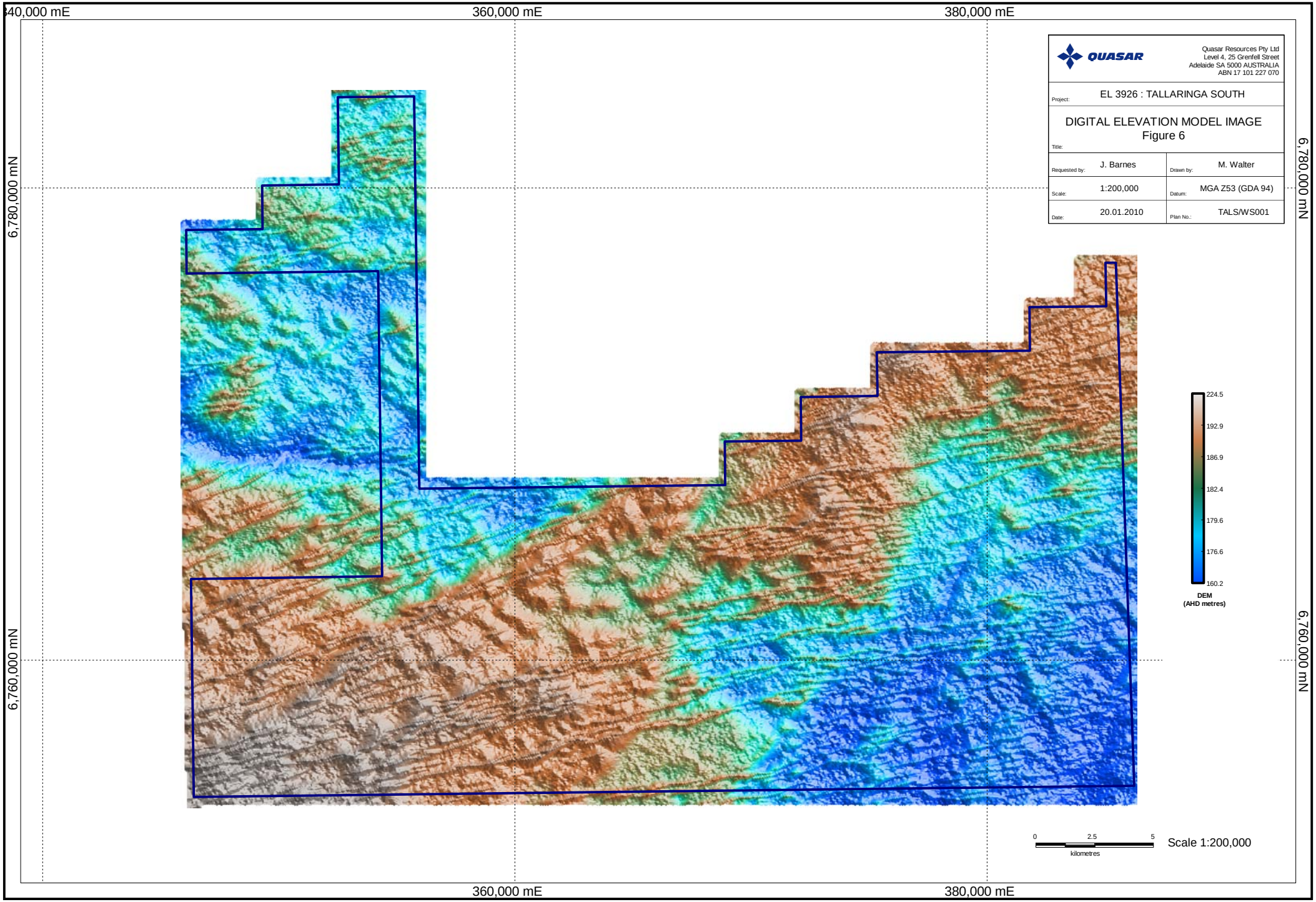
Date: 20.01.2010	Plan No.: TALS/WS001

0 2.5 5
kilometres

Scale 1:200,000

360,000 mE
380,000 mE
6,780,000 mN
6,760,000 mN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6,780,000 mN
6,760,000 mN
QUASAR
Quasar Resources Pty Ltd
Level 4, 25 Grenfell Street
Adelaide SA 5000 AUSTRALIA
ABN 17 101 227 070
Project: EL 3926 : TALLARINGA SOUTH
Title: DIGITAL ELEVATION MODEL IMAGE
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182.4
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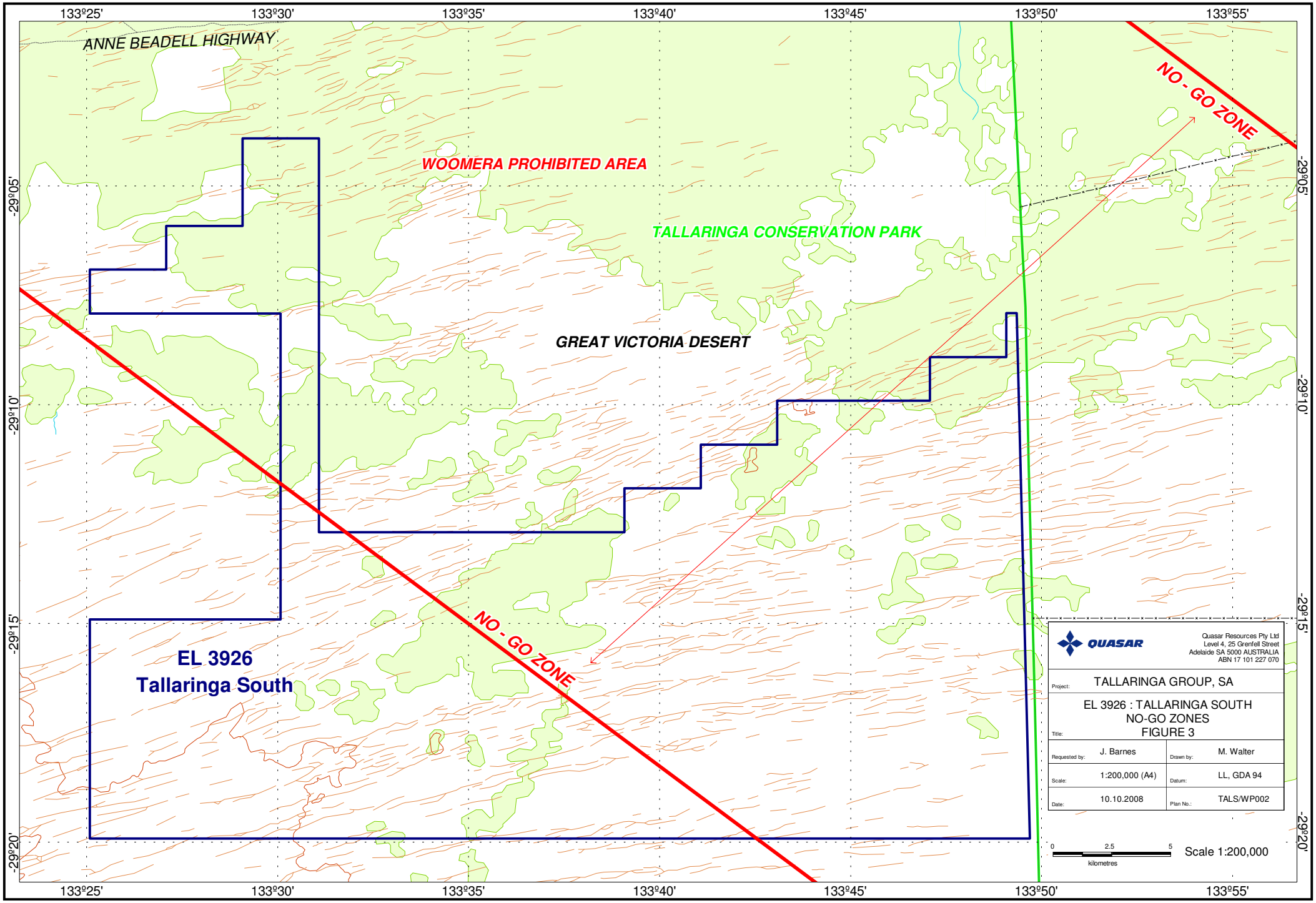
DEM
(AHD metres)
0
2.5
5
kilometres
Scale 1:200,000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133º40'
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133º55'
-29º05'
-29º10'
-29º15'
-29º20'
ANNE BEADELL HIGHWAY
WOOMERA PROHIBITED AREA
TALLARINGA CONSERVATION PARK
GREAT VICTORIA DESERT
NO - GO ZONE
NO - GO ZONE
EL 3926
Tallaringa South
QUASAR
Quasar Resources Pty Ltd
Level 4, 25 Grenfell Street
Adelaide SA 5000 AUSTRALIA
ABN 17 101 227 070
Project: TALLARINGA GROUP, SA
Title: EL 3926 : TALLARINGA SOUTH
NO-GO ZONES
FIGURE 3
Requested by: J. Barnes
Drawn by: M. Walter
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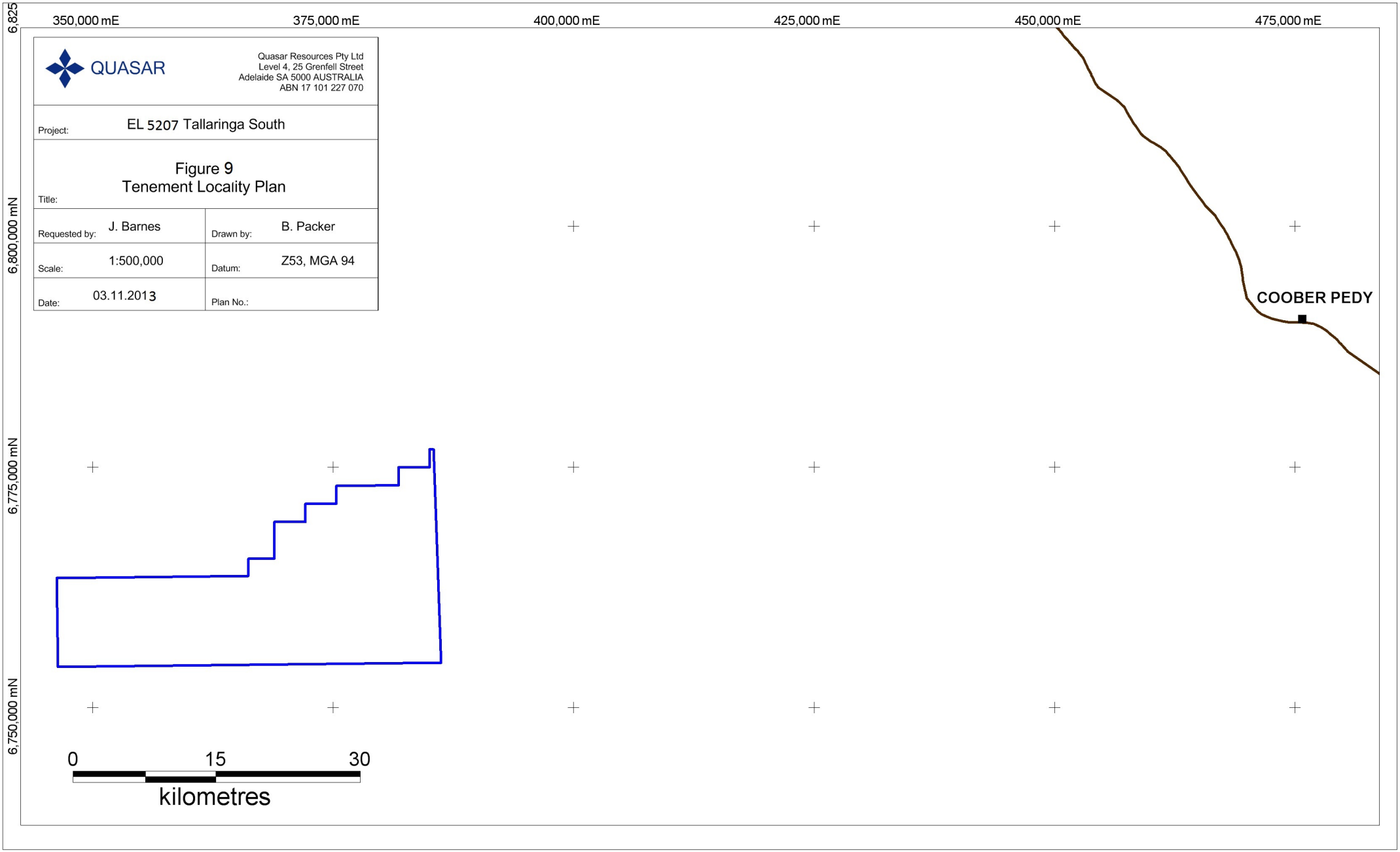
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475,000 mE
6,825
6,800,000 mN
6,775,000 mN
6,750,000 mN
QUASAR
Quasar Resources Pty Ltd
Level 4, 25 Grenfell Street
Adelaide SA 5000 AUSTRALIA
ABN 17 101 227 070
Project: EL 5207 Tallaringa South
Figure 9
Tenement Locality Plan
Title:
Requested by: J. Barnes
Drawn by: B. Packer
Scale: 1:500,000
Datum: Z53, MGA 94
Date: 03.11.2013
Plan No.:
COOBER PEDY
0
15
30
kilometres

UTS GEOPHYSICS

Logistics Report

for a

DETAILED AIRBORNE MAGNETIC, RADIOMETRIC AND DIGITAL TERRAIN SURVEY

for the

TALLARINGA PROJECT

carried out on behalf of

QUASAR RESOURCES PTY LTD

(UTS Job # B055)

FAUNTLEROY AVENUE, PERTH AIRPORT
PO BOX 126, BELMONT WA 6984
Telephone +61 8 9479 4232 Facsimile +61 8 9479 7361
A.B.N. 31 058 054 603

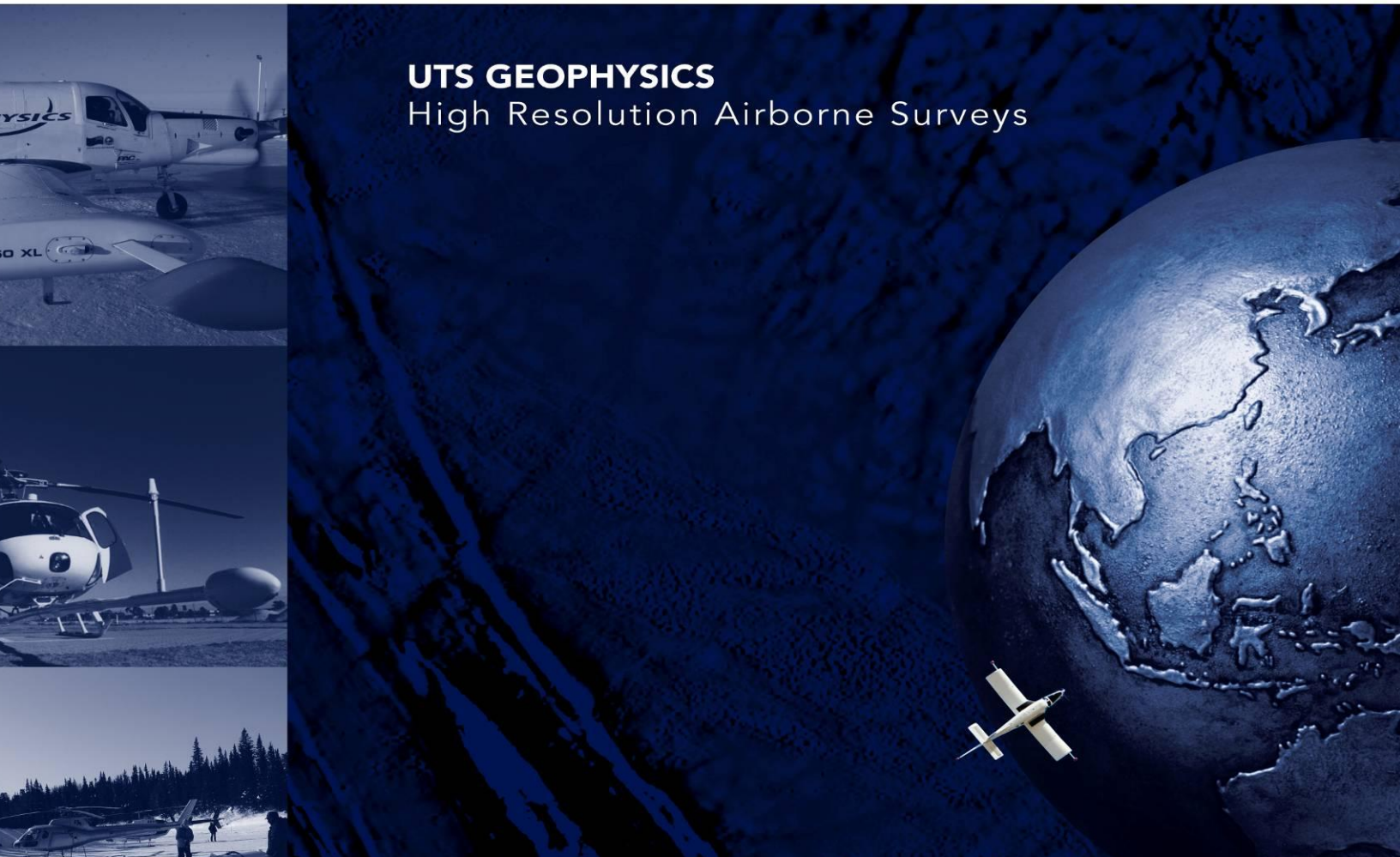

TABLE OF CONTENTS

1 GENERAL SURVEY INFORMATION 3

2 SURVEY SPECIFICATIONS 3

3 AIRCRAFT AND SURVEY EQUIPMENT 4

3.1 SURVEY AIRCRAFT 5
3.2 DATA POSITIONING AND FLIGHT NAVIGATION 5
3.3 UTS DATA ACQUISITION SYSTEM AND DIGITAL RECORDING 6
3.4 ALTITUDE READINGS 6
3.5 UTS STINGER MOUNTED MAGNETOMETER SYSTEM 6
3.6 TOTAL FIELD MAGNETOMETER 7
3.7 THREE COMPONENT VECTOR MAGNETOMETER 7
3.8 AIRCRAFT MAGNETIC COMPENSATION 7
3.9 DIURNAL MONITORING MAGNETOMETER 8
3.10 BAROMETRIC ALTITUDE 8
3.11 TEMPERATURE AND HUMIDITY 9
3.12 RADIOMETRIC DATA ACQUISITION 9

4 PROJECT MANAGEMENT 10

5 DATA PROCESSING PROCEDURES 11

5.1 DATA PRE-PROCESSING 11
5.2 MAGNETIC DATA PROCESSING 12
5.3 RADIOMETRIC DATA PROCESSING 13
5.4 DIGITAL TERRAIN MODEL DATA PROCESSING 14

6 APPENDIX A - LOCATED DATA FORMATS 15

7 APPENDIX B - COORDINATE SYSTEM DETAILS 18

8 APPENDIX C - SURVEY BOUNDARY DETAILS 19

9 APPENDIX D - PROJECT DATA OVERVIEW 20

10 APPENDIX E – PROCESSING PARAMETERS 23

1 GENERAL SURVEY INFORMATION

UTS Geophysics conducted a low level airborne geophysical survey for the following company:

Quasar Resources Pty Ltd
Suite 2, Level 4, 25 Grenfell Street
ADELADE SA 5000

Acquisition for this survey commenced on the 25 th Novemberl 2008 and was completed on the 01st January 2009. The base location used for operating the aircraft and performing in-field quality control was Coober Pedy, South Australia.

2 SURVEY SPECIFICATIONS

The area surveyed was approximately 110km out of Coober Pedy, South Australia The survey was flown using the MGA94 coordinate system (a Universal Transverse Mercator projection) derived from the Geocentric Datum of Australia and was contained within zone 53 with a central meridian of 135 degrees. Details of the datum and projection system are provided in Appendix B of this report. Survey boundary coordinates are listed in Appendix C.

The survey data acquisition specifications for each area flown are specified in the following table:

PROJECT NAME	LINE SPACING	LINE DIRECTION	TIE LINE SPACING	TIE LINE DIRECTION	SENSOR HEIGHT	TOTAL LINE KM
Tallaringa	100m	000-180	1000m	090-270	50m	43,003
TOTAL						**43,003**

The specified sensor height for the magnetic samples is as stated in the above table. This sensor height may be varied where topographic relief or laws pertaining to built up areas do not allow this altitude to be maintained, or where the safety of the aircraft and equipment is endangered.

3 AIRCRAFT AND SURVEY EQUIPMENT

The UTS navigation flight control computer, data acquisition system and geophysical sensors were installed into a specialised geophysical survey aircraft.

The list of geophysical and navigation equipment used for the survey is as follows:

General Survey Equipment

- UTS proprietory flight planning and survey navigation system.
- UTS proprietory high speed digital data acquisition system.
- Novatel, 12 channel precision navigation GPS.
- OMNISTAR real time differential GPS system.
- UTS LCD pilot navigation display and external track guidance display.
- UTS post mission data verification and processing system.
- Bendix/King KRA-405 radar altimeter.

Magnetic Data Acquisition Equipment

- UTS tail stinger magnetometer installation.
- Cesium Vapour total field magnetometer.
- Fluxgate three component vector magnetometer.
- RMS Aeromagnetic Automatic Digital Compensator (AADC II).
- Diurnal monitoring magnetometer (Scintrex Envimag or Geometrics GR-856).

Radiometric Data Acquisition Equipment

- Exploranium GR-820 gamma ray spectrometer.
- Exploranium gamma ray detectors.
- Barometric altimeter (height and pressure measurements).
- Temperature and humidity sensor.

3.1 Survey Aircraft

The aircraft used for this survey was a FU24-950 series fixed wing survey aircraft, owned and operated by UTS Geophysics, registration VH-UTR. The specifications are as follows:

Power Plant

- Engine Type Single engine, Lycoming, IO-720
- Brake Horse Power 400 bhp
- Fuel Type AV-GAS

Performance

- Cruise speed 105 Kn
- Survey speed 100 Kn
- Stall speed 45 Kn
- Range 970 Km
- Endurance (no reserves) 5.6 hours
- Fuel tank capacity 490 litres

3.2 Data Positioning and Flight Navigation

Survey data positioning and flight line navigation was derived using real-time differential GPS (Global Positioning System).

Navigation was performed using a UTS designed and built electronic pilot navigation system providing computer controlled digital navigation instrumentation mounted in the cockpit as well as an externally mounted track guidance system.

GPS derived positions were used to provide both aircraft navigation and survey data location information.

The GPS systems used for the survey were:

- Aircraft GPS Model Novatel
- Sample rate 0.5 Seconds (2 Hz)
- GPS satellite tracking channels 12 parallel
- Typical differentially corrected accuracy 1-2 metres (horizontal)
  3-5 metres (vertical)

3.3 UTS Data Acquisition System and Digital Recording

All geophysical sensor data and positional information measured during the survey was recorded using a UTS developed, high speed, precision data acquisition system. Survey data was downloaded onto magnetic tape on completion of each survey flight.

Instrument synchronisation times were measured and removed in real-time by the UTS data acquisition system.

3.4 Altitude Readings

Accurate survey heights above the terrain were measured using a King radar altimeter installed in the aircraft. The height of each survey data point was measured by the radar altimeter and stored by the UTS data acquisition system.

- Radar altimeter models — Bendix/King KRA-405
- Accuracy — 0.3 metres
- Resolution — 0.1 metres
- Range — 0 - 762 metres
- Sample rate — 0.1 Seconds (10Hz)

The digital terrain model is calculated by subtracting the terrain clearance (radar altimeter) from the GPS height (interpolated to 0.1 Hz), and as such the accuracy is constrained by the differentially corrected GPS position.

3.5 UTS Stinger Mounted Magnetometer System

The installation platform used for the acquisition of magnetic data was a tail mounted stinger. This proprietory stinger system was constructed of carbon fibre and designed for maximum rigidity and stability.

Both the total field magnetometer and three component vector magnetometer were located within the tail stinger.

3.6 Total Field Magnetometer

Total field magnetic data readings for the survey were made using a Cesium Vapour Magnetometer. This precision sensor has the following specifications:

- Model Cesium Vapour Magnetometer
- Sample Rate 0.1 seconds (10Hz)
- Resolution 0.001nT
- Operating Range 15,000nT to 100,000nT

3.7 Three Component Vector Magnetometer

Three component vector magnetic data readings for the survey were made using a Fluxgate Magnetometer. This precision sensor has the following specifications:

- Model Fluxgate Magnetometer
- Sample Rate 0.1 seconds (10Hz)
- Resolution 0.1nT
- Operating Range -100,000nT to 100,000nT

3.8 Aircraft Magnetic Compensation

At the start of the survey, the system was calibrated for reduction of magnetic heading error. The heading and manoeuvre effects of the aircraft on the magnetic data was removed using an RMS Automatic Airborne Digital Compensator (AADC II).

Calibration of the aircraft heading effects were measured by flying a series of pitch, roll and yaw manoeuvres at high altitude while monitoring changes in the three axis magnetometer and the effect on total field readings. A 26 term model of the aircraft magnetic noise covering permanent, induced and eddy current fields was determined. These coefficients were then applied to the data collected during the survey in real-time.
UTS static compensation techniques were also employed to reduce the initial magnetic effects of the aircraft upon the survey data.

3.9 Diurnal Monitoring Magnetometer

A base station magnetometer was located in a low gradient area beyond the region of influence of any man made interference to monitor diurnal variations during the survey.

The specifications for the magnetometer used are as follows:

- Model: Scintrex Envimag or Geometrics GR-856
- Resolution: 0.1 nT
- Sample interval: 5 seconds (0.2 Hz)
- Operating range: 20,000nT to 90,000nT
- Temperature: -20^{o}C to +50^{o}C

3.10 Barometric Altitude

An Air DB barometric altimeter was installed in the aircraft so as to record and monitor barometric height and pressure. The data was recorded at 0.10 second intervals and is used for the reduction of the radiometric data.

- Model: Air DB barometric altimeter
- Accuracy: 2 metres
- Height resolution: 0.1 metres
- Height range: 0 - 3500 metres
- Maximum operating pressure: 1,300 mb
- Pressure resolution: 0.01 mb
- Sample rate: 10 Hz

3.11 Temperature and Humidity

Temperature and humidity measurements were made during the survey at a sample rate of 10Hz. Ambient temperature was measured with a resolution of 0.1 degree Celsius and ambient humidity to a resolution of 0.1 percent.

3.12 Radiometric Data Acquisition

The gamma ray spectrometer used for the survey was capable of recording 256 channels and was self stabilising in order to minimise spectral drift. The detectors used contain thallium activated sodium iodide crystals.

Thorium source measurements were made each survey day to monitor system resolution and sensitivity. A calibration line was also flown at the start and end of each survey day to monitor ground moisture levels and system performance.

Spectrometer model	Exploranium GR820
• Detector volume	32 litres
• Sample rate	1 Hz

4 PROJECT MANAGEMENT

Quasar Resources PTY LTD	John Caon
UTS Geophysics Perth Office	Nino Tufilli David Abbott Cameron Johnston Rebecca Steadman

5 DATA PROCESSING PROCEDURES

5.1 Data Pre-processing

The raw survey data was loaded from the field tapes and the recorded data trimmed to the correct survey boundary extents. Any survey lines subsequently reflown were removed from the dataset.

At the commencement of each acquisition flight, all the instrumentation clocks were synchronized to local time, and the error and latency of each instrument in providing its data measurement calculated. The results of these latency measurements were recorded into a synchronisation file, and the results used to assign GPS positions to the magnetic, radiometric and elevation data.

The synchronized, parallax corrected data was then exported as located ASCII data.

5.2 Magnetic Data Processing

The diurnal base station data was checked for spikes and steps, and suitably filtered prior to the removal of diurnal variations from the aircraft magnetic data.

The filtered diurnal measurements were subtracted from the diurnal base field and the residual corrections applied to the survey data by synchronising the diurnal data time and the aircraft survey time. The average diurnal base station value was added to the survey data.

The X and Y positioning of the data was then checked for spikes before applying the IGRF correction. Any spikes in the positions were manually edited. The updated IGRF 2005 correction was calculated at each data point (taking into account the height above sea level).

This regional magnetic gradient was subtracted from the survey data points.

Tie line levelling was applied to the data by least squares minimisation, using a polynomial fit of order 0, of the differences in magnetic values at the crossover points of the survey traverse and tie line data.

In order to remove any residual long wavelength variations in the tie line levelled data along the traverse lines, polynomial levelling was then applied.

Final micro-levelling techniques were then selectively applied to the tie line levelled data to remove minor residual variations in profile intensity

Located and gridded data were generated from the final processed magnetic data.

5.3 Radiometric Data Processing

Statistical noise reduction of the 256 channel data was performed using the Noise Adjusted Singular Variable Decomposition (NASVD) method described by Hovgaard and Grasty (1997).

Noise-adjusted singular value decomposition is performed, and the number of components to be used is determined by inspection of plots of the spectral components and by a statistical analysis of the contributions of the components. If the spectral shapes show any unusual characteristics, further analysis of the concentrations of the spectral components in the line data is performed in order to identify and eliminate any corrupt spectra. If such spectra were eliminated, the NASVD process is re-performed, in order to obtain spectral components free of any bias from corrupt spectra.

Only the dominant spectral shapes (identified as described above) were used in the spectral reconstruction process. The first 8 NASVD components were used for this process.

Channels 30-250 only are spectrally smoothed, as these contain the regions of interest and are not dominated by the lower end of the Compton continuum. The energy spectrum between the potassium and thorium peaks was recalibrated from the spectrally smoothed 256 channel measurements.

The aircraft background spectrum and the scaled unit cosmic spectrum were then subtracted from the 256 channel data. This 256 channel data was then windowed to the 5 primary channels of total count, potassium, uranium, thorium and low-energy uranium. Dead time corrections were then applied to the data. Radon background removal was performed using the Minty Spectral Ratio method (1992).

The radar altimeter data was corrected to standard temperature and pressure, and height corrected spectral stripping was then applied to the windowed data. Height attenuation corrections based on the STP radar altimeter were then performed to remove any altitude variation effects from the data.

The Uranium and Total Count channels were tie-levelled to remove the effects of residual radon background. The tie-levelling process employed was a least-squares/median filter procedure, which generated a single correction for each line of data. Mis-matches were calculated at each tie-traverse intersection and the median mismatch for each flight line was calculated as the residual levelling error for that line.

Final micro-levelling techniques were then selectively applied to the tie line levelled data to remove minor residual variations in profile intensities, as per the method outlined for magnetic data micro-levelling in 7.2 above.

5.4 Digital Terrain Model Data Processing

The radar altimeter data was subtracted from the GPS altimeter data leaving digital terrain data.

The digital terrain data thus derived was tie line levelled and gridded. Tie line levelled data was then examined and selectively microlevelled to produce a grid without line dependent artifacts.

For further information concerning the survey flown, please contact the following office:

Head Office Address:

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REDCLIFFE WA 6104

Tel: +61 8 9479 4232
Fax: +61 8 9479 7361

Postal Address:

UTS Geophysics
P.O. Box 126
BELMONT WA 6984

Quoting reference number: B055

6 APPENDIX A - LOCATED DATA FORMATS

MAGNETIC LOCATED DATA

FIELD	FORMAT	DESCRIPTION	UNITS
1	I8	LINE NUMBER	
2	I4	FLIGHT/AREA NUMBER	AAFF (Area/Flight)
3	I9	DATE	YYMMDD
4	F10.1	TIME	sec
5	I8	FIDUCIAL NUMBER	
6	I4	UTM ZONE	
7	F12.6	LATITUDE (WGS84)	degrees
8	F12.6	LONGITUDE (WGS84)	degrees
9	F12.2	EASTING (MGA94)	metres
10	F12.2	NORTHING (MGA94)	metres
11	F8.1	RADAR ALTIMETER HEIGHT	metres
12	F8.1	GPS HEIGHT (WGS84)	metres
13	F8.1	TERRAIN HEIGHT (WGS84)	metres
14	F10.3	RAW MAGNETIC INTENSITY	nT
15	F10.3	DIURNAL CORRECTED TMI	nT
16	F10.3	DIURNAL AND IGRF CORRECTED TMI	nT
17	F10.3	TIE LINE LEVELLED TMI	nT
18	F10.3	FINAL TOTAL MAGNETIC INTENSITY	nT

RADIOMETRIC LOCATED DATA

FIELD	FORMAT	DESCRIPTION	UNITS
1	I8	LINE NUMBER	
2	4	FLIGHT/AREA NUMBER	AAFF (Area/Flight)
3	I9	DATE	YYMMDD
4	F10.1	TIME	sec
5	I8	FIDUCIAL NUMBER	
6	I4	UTM ZONE	
7	F12.6	LATITUDE (WGS84)	degrees
8	F12.6	LONGITUDE (WGS84)	degrees
9	F12.2	EASTING (MGA94)	metres
10	F12.2	NORTHING (MGA94)	metres
11	F8.1	RADAR ALTIMETER HEIGHT	metres
12	F8.1	GPS HEIGHT (WGS84)	metres
13	I5	LIVE TIME	milli sec
14	F8.1	PRESSURE	hPa
15	F6.1	TEMPERATURE	Degrees Celcius
16	F6.1	HUMIDITY	percent
17	I6	TOTAL COUNT (RAW)	Counts/sec
18	I6	POTASSIUM (RAW)	Counts/sec
19	I6	URANIUM (RAW)	Counts/sec
20	I6	THORIUM (RAW)	Counts/sec
21	I6	COSMIC (RAW)	Counts/sec
22	F8.1	TOTAL COUNT (CORRECTED)	Counts/sec
23	F8.1	POTASSIUM (CORRECTED)	Counts/sec
24	F8.1	URANIUM (CORRECTED)	Counts/sec
25	F8.1	THORIUM (CORRECTED)	Counts/sec
26	F9.4	DOSE RATE	nGy/hr
27	F9.4	POTASSIUM GRND CONCENTRATION	%
28	F9.4	URANIUM GRND CONCENTRATION	ppm
29	F9.4	THORIUM GRND CONCENTRATION	ppm

GRIDDED DATASET FORMATS

Gridding was performed using a bicubic spline algorithm.

The following grid formats have been provided:

- ER-Mapper format

LINE NUMBER FORMATS

Line numbers are identified with a six digit composite line number and have the following format - AALLLLB, where:

A or AA	Survey area number
LLLL	Survey line number 0001-8999 reserved for traverse lines 9001-9999 reserved for tie lines
B	Line attempt number, 0 is attempt 1, 1 is attempt 2 etc..

UTS FILE NAMING FORMATS

Located and gridded data provided by UTS Geophysics uses the following 8 character file naming convention to be compatible with PC DOS based systems.

File names have the following general format - JJJJAABB.EEE, where:

JJJJ UTS Job number

AA Area number if the survey is broken into blocks

BB
- M Magnetic data
- R Radiometric data
- TC Total count data
- K Potassium counts
- U Uranium counts
- Th Thorium counts
- DT Digital terrain data

EEE File name extension
- DAT Located digital data file
- DFN Located data definition file
- ERS Ermapper gridded data header file
Ermapper data portion has no extension
- GRD Geosoft gridded data file

7 APPENDIX B - COORDINATE SYSTEM DETAILS

Locations for the survey data are provided in both geographical latitude and longitude and Universal Transverse Mercator metric projection coordinate systems.

WGS84	World Geodetic System 1984
Coordinate Type	Geographical
Semi Major Axis	6378137m
Flattening	1/298.257223563

MGA94	Map Grid of Australia 1994
Coordinate type	Universal Transverse Mercator Projection Grid
Geodetic datum	Geocentric Datum of Australia
Semi major axis	6378137m
Flattening	1/298.257222101

8 APPENDIX C - SURVEY BOUNDARY DETAILS

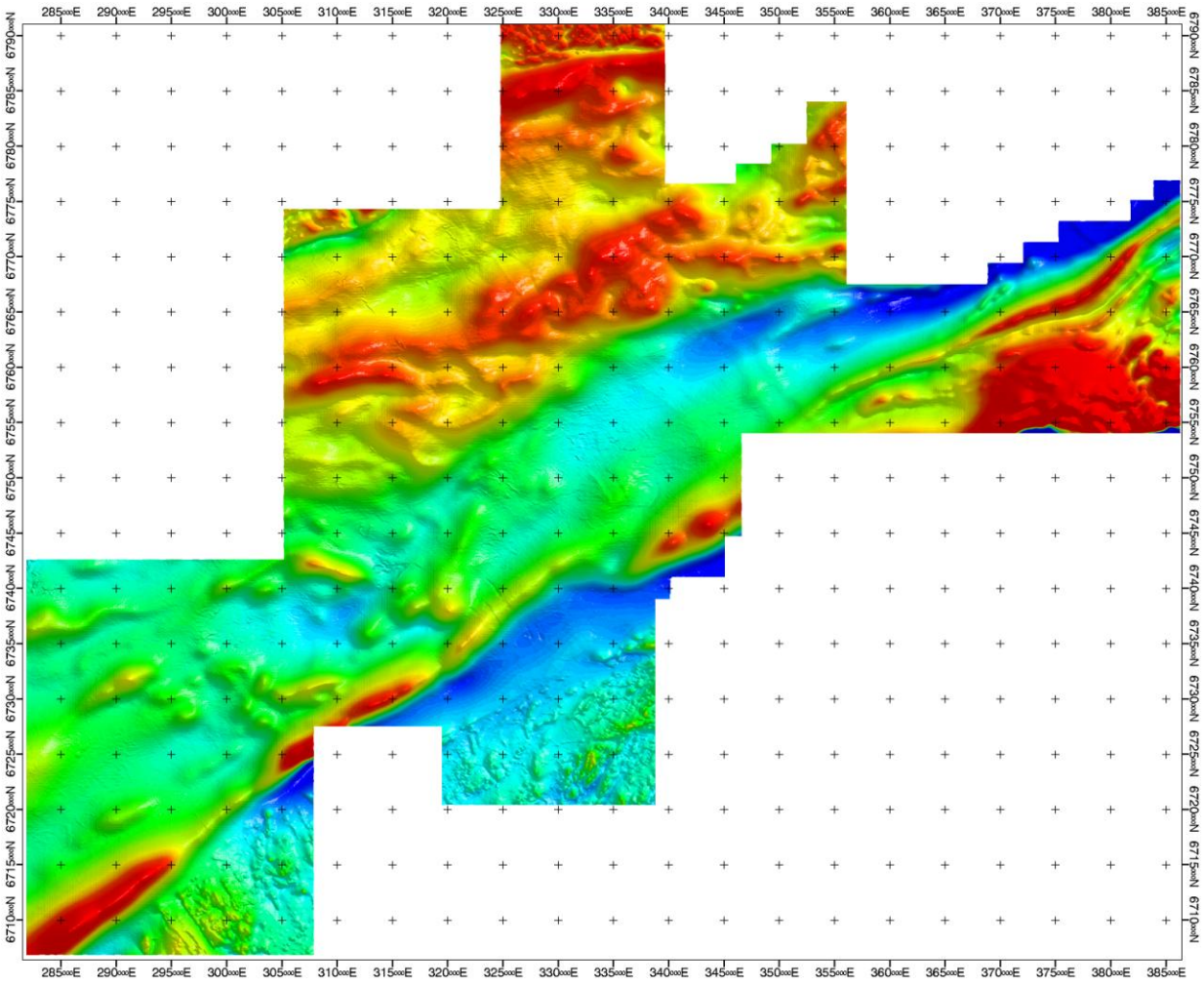
COORDINATES REPORT
Job: B055
Client: Quasar Resources PTY LTD
Grid Zone: 53

Surround	
324700.000	6791000.000
339700.000	6791000.000
339700.000	6776600.000
346000.000	6776600.000
346000.000	6778400.000
349200.000	6778400.000
349200.000	6780200.000
352400.000	6780200.000
352400.000	6784000.000
356100.000	6784000.000
356100.000	6767500.000
368800.000	6767500.000
368800.000	6769400.000
372000.000	6769400.000
372000.000	6771300.000
375200.000	6771300.000
375200.000	6773200.000
381700.000	6773200.000
381700.000	6775100.000
383800.000	6775100.000
383800.000	6776900.000
386300.000	6776900.000
386300.000	6754100.000
346600.000	6754100.000
346600.000	6744800.000
345100.000	6744800.000
345100.000	6741100.000
340200.000	6741100.000
340200.000	6739100.000
338800.000	6739100.000
338800.000	6720500.000
319400.000	6720500.000
319400.000	6727600.000
307900.000	6727600.000
307900.000	6706900.000
281800.000	6706900.000
281800.000	6742600.000
305100.000	6742600.000
305100.000	6774300.000
324700.000	6774300.000
324700.000	6791000.000

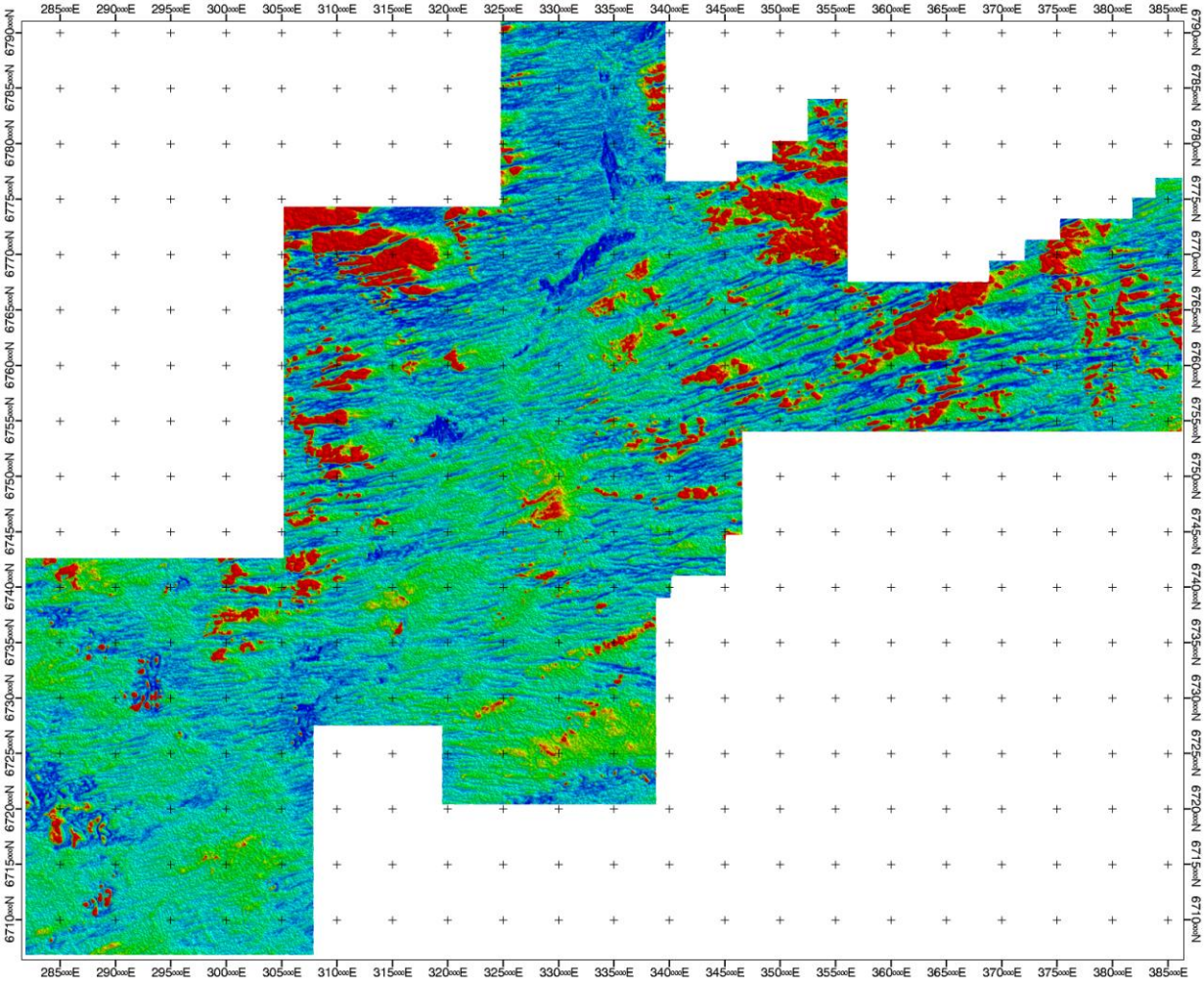
9 APPENDIX D - PROJECT DATA OVERVIEW

Tallaringa Project

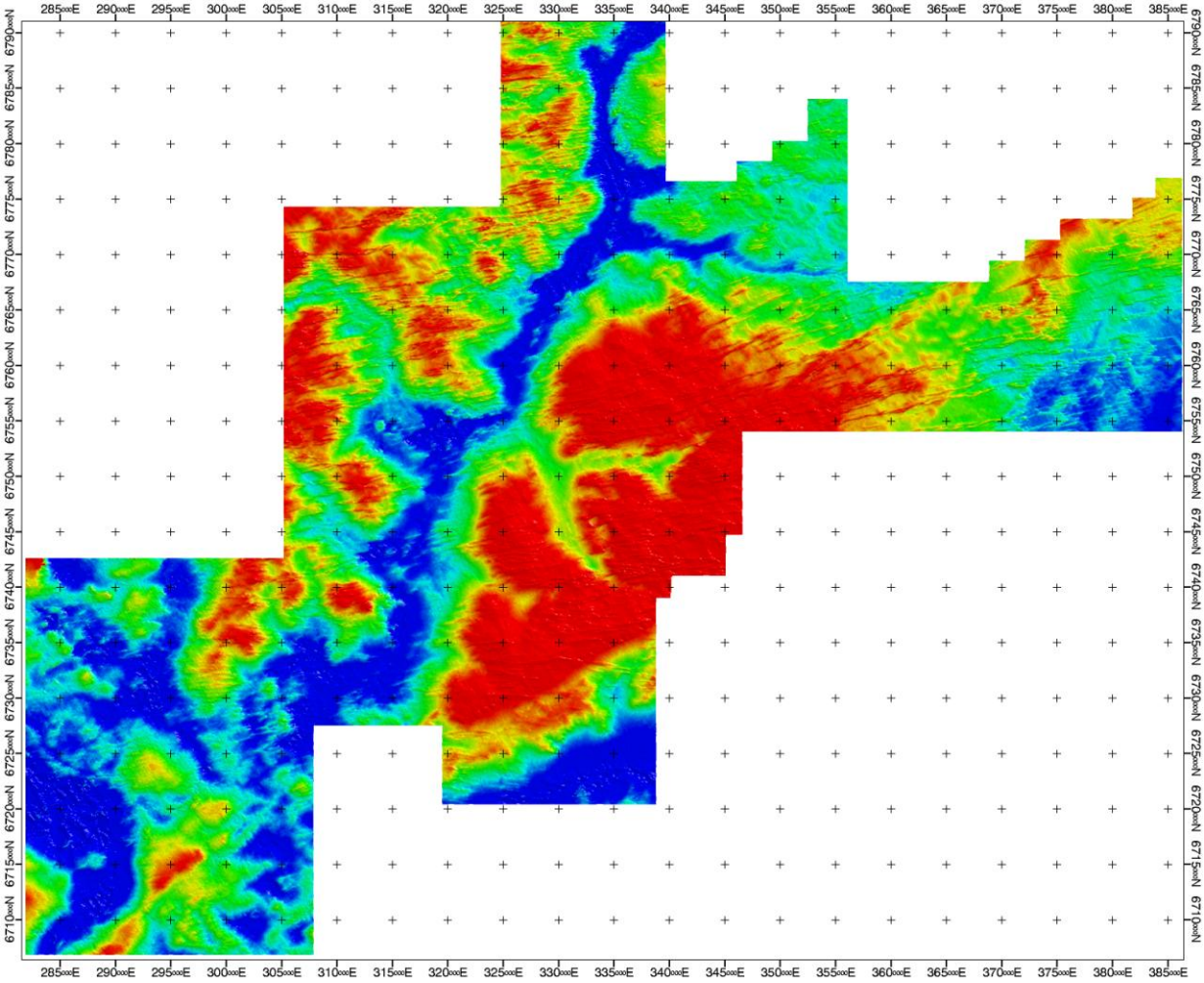
Total Magnetic Intensity



Radiometric Total Count



Digital Terrain Model



10 APPENDIX E – PROCESSING PARAMETERS

Magnetic Processing Parameters

IGRF Date:	IGRF 2008.96
Average Declination:	5.44 degrees
Average Inclination:	-62.49 degrees
Average Field strength:	57000.00 nT
Average diurnal:	55900.00 nT

Radiometric Processing Parameters

Height Attenuation Coefficients

Total Count:	-0.0074
Potassium:	-0.0094
Uranium:	-0.0084
Thorium:	-0.0074

Cosmic Correction Coefficients

Total Count:	0.8662
Potassium:	0.0466
Uranium:	0.0462
Thorium:	0.0486

Aircraft Background Coefficients

Total Count:	33.69
Potassium:	9.27
Uranium:	0.59
Thorium:	0.05

Sensitivity Coefficients

Total Count:	39.70 cps/dose rate
Potassium:	163.65 cps/%k
Uranium:	14.65 cps/ppm
Thorium:	7. 86cps/ppm

Radiometric Stripping Coefficients

Alpha:	0.227
Beta:	0.378
Gamma:	0.708
a:	0.0682

Final Reduction - All data reduced to STP height datum 50m